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Mining and Urbanisation in Australia: Back to the Future[1]

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Abstract

Mining occupies a special place in the history of Australia's urbanisation. Australia's highly urban and centralised population distribution has meant that, with few exceptions, the state coastal capitals have remained the most populous and consistent growth centres for over a century. In this history, mining, and to a lesser degree agriculture, are listed as offsetting forces to the pattern of urban hegemony, as providers of the initial impetus for the development of towns and cities in many rural and regional areas. Recently, the mining and resources sector have attracted closer scrutiny, in particular for the problems they raise within these same remote and regional areas, in particular the associated Fly-In-Fly-Out work practices.

With reference to impressions of mining from popular films, this paper discusses the history of the building and planning associated with mining, and the broader issues of the relationship between industry and urbanisation in Australia. How have industries such as mining affected Australia's pattern of urbanisation? Are they an economic lifeline to the otherwise neglected remote and regional areas? Does mining offset the otherwise clear pattern of urbanisation? Or, has it only accelerated the processes of economic contraction that were already well established in rural and remote areas of Australia? In discussing these issues, this paper attempts to look beyond the immediate achievements in architecture and planning, towards the greater impact of the mining industry on the wider trend of urbanisation in Australia.

Introduction

Mining operations in remote and regional areas of Australia have attracted a great deal of media and political of attention recently. Partly, this is the result of the ongoing inquiry into Fly-In Fly-Out (FIFO) and Drive-In Drive-Out (DIDO) work practices in the industry.[2] The inquiry was launched from the new Ministry for Regional Australia, itself a direct result of

the 2010 Federal election, memorably decided by a small group of independent MPs from regional seats. The inquiry is chaired by one such MP, Tony Windsor member for New England, who, at the time of writing, is conducting public hearings on FIFO around the country. Although keeping its doors open to the mining industry, the inquiry's mandate is clearly found in the increasing discontentment from groups both inside and outside the sector, particularly the social and economic implications for the affected communities in remote and regional areas.

The 2010 Federal election reopened an old complaint of Australian history, that of the split between city and country and the perceived imbalance between urban and rural Australia. Today it seems mining – even more so than agriculture – is at the frontline of this debate, as Judith Brett's excellent analysis 'Fair Share: Country and City in Australia' (2011) reported.[3] When the FIFO inquiry comes to an end, it will surely tell of the negative effects on the workforces involved, the problems this presents for the industry, and what these practices are doing to new and existing communities in and around mining. Mining has thrown a lifeline to remote and regional communities, many of whom have been caught in the long-term decline of agriculture as a provider of jobs and income. In case we had forgotten this, the mining companies have maintained a standing presence in commercial television to remind us of its important role, which have tended to overshadow the problems caused by mining in some regional towns; economic, social, and communal in nature. In many booming areas, the evidence of mining prosperity is escalating property prices and the erosion of community as the costs of mobilising an enormous flexible workforce eventually return home with interest.

As the media shadows Tony Windsor on his tours of mining towns, journalists report the stories of 'wild west' conditions, invoking the rowdy history of mining frontiers: prostitution, drugs and alcohol, violence, inflated prices for food and accommodation and the excesses unleashed by large amounts of disposable income.[4] Partly this image reminds one of HBO's hit series, *Deadwood* (2004-06) and the smoky rough charms of the gold rush towns. But the combination of hostile desert conditions, the tentative future of these places and the detached nature of modern mining operations is perhaps more reminiscent of the post-apocalyptic scenery of *Mad Max II: The Road Warrior* (1981), than nineteenth century gold rush towns.[5] *Mad Max II* depicts a tribe of new-age miners holed-up in an isolated compound surrounded by a harsh landscape and a society – or what is left of society – who are keen (to say the least) to get a share of the miners' wealth. But the miners' dream is not of prosaic resource wealth, but of a better, more civilized life in the 'promised land', far away – on the coast of Australia.

Minus the S&M leathermen outfits and the outback punks, *Mad Max II* provides an allegory of our contemporary situation. The film was shot near Silverton in outback N.S.W., which is now a virtual Ghost town of 60 inhabitants. For a few short years at the end of the nineteenth century, Silverton was a thriving mining town of some 3000 people, built overnight on the discovery of silver. Ironically, Silverton not only supplied the backdrop to many of Australia's famous outback films (*A Town like Alice*, 1981 and *The Adventures of Priscilla, Queen of the Desert*, 1993) but it was also the birth place of one of Australia's biggest mining conglomerates, founded on a nearby mining discovery – Broken Hill Propriety, or, BHP Billiton as it is now known.[6]

Mad Max II's miners thought paradise was located on Queensland's Sunshine Coast. Today it is more likely to be the Gold Coast, Brisbane, Cairns, Mackay or the suburbs of Perth, which the newly mobile FIFO and DIDO mining workforces have chosen as their domicile. At the heart of the issue is the pattern of Australia's urbanisation: the highly urbanised and centralised distribution of the country's population in coastal cities, and the highly remote and regional location of much of the nation's industry, including agriculture, tourism and, significantly, mining. This seeming paradox is recurrent in discussions of Australia's urbanisation and in the measures set to address the widening gap between country and city Australia. This paper discusses the history of the relationship between the mining industry's planning practices and the relationship between industry and urbanisation in Australia more generally. This shows that while the effects of mining are serious and problematic, they are not unprecedented or unusual, and they help to dispel some of the myths surrounding mining, planning and urbanisation in Australia, historically and in the present.

Mining and Planning

Throughout the twentieth century the trend for Australia's urban development and population distribution has been clear: metropolitan areas have continued to grow, while the populations of non-metropolitan and rural areas have steadily contracted. Figure 1, Bernard Salt's, *The Big Shift* (2001), documents this demographic change and aligns it with three stages of dominant Australian culture: the country, the city and, finally, the beach.[7] In his recent book *Urban Nation: Australia's Planning Heritage* (2010), Rob Freestone's account of planning history underscores this dynamic, with the major exception to this historical trend (apart from Canberra) found in the 'development of new mineral-based towns.'[8] Freestone is also careful not to overstate the role of mining and

resources in regional development, pointing to agriculture, irrigation towns, hydroelectricity projects and military towns as contributors to this counter-force. Freestone acknowledges that mining and resource operations 'profoundly impacted on the spread of settlement and the formation of towns in regional Australia',[9] but he agrees with John Toon's earlier assessment that the 'gold rushes and subsequent mining towns did not lead to any major innovations in town planning.'[10] Geoffrey Blainey's *The Rush that Never Ended: A History of Australian Mining*, first published in 1963 (now in its 5th revision), invokes an image of mining as the chief mode of urbanisation in the nineteenth century, writing: 'All Australia's inland cities of the nineteenth century were mining cities, and gold made Melbourne for half a century the largest coastal city in the land.'[11] The validity of these assessments depends on which examples are selected, from which period and what 'major innovations' in town planning might entail. To assessing these issues, a brief survey of the planning of mining towns provides useful context.

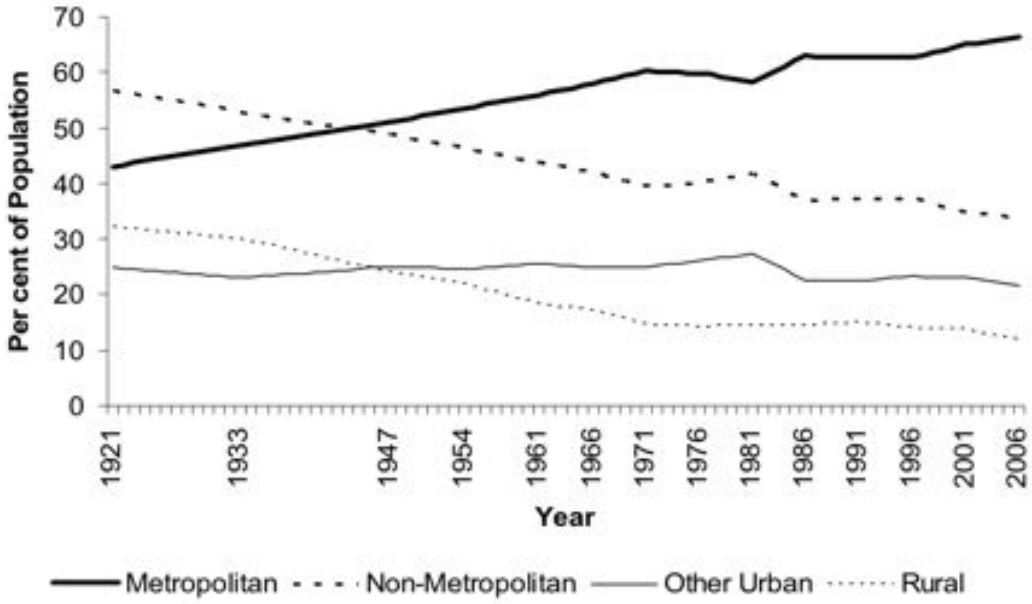

Figure 1. Australia's changing distribution of the population between urban and rural sectors, 1921-2006. (From, Graeme Hugo, ed., 'Demographic Change and Livability Panel Report,' (Canberra, 2010): 49.)

The discovery of gold and the ensuing rushes of the mid-nineteenth century saw small *ad hoc* towns springing up first across New South Wales and then Victoria. In the following 50 years, mining had not only spread across the whole expanse of the continent, but also diversified to include the search for other minerals and metals.[12] The pattern of mining in the twentieth century differed in scale and technique, becoming increasingly focussed on

fossil fuels and secondary processing and refinement techniques. As was the case of Silverton in the remote Barrier Ranges, mining sites were often pioneered by pastoralists.[13] After discoveries were made and these broadcast through the information channels, both formal and informal, many mining camps and towns emerged overnight and often disappeared just as quickly. Like Silverton, many have subsequently shrunk to a bare minimum, or have become ghost towns. Some towns like Charters Towers, Broken Hill and Gulgong have remained, though greatly reduced in size and splendour.[14] Others have continued to grow, due largely to their proximity to significant cities, such as Ballarat and Bendigo. Only a handful of these towns have continued to prosper through mining. They are located on or relatively near to active mining operations, including Mt. Isa, Roxby Downs, Moranbah, Kalgoorlie and the Western Australian towns in the Pilbarra.

Many early mining towns owe their location or placement of their principle streets and layout to a combination of local topography and mining claims.[15] In the context of mining towns, architecture often functions as an indicator of age and wealth; the fine ostentatious building of the gold towns of Bendigo and Ballarat are examples of this phenomenon. The turn of the century into the early twentieth century, saw the development and expansion of many of the major mining company towns, such as Kalgoorlie, Broken Hill and later Mt. Isa. As Toon pointed out, some nineteenth century towns may have acquired 'splendid' Victorian architecture of the day, but their planning, and that of the majority of mining towns which followed into the mid-twentieth century, remained firmly that of the grid.[16] The planned mining towns from the 1950s onwards, were vastly different to their predecessors, many of which were not designed to outlive the mines they served. These include: Batchelor (1952), at the Northern Territory's Rum Jungle uranium mine; Mary Kathleen (1955-87) at Queensland's only uranium mine; Weipa (1967-), developed to exploit bauxite in far north Queensland; and Shay Gap (1972-87), just one of a series of new townships developed in the Pilbarra from the 1970s onwards.

Philip Goad's excellent account of the design principles and development of Mary Kathleen and Weipa show that in contrast to initial attempts in Batchelor, both towns were successful attempts at in providing modernist, climatically adapted and community-minded settlements, as Goad wrote, 'They were the presentation of a totally designed environment.'[17] Goad and later Freestone also point to the reliance on the Garden City and Garden Suburb models, removed from their verdant origins in England, Germany and New Jersey, and transplanted into the Australian bush or desert.[18]

Today, its seems that intensive design and investment in the development of townships and mining accommodation that characterised Mary Kathleen or Weipa are scarce. Most mining settlements have taken on the temporary work camp scenario: relocatable 'Dongas', with services, catering and recreation largely dependent on the largesse of the operating companies, and the difficulties of attracting and retaining a stable workforce. Increasingly, these work camps are intended to house the FIFO and DIDO workforces, who live elsewhere, and use these settlements like hotels. The rising dominance of this model has engendered a secondary industry of camp operators. These companies are charged with developing, constructing and operating such camps, which are leased back to the mining companies for specified contract period.[19] Like hotels, these camps, whether operated by the mines or others, vary greatly; some camps offer a full complement of traditional resort-like services such as swimming pools, gyms and golf driving ranges, others offer much less.

With the exception of Goad's research on model mining towns in the post-war period, one could agree with Freestone and Toon in saying that the planning outcomes of Australian mining were not especially novel or innovative, particularly if compared with other nineteenth century industrial settlements in Britain, Germany or the USA.[20] But this view does not encompass the whole story. Arguably, the effects of mining cast a longer shadow than the mines themselves, the patterns of their street layouts, their services, or the progressiveness of their architecture. The mining industry is a major contributor to the complete national economy; arguably, it is to the dominant mode of urbanisation in Australia that one must look to find its resultant effect – the coastal cities. Freestone alludes to this phenomenon in speaking of Perth's 1960s 'office skyline' which had been fuelled by the demand for iron ore and 'a massive injection of international capital.'[21] Blainey is more explicit, writing:

> The isolation of new mining fields carved lines of transport. Cobb and Co.'s mail coaches started on the goldfields and the early grid of inland railways was shaped much by mining fields, while from an Australian leadfield the world's first flying doctor made his first flight. Gold finders created or spurred nearly every tropical port from Rockhampton to Port Hedland, and south of the tropic every big port was enriched by the flow of metals.
>
> […]
>
> Though Melbourne today is at the heart of the poorest metal region its skyscape is still etched by metals. Its tallest buildings belong to companies that won their first Australian fortunes from mines. The spire of its highest

> cathedral honours a copper king, its international centre of medical research honours a gold magnate and its most celebrated hotel, Young and Jackson's, was built with New Zealand gold.[22]

Postal services, transportation lines, bridges, railways, ports, health care, skyscrapers, churches and hotels are the results of mining. If viewed within this wider context, mining and resource industries have clearly played a pioneering role in Australia's planning and urbanisation, but not always in the way their advocates and detractors have proposed. Missing from Blainey's long list of achievements are the places where the massive urban expansion of Australia's post-war era actually occurred – suburbia.

As Salt's famous study of demographic change has indicated, the growth in suburbia was not uniformly distributed across the country, but overwhelmingly located on or in coastal areas. Today, Perth, Brisbane, the Gold Coast and other notable coastal destinations, continue to expand, mostly outward, but also upward. If there is a new building type, which is the hallmark of mining activity around the country, it is the airport. The Gold Coast's 2011 bid for a greater share of the FIFO mining economy was launched in great part by the Gold Coast Airport CEO, Paul Donovan, who stated, 'There is no better place to live than the Gold Coast, so the opportunity for people to live here and work somewhere else makes sense.'[23] This concentration of mining generated wealth in the existing coastal urban centres is illustrated most clearly in the Queensland Resource Council's (QRC) quarterly report, which cited sharp rises from the 2009-10 to 2010-11 financial years in what they term 'Queensland resources companies, total spend (wages, goods and services and community contributions)'. Spending was up almost 20% in Brisbane to an enormous $12.5 Billion, and a hefty 43% on the Gold Coast to $203 Million. [24] As the peak lobby group for the sector, the QRC proposes, 'that this spending, coupled with the associated multiplier benefits, means the Queensland resources sector is currently accounting for one in every five dollars of Gross State Product and one in every eight jobs.'[25]

Industry and Theories of Australian Urbanisation

Major studies of world's future population distribution agree that by 2050 around 75% of the world's population will live in cities.[26] If this is true, it seems that the vast majority of Australians may have been living in the future for quite some time. According to the United Nations Population Fund, the urban share of the total population of 'more developed countries' is already at 75%; Australia's urban population is currently an astonishing 89% and rising.[27] From this future vantage point some problems are

becoming apparent, particularly in a context where many remote and regional areas continue to assert their economic importance.[28] These problems stem from a central feature of Australia's urbanisation: Australia is unique among developed western nations not only as one of the most urbanised *and* centralised countries, but one who owes a large part of its foreign export and GPD to rural and remote areas, industries such as agriculture, tourism and mining industries.[29]

There are many theories that attempt to explain how Australia's urbanisation has occurred and what the future might hold. I.H. Burnley's essay on post-war urbanisation in Australia points to the fact that traditional rural industries such as agriculture have contracted, due to mechanisation and declining prices for rural products such as wool or dairy, and that formerly rural populations have drifted to the cities.[30] He also attributes Australia's unusually high urbanisation and centralisation to two distinct post-war developments: the increase in post-war immigration to urban areas; and secondly, to changes in industry, in particular, the emergence of manufacturing and service industries, the bulk of which were also located in major cities.[31] A.J. Rose's *Patterns of Cities* (1967) puts forward a complex model based on a synthesis of the advantages gained by the first settlements (primacy theory) and the decreasing size of other urban centres (rank-size distribution).[32] Rose's interpretations of such theories asserted the importance of Australia's particular settlement pattern in terms of its chronological and political bases.

D.T. Rowland's 'Theories of Urbanization in Australia' gives an overview of the literature on the subject.[33] Within Rowland's discussion, historical theories, such as the pattern of colonisation and its effect on subsequent development, and the climatic and geographic conditions that affected the farming and settlement of Australia's arid and semi-arid interior, provide a practical and theoretical basis for the continuing consolidation of the urban centres. Rowland cites Blainey's ideas proposed in *The Tyranny of Distance*, first published in 1966, (three years after his history of Australian mining), as a major reinforcement to the pattern of urbanisation. Blainey's work explains how the isolation of the outback and the concentration of wealth and resources in the port cities were part of the same dynamic. In reference to this industrial geography Rowland wrote:

> Like the wool industry, gold mining stimulated population growth, largely because the Victorian and New South Wales gold deposits were within reach of ports and near areas that could meet demands for timber and food supplies. These circumstances made gold mining more profitable than it would have been if distance or environmental conditions had posed greater

> difficulties. Although gold mining created concentrations of population in inland areas, the port cities gained added momentum from the trade and wealth generated by gold.[34]

Rowland's earlier study 'Patterns of Urbanization in Victoria' (1974) focussed on the reasons behind the size of Melbourne relative to other towns and cities in Victoria, citing the theory of the 'Malthusian Inversion' first developed by Eric Woolmington as an explanation for the continuing contraction of rural population and growth of urban centres.[35] In his 1977 essay, Rowland extends this theory to all Australia urban centres. The 'Malthusian Inversion' (perhaps a worthy film title in its own right), is of value in so far as it is one of the only explanations to deal explicitly with economic modelling of rural/urban dichotomies. The 'Malthusian Inversion' posits that in a situation of overproduction of agricultural products, the excess labour in rural areas drifts towards the cities and is sustained there by the surplus created by agricultural production.[36] Applying this logic to contemporary mining operations and their requirements for an ever more minimal and flexible workforce, this theory can help to explain the spin-off effects on metropolitan areas.[37] Unlike the original condition of agriculture, theoretically intended to supply a local market, modern mining is almost entirely devoted to international trade. Mining, even more so than agriculture, is a prime example of an economy of surplus, and Rowland's conclusions on its effects are of interest to our present situation:

> Mining towns are an exception to the general coastal concentration of settlement, for in recent times even the most inhospitable lands have not deterred companies from exploiting mineral deposits. Yet mining towns in remote areas can have little generative influence on the surrounding countryside, so they remain isolated settlements with restricted prospects for sustained population growth.[38]

Rowland concurred with John Kenneth Galbraith in pointing out that that within such economies, increased production is not always beneficial.[39] After a recent surge in asserting its agenda, the mining industry is being subjected to increasing scrutiny about the effects of its boom on the rest of Australia's economy – today Rowland and Galbraith are joined by a range of commentators lamenting mining's outcomes within a national context. With specific reference to mining, the Federal Treasury has identified the effects of a 'two-speed' or 'patchwork' economy.[40] Members of the Australia Institute have criticised the extent of mining's alleged 'spin-off' or 'multiplier' effects for remote and regional economies, traditionally one of the sector's major claims.[41] Paul Cleary's *Too*

Much Luck (2011) challenges the view put forward by the mining lobby that it is good for the country's interests.[42]

Conclusion

For all its benefits to those within the industry, for many outside the mining and resources sector the evidence of the boom is rapid urbanisation, the erosion of family and community, and complaints about housing affordability both in regional and urban areas. The effects of the boom and its radically mobile and flexible workforces mean that the price of a hamburger in Chinchilla and the cost of an apartment in Perth are now directly linked in ways that were previously much more abstract. But far from representing a divergence, these effects continue to underscore the patterns of urbanisation in Australia and the role mining has played since colonial times. As Rowland predicted in 1977:

> Theorists of urbanization in Australia have given little attention to the future course of urban development, but they have emphasized the inertia of the settlement pattern and the accumulation of advantages by the capital cities. Australia's history thus provides few omens of any significant challenge to metropolitan dominance.[43]

The recent report chaired by Graeme Hugo on 'Demographic Change and Liveability' (2010) proves that Rowland's predictions some 35 years ago were largely correct; it goes on to paint bleak future for mining in remote and regional areas:

> It is now been well understood (CSIRO Minerals Down Under) that the resources available in Australia that are relatively 'easy' to extract have reached their peak, and in future, it will become an increasingly more complex task (in terms of geography, climate and infrastructure) to extract resources from remote and inaccessible landscapes. The idea that communities will simply spring up around such remote mines has now been abandoned. The resource companies do not want to build such townships – preferring to make their FiFo (or, in some cases drive in/drive out) approaches more sophisticated. Airports are more likely to be built than communities. As a result the sector is not expected to 'grow' the population in remote Australia, but it is expected to put a great deal of pressure on such infrastructure as may be in such environments, but the population that serves the sector will continue to live on the eastern seaboard.[44]

As Hugo suggests, if there is a frontier of mining today it is probably more likely to be found in airline lounges, or at the beach. The easy mining is over, towns like Mary Kathleen and Weipa now seem fanciful, and the industry is already developing new techniques to deal with these conditions. An example of this new technological approach is currently being led by mining giant Rio Tinto:[45]

> With our Mine of the Future™ programme we are demonstrating improvements to mining processes that include unprecedented levels in automation, and remote operations that will revolutionise the way mining has been conducted for more than 100 years.[46]

Rio Tinto's 'Mine of the Future™', offers to make many mining employees into city-dwellers, proposing,

> some of the roles currently based at the mine site will […] be based in a city thousands of kilometres away. Employees will work like air traffic controllers. They will supervise the automated production drills, loaders and haul trucks from a remote operations centre in Perth.[47]

If *Mad Max II* and the plight of Silverton provide a partial allegory for the present situation of remote and regional mining operations in Australia,[48] James Cameron's *Avatar* (2009) and its intergalactic mine site on 'Pandora' might be analogous to the future of mining (although it remains to be seen which is imitating which). Much like Paul Verhoeven's earlier *Total Recall* (1990), in *Avatar* the mining workforce are forced to hibernate as they are shipped across space for a stint in a hostile environment run by a greedy mining corporation amid a context of social and indigenous unrest. Remote-controlled machinery and robots are used in the search for the valuable commodity 'unobtainium' and the company will stop at nothing to get the job done.

If Rio Tinto's Mine of the Future™ becomes a reality, we can expect that the 'spin-off' and 'multiplier' effects of mining in remote and regional areas will eventually reduce to zero. Australia's coastal cities will continue to grow, and with them the problems associated with their expansion and densification.

Endnotes

[1] Many thanks to Dr Chris Landorf for her help in locating some of the text used in this paper, and my colleagues at the University of Queensland for their useful insights: Prof. Peter Skinner, Prof. John Macarthur and Prof. Luis Feduchi.
[2] Committee on Regional Australia. Inquiry into Fly-in, Fly-out / Drive-in Drive-out Mining Operations. (Chaired by Tony Windsor MP), 24-8-2011.
[3] Judith Brett, "Fair Share: Country and City in Australia", *Quarterly Essay*, 42 (2011): 1-67.
[4] Simon Green, "Welcome to the Wild West", *Central Queensland News*, 23-3-2012; http://www.abc.net.au/news/2012-02-24/fifo-inquiry-hears-calls-for-tax-shake-up/3850212 (Accessed 31-3-2012); http://www.news.com.au/sex-drugs-and-dongas-a-fifo-life/story-e6frg2r3-1226082589413 (Accessed 31 March 2012); AAP, 'Fifo Workers Cause 'Havoc' for Pilbara,' *The West Australian*, 28-3-2012. ''It's a Minefield'' (CM 6-11-11), and John McCarthy, 'Mining Wealth is Delivering a Darker Lode in Boom Towns' *The Courier-Mail*, 3-4, March 2012, 46-7.
[5] There are numerous popular films that depict outback Australia and its connection with mining, among them: Ted Kotcheff's, "Wake in Fright'" 1971; Werner Herzog's 'Where the Green Ants Dream' 1984; and most recently, Kriv Stenders 'Red Dog' 2011.
[6] Geoffrey Blainey, *The Rush That Never Ended: A History of Australian Mining*, 5th (ed.) (Melbourne: Melbourne University Press, 2003), 138-41.
[7] Bernard Salt, *The Big Shift: Welcome to the Third Australian Culture: The Bernard Salt Report*, 2nd (ed.) (Melbourne: Hardie Grant Books, 2003).
[8] Robert Freestone, *Urban Nation: Australia's Planning Heritage*,(Melbourne: CSIRO Publishing, 2010), 130.
[9] Freestone, *Urban Nation*, 119.
[10] John Toon, "Preface", In Philip Cox and Wesley Stacey, (eds.), *Historic Towns of Australia*, (Melbourne: Landsdowne Press, 1973), 11-16,14-5.
[11] Blainey, *The Rush*, 2.
[12] For a sample of mining history literature see: Blainey, *The Rush*; and Derrick Stone, (ed.) *Gold Diggers and Diggings: A Photographic Study of Gold in Australia, 1854-1920* (Melbourne: Lansdowne, 1974).
[13] Geoffrey Blainey, *The Tyranny of Distance: How Distance Shaped Australia's History* (Melbourne: Sun Books, 1982), 137.
[14] Gulgong (NSW) presently has a population of just under 2000. In December 1872 it had a reported population of 20,000. Derrick Stone, (ed.) *Gold Diggers and Diggings: A Photographic Study of Gold in Australia, 1854-1920* (Melbourne: Lansdowne, 1974): 28. Charters Towers is around half its former size (currently 8,000 people). http://queenslandplaces.com.au/charters-towers (Accessed March 30, 2012).
[15] See the historic mining plan of Stawell (Vic). Stone, *Gold Diggers*, 107.
[16] Toon, *Historic Towns*, 15.
[17] Philip Goad, "Mary Kathleen and Weipa - Two Model Mining Towns for Post-War Australia", *Transition*, 49/50 (1996), 42.
[18] Goad, "Mary Kathleen and Weipa", 50. See also Freestone, *Urban Nation*, 130.
[19] For an example of such a private company, see 'The Mac' group based in Queensland. http://www.themac.com.au/.
[20] 'Generally, however, private enterprise mining and industrial settlements [in Australia] lacked any defining or truly creative social or spatial vision. It was different abroad. Planned industrial housing was a feature associated with the rise of the planning movement, as captured by showpieces like Port Sunlight and Bournville in England, Pullman and Lowell in the United States, and industrial garden communities like Margaretenhohe [sic] in Germany. These were ventures in welfare capitalism […] thinking slow to emerge in Australia […]' Freestone, *Urban Nation*, 119.
[21] Freestone, Urban Nation, 130.
[22] Blainey, *The Rush*, 1-2.
[23] These plans have subsequently stalled. See http://www.miningaustralia.com.au/news/gold-coast-fifo-hub-plan-stall (Accessed 23-5-12).
[24] Second and third places for total spending associated with mining were Mackay ($4.4 Billion) and Fitzroy ($4.2 Billion). Queensland Resources Council, *State of the Sector*,' vol. 3, 4 (Brisbane: Queensland Resources Council, 2011), 3.
[25] Queensland Resources Council, 'State of the Sector.'

[26] For a prominent example of this literature see, Richard Burdett, Deyan Sudjic, and London School of Economics and Political Science, *The Endless City: The Urban Age Project by the*

London School of Economics and Deutsche Bank's Alfred Herrhausen Society (London: Phaidon, 2007).
[27] United Nations Population Fund, *The State of World Population 2011*, (New York: United Nations Population Fund, 2011), 83, 116.
[28] See the Regional Australia Fact Sheet: http://www.run.edu.au/cb_pages/regional_australia.php accessed 31-3-2012.
[29] I.H. Burnley, "The Urbanization of the Australian Population 1947-1971", In I.H. Burnley, (ed.), *Urbanization in Australia: The Post-War Experience* (Cambridge: Cambridge University Press, 1974), 3.
[30] Burnley, "'The Urbanization of the Australian Population 1947-1971", 3-4.
[31] Burnley, "The Urbanization of the Australian Population 1947-1971", 9-12.
[32] A.J. Rose, *Patterns of Cities* (Melbourne: Thomas Nelson, 1968).
[33] D.T. Rowland, "Theories of Urbanization in Australia", *Geographical Review* 67, 2 (1977), 167-76.
[34] Rowland, "Theories of Urbanization in Australia", 168.
[35] D.T. Rowland, "Patterns of Urbanization in Victoria", In I.H. Burnley, (ed.), *Urbanization in Australia: The Post-War Experience* (Cambridge: Cambridge University Press, 1974), 63-79.
[36]Rowland, "Patterns of Urbanization in Victoria", 65.
[37] Rowland explains: 'Whereas Malthus believed there is a tendency for population to outgrow its food supply, Woolmington considered that there can arise a situation in which production capacity exceeds consumption. He argued that in developed countries overproduction is increasingly common because technology has lifted agricultural productivity, both per unit area and per unit labor, thereby causing redundancy of some rural labor and inefficient farms. This is the opposite of the Malthusian pattern, in which farming becomes more labor intensive but yields diminishing per capita returns from expanding agricultural lands. In a situation of Malthusian inversion, where agricultural employment is fairly static or declining, the excess rural population generally moves to urban centers which are sustained by the surplus agricultural production.' Rowland, "Theories of Urbanization", 171.
[38] Rowland, "Theories of Urbanization", 167.
[39] See, John Kenneth Galbraith, *The Affluent Society* (London: Hamilton, 1958); and *The New Industrial State*. 2nd (ed.) (Boston: Houghton-Mifflin, 1971).
[40] Phil Garton, "The Resources Boom and the Two-Speed Economy",In *Economic Roundup* (Federal Treasury, 2008).
[41] See interview with Richard Denniss, http://www.abc.net.au/radionational/programs/counterpoint/economic-models3a-uses-and-abuses/3821196 (Accessed 31-3-2012); and David Richardson and Richard Denniss, "Mining the Truth: The Rhetoric and Reality of the Commodities Boom,", *Institute Paper*, no. 7, (September 2011).
[42] Paul Cleary, *Too Much Luck: The Mining Boom and Australia's Future* (Melbourne: Black Inc., 2011).
[43] Rowland, "Theories of Urbanization", 176.
[44] Graeme Hugo, "Demographic Change and Liveability Panel Report. An Appendix to a Sustainable Population for Australia Issues Paper", (Ministry for Sustainability, Water, Population and Communities. Canberra, 2010), 120-21.
[45] Rio Tinto, like BHP Billiton owes part of its wealth to Broken Hill, as the former Zinc Corporation was eventually merged to form part of Rio Tinto. Blainey, *The Rush*, 276-77.
[46] Many thanks to Michael Hogg for passing on this news item.
See also the feature article from Rio Tinto, "Mine of the Future", The Rio Tinto Group, http://www.riotinto.com/ourapproach/17203_mine_of_the_future.asp, Accessed 31-3-12.
[47] Rio Tinto, "Mine of the Future", Accessed 31-3-12.
[48] Mel Gibson returns as the reluctant hero in *Mad Max III: Beyond Thunderdome* (1985). Partly set in the Australian desert near Coober Pedy, the gasworks of 'Bartertown' are no longer reliant on fossil fuels, but renewable methane derived from pig shit. *Beyond Thunderdome* portrays a reversion to pre-historic or tribal conditions, but the lost children still dream of 'tomorrow-morrow land', which are the burnt-out office buildings of Sydney.

Between True Reflection and Invention: The Crisis of Urban History Representation and the Techniques of Historiography

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Abstract

In his discussion regarding different types of historical material offered to history readers, Bernard Lewis identifies three types of history; remembered, recovered, and invented[1]. He points out that critical history begins with dissatisfaction with memory and a desire to cure its deficiencies. Subsequently, the body of techniques, theories, and principles of historical research and presentation, which is called historiography has been criticised on its overall reading in search of formal analogies or translations of meaning. It has also been questioned on its credibility of transmitting the correct and complete historical image 'as it has been.' Those issues are increasingly dominating the field of historical studies, and urging for a search for unconventional methods of representing and understanding of architectural and urban histories. This paper attempts a discussion of potential methodologies to establish alternative methods in historiography. The paper examines different techniques of rewriting history, 'the mother of all the sciences of man'[2]. Although the problem of historical writings is a common worldwide issue, the focus of this research is on the historiography of Baghdad in the eighteenth century, which is complex and mysterious. The aim is to search for possible methodologies for rewriting histories and explore crucial openings for present practices of architectural history writing that promote a better understanding of history.

Historiography and Predetermined History Writings

'What happened, what we recall, what we recover, what we relate, are often sadly different, and the answers to our questions may be both difficult to seek and painful to find'[3]

The conventional historiography of Baghdad in the eighteenth century is contradictive. It focuses on the physical components in composing the image of the city. Conventional

writings of the eighteenth century demonstrate an unpleasant cityscape with narrow streets and demolished houses, while other literature sources suggest the pleasing atmosphere of a beautiful city blessed with a great river with large areas of greenery on its edges. A comprehensive reading of this historiography asserts the uneven reflection of natural and cultural landscapes. It also indicates superficial observations based on perceptible aesthetics and political circumstances, in addition to preoccupied judgments backed by a lack of historical understanding. The complex history of the city and the indeterminacy in the interpretation of architectural and urban forms contribute to this historiography of obscurities. This crisis stresses the urgent need to search for a new method of rewriting architectural and urban histories. Because of the limited scope of this paper, the study focuses on the search for alternative methods in historiography rather than a detailed investigation of the historiography of Baghdad.

The inquiry into unconventional methodology in historiography is complicated. These questions increasingly dominating historical studies because of the insufficient and contradictory tendency in conventional historiographies that rely upon iconic recollections of history, which utilise 'visible' and materialistic approaches in representation rather than opening up to approaches that maintain strong and diverse relationships with vast range of social and human sciences. Historiographic studies are gradually becoming a major focus of architectural historians who are shifting their emphasis 'from the aesthetics of architecture to the politics of production process'[4]. Bernard Lewis identifies historiography as 'historical writings written for the express purpose of recording the events of the past for the information and guidance of the present and the future'[5]. The general criterion of rewriting history is to search for the original sources and the real historical backings. This body of literature deals with historical matters which may have been subjected to invention, diversion, and corrupt transmission.

In general, history may be initially be written for different purposes. It may be written for political or documentation purposes or for entertainment; by exaggerating some events to increase social interaction or by modifying authentic stories to maintain the sanctity of some figures and taking them to a mythical standard above what they really are[6]. Lewis notes that the recoveries of history usually begin with what is remembered and transmitted. He illustrates the motives of critiquing histories. 'The critical scholar may be dissatisfied with what remembered history offers him because he feels that it is inaccurate or deficient or misleading'[7]. However, Lewis points out that there is other dissatisfaction that emerges from a different cause. He states that historians would rather rewrite history not as it was, or as they have been taught that it was, but as they would

prefer it to have been. For historians of this school 'the purpose of changing the past is not to seek some abstract truth but to achieve a new vision of the past better suited to their needs in the present and their aspirations for the future. Their aim is to amend, to restore, to replace, or even to recreate the past in a more satisfactory form'[8]. He calls this process 'the invention of the past'. The fundamental feature of this kind of scholarly research is that it is always directed to preset outcomes, which raises questions about its historical credibility and acceptance.

Lewis identifies a distinctive example of embellishment to correct or remove what is unpleasant of the past as a 'foundation myth'; 'most countries and peoples and powers arise from humble origins, and having risen to greatness seek to improve or conceal their undistinguished beginnings and attach themselves to something older and greater'[9]. He notes that the recovery of history is basically a phenomenon that began in Europe at the time of the Renaissance and remains to the present day primarily a concern and an achievement of Western European civilization. He also recognises the writing of colonial, post-colonial, and pre-colonial histories as outstanding examples of the purposive use of historiography. In addition, he classifies the official myths about the barbarism and backwardness that were largely challenged and criticised as obvious examples of inventive historiography[10]. I believe that although the purposive use of historiography is evident in colonial related histories, the modification of history is noticeable in almost all written histories in the world. In particular, the history of architecture of Baghdad and the surrounding region was apparently subjected to inventive historiography during the eighteenth century and thus it became a fertile ground for new interpretations.

Conventional Historiography and the Crisis of Representation

The conventional method of reading architectural history is usually limited to comparative and descriptive methodologies, and consequently the representation 'is totally divorced from historical truth'[11]. The unfolding of modern natural science and the global domination of scientific methods have had a great impact on historical writings and raised questions about the uniform effect of history and its directionality, and whether it is possible for industrialised societies to return to a pre-modern or pre-scientific situation. This dilemma became a major focus for historians and raised a great amount of argument that evoked attempts to 'correct' confused historical statements. Accordingly, conventional historiography has been criticised for its vague and misleading representation of history. Historians argue that transmitted histories are written 'from a particular viewpoint or perspective'[12] and that they hardly reflect the actual historical events.

In his book *The End of History and the Last Man* Francis Fukuyama suggests that modern economics are forcing the homogenization of mankind, and destroying a wide variety of traditional cultures in the process. He considers cultures as 'potential obstacles in the march of the Universal History'[13]. Mark Crinson supports this view and calls it a crisis of architectural typology loss when the contrast between history and memory forms is augmented because of modernism outcomes[14].On the other hand, Sibel Bozdogan notes that historiography problems have increased because architectural history is mainly Eurocentric and historiography emphasises cultural difference rather than cultural diversity[15]. According to Geoffrey Gunn, this tension between cultural relativism and universalism is very much a modern-day phenomenon[16]. Besides, Bernard Lewis proposes that neglecting history and taking historical facts too lightly are the main causes of historiography problem. He notes that 'the early expressions of the collective memory of a community are usually literary'[17]. And he considers secularism as one of the crucial products of the tension between modernity and culture[18]. Moreover, Edward Said considers repetition and the bizarre variety of discourse today as the main results of the decline in historical representation. He notes that 'a discourse does not represent an idea, nor does it embody a figure: it simply repeats, in different mode, another discourse'[19].

In addition to comparative, descriptive and repetitive tendencies, conventional historiography implements puzzling terminologies every so often. Because they play a important role in historiography, terminologies have a huge impact on the understanding and representation of architectural history. Conventional methods may freeze some terminologies in abstract linguistic frames and do not let the words move in both practical and spiritual atmospheres. For example, terms like pre-modern and post-modern establish a huge cut in the concept of time flow and give the impression of greatly separated periods that lack any sign of continuity. Another example of distracted terminologies is the use of the term 'civilization' which generally refers to an advanced state of any human society, though in current historiography the term, as Nilfur Gole suggests, does not refer in a historically relevant way to specific cultures, but instead designates the historical superiority of the West as the producer of modernity[20].

Further, the term 'traditional' is widely used to refer to some human societies that are related to religion as a form of social organisation whose continuation does not rely on the existence of a specific nation. According to Steve Fuller, anthropologists and sociologists largely use religion as 'a residual term designed to cover all so called

traditional forms of social life'[21]. Fukuyama suggests that this understanding of history is mostly associated with philosophers like Hegel and Marx, and that this concept is also implicit in the use of other words like primitive, advanced, and modern[22]. Therefore, the issue of memory loss became a major concern of architectural historiography since it is strongly connected to the 'traditional' and 'pre-modern' terms. For instance, Crinson suggests that the extreme memory loss and the loss of familiarity contribute strongly to the problem, since post-modern urbanism 'treats the past as something to be quoted selectively, something already deracinated'[23]. On the other hand, Hans-Georg Gadamer recommends a major reconstruction and reformation of memory; 'for memory is not memory for anything and everything'[24]. Those memories can be constructed into numerous mental maps, each registering difference and otherness in particular ways[25]. The reconstruction process of memory has already occupied an important place in current historical studies. It involves imagination, examination, and a new interpretation of history, which is the core objective of this study.

The crisis of conventional historiography and current representation of architectural history, as Paul Rabinow suggests, took place with the shift of the vocabulary of architectural forms from architectural type and its historicity and formalization to architectural style, when 'the meaning of style in architecture gained an entirely new value, or more accurately, took on value'[26]. In addition to the problems of conventional representation that are previously illustrated, itis believed that current methods underestimate the social phenomenon which is 'the world problem that preoccupies thought today and touches its core reality'[27]. Historians recognised the problematic relations between history and sociology; 'neither the life of an individual nor the history of a society can be understood without understanding both'[28]. They have known that categories of the individual and self are dependent upon particular cultural and historical practices and that the analyses of those categories are essential in founding strong starting point for critical historical studies.

Although it seems that conventional historiography has received much criticism, it has undoubtedly contributed to the enrichment of historical studies, yet this contribution is limited and incomplete. Early efforts to resolve the crisis of representation and offer a new and original expression suggested 'a transition from imported architecture to adapted architecture that must be reflected in education'[29]. Although this method introduces a different criterion for architecture, it cannot provide a perceptive basis as it also focuses on physical qualities rather than values and principles. Historical moments are generated by other moments that contributed to their creation and coexistence. Highlighting

particular cultural, social, architectural, and urban features, and interconnecting them with sources from other disciplines would generate more possibilities for the comprehensive examination of history. This would promote integrated historiographies that ensure connectivity between all the elements that created the city and represent meaning in their relationship to one another.

In his book '*the Evaluative Image of the City*' Jack Nasar borrows Rapoport's notion of the levels of conception in relation to meaning. He implies that meaning has three levels; lower level or denotative meaning, which applies to the recognition of physical appearance, and middle level or connotative meaning which applies to the feelings and emotions. The third level is the higher level of understanding which refers less to the object than to broader values[30]. Accordingly, conventional interpretation provides the lower level of meaning, and the study of other related disciplines provides the middle level. The integration between both sources establishes a meaningful image and represents the highest level of meaning. In order to explore the techniques that may solve historiographical problems, it is crucial to demonstrate relevant historians' suppositions that can offer the basis for an alternative method.

Suggested Methods and the Search for 'Truth'

> The investigation of truth is in one sense difficult, in another easy. A sign of this is the fact that neither can one attain it adequately, nor do all fail, but each says something about the nature of things; and while each of us contributes nothing or little to the truth, a considerable amount of it results from all our contributions[31].

The main feature of current historical studies is the utilization of sources outside the discipline of architecture to search for unconventional methods of architectural history representation. Their aim is to remain within the language of architecture, but speak of it differently. Because of the strong connection of this kind of research to the original foundations of things, the process of investigating alternative methods to solve historiography problems is always associated with the concepts of truth, knowledge, and understanding. The theory of knowledge plays a great role in this investigation, because knowledge is the preliminary source of philosophical advance toward establishing a solid understanding of all phenomena in this world. Scholars suggested different approaches

and techniques to interpret truth and knowledge. Those ideas and suggestions are demonstrated here briefly.

The philosopher and religious scholar Al-Sadr suggests the search for the 'common source of knowledge' in order to attain truth. He states that in forming new knowledge, a human being is assisted by previous knowledge; however, the issue is 'to be able to put our finger on the primary threads of thought and on the common source of knowledge in general'[32]. The search for the primary threads of thought is a big challenge for historical studies as it involves deep investigation of the different layers of history and a discovery of the early ideas that surround one another in the form of knowledge. According to Al-Ghazali, the first approach to this search is to be sceptical in order to obtain high levels of certainty and knowledge. However, he advises caution when doubting things, as some sceptical sources can be arrogant at the same time[33]. On the other hand, Edward Said calls the key concept of the current discourse of historiography an 'historical understanding', which is 'to identify a beginning, particularly that of a historical movement or a realm of thought'[34]. Also Gadamer considers 'reconstructing the condition in which a work passed down to us from the past'[35] as an important aid to understanding. Yet Foucault focuses on the techniques of rewriting history; commenting that 'we should no doubt revise the way in which we traditionally write the history of history'[36].

Thus, there are two main distinct cores of current suggestions to promote 'understanding' and to overcome the crisis of historiography belonging to two opposite schools of thought; empirical or semi empirical, and speculative or theoretical schools. Mitchell Dean illustrates the division between the two philosophical reflections as 'one grounded on experience, meaning, and the subject, the other on knowledge, rationality and the concept'[37]. The empirical or scientific method is promoted by the theory of conceptual formation and signification suggested by Michel Foucault, Marx, Hegel, and others. The speculative method that belongs to the human sciences is supported by Hans-Georg Gadamer, Heidegger, and others. This paper is searching for a 'third space'[38] that is neither empirical nor speculative, but rather a combination, a refinement, and an accumulation of extra ideas and concepts.

Although it is important to elucidate both existing ideologies in the process of searching for a different method, the focus of this paper is on the speculative study that opens up to art and literature, which relates significantly to the first moments of formation of architectural ideas. However, it is important here to bring up a brief explanation of the empirical approach too. This approach usually privileges analytical sophistication over

theoretical system, and plural and diverse intellectual adventures over the search for foundations. According to this school, signification occurs when all representations are interconnected as signs, and the complete network of signs is linked together and articulated according to patterns proper to meaning. The group of signs will constitute the image of things. Although Foucault considers meaning as the principle component that connects signs, he proposes that meaning is not the main law of the formation of signs. He notes that 'no specific activity of consciousness can ever constitute a signification'[39], and that 'meaning is entirely on the side of that which is signified'[40], which raises questions about the nature and value of signs if they cannot represent consciousness or meaning. Foucault utilises a comparative analysis to outline the unity that must totalise discourses without reducing their diversity. He suggests that instead of considering that discourse is made up of a series of homogenous events, this analysis distinguishes several possible levels of events within the bulk of discourse[41].

Similarly, Andre Gunder Frank stresses the significance of unity in diversity. He notes; 'we can neither understand nor appreciate the world's diversity without perceiving how unity itself generates and continually changes diversity'[42]. He argues that if received social theory is unsatisfactory because it is based on Eurocentric historiography, then it is logical to start by doing better non-Eurocentric history, yet this needs a better perspective or theory. He suggests a global theory to solve the problem as 'only a holistic universal, global, world history, as it really was, can offer the historiographical basis for a better social theory'[43]. Although the concept of plural and diverse intellectual adventure seems to be a great historical reference, I believe that the focus on geographical characteristics would not solve the problem unless the alternative social theory is informed by elements other than physical settings, in which conceptual beliefs constitute the basis for their advancement, integration and continuity.

Edward Said supports the ideas discussed above, though he suggests that history is not a homogenous territory, but 'a complex interaction between uneven economics, societies, and ideologies'[44]. He proposes that the act of historical understanding occurs when a beginning of a historical movement and a realm of thought is identified[45]. He warns against perpetuating discourses of otherness and discrimination, and he stresses the fact that no race possesses a monopoly on beauty. In addition, he argues that historical narration shade into one another in practice; 'a discourse does not represent an idea, nor does it embody a figure: it simply repeats, in different mode, another discourse'[46]. He refers to criticism as a cognitive activity that constitutes a form of knowledge. He identifies literature, history, and psychology as systems from other groups because of their self-

definition that includes the implication of their differences. Said rejects a single identity of discourse; 'discourses of identity that are centred on a single identifier are seriously inadequate for defining what are, in fact, complex and multiply constituted identities, which in turn, make the cultural artistic, or architectural product irreducible to such identifiers'[47]. Hence Said strongly emphasises the crucial role of culture in historical writings. The role of culture in architectural history interpretation is also emphasised by Sibel Bozdogan who suggests a solution for the crisis of representation by introducing 'new interpretations that problematise distinct and mutually exclusive boundaries between the western canon and other cultures'[48].

The second school of thought attempts at an investigation of truth through the examination of text, aesthetic perception, and historical consciousness. Gadamer suggests that the task of aesthetics is precisely to ground the fact that the experience of art is a mode of knowledge that is certainly different from the sensory knowledge which provides science with the ultimate data from which it constructs the knowledge of nature, and certainly different from all moral rational knowledge, and from all conceptual knowledge, but still knowledge, conveying truth[49]. He describes understanding as a 'superior experience' that enables us easily to see through the illusion of the historical method, and that understanding must be consciously created by an unambiguous mediation.

Gadamer proposes two methods that assist in exploring the phenomenon of understanding. Firstly he recommends the use of the inductive method that employs a critique of aesthetic consciousness in order to defend the experience of truth that comes through the work of art against the aesthetic theory that is restricted to a scientific conception of truth. Thus the truth that lies in every artistic experience is recognised and at the same time mediated with historical consciousness. He considers human sciences and self-evident concepts like philosophy, art, and history as modes of experience that contain a wealth of history in which the truth is communicated, and this communication cannot be verified by scientific methodological means. Gadamer refers to literature as 'a function of being intellectually preserved and handed down and therefore brings its hidden history into every age'[50]. He proposes that all literary works of art are actualised only when they are read and that 'the work of art is actualised only when it is presented'[51]. He points to the unique criteria of culture or 'Bildung' as a genuine historical idea that became extremely important assessor in the human sciences.

Secondly Gadamer recommends the reading of the concept of 'taste' as a social phenomenon and as an intellectual faculty of differentiation that implies a mode of knowing. He argues that the corresponding positive is not speaking of what is tasteful, but what does not offend taste. Thus, taste is defined precisely by the fact that it is offended by what is tasteless. He considers taste as 'the object of critical judgment by an observer'[52]. Therefore the validity of an aesthetic judgment cannot be derived and proved from a universal principle. Gadamer notes that all phenomena involve the use of language to reach understanding and that the phenomenon of taste clearly involves language. Yet the new language certainly does not mean a totally new language[53], because it always relates to other languages and cannot be totally definitive.

The concept of aesthetic consciousness is also discussed by Samer Akkach but from a slightly different perspective which involves more sensibility and spirituality. Akkach states that human imagination cannot deal with anything that does not have a sensible form, and representation should act as an imaginary reflection of sensible prototypes. He notes that ontological imagination plays an essential role; 'it is seen as the creative source of manifestation, the very cause of our existence, and the powerful intermediary that enables us to remain in constant contact with the infinite and the absolute'[54]. He advises that the interpretive condition is influenced by a preoccupation with artistic creativity and a desire to understand the creative mechanism of imagination, both at human and divine level. He also suggests a comprehensive reading of both the universal natural symbols and particular symbols, and he focuses on the idea of the 'sacred' considering it as 'a key concept in modern discourses of the symbolism of premodern architecture'[55].

For Akkach, the 'seen' or the visible is the world of natural realities that can be known directly through sense perception, while the unseen is the world of spiritual realities that can only be grasped by imagination. He stresses the fact that religious teachings have resorted to analogy and metaphor in order to help human imagination gain insight into the unseen, and that 'the efficacy of analogy, as an illustrative and cognitive tool, hinges on the ontological link between the embodied and the abstract'[56]. Hence, he suggests that analogy is the cornerstone of religious expressions that are concerned with spiritual phenomena, and that 'the Quran uses many tangible examples from the seen to explain or describe matters of unseen'[57]. In order to promote a range of explorations that could enrich the understanding of architectural imagination, Akkach suggests shifting the focus from 'the unchanging essentiality of form, style and aesthetics onto the multiple and changing concepts of self and place that arise in cross-cultural encounters'[58]. He

indicates two strategies that might fruitfully be tested; learning towards comparative philosophy, and also towards literature.

Likewise, Al-Sadr proposes that the interlocking aspects of things would support their interpretation and promote more understanding. He suggests a rational philosophical measure for the knowledge of the soul. The crucial role of the knowledge of the soul is emphasised by other philosophers as well. For example, Nicholas Smith asserts that we should give a primary place to the inquiry concerning the soul, because it 'contributes greatly to every kind of truth and especially to nature'[59]. Al-Sadr suggests that the soul is not something that exists in an abstract form and prior to the existence of the body. It is rather the result of a substantial movement in the matter. The soul begins with this movement as material, characterised by material qualities and subjugated to the laws of matter. By means of this movement and process of completion, it acquires an immaterial existence not characterised by material qualities and not subject to the laws of matter, even though it is subject to the general laws of existence[60]. Al-Sadr proposes a hypothesis that constitutes this interlocking criterion. He argues that perception is divided into two kinds; conception, which is a simple knowledge, and assent, which involves a judgement. The human mind contains two kinds of conception; simple conceptual ideas and composite ideas, which are the conceptions that result from a combination of simple conceptions. The third conception is composed of the two conception types. Consequently, all composed conceptions are reduced to simple conceptual units[61]. Al-Sadr calls this hypothesis 'the dispossession theory' which can be summarised as the division of mental conceptions into primary and secondary conceptions. On the basis of this framework the mind gradually establishes secondary conceptions, and as a result the stage of innovation and construction begins[62].

Because this study is basically concerned with text, literature, and culture, I believe that the combination of some relevant theories demonstrated here may introduce an effective method for history representation. The hypotheses of both Gadamer and Akkach are particularly appropriate to this study because of their interconnectivity attitudes and their broad scope that opens up to some key concepts of understanding like art and literature. The emphasis of those thoughts on culture and on cross-cultural research would enrich the way we understand history and assist in establishing a foundation for an unconventional method in historiography. Besides, the dispossession theory of Al-Sadr may enhance this search because of the different levels of conception it applies and the connections of those levels to the 'beginning' of things. However, because the strategy of this research is to combine and integrate different ideas of different schools of thought in

order to reach a complete understanding of the 'real' urban experience, other suppositions are also included in the study.

Conclusion

The discussion of the problems of writing and representing architectural and urban histories that was carried out in this paper underlines the need for another method of interpretation and understanding history. The search for this method initiated a demonstration of the theories and hypotheses proposed by current scholars to solve the problem. Although those theories are different and sometimes contradictive, their overall outcomes add significantly to historical understanding and contribute strongly to this kind of research. This research utilises selected works of scholars like Gadamer, Akkach, and Al-Sadr, which focus on conceptual analysis more than materialistic analysis. However, this approach does not exclude scientific metaphors, but it highlights art conceptions and combines them with science in order to build a more comprehensive knowledge that helps to solve the mysteries of architectural history.

The main principle for the new method is to expand the search to other disciplines outside architecture, which would be more fruitful and more enriching. The basic incentive is to discover the goals of the conscious movement of historical achievements that is very significant in architectural studies and in art, as 'representative of higher truth'[63]. The method looks at history as a science and does not deal with it emotionally. In addition, the terms that are implemented in this method in relation to crucial variables, such as social and cultural variables, should be understandable and as explicit as possible. Those terms should not be instructive so that they promote a different understanding of the urban experience, and call for reflections on space and architecture and different ways of historical writings that are not eminent acts of politics.

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[57] Akkach, *Cosmology and Architecture in Premodern Islam: an architectural reading of mystical ideas*, 30.
[58] Akkach, Fung & Scriver (eds.), *Self, Place & Imagination: cross-cultural thinking in architecture*, v.
[59] Smith, Allhoff & Vaidya (eds.), *Ancient Philosophy: essential readings with commentary*, 234.
[60] Al-Sadr, *Our Philosophy*, 64.
[61] Al-Sadr, *Our Philosophy*, 63.
[62] Al-Sadr, *Our Philosophy*, 74.
[63] John Arthur Passmore, *Art Science and Imagination*, (Sydney, Sydney University Press for the Australian Academy of the Humanities, 1975), 14.

The power of a narrative: from architectural writing to a political vision

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Abstract

Unable to find continuous employment after years of studying and practicing architecture in Western Europe, including time spent in the offices of Peter Behrens and Le Corbusier, Juraj Neidhardt returned to Yugoslavia in 1939. He took a job in a mining company not in his native Croatia but in a neighbouring state of Bosnia and Hercegovina. In the years to come, Neidhardt's professional and personal life was framed by both the early formative years he spent in the West and his later return to 'another' part of his country.

This paper considers Neidhardt's experiences against the background of the changing political landscape of Yugoslavia. It focuses on Neidhardt's collaborative writings with the architect Dušan Grabrijan published in 1957 as Architecture of Bosnia and the Way Towards Modernity*. When first published, the book was more a manifesto of modernist thinking than an architectural proposition connected to the place and time. However, over the years the book captured wider audience, and against the odds came to be considered a seminal text on Bosnian modern architecture and a treaty on Bosnian socialist identity. By discussing the specific points of intersection between Neidhardt's professional contribution and the broader political setting, the paper highlights the capacity of architectural writing to articulate and disseminate a political vision.*

Architectural vision and the politics of daily life

When in 1957 architects Dušan Grabrijan and Juraj Neidhardt published their research on Bosnian architecture under the title *Architecture of Bosnia and the Way Towards Modernity* (Arhitektura Bosne i Put u Suvremeno), the book could have been classified as fiction writing.[1] It presented a vision of Bosnian modern architecture for a nation that lacked an economic and political context of a nation state. As a result, unlike neighbouring Serbia and Croatia, which were inhabited by the predominant Serb and Croat populations respectively,

Bosnia was not a land of *Bosnians*; but a land inhabited by Bosnian Muslims, Serbs (Orthodox), Croats (Catholics) and Jews.[2]

The book *Architecture of Bosnia and the Way Towards Modernity*, as the title implied, was a text aimed at an architectural audience. Its central thesis presented the historic fabric of the old town as the core to the development of a new city. In this context, Baščaršija – the historic precinct of Sarajevo established by the Ottomans gained particular significance. Tradition, the authors argued, was to be used as a vehicle for developing new ideas allowing modern expression 'to build upon the achievements of the past'.[3]

Neidhardt and Grabrijan's enthusiasm and interest in the Ottoman past was in a harsh contrast to the wider Yugoslav political context that perceived the Bosnia's Islamic origins as highly problematic. Long-standing Serb and Croat nationalist views, as well as Yugoslav secularist stance, contested relevance of Bosnian's Islamic past to the new socialist state.[4] Maria Todorova argues that it is in the discussion of the Ottoman Empire's role that nationalist and Marxist agendas intersected.[5] In the nationalists' case, the Ottoman Empire was perceived as an obstacle to national (organic) development of culture. In the Marxist interpretation, the Ottoman Empire was seen as essentially feudal and backward, and therefore its legacy was one that hindered progress and modernisation.[6] Grabrijan and Neidhardt's promotion of the value of the historic Ottoman heritage, thus, went against the ideals of modern and progressive new Socialist Yugoslavia.

This article explores the transformations of the cultural and political significance of Neidhardt and Grabrijan's work. It argues that through a process of narrative-making, Grabrijan and Neidhardt presented a vision of Bosnian identity that was, as Hall has argued, 'partially constructed in fantasy' but also 'within [the] discursive, material and political effectivity' of the context in which they operated.[7] Once widely circulated, published and reinterpreted with the particular attempts to define a new socialist identity, Grabrijan and Neidhardt's writings on modern Bosnian architecture, gained meanings and acknowledgements. The wide acceptance of the platform promoted in the book demonstrated the capacity of architecture to embody a political within a formal language of architecture.

Writing up the modern expression in a 'synthetic integration of the old experiences and new socialist needs'

The structure of the book *Architecture of Bosnia and the Way Towards Modernity* folded together the analysis of built fabric and cultural issues through a discussion of cultural practices and historical changes that shaped the urban forms. This approach was illustrated

by a drawing of a tree; a graphic metaphor for the theoretical and conceptual organisation of the book (Figure 1). The tree's root system included various social and emotional factors, such as temperament, tradition and religion to physical aspects such as materials, climate and topography. Growing out of the roots, the tree trunk shows a blending of factors from the root system and the mediation of those by additional factors, such as 'people and their land' and the 'unwritten laws' – a reference to customary building practices.[8] The city, perceived as the result of all such influences, was represented by the two large branches of the tree. The branches characterised the typical Ottoman division of Sarajevo – the business district of *Čaršija* (Baščaršija) and residential quarter of *mahala*. The drawing presented the city as a natural, organic and historical process that integrated a diverse range of biological, physical, material, social and emotional factors, providing the theoretical grounding for the book itself.

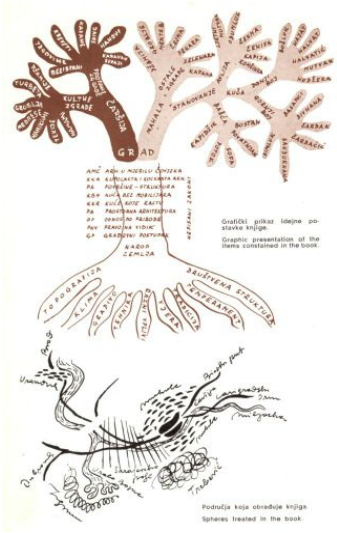

Figure 1. Structure of the book as represented as a tree. (Source: Grabrijan & Neidhardt, *Architecture of Bosnia and the Way Towards Modernity* (Ljubljana: Ljudska Pravica, 1957), 4.)

Confident that the medium of architecture was capable of contributing and representing a new society under development, Neidhardt and Grabrijan considered the book a manifesto of new socialist times, as they wrote, 'Today, we stand on the threshold of a new civilization. We live in a time marked by the transition of capitalism into socialism. At this stage we have to deal with specific difficulties. The transitional time needs a clear position'.[9]

The context and the problems of the past

The proposed vision of modern architecture built upon the historic past, proposed in Neidhardt and Grabrijan's book, bore little relation to the political reality of Bosnia. Following

the Communist win, the post WW2 Bosnia had limited interest in the heritage fabric. Although Baščaršija's potent symbolic landscape of mosques and churches located within the old precinct offered to contribution to multiple narratives and ensure the precinct's partial conservation, the extent and choice of buildings restored posed political difficulties. For Socialist Yugoslavia, the Ottoman architectural legacy remained associated with foreign rule and Islam, and the restoration of its architectural heritage was commonly interpreted as a threat to the Catholic and Orthodox populations.

Initially, the government's response to this dilemma was the massive demolition of Baščaršija. In 1945 the City People Committee formed a 'demolition board' in charge of the clearance, which took place over a period of five years and resulted in the destruction of 246 small shops. The government justified their planning decisions with declarations such as 'our history is not in old timber shutters', that 'the shops have no historic or cultural value', and are only a 'fire hazard', and a 'source of infection'. [10]

Grabrijan was aware of this resentment towards the old fabric and noted it in his early writings. In his 1936 paper, 'Thoughts and comments on the development of Sarajevo', published six years after his arrival in the city, Grabrijan expressed his frustration with approaches to urban development.[11] Discussing zoning, traffic and hygiene in relation to the urban planning of Sarajevo, Grabrijan accused the city authority of losing 'its head' by allowing the 'barbarity of modernisation' to destroy the urban qualities of the city.[12] In a number of articles published in 1936 and 1937, Grabrijan continued his criticism of broader urban planning approaches and specific heritage policies for Baščaršija.[13] However, his voice remained a lone one. His outspokenness was seen as a reflection of his non-Bosnian background and lack of involvement and awareness of the specific historical and political factors that framed discussion of Sarajevo's built heritage.

The pair continued to publicly express their views, the practice not commonly exercised by other city architects. By the middle of the 1950s Grabrijan alone had published more than 50 publications devoted to the relevance of historic architecture to modern production. They both put a sustained effort into promoting their work through public exhibitions, lectures and professional engagements. At a national urban symposium held in Dubrovnik in 1950, Grabrijan presented a paper that argued for the importance of the Oriental architecture of Bosnia and Hercegovina.[14] The argument was further advanced through numerous articles on Oriental heritage in other parts of Yugoslavia, such as in Macedonia.[15]

Neidhardt, for his part, advocated the Bosnian Oriental agenda through his modern architectural designs. Neidhardt's active academic and public profile grew with his continuing

involvement in architectural and urban competitions and design proposals. From the publication of *Architecture of Bosnia and the Way Towards Modernity* until the late 1970s he participated in more than 30 large urban-planning competitions, almost 100 designs for individual buildings, and more than 20 small-scale design idea competitions. Neidhardt maintained that the 'dictionary' of Bosnian Oriental design principles underwrote all his architectural propositions, regardless of differences in the scale, context and typology of the projects.

The unlikely alliance: architectural writing as a carrier of a political vision

While the desire to incorporate a social agenda had underpinned their work since the very start of their collaboration, it was only in 1947 that Grabrijan openly acknowledged the political potential of their architectural work. In a letter to Neidhardt he wrote, 'The more I think about Tito's search for "our architecture" the more it becomes clear to me that our path to local architecture via the modern is very fortunate!'[16]

Despite the expectations set by the Communist in their early years of government to resolve the national tension, by mid 1950s Bosnia was still missing a coherent vision of its unique identity. Bosnia and Hercegovina was one of the six a republic of the Socialist Federative Republic of Yugoslavia that included, Serbia, Croatia, Slovenia, Macedonia, Monte Negro and Bosnia and Hercegovina.[17] Bosnia and Hercegovina was the only one with no majority nationality or national name. Furthermore the constitution officially recognised five Yugoslav nationalities: Serbs, Croats, Slovenes, Macedonians and Montenegrians. Bosnian Muslims were not included, for the official party believed Muslims were a separate group, without a national identity.

In this political context the interplay between the cultural and national identities of Bosnia was particularly important. The mixed cultural and religious heritage of Bosnia simultaneously represented a secular, modern Yugoslavia and a uniquely Bosnian regional identity. Despite the potential to construct a new identity being embedded in the Communist government's early declaration that Bosnia and Hercegovina belongs to 'neither Muslims, Serbs, or Croats, but [belongs] to all Muslims, Serbs and Croats',[18] the government was unable to find a balance between the three constituent ethnicities.

The construction of identity, Stephen Hall has argued, relies upon the notions of agency and politics. This 'agency' Hall argues, requires the rearticulation of the relationship between subjects and discursive practices bringing forward the 'question of identification'. [19] The concept of identification, Hall argues is

> constructed on the back of a recognition of some common origin and or shared characteristics with another person or group, or with an ideal, and with the natural closure of solidarity and allegiance established on this foundation.[20]

Grabrijan and Neidhardt's book offered to articulate the common origin of Bosnia, identify shared characteristics that went beyond the ethnic and national and offered foundations of common allegiance. The book focused on the historical and political issues particular to Bosnia. It presents the authors' views on questions regarding the origin of the Bosnian population, Muslims in particular, and the value of Baščaršija's heritage. All of these issues were pertinent to the growing search for a unique socialist Bosnian identity.

Grabrijan and Neidhardt's questioning of Muslim origins problematised rather than confirmed the nation-state model as the only way by which communities can be structured. Their argument sought alternative factors that could define a national bond: 'Only Europeans look for totality and classify an individual by the sum total of religion, nationality and extraction [heritage].'[21] And it was for that reason that 'Europe had so many difficulties' with the Islamic world.[22] Unable to comprehend the 'non-European' way of thinking about a nation, foreign rulers of Bosnia, they argued, misinterpreted the Muslims of Bosnia and perceived them always as 'somebody else'.[23] The Austrians, they stated, identified 'them with the Turks, the Kingdom of Yugoslavia found them to be Serbs, and Croatia to be Croats, etc.'[24] Presenting Bosnian identity within a long history of misconceptions and misunderstandings, Grabrijan and Neidhardt acknowledged the transient and changing nature of identity formation. They also challenged the government's lack of capacity to finally resolve the issue, and resist and overcome nationalist pressures.

Grabrijan and Neidhardt perceived the socialist government's ongoing changes to the classification of the Muslim community as new grounds upon which the concept of a nation could be established. No longer was identity defined by a framework of national, ethnic or religious belonging, but it could be assembled, albeit within given limitations, and constructed upon one's own choosing. Neidhardt stated that the interpretative and personal nature of such a process helped him to discover his own identity; he claimed to be 'Croatian by birth and Bosnian by choice'.[25] He encouraged his students to combine the various traditions of Bosnia into a new experience, promoting collective gatherings to celebrate various religious and cultural holidays. These varied from early morning gatherings of *uranak*, associated with Morning Prayer for Muslims, to the celebration of Vidovdan Day, a special day in the Serb calendar.[26] This rethinking of the nationalist paradigm provided for a more sympathetic and nuanced interpretation of not only the origins of Muslims, but also

their place in the new Bosnian society. Once the collective identity of Bosnia was constructed and articulated in writing, the architectural expression promoted in the book could be its visual representation.

Showcasing the uniqueness of the local condition

Bosnian Oriental, Neidhardt frequently stated, would become like 'French, Nordic [Scandinavian], Brazilian and American architecture', in that each 'contribute[s] to the world architecture'.[27] Neidhardt's drawings, such as the one titled 'From old to new pyramid' (Figure 2), presented Bosnian artistic achievements on equal standing to those of the rest of the world. The drawing represents the 'five millenniums', or human architectural achievements and developments, with Bosnia represented by Ali-Paša's Mosque [no. 12 in Figure]. Sarajevo's mosque appears alongside the world's major historic monuments such as the pyramids (no. 1) and Parthenon (no. 2), and more contemporary achievements such as Sydney Opera House (no. 22). This presented Muslim architectural heritage as a valuable contribution to collective Yugoslav and Bosnian culture.

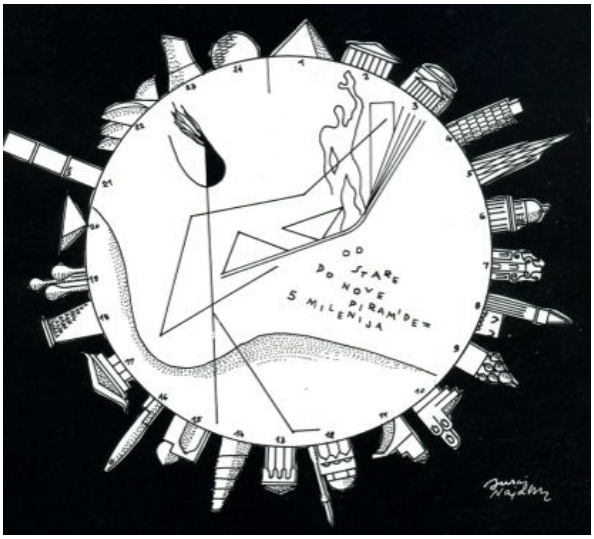

Figure 2. Illustration titled 'From old to new pyramid 5 millenniums'. (Source: Kapetanović, 'The architectural work of Juraj Neidhardt', (PhD thesis, University of Sarajevo, 1988), 464.)

The drawing titled 'Urban and architectural analysis' depicted Bosnia geographically in the middle of Yugoslavia, cut in two with a line representing the religious schism of Christianity and Islam (Figure 3). The 'western' side was defined by the rational principles of regularity, symmetry, 'rigid planning' and 'corridor-like' streets; the 'eastern' side by irregularity, fluidity, organic planning and intimate spaces. Bosnia, with its 'in-between' position, was shown as capable of negotiating all differences.

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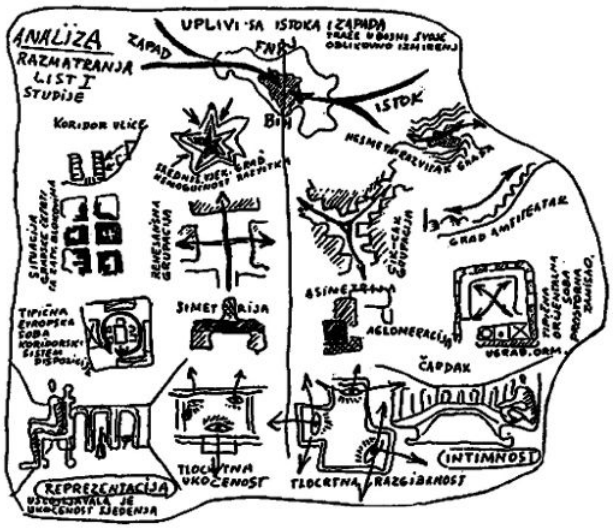

Figure 3. Bosnia as a place of negotiations, 'Urban and architectural analysis'. (Source: Grabrijan & Neidhardt, *Architecture of Bosnia and the Way Towards Modernity* (Ljubljana: Ljudska Pravica, 1957), 322.)

The authors' faith in the capacity of Bosnia to accommodate and mediate various changes was reflected in the drawing titled 'Three conceptions of forming the room' (Figure 4). Its depiction of a mosque's spatial transformation into a church and then a monument to Lenin implied Bosnia's ability to negotiate significant ideological transformations. The final transformation, represented in a monument to Lenin, accommodated the positive values of the two previous transformations, namely the 'unity of spatial organisation of a church' with the 'human scale' of a mosque. The drawing confirmed the importance of communist ideology to Neidhardt's work, as well as his commitment to the secularisation of socialist Yugoslavia.

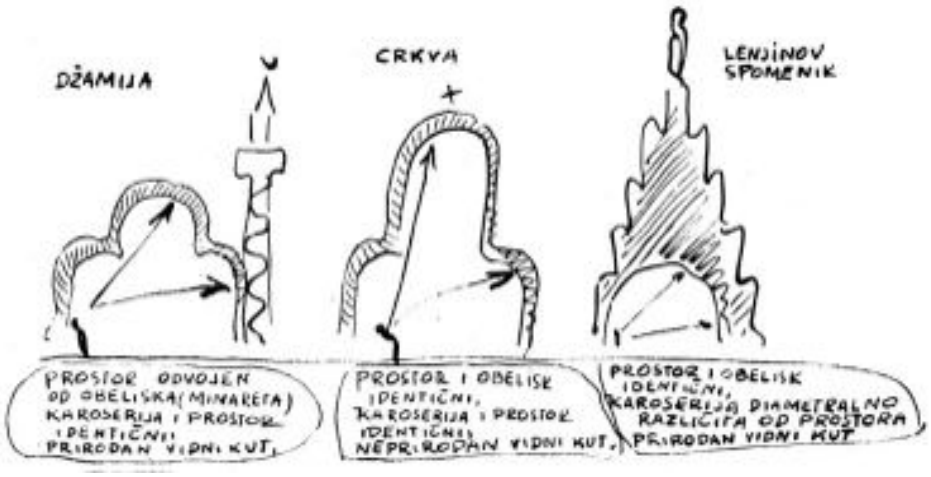

Figure 4. Mosque, church and the monument to Lenin. (Source: Grabrijan & Neidhardt, *Architecture of Bosnia and the Way Towards Modernity*, (Ljubljana: Ljudska Pravica, 1957), 238.)

Grabrijan and Neidhardt's contribution started to gain public recognition. Their work no longer addressed the local audience but aimed at showcasing to the world the cultural capacities of Bosnia. When, in the 1950s, Bosnia began to occupy a special locus in the emerging 'Non Alliance' movement Tito was developing, the Muslim representatives played a significant role.[28] In an organisation that included many Muslims from India and North Africa, Tito's ability to have a delegation made up of local Muslims was a benefit. It was not considered relevant that the Muslims Tito sent as representatives to various forums were often Communist Party members who had largely abandoned their religion during the internal secularisation project. With the small 'm' muslim sense of religious belonging marginalised, the big 'M' Muslim identity that was previously seen as an obstacle to genuine participation in the development of a Bosnian nation was considered an asset.

Grabrijan and Neidhardt, perceived their work as integral to the advancement of modern society and its artistic expression. The grounding of contemporary works upon the old fabric of Bašcaršija, they argued, advanced the Marxist 'dialectical position', which promoted the identification and separation of 'positive from negative values'.[29] Presenting Marx's concept of history as a record of an ongoing and ever-improving human development, allowed them to argue that the urban fabric of Baščaršija was cleansed of religious associations by the passage of time.[30]

Grabrijan and Neidhardt's views echoed the vision of Bosnia as a multicultural, secular yet formally national culture. In 1950, the Society of Architects of Yugoslavia selected Neidhardt's work for inclusion in the International Union of Architects (UIA) exhibition held in Rabat, Morocco.[31] In applying the Bosnian Oriental formulas to the development of the 'design idea' for his numerous design projects, the meaning and significance attached to traditional buildings was fully transformed. Bosnian Ottoman history was no longer placed in the distant and controversial past, but was seen as a powerful tool to create anew.

A political vision materialised in words and architectural works

By the 1950s Neidhardt's design projects were starting to materialise, and were publicly promoted in professional papers. In 1953, Neidhardt commenced his involvement with the large urban development of the new Grbavica residential suburbs. These urban proposals formed part of the Yugoslav display at the World Fair in Brussels in 1958.[32] The 'selection of Neidhardt's work in the artistic representation of Yugoslavia evidenced a significant recognition of his achievements that had gone unnoticed for many years prior', commented Neven Segvić in his article 'The creative forces in the architecture of FRY [Federative Republic of Yugoslavia]'.[33] Published in a professional journal of the branch of the Society of

Architects and Engineers of Yugoslavia, the article marked a public rehabilitation of Neidhardt's architectural approach.[34] It also made an impact on his academic career.

In 1952, Neidhardt's academic career started with his appointment to a lecturer position at the newly founded Architectural Faculty in Sarajevo. In 1953, he was promoted to associate professor, and in 1962 became a full professor at the same institution. A series of high socialist awards followed: in 1959–60, Neidhardt received Orden Rada (Medal of the Work), a significant award; in 1963, he became a member of the Academy of Art and Science of Yugoslavia (art section); in 1964, he was a recipient of the prestigious socialist 27th July Award; and in 1965 a recipient of the City Award for his work on Sarajevo. While it is not feasible to list the numerous articles in daily and professional journals that were published throughout Neidhardt's career, it is worth mentioning that he initiated a publication series on Bosnian heritage, which received significant attention. The series included *Naše Starine* (Our Heritage) and *Slovo Gorčina* (The Gorčin Letter), which promoted the relevance of Islamic cultural heritage and the mediaeval past, respectively, for modern Bosnian culture.

Personally, Neidhardt revelled in his newly discovered popularity and his ability to publicly present his views. His unconventional teaching methods led to interaction with students that was not common at the time. When in November 1954 Neidhardt presented his work at the Second Conference of Students of Architecture of Yugoslavia under the title 'Directions in national architecture – studio work as the most contemporary way of studying architecture', the audience showed great enthusiasm. A review of the event noted that he received 'Long standing ovations and many positive comments', followed by 'tears and words of support from other academics and students alike.'[35]

The popularity and the growing political support for Neidhardt's approach did not, however, directly translate into uniform professional support. Particularly prominent in his criticism was Ivan Štraus, a high-profile Bosnian architect and architectural critic from Sarajevo, who argued that Neidhardt's reliance on 'the traditional' reflected an 'uncritical promotion of regionalism.'[36] Štraus argued that by following an approach based on principles of the 'Bosnian Oriental' Neidhardt and his followers negated the creative power of the individual designer and would ultimately derail work 'from the creative path.'[37] Neidhardt's own resistance to the broader influences of the world's architectural trends, Štraus wrote, made his approach 'self referential' and not open to the technological and theoretical challenges of contemporary modern architecture.

Searching in his own practice for global values of modern architecture, Štraus remained a lasting critic of Neidhardt's focus on traditional and local values. Neidhardt's 'mannerism', Štraus wrote, became accessible to 'any individual with any technical education' willing to promote a language of the 'Bosnian Oriental'.[38] Clearly not supportive of such an approach, Štraus commented that the buildings designed to adhere to the application of the 'Bosnian pole of modern architecture' [Bosnian Oriental] became visual reminders of the 'formalistic approach to design'.[39] Štraus believed that Neidhardt's discussion of the 'language of Bosnian Oriental' stylised the architectural expression to the point that dampened rather than enlightened the modern debate. Similar criticism was addressed to the architects who at the time promoted and supported Neidhardt's design approach.

In his numerous academic and civic roles, Neidhardt perceived his work at the interface between design and national narrative-making. His images of the Bosnian landscape presented new ways of mapping the terrain and towns of Bosnia. The drawings connected the old towns, mostly those of Ottoman origins such as Počitelj and Mostar, in a way that disregarded both their real scale and context. The trajectories in the drawings connected places of tourist interest to those of historical relevance. The approach aimed at highlighting Bosnian cultural diversity, as well as the interconnectedness of the community. The territorial containment of the maps, within the geographical boundaries that resisted national divisions, visually confirmed Neidhardt's belief in the importance of the territorial integrity of Bosnia. Together the geography and the material culture established the boundaries of a new nation of Bosnians, and the book presented Bosnians as the people united by land and common culture.

Ultimately Grabrijan and Neidhardt's conflation of ethnic identity and religious meaning reflected their ambivalence about culturally specific architecture in general and Bosnian national identity in particular. The significance assigned to the old fabric in creating the new, however, demonstrated their genuine interest in connecting Ottoman heritage to the specifics of Bosnian identity debates. In 2001, in the aftermath of the 1992–96 Bosnian war, the Academy of Science and Arts of Bosnia and Hercegovina organised an event to celebrate the centenary of Neidhardt's birth. The significance of this event and the high profiles of the organisers and participants were a testament to a lasting impact of Neidhardt's ideas and work in Bosnia.

Endnotes

[1] Dušan Grabrijan and Juraj Neidhardt, *Architecture of Bosnia and the Way Towards Modernity*,

(Ljubljana: Ljudska Pravica, 1957). It appears that the book was ready for publication as early as 1953.
[2] Amila Buturović, 'Producing and annihilating the ethos of Bosnian Islam', *Cultural Survival Quarterly*, Summer (1995), 29–33.
[3] Grabrijan & Neidhardt, *Architecture of Bosnia and the Way Towards Modernity*, 11.
[4] It is important to note that the two forces did not have the same power or representation in the political arena of former Yugoslavia. Socialist Yugoslavia was a one-party political system, headed by the Communist Party of Yugoslavia.
[5] Maria Todorova, 'The Ottoman legacy in the Balkans', in Carl Brown (ed.), *Imperial Legacy, The Ottoman Imprint on the Balkans and the Middle East* (New York: Columbia University Press, 1996), 45-77.
[6] Todorova, 'The Ottoman legacy in the Balkans', 45-77.
[7] Stuart Hall, 'Who needs 'identity'? in Stuart Hall & Paul Du Gay (eds.), *Questions of Cultural Identity* (London: Sage, 1996), 4.
[8] The 'unwritten laws' included various local/vernacular building practices.
[9] Grabrijan & Neidhardt, *Architecture of Bosnia and the Way Towards Modernity*, 14-15.
[10] Alija Bejtić, *Stara Sarajevska Carsija- jucer, danas i sutra*, [Old Sarajevo Charshiya - yesterday, today, tomorrow], Sarajevo, 1969, 61.
[11] Grabrijan 'Sarajevo se izgradjuje, Nekoliko polemičkih misli o urbanizaciji Sarajeva' [Thoughts and comments on the development of Sarajevo], originally published in *Jugoslovenski List*, Sarajevo, 11. 4. 1936; republished in Džemal Čelić, *Grabrijan i Sarajevo, Izabrani članci 1963- 42.* (Grabrijan and Sarajevo, Selected Articles 1963-42), Prilozi za istraživanje istorije Sarajeva, Godina III, Knjiga III, Muzej Grada Sarajeva, (Sarajevo: Svjetlost, 1970), 101-105.
[12] Čelić, *Grabrijan i Sarajevo,* 101–05.
[13] In the years 1936–37 Grabrijan published more than 20 papers.
[14] Dušan Grabrijan, 'Misli o Naši Dediščini v Zvezi z Referati s Posveta, Arhitektov v Dubrovniku', *Slovenski Etnograf*, no. 5, 1952, 101-106; originally presented as 'O naši orientalski in sodobni hiši, at a symposium on historic heritage of Yugoslavia, Dubrovnik, 1950.
[15] Dušan Grabrijan's premature death in 1952 left Neidhardt to be the public promoter of their common agenda.
[16] Letter dated 8 June 1947, cited in Jelica Kapetanović, 'The architectural work of Juraj Neidhardt', (PhD thesis, University of Sarajevo, 1988), 297.
[17] The new territorial borders closely corresponded to the historic units brought together in 1918 to form the Kingdom of the Serbs, Croats and Slovenes. Malcolm, *Bosnia – A Short History*.
[18] The 1943 declaration by The National Anti-Fascist Council of the People's Liberation of Bosnia and Herzegovina (ZAVNOBiH).
[19] Hall, 'Who needs Identity?', 2.
[20] Hall, 'Who needs Identity?', 2.
[21] Grabrijan & Neidhardt, *Architecture of Bosnia and the Way Towards Modernity*, 23.
[22] Grabrijan & Neidhardt, *Architecture of Bosnia and the Way Towards Modernity*, 23.
[23] Grabrijan & Neidhardt, *Architecture of Bosnia and the Way Towards Modernity*, 23.
[24] Grabrijan & Neidhardt, *Architecture of Bosnia and the Way Towards Modernity*, 23.
[25] Kapetanović, 'The architectural work of Juraj Neidhardt', 239.
[26] Vidovdan or St Vitus' Day is a religious holiday observed on 28 June. Vidovdan is also a date of historical importance, marking Serbia's battle against the Ottomans, as well as the assassination of the Austro–Hungarian crown prince Archduke Franz Ferdinand of Austria, which triggered World War One among the most significant events. Jelica Kapetanović, 'The architectural work of Juraj Neidhardt', 324–26.
[27] Neidhardt, 'Putevi nacionalne arhitekture' [Paths to national architecture], *Naši Dani*, November, 1954, 5.
[28] Since 1955 Tito promoted this new movement, in which being a Muslim was considered beneficial.
[29] Grabrijan & Neidhardt, *Architecture of Bosnia and the Way Towards Modernity*, 11.
[30] Grabrijan & Neidhardt, *Architecture of Bosnia and the Way Towards Modernity*, 11.
[31] Neidhardt's work was selected to represent the country where all republics of Yugoslavia presented their work. The exhibition brochure showed geography, people, folklore, traditional architecture, and historic parts of Yugoslavia, and included a selection of modern buildings, among which were some of Neidhardt's.
[32] The Brussels World Fair (Expo 58) was held from 17 April to 19 October 1958. It was the first major World Fair after World War Two.

[33] Neven Šegvić, 'Stvaralačke komponente arhitekture FNRJ', *Urbanizam/Arhitektura*, nos. 5–6, 1950, 5–40; cited in Kapetanović, 'The architectural work of Juraj Neidhardt', 309.
[34] Kapetanović, 'The architectural work of Juraj Neidhardt', 310.
[35] Neidhardt, 'Putevi nacionalne arhitekture', p. 5.
[36] Ivan Štraus, *15 Godina Bosanskohercegovačke Arhitekture* [Fifteen Years of Bosnia & Hercegovina's Architecture] (Sarajevo: Svjetlost, 1987), 26.
[37] Štraus, *15 Godina Bosanskohercegovačke Arhitekture,* 26.
[38] Štraus, *Nova Bosanskohercegovačka Arhitektura 1945–1975* [The New Architecture of Bosnia and Hercegovina 1945–1975], Svjetlost OOUR Izdavačka Djelatnost, Sarajevo, 1977, 26.
[39] Štraus, *15 Godina Bosanskohercegovačke Arhitekture 1970–1985*, 26.

Pugin's Tasmanian Adventure: An Appreciation

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Abstract

The old Shorter Oxford Dictionary defines 'adventure' as 'a novel or exciting incident'. And this neatly encapsulates both the nature of Pugin's involvement in Tasmania as well as his reaction to the possibilities opened up by his works there. The appointment in 1842 of Pugin's close friend Robert William Willson as the first Catholic Bishop of Hobart Town signalled the start of a unique partnership with arguably the one person who fully subscribed to his vision and intended to implement it, entailing the design of churches and a multitude of items such as furniture, metalwork, textiles, headstones and churchyard crosses. Based on their utopian views of late-medieval English society, this would, they believed, contribute to improving the social and spiritual conditions in a wild antipodean extension of England. The perceived lack of craft skills in Tasmania led Pugin to adopt strategies and techniques for his buildings which would be unique in his career.

Introduction

On 2 September 1848 the English newspaper *The Tablet* published an impassioned letter from Augustus Welby Northmore Pugin (1812-52) defending *inter alia* the installation of rood screens in Catholic churches.[1] He noted with satisfaction that:

> England is, indeed, awakened to a sense of her ancient glory, and the reverence for things speedily passes on to the men and principles which produced them. But why do I say England,—Europe, Christendom is aroused; wherever I travel. I meet pious and learned ecclesiastics and laymen all breathing the same sentiments regarding mediaeval art, and more than one Bishop has departed across the ocean to the antipodes, carrying the seeds of Christian design to grow and flourish in the New World, and soon the solemn chancels and cross-crowned spires will arise, the last object which the mariner will behold on the shores of the Pacific till their venerable originals greet his glad view on England's shores.

The bishops to whom he was referring were John Bede Polding OSB (1794-1877), first Archbishop of Sydney, and Robert William Willson (1794-1866), first Bishop of Hobart Town. But whereas Polding would acquire church designs, furnishings and so on in much the same way as did Pugin's English and Irish clients, Willson's involvement would be a unique adventure involving two men who fully shared a vision and intended to implement it 'at the uttermost end of the earth'.[2]

The Pugin and Willson families had been closely associated from Pugin's childhood.[3] When, as priest in charge of the Nottingham Catholic mission, Willson needed a substantially larger church to accommodate his burgeoning flock it was Pugin who designed for him St Barnabas' Church (1840-44), the largest Catholic church to be erected in England since the Reformation. In 1850, upon the re-establishment of the Catholic hierarchy, it would become the cathedral church of the new Diocese of Nottingham. During his time in Nottingham Willson had distinguished himself though his unceasing labours for the physically and mentally ill irrespective of creed, so his nomination in 1842 for the newly-established see of Hobart Town encompassing the whole of Van Diemen's Land (later Tasmania), which was in effect an island prison, was both appropriate and providential. In later years Willson would recall with fondness how upon hearing the news of his nomination: 'Poor Pugin … rubbed his hands, and smiling, said with great energy: "only think, the right thing will find its way at the antipodes"!'[4]

Pugin's understanding of 'the right thing' was not merely the construction of buildings in the Gothic style. This was for him simply one consequence of a much more fundamental social and religious vision which, it would be fair to say, no other architect follower would embrace in its radical totality. But in Willson there was a man who did fully subscribe to Pugin's vision and intended to make it a reality in the antipodean extension of England to which he had been appointed.

The wellspring of Pugin's works

Pugin converted to Catholicism in 1835. Fifteen years later he wrote:

> I gained my knowledge of the ancient faith beneath the vaults of a Lincoln or a Westminster, and I found it indelibly marked in the venerable piles which cover the face of this land. … Inexperienced in the sad realities of the times, unmindful of the ravages which three centuries of paganism, infidelity, heresy and indifference, had wrought even on the mighty and imperishable fabric of Christ's Church, I indulged in a sort of Catholic utopia. From the period that the doctrines

> of the old religion were developed to my mind, from the circumstances above mentioned, I never entertained the least doubt of their truth …[5]

The consequences, Pugin believed, of these 'three centuries of paganism, infidelity, heresy and indifference' were pungently illustrated in his 1836 work *Contrasts*, which he self-published, and elaborated in an expanded second edition of 1841.[6] In pairs of cartoon-like illustrations he contrasted the medieval with his own century. And while some of these pairings dealt with building types and furnishings, several revealed a significant conclusion of his regarding the social, spiritual and moral fabric of the respective periods. Typical of the latter was his comparison of public conduits (Figure 1). Water is freely available to those in need in Pugin's medieval scene, whereas in the contemporary scene the small boy approaching the padlocked and clearly disused conduit is threatened by a policeman. He wants to drive home the message that the treatment of the needy in his own time stems from the decay of religion and its concomitant social impact

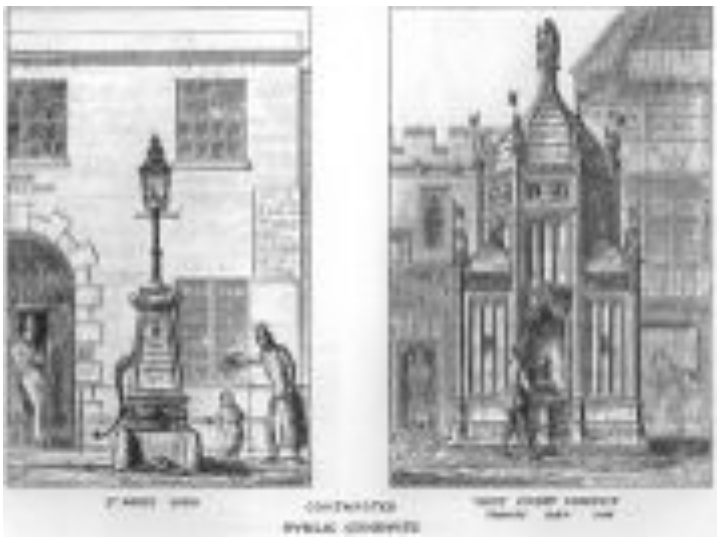

Figure 1. Contrasted public conduits (A. Welby Pugin, *Contrasts* (Salisbury, 1836), plate 12).

For Pugin, the inescapable conclusion was that in order to radically improve the conditions of his age he must strive, by designing buildings of all kinds and their furnishings, to reconstruct the entire physical—and hence, social, liturgical and spiritual—fabric of the English late Middle Ages. And for him it was not negotiable. The engine which powered the extraordinary output of his short professional career was thus essentially a social vision rather than an aesthetic or a rationalist one, as in the case of Ruskin and Viollet-le-Duc respectively. As he put it in 1848:

> … architecture is the barometer of faith; it is not the arch, the pinnacle, the pillar, that profiteth, but the spirit which produces them; and the revival or decline of true Ecclesiastical architecture is commensurate with that of the true faith. It is for these reasons that we labour for its restoration and not as a mere abstract question of art.[7]

In order to translate this vision into reality he had to revive all the medieval crafts, many of which had fallen into desuetude in the train of the Reformation. Thus, he recalled in 1850:

> It should be remembered that the whole restoration has been a series of experiments, everything had to be created from the employer to the artisan. After three centuries of neglect, and the loss of the ancient traditions, and of the very means employed by the old artists, it was no easy matter to reproduce their skilful works in all their variety. … in metal work such was the difficulty in procuring operatives, that I was compelled for the first altar lamp I ever produced, to employ an old German, who made jelly moulds for pastry cooks, as the only person who understood beating up copper to the old forms.[8]

To achieve this goal he built up an impressive relationship with a number of industrial collaborators, including: John Hardman of Birmingham for metalwork and, from 1845, stained glass; Herbert Minton for ceramics; John Gregory Crace for soft furnishings; and, pivotally, for his buildings and wood and stone-carving, the builder George Myers. If his goal was to be universally applicable it needed to be affordable, even if this necessitated employing the most up-to-date industrial manufacturing techniques such as steam-powered presses, electro-deposition and the like. His was no romantic medievalism—the vital end would justify any means of achieving it.

> In matters purely mechanical, the Christian architect should gladly avail himself of those improvements and increased facilities that are suggested from time to time. The steam engine is a most valuable power for sawing, raising, and cleansing stone, timber and other materials. … By saving and expedition in these matters, there would be more funds and a greater amount of manual labour to expend on enrichments and variety of detail. … *It is only when mechanical invention intrudes on the confines of art, and tends to subvert the principles which it should advance, that it becomes objectionable* [Pugin's emphasis].[9]

Pugin's normal design method

For his architectural designs Pugin worked entirely on his own, producing all the drawings with no assistance.[10] His contemporaries generally had practices, some of considerable size, with architects, draftsmen and improvers to undertake much of the workload, but Pugin was able, in around fifteen years, single-handedly to achieve a huge output of thousands of design drawings for his English buildings and furnishings, then have them executed in accordance with both the spirit and letter of his intentions because of the symbiotic relationship he had with his builder George Myers. His drawings were frequently little more than sketches, but Myers and his men, assisted in their production of 'the right thing' by fragments of medieval stone and wood carvings which Pugin had collected on his many travels of sketching and discovery in England and on the Continent, could interpret and execute exactly as Pugin desired. This modus operandi is well illustrated by details from the unexecuted 1845 drawings for a church at St Peter Port, Guernsey (Figures 2 through 4).

Figure 2. Plans for a church in St Peter Port, Guernsey, west elevation, nave window. **Figure 3.** Ditto, gable cross detail. **Figure 4.** Ditto, detail of method of fixing lead ridging to roof. (St John's College, University of Sydney).

The nave west window detail (Figure 2), drawn at a scale of an eighth of an inch to the foot, is not accompanied by moulding profiles, leaving the execution entirely to the builder to interpret. A gable cross detail (Figure 3), at a scale of one and a half inches to the foot, shows a mere suggestion of the foliated terminations to the cross arms, relying for its proper execution on the skill and knowledge of the stone carver. On the set of four sheets comprising the complete working drawings only two details are given in which more information is supplied to the builder than he would normally be expected to understand and interpret. One of them (Figure 4) shows the method of fixing the lead ridging to the roof and is drawn one quarter full size with written details by Pugin.

This process was in good hands with Myers and his men, but not so for the execution of church plans sent by Pugin to Archbishop Polding of Sydney in 1842. One set of plans was used twice, at Berrima and Balmain. Moulding profiles differ markedly between the two buildings, resulting from a lack of moulding profiles coupled with the low state of knowledge of the style by the supervising architect William Munro and the respective builders.

The spectacular effectiveness and success of this relationship between Pugin, George Myers and his craftsmen is borne out by an exemplar headstone carved by Myers' men in 1847, one of a total of fifteen carved in limestone to Pugin designs in 1843 and 1847 for Bishop Willson, from which more than sixty local copies were carved by stonemasons across Tasmania. Pugin had made the design (Figure 5) originally c.1841-2 for a headstone for two children buried in Grand Coteau, Louisiana, but then had Myers' men make another from it (Figure 6) so as to keep costs down for Willson.

Figure 5. Pugin's headstone design c.1841-2 (Myers Family Trust).
Figure 6. The 1847 English limestone headstone (Brian Andrews).

This is the only limestone exemplar left in Tasmania. After just one local copy was made from it in 1880 by Hobart stonemason Bryan Molloy the exemplar itself was used in 1887, there being no prospect of further demand for copies.[11] Pugin's design, the crudest of sketches, portrays three groupings within a Flowing Decorated Gothic framework. At the top is a Calvary scene with St Mary and St John as busts within roundels; at lower left is St Henry II, Holy Roman Emperor, patron saint of the child kneeling at his feet; at lower right is St Elizabeth of Hungary, patron saint of the child kneeling at her feet. All this is merely suggested by rough lines, yet Myers' men produced from it the finely detailed and splendidly composed headstone in a 'correct' Flowing Decorated idiom. Such was the outcome of all

Pugin's multitude of sketchy architectural and other drawings dealt with by George Myers. How could this relationship and its fruits be brought to bear on Bishop Willson's needs for a complete diocese in a distant country?

Realising the Tasmanian vision

In order to realise churches for his Tasmanian adventure Pugin as always turned to Myers, but in a way which would be unique in their collaborative partnership. It is evident that Pugin and Willson had been given to understand that the competence required to interpret conventional architectural drawings and then the craft skills needed to construct buildings from them were lacking in Tasmania. This conclusion had most probably come about as a result of conversations in 1842 between Willson and Fr (later Archbishop) William Bernard Ullathorne OSB. Ullathorne had experience of Tasmania dating from the early 1830s and it was a rather bleak one, as evidenced from the dismissive tone about it in his memoirs.[12] Accordingly, Pugin designed three churches for Willson and supplied Myers with the drawings. Myers' craftsmen then constructed '3 *models of small churches* [Pugin's emphasis] all to take to pieces with the roofs & framed, simple buildings that can easily be erected'.[13] The three wooden models were clearly both highly detailed and accurate because it took Myers' men a total of forty-eight days to construct them.[14] They were likely to a scale of a half an inch to the foot, allowing for the accurate carving of details yet of a size manageable as cargo on the ship to Hobart Town. Even at this scale some details such as gable crosses and holy water stoups would be too small for accurate reading and reproduction by stone masons with the anticipated rudimentary level of skills. Therefore, Myers' craftsmen at Pugin's instructions carved full-size exemplars of such details in English limestone—three gable crosses, two holy water stoups, two sacrariums, two alphabets—and these accompanied the models to Hobart in 1844.

The first church (Figure 7 overleaf) to be constructed was copied from the smallest of the three models and erected in the village of Oatlands in Tasmania's Southern Midlands. Work did not start until 1850 because of the poverty of Willson's flock, over half of whom were convicts, and it was opened in 1851. Writing to an episcopal colleague in April 1850 Willson had remarked, 'I had the consolation to lay the first stone of a little church at Oatlands—mine will be a very humble building, still it will afford the means of accommodation to a flock for divine worship'.[15] The supervising architect was Frederick Hugh Thomas (1817-1885), an architectural draftsman in the employ of the Public Works Department, who 'moonlighted' for Willson, producing working drawings from the model.

St Paul's was Pugin's evocation of a small English medieval village church, fully conforming to his detailed exposition of what constituted 'a complete Catholic parish church for the due celebration of the divine office and the administration of the sacraments, both as regards architectural arrangement and furniture', as published in his 1841 *Dublin Review* article 'On the Present State of Ecclesiastical Architecture in England'.[16] This exposé determined the functional elements and liturgical arrangements from which the building's compositional form and furnishings followed. In decrying the principles of Classical architecture he had written of 'this great error,—*the plans of buildings are designed to suit the elevation, instead of the elevation being made subservient to the plan'* [Pugin's emphasis].'[17]

Figure 7. St Paul's Church, Oatlands, with its Pugin-designed churchyard cross c.1860s (Archdiocese of Hobart Archives).

The church was furnished for the English Use of Sarum, a late-medieval variant in non-essentials of the Roman Rite which prevailed throughout Western Christendom. Having originated in Salisbury (hence Sarum, the Latin name for that city) the Use had spread through the south of England, Scotland and Ireland by the eve of the English Reformation. St Paul's therefore had sedilia, or clergy seats, and a sacrarium[18] copied from an exemplar in the chancel south wall, as well as an Easter sepulchre in the chancel north wall, this latter furnishing being used for a ceremony entirely peculiar to the Sarum Use at Easter time. Standard candlesticks and a rood screen spanning the arch between the nave and chancel completed the Sarum furnishings.[19] Unless specifically prevented from so doing, Pugin always designed and furnished his English churches, and by extension his Australian churches, for the Use of Sarum. This was simply a logical consequence of his crusade to revive the entirety of English late-medieval social, spiritual and liturgical life. Bishop Willson was fully in agreement with this agenda and clearly intended to adopt the Sarum Use in his Tasmanian churches. He owned a rare Sarum missal, which he had purchased in 1847 not

as an antiquarian curiosity but for eventual use at the altar.[20] The rood screen, sedilia, Easter sepulchre and benches, the latter copied from a sample provided by Pugin in 1847, were constructed from Australian Cedar (*toona australis*) by Patrick Lynch, an Irish cabinetmaker who had arrived in Tasmania as a free settler having been engaged on Pugin's works for the Duke of Devonshire at Lismore Castle, County Waterford.

St Paul's was in a simple Early English idiom with the exception of the chancel east window which was Flowing Decorated in style. Pugin was no stickler for stylistic purity as many of his followers would be, and his use of the more elaborate Flowing Decorated was for reasons of propriety. By propriety he meant: 'that the external and internal appearance of an edifice should be illustrative of, and in accordance with, the purpose for which it is destined'.[21] In this case, the greater elaboration of the east window was a consequence of the chancel being, in Pugin's belief, the more solemn or sacred part of the edifice. This endowment of the architectural detail with symbolic meaning was also a consequence of one of his foundational principles, namely, that: 'In pure architecture the smallest detail should *have a meaning or serve a purpose* [Pugin's emphasis].'[22] The Oatlands setting was complete with a churchyard cross copied from a limestone exemplar. Pugin always included a cross in his churchyards, noting that it was 'customary [in the Middle Ages] to erect a stone cross, raised on steps, on the south-western side of the church to mark the hallowed ground',[23] and his Tasmanian churchyards were no exception.

The next church (Figure 8) to be copied from a model was St Patrick's, Jerusalem (later Colebrook), some thirty kilometres south of Oatlands, constructed between 1855 and 1857.

Figure 8. St Patrick's, Colebrook (Brian Andrews)

An aisled and clerestoried building in the Decorated Gothic style with a triple bellcote astride its nave east gable, a relatively deep separately-expressed chancel and an antipodean north porch, it was compositionally unique in Pugin's entire church *oeuvre*. Its sacristy in the angle between the south aisle east wall and the chancel south wall had no external door, something that all Pugin's churches in England, Ireland and Australia other than Tasmania possessed, yet none of these latter ones did. Again, this was likely the result of advice from Ullathorne regarding the danger posed by escaped convicts. As for Oatlands, Frederick Thomas produced drawings from the model and supervised construction, while Patrick Lynch was the builder and maker of the Australian Cedar rood screen, sedilia and benches. The holy water stoup, sacrarium, gable crosses and churchyard cross were copied from Pugin-designed stone exemplars, as was the date of the building's commencement carved within a moulded blind triangle on the nave west gable. It was copied from one of the two alphabets designed for Willson's use on buildings.

Figure 9. The interior of St Patrick's, Colebrook (Brian Andrews).
Figure 10. A detail of the Colebrook chancel showing the sedilia, a Sarum Use standard candlestick, the sacrarium copied from exemplar stonework and the 2012 painted and gilded reredos built from a previously unexecuted Pugin design published in 1844 (Brian Andrews)

The building occupies a significant place in the history of nineteenth-century design being the most astringent, pared-back church he would ever create, relying on pure line and form for the harmony of its superb interior composition (Figure 9). It is a text-book in stone of his 'True Principles'. On a continuum of all his churches in terms of structural and decorative elaboration, St Giles', Cheadle, Staffordshire, regarded by some as England's finest nineteenth-century parish church, occupies one extreme and St Patrick's, Colebrook, with its almost Cistercian *dépouillement*, the other. The most radical aspect of this design is the nave

arcade whose columns have neither capitals nor bases, the plain chamfer of the arches continuing down to a pyramidal stop.

St Patrick's was opened on 21 January 1857 and drew much praise from the Tasmanian press. Its first pastor, Fr William Dunne, had anticipated this when he wrote to a priestly colleague in 1855, declaring, 'it will be the most beautiful church on the Island, and cost over £1500 cash. The style is Gothic—real Middle Age—and the site is admirable chosen.[24]

Delighted with his Colebrook church Fr Dunne decided to have Frederick Thomas adapt elements from the third church model as additions to St John the Evangelist's, Richmond (1836-7). This rectangular Gothick box had been constructed from 1835 plans by the Bath architect Henry Edmund Goodridge. They had been given in that year by the then Bishop Polding when visiting Van Diemen's Land (later Tasmania) en route to Sydney to take up his appointment as Vicar Apostolic of New Holland. Unfortunately, this model was the largest of the three and Thomas was no Pugin, so in grafting elements—chancel, sacristy, steeple—onto Goodridge's box which became the nave, the result was ungainly and faintly amusing. Nevertheless, there were recognisable Pugin elements such as the elegant Flowing Decorated chancel east window, the cedar sedilia, the gable crosses and the sacrarium, the latter two copied as before from exemplar stonework. And the adjoining cemetery received a Pugin churchyard cross.

Significant as these unique Pugin church designs were, they were but part of the complete Pugin and Willson vision for creating a new diocese on an island almost devoid of Catholic infrastructure. Indeed, when Bishop Willson arrived in 1844 there were just three Catholic churches on the island with a land mass almost as large as Ireland. To remedy this, as he explained to his clergy in October 1844:

> I … procured not less than 40 sets of vestments—linen of every description for several churches—such as albs, surplices, amices, Altar cloths, Chalice linen etc. common cloths … Crosses, Chalices, Ciboriums, Pixes (sic), holy oils stocks … a portable Altar for use of the Bp when travelling—and in order to introduce the proper church style in this distant land, I also procured a font rightly constructed and fitted which will serve as a model for all other churches, also stone picinas (sic), stone crosses, models of churches constructed on proper scales all by the great restorer of Church architecture and church furniture Mr. Pugin, together with a variety of things which I hope will tend & promote God's glory and your salvation.[25]

In their plan, the faithful in this outpost of the Empire would, even more comprehensively than their English Catholic counterparts, be baptised in a Pugin font and attend Mass celebrated in a Pugin-designed and furnished church by a priest wearing Pugin vestments and using Pugin altar vessels. Then at life's end they would be buried in the shadow of a Pugin churchyard cross, their final resting place marked by a Pugin headstone. And so it transpired, at least until the severe setback of Pugin's untimely death in 1852 at age forty put the full realisation of their vision beyond Willson's reach.

Conclusion

The two and a half little Pugin village churches in Tasmania with their important furnishings, churchyard crosses and headstones, all within a distance of less than 60km, represent the partial fulfilment of Pugin and Willson's vision for a far distant place where their social and spiritual ideals might be realised. This Pugin was only able to achieve by a radical approach to the realisation of his designs, making of these buildings a unique testament to his remarkable creativity.

Endnotes

[1] A. Welby Pugin, 'Catholic church architecture', *The Tablet*, vol. 9, no. 463 (2 September 1848), 563.
[2] *The Tablet*, vol. 5, no. 195 (3 February 1844), 69.
[3] The Pugin and Willson relationship is elaborated in Brian Andrews, *Creating a Gothic Paradise: Pugin at the Antipodes* (Hobart: Tasmanian Museum and Art Gallery, 2002) and Brian Andrews, 'Solemn Chancels and Cross Crowned Spires: Pugin's Antipodean Vision and its Implementation', in *Studies in Victorian Architecture & Design* (London: The Victorian Society, 2012), 4, forthcoming.
[4] Willson to Fitzpatrick, Shrove Tuesday [1859], Melbourne Diocesan Historical Commission.
[5] A. Welby Pugin, *Some Remarks on the Articles which have recently appeared in the "Rambler", relative to Ecclesiastical Architecture and Decoration* (London: Charles Dolman, 1850), 17-18.
[6] A. Welby Pugin, *Contrasts: or a parallel between the noble edifices of the Middle Ages, and the corresponding buildings of the present day; shewing the present decay of taste* (Salisbury, 1836). The work was so controversial that no publisher was prepared to handle it. The second edition was published in London by Charles Dolman.
[7] Pugin, 'Catholic church architecture', 563.
[8] Pugin, *Some Remarks*, 15.
[9] A. Welby Pugin, *An Apology for the Revival of Christian Architecture in England* (London: John Weale, 1843), 39-40.
[10] He had only one pupil, his future son-in-law John Hardman Powell who succeeded him as chief designer for Hardmans in 1852. Powell only worked on metalwork and glass designs under Pugin's critical eye and played no part in architectural work.
[11] As Willson had remarked in an 1863 letter to a clerical colleague in Rome: '*We have no rich Catholics in Tasmania* – literally so' [Willson's emphasis]. Willson to Dom Bernard Smith OSB, 22 December 1863, Archives of the Monastery of St Paul's Outside-the-Walls, Rome.
[12] See, for example, Ullathorne's description of the only Catholic chapel on the island in 1833, in Leo Madigan (ed.), *The Devil is a Jackass* (Leominster: Gracewing, 1995), 67-8.
[13] Pugin to the Earl of Shrewsbury, 30 January 1844, in Margaret Belcher (ed.), *The Collected Letters of A.W.N. Pugin* (Oxford: OUP, 2003), 2, 1843-1845, 161.

[14] Myers' calculation of the cost and time to manufacture the models is on the back of an incomplete list drawn up by Pugin and Myers in 1843 entitled 'Dr Willson things for Hobart Town Vandemansland (sic)', (Myers Family Trust).
[15] Willson to James Alipius Goold, St Mark's Day [25 April] 1850, Archdiocese of Hobart Archives, Willson Papers, CA.6/WIL.465.
[16] [A. Welby Pugin], 'On the Present State of Ecclesiastical Architecture in England', *Dublin Review*, 10, May 1841, 312-48. An exception was the south porch as constructed, for local reasons, rather than Pugin's antipodean north porch.
[17] A. Welby Pugin, *The True Principles of Pointed Architecture* (London: John Weale, 1841), 72.
[18] A stone basin with a drain, built into the south wall of the chancel near the altar, for the cleansing of the sacred vessels after Mass.
[19] A rood screen is an open partition between nave and chancel surmounted by a crucifix, or rood, and often with attendant figures of the Virgin Mary and St John the Evangelist.
[20] The missal was printed in 1527 by Christoffel van Ruremond in Antwerp and published in London by Franz Birkman.
[21] Pugin, *True Principles*, 50.
[22] Pugin, *True Principles*, 1.
[23] [Pugin], 'Present State', 316.
[24] Dunne to McEncroe, c.1855, quoted in John H. Cullen, 'Bishop Willson', *Australasian Catholic Record*, 30, 1, January 1953, 43.
[25] Draft of a speech by Bishop Willson on 'the state of church temporalities', Hobart, 23 October 1844, Archdiocese of Hobart Archives, Willson Papers, CA.6/WIL.12.

Imagined Histories:
The Polemics of the Katsura Detached Palace in the 20th Century

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Abstract

The villa built by the Hachijo family by the Katsura River in S.W. Kyoto in the early seventeenth century rose from relative obscurity in the Edo Period to a assume a position of iconic status in both Japan and internationally in the twentieth century. It was championed by architects and scholars alike as representing interpretations of Japanese culture which accorded with cultural social and political agendas beyond the sphere of building itself. Popular Japanese conceptions of the palace saw it as an idealized recreation of the world of Heian-kyo and the culture of the Heian aristocracy. European architects saw it as presaging the technical and aesthetic ideals of International architectural movement of the mid-war years
The actual origins of the palace and its builders lie in the complex political manoeuvrings of the late sixteenth century as Japan was re-united under the Toyotomi and then the Tokugawa families. It was built at time of rapid social change and in circumstances of conflicting aesthetic philosophies by two generations of the Hachijo family. Its remarkable unity has led to inaccurate understandings and attribution of the design of both buildings and garden. In response to European cultural condescension in the twentieth century, scholars including Okakura, Nitobe and Watsuji[1] sought to establish a theoretical basis for the appreciation of Japanese cultural achievement in terms of geographical and political circumstance. The Palace became part of this dialogue. While maintenance by the Japanese practice of kaitaishuri [2]has revealed the actual sequence and techniques of construction, debate about both its place in the Japanese architectural canon has continued to the present[3]. In Japan, Watsuji Tetsuro, Horiguchi Sutemi, Yoshida Tetsuro, Tange Kenzo and Naito Akira and Isozaki Arata have written widely ranging critiques, while Europeans including Taut and Gropius have also views which accord with their own viewpoints. The congruence of much of the debate with actuality as currently understood is tenuous. The building may thus be seen

as multiple idealizations of a non-existent past, as illusion and myth in the service of terms of national and international culture and myth building.

Introduction[4]

The Katsura Detached Palace has come to mean many things in differing contexts since its opening to the world beyond Japan in the twentieth century. For the average Japanese citizen, it still remains the apotheosis of Heian culture, a golden age of cultural splendour not since repeated. It is also a place to have one's photograph taken at least once. It represents the world of the Shining Prince of the Tale of Genji and at the same time as the greatest achievement of the culture of tea. For Japanese architects it has complex readings and has been used as a vehicle for polemics in seeking for an individual national style since the advent of International Modernism. For the wider world it has been seen as the forerunner of twentieth century modernism and the epitome of Japanese sophistication. All the readings generally ignore the complex world of seventeenth century Japan and the politics of a time of rapid change and cultural development, and mostly judge its achievement in terms of criteria which are not historically relevant and distort both the character of the building and its creators.

Bruno Taut: his views

Bruno Taut arrived as a refugee in Japan on 3rd May 1933 at the invitation of the Japan International Architectural Association of which he was an overseas representative[5]. Internationally he was prominent as both a theorist and a practitioner. He had built important projects in Germany and Russia, and was famous as an exponent of German Expressionism. Unable to remain in Russia and unable to return to Germany he accepted an invitation from the Japan Society for International Architecture to come to Japan for an extended period. On the 4th May, the day following his arrival he was taken to visit the palace at Katsura in Kyoto, which was closed to the public and relatively unknown outside Japan at the time. In 1937 he published the book *Houses and People of Japan* which brought him posthumous fame in Japan and in the wider world[6]. The book catalogues his three year stay in Japan and reaches some conclusions which were startling in their time. He detested the urban fabric of the cities of post 1868 Japan but eulogised the Shrines of Ise and the Katsura Detached Palace as pinnacles of architectural achievement which he considered on a plane with the Parthenon. Simultaneously he viewed the Tokugawa Mausoleum at Nikko, the Toshogu as the nadir of Japanese architecture, denigrating it as 'kitsch'[7]. The Shrines and the Palace were categorised as the art of the Imperial House, and contrasted with the Nikko buildings as the architecture of the Tokugawa Shogunate. In terms of time and place, Taut's

observations are astute despite a lack of awareness of the complexities of culture, time, authorship and aesthetic structures. While a certain element of opportunism can be suspected, the high praise accorded to national monuments by an eminent European architect was welcomed by his hosts and became an important element in the hard fought debate over a national style sought by an increasing nationalist government as the political situation which precipitated the Pacific War deepened.

Before Taut: Inoue and Kishida

In his diaries, Taut credited himself with the 'discovery' of the buildings at Katsura. While he was responsible for making them known abroad, their existence as a prominent place in Kyoto was well known from the Edo Period. Inoue[8] lists 102 selected guide books to the sights of Kyoto, the first in 1658 and extending to 1985. The first mention of the palace is in 1679. From 1895[9] onwards, with a few exceptions the palace is mentioned all guide books with a major peak in 1955[10]. In terms of twentieth century international interest, the Palace is not mentioned by Cram, Morse or Sadler[11].

While it was of interest to the educated public of the early twentieth century, Japanese architects of the period appear to have been indifferent to the building. Some, like Ito Chuta[12], disliked it. Ito was particularly critical of the tea room in the Shokintei[13]. In 1928 the Ministry of Finance ordered the preparation of measured drawings[14] and in the same year there was a call for the establishment of research into the building. Toyama Eisaku published research findings in the same year. More importantly, in 1929 Kishida Hideto, a professor of architecture at Tokyo University published a book *The Structure of the Past*[15]. The book, a collection of photographs of the architectural monuments of Japan showed a modernist sensibility in the depiction of the buildings. The book had a major influence on the emerging generation of architects including Horiguchi Sutemi, Sato Koichi, Hamaguchi Ryuichi, Yoshitake Yasumi and Tange Kenzo. The following year the Architectural Institute of Japan held an exhibition of photographs of the representative buildings of each historic period. The Palace was included.

The Palace had thus emerged from the obscurity of the past. However, Bruno Taut was not the first prominent western architect to see the building. Gustav Adolf Platz[16] had visited it and written of it in his book, Die Baukunst der Neuesten Zeit, proclaiming 'modern European architecture began with a study of the Japanese dwelling house.'[17] Horiguchi Sutemi was of the view that the reasons for the lack of Western appreciation of the building was due to the masonry tradition of Europe, and that understanding would come with the development of modernity in Europe itself with, the replacement of the wall by steel and concrete frames and the acceptability of asymmetrical composition.

It was into this milieu that Taut arrived to experience Japan at first hand and to face the varying agendas and varying interpretations of the Japanese architectural profession and the international architectural community.

Modernism in Japan in 1923-1945 and 1945-1960

The critical issue which faced the Japanese architectural profession in 1923 was the question of an appropriate style for Japanese contemporary architecture. Already eighty years had passed since Perry had forced his way into Tokyo Bay. A generation of architects had absorbed the architecture of colonial modernity and left an accomplished heritage of buildings across East Asia. The Great Kanto Earthquake had destroyed much of this building stock in the capital and new buildings were required at home and in Japan's colonial possessions. The quest for a 'National Style' became pressing as the national government became increasingly prescriptive in its requirements for public commissions.

Buildings for the imperial cult were built in traditional styles thought appropriate to each period. These included the major new shrines of the Heian Jingu, Meiji Jingu and Kashiwara Jingu. However, alternative models for emerging functions and building types were required. Following World War 1 the emerging movements in Europe were well understood in Japan. Yamada Mamoru and Horiguchi Sutemi, Ishimoto Kikuji and three fellow graduates from Tokyo University formed the Bunriha, modelled on the European Secession Movements[18]. Young Japanese architects travelled to Europe to meet the exemplars of emerging modernism to examine European modernity and its transmission and meaning in the Japanese context. The 1923 disaster was a critical Juncture for Japanese architects and the emerging ideas of international modernity. Prior to the earthquake there was a significant movement led by Yanagida Tetsuo to recover cultural heritage lost in the rush to rebuild the nation by the Meiji Government. The confident colonial modernity of Tokyo was lost in the destruction of the Meiji building stock in 1923 making way for the construction of new buildings in a variety of imported styles. These included the multiple strands of European and American modernity. The ongoing debate for a national style continued in the political context of the decade from 1930. The issue was essentially of style as an expression of pre-determined cultural stereotypes. It was implicit that modernity was defined as external concept set within the constraints of post WW I European modernity and the style of International Architecture in the interwar years.

The strands were complex. Horiguchi of the Bunriha sought an integration of the sukiya style with modernity. Yamada Mamoru and Yoshida Tetsuro as practitioners of a more direct trajectory of European modernity. Watsuji Tetsuro's writings on climate and housing and the development of a culturally unique tradition exemplified in the Katsura Palace sounded a

cautionary note to the importation of style as style and only Kon Wajiro sought a Japanese modernity which grew from the occupied spaces of daily life rather a prescribed language which signified traditional cultural values. Among the foreigners practising in Japan Antonin Raymond developed a language of international modernity, building for the entrepreneurial class of Japanese society. He welcomed Maekawa Kunio on his return from le Corbusier's studio in Paris and supported his efforts to bring the new architecture into the public sphere. However, ultimately the attempt at a nuanced international modernity was buried beneath the weight of the Imperial Style which became the official style for public buildings. Despite Taut's efforts to elevate the Katsura Palace to the status of national symbol, it was not to be a suitable pattern for a national style.

The debate was to continue following the conclusion of the Pacific War. Fujishima Gaijiro[19], as though to rectify an omission, published a study of the Palace in 1944 which generally followed Taut's views. However, by August 1945 the Imperial Style was discredited by association and International Modernity remained external to the Japanese situation under American occupation. It was not until 1947 when Yoshida Tetsuro's translation[20] of *Houses and People of Japan* was published that Taut's views were interpreted for a wider Japanese audience. The imperial cult had been dismantled and with it the national identity forged by the Meiji government. In the spiritual vacuum which ensued, the discovery of a ruined village dating from the third century on the plains outside Shizuoka[21] excited the imagination of the Japanese people, providing an alternative to the foundation myths on which the Empire had been based. It was a village based on rice culture as opposed to earlier hunter-gatherer societies[22] and comprised a loosely organised assembly of pit dwellings and one raised store house. The site was remarkably well preserved due to its burial by a sudden change in river course. The discovery of remains of the store house established beyond doubt the relationship between the ruins at Toro and the shrines at Ise.

In 1943 Tange Kenzo had made an entry in the competition for the Memorial to the Greater East Asia Co-Prosperity Sphere which included a major hall based on the *shinmei* style of the Ise Shrine. He had recently graduated from Tokyo University where he had studied with Kishida Hideto. He had followed this with an adaption of the *shinden* style mansion of the Heian Period in his entry in the competition for a Japanese Cultural Centre in Bangkok in 1944. His prize winning entry for the Hiroshima Peace Memorial was derived from the *azekura* style of the Shosoin of Todaiji. A number of subsequent buildings were also derived from archaeological materials[23], culminating the national Olympic Stadium in Tokyo. In the midst of his practice Tange was to publish two books, *Katsura* in 1960, and *Ise: Prototype of Japanese Architecture* in 1965. While the latter was a panegyric of Shrine architecture, the book on the Palace was a critique considered in terms of Jomon and Yayoi culture. Ishimoto

Yasuhiro's photographs of both the garden and building also emphasised the characteristics implicit in Tange's view of the complex[24]. While the Katsura Palace had been extolled prior to 1941 as the epitome of modernity, Tange was to reject the Palace in his quest to re-establish the roots of Japanese architecture elsewhere, specifically in the tradition of State Shinto, exchanging European modernity for an archaeological grounded reassessment of national and architectural identity. .

The genesis of the critique seems to be an essay by Shirai Seiichi, 'Jomon to iu Mono'[25] which extols the vigour and simplicity of a sixteenth century farmhouse. Tange was to use Shirai's term 'vitalism' for the development of an architecture based on Jomon and Yayoi roots centred on the Ise Shrines and the recently excavated Toro ruins, and to develop a critique of Katsura as decadent aestheticism and the architecture of dilettante nobleman. Tange's broader aim remained the quest for a Japanese style, generating his use of historic precedent as a design motif for his own architecture. However, polemics clouded the actuality of archaeological data. On scant evidence he made a misguided division of Japanese architecture into Jomon and Yayoi streams, characterising one as vital and plebeian, the other as effete and aristocratic. Using Taut's Greek analogy, the hunter-gatherer Jomon culture was thus Dionysian and the rice growing Yayoi culture was Apollonian[26]. Tange attempted to see Katsura as the result of tension between the elite and plebeian, the townsmen of sixteenth century Kyoto as the embodiment of the Jomon energy of pre-continental Japan set against the perception of Yayoi culture as expressive of aristocratic Heian Period balance and aestheticism. The garden and its stone arrangements were Jomon, and the building was Yayoi, and therefore decadent. The tea tradition evident was also criticised as effete and the tea of Sen no Rikyu's as an inadequate realisation of the life of the farmer and his environment. However, by 1960 Tange has an internationally known practice as the principal exponent of what was to become 'The Japan Style'. In his role as architectural spokesman for the nation his writing was in essence polemical to give theoretical substance to his archaeological delving and his use of the forms of early artefacts as a quarry for his own work.

In the international sphere Walter Gropius visited Japan for a three month period and published an extended paper in the Yale Architectural Review, *Perspecta*[27] in 1955. In many ways his reactions and perceptions covered much of the same ground as Taut. His reactions to the Palace revealed the same modernist prejudice, finding elements of the garden at the Shokintei and its chequerboard *fusuma* in doubtful taste in an otherwise elegant ensemble. Neither Taut nor Gropius attempted to look beyond the contemporary canons of style to consider the complex historical interactions which had created the buildings.

The Creation of Katsura: Toshihito and his Times

Prince Toshihito was born at a time when the fortunes of the Imperial House and its once great capital were at the nadir of their long history. The final attempt to assert imperial power had ended in failure.[28] Under the rule of the Ashikaga Shoguns the Emperors remained impotent as the military factions struggled to gain supremacy. Kyoto was ravaged by the Onin War of 1467–1477 and the city was a pale reflection of its former grandeur, reduced to a small sector of its former area in the eastern sector adjacent to the Kamo River. Unification began under Oda Nobunaga until his assassination in the Honnoji Incident of June 21, 1582[29]. Toyotomi Hideyoshi thus became ruler of the nation and moved his residence to Kyoto. He was a great builder with eight major urban foundations to his credit. Selectively ignoring the original plan of the city, he built a surrounding wall to the city, relocated the citizens by occupation and further subdivided the original grid to promote economic growth. He built his own palace, the Jurakudai on the site of the original Imperial Palace. He made provision for a specific walled sector for the nobility, restructured the commercial areas and permitted the early development of a pleasure quarters from 1575. The reconstruction required the forcible removal of court buildings from existing to new locations. The Imperial Palace was relocated to the site it now occupies.

The problem of succession and the Toyotomi family line was to dominate national politics until a final resolution in 1615. As Hideyoshi had no heir, the acquisition of an appropriate male successor was paramount in his mind. The future founder of the Hachijo house was born on the 1st July, 1579, as Kosamaru, the sixth son of Prince Sanetomo. His father died in 1596 at the age of 35 and the succession passed to his older brother, who acceded to the throne as the Goyozei Emperor. In 1588 at the age of 10, Kosamaru was adopted into the Toyotomi family as heir. A grant of 8000 koku was made to the Imperial Household and a personal income of 500 koku was given to the new adoptive son. However, in 1589, Hideyoshi's secondary wife Yodogimi gave birth to Tsurumatsu, the future Hideyori, and the adoption of Kosamaru was nullified. The affront of this arbitrary treatment of the Imperial House was ameliorated by the establishment of the collateral house of Hachijo and Kosamaru became the first head of the Hachijo family as Prince Toshihito with the substantial income of 3000 koku.

While the Court and the aristocracy were not directly threatened, political instability was endemic in the last years of Hideyoshi's regime, with two misguided invasions of the Korean Peninsula and constant internal rivalries. The emperor was of nervous disposition, and he sensed the coming struggle among the military for national supremacy . Two months after Hideyoshi's death he requested permission to abdicate the throne to his younger brother, a demand which was refused by Tokugawa Ieyasu. In 1600, the growing storm culminated in

the Battle of Sekigahara. The outcome determined the political structure of the country until 1868, and after 15 years of uncertainty the Toyotomi House was finally extinguished in 1615 in the Osaka Natsu-no-jin.

These were desperate times and despite the glow of an imagined past, Prince Toshihito lived through a highly turbulent period of Japanese politics from 1582 to 1615. Had his brother's request been successful, he would have become emperor. Political instability was accompanied by social fluidity where class distinctions were blurred and constantly evolving. He saw the establishment of his family in uncertain economic circumstances and political conditions. He lived and worked with all classes of society.. He was a courtier whose fortune was made by a peasant turned successful general, and although his older brother maintained a permanent hostility to the military class, and resented the impositions of the Tokugawa government[30], in his early life and career Toshihito maintained close relations with all levels of society. He was largely educated by the samurai class into which he also married, and was familiar with the major figures of the government. Although they were of the class of townsmen, he also mixed with the leading artistic figures of his day with whom he was on familiar terms.

The young prince's education was overseen by prominent members of the military class. Hosokawa Yusai was famous as a warrior, poet and tea master. Under the watchful eye of Tokugawa Ieyasu Toshihito was trained by Yusai in the classical school of poetry known as in the form of *waka*, and was to succeed him as the head of the School. Cordial relationships existed between the court, the Hachijo family and the Tokugawa Shoguns for the first three generations of both families[31]. Toshihito's son, Toshitada, married into the Maeda family, the wealthiest *daimyo* in the country, allowing the resources for continuing development of the Katsura Palace to its final form.

Although a nobleman of the highest rank, Toshihito was a man of letters whose genesis and relationships crossed the social boundaries of the Keicho Period. In matters of culture, a social fluidity existed which allowed social interaction across a wide range of the arts. In 1585 Toshihito's father, the Ogimachi Emperor had given the tea master Sen no Rikyu[32] his name and title to allow his participation in a tea ceremony at the Imperial Palace[33]. Toshihito's interests included tea, poetry and the fine arts, along with the other accomplishments required of his rank and he was familiar with the major figures in the Soan School of Tea[34]. Personal correspondence with major artistic figures including Tawaraya Sotatsu and Honami Koetsu[35] attests to the intimate relationships between both the Imperial

House, the Hachijo family and these artists. In terms of social position these men, as was Sen–no-Rikyu, were townsmen with whom the nobility were not permitted to associate.

The nobility were not immune from socially unsettled times. Among other issues, the discovery of affairs between two courtesans of the Emperor Goyozei with courtiers prompted the Tokugawa Government to act to control the activities of the nobility[36]. The court also sponsored performances of the emerging performance style of kabuki which was frowned upon by the Shogunate[37]. In addition to relocating the palace and associated mansions to a special walled quarter of the capital, regulations[38] for their conduct were issued in 1613. Following the Natsu-no-Jin in Osaka the government issued far more stringent controls in 1617[39] which severely restricted the upper class. The Emperor was formally denied any political role and was directed to engage in scholarly pursuits, the arts and sciences, in relatively impecunious circumstances under the surveillance of the Shogun's *metsuke* In the Nijo Castle. The Hachijo residence was located to the new quarter for the nobility, facing the Imadegawa Avenue. Kobori Enshu is known to have been associated with the removal and reconstruction process, and Toshihito is recorded as directing the construction of the garden. It has also been thought that the old Shoin of The Katsura Palace may have been relocated to the Katsura site in this process.

The particular circumstances of the capital as the residence of a politically powerless nobility and a class of highly gifted artisans who maintained the artistic traditions of the capital provided created inter-dependent character in the development of a culture of the nobility and the upper echelons of the townsmen characterised as Kanei Culture[40]. These Kyoto townsmen were craftsmen and suppliers of the financial and material needs of the nobility, and were responsible for the development of high levels of skills and artistry. The development of the *iemoto system*[41] was designed to preserve the artistic traditions of the capital which extended to the provinces and raw emerging culture of Edo. There emerged in the capital a class of townsmen who were educated, sophisticated and wealthy who depended on the nobility for patronage, and who in turn depended on for their personal and financial needs. .

Increasingly government restrictions designed to stem social fluidity by the enforcement of class distinctions through codification were instituted and were resented in the capital. The codes of conduct for the nobility of 1613 and 1617 were particularly onerous. A place of neutral ground to allow social intercourse was required where culture and affluence rather class defined right of access. In the Muromachi Period the shogun Ashikaga Yoshimitsu had permitted the first institutionalised pleasure quarters in the capital. In 1589 Toyotomi

Hideyoshi permitted the establishment of a similar area in the Nijo area[42] . In the Edo period, the quarters were moved to the Rokujo area, and finally to Shimabara in 1641. Despite an insistence on standards of public morality, the Tokugawa had pragmatic attitudes to sex and the regulation and establishment of brothels, due principally to the extreme imbalance of males and females in Edo in the early years of the seventeenth century caused by numbers of *ronin* and construction workers. However humble its beginnings, the same precinct in Edo developed into Yoshiwara, the place where the highest levels of style and fashion was arbitrated and purveyed to the waiting nation.

In the capital, Shimabara and its predecessors were places without social barriers where behind a subdued façade were interiors of elegance and refinement where standards of fashion and behaviour were set for society as a whole[43]. It was also a place where political intrigue could be anonymously hatched, and remains famous as a place where the revolutionaries of the Meiji Restoration planned for a post-Tokugawa Japan.

Sumiya remains as the principal representative of the establishments of Shimabara[44]. Its rooms and its garden with its pavilions and tea house are of the highest artistic standards. The internal garden is famous for its Seven Views[45], for its architectural ornaments and for the planting itself. In the garden is a famous pine tree, originally named *Garyumatsu*[46]. Of great age, the tree was included in a collection of prints of well known places in the capital.[47] It appears to have died and a replacement planted. In the possession of Sumiya is a poem of dedication, written by the Imperial Prince Arisugawa-no-miya, giving a new name to the famous tree, *Shunshugimi*[48]. Although dating from the eighteenth century, the dedication indicates the integrated character of society in the capital and the shared intellectual pursuits of its leading members. The pleasure quarters were thus the place of social interaction across the class system of the Tokugawa Government, and the place where canons of culture and style were set and purveyed to broader society. It was this milieu that Toshihito lived and developed the artistic pursuits which were to shape the Katsura Palace.

6 Genesis and Style

The main residence of the Hachijo family was moved twice, finally to the sector for the nobility. The reconstruction and the movement of their accommodation allowed Toshihito to engage at first hand in the landscape and architectural construction at the Imadegawa site[49]. The experience and the association with Kobori Enshu may have provided the impetus for the construction of the Palace.

It is not certain when the Katsura site came into the possession of the Hachijo family. In the southwest corner of the city, the site was thought to have been used as a retreat for the Fujiwara family in late Heian times. It had literary associations with the Tale of Genji and the

poet Li-Po. The estates granted to Toshihito on the establishment of the family were in the Tanba area of Honshu. The next documentation of the Hachijo estates is in 1617 when they were confirmed in the Katsura area by the third shogun Iemitsu. Whether a change was made in 1601 following Sekigahara[50] is not known.

The villa itself is built sequentially in the archaic form known as the *shoin* style.[51] Speculation regarding the authorship, construction sequence and construction system of the palace has continued from the death of Prince Toshitada, the second head of the Hachijo family. While suggested by Naito Akira in 1968, from the process of disassembly and reconstruction completed in 1982[52], it is now clear that the palace itself was built in three stages and that none of the buildings were relocated from other sites. The Old Shoin was constructed first followed by addition the New Shoin. The Old Shoin required substantial modification to achieve the junction. The third stage was the Musician's Gallery and the New Palace which was built in the newer Sukiya Style. The first two stages were built under Toshihito's direction and the New Palace by his son. While Kobori Enshu has been credited by posterity as the designer, time frames indicate that, while he had little to do with the construction of the first two stages of the building and the garden, he seems to have advised Toshitada on the third stage and extensions to the garden and its pavilions.

The question of the construction system revolved around the scale and the system of proportion employed in the building[53]. Although the buildings themselves are described as being of the *shoin* style, the characteristic style of the military class, the construction is lighter and more elegant than representative buildings of the style such as the Kojoin of Onjoji. Ota Hirotaro regarded the scale employed as that of the medieval dimensional system, *shin-shinsei*[54] while Tange Kenzo thought that it was of the Sukiya style[55]. Itoh Teiji also wrote on the problem. Akira Naito's analysis of dimensional systems reveals a transformation from the older dimensional system in the Old Shoin to the new in the New Palace. However, the 1982 reconstruction finally determined that the final construction method was the later Sukiya style. Based on Sen-no-Rikyu's concept of the teahouse, the style is of plebeian origin and forms the basis of contemporary domestic construction.

On the death of his father in 1629, Prince Toshitada became head of the Hachijo family. In 1645 he visited Edo to pay his respects to the third Shogun, Iemitsu and in the same year set out to visit the famous teahouses of the Kansai area, including those in Sakai associated with Sen-no-Rikyu. He married into the wealthy Maeda family in 1642 and enjoyed the favour of Iemitsu, both of which proved him with resources to complete the Katsura Palace. With the probable assistance of Kobori Enshu[56] Toshitada was to conclude his father's work by adding the third extension, the New Palace. The extension continued the reductive

elegance of the earlier sections, but added new decorative elements including the famed Katsura shelves. A formal tea room was added to the rear of Shokintei making an awkward but barely visible junction. The garden was completed and the area of the pond on the approach to the *Shokintei* was completed in accordance with principles set out in the *Sakuteiki*[57]*:*

In making the garden, you should first understand the overall principles:

1. According to the lay of the land, and depending on the aspect of the water landscape you should design each part of the garden tastefully, recalling your memories of how nature presented itself for each part
2. Study the examples of past works left by past masters and considering the desires of the owner of the garden, you should create a work of your own by the exercise of your tasteful senses.
3. Think over the famous places of scenic beauty throughout the land, and by making your own that which appeals to you most, design your garden with the mood of harmony, modelling after the general air of such places.[58]

The principle view of the garden from the Old Shoin recalled the gardens of the *shinden* mansion. However, the approach to the Shokintei with the recreation of Ama-no-Hashidate recalled the home of Toshitada's wife, and a now lost *soribashi*, the red-painted curved bridge required in a *shinden* mansion was built to make a more direct connection from the Old Shoin to the Shokintei. Despite the classical connections and the use of a boat to enjoy the scenery from the water, the garden was also a stroll garden of the type favoured by the military class. Incorporated into the garden was a *roji*, the 'dewy path' which was the required approach to a formal tea room, and the multiplicity of structured views recalled the seven famous views of the garden of Sumiya and earlier antecedents from the Muromachi period[59]. Locations of the pavilions to allow the enjoyment of the many aspects of the garden also recall references to famous literary works and locations in Japan and China. Kobori Enshu, famed as both tea master and garden designer, established his own tea tradition of *kirei sabi* [60] an aesthetic tradition known as *Enshu-konomi*, a mannerist version of the more severe taste of Rikyu. The description of the Palace as reflecting Enshu's taste gave rise to the legend that he was the designer, rather than the advisor to Prince Toshitada.

While the Palace reveals the multiple strands of tradition in its composition, it is the integrative character of Kanei culture which ties the separate elements into a cogent whole. It was the standards of taste set in Shimabara which pervaded the aesthetic life of the capital, and had a major influence on the design of the buildings and gardens of both Toshihito's Katsura and his brother's Shugakuin Detached Palace[61]. In the studied rusticity of the

Shokintei are a number of fusuma[62] in the Ichimatsu pattern of blue and white checker board squares[63]. In the view of both Taut and Gropius, the design was of questionable taste and inappropriate for the otherwise impeccable design of the Palace. Taut recounts that he questioned his architect guides as to the origins of the design. With missionary-like reticence they suggested that the screens perhaps reflected the nearby waterfall whereas, in fact, the design is directly attributable to the culture of the townsmen and to the style of the pleasure quarters characterized as *iki.*[64] The screens even today maintain the quality of evanescent freshness set in an unexpected setting which gives a fleeting moment of pleasure to the visitor. Similarly, the planting of cycad palms in the garden, also dismissed by Taut, give a momentary visual pleasure espoused by Enshu[65]. The Palace can be seen in terms of the many elements of the process which formed it and the fluid society in which it was conceived.

Conclusions

The complexity of the genesis of the palace at Katsura has generated a wide range of interpretations. Some of these have taken on mythic proportions in support of particular views of aesthetic and political views of the twentieth century. Although known as one of the famous places the capital from the Edo Period, its contemporary prominence developed from its use to champion the causes of Japanese nationalism and the movement of International Modernism.

European architects saw it as presaging the technical and aesthetic ideals of the international architectural movement of the mid-war years. Bruno Taut's coarse categorisation into the architecture of the Emperor and the architecture of the Shogun was politically expedient in the decade leading to the Pacific War. His analysis also corresponded with the writings of Watsuji Tetsuro. Watsuji wrote of the particular confluence of climate, society structure and architecture in Japan, and he also thought highly of the Palace as representative of Japan's culture. In characterising Ise Shrines and the Palace as architecture of the Imperial tradition, and the Tokugawa Mausoleum at Nikko as 'kitsch', Taut's view was underpinned by distaste for the popular culture of the Low City of the Edo period. Taut's distaste for the urban environment was even greater in its rebuilt form under the emergency regulations in the period following the disaster of the earthquake of 1923. His views were to be repeated by Walter Gropius in his 1955 report on Japanese architecture.

Taut's views came at a critical time for Japanese architects as official policy in the continuing problem of a national style which increasing favoured the 'Imperial Crown Style' and disparaged International Modernism. Despite resistance by architects of the stature of Maekawa, Yamada and the young Tange, the conservative view prevailed. Abroad, the

reputation of the Palace grew where it was considered a prototype of the new architecture with its reductive colour palette and undecorated structure. Within Japan, Horiguchi Sutemi[66], a prominent modernist, drew on the Palace as a source in the tradition of Sen-no-Rikyu's tea, and the *sukiya* style of domestic architecture resulting in the design of his own Shienso[67]. Post war puritanical attitudes continue to deny the possibility of the established connection with the popular culture of the townsmen and pleasure quarters despite the Palace's whimsical and elegant detail. The Suminoe Pine which is currently situated at the entrance to the main buildings at Katsura takes its name from the Tale of Genji. It is, like the Garyumatsu of Sumiya, a second generation. It may have no direct relationship to the famed pine of Sumiya, yet it too fails the test of infallible taste.[68] A national treasure may not be associated with 'a common brothel.'[69]

Associated with the question of style is the issue of Kobori Enshu. Although the myth of his authorship has been disproved, his particular view of the architecture of the tea ceremony and its implements has become known as the Style of Enshu. The discredited view of his direct involvement has been replaced with a view of his involvement through his mannered, more elegant view of the tea ceremony. In a visit many years later, a descendent of Toshihito, Prince Akato was to eulogise Enshu and his style in poetry which still remains.

The Palace was again used as a vehicle for polemics in the post-war period. As Tange Kenzo rose into prominence following the Hiroshima Peace Memorial competition, he was to ride on a wave of new archaeological discovery to espouse a supposedly purer form of Japanese architecture from the Jomon and Yayoi periods. He denigrated the building and characterised Toshihito as an effete aristocrat while championing the townspeople as representative of the 'Dionysian' energy of the Jomon Period. It was in fact an expedient way of rationalising the direction of this work and his relationship with Okamoto Taro as theorist and collaborator. This distorted both the character and history of the Palace but remained as a powerful myth as Japan rebuilt in the post-war years.

The Japanese themselves continue to look at the Palace as an expression of the continuing culture of the Heian Period and the Hachijo family as carriers of this tradition, unsullied by the culture of the samurai and the townsmen. Reinforced by Taut and pre-war rhetoric, the Palace thus becomes the idealization of a non-existent past. The building is both illusion and myth, reflecting a view of Japanese culture which accords with cultural social and political agendas beyond the sphere of architecture.

The Palace at Katsura is a complex layered construction which grew from a milieu of rapid and turbulent change in national politics. It is extraordinary that the building achieves a high degree of internal and external unity over a period of two generations of one family, and an

artistic consistency across these multiple developments and changes. With visible confidence its creators have combined a range of elements drawn from the varied layers of society into a cogent whole. This very complexity has allowed multiple interpretations which have been used and mis-used to support aesthetic and political agendas throughout the twentieth century. These contemporary views deny the complexity of both the intellectual inspiration and its built trajectory in terms of construction over two generations. However, the same administrative and technical organisations which created Katsura also created the Toshogu at Nikko at the same time.

In his *Zokeiron*, Kon Wajiro describes taking Taut and his wife to an evening of entertainment at a popular theatre[70] in Asakusa in the Low City along with Ueno Isaburo, his original guide to the Palace. Taut appeared to thoroughly enjoy the evening and its plebeian cultural offerings. However, in the same context, when matters of art and architecture were discussed, Taut transformed himself into the stern custodian of high architectural tradition. Although Taut brought the Palace to prominence he failed to achieve a comprehensive perspective of the Japanese architectural achievement. In writing to refute Taut in 1955, Kon Wajiro wrote that an acknowledgment of the integrative character of Japanese culture was required, and that such a view would see Katsura in terms of its full complexity and placed with the Ise Shrines and the Toshogu as different aspects of a single complex unity.[71] Similarly, the many critiques of the palace at Katsura point to the fact that both building and garden are the product of the integration of many disparate elements of a tumultuous period of history by an extraordinarily gifted family. So too does the palace represent different aspects of a unique complex unity.

Endnotes

[1] T. Watsuji, *Fudo*. (Tokyo: Iwanami Bunko; 1948) and T. Watsuji, *Katsura Rikyu*. (Chuo Koronsha; 1991)
[2] The restoration technique of taking a building apart into its components and re-assembling it
[3] *Katsura Rikyu Shoin no Kaitai Shurikoji wo oete.* (Nihon Kenchiku Gakkai 1983 Annual), and K. Kasai, *Kyoto Shokunin ga kataru Katsura Rikyu.* (Tokyo: Soshisha, 2001)
[4] All Japanese names are given in Japanese order.
[5] Inoue Shoichi ,*Tsukurareta Katsura no Shinwa* (Kodansha: 1997)
[6] Bruno Taut, *Houses and People of Japan* (Tokyo: Sanseido; 1937, 2nd edition 1958)
[7] Bruno Taut, *Fundamentals of Japanese Architecture* (Tokyo: Kokusai Bunka Shinkokai, 1936)
[8] Inoue 36
[9] The Palace became the property of the Imperial Household Agency in 1883 on the extinction of the line of the Hachijo family in 1881.
[10] Inoue 178
[11] E.S. Morse, *Japanese Houses and their Surroundings* (Dover: 1886/1961)
[12] 伊東忠太1867-1954
[13] Ito considered the Toshogu as an achievement of the Japanese ‘baroque’
[14] 実測測量

[15] 岸田日出刀　過去の構成　昭和4年
[16] GA Platz, *Die Baukunst der Neuesten Zeit* (Architectura Universalis; 1926)
[17] Horiguchi Sutemi, *The Katsura Imperial Villa* (Tokyo: Mainichi Shimbunsha, 1952)
[18] KT Oshima, *International Architecture in Interwar Japan* (Seattle: U Washington, 2009).
[19] Fujishima, Gaijiro *Katsura Rikyu*. (Tokyo: Mainichi Shimbunsha, 1944).
[20] Bruno Taut, *Nihon no Kaoku to Seikatsu (Houses and People of Japan)* (Tokyo: Yukeisha, 1947).
[21] Armstrong 2010
[22] In archaeological terms rice cultivating societies of this period were designated as Yayoi, and the earlier hunter-gatherer societies as Jomon. Both names derive from pottery types.
[23] The Kagawa Prefectural Gymnasium, the Kurashiki City Hall and the first Sogetsukan Building are obvious examples.
[24] Tange K, *Katsura; Tradition and creation in Japanese architecture* New Haven: Yale, 1960). Ishimoto's photographs show the building as a proto-modern structure of white planes and unfinished orthogonal structure. The stone assemblies of the garden are photographed to emphasise perceived ties to Shinto shrine
[25] Shirai Seiichi, 'Jomon to iu Mono', *Japan Architect* 白井聖一1956　縄文という物　*新建築* republished In *Muso,* 2010 Shobunsha
[26] Isozaki Arata has an extended analysis of this debate in "Japan-ness in Architecture"
[27] Walter Gropius, 'Architecture in Japan', *Perspecta 3* Yale University Press1955
[28] The Godaigo Emperor 1318-39
[29] One of Nobunaga's generals, Akechi Mitsuhide, surrounded and murdered him in the temple Honno-ji in Kyoto. Akechi was in turn killed by a rival general, Toyotomi Hideyoshi.
[30] Goyozei Tenno
[31] Naito A, Nishikawa T, *Katsura : a Princely Retreat* (Tokyo : Kodansha International, 1977), 91-103
[32] Goshigo居士号
[33] The Sen Family were merchants from Sakai and were thus excluded as townsmen.
[34] Furuta Oribe 1544-1615 Sen Rikyu 1522-1591 Kobori Enshu　1579—1647
[35] Tawarya Sotatsu 1570-1642 Honami Koetsu 1558-1637
[36] Naito, *Katsura: A Princely Retreat*, 118
[37] Naito Akira, *Shin Katsura Rikyuron* (Tokyo: Kajima Shuppan, 1967)
[38] The Five Article Regulations for the Nobility of 1613
[39] The Seventeen Article Regulations for the Nobility of 1617
[40] Kanei Period Culture寛永文化
[41] Iemoto-sei家元制
[42] Nijo Manri Koji二条万里小路
[43] Hayashiya T, *Chusei Bunka no Kicho*. (Tokyo: Daigaku Shuppankai, 1955). See also Tanabe Yasushi, 'Keiseimachi to Sumiya no Jissoku'*, AIJ*, (1929) 43,528 and Umezao T and Noboru K, *Katsura Imperial Villa* (Tokyo: Tankosha,1968)
[44] 藤岡道夫1955*角屋*　彰国社東京　Fujioka Toshio, *Sumiya* (Tokyo: Shokokusha, 1955)
[45] Nakagawa Tokueimon, *Sumiya Annaiki* (Kyoto: Benrido,1994)
[46] 臥龍松
[47] 都林泉名所図会
[48] 春秋君
[49] Kawakami Mitsugu, *Katsura Rikyu* (Tokyo: Shogakukan (川上貢1976)　*桂離宮*小学館東京
[50]Confirmation of Stipends for the Nobility公家衆の領地安堂
[51] Shoin 書院、named for the study alcove included in the main room. The form was developed as the residential form of the upper levels of the medieval military class, and was derived from but dissimilar to the shinden style of the Heian Period.
[52] 斉藤英俊1983　桂離宮書院の解体修理工事を終えて　*日本建築学会建築年表*　Saito Hidetoshi 1983 *Katsura Rikyu Shoin no Kaitai Shurikoji wo oete* Nihon Kenchiku Gakkai Architecture Annual
[53] Kiwari木割り
[54] Shinshin-sei心心制
[55] See Isozaki p.270-1
[56] Kobori Enshu's official duties as an officer of the Shogunate extended to all major construction in the capital so that any time commitment to individual projects was limited.
[57] Mori Osamu, *Sakuteiki no Sekai.* (Tokyo: NHK Shuppan,1986)

[58] Tachibana-no-Toshitsuna, *Sakuteiki* (trans.) Shimoyama Shigemaru (Tokyo: Town and City Planners Inc., 1976)
[59] The garden of Saihoji
[60] 綺麗寂び
[61] 梅棹忠夫　川添登　1956　*桂離宮*　淡交社東京　Umezao Tadao, Kawazoe Noboru　*Katsura Imperial Villa* (Tokyo: Tankosha, 1968, 2nd ed)
[62] 襖Solid sliding screens.
[63] 市松模様
[64] Marra, M.F, *A History of Modern Japanese Aesthetics* (Honolulu: University of Hawaii Press, 2001)
[65] Isozaki Arata, *Japan-ness in Architecture* (Cambridge Mass.: MIT Press, 2006)
[66] Sutemi H., *The Katsura Imperial Villa* (Tokyo: Mainichi Shimbunsha,1952)
[67] Oshima KT, *International Architecture in Interwar Japan* (Seattle: U Washington, 2009).
[68] Isozaki
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[70] 与太見世物小屋
[71] Kon Wajiro 1957 *Zokeiron* Domus Publishing Tokyo

Mediated Truths and Perpetuated Myths: the Architectural Fictions of Early Australian Photography

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Abstract

When Charles Woolley photographed Truganini, William Lanney and Bessy Clarke at his Hobart studio in 1866 he created an image of unbearable melancholy. Produced as a Carte de Visite *and titled 'The Last Tasmanians' the image depicts three Aboriginals bereft of their own cultural belonging and instead swaddled in a European fiction of being and place. Their discomfort is palpable, not just because of the coarse and prudish sack-cloth they wear, but because they have been interiorised; their spirit incarcerated forever inside the fictions of white Victorian domesticity. To the right of the trio is an artificial but elaborate fan-lit window, depicted as if open. Beyond it, daubs of paint infer a well-tended garden of ferns, topiary and delicate plant life. Even the external landscape is not the one they were born to. Their posterity — their pictorial immortality — has been permanently harnessed to an artificial English structure they had no personal or cultural affinity to.*

The practice of using architectural backdrops was commonplace in Victorian photography, but incurred specific meaning in colonial documentation. These fictive spaces of hybridised architecture and ornament inferred a governance of civility, probity and good behaviour. Those people presented within the space were therefore seen to understand and abide by the protocols of the middleclass English interior and thereby the greater British culture. Their true identity, situation and belonging was cast aside; inferior to an homogenised fable of 'good' British order inscribed through a language of artificial architecture. This paper will explore the powerful semiotics of the imagined spatial constructs of early Australian photography, with a particular emphasis on two images: Woolley's 1866 image and a later anonymously composed 1925 image of a white itinerant worker, each photographed before a similar architectural artifice, but with opposing visual narratives.

The visual language of Australia's settler communities was an idiosyncratic mix of pragmatic documentation, perpetuated myths and invented narratives. Many of its earliest images were constructed to articulate and record the characteristics of the land and its people, driven by an early and sometimes flawed framework of scientific rigor. Others simply documented time and the progress of European settlement. Some created persuasive pictorial tales of survival, betterment and the victory of endeavour over adversity. Some celebrated the peculiar exoticism of the Australian landscape. A few, however, documented annihilation, humiliation and loss, whether intended or later interpreted as such.

Figure 1: Anon, *John*, 1925, (Author's own).

No more so is this apparent than in the practice of early Australian photography. This paper will investigate two images: the seminal image of Charles Woolley – *Last Tasmanians*[1] – taken in his Hobart studio in 1866, and that of an anonymous white itinerant worker in Queensland taken almost 60 years later in 1925 (Figure 1). One is prized as a valuable historical document; the other is not. One is cast in the shadows of brutal colonial practice; the other is set in the midst of twentieth century progress. The subjects belong to opposing communities: Aboriginal minority and Anglo-Saxon majority, but both are set before an ideologically concurrent architecture: ornamental, middleclass and artificial.

The use of architectural backdrops was commonplace in Victorian portrait photography and their appearance within the ubiquitous *carte de visite* is often dismissed as a dull and formulaic presence of little historic, aesthetic or cultural value.[2] But they incur specific

meaning in the documentation of settler communities. These fictive spaces of hybridised architecture and ornament inferred a governance of civility, probity and good behaviour, regardless of the evidence that may exist to the contrary. The people presented within the space were perceived to understand and abide by the protocols of the middleclass English interior and thereby the greater British culture. Their true identity, situation and belonging were cast aside; inferior to a homogenised fable of 'good' British order inscribed through a language of artificial structures.

By comparing the images of Truganini, William Lanney and Bessy Clarke, to that of the itinerant mill worker, John, the architectural narrative and the language of the 'built' interior can be seen to humiliate one culture and elevate the other. Both images ignore the true biographies of each life, and instead harness their pictorial immortality to the same fictional narrative – one to which none belong. But, as a process valued for the capturing of truth, photography has transformed these invented histories into permanent and portable records of 'fact'. Undoubtedly these people did 'look' like this, but their situation is one far removed from that inferred by the backdrop. The realities of disease, premature death and ruination are ignored alongside those of resilience, resistance and stoicism.

Despite the vast distance between Australia and Britain — and the fragile nature of this new creative chemistry — photography came early to Australia. Its first photographic image dates to 1841, and its first professional photographer, George Baron Goodman plied his trade throughout the colony from 1842[3]. While quick to adopt the new technology, Australia's isolation did impose a certain uninventive 'ordinariness' upon the compositions. As Helen Ennis explains, '(the) development of a photographic language and aesthetics removed from the international centres where innovations were occurring rapidly… is the heart of the so-called provincialism problem which has been much debated in relation to Australian art'.[4] This does go some way also in explaining a persistent portrait convention that had spanned 60 years across two centuries. Both the Woolley image and that of the itinerant worker are arguably 'ordinary'; conventionally posed and conventionally produced. However, a deeper reading of the images reveals stories that are both tragic and compelling.

Woolley's image captures for some a depressing compliance, and for others a rage-inducing indignity. However, in 1866 it simply perpetuated a Victorian myth of a 'lesser' race, sympathetically represented in its twilight, prior to its passive decent into an inevitable non-existence. For the Victorians, Australia's indigenous people were a pitiful

'otherness' whose presence was limited to an imposed evolutionary tale, that neither they nor the white settler Europeans could stem. Woolley composed the image as a *memento mori* for a culture uncontrollably in decline. Again, Ennis elaborates:

> Sympathy has a specific meaning in the colonial context, stemming from ideas based on difference not on commonality. A sympathetic response to Aboriginal people was therefore not dependant on the recognition of a shared humanity and the equality of different races, but on the plight of a race believed less evolved and doomed to extinction.[5]

Woolley was seen to be dutifully recording this final chapter in human evolution, his pictorial opinion substantiated by much of the nineteenth century ethnographic nonsense masquerading as science intent on casting white Europeans as the rightful possessors of power and dominance. Also providing fuel for such opinion were the more rigorous theories and observations of Charles Darwin. 'The varieties of man seem to act upon each other: in the same way as different species of animals – the stronger always exterminating the weaker',[6] he wrote during his time in New South Wales in 1836.

By situating his subjects within reference to an English interior Woolley suggests a compassionate imposition of European dignity and grace. It suggests a charitable, almost condescending Victorian respect given to the poor, the sick and the dying. Equally it is a disturbing, insensitive ignorance of a nation and their culture. The interior, seen also in Woolley's *Portrait of the Meredith Family*[7], is the antithesis of Aboriginal 'place' and diametrically opposed to their spirituality. The backdrop interior is a reverent Christian construct of a good colonial home: proper order and sobriety dictated by a delicate structure of pretty fan-lit windows and flowing drapery. That the interior is a canvas fiction is of no concern. The potency of the set lies not in the actuality of objects or physical structure, but that virtue and order, as represented through middleclass decor, are seen to be understood and adhered to, even in the most isolated provinces of the empire. The room is a symbolic enclosure for pious English values, into which Woolley has cast the memory of Truganini, William and Bessy.

Woolley was not the only photographer intent on capturing an incorrectly assumed evolutionary twilight. Henry Frith's *The last of the Race*[8] was taken two years earlier in 1864. Within it, Bessy, William and Truganini are joined by a younger woman, Mary Ann Smith, in another interiorised fiction. In this image the semiotics of architectural scenery are even more pronounced. The frame of the image is arched, in itself suggestive that the

viewer is peering into an elegantly crafted interior space. The arch is a complex architectural triumph of form over gravity deeply entrenched in the history of classical, civilised and educated space. The Aboriginal population had no elaborate architecture that nineteenth century Europeans could read as evidence of a civilised and learned past. Instead Frith imposes it: an architectural language of formality, truth and honour. Unlike Woolley's backdrop of delicate bourgeois domesticity, Frith's interior is dominated by three large, flat, artificial columns. The irony of the image is extreme. Here, the surviving representatives of a people so unjustly treated, humiliated and deceived are set amid classical columns, themselves ancient symbols of (European) civility[9] and democracy.

While their very titles are easily disputed by the modern presence of Tasmanian Aboriginal descendants, the horrific facts pertaining to Aboriginal deaths during colonization cannot be ignored. The people depicted in Woolley's and Frith's photographs were among the few survivors of 4000 who died violently or by disease in the years since white settlement in Tasmania. These images also post-date the tragic mission by George Augustus Robinson to relocate Tasmania's indigenous people to Flinders Island in 1835 in the misguided belief that they would be better off ripped from their homeland and resettled in a depressing, unhygienic, sea-bound reservation. Disease would kill almost all of them. Both Woolley and Frith treated their images as a tragic but inevitable epilogue to a long and traumatic tale. Both 'keenly felt the momentousness of what they considered to be the final chapter in human evolution and history, as well as their own responsibility in creating an appropriately memorable record'.[10] But, the flat artificial columns and the thin canvas interior in someway betray the depth of white remorse: shallow and subject to collapse and deterioration.

By contrast to the images of Woolley and Frith, the anonymously composed image of the young itinerant worker, John (Figure 1), is incredibly ordinary, or at least it would appear so on first viewing. This mute, unremarkable image is like so many others of its time: deeply personal to some – this man was my grandfather – but historically inconsequential to most. Embedded within the photograph though, lies a richer story, enacted within an artificial interior that imbues it with meaning and halts our first impulse to dismiss it. Like the image by Woolley it requires a patient re-reading of the narrative. As Stephen Pinson argues, 'to effect a more complete understanding (of a photograph) we must get beyond superficial detail. Otherwise we remain servants to illusion and susceptible to its lies'.[11]

In this photograph the young man is depicted as the moral sobriety of his time demanded: a man empowered by a suit within a room of architectural weight, gentility and distinction.

The room is a Victorian confection, defined by a heavily carved fireplace, an ornate, nonsensical staircase and a lavish drape. His interior is obviously an artifice; a painted photographer's prop common to studio photography across the globe since the 1860s. The only tactile object within the interior is the denuded jardinière stand, but it too holds little more provenance than the painted canvas. It, like the small decorative table in the Woolley image of the Merediths, has no use beyond establishing some three dimensional conviction to the interior.

Within a year from the moment captured in this photograph, the young man would be dead, shot point blank in the chest by his boarder, best friend, and — unknown to him — the lover of his young wife. This information is obviously not gleaned from the image but from the transcript of his murder trial dutifully recorded in the North Queensland Register on January 25, 1926. The image is an unintended *memento mori*.

Amid the lengthy and at times brutal forensic details of the shooting, is buried a brief description of the young man's house: 'the house had an iron roof and bag sides and consisted of two rooms, one being the bedroom and the rest of the house was the sitting and dining room and kitchen.'[12] The 'truth' of the formal portrait is immediately discredited by this sentence. He was a poor and itinerant worker in an isolated sugar cane town on the coast of Queensland. His makeshift house was constructed of materials gathered from the industry of the town: hessian bags wired to iron uprights that were simply hammered into the earth. Its structural integrity was little better than that of a tent.

This was not unfamiliar in isolated Australian communities. Houses were often frail and temporary. As Phillip Drew explains, makeshift materials made for a 'portable architecture that served well the needs of an expanding colony'.[13] But it was not one to be celebrated or immortalised in photography. On the contrary it was a domestic situation better left unspoken. It represented a fragile, half-built and unfinished culture; an unfortunate truth best hidden beneath a painted canvas prop.

Nothing of this interior replicated the reality of this man's life, yet he is represented as though belonging to it; a man of substance with the means to acquire this gracious delusion. The image is a mediated truth, hovering somewhere between reality and fantasy. It is an objective likeness of a real man, but one blurred by illusion and supposition. He, like the images of Bessy, William, and Truganini undoubtedly 'looked' like this. His facial features are accurate; and a close examination of his hand reveals something of his occupation. It is the hand of a labourer: clenched, and gnarled; not

refined or elegantly poised like those of a man of another class. These tiny 'truths' are, however, overwhelmed within a vision of culturally specific but entirely delusional formality. He stands in a suit he would never have owned, in an Anglo-centric interior he could never hope to occupy.

Like the subjects in Woolley's photograph he is stiffly posed, a result of the lengthy exposure time of the camera. 'Stern' was a much easier pose to hold for any length of time, and its prevalence in studio photography until this period suggests it was a normal and expected practice. This righteous, formal pose dislocates him further from his lived reality: poverty stricken and bound to a shabby, economically starved, mill town in Queensland. As Roland Barthes has observed, 'the photograph is the advent of myself as other: a cunning dislocation of consciousness from identity'[14]. However, In the images of Truganini, William and Bessy, there is no self-delusion or pretence. Their gaze is pleading, as if still waiting for a long overdue apology for the atrocities inflicted upon them in life and posthumously. The indignity of surgical examination, dissection and public display was a cruelty they could not have known in these photographs, but one that would befall William and Truganini after they died. Again, Ennis observes of the images, 'they disturb the features of colonialism, disrupt the optimism associated with the inevitable march of progress and remain there insistent and haunting'.[15]

The photograph of John offered him a refuge from the shortcomings of his own history by situating him in another. The painted Victorian opulence provided him with the opportunity to deny the evidence of his own material failure—that made clear in the reportage of his own ramshackle abode—and repositioned his provenance in an imagined reality far beyond his actual reach.

The artificial space evident in his photograph evoked a reassuringly familiar architectural reference that denied the tenuous grasp his small isolated community held over its environment. Large heavy buildings symbolised population, permanency and European achievement, a stoic victory of ruling civility over perceived barbarianism. Even in 1925 the photograph conjures a hazy vision of Victorian excess. Out-dated though it may appear, even for its time, this historical reference is symbolically important. Laying claim to a history denies a community's newness and its subsequent rawness. The heavy Victorian architectural reference opposed the 'anti-culture of the frontier'[16] and presents us with signs of permanency in a fickle, transient and dangerous space.

For Truganini, William and Bessy, the artificial interior was emblematic of the dangerous space, the one that inferred an imbalance of power and the governing rule of an invasive culture of misunderstanding, violence, intolerance and dismissal. Woolley's interior was intended to lend both pity and respectability to the commemoration of their memory, not celebrate their existence or their valued place in history. The intent is not that they belong in this fiction of place as John does, but as the beneficiaries of a sympathetic white community prepared to dignify their 'end' with the banal respectability of a Victorian middleclass interior.

This was not their history but an English construct of domestic currency: neat, controlled and pious. The backdrop in John's image references a resolute English interior of another age. It had ceased to belong to the present, but had enshrined forever the same lasting values of sobriety, proper order and home: a place of refuge and protection. The image is a protective cover, enveloping him in the semiotics of European civility. As suggested by Anne Maxwell, to identify oneself as European 'implied more than an identification with a particular race and culture. It also implied that one adhered to middleclass principles of behaviour'.[17] Truganini, William and Bessy cannot be identified as middleclass Europeans, but rather as the temporary beneficiaries of their pity and shallow remorse.

John's implied room has the ability to infer positive experience and construct believable narratives of survival, belonging and refinement despite the tyranny of isolation and the reality of his unfortunate circumstances. Albeit a dull, generic pastiche of middleclass interiority, the 'room' is an allegorical sign that the subject understands and is seen to conform to 'the acknowledged goals of civilization'.[18] It implies that every-day domestic protocols and accepted familial rituals have guided this young man towards a life of reassuring, unchallenging, middleclass ordinariness. Had the reporting of his murder not precisely recorded an opposing reality, this inferred existence would have protected this fictional provenance. His impoverishment and his disastrous marriage may well have been censored from history and memory, hidden forever within this idealised, alternate version of 'truth'.

John masquerading as a gentleman engaged with an interior of imaginary luxury aligns his sense of belonging not to a hostile and unforgiving outpost, but to an extensive body of settler communities and established cities that understood and complied with the rituals of good behaviour, and its representation within the spatial traditions of the English interior. We cannot say the same for the Woolley image. Despite the subjects' appearance in ragged clothes that concede to the prudery of Victorian sensibilities and

their presence 'inside' an English 'interior', the images cannot be read as a sign of 'belonging' or even involuntary assimilation. Offensive as it may be, assimilation infers the continuation of a people through the sacrifice of their own identity in preference to adopting another. The title of the photograph blatantly assert that this is an absolute end, not a shift in cultural alignment. This inferred interior was only intended as a respectable, earthly purgatory: a pictorial waiting room to which they were confined until they quietly died out via the Victorian belief in an inevitable and natural biological process.

None of the assumptions of middleclass semiotics, evident in the image of John, can be applied to that of Truganini, William and Bessy. In the Woolley image the subjects are cast to the side of the interior, not really within it. Their obvious discomfort and awkward relationship to the room served to confirm the opinions and prejudices of their contemporary white audience: colonised people were lesser because they did not understand nor engage with the subtleties of etiquette and 'sophisticated' interior protocols. These were the privilege of white settlers who believed they had 'earned the right to be called civilized'[19] because they could, or at least, as in the case of John, be seen to understand the scripted expectations of a refined room and its rituals.

The 'room' make no attempt to depict Truganini, William and Bessy as fictive, honorary Europeans, nor does it cast the group as exotic spectacle. They are not presented as 'wild savage' or even 'noble savage', in the way JW Lindt did in his studio portraits of Aborigines from the Clarence River region in the early 1870s. In these Lindt's contrived artificial environments[20] took no account of real Aboriginal identity, but reinforced an already established generic stereotype. As Robert Nelson explains:

> Lindt beautifully records what Europeans wanted Aborigines to be. They are not straightforward portraits, but rather the fantasy of the noble savage, the innocent free-born spirit who lives by nature and exhibits none of the vanity of European civilization… The figures are there but not "there" in that place: they have a palpable photographic presence, but not where they are supposed to be. They aren't in the bush; they aren't by the hills or valleys of nature, but paradoxically torn away from such sites by European representational zeal.[21]

'European representational zeal' is what positions all the afore-mentioned photographic subjects firmly within an emerging 'built' European culture and dislocates them from an existing and ancient one. The elegant but artificial domestic interiors, laden with historical reference and symbols of cultural capital, represented a clear and spacious divide

between a ruling white 'civility' and a subservient black indigeneity. The semiotics embedded within the thin, flat, canvas fakes could be read as sufficient evidence that the colonizing culture should preside as the dominant and governing one. 'Colonial photography', explains Maxwell, 'was in the business of confirming and reproducing the racial theories and stereotypes that assisted European expansion'.[22]

Photography has recorded the place of Truganini, William, Bessy and John inside the architectural bonds of white civilization: a commanding language of pillars, swags and ornamentation drawn from a long history of European aesthetics and cultural endeavour. None belong within it: on the most basic level, abject poverty denies all of them any ownership of the inferred comforts of the interior. However, for the unfortunate murder victim John, his anonymous painted backdrop takes no account of actual wealth or geography, but rather suggests a homogenised interior of prosperity and demeanour that aligns his belonging to an acceptable European site of refuge and protection. That he died violently in a rough frontier town is an irony entirely hidden from pictorial history.

For Truganini, William and Bessy, their pictorial existence in a white architectural fiction does nothing to elevate them above a dismissive Victorian construct of 'primitive'. It accentuated a prevailing prejudice by providing entirely fabricated evidence that the Australian Aborigine was ill at ease with the complexities of civilised humanity. To teach them 'civilised ways' as suggested by the photographs was futile. The image claims they are the last; any benefit garnered from the comprehension of middleclass interior politeness was irrelevant — their plight was destined to be lost anyway. This representation was a concession to white sensibilities, not Aboriginal. It captures a respectable but unimpassioned white sympathy; 'a commodity for the social demonstration of pity'.[23] Although directed at the images of J.W. Lindt, Nelson's summation is equally applicable to those of Woolley; 'This was the best that we could do for them, these compromised and reluctant historians, these people of untold wisdom inducted into a moment of theatrical pretence while being destined for historical dereliction.'[24]

For John, his presence amid the language of capital – representations of architectural permanence, culture, ownership and modern economy – loaned him an affiliation to a wider community who shared the same values and aspirations. For Truganini, William and Bessy, this soft canvas architecture possessed a bizarre duality. It imprisons their memory inside an entirely European narrative, but one so thin, fake and fragile their own identity and stoicism rises above it. The image of John seems an entirely believable

fiction, reinforced by the existence of thousands like it: men and women of the empire represented through the prevailing conventions of the bourgeois studio portrait. The same cannot be said of Truganini, William and Bessy. Their ill-fitted architectural costume could not disguise their true identity; or their belonging outside the pretence of class, social etiquette and polite white manners. Their architectural backdrop is as frail a structure as the myth of racial superiority itself: easily crushed, disproved and torn apart.

Endnotes

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[4] Ennis, *Photography and Australia,* 15.
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[11] Stephen Pinson, 'Trompe l'oeil: Photography's Illusion Reconsidered'*, Nineteenth-Century Art Worldwide – A Journal of Nineteenth-Century Visual Culture,* 1, 1 (2003), 1.
[12] 'Giru Shooting Case', *North Queensland Register* (Townsville, January 25, 1926).
[13] Phillip Drew, *The Coast Dwellers: A Radical Reappraisal of Australian Identity*, (Ringwood, Victoria: Penguin, 1994), 51.
[14] Roland Barthes, *Camera Lucida: Reflections on Photography* (New York: Hill and Wang, 1981), 12.
[15] Ennis, *Photography and Australia,* 34
[16] Phillip Drew, *The Coast Dwellers: A Radical Reappraisal of Australian Identity*, 59.
[17] Anne Maxwell, *Colonial Photography and Exhibitions: Representations of the 'Native' People and the Making of European Identities* (London, Leicester University Press: 1999), 7.
[18] Bede Morris, *Images: Illusion and Reality* (Canberra: Australian Academy of Science, 1986), 64.
[19] Maxwell, *Colonial Photography*, 7.
[20] Shar Jones, *J.W. Lindt, Master Photographer* (Melbourne: Gordon and Gotch, 1985)
[21] Robert Nelson, 'Taking Their Place', *The Age*, (Melbourne: Fairfax, November 26, 2003)
[22] Maxwell, *Colonial Photography,* 9.
[23] Maxwell, *Colonial Photography,* 142.
[24] Nelson, 'Taking Their Place'.

The Architectural Metalwork of Albert Paley

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Abstract

Artworks play significant roles in the symbolism, narratives and 'fabulations' of architecture history. This paper reflects on the relationship between architecture, art and the public realm in the work of American artist Albert Paley, who in 1995 became the first metal sculptor to be awarded the American Institute of Architects' AIA Lifetime Achievement Award, its highest honour to a non-architect. Paley's work is a complex fusion of rigorous intellectual research and virtuoso technical accomplishment, building on a rich history of civic metal work. It is examined in the contexts of the works' engagement with historic architecture and contemporary urban settings.

Since the mid-1970s, businesses, governments, museums, churches and universities have commissioned Paley to develop architectural elements such as doors, portals and screens, as well as discrete sculptures, to serve as signs or symbols, metaphorically embodying the aspirations, intellectual qualities, and inherent qualities of their organisations. These works are most frequently commissioned as additions or interventions for buildings of considerable architectural merit, including the Renwick Gallery of the Smithsonian Institution, the New York State Senate Chambers in the Albany Capitol building (an 1870s H.H. Richardson Romanesque-style building) and the Washington National Cathedral. Paley's civic work includes large-scale free-standing ceremonial entrance gates and portals, typologies which embody complex narratives in the fabulations of architecture history. Occasionally, Paley's sculptures have been commissioned to stand in front of or within unremarkable buildings, where in part their task is to transform the 'face' of the respective enterprise and its unexceptional building, in effect, to 'speak' more eloquently for the commissioner.

The paper offers a case study of the development of Paley's work, and examines the rhetorical power of his architectural works in the public realm. It makes reference to writing by Donald Kuspit, Edward Lucie-Smith, and Juhani Pallasmaa, and to the author's conversations with Albert Paley.

Objects, place and space

Artworks play significant roles in the symbolism, narratives and 'fabulations' of architecture history. This paper reflects on the relationship between architecture, art and the public realm in the work of American artist Albert Paley (b.1944), who in 1995 became the first metal sculptor to be awarded the American Institute of Architects' AIA Lifetime Achievement Award, its highest honour to a non-architect.

Paley's architectural metalwork emerged from the classic traditions of goldsmithing, initially drawing on an understanding of organic form which also characterised the work of a previous generation of artists and designers from the turn of the twentieth century. He studied at the noted Tyler School of Art in Philadelphia and practiced as a goldsmith during the height of the studio craft movement. Since the late 1960s, he has expanded from jewellery and domestic-scale objects to work in architectural dimensions, and to embracing both traditional metal forming and CAD (Computer Aided Design) as tools for design and large-scale fabrication. His move into architectural work, beginning with the celebrated *Portal Gates* for the Renwick Gallery of the Smithsonian Institution, in Washington, D.C. (1974), and the *Portal* Gates for New York State Senate Chambers in the Albany Capitol building (1980) can be examined within the larger context of doors, gates, screens and sculptures which contribute to the construction of the narratives of public and private spaces.

Paley's *oeuvre* is extraordinarily complex, drawing on a deep knowledge of historic and contemporary architecture, painting, sculpture and decorative arts, together with a life-long fascination with organic forms of nature. This continuous critical interrogation of the rich histories of the visual arts and architecture informs work which technically and intellectually pushes the boundaries of the possible with metal. In Paley's hands, metal appears as supple as cloth, as fluid as a calligraphic line drawn lightly with a brush, as malleable as a potter's clay or dynamically balanced in space; virtuosity making complex lyrical and formal gestures appear almost effortless. In recent years he has begun to incorporate glass into architectural and sculptural works, expanding the possibilities of form, function and narrative.

The historical context of Paley's work has been examined by writers such as Davira Taragin, Edward Lucie-Smith and Donald Kuspit. In part, they have discussed it in relation to the late nineteenth / early twentieth century design movement, Art Nouveau, and to the historic periods of the Rococo and the Baroque, particularly in terms of the work's

complex, romantic, exuberant organicism.[1] Each asserts that Paley's approach is not a matter of simplistic emulation of historic stylistic genres, but is instead a dynamic critical interrogation of the past fused with originality and invention. "Virtually single-handedly," wrote art critic Donald Kuspit, "Paley has restored Romantic Naturalism to artistic credibility. It is the return of what modernity has repressed, but in the abstract language developed by modern art, indicating that Paley is not a regressive revivalist but rather an aesthetic innovator"[2]

Each of Paley's artefacts has its own narratives, of type, such as a table or an entry portal; of metaphor, as in a menorah or a sculpture commissioned for an organisation or government entity; or of image, as in the monumental figurative entrance, *Animals Always*, at the entrance to the St Louis Zoo. At an urban scale, his work has predecessors from ancient times, in the obelisks, pylons, sculptures, ceremonial gates and screens that historically served as markers of passage, liminal thresholds, or signifiers of civic, governmental, religious or ceremonial spaces. Such works contributed to the narratives of the buildings and settings in which they were either embodied in the architecture, as doors, ceremonial gates or rood screens, or with which, as discrete sculptures or triumphal arches, they 'conversed' by virtue of physical proximity. Paley's work has clear parallels with the works of artists / designers / architects such as Hector Guimard (1867–1942), whose civic work, such as for the Paris Metro, served as a marker of modernity for early twentieth century Paris, and the Italian Allesandro Mazzucotelli (1865–1938), whose architectural works included gates and balustrading for public and private buildings and lamps in the Piazza del Duomo, Milan.

Beginnings in Jewellery

Paley's work transforms the space it occupies, whether that space is around the body of a woman, the interior of a room, or a space in the public realm. Through his jewellery in the 1960s and 1970s, Paley engaged with the long history of spectacular adornment. He learned from Baroque, Rococo and Art Nouveau jewellers and from abstract expressionist painters and sculptors while continually focused on developing his own intellectual and technical approach in a unique body of work.[3] He was not alone in creating large scale jewellery; other contemporary makers of a somewhat earlier generation included his former professor, Stanley Lechtzin, jeweller Arline Fisch, and sculptor Alexander Calder.[4]

His jewellery was notable for its powerful engagement with the female body. It was dramatic in scale, conceptually and technically complex, impeccably fabricated, dynamic in form – often with languidly erotic qualities of movement – and frequently demanding to

wear.[5] This jewellery both pushed the boundaries of wearable adornment, and celebrated the female body and strength of character of the woman who wore it. Paley once said that his jewellery was for a "certain type of personality that could carry it. That was part of my sexuality […], looking for strong women rather than someone who was repressed."[6] He left the practice of jewellery in the late 1970s, choosing to focus on objects and larger works which engaged with architecture, moving from the intimate and comparatively hermetic world of jewellery into civic space.

Figure 1 (left): *Pendant*, 1973. Forged, fabricated, carved copper, silver and gold, with ivory, labradorite, jade, moonstone and glass; 56 x 20 x 4 cm. Collection of the Renwick Gallery of the Smithsonian Institution, Washington. D.C. **(right):** *Pendan*t, 1974. Formed and fabricated sterling silver and copper, with carved Delrin; 49 x 42 x 4 cm.

Functional Objects

Paley's work with domestic and other small scale objects – candlesticks, tables, lamps, door handles, plant stands and benches – parallels, and initially prefigured his larger sculptures and architectural work. At first, objects such as the 1976 Papal Chalice[7] were produced in his home jeweller's studio. Since undertaking the Renwick *Portal Gates* in a hired external foundry space, he has had increasing large studio workshops in Rochester, New York, filled with industrial equipment and supporting a significant number of staff. The smaller scale works produced in this setting initially serve as vehicles for an assiduous investigation of form, content and technical possibilities. Some objects, such as tables, candlesticks and door handles, continue to be developed into editions, such that they support the economic life of the studio during occasional periods that major architectural works or sculptures are not under construction

Figure 2: *Portal Gates*, Renwick Gallery of the Smithsonian Institution, Washington, D.C., 1974. Forged and fabricated mild steel, brass, bronze and copper; 229 x 183 x 10 cm.

Portal Gates

From the mid-1970s, Paley increasingly focused on large sculptures and architectural works. His first large scale commission, the 1974 *Portal Gates*, proved transformative for his metalworking practice, initiating relationships with architecture and urban spaces. The project resulted from a competition for internal gates for the mid-nineteenth century building which was being renovated to become the Smithsonian Institution's National Museum of American Art Renwick Gallery in Washington, D.C.[8] Appropriately for a building housing the Museum's collection of craft objects, the *Portal Gates* are a *tour de force* of metalworking. Paley translated his language of jewellery into architectural scale, the precision of his forms and connections suggesting a delicacy of touch that belies the intrinsic weight of the gates' materials. The virtuosity of technique and fineness of detail in the forged and fabricated steel, brass, bronze and copper gates is astonishing. Attenuated, forged elements retain their memory of fleeting suppleness during the combination of hammer and heat. Spreading outwards from a gathering at the central point of opening, tapering elements move energetically towards the outer boundaries of the frame, in places rejoining where one form penetrates another, or meeting in wrapped bundles whose vibrant tendrils appear always on the point of escape. The gates initially functioned as a sort of protective ornament, embellishing the historic building's interior, defending an internal boundary, and rhetorically celebrating the Museum's treasures.[9]

The Renwick *Portal Gates* were a springboard to many such projects that continue the historic practice of individuals, church and government of commissioning extraordinary

artefacts as markers or symbols for the public realm. They have conceptual parallels with the works of master architects and metalsmiths of the nineteenth and early twentieth century noted earlier, Guimard, and Mazzucotelli, and with Antonio Gaudí (1852–1926). However, while each of these predecessors employed a design vocabulary drawing from nature, Paley's work is more abstracted, more elemental in seeking to make visible a language of primary organic form that Donald Kuspit likens to Goethe's notion of the "*Urpflanz* or primary plant."[10]

Other major commissions soon followed the Renwick project, as Paley extended his exploration of form and content while testing the limits of his materials and skills. In the later 1970s, he was commissioned to make two pairs of gates for the New York State Senate Chambers in the Albany Capitol building, an 1870s Romanesque-style building, designed by Henry Hobson Richardson et al, which was undergoing renovation. Asked to submit a proposal for gates which would complement the quality materials, fine detailing and generous spaces of this historic building, lightly touch its existing fabric, while at the same time meeting rigorous security requirements, Paley submitted three sets of drawings. After six months in design, a year in contract negotiation and a year for the artist and seven assistants to realise the project, the *Gates* were installed in 1980. With each of the two pairs over 4 metres tall, 2.5 metres wide, and weighing over 1300 kilos, they were reportedly at that time the largest such commission in the United States in the past 50 years.[11]

Figure 3: *Portal Gates*, New York State Senate Chamber of the State Capitol, Albany, 1980. Forged and fabricated steel, brass, bronze; each pair 412 x 274 x 15 cm.

The Albany *Portal Gates* embody a radical refinement of the profuse organic tendril motifs which characterised the Renwick project. Again, bundled elements form the central core of each of the two pairs of gates, but here the defining gesture is mirror-image pairs of vertical elements terminating in interlocking circular forms. These recall rams' horns (which he has collected), or perhaps, as Paley once suggested, a pair of ostrich tail feathers held side by side.[12] The *Urpflanz* reference is unmistakable, as parallel elements sprout outward in a rhythmically measured pattern reminiscent of the growth patterns of leaves or the spines of animals or fish.

Although different in material and form language, the gates are not inconsistent with the intentions of Richardson and others working on the original building to incorporate rich ornament and detail. The 1979 *National Register of Historic Places Inventory Register Form* notes the "million dollar stair inspired by the great stair in the Paris Opera House," elevator shafts and cages "carved and embellished with wrought iron," and the unrealized intention that the French artist, August Saint-Gaudens paint "about one hundred and fifty feet by twenty feet of decorative arabesque, foliage and the like."[13] Punctuating the opening in the stone building with fluid organic form, the gates acknowledge plant forms carved into the capitals of the Chamber's columns and used elsewhere in the building.

While serving both ornamental and necessarily protective roles, the gates are inherently a rhetorical gesture 'spoken' in the Romanesque arch openings between existing Corinthian columns. Their formality expresses the *gravitas* of the government enterprise, and symbolises the passage from citizen to lawmaker each member of the Senate must necessarily make when entering the Chambers. In contrast to the more traditional solidity of doors to senate or parliamentary chambers, Paley's gates reveal rather than conceal, and as such may also be seen to symbolise transparency in government. He successfully negotiated 'looking back while looking forward' to integrate commanding contemporary metalwork into a building of major architectural significance for the State of New York.

Urban and Civic Works

Completed in 1987, *Synergy* is pair of formed and fabricated polychrome mild steel sculptures, each about 7.6 metres tall and together defining a space over 16 metres wide at the entrance to the Museum Towers building in Philadelphia. Paley was by then expanding his conceptual and technical lexicon to facilitate the realisation of larger works in the public realm.

Figure 4 (left): *Synergy*, for Museum Towers, Philadelphia, 1987.
Formed, fabricated and painted steel; 7.62 x 16.46 x .91 m.
(right): *Synergy*, under construction, c.1987.

Synergy recalls the architectural language of classical Greek fluted columns, the secular and sacred precedents of Roman triumphal arches and the ceremonial entry arches of churches even before the Renaissance. However, in *Synergy* the columns taper to stepped finials which support giant rippling banners or ribbons of painted metal projecting into their surrounds. Rather than serving as a marker of power and success in battle with the clear intention to impress and intimidate, or as a marker of passage to a sacred space, the *Synergy* archway offers a ceremonial gesture of invitation into the grounds around Museum Towers.

In contrast to the finishing of earlier works, for which he had relied on polishing and chemical colouring of metal, Paley had begun to explore the potential of painted colour. Again there are numerous historical precedents. The presumptions of 19th century writers such as John Ruskin that historical sculpture established a paradigm of 'pure' unpainted materials – especially marble – had long since been disproved by contemporary research. Kuspit, for example, draws parallels with Abstract Expressionist painters, and especially Kandinsky, in discussing the emergence of colour in Paley's work.[14] Paley would progressively explore the potential of colour in his sculptural works, as in the 1987 *Wortham Theater Stairway Sculpture* for the Wortham Theater for the Performing Arts in Houston, Texas. Colour combined with dramatic metal form is employed to intensify awareness that architecture is experienced both spatially and through time, as patrons ascend the moving stairs to the theatre and descend when the performance ends.

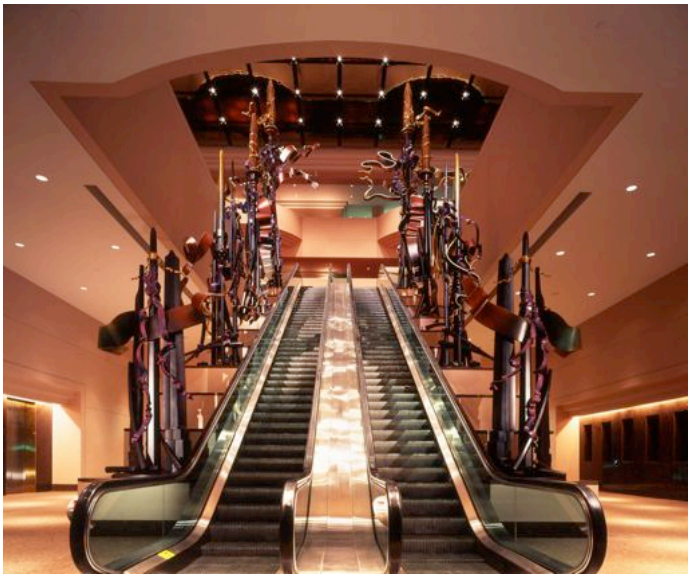

Figure 5 (left and right): Stairway Sculptures, Wortham Center for the Performing Arts, Houston, Texas, 1987. Formed, fabricated, painted steel; 9.30 x 6.71 x 1.52 m.

Paley was increasingly commissioned by businesses, governments and universities to develop sculptures and architectural works that would serve as a sign or symbol of the commissioners' activities. It is a commonplace in Western thought that architecture is held to 'speak,' as in the façade, or face, of a building. In the twentieth century, for example, American commercial aspiration was frequently articulated though the strategic inclusion of art and design within, in front of, or incorporated in to the building fabric, as the example of the Chrysler Building. Guimard's iron, glass and enamel metro station structures proclaimed both the modernity and urbanity of the city of Paris, and the activity that occurred underground below them.

Paley's works are interesting in their dialectical relationship with the architectural setting they inhabit. In some cases, the architectural setting generates a lively 'conversation,' a to-ing and fro-ing between the architecture and the art and the individual interacting with both. However, his sculptures have sometimes been commissioned to stand in front of or within unremarkable buildings, where in part their task is to transform the 'face' of the respective enterprise, in effect, to *speak* more eloquently for the commissioner. In each case, the architectural addition or sculpture provides a humanising quality to its setting, and operates metaphorically to embody and articulate the aspirations, intellectual qualities, and inherent qualities of the organisation. The twenty-two metre tall *Sentinel* sculpture (2003) at the entrance to Rochester Institute of Technology, Rochester, New York, is one such example. Another is Bausch and Lomb's commission for its corporate

headquarters, also in Rochester, where corporate aspirations and the visible expression of good urban citizenship, including support of the arts, are embodied in the sculpture.

Figure 9: *Sentinel*, Rochester Institute of Technology, Rochester, New York, 2003. Formed and fabricated Cor-Ten and stainless steel and bronze; 22.25 x 9.14 m.

Drawing and design

During both the design and construction phases of each of his works, Paley avidly continues to draw by hand and to work with paper, card and small metal models and maquettes. A consummate draftsman, his drawings serve both as a vehicle for interrogating and developing ideas, and as discrete works complete in themselves. Paley has always employed hand drawing to cultivate the haptic connections between reading, observing, recording and interpreting, with drawing in itself a sensuous aspect of developing a nuanced, agile understanding of the subject and development of his design intent. In the fabrication studio, one-to-one scale drawing is frequently done on large sheets of paper, the floor or directly on the works in progress. Such primacy of drawing is emphasised by Juhani Pallasmaa:

> [w]hile drawing, a mature designer and architect is not focused on the lines of the drawing, as he is envisioning the object itself, and in his mind holding the object in his hand or occupying the space being designed […] This is an intimacy that is surely difficult, if not impossible, to simulate through computer-aided means of modelling and simulation.[15]

However, the growing scale of his sculptures and architectural projects required a shift in approach to construction. Engineering consultants became necessary members of the studio team in order to meet liability requirements for works located in public spaces. Paley has increasingly employed cutting and forming techniques in combination with forging and other traditional metalworking techniques. While all works begin with hand drawing and models, the studio team now also employs Scan2CAD raster to vector conversion software, AutoCAD and CNC plasma steel-cutting technology as tools to facilitate the translation into the final forms.

Figure 10: Paley with St Louis Zoo Archway models, c.2004.

The St Louis Zoo Entry Archway

The concluding example, *Animals Always*, represents another radical, and somewhat unexpected, development in Paley's body of work. Some thirty years after the Renwick Gates, he undertook a monumental figurative entry archway for the St Louis Zoological Park. The archway's conceptual genesis had occurred in the mid-1980s, when Paley had envisaged his first large scale figurative work in a commissioned proposal for a gate and ceremonial archway for New York's Central Park Zoo. Although that project had been substantially developed in drawings and partial models, it was cancelled following a change of New York government.

The concept was revived many years later when a visitor from St Louis, Missouri saw the drawings in Paley's Rochester studio and initiated a commission for the St Louis Zoo entrance.[16] She and another generous benefactor each donated US $1 million to ensure the project was realised.[17] Reportedly the largest such work in the United States – approximately 40 metres long, 11 metres tall and 2.4 metres deep – using 100 tons of Cor-ten steel – *Animals Always* was completed in 2006. Paley's most complex project to date, it joins Eero Saarinen's famed Gateway Arch (completed 1965) as extraordinary

urban markers.[18] As a free-standing gate / threshold – architectural fragments of monumental scale, both embody narratives of place that celebrate the city of St Louis.

Animal imagery is ubiquitous throughout history, with early examples often associated with mythical beliefs and ceremonial practices. As technical skills developed from prehistory, the scale of representational images increased. By the Classical Greek era, horses in particular were represented in life-size relief sculptures, as on the Parthenon. Romans created technically ambitious bronze sculptures, famously in the equestrian statue of Marcus Aurelius. During the Renaissance, artists revived the ancient Roman monumental equestrian sculpture for public settings, as in Donatello's *Gattamelata* (c. 1447–1453), modelled in part on the horses on the façade of San Marco, Venice. In each of these cases, the animal was a vehicle for demonstrating the military strength of its rider. Sculptural commemoration of animals, as the principle theme, came much later.

Figure 11: *Animals Always*, 2006, St Louis Zoological Park, St Louis, Missouri. Formed and fabricated Cor-Ten steel; 12.19 x 39.62 x 3.66 m.

The St Louis Zoo archway unequivocally celebrates the animal kingdom. Paley included some sixty life-size animals: elephant, giraffe, zebra, rhinoceros, birds, fish, and even his beloved German shepherd, Hector, set in a forest of land and sea vegetation. In scale and function, it has resonances with historic exemplars of ceremonial entrances to special sacred or secular precincts and like its predecessors articulates a story or chronicle. Here, while the relationship of the work to the organisation it represents is transparent, *Animals Always* embodies a larger narrative that speaks of the inter-relationship of humans and the environment. Paley's archway is simultaneously art and morality tale, a fabulation, such that the thoughtful viewer is drawn to reflect on the

wonder and fragility of the natural world and to consider the actions necessary to sustain the future presence of its endangered inhabitants.

Figure 12: *Animals Always*, St Louis Zoo Archway model, 2004.
Cardboard, wood, red pencil; 460 x 3350 cm.

In 2011, Paley Studios consolidated the practice from four separate locations into a former car and truck component manufacturing building, adding six cranes and new foundations for heavy equipment and work in progress. The facility, over 3,700 square metres plus an acre of outdoor space for constructing the larger works that may be over thirty metres tall, accommodates fifteen full-time and two part-time staff with spaces for design, forging, design, exhibition, storage and an extensive archive. The studio's recent major civic and institutional projects include large exterior works for universities in Hawaii and Michigan, four 15 metre gateway sculptures for the 24th Street Bridge Project in Council Bluffs, Iowa, and a 30 metre polychrome steel sculpture in Monterey, Mexico. The studio is currently preparing a 50 year retrospective exhibition of sculptures, objects, jewellery, maquettes and drawings for the Corcoran Museum, Washington D.C. in 2014.

Albert Paley's metal work embodies a complex fusion of intellectual rigour and virtuoso technical accomplishment. "Paley," wrote Donald Kuspit, "has a postmodern sense of spectacle and dialectical excess, tempered by a traditional sense of craft mastery and informed by a modern awareness of absurdity."[19] Particularly in the works conceived for interaction with architecture and the public realm, Paley's works dynamically engage with space and place. They participate in a reciprocally informing dialogue, contributing to the fabulations of the designed and built environment.

Endnotes

Photographs generously provided by and used with the permission of Paley Studios, Ltd.

[1] See Albert Paley and Davira S. Taragin, *The Artist Responds: Albert Paley and Art Nouveau*, Racine, Wisconsin: Racine Art Museum, 2004; Peter T. Joseph and J. Richard Gruber, *Baroque Modernism: New Work by Albert Paley*, New York: Peter Joseph Gallery, 1992; Edward Lucie-Smith, *The Art of Albert Paley: Iron & Bronze & Steel*, New York: Harry N. Abrams, Inc., 1996.
[2] Donald Kuspit, "Manly Nature and Androgynous Abstraction: Albert Paley's Sculpture," in Donald Kuspit ed., *Albert Paley: Sculpture*, Milan: Skira, 2006, p. 9.
[3] For early comment on Paley's jewellery, see Allan Peterson, "The Metalwork of Albert Paley," *Craft Horizons*, April 1973: 34–36
[4] Calder's work is an interesting, if often overlooked, contribution to twentieth century jewellery. See catalogue from the 2008–2010 travelling exhibition, Alexander Rower, *Calder Jewelry*, New Haven: Yale University Press, 2007.
[5] See Robert A. Sobieszek, "Albert Paley: Romantic in Metal," *American Craft*, April/May 1980: 12–17.
[6] Albert Paley quoted in Edward Lucie-Smith, "Beyond Ornamentation – the Sculpted Jewelry of Albert Paley," in Edward Lucie-Smith, Deborah Norton and Matthew Drutt, *Albert Paley: Sculptural Adornment*, Washington, D.C.: Renwick Gallery of the Smithsonian Institution, 1991, p.11.
[7] Edward Lucie-Smith, *The Art of Albert Paley: Iron & Bronze & Steel*, New York: Harry N. Abrams, 1996, p. 37.
[8] Designed by James Renwick in 1859 and completed in 1874, it houses works from the Smithsonian's temporary exhibitions and selections from the permanent collection of crafts.
[9] The initial functional role of the Gates at the entrance to the Renwick shop has subsequently changed. They have been toured to other venues, are now set in a purpose built alcove on the second floor of the Renwick Gallery.
[10] Kuspit, *Albert Paley*, p. 11.
[11] See Lois Moran, "Albert Paley's Albany Gates," *American Craft*, April/May 1981: 18–19.
[12] Albert Paley in conversation with the author, c. 1981. Paley recalled sitting with his wife, Frances, in a café in Paris, and seeing across the road a pair of ostrich feathers sitting in a container outside an antique shop.
[13] United States Department of the Interior, *National Register of Historic Places Inventory Nomination Form*, 1979, pp. 2–3.
[14] Kuspit, *Albert Paley: Sculpture*, p. 29.
[15] Juhani Pallasmaa, *The Thinking Hand; Existential and Embodied Wisdom in Architecture*, John Wiley & Sons Ltd, West Sussex UK, 2009, p. 59.
[16] Albert Paley in conversation with the author, 2005, during maquette development stage.
[17] See http://www.stlzoo.org/home/featurednews/animalsalwayssculpture.htm
[18] Completed in 1965, and at 192 metres tall and 192 metres wide at the base, Saarinen's stainless steel and concrete Gateway Arch remains the largest monument in the United States.
[19] Donald Kuspit, *Albert Paley: Sculpture*, Milan: Skira, 2006, p. 20.

Wunderkammer:
Scenes of curiosity, experiment, and spatial fabulation in early modern Europe

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Abstract

This paper investigates the historical phenomenon of the Wunderkammer, from an architectural perspective. Reaching their greatest prominence on the European continent between the sixteenth and eighteenth centuries, especially in Germany, Italy and Scandinavia, these chambers of wonder receded in importance during the Enlightenment with much of their contents being dispersed to museums and other newly developing institutions. Horst Bredekamp and others have pointed out that the Wunderkammer was in fact a powerful mental laboratory, and have suggested that its relevance should be reconsidered. In his book, The Lure of Antiquity and the Cult of the Machine*, Bredekamp discusses the Wunderkammer as a moment of fertile tension in early modern Europe, proposing that perhaps elements of the Wunderkammer, particularly its lessons of visual association and thought processes, are becoming increasingly relevant as the boundaries between disciplines begin to become blurred. The extraordinary nature of the Wunderkammer is directly related to the idea of fabulation through the idea of wonder itself and the search for the unseen through a network of fact, fiction, and speculation that occurred within these settings.*

So far the focus has been on the art-historical and museological context of the Wunderkammer, whereas the architectural nature of these spaces has been insufficiently explored. Therefore, this paper investigates the role of architecture in the spatial organisation, function, and interpretation of selected examples of Wunderkammern, examining them for the links between their intrinsic notion of fabulation and their architectural expressions. It analyses the changing relationships between the architectural context and the objects contained and experiments performed within, suggesting that in some way spatial organisation was used to set

the scene for discovery, with later examples using an architectural vocabulary to model intangible linkages between ideas.

The Wunderkammer as experimental space

The origin of the Wunderkammer lies in the heart of the Italian Renaissance. The exact moment that the humanist idea of the studiolo, a quiet place of retreat and literary study, evolved into a true chamber of wonder is difficult to determine, but the phenomenon developed and spread steadily northward over the following two centuries and culminated in the extravagant Baroque collections such as the Museo Kircheriano. Wunderkammern, also known as *camere delle meraviglie* or cabinets of curiosity, were settings in which, from the sixteenth to the eighteenth century, scholars and patrons amassed collections of items considered significant for both their intrinsic and esoteric characteristics. At their height, Wunderkammern were much more than passive collections of the rare and the grotesque. They were places of reflection, research and discovery, encyclopaedic laboratories within which to experiment in merging form and meaning, in an attempt to better understand the world through the interrelations between areas of knowledge now conventionally seen as separate: art, science, history, and spirituality.[1] The reasons behind the construction of Wunderkammern were many and varied, ranging from the educational to the propagandist, but they all shared a common 'theoretical and conceptual background'.[2] In essence, a Wunderkammer was a place for the 'learned and the curious'[3] to explore ideas, propose linkages, and to marvel at works of art, artifice, and nature in a space where the setting and the objects contained therein created a vast network of possible interrelations.[4]

Wunderkammern belonged as much to the world of science as to the world of art and history, being direct predecessors of both the museum and the science institute. Long dismissed as Baroque oddities due to their apparent lack of scientific order and categorisation[5], there has been a resurgence of interest in Wunderkammern in recent years, originating from an increasing awareness that the interaction between areas of knowledge can enrich all involved, especially in the light of technological developments such as the internet and the progressive blurring of conventional barriers between disciplines.[6] Several authors, including Horst Bredekamp, consider the concepts behind the Wunderkammer to be at the heart of modern cyberspace.[7]

Previous studies have, by and large, examined Wunderkammern from an art-historical or museological rather than an architectural perspective. A Wunderkammer was however a setting as well as a collection, so there is a question as to whether the

architecture of the Wunderkammer in some way reflects the curiosity and richness of the objects, thought processes and experiments performed within the space. This paper proposes to investigate the role of architecture in the organisation and function of Wunderkammern and to interpret some of the architectural moves revealed by this investigation. Six Wunderkammern have been selected from the possible examples in the field, the selection based on the quality of information available and on the Wunderkammern being representative of the developmental stages of the phenomenon: from the emergence of the true Wunderkammer in the sixteenth century until the rise of the institution of the museum towards the end of the eighteenth century. This period is of special interest due to the tensions, balances, and symbioses existing between the sciences and the arts prior to the Enlightenment, and their subsequent division into the museum, the gallery, and the science institute.

Finding the correct word with which to refer to the 'learned and the curious'[8] men who built, maintained, and used these collections presents some difficulty because, like the Wunderkammern that they created, these polymaths defy easy categorisation. The term scientist in our modern sense of the word would have had no meaning for them and is woefully inadequate in describing their encyclopaedic range and aims,[9] while the term collector does not imply the level of intellectual curiosity and experiment evident in their work. This paper will use the early modern Italian definition of the word *virtuoso*, being an honorific term for someone skilled in any intellectual or artistic field.

Due to damage, dissemination and dismemberment over the past three hundred years, the interiors of Wunderkammern are, as Robert Felfe has aptly put it, a 'black box, through which at most, certain cross sections can be laid'.[10] Any analysis must rely on contemporary engravings, catalogues, visitors' accounts, and recent reconstructions. It is ultimately an exercise in speculation based on collected fragmentary but evocative evidence, much like the actions of their original creators.

A site of productive balance between precedent and personal discovery

The engraved frontispiece of German merchant and scholar Caspar F. Neickel's 1727 book *Museografia*[11] (fig. 1), is a relatively late example of a depiction of the interior of a Wunderkammer, but one in which we can find the essential elements of a Renaissance chamber of wonder. The book itself was intended to be a reference work on the subject of museum practice and theory, a subject that owed more to the new scientific methods of the Enlightenment than to the humanistic ideals of the Wunderkammer. For the purposes of this analysis, nonetheless, elements of literary context may be disregarded

and the engraving be treated as a work in and of itself. The influence of the new scientific approach is evident in the chamber's rather sober and ordered appearance, especially when compared to other earlier, more flamboyant Wunderkammern, but it is this very simplicity which makes the fundamental elements more easily visible.

Figure 1. Neickel's Wunderkammer. Frontispiece from Caspar Friedrich Neickelius, *Museographia oder Anleitung zum rechten Begriff und nützliche Anlegung der Museorum oder Räritäten-Kammern* (Leipzig, 1727).

Neickel's frontispiece presents a scenario characteristic of portrayals of Wunderkammern in the sixteenth century: a view of a single enclosed room presented directly to the viewer, walls hung with paintings and lined with shelves and cabinets filled with the collected works of man and nature.[12] Light spilling into the room from a concealed opening to the left of the scene implies the location of the point of entry into the Wunderkammer, although, as in most such illustrations, it is itself out of sight. One of the greatest clues to Neickel's Wunderkammer being a late example of a chamber of wonder is to be found in the treatment of the sixth elevation, the ceiling. It is shown bare, devoid of ornament or of collected specimens, apart from the inevitable stuffed crocodile suspended from the rearmost vault, whereas the ceilings of early Wunderkammern swarmed with such items. The other indication of its relative youth is the use of a device which first appeared in illustrations of Wunderkammern in the late 17th century: the framing of the interior view with an architectural portal that separates the viewer from the scene like an audience from a theatre stage.[13] The virtuoso reads on, oblivious of our presence.

It is important to note that there is a recurrent theme present in this image, one which occurs to some degree in all but one of the Wunderkammern examined in this paper: a

balanced divide between word and object, with the collected items stored on one side of the room, the books on the other, and the workspace located in the space in between.[14] This arrangement can be seen as representing a symmetrical, spatial division of knowledge: authority and precedent, as represented by the books and manuscripts, and the potential for personal discovery and interpretation in the form of the collected natural objects. The overall impression is one of a carefully maintained balance between the two forms of understanding, creating a fertile ground for experiment and dialogue between the two. The virtuoso himself is to be found here at the centre of his personal microcosm, a lone scholar seated at a table, with his well-lit work area cluttered with the subjects of his investigations. The open book and the presence of quill and ink pot suggest that the scholar is an active producer of knowledge, a contributor to as well as a consumer of others' efforts. Above all, the chamber is a retreat, a place of study and contemplation, an inheritance from the studiolo, its hermetic predecessor.[15] The Wunderkammer, however, has a more complex relationship to the ideas of concealment and revelation than the studiolo, as it is a private setting that is also a space of exhibition, albeit displayed only to a select audience[16].

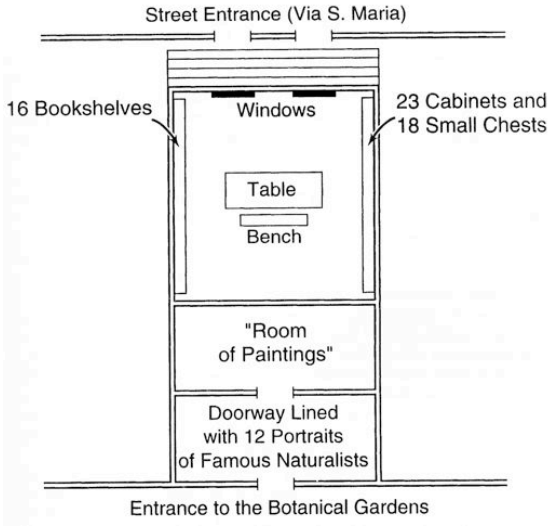

Figure 2. Plan of the Gallery of the Botanical garden in Pisa.
(Paula Findlen, *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy* (Los Angeles: University of California Press, 1994)).

The Gallery of the Botanical Gardens in Pisa was built well over a century before Neickel's book was printed, but it demonstrates an equally clear and balanced division between precedent and personal observation with a similar occupation of the transition area as a setting for investigation and experiment. The Gallery and its adjoining herb garden were founded by the Medici in the late 1580s and soon grew to rival other Wunderkammern in the area, despite it being originally intended as a teaching aid for

medical students.[17] Findlen's plan diagram (fig. 2) shows a simple rectangular space which would have been well-lit with natural daylight from two windows, although it is unclear how this room would have been accessed from an adjoining space that displayed paintings and portraits of famous naturalists. As with Neickel's Wunderkammer, a virtual line may be drawn down the centre of the plan with the bookshelves on one side and specimen cabinets on the other. The work table straddles the two conditions, an arrangement which would have allowed the virtuoso to simultaneously consult multiple interpretations and forms of understanding, and the simplicity of the space certainly suggests that the wonder was to be found in the objects, rather than in the architecture.

Figure 3. Ferrante Imperato's Wunderkammer. Frontispiece from Ferrante Imperato, *Dell'Historia Naturale* (Venice, 1672 ed.).

Developments in scale, activity, and complexity in Renaissance Wunderkammern

The full impact of the immersive environment created by a Wunderkammer collection is apparent in the illustration of Neapolitan apothecary Ferrante Imperato's collection from his 1599 book *Dell'Historia Naturale*[18] (fig. 3). The nature of the space is changing; instead of a scholar alone with his thoughts there are others in Imperato's private world, three interested gentlemen to whom Imperato's son Francesco points out an item of interest.[19] There is no clear division between the visitors and the collection itself and no separation of the viewer from the scene by devices such as the portal of Neickel's frontispiece.[20] The perspective height and angle is in line with the occupants of the space, giving the illusion that the viewer could easily be seeing the room from the point of view of another visitor. The Wunderkammer is still a personal construct, but it is in the process of becoming a much more social environment.[21]

Otherwise, the spatial framework is similar to those previously examined. As before, the collection takes prime importance while the architectural context acts as a simple background that forms the physical limits of Imperato's microcosm and provides protection and support to the collection. While the books and the bulk of the collection are stored on opposite sides of the chamber, the division between the tactile and the textual is not so clear-cut as in Neickel's Wunderkammer or the Gallery in Pisa. The ceiling and the upper portion of the walls, defined by the cornice running along the top of the cabinets, are encrusted with reptiles, fish, and fowl of all shapes and sizes, blurring the boundary between the two conditions. The main organising principle seems to be a vertical one of size rather than a horizontal one of category, with the larger objects suspended from the ceiling or resting on the top of the cabinets and the smaller specimens stored in the repositories below. These intricate wooden cabinets are worthy of some attention, as they perform a game of concealment and revelation that references the microcosmic nature of Wunderkammern, each door hiding further repositories at increasingly smaller scales, microcosm within microcosm. The inner cabinets revealed by the open the exterior doors appear overtly architectural, compartments arranged in the shape of classical niches and recesses.

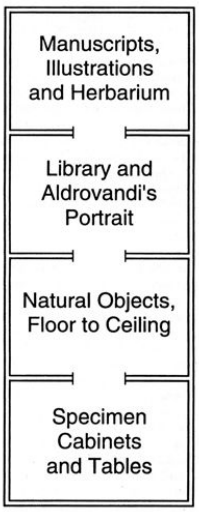

Figure 4. Plan of Aldrovandi's ideal Wunderkammer. (Paula Findlen, *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy* (Los Angeles: University of California Press, 1994).)

In 1603, Bolognese naturalist Ulisse Aldrovandi proposed a new ideal layout for his Wunderkammer in preparation for the transferral of his collection to the ownership of the city (fig. 4).[22] Rather than a single chamber, he envisioned a gallery divided into four equal spaces, each room to be differentiated according to the materials contained

within: manuscripts, printed books, large natural objects, and smaller natural objects in specimen cabinets[23]. It is unclear if objects were intended to be displayed on the ceiling or if any vertically-oriented ordering system similar to Imperato's gradient of scale was intended. Aldrovandi placed himself, in the form of his portrait, virtually at the centre of his collected universe, at the junction between the verbal and the visual, although he aligned himself with the works of other famous naturalists in the room dedicated to the printed word. The lack of indicated points of entry or exit in the diagram reinforces the sense of radial arrangement, suggesting a microcosmic collection that was centred on the virtuoso himself. The decision to divide the gallery into four parts may have simply been one of convenience, representative of the space available in the Palazzo Pubblico, but the arrangement and organisation divided the gallery programmatically in two, preserving the balanced relationship between word and object investigated earlier. Between Imperato's illustration and Aldrovandi's proposal, the Wunderkammer had expanded from a single chamber to a sequential experience and thus transformed from a static space of retreat and contemplation to a dynamic space of movement, 'a space through which one passed'.[24]

The Baroque and the Beginning of Spatial Fabulation

Athanasius Kircher's *Musaeum Kircherianum* at the Collegio Romano in Rome was a much more active and startling environment than the previous Wunderkammern discussed in this paper. Apart from the customary art, artefacts, nature, and exotica, visitors to Athanasius Kircher's museum at the height of its splendour between 1651 and 1672 would have been greeted with such marvels as a mechanical double-headed eagle that copiously vomited liquid, a statue that appeared to move without any visible source of propulsion, and mirrored contraptions that produced a selection of disconcerting visual illusions.[25] Athanasius Kircher was a Jesuit priest of German origin, a flamboyantly creative polymath who ostensibly taught mathematics at the Collegio Romano.[26] The fate of his collection mirrored his own, from a small beginning in his personal quarters, then relocating to a more prominent position in a second floor gallery next to the college library during the height of his fame, and finally demoted into an obscure corridor as his influence faded towards the end of his life.[27]

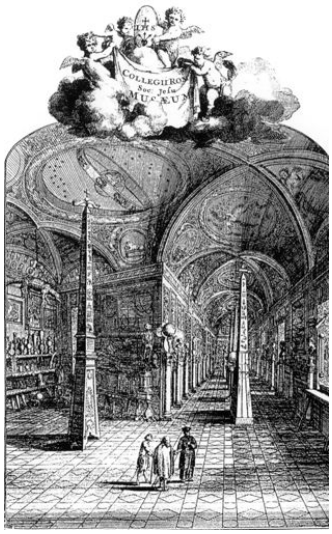

Figure 5. Kircher's Wunderkammer. Frontispiece from Giorgio de Sepibus, *Romani Collegii Musaeum Celeberrimum* (Amsterdam 1678).

Kircher's Wunderkammer was a Baroque, rather than a Renaissance construction, with the associated sense of heightened drama and theatricality. Two different resources will be used to analyse and interpret his gallery of wonder in both plan and elevation: the frontispiece of Giorgio de Sepibus' *Romani Collegii Musaeum Celeberrimum*[28] (fig. 5) and a diagram of the gallery floor plan (fig. 6). The succession of rooms imagined by Aldrovandi has found a large scale manifestation in Kircher's creation, a long gallery with three alcoves separated from the rest of the college by a low iron gate. No bookshelves are visible in the engraving, but the literary world was still close by; the floor plan shows that the museum shared a wall and an entrance corridor with the college library. The collection space, always one of great interiority, has become deeper and more complex, the far wall no longer fully visible, nor the full extents of the gallery easily comprehensible. The ceiling is no longer encrusted with specimens of the Earth's bounty; it is the vault of the heavens, richly painted with the signs of the zodiac and allegorical references, the vertical axis becoming the spiritual axis of the Wunderkammer, running from Heaven to Earth, from fresco to floor.[29] The Wunderkammer was still a microcosm but growing ever larger.

Kircher himself is to be found at the centre of the image, welcoming visitors to his collection, but there has been a significant change in perspective angle since the illustration of Imperato's Wunderkammer. Although the overall architectural framework of the engraving of Kircher's Wunderkammer appears fairly representative of that shown on the floor plan, the engraver has chosen to draw Kircher and his guests at approximately half scale, a technique made popular by artists such as Piranesi, who

used it to increase the grandeur of the setting.[30] This technique also effectively separates the viewer from the action; the viewer no longer sees the Wunderkammer from a visitor's eye level but from some higher and more distant plane. The illustration thus stands on the boundary between the actual and ideal: Kircher's Wunderkammer was depicted not as it was, but adjusted to how it was felt it should be. Spatial fabulation in the context of the Wunderkammer had begun.

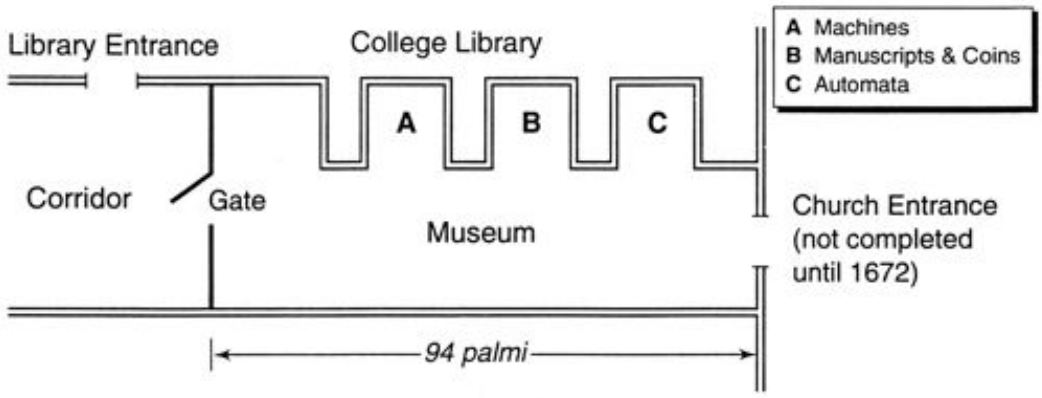

Figure 6. Plan of Kircher's Wunderkammer. (Paula Findlen, *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy*.)

Architecture as means for the exploration of intangible networks of ideas

Let us return to Neickel in his Wunderkammer, the solitary scholar in a 'chamber of treasures – rarities – objects of nature – of art and of reason'.[31] This is architecture at a domestic rather than an epic scale, a simple four-square room with the majority of interest being provided by its contents rather than by the container. From this starting point developments in scale, depth, complexity and movement have been traced within several examples of Wunderkammern, noting certain themes in the organisation of space and the effective use of spatial illusion in the 1651 illustration of Kircher's Wunderkammer. In this, Kircher's Wunderkammer represents a transition point, the beginning of the use of spatial fabulation as a powerful device in the representation of Wunderkammern, because De Sepibus's frontispiece rests somewhere between the actual and the ideal; while the architectural framework appears accurate enough, scale and perspective have been manipulated to great effect. German virtuoso Eberhard Werner Happel explored the possibilities of this spatial exploration and the developments in the nature of the collection space to its full potential in the illustrated frontispiece of his 1683-91 book *Groesste Denkwuerdigkeiten der Welt...*,[32] passing completely into the realms of the imagination.

Figure 7. Frontispiece, Eberhard W. Happel, *Grösste Denkwürdigkeiten der Welt oder Sogenannte Relationes Curiosae* (1683-91).

Happel's frontispiece depicts an ideal rather than an actual Wunderkammer, a representation of how Happel wished to present the act of experiencing his collection to his readers (fig. 7). Rather than an apparently realistic representation in the style of Neickel or Ferrante Imperato, we are presented with an extravagant vision of a realm of discovery, an explosion from the chambers and galleries of previous Wunderkammern into a palace of wonder, a microcosm on a macrocosmic scale. It is a fabulation in the sense that it is an unbuilt fantasy, paper architecture freed from any physical or practical real-world restrictions, but also in the way perspective techniques, style, and scale are manipulated to create a matrix of interconnected spaces of an unprecedented complexity that bulges at the seams of reality, convention, and physical possibility. From subtle distortions to Escher-like paradoxes, this is a Wunderkammer that does not subscribe to the normal rules of space and perspective.

The foreground of Happel's image is defined by three monumental classically-inspired halls, lit by high rows of windows. Each hall is connected to the next by large doorways, and each presents to the viewer different vistas of intriguing possibilities. In the first, left-most hall, beyond a display of collected natural specimens one can see stairs and a series of levels leading to a vaulted gothic hall that curves into the distance, partly obscured by a half-height partition. The second hall opens out into a large chamber, through which is visible an archway and a doorway that leads to a balcony, giving fragmentary vistas of a world beyond the Wunderkammer. This awareness of an exterior context is completely unprecedented, as the previous examples all exhibited a strong self-contained interiority to the point of seeming almost context-less; as a rule the

spectator looked into a Wunderkammer, rather than through. The third hall is more enclosed than the previous two and contains artefacts of a religious and miraculous nature, as well as a stair at the rear of the hall leads through an archway into another partially visible chamber. In Happel's Wunderkammer the use of perforated planes and multiple paths creates a labyrinthine construct; the possible paths open to the visitor seem to continue onwards *ad infinitum* through a variety of interconnected spaces, the end goal tantalisingly close but always slightly out of view. This is a setting of movement and socialisation; multitudes of visitors of both sexes and many nationalities investigate, explore, and discuss Happel's creation. The division between the visitor and the collection is as ambiguous as before, although the virtuoso himself is no longer present at the centre of his creation. While the axis of heaven found in Kircher's Wunderkammer is present, represented by an armillary sphere silhouetted against the sky, the organising principles of this example are less clear, but are perhaps related to whether the items belong to the works of nature, man, or the miraculous.

Happel's Wunderkammer exhibits a level of architectural detail and complexity only to be found in the storage cabinets of previous examples. The halls contain the expected assortment of interesting and exotic objects but the element of wonder appears now to be provided at least as much by the architectural context as by the objects themselves, which seem somewhat overshadowed by the number of visitors and the scale of their surroundings; an inversion of the scenario demonstrated in Ferrante Imperato's Neapolitan *camera delle meraviglie*. There is at least one vanishing point for each of the three halls, literally giving the viewer new perspectives as they move from one to the next. There are also several physical impossibilities, the most obvious of which is the M. C. Escher-like paradox on the right hand side of the right-most hall: the cornice is lit so as to suggest one continuous space, yet the room behind is definitely wider than the hall, and the arch itself seems square to the viewer but the bases of the columns supporting the barrel vault are in fact at different distances from the viewer, despite forming an illusion of being positioned parallel to the picture plane. This distortion becomes most obvious at the front right of the engraving where a Chinese man is stepping through a door, covering with his body the perspectival distortion introduced by Happel which allows at the rightmost pillar to read as in line with the arch as well as becoming the step the over which the Chinese man enters the hall. These spatial events are made possible through inventive bending of the rules of perspective. The presence, location, and visibility of the Gothic gallery is also intriguing, evoking the passage of time and adding a sense of growth and development to a virtual space. Visitors are climbing the stairs towards the gallery as well as away from it, so if the gallery is indeed a

representation of the past it is not portrayed as the start of a linear progression but as a dialogue between the partly obscured past and the present day.

Happel would have undoubtedly wished to impress upon the viewer the wealth and wonder of the material contained within the covers of his book, but perhaps this is not the only motivation to be found for the complexity and detail to be found in the architecture of his Wunderkammer. A Wunderkammer offered 'an opportunity for experimentation in merging form and meaning', a chance to explore the intangible connections between ideas represented by the objects in the collection as well as to examine the objects themselves.[33] Entering the Wunderkammer, one entered into a dialogue between the seen and unseen, driven by an open network of possible associations based on the intrinsic and esoteric properties that linked the objects together in expected or surprising ways.[34] Parallels can be drawn between the experiments in association carried out by the virtuosi and the architectural features of Happel's Wunderkammer, presenting the possibility that Happel's illustration is a physical representation of intellectual journeys possible in the context of the Wunderkammer. Visualising the process of investigation as a network of interconnected spaces that link object to object, idea to idea, creates an architecture of possibilities that uses spatial fabulation to explore and communicate these conceptual linkages.

With this hypothesis in mind, it is interesting to look once again at the architecture of this Wunderkammer. The humanist belief in the search for underlying universal truths is apparent in the glimpses of another world beyond the Wunderkammer, the Wunderkammer itself becoming the mediator between the known world and the unknown. The power of curiosity is to be found in the partially obscured views that draw one onwards and the mix of architectural styles reflects the importance of history and precedent. Ultimately all spaces are divided but interlinked, modelling the multivalent connections between objects in the Wunderkammer conceptual network, allowing the visitors to navigate a physical network between fact, fiction and speculation.

Conclusion

While it was not strictly necessary that the architecture of a Wunderkammer in some way reflected the richness and complexity of the collection and experiments performed within, as demonstrated by the utilitarian simplicity of early Renaissance examples, there was certainly a desire to enhance and increase the stature of the collection space. In the earliest examples there were to be found enduring underlying themes of spatial organisation that used divisions and balances between forms of understanding to create

fertile areas for experimentation, and as time went on the architectural framework of the Wunderkammern became progressively more splendid. Kircher and Happel ultimately produced Baroque spatial compositions of a scale, magnificence, depth, and variety to rival, if not overtake the wonder of the collection itself. This change coincided with a gradual transformation of the Wunderkammer from a private retreat to a social setting and from a single chamber to a sequential experience. Happel's ideal Wunderkammer was the culmination of these conceptual developments, an imaginative vision that utilised spatial fabulation to its full potential. Unhampered by the restrictions of reality, spatial fabulation was used to explore and communicate mental processes, to create an architecture of speculation, curiosity in built form. The on-going changes in the nature of the Wunderkammer and the tensions between retreat and sociability were undoubtedly influenced by greater shifts in the socio-political climate and by changing attitudes towards scholarship and mass education.[35]

The encyclopaedic approach of the pre-Enlightenment Wunderkammer was very much in the spirit of the period, but its underlying philosophies have been manifest in more recent locations of knowledge storage and generation such as Sir John Soane's Museum and Aby Warburg's Kulturwissenschaftliche Bibliothek, although the earlier quest to make sense of the world in its entirety has largely been narrowed down to a specific topic area, or turned inwards on humanity itself. Warburg was indeed one of the few recent scholars unafraid to accept and investigate the transitions between areas of knowledge, using multivalency in the organisation of his constantly evolving 'library as laboratory' [36] with ultimately fascinating results. Bearing in mind recent technological and methodological developments, it appears that, no matter the century, the border areas, overlaps, and thresholds of knowledge can be some of the most fertile zones for creativity and discovery.

Endnotes

[1] Horst Bredekamp, *The Lure of Antiquity and the Cult of the Machine*, (trans.) Allison Brown (Princeton: Markus Weiner Publishers, 1995), 51, 53.
[2] Robert Felfe, "Collections and the Surface of the Image," in Ludger Schwarte, Helmar Schramm and Jan Lazardzig (eds.), *Collection, Laboratory, Theatre: Scenes of Knowledge in the 17th Century* (*Theatrum Scientarium: Vol. 1)* (Berlin: Walter de Gruyter, 2005), 229.
[3] Paula Findlen, *Posessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Europe* (Los Angeles: University of California Press, 1994), 24.
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[5] Findlen, *Posessing Nature*, 399.
[6] Bredekamp, *The Lure of Antiquity and the Cult of the Machine,* 113.
[7] Bredekamp, *The Lure of Antiquity and the Cult of the Machine*,113.
[8] Findlen, *Posessing Nature*, 24.

[9] Findlen, *Posessing Nature*, 9.
[10] Felfe, "Collections and the Surface of the Image", 229.
[11] Caspar F. Neickelius, *Museografia* (Leipzig 1727).
[12] Felfe, "Collections and the Surface of the Image", 231.
[13] Felfe, "Collections and the Surface of the Image", 243.
[14] Felfe, "Collections and the Surface of the Image", 244.
[15] Findlen, *Possessing Nature*, 101.
[16] Findlen, *Possessing Nature*, 110.
[17] Findlen, *Possessing Nature*, 114.
[18] Ferrante Imperato, *Dell' Historia Naturale* (Naples 1599).
[19] Findlen, *Possessing Nature*, 114.
[20] Felfe, "Collections and the Surface of the Image", 233.
[21] Findlen, *Possessing Nature*, 103.
[22] Findlen, *Possessing Nature*. 122.
[23] Findlen, *Possessing Nature*. 122.
[24] Findlen, *Possessing Nature*, 115.
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[26] Alison B. Kavey (ed.), *World-Building and the Early Modern* Imagination (New York: Palgrave MacMillian, 2010), 69.
[27] Findlen, *Possessing Nature*, 126.
[28] Giorgio de Sepibus, *Romani Collegii Musaeum Celeberrimum* (Amsterdam 1678).
[29] Felfe, "Collections and the Surface of the Image", 243.
[30] Ingrid Rowland, "Representing the World," in Jaap Maat, Thijs Weststeijn and Rens Bod (eds.) *The Making of the Humanities: Volume 1: Early Modern Europe* (Amsterdam: Amsterdam University Press, 2010), 91.
[31] Neickelius, *Museografia*. Quoted in Edward P. Alexander, *Museum Masters: Their Museums and Their Influence* (California: AltaMira Press, 1995), 3.
[32] Eberhard W. Happel, *Grösste Denkwürdigkeiten der Welt oder Sogenannte Relationes Curiosae* (1683-91).
[33] Bredekamp, *The Lure of Antiquity and the Cult of the Machine*, 110.
[34] Bredekamp, *The Lure of Antiquity and the Cult of the Machine*, 110.
[35] Findlen, *Possessing Nature*, 103.
[36] Sandra Karina Löschke, "Unlimited Potential Meanings: Warburg's Library as Laboratory," in Antony Moulis and Deborah van der Plaat (eds.), *Audience: Proceedings of the XXVIIIth International Conference of Architectural Historians, Australia and New Zealand*, (Brisbane: SAHANZ, 2011), 10.

New Belgrade's Park of Friendship: Mobilising Leisure

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Abstract

This paper re-evaluates the idea and practice of leisure through the incomplete landscape zone of New Belgrade's 1961 Park of Friendship. The re-evaluation will derive from the historical exploration of New Belgrade's architecture and urbanism, whereby the Park of Friendship is its microcosm, and as such exposes landscape and leisure as both the opening and closing of opportunities. The opening of opportunities will be exposed in respect to one specific leisure model, the Youth Labour Brigades, during the SFRY after WWII. This model offers an alternative conception of a human and social body as an activity of complicity in relation to leisure. The closing of opportunities will reveal a shift since NATO's targeting of New Belgrade in 1999, where leisure is actively mobilised as a possession and a predetermined mode of neo-liberal exchange and control.

Introduction

The incomplete 1961 Park of Friendship is a historical microcosm of New Belgrade's discontinuous urban and architectural development. The paper positions New Belgrade's three historically distinct periods wedged between the Park's landscape and leisure zone. The first historical period will refer to New Belgrade as a no-man's land separating the cities of Zemun and Belgrade pre WWII, the second as a 'Non-Aligned' zone with the Park commemorating the First Summit of Non-Alignment whose Movement was driven by a different political geography from that of the Cold War politics, and the third period demonstrating the Park's symbolic role of 'normalization' after the 1999 NATO targeting where the introduction of neo-liberalism has become a signifier of a new political landscape and consumer culture.

The historical exploration of New Belgrade's urbanism and architecture will set the framework to re-evaluate the concept of leisure through the Park of Friendship, whereby the space and practice of leisure is inclusive to the politics of economy / land ownership and to the politics of memory. The opening of opportunities is offered by exploring one

SFRY leisure model, ORA (*Omladinska Radna Akcija*) – the Youth Labour Brigades. This leisure model re-evaluates the premise of economy, body and technology, and in turn demonstrates Nietzsche's ideas on the health of a culture requiring a form of disciplining and body cultivation. The decline of opportunities will derive from the reconstruction of New Belgrade after the 1999 NATO targeting, with the Park of Friendship exposing the practice of leisure actively mobilised for the purposes of neo-liberalism. In other words, spaces of landscape and leisure are becoming a possession, a commodity and a practice solely used as a mode of exchange and control.

New Belgrade

Current day New Belgrade has a relatively recent history. Up until the 19th Century, the area was characterised by physical flatness,[1] and considered a no-man's land between the Ottoman and Austro-Hungarian Empires. The urban development of this zone was marked by the construction of a 1938 Old Belgrade Fairground along the left bank of the river Sava (now New Belgrade), with the Fairground soon after the construction used as a concentration camp to exterminate the Serbs, Romani and Jews by the Nazis during WWII. The radical urbanization and modernization of New Belgrade significantly accelerated after WWII, under the initiative led by the leadership of the Communist Party of Yugoslavia and under supervision by Marshal Josip Broz Tito, the Yugoslav Communist Party Politburo of Serbia and the City Party Committee.[2]

New Belgrade was planned with the premise to serve as the capital of the Socialist Federative Republic of Yugoslavia (SFRY) by integrating the universal values of modernism and Tito's alternative and independent Socialist ideology - Soviet Communist driven public and social welfare interlaced with Western Fordist Capitalism. This alternative way of life was grounded in self-management and worker's rights, where profit sharing theoretically took place in state-run enterprises. The law on self-management was the basis of the entire social order in SFRY, whose property and various institutions were state owned, but travel unlike in the USSR was permitted outside the SFRY borders. The construction of New Belgrade was a signifier of this experimental and uniquely ideological and political project, and further driven by a belief that the country's development is synonymous with a re-evaluation of agriculture, industry and technology.

On an urban level, the Serbian Architect Nikola Dobrovic's 1946 plan for New Belgrade was imagined as an enclave of government and culture-oriented structures intertwined with generous spaces of landscape. While Dobrovic's urban plan reflected CIAM's

principles, it also abstracted them by proposing a non-figurative radial plan.[3] In other words, while Dobrovic's plan initiated the construction of New Belgrade as a series of enclaves within an urban island, the fact that its planning and construction was premised on an alternative and experimental Socialist framework reduces the possibility to associate the enclaves as zones of CIAM's monumental rigidity and control. New Belgrade's initial construction was officially marked with 3 key buildings: SIV (*Palata Federacije*) - the Federation Palace, which began in 1947 and completed in 1961; the 1964 CK Tower – the Central Committee Tower and a Headquarters of the Communist Party of Yugoslavia (now the Usce Tower); and the 1958 Museum of Contemporary Art. However, due to limited economy and the great housing demand post-WWII, New Belgrade appropriately became known for its residential character and for providing socially owned apartments. The scheme of 'socially owned property' meant that state institutions provided housing for their employees, with New Belgrade housing over tens of thousands of citizens. It is said that in

> [N]ew Belgrade, the specificity of the housing function followed the ideological premise that a place of residence / apartment in socialism is not a commodity, or not only a commodity, but that it is its use value which defines it. It reflected another socio-political construct of the right to a residence as universal right to the common public good, and related to the ideal of the just distribution, i.e. the ideal of free apartment, and free social services for all.[4]

Before the actual building construction started, New Belgrade's terrain was evenly covered with sand to dry out the swampy area, and to raise it above the reach of flooding and the underground water table. The conveyor belts that were used to transport sand and gravel from a small island called 'Malo Ratno Ostrvo' (Little War Island), almost destroyed the island,[5] thus allowing a proposition that New Belgrade is built on (and of) a war island. The work of laying eight million cubic meters of sand over the swampy terrain was mainly done by ORA – the Youth Labour Brigades. The Brigades were a creative and pioneering force that provided significant voluntary labour in building a new city and a new country, whose labour was accompanied with songs and educational activities. ORA "[w]as a uniquely Yugoslavian invention that marked the reconstruction effort after the war and was maintained well into the 1980s as one of the crowning examples of the country's 'permanent revolution'."[6] The Brigades' alternative practice of leisure reveals that the politics of spatial planning, construction and habitation can be approached by re-evaluating leisure through labour, technology, and as a permanent resistance and

revolution. However, due to the immense scale of New Belgrade, in time, construction largely became possible and depended on the World Bank loans from the West. The loans were credited to support the SFRY's split from the USSR in 1948 in the hope that other Socialist / Communist satellite states would follow Yugoslavia's example.

Figure 1. Map of Belgrade. (Image by author). **Figure 2.** The construction of New Belgrade in the 1960s with the voluntary work done by ORA. (Montage by author).

Park of Friendship: 1961-1990s

The 1961 Park of Friendship was one of 4 large parks in New Belgrade located along Belgrade's coastal line. The other 3 Parks include: the Park of Art, the Sava Park and the Entertainment Park.[7] The Park of Friendship was one of the first realised landscape constructions in New Belgrade. It commemorated the first conference of heads of state from the Non-Aligned Movement (NAM) in September 1961. NAM was conceived as a network of nations that had an alternative and 'third way' political geography from that of the Cold War politics, namely the USSR / the Warsaw Pact and the United States / NATO. At the forefront of NAM were three countries and presidents: India's Nehru as a mediator and moral force for peace, Egypt's Nasser who was against colonialism and the SFRY's Tito, as a defender of national independence between the two Blocks by establishing an independent and experimental brand of Socialism (Communism and Capitalism combined). In other words, the SFRY under Tito's Socialism (Titoism) had an alternative approach to economy, law, technology and military, with Yugoslavia being the only European country that openly opposed Europe's Eastern and Western Block divisions.

The Park was initiated by the Movement of Young Conservationists of Belgrade (*Mladi Gorani*), whose initiative was then taken up by the Council for Culture and Council for Urban Planning of the National Committee of the City. In 1965, the public competition was put forward to develop the landscape zone, with the winning design by the architect Milan Palisaski never fully realised. The Park, located at the mouth of two rivers, the Danube and the Sava, occupies a 12.5ha area of New Belgrade's total 4100ha; the size of which was largely made possible due to state ownership of land and under-urbanisation of New Belgrade. The Park's triangular shape was derived out of connecting 3 significant buildings: the 1961 SIV, the 1964 CK and the 1958 Museum of Contemporary Art.[8] Its central area accommodates an 180m long pathway, the 'Colonnade of Peace' (*Aleja Mira*) that houses a 'living memorial' of 26 seedlings planted by 25 heads of state[9] who attended and formed the First Summit of Non-Alliance. The first seedling was planted by the Park's initiators '*Mladi Gorani*.' The seedlings, *platanus acerofilia*, were spaced 8m apart so that at a particular height the trees' branches would meet, signifying unification and relatedness of all Non-Aligned countries.[10] At the Colonade's entry, a feature sculpture by Lidija Misic was designed whereby the sculpture's symbolism took on several fluctuating forms: a tree, a flower, a flame and a bird. The indefinite aesthetic of the sculpture, whilst marking the Summit's principles of world solidarity and respect for territorial integrity, also signified elasticity and dissolution of a singular and fixed identity.

Figure 3. Lidija Misic's sculpture of fluctuating forms. (Photograph by author).
Figure 4. Tito planting a seedling along the 'Collonade of Peace' on September, 7th. (Photograph of an original photograph by author).

With the Park initially conceived to commemorate an alternative political project, this landscape zone further implies that spaces of landscape and leisure are inseparable from social, economic, legal and military power. If this is the case, then the practice of leisure carries with itself the seeds of complicity. Complicity through leisure does not transcend the current understanding of leisure, but deepens, questions and re-evaluates the idea of leisure in relation to technology, economy and law. From this perspective, leisure becomes a mode of dissent that can disturb the Western conventional logic of leisure, which is discursively associated as being opposite from work and that can take form in the imagery of holidays, re-skilling or shopping.

A re-evaluation and new conception of leisure is implicated in ORA, whose initial labour-oriented construction of New Belgrade and the SFRY, later turned into recreational and travel-oriented activities. ORA was shaped by friendship and solidarity, and operated on several levels which included

> [a] method of equalizing thinking by erasing disparities beween social milieus – rich and poor, urban and rural - and diminishing cultural differences between Yugoslav ethnicities. On a practical level, the Party used the *ORA* framework to combat illiteracy by organizing educational and other courses in the brigades.[11]

Apart from preparing the ground and building the initial foundations of New Belgrade, ORA was also involved in building Belgrade's Ada Ciganlija, an artificial lake that is fed by the Sava River. Belgrade's Ada became a highly popular recreation zone. During the summer months, it was used for swimming, clubbing and sporting events, and for the remainder of the year, Ada utilised activities such as walking, fishing and jogging.[12] In the construction of other SFRY Republics, ORA was also involved in infrastructure construction such as the Brcko-Banovi Railway, Samac-Sarajevo Railway and the Brotherhood and Unity Motorway which connects Slovenia, Croatia, Serbia and Macedonia. The Brigades' initial premise included an alternative use of a human body and conception of leisure. Its leaders were defined by their ability to accomplish and exceed set daily tasks, with those who succeeded being given a title of *udarnik* (shock-brigade worker).[13] The chief motto of ORA was 'Our aim is the impossible!' (*Nemoguce, to je nas cilj!).* While the conception of this motto had an ideological framework whereby the Party used '[*u]darnici* to show what the "new man" would look like, behave, and act',[14] this leisure activity reveals that a body is an energy and a technological device, which in

turn re-structures the understanding and application of technology since the Industrial Revolution. More so, unlike the binary conception of body and mind, the ORA body was not opposed to soul, but extensively used both as a technology and an energy whose outcome depended on self-creation. In other words, ORA reflects Nietzsche's idea of Self-Creation through an inward / outward body in relation to emergence of consciousness. The emergence becomes a framework to reconsider leisure, where self-creation requires self-discipline,[15] and where cultivation of one's body is comparable to Nietzsche's allegory of a body to a landscape and a garden. With ORA's motto 'Our aim is the impossible!,' the limits of the body are reconfigured on a daily basis whereby one's body, mind and soul are used as a deployable material. There is an implication that by disciplining and modelling oneself through cultivating the body and soul in an active and complicit way, there is a possibility to project an alternative future where a human body becomes an experimental and dissidence-oriented landscape.

Park of Friendship: 1999 to current

After NATO's 1999 targeting of Belgrade, the Park has become symbolic of Belgrade and Serbia's transference from 'third way' Titoism and NAM to global and 'only way' neo-liberalism. NATO's targeting of Belgrade is a complex scenario reflecting Stephen Graham's writings, where post Cold War, there has been an increase in military urban research in order to deal with 'uncertain' spaces. The paper positions Belgrade and Serbia as one of these 'uncertain' spaces, whose 1999 targeting is part of a larger war of surveillance, economic, social and cultural obstruction, as well as based on the expansion of neo-liberalism, whereby '[t]he rich cities of the advanced capitalist world profit from 'urbicidal' violence, which deliberately targets the city geographies of the Global South to sustain capital accumulation'.[16] As a result, campaigns against terror and ethno-nationalist violence have been used as means to penetrate and control alternative sites of the Global South. This is despite NATO's pretext for targeting Belgrade framed as a 'Humanitarian' Operation to stop the violence between Serbs and Albanians in the Province of Kosovo and Metohija, as well as to put an end to Slobodan Milosevic's alleged sole destruction of the former SFRY.

More than five decades after the Park's 1961 conception, and the 1965 public competition, only 9.5ha of the total 12.5ha have been realised.[17] The unfinished nature of the Park mirrors the discontinuous and incomplete urban development of New Belgrade, whose current transformation includes the initially unbuilt CIAM Blocks becoming occupied with commercial shopping centres and private mixed-use developments.

Arguably, the relatively seamless transition and endorsement of neo-liberalism is due to Belgrade being under economic sanctions for nearly 10 years, with the period from early to mid-1990s experiencing the highest hyperinflations. The unmediated conflict and the disintegration of SFRY in the early 1990s meant that the United Nations Security Council (U.N.S.C.) posed sanctions, which were directed to those zones largely seen as responsible for the conflict: in this case Serbia and Montenegro. Likewise, the Western perception of the rightness of a consumer driven culture and the privatization of property was made easier due to the limited association of Belgrade and Serbia with Milosevic's nationalism driven government, with Milosevic during the reign of his power, discursively using the economic sanctions both to fuel nationalism and strengthen his stronghold. In other words, the sole association of Belgrade and Serbia with nationalism and violence allowed the quick removal of post-WWII Titoism and its Non-Aligned politics of economy, technology, law and leisure from the global memory. The erasure of this memory is a political strategy of power and control, and a new form of history and landscape / leisure spaces colonised.

The unfinished urban planning of New Belgrade offers a possibility to not only reinterpret, but also reveal the paradoxes of Western leisure on one hand, and on the other hand, Serbia's spectacularisation of history being resonant with an avoidance of accepting and dealing with trauma. A 2000 political reiteration added to the Park of Friendship is a memorial 'Eternal Flame,' designed by Architects Marko Stevanovic and Miodrag Cvijic and sculpted by Svetozar and Svetomir Radovic. The memorial was initially planned to stand at 78m, a symbolic number marking the number of days NATO bombed Serbia. At its completion, the height measured 27m, with the memorial placed at the opposite end of the 1961 Misic's sculpture, to honour Serbia's alleged defence against the 1999 NATO targeting. Two plaques with excerpts from Branko Miljkovic's poems 'To the Homeland' and 'Yugoslavia' adorn the memorial. The excerpts were chosen by Mira Markovic, wife of Slobodan Milosevic, and signed as 'People of Serbia'. The irony of Mira Markovic using Miljkovic's poetry is not only that Miljkovic was not an avid supporter of any Socialist Party / System during Titoism, but that the poems were written and derived out of 'that' homeland (SFRY / Serbia) and manipulated to suit 'this' Serbia after 1999. The appropriation of ideas from a specific time period and political context to suit a completely different one is no longer a discursive manipulation of ideas used to suit a particular political project, such as Milosevic's nationalism, but raise larger questions about memory, history and trauma. The avoidance of trauma experienced during NATO's targeting is implicated in immediacy and time required to rebuild a country, as well as the

ability of an individual in power to identify a particular situation as being heroic. Mira Markovic's chosen and signed poems on behalf of the people further reveals that civilian aspirations during Milosevic's rule were no longer different and/or decentralised from state power, but over time only became comprehensible in relation to state aspirations. According to Nietzsche, this type of individual conformity is an example of '[a] shrunken, almost ludicrous species, a herd animal, something full of good will, sickly and mediocre'.[18] In other words, when events occur and are not placed within the larger historical perspective, or directed to critically analyse the past by directing alternative desires towards future, the history remains binary in orientation and the future is predetermined.

Figure 5. The 'Eternal Flame' memorial. (Photograph by author).
Figure 6. Plaques with excerpts of two poems. The first excerpt reads: '*To the Homeland* And if they killed me, I love you.' The second excerpt reads: '*Yugoslavia* Everything that does not contain fire in it burns out, What burns out becomes night, What does not burn out gives birth to day.' (Photographs by author).

The most recent addition to the Park includes the '2007 Olympic Circles' foregrounding the 'Colonnade of Peace' to symbolise Belgrade's 'Universiade Youth Games'. The 'Olympic Circles' indirectly signify that in preparation for the Youth Games, nine of New Belgrade's 'vacant' blocks (in Block 67) were turned into an Olympic Village (Belville), with the premise that the numerous apartments in the Village would be sold after the event. The planning and construction of Belville exposes a shift, from the SFRY model of socially owned property to property as a private commodity. This 'vacant' block also resulted in a considerable number of the Romani population being relocated to the fringes of the city, suggesting the multifaceted nature of New Belgrade's reconstruction after 1999. On one hand, there is a given premise that the reconstruction will allow for a return

to 'normalcy' of life after the sanctions and the 1999 targeting. The reconstruction of the 1999 targeted CK Tower and a former Headquarters of the League of Communists (now Usce Tower) has become a marker of Belgrade's rapid and successful transition to neo-liberalism, with the initial green-scaped area surrounding the Tower accommodating the construction of a new shopping centre. On the other hand, this 'normalcy' is implicated in a gentrification of zones. According '[t]o a study conducted under the aegis of the United Nations, as of 2005, 25,000 Belgrade residents lived in 29 slums and 64 other slum-like settlements that do not meet elementary health and sanitary standards.'[19] What is becoming clear is that New Belgrade's reconstruction after 1999 is reflective of a politics of depth, where violence is a complex scenario of internal (nation-state) and external politics through foreign-aid bank loans. The normative filling of New Belgrade's 'empty' blocks with shopping centres, private residential / office blocks and the 'denationalization' of law is accommodated by privatising initially publicly owned spaces and companies through a process of liquidation. In other words, New Belgrade's CIAM blocks, open spaces and broad avenues have since 1999 become appropriated and used to suit the narrow interest of neo-liberal stake-holders. The rapid reconfiguration of 'empty blocks' with neo-liberal facilities is a possible indicator of the proposed 2021 Urban Plan of New Belgrade, which shows an extreme transition from the leftist post-WWII Socialist conception of 'space for all' to an ultimate right and neo-liberal, financial and private property-oriented 'market for the few'.

Figure 7. The 2007 Olympic Circles foreground the Colonnade of Peace. (Photograph by author).

The recent introduction of neo-liberalism, the spaces of landscape and leisure are also activated towards consumerism, and in turn expose that when leisure is associated as

being opposite from work it is also appropriated to suit consumer and control driven markets. With the acceleration of speed through technology since the Industrial Revolution, and neo-liberalism since the 1970s, spaces of landscape and leisure are configured in a way where a human body only becomes valued when it mitigates the relationship between consumption and science-oriented technology. In other words, the consumer body is discursively presented as a mode of leisure, despite the consumer body having a predetermined future. Unlike ORA's configuration of body, mind and soul as a form of energy and technology, whose materiality is deployable in alternative and experimental ways, the consumer body remains a binary relation that not only determines the mode of production, but also becomes its labour intensive instrument.

Figure 8. The filling of an 'empty' Block 67 and erasure of the Romani Settlement. (Photomontage by author).

Conclusion

The exploration of a historically and politically significant, yet architecturally incomplete, urban landscape zone of New Belgrade in general, and the Park of Friendship in particular, reveals that spaces of landscape and leisure are not value-neutral or separate from the g/local economy or social responsibility. Likewise, leisure can no longer be associated with normative zones and/or images of free space and time, but key opportunities to re-evaluate and challenge the converging politics of consumer culture, history and memory. Thus, for any alternative futures to take place, leisure needs to be reconfigured in relation to an individual and social body as a form of alternative energy and technology. The idea is not that Capitalism would be abolished, but that consumption would be rethought, so that individual and social life would be worthy of repetition, and

whose principle and greatest weight would be guided by the question: whether this life is worthy of repeating once more and innumerable times more?[20]

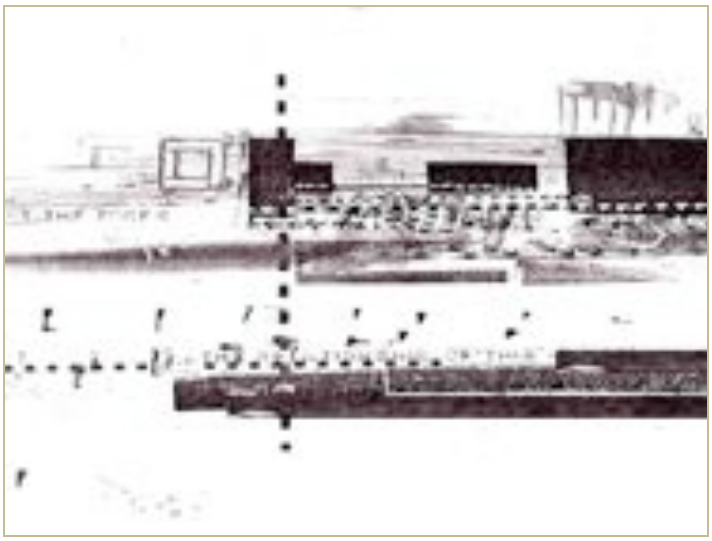

Figure 9. Memory colonised - erasure of an alternative and Non-Aligned political project. (Collage by author).
Figure 10. The Eternal Flame in the foreground and the 'successful' transition of the CK Tower from Titoism to neo-liberalism in the background. (Image by author).

Endnotes

[1] While urban plans for construction of New Belgrade existed in 1923, proposing boulevards and neo-baroque architecture, the only structure built up until WWII, was a more traditional Fairground Pavilion along the river Sava in late 1930s.
[2] Ljiljana Blagojevic, *Novi Beograd: osporeni modernizam*, *New Belgrade: Contested Modernism* (trans.), (Beograd: Zavod za udzbenike, Zavod za zastitu spomenika kulture grada, Arhitektonski fakultet, 2007), 59.
[3] Ljiljanja Blagojevic, 'New Belgrade: The Capital of No-City's Land', *artifact: strategies of resistance*, issue 4, <http://artefact.mi2.hr/_a04/lang_en/theory_blagojevic_en.htm> (05 February, 2012)
[4] Ljiljana Blagojevic, "Back to the Future of New Belgrade: Functional Past of the Modern City", http://www.newtowninstitute.org/lectures/lectureGeopolitics11/art2-3_BackToTheFutureOfNewBelgrade-Blagojevic-.pdf (12 February, 2012)
[5] Currently, the island is an inaccessible strip measuring less than 300m in length and 60m in width.
[6] Branislav Jakovljevic, 'Human Resources: June 1968, *Hair*, and the Beginning of Yugoslavia's End', *Grey Room*, 30, Winter (2008), 40.
[7] Ivana Neskovic, 'Park Prijateljstva u Novom Beogradu', 'The Park of Friendship in New Belgrade' (trans.), *Naslede (Heritage)*, 12, (2011), 203 – 216, 206.
[8] Neskovic, 'Park Prijateljstva u Novom Beogradu', 206.
[9] The 25 states include Algiers, Afghanistan, Burma, Ceylon, Ethiopia, Ghana, Guinea, India, Indonesia, Iraq, Yemen, Cambodia, Cyprus, Congo, Cuba, Lebanon, Mali, Morocco, Nepal, Saudi Arabia, Somalia, Sudan, Tunis, United Arab Emirates and SFRY.
[10] Neskovic, 'Park Prijateljstva u Novom Beogradu', 211.
[11] Dragan Popovic, 'Youth Labor Action (Omladinska Radna Akcija, ORA) as Ideological holiday-Making', in Hannes Grandits and Karin Taylor (eds.), *Yugoslavia's sunny side: a history of tourism in socialism (1950s-1980s)*, (Budapest, Hungary: Central European Press, 2010), 279 – 302, 281.

[12] Popovic, 'Youth Labor Action (Omladinska Radna Akcija, ORA) as Ideological holiday-Making', 289.
[13] Popovic, 'Youth Labor Action (Omladinska Radna Akcija, ORA) as Ideological holiday-Making', 284.
[14] Popovic, 'Youth Labor Action (Omladinska Radna Akcija, ORA) as Ideological holiday-Making', 285.
[15] Friedrich Nietzsche, *Twilight of the Idols and The Anti-Christ* - Expeditions of an Untimely Man, R. J. Hollingdale (trans.), (London: Penguin, 1990), 49.
[16] Stephen Graham, *Cities Under Siege: The New Military Urbanism,* (London and New York: Verso, 2010), p. xxix.
[17] Neskovic, 'Park Prijateljstva u Novom Beogradu', 211.
[18] Friedrich Wilhelm Nietzsche, *Beyond Good and Evil: prelude to a philosophy of the future*, R.J. Hollingdale (trans.), (Harmondsworth, Middlesex: Penguin, 1973), 62.
[19] Sonia Hirt and Mina Petrovic, 'The Gates of Belgrade: Safety, Privacy, and New Housing Patterns in the Post-Communist City', NCEEER Working Paper, *The National Council of Euroasian and East European Research*, University of Washington, 22 December 2009, 3, <http://www.ucis.pitt.edu/nceeer/2009_823-09_Hirt.pdf> (1 June, 2011)
[20] Friedrich Nietzsche, *The Gay Science: With a Profile in Rhymes and an Appendix of Songs*, Walter Kauffman (trans.), (USA: Vintage Books, 1974), Book 4 – 341, 273

Conservation in Sarawak:
The case of the Old Kuching Courthouse

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Abstract

The Old Kuching Courthouse (1874) was the second of ten buildings to be gazetted as a Historical Monument by the state government of Sarawak, (in Malaysia) since the legislation was introduced in 1971. Originally the Public Offices of the colonial Brooke government, it was taken over by Kuching's courts by the 1970s. In 2000, the courts were moved, and the government decided to conserve and adaptively reuse the Courthouse as a tourism-based facility. This project was completed in 2003, to commemorate the 40th anniversary of the formation of Malaysia. On the face of it, this was a model heritage project – not only was it completed on time, to the client's requirements, and following the best practice of the time as laid out by the Burra Charter, it also went on to win national and regional architecture and heritage awards. However, its successes mask the relative newness of contemporary heritage practice in the state, as well as a number of gaps and inadequacies in Sarawak's heritage legislation and administration. This relative unfamiliarity and legislative uncertainty, coupled with the political desires of the client body, created a tension that affected the process of conserving and adaptively reusing the courthouse. This paper explores the successes and failures of the approaches, tactics and strategies employed by the conservation architects in the process of the design, procurement and construction of the project; in the context of a developing conservation environment in Sarawak.

The Conservation of the Old Kuching Courthouse Complex project was initiated in 2000 by the state government of the Malaysian state of Sarawak, through the Ministry for Tourism and we, Arkitek JFN, were appointed as the architects. This project presented a number of huge challenges for us, and this paper outlines our experiences during the

research, design and implementation phases of the project, and outlines some of the project's outcomes. Firstly, while we were aware of the ideals of architectural conservation methods from our architectural training, and had been involved in large state projects previously, we had very little experience with heritage projects. Secondly, the project's scope and budget grew, but not its timeframe for completion. The project was originally initiated to address roof maintenance issues, but became a Malaysia Day showcase to commemorate forty years of progress and development since independence from European colonial control. The project was the brainchild of the then minister for tourism, Abang Johari, and the original budget was RM3m (about A$1.2m). It was later enlarged (including RM15m or A$6.4m of additional federal funding) to include the conservation and adaptive reuse of the whole complex, although the opening date of the project could not be extended. Thirdly, Sarawak's existing planning and building statutory applications and approvals processes did not have any special provisions for conservation and heritage projects. We were well experienced in negotiating complex statutory approval procedures for commercial and government projects, but were also aware that approaching an architectural conservation project similarly would compromise the result. This also meant that we had to try to develop and facilitate liaison processes between the heritage and the construction and development authorities, as no such formal procedures and connections previously existed. Fourthly, there was not an established pool of conservation consultants, builders and tradesmen in the state who were familiar with heritage construction in Sarawak, which complicated the implementation stage.

Figure 1. View of the front Old Kuching Courthouse after the completion of the conservation and adaptive reuse works, and conservation (Photograph copyright Arkitek JFN.)

Heritage Legislation and Architectural Conservation in Sarawak

This project was affected by the ambiguous and complex relationship between state and national heritage legislation, due to the conditions under which Malaysia was formed. The Federation of Malaysia was created in 1963 by a series of culturally, politically and demographically disparate entities, including newly independent Malaya and the British colonies of Sarawak, Sabah and Singapore. As a concession to being part of Malaysia, Sarawak and Sabah were given higher levels of local autonomy than found in the states of Malaya (now generally called 'West Malaysia'). The result is a legal system where not all federal laws apply to Sabah and Sarawak. Sarawak's laws also have different origins to those of West Malaysia, where they still display the legacy of the semi-independent government of the three Brooke 'White Rajahs' (1841-1941).[1] While the Brookes ceded Sarawak to the British in 1946, Sarawak's current laws, (called 'Ordinances,') still bear the character of the Brooke regime.[2]

The federal Heritage Act (2005) is one act that does not apply to Sarawak, where the Cultural Heritage Ordinance (1993) takes precedence. This ordinance was preceded by the Antiquities Ordinance (1954) to administer the state's diverse cultural heritage, especially important moveable antiquities. The main objectives of the earlier Ordinance was not about heritage buildings but to ensure that antiquities discovered during a very active period of archeological excavations, as well as valuable ethnological, natural history and other collections dating from the Brooke period, were not misappropriated and remained in Sarawak. In 1971 the first ten historical buildings (including the Courthouse,) were gazetted under the Antiquities Ordinance.[3] A further historical site was listed in 1972, with another six more historical buildings and a further site in 1985. This short list was transferred to the new 1993 ordinance, and grew from there.[4]

Despite the growing list of gazetted buildings, there was a gap between policy and practice (in terms of administrative procedures to implement the Ordinance) when the Courthouse project began. The Ordinance provides for the director of the Sarawak Museum to propose buildings, sites and monuments to be listed to the state government, not that the Museum has a rigorous assessment criteria or a systematic approach to the listing process. The state parliament then needs to approve the list before it is gazetted. Under the ordinance, any proposed changes to gazetted buildings need to be approved by the Museum director but there is no administrative requirement to apply for approval to the Museum, the planning authority, nor the building approval authority. This lack of clarity has caused confusion and misapprehension amongst private heritage building owners fearful of the devaluation of their land values due to listing.[5] As a result, listed

buildings are mostly state owned, or buildings under public trusts or organizations. When buildings are listed, there are no requirements for conservation management plans for the routine maintenance of those buildings, which have resulted in inappropriate and damaging maintenance and alterations. Under the present state system, all the government buildings, including those listed under the Ordinance, are maintained by the Technical Department of the Public Works Department of Sarawak (JKR Sarawak). Neither JKR, nor the Sarawak Museum, have expertise in the maintenance and conservation of historical buildings, and are unable to advise or specify appropriate approaches and methods. Although Museum approval should be given prior to any work being done on listed buildings, the common approach to conservation in Sarawak is not to apply for approval and not use conservation methods for maintenance and renovation. As a result, despite being gazetted, considerable damage has been inflicted over the years to listed buildings (including the Courthouse.) We were keen to use the project as a test case to formalise the development of implementation processes and their operation by the relevant authorities in state conservation projects. Our intention was also for this process to allow for the training of more conservation practitioners.

During the design stage of the Courthouse project, we needed to do a thorough existing conditions investigation, as well as a historical survey of the building, in addition to finding out as much as possible about modifications to the building to date. We approached the Sarawak Museum for their experience with this. Rather than developing an approach from first principles appropriate to the Sarawak context, the Museum had sought assistance from the National Museum of Malaysia (Muzium Negara, who assist in administering the federal Heritage Act). At that time Muzium Negara was using a modified form of the Historic American Building Survey (HABS) document to guide conservation policy in projects under their jurisdiction. We felt that this was not useful for us, as it focused on documentation processes and practices, rather than conservation approaches, and did not suit Sarawak conditions and resources. We found the Australian ICOMOS Charter for Places of Cultural Significance, 1999 (Burra Charter) was a better practical guide for our purposes, as it was not locked to a particular geography as the HABS seemed to be. The Burra Charter was also more about principles, which gave us more flexibility with conservation approaches and methods. We decided to use the Charter as a basic reference to prepare a comprehensive Conservation Report, containing as much critical information as possible to implement the project.[6]

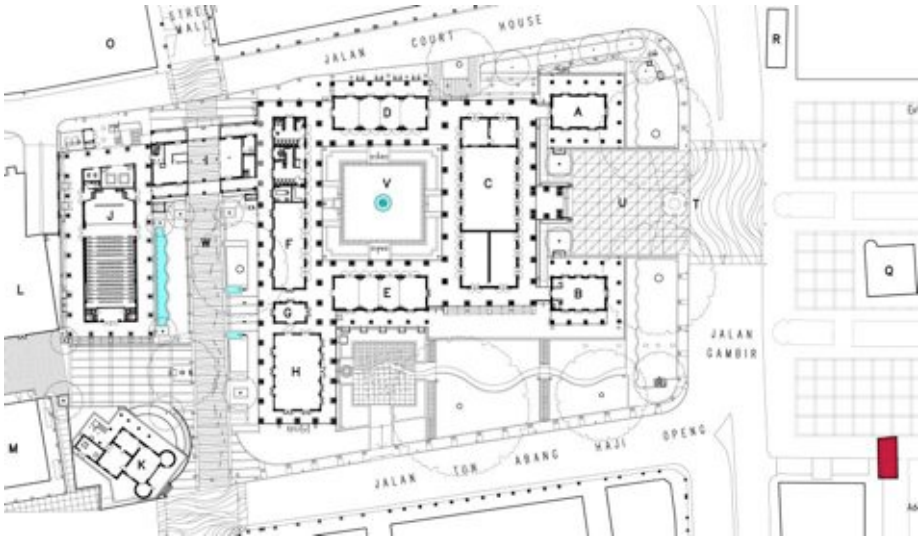

Figure 2. A 2004 plan of the Old Kuching Courthouse after the completion of the conservation and adaptive reuse works. Key: A & B - The first extension (1883). C - The original wing (1874) D & E - The second extension (1900). F, G & H - The third extension (1907) I - The 'Japanese' wing built during the Japanese Interregnum (about 1942) J - The fourth extension (1927). T - The Rajah's Memorial (1924).[7] Plan prepared by Arkitek JFN.)

Our approach was to achieve 'continuity of use through adaptation, reversible alteration and maintenance, moving towards the ultimate goal of authentic restoration and preservation in future'.[8] Five objectives drove the project design. Firstly, to restore the buildings as far back as possible to their original condition, but within the budgetary constraints and a tight schedule. 1945 was chosen as the date to aim for, as all of the major components of the complex had been established by this year (see Figure 2 above). Secondly, to fulfill our brief, which was to restore the buildings for tourism and convention use. Thirdly, to respond to the urban context of densely packed nineteenth century shop-houses, by creating green open spaces within and around the historical complex. We retained the tall, established trees, and introduced a variety of landscape features to maximise the recreational and aesthetic potential of the open spaces. Fourthly, to maintain accessibility through the complex. We wanted to extend this by improving a pedestrian link (previously established by a 1990s renovation of the 'Japanese building' built by the Japanese during World War Two,) and reinstate a visual axis between historical India and Carpenter Streets. The open spaces along this axis were reinforced by a layered, textured and coloured planting design. Finally, to encourage complementary development and conservation within Kuching's historical precinct.

Our Conservation Report formed the basis for recording the existing conditions, informing the design, and ultimately the development of the submission drawings and documents for statutory approval for the construction. We were left with little time for historical research as we were preoccupied in developing existing conditions measured drawings and surveys, in order to establish the scope of work, prepare technical drawings and specifications for tender. This was compounded by very few records or research about the buildings from the Brooke and British periods at that time. When we began the project, the only drawings available were produced by JKR, showing renovations undertaken in 1960s, 1970s and 1980s. These works introduced non-sympathetic and incompatible modifications to some of the fabric, for example laying concrete over existing timber floors, and spraying textured acrylic paint over existing walls. Fortunately for us, the Sarawak Museum found an unpublished research document that included measured drawings, prepared jointly by the Museum and students from the University of Technology, Malaysia in 1993.[9] This included a compilation on the building's history, based on published sources and the Sarawak Archives. The basic measured drawings and studies included construction details which we used for our initial design before our own measured drawings were completed. This well researched report provided much needed information, which saved time in producing our proposal.

The Old Kuching Courthouse conservation and adaptive reuse project was the first major conservation work conducted using internationally acceptable conservation principles and practices in Sarawak. While we expected the other consultants involved to be inexperienced in, and even resistant to conservation projects, we did not have any control over their appointment. Unlike our appointment by the Tourism Ministry, they were appointed by JKR as it had become a construction project, and as our client had no experience in implementing construction projects. JKR then became the Client, and the Ministry became the End User. This arrangement created another layer of administrative procedures, where all consultants took instruction from JKR, despite the main briefing coming from the Ministry. While the other consultants were happy for their appointment to a government project and its generous fee structure, some of them were unsympathetic to the spirit of conservation and the aim of trying to preserve the existing fabric of the courthouse. We expended considerable effort in persuading the structural engineers to consider unconventional solutions to consider the preservation of the existing construction and structural materials, despite their non-conformance with some overly conservative codes.

Architectural Conservation and Statutory Approvals for Construction Projects in Sarawak.

Another challenge was to address the lack of coordination processes between the various ordinances and government departments that had jurisdiction over the project. While the ordinances themselves are only nominally linked to each other, an informal procedure has developed by built environment consultants to negotiate the approvals needed for building projects. Despite needing specialised procedures, conservation projects in Sarawak have not been considered differently, and are seen as ordinary building projects that need approvals for town planning, building, fire prevention and safety, and so on. However, it is likely that following normal processes would have ended badly, resulting in either an administrative quagmire that would delay completion, or the rebuilding of the courthouse in all new materials so it conformed to the building regulations. Unlike more established conservation environments elsewhere (such as in Singapore and in Australia) where the state facilitates and provides statutory dispensations for planning and building approvals on conservation building projects, such facilities and process did not exist in Sarawak.

We also had to devise an approach to facilitate the fast tracking of these processes by producing a report that contained all the information required, which was simultaneously submitted to various relevant authorities and agencies for their approval. As it contained all the information that all agencies required, it cut short the process. When official approval was not able to be granted for procedural reasons, the authorities and agencies were willing to give conditional approval or allow us to proceed while waiting for formal approval. Our first step involved the Museum. They normally cooperate to review the submissions of renovations to historical buildings, but are usually left out of the process by councils, as their core function is not related to construction. However, we were mindful that non-inclusion of the Museum by the council would be politically detrimental to the process. We circumvented this potential problem by submitting our report to the Museum directly for their blessing, which then accompanied our council submission for building approval.

Under the Building Ordinance, all building projects are also required to get planning approval from the State Planning Authority (SPA) through the Headquarters and Divisional Offices of the Land and Survey Department who have previously vetted the applications. The SPA controls planning matters related to variation of title conditions, land and building use, set-backs, form and appearance, and was inexperienced in dealing with conservation projects. While the planning rules are clear, the approval

process is very hierarchical, where at every level, almost all decisions are referred to a higher level, regardless of the simplicity of the application. This is usually a daunting administrative environment, and it was obvious to us that the project could only be advanced by circumventing the normal procedures. We presented the design proposal directly to the top of the administrative hierarchy, Sarawak's Chief Minister, in a private meeting arranged by the Minister of Tourism. The Chief Minister was supportive of the proposal, with a few conditions, mainly that the structure should be sound and properly restored. His other conditions were minor, touching on his landscaping and paving preferences (Figures 3 & 4). The design was then accordingly revised and submitted directly to the SPA committee on the Chief Minister's instruction, who also happened to chair that committee. This direct access to the SPA's committee chair bypassed the need to apply to both Divisional and Headquarters of the Land and Survey Department.

When our planning application was approved, we began the process of submitting for building approval to the local council. This process revealed a contradictory and paradoxical administrative situation of questionable legal standing and authority, which we had to negotiate. The site lay within a 'Historical Precinct,' administered not by the planning authorities or by the council but by the Land Custodian and Development Authority (LCDA). They had prepared the 'Policy Plan and Concept Plan Kuching City 2000', which included some conservation guidelines.[10] Although the guidelines had not been approved as legislation, the LCDA was implementing it with the collaboration of the council. Their intention was to take responsibility for approving building work within the Historical Precinct. The guidelines added an additional step to the building approval process, which required the council to refer the application for building approval to the LCDA, who were supposed to review the submission and give a 'consent to develop,' after which the council could continue the process of approving the building works.

Despite only being unlegislated guidelines, the council moved to compel their requirement as law, including imposing steep daily fines on construction work that commenced without the approval of the LCDA. While the original aim was to take responsibility for the conservation of historical buildings within the Precinct, a procedure was never formalised, and it transpired that neither LCDA nor the council wanted to be accountable for approving conservation projects when we made our application. This system had also been allowed to lapse following a series of management and technical staff movements in LCDA, which opened the possibility for this step to be ignored. Ironically, the LCDA had retreated to the position that the guidelines were just that, an optional guide, rather than a legal requirement, despite operating to the contrary

previously. The council, on the other hand, insisted that they are only empowered to enforce the Building Ordinance, which regulates building issues only. While this might have meant that LCDA approval could be sidestepped, the danger was that the 'guidelines' could be re-enforced at any time, possibly adding delays that we could not afford. Our approach was to conform strictly to the LCDA's guidelines and to approach them directly to seek their written approval, which they gave to us. Armed with that, we delivered the letter of conformity with the guidelines to the council to allow them to continue the approval of the building plans.

Figure 3. View of the Old Kuching Courthouse from Jalan Tun Openg after the completion of the conservation and adaptive reuse works. (Photograph: copyright Arkitek JFN.)

Our next hurdle was the Protection and Prevention Department of the federal Fire Brigade (BOMBA,) whose approval is required by the council. Their issue lay with the timber floor and roof structure of the building, which were not fire rated. While council enforces nearly all of the Building Ordinance regulations, fire protection and prevention are regulated by BOMBA, a federal authority, due to the lack of a local one. This arrangement becomes an administrative vicious circle, as the Building Ordinance relies on BOMBA's approval, while at the same time not recognising BOMBA's enabling federal legislation, the national Uniform Building Bye-Laws (1984) as it is overridden by Sarawak's Building Ordinance.[11] Unlike more established conservation jurisdictions, such as the City of Melbourne in Australia, there was no special dispensation mechanism for conservation and heritage projects to allow the non-conforming historical *belian* timber structure to be retained for the Courthouse's class of building.[12] On the other hand, changing the structure of the Courthouse went against all our conservation principles. In the end, this absurdly impossible situation was resolved by negotiation and compromise,

where we convinced BOMBA that *belian*, which is not found in West Malaysia, in the sizes in which it was employed in the Courthouse, was able to withstand collapse in a fire for one hour.

Figure 4. A view of the courtyard of the Old Kuching Courthouse after the completion of the conservation and adaptive reuse works. These landscape works, while not strictly in accordance with the 1945 landscape, are separate from the building conservation works. (Photo by John Ting)

The Implementation Process

Our approach above was to minimise the time needed for statutory applications to achieve one of the main political objectives of this project, to have it completed in time for the opening ceremony, which coincided with the 40th anniversary of the formation of Malaysia (24th July 2003.) Both federal and state government agencies were also anxious that the project was completed to schedule. However, there was always the potential for interference from the political rivals or superiors of the commissioning minister, which we had to carefully manage to avoid delays. In order to avoid attracting comments and unnecessary requests for design changes from regularly visiting officials and politicians, (possibly affecting the timeframe and authenticity of the conservation), we prepared elaborate briefings for such visits. We strategically invited comments about the landscape design to distract their attention from the actual conservation work on the building, as planting and paving is easily changed. Controlled, but not necessarily sympathetic landscape design changes were made to accommodate the opinions and personal preferences of important political figures, with minimum impact on the tight construction schedule of the Courthouse (Figure 4).

Our first step during the implementation process was to find an able builder to construct the project. Because this project was mostly funded by the Federal government, and formulated as a 'conservation project', we were required to use a builder that was federally accredited to take on conservation projects. The problem was that there were no builders in Sarawak, (and very few nationally), that had this accreditation. In addition, the scope of this project was too small for these large accredited builders. To overcome this, we reformulated the project as the 'upgrading of an existing building' rather than a 'conservation project,' which allowed us to widen our search to include smaller, local builders. We were lucky that the builder, Polybuilding Construction Company, selected through an open public tender process, had experience in renovating adjacent nineteenth century historical brick shop-houses. However, while we had become familiar with the conservation construction methods required, the builder had difficulties in sourcing specialist all the sub-contractors and tradesmen. We had to constantly brief the builder's site team to assist them to brief and supervise some of the tradesmen more effectively on site. It was an effort to change the mindset of younger tradesmen for conservation work while at the same time trying to learn traditional construction techniques from the older ones, especially *belian* carpentry work, traditionally used throughout the Courthouse buildings. It was a steep learning curve for both the consultant and construction teams.

Actual construction started on 15th July 2002 and stage one was handed over on time, twelve months later. The process started by demolition of unsympathetic and incompatible additions and alterations to the existing historical fabric back to 1945. While we applied what we knew to be the best practices for architecture conservation, and took meticulous care in returning the fabric to its known earlier state, we also consciously designed new elements so that they were easily distinguishable from the original fabric. This included new functions, services and lighting, which contrasted with the conservation works. This non-purist approach in conservation makes it easier to identify the new works from the old, in order to avoid confusion and to better facilitate an appreciation of the spirit of the place. While there were some new functions within the conserved fabric, such as public toilets, most of the reversible additions were external works and landscape features. Along this vein, a steel and glass canopy was added leading pedestrians from the main mall to the courtyard.

During the demolition phase, which also served as the main investigation stage for previously buried elements such as footings, we discovered a variety of footing types that partly represented the different stages in which the complex was built. Block C had strip limestone footings with sun dried clay brick stumps, whereas most of the other buildings

had *bakau* timber piles, a Borneo timber species that does not degrade when buried as piles. Block J had a reinforced concrete strip footing. Column footings, stumps, and load bearing walls were underpinned with micro-piles to prevent possible further settlement. New stumps were added to reduce the span of the existing bearers where necessary. All of the floor structure had *belian* bearers and joists, except for Block J, which had precast concrete planks, and a marble tile floor finish. The vast majority of the *belian* floor bearers were in good condition and were retained. In modern terms, some of the floors might have been considered to have too much vertical movement with the additional live loads anticipated, so additional *belian* floor joists were added. As the original floorboards and decking had been replaced or damaged beyond repair, the floors were restored with new *belian* ones.

Figure 5, View of the courtyard of the Old Kuching Courthouse after the completion of the conservation and adaptive reuse works (Photograph by John Ting.)

The walls and columns were mostly load bearing sun-dried clay bricks with a rendered finish, except Blocks H and J, which had reinforced concrete frames in-filled with rendered handmade brickwork. Over the years, many of these rendered walls and columns had received inappropriate non-permeable coatings, which did not allow the brickwork and render to breathe. In addition, no damp proof courses were available when the buildings were originally constructed, and some of the brickwork was suffering from rising damp and salt efflorescence. To address these issues, existing columns and walls were stripped back to the bricks, chemical damp proof courses were applied to stop rising damp, and we came across and employed a desalination process call 'cocooning'.[13] The treated brickwork was then rendered with sand lime plaster to match the original rendering mixture. A lime wash, similar to the original finish, was applied to allow the

bricks to breathe and release moisture. The process results in some patchy areas of render, and a more permanent finishing coat was to be applied once the bricks are in a stable state. Most of the original roof structure had been removed during a major renovation in the late 1980's, but some of the original *belian* rafters and cast iron trusses remained. We retained these, and replaced newer rafters with new *belian* roof structure, to match the original details and sizes. A new *belian* shingle roof was installed over metal trays that were battened off the rafters, a modern compromise to make the roof more watertight, while still using timber shingles. Our design included temporary gutters and rain collection jars to prevent staining of the pavement from the unseasoned *belian's* red sap. Finally, new *belian* strip ceilings (Figure 5) replaced asbestos cement sheet soffits. With records of original door designs made during the demolition phase, replicas of original *belian* panel doors, including ironmongery, were assembled in their original positions. The old doors and windows with small glass panes were restored and reinstated wherever possible. Painted ceiling panels and mild steel grilles introduced in the 1950s renovation to the main court chamber were carefully taken down and given to the Sarawak Museum.

Despite the potential for delays and disaster, and our relative inexperience in conservation, we managed to complete the project on time and on budget. The complex has been successful in fulfilling its new tourist, public and urban functions, and has won awards at local, national and regional international levels, confirming to us that the project at least managed to fulfill the heritage and conservation criteria of independent bodies. Those awards included the Award of Excellence as part of *Badan Warisan Malaysia's* (Malaysian National Trust's) National Heritage Awards in 2004. At the awards ceremony, Badan Warisan encouraged us to set up a heritage society, as they saw the Courthouse project as a convenient platform for public education, in order to further raise public awareness of conservation issues in Sarawak. We used the project's multiple awards considerable media attention, in Sarawak and more widely in Malaysia, to develop conservation awareness. The Sarawak Heritage Society was established soon after that in 2006, and has since developed to become an active platform for voicing concerns over threats to cultural heritage in Sarawak.

Lessons Learnt and Broader Implications of the Project and Outcomes

The Courthouse, as a conservation project, has been an important learning experience for us. On reviewing our efforts with this project, there are many undertakings and processes we implemented which we would not repeat. Despite the success of the

project, in terms of winning awards and gaining recognition for conservation in Sarawak, we recognise that we made mistakes. Additionally, significant advancements in information technology over the past decade has made access to detailed conservation research and information easier. Since that time, more research has been done on the courthouse complex, in parallel and in conjunction with us, which has revealed even more about the history of the building.[14] The availability of this sort of research when we began this project, or additional time to allow this research to be done before the construction stage, would have informed how we approached things. Formally relating the processes we followed is a start in completing a major critical review what happened. Such documentation would comprise an accurate record to serve as a reference for future projects. By documenting our activities accurately, and in detail, it is possible that, as funding opportunities become available, we will be able to rectify our mistakes. After all, conservation is a continuing process to do as little and as much as necessary to continue the life of heritage buildings. We understand that over time, the Old Courthouse complex may be adapted for other uses. With this in mind, the 2001-2003 renovation process has been documented and lodged in the Sarawak Archives for future public reference.

Since the completion of the project, we have been involved in the establishment of the Sarawak Heritage Society, and much has happened with relation to conservation in Sarawak. The Society has adopted a role in advising the state government on heritage policy, and Arkitek JFN has been commissioned to undertake other heritage projects in the state. We recently completed the conservation of the Square Tower in Kuching, a nineteenth century rendered brick fort across the road from the Courthouse. We are also involved in two additional conservation projects – Fort Margherita, another rendered brick fort across the river from the Courthouse in Kuching, and Fort Alice, a nineteenth century timber fort in Sri Aman. We have as yet been unable to extend the government's commitment to conservation to include a Conservation Management Plan for either the Courthouse or the Square Tower, despite this being a requirement of the Museum. This has meant that aspects of the Courthouse conservation that need to be followed up, such as the removal of the temporary gutters and the more permanent coatings on the conditioned masonry, have yet to be done. In addition, the new restaurant tenants at the Courthouse have not had a Conservation Management Plan to guide their alterations to the building.

In terms of the effect of conservation projects on statutory approvals, the major achievement to date has been the undertaking by the state government to set up a Heritage Unit to undertake the management of heritage conservation of the built

environment in Sarawak, under the terms of the Sarawak Cultural Heritage Ordinance, 1993. We hope that the unit will take on the role of facilitating and coordinating the circuitous and often tortuous statutory approvals process in a way that includes all stakeholders. What is needed is a recognition of the special needs of conservation projects and how they contrast from non-conservation construction projects, a process to allow certain non-conforming heritage construction practices to be assessed and used (perhaps through a dispensation system), and a clear legal hierarchy of stakeholders, which resolves the paradoxes and contradictions of the approvals process. What is also needed is to grow the group of conservation consultants and builders who are aware of what is required and able to execute the work in the spirit of heritage conservation. While the path that we took resulted in a fair result, it was one that put too much responsibility on the architect to 'do the right thing', and one that exposed the project to gross negligence or unethical practices.

In conclusion, the conservation of the Old Kuching Courthouse has become a catalyst to help focus the Sarawak Government and the community more broadly on heritage and conservation issues relating to Sarawak's unique built environment. The project required the development and enhancement of conservation skills, practices and policies. Our progressive development of conservation techniques and systems for the restoration of old buildings in a difficult tropical environment through four restoration projects has provided an important skills base among specialist tradesman and contractors provides a sound basis from which to advance heritage conservation. With ongoing political commitment from the Chief Minister and other senior Government figures, and enhanced public awareness of the cultural significance and tourism opportunities of heritage, there is a very real chance that more of Sarawak's heritage can be preserved in the future.

Notes

[1] For example, see John Walker, *Power and Prowess: The Origins of Brooke Kingship in Sarawak* (Honolulu: University of Hawaii Press, 2002); Bob Reece, *The Name of Brooke: The End of White Rajah Rule in Sarawak* (Kuala Lumpur; New York: Oxford University Press, 1993), and Robert Pringle, *Rajahs and Rebels: The Ibans of Sarawak under Brooke Rule, 1841-1941* (Ithaca, N.Y.: Cornell University Press, 1970).

[2] As outlined in Vernon Porritt, *British Colonial Rule in Sarawak, 1946-1963* (Kuala Lumpur; New York: Oxford University Press, 1997).

[3] For the original list of historical buildings, sites and monuments please see Lucas Chin, *Cultural Heritage of Sarawak* (Kuching, Sarawak: Sarawak Museum, 1980), 89.

[4] Since 2007, thirteen more historical buildings, one monument and five sites have approved by the State Cabinet for inclusion in the list, and await gazettal. An additional ten buildings, eight monuments and three sites have been recently proposed to be listed, but have yet to be approved.

[5] Listing is seen as a perceived limitation on the potential of the property, and has seen the demolition of some significant privately owned heritage structures.
[6] Arkitek JFN Sdn Bhd*, Conservation of Kuching Old Court House Complex for Adaptive Re-use as the Sarawak Tourism Complex* (Kuching, Malaysia: unpublished report, 2002).
[7] The sequence of construction was recently established by John Ting – *see Courts in Kuching: The development of settlement patterns and institutional architecture in colonial Sarawak, 1847 – 1927,* in this volume.
[8] Arkitek JFN*, Conservation of Kuching Old Court House,* 3.
[9] Architecture Department, UTM and the Sarawak Museum, *Bangunan Court House Main Bazaar Kuching Sarawak, Kajian Bersama Lukisan Terukur Oleh Jabatan Senibina Universiti Teknologi Malaysia dan Muzium Sarawak* (Kuching, Malaysia: unpublished report, 1993)
[10] Planning and Development Section, Land Custody and Development Authority, *A Policy Plan and Concept Plan for Kuching City 2000, with Special Reference to Modernisation and Character Conservation, A draft report for Discussion* (Kuching, Malaysia: unpublished report, 1989). These guidelines were properly developed by a professional team, using the Singapore model of 1980s and 1990s conservation of its Quay areas.
11 *Buildings Ordinance 1994. The Sarawak Government Gazette Part 1 (Main Series), Vol. II (N S) 30th June, 1994 no. 2* (Kuching, Malaysia: Percetakan Nasional Malaysia, 1994) and MDC Legal Advisers *(compilers), Uniform building by-laws 1984, including all amendments up to September, 2000 (Act 133)* (Kuala Lumpur, Malaysia: MDC Publishers Printers, 2000).
[12] *Belian* also known as 'ironwood,' is a termite and water resistant, dense, hard timber species only found on the island of Borneo, and has been used as a construction timber since pre-colonial times.
[13] This involves involved multiple applications of paper mesh material soaked in pure water and attached to the brick work to extract the salts.
[14] For example, John Ting, 'The Kuching Courthouse Architecturally Considered' in *Limits: Proceedings of the 21st annual conference of Society of Architectural Historians Australia and New Zealand,* Helene Frichot and Harriet Edquist (*eds),* (Melbourne: SAHANZ, 2004), 473 – 78. See also other papers on the Old Kuching Courthouse in these conference proceedings.

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Salubrity and hospital sites in nineteenth century Melbourne

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Abstract

Nineteenth century hospital sites reflected cultural and societal attitudes to health and landscape. They were linked to Romantic interpretations of the land as being able to influence human thought and feeling. Formalised under the medical term 'salubrity', this approach to hospital sites prescribed views and beautiful surroundings as essential elements for the physical and emotional well-being of patients. This understanding of landscape is evident in the work of Frederick Law Olmsted, and the building of asylums for the insane both in Australia and internationally. It also contributed to the gardens, parks and open space that characterised the early development of Melbourne and urban development elsewhere. Although the restorative power of nature has been discussed in relation to asylum sites and tuberculosis sanatoriums, its importance for city urban hospitals has been neglected. Similarly, the built environment of hospitals has focussed on the building and interiors with less emphasis on the site and outdoor grounds. This paper, by examining the link between hospital landscapes and salubrity through the analysis of maps, images, medical journals and popular publications, provides an insight into the history of their built environment and the influence of these ideas on the urban form of Melbourne.

The built form of the hospital in the middle of the nineteenth century reflected its role as a charitable institution for the sick poor and as a place of new medical treatments.[1] As a charitable institution it represented civic pride and public virtue and its often grand facades were important in conveying the moral worth of the city and its citizens.[2] New ideas of medical treatment were evident in the pavilion hospital as the 'first type of building to be unmistakeable as a hospital building'.[3] The configuration of separate low-rise buildings connected at right angles to a central corridor were designed to isolate and disperse air-borne contagions and reflected the wide acceptance of the miasma theory of disease transmission.[4] Hospital sites under these requirements were large to accommodate the layout of buildings which were surrounded by open space for circulation of air and access to antiseptic sunshine. Where possible, sites were elevated to take advantage of prevailing winds, and removed from the congested areas of the city.[5]

The introduction of pavilion buildings did not signal the end of the ornamental gardens which had been a feature of the preceding villa hospitals of the eighteenth and early nineteenth centuries.[6] The hospital grounds remained as an important element in the hospital's identity and treatment of patients before and after the widespread introduction of medical advances such as surgery and radiology.[7] These were elaborate gardens with shrubberies, trees, flower beds and lawns which went beyond the requirements for fresh air and sunshine as dictated by miasma theory.[8]

In terms of identity, the grounds confirmed the hospital as a place of well-ordered activity and useful enterprise as a civic monument reliant on charitable donation.[9] Secondly, the gardens contributed to the domestic appearance of the hospital which was important to allay fears of institutionalisation at a time when many of the inmates were itinerant or came from slum dwellings. The domestic appearance was sought to familiarise the strangeness of a large institution and was seen also as an important signifier of the virtues of a well regulated life.[10] David and Beverlie Sloane have argued hospital patrons intended that the domesticity would act as a corrective to what was considered the disordered conduct of inmates, as well as reassuring themselves of its respectability. Patients were to be 'morally as well as physically healed'.[11] The gardens were also seen as a place for patients to exercise in fresh air and re-gain strength and health before returning to sub-standard housing in densely populated and polluted cities.[12]

The ornamental hospital garden however went beyond a place of domestic virtue, fresh air, exercise and civic pride. Bound up with ideas of hospital gardens was a societal understanding of the power of nature to restore people to health. This is illustrated in the following quote from the English journal *The Builder,* whose editor George Godwin was a prominent advocate of Nightingale's views on pavilion hospitals and the value of 'cheer' in patient treatment:

> There is no escape from a sick ward, when sunlight, trees, plants, grass, and the external air, would do more for patients than all the medicine and doctors in the world. Thousands of lives might be saved annually if sick men could be turned out so as to look upon Nature, feel the sunshine, and breathe pure air.[13]

Nightingale wrote of the beneficial effects of a garden stating 'that it is generally said that the effect on the mind, perhaps so; but is no less so upon the body on that account.'[14] Similarly

in America experts spoke of the hospital as needing to convey a 'sense of repose, and tranquility, and hope of restoration', recommending the hospital of Protestant Episcopal Church for its outward appearance and resemblance to 'the approach to paradise.'[15]
The therapeutic qualities attributed to the site, especially in terms of views and emotional response to landscape reflects the Romantic sensibility that attributed transcendental qualities to the experience of nature.[16] These same ideas underpinned the development of Botanic Gardens, public parks and countrified factory suburbs.[17] Although the restorative power of nature has been discussed in relation to asylum sites and tuberculosis sanatoriums, its importance for city urban hospitals has been neglected.[18] This obscures the importance with which contact with nature was viewed in the nineteenth century and neglects one of the determining factors of the location and appearance of hospital sites in Melbourne, Australia and elsewhere in the western world. As Elizabeth Meyer has argued neglect of the site and land in the historical narrative of the built environment distorts analysis and overlooks the role of landscape in the urban form.[19] Further, an understanding of nineteenth century attitudes to nature and health provides important insights into the development of Melbourne, insofar as its form was intended to connect its citizens with the physical and moral benefits of parks, health reserves and contemplation of the natural world.

This paper then analyses the location and grounds of hospital sites in Melbourne in relation to nineteenth century notions of healthful landscape. Although as is generally recognised there are many social, economic, architectural and medical factors that influenced hospital development, this paper discusses the idea of salubrity to enrich understanding of their built form and geographical location in the city.

Salubrity as promoted in the nineteenth century by well-known hospital reformer, Florence Nightingale was associated with four main attributes.[20] An elevated site that would evade disease-laden air known as miasma; suitable topography to promote proper drainage and access to sunshine, distance from noxious industries and damp air of rivers and swamps and finally attractive scenery, outlook and ornamental surroundings that would lift the morale and moral outlook of its inhabitants.

Salubrious landscape and moral and physical benefit in the nineteenth century

In Melbourne, the influence of ideas of salubrity can be seen in the 1858 Select Committee report into the siting and appearance of Kew Asylum which also focussed on appropriate views, contact with nature, sunshine and fresh air as relevant to patient treatment.[21] Adhering closely to international templates, medical experts focussed on the suitability of the site in relation to these attributes and favourable comparisons were drawn to the adjoining

Yarra Bend site on the banks of the Yarra River in a low depression. These ideas were evident also in the formation of the Botanic Gardens, health reserves and public parks.[22]

Proximity to Open Space

In the period 1848 to 1899, nine hospitals were established in Melbourne under the responsibility of the government's Charities Board (Table 1). Melbourne hospitals as a result of the strong colonial ties between Australia and England were modeled to a large extent on the English voluntary hospital system.[23] This meant that hospitals in Melbourne were established as charitable institutions for the poor, supported by voluntary contributions and governed by committees elected by subscribers.[24]

Table 1. Hospital sites, and acreages of hospital sites, in Melbourne at the time of establishment of Charitable Institutions. (Compiled from 'Report of the Inspector for the Year Ended 30th June, 1910.' No. 61, Table III: author)

	Permanent site established	Inclusion of garden areas	Proximity to open land
Melbourne Hospital	1848	Yes	Flanked by public reserves
Melbourne Lying-in Hospital (Women's Hospital)	1858	Yes	University Gardens
Alfred Hospital	1869	Yes	Fawkner Park
Children's Hospital	1877	Yes	Carlton Gardens
Austin Hospital for Incurables	1882	Yes	Rural location
Eye and Ear Hospital	1882	Yes	Victoria Parade Health Reserve
Homeopathic Hospital	1882	Yes	King's Domain
St Vincent's Hospital	1894	Yes	Victoria Parade Health Reserve
Queen Victoria Hospital	1899	Yes	No

The location of the hospitals revealed the importance of salubrity. The *Children's, Alfred* and *Homeopathic* were adjacent to major parks whilst three hospitals were also associated with open land - the Melbourne Lying-in Hospital (Women's Hospital) opposite the extensive gardens of Melbourne University and *Eye and Ear* and *St Vincent's* on either side of health reserves (Figures 1-3). The health reserve of Victoria Parade, between *Eye and Ear* and *St Vincent's* hospitals, planted with trees and shrubs and containing elements such as tennis courts and bowling greens, formed a major buffer between the closely packed slums of Fitzroy and the city.[25]

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Figure 1. .c1900 view of the Homeopathic Hospital opposite King's Domain on the spacious and ornamental St. Kilda Rd. (State Library of Victoria Picture Collection).

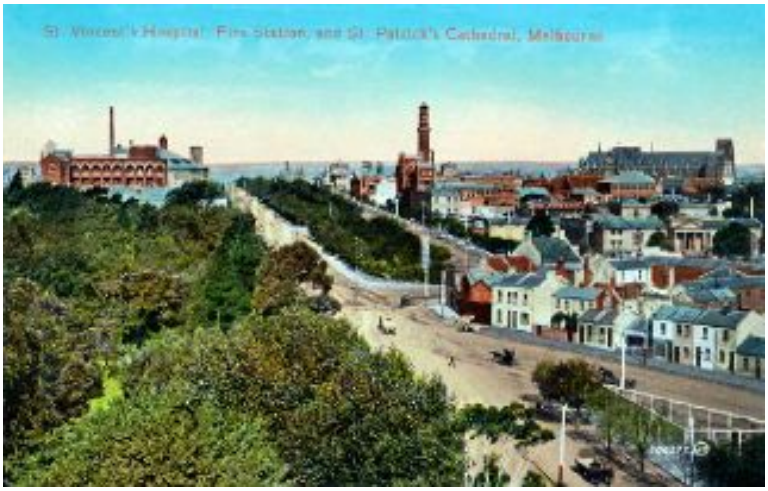

Figure 2. c.1905. Health reserve between St Vincent's and Eye and Ear hospitals in Victoria Parade. St Vincent's Hospital can be seen above the trees with views to the Carlton gardens. (Walking Melbourne - http://www.walkingmelbourne.com).

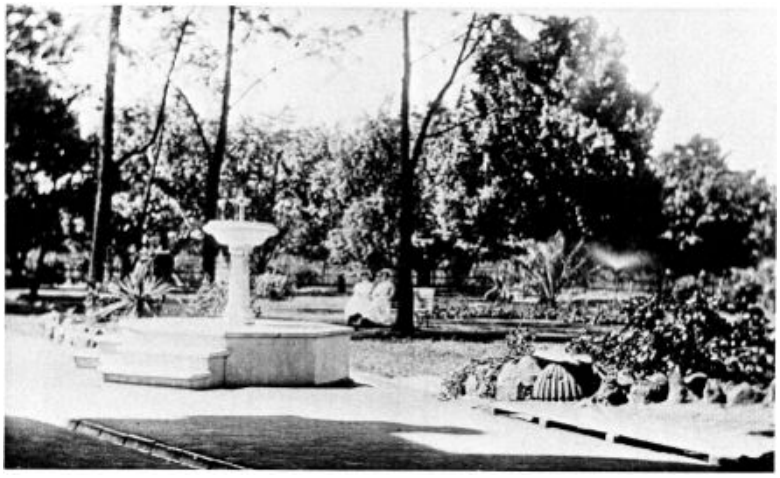

Figure 3. c.1912 Alfred Hospital garden with view of Fawkner Park in background. (Alfred Hospital Archive).

These sites were carefully chosen and discussed in terms of their salubrity. The commentary surrounding the site of the first purpose-built hospital, the *Melbourne Hospital*, for instance, illustrates the consideration given to the idea of fresh air, proximity to open space and attractive surroundings. The original hospital site was flanked by two recreational areas as intended by Superintendent La Trobe who stipulated that no building was to be constructed on this reserve (Figure 4).[26] Accordingly, the 1860s plan shows the Melbourne Hospital site flanked by Recreation Grounds. The plan indicates also that the hospital site was located adjacent to the relatively capacious site of the Public Library and National Museum, which was also intended to have a garden area. It is probable that this was also another factor in the favour of the location of the site for the hospital, although no documentary evidence has been found that explicitly states this. Correspondence between Governor Gipps and La Trobe focus on the necessity of providing a site close enough to the inner urban poor to be convenient whilst avoiding the worst of the unhealthy air of the city.[27] The final site achieved a balance between these competing claims. The intention to make a civic zone with the State Library may have also influenced the final decision.

The Melbourne hospital committee originally concurred with the desirability of having recreation grounds adjacent to the hospital and asked that the grounds be enclosed 'to allow Patients the benefit of the Air' in 1849.[28] Pressure on the capacity of the existing buildings to cope with the increasing number of patients however, led the committee to request that the restriction on building be rescinded in 1855.[29] Consequently, buildings were placed across the site, including on the land that had once been reserved for recreation areas. The spread of buildings across the site and the reduction in airing grounds became one of the criticisms of the Melbourne Hospital site which was used to great advantage by the supporters of a new hospital, which was to become *The Alfred*, in a 'more open and healthy situation.'[30] A pamphlet written by the Alfred Hospital committee's secretary John Blair, cited Florence Nightingale's stipulation that the recreation grounds of a hospital should not be sacrificed to accommodate extra buildings.[31] Blair alludes to the Melbourne Hospital's site as 'offensive and contaminated' and quotes a letter written by Dr. D. J. Thomas to *The Argus* that points out that the present site is victim to the 'sickening and deadening effluvia' of its city location.[32] In arguing for a new hospital site the writer points out that it is the psychological aspect of dealing with the sick which is being damaged by the unsuitable site which by the inclusion of too many buildings has been reduced to that of a 'large factory'.[33] In this he articulates the preoccupations and anxieties of the time with the demoralising effect of industrialisation and the necessity for the hospital environment to counteract this.

Figure 4. 1860s Land and Survey map shows the 'Recreation Grounds' either side of the hospital and also gives an indication of the placing of the hospital close to the Public Library and Museum, which at the time had a comparatively large amount of open space surrounding the building, including a garden. This is in contrary to the small, cramped allotments in other parts of the city. (State Library of Victoria Map Collection).

Topography

Topography was another aspect of hospital sites that was widely commented upon by experts with terms such as 'medical geography' used to analyze suitable land for hospitals. The recommendation for the Children's Hospital for instance states 'no more salubrious position can be found in the whole medical topography of Melbourne, or better adapted for the purpose, than some of the elevated spots of Prahran.'[34]

Figure 5. Excerpt of 1901 MMBW contour map of Melbourne showing majority of hospitals on higher ground, east of Elizabeth Street. The eastern end of the city was associated with salubrity from an early stage in its history. Most of the hospitals were located on one of the highest contours overlooking the C.B.D. (MMBW Contour Plan of Melbourne and Suburbs, 40 Chains to I inch. Re-drawn with modifications: author).

The concern for elevated topography that would provide air circulation and access to views is evident in the location of hospitals on high ground, either side of the north-south creek bed that sporadically flowed down Elizabeth Street (Figure 5). Four hospitals, *Eye and Ear, St Vincent's, Children's and Women's*, were located on the highest contour surrounding the immediate Central Business District (C.B.D.). Public buildings such as the General Post Office and commercial buildings such as banks and shops not concerned with the problems of miasma and the need for healthful breezes, occupied the low lying areas of Melbourne around Elizabeth Street. Further, the majority of hospitals were located in the eastern parts of the city, culminating in the eastern hill precinct where *St Vincent's* and the *Eye and Ear* hospitals were sited. This geographic clustering reflected the perceived salubrity of the eastern compared to the western part of the city which had become associated with noxious industries such as abattoirs, tallow making and pollution of the western swamp.[35] The east end of the city on the other hand, was inhabited by professional and business classes and grand civic buildings such as Parliament.[36] The only hospital located west of Elizabeth Street was the *Queen Victoria Hospital,* which was established in 1899 as ideas of hospital sites and healthful breezes were waning. Its location was also influenced by the proximity to St David's Welsh Church which had provided the first premises for the fledgling hospital in its hall in 1896 and whose minister was married to one of the hospital's founders – Dr. Constance Stone.[37] Association between the salubrious eastern precinct and hospitals is further reinforced by the location of private hospitals. These were almost exclusively in the

eastern city as had been the temporary sites for all hospitals in Melbourne before permanent sites were established.[38]

'Cheer' as medical treatment

The mechanism by which salubrity was thought to cure patients was linked to antiseptic qualities of fresh air and sunshine but as importantly, to the effect of beautiful surroundings on the mind. Jennings Carmichael, a nurse from the *Children's Hospital* identified 'cheerfulness' as one of the most important attributes for a nurse that engendered hope and prevented a 'depressing moral atmosphere' that was detrimental to the patient.[39] This was a widely held medical belief of this period as the official journal of the British Medical Association, the *Australian Medical Journal* makes clear:

> The bare unsuggestive walls of the hospital wards are in the last degree depressing to those who are compelled from day to day to look upon nothing but unpractical whitewash….Nobody of any intelligence pretends to deny how much a cheerful condition of mind promotes the health of the body, and helps to overcome disease…[40]

Views and beautiful surroundings were important as they were linked to psychological benefit for patients. For example, *The Argus* newspaper's report on the opening of the *Melbourne Lying-in Hospital* (*Women's Hospital*) cited at length the desirable attributes of the hospital in terms of views, ornamental gardens and proximity to the university gardens:

> One of the chief recommendations of the hospital is the beauty and salubrity of its situation. As it stands opposite to the University Gardens no building can encroach upon it in front, and from the windows above a splendid prospect extends uninterruptedly towards Ballaarat and Mount Buninyong. An additional half acre on either side of the original ground having been granted by the present government, the detached character of the building, which adds much to its value, is effectually preserved; and when the ground is planted, which we understand is proposed to be done, the site will not be unworthy of its more imposing neighbour opposite, the University.[41]

Other publications also associated scenic attributes with best qualities associated for a hospital. The location of the *Children's Hospital* facing Carlton Gardens was described as 'admirable' whilst 'views of extraordinary extent and beauty may be obtained' from the upper windows of the *Homeopathic Hospital*.[42] The description of *Alfred Hospital* also emphasised

aesthetic factors such as views, the setting of the buildings back from the street, garden areas and extensive tree planting:

> …the situation is healthy and pleasant, extensive views all round being visible from the windows and balconies, and doubtless this fact combined with the quietness reigning around contributes greatly towards the speedy recovery of the patients.[43]

The inclusion of salubrity as part of hospital treatment is evident also in the many references to gardens and nature in descriptions of hospitals in popular publications. The illustration of the *Children's Hospital* in the *Illustrated Australian News* for example, depicted a sick child sheltering on the verandah amongst garden and pot plants with a solicitous nurse (See Figure 6). The garden, well-ordered plants, fresh air and sunshine were used to promote the hospital to the public because they were seen as a legitimate treatment for illness.

Figure 6. Captioned: 'Convalescent: A sketch at the Children's Hospital'. *Illustrated Australian News*, 1881 6 April. These types of illustrations, which promoted the hospital and its treatment in terms of fresh air and gardens, underscored its identity as a place associated with these elements.
(State Library of Victoria Picture Collection).

The grounds of the *Melbourne Hospital* in another example, are described in the 1879 tourist publication, *The Guide to Melbourne and suburbs,* as 'a large shrubbery and garden with neatly-kept walks [are] reserved for the use of convalescing patients, to whom fresh air and gentle out-door exercise are desiderata', and in the 1888 publication *Victoria and Its Metropolis: Past and Present*:[44]

The front of it is still a green spot in the heart of the city, fresh with sward and leafy trees, but behind these what a cluster gathers of those dark-red buildings, all gables and angles… Here in the breezy quadrangles we see the convalescents, whose wounds are healing after the ordeal of the surgeon's knife; or whose emaciated features are beginning to gather a little flesh after that critical struggle which the clinical folks up there have lately waged with death, gaining perhaps but the barest victories. Out here they are renewing again the joys of living – for the air is balmy in this bright spring morning, and the buddling trees are pleasant to look on, and the ceaseless twitter of sparrows in their branches and up on the eaves must be a perfect dream to those who have been long-a-bed, counting the same cracks in the wall, and recording the monotonous hours as they sounded from the Post Office tower. Now they are happy out in the open air, with nothing in the world to do but gather an appetite for the next meal.[45]

Figure 7. The woodcut of the grounds of the Melbourne Hospital emphasised the garden setting as a place of retreat, rest and social exchange as important in patient treatment. (Alexander Sutherland, *Victoria and its metropolis: past and present,* (Melbourne: McCarron, Bird and Co., 1888), 1, 556.)

Conclusion

Hospital sites and grounds in Melbourne reflected nineteenth century medical beliefs in salubrity. These factors influenced their location and physical appearance and were tied to a wider cultural belief in the capacity of landscape to provide moral, psychological and physical benefit. In this context, the nineteenth century belief in salubrity needs to be understood as contributing to the historical development of hospital sites and their location in the city.

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[6] Clare Hickman, 'Therapeutic Gardens: An Overview of the History of Hospital Gardens in England from 1800', *Forum UNESCO University and Heritage 2005 "Cultural Landscapes in the 21st Century",* (2006), 3.
[7] Annmarie Adams, 'Modernism and Medicine: The Hospitals of Stevens and Lee, 1916-1932', *Journal of the Society of Architectural Historians,* 58, 1 (1999), 42-61.
[8] See photographs of nineteenth century hospitals in Melbourne elsewhere in this paper.
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[10] David Charles Sloane and Beverlie Conant Sloane, *Medicine moves to the mall* (Baltimore: Johns Hopkins University Press, 2003), 36.
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[25] City of Melbourne, MMBW Detail Plan No. 1028. Eye and Ear Hospital. 40 feet to 1 inch. Melbourne: 1899.Government Printer.

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[27] VPRS 1016/P0000/13 Melbourne Hospital Site. Public Records Office of Victoria.

[28] VPRS 1016/P0000/13 Melbourne Hospital Site, 16/8/1849 Melbourne Hospital Secretary to Lieutenant Governor La Trobe. Public Records Office of Victoria.

[29] VPRS 1016/P0000/13 Melbourne Hospital Site, 6/10/1855 Melbourne Hospital Secretary to Colonial Secretary. Public Records Office of Victoria.

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A Night at the Space Electronic, or the Radical Architectures of 1971's 'Vita, Morte e Miracoli dell'Architettura'

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Abstract

This paper examines a largely underexplored event in the history of architettura radicale*, the S-Space Mondial festival, 'Vita, Morte e Miracoli dell'Architettura' (Life, Death and Miracles of Architecture), co-ordinated by Superstudio and 9999 and held over three days at the Space Electronic Discotheque in 1971. The event brought together Italian radical collectives and figures like 9999, Superstudio, Zziggurat, UFO, Ugo la Pietra, Gianni Pettena and Giuseppe Chiari, while also attracting international participants including Ant Farm, Street Farmer, Portola Institute and Raindance Video Collective. Recent interest in such Florentine groups as Superstudio and Archizoom has lead to a detailed discussion of the respective positions held by these collectives in relation to both* architettura radicale *and the wider discourse on architecture and autonomy in Italy during the period. While there is much to be written on the location of 'Vita, Morte e Miracoli' within this wider context, such a discussion lies beyond the scope of this paper, which focuses firstly on a description of the event in order to underline the diversity of approaches within what we have come to understand as 'radical' architecture, and the ways in which the media-based and disciplinary specificity of architecture was challenged in order to raise its critical voice. Further, by briefly introducing some key moments of tension within the works that formed part of 'Vita, Morte e Miracoli', as it was performed and as it was published, the paper seeks to comment briefly on how these 'radical' architectures might appear pertinent, interesting, or simply fashionable today.*

During 1970, Florentine experimental architecture collectives 9999 and Superstudio founded S-Space, an organisation focused on the execution of 'liberating operations' throughout the city, which culminated in 1971's Mondial Festival, entitled 'Vita, Morte e Miracoli

dell'Architettura' (Life, Death and Miracles of Architecture).[1] The three-day event was held from November 9th to 11th in the Space Electronic discotheque on via Palazzuolo in Florence. This space, owned by members of 9999 since the late 1960s, had by the early 1970s already provided the setting for a number of experimental events, contributing to its importance in the operations of the city's so called 'radical'[2] architects. During the 1970s, and with interiors designed by the 9999 collective, the Space Electronic was what Carlo Caldini (a founding member of the group and a part-owner of the space across its 40-year history) recently described as 'one of the very few 'real' things made by the radicals' and one of the most important cultural spaces in Florence for those involved in 'radical' projects during the late 60s and early 70s.[3]

Cultivating, Performing, Un-building

From its inception in August 1970, the S-Space organisation focused on inter-disciplinary and happening-based work and events like the planned Mondial Festivals, as well as The Separate School for Expanded Conceptual Architecture. The consistent, larger idea at work in the organisation and 'Vita, Morte e Miracoli' more specifically was this expansion of architecture as a creative practice to include (or even privilege) performance-based, ephemeral work. For 9999 and Superstudio as S-Space, the legitimisation of these practices for architecture (under the term 'expanded architecture') was an opportunity to produce a form of critical output that did not necessarily rely on external conditions for realisation. Borrowing creative practices from the fine arts, this manoeuvre effectively removed the certainty of architecture's connections to the construction industry, the economy and a commission-based, client-driven system of production. In this sense, 'Vita, Morte e Miracoli' was a vehicle for the 'declaration of the existence of another architecture, as strong as that made with cement and bricks and more than that it is self-conscious and legitimate', and a 'radical' push towards a more ideologically autonomous status for architecture.[4]

The majority of 'Vita, Morte e Miracoli participants were architects and students of architecture, with a much smaller number of artists and composers. In addition to event organisers Superstudio and 9999, the collectives and individuals listed as contributing to the event and catalogue were Gianni Pettena, Remo Buti, Ugo La Pietra, UFO, Zziggurat, Renato Ranaldi, Giuseppe Chiari, Jorn Mayr, TV OUT, Marc Balet, Ant Farm, The Portola Institute and Street Farmer. Press coverage of the event was seemingly limited in mainstream architectural publications to short articles in *AD* and *Domus*, both appearing in April 1972.[5] A founding member of the British group Street Farmer who performed at the event, Bruce Haggart's article on 'Vita, Morte e Miracoli' appeared within the regular 'Cosmorama' section of *AD* as a somewhat cryptic account of his time at the festival.[6] Like

most of the 'Cosmorama' content that was published in the journal between 1968 and 1973, the piece stressed the counter-cultural nature of the event and its participants, and focused on providing dynamic, emotive scenes from the performances and presentations over an unambiguous sequence of events.

Critic Germano Celant's *Domus* article on the event, 'Sulla Scena dello S-Space' ('On the Stage of S-Space'), provided a weightier and more theoretically focused take on the event, in which the concept of 'eccidio dell'architettura' (the massacre of architecture), as a theme within the performances and presentations was more clearly identified as the issue at hand.[7] The 'massacre' Celant referred to was that of a traditional concept of modern architecture, in favour of S-Space's expanded architecture and the more ephemeral, less-tangible works it accounted for. The opening out of the term to include these sorts of predominantly extra-architectural media and practices was also the death (to adhere to Celant's evocative language) of the recognised disciplinary understanding of architecture in relation to the production of built form. This was not an unwelcome death for Celant, who was to lend further support to the ideological aims of so-called 'radical' architects and their shift in focus away from traditional modes of architectural production in a critical essay for The Museum of Modern Art's 'Italy: The New Domestic Landscape' exhibition catalogue later that same year.[8]

The event catalogue, perhaps the most detailed surviving document from the festival, brings together images and promotional material from those involved, but stops short of describing the three days spent in the disco and also includes a significant amount of work from groups and individuals who did not attend the event. Consequently, the following discussion pieces together form a basic and incomplete sequence of events for 'Vita, Morte e Miracoli' through Haggart's text, with Celant's theoretical insights, images from the festival catalogue and 9999's retrospective, *Ricordi di architettura e di decorazione arte moderna* being used to verify and expand upon this information wherever possible.[9]

From Haggart's text, it appears that the first evening session of 'Vita, Morte e Miracoli' included a performance by the Florentine artist Renato Ranaldi on a *petofono* ('fart machine') device. A diagram of the *petofono* appears as part of Ranaldi's entry in the festival catalogue, amongst images of his 'instruments', but the content of his performance seems to have been recorded only through the *AD* article. Within this first section of the text, Haggart also described the unexpected entry sequence through the flooded Space Electronic basement – the 'ocean' - then up through 9999's vegetable gardens on the main level.

> Slow people enter freely to stop at the ocean. Some do not see it, but three steps later they feel it...They pass along on a stool beside a music stand that serves Renato as a piano to arrive at another level in the middle of a vegetable garden. Symetrically [sic] disposed about an aisle cauliflowers, cabbages, lettuces, celery, fennel. Consider the art of agriculture and its place in the home.[10]

A series of images from these areas of the festival also appear within *Ricordi di architettura*. Viewed alongside plans and sections of the Space Electronic fit-out from the same publication, they shed some light on the details of the installation.[11]

Haggart described the first of the second evening's performances by 9999 as 'a play', with images from the catalogue suggesting that it included video stills of the group's collage works based on the 'Canticle of All Created Things' by San Francesco. During the same evening, Street Farmer enacted a two and three dimensional comic strip, 'Street Scarecrow'. According to Haggart, the 'street scarecrow' was a figure created by the group that could act as a protector of the streets, scaring away 'menaces to the well being of the people'.[12] A small number of comic strip drawings were included in the article, with more complete strips appearing in the 'Vita, Morte e Miracoli' catalogue and Celant's article. Following Street Farmer, Florentine collective UFO performed by interacting with elements of their polyurethane Doric portico installation. Judging from Celant's article, *Ricordi di architettura* and the catalogue for the 2009 exhibition *Radici Radicale: 1965/1975*, it appears that UFO also performed 'Giro d'Italia' as part of the event, but its timing remains unclear.[13] Of the remaining work included in the program of the second evening, Haggart's brief description of the Florentine group Zziggurat's scheme for 2500 and 1250 inhabitants corresponds with the images that appear in the event catalogue, yet the American artist Marc Balet's film *Dream House*, which Haggart's article suggests was shown the second evening, does not appear at all in the catalogue or in other documents on the event.

We can further glean from Haggart's article that Street Farmer presented again on the final night in the form of a political statement and film, followed by the distribution of pay packets containing grass and sunflower seeds that read 'Plant in pavements to push up slabs'. The article alludes to a 'mass walk out' during this presentation, but the nature of this exodus was only more fully established by Kalipoliti in her 2010 interview with Peter Crumb. Here, Crumb explained that 9999 and Superstudio attended their end of year exhibition at the Architectural Association in London and invited Street Farmer to participate in their first Mondial Festival, but that differences in their response to the urban environment became

apparent over the course of the festival, culminating in most of their audience leaving during their performance on the final evening of the event.[14] Despite the events of the final evening, Haggart's summary of 'Vita, Morte e Miracoli' ultimately focused on bringing together the seemingly disparate snapshots from this rather unusual event: 'Each part of the festival was a chapter in the same story. Architecture has never been a popular art. Its clients have always been the rich... It is an old role that architects play. Paradoxically they try to rationalise this old role in a world of new circumstances and consciousness.'[15]

Walkout, Dropout, Dialup

The differences that became apparent between the work of Street Farmer and that of 9999 and Superstudio through 'Vita, Morte e Miracoli', suggests that some broad, but fundamental differences existed between the various groups and individuals who participated in the event – 'expanded architecture' was an inclusive term that, while bringing together a number of different approaches to architecture, went no way towards reconciling them. Formal connections between so-called radical works rarely equated to an ideological compatibility.

The first point of tension in the work included in the 'Vita, Morte e Miracoli' event relates explicitly to the Street Farmer presentation and its reception by an Italian audience. While Haggart and Crump shared an inherently Marxian understanding of society with many of the Italian participants in the festival, the discrepancy between their reaction to this situation and that of their Italian counterparts stemmed from the anarchism that guided Street Farmer's proposed actions. Within a year of the festival, the group would re-publish images presented in the 'Vita, Morte e Miracoli' catalogue in their magazines, *Street Farmer One* and *Street Farmer 2*, alongside text further describing the group's position: 'We attack the environment to attack the state.'[16]

For Street Farmer, the process of creating a free society involved quite literally attacking the existing urban fabric by means of turning parks into farmland, ploughing streets and using vegetation to uproot infrastructure, and 'unbuilding' built form. By effectively proposing the closure of city streets to vehicles and suggesting commuters row to work in order to avoid work ('the commuter would just have time to relax before having to set off home'), the group advocated a form of non-violent but extreme warfare on the existing city structure. For this 'London-based group of anarchists practising, and preaching, a unique brand of guerrilla architecture'[17], there existed a clear definition of an acceptable response to the prevailing conditions at the beginning of the 70s; 'Any real alternative is an act of rebellion and is subversive. The quasi-alternative will make the alienation of our situation more tolerable: the real alternative changes the situation.'[18]

Broadly speaking, a number of the Italian groups involved in the festival, regardless of their political ties, *were* potentially creating 'quasi-alternatives' by Street Farmer's definition. Their work with consumer design objects and the attention given to the formal aspects of their architectural practices suggested a very different set of interactions between architecture and its wider socio-political situation. Superstudio and Ugo la Pietra, for example, had designed items for Poltranova and Poggi respectively, and both would present furniture items at 'The New Domestic Landscape' the following year.

While Superstudio's refusal to design buildings and desire to involve themselves in critical architectural practices provided common ground with Street Farmer, their earlier focus on creating 'objects' like furniture pieces, and their subsequent move towards the paper architecture schemes by the 1970s represented a very different type of critical action. The group's understanding of the 'death' of objects and architecture in terms of their status as a commodity shared ideological ground with Street Farmer, but Superstudio's less direct relationship to tangible action and the abstracted network form which featured in their contribution to 'Vita, Morte e Miracoli', 'Le Dodici Città Ideali' ('Twelve Ideal Cities') could not easily be reconciled with the program of intensive greening and 'un-building' proposed by their British counterparts.

The vegetable gardens and 'Il Canticle' image series presented by 9999 for 'Vita, Morte e Miracoli', though appearing formally almost as a half-way point between Street Farmer's eco-anarchy and Superstudio's dialectical total grid, might present another form of critical architectural work again. While Celant's article closes the ideological gap between 9999 and Street Farmer by suggesting that their works both adhere to a kind of 'mystical naturalism', they actually occupied very different political and ecological positions.[19] In fact, 9999 did not see themselves as an explicitly political group and, unlike both Street Farmer and Superstudio, avoided engaging directly with political theory in their work. The 'Il Cantico' series paired San Francesco's *Canticle of Creatures* with photomontage images from the Space Electronic. In this work, the grid that was endless in Superstudio's 'ideal' cities has clear boundaries, is an element that can be integrated with nature, exposed to the elements, and even absent entirely. Equally, the natural environment that was set to erode the grid and violently take over the city in Street Farmer's work in 9999's visions exists alongside advanced technologies, not necessarily as competing forces. The group's garden installation within the Space Electronic during 'Vita, Morte e Miracoli' then effectively brought these scenes to life.

Ideological differences between the groups and individuals involved in 'Vita, Morte e Miracoli' also resulted in incompatible positions on the use of emerging technologies. In discussing this idea of technology in relation to the expanded architectures of those involved in the event, the differences that exist between the event (based on what we know about the performances and presentations that took place within the disco) and the catalogue (as a publication containing material from a wider range of groups and individuals, including some who did not attend the event) must be acknowledged. Within the catalogue, the inclusion material from groups like The Portola Institute, Ant Farm and Raindance aligns these American groups with the aims of expanded architecture, but also sets up a more pronounced distinction between the architectural work of the Italian groups and figures, and that of the American and British contributors.

To this end, a broad difference exists between the technologically-advanced, systematic concepts of environment that are central to a number of the Italian works, and the more ecologically-focused, grass-roots 'alternative technologies' of Ant Farm, Portola Institute and even Street Farmer (although they often sought to distance themselves from what they referred to as the 'AT' movement).[20] For a number, but not all, of the Italian contributors, the system and/or network was used as a formal device, expressed through the grids or pure geometries, as in the works of Superstudio, Zziggurat and Remo Buti, or through the formulas and devices of Ugo la Pietra and Giuseppe Chiari. In these designs, advanced technologies became seamlessly integrated into future scenarios and ideally reappropriated for use by the masses.

These visions of future environments can be read alongside the work of operaist political theorists like Raniero Panzieri and Mario Tronti, who underlined the value of technological progress as a politically neutral force that was being misused at the hands of the dominant capitalist ideology.[21] The dystopic warnings in the work of Superstudio and Ugo La Pietra operate using a similar concept, with technology understood as having taken on capitalism's dual progressive and archaic characteristics. As such, one could imagine both liberating and devastating potential for technology depending on its relationship to capitalism, but not the halting of continual technological progress in either case.[22]

This approach sat apart from the expression of technology in the environmental responses of international groups like Ant Farm, Raindance, The Portola Institute and Street Farmer who (despite more specific differences in relation to their individual political positions) imagined a more individual and low-tech response to the prevailing social and political conditions. In the case of the American groups, there are links to the country's wider

countercultural movement advocating 'whole systems' and 'decentralised human economics', influenced by the 'closed system' ecological and environmental theories of Barry Commoner, Buckminster Fuller and others throughout the early 1970s.[23] These positions further differed from some of the Italian work in that they generally proposed an individual response to the refinement of consumer culture, led by informed consumers and the shift from 'possessions' to 'tools'.[24] Across Raindance's videotape series, Portola Institute's *Whole Earth Catalogue* and Ant Farm's 'Truckin' University', high-tech responses like inflatables and domes were seen as being utilised by self-sufficient communities with predominantly low-tech, rural lifestyles.[25]

This fundamental difference in technology's role as part of an inherently class-based versus individually-focused alternative society prompts completely opposed aspirations for future technologies in the environment - on one hand, the class-led focus on networks (technology has the power to allow us to communicate), on the other, an individual focus on being self-sufficient (technology has the power to help us drop out). Accepting this very general observation is useful in that it ultimately helps generate more precise locations in terms of individual works and their specific relationship to technology and political ideology. Although critics like Celant saw Street Farmer's comic strips as compatible with 9999's vegetable garden and 'Il Cantico', as discussed, Street Farmer was actually a group of AA anarchists advocating guerrilla architecture, while 9999 was a collective of utopian thinkers interested in performance and an idealised, hi-tech version of 'nature'.

Expanded, Fractured, Dismembered

What could be the significance of revisiting a temporary event like *Vita, Morte e Miracoli* and the permanent collected work within its catalogue? Well before Alessandro Mendini officially pronounced the end of *architettura radicale* in 1978, the Italian radicals received institutional acceptance at MOMA in 1972 and many of the groups and individuals subsequently shifting focus through the establishment of the counter-school Global Tools in 1974 which was influenced heavily by the success of Portola Institute's *Whole Earth Catalogue* in America. These events irrevocably changed the relationship between radical architecture and the discipline at large and, thirty years later, the terms of the debates have moved on.

It must be noted, however, that we have recently seen the re-exhibition of material from 'Italy: The New Domestic Landscape' environments in the 'Environments and Counter-environments' exhibition and lecture series, the presentation of Emanuele Piccardo's 'Dopo la Rivoluzione: Azione e protagonisti dell'architettura radicale italiana 1963-1973', an oral history series at the Museo di Triennale di Milano, the 2011 exhibition 'Architettura e Utopia

in Toscana (1968-73)' at the Museo Pecci in Milan and recent exhibitions on Andrea Branzi and Italian radical architecture through the Flemish Architecture Institute and Delft University of Technology in 2012. There have also been a number of important publications in recent years on the subject of radical or underground figures from these decades by scholars such as Felicity Scott, Peter Lang and Pier Vittorio Aureli, as well as a comprehensive study on the period, 'Italia 60/70: Una stagione dell'architettura' edited by Marco Biraghi, Gabriella Lo Ricco, Silvia Micheli and Mario Viganò.[26] It seems we aren't yet finished with the radical architecture of the 1960s and 70s. There is undoubtedly an argument for thinking of this interest as nothing more than part of a current penchant for facial hair and flare - a yearning on the same level as that for a Split-screen Kombi - but perhaps it's less about the allure of the flooded discotheque basement and vegetable gardens and more a consequence of the issues at stake in these types of practices for architecture.

Since the 1970s, social, environmental and conceptual architecture have all become very different (sometimes incompatible) things, and we tend to treat discussions about disciplinary or political autonomy for architecture as mutually exclusive. The first point to that might be made here is that, for all that has changed since the 1970s, we are still talking about architectural autonomy (albeit in new ways), and these debates invariably intensify in times of financial crisis, when the infallibility of our capitalist systems is called into question for a moment. The second is that the range of work performed and documented for an event like 'Vita, Morte e Miracoli' tends to underline the notion that 'expanded architecture' could ostensibly draw together a range of 'radical' architectural approaches and practices within an (inclusive) disciplinary category - a complex definition of architecture that perhaps appeals to those of us who might happily reject the somewhat compartmentalised (and easily digestible?) architectures of our present. There is considerable value in complexity recognised through tension, as opposed to the potential oversimplification that stems from neat separation.

Endnotes

[1] The work discussed in this paper has been more fully documented as part of my PhD project, provisionally entitled 'Radical Restructuring: Aesthetic and Political Autonomy in Italian Architecture and Design, 1963-73', currently being undertaken through The University of Queensland and supervised by Professor John Macarthur, Associate Professor Andrew Leach and Dr Andrea Bubenik. I would also like to thank Dr Silvia Micheli for generously agreeing to comment on an early draft of the paper. Gruppo-9999 and Superstudio, (eds.), *S-Space presents : Vita, Morte e Miracoli dell'Architettura (Life, Death and Miracles of Architecture): catalog festival n. 1*, vol. 1 (Firenze: S-Space,1971). Superstudio was the collective work of Adolfo Natalini and Cristiano Toraldo di Francia,

Alessandro and Roberto Magris and Piero Frassinelli. At the time of the event, Alessandro Poli was also involved in the group's activities. The members of Gruppo 9999 were Giorgio Birelli, Carlo Caldini, Fabrizio Fiumi and Paolo Galli.

[2] Branzi discusses the more recent use of 'radical' to include a large number of groups and individuals operating on the basis of an expanded definition of architecture, rather than the more specific original definition prior to Germano Celant. This paper uses the expanded definition within the paper, as it seems more common now to acknowledge its use across a large number of fields and practitioners internationally. The term *architettura radicale* will be used more specifically to denote the Italian groups working in the circles of expanded and conceptual architecture. Andrea Branzi, *The hot house : Italian new wave design* (London: Thames and Hudson, 1984).

[3] Carlo Caldini, Interview by author. Tape recording. Florence, 4 January 2010.

[4] S-Space, 'Untitled' in Gruppo-9999 and Superstudio, (eds.), *Vita, Morte e Miracoli dell'Architettura*, n.p.

[5] Germano Celant, "Sulla scena dello S-Space", *Domus* 509, no. 4 (1972); Haggart, "Cosmorama: Italian Trip." Some images from the event also appeared in "Italian Reinvolution," *Casabella* 36, 364 (1972).

[6] Street Farmer (sometimes written as 'Street Farm' or 'Street Farmers' or 'The Street Farmers') was formed by Bruce Haggart and Peter Crump, both students of the Architectural Association in London. Haggart and Crump also worked closely with Grahame Caine. After being described as 'an early ecologically orientated group that has never received proper recognition' by Grahame Shane in the early 90s, the group has recently received attention through Lydia Kallipoliti's research. An interview by Kallipoliti with Crump appeared in Beatriz Colomina's edited publication, *Clip, stamp, fold: the radical architecture of little magazines, 196X-197X*, from the 2007 exhibition of the same name, and more recently she has published a review of the Street Farmer documentary that accompanied the Eco-House project. Grahame Shane, "Obituary: Alvin Boyarsky (1928-1990)," *Journal of Architectural Education (1984-)* 45, 3 (1992); Lydia Kallipoliti, "Interview with Peter Crump: Street Farmer editor, 1971-72," in Beatriz Colomina and Craig Buckley (eds), *Clip, stamp, fold: The radical architecture of little magazines 196X - 197X* (Barcelona: Actar, 2010); Lydia Kallipoliti, "Review: Clearings in a Concrete Jungle," *Journal of the Society of Architectural Historians* 70, 2 (2011).

[7] Celant, "Sulla scena dello S-Space."

[8] Germano Celant, "Radical Architecture," in Emilio Ambasz (ed.), *Italy: the new domestic landscape: achievements and problems of Italian design* (New York: Museum of Modern Art in collaboration with Centro Di, Florence, 1972).

[9] Gruppo-9999. *Ricordi di architettura e di decorazione arte moderna*. (Firenze: 9999, 1972.)

[10] Haggart, "Cosmorama: Italian Trip," 202.

[11] Gruppo-9999. *Ricordi di architettura*, 260-70.

[12] Haggart, "Cosmorama: Italian Trip," 202.

[13] Celant, "Sulla scena dello S-Space,"; Enrico Pedrini (ed). *Radici Radicale: Archizoom, Pettena, Superstudio, UFO* (Florence: Galleria Il Ponte, 2009); Gruppo-9999. *Ricordi di architettura*, 262.

[14] Crumb explained, 'They [Superstudio and 9999] were enamoured with the presence of strange objects in the middle of nowhere, like in the midst of open fields and with landscapes represented by grids. We were getting along really well, but we were not really working under the same premises.' Peter Crumb, in Lydia Kallipoliti, "Interview with Peter Crump: Street Farmer editor, 1971-72," 256.

[15] Haggart, "Cosmorama: Italian Trip," 202.

[16] Bruce Haggart and Peter Crumb, *Street Farmer 2* (London 1972).

[17] Godfrey Boyle, "Interview: Street Farmers," in Peter Harper, Godfrey Boyle, and Undercurrents (eds.), *Radical Technology* (New York: Pantheon Books, 1976).

[18] Haggart and Crumb, *Street Farmer 2*.

[19] Celant, "Sulla scena dello S-Space."

[20] See Andrew Kirk's discussion of 'alternative technologies', Andrew Kirk, "Appropriating Technology: The Whole Earth Catalog and Counterculture Environmental Politics," *Environmental History* 6, 3 (2001): 376. Also, Andrew Kirk, *Counterculture Green: The Whole Earth Catalog and American Environmentalism* (Lawrence: University Press of Kansas, 2007). For Street Farmer's position on the 'AT' movement, see Boyle, "Interview: Street Farmers."

[21] Pier Vittorio Aureli and Temple Hoyne Buell Center for the Study of American Architecture, *The project of autonomy : politics and architecture within and against capitalism*, FORuM project (New York: Temple Hoyne Buell Center for the Study of American Architecture: Princeton Architectural Press, 2008).

[22] David Harvey, *The condition of postmodernity : an enquiry into the origins of cultural change* (Oxford England ; Cambridge, Mass.: Blackwell, 1989).
[23] Kirk, "Appropriating Technology: The Whole Earth Catalog and Counterculture Environmental Politics", Sam Binkley, "The Seers of Menlo Park: The Discourse of Heroic Consumption in the 'Whole Earth Catalogue'," *Journal of Consumer Culture* 3, 3 (2003).
[24] Binkley, "The Seers of Menlo Park: The Discourse of Heroic Consumption in the 'Whole Earth Catalogue'." However, Italian 'radical' architecture was to shift in this direction with the formation of the Global Tools initiative in 1973.
[25] Gruppo-9999 and Superstudio, (eds.)*, Vita, Morte e Miracoli dell'Architettura.*
See also, for example, Portola Institute, *The Last whole earth catalog : access to tools* (Harmondsworth: Penguin, 1971).
[26] Peter Lang and William Menking, *Superstudio: Life Without Objects* (Milano, Italia; New York, NY: Skira, 2003); Felicity Scott, *Architecture or Techno-utopia: politics after modernism* (Cambridge, Mass. ; London: MIT, 2007).; Aureli. *The project of autonomy: politics and architecture within and against capitalism*;. Marco Biraghi et al., eds., *Italia 60/70: Una stagione dell'architettura* (Padova: Il Poligrafo,2010).

Te Pahi's Whare:
The first European house in New Zealand

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Abstract

In 1806 New South Wales Governor Philip Gidley King gifted a prefabricated house to the paramount tribal chief of the Bay of Islands (Northland New Zealand), Te Pahi. The house was erected on Te Pahi's island pa (fortified village) at Wairoa Bay and was the first 'European' house to be built in New Zealand. As a gift, it embodied a nascent trade relationship between two cultures/countries and the recognition of Maori as a sovereign nation led by chiefs. Over a short time, however, it would also come to represent deepening racial and class divisions, among and between European traders and Northland Maori. Te Pahi was blamed (erroneously, many historians have argued) for the burning of the ship Boyd*, which had arrived from Port Jackson to Whangaroa harbour in 1809, and the murder of most of her crew and passengers. As a consequence, his people and his house became the focus for three separate revenge attacks by ships' crews outraged by the recognition that had been accorded to Maori, symbolised by the gift of architecture, which was then undermined by the burning of the* Boyd*. The house was fired on by cannon and ransacked, and a large number of the island's residents were killed or, in the case of Te Pahi, mortally wounded. Aside from its historical context, little is known about the house, and its exact location (on either one of two islands) has not been identified. In preparation for a geophysical site survey of potential house sites, this paper discusses the circumstances surrounding the acquisition of the house, its general site context and (inter-)cultural history, and the events surrounding its attacks. The 'remains' of the house are, for now at least, its history, a remnant of an unrealised promise of shared spaces, resources and mutual respect.*

Wairoa Bay 1805

This story begins with the first gifts given by the Crown to Maori: seed potatoes and metal tools. They were gifted by Philip Gidley King, Governor of New South Wales and Norfolk Island, to Tuki Tahua and Ngahuruhuru (also known as Te Hurukokoti), two chiefs kidnapped from the Cavalli Islands in April 1793 by the crew of the *Daedalus* and taken to

King to tell him about Maori flax (harakeke; *Phormium tenax*) dressing.[1] Neither man knew much about the art since it was practiced by women, yet their encounter with King was remarkable, first for the production of 'Tuki's map'—the first permanent image of New Zealand drawn by Maori (figure 1), and second for King's gifts which were intended to initiate a cross-cultural demand for goods between Maori and Europeans. Iron had been in demand in the Bay of Islands for more than twenty years[2] and the impact of metal tools on the decorative development of Maori architecture, specifically northern pataka (storehouse) and later East Coast meeting houses, has been documented elsewhere.[3] Although Jean-François-Marie de Surville (1769, Doubtless Bay) and Marc-Joseph Marion du Fresne (1772, Bay of Islands) had tried to introduce potatoes to Northland, it was King's gift that made the most significant cultural, if not horticultural, impact in the Bay of Islands. Seizing on the opportunity to barter potatoes, fresh water, timber spars and other goods for iron, the paramount chief of the Bay of Islands, Te Pahi (of the Hikutu subtribe) began to refashion his village at Wairoa Bay to service the needs of visiting British and North American vessels.

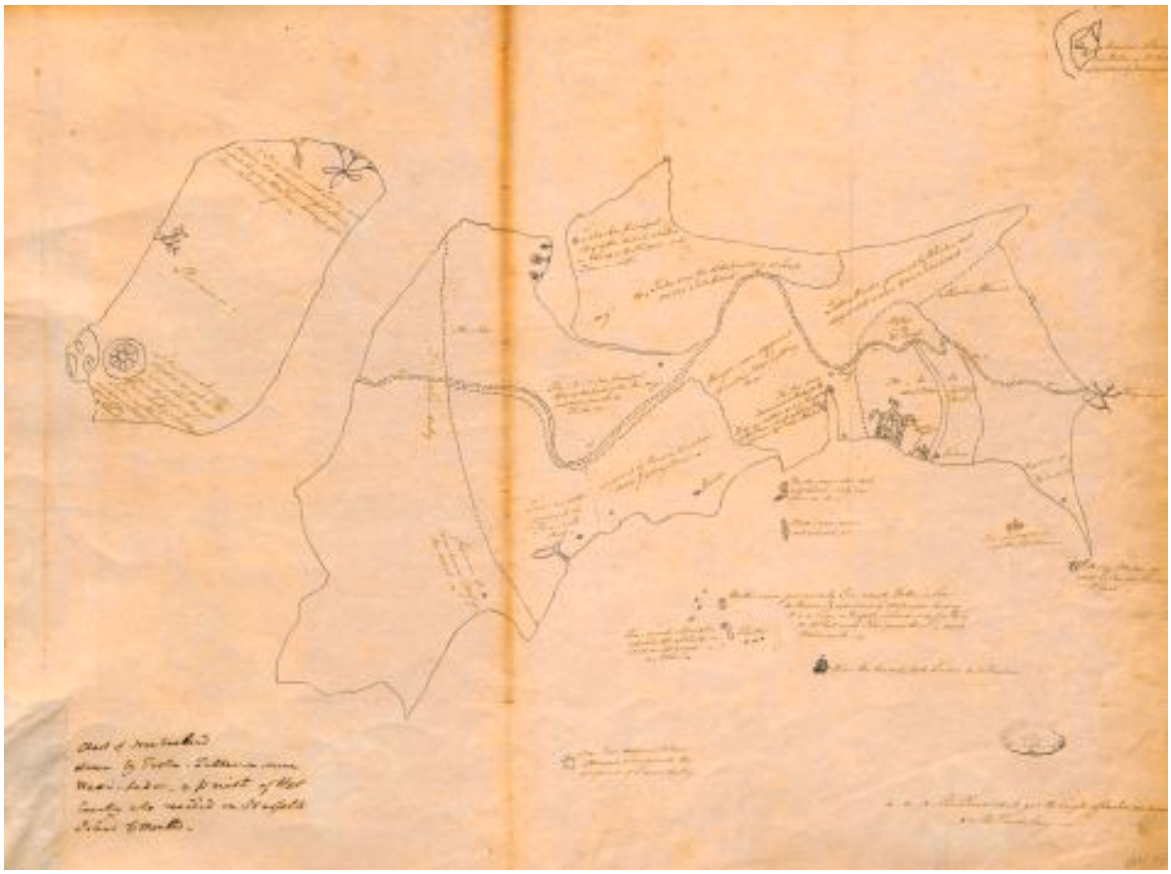

Figure 1. Copy of Tuki Tahuna's Map enclosed in a dispatch from Governor John Gidley King, 7 November 1793, (National Archives, United Kingdom, MPG 1/532[5])

Te Pahi himself resided on an island offshore from where he oversaw the development of large potato gardens near the shoreline, some of the garden drains still visible today.

Wairoa Bay is one of a number of bays around the Purerua Peninsular (figure 2) on the western side of the Bay of Islands and is immediately adjacent to Rangihoua Bay, which in the following decade would become the site of the first Christian mission station and first European settlement. Four islands sit within Wairoa Bay. They are known today as Roimata ('Tears'; sometimes called Te Pahi Island or Turtle Island), Motuapo, Motutapu ('Sacred Island') and Pewhairangi. Accounts by early European visitors often confuse the name of the Wairoa Bay settlement with its neighbour, Te Puna, in Rangihoua Bay.[4]

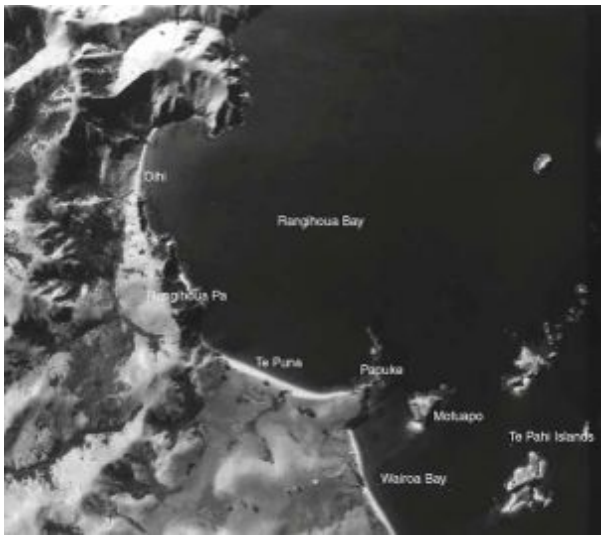

Figure 2. Aerial photograph of Wairoa and Rangihoua Bays, Purerua Peninsula, 1950.
(Reproduced from Angela Middleton, *Te Puna: A New Zealand mission station* (New York: Springer, 2008), 120).

An early contextual account of the Wairoa Bay settlement was provided by John Savage, a surgeon travelling on board the *Ferret*, who visited the Bay of Islands in late 1805, just missing Te Pahi who had already left for New South Wales:

> The capital of this part of the country, which is situated partly on the main land, and partly on a small island, is called Tippoonah ['Te Puna' sic; he is referring to one of the islands in Wairoa Bay], and consists in the whole of about an hundred dwellings. On the main the dwellings of the natives are surrounded each by a little patch of cultivated ground; but the island is appropriated to the residence of a chieftain and his court, where no cultivation is carried on. This island is so exceedingly abrupt in its ascent, and consequently so easily defended against an enemy, that it is frequently the refuge of the natives in time of war; answering all the purposes of a citadel of considerable strength: It is also their arsenal and general depot for

> articles of value in times of—peace—I was about to add; but, alas! These times are rarely known in savage life where the population is considerable. Tippeehee [Te Pahi], the chieftain, has a well-constructed dwelling on this island, and a large collection of spears, war mats, and other valuables.[5]

The island where Te Pahi lived appears to have been tapu (special, sacred, restricted) no doubt due to his presence and the safekeeping of important community property under the protection of his mana (status, prestige) and, potentially, fortifications. Its steep topography made it ideal for the purposes of defense and the physical 'elevation' of the chief—an important form of hierarchical distinction found across Polynesia. In keeping with its tapu nature no food, which was noa ('common'; complementary to tapu), could be grown here.

Figure 3. Augustus Earle, 'A Taboo's Storehouse at Rangehue [Rangihoua]', 1827, Watercolour,
(Rex Nan Kivell Collection NK12/69, National Library of Australia).

At least one pataka, or raised storehouse for tapu goods, was present on the island as Savage recounted that a daughter of Te Pahi had been imprisoned in a pataka that stood close to his house for falling in love with someone of 'inferior condition.' Her confinement was a punishment and a warning to others contemplating inappropriate relationships.[6] Savage observed that the pataka was 'ornamented with much grotesque carving,' a common description of tiki figuration, which would suggest that it looked like the one illustrated by Augustus Earle in 1827 at nearby Rangihoua (figure 3). No mention is made of ornamentation on Te Pahi's 'well-constructed' house and it may, or may not, have followed his general observation that:

> The dwellings of the natives are usually about five feet high, the walls of which are wattled, and made close with rushes. The thatch is of strong bladed grass, and generally well applied. The space the hut occupies is proportioned to the number of the family: there is usually but one aperture or entrance, and is, in appearance, not unlike a beehive. These are the common lodging-huts of the natives; their cooking operations, which, indeed, do not require a great number of vessels, or attendants, are carried on in a shed at a little distance from the hut [due to food's noa quality], and which is formed by fixing four posts in the ground, about five feet high, on which is laid a flat covering of rushes.[7]

The technology used to make these buildings and more importantly water vessels (the principal means of long distance transport) was changing with the introduction of metal. Savage noted that the value of iron was such among Wairoa Bay Maori that 'they will barter almost anything to possess it' and would 'suffer almost any privation, or inconvenience, for the possession of it; particularly when wrought into axes, adzes or small hatchets' although they had no means to work and maintain sharp edges on these implements.[8] As a consequence the value of pounamu (greenstone) adzes, chisels, needles and other tools had dropped dramatically.[9] Before the arrival of metal, pounamu had been the hardest workable stone, the sixteenth-century development of technologies to grind it transforming Maori art and culture. It could only be obtained from some rivers of the West Coast of the South Island, as also illustrated on Tuki's map where the source was marked with a circle and the South Island was referred to as 'Pounamu.' Extensive trade routes had developed from here to many other parts of New Zealand. Iron landed on site would have liberated Northland Maori from the end of the long pounamu supply chain, and made them an important internal supplier of this technology to other Maori. This advantage was short-lived. As Europeans created more trading networks with coastal Maori communities over the next two decades, metal was more easily accessed, and was eventually superseded by muskets and gunpowder as the premium commodity.

By all accounts the trading transactions at Wairoa Bay were guarded encounters as each culture generally struggled to understand morals and values of the other, often trying not to offend, yet also being ready to defend lives and goods. Understanding the value of this trade, Te Pahi wanted to ensure that these relationships were free of conflict. But as early as 1805, concerns were being raised about the conduct of Europeans towards Bay of

Islands Maori and the implications this might have in the future. Savage believed that class was an underlying factor in racist behaviour:

> I am inclined to believe, in many instances where disagreement takes place between Europeans and savages, the former are the aggressors. The lowest profligate of Europe fancies himself a superior being, and treats the untaught native of a peaceful isle, as an animal almost unworthy his consideration; he communicates the diseases of civil life, and commits acts of treachery and outrage without the least remorse. Acts of this description are handed down to posterity, by tradition, among the natives, and they revenge the injuries done to their ancestors upon all Europeans that come within their power. Thus, in many instances, the cruelty and perfidy experienced by Europeans, in various parts of the uncivilized world, should not be wholly attributed to natural propensities, but in part to the gratification of revenge for former injuries.[10]

Crews were also felling trees for spars without permission, and taking potatoes and other goods provided by Maori without payment. Savage noted that 'theft' of community property was regarded with abhorrence by Bay of Islands Maori and suggested that it was usually punished by hanging.[11] The physical mistreatment of Maori and other Pacific peoples arriving to, or leaving, Port Jackson by some shipmasters was creating some anxiety for the Governor, so much so that in May 1805 a Government and General Order was issued preventing masters of ships from taking them anywhere except back to their islands of origin.[12] This concern was partly humanitarian but also driven by a fear of revenge attacks on European vessels working in the South Pacific and the effect that could have on trade and enterprise. Given that the Treaty of Waitangi—which extended the rights of British citizens to Maori in New Zealand—would not be drafted and signed for another thirty-five years, the Order was unprecedented in protecting the 'properties, claims for wages and [providing] the same redress as any of Her Majesty's subjects' for this community of Pacific people resident in Australia. Unfortunately, as Te Pahi would soon discover, it had no influence outside of Port Jackson.

Sydney 1805

In September 1805, Te Pahi decided to visit Norfolk Island taking five of his sons, returning three months later with the prefabrications required to build the first European house, another significant gift to Maori from King. Almost a year before, Te Pahi had put

one son, Maa-Tara, on a British whaler to 'see the English at their settlement,' receiving him back on the *Venus* with gifts of tools from King presented at Port Jackson, and the first of three consignments of breading sows and milking goats sent on King's orders from Norfolk Island.[13] Te Pahi left with the *Venus*, inspired by the stories of Tuki Tahuna, Ngahuruhuru and Maa-tara, and the possibility of acquiring further material benefits through contact with King, regarded as the paramount chief of Australia, who seemed appreciative of Te Pahi's efforts in servicing the needs of visiting British and American ships. Although the idea of visiting Port Jackson had been raised by his father, Te Pahi's wives and children were justifiably concerned for his safety.[14] On the first leg of the journey, to Norfolk Island, Te Pahi became the victim of the sort of prejudice and violence from the ship's captain that he must have known from other Maori travelers' accounts of their poor treatment. The indignity of subjugation would have been shocking to Te Pahi, given his social status. The captain also kidnapped one of Te Pahi's sons, who was about eight years old, as payment for their passage. As he would later reveal to King, these incidents nearly caused him to change his mind about travelling further on.[15] However, the Commandant of Norfolk, Captain John Piper, quickly realised the present and future consequences of offending the most important Maori chief engaged in trans-Tasman trade and ameliorated the situation by rescuing the son and offering hospitality—a practice of great currency in both cultures. On learning that King had been made Governor of New South Wales, Te Pahi and his sons made their way to Port Jackson on the *Buffalo*.[16] They were prevented the by weather from a scheduled stop in Port Dalrymple (known today as Launceston), but visited the Derwent River (Hobart) where he met David Collins, founder of the settlement and Lieutenant Governor of the Colony of Van Diemen's Land (Tasmania).

Figure 4. William Archibald, 'Tippahee a New Zealand chief' engraved from an original drawing by George Harris, 1827, (A-092-007, Alexander Turnbull Library, New Zealand)

On arriving in Sydney on 27 November 1805, Te Pahi was presented to King. His physical presence was 'expressive and commanding' and seemingly intimidating for his hosts: athletic in build, mature in middle age, tall by European standards of the time at just under 6 feet in height, and 'disfigured by his face being completely tattooed' as well as other parts of his body.[17] In Te Pahi's mind King must have been a man of importance and mana, since he placed his flax cloaks (described as 'mats' by King) at his feet along with his patu (stone club), which he would have carried at all times,[18] before he greeted him with a hongi (nose touch greeting). These adornments can be seen in the 1805 illustration of Te Pahi in Sydney by George Harris, engraved by William Archibald in 1827 with an imagined New Zealand background (Figure 4). The removal of the garments and weapon were a sign of Te Pahi's peaceful intentions and deference to King, to whom he submitted the choice of his next move: either to go to Europe, or return to New Zealand, or stay in Sydney. King invited him to stay, which he did for three months living with the oldest of the sons he had travelled with in King's house, dining at his table, and cultivating a relationship of mutual respect. Despite there being no resident Europeans at Wairoa Bay, Te Pahi's English must have been good as he appears to have had no trouble making himself or his deeper feelings understood. His humanity impressed King, demonstrated by his requests for clemency in the case of man who he saw sentenced to death in court for stealing food, appeal for an improvement in treatment of Maori crew, appreciation to the many donors who presented him with gifts during his stay, and attendance at church.[19] Te Pahi travelled to Parramatta staying at John McArthur's farm and visiting his cloth and wool manufacturing enterprise, as well as meeting The Reverend Samuel Marsden of the Church Mission Society, who was inspired to develop the first Christian mission to New Zealand by this encounter.[20] His contempt towards Aboriginal people and culture only served to elevate the estimation in which he, and other Maori, was held by King. 'To say that he was nearly civilised,' wrote King 'falls short of his character.'[21] King's world was a source of both wonder and bewilderment for Te Pahi. The size of his house, its compartmentalisation with walls, and close proximity of a range of tapu and noa areas, overwhelmed him, and Te Pahi took every opportunity to ask King about the spaces, objects and technologies that supported his daily life.[22]

King presented a number of gifts to Te Pahi. One was a silver medallion engraved on one side with the words 'Presented to Governor King to Tip-a-he, a Chief of New Zealand,

during his visit to Port Jackson, in January 1806,' and on the other 'In the reign of George the Third, by the Grace of God King of the United Kingdom of Great Britain and Ireland.'[23] He also received from King and others iron objects including tools, and on the order of King, bricks and a framework for a house, all of which were loaded onto the *Lady Nelson* to accompany him and his sons on their return home in late February. [24] King was well aware that Te Pahi had mobilised his people and resources to service European ships anchoring in the Bay of Islands and clearly appreciative that their safety, in a region where British law did not prevail, was an outcome of Te Pahi extending his chiefly authority over them. The hospitality and gifts given by King were to ensure that these benefits continued. King wrote 'I have caused every attention to be paid to him, and I make no doubt but the kindness he and that part of his family he brought with him have received here, and the presents he takes with him, will ensure great advantage to our whalers.'[25] King had planned with Te Pahi to send a group of observers to live in the prefabricated house under Te Pahi's protection for five to six months and learn more of Maori culture, presumably with a view to developing trade. This endeavor was abandoned just prior to Te Pahi's departure with the arrival of news that King's request to be replaced as governor, made two years before, was granted and imminent with the impending arrival of William Bligh. Not surprisingly, after all of his efforts to forge an alliance with him, Te Pahi departed Sydney bitterly disappointed that King was no longer going to be the governor.[26]

Wairoa Bay 1806

On 25 April the *Lady Nelson* entered Wairoa Bay and 'bore up between 2 islands and came to under the island Matuapo [Motuapo] in 2 fathoms water.'[27] The following day the house and other gifts for Te Pahi were bought-up on deck and were sent ashore with the ship's carpenter who worked on the building until 30 April, the *Lady Nelson* departing Wairoa Bay the next day. The wording in the ship's logbook is not clear about the location of the house's site other than it was on an island. The Australian historian Ida Lee, who had access to the ship's logbooks, wrote in 1915 that:

> The house, by Governor King's orders, was to be erected in the most suitable spot possible, and was intended for the use of any officials who might be sent from Sydney, or for any missionaries whom the Governor might permit to dwell there. The carpenter was sent on shore to carry out the Governor's instructions, and he built the house on an island in the Bay of Islands on a site selected by Mr. Symons, who afterwards stated that the

> island was a very small one, but he believed that the house would be impregnable, and able to withstand the attacks of any force that the country at that time could bring against it.[28]

Although the gift was for Te Pahi, its construction and presence in Wairoa Bay must have sent a very clear message to rival chiefs attempting to establish their own trading posts on the eastern side of the Bay that Te Pahi was the recognised patron of European trade, as sanctioned by the Governor. Nevertheless, although the house needed to be impregnable the danger was not from Maori—as Symons might have supposed—but from other Europeans.

Over the five days that the ship was at anchor in Wairoa Bay, Te Pahi reciprocated the kindness shown to him—in keeping with the custom of koha (or reciprocal gifting)—by loading assigned presents, mostly of weapons (which the *Sydney Gazette* reported must have 'somewhat diminished his native armory'),[29] to every person who had given him a gift. As koha for the passage home, he loaded seed potatoes, which were in short supply in Sydney, spars and a flax specimen.[30] For the next three and a half years, Te Pahi's community at Wairoa Bay continued to service the needs of visiting ships in return for iron, and travelling Maori continued to be abused aboard some European vessels. The goodwill demonstrated by the gifting of the European house to Te Pahi was starting to wear thin on both sides, and would soon have an immediate impact on him, his community, their livelihood and, ultimately, the house as a symbol of intercultural relationships.

Whangaroa Harbour, December 1809

In December 1809, the *Boyd* was attacked by Maori in Whangaroa Harbour, just north of the Bay of Islands. Its captain and a handful of his crew were murdered on shore, and almost all of the remaining 70 crew and passengers were killed on board, before the ship was burned. A Ngati Pou chief from Whangaroa, Te Ara (also known as 'George') admitted to provoking the attack on the *Boyd* when speaking to Marsden and John Nicholas in December 1814 (just days before Marsden gave his Christmas sermon, the first Christian service held in New Zealand, at Oihi in Rangihoua Bay).[31] The attack itself was utu (a reciprocal action) for the mistreatment that Te Ara had suffered at the hands of its captain, John Thompson, during the voyage from Port Jackson to New Zealand. Thompson had accused Te Ara, who was ill during the journey, of not sufficiently working

his passage and had him flogged and stripped of all of his European possessions before landing him, naked, wounded and humiliated, at Whangaroa. Persuaded, possibly by Te Ara who already had revenge on his mind, that Whangaroa (which, according to Nicholas, had never been entered by a European ship before) was a convenient place to acquire a cargo of timber, Thompson and some of his crew decided to come ashore. Here they were murdered by a group of warriors led by Te Ara's brother, Te Puhi. Wearing the *Boyd* landing party's uniforms, the warriors then boarded the ship and began to kill the crew and passengers. Te Ara told Marsden and Nicholas that Te Pahi had been visiting Whangaroa at that time, and had unsuccessfully attempted to save a group of sailors who had climbed the rigging.[32] Many others were killed when a shot fired by one of the warriors hit the powder magazine causing an explosion and starting a fire that eventually burnt the ship down to the waterline (Figure 5). Four Europeans were not killed and remained captive at Whangaroa: a cabin boy called Thomas Davison (who had earlier befriended Te Ara and begged for his protection during the attack), Nancy Morley and her baby, and another child, Betsy Broughton.

Figure 5. Louis Steele and Kennett Watkins,
'The Blowing-up of the *Boyd*', oil on canvas, 1889,
(Museum of New Zealand Te Papa Tongarewa, 1992-0019-2)

Although news of the attack on the *Boyd* did not reach Sydney until 9 March 1810, it immediately created alarm among crews visiting the Bay of Island. Alexander Berry, Simeon Pattison and James Russell, of the *City of Edinburgh*, wasted no time in preparing notice that blamed Te Pahi for the attack and warned ships' masters to be careful when letting Maori on board their vessels. Before the *Boyd* incident, Berry had been attacked twice by Te Pahi's allies. Through an interpretation of events that he and his colleagues most likely received from the Bay of Islands chief 'Metanganoa', 'who had

volunteered his services' for a reconnaissance mission to Whangaroa, they claimed that Te Pahi had briefly visited the *Boyd* a few days after it had anchored in the harbour.[33] Once the captain had left the ship for the shore, Te Pahi led a party of warriors on a murderous rampage through the vessel. As an example of his treachery, Berry and his colleagues said that Te Pahi had promised protection for five or six crew members who had fled up the rigging, only to take them to shore and kill them.

Wairoa Bay (attack 1) January 1810

Berry left his warning notice with Tara, a Ngati Manu chief and one of Te Pahi's rivals from the eastern side of the Bay of Islands, to distribute as other vessels arrived. He also took the four remaining *Boyd* survivors on board the *City of Edinburgh* as it left for South America (Nancy Morley died in Rio de Janeiro).[34] While guiding Berry's ship out of the Bay, Tara and his kinsman Tupi asked him to fire the ship's cannons at Te Pahi's residence as a punishment—the first revenge attack on Te Pahi and his house. Tara and Tupi, who may have known who instigated the *Boyd* attack, would have seen this as an opportunity to undermine Te Pahi's trading enterprise for the benefit of those on the other side of the Bay. For them, the house represented European sanction of Te Pahi's growing monopoly on iron, and therefore technological and social advancement, and its destruction by cannon would demonstrate their new alliance with the European world. For Berry, this was an opportunity to avenge the earlier attack he had experienced. The cannon ball appears to have missed its target, but must have sent a frightening message to the residents of Wairoa Bay about their changing relationship with Europeans.

Wairoa Bay (attack 2) 26 March 1810

The second revenge attack began on 26 March 1810 at around 4am, a time when most if not all of the Wairoa Bay residents were asleep. It was led by the captains of five whalers: John Hingston (*Speke*), John Walker (*Inspector*), William Parker (*Diana*), Josh Morris (*Atlanta*) and Fred Hasselberg (*Perservence*). They based their assumption of Te Pahi's guilt on the information of Pattison (*City of Edinburgh*) and accounts from Maori, and claimed that they had come to Wairoa Bay to rescue any potentially imprisoned survivors on 'Tippahee's Island' and recover any arms and ammunition from the *Boyd*. They reported:

> On landing at Tippoonah ['Te Puna' sic; they are referring to one of the islands in Wairoa Bay] and proceeding to the top of the island, the residence of Tippahee [Te Pahi], we found the natives in a hostile disposition, and after a short interval they set up a general cry, and immediately discharged a

> volley of musquetry [sic] and spears at us. Our retreat was impractical without certain loss, when we proceeded and took possession of the island by force of arms. The natives, with Tippahee, escaped to the main[land], either taking away or destroying their musquets [sic] by throwing them into the sea.[35]

The *Boyd*'s longboats and papers were recovered and sent as back to Port Jackson on the *Perseverance*. Their presence on the island is not necessarily evidence of culpability in the *Boyd* attack, as Te Ara had told Nicholas that money plundered from the *Boyd* had been exchanged among different tribes, presumably in return for other goods.[36] The captains' account is not specific about which island was the place of Te Pahi's residence, although the quick uptake of arms among its residents might suggest that it was the same one that Savage described as the 'amoury,' the site of Te Pahi's 'traditional' whare. Indeed the location of the 'residence of Tippahhee' at the top of the island, its tihi, suggests typical pa arrangement. Nine days after the second attack on Wairoa Bay, an unnamed Bay of Islands chief told the visiting trader William Leith that during the raid Te Pahi's 'houses' had been destroyed, Te Pahi was wounded and had escaped to Whangaroa, and about 60 of his people had died.[37] The 'houses,' we could speculate, might have included residences for the chief and his immediate circle as well as the pataka in which the arms were kept.

Wairoa Bay (attack 3) 10 April 1810

Historical evidence of a third attack on Wairoa Bay on 10 April 1810 only seems to exist in the journal of James Finucane, a participant in the event, and the former Secretary to James Foveaux who was the colonial administrator in New South Wales after Bligh's deposition as governor. Looking at this account it becomes clear that many secondary sources conflate the second and third attacks on Wairoa Bay and confuse their impacts. Finucane's journal was only recently discovered in the National Library of Ireland and published in 1998 as *Distracted Settlement* (Melbourne University Press) by the Australian historian Anne-Marie Whitaker, a year after the publication of Anne Salmond's *Between Worlds* with its exacting accounts of the previous two attacks. Finucane had met Te Pahi during the chief's less than successful second trip to Sydney in 1808, when Bligh was under house arrest after suffering his second 'mutiny' and Foveaux's attentions were elsewhere. Describing Te Pahi during this trip as the 'King of New Zealand' he had presented him with a ribbon and Freemason's medal that August[38] and had made a sketch of the chief in military uniform (figure 6) who, in response and being 'fond of drawing' himself, presented Finucane 'with one of his own rude productions, which he

called a portrait of himself.'[39] Finucane had also met Te Pahi's son Maa-Tara the previous year in London, while he was staying with Sir Joseph Banks on a mission from his father to meet the King and procure gifts of muskets and metal tools 'in order that they may be enabled to build houses and live as English men do.'[40] Obviously Te Pahi's time in Sydney and his experience of having a European house had left the chief with a favourable impression of what western architecture could provide for him and his people.

Figure 6. James Finucane, 'Tippahee [Te Pahi], a chief of New Zealand', 1808, watercolour,
(New South Wales State Library, a128467)

Finucane and Foveaux were travelling back to England on the *Experiment* after Lachlan Macquarie had assumed the governorship. The rationale for the attack is embedded in their reason for being on board. They were associated with a group of entrepreneurs, former convicts, who had commissioned the boat to travel to the Bay of Islands and investigate the potential of establishing a flax plantation here under Te Pahi's protection and with the assistance of his son-in-law George Bruce. Bruce was a Pakeha Maori (European trader and interpreter working on behalf of Maori) who had met Te Pahi during their journey on the *Lady Nelson* and later married his daughter, Atahoe. The plan began to unravel shortly before their departure. Atahoe died in Sydney of dysentery, leaving Bruce with the care of their infant daughter Mary (the first Maori to be born outside of New Zealand) who he subsequently deposited in the Female Orphan School (where she became the first Maori to be institutionalised).[41] Without the vital whakapapa (family relationship) connection to Te Pahi, Bruce decided not to return to New Zealand. Finucane also despaired over the lost opportunity, brought by Atahoe's death, of not being able to be 'presented in her suit at her father's court,' but nevertheless believed that he would still receive a 'gracious reception in consideration of a silver medal and an old

pair of leather breeches which I gave His Majesty … [and] the good fortune to stand well with the heir apparent Mattarah [Maa-Tara].'[42] The delay caused by Atahoe's death meant that the *Experiment* was still in port when, a little over a week later, news arrived of Te Pahi's supposed involvement in the attack on the *Boyd* and the 'dangers' of Wairoa Bay. What had been planned as an expedition to enhance trading relationships between Maori and European, symbolised by the gift of the prefabricated house, became a much darker enterprise based on lost dreams, income and status.

Arriving at Wairoa Bay, Finucane provides the first account of the prefabricated house being on the island pa where Te Pahi resided: 'His principal residence is on a small [annotation: high and steep] fortified island called Tippoonah ['Te Puna' sic; one of the islands in Wairoa Bay], where he has a house that was constructed at Port Jackson by order of Governor King, and put together by carpenters sent from thence for that purpose.'[43] Since Roimata and Motuapo are steep islands, and any terracing on Motuapo is now covered by vegetation, the description offers no insight into which island was the house site. The wording is also ambiguous when it comes to identifying whether Te Pahi was living in the building. Finucane claimed that he and the attacking party of visiting ships' captains and 60 crew were under 'instruction' (from whom it is not clear) to ascertain whether there were any *Boyd* captives or cargo on the island when they landed and climbed to the 'summit of the hill which is nearly perpendicular.' The locals retaliated with spears and muskets, but the island was soon cleared of live inhabitants who were either killed or escaped to the mainland 'leaving their King's house with the presents he had a various times received from our Government and from individuals as a booty to the invaders. Among them was the [Freemasons] medal which I gave him at Port Jackson, and which the sailor who found it again restored to me.'[44] The *Boyd's* launch and more papers, shirts and linen were recovered, and a number of taonga Maori (treasures) were stolen by the crew. The taonga were purchased from them by Finucane on the passage of the *Speke* from the Bay of Islands to Rio de Janeiro where they were then presented by him to Admiral Michael De Courcy, British Commander-in-Chief on the South American Station, 'who was then making a collection of the arms, implements and ornaments of the South Sea Islanders.'[45] On departing the Bay of Islands Finucane received news that Te Pahi had been killed in the attack (Marsden wrote later he had been shot seven times)[46] along with 70 other Maori, although from his own observations he believed this figure to be exaggerated.[47] This final assault on the house, the repatriation of gifts and the theft of communal property signaled an end to the Governor's

sanction of trade at Wairoa Bay and the Crown's recognition of Te Pahi's chiefly authority.

Wairoa Bay, Te Puna, and Rangihoua Bay after 1810

Until his death in 1815, Te Pahi's kinsman and successor Ruatara continued to develop Wairoa Bay and Te Puna and as a centre for inter-cultural commerce, and neighbouring Oihi as a centre for Christianity with the establishment of Marsden's Church Mission Society mission station there in 1814. Between the commercial and Christian sites was Ruatara's substantial headland pa, also called Rangihoua (Figures 7 & 8). Despite dedicating resources to support the conflict between the Hikutu (Wairoa Bay/Rangihoua Bay) and Ngati Pou (Whangaroa) subtribes over the *Boyd* attack,[48] he was still able to establish wheat cultivation for planned export to Port Jackson in exchange for agricultural implements, axes, tea and sugar. Just before his death he showed Marsden the site of a town, probably for Maori and Europeans but definitely under Maori authority, that he proposed to build on the mainland of Wairoa Bay:

> … with regular streets, after the European mode, to be erected on a beautiful situation, which commanded a view of the harbour's mouth and the adjacent country round. We, together, inspected the ground fixed on for the township and the situation of the intended church. The streets were to have been all marked out before the brig sailed for Port Jackson, but at the very time of these arrangements being made Duaterra [Ruatara] was laid on his dying bed.[49]

Figure 7. Augustus Earle, 'Ranghe Hue, [i.e. Rangihoua] a New Zealand fortified village, the residence of Warri-Pork [i.e. Wharepoaka]', watercolour, 1827,
(National Library of Australia, pic-an2838566).
Picture shows the south side of the pa from Papuke.

Figure 8. No artist name, 'The missionary settlement Rangihoua on the north side of the Bay of Islands, New Zealand', watercolour, c. 1832, (National Library of Australia, nla.pic-an2255627) Picture shows the north side of the pa.

Without Ruatara, the impetus to develop Wairoa Bay and Te Puna as a commercial centre began to diminish. Trading opportunities were gradually assumed by villages on the opposite side of the Bay of Islands. Given that Oihi was a less than favourable spot for a settlement, the missionaries managed to maintain their mission station here until 1832, when they moved to Te Puna (the Te Puna mission itself closed in the early 1870s).[50] Marsden noted that the island on which the prefabricated house had been built in 1806 was abandoned after Te Pahi's death. He visited New Zealand seven times up to 1837, later reflecting in his journal:

> I never passed Tippahee's Island without a sigh. It is now desolate, without an inhabitant, and has been so ever since his death. The ruins of his little cottage, which was built by the kindness of the late Governor King, still remains.[51]

It is not clear whether the ruinous state of the house was due to the many attacks its site had endured, or damage during the looting at the time of the third attack, or being left to decay in keeping with the tapu that must have fallen over it because of Te Pahi's death, and the loss of the equitable intercultural future that it had once promised.

Figure 9. Roimata from Koutu,
(photograph by Deidre Brown, 11 January 2012)

Figure 10. Motuapo (current house site visible towards the top left of the island) from Koutu,
(photograph by Deidre Brown, 11 January 2012)

This story ends with a conundrum: Which island? A combination of history, oral narrative and archaeology may hold the key to solving the mystery of whether Roimata or Motuapo was the site of the house (Figures 8 & 9). Each of these, and the other two islands in the Bay, may have had a different community purpose.[52] One of them was observed by Savage to be a place to which the dying elite, if not also the ordinary people, were removed and interred, as had been the case with the one of Te Pahi's late wives.[53] Sickness and death were, and still are, considered tapu in Maori society and no healthy person would have resided on this particular island. Whichever island this was, it could not have been the one where Te Pahi resided.

Ngati Torehina kaumatua (elder), Te Pahi descendant and Rangihoua Pa Reserve Chairman, Hugh Rihari, believes that the name 'Roimata' was possibly given to that island after the 1810 attacks and Te Pahi's death to commemorate the 'tears' that had flowed after these events.[54] That it is also sometimes called 'Te Pahi Island', perhaps through its memorialisation in missionary illustrations,[55] has meant it has also come to be known as his residence in popular imagination. However, Rihari believes that Motuapo is the most likely site based on oral narratives that identify a place called Koutu below Papuke (the headland between Te Puna and Wairoa Bay, see figure 2) as the landing point for island residents escaping one or both of the March and April 1810 attacks.

Figure 11. From Rangihoua Pa (left to right), Te Puna, Papuke headland, and Wairoa Bay showing all four of the 'Te Pahi Islands', (photograph by Deidre Brown, 11 January 2012)

Motuapo is the closest island to Koutu, while the closest mainland point to Roimata is on the other side of Wairoa Bay. It stands to reason, Rihari argues, that panicked residents would swim for the nearest shore. The only archaeological survey of Roimata took place in 1978 and recorded typical pa features, such as terraces and ditches, which are still visible, but the survey did involve excavation nor identify any house remains.[56] Roimata is currently a Maori Reserve and was recently declared a Wahi Tapu (Sacred Reserve) by the New Zealand Historic Places Trust.[57] Motuapo found its way into private ownership, and in the 1970s was revegetated with native bush by occupants who also built a house on a flat area mid-way up the island. In 'restoring' it to its pre-human state archaeological remains are likely to have been disturbed and topographical forms have been hidden under the bush canopy. Given the steepness of the terrain, Rihari believes the current house site would have also been the best for any earlier building constructed on the island. Motuapo was recently purchased to preserve sightlines by the developers of

Mountain Landing, a luxury residential precinct spanning the mainland of Wairoa Bay across to Te Puna. During the development's landscaping, important archaeological evidence of mainland foreshore activity at Wairoa Bay from 1500AD (one of only three 'archaic' sites in the Bay of Islands; New Zealand was settled around 1200AD)[58] to the time of Te Pahi's trading activities was disturbed—and some of the shell middens were shifted by bulldozer to form the base course for new roads in the development.[59] The house of the developer now occupies the site of Ruatara's proposed town.[60] The author of this paper hopes to raise funds for a geophysical survey using magnetic imaging of Roimata and, if the vegetation is not too dense, Motuapo that would reveal more information about earlier house sites on both islands although, without excavation, it may not be possible to distinguish Maori buildings from the prefabricated house. Part of this second stage of research will also involve investigating early nineteenth century prefabrication techniques in Australia, so that even without physical remains or an exact site at least some speculation could be made about its appearance. Te Pahi's house remains a gift to architectural history and the story of early Maori and Pakeha European relations in New Zealand, even if its original promise was never realised.

Postscript

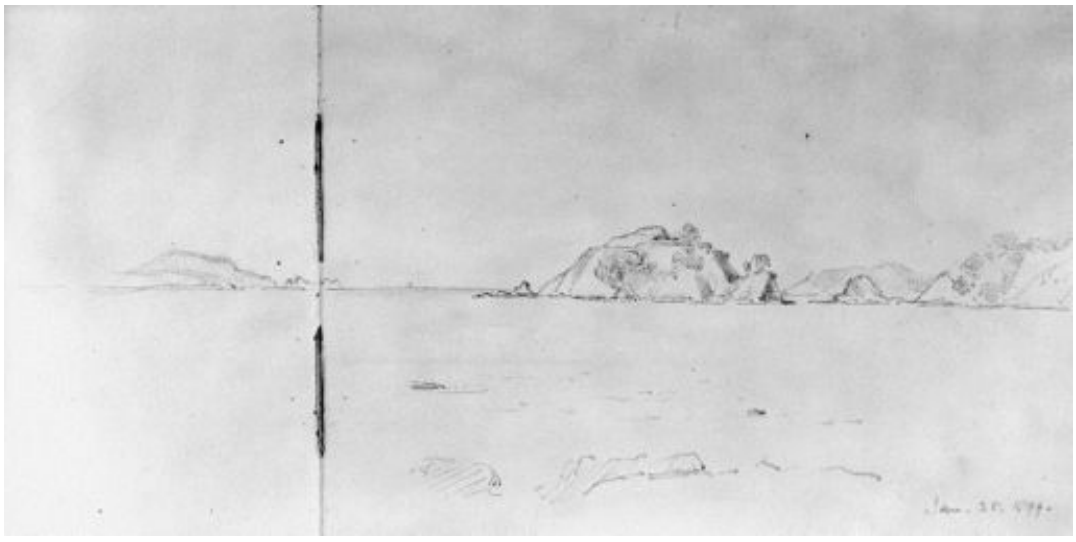

Figure 12. Philip Walsh, sketch of Motuapo Island (centre), 25 January 1899, Waimate sketchbook 1896-1913, (E-363-q-037/038, Alexander Turnbull Library, New Zealand).

Three days before the due date for submission of this paper for publication I received an email from Angela Middleton, an archaeologist who has worked on the Wairoa Bay and Oihi sites, that begins: 'A light bulb switched on in my brain this afternoon after re-reading John Savage and looking at Philip Walsh's drawing of 1899—yes of course the island

[where the prefabricated house was built] is Motuapo, not Roimata.'[61] Walsh was an ordained Anglican Minister. His pencil drawing reveals the steep incline of pa terraces on Motuapo that are still clearly visible almost ninety years after the last attack on Te Pahi's people and a number of decades before the terraces would be obscured by reforestation. Roimata is nowhere near as steep by comparison. The incline of the terracing on Te Pahi's residential island pa, where the prefabricated house was erected, was noted by Savage (in 1805), Symons (1806) and Finucane (1810) as discussed above. Walsh's drawing ties together the historical evidence, which is now in agreement with Rihari's oral narrative. To establish Motuapo as the site for the prefabricated house from an archaeological perspective, Middleton believes a geophysical survey is no longer required, just a trip to the mainland to verify in-situ the position of the island in the sketch and a walk across Motuapo to identify the terracing. We plan to do this together next summer.

Acknowledgements

The author would like to acknowledge and thank: Hugh and Raewyn Rihari for sharing their korero tuku iho (oral knowledge passed down) and organising site access to Mountain Landing; Professor Dame Anne Salmond for providing access to her *Between Worlds* archive of photocopied primary documents from foreign archives; and Andrew Blanshard (Department of Conservation, Bay of Islands) and Dr Angela Middleton (Department of Archaeology, University of Otago) for making themselves available for interview and sharing documentation and reports. I am a direct descendant of Te Pahi, and would also like to acknowledge him and other tipuna (ancestors) who are discussed above. This story has continuing consequences for us as descendants as we have not recovered economically and socially from the *Boyd* retaliatory attacks. Nevertheless, my hapu (subtribe), Ngati Rehia, now live in Whangaroa and have members of the Tupe (Tupi) and George (Te Ara) families as uncles and first cousins. The descendants of Betsy Broughton, one of the child survivors of the *Boyd* attack, were the guests of honour at the 200th anniversary of the event at Whangaroa. And I have discovered that Mary Bruce, grandchild of Te Pahi, survived the Sydney orphanage and had a family in Australia who possibly never knew they were Maori. I will continue to look for their descendants and our taonga left in Rio de Janeiro. With reciprocity comes reconciliation.

Endnotes

[1] Judith Binney, 'Tuki's Universe', *New Zealand Journal of History,* 38, 2 (2004), 215.
[2] Deidre Brown, *Tai Tokerau Whakairo Rakau: Northland Maori wood carving* (Auckland: Reed, 2003), 35.

[3] See Brown, *Tai Tokerau Whakairo Rakau* & Deidre Brown, *Maori Architecture* (Auckland: Raupo, 2009).
[4] Angela Middleton, *Te Puna: A New Zealand mission station* (New York: Springer, 2008), 119.
[5] John Savage, *Some Account of New Zealand* (London: J Murray & A. Constable, 1807) 12-13.
[6] Savage, *Some Account of New Zealand*, 13-14.
[7] Savage, *Some Account of New Zealand*,) 14-15.
[8] Savage, Savage, *Some Account of New Zealand*, 7, 9-10, 56, 71.
[9] Savage, Savage, *Some Account of New Zealand*, 7, 9-10, 70.
[10] Savage, Savage, *Some Account of New Zealand*, 89-90.
[11] Savage, Savage, *Some Account of New Zealand*, 31.
[12] Government and General Order, 26 May 1805, in Robert McNab (ed.), *Historical Records of New Zealand,* 2 vols (Wellington: John McKay, 1908) I, 257-8.
[13] *Sydney Gazette*, 1 December 1805, p. 2.
[14] Governor Philip Gidley King, 2 January 1806, in McNab (ed.), *Historical Records of New Zealand*, I, 268.
[15] King, 2 January 1806, in McNab (ed.), *Historical Records of New Zealand*, I, 262.
[16] Samuel Marsden, The Letters and Journals of Samuel Marsden, John Rawson Elder (ed), (Dunedin: Coulls, Somerville Wilkie, 1932), 59.
[17] *Sydney Gazette,* 1 December 1805; King, 2 January 1806, in McNab (ed.), *Historical Records of New Zealand*, I, 262.
[18] Savage, and other European observers of the time, have written that patu were part of standard dress: 'The men, whether dressed or in their ordinary clothing, carry a waddy, suspended by a thong from the wrist. The waddy is in figure somewhat resembling a large battledore, and is usually formed of hard black stone, but some are made of bone taken from the head of the whale. This instrument is the sword of New Zealand, and proves as destructive a weapon as the sword of Europeans.' Savage, *Some Account of New Zealand*, 52.
[19] King, 2 January 1806, in McNab (ed.), *Historical Records of New Zealand*, I, 264-5, 268.
[20] Anne Salmond, *Between Worlds: Early exchanges between Maori and Europeans 1773-1815* (Auckland: Viking, 1997), 351.
[21] King, 2 January 1806, in McNab (ed.), *Historical Records of New Zealand*, I, 264.
[22] King, 2 January 1806, in McNab (ed.), *Historical Records of New Zealand*, I, 264-5, 263, 264.
[23] King, 2 January 1806, in McNab (ed.), *Historical Records of New Zealand*, I, 266.
[24] 'Tuesday, 21st January [1806]. Received a boatload of bricks for New Zealand and stowed them away,' 'Wednesday, 22nd January. Received boatload of bricks for New Zealand,' 'Friday, 24th January. Received on board part of a house for New Zealand,' 'Saturday, 25th January. P.M. Received the remainder of the house,' 'Monday, 27th January. A.M. Received 2 chests on board for Tippahee [Te Pahi] going to New Zealand' James Symons, *Lady Nelson* logbook, in Ida Lee, *Log Books of the* Lady Nelson (London: Grafton& Co., 1915), http://www.gutenberg.org/ebooks/7509 (accessed 5 March 2012)
[25] Governor Philip Gidley King to Under-Secretary Cook, Sydney, New South Wales, 31 December 1805, in in McNab (ed.), *Historical Records of New Zealand*, I, 258.
[26] King, 2 January 1806, in in McNab (ed.), *Historical Records of New Zealand*, I, 269.
[27] James Symons, *Lady Nelson* logbook, in Lee, *Log Books of the* Lady Nelson, http://www.gutenberg.org/ebooks/7509
[28] Lee, *Log Books of the* Lady Nelson, http://www.gutenberg.org/ebooks/7509
[29] *Sydney Gazette*, 15 June 1806, 4.
[30] Lee, *Log Books of the* Lady Nelson, http://www.gutenberg.org/ebooks/7509
[31] John Nicholas, *Narrative of a Voyage to New Zealand*, 2 vols (James Black & Son, London, 1817), I, 144-53; Samuel Marsden, *The Letters and Journals of Samuel Marsden*, John Rawson Elder (ed), (Dunedin: Coulls, Somerville Wilkie, 1932), 87; Two other Bay of Island chiefs, Ruatara and Hongi Hika, also spoke of Te Pahi's innocence to Marsden: Marsden, *The Letters and Journals of Samuel Marsden*, 85.
[32] This is corroborated in Marsden's account: Marsden, *The Letters and Journals of Samuel Marsden*, 85.
[33] Notice issued by Simon Pattison, Alexander Berry, James Russell, and given to Tara, 6 January 1810, in Robert McNab (ed.), *Historical Records of New Zealand,* 2 vols (Wellington: John McKay, 1908), 1, 311-12.
[34] *Sydney Gazette,* 23 May 1812, 3.

[35] John Hingston (*Speke*), John Walker (*Inspector*), William Parker (*Diana*), Josh Morris (*Atlanta*), Fred Hasselberg (*Perservence*), letter to Governor MacQuarie, Bay of Islands, 10 April 1810, in McNab (ed.), in McNab (ed.), *Historical Records of New Zealand*, I, 299-300.
[36] Nicholas, *Narrative of a Voyage to New Zealand*, I, 152-3.
[37] William Leith to Lord, Williams and Thompson, Bay of Islands, 15 April 1810, Colonial Secretary's Papers, in McNab (ed.), *Historical Records of New Zealand*, I, 301.
[38] James Finucane, journal entry, 22 August 1808, in Anne-Marie Whitaker, *Distracted Settlement: New South Wales after Bligh* (Melbourne: Melbourne University Press, 1998), 58.
[39] Finucane, journal entry, 22 August 1808, in Whitaker, *Distracted Settlement*, 62.
[40] Unnamed reference (likely to be Joseph Banks or one of his correspondents) in Anne Salmond, *Between Worlds: Early exchanges between Maori and Europeans 1773-1815* (Auckland: Viking, 1997), 360.
[41] Salmond, *Between Worlds*, 366.
[42] Finucane, journal entry, 22 August 1808, in Whitaker, *Distracted Settlement*, 94.
[43] Finucane, journal entry, 10 April 1810, in Whitaker, *Distracted Settlement*, 99.
[44] Finucane, journal entry, 10 April 1810, in Whitaker, *Distracted Settlement*, 100.
[45] Finucane, journal entry, 10 April 1810, in Whitaker, *Distracted Settlement*, 104.
[46] Marsden, *The Letters and Journals of Samuel Marsden*, 62.
[47] Finucane, journal entry, 15 April 1810, in Whitaker, *Distracted Settlement*, 107.
[48] Ruatara and Hongi Hika in Marsden, *The Letters and Journals of Samuel Marsden*, 70.
[49] Marsden, *The Letters and Journals of Samuel Marsden*, 70.
[50] Middleton, *Te Puna*, 3-4.
[51] Marsden, *The Letters and Journals of Samuel Marsden*, 87-8.
[52] Andrew Blanshard, Department of Conservation, Bay of Islands, pers. com., December 2011.
[53] Savage, *Some Account of New Zealand,* 24. However, by December 1814, the island does not seem to have still been used for this purpose as Marsden had arrived to find Ruatara set-apart from his people and dying in a specially-designated place slightly inland from his headland pa: Hugh Rihari, pers. com., January 2012.
[54] Hugh Rihari, pers. com., January 2012.
[55] Angela Middleton, Department of Archaeology, Otago University, Dunedin, pers. com., December 2011.
[56] Archsite Summary Site Record, NZAA site number P05/2.
[57] Matt Philip, 'Islands of Blood and Tears', *New Zealand Heritage*, Summer 2010, 8-9.
[58] Simon Best, 'Archaeology at Wairoa Bay, Purerua Peninsula, Bay of Islands: Report prepared for Mountain Landing Ltd', 2003, 44.
[59] Best, 'Archaeology at Wairoa Bay', 2.
[60] For a discussion of the site of Ruatara's proposed town see Middleton, *Te Puna,* 132-3.
[61] Middleton, pers. com., 16 May 2012.

Magical Mirrors: reflections on the industrial subject in *Mechanization Takes Command*

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Abstract

Drawing from the theme of 'fabulations', this paper will revisit Siegfried Giedion's monumental work Mechanization Takes Command*, investigating further its architectural motivations and legacy. The writing of* Mechanization Takes Command *coincided with a turning point in Giedion's thinking which began to question the role of technology within society as well as the moral implications this had for human experience (and the body). In rejecting a number of founding principles of modernism (and CIAM), the paper will demonstrate how the work intersects with broader concerns of the historical avant-garde, as well as dramatising the subject of architectural history in an original and methodical way. This exposition of a new historical subject, glimpsed through the 'magical mirror' of history, is of ongoing significance (and concern) to the concrete histories of modernism in architecture. As will be argued, Giedion presents this subject in crisis—divided and invaded by the path of mechanisation in the nineteenth and early twentieth centuries. The paper makes a case that, through this realisation,* Mechanization Takes Command *has an affiliation with the primary concerns of the historical avant-garde, and can be tied to the theories that supported them.*

The Mechanics of History

When Siegfried Giedion completed his epic tome *Mechanization takes Command* in 1948 he described history, in the opening line, as a 'magical mirror' from within which the author 'sees [their] own image in shapes and developments.'[1] For Giedion, the pursuit of history was similar to the work of an astronomer, providing meaning to the constellations of stars in the sky and recognizing broad patterns from within disorganized chaos. Giedion returned to the analogy of the mirror throughout his published works, and had employed it from as early as 1922.[2] In the article published in the *Journal of Architectural Education* in 1957, entitled 'History and the Architect', Giedion wrote,

> [h]istory is a mirror which always reflects the face of the onlooker. The historian has to show the trends of development as clearly and as strongly as

> [they are] able to. But the so-called objectivity of the historian is nothing but a fiction.[3]

The emphasis on subjectivity notwithstanding, Giedion's method of history was distinguished by the emphasis that he placed on mythology, emotion, psychology and humanism. His work on mechanisation differed markedly from his previous, and widely read, *Space, Time and Architecture* (1941), which attempted to articulate a spatial consciousness that underpinned modern life. In *Mechanization Takes Command*, Giedion set out to chart the ancestry of modernism in the emergence of mechanisation: a search that is clearly premised on his own irrevocable location at the heart of the modern movement and with a predisposition towards architecture's contribution to it.

Mechanization Takes Command is significant for a number of reasons. Firstly, it established an original discourse into the architecture of industrialization and agriculture and demonstrated tangible links between this functionalist current and the architecture of the twentieth century. Secondly, it provided a platform for understanding the historical relationship between technology and the body, particularly as it is framed within a context of economics and exchange. However, the most significant contribution in *Mechanization Takes Command*, as will be argued, is in the development of a new radicalised subject within architectural history: the emergence of an individuated and controlled human animal that is subservient to the broader social forces of history and has been both superseded and (prosthetically) enhanced by the rampant development of industrial processes.

This aspect of Giedion's work aligns it with the concerns of the historical avant-garde and, in particular, the theorizing of the avant-garde by both Peter Bürger and Jürgen Habermas. Both authors situated the avant-garde as independent of the broad themes of modernism, characterized by the perspective of the subject (reception), rather than the relative autonomy of the object (a state endemic to modernism). Following this argument, and with an emphasis on the fields of 'science', 'art' and 'morality' that operate throughout Giedion's work, this paper will investigate the 'subjects' of Giedion's revised modernist history through an appropriation of this discourse. The spatialisation of this 'modern' subject—fundamentally different to the tectonics described and documented in *Space, Time and Architecture*—establishes a domestic interior wedged between the extremes of myth and control. Giedion's 'mirror' reveals this historical subject in crisis: entombed within an architecture of the dehumanised and dividing machine.

Industrial Archaeologies

The argument presented in *Mechanization Takes Command* is that, in the process of empowering the machine in order to advance human capability, humans have become entirely subservient to the machine. The body is a continual backdrop throughout, as Giedion analyses the technology that has enabled its movement, sustenance, cleanliness, comfort and productivity to be enhanced over time. The feeding of the body—the development of agriculture,[4] the making of bread,[5] the emergence of the slaughterhouse as the paradigm for the factory[6]—is an ongoing concern, directly tied to the 'organic' and lived but, as Giedion shows, amongst the most advanced reaches of industrialisation and mechanisation that he presents. Through the development of incubators (for eggs) and the modification of seed (through its development as a hybrid commercial product), the natural processes of 'growth' are gradually replaced with manufacture, to an extent that the industrial literally usurps the biological. Also implicit is the dividing of the body in mechanisation, as it is disassembled and displaced on the factory assembly line, or harnessed to machines that tame the ground.

In Sokratis Georgiadis's appraisal of the work, the method functioned as a kind of 'industrial archaeology' that demonstrated the resolution of the crises first articulated in Giedion's earlier works between the independent spheres of science, morality and art. For Giedion, this revolution of mechanisation, as well as dehumanizing the modern subject, was equally skewed towards the advance of capitalism, masked, in some contexts, as productivity.[7] As Lewis Mumford argued, Giedion's work on mechanisation demonstrated that 'the result of automation is not necessarily a better product; it merely enables the same product to be sold at a larger profit in a mass market.'[8] It also established that the human subject was central to this economic paradigm, and there was a politics that underpinned it.

In Giedion's historical account, architecture, like design and art generally, was merely subservient to the forces of mechanisation and productivity in the nineteenth century, and these had led to the hegemony of the machine that characterized the twentieth century. Given the impact that it had on his choice of subject matter, it is significant that Giedion held a degree in mechanical engineering as well as art history.[9] Equally importantly, Giedion's parents had owned a textile factory (which he had been groomed to take over) and this no doubt had an impact on his prolonged interest in industrialisation. Where Giedion had pronounced, as early as 1922, that 'architecture can only flourish where it can be in control, and put other forms of art in their place',[10] by the mid-1940s, he was

convinced that architecture had surrendered control to the forces of industry (and economics) and was, more than most creative fields, entirely dependent upon it.

The themes of industrialisation were not new to architectural and urban history at the time Giedion was writing. Herbert Read's widely read *Art and Industry*[11] had, by 1934, established a popular platform from which the creative arts could engage with this new culture of manufacture, and the work of Lewis Mumford[12] in the same time period had already begun to investigate the role of the machine in the history of the city. This would become much more of an obsession for Mumford in the decades that followed.[13] Many themes, and particularly those associated with power and control, made their way into post-war American scholarship through the work of Mumford, whose investigations of the historical development of technology sought to challenge the role of the machine, and its pre-eminence in the historical accounts of the twentieth century. Equally importantly, the seminal histories of Abbott Payson Usher, charting the *Industrial History of England*,[14] and then, in a comprehensive account, the history of mechanical inventions[15] began to develop the framework for a sociology of industry, that looked at the historical evolution within a broader context of social and political reform. All of these works preceded Giedion's study and contributed, in a popular way, to the emergence of a history of technology.

Given this, clearly Giedion was not intending to construct a conventional work of architectural history that would expand the canon in the way that *Space, Time and Architecture* did. Instead, in *Mechanization Takes Command*, he was investigating a series of social forces that underpinned innovation in the twentieth century but, to a large extent, had their basis in the nineteenth century. Even in the reviews that immediately followed the publication of *Mechanization Takes Command*, there was a discernible criticism of the work's (lack of) historical rigour and a questioning of its deeper motives.[16] The arbitrary selection of subjects, as well as the relatively hasty treatment of entire epochs (such as the Renaissance) allowed a number of scholars to question its historical credentials,[17] while typically praising the lavish (although often extraneous) illustrations.[18] It is clear that the theme itself, of mechanisation, is skewed towards the author's own interest in modernisation, as is his pronouncement of the 'time of full mechanization' (the resolution of this crisis) in the period between 1919 and 1939. Kostof draws attention to this, noticing that the connections drawn to the present in *Mechanization Takes Command* barely disguise the author's own 'interest' in the material, at the expense of its relative historical value.[19] This is not to understate the influence of Giedion's work, which had a lasting impact on a generation of European architects, and, through the

proselytizing of an 'anonymous' history, inspired Marshall McLuhan in his subsequent explorations of media.[20] It also, in a discursive way, has become a key text in a number of inter-disciplinary fields, including economics and politics.

For Giedion, the shift in subject matter in *Mechanization Takes Command* was more than just a drift in interests from the avant-garde to the everyday. It was equally a re-centering of his work within the continent of America. While some of the historical material for the work had been collected in the period between 1929 and 1938 in Europe, it was Giedion's migration to America in the late 1930s that provided the primary stimulus and inspiration for the work. Where *Space, Time and Architecture* had focused on predominantly European (and avant-garde) trends in building, *Mechanization Takes Command* looked at the 'patenting' of technology and specifically within the context of American capitalism and the evolution of the production line. Without doubt, the backdrop for this work, set against the mass-industrialisation that fuelled the Second World War, was an important motivating principle that positions the study within its own historical and political context. Giedion had completed the manuscript for the work three years prior to its publication (1945)—coinciding exactly with the end of the Second World War—and a number of its primary themes (including the mechanisation of death in the slaughterhouse) were not accidental. Where his prior works had tended to focus on the material and spatial properties of history, there is undeniably a morality that preoccupies this work, its structure and its legacy.

The remainder of this paper will argue that there is a shift, in this period of Giedion's work, towards the issues of morality and, more than science and technology, the 'mirror' at work in *Mechanization Takes Command* is moral (rather than historical) in nature. Giedion was not looking in this work to describe a specific historical paradigm or, for that matter, the development of an idealized model of architecture. In this work Giedion set out to define the limits of the newly framed modern subject. In this regard, the relative 'anonymity' of this subject was an overlooked aspect of the history of the nineteenth century. Critical, to Giedion, was the role of the nineteenth century in this rationalisation of architectural process, which saw the splintering of architecture and engineering into separate, and distinct, fields.

Modernism and the Avant-Garde

In Hilde Heynen's 1999 essay 'What Belong's to Architecture?'[21] she demonstrates a moment in the 1920s when an adversarial mode of thinking operated in the work of Giedion and Walter Benjamin and that, rather than conforming to the aspirations of

modernism, this moment was better categorised under the tactics of the avant-garde. Heynen's essay follows a strand of theory that, drawing from the writing of Peter Bürger in his *Theory of the Avant Garde*, sets out to distinguish the activities of 'modernism' from the practices associated with the avant-garde. Bürger's work was instrumental on this front, in that it established a historical and sociological context for avant-garde practice that, by definition, negated the categories of bourgeois aestheticism and the autonomy of art that was its by-product. On this point, the work of Andreas Huyssen is equally instructive,[22] furthering Bürger's theory by arguing that autonomy is a characteristic of modernism, while the sublation of art and life belongs solely to the project of the avant-garde. In essence, the argument advanced by both authors is that modernism focused on the 'object' of creative production, while the avant-garde sought to reinvent its subject (both viewer and material). This prompted Bürger to conclude that a theory of the avant-garde needed to appreciate a new relationship to the reception of the work of art (and an expanded role for *experience* as a precondition for social history).[23]

Heynen's work makes use of both authors, arguing that in a limited period between 1920 and 1932, Giedion, on various occasions, became interested in the 'everyday' aspects of architecture, at the expense of its autonomous properties. Heynen's work, which shows an awareness of the subtleties of scholarship into the avant-garde, concentrates on the influence of Giedion's work on Walter Benjamin: specifically, the influence that *Building in France* had on Benjamin's *Arcades* project. Echoing the work of Detlef Mertins,[24] Heynen demonstrates the affiliation between Benjamin and Giedion arguing that this relationship presented a tandem affront against the commercialisation of architecture and, through the use of montage and other techniques of the avant-garde, borrowed themes and concepts that were central to it. Giedion's work of the 1920s draws critical attention to the commercial currents of the nineteenth century, highlighting the development of typologies such as market halls, department stores and factories. While acknowledging this small revolutionary current in the 1920s, Heynen sees its dissipation after World War II, concluding unambiguously that in the post-war period '[o]ne can discern no lining up any more between modern architecture and the avant-garde in the arts. After the Second World War it became very obvious: modern architecture was no longer avant-garde.'[25]

That Heynen dismisses Giedion's work after 1945 from this discussion is significant. *Mechanization Takes Command* is probably the work of Giedion which most connects with issues of the avant-garde, and particularly as they are described in the writings of the Frankfurt School. It is only within this context that Giedion references the work of Ernst and the surrealists[26] or the particular fascination with the everyday that was a by-product

of their systematic critique of modernism. As scholars have illustrated,[27] Giedion's scepticism towards expressionism as an idea in the early 1920s betrayed a deep-seated affiliation with its core principles and this was expressed in the publication of *Mechanization Takes Command.*[28] Embodying the aversion to scientific rationalism after the Second World War, the 'expressionism' implicit in Giedion's approach can be compared to Bruno Taut's utopian fantasies, which set out to combat the horrors of the First World War through escape from the violence of technological determinism.[29] In contrast (as Heynen acknowledges) the earlier works of Giedion can be read as a mode of 'operative criticism' which, embedded within the culture of CIAM, set out to recreate a historical platform from within which the modern movement could operate. *Mechanization Takes Command*, however, is not only wary of the forces of modernisation but directly critical of the role of the machine in stimulating them. As a work of architectural history, it is detached from the cultural and social allegiances that dominated the writing of *Space, Time and Architecture* and engages, quite directly in parts,[30] with the aesthetic concerns of the avant-garde (and surrealism and expressionism in particular).

This notwithstanding, a considerable (and disproportionate) amount of scholarly attention has been focused on Giedion's *Building in France, Building in Iron, Building in Ferroconcrete* in the last two decades. This is in no doubt a result of the influence that this work had on Benjamin at the time, and the implied relationship that can be drawn to Benjamin's radical politics.[31] It is quite well known that Giedion was engaged with radical politics in the early 1920s and had an awareness and affiliation with leftist politics generally. However, that Benjamin was reading the work of Giedion in the late 1920s, and appropriating it for his own projects, further suggests a politics for Giedion's work that is centered on outmoded forms of construction. Without doubt, it was this emphasis on iron as a superseded technology that most appealed to Benjamin and, coincidentally, his reading of Giedion's work coincided with the writing of his post-mortem of the surrealist movement.[32] Giedion's remark—that the 'architecture of the nineteenth century fulfilled the role of the subconscious'—was quoted by Benjamin in *Passagenwerk* and became central to Hal Foster's interpretation of the outmoded as an animating force in surrealist discourse.[33] Foster draws from this reading to argue for a 'spatial unconscious' that ran through surrealist practice and, interwoven between the writings of Breton and those of Benjamin, this is premised on a rediscovery of the forgotten and replaced technologies of the last century. This outmoded technology also provides the skeleton for the fragmented and disassembled modern subject that his broader theory of surrealism sets out to understand.

While there is considerable thematic cross-over between *Building in France* and *Mechanization Takes Command*, there is no doubt that, by 1945, the mirror within which Giedion saw the world (and industrialization specifically) had shifted dramatically. While the broader themes of autonomy, individualisation and production are clearly evident in Giedion's earlier work,[34] his 1928 writing on industry functions as a dialectic, drawn between construction (engineering) and architecture (art). In *Mechanization Takes Command*, this dialectic is no longer sufficient. Architecture, as an artistic pursuit is relegated and Giedion is more anxious to document the dialectic between construction and the human (nature). Where *Building in France* views architecture as the 'subject' of history, in *Mechanization Takes Command*, it is the human subject and their anonymous history that fuels the narrative.

Heynen's separation of modernism from the avant-garde, primarily differentiated by the emphasis on lived experience in the latter, is of significance in this regard. While Giedion's work and social circle in the 1920s crossed over with a number of key agents of the avant-garde, the period saw him predominantly engaged in the historicisation of modernism, and especially within the context that Heynen uses this term. *Building in France* is replete with references to the *individual* 'artist' architect who is juxtaposed with the *anonymous* engineer-constructor: both victims of a polarizing educational system and the advance of capitalism. As Georgiadis argues, the Ecole des Beaux Arts 'indulged in a standardisation and canonisation of art, forcing it into the straitjacket of artistic tradition'[35] while the Ecole Polytechnique imparted 'only technical knowledge'.[36] This shift of emphasis had seen engineers gradually replace architects as their skills were more suited to modern building types: an argument that is later replicated in the work of both Tafuri and Frampton.

By 1945, however, Giedion was less concerned with the broader issues of aesthetics and autonomy, and saw the industrialisation of society reflected in a radically different mirror. If *Building in France* had focused on transformations (or collisions) in the fields of art and science, then *Mechanization Takes Command* foreshadowed these transformations as part of a paradigm shift in both morality and taste.[37] This placed history on a trajectory of the avant-garde: privileging experience and reception over the aesthetic permutations of the modernist autonomous object.

The Divided Subject

In the chapter devoted to *Mechanization Takes Command*, Georgiadis's analysis of Giedion makes extensive reference to the seminal texts of both Peter Bürger and Jürgen

Habermas, which have framed a prehistory of modernism out of social transformations that occurred in the late eighteenth and early nineteenth centuries. That Georgiadis draws parallels between the work of Giedion and the philosophy of the Frankfurt school is not surprising. There are clear overlaps to be found between Giedion's work and developments in aesthetics in the 1970s. However, it is within the specific domains of science, art and morality, that this critical position can be further advanced.

The work of Habermas is characterised by the articulation of three independent spheres—science, art and morality—which are, in the modern period, isolated and 'autonomous' for the first time. In Habermas's critique, he argues that the activities of the avant-garde, while radical, were only ever directed at one of these spheres—the sphere of art—and as a result the associated impact would never amount to a universal collapse, but purely to the collapse of this one distinct (and autonomous) field.[38] Habermas takes, as his example, the experiments of surrealism which, he concludes, neglected that 'a rationalised everyday life […] could hardly be saved from cultural impoverishment through breaking open a single cultural sphere—art—and so providing access to just one of the specialised knowledge complexes.'[39] Habermas's implication is clear. The conflation of art and life alone is insufficient. A transformation in the fields of science and morality is critical for any substantive cultural shift. In a direct response to Habermas's essay, Bürger is critical of the oversimplification that enables these three spheres to be discussed without reference to the 'ruptures' that tend to interpenetrate and complicate them. Bürger argues that Habermas 'neglects the fact that there are structural differences between the respective spheres and that the spheres themselves differ in social status.'[40] For Bürger, the project of the avant-garde was directly tied to the collapse of the autonomy of art, rupturing the autonomising forces of modernism and independently marrying the production of art with the praxis of life.[41] Bürger's *Theory of the Avant-Garde* was differentiated from previous theories of modern art by interpreting the avant-garde as a historical phenomenon, as opposed to an aesthetic one. For Bürger, the avant-garde had emerged as a direct response to historical (and sociological) circumstances and, in the same way, its activities were conditioned and structured by them. As has been argued, one key aspect of this was that the avant-garde was distinct from modernism and occupied an independent trajectory in the twentieth century that, while related to the social transformations that had accompanied modernity, was equally distinct and disassociated from them.

Mechanization Takes Command is a significant work in resituating a history of architecture within the 'field' of morality: and in opposition to the fields of both science and

art. While there has been a long held 'morality' to architectural production,[42] the mechanisation that is charted in Giedion's post-war work considerably advances this. A large amount of space, particularly in the opening section, is devoted to the interchange between science and art[43] while the subsequent chapters—which deal with crime, death, taste, comfort, cleanliness—are firmly situated in the moral realm. This does not suggest that this concern was unique to Giedion: clearly Mumford's work, culminating in his two volume *The Myth of the Machine*,[44] had embarked on a similar trajectory in regard to the relative morality of modern life around the same period. However, the significance of Giedion's work lies in the relationship to history. As with the avant-garde, the anonymous history that Giedion undertakes is a *historical* phenomenon: independent of the aesthetic or architectural domains. It is a history of the moral human subject who is immersed within transformations of science and art.

Throughout the work, the imagery of the body and nature is continually paired with images of the machine. The theme that most animates Giedion's discussion is the replacement of the bodily (craft) aspects of production with those of industry, embodied most succinctly in the mechanisation of domestic products, from the house itself to furniture, food and clothing (fabric). Giedion, who refers widely to the psychological foundations of social history, places a particular emphasis on a number of primal (and Freudian) bodily instincts: eating (meat), washing (baths), security (locks) and comfort (upholstery and furniture design). In all aspects, Giedion's thesis is clear: 'mechanization [...] is the end product of a rationalistic view of the world.'[45] This rationalism is at odds with the primal elements of human experience and reconstructs the modern subject as a product of their industrialised context. Giedion is particularly concerned with the exchange between 'mechanization' and the 'organic', conceptualising the modern production line as an organic social form that has evolved, in a more or less linear way, from the technology of the packing (slaughter) house. This was a process that combined the division of labour, the movement of bodies and the reassembly of products into a system of advanced capitalism. As Giedion writes, in the nineteenth century, 'the whole factory became an organism with division and assembly occurring almost automatically.'[46]

Giedion's dialectical approach—and specifically the interplay between the organic and the machine—has had a profound legacy on the partitioning of architectural history within the relative fields of modernist discourse. Consider, for instance, the early historical framework sketched by Kenneth Frampton in regard to architectural history[47] that, like Peter Bürger's contemporaneous *Theory of the Avant-Garde*, responds to key moments

when attitudes towards aesthetic production changed. Drawing from the methodologies of both Benjamin and Marx, Frampton's argument is that '[t]he transformations that overtook the basic means of production between 1750 and 1850 not only radically modified the [built] landscape […] but also wrought fundamental alterations in the basic system of distribution and consumption.'[48] For Frampton, like Giedion, it is the separation between architecture and engineering which is critical, linked, as he argues, to the dialectical relationship between 'labour' and 'work'.[49] Drawing from the writing of Hannah Arendt, Frampton argues that 'labour' is essentially an extension of 'life itself' while work corresponds to the 'unnaturalness of human existence'.[50] This polarity, which ran through the historical project of Tafuri in a similar time period,[51] saw the science of engineering splinter from the emerging field of aesthetics, triggering a fracturing of form and content in architecture where the functional and artistic began to operate in distinctive (and often unrelated) spheres.[52] Throughout, architecture assumed a role in dialectical opposition to nature, functioning as a collective, but highly politicised, instrument of social reform. For both Frampton and Tafuri, the unification of these trajectories came to be embodied in modernist rationalism although it was equally a motivation for the historical avant-garde in their redemption of architecture as a lived social artefact.

While both Frampton and Tafuri were engaged within a broader project of Marxist discourse, there is a current that runs through this respective mode of history that, within the categories laid down by Heynen, recommends it to the broader project of the avant-garde. The emphasis on the social and political aspects of both history and production, as well as the relative agency within which these disciplines operate, provides a platform from which the trajectories of the nineteenth and twentieth centuries should be re-evaluated. The expansive nature of Giedion's work has also invited a considerable amount of cross-disciplinary exchange. In his contemporaneous review of the relationship between economic theory and technological change, Yale Brozen,[53] for instance, devotes some space to Giedion's socio-historical method which, he argues, provides a framework through which 'taste' and technology can be linked as economic variables, geared towards change. Embedding historical method within this model of economic determinism creates a complex network of conflicting directions that have an ironic relationship to the dialectical approach of Giedion, and its relative mistrust of rationalism. Given this, it is clear that this repositioning of the historical subject, and the spatial understanding of its divisibility, opens onto much larger questions in regard to the history of architecture and its disciplinary boundaries.

Conclusion

Giedion's ambition to contribute to an 'anonymous' history cannot be separated from his ongoing project to provide a historical platform for modernism. What he intended, within this 'anonymous' history was to chart the dividing practices of the nineteenth century that had increasingly dehumanized its subjects and marginalized the field of morality as the forces of art (towards autonomy) and science (towards technology) increasingly shaped the economic landscape of Europe. For Georgiadis, Giedion's anonymous history in *Mechanization Takes Command* charts how 'art and architecture had regained their symbolic function, while at the same time science had liberated itself from the constraints of rationality and thus became reconciled with its opposite, namely myths.'[54] However, there is an embedded mythology in Giedion's approach that resituates the 'magical mirror' of history in order to reflect and exaggerate the social forces of the time. It uses this mirror in the construction of an industrial subject endemic to the nineteenth century and a critical agent within the twentieth.

Spiro Kostof argues that Giedion's 'abiding worth' was his ability to 'chart the intangible estate between inner reality and outer reality.'[55] His work frequently trespassed upon the independent fields of art, science, technology and sociology and, in the closing decades of his scholarship, he became increasingly obsessed with ideas of 'unity' and 'unification' as the ultimate goal of modernism. Given this, *Mechanization Takes Command* is not only a paradigmatic shift in Giedion's appreciation of industrialisation, but a significant contribution to the social knowledge of architecture generally. Masked as a history of both science and art, it is the work's ability to expose the interpenetration of both fields—through the mobilisation of morality—that the inbuilt mythologies of modernism (and its narratives) become evident. The organic and mechanistic redefine (and divide) the human subject: who gazes back through the 'mirror' of history. Acknowledging the dialectic between the organic and machined, Giedion notes, in passing, that '[t]he sun is mirrored, even in a coffee spoon.'[56] This inverted image is only available to a subject, situated at the boundaries of both nature and function: at the intersection of the avant-garde and the everyday.

Endnotes

[1] Siegfried Giedion, *Mechanization Takes Command: a contribution to anonymous history* (New York: Norton, 1969), 2 [orig. 1948]. Giedion's name is spelt both "Siegfried" and "Sigfried" in his various publications. In both *Space, Time and Architecture*, and *Mechanization Takes Command*, it is spelt Siegfried. This has been generally adopted throughout for consistency.

[2] In his first published work, *Spätbarocker und romantischer Klassizismus* (1922), Giedion has written that '[t]he past is like a mirror which always reflects the features of the observer.' See:

Sokratis Georgiadis, *Sigfried Giedion, An Intellectual Biography*, trans. Colin Hall (Edinburgh: Edinburgh University Press, 1993), 100.

[3] Siegfried Giedion, "History and the Architect", Journal of Architectural Education, 12, 2 (Summer, 1957), 14-16.

[4] Giedion, *Mechanization Takes Command*, 130-167.

[5] Giedion, *Mechanization Takes Command*, 169-201.

[6] Giedion, *Mechanization Takes Command*, 209-240.

[7] Coincidentally, it is in the field of economics and productivity, that Giedion's work has been relatively influential, especially in regard to the history and theory of productivity. Lorant, for instance, in the 1960s analysed the increase in "capital" that can be associated with the development of mechanical (and electrical processes) and particularly in the critical decade after the First World War (1919 to 1929). He cited Giedion's work in his study. John H. Lorant, "Technological Change in American Manufacturing during the 1920s", *Journal of Economic History,* 27, 2 (June, 1967), 243-246.

[8] Lewis Mumford, *The Myth of the Machine: The Pentagon of Power* (London: Secker and Warburg, 1971), 177.

[9] See: Spiro Kostof, "Architecture You and Him: The Mark of Siegfried Giedion", *Daedalus* **105** 1 (Winter 1976), 189.

[10] Siegfried Giedion, *Architektur und Kunstgewerbe* (1922) quoted and translated in: Georgiadis, *Sigfried Giedion*, 2.

[11] Herbert Read, *Art and Industry* (London: Faber and Faber, 1934). This work went through numerous reprints and editions. The second edition came out in 1944, as Giedion was working on the manuscript for *Mechanization Takes Command*.

[12] The formative work for Mumford, published in the same year as Read's work is: Lewis Mumford, *Technics and Civilisation* (New York: Harcourt Press, 1934).

[13] Amongst the numerous works of Mumford on the topic of industrialisation are: Lewis Mumford, Art and Technics (New York: Columbia University Press, 1952); Lewis Mumford, *The Myth of the Machine: Technics and Human Development* (London: Martin and Secker, 1967); Lewis Mumford, *The Myth of the Machine: The Pentagon of Power* (London: Martin and Secker, 1964).

[14] Abott Payson Usher, *An Introduction to the Industrial History of England* (London: Houghlin Mifflin Co., 1920); see also: Abott Payson Usher, *A History of the Grain Trade in France: 1400-1710* (Harvard: Harvard University Press, 1913).

[15] Abott Payson Usher, *A History of Mechanical Inventions* (Harvard: Harvard University Press, 1929).

[16] See, for instance: John E. Sawyer, "Mechanization Takes Command: A Contribution to Anonymous History [review]", *The Journal of Economic History,* 9, 1 (May 1949), 85-87; William F. Ogburn, "Mechanization Takes Command: A Contribution to Anonymous History [review]", *The American Historical Review,* 54, 1 (October 1948), 91-93; Henry Guerlac, "Mechanization Takes Command: A Contribution to Anonymous History [review]", *American Quarterly,* 1, 2 (Summer 1949), 186-190; Arnold Hauser, "Mechanization Takes Command: A Contribution to Anonymous History [review]", *The Art Bulletin,* 34, 3 (September 1952), 251-253.

[17] See: Guerlac, "Mechanization Takes Command", 187; Sawyer, "Mechanization Takes Command", 86; Ogburn, "Mechanization Takes Command", 91.

[18] See: Hauser, "Mechanization Takes Command", 251; Guerlac, "Mechanization Takes Command", 187.

[19] Kostof describes Giedion's 'dutiful, but not always for that matter always convincing, hookups with the present'. See: Kostof, "Architecture You and Him", 192.

[20] As early as 1943 McLuhan had written to Giedion after his initial contact with *Space, Time and Architecture* and his 1951 work *The Mechanical Bride* cites Giedion on numerous occasions. See: Marshall McLuhan, *The Mechanical Bride: Folklore of Industrial Man* (London: Routledge, 1967). For more on the influence, see: Richard Cavell, *McLuhan in Space: A Cultural Geography* (Toronto: University of Toronto Press, 2002), 12-13; Michael Darroch, "Bridging Urban and Media Studies: Jaqueline Tyrwhitt and the Explorations Group 1951-1957", *Canadian Journal of Communication* 33 (2008), 147-169.

[21] Hilde Heynen, "What Belongs to Architecture? Avant-Garde ideas in the Modern Movement," *Journal of Architecture,* 4 (Summer, 1999), 143. See also: Hilde Heynen, *Architecture and Modernity: A Critique* (London: The MIT Press, 1999).

[22] Huyssen's argument is that modernism is a formidable tradition that the historical avant-garde seeks to displace. The development of autonomy in modernism, parallels that of bourgeois

institutionalisation, and the sublation of art and life is antithetical to both structural systems. See: Huyssen, *After the Great Divide: Modernism, Mass Culture, Postmodernism* (Bloomington: Indiana University Press, 1986), 163-165; see also: Andreas Huyssen, "The Hidden Dialectic: Avantgarde-Technology-Mass Culture," in Kathleen Woodward (ed.), *The Myths of Information: Technology and Postindustrial Culture* (Madison, Wisconsin: Coda Press, 1980), 151-164.

[23] Schulte-Sass also demonstrates that this is a theme in Bürger's earlier work, such as: Peter Bürger, *Der französische Surrealismus: Studien zum problem der avant-gardistischen Literatur* (Frankfurt am Main: Athenaum, 1971). Bürger is particularly concerned with the relationship between social experience and literary production in: Peter Bürger, "The Institution of 'Art' as a Category in the Sociology of Literature," *Cultural Critique,* 2 (Winter, 1985-1986), 11-13, 22, 32-33; the experience of alienation is a backdrop to the essay: Peter Bürger, "Aporias of Modern Aesthetics," trans. Ben Morgan, *New Left Review,* 1, 184 (November-December, 1990), 47-57.

[24] See: Detlef Mertins, "The Enticing and Threatening Face of Prehistory: Walter Benjamin and the Utopia of Glass," *Assemblage,* 29 (April, 1996), 7-23.

[25] Heynen, "What Belongs to Architecture?", 143.

[26] Giedion, *Mechanization Takes Command*, 386-388.

[27] Georgiadis, *Sigfried Giedion*, 2-3.

[28] See: Georgiadis, *Sigfried Giedion*, 3, 197 [note 7].

[29] See also: Iain Boyd Whyte, *Bruno Taut and the Architecture of Activism* (Cambridge: Cambridge University Press, 1982, 263 [note 2]. Boyd Whyte refers to Giedion's 1919 'expressionist' poem, *Arbeit* as a 'skeleton in his closet' which links him directly to the themes and ideas of expressionism. This can be contrasted with Giedion's 1922 statement that 'expressionist architecture [...] simply does not exist.' See: Siegfried Giedion, Architektur und Kunstgewerbe (1922) quoted and translated in: Georgiadis, *Sigfried Giedion*, 2. This volume contains an extended study on the poem and its relevance for a reading of Giedion.

[30] See, for instance, the discussion of Duchamp and Klee's work in: Giedion, *Mechanization Takes Command*, 106-107, 109-113.

[31] See: Detlef Mertins, "Walter Benjamin and the Tectonic Unconscious: Using Architecture as an Optical Instrument", in Alex Coles, *The Optic of Walter Benjamin* (London: Black Dog Publishing, 1999), 196-221; Mertins, "The Enticing and Threatening Face of Prehistory," 7-23.

[32] Walter Benjamin, "Surrealism: the last snapshot of the European intelligentsia," in *Reflections: Essays, Aphorisms, Autobiographical Writings*, trans. Edmund Jephcott (New York: Schocken Books, 1978), 177-192.

[33] Of particular importance in this regard is the chapter "Outmoded Spaces" in: Hal Foster, *Compulsive Beauty* (Cambridge, Massachusetts: The MIT Press, 1995), 157-191; see also: Foster, "The ABC of Contemporary Design," *October,* 100 (Spring, 2002), 195-196; Hal Foster, *Design and Crime and Other Diatribes* (London: Verso, 2002), 138-139.

[34] See, for instance, the chapters on "Construction" and "Industry" in: Siegfried Giedion, *Building in France, Building in Iron, Building in Ferroconcrete*, trans. J. Duncan Berry (Los Angeles: The Getty Center, 1995), 87-89.

[35] Georgiadis, *Sigfried Giedion*, 155.

[36] Georgiadis, *Sigfried Giedion*, 155.

[37] There is an extended meditation on the social construction of taste in the middle section of the work. This discussion was central to the work's influence, and especially in the fields of economics and social history. See: Giedion, *Mechanization Takes Command*, 329-387; for the influence of Giedion's exploration of taste, see: Yale Brozen, "Studies of Technological Change", *Southern Economic Journal,* 17, 4 (April, 1951), 438-450.

[38] Jürgen Habermas, "Modernity and Postmodernity," trans. Seyla Ben-Habib, *New German Critique,* 22 (Winter, 1981), 11.

[39] Habermas, "Modernity and Postmodernity," 11.

[40] Peter Bürger, "The Significance of the Avant-Garde for Contemporary Aesthetics: A reply to Jurgen Habermas," trans. Andreas Huyssen and Jack Zipes, *New German Critique,* 22 (Winter, 1981), 20; some of these ideas are developed further in: Peter Bürger, "Literary institution and modernisation," *Poetics: Journal of Empirical Research on Literature, the. Media and the Arts,* 12, 4-5 (1983), 419-433; a version of this paper is published in: Peter Bürger, *The Decline of Modernism* (University Park, Pennsylvania: The Pennsylvania State University Press, 1992), 3-18.

[41] Habermas's response to the 'flattening' of art and life is that '[t]hese experiments have served to bring back to life […] exactly those structures of art which they were meant to dissolve.' Habermas, "Modernity and Postmodernity", 10; In a similar vein, Reiner Nägele argues that 'all-

pervasive experience […] can appear only negatively in the text, in its gaps and ruptures.' Nägele refers to a 'totalising, internalised structure of experience.' See: Rainer Nägele, "Modernism and Postmodernism: the Margins of Articulation", *Studies in 20th Century Literature,* 5, 1 (Fall: 1980), 2-25.

[42] Garnier's *Cite Industrielle* proposal, for instance, implied that socialism did not require churches or police forces as the suppression of capitalism would eliminate crime. See: Dora Wiebenson, "Utopian Aspects of Tony Garnier's Cité Industrielle", *Journal of Society of Architectural Historians,* 19, 1 (March 1960),16-24.

[43] See, for instance, the section on "Scientific Management and Contemporary Art" in: Giedion, *Mechanization Takes Command*, 101-113.

[44] See: Mumford, *The Myth of the Machine: Technics and Human Development*; Mumford, *The Myth of the Machine: The Pentagon of Power*.

[45] Giedion, *Mechanization Takes Command*, 31.

[46] Giedion, *Mechanization Takes Command*, 31.

[47] First presented as a paper in 1972 (and published in the subsequent year), Frampton's historical construct of architectural production predates Bürger's by two years. It was published in the opening issue of *Oppositions* and, interestingly, the "crisis" in the work-of-art that Bürger identifies in *Theory of the Avant Garde*, is already present in Frampton's thesis in an architectural context, embodied in the title of the piece. See: Kenneth Frampton, "Industrialisation and the Crises in Architecture," *Oppositions,* 1 (September, 1973), 58-81.

[48] Frampton, "Industrialisation and the Crises in Architecture," 58.

[49] This argument was pursued by Frampton several years earlier in: Kenneth Frampton, "Labor, Work and Architecture," in Charles Jencks and George Baird, *Meaning and Architecture* (New York: Braziller, 1969), 151-167.

[50] Frampton, "Industrialisation and the Crises in Architecture," 63.

[51] Of particular interest is Tafuri's writing on rationalism and nature in the Enlightenment, expressed in the chapter "Reason's Adventures: Naturalism and the City in the Century of Enlightenment." See: Manfredo Tafuri, *Architecture and Utopia: Design and Capitalist Development*, trans. Barbara Luigia La Penta (Cambridge, Mass.: The MIT Press, 1976), 1-44.

[52] Frampton describes the process whereby 'architecture as theory tended towards the dematerialisation of mass, as in Laugier, or the surreality of pure but useless form, as in Boullée's idealisation of the sphere as the essence of the sublime [while] civil engineering proceeded to work upon nature and to subject, for the first time, its untamed wastes to a measured infrastructure of metalled roads and embanked canals.' See: Frampton, "Industrialisation and the Crises in Architecture", 63.

[53] For Brozen, at the midpoint of the twentieth century, too much emphasis had been placed on the relationship between technological innovation and employment which, within economic theory, are continually seen as warring parties irrespective of the relative 'productivity' which is associated with each. For Brozen, Giedion's study allows an investigation of technology from the perspective of lifestyle (rather than employment) which implies a range of economic and social factors that are relevant to social distinction and aspiration. See: Brozen, "Studies of Technological Change", 438-450.

[54] Georgiadis, *Sigfried Giedion,* 158.

[55] Kostof, "Architecture You and Him", 202.

[56] Giedion, *Mechanization Takes Command*, 3.

Poetics of the Wrapped and the Skinned: 'Deep' History of the Architectural Surface and Projects by Lyons

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Abstract

Emerging out of the research for the David Saunders Founders Grant (SAHANZ), this paper argues that as a historiographical lens, surface marks the periphery of architectural history, constrained ordinarily by disciplinary conventions of space, structure, function and programme. It constructs a brief theoretical history of the architectural surface, which reveals its five modes of figuration – the representational; the urban marker or threshold; the performative; the transient (optically and physically); and the methodological. Excavating these orientations in the works designed and built by Lyons in Victoria, ACT, and NSW reveals the shift from representational and transient to performative and urban attitudes to surface, informed by the attention to the public realm, the questioning of typologies, and the examination of the nature of surface itself. Utilising a psychoanalytic metaphor, this paper connects the investigation of surface with the unveiling of the unconscious, and hence the critical in architectural discourse. Surface's significance as critical is preserved by its liminal status as interior/exterior, functional/superfluous, deep/shallow, local/global and so on. Positioning the works of Lyons against other practices in Australia, this paper advocates surface as a tentative 'window' into one of the shared themes or theoretical positions in Australian architecture.

Architectural surface: A brief historical survey

The paper opens by constructing what Andrew Benjamin terms as the 'theoretical history' of the architectural surface, which is more than the skin, and inclusive of the external wall and/or closed or open threshold spaces. In order to provide multiple readings of buildings, the paper uses the following 'taxonomy' of surface – representational, urban, integrated, transient (physical and visual), and the methodological. The taxonomy is developed by considering theoretical and historical attitudes to surface as precursors, interruptions, failed interruptions, emergences, and reappearances; framings that are neither exhaustive nor strictly chronological. The second part of this paper brings forth the five

orientations in the works by Lyons in Victoria, New South Wales, ACT, and Queensland. The third section of the paper considers the theoretical potential of the surface as the space of the unconscious, and hence the site of the critical in architectural discourse.

Precursors

Classical orientations to the architectural surface emphasized the fashioning of windows, doors, and loggias to articulate the building's threshold to the city. Windows assimilated architecture into an urban order. Peter Kohane and Michael Hill explain that the ordered patterning of openings was not merely a stylistic choice by Renaissance theorists and architects.[1] It was to do with the urban order. They note that just as 'doors and windows were parts of the whole building, so the building was part of the whole city. The symmetry of openings provided order to the wider urban environment.'[2] In addition to providing order (and decorum), these elements connected the building to the city through the means of theatricality. This is evidenced in the design of loggias and balconies in Jacopo Sansovino's Library in Venice. The loggias played a dual role. They enabled the observation of the drama being acted out in the urban arena, whilst also suggesting its role as a stage-set backdrop, against which the drama of city life could be played out.[3]

The role of ornament in conveying meaning was subjected to rigorous questioning in post-enlightenment Europe and Britain, due to emerging knowledge on origins, religion, and science. The first key influence on surface was polychromy. Felix Duban (1798-1870), Henri Labrouste (1801-75), and Gottfried Semper (1803-79) adopted a historicist attitude, promoting the use of colour as the authentic link with antiquity.[4] The second important impact was the promulgation of tectonic ornament. Tectonic ornament's emphasis on honesty of construction and/or materials was linked to truth, the core value of religious morality.[5] Truth to materials was evidenced in the use of coloured bricks to achieve decorative patterns in William Butterfield's All Saints (1859) and G.E. Street's St James the Less (1858-1861).[6] Truth to structure was advanced by AWN Pugin (1812-1852). In *True Principles of Pointed or Christian Architecture* (1841), he argued that 'ornament should consist of enrichment of the essential construction of the building' – an idea clearly expressed in the Gothic cathedral, in which the buttress was a structural element, and it was revealed and celebrated as such.[7]

Rejecting rational tectonics, surface was considered by Semper and John Ruskin (1819-1900) through the analogy of dressing. Semper's theory of the wall as a form of dressing, developed in *Four elements of architecture* (1851) and *Style in the technical and tectonic*

arts or practical aesthetics (1860-63), had three key implications. First, surface was also structure, because the first wall was first matted, then plaited and woven, and mounted onto a timber frame, which was needed only to hold it place. Second, surface was also spatial. Leslie Van Duzer and Kent Kleinman note that for Semper, it was the 'desire for an interior that motivated the construction of the first boundary; enclosure was the primary requirement', and the 'sheathing membrane was primary'.[8] Third, ornament served to mask reality. Noting the Assyrian wall panels discovered by archaeologists Austen Henry Layard and Emile Botta, Semper inferred 'artists who created the painted or sculptured decoration on wood, stucco, stone, or metal, following a tradition of which they were hardly conscious, imitated the colourful embroideries of the age old carpet walls'.[9]

A counterpoint to this was Ruskin's preoccupation with surface, developed as the theory of the adorned 'wall veil' in my doctoral thesis and other publications. Ruskin argued that good architecture evoked the image of a well-dressed body. As the well-dressed body was clothed in vivid colours and seamless folded forms undisturbed by the bodily form within, architecture would ideally consist of planar walls covered from base to coping with uninterrupted ornamental veneer (polychromatic or bas relief but not attached sculptural decoration). It would consist of repeatable decorative units fused together, and be physically and symbolically distinct from the spatial and structural system it masked.[10] As clothing the body made it meaningful as a cultural object, the addition of 'venerable or beautiful' but 'unnecessary' features to the edifice converted 'building' (otherwise unmemorable and not properly the object of history) into 'architecture'. Ruskin's theory of the adorned wall veil attempted to redefine the disciplinary definition of architecture *as* surface – an entirely visual phenomenon.[11]

Interruptions

The representational role of the surface was undermined by twentieth century issues of imaging modernity and the technological imperative. Prompted by Adolf Loos's 1908 polemical essay 'Ornament and Crime', the first disruption was the white wall. Loos rejected art Nouveau ornament of Vienna Secession figures like Otto Wagner, Otto Eckmann, and Henry van de Velde, declaring that the removal of ornament will make the 'streets of the cities…glow like white walls'.[12] He believed that the 'house does not have to tell anything to the exterior; instead, all its richness must be manifest in the interior'.[13] Misreading Loos's essay, Le Corbusier and other French architects adopted the legacy of advancing the language of whitewashed walls, a language of an architecture that was

mute, which emphasized absence and lack as the new mode of representation.[14]

The second interruption was the so-called exposure of structure and/or materials. A logical outcome of the advent of framed construction, this idea gained vitality and legitimacy from the debates on tectonic ornament in the nineteenth century. The desire to present itself as none other than itself, was also connected with the self-referential and non-representational autonomy of modern art. Commencing with Louis Sullivan's use of the steel framed structure and ornament as its elaboration, and gaining full expression in Mies Van der Rohe's use of structural steel and glass in high-rise buildings like the Lake Shore Drive Apartments (1949-1951), the desire for directness (as part of the practice of Brutalism) also informed Le Corbusier's emphasis on the unpainted and unfinished concrete frames and surfaces in buildings like Unité d'Habitation Marseilles.

The third interruption was the desire for transparency. Manifested in iconic glass-houses and high rise curtain walled structures, the glazed surface resisted decoration, as it could neither age nor take on the marks decorative impress. Furthermore, it resisted deceit and dissimulation, and it was due to the declarative power of transparency that glass was deployed as a symbol of democracy and rationality. The preoccupation with transparency was no doubt indebted to deeper cultural desires of visualizing depth, evidenced in nineteenth century fascination with the body, and culminating in the emergence of the X-Ray, which Beatriz Colomina notes as coextensive with the twentieth century glass structures that draw the eye into its interiors without the necessary dissolution of the building's boundaries.[15] The status of surface in architectural discourse was significantly weakened following August Schmarsow's discovery of space in late nineteenth century.

Schmarsow suggested that spatial consciousness was the essence of architecture, and that concerns of ornament and facade were subsidiary.[16] This was because spatial consciousness is not a static observation of form but it is produced through locomotive motion and bodily senses, which allows the perception of depth, height, and length.[17] These views were first reiterated by early twentieth century publications like Paul Frankl's *Die Entwicklungsphasen der neueren Baukunst* (1914) and Hermann Sorgel's *Theorie der Baukunst* (1918).[18] Space became a historiographical framing for architectural history. This was evidenced in Nikolaus Pevsner's *Outline of European Architecture* (1943), which argued that the 'history of architecture is a history of man shaping space', and Bruno Zevi's *Architecture as Space* (1948), which stated: 'A satisfactory history of architecture has not yet been written, because we are still not accustomed to thinking in terms of space'. Sigfried Giedion's *Space, Time, and Architecture* (1941) attempted to

address this issue by offering the 'Three Space Conceptions'. These views permeated the delineation of innovation in architectural modernism, evidenced in Loos's theory of the *Raumplan*; Le Corbusier's theory of the *architectural promenade*; Theo Van Doesberg's theory of neoplastic space; Mies's universal space; and Louis Kahn's plan as the society of rooms.

Failed Interruptions

These interruptions were incomplete. Mark Wigley and Helene Furjan argue that the white wall was not a surface-less plane. For both Loos and Corbusier, the white wash was a form of clothing – an architectural argument formed within broader debates on fashion. For Loos, it was akin to the gentleman's black suit, and for Le Corbusier it was akin to a white shirt.[19] Furjan argues that in the 'understated suit of the English bourgeoisie' (and this applies to the white shirt as well) the focus shifted from the 'application of gilt, appliqué or filigree' to the 'cut and quality of cloth'.[20] This manifested as smoothness and flawlessness of the plaster coat, inherent decorativeness of the marble in Loos's projects, and the firm and crisp form of the surface enabled through the concealed use of structural formwork in Corbusier's projects.[21] Along similar lines, it can be argued that the Brutalist surface too contains ornament that is 'fused' with material that gives rise to it. The rhythmic pattern of the formwork, the serrated marks of removal that delineate the edges of the form work, and the stains of aging against the porous texture of concrete in the works of Corbusier (as well as Scarpa), add up to a reconceptualised ornament.

Production is inevitably imbricated in the imperatives and mechanism of representation. Robin Evans notes that in Mies's Lake Shore Drive Apartments, the building 'refuses to declare the downward thrust of its own mass', amplified by the visual disconnection between the painted columns and the white soffit.[22] In addition, the welded I-beams were used on the outside of structural columns. Venturi explains that the I-sections were as 'decorative as the pilaster on the Renaissance pier or the incised shaft in the Gothic pier'.[23] While it was added to stiffen each frame, Mies claimed that without these elements the building simply 'did not look right'.[24] Using Walter Benjamin's theory of the trace in craft (hand made or industrial production), Ruskin's argument that architecture is anything that exceeds the act of building, and Carlyle's theory that language is the clothing of thought, and together they constitute the emblem – the visual thing – it is possible to argue that all productions are also forms of representation.

The desire for transparency was thwarted by the fact that the glazed surface repelled the penetrating eye. In 'Fear of glass', Jose Quetglas notes the doubling and the reversal of the reflections in/on the glass walls of the Barcelona Pavilion, which deters and rejects the observer.[25] This is complicated and exacerbated by high-rise structures. Referring to Mies's Friedrichstrasse project (1921), K Michael Hays notes that the 'glass curtain wall-alternately transparent, reflective, or refractive depending on light conditions and viewing positions-absorbs, mirrors, or distorts the immediate images of city life'.[26] Leatherbarrow and Mostafavi recognize this constant optical transience as similar to the moving image constituting the architecture of distraction, a way of seeing in the post photographic and post media society.[27]

Emergences, Reappearances

The one sided, flat, representational surface is challenged by contemporary practices, which are interested in, what can be termed as, the integrated surface. Bypassing the pragmatic takes on performance (such as the double-glazed curtain wall), this paper makes forays into examples that privilege the dialogic relation between surface and structure and/or space, possibly reviving the simultaneity of surface, structure, and space first discussed by Semper. In these instances, the design of the surface is productive to the construction, occupation, and experience of the building and/or it's interior. Examples of this include Toyo Ito's Tod's Omotesando Building (2002–04) and Mikimoto Ginza 2 (2004–05) in Tokyo, in which the glass and concrete 'pattern not only serves as ornamental skin but provides structure, as the building surface supports the floor slabs, thereby eliminating the need for internal columns'; Lars Spuybroek's competitions entries for Jeongok Prehistory Museum, South Korea, and Jalisco Library, Guadalajara, Mexico, which feature the clustering of structural elements to produce a surface that is structural as well as decorative; and Zaha Hadid's Marsa Dubai Residential Tower – two concentric vertical concrete tubes, with the inner tube as the functional zone containing core building services and circulation, and the outer tube containing key spaces and punctuated by 'geometrically faceted windows' that creates a decorative façade.[28]

The second emergent mindset is the development of surface as a compositional and design tool. The over-articulation of the wall in the late twentieth century architectural practices privileged it as a compositional motif and tool. Ken Moffett notes the 'increasingly pronounced tendency to treat the wall as an autonomous designed object, independent of the building volume with which it is associated. There is a 'continuum of approaches, ranging from surface elaboration of the wall through low relief and high

relief, to full design autonomy'. [29] This is taken further as the emphasis on topology and architecture as a surface condition due to advancements in digital visualization and fabrication, which enabled the plastic manipulation of surface to create novel forms and spatial organizational models.

The representational surface reappeared in Robert Venturi and Denise Scott Brown's notion of the decorated shed. The pixelated and serialised patterning in the Institute of Scientific Information in Philadelphia (1972), affirmed the pictorial autonomy of the surface. [30] Urban markers and thresholds also reappear, particularly in Venturi's insistence on the façade depicting the tensions between interior and exterior as the urban condition. This is manifested in Lucien Kroll's Université Catholique de Louvain in Brussels, which is a critical comment on the commodification of urban living; and Rafael Moneo's Murcia Town Hall, which resonates with the rhythms of piers in the Baroque cathedral in the square.[31] The notion of transience evidenced in the glazed surfaces of twentieth century architecture is revisited, but transformed, in the contemporary practice of techno-kinetic façades in Arab World Institution by Jean Nouvel, and Flare by Staab Architects, and media façades in the scheme for the Music Box by Foreign Office Architects.

The brief historical survey presents the complex figurations of the surface. It demonstrates that surface is simultaneously symbol and space; meaningful and functional; static and transitory; and superficial and pervasive. The representational surface is exteriorised and one-sided, and it contains coded messages, symbolic and/or literal. As the urban marker or threshold, surface contributes to the 'shaping' of the public space through the articulation of porosities and/or in between spaces. Surface as an integrated concept surmounts its exteriorised (one-sided) status as skin, asserting its vitality in construction and spatial experience of the interior. Optically and physically transient surfaces also resist their identification as static and pictorial, by refiguring to the shifting climatic and occupational conditions. Finally, surface is absorbed into the language of form making (through manual and digital processes of layering, folding, pleating), offering a panacea to the classical orientations of the design discipline.

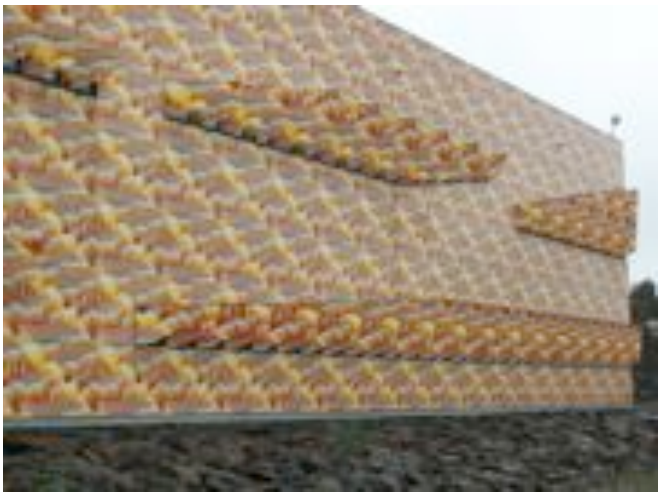

Figure 1: Victoria University Multimedia Centre, St Albans, Victoria,
(Photo: Anuradha Chatterjee, 2010)

Lyons Architects: The Practices of Surface

The consideration of surface through the works of Lyons Architects is unsurprising, given their widely published and exhibited investigations in this area. But, as the reception of their work is saturated by the attention to 'expressive figuration', it is possible to 'gain a fuller appreciation of Lyons' work' by considering Andrew Nimmo's commentary that in addition to the 'exploration of building skin', their work is also 'strongly contextual; it examines changing typologies; it explores the craft of architecture; and it utilizes representation as a form of design narrative'.[32] The deployment of the five orientations to surface reveals these and other complexities in Lyons's works.

The representational and the transient surface is figured in the Victorian University Online Training Centre (2002), St Albans, Victoria, one of Lyons's well known and widely published projects. Michael Ostwald, Paul Walker and Justine Clark note the allusion to the programme in the design of the skin, as it is composed of patterns that are digital manipulations and pixelation of images of geological formations. These patterns shift and change in response to the position of the viewer and their mode and speed of arrival and departure, thereby rendering the surface transient.[33] Whilst it is easy to label this as the delivery of pure optical pleasure, it is more than that. Nimmo notes the 'great swath of semi-urban space around the peripheries of our major cities that is not idealized and that remains difficult for architects and urban designers to grapple with'.[34] It is to this uninhabitable and liminal landscape that the building's optically changeable surface articulates an architectural response. The transience also indicates a disciplinary disjunction as it approximates the fluidity of the parent digital image and its perpetual state of becoming, thereby contesting the boundaries between architecture and

technology, representation and production.

Figures 2 & 3: BHP Billiton Global Headquarters
(Photo: Anuradha Chatterjee, 2010)

The usual coupling of transience and the curtain wall is undermined in Lyons's BHP Billiton Headquarters (2004), Melbourne. As the commercial architecture typology of the 80s and the 90s that privileged the tower and podium/plaza model is replaced with a 'horizontally attenuated' tower that meets the ground, the quotidian purpose of the curtain wall as environmental skin and lighting device is recast. As a representational gesture, the technological limits of material (glass as hard and inflexible) and technology (orthogonal framing) are challenged. The curtain wall is torn and contoured to evoke cuts, folds and lifts, as if to a stiffened textile.[35] It also gathers into its folds the urban environment, as reflections of the context are bounced off and temporarily contained in its complex kinks and recesses. The surface is not only a transient repository of the city but it also fashions the urban thresholds.

The urban threshold assumes the form of the canopies created through the 'tearing' of the skin, and covered in different types of glazing. Through the layering of canopies, the usually solipsistic typology of the commercial building lends itself to the people and the public realm. It not only articulates four different kinds of entries to the building but it also provides trafficable passages and spaces to recede and dwell. Reversing the typology of the skyscraper, in which the top carries the declarative flourish that connects with the realm of the visual, the BHP building highlights the traversable and the tactile realm.[36] Surface is also deployed as a performative device as the reflections of the city are

bounced off into the floor of the lobby – a space that is crafted by the contours of the glazed canopies. The partial and fragmented reflections of the city are integrated into the interior through the heraldic mural representing BHP. Composed of die-cast aluminium tiles, the mural demonstrates the amalgamation of three-dimensional image of metal crystals and an axonometric view of the new imagined city.

Figure 4, 5: Faculty of Law, University of New South Wales, Sydney
(Photo: Anuradha Chatterjee, 2012)

The fabric analogy of the curtain wall is explored in a typological manner in the Faculty of Law Building (2007), University of New South Wales, Sydney. The innovative learning and research facility for the University's Faculty of Law and ATAX references the fabric tents erected by Aboriginal Australians in Western Australia in 1998, at the site of the Karajarri Native Title Claim.[37] The selection of the representational device was purposeful to acknowledge the School's involvement in social equity and justice. In its tectonic transformation, the taut surface of the tent like enclosure is interrupted by cuts, which become openings as well as sunshades in the building. The taut surface runs all the way from the top to the bottom especially at the four corners of the building, as if to mimic posts that secure the tensile structure to the ground.[38]

The four façades of the building, notes Sandra Kaji O'Grady, are 'highly individuated and complex in their layering, folding, screening and peeling. While some of the façade treatment responds to solar orientation and access, there is elaboration for visual pleasure in its own right'.[39] Whilst this is true, the openings are pragmatic, and therefore circumstantial and not composed.[40] This gives the façades a strong transient character, akin to an organism opening and closing in response to environmental stimuli. The individuation of the façades is also a response to the building's four-sidedness and

permeability, which emerges out of Lyons's adaptation of the community of buildings organised around the Agora in Athens, Greece.[41] Further individuation of the ground floor is made possible through a series of reflective panels that follow on to the hollowed out under-cover 'arcade'. This creates a threshold to the less obvious (the School of Material Sciences, the Roundhouse and the Square house, and the School of Chemistry), but equally important micro-urban realm surrounding the building.

The urban realm is inverted in the Hedley Bull Centre (2009), Australian National University, Canberra. While the building accommodates the Department of International Relations, the Asia Pacific College of Diplomacy, and the Department of Political and Social Change, and is located on one of the principal entry gateways into the University, it is a fairly ordinary looking structure and not one that invites compelling commentary on its visual qualities. The richness of the exterior surface is deferred to the interior, which is labelled as the 'Forum'. Evoking a classical type, the Forum provides the bounded space for the collective and the civic, befitting the Centre's interest and enquiry into world politics, international relations, diplomacy, and global connections.[42]

Marked by the warmth of the floor to ceiling timber skin, subtly illuminated from the top, and the disciplined rhythm and formality created by the vertical timber mullions, surface as an interior phenomenon is exclusively performative in the in the Hedley Bull Centre. The interior topography is folded surface punctured by apertures – openings to the stair well; break out spaces and balconies; and internal windows. By putting on display spaces of discussion and study, revealing spaces of movement and enlarging them into spaces of pause, and by stratifying these experiences vertically, and by ensuring the visual relationship of these experiences across the void, and with the use of the ground floor as space of performance and spectatorship, Lyons puts into motion simultaneous modes of active and passive theatricality. This creates a powerful interior setting for the public realm.

The interior and the exterior are brought into conversation in the Queensland Children's Hospital (2014 completion), located in Brisbane's Southbank precinct. Rejecting the customary institutional model of closed vertical stacking, Lyons utilizes a series of medium height stacks and the interactivity of lateral connections across the floor plates. The lateral connections evoke a network of non-orthogonal 'trunks' and 'branches' of the 'living tree' (the organisational concept for the hospital), which not only map the shortest route between facilities but also figure as patient-oriented 'public space', which houses entry foyers, waiting lounges, lift cores. These trunks/branches 'punctuate the building

and connect inside and outside', culminate in an angular manner in large double height terraces/lounges that aim to integrate programs of arts and culture within the hospital, fostering patient and family centred health care.[43]

The exterior, which is composed of painted aluminium louvers designed with the help of time-lapse simulation to reduce the heat load on the windows, is ruptured by double height voids. This will give the whole building a sense of animistic dynamism, which mirrors the movement of internal organs against the skin or the hide. The organic transience is emphasised as the eruption generates local 'disturbance' that push the adjacent louvers closer together, which appear to open and close as one drives around the building. The effect is one of optical blurring and fuzziness, challenging the dichotomy between plane and surface, open and closed. Articulating the urban threshold, some of the louvers (painted to reflect the local foliage of jacaranda and bougainvillea) drop down to the street level. This creates spaces of passage and arrival, in between the clusters of angled bracing and the soffit of the trunks/branches. The urban realm is also vertically dispersed. The classical type of the portico is reworked into the double height void, which allows the occupation of the public realm whilst putting on theatrical display the semi-public realm within the building.

The Deep Surface of Unconscious Criticism

Writing on surface is narrow but incisive. The potency and pervasiveness of surface is recognised by Kurt W Forster who notes: 'Surfaces are everywhere. It is tempting to think that we inhabit a world comprising only of surfaces.[44] Forster demands the acknowledgment of the sensorial imbrication of tactility and visuality in the encounter of the surface, arguing: 'We touch with our eyes and are touched in turn through our gaze'. He connects this perceptual dimension to the historically monumental dissemination of photography and the cultivation of familiarity to images, to the extent that architectural practice deploys photographic presentations of spatial affects, such filtered light, atmosphere, and compressed depth. Forster reiterates the epistemological and ontological function of surface in architecture, as he argues: 'All is surface, and surface is all there is', and it is through the 'indeterminacy of these images that opens up the possibility of experiencing a building in unhackneyed ways'.[45]

Surface is cast as having a productive, affective dimension by Andrew Benjamin in 'Surface Effects'. He argues for a 'conception of the surface as that which will have an effect rather than simply being the consequence of the process of its creation. Once a surface can effect – i.e., it can bring something about – then it can be understood as that

which works to distribute programme. The effect will not be instrumental; rather it will be inherent in the operation of the surface itself'.[46] Benjamin views surface as a 'form of production'.[47] It is an 'operative or [a] generative' aspect of architecture, such that it exhibits 'potentiality rather than simple presence'.[48] For instance, Semper's theory of the woven matting as the first enclosure prompts concurrent reflections on interiority, materiality, and architecture. It also suggests that space does not precede enclosure, but is the 'result of surface operation'. [49]

Despite the historical persistence and contemporary scholarship, the potency of surface is tenuous. Surface almost always hovers indeterminately between meaningfulness and meaninglessness. It is ever present yet banal. It is a necessity yet a threat to the disciplinary identity of architecture. Hence, it almost always occupies the recesses of architectural discourse and criticism. It is an entity whose legitimacy must be defended and whose place in architectural discourse is contingent upon other more pressing matters. This paper argues that the tenuous potency of surface is due to its visibility. This is unusual, given the concomitance of architectural modernity with visuality. In *White Walls and Designer Dresses*, Mark Wigley notes Le Corbusier's

> rethinking of the very identity of architecture…of where architecture can be seen, what kind of vision is required, and who sees. This tradition preuspposes that the fundamental experience of architecture is visual, that architecture is a 'visual art'…Architecture is no longer simply a visual object with certain properties. It is actually involved in ther construction of the visual before it is placed within the visual. Indeed, *vision itself becomes an architectural phenomenon*. The place of architecture becomes much more complicated. A building can no longer be seperated from the gaze that appears to be directed at it…The building is a certain way of looking.[50]

The twentieth century preoccupation with the visual was anticipated by the Victorian age, in particular John Ruskin who suggested that ornament was not merely added to architecture – it *was* architecture.[51] Despite the overexposed status of surface, it is inaccessible to conceptual analysis. This can be explained using Beatriz Colomina's powerful statement in *Privacy and Publicity*, where she notes: 'Sometimes the best way to hide something is in full sight'.[52] Applying a psychoanalytic metaphor, this paper argues that surface can be read as the unconscious (depth) of architecture.

The idea of the unconscious is explained by John Hendrix, author of *Architecture and*

Psychoanalysis: Peter Eisenman and Jacques Lacan (2006), who argues that architecture 'represents the most complete expression of the human identity precisley because it entails the impossibility of the reconciliation of the subjective and objective, of form and function, of conceptual and empirical reality'. [53] Moreover, as architectural practice is a discourse (structured as language), it is amenable to (psycho)analysis. Recognized by Walter Benjamin, and utilised variously by theorists like K Michael Hays (*Architecture's desire*) and Anthony Vidler (*Warped space*), the unconscious is a key aspect of contemporary critical and visual culture. Benjamin notes: 'It is through photography that we first discover the existence of this optical unconscious, just as we discover the instinctual unconscious through psychoanalysis'.[54]

Detlef Mertins explains that Benjamin 'consistently located the unconscious in the material world itself, not outside, behind, above or below it, but within'. It was *this* world that was to be revealed through the act of criticism. For Benjamin, the 'task of criticism, like the task of history, [was] to make fragments of truth visible and dominant. Regardless of medium, he considered criticism an activity of stripping its objects bare, mortifying them, dragging the truth content of what is depicted in the image out before it'. [55] The revelation of the 'truth' or the unveiling of the architectural unconscious is assisted by what Hendrix recognises as the 'point at which a system rotates or flips, forms are interwoven, or centripetal and centrifugal organisations overlap, revealing the…unconscious in the conscious'.[56] This paper locates the conceptual invagination in architectural discourse, and hence the critical, at the over exposed site of the surface.

Conclusion

The search for a critical, theoretical, and historical framework for Australian architectural practice is announced by Sandra O'Grady and Julie Willis's 'Conditions, Connections and Change: Reviewing Australian Architectural Theory 1880-2000' (2009). The essay astutely acknowledges the futility of the distinctions between the local and global, Australian identity, and the myths underpinning the discussions of Australian architecture. On one hand, it notes the absence of consistent theoretical positions and alignments and on the other it advocates the pursit of 'basic questions' as a way into the theoretical terrain. In response, this paper uses surface as a 'window' into the theoretical landscape of Australian architecture, only because it so comfortably straddles the liminal space of the theoretical and the atheoretical, and the local and the global. *Curtain Call* (2006) published by RMIT Press already makes a contribution to this debate, as mid-century curtain walls in Melbourne CBD are documented and studied as materialisations of contextual particularities and relations.

Figures 6 & 7: Santos Place, Brisbane; Melbourne Grammar School, Melbourne, (Photo: Anuradha Chatterjee 2010)

A previous paper reveals that Dale Jones Evans in Sydney uses the 'lenses' of optics, photography, and exposure to design exterior screens, which attend to urban and functional concerns of 'sun and environmental control, light, optics and picture making, public-private transitioning'. [57] Donovan Hill's approach attends to the urban issue of commodification of commercial architecture and its limited repertoire, which is challenged through light-reactive ornament and its cumulative affect that re-delivers the urban skyline. John Wardle's works challenge the tyrannical thinness and flatness of glass, as the representational capacity of the material is pushed to limits. Lyons's projects add to the ongoing critical commentary on architecture as visual culture. Their works articulate a deliberate shift from the representational and the transient inclinations towards the performative and urban orientations. This is guided by three key things: attention to the inhabitation of the urban realm as an interior, exterior, and a spatially in-between experience; the conceptualisation of surface as concomitant with the revision of architectural typology and institutional identity; and the inquiry into the integrity of the surface itself.

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Mythologizing Architectural Technique in the Early Writing of Colin Rowe

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Abstract

In 'The Mathematics of the Ideal Villa' (1947), Colin Rowe articulated architecture's longstanding capacity to construct sociocultural fictions. Beginning with Palladio and the Cosmos, and Le Corbusier and functionalism, Rowe's architectural writing consistently articulated techniques of architectural mythologizing and, thereby, the role of architecture as mediation between the found and the made. By surveying the crucial and shifting relationship between myth and technique in the first quarter-century of Rowe's writing, this paper will seek to discern the varying strains of Rowe's subsequent influence on the discipline and its production of architectural knowledge. The way in which Rowe constructs the disciplinary mythology of architectural myth making inaugurates architecture's postwar turn from social to cultural production. Consideration of this aspect of Rowe's tremendous influence on late-twentieth-century architecture illumines the limits of Rowe's operative criticism, and focuses our attention on the degree and manner of architectural history's recent and current instrumentalisation.

Myth

In an interview submitted to the American architecture journal *Any* in 1994, Colin Rowe reluctantly offered a definition of architecture: '…I assume that any architecture is determined by a myth which is extensively believed. […] I suppose that architecture is always the exhibition of myth and I don't see how it could ever transcend this condition.'[1] For Rowe, the mythic nature of architecture was something to be embraced. Asserting that, of the Vitruvian triad, only *firmitas* was subject to proof, Rowe continued rhetorically:

> […] the prelogical condition of architecture (which is its 'mode of being' or its 'existential predicament') should be a cause for satisfaction rather than regret. Architecture requires conjecture, and for this reason, those many characters who

> spend their lives in the attempt to render it independent of speculation should be regarded with intense suspicion.[2]

Yet Rowe's understanding of the relationship between myth and architecture had undergone a profound shift by 1994; a shift intertwined with his lifelong struggle with the precariousness of modernist ideology: '…the sentiment of modernity is something so virulent and still so much with us that it is apt to defy analysis. It is a crazy sentiment of course, but isn't it all the more potent for that?'[3] On more than one occasion, Colin Rowe turned to a quotation from Igor Stravinsky on this underlying ethic:

> It is 'romantic,' of course, and it suffers…for it cannot accept the world as it is. 'Modern' in this sense does not so much mean or emphasize the appearance of a new style, though of course, a new style is part of it. Nor is it brought about merely by its innovations, though innovations are part of it too.[4]

The late Rowe's celebration of architectural conjecture was a missive against the perpetuation of those powerful sentiments in post-modernism. Yet, in his earliest published writing, architectural myth construction was the very exercise of those ideologies. Rowe asserted modernism was always more than style and innovation, concerning a dissatisfaction with 'the world as it is.' Nevertheless, modernism did concern style and innovation. It was the question of the relationship between modern architecture's ethical temperament and its devices that was at the center of Rowe's earliest writing on architecture. And it was precisely the liberation of architecture's mythologizing techniques from the service of modern ideology that realises the full development of Rowe's formalism and constitutes his lasting contribution to architectural practice. If modern architecture's mythemes were largely derived from without, the means of embodying myth constitute the discipline's internal history and development. By 1972, Rowe would consider this distinction inevitable. He later contended that modernism was 'destined to break apart because it combined the incompatible.'[5] Yet these were claims made after the fact. To what degree Rowe thought his early criticism contributed to this development, forecast it, or, at least, identified the potential, is difficult to say. Nevertheless, the question of disintegration was at the core of Rowe's first published essay on architecture, 'The Mathematics of the Ideal Villa,' in 1947.[6]

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Lyrical Technique

Rowe opens the 'Mathematics' essay with three quotations. The epigraph, from Sir Christopher Wren, draws a distinction between natural (mathematic, geometric) and customary beauty.[7] The second and third, from Palladio and Le Corbusier respectively, each addresses the relationship of a villa to its landscape site. Rowe describes Palladio's words as 'lyrical' and Le Corbusier's as 'no less lyrical but rather more explosive.'[8] And where Palladio's Villa Capra-Rotonda (Vicenza, 1566-70), Rowe immediately offers, 'has, perhaps more than any other house, imposed itself upon the imagination,' Le Corbusier's Villa Savoye (Poissy, 1928-29), Rowe asserts, only slightly less quickly, 'has been given a number of interpretations.'[9] Rowe then lists them: 'a machine for living in, an arrangement of interpenetrating volumes and spaces, an emanation of space-time,' before concluding with the famous equation of the two architects via their apparently shared Virgilian motif: 'the effect of the two passages is somehow the same.'[10] The entire argument of Rowe's essay is made in an expurgated form in its first three paragraphs – aphoristic, begging elaboration. Le Corbusier shares Palladio's lyricism. Yet, unlike Palladio, Le Corbusier's architecture fails to so lucidly lodge itself within the imagination; it is open to interpretation; it is 'rather more explosive.'[11]

Circa 1947 the cultural impact of explosions was rather great indeed. Yet to suggest Rowe was making a direct analogy to recent events would, perhaps unproductively, caricature what was nevertheless surely the case: in the 'Mathematics' essay, Rowe was fundamentally concerned with the relationship – the parallel – between form and culture and, more specifically, the transformation of that correlation between the mid-sixteenth and early-twentieth centuries. And Rowe went to some effort to set up the epochal comparison. Rowe introduced the quote from Le Corbusier's *Précisions* (1930) as 'describing the site of his Savoye House at Poissy.'[12] However, the portion of the quotation describing the inhabitants of the house settling on a verdant site were written by Le Corbusier in connection with a scheme for Biarritz, Argentina, not the site in the Île de France.[13] While Rowe acknowledges 'Palladio's landscape is more agrarian and bucolic' and Le Corbusier's more 'the untamed pastoral,' Rowe's elimination of Le Corbusier's references to the more pristine Argentine site was strategic, allowing him to more successfully equate the intention of the works.[14] Limiting the discussion to the locus of the Mediterranean allowed Rowe to more effectively draw, through 'the landscapes of Poussin – with their portentous apparitions of the antique,' the connection between Palladio's 'disengaged cube and its setting in the *paysage agreste*' and

the 'geometrical volume and the appearance of unimpaired nature, which lie behind Le Corbusier's Roman allusion.'[15] Yet Rowe's conception of Le Corbusier's fundamentally Mediterranean perspective was no great stretch. It surely originates from the architect's own peripatetic biography and numerous didactic statements, such as the comparison Le Corbusier draws, in the prologue to *Précisions*, between the cultivated Parana delta in Argentina and artistic depictions of the European Renaissance garden.[16]

By equating Palladio's and Le Corbusier's views of nature Rowe asserts the essential question in both is the construction of a cultural ideal, even if the ethical underpinnings of those ideals differ in certain respects: 'If architecture at the Rotonda forms the setting for the good life, at Poissy it is certainly the background for the lyrically efficient one; and, if the contemporary pastoral is not yet sanctioned by conventional usage, apparently the Virgilian nostalgia is still present.'[17] Therefore, while Rowe distinguishes the 'good life' from the 'lyrically efficient' life, he also manages to equate them as instantiations of a cultural mythology to which the architecture of Palladio and Le Corbusier, respectively standing in for the architecture of the Renaissance and the modern, strive. Nevertheless, the periods are not on equal footing for Rowe. He writes that the 'contemporary pastoral' is 'not yet sanctioned by conventional usage,' while his observation in Le Corbusier of a contemporary 'nostalgia' implies its foregone presence in the Renaissance.[18] This reference to 'conventional usage' refers to the epigraph from Wren, which distinguishes between natural beauty, deriving from geometry and proportion, and 'customary beauty,' born of use and familiarity. The implication will be that while both architects derive their architecture through the exploration of proportion and therefore natural beauty, unlike the Renaissance, the conventional beauty of Corbusian modernism is yet to be attained. Thereby Rowe inaugurates his discourse on the correspondence of architectural form and culture, opening up the thorny question of architecture's agency vis-à-vis evolving aesthetic regimes; the subject to which Rowe, in his second published essay, 'Mannerism and Modern Architecture' (1950), will turn.[19] For Rowe, the question of architecture's rhetorical efficacy – and, therefore, the value of architecture's engagement with myth – is subject to historical conditioning. It remains a central preoccupation of his writing throughout his career.[20]

In the 'Mathematics,' Rowe presents the rhetorical devices of Corbusier's villas as a necessarily tragic effort to inculcate an irretrievable ideal. Here again, it is useful to consult the cited passage from Le Corbusier's *Précisions*. In quoting the sentence 'The plan is pure,

made exactly in accordance with needs.' Rowe eliminates the second phrase, before taking up again at the beginning of the next sentence.[21] Eliminating the functional qualification of 'pure' allows Rowe to set up in the early portion of the essay his latter discussion of proportion in Le Corbusier's architecture. But it also allows Rowe to assert the lyrical – the rhetorical – aspect of Corbusian functionalism unhindered, for the moment, by Le Corbusier's own verbiage to the contrary. In this regard, Rowe surely felt he was editing Le Corbusier for consistency. For Rowe's use of 'lyricism' was derived from Le Corbusier himself. In the paragraph in *Précisions* that immediately follows the passage from which Rowe quotes, Le Corbusier concludes his chapter on 'The Plan of the Modern House' by restating the main theme of his book: 'You won't hold it against me, I hope, that I have gone at length before your eyes into the example of *liberties taken*. […] Poetry, lyricism, brought by techniques.'[22]

To the extent, then, that Rowe's contribution to architectural knowledge has pivoted on the question of the aesthetic device, his investigation begins with efforts to reaffirm intentions stated by Le Corbusier himself. The degree to which Rowe relies on Le Corbusier's operative framework in *Précisions* qualifies Rowe's debt to his dissertation supervisor Rudolf Wittkower and the German lineage of art history Wittkower represents.[23] The tensions in Rowe's writing that follow from the analysis in the 'Mathematics' essay might thus be read as the direct correspondence between this lineage and the operative criticism that originates with Rowe's interest in Le Corbusier's theory and design.[24] Nevertheless, by asserting Le Corbusier's architecture is 'lyrically efficient,' the 'Mathematics' essay seminally emphasises the rhetoric of modern architecture rather than its assertedly novel claims to functional or technological felicity. This observation exercised extraordinary influence on architecture's postwar development, not least because it questioned prevailing assumptions about modern architecture's relationship to history and initiated the ongoing efforts by Rowe (and others) to divorce modernism's and later post-modernism's discursive and formal claims.[25]

History and Criticism

The core of the 'Mathematics' essay is the comparison of Palladio's Villa Foscari at Malcontenta (1559-60) and Le Corbusier's Villa Stein-de-Monzie at Garches (1926-1927). Rowe asserts that where Le Corbusier is seeking to assert structure as the basis of architecture's formal vocabulary, Palladio uses structure to reassert accepted values. Therefore, in Palladio the bases of composition are given and are to be expressed, whereas

in Le Corbusier the bases of composition are in the process of being discovered and proven. In short, for the Renaissance, values are fixed and accepted (paralysed), whereas for the moderns, values require formulation and assertion.[26] Rowe again takes direction from Le Corbusier, who writes in *Précisions* of traditional masonry construction as a 'plan paralyse' (paralysed plan).[27] Yet more important than this observation about a fundamental transformation of structural-ethical regimes is Rowe's assertion that both Palladio and Le Corbusier craft their architectures to rhetorically emphasise these respective regimes; 'both architects,' Rowe writes, 'make a claim which is *somewhat in excess of the reasons they advance*.'[28] Palladio's masonry, wall-based structural system does not necessitate the absolute symmetry of his houses, nor does Le Corbusier's Dom-ino structural system necessitate the free arrangement of his.

Thus, there is a productive tension throughout the 'Mathematics' essay between Rowe's appeal to historical comparison and his assertion of the architect's rhetorical, or mythic, expression. For example, Rowe asserts the cruciform figure of the Malcontenta plan 'survives only vestigially' at Garches where it 'is only *allowed* to develop implicitly and by fragments.'[29] Moreover, Rowe argues, the reaffirmation of the centrality of the Malcontenta organisation in the symmetrical and centralised emphasis of Palladio's façades is at Garches nowhere to be found. But Rowe does not rely on the historical comparison when he suggests Garches exhibits the character of fragmentation. Rather this character is something that can be discerned from the design itself: 'a central focus is stipulated; its development is inhibited; and there then occurs a displacement and a breaking up of exactly what Palladio would have presumed to be a normative emphasis.'[30] Rowe the historian benefits from the comparison, but Rowe the critic must rely on the formal rhetoric as autonomously conveyed by the individual work.[31]

Thus having twice alluded to the fragmentary or explosive aspect of Le Corbusier's architecture, Rowe turns to the question of the cultural value of proportions, and it is through the differential esteem with which the proportional systems are held in the two periods that Rowe asserts his historical diagnosis. With respect to the Renaissance use of proportions, Rowe concludes: 'Thus, with proportion as a projection of the harmony of the universe, its basis – both scientific and religious – was quite unassailable; and a Palladio could enjoy the satisfactions of an aesthetic believed to be entirely objective.'[32] By contrast, Rowe, quoting Le Corbusier's discussion of Garches in the *Œuvre Complète*, finds Le Corbusier turning to

mathematics for 'comforting verities.'[33] While Rowe acknowledges Le Corbusier's expressed quest for 'the exact thing,' he suggests,

> […] it is not the unchallengeable clarity of Palladio's volumes which one finds. It is, instead, a type of planned obscurity; and, consequently, while in the Malcontenta geometry is diffused throughout the internal volumes of the entire building, at Garches it seems only to reside in the block as a whole and in the disposition of its supports.[34]

Rowe's most opaque passages frequently presage, through the subtle obfuscations of word choice, the argument to come. So it is with the term 'planned obscurity,' which, it will soon become clear, refers to the dissolving agency of functionalism on otherwise regulated geometry. And it is at this point that Rowe's historical diagnosis is plainest: 'The theoretical position upon which Palladio's position rested broke down in the eighteenth century when proportion became a matter of individual sensibility and private inspiration.'[35] Mathematics for Le Corbusier, Rowe continues, cannot have such an 'unassailable position' as it did for Palladio: 'Results may be measured in terms of process, proportions are apparently accidental and gratuitous; and it is in contradistinction to this theory that Le Corbusier imposes mathematical patterns upon his buildings.'[36] Le Corbusier's turn to the comfort of proportions, Rowe thus contends, is symptomatic; it is a consequence of the obscure geometry that results from a functionalist regime. One is, perhaps too subtly, led to conclude that functionalism, which Rowe has established as an equivalent, in the parallel domain of architecture, to individualism and the private realm, results in the nostalgia previously noted for the objective – which is to say shared or public – regime of Renaissance proportions. Yet, of course, such a desired return can only ever be a lament. Where Palladio's use of proportions follows from Renaissance theory, Le Corbusier's use of proportions occurs 'in spite of theory.' Nevertheless, both 'choose to make didactic advertisement of their adherence to mathematical formulae.'[37] Indeed Rowe, no doubt to emphasise the very desperation of the contemporary lament, referring to Le Corbusier's diagram of the Garches façade, replete with regulating lines, suggests, of the two, Le Corbusier's didacticism 'is the more aggressive.'[38]

Yet this didacticism is not limited to the treatise. In Rowe's discussion, the registers of design and theory are always intertwined. Rowe argues, 'if Le Corbusier's façades are for him the

primary demonstrations of the virtues of a mathematical discipline, with Palladio it would seem that the ultimate proof of his theory lies in the plan.'[39] Where in Malcontenta, it is the plan that 'may be seen as an exhibition of 'natural' beauty' and it is the façades that bear the 'intrusion of 'customary' material,' in Le Corbusier the opposite is the case; just as, Rowe later points out, in the transition from Palladio to Le Corbusier, 'free plan is exchanged for free section; but the limitations of the new system are quite as exacting as those of the old.'[40] Nevertheless, Rowe assumes that in both it is the plan that is primary. (Here again he is following Le Corbusier's proclamations in *Précisions*). Yet, where Palladio proceeds from plan to elevation and therefore, directly and comfortably, from the 'natural' to the 'customary,' Le Corbusier, also asserting the primacy of the plan, discovers a rather more rocky and ultimately ill-defined path, which leads him to reiterate the 'natural' in the elevation. That is to say, where the distance from the ideal is of concern for Le Corbusier ('it is indeed exactness which he seeks'), Rowe suggests the 'inconsistencies' between the ideal and the actuality in Palladio's villas (the discrepancies between theoretical proportions and built measurement), are 'to be expected and it should not be considered useful to enlarge upon these inconsistencies.'[41] That is, if the clarity of Renaissance values allows inconsistency, for the moderns, bereft of a well-established ethic, inconsistency is a problem.

> Thus there is at Garches a permanent tension between the organized and the apparently fortuitous. Conceptually, all is clear; but, sensuously, all is deeply perplexing. There are statements of a hierarchical ideal; there are counter statements of an egalitarian one. Both houses may seem to be apprehensible from without; but, from within, in the cruciform hall of the Malcontenta, there is a clue to the whole building; while, at Garches, it is never possible to stand at any point and receive a total impression. For at Garches the necessary equidistance between floor and ceiling conveys an equal importance to all parts of the volume in between; and thus the development of absolute focus becomes an arbitrary, if not an impossible, proceeding. This is the dilemma propounded by the system; and Le Corbusier responds to it. He accepts the principle of horizontal extension; thus, at Garches central focus is consistently broken up, concentration at any one point is disintegrated, and the dismembered fragments of the center become a peripheral dispersion of incident, a serial installation of interest around the extremities of the plan.[42]

Yet again, while the historical and cultural implications of Rowe's formalist reading are drawn via the anachronistic comparison of the works, the reading of the disintegration, exploding, and fragmenting of values at Garches rests on the (intertwined perceptual and conceptual) experience of the design itself.[43] The brilliance of Rowe's writing is to so thoroughly conflate his historical comparisons and his formalist readings, such that when Rowe writes of form he speaks of transformations in ethics and culture. Renaissance certainty and modern doubt are edified in the respective works. While, like Malcontenta, Garches exhibits clarity from the exterior, internally the modern building, unlike its predecessor, is torn between order and function, between the intellect and the sensible, a situation contemporaneously expressed by Sigfried Giedion as a crisis – the divorce of thought and feeling – that it was the task of modern architecture to reconcile.[44] Thus, when Rowe is describing the tepid centrality of Le Corbusier's building, he is asserting that in the early twentieth century the very notion of asserting universal values is at best an 'arbitrary, if not impossible' gesture in the face of a current 'system' of individualism ('horizontal extension') that Le Corbusier nevertheless 'accepts'; the proliferation of liberated interest at the expense of social cohesion. And, therefore, when Rowe continues, 'But it is now that this system of horizontal extension which is *conceptually* logical comes up against the rigid boundary of the block which, almost certainly, is felt to be *perceptually* requisite,' he is pointing to the very limits of modern rationality, which, no doubt in part due to his careful use of language – phrases such as 'dismembered fragments' – had, only two years after the armistice, extraordinary resonance.[45]

Cultural Practice

As Anthony Vidler has pointed out, Le Corbusier's architecture is definitive of the modern for Rowe.[46] Yet it is so, not solely because of Le Corbusier's status in the modern movement – Le Corbusier's architecture was arguably less canonical than, in some part due to Rowe, it would soon become – but because Le Corbusier's 'energetic' architecture at once exhibited 'a disintegration of focus' and 'an oscillation of attention' even as it sought to recoup a lost ideal.[47] By reconceptualising Le Corbusier's functionalist discourse Rowe de-emphasises the local *organsational* effects of architecture, transposes those effects into a representational system, and thereby asserts architecture's correspondence with broader cultural concerns. Yet, despite the immutable proportional system that Rowe, following Wittkower's research on Palladio, invests within Le Corbusier's architecture, the representational capacity Rowe

conceives is, in the case of both architectures, self-referential.[48] If architectural composition has a correspondence to culture, it is of a parallel or analogous nature. Precisely because of the self-referentiality of individual architectural works, Rowe's implicit suggestion of the cultural resonance of architecture can only obtain its historical meaning by an appeal to the temporal contiguity of architecture as a discipline. Nevertheless, in the final section of the 'Mathematics' essay Rowe makes his strongest claims concerning the cultural import of the works, the agency of the architects, and the role of technique. While both architects sought, Rowe contends, to instantiate the Virgilian dream, it is in the realisation of such a mythology that its cultural pretensions are on display:

> For here is set up the conflict between absolute and the contingent, the abstract and the natural; and the gap between the ideal world and the two human exigencies of realization here receives its most pathetic presentation. The bridging must be as competent and compelling as the construction of a well-executed fugue; and, if it may be charged, as at the Malcontenta, with almost religious seriousness, or, as at Garches, imbued with sophisticated and witty allusion, its successful organization is an intellectual feat which reconciles the mind to what may be some fundamental discrepancies in the program.[49]

In this way, Rowe casts his entire discussion as a dissertation on the very question of architectural production as such. The gap 'between absolute and contingent, the abstract and the natural' speaks to architecture's necessary negotiation between the found and the made, be that the architect's engagement with the conditions – primarily for Rowe, the ethical and cultural conditions – of her time, or, more broadly, architecture's presumptions as a field of human activity, as the edification and thus mythologizing, if not also the improvement, of our given human, which is to say, natural, condition. He conveys a discourse on the attitude one takes to these fundamental questions. And, perhaps most importantly, as his later comments on myth attest, he conceives of such an attitude as the necessary coping mechanism of our ineluctable engagement with our pathetic condition.

Rowe's writing thus concentrates attention on the distinction between the determinations and the inventions of a moment. It is only by such discrimination that the difference between architectural history and criticism can be conceived. The careful notation of the complex choreography between fact and ideal in the 'Mathematics' essay testifies that, even in this

very first publication, the attention to the Hegelian problematic of modernism is latent.[50] Rowe's historical comparisons, whilst clearly operative, were nevertheless always already carefully attentive to a fundamental distinction between historical determination and formal freedom. Palladio and Le Corbusier, each no less conditioned by the values of their age than the other, must nevertheless find the means through which to erect myths for their time. Such is the basis of formal and thereby disciplinary invention.

While each architect, Rowe argues, engaged architectural classicism, Palladio 'translates this received material with a passion and a high seriousness fitting to the continued validity that he finds it to possess,' while for a modern architect such as Le Corbusier – for whom 'it is hard […] to be quite so emphatic about any particular civilization as was Palladio about the Roman' – 'reference has remained a quotation between inverted commas, possessing always the double value of the quotation, the associations of both old and new context.'[51] Rowe thus asserts the pluralism of modernism. The modern architect looked to a more eclectic array of sources – Mediterranean certainly, but also natural, and technological-contemporary. Nevertheless, it is not the semantics of Le Corbusier's architecture that concerns Rowe so much as its formal composition.[52]

> That is, one is able to seize hold of all these references as something known; but, in spite of the new power with which they become invested, they are only transiently provocative. Unlike Palladio's forms, there is nothing final about any of their possible relationships; and their rapprochement would seem to be affected by the artificial emptying of the cube in which they find themselves located, when the senses are confounded by what is apparently arbitrary and the intellect is more than convinced by the intuitive knowledge that, despite all to the contrary, here problems have been both recognized and answered and that here there is a reasonable order.[53]

For Rowe, it is precisely the ironic dissipation of meaning and the intensification of relationships into the semblance of an order that constitutes Le Corbusier's work as modern.[54] While the cubic form of the two villas allows Rowe to make an implicit assertion about the historical relationship between Le Corbusier and classicism, Rowe evokes the cube in this passage, not as a trans-historical referent, but, rather, as a datum against which the particular incidents of Le Corbusier's architectural vocabulary register.[55] Nevertheless, for

all it opens up with respect to the gap between historical interpretation and formalist criticism, the 'Mathematics' essay draws the ground of architectural production as an historico-cultural datum, with profound effects on subsequent architectural design, history, theory, and criticism. Conceiving all aspects of architectural form as the organization of an architectural representation thoroughly transformed architectural production from a social to a cultural field.[56] It forecast and greatly influenced the late-modern concern with image and, thereby, inaugurated both the semantic and syntactic strains of architectural post-modernism.[57]

Valuing Form

In opening the concluding section of the 'Mathematics' essay, Rowe asserts that neither Le Corbusier's Villa Savoye nor Palladio's Villa Rotonda

> is so entirely condensed in its structure and its emotional impact as are, respectively, the earlier Garches and the later Malcontenta. […] Possibly this is because they are both in the round; and that, therefore, what is concentrated in two fronts at Garches and the Malcontenta is here diffused through four, resulting in far greater geniality of external effect.[58]

In the painterly frontal as opposed sculptural villas, Rowe asserts, the aesthetic effect is more concentrated and, therefore, compelling. In this way, the essay's concluding discussion of ordered eclecticism constitutes Rowe's initial consideration of the criteria by which architectural works can be critically evaluated within a self-referential aesthetic regime. Whilst it lacks the immediacy of Malcontenta, Garches is nevertheless more successful than Savoye in instituting an architectural argument. Even though Garches requires some effort to conceptually reconcile the dispersed and centralised elements of its façade, that conceptual experience is not so dissipated as the sculptural work, which requires, for the discovery of its order, an extended experience.[59]

Rowe repeatedly returns to this notion in his subsequent writing, most famously, in the first 'Transparency' essay (1955-56), written with Robert Slutzky, wherein he contrasts the 'phenomenal transparency' of architectural organization as experienced in the frontal appreciation of the Garches façade and the 'literal transparency' of architectural substance – namely glass – of Walter Gropius' Bauhaus at Dessau (1926), a building that only becomes

comprehensible as one moves around it.[60] While the resonance of sculptural works is constructed temporally, the painterly work constructs an image relatively immediately.

A remark in the first of the 'Neo-Classicism' essays (1956-57) is most telling on this theme:

> Persuasive, sometimes contradictory, often highly condensed, precisely because it is a climate of opinion, orthodox theory does not submit itself too readily to analysis. It is like a building which resists frontal examination, which, in consequence, one is obliged to approach from the flank; and, so, since it is impossible to approach it head on, it might be as well as a beginning to get into it as it were by surprise and then very briefly to observe one of its central assumptions – a proposition that the condition of a community's architecture is a symptom of its social and spiritual health. This, as the more scientifically stated proposition that the evolution of architecture may be an index to the history of ideas, is obviously one of the more basic postulates of the history of art; but as a hypothesis that contemporary society is sick, doomed, lacking in integration, chaotic, while the society of the future will be whole, sane, organically differentiated and ordered, it furnishes an invaluable clue to the mind and spirit of an epoch.[61]

This passage clearly draws out the fundamental approach underlying Rowe's cultural and ethical architectural history. It clearly states Rowe's identification of modernism's millennial ambitions. And it betrays the degree to which the early Rowe believed the correspondence between culture and form was, indeed, a characteristic of the zeitgeist. Yet it also imbricates the basis on which Rowe's formalist criticism is exercised. As the relationship between theory and experience widens, cultural and historical determinations weaken, and, one might assert, the role of the formalist critic as opposed the historian increases.[62] Rowe, in short, was always attuned to the degree to which a work condenses a concept into an immediately legible edifice. As the most potent, Le Corbusier's architecture is the more definitive and, therefore, ideological modernism. Such is the concluding implication of the 'Mathematics' essay, which, in its final paragraph, discriminates between the 'picturesque' Palladian villa and 'innumerable [Corbusian] pastiches' on the one hand, and 'the *magnificently realized* quality of the originals' on the other. Rowe concludes: in the followers, 'it is perhaps an adherence to 'rules' which has lapsed.'[63] Yet the 'rules' to which Rowe refers are not solely,

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nor necessarily, the immutable mathematics of Palladio. Rather, Rowe, always implicating technique, could not separate an aesthetic regime from its temporal embodiment in the individual work.

Society and Form

In his introduction to the *Five Architects* catalog in 1972, Rowe identified the late 1940s as the moment 'modern architecture became established and institutionalized' and therefore the moment in which modern architecture 'lost something of its original meaning. Meaning, of course, it had never been supposed to possess.'[64] That Rowe identified the date of the 'Mathematics' essay with this transformation is surely telling, because it is this argument that he then rehearses. The 'official exegesis' of modernism had buried architecture's 'iconographic content,' asserting modernism was solely the 'illustration of a program,' the 'direct expression of social purpose,' 'a rational approach to building,' and/or 'a logical derivative from functional and technological facts.'[65] 'For very far from being as deeply involved as he supposed with the precise resolution of exacting facts,' Rowe countered, 'the architect was (as he always is) far more intimately concerned with the physical embodiment of even more exacting fantasies.'[66] Rowe then goes on to describe the 'fantasies' of that 'messianic program' of modernism and the technological and lifestyle content that in modernist 'buildings became the illustrations of these enthusiasms.'[67]

Insofar as Rowe's earliest writing was concerned with architecture's embodiment of myth, rather than with architecture's construction of those mythemes itself, it remained, somewhat uncomfortably for Rowe, wedded to modernism's conception of the zeitgeist. Yet, it was precisely Rowe's emphasis on the means by which this was achieved that allowed him to reconceive modernism's dilemma of causality. Modernism embodied the mythemes of the age certainly, yet modernist iconography 'became also the outward and visible signs of a better world, a testament in the present as to what the future would disclose; and there was always the proviso that his buildings were the agents of this future, that the more modern buildings were erected the more the hoped for condition would ensue.'[68] Yet Rowe then famously proceeds to point out the historical failure of this social agency; ironically, a failure that was the very consequence of modernism's apparent success: the coeval dilution of its aesthetic and therefore cultural impact.

> For, when modern architecture became proliferated throughout the world, when it became cheaply available, standardized and basic, as the architect had wished it to be, necessarily there resulted a rapid devaluation of its ideal content. The intensity of its social vision became *dissipated*. The building became no longer a subversive proposition about a possible Utopian future. It became instead the acceptable decoration of a certainly non-Utopian present.[69]

Here again, as in the 1947 essay, Rowe's diagnosis mirrors the historical situation of the time. His description of a failed 'revolution,' its watered-down complicity, and the hold-out 'true believer,' echoes the postwar crisis of the European Left.[70] Having made the unstated comparison in formal terms, Rowe then makes the epochal parallel explicit. If European modernism was 'conceived as an adjunct of socialism,' forged in the same furnace as Marxism, modernism in the United States, where 'the revolution was assumed to have already occurred,' was 'conspicuously unequipped with any such implicit social program or politically critical pedigree.'[71] In this way, Rowe sets up the 'problem' of considering the work of the New York Five: precisely the divorce between socially directed mythemes and the cultural exercise of formal architectural technique. 'For we are here in the presence of what, in terms of the orthodox theory of modern architecture, is heresy,' Rowe struggles, 'We are in the presence of anachronism, nostalgia, and, probably, frivolity. If modern architecture looked like this c. 1930 then it should not look like this today; […].'[72]

Therefore, in the same essay in which he – albeit with subtle hubris and therefore equivocal humility – at least glancingly acknowledged his own potential efficacy as a critic, Rowe comes to emphasise not the masking of the gap between history and criticism, but its yawning width. Where, in the 'Mathematics' essay, Rowe conceives Garches as an attempt to negotiate thought and feeling, a quarter century later, Rowe, betraying his earlier, unacknowledged use of Giedion, writes: 'It became apparent that never had it been so much the limpid fusion of content and form, that famous integration of feeling and thinking, which Sigfried Giedion had supposed a symbiosis of highly discrete and ultimately incompatible procedures; […].'[73] Emphasizing now, not the mythic reconciliation of ideal and fact, but their ineluctable distance, Rowe concludes, 'there was no one to one correspondence between practice and theory.'[74] Moreover, Rowe rejected Reyner Banham's conclusion, in *Theory and Design in the First Machine Age* (1960), that architecture needed to more closely align with the determinations of an epochal, technological will.[75] Rowe now emphasised the naïveté of

asserting form's determination by values. Yet he did so, not in order to assert the potential for form to lead culture, but rather (faced with the repetitive-nostalgic forms of the New York Five) for form to act as a moderator of culture.[76] Rather than 'the notion of architecture as ceaseless moral experiment,' Rowe proposed a 'contrary proposition,' which 'is the idea that modern architecture was to instigate order, that it was to establish the predominance of the normative, the typical and the abstract.'[77]

In 1972, Rowe defended the normative, for, without it, he saw no way for architecture to retain its mythic function, and therefore exercise its creative volition, without resort to external values.[78] If the architecture of the Five could be critiqued for abandoning social mythemes for a purely private, formalist, language; if it exposed the very gulf between society and form and suggested modernist theory was but a myth for purposes of concealing architecture's inefficacy in the face of broader determinations; then it also begged the question of how architecture could, as the propagator of myths, hope to move beyond the modernist regime. Yet, the beginning of an answer to these questions, with which Rowe ended his essay on the Five, were to be found at the turn of a page, in Kenneth Frampton's essay, 'Frontality vs. Rotation.' The essay took up the formal framework of Rowe's analysis, emboldening a critic willing to consider the work of the Five without resort to external reference. 'The critic is left to make his own deductions as to where the building is, what it is, and who will occupy it,' Frampton wrote, astutely beginning with John Hejduk's House 10 (1966), which, Frampton argued, 'insists, more than any other project here, on a formal appraisal.'[79]

An Operative Addendum

In an addendum to the 'Mathematics' essay, written in 1973, Rowe acknowledged the Wölfflinian aspects of his comparison between Malcontenta and Garches:

> A criticism which begins with approximate configurations and which then proceeds to identify differences, which seeks to establish how the same general motif can be transformed according to the logic (or the compulsion) of specific analytical (or stylistic) strategies, is presumably Wölfflinian in origin; and its limitations should be obvious. It cannot seriously deal with questions of iconography and content; it is perhaps over symmetrical; and, because it is so dependent on close analysis, if protracted, it can only impose enormous strain

> upon both its consumer *and* producer. […] But, if normal intuition might suggest so much, a Wölfflinian style of critical exercise (though painfully belonging to a period c. 1900) might still possess the merit of appealing to what is visible and of, thereby, making the minimum of pretenses to erudition and the least possible number of references outside itself. It might, in other words, possess the merits of accessibility – for those who are willing to accept the fatigue.[80]

Rowe's concern for the capacity of Wölfflinian criticism to speak suitably to questions of 'iconography and content,' an issue surely more salient for Rowe with the onset of post-modernism, might be read as a consequence of Rowe's own use of it in his early writing. The limitation Rowe identifies is the inherently analogical nature of his own approach, whereby the parallel between society and form is drawn, yet their points of contact remain obscure. Such analogical parallels assume – both for the critic and the architect – the presence of a learned and sympathetic interpreter that architectural theory (and thought and culture more generally) circa 1973 calls into question. Rowe's addendum has often been read to indicate Rowe's loss of faith in the Wölfflinian approach.[81] Yet Rowe's addendum might be better read as a defense of the didactic capacity of the approach, when criticism is rhetorically sophisticated in its appeal to the formal persuasiveness of architectural works and, in conjunction, the common sense ('normal intuition') of experience. Rowe, in this way, might be seen to elide the suggestion, more or less explicit in the period that, without a pre-shared code (or content), architectural communication is impossible. Rowe's addendum articulates an important intermediate position that, in retrospect, enabled the development of much recent architectural theory and practice, which emphasises not the failure of architectural rhetoric but its affects. Rowe's addendum consolidated a shift in position with respect to the 1947 essay, deemphasising the historical situation of the work in favor of its perceptual and conceptual experience; a shift toward the priority of criticism in the history/criticism dialectic. Such is to suggest that Rowe, in first opening up the distinction between history and criticism (1947), and then reversing their priority (1972), inaugurates post-modernism and then its aftermath, in which we, arguably, find ourselves today.

The transformation circa 1972/73 in Rowe's conception of his own role, then, is one from operative historian to operative critic. For the operative critic so conceived, history, rather than acting as a determining force on culture and form, acts against culture and with form. Which is to say, for Rowe the operative historian, architectural history runs in parallel to the

history of culture, yet for Rowe the operative critic, architectural history is autonomous from but directed toward culture. The projective critic, while very much the consequence of Rowe's discriminations on the question of the relationship between history and criticism arises from yet further discrimination: the recognition of another gap, like that between culture and form, born out of and thereby superseding an autonomous architectural regime, between a now non-directed, autonomous, and critical architectural history and the motivated design of form in architectural *practice*.[82] It is surely, therefore, the recognition that the history of the relationship between culture and form in architecture concerns the invention and conceptualisation of architectural techniques that constitutes the locus of Rowe's substantial contribution to contemporary architectural knowledge.

Endnotes

[1] Colin Rowe, 'Questions for Colin Rowe,' *Any*, 7-8 (1994), 34. Rowe initially declined the journal's request for an interview. Some weeks later, he sent a typescript of an interview instead. According to the editor's note, "The interview presented here was done, Rowe said, 'probably in 1989'; it may have been conducted in Rome; and the interviewer may have been 'that guy from California – you know: what's-his-name.'' This might lead one to conclude the interview itself was a myth, carefully fabricated by Rowe. See 'Editor's note,' to Rowe, 'Questions for Colin Rowe,' 34.
[2] Rowe, 'Questions for Colin Rowe,' 35.
[3] Rowe, 'Questions for Colin Rowe,' 35.
[4] Igor Stravinsky in conversation with Robert Craft in *Memories and Commentaries* (Berkeley: University of California Press, 1960), quoted by Rowe, 'Questions for Colin Rowe,' 35. Rowe quotes the same statement in his 'Address to the 1985 ACSA Annual Meeting in Vancouver,' *Journal of Architectural Education*, 39, 1 (Autumn, 1985), 4.
[5] Rowe, 'Questions for Colin Rowe,' 35.
[6] Colin Rowe, 'The Mathematics of the Ideal Villa: Palladio and Le Corbusier compared,' *Architectural Review* 101, 163 (1947),101-104; repr. as Colin Rowe, 'The Mathematics of the Ideal Villa,' in *The Mathematics of the Ideal Villa and Other Essays* (1976; Cambridge, Mass.: The MIT Press, 1999), 1-24. Because of the documented difficulties Rowe experienced in the editing of other texts for publication [see, for example, Werner Oechslin, ' 'Transparency': The Search for a Reliable Design Method in Accordance with the Principles of Modern Architecture,' Jori Walker, (trans.), in Colin Rowe and Robert Slutzky, *Transparency* (Basel: Birkhäuser Verlag, 1997), 9-10.], this essay will, not without considerable hesitation [see note 9 below], use the 1976 publication of the essay as definitive.
[7] Christopher Wren Jr., *Parentalia: or Memoirs of the Family of the Wrens* (London, 1750), 351-352. The distinction is perhaps more familiar to us today from Wren's contemporary, Claude Perrault. See Claude Perrault, *Ordonnance for the Five Kinds of Columns After the Method of the Ancients*, Indra Kagis McEwen (trans.), (Santa Monica: The Getty Center for the History of Art and the Humanities, 1993).
[8] Rowe, 'The Mathematics of the Ideal Villa,' 2.
[9] Rowe, 'The Mathematics of the Ideal Villa,' 2. The 1976 republication shortens the opening sentence as published in 1947, eliminating everything after the word "imagination": "Palladio's Villa Capra, called the Rotunda, has, perhaps more than any other house, imposed itself upon the imagination of subsequent generations, and as the ideal type of central building, it has become part of the general European experience." (1947), 101. It is unclear if this change was a re-institution of the original text or an alteration. [See note 6 above.] Importantly, this shortening subtly shifts the emphasis of the essay from the historical toward the experiential.
[10] Rowe, 'The Mathematics of the Ideal Villa,' 2.

[11] Rowe, 'The Mathematics of the Ideal Villa,' 2.
[12] Rowe, 'The Mathematics of the Ideal Villa,' 2.
[13] Le Corbusier's discussion of the Argentine development did indeed follow from his description of the Villa Savoye, the model for the scheme, which proliferated Le Corbusier's famous villa, appended like fruit to a gnarled, arborescent street system, meandering among groves of palms and cypresses. Le Corbusier describes the Argentine scheme comprising "twenty houses" (his site plan has seventeen), "rising from the high grass of an orchard where cows continue to graze. Instead of laying them out along the customary detestable garden-city streets, which result in destroying a site, we shall build a handsome traffic system, poured in concrete, into the grass itself, in full nature. Grass will grow along the edge of the roads, nothing will be disturbed, neither trees nor flowers nor herds." Le Corbusier, *Précisions sur un état present de l'architecture et de l'urbanisme* (Paris: Crès et Cie, 1930), trans. as *Precisions on the Present State of Architecture and City Planning with An American Prologue, A Brazilian Commentary followed by The Template of Paris and The Atmosphere of Moscow* (Cambridge, Mass. and London: MIT Press, 1991), 139.
[14] While Corbusier asserted the model Villa was 'in its right place' at Poissy, he exclaimed, 'But in Biarritz, it would be magnificent. "Why, one might ask, was the Villa Savoye all the more suited to this 'corner of the beautiful Argentine countryside," than rural France? That in the description of the settlement, Le Corbusier stressed the "full nature" of the place, suggests that he believed the Villa Savoye's essence was found in the degree to which the house type, like the street system "poured in concrete, into the grass itself," preserved its Virgilian site. Le Corbusier, *Precisions*, 139.
[15] Rowe, 'The Mathematics of the Ideal Villa,' 3.
[16] 'From the plane, this delta reminds me on a bigger scale of French or Italian Renaissance engravings in books on the art of gardens.' Le Corbusier, *Precisions*, 139.
[17] Rowe, 'The Mathematics of the Ideal Villa,' 3.
[18] Rowe, 'The Mathematics of the Ideal Villa,' 3.
[19] Colin Rowe, 'Mannerism and Modern Architecture' *Architectural Review* 107, 641 (May, 1950), 289-300; repr. in Rowe, *The Mathematics of the Ideal Villa*, 28-57. See also Colin Rowe, 'Character and Composition; or Some Vicissitudes of Architectural Vocabulary in the Nineteenth Century' (1953-54), *Oppositions* 2 (1974), repr. in *The Mathematics of the Ideal Villa*, 59-87.
[20] By rhetorical I intend a conception of rhetoric in which expression is intrinsic and performative, rather than the representation of an underlying, preformed ideal. Rowe's 'passage' from historian to critic is, in a very abstract sense, constituted by a progressively stronger emphasis on performative rhetoric.
[21] Cf. Le Corbusier, *Precisions*, 139 and Rowe, 'The Mathematics of the Ideal Villa,' 2.
[22] Le Corbusier, *Precisions*, 139.
[23] For a consideration of Rowe's influences see Anthony Vidler, 'Mannerist Modernism: Colin Rowe,' in *Histories of the Immediate Present: Inventing Architectural Modernism* (Cambridge, Mass.: The MIT Press, 2008), 61-104; and the subsequent remarks of Alessandra Ponte, 'Woefully Inadequate: Colin Rowe's Composition and Character,' in Mauro Marzo, ed. *L'architettura come testo e la figura di Colin Rowe*, David Graham and Floriano Pagano, trans. (Venice: Università Iuav di Venizia and Marsilio Editori, 2010), 30-47. On Rowe's relationship to Wittkower in particular, see Francesco Benelli, 'Rudolf Wittkower and Colin Rowe: Continuity and Fracture,' in Marzo, *L'architettura come testo*, 96-111; 235-240. On the relationship between Wittkower and modern architectural historiography, theory, and practice, see Alina A. Payne, 'Rudolf Wittkower and Architectural Principles in the Age of Modernism,' *The Journal of the Society of Architectural Historians*, 53, 3 (September, 1994), 322-342.
[24] Payne has argued Wittkower's Renaissance historiography was itself affected by the discourse of modern architecture (Nikolaus Pevsner, Sigfried Giedion, and Henry-Russell Hitchcock) if not also by that architecture itself. Payne, 'Rudolf Wittkower,' 330.
[25] For an early account of the effects of the 'Mathematics' essay (in conjunction with Wittkower's work), see Reyner Banham, 'The New Brutalism,' *Architectural Review* 118 (December, 1955), 354-361. And, as representative of the essay's ongoing implications, see Reyner Banham, *Theory and Design in the First Machine Age* (London: Architectural Press, 1960).
[26] Rowe, 'The Mathematics of the Ideal Villa,' 4.
[27] Le Corbusier, *Precisions*, 123.
[28] Rowe, 'The Mathematics of the Ideal Villa,' 6 (my emphasis).

[29] Rowe, 'The Mathematics of the Ideal Villa,' 6 (my emphasis).
[30] Rowe, 'The Mathematics of the Ideal Villa,' 7.
[31] For Rowe, the shift from 'concentric' or centralized to 'peripheric' composition was definitive of modern architecture. See Rowe's review of *Forms and Functions of Twentieth Century Architecture* by Talbot Hamlin in *The Art Bulletin*, 35, 2 (June, 1953), 172.
[32] Rowe, 'The Mathematics of the Ideal Villa,' 8.
[33] Cf. Le Corbusier in W. Boesiger and O. Stonorov, (eds.), *Le Corbusier et Pierre Jeanneret: Oeuvre complète 1910-1929* (1929; Basel: Birkhäuser Publishers, 2006). 144.
[34] Rowe, 'The Mathematics of the Ideal Villa,' 8. Rowe quoted Le Corbusier: '[…] one stops his work only with certainty that he has arrived at the exact thing […].' Le Corbusier, *Oeuvre complète*, 144.
[35] Rowe, 'The Mathematics of the Ideal Villa,' 8-9.
[36] Rowe, 'The Mathematics of the Ideal Villa,' 9.
[37] Rowe, 'The Mathematics of the Ideal Villa,' 9.
[38] Rowe, 'The Mathematics of the Ideal Villa,' 9. For the diagrams of the Garches façades, see Le Corbusier, *Oeuvre complète*, 144.
[39] Rowe, 'The Mathematics of the Ideal Villa,' 9.
[40] Rowe, 'The Mathematics of the Ideal Villa,' 11-12.
[41] Rowe, 'The Mathematics of the Ideal Villa,' 8, 11.
[42] Rowe, 'The Mathematics of the Ideal Villa,' 12.
[43] For a consideration of the relationship between the conceptual and the perceptual in architecture that follows from Rowe's observations, see Peter Eisenman, 'Notes on Conceptual Architecture: Towards a Definition,' *Design Quarterly*, 78-79 (1970), 1-5. In using the word 'experience,' I seek to maintain this sense of the reliance of the conceptual on the perceptual in architecture. In the 'Mathematics' essay the distinction between conceptual and perceptual experience is vague, such that one gets the impression that Rowe is discussing drawings as much as buildings.
[44] Giedion saw this crisis as an inheritance from the nineteenth century. Sigfried Giedion, *Space, Time, and Architecture: The Growth of a New Tradition* (Cambridge, Mass.: Harvard University Press, 1941), 12-13.
[45] Rowe, 'The Mathematics of the Ideal Villa,' 12.
[46] Vidler, *Histories of the Immediate Present*, 85.
[47] Rowe, 'The Mathematics of the Ideal Villa,' 13.
[48] For Wittkower's work on Palladio see Rudolf Wittkower, *Architectural Principles in the Age of Humanism* (London: Warburg Institute, University of London, 1949); Rudolf Wittkower, 'Principles of Palladio's Architecture,' *Journal of the Warburg and Courtauld Institutes*, 7 (1944), 102-122; and Rudolf Wittkower, 'Principles of Palladio's Architecture II,' in *Journal of the Warburg and Courtauld Institutes*, 8 (1945), 68-106. Implicitly underlying Rowe's discussion with respect to the question of thought and feeling, and perhaps one aspect of Wittkower's expressed dismay with the 'Mathematics' essay, may be that distinction made by Wittkower between the Platonic musical harmonics of the Renaissance and the 'irrational, hence incommensurable numbers' of the Golden Section [Payne, 'Rudolf Wittkower,' 327.] such as one finds in the regulating lines of Le Corbusier. Rowe's praise for Le Corbusier goes against the grain of Wittkower's consideration of Renaissance architecture, which was explicitly directed against, what Payne has described as Geoffrey Scott's "hedonist interpretation of architecture that privileges the sensuous aesthetic reception by the viewer and projects it back upon the architect's intention." Payne, 'Rudolf Wittkower,' 325. Payne writes, "Wittkower's rhetorical opposition to and victory over Scott's hedonism ultimately indicates that the succession of constructions for Renaissance architecture follow the pattern of succession of paradigms for modernism, for the rational triumphs over the subjective, *Typisierung* over *Einfühlung* and other organicist positions, and, for all intents and purposes, the latter options are erased from the official accounts of modernism." Payne, 'Rudolf Wittkower,' 337. Among other things, Rowe's consideration of the differing relationship between fact and ideal in Renaissance and modern architecture surely owes a debt to Scott and was, unlike Wittkower, concerned less with 'triumph' than ambiguity, thereby reversing the trajectory outlined by Payne. See Geoffrey Scott, *The Architecture of Humanism: A Study in the History of Taste*, second edition (1924; New York and London: W. W. Norton & Company, 1999). On Scott in relation to Wittkower, see Payne, 'Rudolf Wittkower,' 332ff; and, for Wittkower's remarks on Scott, *Architectural Principles in the Age of Humanism*, 1, note 1. On the use of and

discourse around proportional schemas at mid-century and its flow-on effects for recent architectural design, see Christopher, *Architectural Principles in the Age of Cybernetics* (New York and London: Routledge, 2008).

[49] Rowe, 'The Mathematics of the Ideal Villa,' 14.

[50] On the 'possibility' of 'modernism' for Rowe, see George Baird, 'Oppositions in the Thought of Colin Rowe,' *Assemblage*, 33 (August, 1997), 22-35; and Joan Ockman, 'Form without Utopia: Contextualizing Colin Rowe,' *The Journal of the Society of Architectural Historians*, 57, 4 (December, 1998), 448-456.

[51] Rowe, 'The Mathematics of the Ideal Villa,' 14-15.

[52] For one effect of this conception, see the work of Peter Eisenman as inaugurated in *The Formal Basis of Modern Architecture* (doctoral dissertation, University of Cambridge, 1963; Baden: Lars Müller Publishers, 2006).

[53] Rowe, 'The Mathematics of the Ideal Villa,' 15.

[54] Rowe's conception of the relationship between meaning and structure has parallels with the contemporaneous work of Cleanth Brooks. I use the term 'irony' here in this Brooksian sense. See Cleanth Brooks, 'Irony as a Principle of Structure' (1951), in David A. Richter, ed., *The Critical Tradition: Classic Texts and Contemporary Trends*, 3rd. ed. (Boston: Bedford/St. Martin's, 2007), 797-806. On the question of textuality in Rowe, see the concluding paragraph of Peter Eisenman, 'The Rowe Synthesis,' in Marzo, *L'architettura come testo*, 57.

[55] This is, of course, an important precedent for Peter Eisenman's reading of Giuseppe Terragni and, transposed from analysis to practice, his own early houses. See Eisenman, *The Formal Basis of Modern Architecture*, chapter 2; and Peter Eisenman, *Giuseppe Terragni: Transformations Decompositions Critiques* (New York: The Monacelli Press, 2003). As Hight has written, with respect to the effects of Rowe's discourse on architectural design in general, 'Methods of analysis used by the texts of the critic, historian, and theorist had become generative of new objects produced by the designer.' Hight, *Architectural Principles*, 84. As Payne points out, [this portion of] the 'Mathematics' essay applies Wittkower's consideration of the relationship between syntax and vocabulary [Payne, 'Rudolf Wittkower,' 339], which, Payne has suggested, is "probably […Wittkower's] most original contribution." Payne, 'Rudolf Wittkower,' 328. Yet, I would argue, Rowe's emphasis on the experience of the work, qualifies this alignment with Wittkower (see note 48 above).

[56] "He has thus, without adopting anything from Semiology, without caring a fig for Cultural Studies, brought Architecture squarely into Culture. Architecture of any period can be scrutinized for its potential as idea.' Maxwell, 'Rowe's Urbanism in *Collage City*," in Marzo, *L'architettura come testo*, 156.

[57] Figures crucially important in this transformation, all in some way indebted to Rowe, were Alison and Peter Smithson, Reyner Banham, James Stirling, Robert Venturi and Denise Scott Brown, Peter Eisenman, and Charles Jencks.

[58] Rowe, 'The Mathematics of the Ideal Villa,' 13.

[59] This is to situate the origin of Rowe's relative emphasis on the conceptual and perceptual aspects of architecture in his first work. For a discussion of the shift in emphasis toward the latter, in particular, as that occurs in Rowe's essay 'Character and Composition,' and the relationship of this shift to the influence of Hitchcock, see Eisenman, 'The Rowe Synthesis.'

[60] See Colin Rowe and Robert Slutzky, 'Transparency: Literal and Phenomenal' (1955-56), *Perspecta* 8 (1963) 45-54, repr. in Rowe, *The Mathematics of the Ideal Villa*, 159-183.

[61] Rowe, 'Neo-'Classicism' and Modern Architecture I' (1956-57), *Oppositions* 1 (1973), repr. in Rowe, *The Mathematics of the Ideal Villa*, 123.

[62] In a recent essay, published after the initial draft of this paper, Anthony Vidler, writing on Rowe's 1961 essay on Le Corbusier's La Tourette (near Lyon, 1956-60) discusses the importance of frontality and depth in Rowe's transformation from historical comparison to formalist criticism. Suggesting this fundamental aspect of Rowe's criticism owes its origins to Wölfflin's notion of plane/recession in *Principles of Art History* (1915), Vidler, emphasising the difficulty of the piece for Rowe, argues the La Tourette essay is perhaps Rowe's "finest exposition," because it was "one of the very few of Rowe's articles to be devoted to a single building, with few comparative, 'Wölfflinian' examples to deploy." Anthony Vidler, 'Up Against the Wall: Colin Rowe at La Tourette,' *Log* 24 (Winter-Spring, 2012), 11-12.

[63] Rowe, 'The Mathematics of the Ideal Villa,' 15-16 (my emphasis).

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[64] Colin Rowe, 'Introduction' to *Five Architects* (1972; Oxford: Oxford University Press, 1975), 3.
[65] Rowe, 'Introduction,' 3.
[66] Rowe, 'Introduction,' 3.
[67] Rowe, 'Introduction,' 3.
[68] Rowe, 'Introduction,' 3.
[69] Rowe, 'Introduction,' 3 (my emphasis).
[70] Rowe, 'Introduction,' 3.
[71] Rowe, 'Introduction,' 3-4.
[72] Rowe, 'Introduction,' 4.
[73] Rowe, 'Introduction,' 4.
[74] Rowe, 'Introduction,' 5.
[75] Rowe, 'Introduction,' 5. See the conclusion to Banham, *Theory and Design in the First Machine Age*.
[76] Rowe, 'Introduction,' 5.
[77] Rowe, 'Introduction,' 5.
[78] "Without an unflagging consciousness of flux and of the human efforts which this implies, without a continuous ability to erect and to dismantle the scaffolds of reference, then […] it is entirely impossible to enter and to occupy those territories of the mind, where, alone, significant creation moves and flourishes." Rowe, 'Introduction,' 5.
[79] Frampton, 'Frontality vs. Rotation,' in *Five Architects*, 9.
[80] Colin Rowe, 'Addendum 1973,' to Rowe, 'The Mathematics of the Ideal Villa,' in *The Mathematics of the Ideal Villa*, 16.
[81] Vidler notes that even though Rowe distanced himself from Wölfflinian criticism in the addendum, he nevertheless immediately persisted with it. Vidler, 'Up Against the Wall,' 9-10.
[82] For readings of Rowe that are instrumental in these more recent developments, see R. E. Somol, (ed.), *Form Work: Colin Rowe*, a special double-issue of *Any*, 7-8 (1994) and R. E. Somol, 'The Law of the Colon,' in *In Form Falls Fiction: Misreading the Avantgarde in Contemporary Architecture*, doctoral dissertation (Chicago: The University of Chicago, 1997), 29-61.

Re-*discovering* Wardell's Chantry Chapel for Lord Petre: a crumbling fabulation

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Abstract

In January 2009 The Times *reported that the Historic Chapels Trust (HCT) was undertaking the preservation and conservation of the Chantry Chapel of Thorndon Hall, near Brentwood, Essex, England, once the seat of the Petre family, one of England's oldest Catholic families. The chapel has lain severely neglected for many years with missing and loose tiles, blocked gutters, and heavily eroded stonework. In spite of its desperate need of repair, inside, glimpses of the richly carved and lavishly decorated interior remain, witness to exquisite craftsmanship. Because of its quality Nikolas Pevsner had attributed the building to A W N Pugin. More recent research has established that in fact William Wardell was the architect.*

By 1854, when Lord Petre commissioned this mausoleum for his estate, Wardell would have been especially known for his London curvilinear decorated churches at Greenwich, Clapham and Hammersmith. Wardell produced three complete sets of drawings for the Chantry Chapel. Drawings for all three designs are extant, and give valuable insights into Wardell's design methods and the evolution of his design thinking. They raise questions about Early Victorian and High Victorian Gothic sensibilities and establish Wardell's architectural and design credentials beyond a doubt. This paper explores Wardell's debt to Pugin, posits the Chantry Chapel as a rival to Pugin's St Giles Church, Cheadle, and considers the question of patronage.

Now acknowledged to be 'of outstanding architectural and historic interest ' by HCT and English Heritage, the Chantry chapel - a crumbling fabulation - is the subject of major heritage considerations. Questions about authenticity in rebuilding and reconstruction are currently overridden by the urgent need to secure the structure from collapse.

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Introduction

In January 2009 *The Times* reported that the Historic Chapels Trust (HCT) was undertaking the preservation and conservation of the Chantry Chapel of Thorndon Hall, near Brentwood, Essex, England, once the seat of the Petre family, one of England's oldest Catholic families. It was not until December 2010 that I visited the Chantry Chapel – now a building in desperate need of repair. Clearly the chapel has lain severely neglected for many years with missing and loose tiles, blocked gutters, and heavily eroded stonework.[1] Inside however, glimpses of the richly carved and lavishly decorated interior remain, witness to craftsmanship of the highest order. Because of its quality Nikolas Pevsner had attributed the building to A W N Pugin.[2] Archival research undertaken as part of my doctoral studies in the 1980s brought to light William Wardell's original drawings in the Mitchell Library, State Library of New South Wales, that establish beyond doubt that William Wardell was the architect of this exquisite Chantry Chapel.[3]

By 1854, when Lord Petre commissioned this mausoleum for his estate, Wardell would have been especially known for his London curvilinear decorated churches at Greenwich, Clapham and Hammersmith. Wardell produced three complete sets of drawings for the Chantry Chapel. Drawings for all three designs are extant, giving valuable insights into Wardell's design methods and clearly documenting the evolution of his design thinking. The drawings raise questions about Early Victorian and High Victorian Gothic sensibilities and establish Wardell's unique architectural and design credentials, refuting Rosemary Hill's claim that he was *just* an imitator and admirer of Pugin.[4] This paper explores Wardell's debt to Pugin, posits the Chantry Chapel as a rival to Pugin's St Giles Church Cheadle and considers the question of patronage.

Now acknowledged to be 'of outstanding architectural and historic interest' by HCT and English Heritage, the Chantry chapel - a crumbling fabulation - is the subject of major heritage considerations. Questions about authenticity in rebuilding and reconstruction are currently overridden by the urgent need to secure the structure from collapse.

'… a crumbling fabulation'

An unexpected email in 2007 from the Historic Chapels Trust (HCT) in the UK has led to an amazing journey of re-*discovering* Wardell's 1854 Chantry Chapel for Lord Petre. This crumbling 'fabulation' raises questions of Gothic or romantic fantasies, ruined buildings or sublime fantasies, where

> an engagement with the historical record and its stories, told and untold, its memories and amnesias … invoke the thresholds of the real and the imagined, … time and space, … process and outcome, theory and practice.[5]

The Historic Chapels Trust (HCT) was established in 1993 to take into ownership redundant chapels and other places of worship in England, which are of outstanding architectural and historic interest. HCT was considering taking on the Chantry Chapel and wanted to know if any information on the building or any knowledge about its architect existed? After much correspondence, the HCT became convinced of both the Chantry Chapel's architectural and historic significance and ordered a feasibility study in 2008.[6] Most of this report is a visual conditions study of the building, externally and internally, and its site. It is therefore largely descriptive and focused very much on a practical outcome for this neglected dilapidated stone pile. Purcell Miller Tritton writes

> The building stands in an isolated position to the south west of the house. Thorndon Hall has now been sold and converted into flats. The parkland around the site (including the area immediately surrounding the Mausoleum) has become a country park. The Petre Family no longer use the Mausoleum and it became redundant a number of years ago. The inspection report has been prepared in connection with the Feasibility Study to convert the Mausoleum into a columbarium [a vault with niches for urns containing ashes of the dead] and to use the churchyard as a place of burial for cremated remains.[7]

What becomes evident as one reads Purcell Miller Tritton's lengthy report is growing respect and appreciation for the architect, the building, its design, its placement on the site and the craftsmanship. Their recommendations become tempered by the Chantry Chapel itself. The question of restoration, conservation, preservation, reconstruction and adaptive reuse in relation to the integrity of such a fine building becomes subtly interwoven into a conditions report. A few examples suffice. The authors consider the design of the chapel to be of a 'sensitive nature', the chapel to be small in scale and 'architecturally delicate'. Purcell Miller Tritton acknowledge the siting as 'a deliberate part of the design' (2.8). They comment on the 'very high quality stonework' externally (4.2.5. 4.3.5) and internally where 'The walls are faced with dressed stone, the workmanship is of extremely high quality with very narrow lime joints ... [testifying to] 'the exceptional quality of the jointing in the stonework' (5.1.14). Internally, the roof is considered to be 'the glory of an already exceptional design' (5.1.2).

Overall, Purcell Miller Tritton see 'The most urgent concern is to restore the integrity of the external envelope' (2.11). With that in mind some of the approaches and recommendations, while architecturally sound, are not always in keeping with the original intent or spirit of the design. Architectural design and craftsmanship are clearly appreciated, but the Gothic Revival, its ideals, theological underpinnings and design principles appear not to have been part of the brief's context or the investigators' consciousness. Where vandalism and decay have occurred at the external niche of the Virgin and Child, the inscriptions around the plinth and below the cornice, and the main altar, recommendations range from 'Ideally these should be restored but it is not vital' (4.3.16); to 'Repairs of carvings would be appropriate, but is not functionally necessary' (5.1.6); 'Restoration of [the altar] is an important element of the overall design' (5.1.12), whereas regarding upper details 'The loss is not particularly obvious, and could be left' (5.1.12). The final recommendation in relation to reuse clearly states 'it would be inappropriate to provide service facilities within the existing building or attached to the existing building' (6.1.1). In January 2009 *The Times* announced that the HCT were indeed taking on the preservation and conservation of the Chantry Chapel of Thorndon Hall.

Figure 1. William Wardell, Chantry Chapel for Lord Petre, Thorndon Hall, Brentwood, Essex. (Photo: author, December 2010)

In December 2010 the author visited the Chantry Chapel with Steven Pilcher from HCT. The Chapel's state of disrepair means it is closed to the public. Guided access is rarely possible, and even then difficult: access could only be gained after a walk through the woodland park, via a muddy ditch and through a neighbouring property. It was such an extraordinary privilege to be able to explore every inch of the building. Blessed with a sunny day, despite freezing temperatures, an opportunity presented itself to begin to unravel and understand relationships. Taking in the site, in awe of the craftsmanship, appalled by the condition resulting from neglect, the stone literally melting back into the ground, finding the familiar and seeking out the new. Then entering the chapel, keys turning – eyes getting used to the dark, to decades of dirt; windows boarded up; the flashlight of cameras revealing such an exquisite interior, surprisingly intact; glimpses of what once was. Spittle used to clean patches of floor tiles, to photograph and read the designs and colours before they iced over once more. A truly overwhelming experience. Here was a *gesamstkunstwerk* from the hands of a gifted architect working with the finest builders and craftsmen of the period.[8] If anything, this Chapel serves to show that 'an ideal *can* be realized through exquisite human action'.[9] Time to step back into the mid nineteenth century Gothic Revival, to be present with Wardell's work, and imagine it as a building site rather than a sublime ruin. This visit was the highlight of a wonderful winter sabbatical and the beginning of further research: into Wardell's work, the Petre family, the craftsmen and the future of this small Chantry Chapel.

An agreement has been reached with the Roman Catholic Diocese of Brentwood for the burial ground to be used for committals and the deposits of cremated remains. HCT has been given a grant offer from English Heritage towards the restoration of the building. Conservation, preservation and adaptive reuse are being actively implemented. In the summer of 2011, HCT got the trees cleared away from around the side of the chapel and the floor cleaned. They also had a 'cherry picker' or hydraulic hoist on site, to allow workmen to replace missing tiles on the roof and straighten up the coping stones. The main purpose was to get the HCT architect and engineer up to observe the spire and report on its condition. HCT are going to have to dismantle the top nine courses – as they are deemed unsafe – whilst they work up the scheme to repair the rest of the building. The HCT website explains that

> The chapel is in the northern portion of the park, south of Thorndon Hall and south west of the village of Ingrave. It is approx 3/8 mile along the track from the Visitor Centre in the Park … The exterior of the chapel can be viewed from

100 yards distance. The chapel interior is currently inaccessible, due to concerns about safety and security. There are no events planned in the foreseeable future.[10]

William Wardell, Chantry Chapel for Lord Petre, Thorndon Hall, Brentwood, Essex.
Figure 2: Left detail of the decayed stone spire; **Figure 3:** Right detail of the interior roof.
(Photos: author, December 2010.)

A Chantry Chapel for Lord Petre

A chantry chapel is an endorsed chapel where one or more priests daily sing or say Mass for the souls of specified persons. William Wardell's Chantry Chapel at Thorndon Hall, near Brentwood, Essex, was designed for the Right Honorable Lord Petre. The Petre ancestry has been traced back to the sixteenth century when Sir William Petre (1505?-1572) distinguished himself in the service of King Henry VIII.[11] The Catholic ninth Lord Petre commissioned James Paine to build the 'classical' mansion and chapel known as Thorndon Hall in the early 1760s.[12] Wardell's Chantry Chapel, or mausoleum, was commissioned in 1854, to form an addition to the Thorndon Hall Estate. It was to stand apart in the grounds of Lord Petre's home, and was designed in the Gothic Revival style - that is the Pointed or Christian style - without reference to Paine's earlier designs. The Chantry chapel, as built, is reminiscent of Wardell's earlier decorated churches, especially the church of Our Lady of Victories at Clapham, in its elegant exposition of the curvilinear decorated mode, its fine proportions and high degree of finish.

In a number of respects however, the Chantry Chapel design is unique in Wardell's oeuvre. Financial constraints, a consideration which consistently plagued nineteenth century Catholic church architects and builders, presented no barrier to architectural design in this instance. *The Catholic Handbook*, 1857, was pleased to note that 'no expense has been spared in its erection'.[13] The wealthy private patron, the Right Honourable Lord Petre, commissioned the work for his family estates in 1854 when Wardell was already well known in Catholic circles. Indeed Lord Petre himself wrote to Wardell '... the means I have of forming an opinion of your qualifications [comes] from the knowledge I possess of your numerous works in various parts of the kingdom ...'[14]

By 1854 Wardell would have been especially known for such commissions as Greenwich (1846-1852), Dorchester-on-Thames (1847), Clapham (1849-1851) and Hammersmith (1851). Though the Greenwich and Clapham church designs were conceived in the forties, they were not completed until the fifties. One can therefore surmise that when he commissioned Wardell to design a Chantry Chapel, Lord Petre knew and admired Wardell's earlier ideas rather than his current design developments, of which he would have had little knowledge. Wardell's extant drawings for the Chantry Chapel show that he saw the commission as an opportunity to experiment and test some new ideas.

Three sets of drawings

For the Chantry Chapel project, Wardell produced three complete sets of drawings.[15] Because drawings for all three designs are extant, they are able to give us valuable insights into Wardell's design thinking and into his methods of design development. They also tell us something about the evolution of design ideas within the mid-nineteenth century Gothic Revival and highlight the differing perceptions, understandings and expectations of the Gothic Revival by patron and architect.

Two folios of presentation drawings (each consisting of eight separate sheets) were drawn for Lord Petre. These initial proposals were designated Designs A (Figure 4) and B (Figure 5) by the architect. One can only surmise that the executed design - Design C (Figure 6) - resulted from the discussions between patron and architect that were sparked by these two markedly different proposals.

Figure 4. William Wardell, Design A, Chantry Chapel for Lord Petre, 1854, ML SLNSW (Ursula de Jong, 'From England to Australia: the architecture of William Wilkinson Wardell 1823-1899', unpublished PhD, Monash University, Clayton, 1989)

Figure 5. William Wardell, Design B, Chantry Chapel for Lord Petre, 1854, MLSLNSW (Ursula de Jong, 'From England to Australia: the architecture of William Wilkinson Wardell 1823-1899', unpublished PhD, Monash University, Clayton, 1989)

All three designs featured a chapel over a crypt with sacristy attached. It is in the architectural articulation of the plan that major variations occurred. These stemmed from quite different sensibilities. Design A looked forward to realising a High Victorian Gothic composition in its boldness and simplified detail. Design B adhered much more to early Victorian ideas. Design A was dominated by large buttresses that rose to the height of the eaves, interrupted the roof lines, and supported Wardell's envisaged stone rib-vaulted ceiling. It was the dream of every Gothic Revival architect to build a stone vaulted ceiling, which was considered the epitome of medieval achievement. But in most nineteenth century commissions, costs were prohibitive. This commission, however, seemed to present an ideal opportunity for this dream to become reality.

The proportions of this bold design, as seen in the east and west elevations and the buttresses, retained the slender elegance that is characteristic of Wardell's work, but the building was defiant rather than humble. Structure was treated assertively: whilst

structure had always been the primary consideration in Wardell`s architecture, here it dominated the composition to a degree not previously seen. This Chantry Chapel's appearance was monumental and belied its size. It commanded the landscape rather than being subservient to it.

In contrast Design B resembled a small village church. Though reminiscent of the Dorchester-on-Thames, the overall conception of the Chantry Chapel Design B was simpler, and pared down to chapel size. Confining the buttresses to the walls (a more usual practice) gave the appearance of a lower elevation, and the attitude of a humbler building embraced by a large steep roof. A bell turret completed the octagonal stair well between sacristy and chapel. An arch-braced timber roof with projecting angels was proposed in place of the stone vaulting in Design A. Both Designs A and B were provided with curvilinear/ decorated tracery for the windows, though their design and size varied.

The patron's decision to reject Design A (Wardell's preferred design?) outright cannot be presumed to have been financially motivated, considering the lavish expenditure on ornamentation in the final product, Design C. Design A did not meet Lord Petre's expectations, bearing little resemblance to Wardell's built work in the decorated style which he knew so well. It was very possibly not to Lord Petre's taste either, for it clearly signalled a 'new' sensibility. Design B seems to have found more favour, but was too demure and plain. Design B did, however, become the working model for the executed Design C, which became an exquisite essay in the middle pointed decorated style.

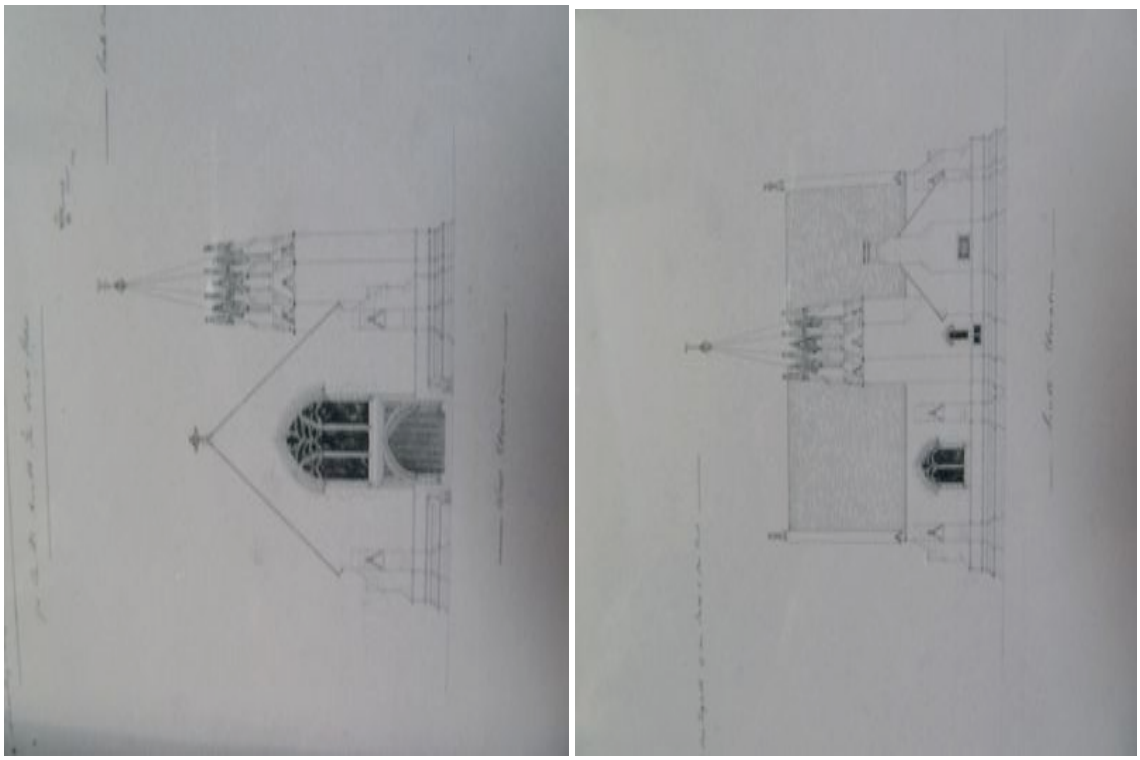

Figure 6. William Wardell, Design C, Chantry Chapel for Lord Petre, 1854, ML SLNSW Drawings for executed design: **Left**: west elevation. **Right**: South elevation. (Ursula de Jong, 'From England to Australia: the architecture of William Wilkinson Wardell 1823-1899', unpublished PhD, Monash University, Clayton, 1989)

In the Chantry Chapel Design C, there was an overall upward adjustment in height; the bell turret became a substantial octagonal tower and spire with numerous crocketed pinnacles. The windows were enlarged, the tracery was enriched in the best curvilinear tradition, and ornament abounded. Design C clearly exemplifies that Wardell's buildings could incorporate a substantial degree of structural and decorative elaboration where a wealthy patron made this possible. But it also demonstrates clearly Wardell's belief that decoration could only enhance the essential construction.

Indeed Wardell's form, massing and overall composition delight. Characteristic Wardell features are readily discernible in this late decorated essay. The chapel sits well in its landscape, on a slight rise surrounded by the old oaks of the estate. The natural stone, ragstone, used in the construction gives a rustic texture and solidity to the composition. This contrasts in each elevation with the continuously worked freestone coursing around the base, which gathers together and unifies the design elements, which themselves interrupt the surface at all junctions. Ornamentation is concentrated, to heighten the contrast between rugged plasticity and flowing abstract lines, between the smooth slate spire and encrusted growths on pinnacles, between the clearly defined gable outline and the fanciful gargoyles and the terminating cross. The nodding ogee arch appears over

Our Lady's niche, next to the side porch. Bony's observations on the play on depth and three dimensional effects dear to fourteenth century English architects are also apt in Wardell's case, where

> ... the solidity of matter seemed to dissolve ... The masonry itself became astonishingly flexuous, as the soft curve of the ogee emerged out of the wall plane, rooted often in the recess of deep niches and swinging forward into the tilted points of nodding ogees.[16]

Internally this concentration of ornamentation on structural members continues, for example around doorways or at the junction of roof trusses with horizontal beams; the ornate gilded and painted interior with an angel roof is breathtaking. Like the medieval artisans and craftsmen, Wardell was inspired by the potential of decorated forms. While the possibilities of design configurations seemed bounded only by the imagination of the artist himself, in practice they were also bounded by architect-patron relations.

While Wardell bowed to the inclination of his client, consideration must also be given to what the expectations of Lord Petre were, when he commissioned Wardell. From the decisions made effecting changes in Designs A and B, it seems clear that Lord Petre wanted a small but exquisite chapel in the decorated mode as at Clapham. Stylistically, therefore, the Chantry chapel belongs to an earlier phase of Wardell's oeuvre. It was not blessed and opened until 1857, almost a decade after the initial conception of Greenwich and Clapham. Lord Petre considered that he had employed Wardell 'upon a work offering great scope for the exhibition of talent and ability.'[17] These were admirable sentiments, even though in this instance, the Patron did not allow for growth and development in the architect's work. Lord Petre did not expect Wardell to depart from his earlier established Gothic modes. Phoebe Stanton rightly points out that

> ... the "autonomy" of the architect which Barrington Kaye has defined as "the possibility of disagreement between architect and client on matters of style and design" was limited as long as precise reproduction of Gothic [or in this case Wardell's curvilinear decorated style] was sought and required.[18]

Yet, Lord Petre had every reason to be exceedingly pleased with the fine building produced by Wardell. He wrote to Wardell: 'This you executed entirely to my satisfaction, and in a manner which has gained the unqualified approval of all who have seen it ...'. He was proud to note that approval had come from 'some of the best architectural judges of the day.'[19] These were unfortunately not named.

Figure 7. William Wardell, Design C Chantry Chapel for Lord Petre, 1854. Early 20th century photograph, taken from SE corner. Ursula de Jong, 'From England to Australia: the architecture of William Wilkinson Wardell 1823-1899', unpublished PhD, Monash University, Clayton, 1989

Gothic as a creative language for architectural design …

James Stevens Curl argues that Gothic brought a 'liberating breath' to architecture and that the inventiveness and success of Victorian architects were due to their 'understanding of planning, massing, detail, colour and the language of medieval figurations or symbols that could be combined in an infinite number of ways.'[20] While Curl refers here specifically to W Butterfield, J.L. Pearson and James Brooks, all high Victorians, the architect and engineer Wardell also understood Gothic as a language of architecture in which to create anew. But for Wardell Gothic architecture was synonymous with his Catholic faith. It was Pugin who named Gothic architecture 'Pointed or Christian Architecture' in 1841.[21] Anthony Symondson SJ has argued that for Pugin and a number of converts (Wardell too was a convert at an early age) that

> Catholicism was synonymous with art. The highest expression of art was the architecture of the Middle Ages … It was medieval Catholicism which he and the early converts venerated. … [Pugin] propound[ed] his conviction that Catholicism and Gothic art were intimately associated.[22]

Symondson explains further that the '… main battle of the early years of the Oxford Movement was the recovery of the meaning and value of sacraments …', and that the doctrinal controversies over the Eucharist in the 1840s and 1850s were to have major consequences for the development of worship and church planning.[23]

Wardell spent many years studying medieval architecture at first hand, and early in his professional career adopted the Decorated mode of Gothic as his own.[24] He created freely within that idiom, providing numerous churches for an expanding Roman Catholic community in England. Wardell had a sensitive appreciation of architecture as a developing art. He never became an antiquarian or a professional copyist in his adaption of medieval forms to modern needs. Numerous excursions throughout England enabled Wardell to study medieval architecture closely and to come to an understanding of the principles on which that art was founded. It was Eastlake who wrote that ' … nothing is easier than to design a church which shall be perfectly orthodox in plan and general appearance from an ecclesiological point of view, nothing more difficult than to design one which shall be effective and interesting in an artistic sense'.[25] Wardell was able to successfully adapt the medieval English parish church to the diverse needs of the Roman Catholic Church in the nineteenth century, where money was rarely forthcoming for lavish embellishment. He frequently showed 'how effective Gothic architecture might be made where it simply depends for effect on artistic proportion'.[26]

Wardell's patronage from within the Catholic Church ranged from the wealthy private patron (such as Lord Petre) to the poorest urban Catholic communities (such as Poplar, East London and Kelso). This was directly reflected in the diversity of his commissions, not only in the planning, size, articulation and elaboration of the buildings themselves, but in the settings: idyllic, picturesque, open rural spaces or cramped, restrictive urban sites. It was the flexibility of the Gothic style which enabled the parish church model to incorporate these varying parameters under the guidance of a creative and imaginative architect. As Ruskin so beautifully put it:

> [Gothic] can shrink into a turret, expand into a hall, coil into a staircase or spring into a spire, with undegraded grace and unexhausted energy ... subtle and flexible like a fiery serpent but ever attentive to the voice of the charmer.[27]

Examples such as the churches of Dorchester-on-Thames, Greenwich and Clapham establish Wardell as part of the mainstream of the early decorated phase of the Gothic Revival in Britain. But more importantly, the quality of that work identifies him as a

significant contributor to the early phase of the Victorian Gothic Revival. In 1848, very early in his career Wardell referred to A W N Pugin as 'one of the greatest Christian architects of modern times'.[28] He thus not only signalled his allegiance to the Gothic language of architecture, but to Gothic as the language of Christian architecture, an architecture underpinned by theology.

While faith was at the heart of design for Wardell, he was also an architect working in the Puginist tradition of picturesque rationalism. 'An architect should exhibit his skill', Pugin had written, 'by turning the difficulties which occur in raising an elevation from a convenient plan into so many picturesque beauties.'[29] These romantic notions of composition remained fundamental to Wardell's architectural designs throughout his English professional career. Yet in his oeuvre, there is an obvious general shift from decorated to geometric, as Wardell gradually moved away from the interpretation with which he began, to a greater boldness and simplicity of architectural expression. The proposals for Lord Petre's Chantry Chapel, Design A and Design B, document this clearly.

Apart from a few comments Wardell scribbled on the architectural drawings, there are no detailed written records of how he worked, designed or composed his buildings. An understanding and interpretation of Wardell's concept of character and composition therefore needs to be reconstructed, or deduced from, a study of his drawings and the extant buildings seen in the context of a nineteenth century architectural milieu. One aspect clearly emerges from these sources: Wardell's over-riding consideration was the building as a unified architectonic whole.

The dichotomy set up through the articulation of separate parts, whilst governed by a unified design, led Wardell to explore the relationship between, and conjunction of, these parts. This study led to a conscious and systematic exploration of architectural form. The need for a holistic approach led Wardell ultimately towards a greater appreciation of the French interpretation of Gothic architecture as evidenced in his drawings for Primrose Hill, London, in 1857, and finally realised at St Patrick's Cathedral, Melbourne, in 1858. In pursuing a holistic approach to architectural design, Wardell stood apart from many of his nineteenth century colleagues. In 1877 Gerard Manley Hopkins had written to Butterfield complaining that

> … this generation ... do not understand how to look at a Pointed building as a whole having a single form governing it throughout, which they would perhaps

> see in a Greek temple: they like it to be a sort of farmyard and medley of ricks and roofs and dovecots.[30]

A century later, in a general discussion of 'Character and Composition' in the nineteenth century, Colin Rowe concurred with Hopkins, observing that architectural order was generally 'reduced to characteristic particles' by the demand for character in buildings.[31] For Wardell however, composition was a disciplined 'putting together' of parts (beyond intuition), and character was the exterior effect of that 'putting together.'

As indicated on his architectural drawings, Wardell's buildings rested upon solid foundations. Ruskin had argued in *The Stones of Venice* that the foundation was

> … to the wall what the paw is to an animal. It is a long foot, wider than the wall, on which the wall is to stand, and which keeps it from settling into the ground. It is most necessary that this great element of masonry should be visible to the eye.'[32]

Already in 1846 at Greenwich, Wardell was giving effective expression to the foundations in the subtle cambers he gave to the wall base. The gentle stepping up from foundation to walling was elaborated further at the Chantry Chapel. Upper walls of natural stone, usually quarried locally, rested upon these solid foundations.

Materials contributed greatly to the character of building. A number of Wardell's churches are built of ragstone. The Chantry Chapel is faced with coarse ragstone with limestone dressings. Alec Clifton-Taylor describes 'rag or ragstone' as a 'generic term applied to any stone of hard or coarse texture that is not a freestone'. He continues '… although Kentish rag includes some sandy patches which do not answer to this description, its general character is rough, brittle and difficult to work: even squared blocks can only be obtained with difficulty.'[33] The 1935 Mitchell's Building Construction - Elementary Course, contains the following information under Kentish Rag:

> Walls of this type ... are built of a compact heavy, unstratified limestone largely found in Kent in beds from 6 inches to 3 feet in thickness alternating with quartzose sand. It absorbs very little water and resists the weather well. It is not suitable for internal work, as moisture condenses upon its surface. The blocks are roughly dressed to a polygonal form and being fitted with a hammer as they are bedded in the wall.'[34]

It is interesting that the axe-faced finish of the ragstone of Wardell's buildings emerges because of the hardness of the stone. This very tactile, plastic surface of Wardell's churches greatly enhanced the mass of the building, enabling it to express bulk. The massiveness of Wardell's own architectural work is pleasing. Already in 1849, Ruskin had observed that 'The relative majesty of buildings depends more on the weight and vigour of their masses than on any other attribute of their design.'[35] Massiveness is inherent in Wardell's expression of the sculptural qualities of architecture and clearly expressed in the Chantry Chapel.

Wardell shared with Pugin, and other contemporaries, a romantic delight in rough texture. Pugin had found that ancient rubble walls '… yet impress the mind with feelings of reverent awe'[36] and argued in *True Principles* that their irregular patterns were preferable to those of regular dressed ashlar, where the jointing will 'by its lines interfere with those of the building'.[37] In Wardell's treatment of the walling at, for example, Greenwich the thickness of the layers varied with availability of stone, and stone size within each layer varied considerably. Thus the lines of the stonework did not interfere with the architectural lines of the building. Another point to be remarked upon in 'ancient', that is Gothic, masonry was the smallness of the stones employed. Pugin argued that 'large stones destroy proportion'.[38] That Wardell also heeded this advice is still evident in the Chantry Chapel.

The contrast between the roughly hewn rock of the walls and the smoothly dressed stone of the details enhanced the tactile qualities and reinforced the plastic and architectonic expression of Wardell's architecture. In *The Stones of Venice*, Ruskin perceived both as a form of duty, writing that ' … In the main, we require from buildings, as from men, two kinds of goodness; first the doing their practical duty well; then that they be graceful and pleasing in doing it; which last is itself another form of duty.[39] Wardell's work appears to have fulfilled both 'duties' admirably. The very high quality stonework at the Chantry Chapel attests to the skill of the stonemasons and carvers in contributing to a superbly integrated work.

Wardell's combination of elegance and massivity was also infused with symbolic content. Whilst the tall slender proportions of the nave and spire soared heavenwards, the architect was mindful of the earthbound worshipper. The church was a concrete expression of man's way to salvation: as he entered the church through the small ground-hugging, welcoming porch he bowed his head, humbling himself before God. As he

entered the House of God, his eyes were uplifted, his mind filled with higher truths.[40] The interior experiences of Wardell's churches are memorable. Even in its ruinous state the remarkably intact interior of the Chantry Chapel bears witness to this. After the massiveness of the exterior, the interior lightness, space and articulation are welcome.

Though planning, construction and composition were paramount among Wardell's architectural concerns, no English parish church was complete without some ornamentation. What form that ornament should take, and how it should be applied formed the basis of numerous nineteenth century treatises and discussions. Pugin's second great rule for design states 'that all ornament should consist of enrichment of the essential construction of the building'.[41] The design reformer Owen Jones took ornament as a measure of civilization. His Grammar of Ornament opens with the categoric statement that ornament 'must necessarily increase with all peoples in the ratio of the progress of civilization'.[42] Ruskin went a step further. Thompson states that

> … for him architecture only began when a building was taken beyond mere practicalities, so much so that 'ornamentation is the principal part of architecture' and unadorned buildings have little to do with art.[43]

It was Ralph Adams Cram, who, fifty years later, could look back and see the faults of the followers of Pugin's practical examples and Jones' and Ruskin's theoretical pronouncements.

> … of the frontals and superfrontals [of high altars]', Cram wrote, 'it may be said that the majority of modern examples err in that they are too often conceived simply as pieces of embroidery not as integral parts of an architectural ensemble.[44]

Internally and externally, Wardell's ornament is everywhere liturgically and structurally integrated with the architecture. Wardell's study, deep understanding and sympathy for fourteenth century Gothic architecture clearly evident at Dorchester-on-Thames, Greenwich and Clapham, is again revealed in the masterly composition presented to Lord Petre in the final Design C for the Chantry Chapel.

Architectural ornament even at its most lavish could not in Wardell's case be seen to constitute a folly. Early in his career, Wardell had made a careful study of symbols and their meaning. As a result many pages of his own Sketchbook 'Specimens of Gothic

Architecture' were devoted to this essential subject for nineteenth century church builders. At the Chantry Chapel there are remnants of a Latin inscription entwined with decorative foliage in the first course of the plinth on all four elevations. In relation to Lord Petre's Chantry Chapel, *The Catholic Handbook* commented not only on the ample funds lavished upon it, but, more significantly on the thought that had gone into the planning and erection which enabled 'every decoration and inscription [to] hav[e] reference to the purpose of the place.'[45] Wardell's holistic approach to architecture was evident in even its smallest details.

A remarkable story of creative design unfolds in a close examination of Wardell's tracery work. Something of the 'visionary quality of irrepressible inventiveness'[46] of the early years of the fourteenth century seems to have excited Wardell. One particular medieval example became almost a leitmotif, appearing again and again in a great variety of combinations. A beautiful curvilinear window, circa 1350, at Castle Ashby, Northhamptonshire, was drawn by Wardell in his Sketchbook.[47] In 1846 he used its form for the Chapel of the Most Holy Sacrament at Greenwich. It was the central grouping of elongated flexuous daggers and falchions which particularly attracted Wardell. The size and relationship of the seven parts were altered (as at the Chantry Chapel, western window); reduced to five units (as in the Clapham western window and western aisle window; in the Hammersmith chapel window and in the Abingdon east window) or three units (as in the Chantry Chapel, south window); and variously filled the central panel (as at Clapham, Hammersmith, Chantry Chapel and Abingdon) or the whole head of the window arch (as at Clapham in the west aisle).

Figure 8. William Wardell, Chantry Chapel for Lord Petre, Thorndon Hall, Brentwood, Essex. Detail of tracery of west window. (Photo: author, December 2010)

The design of window tracery called for special skills. Apart from the artistic talent needed to design the abstract patterns incorporated in the window head, which in itself required a considerable knowledge of geometry, the stonework of the window had to be arranged in a series of orders. Thus the larger the window, the more complicated the subdivisions. The tiny church of St. Birinus, Dorchester-on-Thames, offers several noteworthy examples of tracery design. The variety of patterns is remarkable. Lines are freely curved in a lively individual composition for each window. The foils are deeply incised and elaborately cusped, so that a real sculptural quality co-exists with linear pattern. Even Wardell's critic 'JR' in *The Tablet* recognised the excellence of the tracery at Dorchester:

> ... The altar window is of beautiful decorated design and the windows of the nave are good though somewhat deficient in height, while the details are collectively commendable and some of them beautiful ...[48]

The East window is a variation on Wardell's favoured leitmotif, with five curved segments to the large central panel and three to either side. The smallest window is that dedicated to St. Birinus, and consists of a single cinquefoil lancet. Yet, for all the attention that was

lavished on the largest and smallest windows, the most striking and memorable examples are those in the North and South walls of the church. They bear something of the mark of their creator: a strength and determination not found in the east window, for instance. An element of the boldness of Wardell's later architectural compositions (as in Design A of the Chantry Chapel) is already present in these tracery pattern designs.

Just as a gradual shift in emphasis occurred in Wardell's architectural design conceptions, a change in compositional motifs became discernible in Wardell's tracery work. In the fifties a perceptible shift from curvilinear decorated to geometric tracery patterns took place. The development was not clear-cut and certainly not without exceptions. It followed an overall general trend in the fifties to simplify. Wardell sought to clarify his architectural compositions, by paring them down to essentials. Changes in tracery patterns went hand in hand with this development, until Wardell achieved a harmonious synthesis once again at Our Lady and St Andrew's Galashiels (1856-1858).

The journey of re-*discovery* continues

While Wardell's Chantry Chapel, was an original and masterly nineteenth century essay in the Decorated mode, coming late in his oeuvre it could not be perceived as innovative, daring and challenging as Pugin's St Giles was a decade earlier, but it provided contemporaries with a standard of design that was rarely achieved, in a *gesamstkunstwerk* worthy of comparison with St Giles.[49] Indeed Nikolas Pevsner considered it so fine a building that he attributed it to the architect of St Giles: A W N Pugin.

There is no immediate assumption that a building as specialised as a chantry chapel would necessarily become the yardstick by which to judge Wardell's ecclesiastical architecture; or a building by which he would challenge architectural design and taste. To do so in this case, would have been to misunderstand the nature of the project and its relationship to Wardell's oeuvre. It is clear that the unexecuted, alternative designs for the chapel have more to do with Wardell's later designs than the version finally built. Wardell's proposed Design A, rather than the executed Design C, pointed in the direction his work would take. In the end, the unexecuted Design A with its bold architectural expression formed the basis for the church of Our Lady and St. Andrew, Galashiels, in 1856. Prior to the completion of the church at Galashiels, its patron, Hope-Scott, wrote 'The shell I am well pleased with. It is massive and lofty, no side aisles, but chapels between buttresses - and no altar-screen - more like a good college chapel than a parish church.'[50]

While the Historic Chapels Trust, through heritage practice, now negotiates continuities with the past and looks forward to establishing a future for Wardell's crumbling fabulation - the 1854 Chantry Chapel for Lord Petre - the process of re-*discovery* has raised questions about gaps in knowledge, about histories untold, about interpretation, as well as 'myths' passed down through the writing and images of the Chantry Chapel's architectural history. These have raised questions about the 'truth-value' of the past, about perceptions and perspectives that frame our architectural histories. The journey of re-*discovery* continues.

Endnotes

[1] Refer to Historic Chapel Trust's 'Thorndon Mausoleum, Thorndon Park, Brentwood Feasibility Study', March 2008, PURCELL MILLER TRITTON LLP architects, designers and historic buildings consultants

[2] Source*: English Heritage:* Listing NGR: TQ6148091443. There is some information (about 250 words) on Thordon Hall in "The Buildings of England - Essex" by Niklaus Pevsner. This series provides one volume for most counties in England. The article states "Built by James Payne for Lord Petre. Begun in 1764. ...The house was burnt out in 1878 and the only remaining room of consequence is the Chapel in the East Wing. ... Hidden in the grounds Mausoleum and Chantry Chapel for the Petre family by A W N Pugin. ... The grounds were laid out in 1766-1772 by Capability Brown at a cost of £5000." A footnote states: Recent excavations on the site of Old Thorndon Hall have shown three main periods of construction and alteration from 1414 to 1570-90. Most of the ground plan has been recovered.

[3] Ursula de Jong, "From England to Australia: the architecture of William Wilkinson Wardell 1823-1899", unpublished PhD, Monash University, Clayton, 1989; catalogue E22

[4] Rosemary Hill, "Who is Pugin? The architect and the age", in Brian Andrews, *Creating a Gothic Paradise: Pugin at the Antipodes* (Hobart: Tasmanian Museum and Art Gallery, 2002), 11

[5] SAHANZ XXIX, 2012, "Fabulation: Myth, Nature, Heritage." 29th Annual Conference of the Society of Architectural Historians Australia and New Zealand, University of Tasmania, Launceston, Tasmania, 5-8 July 2012, Call for Papers.

[6] HCT, Thorndon Mausoleum, Thorndon Park, Brentwood Feasibility Study March 2008, PURCELL MILLER TRITTON LLP architects, designers and historic buildings consultants.

[7] HCT, Thorndon Mausoleum, Thorndon Park, Brentwood Feasibility Study March 2008, PURCELL MILLER TRITTON LLP architects, designers and historic buildings consultants, 2.1

[8] The Petre papers have now been lodged in the Essex library and this research is yet to be completed.

[9] Leland Roth, *Understanding Architecture. Its elements, History, and Meaning* (USA: Westview Press, 2007), 240. Leland Roth is discussing the Parthenon, in his chapter on Greek Architecture.

[10] Refer to HCT website, and page for the Chantry Chapel: http://www.hct.org.uk/chapels/east-england/chantry-chapel-and-burial-ground-thorndon-park-essex-grade-ii/27

[11] Refer to: *Dictionary of National Biography*, Volume 15, 979-983; *Burke's, Peerage, Baronetage and Knightage*, 102nd ed, (London, 1959), 1782 ff. It is worth recording that some members of the Petre family remained loyal to Catholicism. Indeed the fourth Baron Petre (1622-1684) was accused of being destined for high office under the Jesuitical regime and committed to the Tower in 1678.

[12] Refer to the Welsh Papers, MS 13/1/1 p.19, R.I.B.A. Library, Portland Place, London (The Welsh papers are now held in the Victoria and Albert Museum Archives).

[13] *The Catholic Handbook*,1857, 14

[14] Lord Petre, Testimonial to Wardell, 29 May 1858, published in booklet form, London, 1858, 9. Mitchell Library Archives, SLNSW.
[15] These are held in the Mitchell Library Archives, SLNSW.
[16] Bony, Jean, *The English Decorated Style: Gothic Architecture Transformed 1250-1350* (Oxford: Phaidon, 1979), 28
[17] Lord Petre, Testimonial to Wardell, 29 May 1858 published in booklet form, London, 1858, 9. Mitchell Library Archives, SLNSW
[18] Phoebe Stanton, *The Gothic Revival and American Church Architecture. An Episode in Taste 1840-1856* (Baltimore: The John Hopkins Press, 1968), 319-320.
[19] Lord Petre, Testimonial to Wardell, 29 May 1858 published in booklet form, London, 1858, 9. Mitchell Library Archives, SLNSW
[20] James Stevens Curl, *Victorian Architecture: Its Practical Aspects* (Newton Abbot, UK: David and Charles (Holdings) Ltd, 1973), 42 and 43. The Victorian architects Curl had in mind were W. Butterfield, J.L. Pearson and James Brooks.
[21] A W N Pugin, *The True Principles of Pointed of Christian Architecture* (London: John Weale, 1841)
[22] Anthony Symondson SJ, "Theology, worship and the late Victorian Church", in Chris Brooks and Andrew Saint. (eds.), *The Victorian Church: Architecture and Society* (Manchester,UK: Manchester University Press, 1995), Chapter 9, 192.
[23] Anthony Symondson SJ, 'Theology, worship and the late Victorian Church', 193. Symondson notes that Daniel Rock was the father of liturgical scholarship, a reaisant priest who was domestic chaplain to the Earl of Shrewsbury and later Canon of St Georges Cathedral Southwark. Wardell owned his books *Hierugia: or the Holy Sacrifice of the Mass*, published in 2 Vols in 1833, and his 3 vol *Church of our Fathers* published between 1849 and 1853. A rare personal letter from Daniel Rock to Wardell survives in the Mitchel Library, SLNSW: on the occasion of the death of the Wardells' young son. In 1852, when Pugin was dying, Dr Rock wrote to the Earl of Shrewsbury recommending William Wardell to finish the work at hand at Alton. Pugin thought Dr Rock 'spiteful'. Shrewsbury declined, remaining 'loyal' to the Pugins. Rosemary Hill, *God's Architect, Pugin and the Building of Romantic Britain*, (London: Penguin/ Allen Lane, 2007), 486, n 10, 11, 577.
[24] Refer to Ursula de Jong's unpublished PhD, 'From England to Australia: the architecture of William Wilkinson Wardell (1823-1899)', Monash University, 1989, chapter 6
[25] Charles Eastlake, *A History of the Gothic Revival* (1872), (New York: Leicester University Press, 1978), 292
[26] Charles Eastlake, *A History of the Gothic Revival*, 323
[27] John Ruskin, *Works*, 10:212, quoted in George Gilbert Scott, *On Gothic Architecture Secular and Domestic* (London: John Murray, 1857), 117 and George Hersey, *High Victorian Gothic* (Baltimore: Johns Hopkins, 1972), 33-34
[28] *The Tablet*, 28 October 1848, 69. (Note JR 's criticism of Dorchester-on-Thames, *The Tablet*, 21 October 1848, 675-6, and Wardell's response *The Tablet*, 28 October 1848, 69.)
[29] Pugin, AWN, *TheTrue Principles of Pointed or Christian Architecture*, (London: J Weale, 1841), 71. Sir Joshua Reynolds in 1786 had already advised architects to 'take advantage sometimes to that which the Painter should always have his eyes open, the use of accidents to follow where they lead, and to improve them, rather than always to look to a regular plan ... As buildings depart from regularity they now and then acquaire something of scenery ...' *Literary Works* (London, 1835), Volume II, 76. Discourse III delivered in 1786.
[30] Gerard Manley Hopkins, quoted in Paul Thompson, *William Butterfield* (London: Routledge and Kegan Paul, 1971), 305.
[31] Colin Rowe, "Character and Composition; or Some Vicissitudes of Architectural Vocabulary in the Nineteenth Century", in Colin Rowe, *The Mathematics of the Ideal Villa and Other Essays* (Cambridge, Mass./London: The MIT Press, 1976), 80
[32] John Ruskin, *The Stones of Venic*e (London, 1850), I, Chapter IV
[33] Alec Clifton-Taylor, *The Pattern of English Building,* revised (ed.) (London: Faber and Faber, 1972), 65
[34] *Mitchell's Building Construction - Elementary Course* (London: Batsford, 1935), 123, 124. See also Moxley, Raymond (revised), *Mitchell's Elementary Building Construction*, (London: Batsford, 1959), 106, 104.
[35] John Ruskin, *The Seven Lamps of Architecture* (London: Smith, Elder & Co., 1849), 91
[36] Pugin, *True Principles*, 53

[37] Pugin, *True Principles*, 19
[38] Pugin, *True Principles* 19
[39] Ruskin, *The Stones of Venice*, Volume 1, Chapter 2
[40] The Ecclesiologist provides contemporary evidence to support such an interpretation. The Ecclesiologist, 1 (1841-2), 21, in its criticism of Edmund Sharpe's small church stated '... and there were no porches which are necessary in chapels to signify humility.' Ten years later the Ecclesiologist, 12 (1851), 219, quoted Henry Phillpotts, Bishop of Exeter, who explained that '... the church's magnificence far from raising these people in their level of life, was intended to impress upon them the inevitably of their squalor' and 'solace [them for] that poverty to which the providence of GOD had consigned them' (in George Hersey, *High Victorian Gothic,* 72 and 96-98 respectively.) Ideas relating to the nineteenth century interpretation and understanding of theology in relation to the arts has been explored by J.L. Altholz, in his essay "The Warfare of Conscience with Theology", in J.L. Altholz, (ed.), *The Mind and Art of Victorian England* (Minneapolis: University of Minnesota Press, 1976, and G.P. Landow, *Victorian Types, Victorian Shadows. Biblical typology in Victorian Literature, Art and Though*t (London: Routledge and Kegan Paul, 1980)
[41] Pugin, *True Principles*, 1
[42] Owen Jones quoted in Thompson, *William Butterfield*, 123
[43] Thompson, *William Butterfield*, 126, quoting John Ruskin, "Lectures on Architecture," Works, xii, 83
[44] Ralph Adams Cram, *Church Building, A Study of the Principles of Architecture in Their Relation to the Church* [1899], 3rd (ed.), (Boston: Marshall Jones Co., 1924), 169
[45] *The Catholic Handbook,* 14
[46] Jean Bony, *The English Decorated Style. Gothic Architecture Transformed 1250-1350* (Ithaca, NY: Cornell University Press, 1979), 28.
[47] Wardell's Sketchbook I, 'Specimens of Gothic Architecture', 166
[48] 'JR' in *The Tablet*, 21 October 1848, 675-6
[49] Refer to Pugin's own description of St Giles' Church, Cheadle, August 1846. Available on the Pugin Foundation website www.puginfoundation.org/ as a fully illustrated downloadable pdf. 'This description has been transcribed, with original punctuation and spelling, from: Lord Shrewsbury's New Church of St. Giles, in Staffordshire: being a description of the edifice, and an account of the Consecration and Opening. By the editor of Dolman's Magazine. Charles Dolman, London, 1846, pp. 6–13. Images by Brian Andrews, Nicholas Callinan Bishop Geoffrey Jarrett and John Maidment.'
[50] Robert Ornsby, *Memoirs of J.R. Hope-Scott* (London: J.Murray, 1884), Volume II, 223. Wardell used the massive lofty design again in 1859, for St John the Evangelist College within the University of Sydney, Australia, albeit combined with a refined curvilinear decorated expression.

Tracking Sustainability:
A critical survey of the architectural language of sustainability

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Abstract

*Since its emergence in the field of architecture the language of sustainability has thoroughly infiltrated architectural discourse and practice. However, the term is not used in a unified or univalent manner. Both concept and meaning of the word are contested. Owen and Dovey ('Fields of sustainable architecture', 2008) identify a range of attitudes regarding sustainability, many criticising its multiplicity of meaning, and ambiguity. The diversity of approaches, a plurality embraced by Guy and Moore (*Sustainable Architecture and the Pluralist Imagination*, 2007), invites investigation into the language of sustainability, its multiple meanings, uses and conceptualisations in architecture(al) discourse.*

My research tracks the language of sustainability in contemporary Australian architectural discourse, through the metaphor of weaving, to write new hi(stories) for sustainability. Undertaking a critical survey of language in use, using Corpus Linguistics methods as a tool to analyse linguistic patterns, a series of narrative themes are unravelled. Not necessarily explicit, or foregrounded in the discourse, these linguistic patterns are driving multiple conceptualisations of sustainability in architecture – a multiplicity of meanings and metaphors, mythologies, metanarratives, and particular worldviews. Through a multi-layered creative work these threads are re-woven into new stories, to be used as lenses from which to re-read works of sustainable architecture in various ways.

In this paper I will discuss the initial phase of my research project which involves a combination of research methods from linguistics, information visualisation, and creative work in order to produce new, and potentially more productive, hi(stories) of sustainability in Australian architectural practice.

Introduction

As a word that is continuing to increase in its frequency of use, and its variety of usages, sustainability is now a common term in architectural discourse and practice. However, the uses of this term are not unified, nor is it deployed in a univalent manner, as both concept and meaning of sustainability are highly debated. Current critiques of sustainability reveal a general concern for its efficacy, due particularly to its multiple meanings and uses, and thus its ambiguity. These conditions are generally viewed as a failing of language, prompting various proposals for linguistic solutions to the dilemma.

Criticism over the perceived ambiguity and multiplicity of sustainability highlights the need for a critical examination of the use of the term in architectural practice. Rather than offering another language 'solution' my research suggests that emergent, contextual and shifting meanings of the term, embracing ambiguity and multivalency, can be potentially productive drivers in the conceptualisation of sustainability in architecture. This narrative emerges through three interconnected aspects of the research: 'tracking' the multiplicity of conceptualisations of sustainability in Australian architecture through a critical survey of language use; 'unravelling' the multiple uses of the term according to repeated narrative patterns and themes; and 'weaving' new (hi)stories for sustainability as productive drivers in the material reality of architecture.

Sustainability Contested

Ambiguity and multiplicity of meanings are generally perceived to hinder architectural production and effective communication in the pursuit of sustainable architecture. Jantzen[1] laments that sustainability has come to mean all things to all people, claiming it is increasingly misused in architecture, such that the term is in danger of becoming a mere label. Owen and Dovey perceive a reduction in the term's potency, and thus its devaluation, through overuse, misuse and renegotiation[2]. They attribute the inconsistent and competing definitions of sustainability to its uncertain and confused usage in architecture.

Responding to the perceived meaninglessness of sustainability, a variety of solutions has been offered, seeking unification and agreement, aiming to reduce multiplicity and eliminate ambiguity, valorising clarity. These 'solutions' treat language as neutral and controllable, proposing: clarification of meaning; a hardening or closing down of meaning; redefining or eliminating 'sustainability' entirely; and coining new replacement terms, such as regeneration, resilience and symbiosis.

'Dictionaries' of sustainable architecture[3] offer 'proper' definitions for words comprising the language of sustainability. These dictionaries ignore the multiplicity of meanings and uses of the terms both within and outside of architectural practice. They are uncritical about the language they purport to explain, treating it as a neutral vehicle for communication, requiring only clarity of meaning. Raymond Williams argues that complaints of misunderstanding and misuse of words extend from 'a sacral attitude to words' fixated on 'strict' meaning. He suggests looking beyond the current list of 'proper' meanings into the historical meanings of words where,

> we find a history and complexity of meanings; conscious changes, or consciously different uses; innovation, obsolescence, specialization, extension, overlap, transfer; or changes which are masked by a nominal continuity so that words which seem to have been there for centuries, with continuous general meanings, have come in fact to express radically different or radically variable, yet sometimes hardly noticed, meanings and implications of meanings.[4]

In contrast to these 'dictionary' solutions, some theorists argue that ambiguity and multivalency should be considered foundational to the concept of sustainability, and to language itself. Rather than lament the inability to standardize a singular approach to sustainability in architecture, others celebrate its pluralism, contesting the desire for certainty. Guy and Moore[5] call for an embracing of diversity, encouraging openness to a plurality of positions as a more productive approach. Rather than seeing flexibility as a constraint, they suggest a positive role for multiplicity in contestation, argument, debate, and constant improvement. Guy[6] challenges the search for a true, incontestable, consensual definition of sustainability, arguing that a premature fixing of definitions closes down debate, squeezing out important alternate stories. He calls for an open process of negotiation and criticism, where multiple opinions and perspectives are equivalently valid and desirable. He emphasises the role of conversation to open up the debate to other possibilities, and encourages exploration of the language we use to talk about sustainable architecture.

Similarly, some theorists argue a case for language that is open to change, that embraces ambiguity and multiplicity as productive, and recognises that the contextual construction of meaning is in a constant state of flux. Stanley Fish[7] claims that dictionaries, grammars, and histories assume that meanings can be specified independently of the activity of reading, but meanings are created in, and by, the activity

of reading. He questions the assumed distinction between ambiguous and non-ambiguous, arguing that conditions of ambiguity and clarity are not linguistic, but contextual and institutional – they are decided upon by the reader. Linguistic straightforwardness is thus influenced by background conditions (the reader's interpretive community), which determine what the reader will take to be its meaning. Paul Carter[8] points to the dominant institutional preference for clear, unambiguous language as the source of concern for ambiguity. This attitude, he argues, threatens the inventiveness of discursive creativity, which depends on equivocation – the possibility that something might mean something else. Instead of enclosing discourse in fixed meanings, ambiguity keeps alive discourse's physical, originary sense of a 'running hither-and-thither'. Unlike the linguistic regulation of a dictionary, Carter celebrates discourse's inherent playful ambiguity.

Following this, and Roland Barthes approach of semantic proliferation, my project allows multivalency to proliferate, as multiple meanings are explored simultaneously, in parallel, as equally valid interpretations of language. Possibilities of meanings are made possible by sustainability's ambiguity, and these possibilities will be explored and played with in systematic, yet creative ways. The interpretation is thus, personal, yet multiple, as I interpret, yet I also engage in the architectural language of sustainability. I am both speaker/user and reader/interpreter, and in doing so, I allow the dualities of the language to unfold: both the lack of and excess of meaning; the meaninglessness and excessive meaningfulness of terms.

Sustainability Means

Recognising that words change their meanings over time, Adrian Forty discusses the use of keywords, their metaphors, histories, and meanings, in architectural texts. He acknowledges 'the constant flux between words and meanings, of meanings' pursuit of words and words' escape from meanings.'[9] Explaining a multiplicity of meanings at any one given time, Forty proposes that there are no single meanings just possibilities of meanings:

> …the history of language is not one of the straightforward replacement of one meaning by another…but rather a process of accumulation as new meanings and inflections are added to existing words without necessarily displacing the old ones…[10]

Fish explains that when we are unsure about meaning, we settle on one, but 'the other has been a part of our experience, and because it has been a part of our experience, it *means*.'[11] Fish regards the reader's activities not as waiting for meaning, but constituting meaning. Thus, the reader's experience depends on his/her associations (or lack of) with a particular word. The reader is always making sense or interpreting what was intended. Perhaps, rather than being meaningless, sustainability, in this sense, *means*, and it does so in excess, its meanings are both multiple and contextual.

Tracking Sustainability

Wittgenstein's oft cited quote 'the meaning of a word is its use in the language'[12] suggests a relationship between meanings and uses of words. Wittgenstein uses language games to show that one understands a word if one knows how it is used, how to use it, and how to respond appropriately to its use. Hence the question of meaning/lessness (or excessive meaningfulness) is not simply one focused on exploring the multiplicity of *meanings* of sustainability, but also of *uses* of sustainability.

In recent years, a new approach to investigating language patterns and change has been formalized through Corpus Linguistics, with a focus on context, on language in use. Corpus Linguistics operates within the framework of a 'contextual and functional theory of meaning' – actual language use rather than Chomsky's generative grammar or competence. It is concerned not with what people think or think they know, but how language functions in actual language use, considering the context that phrases occur in. Corpus Linguistics uses computerized procedures to extract and manipulate large amounts of actual language (called corpora) searching for patterns or repetitions with an interest in probability, typicality, and frequency. Such techniques are useful in identifying unconscious language patterns, such that 'The language looks different when you look at a lot of it at once.'[13] Corpus-based analysis points to patterns in language (both frequent and rare) which can be interpreted to suggest the existence of discourse patterns. Kenny explains a corpus based approach to language to be like a kaleidoscope 'allowing us to see textual patterns come into focus and recede again as others take their place,' [14] allowing the uncovering of hidden patterns of language.

Corpus-based discourse analyst, Paul Baker, claims that '…words do not have static meanings, they change over time. They also have different meanings and triggers for different people.'[15] We can observe changing contexts, meanings and frequencies of word use over time and/or across sources. We can explore the specific ways language was, and now *is*, used, in order to understand the basis of current meanings, collocations

(words occurring close together) and discourse prosodies (attitudes of negativity or positivity) of particular words and phrases. Baker describes the results as a series of linguistic 'snap-shots' – allowing discourse patterns to be *seen*, and thus *tracked*.

Amongst other tools, Corpus Linguistics uses concordance analysis to investigate instances of a particular word in context, to look at patterns of use. Concordance lines (occurrences of a node word in context) expose typical usage and meaning distinctions. In this approach, it is the co-text – the surrounding text – that disambiguates. Thus Hunston[16] claims the meaning of a phrase is in its co-text. It is the linguistic patterns that carry meaning, not a word in itself. Words have different meanings depending on the pattern in which it is used, therefore, 'you shall know a lot about a word from the company it keeps.'[17] My project, therefore, begins with a concordance analysis of the co-text of sustainability, in order to track the narrative patterns in which the term is used. Statistical and empirical Corpus Linguistics methods of concordance analysis are utilised as a tool in this research to discover repeated and non-explicit patterns in language, which are then re-interpreted to explore the un-quantifiable in sustainable design. Commonly interested in investigating the representation of sustainability in the media, Corpus Lingusitics is used here as a tool, a methodology, within the paradigm of architecture, within the architectural profession itself.

Unravelling Sustainability

The first step of this project involves a survey of the multiple uses of the term sustainability*,* initiated through a pilot study of one journal considered representative of mainstream Australian architectural practice, *Architecture Australia*. The pilot study consisted of a corpus exploration of the use of the word sustainability in *Architecture Australia* from 1996-2010 (full texts publicly available online), using the computational software Ant-Conc[18] and focusing on concordance analysis to track the word's meanings, usage and co-text over a 15-year period. Through analysis, categorisation and sorting of concordance lines in *the corpus* a number of narrative patterns have emerged. These have been grouped into families of narrative themes, or threads ready to be unravelled. Not necessarily explicit, or foregrounded in the discourse, these narrative patterns are driving the multiple conceptualisations of sustainability in contemporary architectural practice – a multiplicity of meanings and metaphors (understood via Lakoff and Johnson's Conceptual Metaphor theory)[19], mythologies, metanarratives, and particular worldviews - which are all open to further enquiry.

The narrative patterns are collated into five main themes, looms on which sit multiple threads, allowing multiple processes of unravelling and re-weaving these threads. Like a musical scale, they consist of a certain arrangement of notes, ready to be rearranged in new melodies. These themes are classified through the following categories: epistemological (including threads of the ethical, religious, philosophical, knowledge, uncertainty, and centrality); assemblage (crisis, conflict, holistic, balanced, precision, technocratic, unity, multiplicity, solutions and centrality); process and trajectorial (care, lead, guide, change, nostalgic, journey, goal, time); implementational and utilization (nature, resources, commodification, institutionalisation, politicization, game); and emblematical (community, liveability, communication, urbanity, aesthetics).

Exploring Sustainability

These threads are available to be re-woven in multiple layers creating new hi(stories) for sustainability along the previously identified lines of meanings, metaphors, mythologies, metanarratives, and worldviews. In this approach, history is understood as being made up of stories, stemming from the Greek notion of *historia*. It follows an indigenous concept of history as storytelling: each time a story is told it is renewed. Thus, my research aims to discover how stories proliferate through discourse in architecture, using sustainability as a lever to initiate this investigation.

The initial sets of stories to be unravelled in my research are those belonging to the mythological register, and these find expression through the language of sustainability in at least three different ways: the role of the architect; the traditional mythology of the ethics of authenticity; and the modern myths of the saving power of technology associated with the global process of greening. The following narrative excerpts are woven directly from the language of *the corpus* (citations are printed in italicised text), expanding just one of these identified mythological threads: the mythological role of the Architect as demiurge – figured as a warrior fighting for justice; a hero saving humanity from impending doom; a leader guiding the naïve public and unenlightened professionals; an agent of change; and a guardian or caretaker of the environment.

- The Architect Warrior is *a sustainability pioneer* facing *a morass of sustainability issues,* and leading *a design-led revolution in built environment sustainability.* This *revolution is happening on multiple fronts.* The Warrior's *mission (is) to advance sustainability, strive for sustainability,* and ensure design and *sustainability aren't compromised.* It *takes some courage.* The Warrior is *under interrogation,* by his enemy the *developer, those nasty people,* and faces *an invasion of adults,* who

will undermine (the project's) long-term sustainability. He/she bravely *tackles the polemical issues of sustainability,* in order to reach *the sustainment.*

- The Architect Hero recognizes *the absolute importance of sustainability* and that its *analysis is vital to progress. In the face of the sustainability crisis*, *the present crisis* when *resources such as water are scarce,* and *in the face of devastated ecosystems,* the Hero asks *the critical question* of sustainability. *Crucially for sustainability,* the hero *emphasizes the pressing concerns* of *sustainability imperatives* in *a race against time.*
- The Architect Leader, with *great commitment and insight, provides a lead to society, to bring awareness of sustainability issues* aiming to *positively influence behaviour.* He/she offers *international leadership on sustainability, to lead and guide in sustainability* as a *leader in the field.* The Leaders *are known for their commitment to sustainability* and their *expertise in sustainability*, aiming *to address sustainability by example. Architects are well placed to inspire sustainability reform, to promote urban sustainability* through *encouragement* and *promotion to the public.*
- The Architect Change Agent is *Making a Difference. Architects are well placed to help effect change.* In order to do so, he/she has *to think and to see differently, to accommodate sustainability* and instigate *changed social practices,* achieved by prompting *a shift in mentality, the shift toward sustainability.* The Change Agent's role is *implementing change, to inspire sustainability reform, to help effect change, to effect real change, as great change agents.* He/she is *extraordinary*, *progressive, explores innovations,* has *innovative ideas, an inventiveness,* accepts *incentives to drive innovation,* creating *innovative architecture, developing new housing types, unique, new building projects and retrofits,* so *exciting architecture can emerge*.
- The Architect Guardian feels *the deepening concern for the environment* and is *concerned broadly with sustainability, trying to save the environment.* The Guardian's *attention to sustainability, commitment to sustainability,* and *concerns about sustainability,* including a k*ey environmental concern,* centres around a *sensitivity to landscape* through *consideration of the natural and urban landscape.* In *valuing the social and environmental sustainability,* with *sustainability at its heart* and *greater attention to sustainability issues,* the Guardian recognizes *the need to nurture the creative process* in *reflecting about sustainability a bit more deeply.*

Proliferating Sustainability

Whereas architecture's use of the term is highly criticized for its multiplicity and ambiguity (in the negative sense) and thus its meaninglessness, my research reveals a plurality of usages and variances of the meanings of sustainability – an excessive meaningfulness. This multi-valency does not render the term entirely meaningless, as each meaning has an associated conceptualisation that is potentially productive in both the discourse on architecture and its material reality. These *are* the uses, meanings and variabilities found in the data, and within the discourse's narrative themes, and in their existence they have meaning. Even the variability itself is classifiable, and therefore, limited and specifiable.

In my forthcoming research, the narrative themes already identified will be further investigated through an expansion of the pilot study. I plan to unravel these threads and re-weave them in multiple ways, forming new hi(stories) for sustainability, then use them as lenses through which to critically analyse a selection of built projects that claim to be *sustainable*. The multiple storylines developed in the weaving will be used to obtain new and multiple readings, or interpretations. As each thread is picked up, a new story is told, and thus a new reading is enabled. In doing so, the research will explore how these narrative patterns both frame and reflect multiple conceptualisations of sustainability in practice. The surveyed findings will be utilised to develop a discourse about the way sustainability becomes embedded architecturally, and explore different conceptualisations of it through different stories.

Through a re-weaving of multiple narratives discovered in the architectural language of sustainability I aim to explore the productive capacity of language to frame multiple conceptualizations of sustainability in architecture. Rather than lament the multiplicity, and associated ambiguity, I would choose to embrace and further elaborate them so as to produce new perspectives on the discourse and production of sustainable architecture. The combination of research methods utilized has allowed the foregrounding of multiplicity and demonstrated its productivity. Encouraged by Guy's call to explore the language we use to talk about sustainability, and Halliday's desire to observe and chart the currents and patterns of change[20], the graphic survey has become an 'imagetext'[21] for further 'reading'. This method demonstrates that language is geared to the production of stories – not to the definition of meanings, but to the proliferation of possibilities of meaning. Working into and between various interpretations of the term, innovative and productive meanings and trajectories for design can be developed, and extended into new perspectives for moving forward in sustainable architecture.

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Influence and Resistance
The Rationale of *al-'Imarah* Discourse (1939-1959)

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Abstract

This paper examines an untold narrative within Egyptian architectural history that is intimately connected to global history in the twentieth-century. In 1939, the Egyptian architect Sayed Karim (1911-2005), who returned to Egypt after earning his PhD in Switzerland, founded the first architectural journal al-'Imarah *(1939-1959) which preceded the establishment of a national professional syndicate for architects. According to Greig Crysler in* Writing Spaces *(2003), the discursive 'spaces of knowledge' created in scholarly journals can influence the 'priorities and values that inform professional practice, and hence, the built form of cities.' Inspired by Crysler's critical insights, this analysis of* al-'Imarah*—the only journal published in Egypt at this time—will reveal the discrepant influences that shaped this discursive space of knowledge to better understand twentieth-century architecture in Egypt. The foundation of* al-'Imarah *is important as it coincides with both the critical period of transition following independence from British colonisation and the height of the modern movement in Europe. Accordingly, the analysis of this discourse highlights imperialism, as a global process, and how it became a conduit of intellectual production within the professional sphere. Such patterns of colonialism and independence had already resulted in a discursive interplay between two essential forces of influence and resistance, which eventually shaped a 'structure of attitude and reference', as articulated by Edward Said. This paper identifies these forces operating in complex and unexpected ways within the discursive space of* al-'Imarah *and argues that they underpin the rationale for the journal and, in turn, a number of intriguing projects.*

Influence and Resistance: An Untold Anecdote

In 1937 Egyptian architect Sayed Karim was invited, together with other architects of different nationalities, to discuss contemporary architecture in Egypt during a session at

The Architectural Universities Conference in Czechoslovakia. Each of the other panellists chose to illustrate their presentation with reference to their national architectural periodicals. However, with no Egyptian journal to refer to, the audience made fun of Karim, doubting if 'the Egyptians have had any architecture other than the pyramids'.[1] This criticism was repeated at the 1938 conference in Warsaw. On this occasion Karim's Swiss supervisor Otto Salvisberg whispered to him ''What is the name of the magazine that you will launch in Egypt when you return?' I wrote *'al-'Imarah*, January 1939'...this was a pledge.'[2] For Karim, this was a critical moment in his career. A year later he returned to Egypt after earning his PhD and founded the journal *al-'Imarah* [*Architecture* in Arabic].[3]

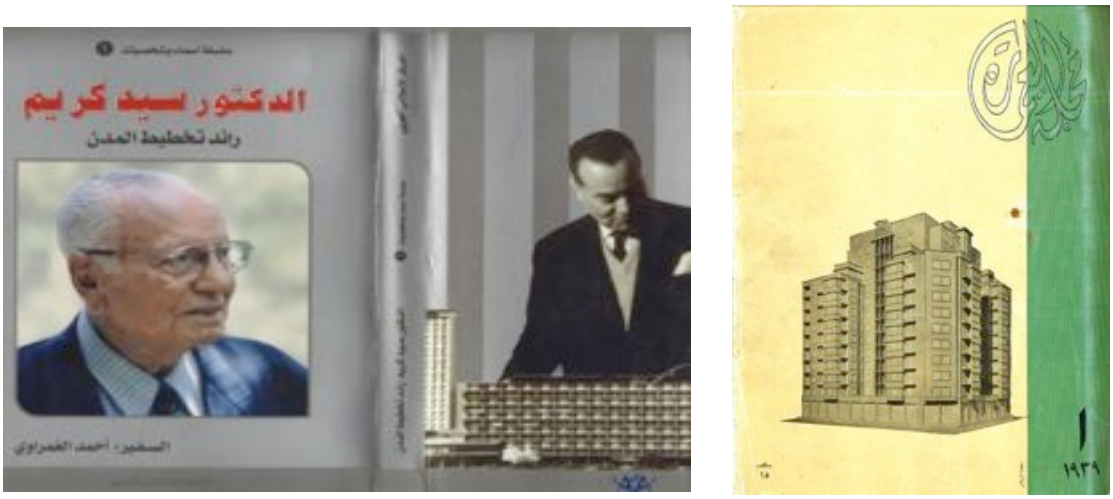

Figure 1.Two portraits of Karim, in his late thirties and at the age of ninety. (Dust jacket from Ahmad al Ghamarawy, *Dr. Sayyed Karim: Ra'ed Takhteet al-Modon* (Cairo: Centre of Arabic Media, 2004))
Figure 2. Cover of the first issue of *al-'Imarah*

Therefore, the establishment of *al-'Imarah*, the first architectural journal in Egypt and the Arab region, was simultaneously motivated by Karim's aspirations for progress (enhanced by his study abroad) and nationalistic sentiment. Upon his return to Egypt, Karim aimed to educate students at Cairo University about the international style. However, he was strenuously opposed to the constraints of academia which championed resistance to universal influences. He resigned and established his private firm *al-'Imarah* from which he launched the journal of the same name so as to construct his own 'space of knowledge'.[4] In order to challenge the status quo, Karim had to configure ways of disseminating his vision that have led to a unique and discursive relationship between 'influence' and 'resistance'—not the simple inside/outside dipole that Frampton articulates[5]—which constituted the two essentials of discourse. This untold anecdote of the birth of *al-'Imarah* reveals, therefore, two recognisable forces of influence and resistance operating simultaneously, and in unexpected ways to generate a structure of

attitude and reference which the eminent cultural Edward Said offers the critical impetus to investigate. [6]

Many scholars have taken postcolonial theory and criticism, notably the oeuvre of Said, as their point of departure to analyse the architecture of the Middle East, notably: Lawrence Vale, *Architecture, Power, and National Identity* (2008), Sandy Isenstadt's edited volume *Modernism and the Middle East: Architecture and Politics in the Twentieth Century* (2008); Nezar AlSayyad's *Forms of Dominance* (1992), and his most recent study *Cairo* (2010); and Timothy Mitchell's *Colonising Egypt* (1988).[7] These sources have focused on the distinctive nature of the institutional systems, whether colonial or national, and how they mobilised modernity for political objectives.[8] However, these rich studies do not delve into the micro 'spaces of knowledge': the professional discourses that reveal how such colonial and/or national structures have been mobilised within these discourses.

The discourse of *al-'Imarah* has, however, been studied by the historian Mercedes Volait in her French text *L'Architecture Moderne en Egypte et la Revue al-'Imara 1939-1959* (1987) as part of her analysis of the development of modern architecture in Egypt. Volait argues that *al-'Imarah'*s 'message' was to introduce 'a particular mode of thinking and problem solving',[9] which manifested a 'complex process' through which a 'transfer of ideas' ensued.[10] This complex process, Volait elaborates, presented national and international architecture as 'two conjunctions' that faced each other.[11] Therefore, she concludes, modern architecture in Egypt is 'controversial—in the dialectic of a double movement whose terms could be summarised as': 1. Solutions for contemporary rural and housing problems; 2. The institutionalisation of 'modernity as a principle of reality and a principle of production'.[12] These two terms that Volait coins a double movement (a decision to accept this new knowledge or not) highlight how architecture in Egypt has been 'confronted with the uniformity of constructed objects, or trivializing them'.[13] In this way, Volait's examination of *al-'Imarah* focused on the analysis of a 'vehicle of "modern" architecture'.[14] And how *al-'Imarah* contributed to the adaptation process of new ideas through a new approach to problem-solving in the Egyptian profession. Volait stated in her introduction that *al-'Imarah* 'is the archive of modern architecture in Egypt, allowing us to follow its evolution, its production and discussions'.[15] The examination of the national question in Volait's study was not from a post-colonial perspective but as one of many questions posited by *al-'Imarah such as* the social role and the technological role. The argument of this paper generally aligns with Volait's summarisation of modernity in Egypt, specifically, *al-'Imarah's* endeavour to solve contemporary problems through the

institutionalisation of modern principles. However, what this paper tries to highlight is that Karim's adoption of such principles was channelled through the 'structure of attitude and reference' as a result of the post-colonial experience which has never been discussed by Volait.

Karim's authoritarian role in configuring *al-'Imarah'*s space is an indispensable part of *al-'Imarah'*s origins that highlights imperialism as a global process continuing to shape the intellectual production. This authoritarian role was shaped in uneven and often discordant ways by the simultaneous forces of influence and resistance. According to Said, the concept of influence pertains to the justification and reinforcement of imperial power in cultural fields as a result of 'general worldwide patterns of imperial culture' which materialised in 'recognizable cultural formations.'[16] These included education systems, literature, and here architectural discourse. The second concept relates to the 'historical experience of resistance against empire.'[17] Privileging Said's argument in *Culture and Imperialism* (1993), this paper contends that these forces shape the representation of Egyptian architecture in *al-'Imarah* but in complex ways that are not easily reduced to the unambiguous binary Said implies. With reference to Karim's editorial role specifically, these influences are multi-faceted whilst Karim maintained strong resistance to the internal concurrent stylistic trends and external Western subordination–amidst Egypt's transition toward independence.

These multifaceted influences and resistances have shaped *al-'Imarah's* discursive space and rationale, the interaction between both forces, in Said's argument of *Culture and Imperialism* (1993), resulted in a 'structure of attitude and reference' which is manifested throughout the discourse. This Saidian structure of attitude and reference refers to the author's perspective specifically towards imperialism. In this case, this structure 'raises the whole question of power'[18] as it is charted through the author's 'allusions to the fact of empire'.[19] In this way, the 'structure of attitude and reference', this paper asserts, unfolds into a discursive interplay between the two forces of influence and resistance that have shaped the rationale of *al-'Imarah* and its spatial boundaries.

Beyond *al-'Imarah*: Influencing the Space of Knowledge

In the global context, beyond the boundaries of *al-'Imarah'*s discursive space, the launch of *al-'Imarah* coincided with the aftermath of the two world wars. Meanwhile, global 'architecture culture' had considerably shifted to 'constitute the interregnum between modernism and what is now called postmodernism'.[20] *Al-'Imarah* emerged at the time when Modernism had already been crystallised in the writing of the international pioneers:

firstly in Le Corbusier's *Vers une arcitecture* (1923) and his journal *l'Esprit nouveau* (1920-25); then by Wright's *Modern Architecture* (1931); and Gropius' *The New Architecture and the Bauhaus* (1935). However, the International Style, as a consequence of the Modern Movement, was only propounded by Henry-Russell Hitchcock and Philip Johnson in 1931-1932. Their 'denatured concept'[21] prioritised technological and scientific advances and distilled architecture from contextual specificity. The dissemination of the international style globally, and within newly independent countries who sought progress, was aided in Egypt by Karim.

Beyond *al-'Imarah'*s boundaries, Egypt witnessed a rise of nationalism and self-consciousness at the beginning of the twentieth-century, particularly in 1919 with Zaghlul's revolution. Egyptian resentment toward British colonisation, which was attributed to the deterioration of the country's educational and economic system, reached a peak at this time. In fact, Egyptian nationalism has its origins in the late nineteenth-century, marked by the Urabi Revolution in 1881. This was reframed by the Islamic reformer al-Afghani (1839-1897) and his student Muhammad 'Abduh (1849-1905). Nationalist tendencies, which were suppressed until 1919, rapidly expanded after the First World War.[22] However, the expansion of nationalist influences to professional and intellectual fields was not felt until the beginning of the twentieth-century, and was made manifest in two ways: the formation of professional syndicates and the emergence of new intellectual trends.

Firstly, the establishment of syndicates 'molded into institutional form the growing self-consciousness of professions which were either lacking or quite different in the traditional Islamic world'.[23] A Society of Egyptian Architects formed in 1917 as a turning point for the engineering profession (to which architecture belongs in the Egyptian context). The Egyptian Royal Society of Engineers was subsequently founded in 1920. The engineering syndicate was organised in this same period 'but for political reasons it was not officially recognised and soon disappeared'.[24] Therefore, the legal profession was the first to form a syndicate in 1912, but it would be another 28 years before comparable syndicates were formed, in short succession, for the professions of medicine (1940), journalism (1941) and engineering (1946).[25] This highlights the timely inception of *al-'Imarah* that was established at a time when the profession was still in its fledgling form.

The second, outside *al-'Imarah'*s discursive space, can be traced to intellectual trends within Egypt in the 1920s, partly united under the banner of nationalism and the search for independent identity. In different ways, each of these intellectual positions articulated

a reactionary position towards modernity (perceived as a Western product), and they were evident in a variety of cultural systems.[26] Specifically they included the 'Egyptianists', 'Islamists', and 'universalists'. The influence of each trend can be identified in the built environment of the twentieth-century and, in turn, each intellectual trend influenced the discursive space of *al-'Imarah*.

The first trend, evident in the writing of Ahmad Lutfi Al Sayyid and 'Abas Al 'Aqqad, vantaged indigenous sources—Pharaonism, Hellenism, and Roman-Byzantine traditions—to establish 'Egyptian' identity. The 'principle foci' of the second trend, advocated by Mustafa Kamel, Ahmad Amin, and later Al 'Aqqad and Hykal, were Islam and Arabism. These advocates strove to 'rationalize [tradition] and bring it in harmony with modern national views.'[27] Both the Egyptianists and the Islamists opposed the third trend which championed Westernisation as a sign of national progress. An important, and highly controversial, literary work at this time, which articulated such ambitions, was Taha Husayn's *Mustakbal al Thaqafah fi Misr* (1944) [The Future of Culture in Egypt].[28] This work followed the Anglo-Egyptian treaty in London (1936). Husayn highlighted the fluctuation of Egyptian identity and argued that the Egyptian mentality is mainly Western rather than Eastern unlike the assumptions of the Egyptianists and Islamicists. Husayn concluded that the effect of the three criteria of geography, common language and religion in determining Egypt's Eastern roots is not quite accurate. He argued that Muslims have long realised that these criteria have always been less important in enforcing the cohesion of their states than unified political interests.[29]

These three intellectual trends were materialised in twentieth-century Egyptian architecture. Prior to *al-'Imarah'*s publication, most of the governmental buildings demonstrated a compromise between Pharaonic and Islamic styles. Islamic revivalism is evident in Bank Misr by Antoin Lasiac (1920) and the Building of the Society of Egyptian Engineers by Mustafa Fahmy (1920). While the former façade was Islamic with an overall Renaissance expression, the latter one was neo-Mamluk. There are also subsequent examples of revivalism in the administration building of al-Azhar by Ahmad Charmy (1936). On the other hand, the Pharaonic revival proliferated after the excavation of Tutankhamon's tomb in 1925.[30] This style was made manifest in Sa'ad Zaghlul's mausoleum (1928) and Giza railway station (1925), both designed by Mustafa Fahmy. This blending is also evident in Fahmy's modest projects including the police station of al-Kalifa at the foot of the Citadel[31] and minor railway stations such as the one at al-Qubah Bridge 1927.[32]

These architects, who championed a new 'national architectural style',[33] were exposed to the tenets of Modernism during their study abroad and formed the nuclei of the first generation of Egyptian architects. Through government positions, that used to be held by foreign architects, they were involved in the project of nation building for which they opted to abandon Islamic and Pharaonic revivalism in favour of classicism. Mustafa Fahmy (1886-1972),[34] a graduate of the Ecole des Beaux-Arts (1912), was the minister of public works in 1920 and the chief architect of the Royal Palaces (1930-52); Ali Labib Gabr (1898-1966, Liverpool graduate of 1924), was the head of the Architecture department at Cairo University; Muhamad Raafat (Liverpool graduate of 1923), was the supervisor of buildings and public works in the railways administration; and Mahmud Riad (Liverpool graduate of 1931), was the supervisor of the buildings department in the endowment ministry (1942). It is worth mentioning here that Fahmy, Gabr and Raafat—uncompromising neo-classicists—were the first Egyptians to lecture at Cairo University. They taught classicism to the next generation of architects who included Abu Bakr Khayrat, Ahmad Charmy, Mahmud al Hakim, and many others.

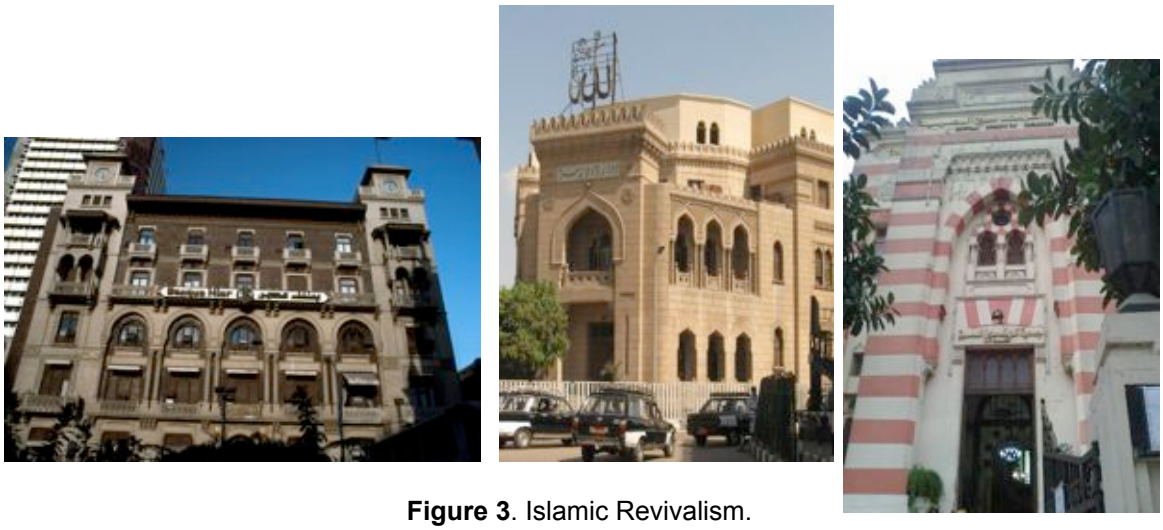

Figure 3. Islamic Revivalism.
From left: Bank Misr, (Photo by Nasser Rabbat, 1985, courtesy of the MIT Libraries, Aga Khan Visual Archive);
Al-Azhar administration (Photo by Joseph Hill courtesy of Flicker);[35]
Entrance of Society of Egyptian Engineers (Photo by El-Ashmouni).

Figure 4. Pharaonic Revivalism.
Saad Zaghlul Mausoleum, Gabriel (Courtesy of Flicker);[36] and
Giza Railway station (Photo by El-Ashmouni).

These architects sought to articulate national identity and to resist internationalism. Art Deco, which prevailed internationally in the 1930s, offered a further highly popular formal vocabulary to fulfil this nationalist objective. Khaled Asfour argues that Art Deco, with its rounded corners, symmetrical massing, and floral ornament, complemented the formal language of architecture in Middle East.[37] Examples of a Mediterranean vocabulary can also be identified in projects like Villa Muhamad Reda Zamalek and Villa Green by the French architect Max Edrei (1889-1979).[38] These examples also signal regional and national tendencies. Considered together, these trends exemplify the diversity of prevalent styles in a period that the Egyptian architect Ashur identifies as a liberal era.

Figure 5. Art Deco, left Villa Om Kulthoom by Gabr; and two façades of Bahari by Nahhas which consists of two separate blocks built in 1934 at the intersection of Muhammad Mahmud street and Tahrir Square (*al-'Imarah* 1939, no.10). Note the horizontal ornamented bands around the balconies as well as the decorative floral motifs.

Figure 6. A Mediterranean vocabulary in Villa Hussein 'Erfan in Maadi; Villa Green, (*al-'Imarah* 1939, no.1).

This liberalism also encompassed Modernism, although it was by no means the dominant language. This is evident in two apartment blocks by Antouin Nahaas:[39] Madam Enji (which was the first project reviewed in *al-'Imarah*), and Metri located in Garden City, Immeuble of the Union, by G. Parq and J. Hardy, and Waqf Raafat Bey, by Ali Gabr. Here, T. Abdelgawad bemoaned the fact that this first generation of Egyptian architects 'unfortunately,…were busy in their higher positions with public buildings and left most private housing projects to foreign or half foreign architects.'[40] Moreover, their clients were 'either foreigners or Egyptians who have had a 'western complex'.'[41] However, comparison of the practice of the foreign architects with the work of their Egyptian contemporaries reveals that both groups used different formal vocabularies in public and private schemes. For example, the design vocabulary of Hussein Erfan's Villa and Waqf Raafat Bey block by Ali Gabr were noticeably different: while the former incorporated classical features the latter is modernist. Also, as Volait remarks, Fahmy's public buildings such as Zaglul's mausoleum differ from his private villas such as Louly Vailla, Alexandria 1931.[42] Ashur, in this regard, argues that these differences can be attributed to the diverse experiences of each architect (and presumably a climate conducive to experimentation) in this liberal era.[43]

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Figure 7. Modernist approach, left: Enji block (*al-'Imarah* 1939, no.1)
right: Waqf Raafat Bey (*al-'Imarah* 1941, no.2).

Each of these diverse approaches found a niche within the discursive space of *al-'Imarah*. Karim celebrated internationalism to accommodate this diversity. Although *al-'Imarah* aimed to disseminate images of and knowledge about the international style to a resistant audience that eschewed universalism, it featured a significant number of neo-classical buildings. However, Karim exercised censorship. When classical buildings—'resistive outsiders' to *al-'Imarah's* space—the focus was on the success of the buildings' functions. One contends, Karim cautiously reconfigured a room amidst the already established resistive domain, which lies beyond *al'-Imarah's* 'space of knowledge'.

Given Karim's desire to promote technological progress and functionalism, skyscrapers were celebrated in many articles including 'Best projects from an economic perspective' (1941, no.2). The first skyscraper in Egypt (and the Middle East) was the 13 storey Immobilia building. *Al-'Imarah* dedicated over 50 pages to this project providing a rigorous description of its history and construction details (1940, no. 7/8). The design, by the French architects Max Edrei (1889-1979) and Gaston Rossi, won the design competition held in 1937 by The General Real State in Egypt (a shareholding company).[44] This imposing mass with continuous bands articulating its balconies characterised the technological advancement of the new era.

Figure 8. The Immobilia Tower (*al-'Imarah*,1940 no.7/8).

As a champion of modernism, Karim vintaged his own designs and other projects by the new generation of architects with similar leanings. His designs were divorced of any stylistic references and were a clear manifestation of international principles that owed much to Le Corbusier. Most of his designs championed the modular technique and the austere horizontal strips such as Zamalek Tower (1957, no.1), Shams tower (1949, no.1/2); and Secretariat-General Building (1957, no.3) while Karim's Regional Hospital (1941, no 7/8, and Tobacco factory (1941, no.1) features harmonious curves.

Figure 9. Designs by Sayed Karim. From top left: Tobacco factory (*al-'Imarah*, 1941, no.1); Regional Hospital (*al-'Imarah*, 1941, no 7/8); Akhbar Alyoom (*al-'Imarah*, 1949, no.3); from bottom left: Shams tower (*al-'Imarah*, 1949,

no.1/2); Zamalek Tower (*al-'Imarah*, 1957, no.1);
and Secretariat-General Building (*al-'Imarah*, 1957, no.3).

The new generation of architects who championed the international style included, Ali Nour al-Dein Nassar, Tawfik Abdelgawad, his assistant (Liverpool graduate of 1939); Mustafa Shawqy, and Salah Zaytoon (Illinois graduate of 1947). All of these modernist projects were pragmatic examples of Karim's attitude of reference—modernisation— that he skillfully integrated to reinforce *al-'Imarah'*s discursive space.

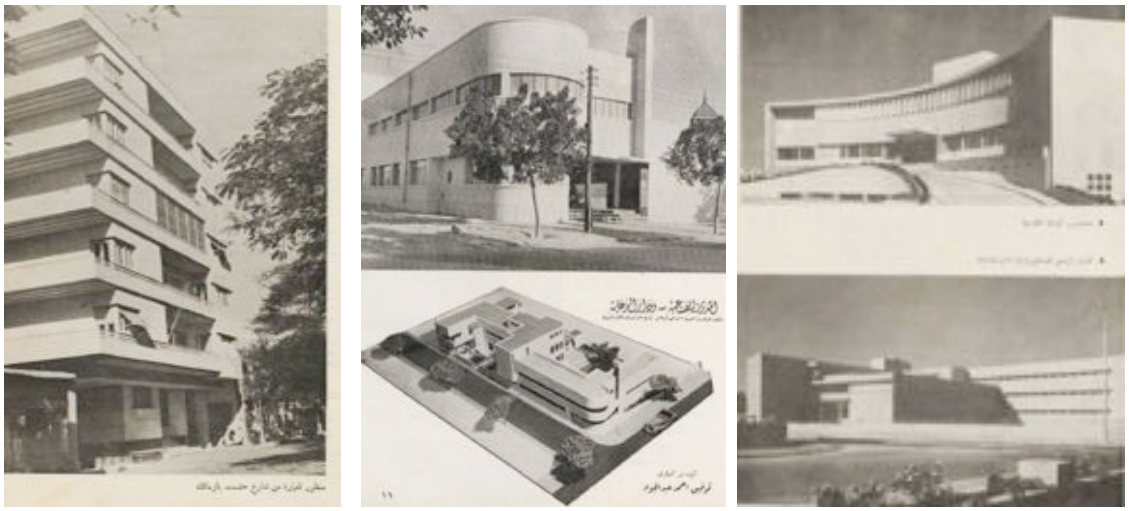

Figure 10. Designs by the new generation of Egyptian architects:
Anour Qutb block, Nour al-Dein (*al-'Imarah* 1957, no.3); Industrial School,
T.Abdelgawad (*al-'Imarah*, 1949, no.4/5); and Heliopolis Hospital by Shawky
and Zaytoon (*al-'Imarah*, 1957, no.6).

Attitude of Reference: Boundaries of *al-'Imarah*

Karim's integration of his own designs, as well as those of the new generation of Egyptian architects, was not the only apparatus through which he signalled *al-'Imarah*'s 'boundaries'. The discourse is a space of knowledge, according to Crysler, which 'make[s] use of shared terms and ideas that define "boundaries" around what is considered important".[45] Here, in this paper, Karim's boundaries of *al-'Imarah* are a result of what Said referred to as a structure of attitude of reference, as defined earlier. This structure was implemented to reinforce these boundaries. These attitudes included the association of revivalism with backwardness and efforts to indigenise modernity.

On the one hand, associating revivalism with backwardness was clear since Karim's first article 'What is architecture?' Inspired by his education abroad, he sought to liberate architecture from art, and in turn rejected revivalism. For him, architecture is not simply an art but a 'scientific art'.[46] The initial effort to re-define the profession not only

introduced his strong attitude of rejection to revivalists who resisted universalism. Moreover, the first editorial by architect Anees Seraj Eldein, *al-'Imarah'*s co-founder who shortly broke with Karim, asserted that the magazine was 'a national aspiration' aspiring to be the 'messenger of scientific and artistic culture'.[47] The perceived limitation of revival styles was explicit in Karim's editorial (1949) in which he referred to the goal of *al-'Imarah* as 'liberating Egyptian architecture from its backwardness and to restore its old glory'.[48] This was reinforced in his celebration of the modern style in the design of Muslim brotherhood print house (1946). He stated, 'Islam has never been stagnant, it is a religion free from traditional styles, a religion of every age. In this way this building has been designed to explicitly express the age in which it has been designed....'[49] Karim's notion of liberation and his claim to be the spokesperson of contemporary local architecture mirrors an imperial attitude which stems from a desire to modernise a backward society and to create a new order.

Figure 11. Muslim brotherhood printing house celebrated by Karim, in the journal (*al-'Imarah*, 1946 no. 5/6).

Karim's rejection of revivalism further crystallised at a conference held in Cairo, 1940, by the Association of Social Reform. Karim's article 'National style of architecture in Egypt' published in *al-'Imarah* (1940, no.5/6) was intended to represent a 'manifesto of the new architectural options, put forward, for nearly two decades by the editor of the magazine.'[50] This manifesto, however, was criticised by Ahmad Fikri, Director of the Arab Museum, in *Magallat al-Shu'un igtima'iyya* [*The Journal of Social Affairs*], whose article was never mentioned in *al-'Imarah*. While Ahmad Fikri states that his conflict with Karim's ideas is not about Arab or Pharaonic style, he was highly critical to Karim's approach. Fikri's main objection was based on the fact that 'Egypt is experiencing a profound "decay" in view of its splendid past. Thus, taking the 'universalist' position [in 1940] we have reached no

more than to produce a bastardised architecture, a pale imitation of foreign styles.'[51] Therefore, Fikri stressed the necessity that architecture should be a 'language that better characterises the evolution of a people, its ability to synthesise, in the works constructed, both natural and climatic constraints, as specific to each nation's spiritual, political and social development.'[52] Moreover, according to Volait, Fikri stressed that 'a noble and worthy architecture of the nation can only result from the rediscovery of Egyptian antiquities and recognition of Arab heritage.'[53]

Despite this conflict, Karim inspired a new generation of architects such as T. Abdelgawad; and Yehia al Zeiny.[54] T. Abdelgawad in the Fourth Arab Engineering Congress, Lebanon (1950), presented an article titled 'Architecture of the East Between Appearance and Substance'. He launched his scholarship with a spirit of enquiry: '[d]oes Islam have a style?' (1950, no.6/7). The recommendations of this conference urged participants to follow the steps of 'modern styles in the designs of any building as it is more economical and suitable given the new materials. He also urged architects not to apply old styles except in the national, religious, or monumental buildings.'[55] The recommendations of the fourth conference (1950) reinforced those of the second Arab conference of 1946 and crowned Karim's new stylistic order. As Crysler affirmed, discursive 'spaces of knowledge' could indeed 'influence the priorities and values that inform professional practice, and hence, the built form of cities.'[56]

In order to anchor this new order, Karim endeavoured to stress the functionalist designs as a way to liberate the Egyptian society from its endemic problems. The continuous review of modern theories and modern standards along with practical proposals by Karim and others was a manifesto of the claimed engagement in the society. Many articles discussed pragmatic solutions to the village problems and were published in addition to the urban problems of transportation and affordable housing. In the case of the latter, his book *The Socialization of the Villa* (1938) was revisited in the magazine in his article 'Assembly theories in The Socialization of Villa'.[57] Based on the book, Karim proposed a village model which adhered to modern principles (grid, orientation) (1941, no.2).[58]

For the villages' reformation, Karim not only developed a model for the Egyptian village that was inspired by the modern model of the grid plan and unadorned façades. But he also included various solutions for village development by many scholars. However, it is surprising to see how Hassan Fathy's efforts in this regard were excluded from *al-'Imarah*. This disregard further provides evidence of Karim's authoritarian role as editor. It is of importance to compare here Fathy's and Karim's models as both shared, one

contends, an aspiration for a new order in the Egyptian village. But the only difference is that Fathy's point of reference combined some aesthetic and authentic standards in his façades with Western standardisations of hygiene and zoning, while Karim's point of reference was mainly exclusive to Western functionalism. The anthropologist Timothy Mitchel conceives Fathy's designed model as colonial manifestation, as it did not differ from the 'model Village' that was designed during the nineteenth-century's colonies to serve colonial ambitions. In this regard, we contend that Karim's orderly model shares with Fathy the same colonial manifestation. The pursuing of a new order to the authentic spontaneity in both models represents the imperial attitude in imposing new orders and living standards.

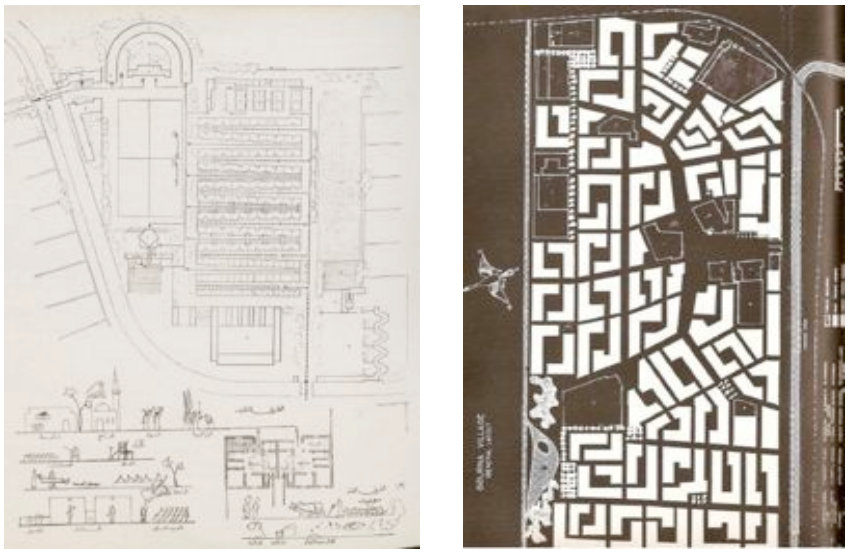

Figure 12. Left: Karim's village model; Right: Gourna village.
(Photo from Hassan Fathy, *Architecture for the Poor: An Experiment in Rural Egypt* (Chicago: University of Chicago, 1973)).

Karim sought to identify the origins of modernity in the Egyptian past as a means to win over the local resistive milieu. For example, he highlighted the Pharaonic origins of both the principles of reinforcement (the use of vegetal reeds embedded in clay) and the pitched roof.[59] Likewise, Karim attributed the origins of skyscrapers to the structures of Hadramout, Yemen, whose fulfilment of the social needs for defence were celebrated.[60] Not least, Karim's acknowledged more recent modernisation efforts in two special issues: Mohammad Ali (1939, no.3/4); and Khedive Ismail (1945, no.6/7). The editorials of both issues were letters to King Farouk, Khedive's grandson, acknowledging their 'great favor' to modernise the country. Moreover, Karim's review of western projects in *al-'Imarah* was limited to recognition of the transfer of industrial techniques and processes. European projects were limited to modernist pioneers, in particular, Frank Lloyd Wright (*al-'Imarah* 1957, no.5), Le Corbusier (1946, no.1/2); also Oscar Neimeyer and Lucio Costa (1952,

no.7/8/9). Thus, it could be argued, that Karim represented modern architecture not as an imported style but as the most appropriate style that should be adopted and nationalised.

Thus, Karim implicitly reinforces the claim that the Modern style is a normal evolution of indigenous prehistoric technologies. The configuration of the relation between modernity as a new knowledge and its historical commonality was inherent in the 'indigenising' attitude that the magazine disseminated. This indigenising endeavour becomes more visible with Karim's authoritative suppression of the term 'Modern Movement'. The disappearance of this term disguised to some extent, the western influence that he aimed to communicate to his resistant professional audience. Indeed, 'too much emphasis on "modernity" would probably dilute the strength of his argument, and introduces significant confusion in the mind of his audience.'[61] This confusion was likely to happen as 'modernity' in the Egyptian context has always been attributed to Mohammad Ali.

Karim's attempts to indigenise modernity and avoidance of the term 'modern', arguably, refers to an attitude of resistance to the perceived backwardness that provoked his aspirations to 'liberate' local architecture. In this way, although Karim was influenced by universal principles, the rhetoric of resistance was embedded in the 'structure of attitude and reference' that he constructed within *al-'Imarah*. The resistance in Karim's case was not to universalism (as in the case of his forbears and many of his contemporaries) but rather to perceptions of stagnation and decline. Karim's structure of attitude and reference was based on two opposing factors: his influence by Western progress as well as his resistance to Western subordination that both Karim and his audience shared.

Conclusion: The Rationale for *al-'Imarah*

This paper attempts to investigate *al-'Imarah'*s rationale as an important part of twentieth-century Egyptian architecture which highlights the evolution of postcolonial professional discourse. In the construction of *al-'Imarah'*s boundaries, Karim adopted a distinct structure of attitude and reference that is highlighted in his allusions, sentiments as well as his selective and systematic reviews in *al-'Imarah.* This structure of attitude and reference has discursively shaped the rationale of *al-'Imarah* in an attempt to merge the multifaceted influence that challenged the binary of influence and resistance. This multifaceted influence has significantly amalgamated, one contends, both influence and resistance in very ambiguous ways that combines both imperialist and nationalist sentiments. The imperialist sentiment reaches its apogee in the editor's continuous reference to the journal's role in liberating Egyptian architecture and culture, as compared with the Western standards. This continuous reference, in light of the dearth of

scholarship on modern Egyptian architecture,[62] confirms the magazine's role as an imperial apparatus. However, this same reference stems from the nationalist sentiment when analysed in light of Karim's attempt to indigenise modernity.

Therefore, this paper concludes that the discursive space of *al-'Imarah* has been caught between the horns of imperialism which resulted in adopting imperialist and anti-imperialist attitudes simultaneously. *Al-'Imarah'*s institutionalisation of modernity has challenged the postcolonial experience from which it ensued. *Al-'Imarah*'s interest in the discursive fusion of these two competing forces has constructed a 'space of knowledge' as discursive as its locale, thus sharing the same conflicting forces. In short, the aspirations for a new order through the fusion of the multifaceted influences has deepened the overall process of modernisation in Egypt and therefore signified an interactive process between traditional and modern cultural values.

Endnotes

[1] Sayed Karim, "1939-1949", *al-'Imarah,* 9 (1949), 6. All of *al-'Imarah* articles cited in this paper were published in Arabic. The English translations are by El-Ashmouni unless otherwise stated.
[2] Karim, "1939-1949", *al-'Imarah*, 9 (1949), 6.
[3] For a complete account of Karim's architectural contribution see Tawfik Abdelgawad, *A'maleqat al-'Imarah fi al-qarn al-'ishreen*, pp.161-227; and his autobiography by Ahmad al-Ghamarawy*, Dr. Sayyed Karim: Ra'ed Takhteet al-Modon* [*Dr. Sayed Karim: Pioneer of City Planning*], (Cairo: Centre of Arabic Media, 2004).
[4] Interview by El-Ashmouni with Muhamad T. Abdelgawad, son of Karim's assistant T. Abdelgawad, Cairo: 2011.
[5] According to Kenneth Frampton, 'critical regionalism' is defined as a cultural resistance to the universalising forces of technological civilisation—as described by philosopher Paul Ricoeur—through varying architectural practices that strive to reconcile the following dipoles: space/place, typology/topography, architectonic/scenographic, artificial/natural, visual/tactile (Frampton 1985, 313–327). This is distinct from the concept of 'critical regionalism,' articulated by Alexander Tzonis and Liane Lefaivre (who coined the phrase in 1981) as a method of defamiliarisation whereby regional fragments are extracted from their 'natural' context as the principal tactic by which to transcend nostalgic essentialism. The term 'critical regionalism' was introduced in Tzonis and Lefaivre (1981). More recently, this tactic is discussed in Alexander Tzonis and Liane Lefaivre (1990), "Why Critical Regionalism Today?" *Architecture and Urbanism* 5, 236: 23-33.
[6]This paper is based on an ongoing PhD thesis towards its completion by Marwa El Ashmouni at The University of Adelaide. The thesis is titled "The Rationale of Architectural Discourses: A Contrapuntal Reading of *Alam Al-Benaa* (1980-2000)" and supervised by Dr. Peter Scriver, Dr. Katharine Bartsch and Prof. Ashraf Salama.
[7] Firstly, *Architecture, Power, and National Identity* (U.S.A: Yale University Press, 1992), examines a number of capitol complexes from Washington, D.C. to Abuja, Nigeria, to offer a compelling insight into the way architecture is inextricably linked to political aspirations. This collection of essays situates these projects within the wider context of postcolonial struggles and the dilemma of 'national identity' as they seek to symbolise rapid democratic, political and economic change. Secondly, *Modernism and the Middle East* (Seattle: University of Washington Press, 2008) focuses on the development of modern architecture in many Middle Eastern cities including Jerusalem, Libya, post-war Turkey, and present-day Iraq. The essays revolve around the encounters between nation-building's politics and modernism's new forms and how architecture

with its symbolic expression may reveal the forces that shaped the modern Middle East. This book reveals the dynamic confrontations between traditions and modernisation. Thirdly, *Forms of Dominance* (England: Avebury, 1992) explores the manifestation of dominance in the colonial context to reveal the power of architecture and urbanism in general. Moreover, the collective essays examined the 'implementation' of an architectural program with its 'techniques, styles, choice of goals' and the coloniser's motivations to 'facilitate subordination' (8) that result in particular architectural symbols or urban hierarchy. The book dealt with many cities and two main forms of dominance: the colonialism project and the modernity project facilitated by the nation-state or the capitalism. Between the books that focus on Egypt, *Cairo: Histories of a City* (Cambridge, Mass: Belknap Press of Harvard University Press, 2011), is a comprehensive history of Egypt. In this book AlSayyad argues that the city is a product of not only the institutional structure of a society and the way it governs this city but also the socio-economic history of that city. Finally, *Colonising Egypt* (Berkeley: University of California Press, 1988) deals with the process of modernisation since Muhammad Ali's rule, beginning of the nineteenth century, and how this process flourished with the British colonialism. For Mitchell, the process of modernisation as a new style is implemented through a set of order, discipline, and uniformity.

[8] Said's theory of politicising the production of knowledge, which started in his influential text *Orientalism*, has been widely incorporated in architectural scholarship as identified in Stephen Cairns, "The stone books of Orientalism", in Peter Scriver and Vikramaditya Prakash (eds.), *Colonial Modernities: Building, Dwelling and Architecture in British India and Ceylon* (New York: Routledge, 2007).

[9] Mercedes Volait, *L'Architecture Moderne en Egypte et la Revue Al-'Imara 1939-1959* (Cairo: CEDEJ, 1987),13.

[10] Volait, *L'Architecture Moderne en Egypte,* 88.

[11] Volait, *L'Architecture Moderne en Egypte,*102.

[12] Volait, *L'Architecture Moderne en Egypte,*102.

[13] Volait, *L'Architecture Moderne en Egypte,*102.

[14] Volait, *L'Architecture Moderne en Egypte,*12.

[15] Volait, *L'Architecture Moderne en Egypte,*13.

[16] Edward Said, *Culture and Imperialism* (New York: Alfred A. Knopf, 1993), Said, *Culture and Imperialism*, 12.

[17] Said, *Culture and Imperialism*, xii.

[18] Edward Said, *Culture and Imperialism, 89.*

[19] Edward Said, *Culture and Imperialism,* 73.

[20] Joan Oakman, *Architecture Culture 1943-1968: A Documentary Anthology* (New York: Columbia University Press, 1993), 13.

[21] Oakman, *Architecture Culture 1943-1968.*

[22] For Urabi's revolution and Saad Zaghlul's refer to Afaf Lutfi Al Sayyed, *History of Egypt from the Arab Conquest to Present* (Cambridge: Cambridge University Press, 2007), 83-88; For nationalism of this period, Bassam Tibi, *Arab Nationalism: Between Islam and the Nation-state* (London: Palgrave Macmillan, 3rd ed. 1997); Albert Hourani, *Arabic Thought in the Liberal Age: 1798–1939* (Cambridge: Cambridge University Press,13th ed, 2003).

[23] Donald Reid, 'The Rise of Professions and Professional Organization in Modern Egypt', *Comparative Studies in Society and History*, 16 (1974): 24. http://www.jstor.org/stable/178227 (accessed April 2010).

[24] Reid, 'The Rise of Professions', 24.

[25] Reid, 'The Rise of Professions', 24.

[26] Gershoni, 'The Evolution of National Culture in Modern Egypt: Intellectual Formation and Social Diffusion, 1892-1945', *Poetics Today*, 13, 2(1992), 336. http://www.jstor.org/stable/1772536 (accessed September 2009).

[27] Gershoni, 'The Evolution of National Culture', 329.

[28] Taha Husayn (1889 – 1973), the Dean of Arabic literature and one of the most celebrated Egyptian intellectual figures, his best known is his autobiography, *al-Ayyam*, published in English as *An Egyptian Childhood* (1932) and *The Stream of Days* (1943).

[29] Sidney Glazer, trans. *The Future of Culture in Egypt* (Washington: American Council of Learned Societies, 1954), 5.

[30] Fayza Hassan, "A Betrayal of History", *Al-Ahram Weekly*, 30 Dec 462 (1999). http://weekly.ahram.org.eg/1999/462/fayza.htm (accessed January 2012).

[31] Volait, *L'Architecture Moderne en Egypte,* 45.

[32] T. Abdelgawad, *Misr al-'Imarah fi al Qarn al –'Ichreen*, [*Egypt's Architecture in the Twentieth-Century]* (Cairo: Anglo Press, 1977).
[33] T. Abdelgawad, "School of Liverpool", *al-'Imarah* 4, 5/6 1942. Egyptian graduates of Liverpool include Shrief No'maan 1928, Mahmud al Hakim 1932, and T.Abdelgawad. French educated architects include Mustafa Fahmy, Anees Serag al dein, Abu Bakr Khayrat, Ahmad Sharmy, Hassan Fathy, Kamal Ismail, Hassan Shafei, Mustafa Shafei, and Hussein Shafei. United States graduates include Shafik al Sadr, Yousif al Sadr, Mustafa Shawky and Salah Zytoon.
[34] For Mustafa Fahmi see Tarek Sakr, *Early Twentieth-Century Architecture in Cairo* (Cairo: The American University Press,1992); and the Arabic account of T. Abdelgawad, *Giants of Architecture in the Twentieth Century* (Cairo: Anglo Press, 1985),148.
[35] http://www.flickr.com/photos/nebedaay/2902478278/sizes/o/in/photostream/ (accessed on 30-04-2012).
[36] http://www.flickr.com/photos/gabindu/3735903728/ Both photos under creative common license: http://creativecommons.org/licenses/by-nc/2.0/deed.en (accessed on 30-04-2012).
[37] Khaled Asfur, "Identity in the Arab Region: Architects and Projects from Egypt, Iraq, Jordan, Saudi Arabia, Kuwait and Qatar", in Peter Herrle, Stephanus Schmitz (eds.), *Constructing Identity in Contemporary Architecture: Case Studies from the South* (Berlin: Lit Verlag, 2009), 188.
[38] For an examination of the work of European architects in Egypt between 1850 and 1950 see Volait, *Le Caire- Alexandrie: Architectures Européennes* (IFAO/CEDEJ, 2001).
[39] Nahaas, (b. 1901), of Lebanese origin, graduated from l'Ecole Centrale des Art et Manufactures in Paris in July 1925. Subsequently, he enrolled in l'Ecole Nationale des Beaux Arts where he taught after graduating in June 1930. Thus, he combined skills in architecture and engineering. For more details see the Arabic text by Shaimaa Ashur, *The Pioneer Egyptian Architects in the Liberal Era: Between the two Revolutions of 1919-1952. Ashur* studied Nahhas and Ali Gabr as case studies to exemplify her argument that their architectural production is a result of the liberal socio-political period which influenced their education and intellectual thinking.
[40] T. Abdelgawad, *Giants of Architecture in the Twentieth Century,*139.
[41] T. Abdelgawad, *Giants of Architecture in the Twentieth Century,*139.
[42] Mercedes Volait, "Mediating and Domesticating Modernity in Egypt: Uncovering some Forgotten Pages", in *Docmomo* September: (2006), 31.
[43] Shaimaa Ashur, *The Pioneer Egyptian Architects in the Liberal Era: Between the two Revolutions of 1919-1952* (Cairo: Madbouly, 2011).
[44] T. Abdelgawad, asserted that the main reason for awarding the project to the foreign architects Max Edrei and Gaston Rossi was due to the high number of foreign members of the jury which only included one architect, Mustafa Fahmy in T. Abdelgawad, *Giants of Architecture in the Twentieth Century*,141. Rossi designed the former Royal Automobile Club (currently the Egyptian Automobile Club) in Qasr al Nil street; and the Grand Continental Hotel and Galleries in Opera square (1920s). The first building was built in Neo-Islamic style while the later was built in neo-Classical. See, S. Raafat, "Cairo's Belle Époque Architects 1900-1950", Feature article in www.egy.com; Muhammad Scharabi, *Cairo, City and Architecture During the Period of European Colonisation.* (Tübingen: Ernst Wasmuth Verlag, 1989); Also for Rossi's work see: http://www.cultnat.org/Programs/Architectural%20Heritage/Application/Pages/Application_New.aspx?ID=51&ShowStreetBuildings=True (accessed 16-05-2012).
[45]C. Greig Crysler, *Writing Spaces*: Discourses of Architecture, Urbanism, and the Built Environment, 1960-2000.(New York: Routledge, 2003), 3.
[46] Karim, "What is Architecture?" *al-'Imarah* 1,1(1939), 12.
[47] Karim, "1939-1949," *al-'Imarah*, 9, 1(1949), 5.
[48] Karim, "1939-1949", 5.
[49] Karim, "al Ikhwaan al Muslimoon dar al teba'ah wa al nashr" [Muslim Brotherhood Printing House], in *al-'Imarah* 6 (1946), 5/6.
[50] Volait, *L'Architecture Moderne,* 86.
[51] Volait, *L'Architecture Moderne*, 99.
[52] Volait, *L'Architecture Moderne*, 99.
[53] Volait, *L'Architecture Moderne*, 99.
[54] Yahaia al Zeiny, "Nationalism in Architecture", *al'Imarah* 7, 7(1947), 14-17.
[55] T. Abdelgawad, "The Fourth Arab Engineering Congress, Lebanon", *al-'Imarah* 10, 6/7(1950), 15.
[56] Crysler, *Writing Spaces*, i.
[57] Karim, "Assembly Theories in the Socialization of Villa", *al-'Imarah* 13, 1/2(1957), 29-44.

[58] The village model was Karim's contribution in the twelfth conference of the Egyptian Assembly of the Scientific Culture.
[59] Mohamad Hammad, "Theory of Reinforcing in Pharaonic Egypt", *al-'Imarah* 4/5(1957): 49-53; Mohamad Hammad, "The Design of the Egyptian House with Pitched Roof in the First Dynasty", in *al-'Imarah* 7(1957), 31-37.
[60] Karim, "Skyscrapers of the Desert", in *al-'Imarah* 2, 3/4(1940), 237.
[61] Volait, *L'Architecture Moderne*, 87.
[62] According to Volait, "a catalogue published by the American University in Cairo in three volumes between 1975 and 1983 under the title *Catalogue of Egyptian Publications*, Mansur Ahmad, (ed.), then under the title of *Arabic books that were published in Egypt*,' Ayda Ibrahim (ed.). The topic of 'Architecture' is one of the most poorly supplied.

Architectural principles in the age of the car and the bike

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Abstract

A rise in interest in bicycle transit in cities has led to a rise in architect designed infrastructure, end-of-trip cycling facilities, and other works that do more than simply provide material support for this mode of transportation: they actively propagandise for cycling. This paper offers explanations for design strategies, and attendant architectural rhetoric, drawn from a study of architecture produced during an age when architects were propagandising for cars. It will argue that what we're seeing now, with pro-cycling works by MVRDV, West-8, KGP Design Studio, BIG, and other firms, is a supplanting of the automobile as a prime emblem for progressive architects, with a new emblem, the bicycle.

The paper proceeds from Derridean readings of Sant'Elia, Pevsner and Siegfried Giedion, in order to establish movement as an absent presence in architecture, expressed in the machine age through associations with aeroplanes and ocean liners, but most notably cars. Inserting the bike into those sorts of theoretical schemas, does not change the schemas themselves, but is a means, rather, for the bike's adoption as an emblem for the contemporary (green), Modernist Project. It helps explain some of the visual intrigue of buildings for bikes, that echo famous buildings for cars. It explains, too, why architects like Ingels and Foster, parade their designer bikes, the way Le Corbusier paraded his Voisin.

Although architecture celebrating the car was a product of paradigms many urban planners now want to reverse, understanding the myth-making behind buildings for cars, and their mass appeal, is helpful in understanding what role architecture can play at this time when cities are aiming to increase their bike use.

The Resurgence of Cycling and Architectural History

It wasn't only with new kinds of sprawling town plans, that the age of the car impacted architecture. Buildings that were celebratory of cars, and architectural theories predicated

on car dependence, were other legacies of that car-focused era. Now though, as great cities like London, New York, Barcelona and Paris, are stymying driving to make way for more cycling, we are seeing signs of a parallel shift in architectural theory, style and typology. Architects at the vanguard of this shift are using the bicycle as an emblem and source of inspiration, in ways that echo their forebears' symbolic use of the car.

It is hard to dismiss new architecture inspired by cycling, as a phenomenon borne of a craze that will pass. The resurgence of bicycle commuting is more than a craze. It is part of a gradual unravelling of post-war car domination, that did not only diminish the role of walking and public transport in cities, but also the bike modal share. From the late 1800s until the the late 1940s, bikes greatly outnumbered cars and were used by all ages. Susan B. Anthony had famously praised cycling as the greatest thing ever for the emancipation of women. Compelled by economic, public health and environmental arguments in support of more cycling, authorities are doing all that local politics will abide, to bring bicycles back.

This emerging new age of bicycle transport has significant implications for architecture and urban design. The built environment is adapting, will no doubt adapt more in the future, and in the process change cycling. Many post-industrial cities are splitting, into urban renewal zones suited to cycling, and established areas that are remaining dependent on cars. Cyclists' past battles for drivers' respect, or their lobbying for protected bike lanes, seem to matter less by the day. Every new brownfield renewal scheme, waterfront promenade, and rail-to-trail project, brings cycling closer to having its own space in the city; contiguous, without hills, and of a rhizome order matching the individualistic nature of cycling.

Architectural history, with its various roles, can help us understand developments taking place in these areas of cities that are of special appeal to regular cyclists. History helps us see that architects currently engaged designing actual bicycles—like Carlo Ratti, West-8, Ron Arad, and Atelier Bow Bow—are part of a tradition of architects expressing their design values through items of industrial design: previously chairs, and occasionally cars. With an historical perspective we can also appreciate architects' reasons for branding themselves as cycling enthusiasts, as Bjarke Ingels, Jan Gehl and Norman Foster have done. With this paper though, the aim will be to shows how architectural history can be used to contextualise and explain buildings that have been built to accommodate, celebrate or advocate cycling, in this age of the bicycle's comeback,

The buildings to be examned are present day counterparts to what Jonathan Bell called 'carchitecture' in his 2001 book about buildings for cars[1]. Carchitecture propagandised for, made room for, and drew inspiration from, cars. If we will allow the neologism, 'bicycletecture' propagandises for, makes room for, and draws inspiration from, bicycles. Architects are responding to the emerging bicycling boom in ways paralleling their forebears' responses to cars, because the templates for these three ways of thinking—propagandising, accommodating, emulating—are still in place from the previous century, when they were settled upon as standard architectural responses to that era's car boom. By comparing and contrasting buildings for and about bikes, with buildings of the past century that were for and about cars, this paper casts light on a new wave of architectural thinking.

Cars and Bikes in the Early Twentieth-Century

The bicycle (which superseded the penny-farthing, by being safer) caused a world wide bicycle craze in the 1890s, at a time when the first cars were also appearing but were hardly as prevalent as bikes on our streets. Bikes and cars both quickly became emblems of progress, for example, in Futurist art. Both were usurping horses, and motorists and cyclists alike were lobbying to have roads paved, or macadamised, so they would better suit tires—even though this didn't suit horses. Only one vehicle though, would attain cultural standing sufficient to influence architecture. A predictive moment in the race between cars and bikes to be dominant culturally, and physically upon the built landscape, can be found in the Italian poet Marinetti's Futurist Manifesto of 1909. Marinetti is driving his car when:

> suddenly there were two cyclists disapproving of me and tottering in front of me like two persuasive but contradictory reasons. Their stupid swaying got in my way. What a bore! Pouah! I stopped short, and in disgust hurled myself — vlan! — head over heels in a ditch[2].

It is seldom remarked on how the ensuing tirade, extolling the beauty of speed, and describing the car as something 'more beautiful than the Victory of Samothrace,' was brought on by the two cyclists who had apparently caused Marinetti to veer from the road, with their sanctimonious looks. The Futurist Manifesto, a document that is widely accepted as having determined avant-garde sensibilities throughout the following decades, starts with a driver raging at two feeble cyclists, because they had the gall to make him feel self conscious. However, in the contest for dominance between these two

rival modes, cars had the edge. They had reserves of fossil fuels waiting in the ground to give them power, almost for free.

The architectural and town planning implications of Marinetti's fondness for cars were later reflected in Antonio Sant'Elia's Futurist manifesto for architecture, 'Messaggio'[3]. It paints a vague but fantastic image of streets plunging 'many stories down into the earth, embracing the metropolitan traffic [...] linked [...] by metal gangways and swift-moving pavements,' instead of being like 'doormats' for buildings. All this, we can now say with hindsight, would have needed to have been powered by the fuel that drove cars. Shortly after the time of Sant'Elia's writing, Americans would be laying 100,000 miles of crude oil pipelines in every year, and making 4 new Model T Fords in every hour.

It was in Europe though, not America, where architects were most creative in their explorations of what cars meant to their discipline. Understanding the ways European avant-garde architects of the 1920s thought about cars, gives us a clearer understanding of some of the ways architects are now beginning to engage with bicycle transport, at this time of the bicycle's comeback.

Buildings that Draw Attention to Movement

New types of buildings appeared in the twenties for cars just as, for example, stables were once invented for horses, and train stations at one point in history needed to be invented for trains. Not all early buildings for cars continue to interest architects all these years later, as not all stables are of architectural interest. The garages and car factories that interest us still, are the ones that married new programmatic demands to the progressive design ethos of the day: functionalism. In doing so they piqued the interest of the architectural press, at the time, and thereafter.

Giaccomo Matte-Trucco's Fiat Factory in Turin is a standout example of a building for cars, of particular theoretical interest to architects. Despite having been designed by an engineer—and in some respects *because* of this fact—the early Italian Rationalists Gruppo 7 championed this car manufacturing facility at the Esposizione dell'Architettura Razionale in Rome in 1928, saying it was exemplary architecture, for not disguising its industrial function, and the building has remained centrally placed in the canon of Modernist architecture. Frankness alone though, does not quite explain why The Fiat Factory has been so admired.

Lewis Cubitt's design for King Cross Station in London (1852), was also once praised for being frank, because Cubitt had allowed the shape of the railway sheds behind his façade, to show through in a such a matter-of-fact manner, without adornment. So why does Cubitt's station only occupy a minor place in the architectural canon? Matte-Trucco may have borrowed cachet from the car, but Cubitt's work similarly basks in a transport mode that held wonder at the time it was built: the passenger train. King's Cross Station should be equally famous. The reason it isn't, is that utilitarianism in a railway terminus could only yield two humdrum arches. In a building for cars though, solving a problem in a direct functional manner, showed itself capable of giving rise to visually engaging sculptural forms, in a banked test track, and helicoid car ramps.

The Fiat Factory also afforded an opportunity to celebrate something about cars, that trains don't possess. Cars are manoeuvrable. In the imagination of someone looking at Matte-Trucco's factory, it is possible to personify cars making their way through the building. We can imagine cars circulating up and through the building as though with no drivers. Albert Laprade and L. E. Bazin's Le Marbeauf Showroom in Paris (1929) had the same kind of visual delight. Looking at it, we can imagine the cars taking themselves to their position on one of those six levels of shelving facing the street.

The Danish firm BIG (Bjarke Ingels Group), created a similar kind of visual and intellectual intrigue with the temporary Danish Pavilion they designed for the 2010 Expo in Shanghai. The spiralling, double helix building, provided a totally ride-through experience for Expo visitors, who were encouraged to pick up a free Copenhagen city bike, and ride up a blue bike lane skirting the outer edge of the pavilion. Anyone seeing this building—once they have been told it is open to cyclists—would naturally ask how that could be possible: if the ascent might not be too steep, if a rest could be had at the top, and if the descent would not be too perilous. The building causes viewers to ponder the unique dynamics of cycling, in the same way that Berthold Lubetkin's penguin enclosure at Regent's Park Zoo in London (1934), causes viewers to ponder the unique movement of flightless birds, and in the way old photos of Le Marbeauf Showroom in Paris, makes us ponder the logistics of driving cars to a sixth mezzanine level.

The architect shows us in a video clip of himself riding through the Danish Pavilion[4], that the building's circulation is sympathetic to the dynamics of cycling. He rides slowly up the spiral, obviously feeling most tired as he is nearing the top. But this is where riders are expected to stop anyway, at the point where bikes are collected and deposited. The bike path widens and routes gently merge on the descent, where Ingels is shown riding

quickly without having to pedal. The energy conserving nature of bicycle movement is expressed just as clearly in this building for bikes, as the wasteful power of the car is expressed in the Fiat factory's rooftop banked corners.

Propagandising for driving or cycling

Works of architecture err toward being like artworks, in the way they offer meaning for us to read, over and above simply satisfying functional demands. We would be disappointed if all BIG's pavilion contained to engage our minds had been an elegant means of moving users about on their bikes. We naturally look for some deeper meaning, and find it in a propagandising message to China, from Denmark. The building is asking China to see bikes as part of their future, not just their past. This message isn't simply stencilled, as a piece of didactics, onto the walls. It is there in the building's actual programming. The Danish Pavilion is what Scott Brown and Venturi would call a *duck* building, for the way its shape has been distorted 'beyond the limits of economy and convenience'[5] to achieve a symbolic aim. The bikes that are dispensed from the roof, could have been dispensed from the ground, and the building could have remained a conventional stacking of levels. Putting the bikes on the roof though, called for the spiral, which gave the building its visual delight and its deeper meaning. Although highly functional in the way they were realised, those ramps did not serve a rational arrangement of spaces, but a layout geared toward a symbolic agenda.

An understanding of architectural history helps us see that symbolic programming is nothing new. Le Corbusier's Villa Savoye (1929) is based on propagandising moves, at the initial programming stage, intended to make people see cars as the future. Just as bikes could have been dispensed from beside the Danish Pavilion, rather than from the roof, Le Corbusier could have allowed cars to drop passengers beside the Villa Savoye, by providing a porte-cochère. Lifting the whole building off of the ground, for cars to drive within the structural skeleton of the house, goes beyond facilitating arrival by car. It advertises the car life. Bringing cars into the volume of the house proper, to justify a road in the house, is a ruse, its purpose to create architectural delight, of the kind mentioned above, in Turin, and at Regent's Park Zoo. All these examples not only accommodate, but glorify patterns of movement that are novel compared to human perambulation. In the tradition of the Villa Savoye, BIG's Danish Pavilion glorified the way bicycles move.

Machines of locomotion

It is worth pausing to consider architects' fascination with machines of locomotion. Further to generating commissions and new building types to give them employment,

machines of locomotion such as ships, aeroplanes, blimps, and cars have provided architects with inspiration, with their styling, morphology and design principles. We can go further and say movement itself is of special interest to this most stationary of art forms. In the language of Jacques Derrida, movement can be thought of as an absent presence in architecture[6], so conspicuous by its absence as to be something one naturally looks for when beholding a building. Buildings can't come to us, the way paintings, performances and other artworks can be transported. It is we who must travel to them.

Transportation is an absent presence in architecture in the Derridian sense that speech is an absent presence in any text that serves as its stand-in. Fast looking buildings of the Streamline Moderne style, a labyrinth on the floor of a cathedral representing the pilgrim's journey before they arrived there, or even the stone wheels on an Indian temple, attest to architects' longing to give their buildings the one thing they can never bestow. They can't make buildings mobile.

This thought helps us see why Le Corbusier should have been more fascinated with aeroplanes, ocean liners and cars as inspirations for architecture, than, for example, with machines that sit on factory floors. Sigfried Giedion would later speculate that Modernist architects' interest in motion and machinery had been an appropriation of Einstein's special theory of relativity, according to which architecture has more than three spatial dimensions, the fourth being time[7]. According to Giedion, architects were following the lead of visual artists such as Picasso, whose late cubist works depicted subjects from two or more viewpoints on the one static canvas, thus capturing the time it would take one viewer to move between multiple viewpoints. Duchamp's Nude Descending a Staircase is an earlier and more obvious example of this direction in art.

Looking at the frequency with which Futurist artists used bicycles as the subjects of artworks conceived to represent time (cars weren't their sole subject), it is surprising that bicycles weren't to remain emblems of space-time. Had oil field discoveries not so heavily favoured the car, it might have been bicycles and bike paths receiving the attention in *Space, Time and Architecture*, that Giedion instead gave to cars and their cloverleaf freeways.

It could hardly have been foreseen, in the interwar years, how those initial benefits would also lead to the slow demise of vehicular transportation, how saving humans physical labour would adversely impact their health, how fuel supplies would soon wane and in their burning release greenhouse gasses, how cities would soon be congested with

vehicular traffic, or how the bicycle might re-emerge as a cleaner, greener emblem of progress, and potential yardstick for an art form that has long been looking to machines that move, for its authority.

What if the Machine Aesthetic Looked to the Bike?

The car was the principle yardstick and paragon of engineering excellence behind Le Corbusier's idea that the house should be a machine for living in[8]. The machine aesthetic holds that a house is beautiful, if it beautifully functions, then points to beautifully functioning machines as examples of that principle working elsewhere. When cars seemed like the way of the future, they were the example of choice. Is there evidence that architects are using bikes in machine-aesthetic analogies, now that cycling is being presented as key to the future of cities?

The first place to look would be buildings that have been built for bicycling users. Are there cases where architects of facilities for bicycles, have looked to the bicycles their buildings will accommodate, for design principles they too might apply?

Donald Paine of KPG Design Studio comes close, with the bicycle parking station he designed outside Union train station in Washington. According to Paine, a reference has been made to compressive bicycle rims, pulled on by stainless steel spokes, with this building's compressive arches, tied with closely spaced rods to the ground. But is this the central idea of the building? Workshop attendants, when asked, were surprised to learn the structure was inspired by the wheels they true in their workshop each day, and had believed the structure was designed to resemble a bicycle helmet. Most architects would view this expressive structure in the light of architectural design trends in the wake of Coop Himmelblau's rooftop office in Vienna, and assume the architects had set out to combine a sense of stylistic contemporaneity, with curvilinear forms and transparency, to provide the counterpoint necessary for this small building to exist comfortably beside its rectilinear, masonry, Beaux-Arts style neighbour. Viewed in the light of that contextual challenge, architects might think Paine's bicycle wheel reference has the tone of a polite fiction.

Figure 1. Washington Bikestation by KPG. (Photo: Steven Fleming)

Figure 2. Washington Bikestation by KPG. (Photo: Steven Fleming)

With regard to the question at hand, Paine hasn't made statements to suggest the machine aesthetic informed his design. That is, he doesn't say his building stores bikes as efficiently as a bike performs its unique task; it is not 'the bicycle, of bicycle stations.' To earn that acclaim it would need to be as efficient as the engineer-designed bike storage system called *eco-cycle*, by the Japanese engineering firm Giken. Purely in terms of machine-like efficiency, these underground bicycle silos that automatically deposit bikes in mere seconds, using robotics, make KPG's Bikestation look purely style driven.[9]

Dominique Perrault's velodrome in Berlin has a kind of structure that is even more wheel-like than the one used for KPG's Bikestation. Its circular roof comprises a compressive continuous edge band (analogous to a bicycle rim) resisting the pull of radial trusses (that are like spokes). It was possible to engineer those trusses to be very shallow, because they are in constant tension. But with roofs of this kind dating as far back as the valorium roof of the Coliseum in Rome, any associations architects might draw, between such a

roof on a velodrome, and the design of a bicycle wheel, should again be viewed with some scepticism, more as rhetoric than a true account of where they found their ideas.

If we set aside stretched analogies to the bicycle wheel, it is possible to see how some of the deepest affinities between architecture and bicycle design, are ones architects have, until recently, been neglecting to sell. Ryder sjph Architects boast how the dome of their Sydney Olympic Velodrome weighs 40kg per square meter, a record low relative to its 100m span, yet make nothing of the fact that performance bikes too, are designed to be as lightweight as possible. Neither do they relate the computer modelling of their building's natural convection systems, to similar modelling done of cyclists and their bikes, to reduce wind resistance. In both cases, state of the art science at the design stage, makes objects (buildings and bikes), as frugal as possible with their energy inputs.

Today though, opportunities like these are not being missed. Of their Olympic VeloPark in London, Hopkins Architects say on their website:

> Cycling inspired the concept for the Velodrome. The bike is an ingenious ergonomic object, honed to unrivalled efficiency; we wanted the same application of design creativity and engineering rigour […] to manifest itself in the building. Not as a mimicry of the bicycle but as a three dimensional response […] focused on the performance and efficiency of every aspect of the building.[10]

120 years of relentless refinement has seen the bicycle evolve into an energy efficient machine par excellence, epitomising many of the design principles to which architects now aspire with their work. According to the web site of Seattle based architects Velocipede: '[b]icycles embody the principles of sustainability, that buildings would do well to emulate.'[11]

Conclusion

The car did much for architecture in the twentieth-century. It presented exponents of functionalist design theory with precisely the kind of functional challenge they needed, as a substitute for the value they were no longer adding to buildings with applied decoration. By proxy, cars lent architecture something it patently lacks, and thus yearns for, which is some sense of movement and speed. Cars were also emblems of progress, which is why so many iconic images of Modernist buildings, were shot with cars in the foreground.

Architectural photography from the 1980s and onwards, seldom included cars placed as emblems of progress. Now that global warming is such a key issue, it is rare to find buildings photographed with cars, even if they are completely dependent on cars for their connection to civilisation. The void left, since cars have come to stand for so many ills, stands to be filled by the bicycle. Architects Norman Foster, Bjarke Ingels, and Jan Gehl have all been photographed with bicycles, in ways that suggest bikes inspire their practice. As it once did for cars, architecture is physically accommodating, propagandising on behalf of, and drawing inspiration from, bicycles.

Endnotes

[1] Jonathan Bell, *Carchitecture: When the Car and the City Collide* (Basel: Birkhäuser, 2001).
[2] Filippo Tommaso Marinetti, 'Futurist Manifesto', in R. W. Flint (ed.), *Marinetti: Selected Writings*, 39-44. First published in *Le Figaro*, 20 February1909.
[3] Antonio Sant'Elia, 'Messaggio', *Niove Tendenze*, 1914.
[4] http://www.youtube.com/watch?v=i99MzGa3Vec (accessed 20 March 2011)
[5] Denise Scott Brown and Robert Venturi, 'On Ducks and Decoration,' *Architecture Canada* (October 1968), 48-49.
[6] Jacques Derrida, *Of Grammatology*, Gayatri Chakravorty Spivak (trans.), (Baltimore: Johns Hopkins University Press, 1976).
[7] Sigfried Giedion, *Space, Time and Architecture: The Growth of a New Tradition* (Cambridge: Harvard University Press, 1967).
[8] Le Corbusier, *Towards a New Architecture*, London: Architectural Press Limited, 1927
[9] It warrants mentioning that cyclists in Tokyo were unable to retrieve their bikes for days following the major earthquake there in 2011. Trains were likewise not working. Indications from web sources are that many bicycle stores had sold all of their floor stock by the end of the day, to people facing 3 hour walks to their homes.
[10] http://www.hopkins.co.uk/projects/_3,131/ accessed 23 March 2011
[11] http://www.velocipede.net/aboutus/ourName.html, accessed 13 Dec 2010.

Material Difference:
Four Auckland Projects by Richard Hobin 1951-53

Kerry Francis
Unitec

Abstract

Richard Hobin is a shadowy figure in the history of New Zealand architecture. His relationship with Auckland University was, from the beginning, problematic when he left without completing his degree to begin design and construction as part of a group of like minded collaborators who called themselves 'structural developments'. In the period 1951-1953 Hobin and 'structural developments' record that they completed 'eight houses and seven factories' in Auckland city before Hobin departed for London. This paper will review his early career and then examine four of the 'factories' constructed during this period of which records have been obtained from Auckland Council Archives. The projects will be discussed in terms of material and architectural culture as they develop from the predominantly timber structure of the earliest project through to the steel and concrete palette of the later ones. The paper argues that these projects demonstrate the beginnings of Hobin's trajectory towards these more universal modern materials and forty years of practice that combined both architecture and engineering.

Introduction

Purple. That was the problem or at least the genesis of the problem. 'All shadows in watercolour renderings should be purple', asserted Dr. Richard Toy, Lecturer and Studio Instructor, at the University College of Auckland Architecture School in 1951. It was a proposition with which student Dick Hobin disagreed and was to prove an obstacle to his graduation[1]. He left that year after four years of full time study having 'completed course for B.Arch except for presentation of thesis.'[2] He did not formally graduate from the programme until 1966 when he was only awarded a Diploma in Architecture.[3] It seems that shadow was implicated from the beginning.

Richard Hobin left New Zealand in late 1953 for Europe and London. His fare was paid by his father, John Hobin, for whom he had already designed the Clearlite Plastics Factory and a house in the Auckland suburb of Point Chevalier. The fare was paid on the grounds that, while on his travels, he surveyed contemporaneous uses of plastics and sent the details back to New Zealand. Very little that was useful to Clearlite came of this part of the

arrangement[4]. It appears that his material interests were more located in the early modernist palette of concrete and steel.

Hobin arrived in London in January 1954 and very quickly gained a job with the engineering firm F.J. Samuely. By the end of 1956 he had gained his M.I. Struct. E by Institute examination, then worked for six months for Stewarts and Lloyds Tubular Steel Design office before going into private practice as a Structural Engineer.[5] His rapid movement into the field of structural engineering comes as no surprise after reviewing the four projects described in this paper. The drawings contain a wealth of structural detail. These drawings are all by Hobin's hand and they contain no reference to other engineering expertise. The conclusion that Hobin is solely responsible for all aspects of this work seems reasonable.

We should also consider evidence from the period. A review of prospectuses from the Auckland University School of Architecture in the period 1947-53 reveals a significant level of structural content within the curriculum and the exemplar third year drawings shown in these prospectuses contain completed sheets of structural steel and reinforced concrete detailing. While it is inconceivable that the majority of contemporary architectural graduates could produce this sort of drawing such was not the case in 1951. While there is a great gulf between producing effective drawings under supervision in the studio of a school of architecture and doing it in practice, Hobin was clearly confident and capable of producing fully engineered and integrated drawings from 1951.

The association with Felix James Samuely is material in several respects. The Viennese born engineer Samuely was a significant figure in British architectural modernism.[6] He had worked in Berlin and Russia during the 1920s and moved to London in 1934 and as a consequence was already known to people like Artur Korn and Erich Mendelson who had earlier fled Hitler's purges. When Mendelsohn and Serge Chermayeff won the competition for the De La Warr Pavilion at Bexhill-on-Sea in 1934, they invited Samuely to provide the structural input.

In an issue of the AA Journal in 1960, shortly after Samuely's death, his partner Frank Newby described him thus:

> His thoughts were always directed towards an understanding of the architect's and contractors problems. He believed in the closest collaboration between all concerned. He will be remembered as pioneer of new structures, as a teacher and as a man of original thought.[7]

Hobin arrived in London in January 1954 and immediately gained employment in Samuely's practice. It is arguable that Hobin knew of his work and reputation. F.J. Samuely was an engineer who had worked on significant modernist works like the De La Warr Pavilion, Chermayeff's house at Bentley Wood, and the house at Frognall, Hampstead for Connell, Ward and Lucas. These projects had all been reviewed in contemporaneous architectural magazines like *The Architectural Review* which were available in the Auckland University School of Architecture library. Samuely was the embodiment of the architectural Engineer that Hobin aspired to be. Additionally his original practice partner was a New Zealander.

But Hobin's ambition, demonstrated by his rapidly gaining the structural engineering qualification (M.I. Struct. E) on arrival in London, was to be skilled in both disciplines; to be both Architect and Engineer. It is this idea of integration of the two disciplines which reappears in Hobins own statement about his pedagogical interests in his curriculum vitae with his application for the Chair in Construction at Auckland University in 1971. This is evidenced in the statement from Hobin's *Curriculum Vitae*:

> I have had experience at the Architectural Association and Bartlett School of Architecture in course planning for Construction and Structures. My main interest is in the integration of technological and design teaching rather than the specialised study of any one branch of building technology. I have made a particular study of design methodologies and would wish to carry this further if appointed.[8]

This paper will examine four 'factories' that Richard Hobin designed in the period between 1951 and the end of 1953 when he left for London. These four projects show evidence of early design skill combined with material and structural innovation.[9] But equally importantly Hobin was considering the whole project. He was able to manipulate formal elements as well as the structural and material ones as part of one architectural project.

The Wilton Motor Bodies Factory is the only one of the four buildings still in existence. It has gone through several other motor-vehicle related uses but is now a demolition supermarket. Records of all these buildings reside in the Auckland City Council Archives with full sets of plans available for Clearlite, Wilton and Terrace Motors but only valuation records for the Herbert's Showroom. The Wilton Factory was visited on several occasions and visual forensic analysis carried out but the body of the paper is derived from analysis and discussion of the material contained in the archived drawing sets and accompanying building

permit documents. The author also visited and interviewed J.H.(Harry) Hobin, the subject's brother.

In 1971, after almost twenty years of practice in London and ten years of teaching at the Architectural Association and the Bartlett School of Architecture[10], Hobin was offered the Chair of Professor of Construction at the Auckland University School of Architecture. He accepted the position but after making a second request for postponement of his start date the University revoked his contract. He remained in London, practising and teaching, until his untimely death in November 1993.

The Factories

While they are described in Hobin's curriculum vitae as factories these four buildings do not strictly adhere to that programme type. The first two buildings for Clearlite and the Wilton Motor Body Company were designed to accommodate production; of plastic products (Clearlite) and motor vehicle panel products (Wilton) but the Terrace Motors building was a car showroom and the B.W.Herbert's project a building hardware showroom and warehouse. What is common to all is that they employ construction systems that provide a large open volume for their specific programmatic requirements. They might more appropriately be termed sheds, a term that has significance within New Zealand architectural discourse as a result of David Mitchell's book and television series of the 1980s, *The Elegant Shed.*[11] Interestingly, in light of my first description of Hobin in the abstract, the Concise Oxford Dictionary records the word shed as 'a variant of SHADE'. As this paper will show, these 'sheds' provided an ideal test bed for Hobin's interest in structural and material innovation in this post-war period. His interest in this building type also appears to have allowed him to sidestep the formal and material issues of national identity which were strongly bound up with a domestic tradition that was the focus of many of his peers such as Group Architects. This latter statement may however be an oversimplification as there is, within the colonial archetype, the character trait that makes no distinction between design and construction.[12] Hobin could also be seen to be strongly aligned with this settler characteristic.

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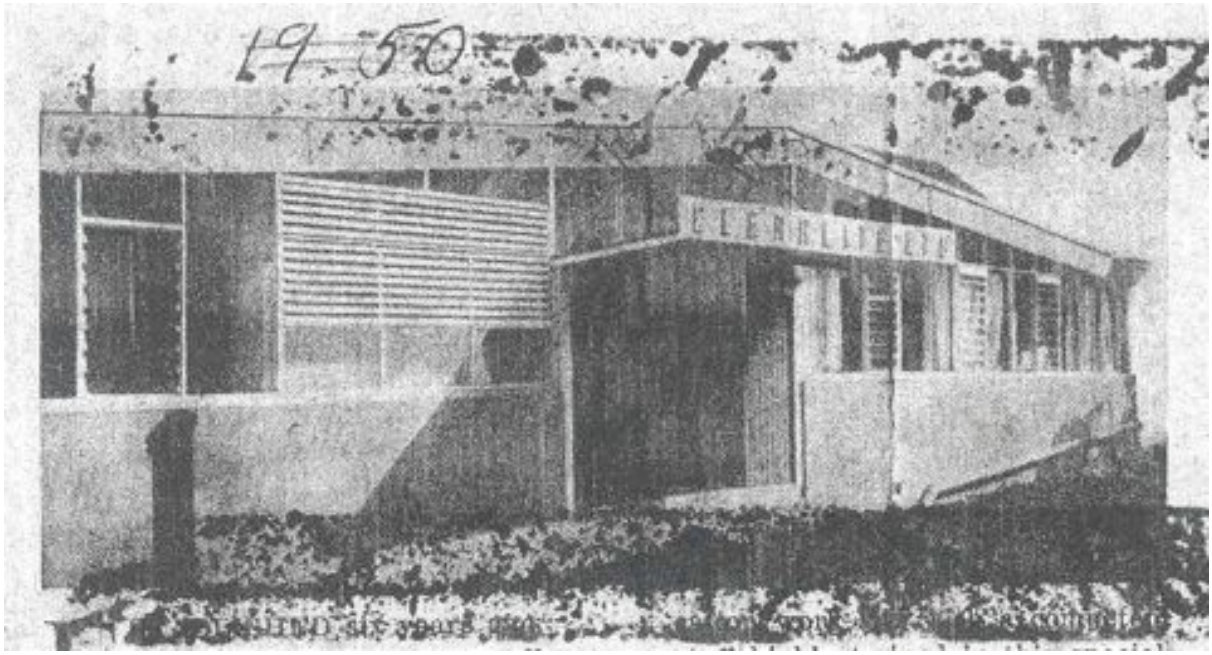

Figure 1. Clearlite Plastics Factory (NZ Manufacturers Journal 1953)

Clearlite Factory, College Hill, Auckland (Building Permit: 14 August 1951)

The drawings for the Clearlite Factory date from August 1951 and the title block credits *structural developments* as the designers. *structural developments* [always in lower case on the drawings] were a collective of students and architectural graduates from the Auckland School of Architecture comprising Hobin, Henry James, Frank Stockman, Renate Prince and John Scott. During 1951 and 1952 they designed and 'organised the construction of four factories and three houses.'[13] The use of the term 'organised the construction of' may reveal an attitude different to that of their contemporaries, Group Construction, who seemed wedded to a more craft oriented version of rational construction in that they were involved in everyday, on-site activity using the traditional tools of the carpentry trade. *structural developments* on the other hand, as contemporaneous builder George Haydn has remarked 'bought machinery'[14] and were interested in concrete. While Group Construction were arguing about the ideal spacing for timber studs[15], Hobin was calculating and removing the necessity for the crank in his reinforcing steel only to go along to the steel reinforcing merchant and discover 'to his horror and surprise it just made no difference to the price for fabricating and placing [which] was so much a hundredweight.'[16] Their interests in rational construction were parallel but materially different. But equally for both parties their rationalising endeavours did not always lead to a successful result.

The Clearlite Factory, while employing concrete frame and brick infill for the walls, had a timber floor and sub floor. The roof structure and interior support were also made from timber. The floor appears to be conventional, an up-scaled version of a domestic timber

floor. The bearers sit on lines of piles spaced 4' 8" apart. Substantial joists cross them at right angles, their apparent substance taking into account the increased floor loading requirements of a factory. These joists carry a thinner layer of what, on the drawings, appear to be elements of strip flooring. The roof, however, seems to be a structural event in waiting. Heavy, 16"x 8" timber roof beams span from the centre line of the building to the exterior concrete frame walls. At this centre line each set of roof beams is supported by a separate 6"x 6" timber column. It is as if Hobin envisages a structural element, a frame, that can clear span the whole space but is materially unable to achieve it. Then, as in other projects such as the Taylor House Devonport (1952),[17] the remaining roof structure is compressed into the space between these major roof beams conflating the normally layered tectonic of timber framed sytems.

The Clearlite Factory seems to be materially and hence structurally constrained. This was almost certainly influenced by the continuing effect of wartime building controls which restricted the availability of materials like structural steel. As a result and possibly due also to the designers' inexperience this building represents a hybrid of domestic and commercial construction in terms of the materials and techniques that it employs. It is a transitional building; part factory, part house; part timber, part reinforced concrete.

Wilton Motor Body Factory, Westmoreland Street West (BP: 5 June 1953)

The Wilton Motor Body Factory is emphatically built from concrete and steel. The architects name is recorded on the drawings as R. Hobin.[18] The date locates it outside the period (1951-52) that Hobin and other participants like John Scott[19] record as the *structural developments* phase. The building was originally drawn as a five bay, double gable structure with the ridges running in an east west direction parallel to Westmoreland Street. It has since been added to and extended to both the east and the west in a similar manner but it is the original building by Hobin that will remain the subject of this section of this paper. Entry is through two, full-height, five panel sliding-folding doors facing the street. The roof structure is composed of sets of two asymetrical portal frames that rest at the centre of the building on a single I section column and at their outer limits (at the front and back of the building) on reinforced concrete piers which sit within a reinforced masonry wall. These piers are slightly tapered, from bottom to top, in section and project from the wall. They are in turn supported by footings that use the same tapering motif. It is as if Hobin is writing into the structure a diagram of the forces present or at the very least demonstrating his understanding of these forces.

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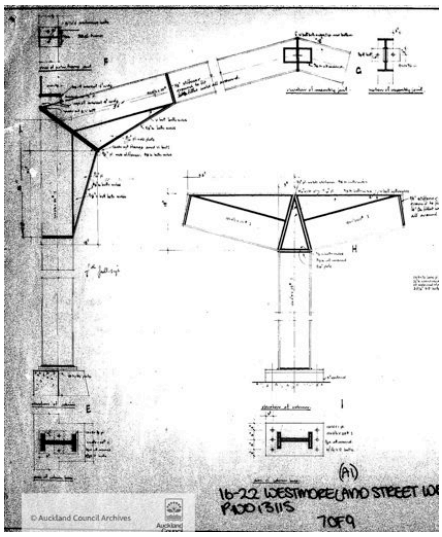

Figure 2. Steel Portal Details, Wilton Motor Body Factory (Auckland Council Archives AKC 339)

We become aware that this is not entirely driven by a structural imperative when we examine the steel roof structure. The portals are the same size and section as the central columns but they meet this central element in a manner that seeks to resolve the angular differences of entry to the junction. A triangular piece of steel plate, the same width as the column, is welded to the top of the column. The descending arms of the portal meet and are fixed to this triangle transferring the vertical vector of the load down into the column. The horizontal vector is resisted by a web stiffener introduced above the portal arm whose top aligns with the top of the triangular element. Hobin seems to be playing with this tapering motif and using it to organise his tectonic decision making.

The portal knee jointing displays a similar formal tendency. Web plates are welded into the underside of this junction in very much the same configuation as at the column junction. They provide the additional structural strength required at this critical junction and at the same time provide a visual continuity for the structural narrative as it locates this strengthening move first under the major element (at the portal knee) and then on top of it (above the column). In comparison Hobin's treatment of the gable junction is minimal with a simple plated junction shown on the plans. Interestingly, the site visits revealed a welded junction at this point; an even less visible connection. This change, between the drawn and the built, opens up the question of intent. Hobin's proposed bolted junction allowed for manipulation during assembly and would today be considered smart practise and an example of designers knowledge of engineering construction processes. On the other hand, the De La Warr Pavilion was significant as the first all welded steel building in the UK and Samuely was working with all-welded structures in other buildings following this project. Writing in 1935, Samuely outlined the reasons; firstly it was more economic and secondly it

permitted 'fabrication of such structural units which left unaltered the lines and overall dimensions desired by the architects.'[20] We cannot be sure what drove the change from bolted to welded connection at the Wilton project but it resulted in a structural narrative that was more powerful than that originally drawn. The welded junction at the vertex diminishes its presence and directs attention to the important structural junctions at the portal knee and the head of the central column. These are the points of drama in the structural system and Hobin has directed our attention to them by design. The purlins are twelve inches deep and are made up from top and bottom chords of two inch steel angle. Half inch steel rod is then bent in a zig zag pattern and is welded alternately to these top and bottom chords to provide the web stiffening. Today these lattice purlins stand out as elegant structural elements in comparison to the pugnacious, modern C section purlins that have in some cases replaced them in the roof structure.

Terrace Motors Display Shelter and Office, Great North Road (BP: 1 October 1953)

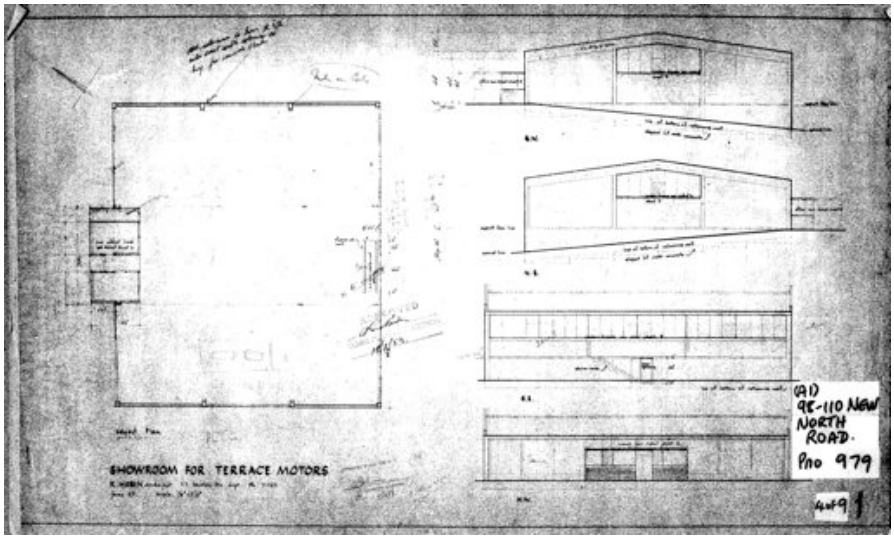

Figure 3. Terrace Motors Showroom (Auckland Council Archives AKC 339)

The building no longer exists. At three bays wide it was smaller in area than the Wilton project and as a single gable was simpler in form. The steel portal system was a development of that used in the earlier Wilton project. This time, rather than resting on mid-height reinforced concrete piers set within a masonry wall, the portal frame leg at Terrace Motors extended to the floor and sat inside the enclosure system effectively separating structure and cladding. At the knee junction the triangular fillets of the Wilton project were here replaced with a single curved stiffener configuration which visually smoothed the distinction between the vertical and inclined parts of the portal. The junction at the gable remained muted, drawn as a simple plated and bolted assembly, but this time clearly titled 'assembly junction.'[21] The lattice purlins were designed again with steel angle as top and

bottom chords and zig-zag steel rod as the web but this time they were located in the plane of the portals and oriented at right angles to the incline of those portals. The Wilton roof, where the efficiently structured, lattice purlin sat over the portal, resulted in a roof cladding plane that hovered a foot above the portal frame producing an impression of lightness and delicacy. The compression of this system at Terrace Motors would have reduced the overall roof element depth but it would have lost the ephemeral qualities of the Wilton building referred to above.

The Terrace Motors project has formal similarities, with regard to entry, to the Clearlite factory discussed earlier. At Clearlite there was an entry canopy that projected from the gabled façade. At Terrace Motors there was an office block which contained the front door and while it projected from the non gable elevation it also functioned as a reducer of scale and hence as a sign of entry. Materially this entry and office element was a mix of materials conventionally associated, at that time, with industry (concrete and concrete masonry) and domestic construction (timber). Hobin used reinforced concrete with masonry infill for the base of the office but the upper portion used timber joinery sections despite the fact that steel joinery was used in the showroom. These timber sections are described on Sheet 1 of the drawing set. They are particular sections and his plan for the office block locates each section in a specific place. It should be noted that during this period in 1953 Hobin was also designing a house for his father in Point Chevalier in Auckland.

The drawings for that project include a sheet of timber sections that are shaped in specific ways for specific locations and these locations are identified on the floor plan by capital and lower case letters assigned to them. At Terrace Motors Hobin uses numbers but strangely they appear upside down in the office floor plan (Sheet 6 of Hobins set numbering). The joinery sections where they appear detailed on Sheet 1 of the drawing set are all cut from a machined 4”x4” post, finished at 3 5/8”. The smaller sections are half this original module. The rebate, which changes location on the post depending on where the section is finally positioned in the building, is always a standard 7/8”x 7/16.” There is an attempt here, as there is in the joinery detailing for his father’s house, to standardize these sections; to reduce them to a few profiles that could operate in a large number of different places. We see in this work evidence of his involvement in the global post-war interest in standardisation and mechanisation. We see also portents of the industrialised and prefabrication systems that he would later work on in London.[22]

This office block, as well as signalling Hobin’s interest in standardisation, is a consistently developing formal move over the Clearlite, Wilton and Terrace projects. At the Clearlite

Plastics Factory it was embryonic, a canopy that projected from the gabled façade of the building; with a sign, appropriately in acrylic, advertising the company name. At the Wilton factory the offices and toilets were in the first version located in the east internal corner, contained within the larger building envelope, before splitting; the toilets and washroom attaching outside the centre of the north wall and the offices moving to the west internal corner. At Terrace Motors the offices and toilets are located at the centre of the north (New North Road) facade and sit half in and half out of the major building envelope. It is as if Hobin is searching for the appropriate location, the appropriate formal relationship between these production and service elements of the projects.

BW Herbert Showroom and Warehouse, Victoria Street West (BP: 5 November 1953)

There is little record currently available for this now demolished building other than notes and sketches in building calculation (valuation) books held in the Auckland Council Archives.[23] The roof structure is described as 'steel truss' across all documents which sees an end to Hobin's innovative exploration of the use of the steel portal frame. But what does appear in these notes is the use of 'concrete panels' as the wall element. In all the earlier projects discussed above Hobin had used concrete frame with brick or block infill but here we have him using a material that he has tried before only in housing. At the Bryant House, Takapuna in 1952 he reportedly attempted and failed to erect a lift slab wall. He agrues: 'I think Dick was the first one to design a lift slab wall. In fact, Dick has poured four concrete walls on the floor and tried to lift them - well, it was a failure. Nevertheless, it was magnificent failure…'.[24] Then, in his father's house in Point Chevalier (BP: 10 September 1953) he appears to have overcome some of these technical problems. According to his brother J.H. (Harry) Hobin, the 'exterior and interior structural walls were individually cast on top of the concrete floor. They were then lifted into position. I think the concrete included an additive to lessen the weight. Some may have been pre-stressed, which was another of his interests.[25] Late in 1953 and after having specified it for his father's house he appears to have felt sufficiently in control of the technique to specify it for this commercial building.

Conclusion

These material and structural concerns seem very ordinary to us in the second decade of the twenty-first century where steel portal frames and concrete tilt slab walls are the ubiquitous construction media of our commercial and industrial estates and where, in a reversal of Hobin's trajectory, precast concrete panels now appear in high quality domestic design such as the Mitchell Stout house in Narrow Neck, Auckland. But in Auckland in the early 1950s the use of these materials was in its infancy. Richard Hobin left the Auckland University School of Architecture without formal qualification but with a strong interest in exploring the

application of these emerging technologies in practice. In 1951, with the help of his colleagues in *structural developments,* he demonstrated raw ability with the design and construction of the Clearlite Plastics factory for his father. While this building appears materially and hence structurally compromised, his work at the Wilton Motors factory and Terrace Motors Showroom saw him applying his design and structural skills to the emerging portal frame system. The portal frame did not become used in mainstream construction until the end of that decade putting this work by Hobin at the beginnings of this construction technology change. [26]

In the BW Herbert building a lack of documentation restricts our comment on design but there is evidence that, in this project, he transfers his experience of domestic concrete tilt slab to the commercial arena. While these comments refer mainly to Hobin's technical skills equally important is this issue of integration of the disciplines of architecture and engineering referred to earlier in the paper. Ever since the establishment of the Ecole Polytechnique in Paris in 1795[27] challenged the dominance of the Ecole des Beaux-Arts in architectural education there has existed a tension between their respective disciplinary interests. By later gaining qualifications in both architecture and engineering and working in both disciplines Hobin was attempting to reconcile these tensions by locating them within one body. These early projects, these sheds, in antipodean Auckland demonstrate principles of integration of the disciplines that he would continue to apply for the rest of his professional life.

Acknowledgements

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Endnotes

[1] Personal communication. Letter J.H. Hobin to Gregory Smith 26 October 2009. J.H. Hobin provided more detail about this incident in a conversation with the author on Friday 3 February 2012.
[2] Curriculum Vitae, Richard Hobin, confidential document presented as part of an application for the Chair in Architectural Construction, University of Auckland, Auckland University Administrative Archive, #247.
[3] Curriculum Vitae, Richard Hobin, no. 247

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[5] Curriculum Vitae, Richard Hobin, no. 247
[6] Malcolm Higgs, Felix James Samuely, *AA Journal*, June 1960, 2-31.
[7] Higgs, Felix James Samuely, 28.
[8] Curriculum Vitae, Richard Hobin, no. 247

[9] Gregory McRae, Charles Clifton, Les Meggett, *Review of the NZ Building Codes of Practice: Report to the Royal Commission of Enquiry into the Building Failure Caused by the Christchurch Earthquakes*, August 2011. The historical overview section of this report states that 'Steel frames from riveted construction were popular from the 1910s until about 1960, but welded and bolted steel moment frames started taking over from the late 1950s.' Additionally that 'Concrete tilt panel single storey frames were used from about 1950.' These notes place Hobin's work at the early beginnings of both these techniques.

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[22] Curriculum Vitae, Richard Hobin. no. 247.

[23] Auckland Council Archives, AKC 440/4, 443/8.

[24] AAA, extracts from tapes of Bill Wilson's lecture for the 26 March 1982.

[25] Personal communication, letter J.H.Hobin to Gregory Smith, 26 October 2009.

[26] McRae, Clifton, Megget, *Review of the NZ Building Codes of Practice.*

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Conservation and Management of Historic Districts in China

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Abstract

Over the last 20 years there has been considerable rhetoric and commitment by the Chinese government about heritage conservation and World Heritage places. In 1998 the Suzhou Declaration on International Co-operation for the Safeguarding and Development of Historic Cities *was issued by UNESCO. This Declaration identified the principles and aims of historic districts' conservation at an international level but strategically it was a conference and discourse held in China at Suzhou specially designed to affirm details as to historic district conservation works. In 2003, ICOMOS issued* The Hoi An Declaration on Conservation of Historic Districts of Asia *which focused on historic districts conservation in Asia and which also addressed conservation principles. While acknowledging the significance of international trends in historic districts conservation, China's Central Government has only recently started to focus on the encouragement of provincial, city and territory governments to protect their historic districts and to issue relevant regulations for their conservation.*

In 1982, in China, the first national heritage law on cultural relics was adopted and the scope of the conservation work has since expanded from historic buildings and towns to embrace historic units within environments including cultural landscapes or ecomuseums. In 2008 the Protection Regulations on Famous Historical and Cultural Cities, Towns and Villages *promulgated the conservation of historic districts in China. In 2009, the Cultural Department of State Council and State Administrative of Cultural Heritage (SACH) announced the* First List of Top 10 Chinese Historic and Cultural Streets *which has served as a landmark agreement of historic district conservation at the state government.*

This paper considers literature about contemporary international and Chinese histories of conservation works in Chinese historic districts, and discusses the changes that have occurred and not occurred in the conservation and

management of historic districts in China. The paper analyses and compares China's national level of conservation work to International Charter commitments to historic district conservation, and presents a review of the different approaches that are occurring at national, provincial and city levels. Their appreciation of and commitment to such is presented in the context of China's current conservation and management of historic districts in an era of globalisation and rapid reformation of cities.

Introduction

From 1990s, with the massive transformation of cities, the conservation of historic districts has been given attention by all circles of Chinese society. A series of *Laws* was issued to guide the conservation works of historic heritage, however there is no corresponding legal framework at a national level on the conservation of historic districts in China. In the process of 'Big Construction', some historic districts with good basic conditions lost their authenticity and their values as historic heritage because of inappropriate management and conservation actions.

The conservation of historic districts of Asia became a worldwide problem. In 1998, the International Conference for the Mayors or their representatives of Historic Cities in China and European Union was held by UNESCO in Suzhou, China. *The Suzhou Declaration on International Co-operation for the Safeguarding and Development of Historic Cities* was issued. It detailed priorities in the legal, planning and infrastructure needs of historic districts and was an important international instrument for historic district conservation for China. It articulated that the most basic and significant part of historic district conservation was to develop an effective system of legal conservation policy to conserve diversity with a sense of continuity of civilization. However, until now, there was no corresponding legislation at the national level to legalise conservation works in historic districts in China.

In 2003, the *Hoi An Declaration on Conservation of Historic Districts of Asia* was issued by ICOMOS. A professional guideline for conserving the context of the cultures of historic districts of Asia, it provided another international instrument for Chinese authorities to better guide historic district conservation. *The Hoi An Declaration* emphasised the importance of adequate conservation measures and financial support.

In China, the conservation of specific historic districts can be traced back to the 1990s. The first Regulations concerning historic district conservation - *Administrative Regulations on Huangshan Tun Xi Old Historic and Cultural Districts* - were adopted by a local government -

the People's Government of Huangshan City. In 2008, the *Protection Regulations on Famous Historical and cultural Cities, Town and Villages* was adopted by the State Council which defined the concept of 'Historic District' and some initial conservation regulations.

International Interpretation

In 1931, the First International Congress of Architects and Technicians of Historic Monuments was held in Athens; and the *Athens Charter for the Restoration of Historic Monuments* was adopted. The areas surrounding historic sites were given attention in the *Athens Charter*, as '… especially in the neighborhood of ancient monuments, where the surroundings should be given special consideration. Even certain groupings and certain particularly picturesque perspective treatment should be preserved.[1]'

However, the Charter focused on the protection of endangered historic monuments and not districts. The Congress articulated legislative measures for the protection of monuments. It also expressed appropriate conservation techniques: 'any original fragments may be recovered whenever this is possible'; and 'the new materials used for this purpose should in all cases be recognizable'. The aim of this policy was to 'avoid the dangers of dismantling and reinstating the portions to be preserved.' The importance of public education was mentioned in the *Athens Charter*: 'educators should urge children and young people to abstain from disfiguring monuments of every description and that they should teach them to take a greater and more general interest in the protection of these concrete testimonies of all ages of civilization'[2].

The Second International Congress of Architects and Technicians of Historic Monuments was held in Venice in 1964. The *Venice Charter for the Conservation and Restoration of Monuments and Sites* was adopted by ICOMOS in 1964. This Charter demonstrated the evolution in heritage conservation theory and practice. Ancient monuments were regarded as 'common heritages'[3] because of the increasing public consciousness of human values. Compared to the *Athens Charter*, the living, cultural and human values of a historic site were deemed more significant than the single monument. The *Venice Charter* stated that '… the historic monuments of generations of people remain to the present day as living witnesses of their age-old traditions[2]'. Moreover, the concept of 'a historic monument' was defined as 'not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development or a historic event.' From this definition, the conservation of an historic monument included not only the single building with the surroundings, but also its culture and context or representativeness thereof of 'a particular civilization', 'a significant development' and 'a historic event'. The *Venice Charter*

reaffirmed that original materials should be respected and that the replacement of missing parts with modern materials should be recognisable. The reuse of an ancient monument for a 'socially useful purpose' was defined as a conservation principle, which enabled a change of useful function of monuments to be realisable. Regarding sites of ancient monuments, the architectural features should be protected; further, the culture, history and memory of the sites must be retained without distortion and 'every means must be taken to facilitate the understanding of the monument and to reveal it without ever distorting its meaning[4]' (Article 15). The protection of 'integrity' was introduced as a new concept in the conservation aims mentioned in the *Venice Charter* regarding sites and monuments (Article 13). In Article 6, 'protecting the integrity' was interpreted as 'preserving a setting …not out of scale[3]' or keeping the existed traditional setting without 'new construction, demolition or modification[3]'. However, in the process of the protection of ancient monuments, preserving the inseparable history was deemed of paramount importance.

In 1976, the *Recommendations Concerning the Safeguarding and Contemporary Role of Historic Areas (Nairobi Recommendation)* were articulated by the United Nations Educational, Scientific and Cultural Organization (UNESCO). These *Recommendations* stated that the important role of historic areas are as 'the most tangible evidence of the wealth and diversity of cultural, religious and social activities[5]', 'the living evidence of days', 'immovable heritages' and 'irreplaceable assets'. In the *Recommendation's* Definitions, 'historic and architectural areas' were defined as 'any group of buildings, structures and open spaces including archaeological and paleontological sites…'. It also defined the scope of 'areas', 'prehistoric sites, historic towns, old urban quarters, villages and hamlets as well as homogeneous monumental groups'. In 1987, the *Washington Charter for the Conservation of Historic Towns and Urban Areas* was adopted by ICOMOS, redefining the concept of 'historic areas' as embracing 'cities, towns and historic centers' as:

> *Historic urban areas, large and small, including cities, towns and historic centers or quarters, together with their natural and man-made environments…these areas embody the values of traditional urban cultures…*[6]

The *Washington Charter* also defined the historic character of the town or urban area and all those material and spiritual elements:

a) urban patterns as defined by lots and streets;
b) relationships between buildings and green and open spaces;

c) the formal appearance, interior and exterior, of buildings as defined by scale, size, style, construction, materials, color and decoration;
d) the relationship between the town or urban area and its surrounding setting, both natural and man-made; and
e) the various functions that the town or urban area has acquired over time.[5]

In 1998, the International Conference for the Preservation and Development of Historic Cities was held by UNESCO in Suzhou, China, and involved participation by numerous mayors of historic cities in China and the European Union. The *Suzhou Declaration on International Cooperation for the Safeguarding and Development of Historic Cities* was adopted, which not only provided instruments for historic cities, but also focused on the importance of conservation principles for historic districts. The inclusion of historic districts was identified to ensure that they 'retain the collective memory of cultures and provide the inhabitants with a sense of continuity of civilization from the past into the future'. In the *Suzhou Declaration*, the aims of conservation works were addressed, including transportation, enlargement, environmental pollution, economic and social policies, sustainable tourism, preserving intangible cultural heritage, public awareness, local residents' participation, as well as public and private co-operation[7]. In 2003 the *Hoi An Declaration on Conservation of Historic Districts of Asia* reaffirmed the values of historic districts in Asia, and defined the scope of historic districts as including historic villages and city quarters; and the inhabitants and users of historic districts were recognised as key actors[8]. It also provided detailed conservation instruments for historic districts regarding inhabitants, tourism development, risk-preparedness, wooden architecture, as well as management authority obligations, which made protection works more realisable.

Specific Charters in Australia and China

Australia ICOMOS is a regional committee of the international body, formed in 1976. In reviewing the applicability of international Charters, Australia ICOMOS held a conference at Burra in South Australia in 1979, and adopted the *Australia ICOMOS Charter (*the *Burra Charter)* for the conservation of places of cultural significance. The *Burra Charter* is today widely accepted as the professional standard for cultural heritage conservation in Australia from national to state to local levels. The *Burra Charter* emphasises the conservation of all places of cultural significance including sites, areas, buildings, groups of buildings, spaces and views [9]. It provides clear and concise definitions of conservation, adaptation, preservation, restoration, and reconstruction. With the national widespread acceptance of the *Burra Charter*, it has provided additional professional guidelines comprising conservation

and management principles, as well as specific guidance for the use of traditional techniques and materials.

Since the Chinese government became a signatory to the *Conservation Concerning the Protection of the World Cultural and Natural Heritage* (UNESCO) in 1985, this document obligated Chinese conservation work at heritage sites to address international standards. In 1993, the Chinese Commission for the International Council on Monuments and Sites (China ICOMOS) was formed, supervised by the People's Republic of China Ministry of Culture. Nine years after China ICOMOS was established, China ICOMOS started to review the feasibility of *Venice Charter* and *Nara Charter* in China. The *Principles for the Conservation of Heritage Sites in China* was adopted in 2002, as a successful result of international collaboration between the North American Getty Conservation institution, Australia ICOMOS and China ICOMOS. The *China Principles* are national guidelines in conservation practice for heritage sites that address historical, artistic and scientific values. The *Principles* emphasise not just individual architecture, such as buildings, cave temples, stone carvings, sculpture and tombs, but also places together with historic components, including historic precincts (villages and towns)[10]. The *Principles* also provide feasible and detailed conservation processes for Chinese heritage conservation. Compared to the *Burra Charter*, the Chinese *Principles* emphasise heritage sites rather than generic cultural places including historic districts.

Based upon the research through international, Australian and Chinese Charters and the *Recommendations*, the conservation of the 'integrity' of historic areas gradually matured from the *Athens Charter* to the *Venice Charter* from the protection of objects and 'sites' to their surroundings and cultural context. The *Nairobi Recommendation*, for example, embraced historic towns, old urban quarters and villages in the inscription including the scope of 'historic areas'. This direction was reaffirmed in the *Washington Charter* with the addition of 'historic centers'. The *Washington Charter* defined five characteristics of the town or urban area. In the first characteristic, it clearly expresses that 'urban patterns are defined by lots and streets' which is the first time this quality has been included in an internationally accepted heritage instrument or policy. While only specific to historic districts, the *Hoi An Declaration* defined the scope of historic districts as historic villages and city quarters, and provided some detailed guidelines and techniques rather than systematic instructions. According to the definitions of 'areas' in the *Nairobi Recommendation* and the *Washington Charter*, historic villages and city quarters belong to 'historic areas', which means that the conservation of historic districts can include systematic guidelines for historic areas. The China *Principles* and the *Burra Charter* also guide the conservation of historic districts even

though there is no generic systematic instrument specific for the conservation for historic districts. These *Charters* and *Recommendations*, in terms of their international, Australian and Chinese applicability, are summarised in Table 1.

	ICOMOS & UNESCO	Australia	China
Generic Charters	The *Athens Charter* (ICOMOS 1931) The *Venice Charter* (ICOMOS 1964) The *Washington Charter* (ICOMOS 1987) The *Nairobi Recommendation* (UNESCO 1976)	The *Burra Charter* (Australia ICOMOS 1979)	
Specific guidelines	The *Suzhou Declaration on Historic Cities and Sites* (UNESCO 1998) The *Hoi An Declaration on Historic Districts in Asia* (ICOMOS 2003)		*Chinese Principles for the Conservation of Heritage Sites* (China ICOMOS 2002)

Table 1. The Charters and Recommendations Related to Historic Districts
Source: author

Chinese Initial Legislation – Single Cultural Relic Conservation

The registration of historic sites in China can be traced back to the establishment of the Society of the Study of Chinese Architecture, led by Mr. Zhu Qiling, in 1929. The Society was an academic organisation that pursued the use of modern scientific methods to do investigations, research and surveying and mapping works of Chinese ancient architectures under the direction of Mr. Liang Sicheng and Mr. Liu Dunzhen. Many precious architectural remains dating from Han Dynasty (202-220 BC) to the Qing Dynasty (1963-1912 AD) were rediscovered and registered, which played a significantly fundamental role in the scientific and systematic conservation work of immovable historic relics. After the Anti-Japanese War (1937-1945) the Society of Chinese Architecture folded in 1964 because of the ravages of the War and insufficient funding to support their activities. In 2006, the former site of the Society of Chinese Architecture in Li Zhuang Town, Cui Ping Zone, Yi Bin City, Si Chuan Province, was designated as a Key Cultural Relics Protection Unit.

In 1930 the Chinese National Government adopted the *Antiques Protection Law*, which was the first regulation for cultural relic conservation announced by the Government. The Government thereupon started to take part in the preservation work of historic sites. Under the *Law*, some 14 regulations identified the scope and type of antiquities including all ancient relics and archaeological, historical, and paleontological assets[11]. The regulations adopted management methods which required that official antiquities should be reported to the National Government every year, and that private antiquities of importance should be

registered by the authority and could not be transferred to other parties. Then, in 1933, the National Government announced an additional *19 Implementation Details* to the *Antiques Protection Law*.

Until 1948, Mr. Liang Sicheng (Tsinghua University) had presided over the preparation of the 'Brief Index of Ancient Architectural Monuments throughout China' which was finished in March 1949. According to this arrangement of towns, cities, and provinces before March 1949, some 465 ancient monuments including important buildings, sculptures and grottoes located in 22 cities or provinces were designated. Detailed locations, properties (eg. Buddhist temple, Taoist temple, mausoleum, bridge, etc…), established year, restoration year and significant values of the designated ancient monuments were labelled and documented. The 'Brief Index' divided ancient monuments into 4 levels according to the different levels of significant values, thereby establishing a precedent methodology for future methods of ancient relics' management at different grades. Further, the 'Brief Index' was the first formal registration index in China and informed the first group of State-level Key Cultural Relic Units to be announced.

As mentioned before, the conservation work of Chinese historic heritage commenced in the pre-1949 years, but *Regulations* or the 'Brief Index' of this period just focused upon single architectural exemplars or single relics. However, a large number of historic architectural assemblages were destroyed and innumerable historic relics were looted in subsequent years during the Second World War and Chinese Revolution.

After the founding of the People's Republic of China in 1949, the Government Administration Council of the Central People's Government adopted a series of *Regulations* and *Laws* to prohibit the exportation of cultural relics comprising the first Management Regulations adopted by the New China. The Central Government further adopted some special Management Regulations for relic conservation to protect destroyed historic remains. In 1961, the Chinese State Council adopted the *Interim Regulation of Preservation and Management of Cultural Relics* which was the first synthesised and formal administrative regulations for the conservation of cultural monuments of the New China. Meanwhile, the first group of 180 State-level Cultural Relic Units was announced by the Chinese Central Government.

Since 1961, in order to effectively implement the *Interim Regulation of Preservation and Management of Cultural Relics*, numerous Regulations were adopted by the Central Government. Unfortunately, between 1966 and October 1976, the Great Proletarian Cultural

Revolution happened in China resulting in large numbers of historic monuments being destroyed.

Professionalism

After 1976, the conservation work of historic monuments and cultural relics recovered gradually. In 1982, the Standing Committee of the National People's Congress adopted the *Law of the People of China for the Protection of Cultural Relics* that was the first *Law* in the field of cultural relic conservation, and elevated conservation work of cultural relics to a legal level. In the same year, the State Council announced the second group of State-level Key Cultural Relic Units and the first list of 24 National Historic and Cultural Cities. Since then, the scope of historic and cultural heritage conservation in China has expanded from a single historic architectural complex or unit to a whole area or assemblage of historic and cultural precincts or cities. The State Council articulated that 'a certain protective area should be designed around a historic site'. Until then, the conservation of heritage superficially included the surroundings of historic architecture, and the concept of historic districts had not been formulated.

In January 1985, the Chinese government signed the *Conservation Concerning the Protection of the World Cultural and Natural Heritage* (UNESCO) which required Chinese conservation work upon cultural heritage to be internationally benchmarked, and gave Chinese conservation of cultural heritage a successful global instrument. The State Council announced the second list of 38 National Historical and Cultural Cities at the same time and the conservation of historic districts was put in the *Document of the Second List of Chinese Historical and Cultural Cities* which was announced by State Council. This *Document* expressed that:

> the urban districts, architectural complex or towns which had plenty historic monuments and could reflect traditional characters and local features should be announced to be the state-level historic area depending on their different historic, scientific and artistic values [12].

Additionally, the features or components of historic districts that could be designated were detailed by the Ministry of Construction, as

1) real historic heritage instead of 'fake-antique';
2) integral historic features; and
3) scale and features which could make people feel the historic atmosphere[11].

This *Document* defined the concept of an 'historic area' which expanded conservation work activities from a whole historic and cultural city to a smaller historic area. The narrowed area made the conservation work easier and clearer. Moreover this *Document* expressed that the conservation politics of historic districts should be confirmed by Chinese Central Government.

After the announcement of Mr. Deng Xiaoping's 'Open Door' Policy in 1978, many Chinese cities experienced extensive urban sprawl [13]. Since the end of 1980s, the Chinese government has adopted several policies to control development of new towns and consequently many real estate developers have sought to develop the inner urban spaces of Chinese cities[14]. Over the past 30 years, China has become one of the world's most rapidly urbanizing countries[15]. In China today, new post-modern architectural giants built by commercial and financial stakeholders are replacing old impressive public buildings created by China's government. Thus, with the accelerating urbanisation process and with the improved living conditions of urban residents, the real historic relics and old districts are being destroyed[16]. This situation poses a significant risk to the Chinese urban soul and memory because of the large-scale demolition and redevelopment challenges to the unique Chinese heritage and culture.

After 1990s, the Central Government set about preparing a series of *Regulations* and *Laws* to control urbanisation and to protect historic heritage. In 1994, the State Council announced the third list of 37 National Historical and Cultural Cities, and there are now 101 designated National Historical and Cultural Cities in China. Over this period several provincial governments also published provincial-level *Regulations* and *Laws* to protect their historic and cultural heritages. In 2003, the first list of National Historic and Cultural Towns and Villages was announced by State Ministry of Construction and State Administration of Cultural Heritage, thereby shifting the focus of the Central Government to historic villages and towns.

Historically, much of the expertise in Chinese heritage management and many of the valuable frameworks on heritage conservation have been acquired from developed Western countries [17]. The *Suzhou Declaration on International Co-operation for the Safeguarding and Development of Historic Cities* indicated the importance of conservation aims for historic districts, and provided that conservation work was to give the residents 'a sense of continuity of civilization from the past into the future[18]' . The *Declaration* indicated that development of

a policy system of legal protection, a planning framework and effective implementation policies were essential methods to protect and manage cultural and historic diversity, and that traditional construction materials and urban fabric should be respected. The adaptive re-use of historic buildings was a challenge to successful conservation. The intangible cultural heritage of historic districts was also expressed as 'an inseparable component of the physical environment' which should be preserved and promoted. The establishment of programs of public awareness and education were proposed as a conservation aim as well. In 2003, when international ICOMOS adopted *The Hoi An Declaration*, residents were also considered as an important component of historic districts. The *Declaration* indicated that the conservation of historic districts required the involvement and co-operation of 'a diversity of people, instructions, non-governmental organizations and specialists' and that local governments and instructions were necessary to achieve the conservation aims and 'harmonize the actions of different stakeholders'[19]. These international *Charters* provided invaluable frameworks and guidance for national and local governments in China.

In the 1980s Chinese experts from several universities such as Tongji University in Shanghai and Tsinghua University in Beijing commenced serious academic inquiries into Chinese heritage management and historic architectural conservation. Professor Ruan Yisan from Tongji University was the initiator of conservation activities in historic cities and towns such as ancient Ping Yao, ancient Zhouzhuang Town, Lijiang and several other historic cities and towns.

Evolution of the development of Conservation System of Historic District in China

Before 1996, there was no corresponding legislation at either national or provincial level to legalise the conservation work of historic districts in China. The *Administrative Regulations on Huangshan Tun Xi Old Historic and Cultural Districts* was adopted by the People's Government of Huangshan City, becoming the first administrative regulation specifically concerning historic district conservation that was adopted by a local government. Under this *Regulation*, the whole district was divided into three protection levels: 1) the core protective district, 2) the construction-control area, and 3) the surrounding coordination area . Historic buildings were divided into five levels to be protected and renovated[20]. A landmark determination, it served as an example for other Chinese local governments to formulate similar relevant regulations to protect historic districts. Since then, the People's Government of Nanning adopted *Administrative Regulations on Protection of Historic Traditional Districts* in 2000. In 2001, the *Protection Regulations on Harbin Buildings and Districts* was adopted by the People's Government of Harbin. The People's Government of Shanghai adopted the *Protection Regulations on Shanghai Historic and Cultural Districts and Historic Buildings* in

2002. The People's Government of Hangzhou adopted the *Protection Regulations on Hangzhou Historic and Cultural Districts and Historic Buildings* in 2004.

With the passage of these Regulations, historic district conservation in China entered a new phase. The *Protection Regulations on Famous Historical and cultural Cities, Town and Villages* was adopted by the State Council in 2008. The concept of 'Historic and Cultural Districts' was defined in the supplementary articles of the *Regulations* as

> the district with a certain scale announced by provincial, autonomous regions or municipal (directly under the Central Government) People's Governments which retained abundant ancient monuments, intensive area of historic buildings and can reflect relatively integrated and authentic traditional structures and historical features[21].

Although there was no national-level law or regulation specifically concerning the conservation work of historic districts, it was implied in these *Regulations* that conservation regulations would be stipulated by the Construction Department of State Council and the Cultural Relics Department of State Council. On 10th June 2009, the Cultural Department of State Council and State Cultural Relic Bureau announced the first list of 10 Chinese historical and cultural streets and, on 13th June 2010, a second list of 10 Chinese historical and cultural streets was announced in Suzhou.

Today historic district conservation is generally derived from agreements between state-level and local level governments. The Chinese central government, which is the highest centralised authority, plays an important role in the stipulation and announcement of regulations and laws to support historic district conservation. Provinces on the periphery are answerable to the central authority, and have rights to stipulate their own provincial regulations and law which must be based on the state-level regulations and laws[22].

Heritage Conservation Management in China

The State Bureau of Cultural Relics can be traced back to the establishment of New China in 1949. In November of 1949, the Central Government established the Cultural Relics Administrative Bureau under the State Department of Culture, which changed its name to State Administration of Cultural Heritage (SACH) in 1988 when it was administratively re-position under the State Council. The principle responsibilities of SACH include the stipulation and announcement of protection regulations for national relics and monuments,

the protection and administration of works of world natural and cultural heritage, and the protection and administration of works of historic and cultural cities (villages or towns).

The *Law of the People's Republic of China on the Protection of Cultural Relics (1982)* defines the responsibilities of conservation work of cultural relics of each level government as

> all government agencies, organizations and individuals shall have the obligation to protect cultural relics of the state;
>
> the governments at different levels must protect the cultural relics in their respective administrative areas; and
>
> the provinces, autonomous regions, and municipalities directly under the central government and the autonomous prefectures, countries, autonomous countries, and cities with abundant cultural relics can establish cultural relics protection management institutions to manage relics conservation work in their respective administrative areas; and can impose and provide for financial arrangement as well as offenses and penalties.[23]

Although the *Regulations* in 1982 were the first law and thus a landmark concerning cultural relics, the special regulations and laws concerning the protection of historic cities, towns, and villages were not actually announced and gazetted until 2008. From the first List of 24 National Historic Cities announced in 1982 to the first List of 22 National Historic Towns and Villages announced in 2003, a series of regulations was adopted by the different levels of local governments to protect the historic heritages in their respective administrative areas.

Based on the *Law of the People's Republic of China on Protection of Cultural Relics* (1982), the state-level *Protection Regulations on Famous Historical and cultural Cities, Town and Villages* (2008) was formally announced by State Council which further detailed various aspects of conservation works of historic cities, towns and villages including the registration and ratification processes, protection details, planning guidelines, and protection measures. Moreover, the *Protection Regulations* also improved and formalised the offenses and penalties system, heightening its legal accountability thereby formally legalising conservation activities and obligations.

The administrative responsibilities of different levels of governments were clarified by *The Protection Regulations* making the Construction Department of State Council and the State

Administrative of Cultural Heritage (SACH) responsible for nationwide conservation and management works of historic cities, towns and villages, and the People's Governments at various local levels responsible for conservation and management works of historic cities, towns and villages in their respective administrative areas. The enterprise, institutions, social organisations and individuals who took part in the protection activities of historic cities, towns and villages were encouraged by the state in *The Protection Regulations*. This relationship is expressed in Chart 1: *Hierarchical Relationships and Responsibilities between Chinese Governments and Organisations* below.

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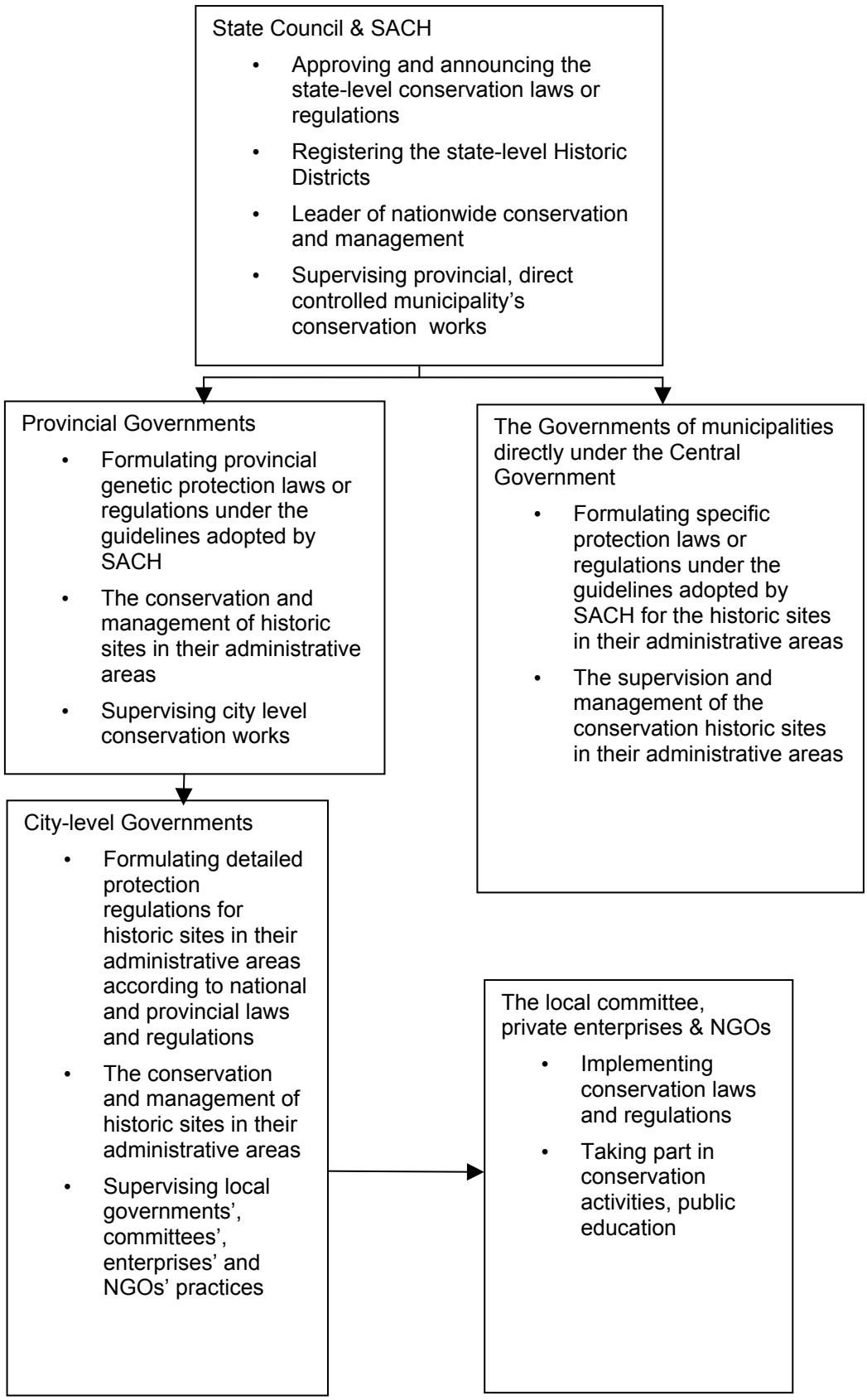

Chart 1.
The Hierarchical Relationships and Responsibilities between Chinese Governments and Organisations at different levels. (Source: author)

The concept of 'Historic Districts' was firstly addressed in this *Protection Regulations* as mentioned before. Some available planning policies of historic district conservation were adopted in *The Protection Regulations* (2008) with the conservation regulations of historic cities, towns and villages. The *Protection Regulations* also formulated a number of corresponding protection measures about the relationship between construction and conservation. The *Protection Regulations* issued expressed that core protection areas and construction control areas should be planned in historic districts (Article 14). In the core protection areas, apart from the indispensable new construction and the extension of basic infrastructure and public service facilities, any kind of new construction and extension of buildings was prohibited (Article 28). It was recommended that new buildings and structures in a construction control area should correspond to the construction control requirements of protection plans (Article 16) and that the original height, scale, appearance and colour of ancient buildings should be maintained. Although *The Protection Regulation* did not focus specifically on the protection of historic districts, these conservation measures were at the national level.

The registration of national historic districts started in 2009. The registration system drew from a suggestion of 'promoting [a] selection contest of 'Chinese Historic and Cultural Streets'' put forward by the chief of SACH, Mr. Shan Jixiang, in the National People's Congress (NPC) and Chinese People's Political Consultative Conference (CPPCC) in 2009. The Chinese Culture Newspaper Office and Chinese Cultural Relic Newspaper Office sponsored the selection contest of 'Chinese Historic and Cultural Streets' which was confirmed by the Cultural Department of State Council (CDSC) and SACH. In this selection contest, an important change was the involvement of the public in deliberating upon what they deemed as their socially-important heritage. The contest developed into a public vote when experts defined possible districts. Individuals could then vote through mail, message or the internet to choose their favourite districts. This voting method provided a good response to the *Suzhou Declaration* that sought to promote public awareness and education effectively.

Based on *The Law of the People's Republic of China on Protection of Cultural Relics* (1982) and the *Protection Regulations on Famous Historical and cultural Cities, Town and Villages* (2008), the selection criteria included not only the historical and cultural elements, preservation status, economic and cultural vitality and social popularity but also protection and management. Although these selective criteria were not issued by the State Council, the exercise served as a landmark of early efforts towards legislation and initial social-

importance assessments especially for historic district conservation wherein the range of stakeholders expanded from government to include experts as well as the public.

Conclusions:

As demonstrated in the research on the related *Charters* and *Recommendations* above, 'historic districts' are a part of 'historic areas'. International principles concerning the conservation of historic districts are not systematic; however, some details can be deduced from the *Hoi An Declaration* and other *Charters* and *Recommendations* about historic areas. Compared to international principles concerning historic areas and sites, the '*Chinese Principles'* emphasise heritage for any individual relic, in contrast to any assemblage of heritage as well as historic villages and towns. They are general principles for guiding nationwide conservation works and activities for the conservation of historic districts refers to them.

The historic district conservation system in China evolved from the protection of cultural relics into the protection of historical and cultural cities, before focusing on the protection of historic villages and towns. On this basis, the protection of historic districts was added later into deliberations. The development history and key evolution events are summarised as in Table 2 below. As governments play an important role in most cultural heritage management around the world [24], governments from different levels have dominated the evolution of historic district conservation in China. A significant evolutionary step was the establishment of a registration system by different levels of government with conservation *Regulations* and protection *Laws* in China.

Table 2. The History and Evolutions of Historic District Conservation in China. (Source: author)

Year	Events	Objectives	Evolutions
1922	The establishment of Institution of Archaeology of Peking University	Cultural relic conservation	Before 1949 From single relic To Historic buildings or monuments
1929	The establishment of the Society of the Study of Chinese Architecture	Historic buildings protection	
1930	The adoption of *Antiques Protection Law*	The first relic's conservation law	
1933	The adoption of *19 Implementation Details of Antiques Protection Law*	Detailed protection principles for historic monuments	
1948	The adoption of *Brief Index of Ancient Architectural Monuments throughout China*	Architectural monuments conservation	
1961	The adoption of *Interim Regulation of Preservation and Management of Cultural Monuments*	The protection and registration of historic sites and cities	1949 – 1976 Historic sites
	The announcement of the first batch of the 180 State-level Cultural Relic Units		
1966-1976	the Great Proletarian Cultural Revolution	Many historic monuments were destroyed	
1982	The adoption of *Law of the People's Public of China on Protection of Cultural Relics*	The first law of cultural heritages conservation	After 1976 From Historic cities
	the first list of 24 National Historic and Cultural Cities	The registration of historic cities	
1985	signed the "Conservation Concerning the Protection of the World Cultural and Natural Heritage (UNESCO)"	Cultural heritage conservation	
	The announcement of the second list of 38 National Historical and Cultural Cities	'Historic districts' was mentioned	
1996	The adoption of *Administrative Regulations on Huangshan Tun Xi Old Historic and Cultural Districts*	The first local regulations for a historic district	To Historic towns villages
2008	The adoption of *Protection Regulations on Famous Historical and cultural Cities, Town and Villages*	Historic towns and villages conservation	
2009	The announcement of the first list of 10 Chinese Historic and Cultural streets	The registration of historic districts	Historic districts
2010	The announcement of the second list of 10 Chinese Historic and Cultural streets	The registration of historic districts	

Over the last 20 years, the Chinese Central Government has paid more attention to the conservation of its cultural relics and historic cities. The conservation of historic districts has been given increasing attention in the last 10 years. While local governments implement conservation works according to *The Law of the People's Republic of China on Protection of Cultural Relics* (1982) and the *Protection Regulations on Famous Historical and cultural Cities, Town and Villages* (2008), the lack of specialised *Protection Regulations on Historic*

Districts has become the most important issue of the maturation of the Chinese conservation and management system.

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Absence and Presence:
Modernism and the Australian City

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Abstract

To date no architectural history in Australia has attempted to define the relationship between modernism and the Australian city. This paper acknowledges the need for definition. It proposes that two distinct and different ideological bases underpinned the adoption of modernist ideals in the Australian city. One emerges in the 1930s from a nineteenth century liberal democratic position, particular to English traditions of public beneficence through urban reform and realised through the tropes of modernism, but those associated with the humanized language of what came to be labelled as "New Empiricism". The other, specific to post-WWII Australian urbanism, was embedded within a culture of capital and portrayed through tactics of formalism and in the abstract aesthetic language of modernism.

Each case does not represent a 'pure' modernism. Each does not completely conform to definitions understood or promulgated by historians such as Sigfried Giedion. Each case also has two strands: the former involves conceptions of a progressive community, on the one hand of the garden suburb and on the other, the collectivist siedlung*; while the latter involves aesthetic conceptions related to, on the one hand, topography and landscape, and on the other an intimate understanding of the historic Australian city. To prove this argument, examples will be drawn from two Australian cities, Sydney and Melbourne, and from the work of the Housing Commissions of each state and from, amongst others, the work of Harry Seidler in Sydney and Yuncken Freeman in Melbourne.*

The Australian city: civic art

At the First Australian Town Planning Conference and Exhibition in Adelaide in October 1917, Sydney architect George Sydney Jones presented a paper, advocating City Beautiful ideals.[1] He put forward five essentials for town planning and civic art: 1) traffic convenience; 2) allotment for separate areas for different classes of buildings; 3) parks and playgrounds; 4) housing; and 5) concentration of civic buildings. Interestingly, by the

early 1930s, what was to become the mantra of the modernist city developed by CIAM (*Congrès Internationaux d'Architecture Moderne*) and known as the Athens Charter, developed largely under the influence of Swiss-French architect Le Corbusier, was a functionalist city guided by four not five principles: 1) transport; 2) work; 3) recreation; and 4) dwelling. The major difference between the two models was the absence in the CIAM model of the notion of civic art and the concentration of civic buildings, a factor that would be revisited by CIAM and its younger members after World War II, especially in texts such as *The Heart of the City* (1952).[2] Jones advocated a model with a scientific approach, including "aeration" and "the value of *sunlight* as a germ killer" as well as the idea of a beautiful city, a city that included memorials which were "hospitals for the sick and institutions for the poor, rather than (except possibly in special instances) monuments in stone and marble". City Beautiful ideals such as these were to persist in Australian cities well into the 1930s.[3] The promotion of a civic art would be aided by the aftermath of the Great War when the protracted design and construction of war memorials bequeathed lasting permanence to the City Beautiful ideals of axiality and the aesthetically organized city.[4] The architectural profession institutionalised these ideas with the awarding in Victoria of the RVIA Street Architecture Medal from 1929 and in NSW, the Sulman Award from 1932, whose principal guidelines were that they faced a street and were designs of exceptional merit.[5] Such aspirations aligned with British and US ideals of what might characterize the contemporary city: architectural good taste and urbane propinquity.

However, Jones's concepts of 'aeration' and 'sunlight as a germ killer', questions of hygiene and health were not new. Height limits in Sydney (150 ft [45.7m]) and Melbourne (132 ft [40.2m]), introduced in 1912 and 1916 respectively, were put in place not only for reasons of fire but also for light and air to reach the city's streets.[6] State governments, philanthropic and religious agencies, professional middle class reformers, architects and planners became intensely interested in inner city housing conditions and the health of urban workers.[7] Concepts of the deserving poor and the possibilities of slum clearance were discussed and lay behind early attempts to 're-house' workers in villa estates like Daceyville, NSW (1912-), the Victorian State Government and State Savings Bank's Garden City subdivision (1927-9) and the later Housing Commission of Victoria estate in Fishermen's' Bend, Port Melbourne (1938). These were projects related to a nineteenth century liberal democratic position, symptomatic of English traditions of public beneficence through urban reform, and as Warwick Anderson has argued, a long-standing imperial project of cultivating urban race improvement through the health-related cleansing of urban slums.[8] But they were not projects of modernism.

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Modernism and the city: taking a view

For historian and longstanding CIAM secretary-general (1928-1956) Sigfried Giedion, modernism and the city was exemplified by the co-ordinated and government-sponsored replanning of Amsterdam following the Dutch Housing Act of 1901 and the subsequent construction of swathes of new urban neighbourhoods where "the specific problem was to construct a residential quarter for middle and working class tenancy: essentially it was a problem in housing."[9] This was a position later supported by historian Manfredo Tafuri, at least in reference to the radical architecture of 1920s Germany in the hands of architects like Ernst May and Ludwig Hilberseimer where the intent was "to make the city assume the aspect of a productive machine"[10], especially attempted through the built utopias of the German *siedlungen* (settlements) laid out in *zeilenbau* (linear block) fashion. There the dwelling unit was the key operative unit for transforming the city, socially and physically.

Of the post-World War II city and modernism, Giedion added a chapter on Alvar Aalto to his eighth edition (1949) of *Space, Time and Architecture* (1941) but no new vision for the city. Instead he repeated his advocacy of parkways, tall buildings in open space, and a civic centre (using New York's Rockefeller Centre as exemplar). While CIAM and its younger members pondered the fate of reconstructing war-torn Europe and re-theorized modernism's urban *raison d'etre*, the re-theorizing of modernism and the American city shifted to formalism, related to the emerging field of urban design.[11] The wholesale embrace of technology, and emerging Cold War politics and a new colonialism of American expansionism meant that the tropes of modernism (visual, spatial and technical) were appropriated by the world of capital. While Australia's political and social trajectory largely followed the United States and not Europe or Great Britain, in the post-war splintering of modernism into multiple forms, Australian architects and planners also sought modernism from multiple perspectives.

To date, historians of Australian urbanism have not made specific connections between the Australian city and modernism. Architectural historians have focussed on modernism largely through individual buildings, building types and the careers of individual architects and designers, and through studies of the agencies of the transfer of modernist ideas to Australia. Gevoork Hartoonian has claimed that due to the youth of the country's cities, Australia had not experienced, in his words, the "full charm" of modernism before Harry Seidler's arrival in Australia in 1948 and 1960 design then construction of Australia Square, Sydney (1967).[12] This statement is inaccurate and overlooks the nuanced and varied interpretations of modernism in relation to the Australian city, and also the shifting

political trajectory of modernism as a concept in itself as it was adjusted, developed and shifted between 1920 and 1950.[13] What follows is the proposition that modernism was experienced in the Australian city before 1967 but modified and adjusted first by the circumstances of a liberal democracy steeped in English concepts of working class betterment, and second, by the particular physical circumstances and post-WWII expansion of urban centres located and planned in landscapes settled by British colonists in the late eighteenth and early nineteenth century.

Modernism and the Australian city: dwelling and urban reform

The Erskineville Re-housing Scheme (1937-8) was the first project of the Housing Improvement Board of NSW (formed in 1936 and later to become the NSW Housing Commission) in its aim to clear a portion of Sydney's inner city slums and build an urban workers' utopia. Chief designer was young architect Morton Herman (1907-1983), recently returned from Great Britain and a champion of European housing ideals[14] then working within the office of Louis S Robertson & Son.[15] Herman's design was radical. As Butler-Bowdon and Pickett have claimed, it was "the first Australian attempt at the scientific planning of flats"[16] despite only a portion of it being built: a series of seven double-storey linear housing blocks laid out *zeilenbau* style, spaced c.20 metres apart for optimal solar penetration and air movement. If the master plan suggested *zeitgeist* and each flat's kitchen was a model of science and sanitation, the detail resolution of the buildings with their exposed brick walls, hipped roofs and multi-paned windows expressed the realities of Sydney's prevailing architectural taste: a sober language of Georgian-inspired domestic familiarity that was local rather than universal. A similar desire for texture and human scale was pursued after World War II in the Devonshire Street Rehousing Development in Surry Hills, Sydney (1947-54) designed by architects DT Morrow & Gordon with Aubrey Kerr for the NSW Housing Commission.[17] This was an alternative modernism, influenced again in plan by European models but this time by Backström & Reinius's *stjarhus* apartment block plans at Gröndal, Stockholm (1944-6) and Rosta, Örebro (1947-9).[18] As at Erskineville, the apartments' detail resolution of exposed bricks, hip roofs and orthodox rectangular window openings stopped short of aesthetic challenge to the status quo. Matthew Conlon has described this New Empiricist development as "perhaps Australia's most authentic realization of an architecture creating a social democratic residential utopia for workers".[19]

It was through similar government agencies such as the Queensland Public Works Department and the Victorian Housing Commission that Austrian émigré modernists Karl Langer and Ernest Fooks would introduce modernist ideals to the planning of estates and

regional towns like Mackay, Qld (1945) and Swan Hill, VIC (1940). While not always realised, such ideas lay behind a growing acceptance of modernism. Peter Mills has convincingly argued that Melbourne's slum clearance projects of the late 1950s and 1960s were not solely the province of the Housing Commission of Victoria (HCV) but were part of a general groundswell of government, professional and community acceptance of the social, physical and economic benefits of modernism.[20] Private interests, for example, had lain behind a 1958 scheme for massive slum clearance immediately to the north of the Royal Exhibition Building in Carlton and their replacement with a series of slabs laid Mondrian-like across a green landscape.[21]

Subsequent HCV projects like the Emerald Hill Court Estate, South Melbourne (1960), Holland Estate, Kensington (1961-2), Debney Meadows Estate, Flemington (1964) and Carlton Estates (1964-6) were the result of dramatic slum clearance related to an expedient and highly efficient construction practice of prefabricated precast concrete panels. Invariably consolidating streets and the wholesale removal of nineteenth century urban fabric, they dramatically reshaped Melbourne's inner urban context into a city ringed by high-rise estates, a local vision of *La Ville Radieuse*. Yet the material and formal aspects of many of the accompanying mid-rise blocks were tempered by an awareness and adjustment to modernism's shifting position by 1960. Of specific influence in Melbourne, for example, were the screened rooftop laundries of the morphologically sensitive and texturally rich Olympic Village housing in Rome (1958-60), seen by Victor Bradley, HCV Chairman on a research trip in 1960 and immediately reflected in estate designs thereafter.[22]

In all respects government-sponsored developments out-scaled the rise of speculatively built apartments styled in the modernist idiom, which, since the 1930s, had occupied infill or a lesser number of consolidated sites. This was to continue until the late 1960s when community activism, slow gentrification and the emergence of interests in heritage coupled with shifting government opinion determined that the experiment with modernism and public housing in Australia was over.

Modernism, landscape and the city

Not all architects and planners were satisfied with what must be acknowledged as a wide-ranging and influential program of state-sponsored modernism from the late 1930s to the late 1960s. There were some like Walter Bunning and Robin Boyd in the 1940s whose simplified drawn schemes inspired by Le Corbusier's *La Ville Radieuse* indicated a desire to affect transformation at the scale of the entire city.[23] These were in many respects

hopeful, even forlorn, forms of polemic that perpetuated earlier hypothetical proposals like Norman Weekes's 1928 scheme for 'Sydney's Future Airport' in which skyscrapers surrounding Hyde Park were to house aeroplanes that would fly in and out likes bees buzzing in vertical hives.[24]

The reality was that after 1950, most Australian architects, when adopting the language of the glazed curtain wall, the *lingua franca* of post-war corporate capital, created elegant infill structures that conformed to height limits set more than forty years before. Thus glazed curtain wall office buildings like AR Le Gerche's Gilbert Court, Melbourne (1954) and Bunning & Madden's Sulman Award-winning Liner House, Sydney (1960), however elegant, were not evidence of radical promise for a transformed city. However change came in 1955 with the breaking of Melbourne's 120-foot (40 metre) height limit. What was important urbanistically about Bates Smart & McCutcheon's ICI House (1955-58) was the use of a designed landscape at ground level, designated as public space, which permitted the building, elevated on *pilotes*, to rise above the height limit.[25] Release came through change in regulatory control. While the logical referent might seem to be, in terms of façade technology, the glazed curtain wall of SOM's Lever House, New York (1952), a more compelling comparison is Lucio Costa, Oscar Niemeyer et al's Ministry of Education and Health, Rio de Janeiro, Brazil (1936-42). There, a free ground plane, *pilotes*, introduced artwork, and a biomorphic rooftop landscape were the artistic foils to the scientism of the curtain wall and *brises soleil* of the office slab above. In Rio, it was state-sponsored modernism at the level of the workplace and as a spatial tonic to the density of the city's nineteenth century morphology: it was an exemplar of modernist urban design that has since been overlooked for its broad influence as the first major public building of modernism.[26]

In Melbourne, the ground plane of ICI House, with its Burle-Marx inspired landscape of rocks, succulents and accompanying sculpture, was intended to connect visually with surrounding landscapes and gardens – to those around Parliament and the Australasian College of Surgeons and diagonally to the Exhibition Gardens - acknowledgment that this project sat outside Melbourne's 1834 colonial grid. While the breach of the height limit was the signal for the development of the speculative skyscraper city, the transformation of urban space within Melbourne's colonial grid through modernist urban design (such as that evidenced by ICI House) was thwarted by a conventional focus on maximizing rentable floor space. John Stevens's biomorphic landscape for the forecourt of Bernard Evans & Associates' CRA House, Collins Street (1959-62, demolished) was a rare exception but a narrow and shallow site hindered the garden's ambition as an agent for

transforming urban space. As a result, such a combination of landscape design, fine art and urban open space was frequently drawn inside and recreated within the confines of the corporate office foyer.[27] In form, the tower and podium model of AMP House (1962), Sydney's 'first skyscraper' became a favoured model. It seemed that the traditional city would prevail.

Modernism, landscape and the city: Sydney

In Sydney, the natural landscape provided an opportunity for Harry Seidler and a team of eight colleagues to project in 1957 a complete version of CIAM-influenced modernism spiced by Niemeyer formalism for McMahon's Point as a counter to the local council's determination to list the area as an industrial zone.[28] This was a radical proposition for the complete clearance of existing industrial and housing stock and its replacement by a self-contained modern residential suburb for 15,000 people in six, twelve, and twenty-two storey apartment blocks. Arranged with low-rise linear blocks following the site's contours, and with higher linear slabs arranged *zeilenbau* behind and then point towers beyond, all were disposed according to the maximum provision of sunlight and panoramic harbour views. Interspersed between the blocks were Niemeyer-esque shaped public facilities such as a school, church, community hall, a 'floating' restaurant, shopping centre and movie-house, with a tourist hotel on the point.

As Alice Spigelman has noted, Seidler drew developer Dick Dusseldorp's attention to the McMahon's Point proposal.[29] Seidler, on Dusseldorp's request, then produced a report on the latest international developments in apartment design, advising high-density housing complemented by communal facilities like nurseries, schools, playgrounds and leisure centres.[30] While Seidler and his colleagues' project might have been polemical, Dusseldorp showed faith in their ideas for the site. He bought a 2-acre site at the tip of McMahon's Point and then commissioned Seidler to design a 28-storey apartment tower. When completed in 1962, Blues Point Tower was Australia's first strata-titled apartment building but a distant remnant of the earlier collaborative scheme. Instead of finding patronage within government, Harry Seidler's relationship with the developer Dusseldorp, initiated earlier with Ithaca Gardens apartments (1951-60), was the key to an urbanism of modernism based on capital and the Sydney landscape: capturing the panorama for private consumption and wherever possible realising luxuriant Brazilian-inspired designed landscapes at ground level. It was Dusseldorp who was the first developer[31] to use site amalgamation, which enabled Seidler to design freestanding towers that wrested central Sydney's urban morphology from its original street pattern and instated new landscapes

that responded to the city's harborside topography and included works of public art by international modernist artists.

The early climax of this collaboration between architect and developer was Australia Square (1961-7) at 264 George Street, Sydney, a site formed by the consolidation of 31 small properties. At the time of its completion, the tower was Sydney's tallest building and the world's tallest lightweight concrete building. Australia Square was not one object but two and a major open space. It was an ensemble of buildings and spaces: a 50-storey circular office tower, a separate lower slab office block of 13 floors, an urban plaza with fountains, and a series of commissioned artworks by international artists. Visually, the tower need not be considered altogether rational – it can be understood as a cylindrical rod held in visual counterpoint by a lower level prism (the office slab) and further contrasted with, at ground level, a circular fountain, circular planting beds and a piece of abstract sculpture (as it eventuated, an abstract black steel piece by Alexander Calder). In other words, at a giant scale, the whole complex could be read as the deft arrangement of a series of objects. This was a new form of urban art.[32] With the plaza and its different levels, the fountain and circular beds, the edges of which could also be seats, Seidler had created the sort of urbanism which Giedion had hoped for: a space worthy of the Baroque in its overlay of art, sculpture and architecture in service of the city. The difference was that instead of the ideology of the church being the generator for such a confluence of the arts, in Sydney it was driven a new form of real estate development whereby corporations would seek to be tenants of an iconic 'designed' development rather commission a new building in their own right.[33]

Seidler's work with Dusseldorp and his conception of the modernist city in Australia proved resilient and a formula for property development success. His subsequent skyscrapers in Sydney, Brisbane, and Perth into the late 1990s increasingly adopted the Baroque curves of Niemeyer and Burle Marx at ground and podium level to create artful public landscapes financed by private speculation that in each case attempted the modernist dissolution of the historic city. Even in Melbourne at Shell House (1985-9), Seidler's design eroded the corner of the colonial grid albeit aided by the restriction of railway tunnels under the corner of the site. Seidler's modernism for the city successfully translated Giedion's idea of what urbanism might be but no more so than ICI House had done earlier. While Gevoork Hartoonian has rightfully alluded to Seidler's project for the city,[34] it has not been studied in detail and deserves future research. At the same time, a parallel relationship between speculative capital, modernism and the colonial city remains unexplored. In this regard, some instances in post-war Melbourne bear examination.

Modernism and the colonial city: Melbourne

Following the 1834 laying out of Melbourne's grid, sites were set aside in 1837 as public reserves for functions like a customs house and markets. Two reserves eventually saw major public markets built upon them: the Eastern and Western Markets, which functioned as handsome structures of commercial exchange well into the 1930s.[35] By that time, interpretation of public use had stretched so that the Melbourne City Council was able to lease both sites to interested parties. In 1952, a competition was held for the redevelopment of the Western Market site though nothing came of this until 1962 with the construction of the 22-storey freestanding and marble-clad National Mutual Centre (1962-5) and its accompanying vast open plaza, all of which occupied an entire city block. In 1962 Pan American Airways and others redeveloped the entire site of the Eastern Markets as the Southern Cross Hotel (1960-2). In both cases, two models of the modernist city were put forward: one, the corporate office tower accompanied by the monumental public plaza; the other, the complete privatization and filling of the site with nominally public uses. The former implied the complete dissolving of the historic city; the latter implying the transformation of a city block as a multi-level multi-use urban organism. While these two projects exemplify a response to the post-war city that could be found across the globe as exemplars of the shift to an American model of transforming the city through capital, the work of the Melbourne firm of Yuncken Freeman provides a salient counter, introducing, like Seidler, an urban solution based on the specifics of the Australian city, acknowledging not just Melbourne's urban morphology and its history but also its material nature.

During the 1950s, the firm, then Yuncken Freeman Bros., Griffiths & Simpson, designed curtain-walled office buildings that complemented Melbourne's urbane street walls of the 1920s.[36] Into the 1960s, works like Scottish Amicable House (1966), in prefabricated precast concrete panels made the contextual shift from glass to mass and modulation but all the while, conforming to the taste of the 1920s, symptomatic of a firm whose principals were not only deeply involved in the city's establishment business world but also the growth and emergence of the National Trust in Victoria, where bluestone and the city's Renaissance Revival heritage were revered as essentially Melbourne.[37] It is in this context that two Yuncken Freeman projects highlight a post-war modernism that concerns itself with the historic colonial city.

The first is the headquarters office building for Royal Insurance Group, Melbourne (1962-5) – a severe black box clad in reconstituted black granite finished precast concrete

panels – but significantly, set back from Collins Street and fronting a lane to its west. The base of the building was clear. Above was smoked grey glass. In modulation and material there was reference to Melbourne's first buildings of bluestone. But it was the spatial setback from the street wall and the muteness of the form that encouraged shifting modes of perception in the city, similar to the intent Felicity Scott has recounted in reference to Mies van der Rohe's bald comments on the similar setback of the Seagram Building, New York (1954-8): "I set [the building] back so you can see it."[38] Scott makes the point: "Mies's architecture sought to capture the "technical means" and the "facts" of his age within an aesthetic assemblage in order to engage the perceptual apparatus of the modern viewer in its historical and corporeal specificity."[39] In short, the aim was art. The Royal Insurance office building had the same aim: a monumental work of art within the city and, like the Seagram, it was a radical precursor to the postmodern revision of history's absence from modernism. And it was located in Melbourne, where it also echoed Joseph Reed's setting back of the temple-fronted Baptist Church (1845-62) further up Collins Street.

Yuncken Freeman continued to pursue this locally embedded theme, most notably in their competition-winning scheme (1962) for the Victorian State Offices.[40] There, contravening competition guidelines for the placement of a tower behind JJ Clark's Treasury Building (1859), Yuncken Freeman set a low-rise palazzo form between it and the neighbouring PWD offices and offset the composition with a freestanding tower commanding its own plaza thus participating in a greater dialogue with the urban space of the Adam Lindsay Gordon monument, the date palms, Treasury and Parliament House. Thereafter Yuncken Freeman continued in central Melbourne to pursue this modernist dialogue with history and urban space in its own office building (1968) in King Street, which echoed the nineteenth century bluestone palazzi of Leonard Terry and culminating in the iconic monumentality of BHP House (1967-72). Another black tower, given entasis through its layered black plate steel facade, BHP House dissolved Melbourne's grid and familiar street wall with its clear glass foyer, creating an apparently seamless field of public space.[41] But at the same time, the footprint of BHP's tower was aligned with the existing tower of SOM's AMP Building (1963-9) across the street. The intention was the placement of two freestanding square towers as temples at the intersection of Bourke and William Streets. The precision of this placement suggests respect for the city's grid plan. At ground level, as Michael Markham has observed, this distinction disappears as the clear glazed volumes of the tower foyers dissolve the notion of a street architecture and release into the grid a new expression of openness.[42]

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Modernism and the Australian city: taking a view

The history of modernism and the Australian city is significantly more complex than the scope of this paper allows. But what has been attempted is a modest first step to outline a series of distinctive positions adopted by architects, government and corporate Australia in their embrace of aesthetic, spatial and constructive practices related to the adoption of not one but a number of conceptions of modernism and the Australian city. Accounts of public housing in Australia are understandably social and political histories rather than accounts of design intent. Recent research by Conlon and Mills has proved the inception and acceptance of modernism in public housing, related to government sponsored attempts to realise long-held reformist opinions about the negative effects of slums and a desire to 'cleanse' the city of its undeserving poor and provide for those who were deserving. The architectural tropes to support the modernist plan of the *siedlung* were however in Australia largely softened by a desire to appear comfortable and humane. Robert Freestone has recounted the fate of City Beautiful ideals in Australia being redefined by the English models of Letchworth and Hampstead.[43] The constant filter of British ideas also affected the models of modernism in public housing in Australia, by those of New Empiricism and also by the austere Anglo-interpretations of *La Ville Radieuse*.

In the central business districts of Australian cities, especially those of Sydney and Melbourne, government and business were both active patrons of not just the language of modernism but also its urban/spatial intentions to transform the fundamental nature and perception of the city. Australian architects derived specifically local solutions that signified direct engagement with the nature of the Australian city, solutions that responded, for example, to Sydney's evocative harbour landscape or the force and imprint of Melbourne's colonial grid. The most powerful projects were those which engaged in an urban design of abstract formalism, where modernism was not defined as a project of social transformation through re-housing but as an artistic pursuit of assembly that through its artfulness, both aesthetic and technical, would offer a perceptual reconsideration of the experience of the city, realising what Alexander D'Hooghe has described as post-war modernist architects' rethinking of the Acropolis "as a symbolic form of modern pluralism".[44] George Sydney Jones's desire for a civic art had returned but in the guise of modernism. These conceptions, of course, were not the end to a rethinking of the Australian city. Central Melbourne encountered a parallel attempt at a multi-level metropolis in the 1960s only to be superseded by a recovery of its 1920s street walls from the 1980s onward. Central Sydney in the 1970s earned contextual response in the form of a mature Brutalism in accompaniment to Seidler's ongoing

modernist ensembles. Both cities would experience the rise of heritage as a counter to their complete transformation. Modernism would simply be a moment in each city's ongoing evolution.

Endnotes

[1] George Sydney Jones, 'Australia and Civic Art: A Factor in National Life', *Architecture*, 2, 4 (October 1917), 85-89.
[2] Jacqueline Tyrwhitt, Josep Luis Sert and Ernesto N. Rogers, eds., *The Heart of the City: towards the humanization of urban life* (New York: Pellegrini and Cudahy, 1952).
[3] Robert Freestone, *Designing Australia's cities: culture, commerce and the City Beautiful* (Sydney: UNSW Press, 2007).
[4] For example, memorials to the Great War were constructed in Melbourne, 1927-34, Sydney, 1929-34 and Canberra, 1924-41.
[5] See Philip Goad (ed), *Judging architecture: issues, divisions, triumphs, Victorian architecture awards 1929-2003* (Melbourne: RAIA Practice Services, 2003) and Andrew Metcalf, *Architecture in transition: the Sulman Award 1932-1996* (Sydney: Historic Houses Trust of NSW, 1997).
[6] Elizabeth M Farrelly, 'The Sydney height of buildings story: an examination of the intellectual, cultural and political background to development control in Sydney City Centre 1900-1960', PhD Thesis, University of Sydney, 1997.
[7] Graeme Davison, 'The city-bred child and urban reform in Melbourne 1900-1940', in Peter Williams (ed), *Social process and the city* (Sydney: George Allen & Unwin, 1983), 143-74. Davison highlights the key role of middle class reformers CEW Bean, JW Barrett and FO Barnett as "social scientists concerned above all for the fitness of the future Australian race." See Davison, 'The city-bred child and urban reform in Melbourne 1900-1940', 152.
[8] Warwick Anderson, *The cultivation of whiteness: science, health and racial destiny in Australia* (Carlton, Vic.: Melbourne University Press, 2005), 165-71.
[9] Sigfried Giedion, *Space, time and architecture: the growth of a new tradition* (Cambridge, Mass.: Harvard University Press, 1949 [1941]), 586.
[10] Manfredo Tafuri, *Architecture and Utopia* (Cambridge, Mass.: MIT Press, 1976), 116.
[11] Eric Mumford, *Defining Urban Design: CIAM Architects and the Formation of a Discipline, 1937-1969* (New Haven, Ct: Yale University Press, 2009).
[12] Gevoork Hartoonian, 'Harry Seidler: Revisiting Modernism', *Fabrications*, 20, 1 (January 2011), 31. In the next sentence, Hartoonian incorrectly cites Seidler as having published the first monograph of his work in 1963. Seidler produced his first monograph in 1954. See Harry Seidler, *Houses, interiors, projects* (Sydney: Associated General Publications, 1954).
[13] For example, Hartoonian fails to mention Harry Margalit's study of modernism and Sydney (see Harry Margalit, 'Reasoning to believe: aspects of modernity in Sydney architecture and planning 1900-1960', PhD Thesis, University of Sydney, 1997), the hospitals of Stephenson & Turner and Leighton Irwin, and individual contributions of architects pre-1948 such as in NSW, Sydney Ancher and Arthur Baldwinson, in Victoria, Mewton and Grounds, Best Overend, and Seabrook and Fildes amongst others, and a host of émigré modernist architects like Hugh and Eva Buhrich, Harry Epstein, Ernest Fooks, Karl Langer and Frederick Romberg.
[14] See Morton Herman, 'Urban Housing', *Architecture* (October 1937), 221-7.
[15] The architects for Erskineville were officially Louis S Robertson & Son in association with WR Richardson. See 'Erskineville Re-Housing Scheme', *Architecture*, 27, 12 (1938), 292; *Building* (24 December 1938); and Morton Herman, 'The Erskineville Re-Housing Scheme', *Art in Australia*, 74 (February 1939), 68-73.
[16] Caroline Butler-Bowdon and Charles Pickett, *Homes in the sky: apartment living in Australia* (Carlton, Vic.: The Miegunyah Press, 2007), 129.
[17] DT Morrow & Gordon was also responsible for, on behalf of the NSW Housing Commission, 'Greenway' at North Sydney (1949-54), Australia's largest residential development at the time of its completion.
[18] Percy Gordon and collaborating architect Aubrey Kerr had travelled to Sweden and Great Britain in 1947 to study public housing and associated community facilities and landscaping. See Percy J Gordon, 'Housing in Sweden: Unique flat planning', *Building and Engineering* (24 June 1948), 38-9.

[19] Matthew Conlon, '*Funkis* Sydney: architecture from Sweden's welfare state for Sydney's mid-twentieth century slum clearance-rehousing projects', PhD Thesis, University of Sydney, 2011, 206.
[20] Peter Mills, 'Prefabricating the Towers: the genesis of the Victorian Housing Commission's high-rise estates to 1969', PhD Thesis, Monash University, 2011.
[21] *Herald* (12 March 1958).
[22] Mills, 'Prefabricating the Towers'. The Villagio Olimpico, Rome, Italy (1958-60) was designed by a team of architects comprised of Vittorio Cafiero, Adalberto Libera, Luigi Moretti, Vicenzo Monaco and Amadeo Luccichenti.
[23] 'A Satellite Town for 10,000 people' in Walter Bunning, *Homes in the Sun: the past, present and future of Australian housing* (Sydney: WJ Nesbit, 1945), 91 and Robin Boyd, 'Is this your city? No, because your city's out of date', *SALT*, 7, 13 (28 February 1944), 28-31.
[24] Ann Stephen, Philip Goad and Andrew McNamara, 'Introduction', to Ann Stephen, Philip Goad and Andrew McNamara (eds), *Modern Times: the untold story of modernism in Australia* (Carlton, Vic.: The Miegunyah Press and Powerhouse Publishing, 2008), xxviii.
[25] Philip Goad, 'ICI House, Melbourne', in Jennifer Taylor (ed), *Tall Buildings, Australian Business Going Up, 1945-1970* (Melbourne: Craftsman House, 2001), 174-89.
[26] The other key example was the United Nations Headquarters, New York, USA (1947-53) designed by Le Corbusier, Oscar Niemeyer, Sir Howard Robertson amongst others, in association with the firm of Harrison & Abramowitz.
[27] For example, Bates Smart & McCutcheon's South British Insurance Building, Melbourne, VIC (1961). See Philip Goad (ed), *Bates Smart: 150 years of Australian architecture* (Melbourne: Thames & Hudson, 2004), 176, 180.
[28] Harry Seidler headed the team, which included: Lyle Dunlap, Richard Fitzhardinge, Harry Howard, Ivan Seifert, Andrew Young, Philip Jackson, Douglas Gordon and Michael Boyle. See 'A Redevelopment Project for McMahon's Point, North Sydney, Australia', *Arts and Architecture* (February 1958), 16-17.
[29] Alice Spigelman, *Almost Full Circle: Harry Seidler* (Rose Bay: Brandl & Schlesinger, 2001), 205.
[30] 'Multiple Dwellings: a study prepared for Civil & Civic Contractors Pty. Ltd', 1958. (Call No.: MLMSS 7078/24), State Library of NSW.
[31] This claim is made by Alice Spigelman, *Almost Full Circle: Harry Seidler* (Rose Bay: Brandl & Schlesinger, 2001), 188.
[32] Philip Goad, 'Australia Square', entry in Philip Goad and Julie Willis (eds), *The Encyclopedia of Australian Architecture* (Melbourne: Cambridge University Press, 2011), 50-1.
[33] Goad, 'Australia Square', 50.
[34] Gevoork Hartoonian, 'Harry Seidler: Revisiting Modernism', *Fabrications*, 20, 1 (January 2011), 30-53.
[35] The Western Market was leased as a car park in 1934. The Eastern Market was demolished in 1960.
[36] For example, Norwich Union Insurance Societies, Queen Street, Melbourne (1956-7).
[37] For example, in Maie Casey et al's *Early Melbourne Architecture* (1953), contributors included John R Freeman and Tom D Freeman, both directors of Yuncken Freeman Bros. Griffiths & Simpson, and acknowledgement made also to Balcombe Griffiths, also a director.
[38] Mies van der Rohe, quoted in John Peter, 'Mies van der Rohe', in *IDCAA-Sources and Resources of Twentieth Century Design* (Aspen, 1966). Felicity Scott uses this quote in her extensive review of the Seagram Building's history. See Felicity Scott, 'An Army of Soldiers or a Meadow: The Seagram Building and the "Art of Modern Architecture"', *Journal of the Society of Architectural Historians*, 70, 3 (September 2011), 330-53.
[39] Scott, 'An Army of Soldiers', 336.
[40] *Cross-Section*, 125 (March 1963).
[41] Philip Goad, 'BHP House, Melbourne', in Jennifer Taylor (ed), *Tall Buildings, Australian Business Going Up, 1945-1970* (Melbourne: Craftsman House, 2001), 260-81.
[42] Michael Markham, 'The Limits of Principle (Climacteric City)', *Backlogue, Journal of the Half Time Club*, 1 (March 1992), 14-16.
[43] Robert Freestone, 'From city improvement to the city beautiful', in Stephen Hamnett and Robert Freestone (eds), *The Australian Metropolis: a planning history* (St Leonards, NSW: Allen & Unwin, Year), 45.

[44] Alexander D'Hooghe, *The Liberal Monument: Urban Design and the Late Modern Project* (New York: Princeton Architectural Press in collaboration with Berlage Institute, Rotterdam, 2010), 17-20, 64-7.

Reading Riegl's Baroque with Semper![1]

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Abstract

The English edition of Alois Riegl's script, The Origin of Baroque Art in Rome *(2010) is significant for many reasons, including the fact that it casts a different light on the historicity of Baroque, and the subject's importance for contemporary theorisation of architecture seen through the Deleuzian idea of fold. Originally prepared for lecture notes, Riegl's text necessitates reconsidering the operative role of Kunstwollen, a methodological concept guiding most of his work. This paper's take on Riegl is rather a modest one. Focusing primarily on the section on architecture, I will read Riegl's Baroque in the light of his reflection on Gottfried Semper's theory of architecture discussed in* Der Stijl *(1863). I will give particular attention to the dynamics, if not complexities, involved in Semper's juxtaposition of the culture of building with the historicity of architecture. I will argue that, following Semper, the individuality of architectural object should not be reductively associated with ideas such as period style, aesthetics, and/or the formal. Rather the autonomy of architecture should be discussed in terms of the architectonics of what Semper indexed in his famous 'four elements of architecture.' This paper posits that what is considered to be a 'pluralistic' turn in Riegl's late work is nothing but his Semperian moment.*

Opening

Several years ago, while exploring the impact of technology on modern architecture, I suggested that the early historiography of the modern architecture movement could be re-written, to chart diverse approaches to 'objectivity' that were motivated by emerging industrial techniques, materials, and new building types.[2] The surge in *Neue Sachlichkeit* was, on the one hand, a push toward 'cleansing' architecture of elements and detailing that were remnants of the masonry construction system. It was, on the other hand, part of a general tendency to cultivate a perception of objectivity that, paradoxically, was popularised by the Arts and Crafts movement. Regardless of its ideology of Romanticism, this British movement made significant advances in promoting a different architecture without engaging in the style debate. It was a 'reaction against the Victorian clutter, the enveloping, slightly frenzied art nouveau total interiors, against the heavy furniture ensembles that weighed down everyday life.'[3] It is unnecessary to reiterate, here, the

criticality of the theme of style for the formation of modern architectural discourse.[4] However, I will look briefly at Gottfried Semper's contribution to the subject, highlighting themes that are critical for Riegl's reading of Baroque architecture. I will give particular attention to the tectonics of column and wall, a subject that is central in their discourses. To this end, I will begin by presenting a brief summary of Semper's theory of architecture, aspects of which are further elaborated on later in the essay.

What stands out in *Der Stjil* (1863) is the way that the text sheds light on many misunderstandings of Semper's architectural theory. Of particular relevance is Semper's insistence that form, the final product of any production activity, is of a structural-symbolic, rather than structural-technical, nature. From Semper's point of view, the question of style (aesthetics?), a topical theme for late nineteenth-century architecture, neither centers on technique, nor has anything to do with what he called 'schematism,' philosophy applied to art. In order to become part of the prevailing culture of objects, a constructed form has to be transformed into the tectonic, the genesis of which, according to Semper, rests in the ur-form of textile — itself the basis of all works of art. For him, tectonic is construction plus something else. The excess is informed by cultural issues, such as perception, aesthetics and their appropriation through a particular technology.[5] Reflecting on these issues, Semper did not subscribe to a linear vision of history even when he had to explain, for example, why the architecture of most ancient cultures stopped short of producing works similar to that of Hellenic culture.

Semper's project, the reconstruction of cultural history in general, and the history of style proper, was an ideological one. Central to his project is a point of view that challenged various positions, including: Carl Botticher's argument that Greek temples were the result of artistic forms motivated by techniques of stone-work; J. Winckelmann's narrative of the origin of architecture, and his belief (common among other scholars) that Hellenic architecture was blind to colour; the Vitruvian formulation of the origin of architecture and the belief that Greek temples were not the result of the translation of the wooden hut into a stone structure; the culture of humanism and its tendency to put the body at the centre of any discussion concerning architectural forms; and, finally, the short-sightedness of the nineteenth-century debate on historicism, Gothic versus Greek style.[6] Further, and in anticipation of modern theories of architecture, Semper highlighted the confusion iron had introduced into the scope of the language of civic architecture: monumentality. Thus, Semper's hidden agenda; hidden because the principle of dressing, *Bekleidung*, is introduced to a discussion that concerns textiles, an overarching subject throughout his script.

For Semper, textiles, the progenitor of ur-form in technical arts, set the basic motifs that in time are transformed into the forms produced in industries such as carpentry, ceramics, and masonry. This transformation, according to Semper, takes place through techniques internal to each industry. From this emerged the tectonic of column and the wall, a theme essential for the transformation of a constructed form into architecture. We are reminded of the principle of dressing and its capacity to cover the body while providing a spatial enclosure through which the body comes to the realisation of the materiality of its own interiority, i.e., a person's subjectivity. Following Semper, it is possible to deconstruct the very nucleus of the internal/external division implied in the ur-forms of clothing – a division that is, paradoxically, an essential theme for his theory of style. He presented *style* as an enclosed and finite system (autonomy), and tended to discuss style-motifs with issues such as purpose, material, and technique.

Still, the analytical method implied in Semper's discussion of the origin of architecture underlines the ways that architecture differs from painting and sculpture. In part, the difference stems from the fact that the art of building has been operating for a long time as a montage of various trades, the sum-total of which constitutes what I would like to call the thematic of the culture of building. Architecture's disciplinarity is nothing but the translation of motifs derived from these constructive trades into forms proper to architecture: the tectonics. We are reminded of the contribution of carpentry for roofing, and that of masonry for terrace making. Thus the ontology of artistic work: how to make a virtue out of necessity? And how to give life to dead material? Page after page Semper's text demonstrates how everyday objects, utensils and domestic furnishings are elevated into a structural-symbolic work (tectonic) first, and their motifs are then transformed into the cultural realm: monumentality. Reversing his attention from historical masterpieces to the marginal, Semper reveals a historiographic position, aspects of which were shared not only by Riegl, but also by Heinrich Wölfflin and Siegfried Kracauer.[7]

Semper's theory of architecture bridges the gap between 'high' and 'low' arts, deconstructing both the linear vision of temporality implied in the seventeenth-century debate between the ancients and moderns, and the cyclical notion of time delivered by art historians' discourse on period style. In doing so, Semper established a proto-modernist montage of architectural object which consisted of 'the ephemeral, the fugitive, the contingent, the half of art whose other half is the eternal and the immutable,' to recall Charles Baudelaire's concept of modernity.[8] Consider this: the form of a vessel is informed by the climate, material, and cultural history of a given region. At the end, it is

the surface treatment of the vessel that elevates the vessel into the cultural and artistic realms, revealing the work's temporality. Echoing Semper, Siegfried Kracauer wrote; 'the position that an epoch occupies in the historical process can be determined more strikingly from an analysis of its surface-level expressions than from that epoch's about judgment itself.'[9] What should be noted here is the primacy of the principle of dressing, and the *lawful* articulation of 'surface' – not the surface of the raw material, but the surface that has already been prepared to receive linear or planar motifs. From this arises the need for establishing a constructive understanding of the relationship between purpose, material/technical and what is called the structural-symbolic dimension of tectonics.

Semper's discourse on tectonics should be read in conjunction with the modernist discourse on objectivity. What makes his case unique, however, is his idea that the traces of temporality on the surface of a constructed form project the latter into the cultural realm. It is this aspect of Semper's theory of architecture that recalls Riegl's theories, which I will use in the next two sections to theorise the historicity of Baroque.

Column and Wall I

What is useful in the Semperian montage is its potential to expand the scope of aesthetics to include various aspects of the material culture. This might be one reason why most art historians have given serious attention to the German architect's position that aesthetics cannot be dissociated from the ur-forms of building. For Alina Payne, for example, if one half of Riegl is Hegelian, for the other half, one should look to Semper's placement of objects at the center of the culture.[10] Michael Gusber also writes that, if Riegl's 'notion of art as mind overcoming material, and even his emphasis on the role of the viewer in art all have a distinctly Hegelian resonance,'[11] his attempt to bridge the gap between decorative arts and handicrafts is Semperian.[12] Similarly, Riegl claims that, 'the urge to decorate is one of the most elementary drives, more elementary than the need to protect the body.'[13] Still, Riegl's attempt to tie artistic development to technical and economic changes has close affinities with Semper's technical-materialist thesis, even though, by the time of finishing the *Problem of Style*, Riegl had already moved away from Semper's discourse. To support these claims we need, first, to recall Riegl's formulation of the tectonics involved in architecture's transformation from the haptic to the optic realm; and then turn to his discourse on Baroque architecture. My argument in this paper is that, softening his position on *Kunstwollen*, Riegl's reading of Michelangelo draws from a proto-phenomenological tendency elicited in his early writings on time and history.[14]

Central to the optic dimension of architecture is what Riegl called the 'subjective planarity' impression. Reflecting on the mature Hellenistic architecture, he described the phenomenon in the following words:

> the freestanding supports, once pulled back and incorporated into the walls, make the overall form of the building more compact and imposing, whereas the pilasters, which present themselves as fully rounded piers that support the ceiling, even though they are really only reliefs, create a subjective planar impression.[15]

Thus, to depart from the language of Gothic cathedrals, the Italian Renaissance had to 'simulate the movement of inorganic masses.' Of the church architecture of the post-Michelangelo era, Riegl observed, 'instead of the whole building being set in motion, as would be natural for any unified body, this was attempted only on one part, the façade.' Everything else remained hidden, he added. He went further, suggesting that, 'While a great burst of movement sweeps across the façade, no movement is perceptible within the building.' And he concluded that, 'there is almost no correspondence between the interior and the movement in the exterior – another factor that manifests this architecture's contrast with Gothic.'[16]

Riegl's formulation of art's transformation from haptic to visual is significant when read in conjunction with his debate with the Semperians. The focus of the debate concerned questions of technique, function and their implications for artistic creativity. This subject was prominent during the mid-nineteenth century when most architects were preoccupied with two issues: on the one hand, the injunction that technique and material play a significant role in the development of any new style; and on the other hand, the limitations and potentialities that a particular technology imposes on the artist or architect's creative capacity. This much is clear from Semper's argument: that architecture is primarily a constructed form (core-form). A constructed form is necessarily affected by variables such as site, material and technique, the physical and volumetric outline of which is expected to set a departure point for an imaginative articulation of the building's art-form.[17] Upon this dialectic between 'object' and artistic creativity lies Semper's disenchantment, as we will see shortly, with both Gothic architecture and the literal translation of its constructive principles into iron and glass structures, as exemplified in Crystal Palace.

While the tectonic concerns the artistic articulation of construction, it nevertheless, should

be understood in relation to Semper's theory of dressing and the essentiality of the element of wall. In *Der Stijl*, Semper claims that 'only through emancipation from structural-material realism, through a symbolic spiritualization of their functional expression'[18] could architecture touch the ground of monumentality – a proposition anathema to Gothic, where the dissolution of the element of wall confines the scope of the art-form to the ornamentation of construction.[19] This dimension of Semper's discourse was important for Riegl, not only because of his own interest in motifs derived from textile, but also because he detected a sense of *Kunstwollen* implied in Semper's theory of style.[20] What this means is that, if architecture is more than a constructed form, then an image (perception?) of the final work should precede the constructed form. Such an image cannot be immune to the temporality of *Kunstwollen*, the material realisation of which takes place through dressing.[21]

For Riegl, *Kunstwollen* was a gestalt of continuous flow of thought-making a reciprocal dialogue with socio-technological transformations. His early writings on time and calendar demonstrate a tendency to trace 'the development of visual signification in material objects' without listing historical events chronologically.[22] Margaret Iversen writes that, 'for Riegl, different stylistic types, understood as expression of a varying *Kunstwollen*, are read as different ideals of perception or as different ways of regarding the mind's relationship to its objects and of organising the material of perception.'[23] However, between 1893 and 1901 (the crucial eight years during which Riegl formalised the gist of his positions vis-à-vis Semper) his understanding of *Kunstwollen* changed. Instead of contemplating the idea in terms of artistic will to form, from 1894 to 1895, the period during which he wrote his lecture notes on Baroque architecture, Riegl used the concept of *Kunstwollen* to address the process of the creation of form beyond any constraints of the kind implied in the Hegelist imposition of *Zeitgeist*.[24] Hegel saw zeitgeist as casting a shadow on every artistic development that unfolds within a given epoch.[25] By contrast, Riegl was concerned with the developmental processes of the subjective vision of the observer, and the visual traces of time on the surface of the object.[26] It is this dialectics of history and temporality that makes the work of art history different from the opinions of a connoisseur.

For a better understanding of their mutual exclusiveness, we should now turn to both Riegl's and Semper's diachronic reading of Gothic and Renaissance architecture. Of interest is the specific nature of the tectonic dialogue between column and wall. According to Riegl, in order to avoid the dissonance caused by the addition of rounded columns to a flat wall, mature Hellenistic architects employed pilasters to support the

ceiling. This subject was also addressed by Wölfflin, who wrote, of Michelangelo's use of columns in Conservator's palace, 'The columns cannot be freed from the wall. These are not half-columns, but free and whole ones, but they have not yet gained their freedom. Half has become detached but the rest is embedded.' To show his affinity with the theory of empathy, Wölfflin concluded that, 'the impression of one's imagination is that of an endless, restless striving for freedom.'[27] Both historians did indeed endorse the importance of freestanding rounded columns in Greek temples.[28] In this light, we can claim that, in Hellenistic architecture the tectonic configuration between pilasters and the roof follows the constructive logic implied in the primitive hut. Paradoxically, the pilasters were considered essential for the projection of a 'surface' perceived as independent of the wall.

That Riegl's analysis is focused on the formal properties of architecture is obvious. What needs to be underlined is this: besides an interest in the tectonic of wall and roof, Riegl and Semper's analysis of Gothic versus Renaissance architecture develops in opposite directions. Riegl was primarily concerned with the diminishment of the corporeal continuity between wall and roof (the Pantheon?) when the wall is pierced by window openings (Gothic). Equally important is Riegl's criticism of Gothic architecture as far as the loss of haptic experience of architecture is concerned. In his words: 'the relation of form and surface in the Gothic period was determined by the elimination of wall. In place of the once-continuous wall surface there now appeared single, discrete forms, the buttresses.' Riegl's criticism was also directed at the appearance of small arches and windows placed above the row of tracery. To him, these architectonic elements expedited the dissolution of the element of wall, even though, in the late Gothic, the upward movement of columns was curved to join the structural web of the ceiling.[29] More recently, Robin Evans has observed that, in the choir vault of Gloucester Cathedral (1367) the ribs look as if they are attached to a huge cambered sheet covering the entire choir. Thus the dissolution of the emphatic distinctions that one could make between the column and the wall; instead, *decorum* hinges on the tectonic rapport between structure and ornament.[30]

Furthermore, what concerned both Riegl and Semper was not the constructed form as such, but its tectonic effect. In Gothic cathedrals, Hubert Damisch writes, 'the visible framework, the tracery of ribbing, and salient features' are thrown over the masonry structure like a net.[31] The image of a perforated structural system filled with masonry elements suggests a constructive form in which the wall's enclosing function is undermined (Riegl's concern), whilst its cohesiveness with the visible framework puts

considerable limitations on the artistic embellishment of the art form (Semper's concern).[32] Needless to say, in Germany in the early decades of the nineteenth century the Gothic revival initiated an interest in both the constructive nature of the pointed arch, and the ways that the pointed arch differed from the Romanesque vault system. Also of interest is the perceptual lightness associated with Gothic structures. This phenomenon was seen as partly due to the replacement of planar elements with the linear ones. This is one reason why during the Gothic revival architects made analogies between iron structure and the structure of Gothic buildings.[33]

Riegl's criticism of Gothic architecture was, however, focused on the perceptual experience of form and surface, a subject that was increasingly complicated in post-Renaissance architectural discourses. One is reminded of Leon Battista Alberti's *De re aedificatoria* where, discussing the column/wall relation, the architect characterises the column as *ornament par excellence*. The subject of ornament was clearly of great interest to Alberti. He devoted four of his ten books to a topic that would be subject to a dualistic approach, at least in the aftermath of John Ruskin's discourse on ornament. For Alberti, ornament was internal to architecture, and a building required no addition to its nakedness. It was, according to Joseph Rykwert, 'quite literally essential to the making or the experience of any building, since without the ornament he [Alberti] speaks of, no building may be used, inhabited or even seen.'[34] What should be added here is that, to be associated with the 'wall architecture,' the column had to be dissociated from the tectonic of Greek construction system.[35] Most recently, Peter Eisenman has noted that Alberti 'articulated the wall both as a constructional system and as a conceptual entity.'[36] Nevertheless, it was Wittkower who recognised the doubling involved in Alberti's discourse on the column and wall, and the ways that the architect overcame that problem in his design of S. Andrea, Mantua (1470).[37]

According to Wittkower, after the design of S. Francesco, Alberti became aware of the architectonic problems of using rounded columns attached to the wall. The Italian architect had 'to decide between the authority of classical architecture and the contemporary demands of a logical wall architecture.' While the column remains the main ornamental element in Alberti's architectural theory, in his later work the column is replaced by pilaster. In making this shift, two things were achieved: firstly, the column was completed with entablature, as was the case with classical temples; secondly, by placing the rounded arch of the entrance above two shorter pilasters, Alberti evoked a simulated image of the triumphal arch. Given the essentiality of a masonry construction system for the realisation of both Gothic and Renaissance buildings, Alberti's complex

image of architecture left him with no choice but to juxtapose the element of column with the Romanesque approach to the wall architecture. It is this development, I would suggest, that has made Renaissance architecture of interest to modern architects and theoreticians, including Semper.

For Semper, the masonry construction system's potential to create perceptual depth is central to its monumental effect. The surface of the wall offers a backdrop for formal embellishment, i.e., dressing. In retrospect, it is evident that, as Eisenman argues, unlike columns, the wall 'had no agreed-upon conventions, and geometry replaced classical ordination as a guiding principle in wall building.'[38] While the alleged 'thickness' of the wall (Damisch calls it 'cyclopean masonry'[39]) was instrumental for Riegl's conceptualisation of what he calls 'subjective planarity,' his criticism of Gothic should be differentiated from that of Semper. The difference between Semper and Riegl is revealing when their texts are read in the light of Guarino Guarini's reflection on Gothic architecture. Guarino claimed that, in contrast to Roman architects' desire to show the strength and solidity of the wall, Gothic builders 'wanted their churches to appear structurally weak so it should seem miraculous that they could stand up at all.' In Guarino's words, the arches erected by Gothic builders 'seem to hang in the air; completely perforated towers crowned by pointed pyramids; enormously high windows and vaults without support of walls.'[40] Interestingly, writing on Notre Dame de Paris in the 1950s, Hans Sedlmayr observed that the building's 'bulky supports are visual symbols of the church on earth upon which the spiritual church floats down from heaven.'[41] Apart from the duality of lightness and heaviness, herein lies a symbolic interpretation of the Semperian earth-work and the frame-work. It might be that what both Semper and Riegl dismissed was the possibility of the tectonic of the 'wonderful' – baroque, if you wish. This observation is important considering the dialogue Riegl establishes between 'will' and 'emotion.' My intention in this paper is not to investigate these issues across Baroque architecture. Rather, it is Riegl's interpretation of the dialogue between the column and the wall in Michelangelo's work that prompts me to highlight Semper's importance for a different interpretation of Baroque.

Column and Wall II

Was Riegl's dismissal of the 'wonderful' the reason why, in *The Origins of Baroque Art in Rome*, he confined his assessment of the Baroque to Michelangelo's work? Starting with the question of 'what is Baroque art?', we are reminded of the concept of the 'extraordinary,' a quality expected from the best work of art. However, considered alongside what Riegl terms the 'unfamiliar,' the extraordinary dimension of Baroque art is

presented in terms also used to discuss troublesome and disturbing work.[42] It is important to remember that racial and regional issues, for example the Germanic versus the Italian, also provided impetus for Riegl's search into the nature of Baroque. According to Riegl, one reason why German academics did not appreciate the Italian Baroque was that the southern artists used motifs that were inspired by the seventeenth century *Kunstwollen*. A completely un-northern effect, for example, was the motif used to address 'the relation of the individual figures to the spatial setting.'[43]

To assess the significance of Baroque, Riegl had to walk a tightrope. On the one hand, he believed that each of the so-called three sister arts should routinely resolve their internal problems usually posed by the period (*Kunstwollen*); on the other, he was aware of the sheer significance of the Jesuit mentality (a subjective issue) for the analysis of Michelangelo's work.[44] The implied paradox, I would like to claim, informs Riegl's short review of contemporary literature on the subject of Baroque.[45] More importantly, Riegl's reading does not explicate the role *Kunstowllen* plays in the genesis of Baroque architecture. Rather, his attention is focused on the notion of the 'subjective,' and its presence as 'indicative of an entirely modern circumstances.'[46] Here the word 'modern' is used strategically, in response to the point of view that sees Baroque art and architecture as an anomaly to the historical necessity (naturalness?) of Renaissance compositional norms – symmetry and hierarchy in architecture, for example.[47] Making a similar claim, Evonne Levy demonstrates the incipient political intentions in Wölfflin's early work. We are reminded of the presence of a 'modern' ideological operation in the Baroque tendency to shake up the part and whole equilibrium of Renaissance architecture, through which the whole (for example the dome of St. Peter's?) acquires overwhelming presence.[48]

However, a comprehensive understanding of Riegl's reading of Baroque is only possible when terms such as 'modern', 'will' and 'emotion' are considered together. To do so highlights the art historian's self-awareness of the limits of the concept of *Kunstwollen* for interpreting a body of work that had disrupted the prevailing will in the Renaissance, specifically the tendency to represent a harmonious and balanced composition objectively. To put it differently, and in reference to Riegl's research concerning *time*, the work of art ought to reveal nothing but its historicity, in other words its temporality. The wall, for instance, is an inherent architectonic element. The experience of the wall, however, shifted from tactile (touch) to spatial (optical) when the spectator felt like taking distance from the wall. It is this subjective awareness, a phenomenon with minimal connection to the inherent tropes of the art of building, that prompted Riegl to equate

Baroque with the 'modern.' In the dialectics between will and emotion, on the other hand, Michelangelo is of interest to him because in the artist's post-1520 work the will resists, whereas in Bernini's art it yields.[49]

To consolidate his reading of Baroque, Riegl turned to Michelangelo's design for the interior wall and the stair of the tomb of Lorenzo de' Medici, located in the vestibule of Laurentian Library (1530). A representational association between architecture and sculpture is supported by a discussion concerning the positionality of the sarcophagi and the sculpture of the deceased figure vis-à-vis the wall. Most relevant to this essay's focus on the column and wall is the figure of the deceased, which is recessed in a niche. It is not so much the literal association one can make between Giuliano's position with the recessed pair of columns of the wall, but rather the centrality of themes, such as surface, line, and the dialogue between column and wall, that shed a different light on Riegl's reading of this particular work of Michelangelo's. Among other things, Riegl highlighted the conflict between sensibility and will, a discord demonstrated 'between the attitude of the head and the body in the figure of Giuliano and Night.'[50] I will not dwell on the significance Riegl gives to the function of lines inscribed on the surface of clothing, a strategy that intensifies the representational effect of the expressed emotions; rather, I will continue my discussion by focusing on the figure of Giuliano and the recessed pair of columns, in conjunction with Alberti's dicourse on the column and wall.

In *De re aedificatoria*, Alberti suggested that the 'whole matter of building is composed of lineaments and structure.' He claimed that the purpose of lineament is to define and articulate the surfaces of the building.[51] Alberti's remarks anticipate how important the wall and surface would become for both Semper and Riegl. Equally noteworthy is Alberti's association of the column with ornament, noted earlier. In the Palazzo Rucellai the distinction between column and the wall has the least to do with their tectonic effect. These two architectonic elements are rather presented as a by-product of lineaments, and surface articulation, issues that Riegl would consider as an early attempt towards 'autonomous representations of depth.'[52] Alberti's association of the column with ornament is, however, paradoxical. The lineaments of the surface-face of Rucellai do not stand for the tectonics of column and wall. There is indeed no column in the main façade of the building, but pilasters carved out of the building's surface cladding. This is not the case with the main façade of St Peter's, where what seems to be an undulating wall in plan is transformed into a number of pilasters attached to the wall, the overall repetition of which evokes verticality. This tectonic reversal reaches its highest point in the building's dome, designed by Michelangelo circa 1534. In Riegl's words, 'Buttresses, decorated at

the front with paired columns, have been placed in front of the drum: these columns are not meant to please the eye [Rucellai?], but rather symbolise through their coupling the effort necessary to carry the dome.'[53] Still, each of the exposed buttresses of the dome stands on a pair of columns, the overall composition of which alludes to Gothic architecture if the masonry infill between them is removed. Thus Riegl's criticism of his contemporaries, but also Vasari, because they 'completely ignored the intrinsic relation between the Gothic and Baroque styles.' One is also reminded of the historical fact that the term Baroque was not popular in the seventeenth century. The word used to describe the license taken by Borromini was Gothic.[54] This is significant in connection to Riegl's assessment that Michelangelo, 'resuscitated the essential point of the Gothic organic growth instead of harmonic repose based on gravity.'[55] This much is also clear from James Ackerman's reading of the vestibule of the Laurentian Library. According to him, Michelangelo altered the classical role of columns, which seem to be independent from architecture, like statues in the niches, while the projecting wall appears to support the roof. He goes further, suggesting that, contrary to the canonical use of the column as ornament, Michelangelo's 'invention is as essential to the stability of the structure as a Gothic pier.'[56] The opposition between the structural function of column and wall and their visual effect lies at the hearth of Riegl's twist to the Semperian tectonics.

The difference between Riegl and Semper is also implied in the distinction Riegl makes between the verticality attributed to the façade of the church of Gesu and that of Gothic cathedrals. In the latter, the urge for verticality is presented as part of building's spiritual purpose. In the Gesu, we read, verticality is part of the tectonic expression of a downward compression visible across horizontal disposition of the façade's lower portion. The wall here 'has been conceived as an element with the purpose of mobility.'[57] Riegl's observation recalls Wölfflin's characterisation of Baroque in terms of 'massiveness and movement,' and Wölfflin's conviction that Michelangelo laid the course of Baroque architecture to be realised in the Gesu, and in Carlo Maderno's Santa Susanna. Interestingly, what are absent from these two buildings are the architectonic elements identified with the Jesuit art. Thus, Riegl proposed that Bernini's accentuation of the movement of architectural mass went beyond Michelangelo's work; for Riegl, Bernini inaugurated the second phase of Baroque architecture.[58] Riegl's fixation on Michelangelo is perhaps one reason why his text is entitled *The Origins of Baroque Art in Rome*.

I will further explore the tectonic connotations of the column and wall in Baroque architecture on another occasion.[59] Here, and in conclusion, I would like to establish the following: in Semper's discourse, what undermines the load-bearing function of column

and wall is the material embellishment of cladding. In the case of Alberti, the column remains an ornament independent of its tectonic dialogue with the wall. This is one reason why in Palazzo Rucellai it is the pilaster that is identified with the wall. The disposition is classical in that it demonstrates the pilaster's mediating role between the wall and a row of frontal columns. In Riegl's reading of Michelangelo, on the other hand, the paired columns of the vestibule of the Laurentian Library are presented as 'relief' - both in the literal sense of the word and in reference to Giuliano's figure in relief. I will go further and suggest that these columns express a *relief* from the anxiety caused by the Hellenistic juxtaposition of column and wall. Still, if one agrees with Riegl's position that Michelangelo is the founding architect of the origins of Baroque, then the tentative separation of column from wall is Baroque's main contribution to the emancipation of column from wall, thereby 'lightening the wall's load and mass', as suggested in Harry F. Mallgrave's reflection on Perrault's invented colonnade in the Louvre.

Finally, to highlight the continuity of the dialogue between column and wall throughout architectural history is not to suggest that history's course is linear and without rupture. Rather, the aim is to bring the ontological dimension of the culture of building to the reader's attention, and to show how the tectonics of column and wall are approached diachronically throughout history. Thus, the modern attributed to Baroque should be dialectically reposed with the return of Gothic motives in the best Baroque churches discussed above. Furthermore, a dialectical approach to time and history has the potential to highlight the significance of historiography in the age of globalisation and *fluidity*, a subject that not long ago was dismissed amidst delusional claims for the end of history.

Endnotes

[1] The idea of writing this essay was inspired by the author's visit to Rome, May 2011, and scholarly presentations on the topic of Baroque during the 2010 SAHANZ conference.
[2] Gevork Hartoonian, "Poetics of Technology and the New Objectivity," *Journal of Architectural Education*, 40/1 (Fall 1986): 14-19.
[3] Alina Payne, "Bauhaus Endgame; Ambiguity, Anxiety, and Discomfort," in Jeffrey Saletnik and Robin Schuldenfrei (eds.), *Bauhaus Construct: Fashioning Identity, Discourse and Modernity* (London: Routledge, 2009), 256.
[4] On this subject see *Fabrication* 17:2 (December 2007).
[5] Gevork Hartoonian, *Architecture and Spectacle: A Critique* (London: Ashgate Publishing, June 2012).
[6] Harry F. Mallgrave's introduction, in Gottfried Semper, *Style* (Los Angeles: The Getty Research Institute Publications Program, 2004).

[7] Fredric J. Schwartz, *Blind Spots: Critical Theory and the History of Art in Twentieth-Century Germany* (New Haven: Yale University Press, 2005), 139.
[8] Charles Baudelaire, "The Painter of Modern Life," in *The Painter of Modern Life and Other Essays*, trans. J. Mayne, (New York: Phaidon, 1964), 13.
[9] Siegried Kraucauer quoted in Schwartz, *Blind Spots:* 138.
[10] Alina Payne, "Beyond Kunstwollen: Alois Riegl and the Baroque," in Alois Riegl, *The Origins of Baroque Art in Rome*, ed. and trans. Andrew Hopkins and Arnold Witte (Los Angeles: the Getty Research Institute, 2010), 4.
[11] Michael Gusber, *Time's Visible Surface* (Detroit: Wayne State University Press, 2006), 19.
[12] Gusber, *Time's Visible Surface*, 33.
[13] Gusber, *Time's Visible Surface*, 179-180. According to the author, both the so-called geometric style and naturalism of the Persian rugs is linked to economic consideration, and the growing demand for Persian luxury rugs.
[14] On this subject see Gusber, *Time's Visible Surface*.
[15] Alois Riegl, *Historical Grammar of the Visual Arts*, trans. Jacqueline E. Jung (New York: Zone Books, 2004), 232.
[16] Riegl, *Historical Grammar of the Visual Arts*, 170.
[17] For this author's interpretation of the tectonic see Hartoonian, *Ontology of Construction* (Cambridge: Cambridge University Press, 1994).
[18] Semper, *Style*, 760.
[19] Semper, *Style*, 151. Semper's reservation about Gothic architecture can be expanded for a critique of the nineteenth century Romanticist discourse on ornament and construction.
[20] On Semper's contribution to the nineteenth-century debate on style, see Gevork Hartoonian, "In What Style Could They Have Built?" 17/2 *Fabrications* (December 2007): 72-91.
[21] This reading is suggestive that Semper's discourse on the tectonic should not be taken for a design recipe. It rather provides the framework for an analytical approach to historiography.
[22] Gusber, *Time's Visible Surface*, 30.
[23] Margaret Iversen, *Alois Riegl: Art History and Theory* (Cambridge & London: The MIT Press, 1993), 8.
[24] For a summary of various interpretations of Alois Riegl's *Kunstwollen* see Michael Gusber, *Time's Visible Surface*, 153-163.
[25] Harry Francis Mallgrave, "Epilogue," in Gottfried *Semper: Architect of the Nineteenth Century* (New Haven & London: Yale University Press, 1996), 380.
[26] I am paraphrasing Alois Riegl's "Naturwerk und Kunstwerk," as quoted in Michael Gusber, *Time's Visible Surface*, 157.
[27] Evonne Levy, "The Political project of Wölfflin's Early Formalism," *October*, 139 (winter 2012): 47.
[28] Riegl, *Historical Grammar of the Visual Arts*, 232.
[29] Riegl, *Historical Grammar of the Visual Arts*, 275.
[30] Robin Evans, *The Projective Cast* (Cambridge: MIT Press, 1995), 220-39.
[31] Hubert Damisch, "The Space Between: A Structuralist Approach to the Dictionary," 3-4 *Architectural Design Profile* (1980): 84-90.
[32] For Gottfried Semper's remarks on Gothic, see Wolfgang Hermann, *Gottfried Semper in Search of Architecture* (Cambridge & London: MIT Press, 1989), 124-38.
[33] These issues are discussed in William Whewell's "Architectural Notes on German Churches" (1830) and Eduard Metzger's "Contribution to the Contemporary Question: In What Style Should We Build?" (1845). Excerpts of both texts are available in Harry Francis Mallgrave (ed.), *ArchitecturalTheory*, "An Anthology from Vitruvius To 1870" vol. 1, (Oxford & Malden MA: Blackwell Publishing, 2006), 378-80, 419-21.

[34] Joseph Rykwert, "Inheritance or Tradition," in *Leon Battista Alberti*, Joseph Rykwert (ed.), 49, 5/6 *Architectural Design* (1979): 4.
[35] Hubert Damisch, "The Column and the Wall," in *Leon Battista Alberti*, 18.
[36] Peter Eisenman, "Digital Scrambler, From Index to Codex," 35 *Perspecta* (2004), 43.
[37] Wittkower, *Architectural Principles in the Age of Humanism*, 41.
[38] Eisenman, "Digital Scrambler," *Perspecta*, 43.
[39] According to Hubert Damisch, the wall in Alberti's architecture was designated by/as many 'layers': the vertical three-part composition, the base (podium), the middle zone (procinctus), and the copin (corona). In addition to the surface appearance, the wall included a masonry body that would support the load of the roof. See Damisch, *Leon Battista Alberti*, 21.
[40] Rudolf Wittkower, *Gothic Versus Classic: Architectural Projects in Seventeenth-Century Italy* (New York: George Braziller, 1974), 93.
[41] Quoted in Marvin Trachtenberg's editorial, *Res: Anthropology and Aesthetics*, 40 (autumn 2001).
[42] Riegl, *The Origins of Baroque Art in Rome*, p. 94.
[43] Alois Riegl, *The Origins of Baroque Art in Rome*, p. 95.
[44] On this subject see Evonne Levy, *Propaganda and the Jesuit Baroque* (Berkeley: University of California Press, 2004).
[45] Riegl, *The Origins of Baroque Art in Rome*, 98-102.
[46] Riegl, *The Origins of Baroque Art in Rome*, 103.
[47] For a different interpretation of the association made between modern and Baroque see Andrew Leach, "Francesco Borromini and the Crisis of the Humanist Universe, or Manfredo Tafuri on the baroque origins of modern architecture," 15:3 *The Journal of Architecture* (2010): 301-335.
[48] Evonne Levy, *October*, 139 (winter 2012): 51.
[49] Riegl, *The Origins of Baroque Art in Rome*, 118.
[50] Walter Benjamin, *The origin of German Tragic Drama*, trans. John Osborne (London: verso Books, 1985), 99.
[51] Leon Battista Alberti, *On the Art of Building in the Ten Books*, trans. Susan E. Bassnett, (New York: Braziller, 1969), 7.
[52] Riegl, *The Origins of Baroque Art in Rome*, 138.
[53] Riegl, *The Origins of Baroque Art in Rome*, 156.
[54] Helen Hills, "The Baroque: the grit in the oyster of art history," in H. Hills (ed.), *Rethinking the Baroque* (London: Ashgate Publishing Limited, 2011), 12
[55] Riegl, *The Origins of Baroque Art in Rome*, 156.
[56] James S. Ackerman, *The Architecture of Michelangelo* (Chicago: the University of Chicago, 1986), 40.
[57] Riegl, *The Origins of Baroque Art in Rome*, 181.
[58] Riegl, *The Origins of Baroque Art in Rome*, 192.
[59]Gevork Hartoonian, "Tectonic Modalities in Baroque Architecture; a historiography otherwise," work in progress.

The National Railway of Sarah Island: Richard Flanagan's *Gould's Book of Fish*

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Abstract

In the latter half of the nineteenth century the railway became an emblem of technological advancement, stood for the improvement and progression of European life, and became a recognizable symbol for the achievements of governments and citizens. The implementation and use of the railway became closely linked with notions of national identity and character. The railway became an identifiable artefact in official history but at the same time it became a part of everyday life. Richard Flanagan's Gould's Book of Fish *retells the life-story of a fictionalized convict sent to Sarah Island, and who paints fish, eventually he metamorphoses into one. It could be thought that a novel set in convict times would have little to do with notions of national identity, technological advancement, and railway travel. However, Richard Flanagan, in this very complex, almost surreal, novel, has used the construction of a fictional national railway as one of the ways to explore Australia's complex relationship with history and space. The novel tells of the plans of a history-loving Commandant and his desire to build a national railway on Sarah Island. This paper explores how Sarah Island becomes a metonym for Australia as a whole and Flanagan's novel takes on a metaphysical dimension as he reveals the struggles that emerge when official history collides with non-official versions. The fabulations of the novel contribute to an historical reconstruction of the spatial/architectural history of the Tasmanian colonial project.*

The National Railway of Sarah Island

The only people who believe in straight roads are generals & mail coach drivers.[1]

Trains have been part of the transport system since 1825 when George Stephenson and his son Robert supervised the running of the world's first locomotive railway in the English county of Durham. The first railway line ran between the towns of Darlington and Stockton and was 32 kilometers long. Railway construction continued throughout Britain and spread throughout the world. The first locomotive to carry passengers in the United States operated in 1830 on a twenty-one-kilometer track between the towns of Baltimore

and Edicott Mills. In Australia the first steam-operated railway began in Victoria in 1854. In many ways aspects of the rail system are universal but it can still be said that the very different circumstances involved in the conception, building and developing of railways in different countries have also enabled different specificities to arise. One of the most noticeable differences is in the way the structure of railways is used for the understanding of space and a sense of belonging and the way this understanding is taken up by fictional writers. The railway becomes a symbol for the entire nation. There has been much written on the history of the railway, the economic benefits of the railway, the comparing and discussion of particular lines, the building of National railways, and even model railways, however, there has, in fact, been very little written on the way the railway is used in fiction. The relationship between the imaginative and technological has been neglected. But it is often Australian writers who tease out the ways in which the railway sits in the Australian consciousness. A good example of this teasing out is Richard Flanagan's novel, *Gould's Book of Fish*.

Flanagan's work has been described as a work of fabulation because of the ways in which it plays with structure, time, sequence, form, and history. I would also suggest that it is possible to take the fabulation further than its literary beginnings and apply the techniques found in Flanagan's story in a broader context. *Gould's Book of* Fish explores the possibilities that such techniques may offer for the understanding of history, space, and structure and he uses the train for these explorations. This book may be a work of fiction but it still can be read as a way to consider the topics of national identity, history and belonging in connection with the railway system. He reinvigorates these topics through a process of reimagining the past and present. Gould's novel has a complex structure and time frame. The story begins in the present, then goes back into history and eventually the story leaves the borders of history and escapes into the sea. In an unexpected way the path to the sea and fluidity is able to be reached because of the attempted building of a National railway.

National railways are often presented as clear indicators of how a nation sees itself—or more precisely how a nation chooses to make itself and how this becomes embedded in historical and cultural knowledge. The way a nation sees and uses its railway is a clear indicator of how they see themselves. Mark Greenberg and Lance Schachterle argue in *Literature and Technology*, 'technology is not only part of what we make; it is part of what we are'. [2] For instance, the railway in the United States closed the middle sections of the land, conquering the distance and unifying their sense of nationhood. It was the mode of transportation that represented the capitalist spirit in motion. Stephen Ambrose goes as

far as to suggest 'the railways made America'[3]. It provided them with a much sought after unifying symbol. The British meanwhile saw the railway as evidence of their technological superiority. The steam locomotive was a British invention and the British were keen to emphasize this fact, particularly in the colonies where the construction of the railway became proof of the coming of civilization and order. Matthew Arnold called the railways 'the most persuasive missionary that ever preached in the East' [4]. The railways, to the British, became a symbol of order and authority. The railways were used as part of their colonizing methodology and technology and colonization became closely linked. The colonisers believed that if they transpose the structures of their homelands onto the new colonies everything would run smoothly and a new order based on the old order could be developed.

In January 2004, Australia finally got a railway line that connected it from top to bottom. Australia had embraced railway travel early but a National railway was never the main priority. There were many reasons for this: the railway began in Australia when each colony controlled its own infrastructure, each colony selected a different gauge size, the railway was seen as a way to take produce to the sea where the ships would continue the process rather than taking the goods all the way themselves, the distances were far greater than in many other countries, the land, in large sections, was extremely difficult to cross, and money was often in short supply. This is not to suggest that a National railway was never discussed. There had been plans as early as 1883 to build a line that ran straight up through mainland Australia[5]. However, the railway was not given the role of unifying the nation and in 1855 the *Sydney Herald* proclaimed that the railway in Europe and Britain had practically destroyed distance that separated cities and kingdoms but in Australia the work of the railway would be 'to disperse rather than centralize'[6]. The railway has always had a far more fragmented identity in Australia. It is this fragmentation that has become embedded in Australia's cultural and historical knowledge but it is this fragmentation that the Commandant in Flanagan's story rejects. The Commandant is determined to build his Island from carefully enforced and imposed planning. However, his grand plan fails because he cannot bend his plans to match his surroundings.

In general National Railways are seen as a cause for great celebration and give a sense of achievement to the Nation as a whole. Flanagan's novel is more wary of National Railways, or more precisely particular types of National Railways. His story rejects notions of nationalizing that arise from predetermined and imposed structures. The National railway chosen for Sarah Island did not reflect the land it would travel across or the people who would build it and travel on it. It was not the right symbol to unite them—

or not in the design that the officials wanted it to be built. By the end of the story The National railway of Sarah Island has become far more flexible and fluid. The novel tells the history of Sarah Island, a small island in Macquarie Harbour, and includes a very detailed history of the building of its "National" railway. Sarah Island is well known for being Tasmania's first penal colony and for the harsh conditions within the colony. The convicts used to work in the thick rain-forest felling trees for timber to build ships. In Flanagan's novel it is not the ship-building that receives the most attention, rather; it is the building of the National railway. It could be asked why Flanagan would choose to write about the railway instead of using the factual ship building history of the Island. One reason could be that ships are not connected to the land and they emphasize the leaving of the landmass as a major part of the journeying. Railways, on the other hand, are seen as an extension of the land. For Michel de Certeau, the train journey's most significant feature is the way in which while it appears to be a 'travelling incarceration' [7] and a reinforcement of ordered immobility where the traveller has no opportunity to escape, it actually becomes an extremely mobile space:

> It not only divides spectators and beings, but also connects them; it is a mobile symbol between them, a tireless shifter, producing changes in the relationships between immobile elements. There is something at once incarcerational and navigational about railroad travel[8].

It is this dual aspect of trains that is of clear interest to Flanagan's story. The train's supposedly tight and strict linear structure becomes fertile ground to begin a dismantling of imposed systems of belief about spatial belonging and identity and a reimagining of the different histories and possibilities that are waiting to be reached. The duality of train travel works on a number of levels. Today, the railway is very much part of everyday life. Therefore on one hand the railway represents the world of the ordinary and identifiable; on the other hand it represents the history of the monumental. It is the perfect vehicle to bring together these two, often opposing, sectors. Once again the dual understanding of the train brings the different realities that exist in each of these histories into unavoidable collision. Because the train can exist in both of these histories it becomes an identifiable symbol. De Certeau's examination of incarceration gains further significance in Flanagan's novel. The convicts are incarcerated and unable to leave their surroundings. Their long travels have led to imprisonment rather than freedom. However, this incarceration leads Gould to seek freedom in other methods and the railway becomes his method of choice.

It is not only official versions of histories that Flanagan's story calls into question but also the standard symbolization used within those histories. He connects symbols that appear to be almost binaries and shows that they have more in common than first imagined. The two most obvious binary symbols used throughout the story are that of the train and of the fish. A train is normally associated with lines, tracks, structure, pre-planned journeys over land. The fish has always been associated with freedom of movement and freedom from restriction as well as water. By bringing these two symbols together Gould dismantles accepted structures. Each symbol begins to take on the other's connotations. The fish becomes an object that is recorded in history books and the train becomes a fluid, non-restricted image. By imagining and representing the railway in this way the strict and harsh beginnings of Sarah Island do not have to be the set template on which all future history needs to be written. History begins to become far more fluid.

As stated, the story takes place on the site of the notorious convict settlement on the West Coast of Tasmania. The most obvious antecedent for the central character is the convict artist William Buelow Gould who was born in Liverpool in 1803 and transported for stealing in 1827. Supposedly, Gould worked with the German lithographer Rudolph Ackerman (who patented a method for water-proofing paper and cloth) although there is no official evidence of this. Gould painted the officers' portraits while on board the transport ship to Australia. In 1828 Gould was ordered by the convict-settlement's surgeon to paint twenty-six colour portraits of fish, which is called *Sketchbook of Fishes*.[9] Readers not familiar with Tasmanian convict history may also make a connection with the famous ornithologist and painter John Gould who painted Australian birds.[10] The central character is also thought to be drawn from Tasmanian artist Geoffrey Dyer whose portrait of Flanagan won the 1993 Archibald prize. From the very beginning of the novel Flanagan plays with notions of identity and history. These somewhat esoteric connections are examples of the way in which the novel criss-crosses contemporary and historical references. This blurring of identities also reveals how history is always blending and merging with present experiences.

The construction of the railway on Sarah Island is an extremely ambitious project under the direction of a history-loving Commandant. The fact that the Commandant loves reading about history is an important one. He wants to be in official history books so people can read about his exploits, He wants to be known as the man who built the National Railway of Sarah Island. The Commandant sees his railway as a way to bring the world to the Island. He thinks he can close all concepts of distance and create a world- wide market. However, the actual building and use of the railway does not go

exactly as the Commandant planned. In many ways it is the railway itself that rejects its planned future. The railway recognizes that it is not all it could be and in the end it is blown into the sky throwing fragments across the landscape. However, this dismantling is not seen as a failure but more an opening into other possibilities. The fragments spread across the land and can be taken up in all different forms to be rebuilt and reused in many different ways: a new structuring can begin to take place. In the novel Flanagan has changed historical facts by making the Commandant construct his railway in the 1820s even though the steam railway, as previously stated, did not actually appear to Australia until 1854. In 1825, it had barely begun its journey in Britain and had to wait until 1830 in the United States. However, Tasmania did, in fact, have an earlier form of railway. The first non-steam railway in Australia was a five-mile track across the Tasman Peninsula. It allowed sea travellers to avoid the sea journey from Storm Bay around Tasman Island to Port Arthur. Convicts from Port Arthur hauled the train to the destination. It is interesting that while convicts are very much recognized as being part of the fabric of Tasmania's history little is discussed on them being used as machines in this history.

The Commandant of Sarah Island, in his unquestionable wisdom, decides that the tracks of his railway should run for two hundred yards in a linear fashion and then loop back in a circular formation. The building of the rest of the line was thought to be useless and an unwarranted expense. The design chosen for the track reveals his grand plans for the future. Loop tracks can be found at two of the major railway stations in the world, Grand Central in New York and South Station in Boston.[11] The loop design was chosen, in these two instances, because loop tracks allow trains in the station to be reversed easily. The Commandant foresaw great things in store for his national railway. He saw trains lining up to use his line. The Commandant of Sarah Island wanted to build a national railway that would encourage foreign trade and admiration from all who travelled on it; he saw the transcontinental railway as a way to put Sarah Island on the map; he saw himself as a great national builder. He wanted Sarah Island to be seen in the same way New York was seen.

From the beginning Flanagan frames his narrative around a number of stories. It begins in the present with Sid Hammet, a second-hand furniture restorer (the use of a second-hand furniture dealer is telling because it highlights the way history and its objects are incorporated into the present), who finds a mysterious book that tells the history of Sarah Island. He sets out to determine the book's origins and prove its authenticity. The book vanishes, turning into a puddle of water on the top of a bar, but the stories it contained

were so vivid that they cannot be erased from Sid's memory and a book, as he says, "in twelve fish" begins to be told'. These stories become so real to Sid that he believes they must be true. The matter of historical fact is discussed on a number of occasions in the novel. The book that Flanagan is writing merges with the book being discussed in the actual novel. The story becomes both an historical artefact and a work in progress—it is always changing and shifting, much like the versions of history. The validity of the book's existence is questioned when it is taken to an esteemed academic acceptance:

> But while it is a matter of historical record that between 1820 and 1832 Sarah Island was the most dreaded place of punishment in the entire British Empire, almost nothing in the *Book of Fish* agrees with the known history of that island hell. Few of the names mentioned in your curious chronicle are to be found in any of the official documents that survive from that time, and those that do take on identities and histories are entirely at odds with what is described in this[12].

The story is rejected outright as a fake on the grounds that it cannot be corroborated by any official history: the stories it tells cannot therefore have occurred. The esteemed academic implies the only valid history is the official history as it is recorded in official history books. Sid is not convinced by this argument and begins to seek out alternative viewpoints. He begins to see that history is not only the past and can be constantly re-energised and brought into the present.

Along with different versions of experience and official record keeping, Flanagan also constructs different versions of space. He reveals the intertwining relationship between space and history and how they work together to form a sense of belonging. The way space is constructed and used contributes to the version of history that will be told and these histories are the stories that will be told and retold. One representation of space that Flanagan offers is strictly structured and allows little room for travelling or movement. It is filled with named objects, which are all lined up against one another. This is ostensibly an ordered space with everything named, catalogued and sorted. This is a staged space, in which everything and everyone knows their place. It does not matter how horrific the objects and data are as long as they can be placed; filled barrels of butchered heads of Aborigines collected for 'research' purposes are treated with the same acceptance as floral specimens:

> HERE'S THE RUB—FOR HIM TO COMPLETE GREAT WORK TO
> PROVE ALL THIS AS SCIENCE—WHEELER MUST HAVE—

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> WHEELER NEEDS—BLACK SKULLS TO EVALUATE & STUDY. [13]

The history linked to this version and use of space is the one imported by the colonisers and is an attempt to impose order. The Commandant sees this version as being the 'only' version of history. De Certeau writes "in history everything begins with the gesture of setting aside, of putting together, of transforming certain classified objects into 'documents'"[14]

This first version of space that Flanagan introduces into the novel was transported to the colonies from Britain and it was hoped that it would introduce order and control into as-yet-uncontrolled and disorderly lands. This version and use of space also creates a feeling of suffocation. The Island takes on a heavy claustrophobic feeling. Most of the novel is set in confined spaces: remote islands, cramped cells (that flood with every hide-tide), suffocating bushfires, chained prisoners, caves, and the most restricted area of all—the official record-keeping room (this room fits into both categories as it is not only cramped but filled with detailed catalogue). Space becomes a commodity and appears to be shrinking. It is being consumed out of existence. The official version may be recorded in official history books but the story it contains is causing history to shrink and other stories to disappear. Flanagan increases this sense of suffocation as the rainforest and forests continue to be cut down and the Aboriginal peoples continue to be driven further away from their homes. Paradoxically, the more space is supposedly created through the conquering of the landscape the more it disappears: the more economic profit is promised the deeper the settlement slips into poverty. The Commandant is oblivious to these facts and firmly believes he can conquer his surroundings and make a profit in the process. He has a grand plan to sell the timber of the rainforests to a Japanese trader in exchange for rolling stock:

> These mechanickal (sic) carts would allow the Nation to reap the inevitable boom that would accompany the abolition of the wilderness & subsequent opening up of the cleared land for settlement. No-one was willing to say to His Gold Mask that the endless circling in the railway carriage had tipped the already disturbed equilibrium of his mind into complete lunacy. [15]

The Commandant fails to see the other stories taking place in front of his eyes. The railway, and also, importantly, the way in which it is represented, becomes a space of contestation. At the end of the novel the railway becomes part of the resistance movement and refuses to accept the one monolithic version of history it has been given:

> I HEARD a massive boom
> I felt the air & earth pulse as if they were living swaying fancies.
> What seemed a lifetime later, but which can have been no more
> Than a second or two thereafter, came gasps from those who,
> unlike me, were able to witness the spectacular sight of a static world
> sudden & complete majestic motion—here the Commandant's locomotive
> leaping heavenwards in roaring fragments.[16]

It might appear that a book set in Tasmania that retells the life-story of a fictionalised convict who paints fish would have little to do with notions of technological advancement, railway travel and concepts of identity. However, Richard Flanagan, in this very complex, almost surreal, novel, has used the railway as a recognisable way to explore Australian's complex understanding of history and spatial awareness. Flanagan plays with notions of history, space, and travel. Of course there have been many recent novels that re-imagine Australia's past in the hope of revealing the stories that have been hidden or glossed over. Flanagan also re-imagines Australia's documented history but interestingly his focus is not only on the people or events but the actual structures and technology of the time. He reveals that by changing the representations of technological travel in history, the history we know and imagine also changes.

As mentioned earlier, the history of the railway is a much written about subject. The building of railways always appears within the official histories of countries. Flanagan, by using the official nature of the railway is able to ground the imaginative with a sense of possibilities. The railway's strong links with monumental history make it a lot harder to dismiss the possibilities of his story. Most scholarly work on this novel has concentrated on its fantastical nature but it is also grounded in artefacts of historical record. Flanagan's narrative urges the reader to reconsider the realities out of which official history is made and consider the many other histories that are embedded within it. His story reveals that the railway, the mode of transport most associated with predestined lines and structural control, can free itself from imposed restraints and design. The railway, a technological form of transport that has been closely associated with official history, becomes a way to identify and read the other stories that have been refused entry into official history.

Endnotes

[1] Richard Flanagan, *Gould's Book of Fish* (Sydney: Pan Macmillan, 2001), 164.
[2] Mark Greenberg and Lance Schachterle, *Literature and Technology* (Betheham PA: Lehigh University Press, 1992), 254.
[3] Stephen Ambrose*, Nothing Like it in the World: The Men who built the Transcontinental Railroad 1863-1869* (New York: Simon and Schuster, 2001), 26.
[4] Quoted in Ray Ellis, *Rails to the Tableland* (Brisbane Qld: Australian Railway Historical Society, Queensland Division, 1976), 59.
[5] David Burke, Road *Through the Wilderness* (Kensington, NSW: New South Wales University Press, 1991), 78.
[6] John Gunn. *Along Parallel Lines* (Carlton, Vic: Melbourne University Press, 1989), 50.
[7] Michel De Certeau, 'Railway Navigation and Incarceration', in *The Practices of Everyday Life*, Trans. Steven Rendall (Berkeley: University of California Press, 1988), 111.
[8] De Certeau, 'Railway Navigation', 113.
[9] Hackforth-Jones Jocelyn,,*The Convict Artists* (South Melbourne: Macmillan, 1977), 58.
[10] Australian Government: Department of the Environment and Heritage, 'Australian National Botanic Gardens', http://www.anbg.gov.au/biography/gould.john.html (accessed 15 May, 2012).
[11] Brian Solomon, *Railroad Stations* (New York: Metro, 1998), 11.
[12] Flanagan, *Gould's Book of Fish*, 20.
[13] Flanagan, *Gould's Book of Fish*, 223.
[14] Michel de Certeau, *The Writing of History*, Trans. Tom Coley (New York: Columbia University Press, 1988), 73.
[15] Flanagan, *Gould's Book of Fish*, 170.
[16] Flanagan, *Gould's Book of Fish*, 381.

The emptying out and the abstracted detail

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Abstract

This paper considers the drawn detail as a means of archiving the interior not in terms of the familiar fullness or comfort but rather through the idea of absence and emptiness. Empty drawn details could be understood as intervening spaces, ordinarily empty, or as relatively small or narrow spaces, between things or parts of a body. This paper will consider the empty drawn detail as something other than being without interstice, without meaning, without purpose but rather as a system of reference that enables rather than states further making and imitation. Here the empty detail, full or empty of context is temporarily extracted from context, without reference, until it is used in a particular place or moment of exchange.

This paper attends to the drawing archive of the Auckland University for the 'Building Queen Street For Dingwall Trust' (1934) designed by Gummer & Ford & Partners and in particular singled out for closer examination are seven sheets of earthquake calculations for the building. At one and the same time the seven sheets show complexity, incompleteness and the promise of structured emptiness. These drawings tamper with the limits of construction, control and safety. They set the scene for the fullness of space and empty space, complex, without meaning and yet full of it.

The empty drawn detail is represented as a series of woven calculated notations across an ordered series of grids. The seven sheets suggest an historic emptiness and yet of meaning for both architect and engineer. Calculations caught in the margins of the drawings become the detail of the practitioner, a draft of abstract thought, all of which is deliberately hidden within the architecture. The drawn becomes abstract detail, a dark place hidden from view, a matrix of potent emptiness.

The emptying out and the abstracted detail

This paper considers the drawn detail as a means of archiving the interior not in terms of familiar fullness or comfort but rather through the idea of absence and emptiness.

Architect Marco Frascari suggests that the empty drawn detail can be seen as a drawing of nothing, holding nothing, an empty white sheet with an absence of materiality. He writes;

> The most difficult assignment for architects is to draw by virtuous reflections a construction that is to extract from the empty surface of the paper the inauguration of a building...well-tempered drawings that elaborate the relationships between the mundane, the sacred, the dream and the solid stuff in a transhistorical condition.[1]

From this point of view architectural drawings assemble in a set of lines, marks and strokes, the potential of construction that is a conjuring of tectonic structures. Blank sheets of paper can be seen as single undifferentiated absences containing an infinity of absences that can be fragmented endlessly, like layers of paper, of drawings yet to be and their layers of permutations. The drawn architectural detail as a mark of matter and construal, the joining of surfaces, the marking of place, position and a desire of the architect for precision and unity.

This paper will consider the drawn architectural detail as full or empty of context and temporarily without reference, until used in a particular place or moment of exchange. An empty / full drawing in this sense does not signify a lack of marks, an empty white sheet, but of absence rather than presence.

Writer, Timothy Walsh in *'The Dark Matter of Words: Absence, Unknowing and Emptiness in Literature'* writes of emptiness in terms of textual gaps, narrative lacunae and strategic vagueness in literature. He writes;

> The parallels between the aesthetic function of absence in literature, art, and music suggest that there is something fundamental about the manipulation of silence, darkness, ellipsis, and other forms of absence within human constructions…just as architects exploit the potential of empty space by enclosing it, writers, composers, and artists have likewise developed special strategies for harnessing emptiness, for domesticating nothing…[2]

In these terms, absence, indeterminacy and uncertainty can have productive roles within the overall design of a work, and the architect in an attempt to capture or enclose space must confine it so that it can be more easily seen. Walsh through the analysis of various

literary devices and tropes involved in generating a sense of absence demonstrates how structured forms offer intricate patterns and networks of uncertainty and that this structure can increase exponentially through a deft orchestration of absence. Walsh argues that it is through the use of absences such as silence, shadow, blankness and void that the limits of human consciousness and language are encoded in aesthetic constructs.[3] For Frascari architectural drawings hold similar qualities he writes that the '… accurately imprecise nature of drawing manifests itself in a stubborn struggle between the celebration of form and the diffusion of parts, between a will to represent and the evanescence of representations, between a search for certainties and an awareness of their relativity…'[4] For Frascari architectural representations are a nexus linking architectural objects, a survey that takes place sitting at a drafting board intersecting architectural intentionality with conscious and unconscious courses of action, the intuition of the imaginative world and the mediate materiality of architectural practice.

Architectural drawings while abstract are also inherently coded, representational and hierarchical. In this sense they can be argued as anything but empty. Architectural detail drawings have a similar potential to offer other means for mapping dreams than the conventional use of plan, section and elevation. A drawn image or device may require the ability to speak of the unspeakable, or name the unnamable, declare the unknowable. Drawing in this sense becomes a descriptor of an intangible or indescribable thought, a precise unknown structured through absence and evidenced in structuring. In a discussion of absence, the ineffable or nothingness may require another type of language by the architect that is bent to another use; makeshift absences may represent the juncture between the word and the wordless or the imagined and the constructed.

This paper attempts to model Frascari and Walsh's theory of the empty detail with a study of 'Building Queen Street For Dingwall Trust' (1934) designed by Gummer & Ford & Partners.[5] In particular singled out for closer examination are seven sheets of seismic moment distribution calculations for the building. At one and the same time the seven sheets show complexity, incompleteness and a modern kind of promise of structured emptiness. These drawings interfere with the limits of construction, control and safety. They set the scene for the fullness of space and empty space, complex, without meaning and full of it.

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Figure 1. Gummer W. J. & C. R. Ford, Building Queen Street for Dingwall Trust (1934), 87-93 Queen Street, Auckland City. (Photo authors own.)

The empty drawn detail of the Dingwall Trust building's resistance to an earthquake is represented as a series of woven calculated notations across an ordered series of grids. The seven sheets suggest an historic emptiness that is yet full for the modern architect and engineer. The calculations become a detail of the practitioner, a draft of abstract thought, which is deliberately introduced and hidden within the architecture. The drawn becomes abstract detail, a dark place hidden from view, a matrix of potent emptiness.'[6] The drawn architectural detail is viewed as an account of numeracy, a discipline of experiential explanations and predictions through the use of numbers and measures in an architectural project, a seismic moment in the calculations of the Dingwall Trust building.

The construal and construction of emptiness

In literature structured absences and intentional use of elliptical language calls attention to something missing in a specific and recognizable way. For Walsh structured absences can refer to the innumerable things that are said and unsaid and those that are implicated, he suggests that a word is only a 'significant shape' like an 'empty doorframe' that facilitates communication only because of the 'freight' we send through such an opening that is not itself part of the frame.'[7] The lack of sign or a signal is encountered and perceived as absence, an attempt to discuss the things that cannot be named, invisible and undetectable.[8] In this light the architectural drawing set may have a need for other types of drawings, the traditional nature of convention being unable to describe the complex nature of architecture. The additional forces that may exist within the built world, shifting ground, weather, atmosphere, light and other ephemeral forces that can and must be calculated. These absences may inevitably result from the ordered nature of

the drawn language, the conventions of architectural form and structure. Drawing thus offers a structured absence, an intentional use of language to call attention to something that is missing. Frascari writes;

> Architecture is constantly in itself a result of hybrid factures, i.e., the building of architecture results from amalgams of high technology, low technology, sophisticated and naïve structures, complicated and simple systems, and refined and elemental construction events.[9]

Drawings become a calculated alternation between the representable and the non-representable, the result of tactics dealing with contraction and miniaturization, conversion and suppression, accommodating more by offering less. In architectural drawing abstract geometry deals with abstract concepts such as limits, differentiation and integration, studies of shapes and space, in particular groups of transformations that act on spaces.[10] Frascari sees geometry and mathematics as a source of wonder and in architecture can explain the interactions of material with light, the projection of shadows and the distortions of surfaces. He writes:

> Architecture is based on geometric actions of production, which are used to evoke future constructions. They are both a class of geometric procedures and acts of imagination, the one making the others visible.[11]

For Frascari, 'descriptive geometry is a sapient playing of constructive designations, motivated by certain pleasure in elegance and economy and its results are well tempered drawings, an essential part of the architectural process of constructing and construing architectural meaning and edifies.'[12] Geometry of the Euclidian kind can be seen as the attempt to remove everything unnecessary in order that the essential may emerge, a tension between clarity and multiplicity, and the interaction between form and content. Yet the construal and construction of imagined architectural design can require images of mental discipline and mathematical consideration beyond the Euclidian kind, an abstract accounting of form that organises and tests concepts of inclusion and exclusion. The empty drawn detail will be tested in an ordered set of seismic moment distribution calculation grids across seven sheets of fragile faded butter paper.

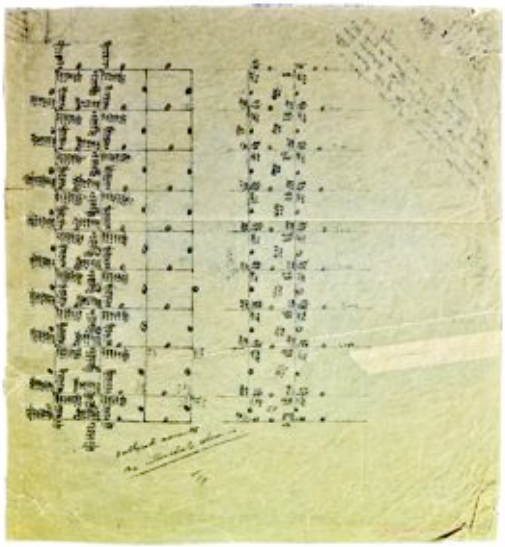

Figure 2. Unnumbered Engineering Sheet, Gummer W. J. & C. R. Ford, Building Queen Street for Dingwall Trust, (1934), Gummer & Ford Collection, GF6, Architecture Archive, University of Auckland Library. 450 x 510 graphite on butter paper.

The empty drawn and an empty archive

The Dingwall Trust Building in Auckland City was designed in 1934 and completed in 1936. It was one of the first multi-storey buildings to be designed under new earthquake regulations following the 1931 Napier earthquake and was an important in the development of high-rise architecture in New Zealand.[13] Designed by Gummer and Ford and Partners, the commercial building was intended to provide income to support the Dingwall Orphanage Trust. The eight-storey building was initially designed as five stories and signaled a shift from the skyscraper gothic and art deco to a more 'modern' design apparent in the reduction of ornament and the introduction of large expanses of glass.[14] The building also showed a shift to modern semiotics of seismology.

The archived drawing set of the Dingwall Trust Building consists of 155 drawings three of which are undated. The archive also holds drawings of alterations to the building from 1936 through to 1972 over which time there were more than twelve alterations to the interior of the building. The drawing set, like other drawing sets from this period in the archive begins with plans of the eight floors of the building and ends in verandah and window details.

Of specific interest are seven un-named and un-numbered drawings showing earthquake calculations relating to the structural frames within the building. Three of the sheets show numerical notation ordered in 3 columns by 9 rows one of which is noted with the words 'disregard' and 'see revised corner'. Two of the sheets show notation in 9 rows by 7

columns. Around the periphery of the sheets are sketches and notes to the overall outline of the building, checked sums and reinforcing details showing the calculations and thoughts of the architect. Two of the sheets contain notes referring to the Earthquake moments. One writes of the, ' 400,00 lbs. to 1 inch, East to West Earthquake Moments – Column Bent, filtered to conform with no intermediate columns'. While another note writes to a Mr. Dickson, 'Mr. Dickson, this is for E/q moments in Flexible Bent States, moment sheet for this is in my calculation book and it would necessitate tearing out a page to let you have it. Will bring it up with me when I come up. Rigid Bent figures are also in my calculation book. JB.'[15] The final drawings reveal an orthogonal grid with an overlay of twisted movement, the columns bent under a shifting ground. The drawn sheets show structural calculations to the buildings eight stories.

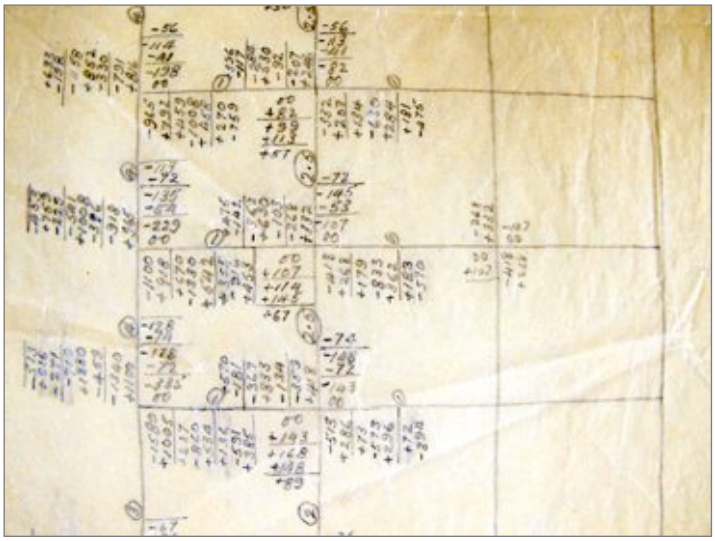

Figure 3. Detail Unnumbered Engineering Sheet, Gummer W. J. & C. R. Ford, Building Queen Street for Dingwall Trust, (1934), Gummer & Ford Collection, GF6, Architecture Archive, University of Auckland Library. 230 x 480 graphite on butter paper.

This structural analysis is calculated through the Hardy Cross method where statically indeterminate frames are designed through series of approximations, each of which is successively nearer the exact solution.[16] Building frames consisting of more than one storey are loaded with vertical and eccentric loads; the shears in each storey must balance independently of the other storeys. After the first moment distribution there is a residual unbalanced shear in all storeys and each storey is then treated separately and correction moments are applied to the stanchions. The final correcting moments are found by multiplying the results obtained by a different factor for each storey.[17] Relationships between the inflexible moments of connection and the bending of materials

are reflected in the drawings, a physical conception implying the deformation of a structure under various conditions and its ability to be conceptually visualized.

The seven sheets ruled surfaces of abstract geometry appear as indeterminate connections; their source lies not in geometry or measurement but in the taut warp of drawn threads. Graphite on the frail sheets of butter paper appear disconnected and abstracted from the main drawing set, a complexity of intertwining grids and numerical calculations alter and shift over the seven sheets surfaces. Frascari writes;

> Seen and understood as mere syntactical expressions, numbers determine arithmetical links among the parts and the elements of construction or between drawings and buildings. They do not carry semantic value in themselves, and if meanings are achieved this is done though metaphorical allusions.[18]

The numerical aspects of the gridded sheets organise the instrumental aspects of the imagined building giving an account of its suspected movement. For a new generation of architects and engineers these images of mathemes were soon to become the complete picture of architectural design, organised by its own frame, an abstract accounting of form. The drawn abstracted frame of The Dingwall Trust building orders its own exclusions and inclusions and submits these to the test of its concepts. They become the work of an undreamt construction and reveal the seamless regularity of an articulated grid, the marks of the abstract drawn infrastructure scoring and crossing its surface. The drawings visually suggest the potential intensification of a blank grid and a new order of vacancy.

The abstract geometries and algebras of a new age are devoid of a fixed referent, its interpretation changing through time and cultural space. Abstract calculations ignore the mass of the imagined building and retain the form, which is supposed to be invariable after the disappearance of the matter.[19] Reduced to a 'pure' form, the reader is left to imagine exterior contour, the ideal envelope that contains the volume. Lines depict the suture of two surfaces, whose actual thickness disappears in the abstraction. Points of intersection, the place of encounter of surfaces become detail. The drawings focus on abstract volumes, surface lines and points, the space designated by paper-thin threads. Geometry is an analysis of abstract entities best conceived in ideal space and best explored on paper, and yet calculations measure not just shape but volume, mass and the physical force of immaterialities like wind, heat or cold.[20] For Frascari '…the resulting

topological chiasm is not merely a verification method; but also becomes its generative method…forces of an abstract nature can be substituted for concrete and ponderous materials.'[21]

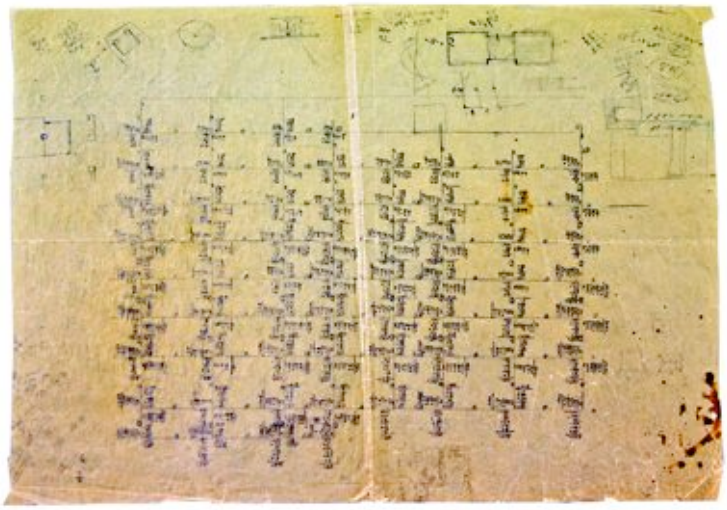

Figure 4. Unnumbered Engineering Sheet, Gummer W. J. & C. R. Ford, Building Queen Street for Dingwall Trust, (1934), Gummer & Ford Collection, GF6, Architecture Archive, University of Auckland Library. 640 x 480 graphite on butter paper.

Woven tracks of numbers across ordered grids and associated floors and columns are difficult to discern amongst the tightly packed order of numbers, additive and subtractive moments extend from each row, the assumed steady ground, planned for shifting movement. For Walsh, '…an aesthetic of absence may seem to reduce the complexities of form to formula, but the art of leaving things out does not proceed according to any recipe, and there is no guarantee of success.'[22] These drawn modern architectural texts are seen as displays of reason, rationalized, coded and abstracted. Abstracted intersections are markers of a point of connection, a transparent representation of surfaces of The Dingwall Trust building. Notes, sketches and calculations become undeniable presences upon the page.

The seven drawn sheets provide the theoretical or mathematical structure of the building's movement in an applied rotational moment, the details of the work of architects in a previous age. Each calculation marks a point within the structure, the sums establishing constraints for future spaces, surfaces and constructions. Each point appears as a self-contained unit with four sums that differ across each point, the telescopic fall of one element into another that is endlessly renewed, repeated and recalculated. Once established the calculated notation imitates an imagined structure; the drawings become tangible indicators of absence and carry the making of architecture, its

rationalization as an abstract representation of thought. The Dingwall Trust building's abstract geometries are an abstract accounting of form organised by a frame that tests concepts of inclusion and exclusion.

Notes become a continuous physical conception where the deformations of the structure under various conditions is imposed and visualized. A metonymic series with obsessive repetition in the story of the building's construction, the architect shapes the suspected movement, the buildings mobility and the structure emerges from the woven surface like springs of a mattress, the reader attempting to fill the emptiness. The calculated drawings represent the pressures and forces woven into the structure of the building. Numbers are the representation of movement not visually present but there. Drawings of emptiness and fullness become a means of conveying the unspeakable, the elusive parts of the construction and life of a building.

The gridded drawings become an architectural signifier within a delicate framework, at once a diagram of the hypothetical structures of the site of a fictive archaeology, a material support for the buildings functions. The visionary moments directly present in language become impressions of something now absent. The sheets can be likened to figurative footprints in the snow, a shape pressing forcefully against the page like a signet stamped into wax that leaves only an impression of substance.

The drawings propose emptiness as an unstable condition, the potential of the movement of the building and its structure. Recoded in a series of gridded numbers is the oscillating condition of the drawn structure, a moving restlessness. The drawing appears as apparently empty, it is other than empty and it is the scene of emergent construction. It offers complexity, incompleteness and emptiness, seeing what is not there is a form of speculation and forms of speculation appear in and depend on the weaving, on the size and frequency of alternately filled and empty space that create surfaces and textures. The seven sheets drawn notation marks the intersection between space and that of engineering.

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University of Tasmania, Launceston, 5-8 July 2012

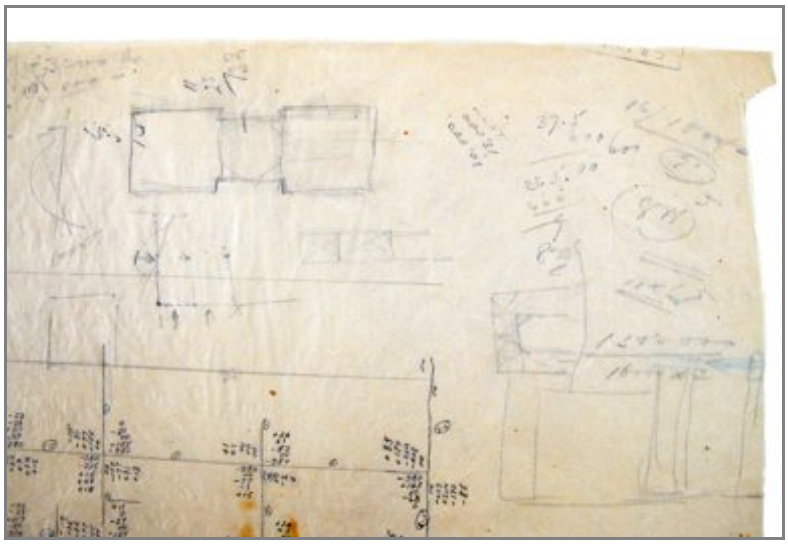

Figure 4. Detail Unnumbered Engineering Sheet, Gummer W. J. & C. R. Ford, Building Queen Street for Dingwall Trust, (1934), Gummer & Ford Collection, GF6, Architecture Archive, University of Auckland Library. 640 x 480 graphite on butter paper.

A type of narrative is created in the drawings of The Dingwall Trust building where every movement, like every line on a page has the possibility to grow rhythmically not just from the possibility of the movement of the earth but out of the drawn floors above and beneath laying the groundwork for the next. Unknown potentialities are offered in the numbered saturation of the page and marks appear to move away from the edge of disclosure, one step ahead of the reader.

The seven drawn sheets promise lifeless blocks of numbered calculations, which seem to have formerly been attached to a context. They mark the absence of their former presence, in so far as absences are inevitably structured, structured absences that signal something is shaped by discernable parameters that shift from instance to instance.

The emptiness of the drawn sheets becomes legible in an ambiguous way, they have been decoded and recoded as something else and refilled with something else. Imaginary movements and an imaginary aura of public safety are offered in the drawings, an invisible subject, a ground supposedly settled but always ready to fracture and fail. A text of inscriptions, a network of written calculations, forewarning movement and caught on a sheet of paper. Reading these historical texts requires its own explanation, its own application.

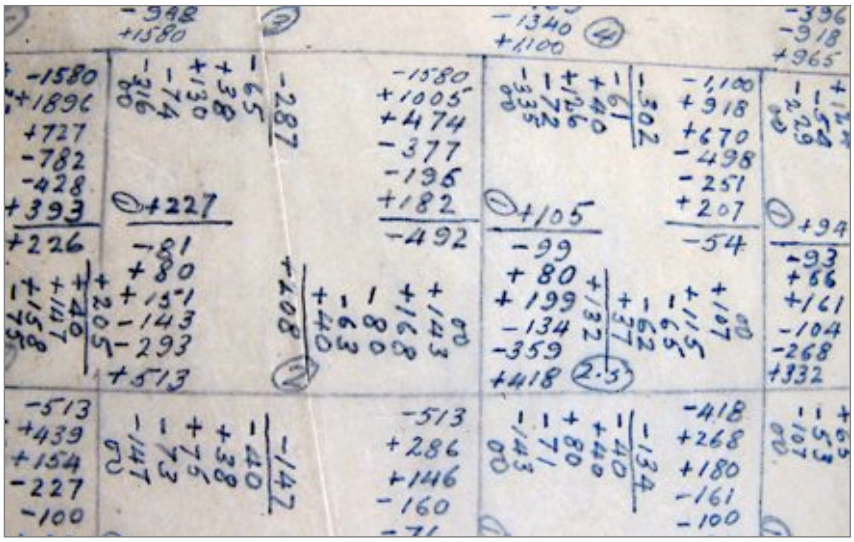

Figure 5. Detail Unnumbered Engineering Sheet, Gummer W. J. & C. R. Ford, Building Queen Street for Dingwall Trust, (1934), Gummer & Ford Collection, GF6, Architecture Archive, University of Auckland Library. 640 x 480 graphite on butter paper.

Conclusion

The drawn sheets offer a place where something momentous is about to happen and therefore can also be seen as full of or expectant. Within this drawing set there is no simple process of assembly that can gather together all these empty hints to reconstruct the figure itself. The Dingwall Trust Building seven sheets offer a wordless plenitude. A numbered saturation that leads to even greater obscurity, the more there are, the more difficult it becomes. The drawings structured absences become elaborately interrelated and logically linked together, they form a dense cipher of variable intensities. The imagined buildings density is reduced to a single line and a series of numbered calculations, variable intensities of imagined construal that is required for the dreams of architecture. Frascari writes;

> … numbers, properly considered become bearers of meaning in a wonderfully rich but discrete architecture. This is an architecture of substitution, where numerical hypotheses are replaced by a tectonic play of building elements related to numerical hypostasis.[23]

The seven sheets become a relationship of conclusions dealing with ideas and ciphers that represent a material totality and reveal the building represented as not just a series of plans and sections of concrete and steel but as a more intricate and difficult construction and process of abstract thought. It becomes a plan and section through an object of ideas and fears. Conversations, additional calculations and reading of these

sheets becomes a reading of fragments, resisting total re-construction where drawing sets are supplemented by technical calculations, on site improvisations, templates, mock-ups, prototypes; a record of the everyday in practice.

The construed nature of the drawn architectural detail offers an empty narrative as an imagined empty shifting ground. They are not stable but may undergo variations and give new possibilities of seeing. In attempting to review the drawings, to try to find out how they are constituted on one level refuses to make manifest a meaning that lies behind them. The reader must look elsewhere for the things that the drawings might yet suggest, might lead to, might provoke, for what is full in them rather than what is empty or absent.

Endnotes

[1] Using the work of Italian architect Mario Ridolfi (1904 – 1984) Frascari explores the link between drawing and building, he writes, 'For Ridolfi, it is clear that it is one thing to apprehend directly an image as an image, and another things to shape ideas regarding the nature of images in general cognitive representation of constructive processes.' Marco Frascari, ' The Well-Tempered Drawings of a reflective Architect', in *The Reflective Practitioner, 2*, (2002), Unpaginated.
[2] Timothy Walsh is a senior advisor at the Cross-College Advising Service at the University of Wisconsin at Madison. Timothy Walsh's poems, short stories and essays have appeared in numerous literary magazines and journals. He earned his PhD in English at the University of Wisconsin-Madison, where he taught for a number of years and now works as a senior advisor. Timothy Walsh, *The dark matter of words: absence, unknowing, and emptiness in literature* (SIU Press: Illinois, 1998) 15.
[3] Walsh, *The dark matter of words*, 5.
[4] Marco Frascari, 'Horizons at the Drafting Table: Filarete and Steinberg', in Alberto Perez-Gomez, and Stephen Parcell (eds.), *Chora Volume 5: Intervals in the Philosophy of Architecture* (McGill-Queen's University Press, Montreal, Canada, 2007), 188.
[5] W. H. Gummer & C. R. Ford, Building Queen Street for Dingwall Trust (1934), 87-93 Queen Street, Auckland City.
[6] Marco Frascari, 'Architectural Traces of an Admirable Cipher: Eleven in the Opus of Carlo Scarpa', *Nexus Network Journal*, 1, (1999), 18.
[7] Walsh, *The dark matter of words*, 79.
[8] 'In real acts of architectural drawing that which is marked, inked, or pencilled, brushed or chalked comes into being through any Cartesian rations process of *mathemes* even when Cartesian plans of representation are used to trace the image. Architectural drawing is, in other words, wholly based on a sapience of material manifestations with which tangible lines became carriers of fluid and invisible links that guide intangible thoughts.' Marco Frascari, 'Lines as Architectural Thinking'. *Architectural Theory Review, 14,* 3, (2009), 202.
[9] Marco Frascari, 'Architecture and Wonder: Hybrid Architectural Drawings', http://grimoirearchitecture.blogspot.com/2008/03/architecture-and-wonderhybrid.html (12 March, 2008).
[10] Marco Frascari, 'The Compass and the Crafty Art of Architecture', *Modulus*, 22, (1993), 5.
[11] Marco Frascari, and William Braham, 'On the Mantic Paradigm in Architecture: The Projective Evocation of Future Edifices', *Theory and Criticism Session, Poetics in Praxis*: 82nd ACSA Annual Meeting, Montreal Quebec (1994), 263.
[12] Marco Frascari, 'The Teaching of Descriptive Geometry,', http://grimoirearchitecture.blogspot.com/2008/03/teaching-of-descriptive-geometry.html (01 March 2008, Accessed 11 January, 2011).
[13] Julia Gatley (ed.) *Long live the modern: New Zealand's new architecture, 1904-1984*. (Auckland, N.Z.: Auckland University Press, 2008), 20.

[14] 'Designed Under New Code', *Evening Post*, Volume CXVIII, 10th October 1934, 18, http://paperspast.natlib.govt.nz/cgi-bin/paperspast?a=d&cl=se (accessed from National Library of New Zealand).
[15] "Ford and Gummer's practice became one of the most successful in New Zealand between the two world wars. Ford was essentially the business manager and organiser and Gummer the main source of architectural ideas. The practice trained an architect, F. Gordon Wilson, and employed an engineer, *John Booth*, both of whom later became junior partners". P. Lowe, 'Ford, Charles Reginald - Biography', from the Dictionary of New Zealand Biography. Te Ara - the Encyclopaedia of New Zealand, updated 1-Sep-10. URL: http://www.TeAra.govt.nz/en/biographies/4f19/1
[16] W Fisher Cassie, *Structural Analysis: The solution of statically indeterminate structures*. (London: Longman, Green and Co Ltd., 1947), 139. Urquhart, L. C. *Civil Engineering Handbook*. (New York and London: McGraw-Hill Book Company, Inc., 1934), 460.
[17] Cassie, *Structural Analysis*, 165
[18] Marco Frascari, 'Architectural Traces of an Admirable Cipher: Eleven in the Opus of Carlo Scarpa', *Nexus Network Journal, 1*, (1999), 8.
[19] Art historian Darcy Grimaldo Grigsby specializes in 18th-century through early 20th-century French art and visual and material culture, particularly in relation to colonial politics. She is author of (2010) 'Colossal Engineering the Suez Canal, Statue of Liberty, Eiffel Tower and Panama Canal' and (2002) 'Extremities. Painting Empire in Post-Revolutionary France'. D. G. Grigsby, 'Geometry / Labor = Volume / Mass?', *October*, 106 (2003), 4.
[20] Grigsby, 'Geometry / Labour = Volume / Mass?', 13.
[21] Marco Frascari, 'Light, Six-Sided, Paradoxical Fight', *Nexus Network Journal*, 4, 2, (2002), 29.
[22] Walsh, *The dark matter of words*, 25.
[23] Frascari, 'Architectural Traces of an Admirable Cipher', 8-9.

Hippie House:
Australia's First Intentional 'Autonomous' Architecture

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Abstract

This paper describes the historical forces that gave rise to the construction of Australia's first intentional 'autonomous house' on the margins of the campus of the University of Sydney in 1974. It locates the project both within the larger context of autonomous architecture that was emerging around the world at the time, and within the context of local student activism that was erupting at the University of Sydney in response to contemporaneous social, political and environmental issues. Autonomous architecture itself was just one trajectory in the search for alternative ways of living that grew out of the burgeoning environmental thinking of the period. However, the international precedents for the autonomous house did not have uniform aspirations. The autonomous house at Sydney University aspired less toward technological utopianism than toward a search for an alternative to consumption-oriented modes of living.

The shambolic presence of the autonomous house on the campus of the University of Sydney during this period of counter-cultural activism is argued to have relevance for current architectural efforts to address issues of environmental sustainability. If, as current critics suggest, the current technologically dominated approach to achieving sustainability is flawed, then new areas of experimentation are needed to find alternative ways of addressing environmental issues. In this context, the radical experiments into alternative ways of living that emerged in the 1960s and 70s, including the short-lived techno-social experiment at Australia's first autonomous house, might be considered worthy of further investigation.

Introduction

This paper examines a particular moment in the history of sustainable architecture in Australia: the brief period in the early 1970s when experimentation into the newly conceived architectural ideal of 'autonomous' architecture was first undertaken in Australia. Because the paper is part

of a larger historical study,[1] it does not attempt to recount the full history of so-called counter-culture architecture into Australia. The purpose of this paper is instead to suggest possible historically situated theoretical lenses with which to frame the coming to being of this movement in Australia. The historical architectural event that will be used in the paper as the vehicle for this theoretical framing is the construction of Australia's first intentional 'autonomous house' in 1974.

The 'Autonomous House'

Australia's first attempt at researching, designing and building an 'autonomous house' was made by students and staff of the Faculty of Architecture at the University of Sydney. During the first term of 1974, Colin James, an architecture lecturer with a keen interest in environmental and social issues, led a cohort of 2nd and 3rd year architecture students in researching architectural systems that might be applied to the problem of creating a building that was capable of operating independently of all services infrastructure.[2] They investigated alternative systems for generating energy, collecting and heating water, recycling waste, and passive techniques for heating and cooling the interior environment of the building.

In the second term of 1974, 16 students from the same cohort continued with the design and construction phase of the project.[3] The design of the house was completed quickly and construction began on land adjacent to the Faculty that had been lent to them by University. By the beginning of 1975 the building was sufficiently complete to be occupied by 5 students from the core group of 16. Those involved in the project noted later that the building was never entirely 'finished', and that over the subsequent years it was occupied by different students who brought new ideas, added new aspects, and ensured the building was in a constant state of 'metamorphosis'.[4]

The final plan of the building was described as being 'simple'. Although noted as rectangular, it was almost square in plan, oriented in the cardinal directions (image)[5]. A greenhouse intended to grow food and 'freshen' air was located on the northern face of the house (image)[6]. Between the greenhouse and the habitable interior was a Trombe wall, relatively novel for the time, built from water-filled, recycled beer bottles (image)[7]. The uncomplicated house interior was dominated by an open 'communal' area, with kitchen cupboards located on the south-west corner walls. The bathroom and toilet were on the west, and there were verandahs on both the western and eastern sides. Private sleeping areas were located in a loft, and sleeping areas

could also be partitioned off within the communal area. The total enclosed area of the house, including the greenhouse, was 96 square meters.

The house was built mostly from recycled, discarded and scrounged materials. Mediation of the internal environment was intended to be achieved through the greenhouse and the operable Trombe wall working in conjunction with other passive strategies including a dark coloured floor with high thermal mass, thermal insulation of the building envelope, and large areas of windows and doors to maximise cross ventilation. Roof water was collected in a 2,000 gallon tank and hand-pumped to a 400 gallon header tank to provide potable water. Waste sink water was collected and used in the greenhouse, while waste bath water was used for toilet flushing. The house boasted what was described as a 'revolutionary' water heating system that involved twin parabolic reflectors that focussed the sun's heat on a black painted 'discarded 44 gallon drum' of water.[8] A small 'symbolic' dish reflector was also located at the front door of the house that focussed the sun's heat on a blackened kettle hanging from a chain. Residents of the house noted that the kettle 'gets too hot to touch, but not hot enough to make a good cup of tea... [so a] propane burner is used to finish the job.'[9]

In terms of energy for the house, the first principle employed was to minimise overall energy usage through both passive solar design and frugal living. Rather than electric refrigeration, a traditional bush 'Coolgardie Safe', which works by simple evaporative cooling, was used as a cold food store. The electrical energy required for the house was intended to be supplied from multiple autonomous sources. A 12-volt 300 watt wind generator with lead acid storage batteries was installed to power 'five lights, a small transistor radio and a small freezer unit or television'.[10] A methane digester was also planned to convert human and organic garden waste into both fertilizer and methane gas for cooking. The system never eventuated however because the technical difficulties could not be overcome economically. It was noted that '[t]he gas is dangerous and difficult to store properly and it is uncertain whether the unit can kill bacteria in the tank properly'.[11] It seems that a proposal to bring pigs onto the site to increase methane productivity also fell foul of the local council. [12]

After functioning for about 4 years, the University of Sydney acted to have the house bulldozed. The reason given was its unsightliness.[13] Any legacy the autonomous house may have had was perhaps manifest in the later architectural work of students involved in the project,[14] and the

influence it may have had on members of the public and school groups who visited the house or attended associated events such as the Autonomous House Fairs that were held on the site.

The Autonomy Movement

In 1974 the concept of an 'autonomous house' was relatively novel. Significant precedents employed by the students were said to include early Australian farmhouses, which, because of their often-remote locations, were of necessity largely autonomous. Other more contemporary precedents were explained as being based on 'information from the USA and UK'.[15] At the time of completion of Sydney's autonomous house, UK architects Robert and Brenda Vale's seminal book *The Autonomous House* had not yet been published.[16] However, records indicate that the Faculty of Architecture library had made an early acquisition of a microfiche copy of Brenda Vale's dissertation also entitled *The Autonomous House*, which was completed in 1972 at the Technical Research Division of the Department of Architecture at Cambridge University.[17]

The larger environmental movement, of which autonomous architecture was one manifestation, had been underway in the US and UK for some years. Seminal environmental texts that included Rachel Carson's *Silent Spring* (1962), Paul Erlich's *The Population Bomb* (1968) and The Club of Rome's *Limits to Growth* (1972) were contributing to a sense of ecological doom. The 1960s and early 70s witnessed an unprecedented level of activism in the West in response not only to ecological concerns, but also to issues such as civil rights, the Vietnam War, and 'women's liberation'. It was in this milieu that the counterculture movement in the West began searching for alternative ways of living that might avoid, or be quarantined from, the impending environmental and social apocalypse. Sources such as Friedrich Schumacher's *Small is Beautiful* (1973) and Stuart Brand's *Whole Earth Catalogue* proposed alternative technologies that would support more radical ways of being. Schumacher's economically framed solutions advocated moving away from large-scale centralised technological systems toward small scale, local, individually empowering, 'appropriate' technologies such as hand-powered pumps and passive solar designed buildings.

Architectural conceptions of 'autonomous' living were influenced by such high profile designers as Buckminster Fuller, Ian McHarg and John Todd. In a lecture to the American Planner's Association in 1967 and in the subsequent 1968 publication, *Operating Manual for Spaceship Earth,*[18] Fuller harnessed the currently popular idea of space travel to construct the image of earth as a spaceship powered by the sun. Fuller's message was that 'we are all astronauts'

with a responsibility to maintain the earth. McHarg's enormously successful 1969 publication *Design with Nature* also drew upon the metaphor of earth as the cabin of a spaceship.[19] Intrigued by real experiments that had been undertaken to discover whether it was possible to create a closed environmental system capable of generating the air, water and nutrients necessary to support life on a long space journey, McHarg used the trope to highlight the wonder of earth's ecological systems, and how humans failed to appreciate the role they played in maintaining the conditions necessary to human existence. While McHarg's text points to the naivety of trying to recreate the complexity of Earth's biosphere in a totally closed system, experiments of the sort described by McHarg were to emerge later in ambitious, problem-plagued projects such as the *Biosphere 2* closed-environment complex undertaken in the 1980s in Arizona.

In 1969 John Todd of the *New Alchemist Institute* began an ongoing project at Cape Cod to attempt to create perhaps the first self-contained ecosystem. The *New Alchemist* description of the so-called 'bioshelter' can be seen to interweave the problematic logic of recreating earth's ecosystem with the now more familiar goal of low impact ways of living, using human-scale technologies,

> Among our major tasks is the creation of ecologically derived human support systems – renewable energy, agriculture aquaculture, housing and landscapes. The strategies we research emphasize a minimal reliance on fossil fuels and operate on a scale accessible to individuals, families and small groups. It is our belief that ecological and social transformations must take place at the lowest functional levels of society if humankind is to direct its course towards a greener, saner world… The urgency of our efforts is based on our belief that the industrial societies which now dominate the world are in the process of destroying it.[20]

At the beginning of the 1970s Grunman and Lockheed, the space and aeronautical companies that had been developing lunar modules and lunar bases for NASA, began diversifying into products for the domestic architectural market. Designs for modular housing units, domestic solar cells, and waste disposal and sewerage systems based on space technology were sold as part of 'Grunman's Integrated Household System'.[21] These technologies, Peder Anker argues, directly influenced architectural initiatives such as the 'Integral Urban House', a proposed self-contained environment and 'life support system' developed in Berkley, California.

The concept of self-contained living environments was not only pursued in architectural experimentation in the US but also in the UK by Alexander Pike and John Frazer, from Cambridge University, who presented their proposal to construct 'ecologically autonomous buildings that would function independently of the earth and thus not harm the environment', at the UN Conference on the Environment in 1972.[22] It was the thesis undertaken by one of Pike's students, Brenda Vale, that made its way to the Sydney University Architecture Faculty library at the time students were researching precedents for their autonomous house.

Student Activism at Sydney University

Sydney University had experienced a build-up of student activism in the 1960s. The character of the student body was changing, reflecting wider changes in Australian society. By the middle 1960s, 40 percent of Australians were under the age of 20,[23] and 'baby boomers' were swelling the University's student numbers. Australians were beginning to enjoy the privileges of relative prosperity. Even during the 1960s, prior to the abolition of university fees by the Whitlam government in 1974, most students were being supported by Commonwealth scholarships, with many even receiving living allowances.[24]

Freed from a significant financial burden, students pursued contrasting agendas: the 'self indulgence' of the pharmacologically enhanced lifestyles of the free-love counter-culture; and the 'altruism' of protesting against a smorgasbord of perceived injustices including racism, sexism, and the cold war politics that had brought the world to the brink of nuclear holocaust in Cuba and which was also responsible for the drip-feed of images of the intractable war in Vietnam arriving via the young medium of TV.

Indicative of the activist mood of time at the University of Sydney, in 1965 thirty students who had been inspired by the actions of the Civil Rights movement in the Southern states of the US, loaded onto a bus and set off on a 'freedom ride' through rural Australia to bring attention to discrimination against Aboriginal Australians. They were led by Charles Perkins, who, in 1966, became the first Aboriginal to graduate from an Australian university. By the late 1960s the focus of protest had shifted to the Vietnam War, culminating in large Vietnam moratorium demonstrations on the front lawn of the University at the beginning of the 1970s. The political militancy of Sydney University's architecture students at this time is evidenced by the strike

action they undertook in early 1972 that transformed the curriculum of the Architecture Faculty and made unconventional projects such as the autonomous house more possible.[25]

By the early 1970s the architecture profession internationally was also committing to social and environmental activism.[26] From the beginning of the 1970s, a spate of professional architectural conferences around the world focussed on the perceived environmental crisis. The 1971 environmentally themed RAIA National Conference was reported in a special issue of *Architecture in Australia* under the banner 'The Consequences of Today'.[27] The 1972 RIBA conference, 'Designing for Survival, Architects and the Environmental Crisis', also formed the basis of a special issue of *Architectural Design* entitled 'Design for Survival'.[28]

Sydney University architecture students were thus exposed to the University's own social activism as well as the burgeoning environmental activism of the national and international architecture profession. For their Australasian Architecture Student Congress held in Sydney in 1970, students invited Buckminster Fuller, Dennis Crompton (Archigram), Christopher Alexander and Tony Dugdale (Architectural Association). Invitees to the 1972 Architecture Student Congress held at Sunbury (the site of the 'sex, drugs and rock'n'roll' Sunbury Rock Festival) included John Andrews (whose Gund Hall for Harvard Graduate School of Design had just opened), Evan Walker, Peter McIntyre, Barry McNeill, but also the soon-to-be Labour Prime Minister Gough Whitlam. By 1974, amid a milieu of social and environmental militancy, students and staff from the Faculty of Architecture were sufficiently energised to undertake their own autonomous house experiment.

Utopian Social Fantasies (Versus Consuming Realities)

By the time Australia's first contemporary 'autonomous' house was being designed and constructed, a number of quite different visions of the role of 'autonomous' architecture had emerged. The most technologically utopian vision of autonomous architecture saw it as a synthetic substitute for earth itself. This vision relied on the optimistic (some might say hubristic) belief that all of earth's ecosystems could be artificially reproduced, allowing autonomous environments to be constructed on ecologically devastated areas of the Earth, or on other planets. The architectural high point of this vision was perhaps the controversial *Biosphere 2* project.

Another vision was that of autonomous architecture providing the opportunity for 'isolation' or 'retreat' from mainstream society. Brenda and Robert Vale were particularly critical of this 'individualistic' approach. In reference to the hippie project 'Drop City' in Colarado, they commented that dropping-out was 'a game for those with private means'.[29]

The vision of the role of autonomous architecture advocated by the Vales was aimed at ensuring 'the survival of mankind' in the face of the environmental destruction of earth.[30] The 1960s in particular had fore-grounded many apocalyptic scenarios such as over-population, pollution and nuclear holocaust, resulting in the Earth no longer being capable of supporting human life. Viewed from this perspective the autonomous house was conceived as a safety capsule to support life when other more damaging and technologically interdependent ways of living had failed.

The vision of autonomous living that emerged from the University of Sydney autonomous house project (a vision which shared commonalities with that of the Vales) was of a universally available alternative to the contemporary consumer-oriented way of living. Importantly, this approach did not simply advocate technological solutions with reduced environmental impact that allowed society to maintain its consumption-based lifestyle. Rather it required its inhabitants to live differently.

The emphasis on 'living differently' runs counter to the technologically oriented approach that has more recently come to dominate the response to the perceived environmental crisis in technologically advanced economies. Here the emphasis has been on the production and marketing of technologies meant to reduce environmental impact without requiring onerous behaviour change. Criticising this technological approach, David Owen provides evidence that in most cases such technologies are either 'irrelevant or make the real problems worse.'[31] Products based on products that increase energy efficiency, he notes, generally lower the cost of using the product, resulting in greater use and greater environmental impact. Owen demonstrates that as cars have become more energy efficient and therefore cheaper to run, overall petrol consumption has gone up because cars are being used more often. Perhaps even more dangerous, he argues, is the belief that because we are using 'green' products and services their consumption actually *benefits* the environment. Owen calls this the Prius Fallacy,

where there is 'a belief that switching to an ostensibly more efficient travel mode turns mobility itself into an environmental positive.' [32]

While the autonomous house at the University of Sydney experimented with many environmentally benign technologies, it described the project as being 'not so much a showplace of alternative technology, but more the physical manifestation of a particular lifestyle'.[33] The autonomous house demanded behaviour change, not simply because its technologies were often sub-optimal, but because the project was framed with a strong ethical and political stance against consumerism. Explanations of the house include pronouncements such as '… students were concerned at being at the mercy of the giant power monopolies, which are responsible for some of the most destructive environmental changes in Australia and use their position to arbitrarily increase costs and guarantee future energy squeezes'.[34] In order to avoid dependence on these 'giant power monopolies' students living in the house 'had to alter their own extremely wasteful energy habits nurtured on years of cheap fossil fuels.'[35]

However those living in the autonomous house came to an intuitive understanding of the conundrum of human-technological relations in which they were immersed. In brief, when new technologies are perceived as advantageous and are adopted they gather a new world of projects and practices around themselves. The internet or mobile phones for example have gathered new worlds of projects and practices. Once gathered, these new worlds demand our involvement, otherwise the projects and practices of our (old) world are *devalued* and *marginalised* (try doing business today without the internet or a mobile phone for example). Heidegger appropriately describes the technologised trajectory into which we are drawn, and which is beyond any naïve conception of human control, as 'cybernetic'.

In this scenario, the only way to avoid the process of technological devaluing is to construct a world that has its own separate system of technological involvements — a truly 'autonomous' world. This is what was attempted by the students in their autonomous house experiment. As well as generating their own energy and capturing their own water, students aimed to grow their own food and develop their own non market-based system of social exchange. The students came to a recognition that '[p]erhaps true autonomy also means freedom from commercial radio, television, daily papers and advertising which do much to determine what people think they need.'[36] One student resident of the house noted a question that was asked surprisingly

often by visitors to the house: 'But is there a wind generator capable of running my 240 volt stereo system?' For this resident the appropriate answer was: 'Take up the flute'.[37]

Manfredo Tafuri famously suggested that architecture could never be 'critical' of capitalism because it was integrated into, and dependent upon, the capitalist system itself. Perhaps if Sydney University's autonomous house had achieved its anti-consumerist aims then it may have moved a step toward satisfying Tafuri's test of architectural criticality.

In the end, however, the autonomous house did not achieve true autonomy. The technologically mediated practices allowed within the house could not satisfy the expectations put in place by the 'outside' world, and were therefore continually devalued. The house was said to be too cold in winter, so a wood-burning stove had to be employed. The power generated on site was barely enough to run small appliances, so candles and kerosene lamps had to be used to supplement the lighting. The hot water system failed to meet outside expectations, so the students ended up showering at the nearby student services building. Perhaps more important than the poorly performing eco-technologies was the fact that the processes associated with the house — from scavenging and recycling goods and materials, through to everyday practices such as garden maintenance — demanded significant *time expenditure*. Because the students were also trying to function in the 'external' world (with their studies or with employment) the house itself could not satisfy these demanding external temporal expectations. The students' 'autonomous world' became, of necessity, parasitic on the outside world, whether that meant slipping out elsewhere for quick showers, or scrounging its discarded waste.

Conclusion

This paper has described the historical forces that gave rise to Australia's first autonomous house. It has located the project both within the larger context of autonomous architecture that was emerging around the world at the time, and within the context of local student activism that was erupting at the University of Sydney in response to contemporaneous social, political and environmental issues. Autonomous architecture itself was just one trajectory in the search for alternative ways of living that grew out of the burgeoning environmental thinking of the period. However, the international precedents for the autonomous house did not have uniform aspirations. The autonomous house at Sydney University aspired less toward technological utopianism than toward a search for an alternative to consumption-oriented modes of living.

The shambolic presence of the autonomous house on the campus of the University of Sydney during this period of counter-cultural activism can perhaps be seen to have some relevance for current architectural efforts to address issues of environmental sustainability. If David Owen is correct, then the contemporary emphasis on technological solutions aimed at reducing environmental impact while maintaining a consumption-based lifestyle (an emphasis that appears to be shared by current architectural attempts to address sustainability) will not only *not* improve the environmental outcome, it may even make it worse. If the current technologically dominated approach to achieving sustainability is flawed, then new areas of experimentation are needed to find alternative ways of addressing environmental issues. In this context, the radical experiments into alternative ways of living that emerged in the 1960s and 70s, including the short-lived techno-social experiment at Australia's first autonomous house, might be considered worthy of re-evaluation.

Endnotes

[1] Currently being undertaken with colleagues, particularly Lee Stickells (Faculty of Architecture, The University of Sydney) whose paper also appears in this volume.
[2] Alternative Technology Unit (ATU), Architecture Department, Sydney University [sic], 'Australian Autonomy', *Architectural Design* 47, 1(1977), 15-17.
[3] Sources record different numbers of participants: The *Architectural Design* article states 16 on p.15 and 17 on p.17.
[4] ATU, 'Australian Autonomy', 15-17.
[5] For floor plan see http://sydney.edu.au/architecture/documents/research/autonomoushouse2.pdf. Accessed 15 May, 2012.
[6] For image of greenhouse see http://sydney.edu.au/architecture/documents/research/autonomoushouse2.pdf. Accessed 15 May, 2012.
[7] For image of Trombe wall see http://sydney.edu.au/architecture/documents/research/autonomoushouse2.pdf. Accessed 15 May, 2012.
[8] ATU, 'Australian Autonomy', *Architectural Design* 47, 1(1977), 16.
[9] ATU, 'Australian Autonomy', *Architectural Design* 47, 1(1977), 16.
[10] ATU, 'Australian Autonomy', *Architectural Design* 47, 1(1977), 16.
[11] ATU, 'Australian Autonomy', *Architectural Design* 47, 1(1977), 16.
[12] Jim Dale (director), 'Autonomous House', 25 minute colour film, c.1980, Catalogue: http://fmx01dhs.ucc.usyd.edu.au/fmi/iwp/res/iwp_auth.html. Accessed 15 January 15, 2011.
[13] Dale (director), 'Autonomous House', c.1980.
[14] For example, Sydney architects Tone Wheeler (Environa Studio) and Nick Hollow cite their involvement in the Autonomous House in their current web data. Col James went on to instigate many environmentally and socially oriented architectural projects.
[15] ATU, 'Australian Autonomy', *Architectural Design* 47, 1(1977), 15.
[16] Robert and Brenda Vale, *The Autonomous House: Designing and Planning for Self Sufficiency* (London: Thames and Hudson, 1975).
[17] Brenda Vale, 'The Autonomous House', Dissertation (Cambridge: University of Cambridge, Department of Architecture, Technical Research Division 1972).
[18] Buckminster Fuller, *Operating Manual for Spaceship Earth* (Carbondale: Southern Illinois University Press, c1969).

[19] Ian McHarg, *Design with Nature* (Garden City New York: The Natural History Press, 1969).
[20] Fall 1970, Bulletin of the New Alchemists.
[21] Peder Anker, *From Bauhaus to Ecohouse: a History of Ecological Design* (Baton Rouge: Louisana State University Press) 117.
[22] Anker, *From Bauhaus to Ecohouse,* 118.
[23] http://www.thefreelibrary.com/Student+activists+at+Sydney+University+1960-1967%3A+a+problem+of...-a0164112253.
[24] http://www.thefreelibrary.com/Student+activists+at+Sydney+University+1960-1967%3A+a+problem+of...-a0164112253.
[25] Glen Hill and Lee Stickells, 'Pig Architecture', *Architecture Australia*, 101, 2 (2012) 75-77.
[26] The Environmental Design Research Association (EDRA), which came out of a 1968 design conference at MIT, was a strong advocate for 'social architecture' (before later adopting a more conservative agenda).
[27] 'The Consequences of Today', *Architecture in Australia*, August 1971.
[28] *Architectural Design*, July 1972.
[29] Anker, *From Bauhaus to Ecohouse,* 119.
[30] Anker, *From Bauhaus to Ecohouse,* 119.
[31] David Owen, *The Conundrum: How Scientific Innovation, Increased Efficiency, and Good Intentions Can Make Our Energy and Climate Problems Worse* (New York: Riverhead Books, 2012).
[32] Owen, *The Conundrum*.
[33] Anonymous, '54 Alma St Darlington' (publisher unknown, c1978), http://sydney.edu.au/architecture/documents/research/autonomoushouse.pdf.
[34] Architectural Design 1/77, p.15
[35] Architectural Design 1/77, p.15
[36] Anonymous, 54 Alma St Darlington
[37] Anonymous, '54 Alma St Darlington'.
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History, Criticism, and Place: Rory Spence and Richard Leplastrier in conversation.

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Abstract

Rory Spence and Richard Leplastrier shared a conversation and friendship that lasted 20 years until Spence's death in 2004. The discussions focused largely upon issues of place, distilled through the practice of Leplastrier, as well as the humanist criticism and writing of Spence – whose sensibility was steeped in Quakerism. Spence's critique and Leplastrier's practice ascribe to an appreciation of architecture as engendered by the life it is to accommodate, and belong to a pluralistic appreciation of place. By virtue of their close friendship, their ongoing discussions formed a mode of place engagement in and of itself, which was attenuated through memory, nature, and the circumstances of their dialogue. Through the peculiar and close connection they shared, as well as through Leplastrier's work, and Spence's writing more broadly, questions of place reinforced the view that such an engagement is heightened by its relation to both people and the land simultaneously.

History

'There's a journalist after you,' Peter Carey pealed at the other end of the line.

It was early in 1982, and Richard Leplastrier had already designed a series of seminal houses, including the house for David Walker that stood in a palm grove in Sydney's Northern Beaches, and a small house on the banks of the Never Never River in Bellingen for the author Peter Carey and the painter Margo Hutchinson. At the time, Leplastrier was living in a small ramshackle cottage in Lovett's Bay on the fringes of the Kuringai Chase National Park.

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Figure 1. Bellingen House, view from the studio or 'river room' over the Never Never River. **Figure 2.** Bellingen House, view through walkway to studio. (Mat Hinds, March 2011)

Carey wrote vividly of the house Leplastrier had designed for him and Hutchinson. Completed in 1982, it was '…as perfect a domestic space as any I have ever been in. The house exists between the mountains and the river…[and] hangs on a fine electrical thread that connects the two of them'[1]. The location served to inspire and witnessed the penning of Carey's *Oscar and Lucinda*.

Having gone through the process of making such a house, Carey was familiar with the particularities of living in a building that sought such a close relationship to its situation. He knew the house was important, not just as a haven for his family, but also as a paradigm for a way of living in Australia. Carey also knew Leplastrier well enough to anticipate resistance. Leplastrier, like his mentor Jorn Utzon, has always harboured a particular unease with critical attention, whereas Carey, in Leplastrier's eyes, reveled in attention of this kind. 'This bloke has got an intellect and sharpness,' Carey teased. 'He'll tear you to pieces…but I think you should meet him. I think you might like him.'[2] A meeting was subsequently agreed.

Some days later Leplastrier noticed two figures approaching, the first was a woman, as he recalled, 'with beautiful high cheek bones, and shining eyes', and behind her followed a high-shouldered figure, who at seeing the architect gestured to introduce himself.

> This amazing bird-like character moved so lightly toward me. Here was this person, who, almost to my mind, stepped out of Charles Dickens. He possessed a fine face, and a beautiful aquiline nose and straight shoulder-length hair that hung - and he was so gentle. We sat and our great friendship started from that moment.[3]

Figure 3. Rory Spence (1949-2004). Photograph taken upon his arrival in Australia in 1982. (Spence Estate) **Figure 4.** Richard Leplastrier sailing near the heads of Bayview with Lion Island in the distance. (Mat Hinds, 2009)

The 'bird-like' character was the late Rory Spence, a British émigré, at that time not widely known in Australia, but who was held in high regard in the United Kingdom as an architect, critic and historian. Upon arriving in Australia in the early 1980s, Spence had commenced a study of Australian practitioners that sought to describe exponents of an antipodean architectonic. His writing, published primarily in the British *Architectural Review,* opened a view of Australian architecture, which until that time had largely been unexplored in an international context[4]. Spence died in 2004 and in his eulogy, Melbourne architect and close friend Gregory Burgess recalled the importance of the early and ongoing discussions with Spence. When they first met in the early 1980s, Burgess recounted:

> [He] was with characteristic curiosity and lively intelligence beginning to try to make sense of this country, its people, and its architecture. In [his] writings in the still young Melbourne Magazine *Transition* and the British *Architectural Review*, [he] reflected back to us young practitioners a much appreciated sense of worth and world context that was rare in those days. [His] writing

was an offering that was full of the sense of the poetic and enduring values, which [he] personally lived deeply. [5]

Figure 5. Charles James Spence (1848-1905), Spence's great-grandfather. Photograph taken in 1905, just prior to his death. A banker and significant watercolourist in his own right, he was also philanthropic, particularly toward the arts. (Spence Estate)

Spence's family were members of the Religious Society of Friends, or Quakers as they are more affectionately known. As a Protestant offshoot established by George Fox in the 17th century, the society is unique as a Christian sect in that it has no creed, believing that faith is unmediated, requiring no ministry, and no churches. Religious experience was taught to belong entirely to the moment and the individual. Quakers were and remain conscienscious objectors and quickly became associated with honesty, social welfare and altruistic philanthropy.[6] Spence's forebears were notable social commentators and artists. His great-grandfather Charles James Spence (1848-1905) held the diaries of George Fox in his private possession for much of his later life. Spence's enigmatic great-uncle Robert Spence (1871-1964), Charles' son, was a celebrated and prolific etcher who throughout his lifetime devotedly illustrated the diaries of Fox.[7] While neither attending Meetings later in life nor openly professing links to the Society of Friends, Spence's sensibilities seemed to embody the values that are associated with the movement.[8]

Figure 6. *George Fox surveying London after the Great Fire 1666.*
Etching by Robert Spence, 1954-56 (Spence Estate)

Spence was fascinated by the origins of ideas, and championed self-expression, particularly in the arts. He was first and foremost a social idealist, and his writings show remarkable awareness and moral gravitas. In the October 1988 edition of the *Architectural Review*, which he guest-edited and that was to focus on Australian architecture to mark the nation's Bicentenary celebrations, Spence wrote in his introduction:

> It has largely been a year of celebration in the sense of 'festive activity', rather than in the deeper sense of a 'commemoration', that also fully acknowledges the grim origins of the colony and the appalling injustices perpetrated on the Aboriginal people…It is increasingly clear that the land was unequivocally stolen from the Aborigines with no treaty or compensation agreed upon…There [has been] little mention of the Aboriginal community, either in Australia Day ceremonies or at the opening of New Parliament House, and certainly no acknowledgement of the shocking living conditions, inequality and racism that many of them still endure.'[9]

Throughout his career, Spence always emphasised an historical awareness in his teaching and writing.[10] Prior to emigrating from the United Kingdom, he had authored an exhaustive study of the life and work of the Arts and Crafts architect Philip Webb. Webb's social leanings encouraged Spence's interest, leading to an important exhibition, thesis, and catalogue at the RIBA archives. The manuscript, *Philip Webb in Context*[11],

completed in 1974, is a work of considerable erudition. As if anticipating the qualities that he was to find in Leplastrier's work a decade later, Spence wrote in the conclusion to the thesis that: '[Webb sought to] re-establish a basis for architecture in the land, an architecture which was a product of the materials of a locality and which was a direct response by the architect to [the] climate, tradition and character of that locality.'[12]

Figure 7. Phillip Webb's Red House, Bexleyheath, 1859-60 for Willliam Morris. One of the works exhaustively studied by Spence. (Spence Estate, date unknown).

Spence identified a similar awareness in Leplastrier's work, writing in 1993 that:

> Richard Leplastrier's buildings cannot be separated from his acute sensitivity to the natural world. His architecture and teaching seem to be consistently attempting, against all the odds, to re-establish those intimate connections that have been progressively eroded between humankind and the basic circumstances of its existence.[13]

While sharing an interest in the humanist tradition of Modernism, neither Spence nor Leplastrier identified with the representational or visual tendencies that Modernity sought to emphasise. Both had a fascination with the origins of language and traditional modes of settlement and building. Their discussions centered upon concerns for landscape and of architectural methods predicated upon observations of human life. This appreciation for the lived basis of space recalls Nietzsche's view that history is served only in so far as it serves living.[14]

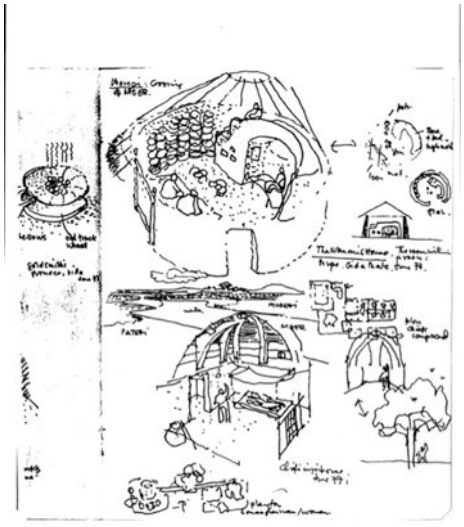


Figure 8. Drawings from Leplastrier's sketchbooks showing his studied fascination with the living situation of other cultures. (Slides from a lecture entitled 'Travel Drawings', delivered by Leplastrier to students at the University of Tasmania, October 2011)

By virtue of these interests, the work of both Spence and Leplastrier holds to the premise of being thoroughly preoccupied by the conditions of place. These shared interests opened a poetic dimension to their dialogue with one another, and highly influenced the manner in which Spence engaged critically about Leplastrier's work. Spence, by establishing such a strong emphasis on a priori influences and experiences, offered a more academic lens for Leplastrier's work and ideas. Leplastrier freely credits Spence in lending such clarity: 'He taught me about layers. He historised me.'[15]

Criticism

Huxtable has written that good criticism, beyond the practice of architecture, requires an unprecedented awareness of both the past as well as the entitlements of a modern society.[16] Criticism, as much as the practice it seeks to appraise, must be seen as an art-form in its own right, and like all art must serve a basic function of enriching life.[17] Both Spence and Huxtable show a reluctance to engage criticism for its own sake, believing that the critical method is, to a large extent, a constructive act.[18] Owing much to Giedion and Mumford, this view of the critical method was expressed by Spence in an essay for *Transition*:

> Postmodern cultural thought has been of crucial importance in the way it has more clearly revealed the inevitably complex and contradictory perspectives on the world. Sometimes, however, it has encouraged cynical pessimism and

> an obsessive preoccupation with tortuous, purely subversive criticism. Deconstructive critical discourse has threatened to overwhelm ideas about the making of art and the direct experience of it. It tends to be forgotten that Deconstruction, which is so central to post-modern thinking, is a philosophical and critical method, rather than a proposition about new formal systems in art.[19]

Figure 9. Leplastrier and Spence sailing *Dorothy* in Pittwater. (Spence Estate, date unknown).

The dialogues between Spence and Leplastrier exemplify the view that criticism in any form, but particularly architectural criticism, is a shared undertaking.[20] Giedion alluded to this shared undertaking in 1939, when he argued in his essay *History and the Architect,* that an objective critique of history is a myth:

> There is in fact no such thing as an objective historian. His seeing objectivity usually consists in a regurgitation of the beliefs of the former generation, which have become generally accepted truths and thus give an appearance of impartiality. All great historians have been creatures of their own period: the more so the better. The historian has to give insight into the changing structure of his own time.[21]

Whereas Modernity sought to efface place, Spence's background permitted an approach that was multidimensional in its awareness of place by lending a sense of inclusivity to ideas in his writing, taking account of memory and experience as equal concerns in the creative impulse. It also offered a platform for criticism in a manner that echoed the

friendship between Giedion and Aalto, whose collaboration ensured that the second edition of *Space, Time and Architecture* (1949) clearly refined the humanist strands of the Modernist Movement.

Just as with Aalto and Giedion's discussions at Muuratsalo, the situation in which both Spence and Leplastrier engaged is telling. Held at Leplastrier's house at Lovett Bay over a number of years, against the background of currawong call, and the sounds of the wider water-based community, their shared dialogue was attenuated by the phenomenal circumstances in which it was held.

Figure 10. Leplastrier's house in Lovett Bay (Spence 1992).

The German philosopher Hans Georg Gadamer articulated a strong basis for such situatedness in dialogue, both in terms of human relations as well as the spoken word. In his essay *Friendship and Solidarity*, Gadamer offers a way into understanding the necessity of closeness and awareness that underpins both our relations with one another, as well as our relations to the situations and contexts in which we form an appreciation of place. He writes of the Socratic term *Oikeion*, from which the modern English 'economy' derives. Implying a link between nature and domesticity, *Oikeion* was used by Socrates to describe a particular type of friendship, the word referring to both 'home-like/domestic', as well as 'home-like/nature.' Authentic friendships are underpinned by what Gadamer calls the 'actual' friendship:

> What is that? What does it mean that it is supposed to be called the Oikeion? The 'at-home', that where-of we cannot speak, is what it is. We hear it all

through a more melodious and mysterious concept when we speak of home and homeland.[22]

Figure 10. Leplastrier and Spence, on Spence's beloved Land at Bellingham, Northern Tasmania (David Travalia 1998).

The connection that the two men shared was a definitive expression of these values. The premise of Spence's writing sought to avail itself to the very same awareness of place that Leplastrier also strongly advocates in his own work.

Place

Spence's reading of Leplastrier's work offers an interesting view of contemporary notions of place-based theory and practice. In her 1988 essay *Genius Loci*[23]*,* Edquist admonished the political stance and language established by Norberg-Schultz in his theory of place, and criticised the manner in which it had been adopted by some Australian practitioners and writers as a means of claiming that '…certain isolated buildings deemed to be "in tune" with the landscape…represent an entire national ethos.' Focusing primarily on Philip Drew's appraisal of Glenn Murcutt's work in *Leaves of Iron,* Edquist argued that the 'patriotic fervor' in the use of the term 'place' in Australian architecture had reached its zenith with the lead up to the Bicentenary in 1988, and that it actually marked a 'depressing tendency to manipulate generalised abstractions rather than examine historical material and, in the bicentennial year, to accept uncritically the status quo.' She continued: 'We are as responsible for this as are writers from elsewhere, like those pale Englishmen who ever since Kenneth Clark in the 60s, have seen in this country their lost Arcadia, the last chance for old Europe.' In the footnote Edquist identifies Spence as one such 'pale' Englishman.

Spence's writing was analysed more recently by Kaji-O'Grady in an examination of his essay 'The Concept of Regionalism Today' that was published in 1985.[24] Kaji-O'Grady takes issue with what she describes as Spence's enthusiasm to compare two divergent tendencies as if seeking to clarify an idiosyncratic 'Australian' architecture under a singular homogenising cultural banner[25]. Kaji-O'Grady also holds reservations with Spence's 'spectacled' view of the landscape, particularly of the Sydney region, as well as the tendency toward a mediated and constructed view of Australia's landscape more broadly. Noting that Spence is seemingly unaware of such constructs, she points out that: '…neither is it apparent to his contemporaries and subsequent generations of architects who persist in presenting their work as if [it] were possible to have authentic and unmediated access to [the landscape]. '[26]

In his essay, Spence defined Sydney in terms of its sensuality, seeing it as a city conditioned by its landscape setting, which in turn predicated an architectural response that was more concerned with issues of tectonics and the body. He presented Melbourne as Sydney's antithesis – a 'City of the Mind' – arguing that the theoretical foundation of many practices at the time resulted in a far more 'image-conscious' architectonic.[27] Spence argued that this was influenced both by Melbourne's relative lack of topographic diversity as well as the city's origins as a reactive settlement, rather than a colonial outpost. He identified the work of Edmond and Corrigan as a significant progenitor of the theoretical preoccupation in many Melbourne practices and in a discussion of Corrigan's process, wrote:

> Corrigan admits to being more interested in ideas that buildings. His primary commitment is to socio-political commentary rather than the creation of environments for living. While this kind of commentary can be valid in painting, writing and theatre, in which Corrigan is still involved, it is dubious when applied to architecture, which must always primarily be a setting for life, rather than a critique of it.[28]

Spence also admonished the work of Norman Day, who he felt had authored work that was 'elitist, and irresponsible, gimmicky and wildly Postmodern.'[29] Not surprisingly, Day's response was equally acerbic:

> Mr. Spence has been seduced by an Arcadian view of the Antipodes…[He] may well prefer Fred Williams', Arthur Streeton's or Glenn Murcutt's interpretation of Australia. I think mine is more appropriate for this time, and

> for the people I build for.[30]

It is important to note that as a critic, Spence based a great deal of his criticism on bodily engagement. He used his own body as a phenomenal lens, particularly when examining built work – seeking immediacy in his experience. He painstakingly photographed and recorded built work in sequence in order that he could convey its experiential basis, which he subsequently used as a valuable tool in his teaching and writing. This predisposition goes some way in explaining Spence's initial reaction to the work of Edmond and Corrigan, whose output he felt 'avoided the central experiential aspects of architecture'.[31] He sympathized with the social agenda that Edmond and Corrigan and other contemporary Melbournian practitioners championed in their work, but found their methodologies difficult to process. Spence was also concerned that these processes, while attempting to demystify architectural expression for wider consumption, in fact achieved the opposite effect, because the buildings showed a preoccupation with visual culture that lacked experiential foundation. Spence grappled with what he saw as a trade in suburban imagery, which seemed only to reinforce, and indeed celebrate the predominant colonial estrangement with the environment. He considered that the colonial view promulgated by the suburb, of a forbidding and harsh landscape, encouraged a sense of alienation from the land and obscured any direct and meaningful sense of belonging or engagement with a landscape that is in fact indescribably delicate and vulnerable. He found particular evidence for this in the manner by which indigenous society and understanding was 'guiltlessly and defensively dismissed out of hand.'[32] He wrote in an essay for Transition in 1996:

> In relation to Australia, in spite of the oft-repeated fact that we are among the most urbanized societies in the world, we will never outgrow the necessity to consider the nature of the land, the place where we are, and the role of buildings in it. It is a mistake to identify all such considerations as irrelevant romantic nostalgia for a pioneering or pre-colonial past. The relationship of architecture to nature and climate should remain central in all cultures: as it is a metaphor…for our survival.[33]

Spence was also far more interested in localised traditions than in nationalistic pretentions. He appreciated that Australia is highly regionalised, and sought to understand the regional underpinnings of its early aboriginal and colonial culture, extending this concern into his reading of contemporary work. Spence realised too that

other influences and experiences weighed upon issues of context and landscape, affecting the conceptual basis for architecture and its execution. It is in this regard that Spence offered his most defining critique, because in seeking the widest contextual basis for architecture, he also sought to define the particular and varied engagement with issues of place as they existed locally. While Spence's sensibilities clearly shone through his writing, his criticism was also characterised by extraordinary dexterity. His Quaker background allowed him to consider and appreciate myriad points-of-view; but it also provided a focus through which he constantly sought the basis for architectural ideas. Spence subsequently reassessed his view of Edmond and Corrigan's output later in his career, identifying a certain formal virtuosity worth recognizing and celebrating.[34] He acknowledged that place, as an architectural concern, was inherently dynamic and that it is influenced by memory and experience as much as by environmental and phenomenal concerns – conditional to both what was remembered and sensed. He applied this plurality to his appreciation, through a focus on the local conditions of built work, finding in Leplastrier an exemplar of an acutely localised, and place-aware practice.

On the occasion of an exhibition held in his honour in Zurich, Geidion asked Aalto about his views on architecture, to which Aalto replied with recollections of the Finnish countryside and salmon fishing: 'For the first time we felt that architecture is *life,'* Geidion recalled, '…and that creation arises from contact with reality, a region inaccessible to analytical reflection. Reality…is largely local, tied to place, and it is the task of the architect to make people see the special character of the place and its properties.'[35]

Certainly while it may be said that Aalto's work was deeply redolent of Finnish Nationalism, in its conceptualisation he was concerned with his own interactions with the Finnish forests. The inferences of the work, so to speak, are stemming from an embodied awareness of local phenomena. Spence observed that through various travels and experiences, Leplastrier had built a mental record of occasions and experiences that served as the basis for an architectural response, which, while diverse in nature, were all concerned primarily with an awareness of the localised structure of places.

Spence discerned that Leplastrier's predilection toward an Indo-Asian, predominantly Japanese aesthetic, allowed greater immediacy and a stronger experiential affinity to the wider landscape in his practice and thinking – but it also expanded an appreciation to which Leplastrier was already predisposed in his earlier life. This appreciation was further honed by his early association with Lloyd Rees, subsequent work with Utzon, and

introduction while in Japan to Heidegger by his sensei Tomoya Masuda. These experiences clearly inculcated a strong set of tectonic values and responses. The particular consequence of these influences was also used by Spence to argue for a highly localized concern in Leplastrier's oeuvre, most deftly expressed in the seminal Palm House at Bilgola (1972-76) and the architect's own home north of Sydney, rebuilt after bushfire in 1992. As Spence wrote:

> Leplastrier's own small house gathers these phenomenological concerns: a living platform around a pre-existing hearth, enclosed by a timber and plywood shell, without glass, its shuttered openings framing views of the long, steep-sided, greater room of Lovett's Bay.[36]

Figure 11. Leplastrier's plywood house in Lovett Bay for himself and his family. (Leigh Woolley 1999)

By virtue of its immediacy, Leplastrier's work grounds an awareness that is akin to Heidegger's *poeisis* – or dwelling as a grounding of the poetic, as human presence bought into relation with the land.[37] Leplastrier's work and thinking shows a particular attentiveness to the structure of the land, regardless of the scale of such structure. He extends the same precepts that he applies in his residential works to the urban structure of cities, particularly his beloved Sydney, often referring to the geological superstructure of places. This springs from Leplastrier's view that cultural origins lie first and foremost in the natural. In this regard however, some critics and cultural theorists have admonished Leplastrier's views. His practice, being mostly identified with small-scale residential work, is not directly seen to address concerns of high-density urban life. The cultural critic, Elizabeth Farrelly has called Leplastrier's work 'privileged', and reproached its financial

inaccessibility to a more conventional clientele.[38] While being particularly critical of Leplastrier's idealism and refusal to acknowledge the mainstream suburban model, Farrelly has also acknowledged the importance of Leplastrier's work.[39] Criticism concerning cost is relatively easy to level and slightly querulous, as such a point might be made with regard to any significant body of architectural work. Such criticism is also slightly misleading. Leplastrier's work is highly wrought. While freely engaging cheaper, off-the-shelf materials, he lavishes attention on detail, which he regards as an interface with the body requiring careful consideration. Even so, many of Leplastrier's most important works have been the least expensive.[40]

Figure 11. The seminal Palm House, Bilgola (1972-76)
showing the canvas wall to the end of the vaulted living room.
(Spence 1992)

Architecture, in its varying forms of practice, is predisposed to heightened ideological concern. In authoring such principled work, both Leplastrier and Spence have sought to articulate the making of architecture as an expression of an idealised life. Stemming directly from Utzon's influence, and subsequently the Scandinavian tradition of Aalto and Lewerentz, Leplastrier considers that the basis of the architectural act is a communion of the human and the natural. It is in this regard that his work and ideas have been most influential. In a lecture entitled *The Architect's Conception of Paradise* delivered at a meeting of Swedish City Planners in Malmo in 1951, Aalto spoke about an ulterior motive that is present in all building, particularly houses:

> …The thought of paradise. It is the only purpose of our houses…each house, each product of architecture that is worthwhile as a symbol is an endeavor to

show that we want to build an earthly paradise for people.[41]

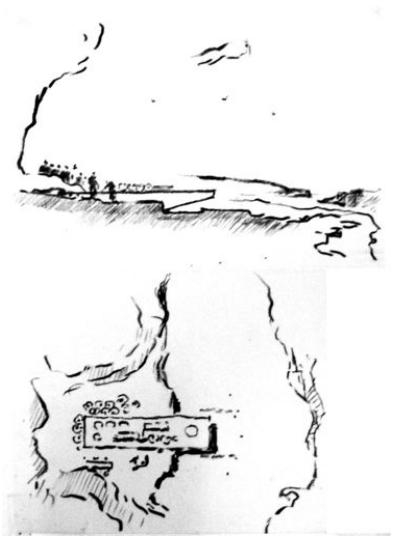
Figure 12. Cloudy Bay House, Bruny Island. Completed 1999.
(Leigh Woolley, November 1999)

This preoccupation is clearly evident in Leplastrier's work. In a review of Leplastrier's most northerly and southerly works, a house in Mapleton and a house on Bruny Island, Spence wrote that:

> …While these houses are relatively expensive, privileged domestic environments, they are intensely moving architectural challenges to our understanding of the nature of dwelling at the end of the twentieth century. They intensify our perception of the moods and rhythms of the natural cycle.[42]

While still small in scale, Leplastrier's memorials are also deeply civic gestures. His Volunteers Memorial on the Domain in Sydney (2001) is an eidetic encounter with the landscape and the emotions of loss. Inspired by 'tongues' of rock that form of the ridge of Mrs. Macquarie's Point, it encourages use by the community and speaks to the transcendence of grief. As Spence observed:

> The monolith takes the form of a monumental table or slab, introducing a perfect horizontal plane of powerful calm in the gently undulating landscape…the stone seems to be about to glide off down the slope towards Woolloomooloo Bay, bringing to mind the myth of Charon's boat ferrying the dead across the Styx, but also the ship of life.[43]



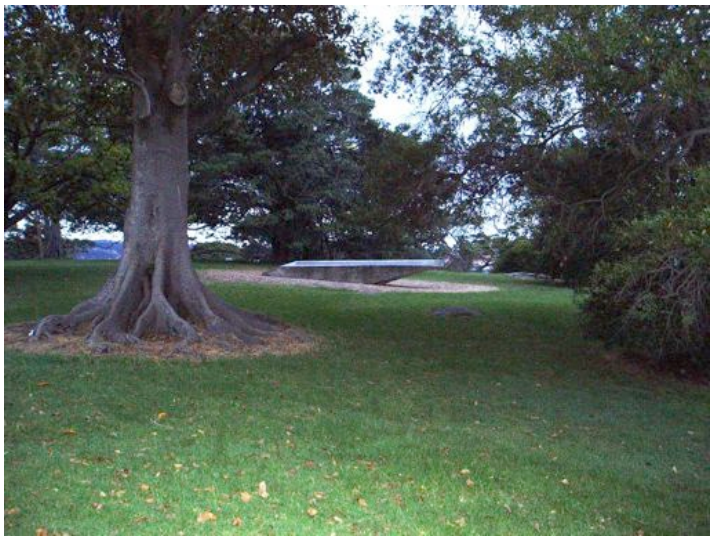


Figure 13. Sketches for the Volunteers Memorial, Mrs. Macquarie's Chair, showing gathering intention (Richard Leplastrier, November 1999). **Figure14.** Memorial in-situ, completed 2001. (Mat Hinds, November 2008)

Heidegger referred to language, particularly the spoken word, as a repository of human experience. 'To reflect on language', Heidegger wrote '[is] to reach the speaking of language in such a way that this speaking takes place as that which grants an abode for the being of mortals.'[44] By sharing as they did, Leplastrier and Spence partook in a great and long tradition in this country. Spence saw an affinity in Leplastrier's work, noting particularly his capacity to be inclusive and attentive to the undercurrents of place, neither limited by the predominant view, nor by the proclivities of the modern condition.

By continually emphasising the humanity in Leplastrier's work, Spence was inviting us to have a fuller awareness of this landscape, resting our communal life far more within it. The foundation for such a concern is evident in his view that place is pluralistic, concerned with people and the environment, as well as memory and experience. He showed Leplastrier's work to be manifestly present and challenging precisely because it heightens the underlying conditions to which much of Australia's built fabric seemingly freely disassociates. In seeing issues of place within such a careful and poeticised concern for people *and* land, the discussions between Spence and Leplastrier are exemplary of a very particular and important mode of discourse in Australian architecture. With Spence's death in 2004, a sense for their friendship was laid to rest as a defining image in Leplastrier's ongoing practice and teaching.

Endnote

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[3] Leplastrier *Eulogy to Spence*, 30 May, 2004
[4] Gregory Burgess *Requiem for Rory,* delivered at the States of Mind Architecture Student Conference, Launceston, Tasmania, 30 May, 2004.
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[19] Rory Spence, "1000 words", *Architectural Theory Review: Journal of the Dept. of Architecture, the University of Sydney*, 1, 2, 1-18.
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[25] Sandra Kaji-O'Grady, "Larrikins and Landscape: the quest to be the most Australian city", *Refereed Proceedings of UNAUSTRALIA, The Cultural Studies Association of Australasia's Annual Conference* (December 6-8, 2006). http://www.unaustralia.com/proceedings.php, accessed June 2011: 7.
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[31] Spence, "The Concept of Regionalism Today", 6-7.
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[39] Farrelly, "Boats, yes, but let's not miss the bus".
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MAXXI and VAC with Remarks on the Concept of Direct Time

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Abstract

This paper is a comparative examination of Zaha Hadid's National Museum of XXI Century Arts and Le Corbusier's Visual Arts Center. It reveals differences in composition and device and was prompted by a question of time. Is there a modernist concept of time in architecture and if so what formal and spatial aspects characterise it and what effects does is account for?

The paper is organised in three sections. The first sets out the generating propositions and the approach. Section two is a parallel analysis of the buildings according to four themes: diagonals, volume, structure, ambiguity. Section three returns to the question of a specifically architectural concept of time, extending the formal analysis into the realm of contemporary thought by means of Gille Deleuze's notion of pure or direct time as developed in Cinema 2. The Time-Image.

The paper contributes to the conference theme of Absences*, engaging a largely undeveloped aspect of modernity's practice. Focusing on projects by two of architecture's leading protagonists, it identifies a series of plan moves and their differences, and sets out an approach to architectural concepts of time.*

1. Introduction

In *Cinema 2 The Time-Image*, Gilles Deleuze proposes that in certain post 1945 films a new relationship of movement and time is made visible. Time is no longer subordinate to movement, he writes, and a reversal occurs such that 'time ceases to be the measurement of normal movement, it increasingly appears for itself.'[1]

Can a phenomenon similar to that which Deleuze has discerned in the realm of philosophy and cinema and characterized as a pure time, one independent of motion's

measure, be claimed for architecture? What kinds of relationships of time are uncovered in buildings that release or make concrete a 'direct time'[2], one not bound to a vision in motion, or to a *promenade architecturale*? Which formal moves and compositional devices create the effects at work?

Another way to frame the question: how are buildings and projects composed such that time is confronted? Is there a specifically modernist concept of time, a modernist mode for the creation and expression of time? Just as there are different space concepts, are there different architectural concepts of time and if so how do they work? What are the distinguishing characteristics?

To begin to respond to these questions, I examine two buildings that engage overtly movement and thus by implication imbed or release a concept of time. The Museum of XXI Century Arts (Zaha Hadid, Rome, 1998-2010, hereafter simply MAXXI) and the Visual Arts Center, also known as the Carpenter Center for the Visual Arts (Le Corbusier, Cambridge, 1961-64, hereafter VAC) provide the material for the analysis.[3] What is at issue in the two projects? MAXXI and VAC are the rendition of which architectural problems? The one is perhaps most obsessed with lines, traces or ribbons; and the other with conflating the free plan and the spiral.

MAXXI and VAC provide a specific occasion for comparison.[4] These two buildings - at first look so dissimilar in form, calling, and mood - each overtly engage movement appearing to foreground or make explicit architecture's reliance on movement for their coming into being. Both on the surface and perhaps in reality treat the spiral, the diagonal, and the torqued perceptions produced as generators of their characteristic effects, ones perhaps bound to, rendering, or recording a concept of time. What are the differences, however, implied? Do they overlap? Does one create a more radical, more pure, more present concept of time as compared with the other?

Is there, finally, evidence of that reversal identified by Deleuze, such that a pure time is made palpable and architectural/plastic qualities released independent of movement?

Three propositions - loosely thematic, methodological, conceptual - organise this paper's response to the opening questions. The first is that Deleuze's notion of direct time provides an initial way to think about and test different architectural concepts of time.

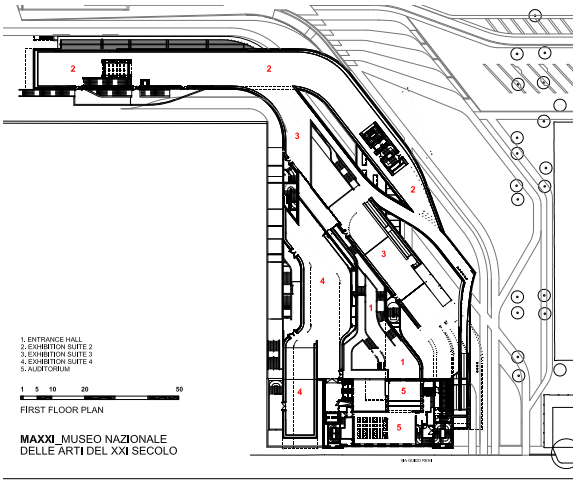
The second proposition: a close examination of the plan in particular provides the most immediate approach to the devices and formal moves deployed to achieve these effects, and thus used to describe what is at risk or in play. Both architects have made specific pronouncements on the plan driven nature of their work and both exploit the plan's formal possibilities. Alongside Le Corbusier's famous 'The plan is the generator… The plan carries with it the essence of the sensation…',[5] Hadid similarly emphasizes the plan focused nature of her work. An early statement by the architect provides a shorthand to this working method, with far reaching aims. Her ambitions extend she states to 'almost rewriting the script for architecture. And that script could be manifested on a plan. So it becomes a new calligraphy of a plan. And the implication of that is that it could make a new kind of life.'[6]

A final proposition: in both MAXXI and VAC there is a condition of vibration and energy already contained or produced by the building independent of movement. Time, to take Deleuze's implied formula, has "gone creative"[7], and this condition perhaps resembles or renders physical his concept of direct time in the realm of architecture. To that end, gleaning concepts of time is aligned with tracing – to borrow a phrase from Peter Eisenman - the 'architectural energies'[8] at work.

Others have written histories of the two projects[9] and written on time and modern architecture.[10] Far from attempting to re-establish the provenance of forms or ideas – either within the work of each individually or within the context of a trajectory of projects each was developed in – I focus on the relatively modest aim of considering how each works on time, describing the devices and formal moves used, the consequent architectural effects, and their differences. I start with observations on approximate configurations and then move to identify these differences in order to test how certain shared motives and effects might be generalised into composition devices and in so doing begin to describe various formal logics or compulsions underlying each building. I follow what Rowe characterised as a Wölflinian style of critical exercise, one taking primarily visual material as the object for the 'intensive critical workout'[11]. I conclude with notes on the extension of the formal analysis back into Deleuze's concept of time.

2. Analysis

A close examination of the plans reveals at least four composition problems in play: diagonals, volume or expressive space, structure, ambiguities.



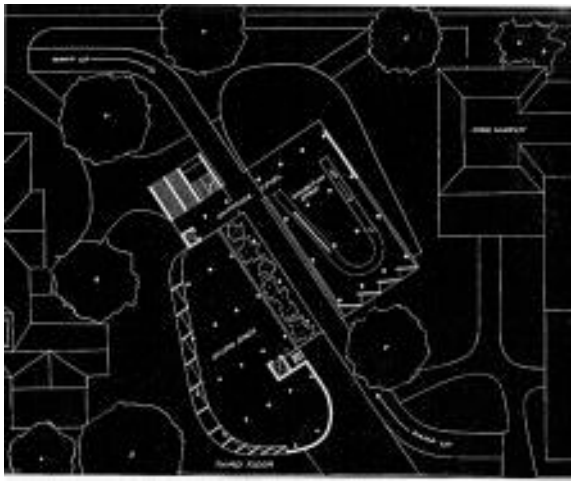


Figure 1. Zaha Hadid, Museum of XXI Century, 1st Floor Plan (© Zaha Hadid Architects). **Figure 2.** Le Corbusier, Visual Arts Center, 2nd Floor Plan, *Complete Architectural Works* Vol. VII, 58 (© Le Corbusier/ADAGP Licensed by Viscopy, 2012).

2.1 Diagonals

Both MAXXI and VAC are centrifugally ordered, one channeled and vertically stacked, the other self-bifurcating and horizontally distributed. An overall effect of continuity is rendered in plastic terms by a variety of means. Frontal views are difficult to achieve and are deemed static; three-quarter views are favored in both buildings. Peripheral composition is sought over centralised, and interpenetration favored over separation though in MAXXI emphasis is on the vertical and in VAC on the horizontal.

And out of these relations, a general, fairly constant diagonal condition is shown to exist. From there, a review of the plans reveals a disposition different from the enfilade (room to room) plan and the *poché* (served and servant) plan, it is a case of an open plan in the one and a free plan in the other.

Both favor transverse over cross-axial or longitudinal arrangements. In MAXXI one enters on the oblique, and continually slides in either a counter clock wise or clock wise motion up the building. And then back down again, sliding always on the edge. MAXXI's plan is layered by open Ls (boomerangs) or flattened S-shaped volumes - no rooms -, with circulation slipping along the edges in a sideling manner. Galleries thrust forward, as in Exhibition Suite V, in part in a burst of energy or, as in Gallery Exhibition Suite II, in the promise of future extension.[12] The building folds over itself in an almost a boolian movement.

In VAC, oblique and transverse moves are equally at work throughout. Diagonal motions off the parallel streets of Prescott and Quincy initiate this condition. The second floor studios continue it with an echeloned cascade along the outer edge of the mandolin-shaped space. The plans as published in the *Complete Works* show a U-shaped ramp connecting the second and third floors in a clock-wise spiral moving up the building, which if built would have continued and intensified the external ramp's momentum.

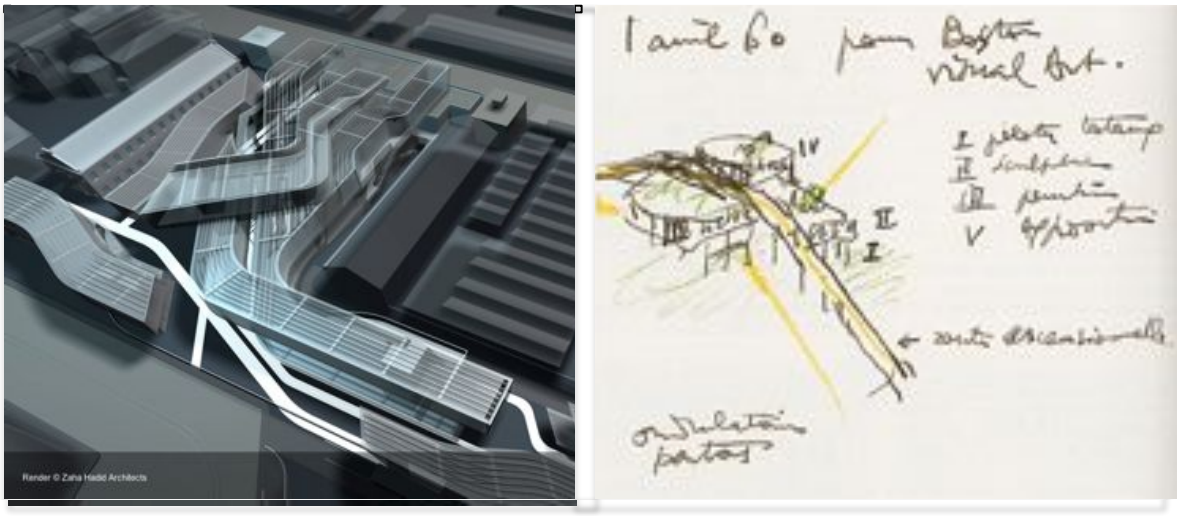


Figure 3. Zaha Hadid, Museum of XXI Century, Design Development Model (© Zaha Hadid Architects). **Figure 4.** Le Corbusier, Visual Arts Center, Initial Sketch Idea, *Le Corbusier Sketchbooks*, Vol. 4, 1957-1964, New York, The Architectural History Foundation, 1982, Sketchbook P60 (© Le Corbusier/ADAGP Licensed by Viscopy, 2012).

2.2 Volume, or Expressive Space

If VAC is mostly about horizontal volumes formed by floor and ceiling planes and MAXXI about ribbons or lines, and if one extends the description and abstracts the reading, then one can generalize the differences: planes enclose space, lines elaborate space in their pull and torsion; planes bring into focus providing emphasis, lines dissipate, leading the eye away from a static, single 'object' focus the effect of which is to remove firm boundaries so that a 'new reality'[13] can be created.

We can perhaps then say that each building disposes volume so as to engender a dynamic space, that is to produce what can be characterised as expressive space.

The demands of expressive space – Hadid's never ending 'new life' referenced above, and Le Corbusier's free plan animated by organ events and object types – might come first, only to be later rationalised in terms of structure or composition or use. This

sensitivity might extend to a divergence on the one hand toward continuity and on the other toward separation. Or different kinds of continuity where continuity is understood as a unity of space and structure. Separation of supporting point columns and functional partitions: structure does not define space but punctuates it.

Look at their respective sites as additional evidence. Both occupy flat, urban sites and to a certain extent create their own topography. Another consequence of the volume disposition is the use in both cases of overlap and the different strategies of central compression and peripheral dispersion.

Perhaps the two attitudes are not as different as they may at first appear. Both are in pursuit of an architectural idea. And in support of the continuity ideal, it is clear that neither plan is interested in the fragment. Even if the plan of MAXXI is open ended, in anticipation of future construction phases (the drawings imply at least two), the plan is specifically not about the fragment. And VAC is adamantly complete, not to say static. MAXXI's section where the volumetric modeling is palpable supports this reading. Still it is generalised. The plan is perhaps, staying with first impressions, about open ended, incomplete forms in a condition of continuous motion at their mid points.

The analysis thus far might suggest that MAXXI is about movement of volumes and the plan is in part an illustration of the *promenade architecturale*. Thus would be implied a time concept aligned with a primarily empirical (chronological) idea of time, one subordinate to movement: a this then that, a past then present, a before and after. And equally, in VAC we are only ever satisfied (satiated) with a kind of space triggered by movement (the Acropolis effect).

On the other hand, we can observe that in VAC an intensification of local conditions might be a first obvious finding. Those mandolin shaped organs capture in a spiraling disposition the edges of their Georgian neighbors, organising the elements such that a force, or multiple forces, are shaped, and temporarily focused only to be quickly dispersed so that even in the absence of a peripatetic eye there is still a vibration produced in that building and thus perhaps a record of a pure time independent of any reliance on motion or movement to bring it forth. If perhaps too early to state a preliminary finding, one might thus far be justified in claiming that MAXXI works on the concept of space and VAC on problems of time (though which form of time is unclear).

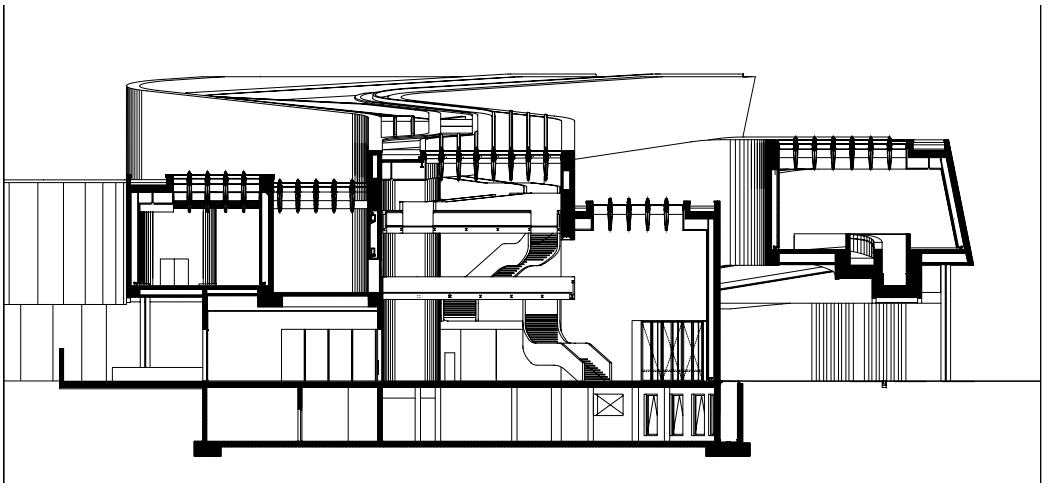


Figure 4. Museum of XXI Century, Main Lobby Section (© Zaha Hadid Architects).

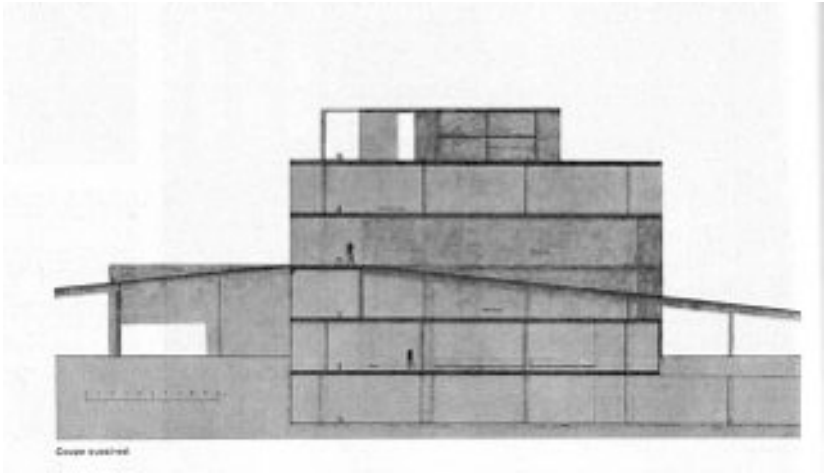


Figure 5. Le Corbusier, Visual Arts Center, East-West Section, *The Complete Architectural Works*, Vol. VII, 58 (© Le Corbusier/ADAGP, Licensed by Viscopy, 2012).

2.3 Structures

Another title for this section might be the free plan versus the free section. To begin, we notice that columns have almost no role in Hadid's building. Outside, there are six clusters of thin tubes at cantilevers or overhangs of first and second floor volumes. Inside there is a single instance of a line of three thin tubes on the edge of the first floor outer gallery. In the adaptive reuse of the existing via Guido Reni building, finally, there are four columns in the ground floor space, now used for exhibitions. Animation and architectural effect is developed from other elements at MAXXI, whereas columns play a fundamental role at VAC.

In both, other conditions dominate, set up in part by the difference between the (Domino) flat slab and point column in VAC on the one hand, and insitu concrete wall and stacked cantilever structures of MAXXI on the other.

The structural systems are entirely different and both look to some extent to structure as a justification for their plan dispositions. VAC is set out in a rectangular bay grid rotated relative to the bounding streets, generally employing round section columns with local incidents. MAXXI's structure, other than the clusters of thin columns supporting the first floor galleries as noted, is monolithic exploiting the characteristics of the poured in place concrete.

In terms of consequent volumetrics, MAXXI is a narrow volume folding back on itself. VAC is a hybrid of the Domino flat plate point column grid and an assembly of independent organs. The ground is of secondary importance with ascendancy given emphasis.

One aspect of MAXXI's solid wall structure is a certain freedom in section which is not allowed in the flat slab, column point grid structure. The free plan effects of VAC are in one sense transferred to a kind of 'free section'[14] at MAXXI. The impacts are not strictly in the nature of the sculptural quality of a building as carving but nearly, Hadid's sectional transmutation and modeling of volume yielding much of the plastic effect. Horizontal extension, reinforced by the shear, taut, unencumbered ceiling plane of VAC is matched by vertical pull at MAXXI. The horizontal planes of floor and ceiling are dominant in the one, the enclosing walls channeling movement and reinforced by a highly articulated and in parts transparent ceiling and floor in the other. MAXXI's reflected ceiling plan is particularly revealing on this point.

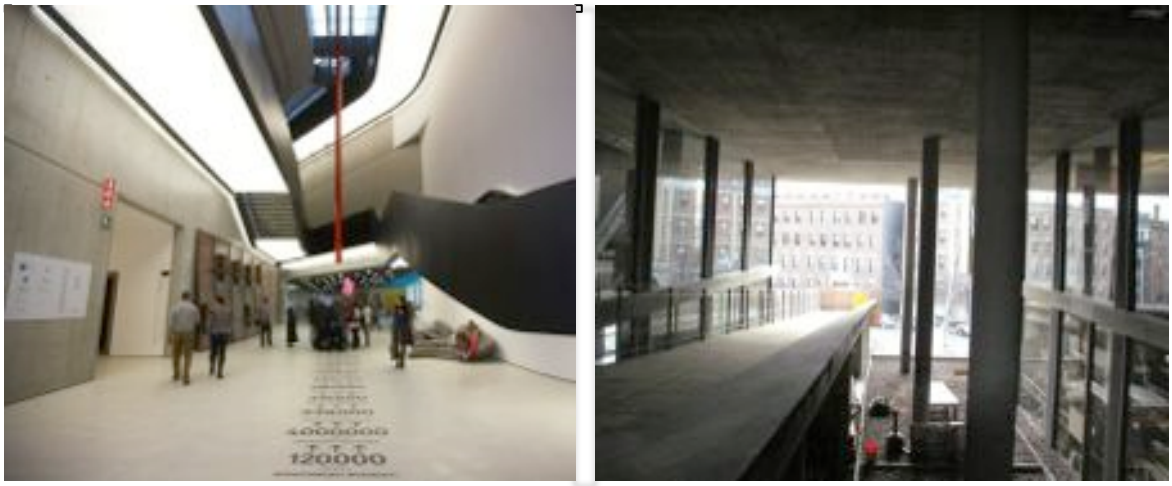


Figure 7. Zaha Hadid, Museum of XXI Century, Main Lobby (© Camille Tokerud Photography). **Figure 8.** Le Corbusier, Visual Arts Center, Ramp at 2nd Floor (© Camille Tokerud Photography).

2.4 Ambiguities

Thus far, a diagrammatic comparison of MAXXI and VAC has explored the themes of diagonal or transverse relationships, of internal volumes rendered expressive, and the consequences of free-plan and free-section structural ideas.

In general idea, as can be seen in my cursory examination of the plans, the overall architectural system of the two works bear some similarities. They are both conceived perhaps around diagonal movements with functional spaces disposed either as coincident with circulation (MAXXI) or as appendages to lines of circulation (VAC). The fourth theme to be developed concerns ambiguities in field/object or figure/ground conditions.

Neither building can be absorbed from without. Values of wholeness, the ideal of being able to stand at some point and receive a palpable impression of the whole is specifically not an aim. And development of focus somewhat of an arbitrary and for Hadid intentionally ambiguous proceeding, explicit if her pronouncements are taken at face value.[15] A potential single, central focus is consistently broken up, concentration in one point is never sought. Rather a peripheral dispersion of incident in the case of VAC and a peripheral, shifting look, an animated vision – largely frontal even if following a switchback or Z-shaped pattern – in the case of MAXXI dominate. In both, the geometric center is a void, a void occupied by a ramp and outdoor atrium at VAC, the main stairs, atriums, and light slots at MAXXI. In both any assumption of a central focus is relegated to dismembered spaces in a sort of serial installation of interest (organs, events, ribbon-galleries) round the extremities of the plan.

So while this is perhaps too easy a parallel and things are evidently more subtle, can we say that at MAXXI the plan is all field and no object and VAC all ground and no figure. And that we here confronted with a constant architectural condition of middles or of background intensity?

This is surely a response, in part, to the fact that in both projects the site and program required intensive development as elaborate external deployment was not possible within the more or less set and limiting boundaries.

Inversion or intensification in the place of extension: more fluid at MAXXI, no less concentrated at VAC for being bound by those floor and ceiling plates and directed horizontally. Especially if you study the sliding or staggered distribution of main spaces and the dense center, doubled or echoed by perimeter incidents. No simple dispersal of focus but more of a rebound, waves bounding back to confront initial ripples. In MAXXI the concrete walls of the galleries channel the effect. At VAC potential release is denied, energy bounced back from or ricocheted off all those perimeter vertical incidents: curving wall, ondulatories, brise-soleils, columns.

Peripheral interest in horizontal expansion in VAC; contained concentration of a rather constant nature, sliding and swung along vertically at MAXXI. Two different compositional strategies yielding in one regard, however, similar effects: no one centre, a kind of indefinite though not neutral space. Never uniform, in fact it is always potentially fully animated such that hierarchy (of figure over ground or object over field) is shown specifically not to be the intent. The absence of one dominant centre, produces this other kind of condition, of being always already in an ambiguous kind of middle condition.

So while there is perhaps the idea or promise of a *denouement* in both, it is endlessly deferred. I believe this is further evidence of a concept of time at work. In neither do you ever fully arrive, suggesting time has always already passed. Look at the plans. In MAXXI, the interest is the field as a constant condition.[16] Suite V, that gallery reproduced so frequently in external photographs, is not the main thing, it does not conclude. It is the end but only in a tentative way, an effect of the sloping floor, the view slot, the oblique cut of the end wall in plan and plane. In VAC, the effect of deferred arrival is similar though the means different. Certainly the artist's apartment perched on the final floor might want to satisfy a desire for a conclusion or pyramidal cap. In Le Corbusier's work, the Beistegui Apartment in itself provides that effect, as do in different ways the roof terrace

events at the Villas Savoye and Stein. But it is not the case here. If the internal ramp had been built between the second and third floors, then perhaps in Cambridge the third floor would have gained some hierarchical role.

3. Remarks on Direct-Time as a Provisional Conclusion

> … we are plunged into time rather than crossing space.[17]

The four composition effects or problems now surveyed, we return to the germinal question, or opening proposition, of time. Is there a concept of time rendered in each building, of a time concept specific to a work of architecture? What kind of temporal structure is at work and does it share aspects of Deleuze's direct time? In the proceeding analysis implicit has been the question of a pure time – both as an effect created or made manifest in the building and as an interpretive category. To conclude, and as an opening for further research, I will return to the initial reference to Deleuze's concept of a pure time in *Cinema 2*

According to Deleuze, a reversal in the relation of movement and time can be discerned in the realms of philosophy and cinema. For philosophy, the reversal has slowly occurred, and only in some thinkers, over hundreds of years. In cinema for Deleuze it has occurred since 1945 and thus at a much more accelerated pace.

Rather than being derived from movement, time appears in itself. This reversal in philosophy is repeated, according to Deleuze, in the sphere of cinema, with what he classifies as the movement-image of classical cinema being supplanted by a time-image. Deleuze describes certain devices which render time manifest in itself, prior to or proceeding movement. Or more strictly, Deleuze's direct time is independent of movement: it goes creative, a condition which is not the same as being generated. Deleuze finds evidence of this other condition in certain films of Renoir, Fellini, and Welles among others.

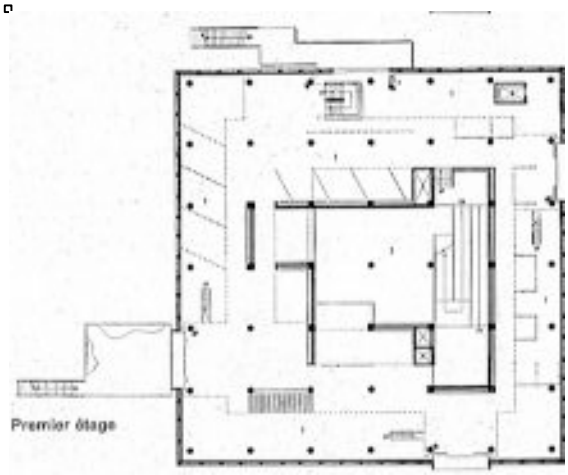
Could a similar reversal be said to have occurred in the realm of architecture? How would we recognize it? What kinds of devices would be at work to give rise to a pure time, one different from a past-present-future time, that purely empirical succession of things. For Deleuze, this pure time rather is a 'coexistence of distinct durations, or of levels of duration; a single event can belong to several levels: the sheets of past coexist in a non-chronological order'.[18]

One aim of this paper, in addition and as announced earlier, is to begin to identify elements for a theory of those temporal structures that certain modern works of architecture may be able to grasp and reveal.

Though tentative, and calling for further development, I believe there is evidence of a concept of time at work in each of the buildings considered. The four aspects explored above, when reviewed together, thus perhaps provide a provisional description of its main characteristics: diagonal and transverse relationships; a voided center that creates intensity independent of any other animating presence. In addition, there is a specific idea of structure: the flat slab and point structure in VAC overlapping with dense perimeter conditions and the cantilever, ribbon-like shapes in an open-ended plan of MAXXI. And perhaps supporting or enabling all, field and ground ambiguities. To varying degrees, and with all the qualifications called for, there is a suggestion of terms for describing an architectural concept of time. It is one that shares aspects with those post-1945 phenomenon that Deleuze describes.

From the above analysis we can now perhaps say that, though employing different means, MAXXI and VAC are equally about movement and about a temporal structure. Both buildings render manifest an idea of time out of joint, one that it that does not rely on movement to gain presence Contrary to Le Corbusier's emphasis on the Acropolian sequence, and the motor and visual aspects that implies and the parallax effects so immediate and palpable in that whirl of columns and tilting planes proceeding up and through the building; and despite the combination of oblique movement and peripheral incident dispersed over and across several floors, and the 'free organs' staggered vertically; despite or in addition to all this, time perhaps appears directly, independent of an animating movement. And equally true, it can be claimed, MAXXI freeze stops a moment in time and thus illustrates a Deleuzian pure time by means of the strategies examined above: oblique movements already underway, folding volumes, an animated middle (no beginning or end).

Thus we are confronted with forms of simultaneity, with concepts of time as over-lapping durations, the consequence of compressions and release, all working to create folds in, or give thickness to, time. And these seem to be valid and real findings, if only tentative conclusions which nonetheless support further research with other concrete examples to be sought and terms of reference refined and amended.



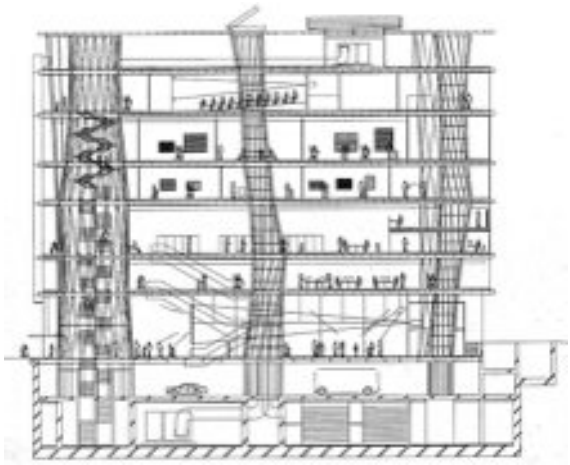


Figure 9. Le Corbusier, National Museum for Western Arts, 1st Floor Plan, *The Complete Architectural Works*, Vol. VII, 186 (© Le Corbusier/ADAGP, Licensed by Viscopy, 2012). **Figure 10.** Toyo Ito, Sendai Mediatheque, Section (© Toyo Ito, Maffei (Ed), *Toyo Ito*, 249).

Consider, in closing, what might result if we substitute the National Museum for Western Arts (Le Corbusier, 1957-59, Tokyo[19]) for MAXXI and the Media Center in Sendai (Toyo Ito, 1995-2001[20]) for VAC. Is the scope of the argument clarified, expanded? In the latter, there is apparently a desperate desire to overcome the horizontal stratifications of the *Domino* diagram by means of continuous, vertical, and slightly agitated elements. In Tokyo a different compulsion is at work. Here, the problems is that of a continuous spiral or labyrinth, albeit one contained with a prism and beginning with force in the entry hall - those triangular skylights starting the motion -, constantly slopping and stepping as a way to rid itself of the plane's containment and the column grid's insistence. Something new has happened to the force of dissolution such that time and motion are again at risk, though in a manner which differs from MAXXI and VAC. At Sendai, to start, the vertical voided chambers suggest time's passage free of any engagement with the horizontal plan. And at Tokyo, a strange sense of timelessness is produced by the ramps and stairs: out of place they might lead to a concept of movment that yields no time. Further enquiry and closer reading would start to yield different emphases and devices.

Endnotes

[1] Gilles Deleuze, translated by Hugh Tomlinson and Robert Galeta, *Cinema 2 The Time-Image* (Minneapolis, University of Minnesota Press, 1989), xi.
[2] Deleuze, *Cinema 2 The Time-Image*, xii.
[3] Hadid was awarded the commission in 1998 and the building opened in 2010. Key published sources on the project, in order of date of publication, include: Zaha Hadid, Contemporary Arts Centre in Rome, in Zaha Hadid 1983-2004. Fernando Marquez Cecilia and Richard Levene (eds.), (Madrid: El Croquis, 2004), 414-425. Gianluca Racana, Manon Janssens (eds.), *MAXXI: Museum of XXI Century Arts*, (New York: Rizzoli International Publications, 2010). Mario Avagnina, Margherita Guccione, Silvia La Pergola (eds.), *MAXXI materia grigia. Il racconto della costruzione*, (Milano: Mondadori Electa, 2010). A good selection of preliminary drawings, images, and as built photographs can be found at http://www.zaha-hadid.com/architecture/maxxi/ For the purposes of floor levels and gallery designations I use those employed in project architect Gianluca Racana's article, "Competition to Construction," in *MAXXI: Museum of XXI Century Arts* (2010), 45-55.
Le Corbusier began designing the Visual Arts Centre in 1961 and the building opened in 1963. Standard references include W Boesiger, H. Girsberger (eds.), *Le Corbusier 1920-1965*, (London: Thames and Hudson, 1967). W. Boesiger (ed.), *Le Corbusier. The Complete Architectural Works*, Volume VII 1957-1965, (London: Thames and Hudson, 1965). Eduard F. Sekler, William Curtis, *Le Corbusier at Work. The Genesis of the Carpenter Center for the Visual Arts, (*Cambridge: Harvard University Press, 1978). I rely generally on the plans published in the *Complete Works*, volume 7 though note that these show a internal ramp connecting levels two and three that was not built. For floor level conventions, I use those of the *Complete Works*. For drawings of the building as built see Sekler and Curtis, 345-57. Throughout I use the name of the building as it is given in the *Complete Architectural Works*, Visual Arts Center. Drawings from Le Corbusier's office carry the office's characteristic three-character project name shorthand, in this case VAC BOS for Visual Arts Center, Boston.
[4] The defining traits leading to selection for this preliminary effort include, as noted, a legible confrontation with movement. The potential list of candidate projects is long. As the analytical tools are honed, more subtle categories and less explicit works will be explored. Other projects considered for comparative analysis, and staying with a bias toward Le Corbusier which requires further elaboration, included Le Corbusier's Congress Hall in Strasbourg and the Seattle Central Library by OMA/LMN.
[5]Le Corbusier, (trans.) John Goodman, *Toward an Architecture*, (Los Angeles: Getty Research Institute, 2007) (1928), 116
[6] Zaha Hadid, excerpt from an interview in *Deconstructivist Architects*, dir. Michael Blackwood, (Michael Blackwood Productions, 1989), 58 minutes, colour.
[7] Deleuze does not specifically propose this effect, but it's appropriateness is suggested. He writes, in relation to the cinema image: 'What is specific to the [time-] image, as soon as it is creative, is to make perceptible, to make visible, relationships of time which cannot be seen in the represented object and do not allow themselves to be reduced to the present.' *Cinema 2 The Time-Image*, xii.
[8] Peter Eisenman, *Inside Out Selected Writings 1963-1988* (New Haven: Yale University Press, 2004), 132.
[9] See note 3 for key references.
[10] There is a body of literature on the topic of time and modern architecture which this paper does not address. To do so would call for a different paper, or a second one. The ambition here is more modest. It is about work on time in two built projects and testing the potential provided by Deleuze's concept of direct time to describe such work. A larger study - in terms of contexts chronological, disciplinary, and thematic - would need to confront a number of canonical texts, both mid twentieth century and more current. Starting points include Sigfried Giedion, *Space, Time and Architecture. The Growth of a New Tradition* 5th edn. (Harvard University Press: Cambridge, Mass., 1967); Vincent Scully, *Modern Architecture. The Architecture of Democracy*, rev. edn. (New York: George Braziller, 1974) - for the notions of continuity and fragment;
Sanford Kwinter, *Architectures of Time. Toward a Theory of Event in Modernist Culture* (Cambridge, Mass: The MIT Press, 2001).
[11] Colin Rowe, *The Mathematics of the Ideal Villa and Other Essays* (Cambridge: The MIT Press, 1976), 16.
[12] Design drawings and renderings suggest future phased elements to the south, extending Suite II and to the north-west. The oddly truncated corridor or narrow gallery which swings away from

the building to the north is intersected by another corridor from the east which, in study sketches, is fully developed into another flattened “S”.
[13] Project description on the office website: http://www.zaha-hadid.com/architecture/maxxi/
[14] Rowe employs this term to describe the difference of Palladio’s Malcontenta as compared to Le Corbusier’s Villa at Garches. Rowe, *The Mathematics of the Ideal Villa and Other Essays*, 11.
[15] Mohsen Mostafavi, “Landscape as Plan (A Conversation with Zaha Hadid, Dec., Jan. 2001)”, in *Zaha Hadid 1983-2004 (*Madrid: El Croquis Editorial, 2004), 40-69.
[16]For a discussion of the concept of field, see Patrick Schumacher, “The Meaning of MAXXI - Concepts, Ambitions, Achievements”, in Gianluca Racana, Manon Janssens (eds.), *MAXXI: Museum of XXI Century Arts* (New York: Rizzoli International Publications, 2010) 18-39, see 39.
[17] Deleuze, *Cinema 2 The Time-Image*, xii.
[18] Deleuze, *Cinema 2 The Time-Image*, xii.
[19] W. Boesiger (ed.), 'Le Corbusier. The Complete Architectural Works,' Volume VII, 182-191.
[20] See Andrea Maffei (ed.), *Toyo Ito. Works Projects Writings* (Milano: Electa, 2001), 232-69.

Whither Australian Hill-Station Creation: Re-writing Adelaide Hills narratives about the architectural imperatives that crafted their establishment

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Abstract

This paper explores the historiography of the Adelaide Hills and offers a new perspective as to the reasons behind hill-station residence constructions that crafted this distinct cultural and designed landscape. Australian hill-station communities, and their major architectural edifices, were extensively established in two periods: the 1870s-1890s and the 1920s-1930s. Sites in the Darling Ranges, Adelaide Hills, Macedon and Dandenong Ranges, Blue Mountains and the Tamborine Mountains were favoured summer retreats for both the new and established wealthy families, who erected grand residences that have come to be celebrated in recent heritage assessments, and architectural and social histories of these environments. The majority of these studies and discourses have echoed an agenda that celebrates the architectural significance and personal associations of these structures, and thereupon have made a range of assumptions about the societal rationale for their establishment, construction and associated landscape plantings.

Taking examples from the Adelaide Hills, this paper argues that both architectural and social historians have 'mistakenly' concluded that the rationale behind these hill-station residences was based primarily on the provision of a 'pleasant' summer that echo the British Raj hill-stations. Further, it is argued that this conclusion constitutes a myth, or fabulation, about South Australian (SA) design, heritage and social histories, as many of these owners consciously sought out and selected hill-station allotments on the basis of their horticultural properties and possibilities, and that house-siting and construction were actually subservient to these imperatives.

Figure 1. *Wairoa* by George Tibbits, 1897.
(Reproduced with the permission of the existing owners)

The Adelaide Hills Landscape

As a response to the hot, dry summers experienced on the Adelaide Plains, the wealthy establishment of Adelaide sought refuge in the Adelaide Hills. They developed what has later been termed 'hill-station' properties or gardens, intended for summer entertainment, business use and botanical display, and 'Wairoa' was an example of this type.[1] As an example, at the Hills property of 'Broadlees', the only variation was that the Waite sisters viewed their house and garden as their permanent residence, and it served this role, including hosting regular overseas visitors.[2] This was not a quick typological evolution but one that came about with the maturation of the colony of SA, the sudden accumulation of wealth from pastoral and mining returns, and a cultural awakening that afforded many newly wealthy families time to indulge in Victorian passions and interests, particularly animal and plant collecting. For plants, the Adelaide Hills offered rich acid soils, reliable rainfall and winter mists, abundant undeveloped allotments a short rail passage from Adelaide, and a growing fashionable penchant for building grand Victorian-era verandahed residences in the Hills. Two phases of this typological pattern are evident: in the late 1870s-90s when sheep and mining prosperity abounded in the colony, and Victorian-era hobbies were driven by science; and, in the 1920s-30s, when pastoral and business prosperity again abounded, despite the Depression years, largely weathering SA from the ravages of the global Depression.[3] The former also enveloped many proponents because it was linked to a formidable international botanic collecting passion, especially with the opening up of China and Japan, enabling the mass distribution of *Rhododendron* spp, *Azalea* spp, *Camellia* spp, *Rosa* ssp, and conifer specimens, previously not available in Europe and North America.

Historian and critic Paul Fox has eloquently described these places as:

> *… paradises where the exigencies of the Australian climate (apart from bushfires) appear to have been softened. Here, assisted by abundant water, gardening was practiced without the stoicism of homestead gardening on the unrelenting plains. Amid mountain cool, the horticultural rarity could be raised by nursery proprietors and gardened by wealthy residents so that the botanical discoveries of the age of imperialism luxuriated on terraced slopes against the backdrop of remnant indigenous forest*.[4]

The Adelaide Hills is one of several locations in Australia that are characterised by hill-station residences and gardens, including the precincts of Mount Macedon and the Dandenong Ranges near Melbourne, the Blue Mountains near Sydney, and the Darling Ranges near Perth, all of which are now peri-urban suburbs and susceptible to high bushfire risk.

While most historical assessments of the Adelaide Hills properties deem the architectural residences as paramount in heritage significance,[5] it is the gardens that were created in the landscape in the 1870s-90s and again in the 1920s-30s that underpinned the reason the land was acquired. Thus, private botanic passions and land acquisition consciously preceded the realisation of a design for a summer residence on the property.

There are very few extant large period-established gardens remaining in SA; the majority being in the Adelaide Hills. 'Forest Lodge' (c.1893)[6] is the most intact Victorian garden of this collection that also includes 'Wairoa' (1893)[7], 'Beechwood' (1890)[8], 'St Vigean's' (1881-82)[9], and 'Glenalta' (1920s-30s).[10] 'Forest Lodge' is additionally significant as possessing one of the most intact 1920-30s northern Italian garden styled landscapes in the Adelaide Hills as well as being the hill station residence of prominent architect Walter Bagot (1910s-60s)[11], which is also displayed in 'Raywood' (1930s)[12], and 'Broadlees (1930s).[13]

The Adelaide Hills are a low mountainous range to the east of Adelaide and have a major role upon the climate of the region. The geology is predominately fine-grained feldspathic sandstone with a scatter of haematite and pebbly beds. The landscape is relatively stable but has been subject to very occasional earth tremors, the last major one in 1954, associated with the Mesozoic fault lines. The soils thereon are largely red, yellow and grey-brown podsols accordingly to drainage conditions depth and gravel content, but all are acidic. Red podsols are dry and susceptible to run-off, whereas the yellow podsols are less

permeable; both soil structures are deficient in phosphorus, nitrogen and several trace elements that can and have been easily resolved with the application of organic fertilisers.

The climate of the Adelaide Plains is characterised by mild wet winters in June-September with hot dry summers in December-March, and analogies have often been drawn as to the 'Mediterranean climate' of Adelaide. In contrast, the Hills experiences orographic effects resulting in an average annual rainfall of 1,000-1,200 mm, in May-August, compared to 450-610 mm on the Plains. Temperatures range from 4°C in winter, with rare snow flurries, to 27°C in summer, while the Plains would experience 10-15°C in winter and 35-40°C in summer, with an average of 76% humidity in July, dropping to 40% in January. Winds are generally from a southerly and easterly direction in summer, and from a westerly and northerly direction in winter. Hence the attraction of the Hills as a summer retreat for Plains residents.

This landscape was originally dominated by a semi-dense dry sclerophyll forest of Stringybark (*Eucalyptus obliqua*) and Candlebark Gum (*Eucalyptus dalrympleana*), the former on dry ridges and slopes, with the latter on silty, swamp lands and in gullies. The middle-storey existed in open patches often characterised by scrub and Wild Cherry (*Exocarpus cupressiformis*) of which successional specimens of the gums and Cherry exist on the 'Wairoa' property today.

Bushfires are a natural occurrence on the Australian landscape. Typically the Adelaide Hills forests were historically subject to natural and human-modified burnings by the Kaurna and Peramangk clans prior to European settlement in 1836. Thereupon they were severely modified by felling and timber harvesting and clearing with a corresponding non-burning regime. 'Wairoa' was subject to this extensive defoliation in the 1860s-70s reducing the risk of bushfires and resulting in a relatively open woodland environment when the land was first acquired. The Adelaide Hills has had a torrid fire history, with major events in 1950, 1955, 1961, 1966, and with the Ash Wednesday fires of 1983 that substantially destroyed several significant residences and gardens on the primary ridgelines, including 'Marble Hill'; but those on the secondary ridgelines to the east have been lucky to date. Thus, 'Wairoa' has been at risk from a bushfire since its establishment.

The Aldgate Landscape before William Austin Horn - Pre-1888

In 1857 the locality encompassing the property and much of Aldgate was surveyed and subdivided into sections and allotments. 'Wairoa' formed a portion of Section 94, (some 40ha) in the Hundred of Noarlunga, and was acquired by James Cunningham in 1857.[14]

From 1857 to 1888 the land comprising 'Wairoa' was felled for timber and developed for grazing purposes. Several of the original Candlebarks (*Eucalyptus dalyrampiana*) were kept but much of the landscape of Section 94 was cleared, fenced, with cattle and sheep put upon or orchards established depending upon the richness of the soils. The exception was the Council Reserve, or Aldgate Pound, immediately to the south-east of the property that remained variously forested. According to one traveller in *c*.1888 the 'Aldgate Grange', which was a local name for the area around Kemp's Nursery today, was the site of bountiful orchards and vegetable gardens. (In recent years 'Aldgate Grange' has been incorrectly used to imply a plant nursery).[15]

Years	1890	1900	1910	1920	1930	1940	1950	1960	1970	1980	1990
Owner	William Horn	Tom & Mary Elder Barr Smith				Sir James & Lady Joanna Gosse			Marbury School		
Head Gardener	George Sparrow				William Kelly			Herb Scott			
Junior Gardeners	William Kelly *c.* 5 years				Herb Scott *c.* 5 years		Ben Jackson *c.* 10-12 years		Phil Wilde *c.* 5 years		

Figure 2. Development Phases at 'Wairoa'

The Horn Phase: Creating the Garden 1888-1896

In January 1888 William Austin Horn acquired the 'Wairoa' property.[16] At the time the property was relatively open with a recent history of grazing and market gardening. On 25 July 1889, Horn sold part of allotment 8, comprising some 9.51ha, to John Bagot to enable him to layout and construct 'Forest Lodge'. Additional parts of allotments 5 and 8 were also sold to Bagot in September 1893, and a part of allotment 5 to William Constable in June 1890. In March 1896 Horn sold the remaining title, which at that stage comprised some 13.5ha, to Tom Elder Barr Smith.[17]

William Austin Horn (1841-1922) was a mining stockholder, pastoralist and politician who rose to a senior position in Adelaide society. Born into the family of New South Wales storekeeper Edward and Emily Horn, at Maneroo, as the second son of eight children. He arrived in SA with his family in 1852. He was educated at St Peters Boys School, and later at Worchester College at Oxford. Horn is directly associated with the 1861 discovery and registration of mining leases on the Moonta property of Walter Watson Hughes. Following

this discovery, Horn became a shareholder and commenced investing in pastoral stations, including around Streaky Bay and the Barrier Ranges (Broken Hill), and in mining companies at Broken Hill and Silverton. These profitable investments led him into politics as a member for Flinders in the House of Assembly (1887-1893) and pursuits in the arts. In September 1879 he married Penelope (Nelly) Elizabeth *née* Belt (1843-1944), the eldest daughter of William Belt of 'The Almonds' at Walkerville. They had eight children, seven of whom survived.[18]

Art, philosophy and literature were Horn's passions. He donated classical Greek statues of 'The Athlete', 'Venus Casanova', and 'Farnese Hercules' to the City of Adelaide, the Heinrich Heyzenroeder coin collection to the SA Museum in 1890, and financially supported several central Australian expeditions, including one by John McDougall Stuart in 1894. He had a reputation as a classical scholar but at the same time an eccentric. Horn participated in art, sculpture, philanthropy, authorship, and had a passion for horse riding. He authored *Bush Echoes* (1901), and *Notes by a Nomad* (1906), that recall in verse and word his younger days with horse and whip.

Their residence and coach-house in Walkerville, called 'Holmwood', was constructed in the mid 1880s in the Gothic Revival style, and financed from Horn's Silverton mine profits. It mimicked 'Holmwood' in Glasgow, designed by architect Andrew Thomson in 1856-58 in the Gothic Revival style, which the Horn's visited on their honeymoon. The purchase of the land at Aldgate followed thereafter, in January 1888. By 1890 'Wairoa' served as their summer residence, and was often occupied by Nelly and the children, and 'Holmwood' served as the Plains residence.

Between January 1888 and March 1896, Horn set about constructing a residence, establishing a garden and a driveway, and erecting various outbuildings. He also installed a water reticulation system and arranged for bores to be established. To achieve these objectives he commissioned an architect to design the residence, and sought out a landscape gardener. The architect selected is not recorded but it is possible that it was prominent Adelaide architect George Klewitz Soward (1857-1941); Walter Charles Torode was most likely the builder; but George Sparrow was specifically sought after as the Head Gardener. Torode's records do not indicate this commission however he did erect 'Kinclaven' for Charles Austin Horn, William's brother, for £4250, and undertook minor works to the value of £275 on 'Wairoa' at an unspecified time.[19] It is also conceivable that the Horn's acquired plans for a classical revival residence, and commissioned a builder to construct it according to unknown plans, as had been the practice at 'Holmwood'.

With this expertise, and driven by his passion for the sculptural and philosophical arts, Horn crafted the structure of the landscape that exists today at 'Wairoa'. He also named the property 'Wairoa' from a Maori word meaning 'long water', although the reason for this choice is unclear.

It is reputed that Horn lived in a cottage near 'Wairoa' during the construction of the residence to enable supervision. Oral tradition has it that this residence was either near the old bore site or at 'Burnham Brae', but was most likely at Stickwood's old stone cottage on the property. It would appear probable that this cottage was on the site of the present gatehouse, as it had a Mount Barker Road frontage, was close to the village of Stirling and the proposed East Stirling village, did not require a vista as the residence would have been sited for functional purposes only in contrast to the siting of 'Burnham Brae', and was on dry land as distinct from the old bore site. The planting of several Monterey Pines (*Pinus radiata*) at this site also support this assertion, as they are of the same age as the ones that were planted *c.*1888-1890 along the lower part of the Mount Barker Road frontage and along the original driveway. There is no other reason to justify their planting here, and this might explain why the Barr Smith's later designed the present driveway to egress at this point and to erect a gatehouse on this site. It is also probably that the Sparrow's resided in this cottage, following the residence occupancy, and until they acquired their own cottage at 5 Pine Street in 1911, although family oral history implies that they lived at Devonshire Road until 1911.[20]

Fabulation: Proceedings of the 29th Annual SAHANZ Conference
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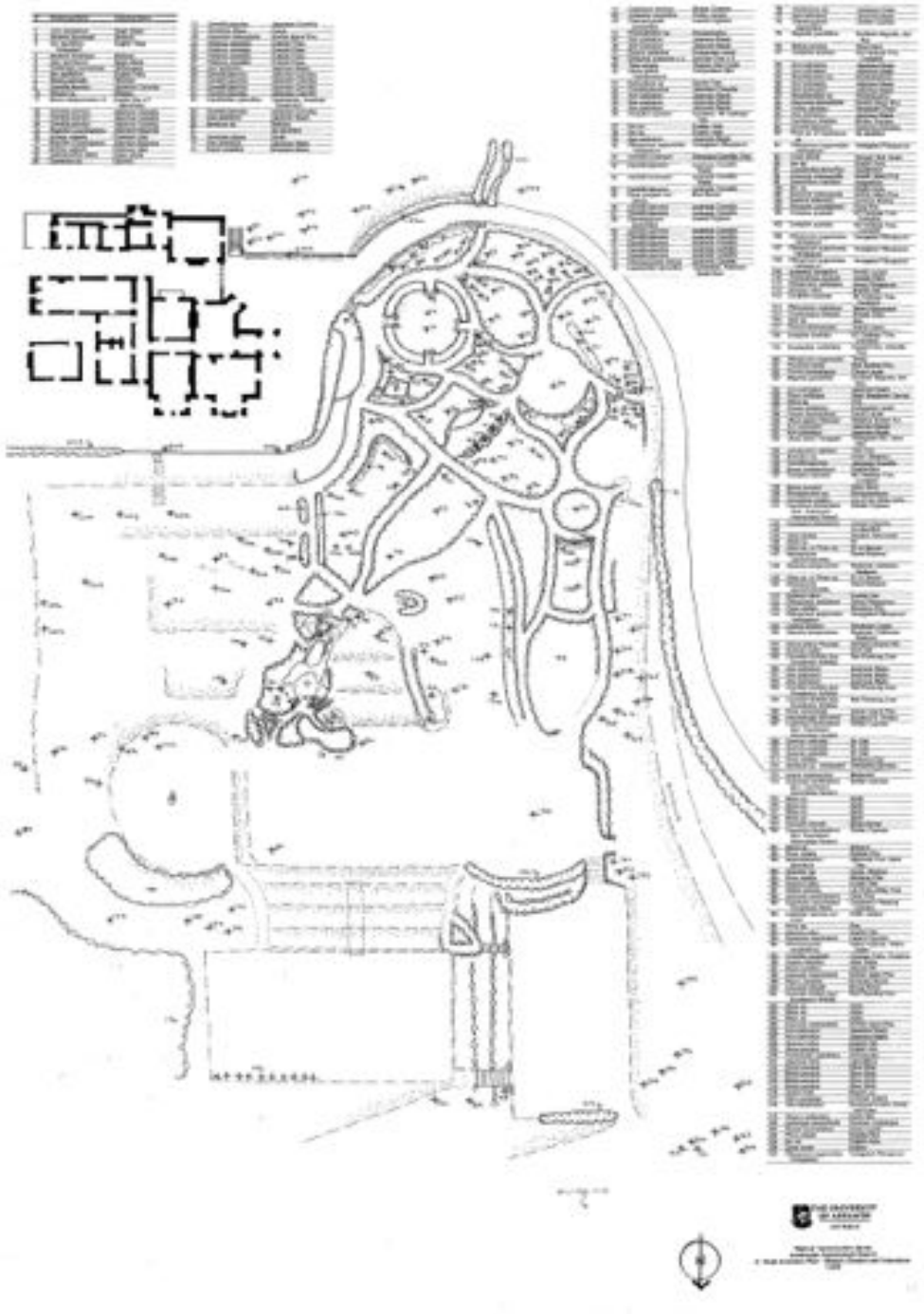

Figure 3. Detailed planting plan translation of the extant patterned garden beds at 'Wairoa' in 2009. (Source: Jones 2010.)

While 'Wairoa' was developing Horn sought permission from the District Council of Stirling to permit an exchange of land from the Aldgate Pound with an equivalent portion on his western perimeter.[21] This correspondence implies that Horn had fixed the preferred site for the residence and was trying to secure a secondary and trades access entry to the property through the Pound land. While he was not successful in a sale or an exchange, he did secure a right-of-access that continues today. This correspondence also implies that the

residence site was established, and that he did not seek a higher vantage site on the southern or central ridges of the property. Both positions would have availed better views and have warranted less need for an entry through the Pound, irrespective of water supply considerations. Thus, it would appear that the siting of the house was dictated by the siting of the historic garden.

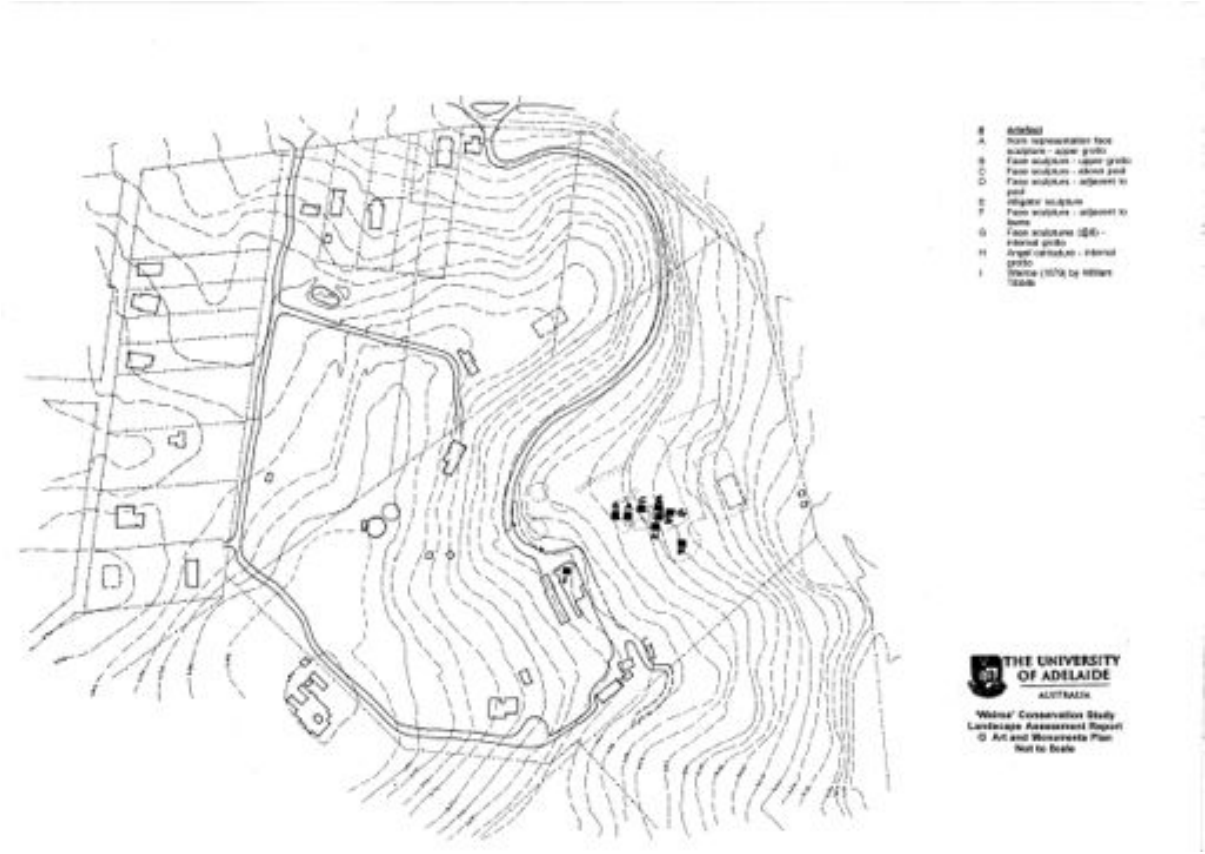

Figure 4. Overall site plan of 'Wairoa' in 2009. (Source: Jones 2010.)

The choice of George Sparrow as Head Gardener drew from three factors: Sparrow's expertise and design interest in carpet bedding and English garden design styles, his horticultural competency and training in England, and his local residency, having recently ceased employment with the Downer family at 'Monalta'.

George Sparrow (1854-1913) was born in Stowmarket, Suffolk, into a Baptist community. He was trained in a Suffolk nursery and on several estates in the central Suffolk area. In *c*.1870 he married Catholic, German-born governess, Anna Maria *née* von der Werth (1850-1929) in London. Engaged by Adelaide solicitor Alexander George Downer in *c*.1883, the Sparrow's migrated to Adelaide on free passage in 1884 on the *Haverton*, and commenced work on

Downer's estate at 'Monalta' at Belair. In *c.*1888 Horn apparently engaged Sparrow, who was then living at Devonshire Road in Aldgate, to lay out the garden. The Sparrow's used the engagement as an opportunity to shift closer to the Aldgate School to shorten the distance for their only child, Louisa Clothida (1889-1964), to access schooling. The date of 1889 may point to Sparrow's commencement at 'Wairoa' given knowledge of the pregnancy. It is believed that Anna Maria, who had a local reputation as 'a very caring and competent person,' was also engaged as the governess and house manager for 'Wairoa'.[22]

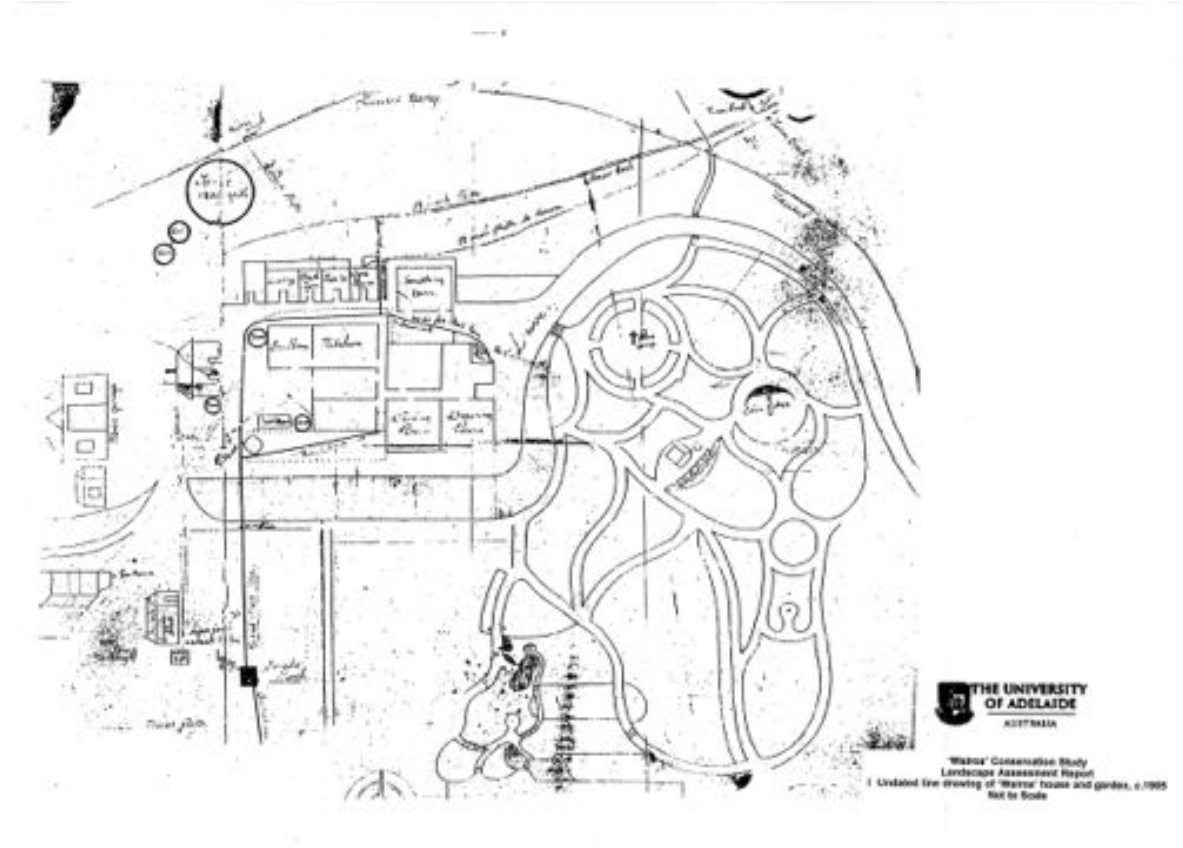

Figure 5. Hand-annotated layout plan of 'Wairoa' *c.*1905.
(Reproduced with the permission of the owners.)

Between *c.*1888-1896 Sparrow designed and laid out the historic garden, arboretum, and lower lawned terraces. His expertise in carpet bedding, and in drawing these designs, is evidenced in family oral history. He also adopted an unusual stone pathway edge pattern of one vertical stone and three horizontal stones, with a vertical stone at pathway junctures. This same pattern is evident today at the Sparrow's former residences in Pine Street and Devonshire Road. Carpet bedding was fashionable in England in the 1860-mid 1880s, and consisted of devising patterned beds, often in geometric, zoomorphic, or emblematic shapes, for the cultivation of creeping foliage. Sparrow adopted a semi-circular pattern focused upon three feature circles that led down the gently sloping valley to the lawned terraces. Within the circles were positioned different designs of ornamental trees including a

weeping Camperdown Elm (*Ulmus glabra* 'Camperdownii'), beds of colourful annuals, English Box (*Buxus sempervirens*), or rhododendrons (*Rhododendron* sp.). The lower circle announced an extensive rhododendron 'grove' along the valley floor edged by a Lily-of-the-Valley (*Convallaria majalis*) walk. Sparrow also positioned intricately patterned cast-iron steps, manufactured by GE Fulton & Co in Adelaide, between the driveway and the upper circle and planted Variegated Pittosporums (*Pittosporum undulatum* 'Variegatum') on either side of the steps. It is likely that Sparrow had several junior gardeners during these years to assist in these extensive works.

Within the carpet beds a spectrum of northern hemisphere species was planted, including a rich collection of rhododendrons (*Rhododendron* sp.), camellias (*Camellia* sp.), English Box (*Buxus sempervirens*), Japanese Maples (*Acer* sp.), with foundation plantings of conifers (*Araucaria* sp., *Pinus* sp., *Cupressus* sp., *Chamaecyparis* sp., etc.), Norfolk Island pines (*Araucaria heterophylla*), Bhutan Cypress (*Cupressus torulosa*), Beech (*Fagus sylvatica*), and an unusual collection of specimen conifers. These species are most likely from three main sources, given that the Horn's did not travel overseas between 1888-1895, and that the significant nurseries of Fred Caley Smith & Oscar Menzel's,[23] and Sewell's,[24] in Aldgate were not established until *c.*1901 and *c.*1920 respectively.

The first source was from the family of John Bagot (1849-1910). Horn's business relationship with Bagot probably enabled Bagot's acquisition of land from Horn for 'Forest Lodge'. In May 1891 the Bagot's set forth on an overseas plant-finding mission with the Bakewell's of 'Korralla'. This led them into Japan, Canada, eastern USA, England, Germany, and Italy, visiting nurseries and estates obtaining catalogues, plant specimens and seeds, and forwarding them back to their German-born Head Gardener, Ernst Wilhelm Menzel (1845-1917), who was between 1890-1893 laying out the carpet bedding design of 'Forest Lodge' (Bagot 1987). Menzel was was 'one of the best known professional gardeners in this State ... [and] was recognised as a leading authority in South Australia on conifers'.[25]

Given the close planting profile of both properties, that they both possess an unusual carpet bedding landscape design pattern for the Adelaide Hills, that they were being laid out and planted at the same time, and that Anna Maria Sparrow and the Menzel family spoke German it is highly probable that the two gardeners often exchanged plants, ideas, and designs 'across the fence'. By *c.*1890 the Sparrows were residing in Pine Street and the Menzels were in the 'Forest Lodge' lodge on Pine Street. A cluster of other trades and horticultural artisans were also living in the Milford Estate, including the Mosels, Roberts,

Millers, Searles, and Redans. Given these circumstances, 'Forest Lodge', the Bagots, and the Menzels, would be the principle source for plant materials.

The second source would be from the gardens, and gardeners, of other significant properties in the Hills. The 1880s-1890s was an estate-building phase in the Adelaide Hills. While many Adelaide establishment families acquired land and commissioned architects to design summer residences, they also commenced laying-out and planting extensive gardens mostly in the Victorian style.[26]

Significant gardens included those such as Sir Edward Stirling's 'St Vigeans', the Snow's at 'St Wilfreds' (*syn*. 'Beechwood'), the Hawker's 'Pirralilla' and 'Wachenappee' (*syn*. 'Olivet House'), the Milne's at 'Bythorne' and 'Eurilla', the Scott's at 'Boode House' (*syn*. 'Shurdington'), the Fisher's at 'Pine Hill', the Gosse's at 'Thorpe', the Spotwood's at 'Spotiswoode', Sir Thomas Elder at 'The Pinnacles' (*syn*. 'Carminow'), the Bakewell's at 'Korralla', and the Price's at 'Tutuila' (*syn*. 'Kil Lel'). The mutual passion in establishing fashionable, botanically-rich, private gardens and arboretums, matched with their often close business and political affairs, meant that there were considerable plant exchanges, garden parties, and discussions about garden designing in the Hills.[27] This was a successful phase in the development of SA, and one where many families indulged in establishing summer hill-stations parallel to similar fashions in Victoria, at Mount Macedon and the Dandenongs, in NSW, in the Blue Mountains and Southern Highlands, and in Queensland, at Toowoomba and at Kalamunda in the Darling Ranges.

The third source was the significant plant nurseries on the Adelaide Plains. By the 1880s there was a thriving trade in plant propagation and cultivation in nurseries, gardening literature, and public meetings on gardening. Places such as Heyne's in Norwood, Kemp's at Unley, Edwin Smith's at Walkerville, Sewell's at Payneham, Newman's at Tea Tree Gully, Hackett's in Kent Town, 'Leawood Gardens', were popular sources, aided by the writings of Henry Sewell, John Ednie Brown, Albert Molineux, George McEwin and Ernst Heyne in various manuals and articles in the *Observer* and *Garden & the Field*, together with popular meetings of the SA Gardeners Society, the SA Agricultural and Horticultural Society, the Mount Lofty Gardeners Society, and branches of the Agricultural Bureaux. Horn's business and political associations would have exposed him to these activities and venues enabling plant acquisitions.

An early photo, *c*.1895, of 'Wairoa', presumably with Horn on the driveway, indicates that the garden had been extensively laid out, all the stone-edged paths constructed, and the beds

fully planted with shrubs and trees (Mary Downer pers. comm., 1999). A William Tibbits (1837-1906) watercolour of 'Wairoa' in 1897 confirms this work and the growth age of the species.[28] Sparrow would have also developed a kitchen garden, to the either southeast of the residence, or to the south on the site of the present picking garden, to provide vegetables and fruit for the house especially during the summer months.

Within the garden Sparrow had to deal with an unusual granite outcrop, and successfully sought to incorporate it into the design. A grotto and a series of rock pools were the answer. This is the only deliberately carved, as distinct from constructed, grotto erected in SA. Horn would have had to bring in mining expertise to carve the grotto from the rock. Every other grotto in SA was constructed from stone, some by gardeners, and some by expert garden structure artisan Charles Robinette (1841-1921), known for his work at 'Montefiore' and 'The Acacias'.[29] Given that Robinette had left for Melbourne in mid 1883 it is not his work. Within the grotto and rockery Horn personally carved a series of heads and representations, perhaps drawing inspiration from his classical readings. Oral tradition purports that several are Maori in inspiration but there is no evidence to support this assertion. Instead, one is of Horn with his moustache, one features an at-scale alligator, and there are several images with wings, together with 3-5 faces.

Within the garden Sparrow also constructed several rusticated structures and arbours from Willow (*Salix* sp.) and Beech (*Fagus sylvatica*) lengths. His expertise in this art enabled the erection of arbours that have since been lost on several paths, a timber umbrella on an iron post and frame for Horn in the rockery, several rusticated timber seats, and a large rusticated shade house structure in the middle of the garden with a Willow (*Salix* sp.) thatched roof. The last known rusticated seat by Sparrow existed in his family until the late 1940s. These types, and construction form, of structures were common in Victorian and Edwardian gardens in the 1880s-1920s.[30]

The elliptical shade house structure was positioned in an unusual spatial configuration of the garden design. In the larger ellipse, one looked out from the shade structure over five small garden plots that may relate to the Horn's five living children at the time the garden was designed. With his marriage to Nelly in 1879 the Horns had eight children including Frank Lancelot (1882-1883), Penelope Avice (*b*.1883), Edith Dorothea Mary (*b.*1884), Kelham Kirk (*b*.1886), Trevor Langdale (*b*.1888), Marmaduke Langdale (*b*.1889), John Strelley (*b*.1894), and Spencer Bertram (b.1895). By the time John Strelley was born, apparently at 'Wairoa' on 6 February 1894, the garden had been laid out and the Horn's had five living children. Given that there is an English tradition of planting trees upon the birth of children, or to

celebrate children, as Walter Bagot did at 'Forest Lodge' with Copper Beeches (*Fagus sylvatica* f. *purpurea*), it is very likely that this unusual feature pertains to the Horn children as there is no numerical linkage to the Barr Smith children.

By late 1895 the Horn's were in England. Horn, tiring of colonial pastures, purchased 'Wimbleton Park House' near London. In late 1895 the Horn's obviously decided that they could retire to England and live off the profits of their assets, and placed 'Wairoa' and 'Holmwood' on the market. 'Wairoa' was privately acquired by Tom Elder and Mary (Molly) Isobel Barr Smith in March 1896, while Horn was in England, and 'Holmwood' was finally publicly sold with all its chattels in 1911. The latter was a prolonged sale, with William and Nelly Horn returning twice to Adelaide in 1901 and 1907 to assist their sale prospects. Given that 'Holmwood' was sold with contents, it is likely that 'Wairoa' was sold privately to the Barr Smith's with contents, as the Horn's would appear to be establishing a totally new, English-influenced residence near London.

Figure 6. 'Wairoa' garden and house view *c.*1895
(Source: Trustees of 'Wairoa' Collection).

The Barr Smith Phase: Nourishing the Garden - 1896-1945

Upon the purchase of 'Wairoa', Tom and Molly Barr Smith walked into an already established property, a planted and laid out garden, several horse paddocks and a water reticulation system supported by two bores that collectively became their summer residence. They immediately continued the engagement of George and Anna Maria Sparrow to maintain continuity, and probably other servants and junior gardeners.

The Gosse Phase: 1945-1965

When the Gosse's moved into 'Wairoa' before the Christmas of 1945 most of their family had been educated and had moved into family life. The property, however, had been introduced to them in the 1930s through the marriage of Joanna, and was the playground for her children even before she inherited the property. The Gosse's had six children of which five survived: Robert Christie (1909-1964), James Elder (1911-1973), Edmund Barr (*b.*1915), John Grant (*b.*1918), Joanna (1925-1925), and Mary Isobel (*b.*1924). Of the children, Mary, who married Alexander Downer in 1947, spent the most time playing in the garden. Christmas dinner in 1945 at 'Wairoa' established a family tradition for many years, including devouring the 'infamous rice pudding,' holly from the garden strewn across the tables, 'the children tearing around the garden discussing and exhibiting their new toys,' and the turkey prepared by the kitchen staff. Dinner was often served on the bitumen driveway outside the living room.[31]

Interregnum: 1965-1972

In October 1965 the property was acquired by the O'Neil family through Screenings Pty Ltd, which had later associations with the Marbury School.[32] The rose 'maze' or circle was perhaps the only garden loss during this period. Former Head Gardener Herb Scott recalls that little was changed in the gardens during this period. Rather, he was instructed to continue 'to carry out his chores'.[33]

The Langley Phase: Maturation of the Garden - 1972-2000

In March 1972 the property passed to Marbury School Incorporated who retain the property until the lease was relinquished and the property reverted to the trustees of Screenings Pty Ltd.[34]

Principal Margaret Langley (1920-1998) saw the property as a challenge to maintain but also an opportunity to create a larger school complex that drew its meaning from the natural environment. Part of this reflects the influence of her parents, John Samuel and Vera Langley, who were founding directors of the Rationalist Association of Australia, and her

exposure to Elef Jorgensen and the Montsalvat community, in Eltham near Melbourne. Langley actively sought to enable the 'on-going restoration of the ... 100-year-old garden'.[35] The garden and house also provided sets for the film *Picnic at Hanging Rock* in 1975.

Margaret Langley sought to change little in the historic garden and arboretum, and struggled to maintain the viability of the picking garden. Rhododendrons were further planted into the historic garden, and small clumps of flowering cherries and fruit trees were planted in some of the arboretum and lower terrace gardens. When the two Principal's and Teachers' residences were erected in 1977 and 1979, and a bitumen road constructed to service the residences and to provide rear access to the property, she was conscious to minimise any visual affects of the residences upon the older gardens. Langley also planted a Cape Chestnut (*Calodendrum capense*) avenue along the residence access road that has in part failed due to exposure.

Years	**1890**	**1900**	**1910**	**1920**	**1930**	**1940**	**1950**	**1960**	**1970**	**1980**	**1990**
Owner	William Horn	Tom & Mary Elder Barr Smith				Sir James & Lady Joanna Gosse			Marbury School		
Head Gardener	George Sparrow				William Kelly			Herb Scott			
Junior Gardeners	William Kelly *c.* 5 years				Herb Scott *c.* 5 years		Ben Jackson *c.* 10-12 years	Phil Wilde *c.* 5 years			
Landscape Design Phases	Victorian			Edwardian				Adelaide Hills, Native Bushland & Eclectic			

Figure 7. Planting theme phases at 'Wairoa'.

Context of Significance

Conceptually most of the gardens in the Adelaide Hills can be viewed either as hill-station type gardens or as cottage gardens.[36] There are particular historical phases that determined certain characteristics, features, and planting approaches in these gardens irrespective of the architectural style(s) on the site.

Peter Watts, in *Historic Gardens of Victoria* (1983), concludes that the slopes and ridges of the Victoria's Dandenong Ranges, the Mount Lofty Ranges near Adelaide, Kalamunda near Perth, Mount Wellington near Hobart, Mount Wilson in the Blue Mountains, and Toowoomba, were the Australian colonial responses to a European colonial trend that established cool

summer retreats -- hill-stations -- at Bogor in Java, Simla and Darjeerling in India, and Cameron Highlands and Ipoh in Malaya. Watts includes a quotation from the *Cyclopedia of Victoria* (1904) that describes the characteristics of the Mount Macedon Ranges as

> *... a family sanatorium ... delicate people and children desiccated and withered by the hot air of the city and suburbs during the months of December, January and February, soon reacquired their bloom and freshness and lost their languor and lassitude.*[37]

'Wairoa' represents a hill-station type garden. It one of several that can be easily pointed to as representing part of the grand forms of hill-station gardens. There were medium scale and smaller scale hill-station gardens created in the 1870s-1900s, but it is the grand forms that are more commonly identified and considered as representative of this form.[38]

Part of this conclusion is that an assumption is often made that the garden is secondary, in comparison to the significance and effort given by the land owners, to the house. This incorrect assumption tends to pervade histories and heritage studies of the Adelaide Hills to date.[39] 'Wairoa' is a contradiction to this assumption, as Horn clearly sited the house to survey the garden and not associated views. Horn also embellished the garden more than the residence. 'Wairoa' only offers views to the north. However Horn had the opportunity to site the residence on either the central or southern ridges on the property, to take advantage of northern and eastern views, but decided otherwise. This was, for example, the reasoning behind the siting of nearby 'Burnham Brae' and 'Forest Lodge'. The siting choices available to him would have been blatantly obvious in *c.*1888-90, as most of the property had been cleared for grazing purposes. Accordingly, the siting of the residence in this instance is subservient to the development of a garden. Indeed, the 'Wairoa' residence, in comparison to similar structures like 'Forest Lodge', 'Bythorne', 'Pirralilla', or 'Carminow', erected in a similar period, is more austere in architectural style and presence.

A second argument to support this assertion is the available knowledge of the design of the garden in comparison to the house. Research has failed to qualify who the architect and builder were for the main residence. In many ways this is peculiar as the architects and builders of the majority of the large residences constructed in the Adelaide Hills are well known. Whether it is the work of well-known Adelaide architect George Klewitz Soward or builder Walter Charles Torode is inconclusive. Normally these are well known facts in reviewing Hills residences. In contrast, we can conclusively attribute the design of the garden to George Sparrow. In many instances there is little documented information or

evidence as to the authorship of garden designs for Hills gardens. Contemporary histories allude, quite incorrectly, to the fact that it was the design of the owner, without giving any doubt or credit to the gardeners involved at the property, together with the expertise of local nurserymen. Why is it that we can attribute the garden design to Sparrow and cannot attribute the residence design to an architect? Architects and builders were prolific in their administration of jobs whereas gardeners were not. Perhaps this is an instance where the owners placed more emphasis upon the garden than the residence, and thereby passed down the oral knowledge about this authorship.

A comparative analysis of extant hill-station gardens in the Adelaide Hills, in Figure 8 below, also points to the significance of the 'Wairoa' historic garden and arboretum. The framework behind a similar comparative analysis, used to place the properties of 'Alton' and 'Hascombe' in the Mount Macedon Ranges in Victoria in context with other Mount Macedon properties and several select NSW Southern Highlands and Adelaide Hills properties by Nigel Lewis & Associates (1986), has been adopted here.[40] The latter included 'Wairoa' and 'Forest Lodge'. The author's personal research and site inspections of the mentioned gardens accord with the considerations formed and expressed in Figure 8.

It needs to be stated that the criteria applied are subjective but relatively quantifiable. No acceptable structure or criteria have yet been prepared that have validity to enable a cross-comparison of the significance and integrity of gardens. The criteria used have, in their favour, the ability to better gauge significance and integrity for a garden type, and have been undertaken by recognised researchers in this field in Victoria. The summary of Y's provided is therefore indicative only but provides an important guide to a garden's significance.

The tabulations for these two properties have not been changed in Figure 8 below, and selected tabulations of Mount Macedon Ranges gardens are provided in an accompanying Figure 9 below. There is one error in the table for 'Wairoa', as authors landscape conservationist Aitken and architectural conservationist Lewis failed to realise the spatial ensemble of 'Wairoa', 'Forest Lodge', and 'Burnham Brae' as a cluster of significant gardens, and this has been altered in the Figure. The tabulations point conclusively to the botanical, design, and cultural significance of the gardens at 'Wairoa', and in particular its context within similar extant or deteriorating gardens.

	SA							
Comparable Hill-Station Gardens - deriving character from climate, terrain and functions	**Wairoa**	**Forest Lodge**	**Beech-wood**	**Broadlees**	**Carminow**	**Glenalta**	**Panmure**	**St Vigean's**
Predominately 'Hill-Station': topography not pastoral	Y	Y	Y	Y	Y	O	Y	Y
Creation of 'Gentlemen Scientist'	Y	Y	Y	N	Y	N	Y	Y
Other Historical Associations	Y	Y	Y	Y	Y	Y	Y	Y
Building - Picturesque	N	Y	N	N	Y	N	Y	Y
Building - Significant Design	Y	Y	Y	Y	Y	Y	Y	Y
Building - High Integrity	Y	Y	N	Y	N	Y	N	Y
Gardens - Strong relations to original landscape	Y	Y	Y	Y	N	Y	N	N
Gardens - Significant Design	Y	Y	N	Y	N	Y	Y	Y
Gardens - Significant Planting	Y	Y	Y	N	Y	N	Y	Y
Gardens - High Integrity	Y	Y	N	Y	N	Y	N	N
Gardens - Ensemble with other properties	Y	Y	N	N	Y	N	Y	Y
Totals (indicative only):	10/Y	11/Y	6/Y	7/Y	7/Y	6/Y	8/Y	9/Y

Notes: Yes = Y; No = N; Substantially Destroyed = X; Both = O; Not Applicable = n/a; Unknown = ?

Figure 8. Comparative Analysis - Adelaide Hills Gardens

Figure 9, below, complements Figure 8 above and reviews a selection of Victorian hill-station gardens mainly in the Mount Macedon Ranges. Gardens such as 'Alton', 'Hascombe', and 'Bolobek' are well known in Victoria due to the open garden scheme and because of the families or personalities who owned, and continue to own. and care for these properties. 'Burnham Beeches' is in the Dandenong Ranges, and 'The Hermitage' is on Blacks Spur between Healesville and Marysville.

	Victoria									
Comparable Hill-Station Gardens - deriving character from climate, terrain and functions	**Alton**	**Hascombe**	**Penola**	**Derren-weit**	**Duneira**	**Druscilla**	**Bolokek**	**Sefton**	**Burnham Beeches**	**The Hermitage**
Predominately 'Hill-Station': topgraphy not pastoral	Y	Y	Y	Y	N	N	X	X	O	Y
Creation of 'Gentlemen Scientist'	Y	Y	Y	N	?	N	N	N	N	Y
Other Historical Associations	Y	Y	Y	Y	?	Y	?	Y	Y	Y
Building - Picturesque	Y	Y	N	Y	N	Y	N	Y	N	Y
Building - Significant Design	Y	Y	Y	Y	Y	Y	O	Y	Y	Y
Building - High Integrity	Y	O	Y	X	Y	Y	X	O	Y	O
Gardens - Strong relations to original landscape	Y	Y	Y	Y	N	N	N	O	Y	Y
Gardens - Significant Design	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Gardens - Significant Planting	Y	Y	O	Y	Y	Y	Y	O	Y	O
Gardens - High Integrity	Y	O	O	X	Y	Y	Y	O	Y	N
Gardens - Ensemble with other properties	Y	Y	Y	-	Y	Y	Y	Y	O	N
Totals (indicative only):	11/Y	9/Y	8/Y	7/Y	6/Y	8/Y	4/Y	5/Y	7/Y	7/Y

Notes: Yes = Y; No = N; Substantially Destroyed = X; Both = O; Not Applicable = n/a; Unknown = ?

Figure 9. Comparative Analysis - Mount Macedon Ranges Etc. Gardens in Victoria.
(Abridged from Nigel Lewis & Associates, *Alton and Hascombe*, *Alton Road, Mount Macedon*. South Yarra, Vic: Victoria Conservation Trust & Macedon Ranges Redevelopment Advisory Committee), 47).

This evidence indicates that the historic garden and arboretum, together with the grounds of the property, are of national significance:

> *The gardens of 'Wairoa' are one of the most significant and extant Victorian style hill-station gardens in the Adelaide Hills, possessing an important botanical collection of maples, rhododendrons, and conifers, and their stature is equivalent to nationally significant hill-station gardens at Mount Macedon and the Blue Mountains.*
>
> *The garden is considered of national importance, and an important exemplar of the work of George Sparrow. It exhibits the characteristics of a Victorian hill-station garden in the Adelaide Hills and includes a stone-edged carpet bedding configuration, various vernacular sculpture features, a grotto and pool, and garden artefacts from the 1885-1910 period. Significant plantings of pines added in the 1910s-50s, together with an extensive picking garden, did not alter but strengthened the foundational plantings and design of the Victorian period, and the continuity of family ownership and head gardeners ensured a consistent planting and management approach has been applied. The property possesses a nationally significant botanical collection of deciduous flowering shrubs and trees together with an unusual and state significant collection of conifers and ornamental trees. The garden is considered of national significance due to landscape design, botanical, and family association reasons, and its relative extant condition.*[41]

Thus, both architectural and social historians have 'mistakenly' concluded that the rationale behind Adelaide hill-station residences was based primarily on the provision of a 'pleasant' summer, echoing the British Raj hill-stations. Further, this conclusion is an architectural myth that has been created about Adelaide Hills design, heritage and social histories because many of these owners consciously sought out and selected hill-station allotments on the basis of their horticultural properties and possibilities, and that house siting and construction were actually subservient to these imperatives.

Acknowledgements

Ann Herraman, Trustees of Wairoa, Mary Way (dec.), Stephen Way, John and Helen Bagot (dec.), Herb Scott (dec.).

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Wurdi Youang:
Re-Thinking Myths about Landscape and Indigenous Science

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Abstract

Despite recent political attempts to re-write the terra nullius *myth for Australia, additional Indigenous sub-myth layers about landscape stewardship and cultural knowledge have been substantially overlooked. Pre-contact Indigenous scientific knowledge, landscape architecture strategies, and land stewardship histories and practices have received little legitimate credibility or academic discourse in this rewriting. One sub-myth is that Indigenous Australians have no astronomical scientific expertise and knowledge and that there is no physical evidence of this expertise. Thus, Indigenous Australians possess no ability to translate Dreaming story to astrological configuration, nor explore astronomy. Such is increasingly becoming a myth as it belies a suite of landscape architectural installations and cosmological narratives now being documented and researched. This paper addresses this myth by bringing forth a review of Indigenous cosmological knowledge for south-eastern Australia, with a substantive discussion about archaeo-astronomical evidence. The paper explains the cultural importance of the* Wurdi Youang *landscape installation for the* Wathaurong *community, and its role in Australian landscape architectural histories and practice.*

Landscape as Cultural Landscape

Landscape is a cultural object shaped, carved, manipulated and both unconsciously and consciously influenced by the action of humans. In these activities we craft landscape to tell narratives about our aspirations and values but also shape them to our gain and exploitation. Thus, we create cultural landscapes containing both tangible and intangible narratives, often called ‘cultural landscapes’ of which the places that we consciously manipulate are termed ‘designed landscapes’.[1] In landscape architecture, and cultural landscape, theory and practice these terms are commonly applicable to Western-created landscapes but nomenclature and scientific credibility are exceedingly hazy when research ventures into Indigenous landscapes.

Figure 1. Oblique aerial image of the Wurdi Youang installation
(P Curnow, 2011, Kaurna night skies, www.emudreaming.com/literature/Curnow2006b.pdf; accessed 2 April 2012.)

Potteiger observes that 'we live within worlds of stories, and we use stories to shape these worlds.'[2] To landscape architecture theory, *Landscape Narratives* (1998) provides a treatise on the typological frameworks that landscape design, if not architectural practice, explores when place-making and place-designing. The text explores the nature of the narrative applied, not the act of designing itself, and sets forth a framework in which to consider the construction of a design. Narrative exists of story – the body of the discourse – and telling – the expression of the discourse. The former includes events, characters and settings, and the latter contains structure or manifestation realised in film, verbal, dance, landscape, building and artifact.[3]

In Potteiger's argument, landscape and the stories and 'dances' that partake thereon are the tangible and intangible expressions of a narrative that more often is located in or explains place. Therefore, *genius loci*, as a theoretical construct, holds a legitimate position in this expression of landscape in the same manner in which Aboriginal landscapes exist. The latter are 'landscapes of the mind' where sacred and unsacred co-exist together as part of human activities, ritual and constructions.[4]

A second facet is that Aboriginal knowledge systems have a legitimate position in science. Australian anthropologists have long accepted that Aboriginal ecological knowledge exists under their rubric of scientific knowledge. It is science in its own right, held together by oral fact, moral code and practice, upon which a culture is assembled

and maintained. While it lacks the Western label of 'science', it exists without objective external criteria and internal revelation of which the former is the basis of Western scientific inquiry, and the indeed academia.[5]

Aboriginals believe that reality comprises two co-extensive domains. One is inhabited by living human beings and knowledge of it is gained through the senses; the other is inhabited by gods, ghosts and demons, or the equivalent Dreaming ancestral beings whereby entry into their domain may be achieved spontaneously through the act of 'dreaming'. Conversely, human entry into the domain of morals may be contrived through the act of ritual.

In Hiatt & Jones's (1998) definition, the first domain is analogous to our engagement with *genius loci* as we acquire knowledge of the sense of place through sensory experience and revelation. The second domain is the 'act of ritual' which exists in patterns expressed, constructed and undertaken whether specific to a time, place and events or generic to our daily lives and activities.

Integral to Australian Aboriginal culture is their theory of the creation of Earth and associated living beings including humans. These are all tied into a system predicated upon meaning that is past, present as well as future. This common relationship, irrespective of which Aboriginal nation across the continent, is interlinked over 260 'countries' irrespective of their different languages, moiety systems and ecological systems. Its precepts determine Aboriginal life as an unchanging code of behaviour that explains and encompasses social and environmental behaviour. This results in the *ulchurringa*, or Dreaming, as derived from the central Australian *Arrente* word of *altjerri* – to dream.

The central thesis of the Dreaming is that in the beginning the world was a featureless landscape in a *terra nullius* of ownership and nomenclature. This world was uninhabited by human, animal and plant. Then Ancestral Beings descended and traversed the landscape along journey routes, stopping at various places to perform acts of creation. Their journeys and places, and the activities performed, shaped and formed the physical features and patterns of Earth as we know it today. And they continue to change the Earth in line with their activities that are explained and re-told in narratives. They made animals in their aspirations and representations but also made distinctive landscape and skyscape features, and created plants similarly. To the *Arrente*, these Ancestral Beings formed and entered the wells, the springs of life, which they named, as well as the core entities of hills or river beds, in which their power of spirit continues to exist. Change the

hill and you injure the spirit, and thereupon incur the environmental consequences. Thus there is a philosophical imperative in Aboriginal culture to 'heal the landscape' to remedy the injury (Sinatra & Murphy 1999) which parallels Frederick Law Olmsted's 'green lungs' aspiration in his winning Central Park (1858) competition entry, and is a little-written thought in generic landscape architecture theory today. To the *Arrente*, sets of sites or places across their 'country' are associative or directly linked to their spirits or culture, and to follow or journey along the sites and trails is a mark of cultural respect and a 'right of passage'.

Within this thesis humans were created. They were invested with languages, responsibilities, songs, dances, names and design-icons, which were parts or instruments of these Ancestral Beings and their stories and codes. People were therefore consciously placed on the landscape and endowed with a 'country'-specific regime of kinship relationships and narratives, often perpetuated by marriage rules, all of which were often draconically enforced.

Thus, 'Country is … turned into a socially enduring object because its creators are outside the immediate social world.' Therefore a Dreaming landscape is a 'designed landscape' of an Ancestral Being, and an Aboriginal clan or group or individual is the land manager, curator and planner of their place or tract.[6]

Terra Nullius, Indigenous Cosmology & Indigenous Science

Australian perceptions of Indigenous are predicated on Eurocentric and post-mediaeval definitions of space and land settlement that run counter to many Indigenous systems of landscape knowledge. These differences cascaded into the Gurindji Strike (or Wave Hill Walk-Off) in 1966; the successful *Constitution Alteration (Aboriginal People) 1967* Commonwealth referendum in 1967; the *Milirrpum v Nabalco Pty Ltd, (1971) 17 FLR 141* (the 'Gove land rights case') or Gove land rights Australian High Court determination that legally legitimised *terra nullius* and that no concept of native title existed in Australian law; the *Mabo v Queensland (No 2)* (commonly known as 'Mabo decision') decision by the Australian High Court that declared *terra nullius* to be invalid and legitimised Indigenous 'ownership' of land and water based upon traditional custodianship practices and 'laws'; the *Wik Peoples v The State of Queensland* (commonly known as the 'Wik decision') of 1996; the *Motion of Reconciliation* by Prime Minister Howard in 1999; and, more recently the Apology to the Stolen Generations by Prime Minster Rudd in 2008.

Of these the Mabo decision is highly significant to Australian land-related histories as it clearly demonstrates that traditional custodianship practices and 'laws' constitute a system of conscious land management curatorship and thus an act of planning of lands, resources and patterns. 'Laws' embrace Indigenous myth, moral codes and their narratives linked to place, or a series of places.

The Mabo (1992) and Wik (2009) determinations, unfortunately, relied upon the demonstration of physical or tangible 'evidence', in contrast to tangible 'evidence', to be forthcoming. But, as a consequence they have proven that rich and continuing narratives and legacies have legitimacy in the Native Title discourse. Where 'evidence' is muddied by years of dispossession resulting in fragmentation of knowledge such evidence is much harder to document and prove within the Western legal system. Notwithstanding this barrier, cultural re-empowerment and re-definitions of 'ownership' have been forthcoming in Acts, land transfers and Title creation, re-naming or dual naming of places through Indigenous-informed or associative toponyms, direct involvement in consultation processes associated with national park management planning processes, but have been deceptively and tacitly woven into larger reconciliation strategies.

Thus, while land 'ownership' and traditional country, as a *terra nullius* reversal, is known and increasingly becoming respected in both general and planning debates, the legislation of planning process and perspectives in land management and landscape planning has been limited and superficial, and hampered by planning practitioner and academic naïf and lack of depth of interrogation and appreciation.

Cosmology as Landscape and Narrative

In this cultural landscape, or 'designed landscape', cosmology as a Western discipline exists as a legitimate and major form of narration whether by word, story, dance or activity in its replication, repetition or celebration. But also, Ancestral Beings manifested themselves in atmospheric and cosmological phenomena, or as plants and vegetation, and not just as humans or animals, as assumed in contemporary Aboriginal 'cultural competency' activation literature today.[7] Atmospheric and cosmological phenomena existed as both patterns and events, and occurrences or shifts or arrivals or disappearances signaled information, Dreaming stories, events or warnings. Therefore, to Aboriginal communities, the heavens are part of their landscape; they are connected to the Earth, and they are integral to their Ancestral Beings. Accordingly when 1780s

colonist David Collins asked Ben-nil-long (Bennelong) near Sydney Cove about the origins of his spirit or soul:

> *His answer was … they came from the clouds (alluding perhaps to the aborigines of the country* [but probably the Skyworld]*); and when they died, they returned to the clouds (Boo-row-e). He wished to make me understand that they ascended in the shape of little children, first hovering in the tops and in the branches of trees: and mentioned something about their eating, in that state, their favourite food, little fishes*.[8]

As an example the pock-marked smoky expanse of the Milky Way was more often a celestial expanse created by the activities of the dead:

> *In parts of Queensland and South Australia the natives believed the "Milky Way" to be a sort of celestial place for disembodied spirits. They said it was the smoke proceedings from celestial grass which had been set on fire by their departed women, the sign being intended to guide the ghosts of the deceased to the eternal camp fires of the tribe*.[9]

These are celestial landscapes of spirits that were described in the same way by the *Ngarrindjeri* of The Coorong-Encounter Bay region in perceiving that the *Aurora Australis* was the campfires of spirits in the 'Land of the Dead.'[10]

Landscape as Spirit

In this context, Ancestral Beings created 'designed landscapes' on Earth and in the sky that were consciously formed with a deliberate logic for which an Aboriginal clan or set of clans looked after this multi-dimensional and temporal 'country'.

The 'sky world' was often envisaged in Dreaming stories as comprising landscapes of contemplation and death thereby possessing warning(s) and the manifestations of the Ancestral Beings looking down upon the Earth. Therefore, oral expressions of the 'Land of the Dead' or the 'land to the West' were common colonial translations of oral Indigenous discussions, of westward journey routes, with large birds perceived as carriers of the dead, and that these heavenly and earthly landscapes were directly connected thereby enabling the up-and-down passage of Ancestral Beings (and occasionally humans) between both landscapes. For example, amateur Victorian colonial anthropologist Mathews recorded this perception from the *Kara Kara* near Stawell

> *… an immense pine* [*Callitris* species] *tree growing out of the earth the topmost branches of which reached up to the sky. In the far away past, people used to climb up the trees and walk about and reside on the starry vault; and black-fellows who belonged to the sky occasionally descended by the trees to the earth to see their friends, and remained for a while. Visits were frequently made for the purposes of barter between the blacks who were located on the earth and those whose hunting grounds were away in the sky. In short, the tree was a regular highway between the earth and the upper regions, for a very long period. Old blackfellows have told me stories of similar trees which reached up into the sky in other parts of Victoria*.[11]

The notion that the 'skyworld' was a landscape is important. To the *Wurundjeri* (*Woiworrung*) of the Yarra Valley region, they:

> *Had a sky country, which they called Tharangalk-bek, the gum-tree country. It was described to me as a land where there were trees. The tribal legends also tell of it as the place to which Bunjil* [Supreme Male Ancestor] *ascended with all his people in a whirlwind*.[12]

> *Howitt concluded that this celebrated landscape was named after the "manna gums" (Eucalyptus viminalis), Tharangalk, and that it possessed a contoured and textured surface. The Gunditjmara, of south-western Victoria, believed similarly and that many "smaller stars" together form "star earth."*[13]

The star world was therefore integral to the land world. In this theoretical construct, Aboriginal communities looked to the skies for signs of the spirits of their dead, of the passage of meteors or shooting stars as confirmation of passages, and as warnings fore-telling a death or other events.

Like on land, Ancestral Beings had genealogical systems. Lutheran Reverend Teichelmann stated that, from the perspective of Kaurna of the Adelaide Plains, 'they personify the celestial bodies as having formerly lived upon earth and the metamorphosis of which is closely connected which that of their ancestors.'[14] Mathews, in 1904, also wrote:

> *The blackfellow have not mapped out the sky into constellations in the same way as Europeans have done, but there is a certain amount of methods in their arrangement of the stars. For example, a man and his wives, his family,*

> *his weapons, his dogs, are not generally far apart. Brothers, uncles and other relationships are often separated by considerable distances.*[15]

These Ancestral relationships determined clan membership, thereby establishing a common kinship system and an order between Earth and Sky residents. Thus, when Aboriginal Protector George Robinson asked about examples from several of his Tasmanian Aboriginals: 'No 1 was large [and] is called the mother [,] No 2 the husband is of lesser magnitude and 3 the offspring is hardly visible' was a discussion about the two Pointers and the Southern Cross. To the *Gunditjmara*, the Sun was perceived as female Ancestor *Tirng*, meaning 'light', while associated bright stars were called *Kahii Tirng*, meaning 'sisters of the sun.'[16]

Therefore to Aboriginals, Ancestral Beings could be constituted as both star arrangements and planets therefore humanising the heaven. Stars, planets, swaths of stars like in the Milky Way, and the 'black puddles' of night sky were both representations as well as extensions of creation or 'Dreaming' stories. For example, to the Gunditjmara, *Ngindyal*, a large emu-like Ancestor journeyed to occupy the black path in the Southern Cross, chasing away *Waa* the Crow who is today Alpha Argus some distance from the Cross.[17]

Mathews concluded, to the Aboriginals:

> *… conspicuous stars and star clusters all the way along the zodiacal belt, have well-known names and traditions. Moreover, each star figuring in the myths belongs to a phatry* [moiety]*, section, clan or other subdivision, precisely the same as the people of the tribe among who the tale is current.*[18]

Thus, Aboriginal linguistic boundaries, or 'countries', often correlate to cosmic landscapes.

Landscape as Artifact

To Potteiger, narration is a means of communicating stories.[19] The abstraction of this narration is the physical manifestation of a story – a telling – that results in the attempted, conscious or celebratory explanation of the narrative.

To the Australian Aboriginals most of these stories were 'constructed' and conveyed in verbal and dance narratives, but occasionally in artistic abstractions such as rock art in northern Australia or the ephemeral sand drawings of central Australia. Thus art or

drawing was an avenue to support and visually scaffold a Dreaming. 'Maps', whether 'sky maps' or Dreaming journey lines, possessed artistic expressions and served to both reinforce and aid a story and its components.

In an Earth landscape devoid of artistic venues, it appears that the use of stone through hydraulic engineering initiatives offered avenues to action the wishes of Ancestral Beings but also to enable connections. There is now extensive archaeological and anthropological evidence documenting the unique hydraulic engineering and aquaculture expertise and artifacts of the *Ngemba* on the Darling River near Brewarrina and the *Gunditjmara* in the wake of *Budj Bim* at Lake Condah resulting in their elevation to the National Heritage List under the *Environment Protection & Biodiversity Conservation Act 1999*.

At Brewarrina:

> *… traditional Aboriginal accounts* [record that] *the fish traps (ngunnhu) were built by Baiame and his two sons Booma-ooma-nowi and Ghinda-inda-mui during drought times when the Ngemba people faced famine as Gurrungga (the water hole at Brewarrina) dried up. Use of the fish traps was first documented by European settlers in the 1850's. Publications in the early 1900's were first to have detailed descriptions of the site and these descriptions are similar to the way the site looks today.*
>
> *The fish traps are … a rare example of Aboriginal fisheries which provide evidence of Aboriginal occupation and demonstrate a highly skilled fishing technique …. They represent a distinctive way of life, rarely practised today, although the fact that current generations of Aboriginal children in the region fish the traps and know the stories surrounding them demonstrates a continuity of traditional ways of life, customs and techniques. The fish traps are associated with important figures in Aboriginal culture and the stories surrounding their construction and use, together with art work depicting the traps, demonstrate the fish traps' association with and importance in Aboriginal culture and spirituality.*[20]

Brewarrina, like Lake Condah, possesses clear demonstrations of credible Indigenous technical competence in the use of stone, sandstone or scoria to achieve specific food harvesting and land management outcomes demonstrating knowledge of the hydraulic engineering and aquaculture sciences.

Such designation also clearly recognises that significant anthropological and ethnobotanical values are evident allied with growing scientific acknowledgement of the medical and dietary knowledge of Aboriginals. This acceptance is integral to legal documentation contained in applications for Land Title claims that acknowledge that traditional Aboriginal land and marine management adheres to contemporary principles of sustainability, and are successfully governed by complex social norms and cultural beliefs. Whilst limited in their technological application of land management tools, and equipment, according to Lewis their sophisticated environmental knowledge effectively comprehends

> *… animal distributions and wildlife habitats, the location of favoured plants, the preferences which animals have for plants at particular seasons and stages of ecological succession, the daily and seasonal movement of animals and within different kind of habitats, the reproductive cycles of preferred spaces, predator-prey relationships, breeding-reproductive patterns, the psychology and behavioral strategies of individual species, is a knowledge-base the Australian invaders never comprehended nor grappled with*.[21]

This anthropological and ecological acceptance, that Aboriginals possess, and in part continue to possess, a rich ecological science appreciation and understanding of the Australian landscape is validated in its cultural inclusion in numerous land management plans and strategies for national parks in the Northern Territory and northern and central Australia where Indigenous knowledge and practice still co-exists. This knowledge includes celestial measurement of time – without clocks – and the replacement of the Gregorian calendar by an Australian ecologically-relevant and geographically-specific 'seasons' thesis that links atmospheric and environmental change to a multi-dimensional 'calendar' that determines land management, Dreaming journeys, and cultural rituals having regard to environmental cues.

Wurdi Youang

While the above discussion validates that Aboriginals possessed a particular system for explaining, interpreting, mapping and comprehending the night landscape, how this was expressed or used to celebrate their understandings is little researched.

Wurdi Youang exists as a physical contradiction to the notion that Aboriginal communities had neither astronomical knowledge nor the ability to map and scientifically measure this

information. It is but one of several stone installations located across the volcanic plains of Victoria's Western District, and perhaps the most unique in its composition and integrity. While many stone markers and patterns were noted by early settlers on the Plains, most were manipulated and re-created into the endless dry stone walls that litter parts of these Plains, constructed in *lieu* of post and wire fencing.[22]

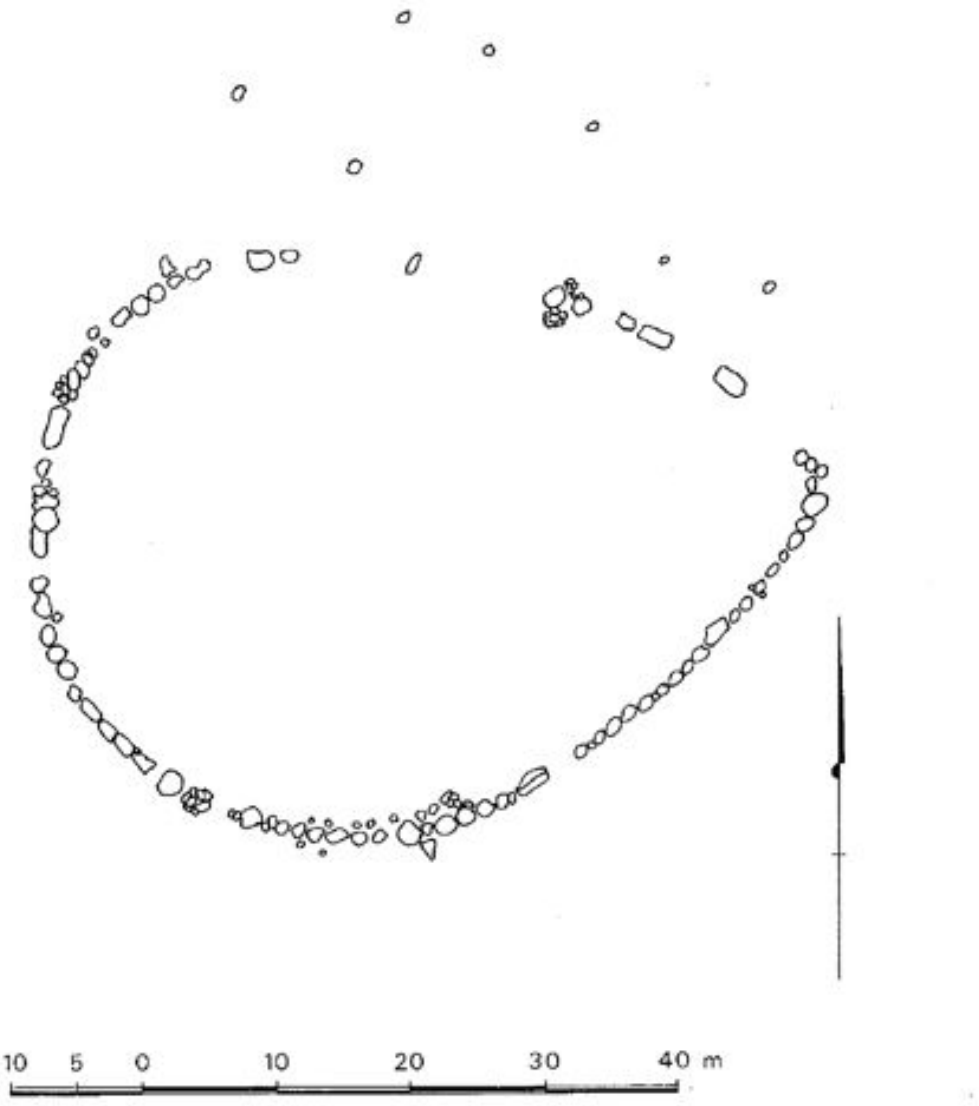

Figure 2. *Wurdi Youang* as surveyed by Lane & Fullager (*Records of the Victorian Archaeological Survey*, No 10, June 1980, 137)

Scoria and rubble basalt stone is a material that has littered the Western District plains for generations, and dates from volcanic eruptions 40,000 to 7,000 years ago. Aboriginals from different District clans used this stone in two approaches. The first was its use in engineering works allied to hydraulic manipulation of watercourses and swamps in south-western Victoria for aquaculture management and the harvesting of the protein-rich Short-finned Eels (*Anguilla australis*) and fish that is now well accepted by the

anthropological and archaeological academic communities. The Lake Condah complex, now included on the National Heritage List, was inscribed because of recognition of the unique use of stone to construct water races, dams, channels and fish and eel harvesting devices and poundings.[23]

The intricate complexity of some of these systems confounded many of the early explorers, such as Aboriginal Protector Robinson (1841: July 7) who wrote in 1841:

> *At the confluence of this creek with the marsh* [I] *observed an immense piece of ground – trenches and banks resembling the work of civilised man but which on inspection* [I] *were found to be the work of the aboriginal natives – purpose consisted for catching eels – a specimen of art of the same extent I had not before seen … These trenches are hundreds of yards in length – I measured in one place on one continuous triple line for the distance of 500 yards* [0.45 km]*. The triple water course led to other ramified and extensive trenches of a more tortuous form – an area of at least 15 acres* [6 ha] *was thus traced out. These works must have been executed at great cost of labour to these native people. The only artificial device being the lever ... a stick chisel sharpened at one end by which force they threw up clods of soil and thus formed the trenches … with their hands, the soil displaced went to form the embankment …*
>
> *The plan of these ramifications were extremely perplexing … At intervals small apertures* [were] *left and were placed there arabine or eel pots. These gaps were supported by pieces of the bark of trees and sticks … there must have been some thousands of yards of this trenching and banking. The whole of the water from the mountain rivulets is made to pass through this trenching ere it reaches the marsh. It is hardly possible for a single fish to escape. I observed at some distance higher up minor trenches too, and one through which part of the water ran in its course to the more extensive works. Some of the more extensive works were 2 feet* [61 cm] *in height, most of them a foot* [30 cm] *and the hollow a foot deep by 10 or 11* [25-28 cm] *inches wide. The main branches were wider.*[24]

The second was its use in more abstract ceremonial and artistic forms for which little cultural knowledge in the public domain formally exists today as to their purpose. But, clearly these places demonstrate an act of landscape art analogous to contemporary landscape art installations that convey narrative and engage with the place they are

situated within.[25] A review by Lane & Fullager (1980)[26] provides the only archaeological survey of these types of structures summarised as follows:

Site	Near to:	Characteristics	Environmental Context	Geology
Wurdi Youang	You Yangs hills; Werribee	Ovate	Basalt plains	Basalt
Lake Bolac 1	Lake Bolac, Western District	Semi-circular	Basalt plains	Basalt
Lake Bolac 2	Lake Bolac, Western District	Semi-circular	Basalt plains	Basalt
Carisbrook	Carisbrook, near Maryborough, north-central Victoria	Boomerang	Irregular, rocky sloping overlooking Tullaroop Creek	Basalt
Lake Wongan	Streatham, Western District	Maze	Basalt plains with hillocks and adjacent island in lake	Basalt

Table I: Classification of Victorian Aboriginal Stone Alignments (L Lane & RLK Fullager, *Records of the Victorian Archaeological Survey*, No 10, June 1980, 146)

Their typological analysis is summarized in Table II.

Type	**Victorian example**	**Shape**	**Physiography**	**Function**	**Reference**
Artificial dams, weirs, dykes across watercourses	Salt Creek	Straight	Basalt plain	Technological; food	Dawson 1881: 94[27]
	Lake Condah	v-shaped & straight	Stony rises	Technological; food	Coutts et al 1978[28]
	Moyne River	Straight	River valley	Technological; food	Presland 1977: 65[29]
	Merri River	Straight	River valley	Technological; food	Presland 1977: 53[30]
Fish Traps	Lake Condah	Low irregularly shaped walls	Stony rises	Technological; food	Coutts et al 1978[31]
	Moorabool River	Maze	River valley	Technological; food	(authors)
	Barwon River	Maze	River valley	Technological; food	(authors)
Hunting hides	Not known				
Direction indicators	Charlton	Standing stones	Granite outcrops	Near to rock well; Technological; food	(authors)
Tribal boundaries	Not known				
Hearth stones, threshing floors	Meredith (?)	Circle of stones	River valley	Technological; food	(authors)

Shelters	Macarthur	Semi-circular	Stony rises	Technological; shelter	Coutts et al 1978[32]
	Mt Elephant	Semi-circular	Basalt plain	Technological; shelter	Smyth 1878: vol 1, 242[33]
Petrographs	Not known				
Ceremonial	Carisbrook	Boomerang	Irregular, sloping	Demographic: initiation (?)	Massola 1965[34]
	Lake Wongan	Maze	Island in lake	Demographic: bora	Casey 1938[35]
	Wurdi Youang	Ovate	Basalt plain	Demographic: ceremonial	(authors)
	Mt Franklin	Cairn	Sloping, grassland	Demographic: (?)	Massola 1968[36]
	Lake Bolac [1]	Semi-circular	Basalt plains	Demographic: ceremonial	(authors)

Table II: Classification of Victorian Aboriginal Stone Alignments (L Lane & RLK Fullager, *Records of the Victorian Archaeological Survey*, No 10, June 1980, 147.)[37]

Lane & Fullager's typological analysis includes stone installations at Lake Bolac or Glenaber (two sites), Carisbrook and Lake Wongan in Victoria.[38] Site 1 at Lake Bolac exists of approximately 150 stones or boulders in two arcs creating an ellipse shape. Site 2 at Lake Bolac exists 10 km to the north of Site 1 and possesses a similar spatial configuration with colonial oral histories pointing to it as being a colonial-constructed 'sheep fold'.[39] The Carisbrook site consists of several stone installations including identifiable shapes analogous to a boomerang, three circles and a heap of rocks like an informal cairn.[40] The Lake Wongan site, near Streatham, comprises a sequence of stone arrangements near to Lake Wongan and watercourse with an unclear spatial configuration.[41]

To Lane & Fullager, the *Wurdi Youang* stone configuration was an intriguing landscape installation, possessing a unique spatial orientation, which was constructed prior to European colonisation. Constructed in *Wathaurong* 'country', in the shelter of the granitic You Yang hills that rise within the featureless Werribee volcanic plains, it is located some 15 km westwards from suburban Werribee to the west of Melbourne. The *Wathaurong* 'country' includes the Werribee Plains up to the Ballarat uplands and down to Geelong and the Bellarine Peninsula including most of the Moorabool and Barwon River catchments.

Lane & Fullager, analytically, describe the site as:

> *The alignment has an ovate ground plan (Fig 32 and Plate 5). It is approximately 150m in circumference and consists of 95 blocks of basalt stone, the tallest rising 75 cm above the ground. There has been no attempt*

> *to build up a wall, but 22 rocks are kept in position by smaller rocks used as wedges. Some of the rocks are seated on bare rock but most are embedded in the ground to a depth of about 5 cm. No rocks appear to have been deliberately placed within the ring. Three stone artefacts were recovered from within the ring*.[42]

Their observations record the site as being 'relatively even, and the main area is well drained and has no hollows that could retain water.' By their estimations, some '23 tonnes [24000 kg] of [basalt] boulders have been arranged at the site. The largest rock in the alignment weighs about 500 kg, the smallest about 30 kg, and most weight nearer to 90 kg.' To Lane & Fullager, the site was composed of 'boulders of this size suggest that a considerable effort was required to move and arrange the stones.'[43]

In short, here was a large rock installation with some deliberate artistic or ceremonial purpose that would have involved considerable and conscious effort to construct in this manner. Lane and Fullager's use of the word 'alignment' in their descriptions is also misleading as 'alignment' implies a line or linear feature whereas this shape and form was ovate or egg-shaped in its configuration. Further, their description and analysis fails to comprehend place and any orientation variables in their analysis. Their description includes mention of associated implements and debitage evidence found on the opposite side of the nearby Little River, and puts forward two substantive conclusions as to why they believe it to be an Aboriginal relic:

- *The alignment is on a property which has been owned by one family* [Chirnside linked to 'Werribee Park'] *since first settlement, and family traditions have been canvassed to rule out a European origin for the alignment.*
- *The alignment has no known counterpart among colonial structures. It is situated on sloping, rocky ground of no commercial or agricultural value and it would not have been suitable for defining the boundaries of a sheep dip, sheep pen, or cattle fence. Nor is there evidence that it ever formed part of any type of fence or building*.[44]

Therefore, in their archaeological minds, it was a curious installation that 'in its construction required a certain architectural and engineering skill, and initially some mechanical device may have been used to mark out its boundary' pointing to scientific knowledge to formulate its layout, orientation, positioning and construction.[45] This concluding sentence, that implies some technical competence, was then matched with an

undocumented conclusion that the site served a 'ceremonial' role as categorised in their 'Classification of Victorian Aboriginal Stone Alignments' in the same discussion. The latter conclusion was not mentioned in their larger discussion of the installation and appears conclusionary as several of the other typological categories bear '(?)' indicating uncertainty about use or role.[46]

In contrast the astroarchaeological and *Wathaurong* communities excitedly describe the place as a potential scientific precedent. This egg-shaped ring of stones, about 50m in diameter, has its major axis orientated almost exactly east-west in directions. Morieson, from electronic survey, has theorised the shape is more analogous to a sea-water mussel or abalone or pipi than an ovate shape as described by Lane & Fullager.[47]

At its westernmost end, at the highest point of the circle, are three prominent waist-high stones. Morieson has concluded that some outlying stones to the west of the circle, as viewed from these stones, indicate the setting positions of the Sun at the equinoxes and solstices.[48] Norris *et al* have confirmed these alignments and have shown that the straight sides of the circle also indicate and coincide exactly with the solstice angles.[49]

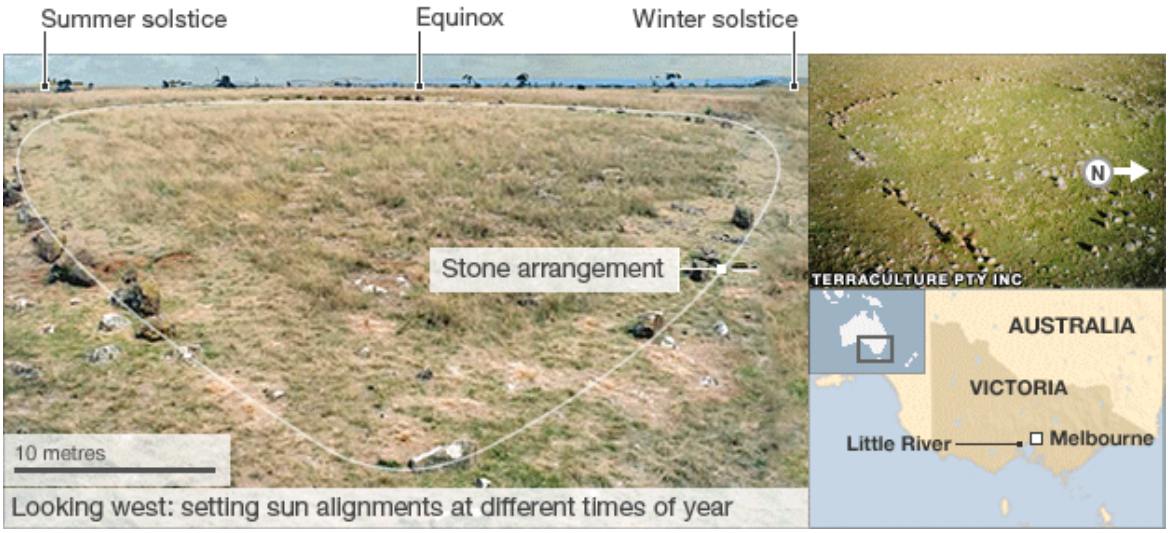

Figure 3. Astro-archaeological analysis of the *Wurdi Youang* installation.
(P Curnow, 2011, Kaurna night skies,
www.emudreaming.com/literature/Curnow2006b.pdf; accessed 2 April 2012.)

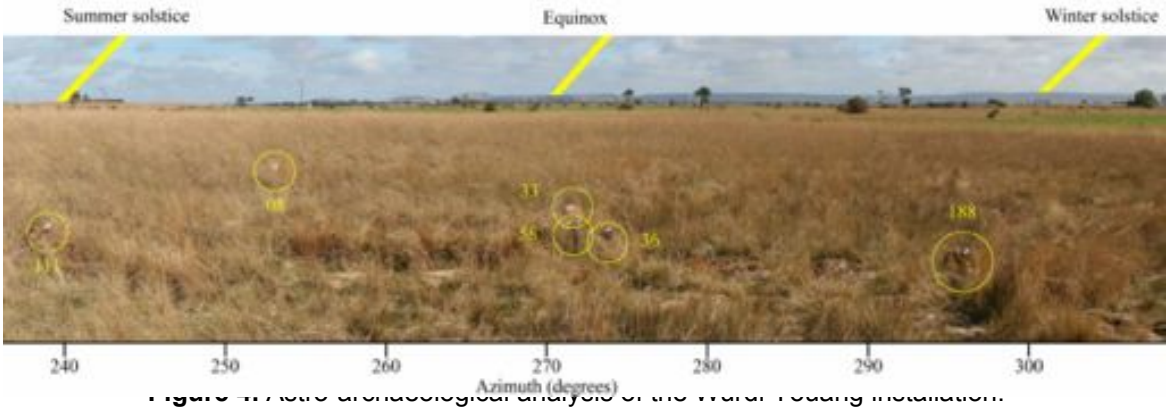

Figure 4. Astro-archaeological analysis of the Wurdi Youang installation.
(P Curnow, 2011, Kaurna night skies, www.emudreaming.com/literature/Curnow2006b.pdf; accessed 2 April 2012.)

Figure 5. Astroarchaeological analysis of the Wurdi Youang installation.
(P Curnow, 2011, Kaurna night skies, www.emudreaming.com/literature/Curnow2006b.pdf; accessed 2 April 2012.)

Figure 5. Ground plain photograph, of the Wurdi Youang installation, of the orientation stones with the distant three hills of Anakie in the backdrop.
(P Curnow, 2011, Kaurna night skies, www.emudreaming.com/literature/Curnow2006b.pdf; accessed 2 April 2012.)

In one sense, in contemporary landscape architecture practice, the installation would be deemed a significant landscape art installation analogous to Stonehenge and interpreted as possessing and having been inspired by astronomy. In the archaeological perspective it is a unique assembly of stone in an ovate spatial configuration for some as yet unknown purpose presumably being ceremonial. In the context of this discussion, the ethnoarchaeological and Indigenous lens' view is that Wurdi Youang is an astronomical installation for the measurement and associated ceremony integral to Indigenous cosmological science.

Collapse of the Cosmos

Colonial invasions, physical and medical, of the Australian continent have severally impacted upon if not erased much of the cosmological relationships and scientific translation of Australia's ecosystems within their cultural constructs. The 'wooden props', that held up the furthest reaches of this Earthly landscape strained, withered, and in the eastern coastline most of these fringes rotted with British expansion. Death, metaphorically, traversed the landscape from the east recalling 'the ghosts or reincarnations of all the blackfellows who ever lived had broken through from the spirit

world to swarm over the land' and deceased and diseased relatives had come back from the 'Land of the Dead'.[50] The rapid dispersal of the European-introduced small pox was explained this way by many Indigenous communities, and coupled with unusual celestial events both were interpreted as warnings of future misfortune and grief.

This was a rapid period of colonisation that withered Indigenous knowledge systems, and comprehension of these systems, as well as the 'science. This change dramatically impeded their continued use, application and narration. A 1843 comet that traversed a large part of the Australian heavens, for example, and the frequency of *Aurora Australia* apparitions to the Ngarrindjeri, were portent death signals made by a 'wild blackfellow' that foretold the arrival of dangerous human/spirit beings.

Such cosmic signals and their translations are readily accepted as evidence of Aboriginal environmental and astronomical knowledge, as they are for most First Nation communities around the world, and they are woven into their respective myths and narratives. But, where the construction of physical installations occur, whether linked to Druid thought in England, Indian communities in North America and Australian Aboriginals, it confounds traditional Western scientific thought. *Wurdi Youang* exists as an enigma in this discussion, opening up major questions as to scientific thought but also questioning the possible existence of more such installations around Australia that have gone unknown and unforeseen because of the subtly of their construction and that were quickly laid waste by colonial pastoral expansion.

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Making the implicit explicit: The role of understanding cultural significance in *new work*

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Abstract

The heritage listing of a building is acknowledgement of a perceived public worth beyond basic material value. This imposes additional requirements on the design of any new development associated with a heritage listed place. A high degree of professional judgement is required to meet the unique design and assessment requirements of a heritage project. The approach in Australia is guided by The Burra Charter *which is premised on a declared universal understanding of heritage significance as an essential basis for judgements. In its commentary on Article 22 New Work,* The Illustrated Burra Charter *identifies the importance of understanding architectural identity in the process of designing contemporary additions to heritage buildings. A range of characteristics such as scale, mass and form are nominated as important considerations.*[1] *These physical qualities are the product of interactions between multiple attributes and are understood through research focused on physical elements.*

The research and analysis used to inform new design work in heritage places is temporally and conceptually distinct from the research and analysis involved in heritage listing and management. Indeed, comprehensive analysis and articulation of all physical characteristics is usually only relevant in the face of proposed change. Unlike the research undertaken for listing, research for design is not formally articulated within the statutory heritage framework. Despite not being a formal requirement, an understanding of the value and identity inherent in the significance of a place is clearly occurring in sympathetic heritage development it is implicit in the design process. Conversely, unsympathetic heritage development appears to disregard or misunderstand identity and significance. This paper questions whether the requirement to make implicit understandings of significance explicit, as part of the development process, could improve the quality of heritage development outcomes.

This paper is focused on the understanding of cultural significance in the design of new work to heritage-listed buildings. It investigates the role that the analysis of physical qualities plays within the heritage development process. It frames the value of understanding as both a tool for assessment and as a constraint within the design process. It also identifies vulnerabilities within the existing framework. In response to these issues, the paper argues for the formal declaration of understanding early in the design process.

Current Australian conservation practice supports the addition of contemporary construction to heritage-listed buildings if it facilitates ongoing use. The principle embedded in this support is that new work does not distort, obscure or detract from the significance of the place or its setting.[2] This position is based on the understanding that, firstly, selected cultural values are physically embodied and, secondly, changes to physical attributes of the existing building may adversely affect significance. *The Burra Charter* defines the addition of single contemporary building elements, building extensions and adjacent independent structures as *new work.*[3]

Recognised internationally as an exemplary piece of conservation guidance, *The Burra Charter* provides advice on the addition of *new work* in heritage places.[4] This advice is supported and explained by various guidance documents intended to assist designers in balancing the protection of cultural heritage with the opportunities presented by change.[5] Despite this guidance, development unsympathetic to cultural heritage is often still realised. When the identity of a heritage building is misunderstood, ignored or treated as having little importance during the design process, *new work* often competes with, mocks or overwhelms the heritage place.

The Burra Charter's position on heritage development implies that *new work* must be informed by an understanding of the existing place. The multi-award winning Paddington Reservoir Gardens (2009) in Brisbane is an example of successful heritage development. Tonkin Zulaikha Greer Architects reference an understanding of heritage significance as the underpinning force behind the project stating that 'the concept for the project was embodied in the existing artefact'.[6] Setting aside the project budget and brief, the design response was led by the specific qualities of the heritage place.

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Figure 1. Paddington Reservoir Gardens by Tonkin Zulaikha Greer Architects. The qualities of the subterranean reservoir ruin are sustained and amplified both in the concept and detailed resolution of its reuse as a sunken public park (Photo by author).

In accordance with *The Burra Charter*, this research is premised on the argument that a genuine understanding of the identity of a heritage place is fundamental to successful heritage development outcomes. Accepting that an approach to accounting for cultural significance is defined during the design phases of a project, this research focuses on the design process and its interaction with the statutory framework guiding heritage conservation in Australia to investigate how understanding is manifested.

This paper identifies three vulnerable aspects in the process of developing heritage-listed buildings. All three aspects can be traced back to the need for an understanding and articulation of the physical characteristics of a heritage place to inform the heritage development processes. The first aspect is the limitation of guidance. The existing instrument to address unsympathetic heritage development is through the provision of heritage development guidelines. In describing the divergence between general guidance and particular scenarios, the need for site-specific understanding will be identified. The second aspect is a discrepancy between *The Burra Charter* process and statutory framework. This discrepancy will be revealed through an analysis of the objectives of research for listing, management and development of heritage buildings, and through the role of articulating the findings of that research. Queensland's State Heritage system is used as a model for this discussion. It will be demonstrated that the specific understanding of place is implicitly bound into the design process and not formally made explicit in a statutory framework. The third vulnerable aspect is the tension between the creative process of design and the legislative control in the formal expression of *new work*. This will be explored through the application of Lawson's model

for a design problem. This discussion will identify the way in which design constraints are utilised to evaluate outcomes and calls attention to the need for the clear definition and articulation of the constraints of cultural significance early in the design process. Having described and discussed the three aspects of vulnerability, a strategic option to address the aspects will identify areas for further research.

The limits of guidance

Heritage listing imposes an additional level of control over the design of *new work*. In Queensland, proposals for *new work* associated with State Heritage Listed places are subject to an approval process that assesses design proposals against the provisions of State Legislation. There is no explicit reference to *The Burra Charter* in The Queensland Heritage Act 1992 or the Sustainable Planning Act 2009. However, *The Burra Charter* is endorsed by The Queensland Heritage Council as a guidance document. As such, the Charter's approach has an implicit role in the heritage development process.

Guidance documents are published by government agencies throughout Australia to assist designers with the resolution of *new work* in heritage places. Guidance documents generally fall into three categories: general guidance, prescriptive guidance and guidance by example. General guidance elaborates on the content of the *Burra Charter* by expanding definitions and explaining requirements to be considered without describing how to respond.[7] Case studies demonstrate an application of concepts to real world scenarios by way of examples that illustrate successful outcomes in specific situations.[8] Prescriptive solutions offer 'rule-of-thumb' solutions to common problems.[9] This third type of guidance aims to reduce the opportunity for an unsuccessful outcome by providing what are generally accepted as successful solutions. However, as *The Illustrated Burra Charter* states, 'a design that is just right for one place can be just wrong for another'.[10] By shortcutting the process of analysing and synthesising the particularities of a specific condition with what is essentially a pre-approved solution, the onus on the designer to form a response to the specific conditions is reduced whilst the potential for an ignorant application of a poor fitting solution increases.

The limits of guiding documents can be ascribed to the problem of applying general principles to specific scenarios. Guiding documents are necessarily and inherently general and heritage projects are by definition specific. The specific site, cultural heritage values, building condition, requirements of use, and client brief will inevitably create a rare and unique situation in every instance and it is acknowledged that it is not possible to account for every scenario in a guiding document.

In its fundamental process of understanding, stating, then acting in accordance with significance, *The Burra Charter* recognises the specificity of heritage projects presenting a process that accommodates this fact by directing a case-specific approach in every instance. Guiding documents have the potential to contradict this requirement and undermine the intent of the Charter.

Understanding the existing: analysis for listing, management and development

The Burra Charter is premised on the belief that cultural significance should be protected and that protection should be informed by the understanding of that value. It demands an understanding of the place for all conservation processes. Within the statutory framework this approach is reflected in listing, management and development processes. The objectives of each of these three processes frame an understanding of the subject's cultural significance differently.

Queensland's statutory process of Heritage Listing frames the understanding of cultural value with relation to particular criteria and thresholds for listing.[11] Undertaken by Cultural Heritage Professionals the research process encompasses social, spiritual, scientific, historical, and aesthetic values and their embodiment in intangible and tangible aspects of the place. The findings are declared in a textual Statement of Significance supported by a brief description and historical account, a curtilage map and a limited number of photographs of the place. This information reflects the situation and condition of the heritage place at the time of listing. Once ratified, this suite of documents forms an official Heritage Citation and becomes the basis for conservation management.

The Burra Charter advocates for the use of a Conservation Management Plan to guide ongoing management of significant places. A Conservation Management Plan adds to the understanding of the place by providing an extended description and historical account, and by considering use, resources and physical condition amongst other external factors in formulating management policies. Importantly, these policies are to be informed by the declared understanding of significance. The Conservation Management Plan is predominantly text but includes maps, photographs and drawings for illustrative purposes. Due to the broad spectrum of issues under consideration Conservation Management Plans usually result from the input of a number of Cultural Heritage Professionals.[12] The preparation of a Conservation Management Plan is best-practice but is not compulsory nor is the timing of its preparation necessarily tied to either listing or development.[13] While the formulated policies should anticipate and identify opportunities

and threats of change, realistically only the particular situation at the time of preparing the document can be comprehensively considered. With the variables of ownership, use, resources, physical condition and adjacent development it would be impossible to consider all potential future scenarios at any one time.[14]

In the face of *new work*, *The Burra Charter* implies that an understanding beyond that generated for listing and management is required. 'Article 22 New Work' states that, 'New work such as additions to the place may be acceptable where it does not distort or obscure the cultural significance of the place, or detract from its interpretation or appreciation.' Within this clause there is the obvious implication to protect cultural significance by its retention. To a certain extent, the description of significant elements included in listing and management documents will allow them to be located and protected through avoidance. However, the use of the verbs 'distort', 'obscure' and 'detract' infers the acceptance that *new work* inevitably does something to the heritage building. Even if the cultural significance is not removed by the *new work*, the identity of the heritage building will be effected. In order to avoid distortion, obscuration or detraction, the understanding of cultural significance must be expanded to an understanding of the identity of the building. The identity of the building encompasses all attributes that comprise its character and the relationship to its setting as such, a more focused analysis of physical characteristics is required to understand and articulate cultural significance to inform heritage development.

Figure 2. Paddington Reservoir Gardens by Tonkin Zulaikha Greer Architects. Decisions to conserve, alter or remove elements are informed by the understanding of both heritage value and the character of the place. Appropriate additions respond to existing qualities to create a dialogue between old and new. (Photo by author).

A building's identity can be understood as the sum of its physical characteristics. The notion that an understanding of identity can be gained through the analysis of physical qualities is articulated in several doctrinal ICOMOS documents.[15] Most recently *The Illustrated Burra Charter* (2004) nominates 'siting, bulk, form, scale, character, colour texture and material' as relevant considerations. These terms imply a level of professional analysis that encompasses broader formal concepts. The cross-referencing of these concepts with significance-focused documents and detailed site analysis is required to reveal a genuine understanding of building identity and character.

Research into the physical qualities of a heritage building is usually bound into the design process and mostly captured in a site analysis phase. However, the focus on the existing will often merge into the iterative process of testing the brief against the site, which allows the designer to gradually develop and test their understanding of the place and its potential. Where listing and management processes are predominantly written, the designers' mode of analysing and communicating is predominantly graphic. The information contained in previously prepared conservation documents is synthesised with the physical qualities of the site through drawing, revealing a new understanding of the place. The role of analysis in developing knowledge cannot be overlooked here. In the same way that a heritage professional builds up a detailed knowledge of the history of a place during research for listing, the designer engages in analysing, testing and evaluating ideas to aggregate a specific understanding of the physical characteristics of the place. While it may not be comprehensively directed, or explicitly articulated, the designer commands a unique knowledge of the place resulting from the design process.

Contrary to *The Burra Charter* process of declaring understanding and measuring decisions against that declaration, statutory processes do not require the designer to declare their understanding of the place prior to commencing design. While informal discussions with assessors may occur during the design process, the first formal requirement for the articulation of the understanding of place for development is towards the end of the design process, at which time a Heritage Impact Statement is prepared for the assessment process. The Heritage Impact Statement selectively references the analysis of the place to describe and justify the proposal for change in what is arguably a reactive, retrospective process. By comparing the role of understanding in processes of listing, management and development a discrepancy between the fundamental approach of *The Burra Charter* and the statutory framework has been highlighted. Despite the Charter's direction to act in accordance with declared understanding, the comprehensive

understanding of building character is not formally required as a proactive step in the development process. Of course the understanding of character is clearly occurring to some extent in successful heritage developments. In contrast to the certainty provided by the declaration of understanding in listing and management, there is no guarantee that an additional level of understanding through analysis will be considered in development.

Understanding cultural significance as a design constraint

The discussion so far has focused on the relationship between conservation principles and statutory processes as a framework for heritage development. Further to the suggestion that a potential point of difference between successful and unsuccessful heritage development is through the skilful analysis of embodied cultural significance in the design process, the role of understanding cultural significance within the design process will now be considered. The design process can be understood as an iterative sequence of analysing constraints, synthesising solutions and evaluating proposals. Bryan Lawson's model of a design problem will be used to analyse the role of understanding cultural significance in the design process.[16]

Lawson's model describes the design process through the interaction of *generators* and *constraints* and the relative flexibility of these attributes. Generators are the source of the design constraints and are categorised as *legislator*, *user*, *client* or *designer*. In a heritage development project the broad constraint to conserve cultural significance is generated by *legislators*.

Lawson describes constraints as the result of 'required or desired relationships between various elements'.[17] The model broadly sorts the domain of constraints as either *internal* or *external*. *Internal* constraints are those in the control of the *designer*, for example: the organisation of space and articulation of form, and *external* constraints are those outside the *designer's* control, for example: building codes, structural requirements and site conditions. *Internal* constraints are, therefore, more flexible and *external* constraints more rigid. The evaluation of compliance with *internal* constraints lies predominantly with the *designer,* whereas judgement on the resolution of *external* constraints is largely controlled by *legislators* represented by assessors. The relative flexibility of *internal* constraints allow their evaluation to be somewhat subjective. Provided these constraints are met, there is scope for creativity in how they are achieved. In contrast, the rigidity of *external* constraints requires a more objective system of assessment. Cultural significance is an *external* constraint; it is rigid in that its conservation is required by law and its resolution is judged within a statutory framework.

In addition to defining their source and domain, Lawson's model identifies the function of design constraints. Constraints are categorised as *radical*, *practical*, *formal* or *symbolic*. *Radical* and *practical* factors relate to the 'what' and the 'how' of the project. Generated by the client and users, *radical* constraints are the fundamental reason for the design problem and encompass the purpose of the project for example the types and sizes of rooms required. *Practical* constraints determine how the radical constraints will be resolved and include aspects such as legislative controls, material properties and site access. *Formal* constraints are the rules of composition and expression predominantly generated by the designer. Planning regulations can also contribute to *formal* constraints in the form of design controls. Finally, creative agendas generated by the designer are defined as *symbolic* constraints. Lawson arranges the function of these design constraints on a spectrum of flexibility where *radical* constraints are the most rigid, followed by *practical* then *formal* whilst *symbolic* constraints are considered to be the most flexible. In this model constraints may have more than one function however, for the most part they can be categorised with a singular purpose. As a design constraint, cultural significance is particularly complex as it can be found to have all four functions.

The *radical* and *practical* functions of cultural significance as a design constraint are the most straightforward and will be considered first. The fundamental reason for considering change in a heritage place is to provide for its conservation. Essentially, the design problem exists to conserve cultural significance, imbuing a *radical* function on the constraint. Prescribed through the conduit of the statutory framework, The Burra Charter's performance requirement of how to conserve cultural significance – by avoiding distortion, obscuration and detraction - can be defined as a *practical* function of the constraint. The *radical* and *practical* functions of conserving cultural significance are generated by a *legislator* and enforced through statutory Acts. In this sense the conservation of cultural significance is an *external* constraint requiring objective evaluation.

The *formal* function of cultural significance as a design constraint will now be considered. Earlier discussion outlined the way in which guidance for meeting *The Burra Charter's* performance requirements directs the designer's attention to specific physical building attributes, suggesting and in some cases prescribing aesthetic responses to cultural significance. This is the constraints *formal* function in the design problem. In Lawson's model the *formal* design constraints of composition, aesthetics and arrangement are: usually *internal*; generated by the *designer;* enjoy a degree of flexibility and are evaluated

with relative subjectivity. The application of statutory control to the design of *new work* changes the nature of the *formal* function. In heritage development, the *formal* function is generated externally by a *legislator* is less flexible. The tension between the designer's creativity and the *legislator's* control is clear. The *formal* design constraint is both *internal* and *external*, controlled by the *designer* and the *legislator*, rigid and flexible, subjectively and objectively assessed. The divided nature of the *formal* constraint underlines the need for the declaration of understanding early in the project process. The innate rigidity of statutory process compels legislators to define acceptable outcomes as objective targets for designers. The difficulty of defining these targets has been described earlier in this paper as the divergence between general guidance and site-specific scenarios. In attempting to appease the requirement for objectivity in the statutory process, legislators effectively diminish the need for the designer to understand the specific attributes of the place. The point here is not that *legislators* should not have control, the value of objective judgment to protect cultural significance is acknowledged. Rather, the point is that the control must be objective within the limits of each scenario. It is not useful to reference a general set of rigid constraints to be applied to all heritage development, it contradicts the essential nature of the design problem. It is useful for *designer* and *legislator* (assessor) to agree on a shared understanding of the place early in the project process enabling that knowledge to be a clear constraint. In this way the rigid and flexible aspects can be clarified providing some objective targets whilst accommodating the flexibility that the designer requires to synthesise the project as whole.

Finally, the *symbolic* function of cultural significance as a design constraint will be considered. The *symbolic* function of a constraint arises when the creative agenda of the *designer* is informed by the understanding of cultural significance. In *The Architecture of Additions*, Paul Spencer Byard recognises the value of significance as constraint on the design dialogue created between an existing building and contemporary additions.[18] His argument explores the aesthetic consequences of adding to a building that is recognised to have public worth. Byard identifies that successful outcomes result as 'a function of value received, value added and value generated by the interaction'.[19] Here the combined outcome is dependent on the *designer's* understanding of the existing building contributing to the concept and articulation of the addition. In Lawson's model of the design problem the *symbolic* function of the constraint is an *internal* and it is generated and enforced by the *designer.* As it is the *designer's* creative contribution to the design problem, it can be as flexible or as rigid as the *designer* desires. *The Burra Charter's* guidance on the combined outcome of *new work* in heritage places acknowledges the

inevitable effect of 'new' on 'old' and nominates the required dynamic of the relationship between the two. A corollary of the direction to avoid distortion, obscuration and detraction of significance is the Charter's position is that the identity of the heritage building must be elevated so as to remain dominant in the combined result of old and new. As in the case of the *formal* function, both the *designer* and the *legislator* control the *symbolic* function of the constraint. Again the understanding of the site-specific scenario is required to inform the scope of control commanded by each *generator.*

Utilising Lawson's model to analyse the function of cultural significance as a design constraint has defined the tension between the role of the designer and the role of the legislator in the design process. In heritage development, both designer and legislator seek control over formal, aesthetic judgements. As these kinds of judgements are relatively subjective, the declaration of which formal aspects are rigid and which are flexible is important. This delineation can be determined through the analysis of the specific characteristics of the heritage building.

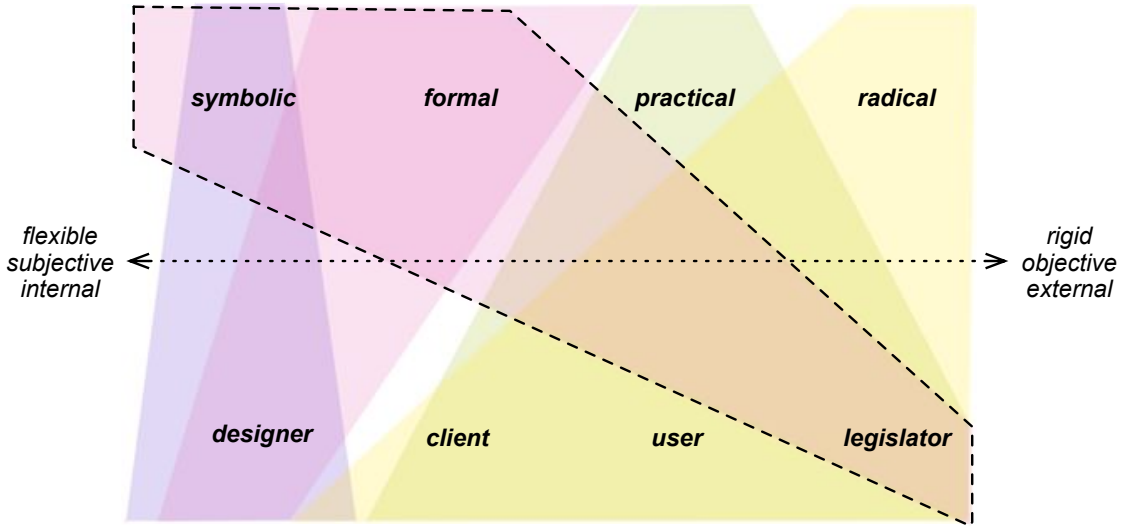

Figure 3. The *new work* design model. The tension between *generators* and *constraints* that is particular to the design of *new work* is indicated by the dashed field (Diagram by author).

Articulating cultural significance as part of the development process

Heritage development requires a level of understanding of the physical qualities and characteristics of a heritage building beyond the level required for listing and management processes. Successful heritage development demonstrates this additional understanding of character and identity, unsympathetic heritage development appears to misunderstand and even disregard this level of understanding.

This paper has outlined three points in the heritage development process where the articulation of understanding is important for informing successful outcomes. While they are conceptually located in three different processes: guidance, design and assessment; they occur at a similar point in the project timeline, this point being early in the design process. As such, there seems to be opportunity to adjust existing processes to accommodate a declaration of understanding at a more timely moment than where it currently sits, at the end of design process. For the purposes of this discussion the declaration will be referred to as a *Character Analysis.* The *Character Analysis* would constitute the formal articulation of embodied physical significance, architectural character and physical identity. Conveying more than the Statement of Significance, the *Character Analysis* would communicate the synthesis of cultural significance, building character and specific qualities of site and setting. Importantly, it would be an explicit statement of the implicit identity of the place as existing, conceived to communicate the existing as a way of informing the appropriate design of *new work*. The approval of the document would confirm the shared understanding of the place and declare its content as clear constraints for the design.

The *Character Analysis* document could be a stand-alone item, an appendix to a Conservation Management Plan or be submitted as the first part of Statement of Heritage Impact, splitting this existing document into two submission phases. The options for the format of the document are beyond the scope of this discussion and are identified for future research. This paper has argued that the project designer gains a particular knowledge of the place through the act of analysing the site as part of the design process however; the act of analysing and the act of designing are not inextricably linked. It is possible to isolate analysis as a discrete step. It is the communication of specific relationships revealed through analysis and synthesis that is of value. As such, it is conceivable that the *Character Analysis* document could be prepared by the designer as part of their pre-design activity or by a specialist consultant.

Given the need for the analysis to encompass the physical aspects of the building and its setting, in association with previous understandings of cultural significance, a shared method to frame the content of the *Character Analysis* would be of use. This would not preclude the researcher's own explorations, rather it would direct the content to be considered. As the subject is innately spatial, and existing architectural practice deploys graphic techniques to analyse the physical qualities of buildings, it is suggested that the mode of investigation and communication should be primarily graphic. This would ensure

that the document acts as a complement to the predominantly textual Statement of Significance, translating its content to a graphic form so that the complete understanding of physical qualities can be communicated in the same language. In visualising the information graphically the document would also be an effective resource in the development assessment process allowing the assessor to compare visual analysis with a visual proposal. The method and technique of analysis is another area identified for further research.

Premised on the argument that a comprehensive understanding of the identity of the heritage place is fundamental to a successful development outcome, this paper has discussed the value of making the implicit qualities of heritage buildings explicit in three parts of the development process. The limitations of guidance have been discussed to demonstrate the necessity for a specific understanding of the place to bridge the gap between general guidance and the specific project scenario. The difference between level and type of understanding required for listing, management and development processes has been described, revealing a discrepancy between the approach of *The Burra Charter* and statutory process. The analysis of cultural significance as a design constraint has supported the need for articulation of understanding as a design input and assessment tool. In response to these three lines of discussion a potential adjustment to existing processes has been suggested. This adjustment would require the assessment process to interact with the design process in a formalised way early in the project process through a *Character Analysis* document. The objective of the document is to improve heritage development outcomes by requiring the analysis of a building's character and identity early in the project process. It has been argued that this document differs from existing heritage statements, plans and reports through its use of graphics to analyse, synthesise and communicate content. In discussing this, areas of further research into the content, method and genre of such a document have been identified.

Endnotes

[1] Peter Marquis-Kyle and Meredith Walker. *The Illustrated Burra Charter: Good Practice for Heritage Places* (Burwood, Vic.: Australia ICOMOS, 2004), 66.
[2] Australia ICOMOS, *The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance* (Burwood,Vic.: Australia ICOMOS, 1999), 7.
[3] *The Burra Charter*, 2, 7. New work is differentiated from other conservation processes such as preservation, restoration and reconstruction by the introduction of fabric that is different in material and use to that existing on the site.
[4] The Charters of several ICOMOS National Committees reference the principles, processes and practice of the Burra Charter. Direct references can be found in both China ICOMOS and ICOMOS Canada's doctrine and ICOMOS New Zealand's charter echoes many of the Burra

Charter's concepts. China ICOMOS, *Principles for the Conservation of Heritage Sites in China.* (Los Angeles: The Getty Conservation Institute, 2004), 92-93.; ICOMOS Canada, *Appleton Charter for the Protection and Enhancement of the Built Environment.* (Ottowa: ICOMOS Canada, 1983),1.; ICOMOS New Zealand, *Charter for the Conservation of Places of Cultural Heritage Value.* (Auckland: ICOMOS NZ, 2010).

[5] *The Burra Charter* and its associated Guidelines are illustrated and elaborated upon in the marquis-Kyle and Meredith, *The Illustrated Burra Charter*. In addition to these Australia ICOMOS publications State Heritage Agencies throughout the country have published their own documents that provide additional guidance on heritage development matters. A literature review of these documents has been conducted to inform this discussion.

[6] http://www.tzg.com.au/projects/paddington-reservoir

[7] 'General Guidance' documents are often illustrated with case studies. An example of a 'general guidance' document is NSW Heritage Office. *Design in Context: Guidelines for infill development in the historic environment.* (NSW: NSW Heritage Office, 2005) http://www.heritage.nsw.gov.au/docs/DesignInContext.pdf

[8] Examples of 'guidance by example' are NSW Heritage Office, *New Uses for Heritage Places: guidelines for the adaptation of historic buildings and sites.* (NSW: Heritage Council of NSW, c2008) and NSW Heritage Council. *Altering Heritage Assets*. http://www.heritage.nsw.gov.au/docs/hm_altering.pdf

[9] An example of a 'prescriptive guidance' is NSW Heritage Office. *How to carry out work on heritage buildings and sites.* (NSW: NSW Heritage Office, 2008) http://www.heritage.nsw.gov.au/docs/info_carryoutwork.pdf

[10] *The Illustrated Burra Charter*, 66.

[11] *Queensland Heritage Act 1992* (Queensland, reprint 2008), 25-26.

[12] James Semple Kerr, *Conservation Plan*, 6th ed. (NSW: National Trust, 2004), 17-18. These professionals may include a relevant selection from historian, architect, engineer, landscape architect, archaeologist, planner etc. James Semple Kerr comments on the benefits of limiting the selection to ensure efficiency in the analysis process.

[13] The *Queensland Heritage Act 1992* provides for the preparation of a Heritage Agreement. The commissioning of a Conservation Management Plan may be one of the requirements of such an agreement. *Queensland Heritage Act 1992*, 52.

[14] Kerr, Conservation *Plan*, 6th ed, 26. Kerr's guide on conservation planning acknowledges the issue of Conservation Management Plan's relevance to their time of preparation with a provision for regular review and revision.

[15] The *International Charter for the Conservation and Restoration of Monuments and Sites* (Venice: ICOMOS, 1964) commands the preservation of the 'decoration, layout, composition, mass and colour.' The *Resolutions of the Symposium on the introduction of contemporary architecture into ancient groups of buildings* (Budapest: ICOMOS, 1972) cites the importance of 'mass, scale, rhythm and appearance' in the design of new buildings.

[16] Bryan Lawson, "A model of design problems," in *How Designers Think: The Design Process Demystified* (Oxford: Boston: Architectural Press, 1997), 83-112

[17] Lawson, "A model of design problems," in *How Designers Think,* 92.

[18] Paul Spencer Byard. *The Architecture of Additions: Design and Regulation (*New York: Norton, 2005), 14.

[19] Byard, *The Architecture of Additions,* 14.

Collaboration and Transparency in the Architecture of Contemporary Science

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Abstract

Architecture has emerged as a key site for the mythical construction and expression of experimental science as a collaborative enterprise accountable to the public. The belief that architecture can influence social behavior is a critical piece of that construction, as is the idea that material transparency is equivalent to informational transparency. Three Australian case study buildings were studied, originally with the aim of gauging their success in fostering new research collaborations. It was found that the success of these buildings lies not so much in increasing the 'connectivity' of people and spaces, but rather in the expression of socializing as a public good. It will be argued that the myths of architectural determinism and direct architectural communication have been resurrected to counter a myth of greater proportion and burden, that of the evil scientist alone in the basement laboratory.

Introduction

The development of experimental science in the seventeenth century provoked a new architectural site: the laboratory.[1] The emergence of the laboratory as a word and space 'accompanied the new practice of creating phenomena using artefacts operated and interpreted by a skilled elite.'[2] Science, Owen Hannaway writes, 'no longer was simply a kind of knowledge; it increasingly became a form of activity. That there should have arisen in this period a place specially set aside for such activity and bearing a new name serves to measure the force of that shift.'[3]

Originally a single room in a house or learned society, by the twentieth century the laboratory was a stand-alone, single-program building. In the last two decades the shifting economics of intellectual capital have led to the establishment of multidisciplinary research centres and science precincts with multiple funding sources, organisations, and stakeholders.[4] The scientific research centre retains the laboratory benches of the older model, yet its focus on public and social spaces reflects shifts in the way scientific knowledge is funded, produced and disseminated. Indeed, Bruno Latour proposes that

the culture of 'science' has been replaced by a culture of 'research' engages ideology and emotion.[5] He believes that contemporary research responds to public interests in ways that science, with its professed autonomy from military and state interests, did not.[6]

The development of a culture of research is coincident with the corporatisation of the university and the theorisation of innovation as geographical and organisational.[7] In this new context, the contemporary research centre has become the site of iconic and self-conscious architectural expression, something previously seen in just a handful of exceptional laboratory buildings such as those designed by Louis Kahn in the mid-20th Century. Architecture has emerged as a key site for the mythical construction and expression of experimental science as a collaborative enterprise accountable to the public. Good research, it is believed, is borne out of serendipitous exchange and, by extension, the good researcher seeks out social interaction and exchange in the work place. The belief that architecture can influence social behavior is a critical piece of that construction, as is the idea that material transparency is equivalent to informational transparency. Both ideas have a long history in architecture, and while this paper will not track their origins or subscription, it will examine their specific history and currency in the laboratory research building.

Case Study Laboratory Research Centres

In gauging the penetration of these myths, as well as their congruency with actual practice, three recently completed Australian scientific research centres were studied.[8] All provide PC2 laboratories and research animal facilities for multidisciplinary research centres with diverse funding streams that straddle University and commercial interests.[9] Each case-study building has received professional acclaim and industry awards.

1. Bio21 Institute David Pennington Building at The University of Melbourne by Design Inc opened in 2005 and is focused on interdisciplinary research in health-related molecular science and biotechnology. The Bio21 Institute includes 21 member organisations. In 2005 the building won the Property Council of Australia's Rider Hunt Award, the RAIA Margaret Mahony Award for Interior Architecture and Science Industry Australia's Laboratory of the Year Award.
2. The Queensland Brain Institute (QBI) at the University of Queensland designed by John Wardle architects and Wilson Architects in Association opened in October 2007. The QBI is focused on discovering the fundamental mechanisms that regulate brain function. QBI comprises 12 laboratories named after and led by leading researchers. The building was partly funded by a significant donation from Atlantic Philanthropies. In 2008 the building won the RAIA Queensland Award for

Public Architecture, RAIA QLD Award for Interior Architecture, RAIA QLD Award for Art and Architecture, RAIA Brisbane's Building of the Year and the RAIA National Commendation for Interior Architecture.

3. The Lowy Cancer Research Centre at the University of New South Wales by Lahz Nimmo Architects and Wilson Architects, opened in 2010. It brings together researchers in adult cancer from the UNSW, the Centre for Vascular Research and the independently funded Children's Cancer Institute Australia. Their work spans laboratory sciences, clinical practice and health policy. In 2011 the building, named after its largest private donor, Frank Lowy, won the Asia Pacific Property Awards for Australia in the category of Public Services Architecture and the RAIA NSW Commendation for Public Architecture.

The study involved semi-structured interviews with at least ten scientists working in each of the three buildings. Interviews were conducted with the architects, research managers, project and facility managers. Drawings and documents related to briefing, procurement and design development were examined. Close observation of the buildings in use and analysis of their spatial organisation in plan and section was made. Published statements about the buildings and their facilities were also taken into account. While structured around the three case studies, the questions driving the research are not directed at establishing the individual performance of the buildings as post-occupancy studies typically are.[10] The research more broadly questions the architectural ambitions and design strategies in contemporary research buildings for science. What are scientists hoping architecture will do for them? Is there concurrence between the aspirations of scientists for their buildings and those of architects? What are the consequences for scientists of employing architects to transform their image and work practices?

While architecture in one sense is always customised to its client and locale, comparison with equivalent buildings abroad confirms that the design strategies and intentions of Australian research centres are consistent with the building type. The three buildings represent the two current generic organisational diagrams for the building type[11]:

1. Two or more wings of stacked floors comprising laboratory and write-up spaces with an atrium or courtyard between (Bio21, Agribio at Latrobe University, Biochemistry at Oxford University, the James H. Clark Center for Bio-X at Stanford University, the Landcare Research building in Auckland);
2. a single stacked wing of laboratory and write-up spaces with an atrium and social spaces at one end (QBI, the Lowy Cancer Research Centre, Paul O'Gorman Building at the University College London).

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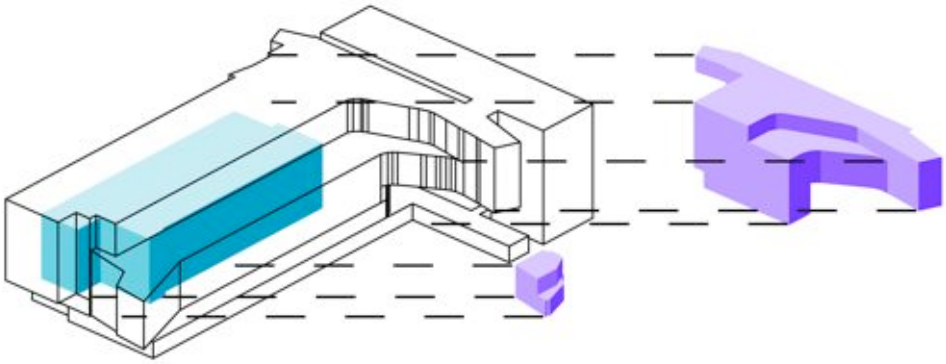

Figure 1. Diagram of the Lowy Cancer Research Centre showing the laboratory core in blue running perpendicular to the volume containing foyer, break out, meeting rooms and circulation to the adjoining Medical Faculty building.

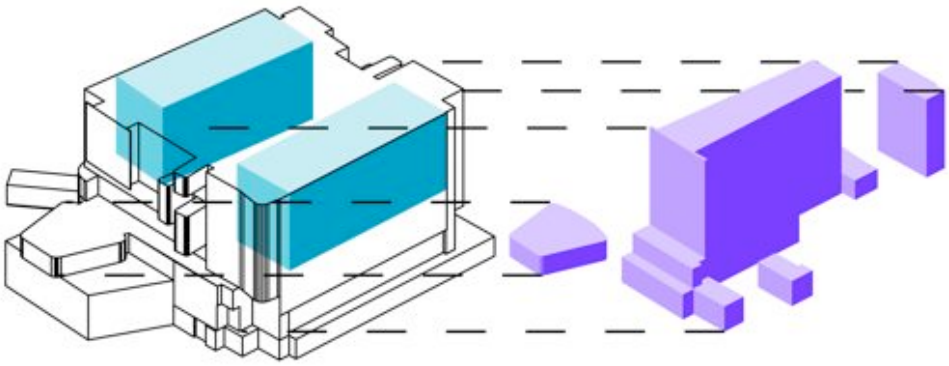

Figure 2. Diagram of Bio21 showing the two wings of laboratory core in blue flanking a central atrium. Glazed walls on the write up areas allow constant surveillance of the atrium.

Science Studies, Place and the Social

Laboratory science involves the observation and manipulation of nature by means of specialized instruments, techniques, and apparatus that require specialised skills for their

construction and operation. The *raison d'etre* of the laboratory lies in the exclusion of variables—vibration, moisture, noise, dust and particulates, light, unauthorized personnel—that are not a defined part of the experimental set-up; along with the containment of all materials and waste products that pertain to the experiment. In the scientific tradition, architecture is a neutral support that lies outside of the experiment and in its neutrality guarantees the repeatability of the experiment. Steven Shapin observes,

> Of all forms of culture, science has been thought least marked by the places in which it is made and evaluated. The universal validity of scientific knowledge has been taken as a testimony to the irrelevance of the particular physical and social sites in which it happened to be produced.[12]

Shapin, Schaffer, Hannaway, Hacking, Galison, de Bont and Latour, amongst others, have queried science's claims to universality and placelessless and have demonstrated the importance of the design and location of the scientific laboratory on science since the seventeenth century.[13] Science has been shown to take place in a context that brings its own limits and potentials to research problems and experimental set-ups. These include the social interactions between scientists at the lab bench, the stories researchers tell and the language they use, the manufacture and distribution of scientific instrumentation and other organic and non-organic research materials, and the broader social, economic and cultural contexts in which knowledge is produced and disseminated.[14] Ethnographic science studies, pioneered by Latour and Woolgar's *Laboratory Life: The Social Construction of Scientific F*acts (1979), have made it clear that contemporary science is as subject to place and space as was science in history.[15]

In studies of historical and contemporary laboratories the thorniest questions revolve around the impact on the production of scientific knowledge of the social relationships between scientists, and between scientists and the public. It is in this area, rather than the provision of functional space, that the influence of architecture on science is complex and uncertain. In its organisation of space and flows, architecture plays a role in supporting, directing and obstructing social relationships. In its formal expression it plays a part in communicating social relationships, institutional standing and relationships with other organisations.

Throughout the seventeenth and eighteenth centuries there was tension between the privacy of the laboratory and the public's interests in what scientists were doing. Giovanni Cassini, a seventeenth century astronomer wrote of his laboratory,

> I had had all entrances to this place blocked in advance, with the exception of a storeroom leading onto it but I had that closed off with a door; I thus had an underground cabinet in a vast enclosure where, in silence and total isolation, I could carry out these observations since I was always alone.[16]

Scientists were divided between the desire for solitude and the demands of society. The older tradition of individuals working alone to make logical or mathematical knowledge persisted but, as Thomas Kuhn has pointed out, was now joined by a new type of scientific work that involved expensive equipment and the pooling of empirical experience.[17] The new laboratories were open only to an elite whose membership became defined as the members of new scientific societies, their associates and employees, and were much like other kinds of closed clubs. Ian Hacking writes of the social character of the laboratory,

> The laboratory was to be a space at once open and shut. It had to be public because according to the doctrine that evolved, any work done in a laboratory can be done by anyone with adequate skills and checked by anyone who is a good observer. It had to be private because only a self-selecting few could know what was going on, make anything work, or even tell when apparatus was working.[18]

Shapin proposes that these early laboratories were characterised by a presumption of mutual trust and reliability among the small elite involved in them.[19] In the seventeenth century the veracity of what a person said lay in their social standing as a gentleman. By contrast, Shapin observes,

> trust is no longer bestowed on familiar individuals; it is accorded to institutions . . . we trust the truth of specialized and esoteric scientific knowledge without knowing the scientists who are the authors of its claims. Abstracted from systems of familiarity, trust is differently reposed but vastly extended.[20]

The design of laboratory buildings can be read as symptomatic of the vicissitudes of public trust in science. Laboratory buildings of the 1960s, for example, the Hoffman Laboratory of Experimental Geology at Harvard University (1960) by Gropius' The Architects Collaborative (TAC) and the Howard Florey Research Laboratory Buildings at the University of Melbourne (1963) by Yuncken Freeman Architects, reflect the relative confidence and trust of the public in the University and scientific endeavour. They were occupied and frequented only by experts and those in training for a professional scientific career. Buried deep in the campus and funded, owned and managed by one university they were not designed for the broader public to visit or to see the working laboratories. During this same period, the equipment used in some experimental fields—microphysics especially—grew from table-top sized, to warehoused-sized structures to civil-engineering projects measured in the kilometres. Experiments grew dramatically in costs, the numbers of personnel required and the time required to complete them. These shifts in scale began to put new demands on the funding, the management and structures of scientific research organisations, and on the interaction between scientific and technical-industrial cultures. As laboratories expanded and sought greater and more diverse funding, so did public demand for transparency and accountability.

Visibility and Sociality in the Contemporary Research Centre

The distinct innovation of the contemporary laboratory is that it serves as a mode of expression: communicating directly to the public, funding bodies and governments. Architecture is charged with the work of articulating the scene of research as collaborative, socially engaged, transparent and accessible. The significant role played by architecture in 'branding' science can be seen by the engagement of Laureates of the Pritzker Architecture Prize: Frank Gehry, Norman Foster, Rafael Moneo and Zaha Hadid are responsible for, respectively, the Stata Center at Stanford University, Bio-X at Stanford University, LISE at Harvard University and Biopolis in Singapore. These architects were not commissioned because they could deliver a no-nonsense functional laboratory, but because they contribute status and formal and spatial innovation. The research centre has joined the museum and the gallery as a building type deserving of a 'signature' architect.

The message architecture is charged to convey is that scientific research is being carried out collaboratively, and that there is *nothing to hide*. Yet as Shapin points out, 'despite various characterisations of science as 'public knowledge'' in contemporary society, science 'is made and evaluated in some of our most private places . . . you do not wander into CERN or SLAC. We typically now enter the places where scientific knowledge is

made only by special arrangement and on a special basis: we come as visitors, as guests in a house where nobody lives.'[21] While impenetrable to the wider public, institutional 'openness' is conveyed by visibility in the urban context, transparency of envelope and bold architectural expression. The laboratory function has been wrapped in a layer of architecture that is theatrical and, essentially, itself experimental. Indeed, John Wardle, architect of QBI describes the building as a 'Theatre of Research' that considers the 'activities of the players and the experience of the audience.'[22]

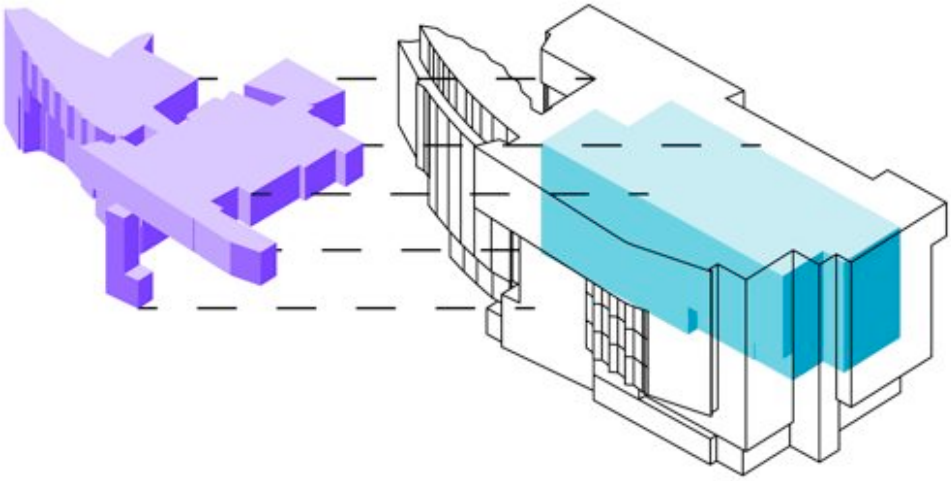

Figure 3. Diagram of QBI showing the laboratory core in blue and the 'theatrical' spaces for socialising and public events sitting at one end and on the top floor.

Figure 4. Internal view of QBI showing the visibility of the laboratories from the open staircase above the public foyer. (Photograph: Christopher Frederick Jones, courtesy John Wardle Architects.)

The theatrical presentation of science to the public cannot be uncoupled from the presentation of an ideal way of working to the scientific community *within*. Through its cafes and lounges bordering internal 'streets' and atria, its open-pan and glazed work areas, the contemporary research centre presents an image of teamwork and collaboration that is addressed as much to the scientist as to the non-scientist. The research centre aims to induce collaborative and interdisciplinary research by increasing informal meetings between its occupants. The underlying conviction is that scientific discoveries are the outcome of serendipitous exchange and interdisciplinary collaboration. Typical of the rhetoric around the architecture of the new centres is that for the LISE building designed by Rafael Moneo for the emerging field of small-scale science at Harvard, On the announcement of the project in 2004 the University declared,

> If, as many researchers contend, the future of academic science lies in breaking down the barriers between the traditional disciplines, a stunning new building . . . may become the most forward-looking to grace the Harvard campus . . . among LISE's most eagerly awaited features is the ground-floor

> café and patio that will give scientists from different disciplines a central place to meet and discuss their work . . .[23]

Following completion in 2007, Harvard reiterated the building's role in fostering conversation,

> The building seeks to integrate the work of numerous labs by providing open spaces that facilitate the exchange of ideas. The aroma of Peet's Coffee from the well-stocked café permeates the building, and there are sunlit collaboration areas on the upper floors. Physics Professor Charles M. Marcus said he believes that the many places for discussion in LISE serve as a catalyst for scientific progress. 'Put simply, people are lazy,' Marcus said. 'If having a conversation with a colleague is easy, they will do it. If not, they won't. Luckily, the LISE building makes collaboration easy.[24]

MIT's Stata Center is similarly described by one architectural critic as 'throw(ing) people together so that every researcher has a shot at encountering the person he never thought of who turns out to have a skill that's needed.'[25]

The belief that a building might provoke more significant research is held by scientists, architects, funding bodies and managers. Even the former Prime Minister of Australia, Kevin Rudd subscribes. Opening the Lowy Cancer Research Centre in May 2010, Rudd stated 'We have to break down silos and translate research into practice.'[26] What is the origin of this belief and what are its consequences? Many of those involved view the design of the contemporary research centre as something of an experiment. The Director of Bio21 admits, 'It's an experiment in many ways this institute, both in terms of the space, the tenants and the concept.'[27] On the subject of relocating to the new Gehry-designed Ray and Maria Stata Center, the laboratory director told *Wired* magazine 'Maybe it will destroy us. Who knows? I prefer to be optimistic.'[28] Spencer Reiss counters, 'Stata may be MIT's most expensive experiment ever, but it has the cynical virtue of being what researchers call non-falsifiable - there will be no way to know what might have happened had Tech Square's residents never heard of Frank Gehry.'[29] The building cost US$283.5 million in 2004 and this represents just a small portion of the salary and running costs over the lifetime of the building. Significant investment appears to rest on the hope that researchers, presumed to have come from a prior condition of isolation and fragmentation, will be provoked into spontaneous and fruitful discussion on the basis of free-flowing coffee and a sunlit conversation nook.

Space-Syntax Studies and the Laboratory

It is necessary to first recognize the origins of the assumption. Interest (and belief) in spatial strategies that serve socialisation permeates the design of contemporary workplaces, yet of particular relevance are the conclusions made by Space-Syntax pioneers Hillier and Penn for laboratory design. Hillier and Penn propose that spatial structure and the organisation of a group of people, can work conservatively to reproduce the status quo or generatively to produce new patterns of social relationships.[30] Following their study of two laboratories in the 1980s, Hiller and Penn recommend strategies to facilitate unplanned meetings between 'people that one does not know one needs to talk to.'[31] They affirm 'the natural generation of more randomized co-presence with others—the need for which seems to grow the more the objectives of research are unknown.'[32]

Hillier and Penn claim that their findings 'may surprise the proponents of scientific solitude' yet readers familiar with the field will know that they and their associates tend to favor more frequent social encounters. There is, though, no evidence of how these can be increased for the laboratory program or how they then relate to research activity. Their study did not track research and Hillier and Penn admit 'we cannot yet demonstrate that these have effects on research productivity.'[33] Evaluating research productivity and quality is a problem for any study of laboratory buildings for it is impossible to accurately measure longitudinal changes in significance or the degree of cross-disciplinary innovation. These are organisations that over the long-term are volatile in their staffing and funding. Research suggests that changing funding models have much greater impact on the kinds of science being pursued than does architecture.[34] Even if one were able to track changes in research behaviour, it would be impossible to tie these back to the social component of the architectural setting. Sites for knowledge transfer extend beyond the campus and to the virtual spaces of journals and social networking sites.

Closer examination of their methodology, findings and conclusions reveals many limitations to the Space-Syntax method, beginning with the problem of its lack of dimensionality and verticality as pointed out by Carlo Ratti.[35] Hillier and Penn's research covered seven laboratory buildings and five sites in the UK, but it did so floor by floor. While seemingly precise in their calculations, Hillier and his colleagues are prone to over-reaching their findings.[36] Their method is also fairly blunt in its understanding of psychosocial constructs. Face-to-face communication and interactionare just one of many factors in the workplace.[37] Rashid and Zimring argue that control, supervision, territoriality, and privacy are equally significant and that all psychosocial constructs are

complex, multidimensional and interrelated. Selecting one over the others inevitably gives a distorted and incomplete picture of sociality in space.[38] Further, Hillier and Penn do not take into account the impact of organisational attributes such as rules, roles and hierarchies, which often form the basis for office design and for subsequent relationships.[39] They dismiss forms of sociality that are 'simply added on by special-event socializing-such as going to shared coffee locations or having joint seminars.'[40] Yet, in laboratory buildings, the programming of shared events and other managerial incentives is crucial to the socialisation of bench scientists.

There also disjunctions between the recommendations that Penn and Hillier and make and the functional demands of laboratory buildings. Increasing movement and circulation past workstations is not appropriate for laboratory buildings with physical containment classification of laboratories.[41] A subsequent study of interactions in a large research and development organisation in the Netherlands that 78% of interactions occurred at a workplace, rather than in informal social spaces or formal meeting rooms, and that 'the hallway or coffee machine also do not accommodate many unscheduled meetings.'[42] Less than a third of interactions were because people happened to bump into each other.[43]

Surveillance and Security

While resistant to the social critique of science, to the point where the 90s were characterized by the so-called 'science wars', scientists have, paradoxically, embraced the belief that the design of new research centres will support their efforts towards collaboration. There is no suggestion that scientists, nor even their architects, have been reading Hillier and Penn's recommendations. Rather, powerful narratives within science about the transformative experience of mathematicians, theorists and engineers from Europe and America working together during the war at Los Alamos, Oak Ridge and MIT's RadLab are at work.[44] These narratives, along with funding regimes and problems that provoke interdisciplinary collaboration, have made scientist clients receptive to architectural proposals that are intended to further interaction and collaboration. Awareness of the social aspirations of the buildings they use colours the response scientists have to them. Researchers were eager to reflect on their success, but saw socialisation as a management objective. One scientist at QBI, for example, reported 'You can stay on your level for the whole time and not have to interact and I think they were trying to make us interact more and I don't think its worked as well as they hoped.'[45]

The correlate of the idea that good research breaks down silos, is the idea that the good researcher seeks out social connections in the workplace, while the 'bad' researcher shuns interaction and prefers to work alone and undisturbed. Interviewees immediately recognized that their answer to a simple question such as 'where do you eat your lunch?' might entail a judgement about their performance as a researcher. To that question one of the researchers at the Lowy Cancer Research, answered defensively, 'I can eat lunch at my desk and keep working. . . some people would frown upon that and you should get out, but I quite like that. I probably do get more done.'[46] Other researchers suggested that the model of intense social interaction in the work place was not appropriate for everybody: 'Some people are just more interactive than others. Some people like working very much as a solo if you like.'[47] Another pointed out that 'Research is actually very individualistic, your main interaction is with the person above you' and admitted to working from home so as to better focus on the work at hand.[48]

Spatial analysis and discussion revealed significant improvements in the working lives of researchers, particularly in the provision of write-up spaces with attractive outlooks and interior furnishings. Yet the case study buildings revealed several limitations to the models currently being used. For example, research leaders and managers continue to be housed in individual enclosed offices adjacent the open plan work areas and laboratories of their teams. This set up assumes, incorrectly, that productive knowledge exchange and socialisation occurs amongst researchers at the junior level, not their leaders. In fact it is the research leaders who have the aggregate view of research findings, formulate new projects and apply for funding and who would best benefit from enhanced communication with each other. Junior researchers were typically engaged in narrow aspects of a project requiring great concentration.

Especially common in the larger research centres, is a vertical atrium or arcade space, usually lined with glazed walls, through which circulation passes and which allows horizontal and diagonal visibility between floors on opposite sides of the building. The second form given to social spaces is a smaller area equipped with casual seating, a kitchenette and views back into the building through the atrium or workspaces. These tend to be evenly distributed across buildings. Both forms are accessible only to those working in the research centre, yet at the same time are easily observed by occupants in other parts of the building. Both have a higher level of informal and actual surveillance than did the walkways, verandas, courtyards and garden spaces of the older campus in which laboratory buildings were located. Informal socialisation is not only internalized and given its own space, it is under covert surveillance.

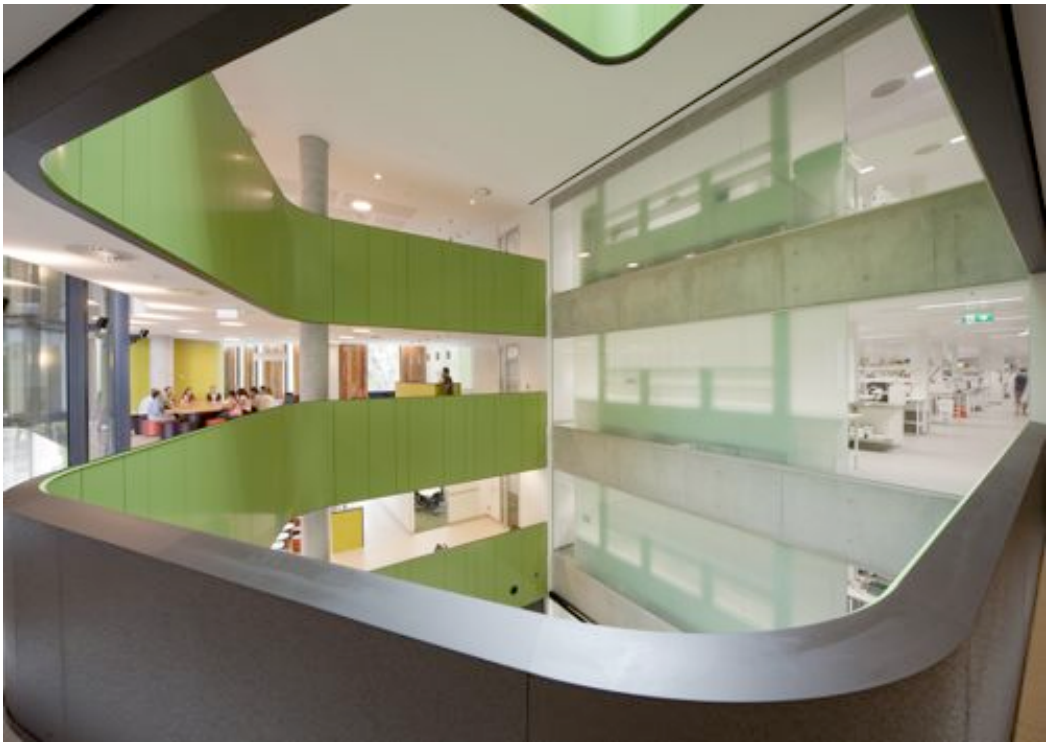

Figure 5. Internal view of the Lowy from the circulation atrium demonstrating views between informal social spaces and the laboratories. (Photograph: Brett Boardman, courtesy Lahznimmo Architects.)

Lastly, we found that the internal, often invisible, boundaries maintained by security access systems to manage the flow of people and preserve the physical containment of laboratory matter and waste frequently thwart spatial layouts intended to increase porosity and connectivity. Laboratory experiments can be very vulnerable to environmental change and use costly infrastructure and consumables. Data sets may involve protocols that arise out of ethical and legal considerations and there are also issues of intellectual property and commercial confidence. For the single organisation, these security issues can be managed to some degree at the building's perimeter with another security line around the laboratory proper. The management of internal security is more complex for research centres housing multiple organisations with different funding streams, incompatible financial systems and each with their own policies and practices regarding occupational health and safety, employment, work supervision and reporting, etc. Internal security regimes were all handled by swipe card or smart card proximity technology that allowed inexpensive and customised levels of access within the building. At the Lowy, internal security access was cited as the key obstacle to interaction: 'The main issue now is access. OH&S [needs] have made the laboratories difficult to access. That's actually been restrictive in terms of people mixing'; 'I like the

building. I love everything about it, but the only downside is you have to swipe the swipe card all the time'; 'it comes down to how security controls people in the buildings of the university, there's kind of walls and boundaries that are put up through need really, it's the health and safety issues.'[49] At Bio21 we heard the same concern: 'There are still too many keys and entry points and restrictions to truly make it an open environment.'[50]

Conclusion

Given that research productivity and innovation cannot be easily measured, and there is some evidence that strategies to increase interaction are defeated by operational needs for securing flows of people and goods, is there an alternative explanation to what is going on?

The widely held image of the scientist is of a man, working alone, preoccupied, undisturbed and disengaged from the public.[51] In the depictions of science fiction—extending back to Mary Shelley's 1818 novel *Frankenstein*—the solitary and secretive habits of the scientist are deeply suspect.[52] Mad scientist stories are more broadly condemnations of rationalist science and, for this reason, Tourney argues scientists need to be concerned to refute it. But 'because the personality of the scientist is the principal symbol of the evil of science, any change in that character's personality is likely to change the critique.'[53] The eagerness to represent research activity—to the public and back to the researchers themselves—as a collaborative effort responsive to the community through architectural transparency and porosity, is strategic in this sense, even if it remains at the level of image. Recognizing that we are dealing with an image is the first step to unpicking its operation and effects.

Contemporary science is decentred and data-based. Collaborations exist between teams of researchers who never see each other face-to-face, who operate machines remotely and analyse data in different laboratories across different countries.[54] Collaboration and information flows have long broken out of the confines of single buildings and traverse the virtual and multi-national networks of what Galison calls Trading Zones.[55] In the context of the endeavours and economics of globalised scientific research, the deployment of glazing in laboratory buildings may seem a trivial issue, until one considers how this fits into what Gregory and Miller call 'The Movement for Public Understanding of Science.'[56] They point out that scientists are under pressure to communicate more science in the wake of industrial pollution and military nuclear issues that have made the public ambivalent or distrustful. The phenomenon of the science museum goes only part of the way since visitors are aware of its 'curation.' The public demand access to the processes

and very sites of scientific experimentation. For the contemporary research centre this means a 'shopfront', visibility and a public program of tours and events. Describing the biochemistry laboratory at the University of Oxford (2008) Georgina Ferry writes that,

> The traditional layout is reversed here, labs are on the outside, divided by clear glass walls from the write-up areas, which are open to the vast, five-storey atrium. Everyone is visible.[57]

Director Chris Boshoff explains of the Paul O'Gorman building (2009),

> This building, which houses the new UCL Cancer Institute, does something exciting by opening up an often opaque and private area of study. The transparency and accessibility of the building reflect a desire to enhance UCL's national and international profile in cancer research.[58]

It is significant that the degree of visibility between spaces is most often found in inverse proportion to the actual accessibility and flow of information. That is, material transparency is maximized at the very lines of greatest security and access control—the envelope between outside and inside, between public foyer and beyond, and around the laboratories. What is internalized by the scientists and conveyed to the public is the idea that 'everyone is visible'.

The logical conclusion, architecturally, can be found in SAHMRI in Adelaide—now under construction. SAHMRI aims to 'demystify research and make it tangible for the wider community through welcoming, engaging and interactive public spaces and programming.'[59] Designed by WoodsBagot, the SAHMRI building has an entirely glazed curvaceous envelope and the architectural presence is reduced to a bleached white skeleton that eliminates corners and enclosure.

Figure 6. Rendering of the entry and atrium of SAHMRI.
(Courtesy of WoodsBagot.)

Endnotes

[1] Socio-historical accounts of the emergence of the laboratory in the seventeenth century can be found in: Steven Shapin, *A Social History of Truth: Civility and Science in Seventeenth Century England* (Chicago: University of Chicago Press, 1994); Steven Shapin and Simon Schaffer, *Leviathan and the Air Pump: Hobbes, Boyle and the Experimental Life* (New York: Princeton University Press, 1985); Simon Schaffer, 'Physics Laboratories and the Victorian Country House', in Smith, C. and Agar, J., (eds.), *Making Space for Science: Territorial Themes in the Shaping of Knowledge* (London: Macmillan, 1998), 149–80.
[2] Ian Hacking, 'Artificial Phenomena', *British Journal for the History of Science*, 24, (1991), 239.
[3] Owen Hannaway, 'Laboratory Design and the Aim of Science: Andreas Libavius versus Tycho Brahe', *ISIS* 77 (1986), 586.
[4] Lynn Meek and Fiona Wood, 'The Market as a New Steering Strategy for Australian Higher Education', *Higher Education Policy*, 10, 3/4, 253-274; Sheila Slaughter and Larry Leslie, *Academic Capitalism: Politics, Policies, and the Entrepreneurial University*, (Baltimore: John Hopkins University Press, 1997).
[5] Bruno Latour, 'From the World of Science to the World of Research', *Science*, 280, 5361(1988), 208.
[6] Latour cites as evidence the research into the human genome undertaken by the independent French Muscular Dystrophy Association through funds raised by an annual telethon (Latour, 'From the World of Science to the World of Research', 209).
[7] Latour, 'From the World of Science to the World of Research', 209.
[8] This paper presents a small part of the findings from an ARC funded project 'The Architecture of Academic Research', with Industry Partner, Woods Bagot. Many people contributed to the larger project and the author would like to acknowledge: Martin Kornberger, Cristina Giardino-Freeman and Anuradha Chatterjee for setting the agenda; Georgia Singleton from WoodsBagot for smoothing the way; Tarsha Finney and Antoinette Trimble for their work as Research Assistants; DRAW architects and Jesse Thomas for architectural diagrams; architects John Wardle and Stefan Mie, Hamilton Wilson, Christon Batey Smith of DesignInc, Annabel Lahz and Andrew Nimmo for allowing access to original material and interviews; and lastly, all the scientists and managers who allowed themselves to be interviewed.
[9] Research facilities are certified to one of four levels of containment and referred to as PC1 through to PC4, for pathogen or protection level. The highest level of containment, PC4

laboratories, houses diseases that presently have no known cure, such the Marburg and Ebola viruses. PC3 is for pathogens that usually cause serious human, plant or animal disease and could present a risk if spread in the community or environment. HIV is considered risk group 3. Most University research laboratories are PC2 and safety features include: sterilization of all materials that have been in contact with microorganisms, restrictions on food and drink, sealed seams and smooth surfaces in the construction of the space, the wearing of sterile gloves, and restricted access. A facility working with tissues or culture from genetically modified animals, for example, would be PC2. Observance of laboratory protocols is essential to the effectiveness of physical containment.

[10] Post-occupancy evaluations of science buildings reported in George Baird, *Sustainable Buildings in Practice* (Abingdon, UK: Routledge, 2010) focus on environmental performance and users' perceptions of comfort and amenity and are representative of the prevailing approach in architecture to assessing workplaces.

[11] There are variations within these two types. At QBI and the Lowy, for example, the animal facilities are located in the basement and major auditoria and social spaces are on the top floor, whereas at Bio21 these two distinct programmatic areas are reversed in their location.

[12] Steven Shapin, *Never Pure: Historical Studies of Science as If It Was Produced by People with Bodies, Situated in Time, Space, Culture, and Society, and Struggling for Credibility and Authority*, (Baltimore: JHU Press, 2010), 57.

[13] See for example: Owen Hannaway, 'Laboratory Design and the Aim of Science: Andreas Libavius versus Tycho Brahe', *ISIS* 77,4 (1986), 584-610; Steven Shapin, ' "The Mind is Its Own Place": Science and Solitude in Seventeenth Century England', *Science in Context* 4, 1 (1990), 191-218; Steven Shapin, *A Social History of Truth: Civility and Science in Seventeenth Century England* (Chicago: University of Chicago Press, 1994); Steven Shapin and Simon Schaffer, *Leviathan and the Air Pump: Hobbes, Boyle and the Experimental Life*, (New York: Princeton University Press, 1985); Thomas Kuhn (ed.), *The Essential Tension: Selected Studies of Scientific Tradition and Change* (Chicago: University of Chicago Press, 1977).

[14] Kathryn Montgomery Hunter, 'Narrative, Literature and the Clinical Exercise of Practical Reason,' *Journal of Medicine and Philosophy*, 21, 3, 303–320; Paul Atkinson, *The Ethnographic Imagination: Textual Constructions of Reality* (Abingdon, UK: Routledge, 1990); Paul Atkinson, *Medical Talk and Medical Work* (New York: Sage, 1995); Bruno Latour, *Science in Action* (Cambridge, Mass: Harvard University Press, 1987); Joan Fujimura, 'Crafting Science: Standardized Packages, Boundary Objects, and 'Translation',' in Andrew Pickering (ed.), *Science as Practice and Culture* (Chicago: University of Chicago Press, 1992), 169-211; Andrew Pickering, *The Mangle of Practice: Time, Agency, and Science* (Chicago: University of Chicago Press, 1995).

[15] See for example: Karin Knorr-Cetina, 'The Couch, the Cathedral, and the Laboratory: On the Relationship between Experiment and Laboratory in Science', in Andrew Pickering (ed.), *Science as Practice and Culture* (Chicago: University of Chicago Press, 1992), 113—38; Sharon Traweek, *Beamtimes and Lifetimes: The World of High Energy Physicists*, (Cambridge, MA: Harvard University Press, 1988); Crosbie Smith and Jon Agar (eds.), *Making Space for Science: Territorial Themes in the Shaping of Knowledge*, (Basingstoke: Macmillan, 1998).

[16] Quoted in Michael Callon, 'The Increasing Involvement of Concerned Groups in R&D policies: What Lessons for Public Powers?' in Aldo Guena, Ammon J. Salter and W. Edward Steinmueller (eds.) *Science and Innovation: Rethinking the Rationales for Funding and Governance* (Cheltenham: Edward Elgar Publishing, 2003), 35.

[17] Thomas Kuhn, 'Mathematical versus Experimental Traditions in the Development of Physical Science', in Thomas Kuhn, *The Essential Tension: Selected Studies of Scientific Tradition and Change* (Chicago: University of Chicago Press, 1977), 31-65.

[18] Ian Hacking, 'Artificial Phenomena', *British Journal for the History of Science*, 24, (1991), 235-241.

[19] Steven Shapin, *A Social History of Truth: Civility and Science in Seventeenth Century England*, (Chicago: University of Chicago Press, 1994).

[20] Shapin, *A Social History of Truth*, 411.

[21] Shapin, *A Social History of Truth*, 410.

[22] John Wardle Architects, Excerpt from the Original Competition Entry, 2003.

[23] Steve Bradt, 'LISE Project', *Harvard University Gazette*, June 3, 2004 http://www.construction.fas.harvard.edu/fasprojects/lise/LISE.htm accessed July 2010.

[24] Nan Ni, 'A Big Lab for Small Science', *The Harvard Crimson*, November 29, 2007 http://www.thecrimson.com/article/2007/11/29/a-big-lab-for-small-science/ accessed July 2010.

[25] James S. Russell, 'Bashing Architects with Lawsuit, as MIT Did, Kills Innovation', Bloomberg, August 17, 2010, http://www.bloomberg.com/news/2010-08-17/bashing-architects-with-lawsuit-only-kills-innovation-james-s-russell.html, accessed 18 October, 2008.
[26] 'Kevin Rudd Speech Opening the Lowy Cancer Research Centre', *World News*, Friday 28 May, 2010
http://australia.to/index.php?option=com_content&view=article&id=3040:kevin-rudd-speech-opening-the-lowy-cancer-research-centre&catid=101:australian-news&Itemid=167
[27] Tony Bacic, Interview with the Author, Bio21, Melbourne, 22 October, 2008.
[28] Spencer Reiss, 'Frank Gehry's Geek Palace', *Wired*, 12, 5, May 2004, http://www.wired.com/wired/archive/12.05/mit.html, 1.
[29] Reiss, 'Frank Gehry's Geek Palace', 4
[30] Bill Hillier and Alan Penn, 'Visible Colleges: Structure and Randomness in the Place of Discovery', *Science in Context* 4, 1 (1991), 36
[31] Hillier and Penn, 'Visible Colleges', 46.
[32] Hillier and Penn, 'Visible Colleges', 47.
[33] Hillier and Penn, 'Visible Colleges', 45.
[34] Laura Himanen, Otto Auranen, Hanna-Mari Puuska and Mika Nieminen, 'Influence of Research Funding and Science Policy on University Research Performance: A Comparison of Five Countries', *Science and Public Policy*, 36, 6 (2009), 419-430.
[35] Carlo Ratti, 'Urban Texture and Space Syntax: Some Inconsistencies', *Environment and Planning B: Planning and Design* 32 (2004), 487-499.
[36] On the basis of analyzing the ground floor plans of three domestic buildings Hillier and Penn propose, for example, 'English suburban houses reproduce more social knowledge than do the French rural examples.' (Hillier and Penn, 'Visible Colleges', 33).
[37] There are a handful of other studies in the 'space and environment' field of how people use laboratory buildings, all with similarly narrow focus on measuring the frequency and location of interaction in the absence of measures of the content or quality of that interaction. These include: Margaret Serrato and Jean Wineman, 'Spatial and Communication Patterns in Research & Development Facilities' in F. de Holanda (ed.) *Proceedings of the 2nd International Space Syntax Symposium 1* (Brasilia: Instituto Central de Cijncias, 1999); Allen J. Thomas and Alan R. Fustfeld, 'Research Laboratory Architecture and the Structuring of Communications', *R&D Management* 5, 2 (1975),153-64.
[38] Mahbub Rashid and Craig Zimring, 'On Psychosocial Constructs in Office Settings: A Review of the Empirical Literature', *edra* 36 (2005), 114.
[39] Rashid and Zimring, 'On Psychosocial Constructs in Office Settings', 114.
[40] Hillier and Penn, 'Visible Colleges', 46.
[41] Alan Penn and Bill Hillier, 'The Social Potential of Buildings: Spatial Structure and the Innovative Milieu in Scientific Research laboratories,' in *Corporate Space and Architecture, Proceedings of the International Symposium*, (Lille and Paris, 30 June-3 July 1992), 41
[42] Rianne Appel-Meulenbroek, 'Knowledge Sharing in Research Buildings and About Their Design', in Daniel Koch, Lars Marcus and Jesper Steen (eds.) *Proceedings of the 7th International Space Syntax Symposium*, (Stockholm: KTH, 2009), 004:7.
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[45] Scientist, Interview with the Author, Queensland Brain Institute, Brisbane, 17 September, 2008.
[46] Scientist, Interview with the Author, Lowy Cancer Research Institute, UNSW, 11 March, 2010.
[47] Facility Manager, Interview with the Author, Lowy Cancer Research Institute, UNSW, 11 March, 2010.
[48] Junior Research Scientist, Interview with the Author, Lowy Cancer Research Institute, UNSW, 11 March, 2010.
[49] Research Scientist, Interview with the Author, Lowy Cancer Research Institute, UNSW, 11 March, 2010.
[50] Tony Bacic, Interview with the Author, Bio21, Melbourne, 22 October, 2008.
[51] Studies such as the one carried out by Mead and Metraux in the 1950s confirm that in the popular imaginary the scientist is a solitary figure, much closer to the alchemist of old, than the man of reason. The composite portrait which Mead and Metraux drew of the scientist based on

their research with high school students is this: “The scientist is a man who wears a white coat and works in a laboratory. He is elderly or middle aged and wears glasses. . . he may wear a beard. . . he is surrounded by equipment: test tubes, Bunsen burners, flasks and bottles. . . One day he may straighten up and shout: “I’ve found it! I’ve found it! . . . he has to keep dangerous secrets . . . he is always reading a book.” (Margaret Mead and Rhoda Metraux, ‘The Image of the Scientist Among High School Students: A Pilot Study, *Science*, 126, 3270 (1957), 386, 387

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[54] Peter Galison, ‘Three Laboratories: Technology and the Rest of Culture’, *Social Research* 64/3, (1997), 1127-1155.

[55] Peter Galison, *Image and Logic: A Material Culture of Microphysics*, (Chicago: Chicago University Press, 1997).

[56] Jane Gregory and Steve Miller, *Science in Public: Communication, Culture and Credibility* (New York: Plenum Press, 1998).

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Charting Australia Felix:
Re-Interpreting Cultural Landscape Creation Through a Land Health Lens

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Abstract

The landscape of the Western District of Victoria has been extensively transformed in the imagery and aspirations of United Kingdom estates but markedly modified to address the climatic and agricultural prospects of the District landscape. By assembling land, the original squatters had a clean sheet to map, comprehend, and configure an economically viable pastoral estate. 'Charting Australia Felix' seeks to ascertain the spatial and geographical logic and rationale that informed this pastoral estate formation. These settlers mastered an economically viable estate that respected climate, soil quality and ensured water security which were the essential ingredients of a quality land holding; their successful grazing and specialisation were dependent upon these attributes. Thus, they successfully comprehended the essences of the landscape in line with contemporary land care and rural land management strategies. Charting Australia Felix involves the use of the historic landscape characterisation method to map, assess and model some 5 exemplar pastoral stations in the Western District to quantify their temporal landscape characteristics, their responses to landscape evolution, and change to test and quantify what the archetypes are that may have informed these patterns. Using Murndal and Glenormiston pastoral stations as the lens of investigation, a preliminary appraisal is offered in this paper.

Introduction

The evolution of Australia Felix from the pre-contact 'wilderness' to the 'tamed' landscape of the present day has come into existence over the last one hundred and seventy years. Influenced by the philosophies and teachings of the northern European homeland of its émigrés, the Western District was shaped into a character of its own: neither the wilderness

of centuries past nor the manicured landscapes of Britain. Thus, Australia Felix has become a unique adaption of landscape to fulfil the needs of pastoralists of a particular era.

Imposed upon a foreign landscape were the nostalgic notions of home in an attempt to gain control of this novel land. Driven, in general, by commercial gain the original squatters of Australia Felix sort to recreate Britain; the heath-covered hills of Scotland or the hawthorn hedgerows of England. This research paper highlights the evolution of the Western District and how it has been altered and transformed from Major Mitchell's original preliminary surveys in the 1830s to the end of the nineteenth century, through the philosophies of home and the threats and opportunities faced within the first century of settlement.

Through an understanding of geography, geology and agricultural practises, the story of settlement of Australia Felix emerges, asking 'why?', more so than 'how?'. This paper develops a comprehensive image of the state of the District through the developments of the nineteenth century, focusing on two stations, *Murndal* and *Glenormiston* (and their surrounding landscapes), to develop an understanding of the current landscape characteristics.

Historical Overview

By the 1830's Van Diemen's Land (VDL) (Tasmania) was filling up, with good land becoming scarce, whilst New South Wales (NSW) was facing what was to be the Europeans first encounter with drought on the continent. The lust for exploration and discovery led newcomers to look to the vast expanse of the mainland to secure their needs for more land.

Contextually, early nineteenth century Great Britain was rife with unease, and Scotland was in a heavy depression creating a poor economic environment for farmers. Similarly, by the middle of the nineteenth century, Ireland faced the great potato famine resulting in much sorrow and misfortune. Nevertheless Victorian lust for 'ultimate perfectibility' led their eyes to the horizon to start afresh in new lands, in an attempt to make their fortune and return home wealthy and established men. [1]

Meanwhile in the 'Great Southern Land' of Australia, the colonies of NSW and VDL were facing issues of differing origins. NSW was facing the first drought in the new country, which made efforts to settle the interior of the colony difficult at best. In contrast, VDL was becoming full, with all accessible arable land being bought and established. In both cases the need for more land developed with sights being re-set on the relatively unsettled Port Philip Bay District as, 'since Hume and Hovell's expedition to Corio Bay in 1824, settlers had

considered moving to this country.'[2] However early applications to settle the region were dismissed by the Crown. By this stage (1820-30) the only European settlers within the region were the semi-permanent itinerant fisherman and whalers based in the south-western district between Port Fairy and Portland Bay.

In 1836 Major Mitchell set out to map the river systems of the Darling, only to be forced to abandon the mission and head towards the yet to be explored south due to the drought in NSW. Hence the founding of the Western District was afoot and the landscape was soon to be dubbed 'Australia Felix'. Mitchell's initial journey through the Western Plains highlighted the agricultural and pastoral potential of the country. When his expedition journals were published they enticed many a future squatter.

Margaret Kiddle highlights in *Men of Yesterday* the mysterious land prior to European invasion as a land embedded in history with stories of Dreaming connecting the place to it's people. As the settlers of the 'mother country' conquered the land they soon to realised the hardships of this place and that Australia Felix was not the 'promised land' they had hoped for but a land that, through intelligent management and respect, would become wool capital of Australia.[3]

Joseph Powell, in *Public Lands of Australia Felix,* suggests that, 'Australia's landscapes are partly the product of deliberate and accidental modification introduced by more than a thousand generations of prehistoric farmers and engineers'[4] Powell discusses this in reference to the trapping of fish and eels throughout Victoria, and in particular in the Western District. This shaping of the Western District prior to European contact must not be overlooked in our understanding of how Europeans learnt to survive with the foreign lands.

Context

Landscape characterisation is an important new tool for managing and facilitating change in landscape that has to date not been applied in Australia. The methodology has emerged in England as a response to the failure of traditional heritage conservation mapping, inventories and planning scheme frameworks and overlays lacking quality of resolution, flexibility and responsiveness, becoming a major landscape planning tool in the United Kingdom (UK). It has its methodological origins in the UK in the 1960s because the 1967 Conservation Area legislation introduced the concept of 'character'. The concept was also introduced unsuccessfully into Australia in the late 1980s as a response to the dearth of holistic and landscape-responsive conservation studies.

The focus of this inquiry is the Western District of Victoria. During the European invasion and colonisation in the 1830s, some 10 Indigenous countries were subsumed opportunistically by pastoral squatting activities, creating new 'countries' of 'pastoral stations' of generically 4,000-6,000 ha accordingly to legal squatting licence requirements. Thus followed periods of invasion and colonisation, maturation of the 'golden fleece' until the end of the century, and phases of land rationalisation and fleece specialisation, as evidenced by a number of socio-economic authors.[5] These developments were also captured in cultural expressions of art, literature, poetry and song.[6] The initial phases enabled self-determination of pastoral stations, sustainable grazing 'territories' and extensive land manipulation. Such grazing, planting, enclosure, and edifice construction was informed by English, Scottish, Irish, Prussian and French land development precedents, and the cultural intelligentsia's aspirations and values, laying the key attributes, patterns and characteristics of the Western District.[7] This resulted in, for example: extensive patterned, lineal stone walling[8] and shelterbelt planting footprints that marched across the landscape; an extensive collection of pastoral station homesteads and woolsheds consciously hidden from the primary travel routes yet according with prospect/refuge theory; and swathes of wide 'sheep walks' to service pastoral migrations.[9] Several multi-disciplinary compilations pertinent to the Western District have sought to quantify these human and physical geography patterns, but they have failed to provide answers or directions to conserve such patterns, nor do they explain their role in landscape change management.[10]

Landscapes are dynamic living entities. Cultural landscapes are places demonstrating the direct interaction of humans and landscapes. These interactions, directly influenced by our socio-cultural values and aspirations, result in the historical and continuing construction of landscapes possessing distinctive characteristics.

For example, the non-residential portion of the Mornington Peninsula is characterised by an assemblage of consistent patterns distinguished by rectilinear land title configurations, homestead and shelterbelt establishment, formal orchard and horticultural plantings, draped across an acidic volcanic geologically-structured tract distinguished by rolling finger-like ridgelines and incised valleys.[11] These characteristics were keenly understood in the preparation of the strategic *Statement of Planning Policy* for the Peninsula, with the associated *Conservation Plan,*[12] created as an integrated planning and conservation statutory planning instrument.[13]

The Western District has never had a similar assessment. Despite its highly fragmented local government management regime, much amalgamated in 1995, most of this cultural

landscape has evolved in the absence of any conscious strategic vision. This fragmentation has resulted in inconsistent planning deliberations that have little understanding of, and engagement with, the dynamic nature of this landscape.

Despite their stated intentions, statutory planning instruments are very constrained in their engagement with dynamic landscapes. Such instruments are more often static, have a 10-20 year operational threshold, and do not embrace the landscape characteristics and environmental attributes underpinned by the imperatives of land use and development control and guidance. Such static instruments are therefore contradictory to the very dynamic nature of the place the planners are seeking to control and 'guide'.

Heritage conservation is a new sub-planning entity on the scene. Emerging out of a 'sense of loss' to places, it evolved into an inquiry in the 1960s into the identification of celebratory architectural exemplars before a more comprehensive regime ethic prompted regional council-wide and thematic heritage assessments. The outcomes of these identifications and assessment phases were inventories and code-referenced maps that were linked to individual places pin-pointed on statutory planning scheme maps rather than assemblages of places and consistent landscape tracts as overlapping polygons. In the last 20 years the planning profession has sought to part remedy these inconsistencies and flaws resulting in the imposition of additional landscape and or heritage overlays of statutory controls written in generic languages but they still remain un-place and character responsive.

Evolution of the Squattocracy and land management – Philosophies of the nineteenth century pastoralist

> If they did not wander too far the tenant farmers here might have imagined themselves in their homeland. But in the effort not only to reproduce the manner of life they left behind, but also to produce more and ever more wool, the colonists altered the country's natural balance.[14]

Through the peaks and troughs of land management over the last 170 years, periods of feast and famine allowed the founders of the Western District to construct a sustaining methodology of management forever embedding in the landscape of their properties the image of the original squatter's successes, failures and their personal ambitions.

The eclectic nature of Victoria's settlement evolved through the original squatter runs, developing the 'squattocracy' where the pastoralists ruled the land holding significant power

throughout the first half of the nineteenth century. For instance the township of Casterton frequently floods, due to the higher land being held by pastoralists. The only land available for a settlement was the lower parts of the valley on the floodplain. This highlights the predominance of the squatter's rights and powers in the beginnings of Victoria.[15]

Philosophies behind farming practices

By the end of the eighteenth century there were significant evolutions within the thoughts and practices within agriculture and pastoral management. The Scottish Enlightenment emerged around the mid eighteenth century with key figures such as James Hutton, founder of modern geology, and David Hume, philosopher and historian, revaluating and discovering the knowledge of the day.

Hutton held the view that one could make 'philosophers of husbandmen and husbandmen of philosophers' highlighting the common thought of the late eighteenth century, that agriculture was of the arts; as Homes (Lord Kames) stated 'agriculture justly claims to be the chief of arts; it enjoys beside the signal pre-eminence of combining deep philosophy with useful practice'.[16] From an understanding of eighteenth century thoughts on agriculture, and the changes over the nineteenth century, fuelled by the industrial revolution, the transforming of agriculture from art to science can be understood.

These theories established within the eighteenth century were the roots for the evolution of the science of agriculture during the nineteenth century, and the forerunners to the Victorian man's lust for perfection, expressed through the ever-growing focus on 'landscape improvements' of crop rotation, stocking rates and the prestigious act of stockbreeding.[17]

Samuel Pratt Winter, of Irish origins, of *Murndal*, although not permanently occupying the property until 1854, continually sought to create a truly English 'park', importing and collecting seeds in his travels and developing a 'self-contained pastoral enterprise and landed estate'.[18] Described by Kiddle as 'a man born out of his century, for he seems to have been the very type of eighteenth century aristocrat,'[19] Winter was a Victorian man with eighteenth century ideals.

Niel Black of *Glenormiston*, working as Niel Black and Co, established himself in the volcanic plains of Australia Felix in 1842. Importing the philosophies of the Scottish Enlightenment, including the works of Hutton, Hume and the like, he consciously sought to expand upon their experimental farming ideals expressed in the eighteenth century. Black, in

comparison to Winter, was a more industrious man, seeking to continually improve his property through adopting advances in new technologies and theories:

> During the nineteenth century much of Western Civilisation was deeply influenced by a philosophy founded upon the premise of ultimate perfectibility of the individual man.[20]

Desired physical attributes

In the search for land to settle the original squatter had various physical requirements: primarily water security, fertile soils and if possible proximity to transportation networks.

Figure 1: The distribution of Western District squatting homesteads in 1847 (Source: Powell, *Watering the Garden State,* 43 (from a facsimile of Thomas Ham's, *Squatting* map of Victoria, *1847*).)

As indicated on the above map, produced by Powell, the establishment of squatter's homesteads followed the major river systems of Western Victoria. Powell notes that the insecure tenures, prior to the land acts of the 1860's, led the squatters to 'depend rather heavily on an ability to interpret the naturally available resources of each locality'.[21]

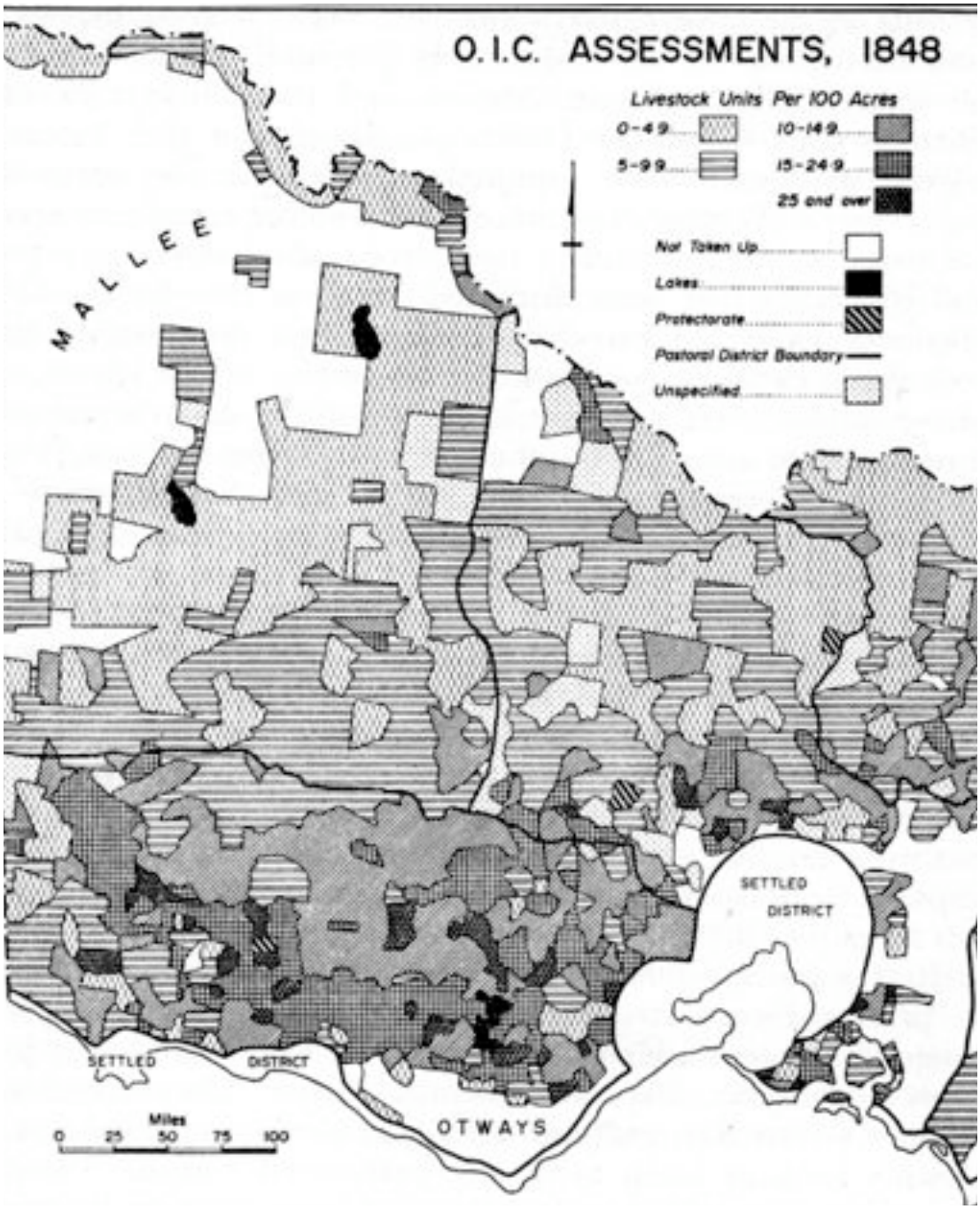

Figure 2: Livestock units per 100 Acres
– regional assessments under the order in council 1848
(Source: Powell, *Public Lands of Australia Felix,29.)*

Due to the variability of rainfall throughout the Western District, the livestock per acreage was directly proportionate to the amount of rain, hence the fertility of the land. If one follows the general sizing of stations, the pattern of settlement becomes clear. Areas in which these attributes exist are, in general, more densely settled and desirable. These simplified points are the key to the number of head a squatter could run per acre. Within the Western District settlement was on the basalt volcanic plains, the Glenelg and Wannon river basins, and locations close to the ports of Portland and Geelong.

Opportunities & Threats

The Western District cannot be look at and analysed with integrity through the viewpoint of any one grazier. The success and evolution of the District over the past 170 years is the combination of the personal effort and ambition of each settler and their experimentation with land and stock management.

Through the analysis of individual stations only a small pocket of information can be ascertained - one viewpoint on the complexities of the District and its fragile landscape. The collective success of the District is outlined by the eradication of sheep scab in the nineteenth century. From the arrival of the First Fleet in 1788 scab had tormented graziers, with little general success in eradication. Although, with continual trial and error farmers developed treatment for scab, it was not until the intervention of Crown bodies mandating the means of treatment that the disease was dealt with.

Three main diseases haunted the earlier settlers of Victoria: scab, foot-rot and catarrh. Scab was by far the most troublesome, leading to the 1855 'scab act' which sought to control the disease. The continual threats of disease in the nineteenth century were not assisted by the unfamiliar terrain and flora, on which the graziers relied.

The vastly different vegetation and climatic conditions found in the Australia Felix from that of the 'home land', brought many challenges in learning how to adapt to the new land:

> An open grassy country, smooth as a carpet, meadows broad and wither green as an emerald, or of a rich golden colour, from the abundance, as we soon afterward found, of a little ranunculus-like flower. Down into that delightful vale, our vehicles trundled over a gentle slope, the earth being covered with a thick matted turf, apparently superior to anything of a kind previously seen. That extensive valley was enlivened by a winding stream, the waters of which glittered through trees fringing each bank… all contained excellent soil and grass, surpassing in quality any I had seen in the present colony of New South Wales.[22]

which was an eloquent aspirational description that Mitchell penned of the Wannon Valley, near *Murndal*.

A somewhat naive ignorance surrounded the original squatter population of Australia Felix, partly due to the first description by Major Mitchell, and accentuated largely by their lack of knowledge of the Australian landscape and country. The nostalgia of, for the most part Scottish, settlers for rolling naked hills punctuated by all but a few trees was engraved into their mind-set of farming practices. From this image it is easy to forgive the desire for the 'old land' they imposed onto the Australian landscape. However the open pastures did not live up to expectations and the clearing and deforestation of the District led to a complete change within the landscape, impacting severely on the flora, fauna and therefore the water quality.

With imagery of fertile pastures depicted by the accounts of Major Mitchell in 1837, early squatters were quickly disheartened by the conditions and the quality of the flora. Major Mitchell and his party had counted 37 different native grasses predicted to have the ability to carry more stock than imported grasses. However this was proved incorrect, as early settler George Robertson, who had occupied the pastoral run *Warrock* on Wando River, pointed out; there was no alternative but to sow inferior English grasses because the native ones could not survive sheep grazing:[23]

> The long deep-rooted grasses that held our strong clay hill together have died out; the ground is now exposed to the sun, and it has cracked in all directions, and the clay hills are slipping in all directions; also the sides of precipitous creeks – long slips taking trees and all with them … now that the only soil is getting trodden hard with stock, springs of salt water are bursting out in every hollow or watercourse... for pastoral purpose the lands here are getting of less value every day … and will carry far less sheep and far less cattle.'[24]

Hedditch also highlights the severe changes in the quality of the soil over the early years of settlement in the Wannon and Glenelg river Basins; 'before European occupation the topsoil was turf – a soft spongy, fragile and tender, sweet-smelling skin'.[25] Soon the flora unfamiliar to the hoofed animals was trodden down and died, the clay soils cracked and the ground became barren.

John Fenton in his book *The Untrained Environmentalist,* discusses the fragile nature of the Australian land, explaining how the farmer and the land must have a harmonious relationship, and how this is not the common practice in conventional farming methods:

> For the past 200-odd years we Australians have viewed the land as a commodity to be exploited. This attitude, I believe, has been primarily responsible for the degradation of the Australian landscape that is evident everywhere. I am convinced that we must fundamentally change the way we manage it.'[26]

Landscape Characteristics

The architecture of the Australian Felix landscape highlights fundamentally the socio-political concerns of the time. Private companies and individuals were the pioneers of the land; their endeavours for survival punctuate the landscape.

Niel Black and Co announced their ownership of the land with a neo-Classical homestead in the later nineteenth century, located at the top of a small rise overlooking the drained fertile land of *Glenormiston*. Black surrounded his property with random basalt rubblestone walls, asserting his permanence within the landscape: a legacy still encircling Glenormiston College today, and necessitating continual repairs and attempts at walling expansion, repeating the timeless means of enclosure.

Winter similarly 'owned' the landscape residing within the valley, as *Murndal* announced its place within the landscape. Although adapting an Arts and Crafts and Tudor styling, the homestead remains slightly more humble accompanied by the Picturesque nature of Winter's visions of the British parkland estate.

In both properties 'time depth' exists in both architecture and landscape, and the Victorian ethos of swallowing the earlier building allows for the story of the squatters to be read within the fabric of the building. Similarly, as the garden and trees were engulfed by time, and changing aesthetic ideals, the original thought process is preserved within and built upon, creating the historical characteristics of today. By approximating British historical landscape characteristics, the story of the properties and their owners can be ascertained. Within each station significant points of surviving heritage exist as points in time, describing the evolution of the District.

Embedded within the physical history of the Western District is the vision of each and every squatter who originally cleared the land creating an everlasting impression. Their desire to recapture the 'old country' was critical in the development of both the workings on the land and the aesthetic changes to the environment.

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Murndal (or Spring Valley)

Figure 3: *Murndal* Run configuration in 1851.
(Source: Map showing the pastoral holdings of the Port Phillip District 1835-51, now Victoria [cartographic material] / compiled by AS Kenyon, Historical Society of Victoria, 1932.)

Overview:

Area:	20,000 acres (8,094 ha)
Stock:	8 000 sheep
Location:	Wannon River 5 miles (8 km) east of Merino
Established:	1837 Samuel Pratt Winter[27]

Following the publication of Major Mitchell's exhibition throughout the Western District, Samuel Pratt Winter, then residing in VDL, became intrigued and ventured to the new-found country with its great promise of fertile pastures. Accompanied by Stephen Henty, the original pastoralist of Portland Bay, Winter selected a run within the 'Valley of the Wannon' River in 1837:

> The physical characteristics of this part of Australia Felix consist of gently rounded hills with virtually treeless slopes and rich grassland. The repetitive undulation of the landform is broken by flood plains and creek beds'[28]

Prior to the settlement of the area this landscape was an open savannah with scattered trees and lush native grasses perfect for grazing sheep. From this perspective, Winter sought to create a British parkland estate. With the sparsely treed landscape, Winter had a blank canvas to sculpt a vision of home. Continually collecting plants and trees over the next 40 years, Winter created a unique and outstanding property within Australia Felix.

Figure 4: *Murndal* Run and adjacent allotments in 1866
(Source: Normanby [cartographic material] / Crown Lands Office;
lithographed by G.A.W. draughtsman, 1866.)

Two key components led to the establishment of *Murndal*; first, the frontage on the Wannon River provided fertile soil, and second, the existence of a spring on the property from which *Murndal* derives its name.

In 1853 Winter secured freehold of the home lot through the colonial Pre-Emptive Right legislation. This marked the point when Winter first began to develop the property into the envisaged estate. Although securing the Pre-Emptive Right in 1853, the remainder of the 8,094 ha was not surveyed until 1858, whereupon Winter successfully purchased 4,856 ha. Winter's procurement of land differed from the common practice of purchasing key paddocks of value: in contrast, he concentrated upon obtaining the lots closest to the homestead[29]

> Even at this early date Winter place a high value on the visual quality of his run and set about implementing a land buying policy that gave first priority to the acquisition of land closest to the home block.[30]

Figure 6: Thomas Clark, *The Early Days of Murndal, 1860.*
(Source: private collection)

From 1853 onwards Winter significantly altered the landscape at *Murndal*, transforming it from early utilitarian gardens (1845) to a elegant 'British' estate.

As the property evolved and developed Pouston has highlighted the use of hedges at *Murndal* as an important landscape characteristic; hedges of boxthorn, hawthorn and osage orange were planted in the decades after securing freehold of the land.[31] These hedges, and the use of timber fences, developed stock management on the property. However neither remain today, with only a few remaining plants suggesting the use of living fences in the mid-nineteenth century before the availability of wire fencing superseded these alternatives.

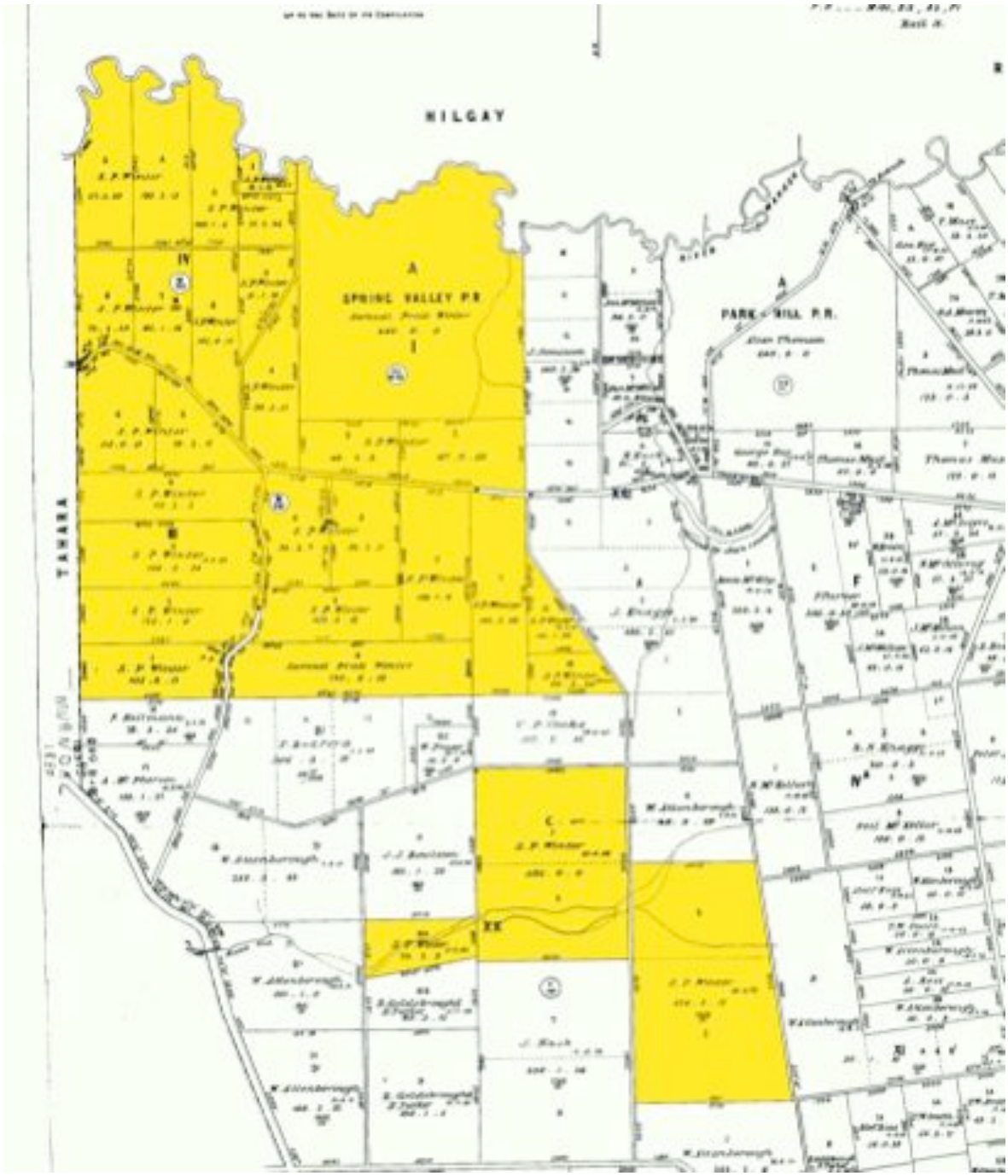

Figure 7: Parish of Murndal, 1880
(Source: Murndal, County of Normanby [cartographic material] / photo-lithographed at the Department of Lands and Survey Melbourne, by John Noone, 1866.) Note: yellow marks the freehold lands of Samuel Winter.

According to Bunce,

> The suitableness of this (geometric) style for a country in a wild state must, we think, be obvious to every unprejudiced mind, from the contrast which its clearly defined lines and forms afford to the irregularity of the surrounding

> scenery and from the obvious expression of art and refinement which they produce.[32]

During the 1860's extensive plantations of imported trees were implemented. Winter travelled extensively 'continually sending seeds to Murndal and trees produced from these packages included a cork tree, cypresses, oaks and other exotic flora.'[33] Through the enthusiasm of Winter the landscape of *Murndal* expressed a sense of nostalgia for the Old World. The change in thinking and wealth is evident in both the eclectic growth of the *Murndal* homestead and the ever-changing landscape; the property symbolises the evolution of Australia Felix through the first century of European settlement.

The reflection of the relationship between man and nature presents itself through the planting of trees on an estate, whether through linear arrangements or the following of contours. The the use of a sole specimen tree or the clustering of trees to resemble nature, makes evident the relationship Winter had with the land and how, for a time, he envisaged it. The evolution of *Murndal* estate through the nineteenth century is punctuated by the type of planting, from the utilitarian beginnings of vegetable patches to the monarchical rows of oaks symbolising the creation of the landscape, which highlights the philosophical thoughts of the time and is preserved through the remaining trees.

Conclusion

Over the last 170 years of European settlement, the landscape of 'Australia Felix' has been altered significantly, from the pre-contact wilderness to a 'tamed' landscape of today. Through the ebb and flow of settlement and social change, the landscape has evolved into a patchwork of the ambitions and ideals from the nineteenth century to modern day. From the founding of the District in 1836 colonial individuals who settled the land made an everlasting imprint upon it, establishing the 'time-depth' of their properties and adding to the character of the surrounding District. The agricultural philosophies of the United Kingdom were imported and imposed upon this foreign landscape called the Western District, creating the character of this landscape; but the contrast of these two worlds was too great to copy and paste the knowledge from one to another, resulting in the failure of varying practices. Shifting from failure to adaptation, imported farming methodologies and practices developed with the land, climate and economic conditions of the District. Winter and Black, although holding significant roles within their respective landscapes, they only played a small role within the overarching character formation of the Western District. However, through an understanding of their individual actions the evolution of the District can be read, from the initial importation of British concepts, to the merging of the new and old worlds. Throughout the nineteenth

century Victorian settlers' successes and failures of cultivation and grazing formed the foundations for change in the following century. In doing so, they established the current physical aesthetic; a dichotomy between the philosophies of the United Kingdom, and the reality of the fragile landscape.

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The Framing of Space: Louis Kahn and the Trenton Bath House

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Abstract

The starting point for an interpretation of Louis Kahn's Bath House (Trenton, 1954-59) is his comment about constructing a building with solid stones in the past and hollow ones in the present. This will prompt speculation that traditional columns, specifically those belonging to a historical monument with a cross-in-square plan, were reconfigured as the hollow versions of the Bath House. The modern building's columns assume serving roles, including the support of roofs to create the frames of the four linked rooms. This overall composition will be shown to underpin each of the two changing rooms, where the hierarchy of serving and served pertains to human activities and their settings. Conceived as serving elements, the hollow columns contribute to the privacy required by bathers within the more important served space. Kahn's solution is studied in terms of the columns, roof and walls, which interlock to generate peripheral openings. He thereby ensured that the central setting is enclosed and enriched due to sunlight falling onto the concrete block walls. By respecting a universal order discerned in traditional monuments and the specific requirements of the occupants within the Bath House, a changing room's hollow columns assist in making a served space, which is a vessel of light. The building demonstrated for the first time the significance to Kahn of a room.

Introduction

During the first half of the 1950s, Kahn illustrated and designed hollow columns, which could assist in the making of a room. Analysis of this will begin with his sketched Doric order of Corinth's Temple of Apollo, made when travelling in Europe during the winter of 1950-51, as well as its influence on the open column for stairs within the Yale Art Gallery (New Haven, 1951-53). The travel sketch and modern building lead to a detailed analysis

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of the Bath House for the Jewish Community Center (Trenton, New Jersey, 1954-59), where hollow columns are integral to the overall plan and the articulation of its rooms.

The dedication of Corinth's temple to Apollo, the God of the sun, was respected when Kahn sketched the Doric columns as though composed of light. The ancient monument was constructed in a local limestone and finished with stucco.[1] As the surface eroded over time, he was impressed by the fall of daylight on textured stone forms. Yet for Kahn, light is on the surface and within the structural mass of the columns. He celebrated this quality when completing two polychromatic drawings of the building.[2] In one of these, the temple is sketched from a considerable distance, with emphasis placed on the luminous landscape, which includes the Gulf of Corinth in the background. The other representation is more compelling, however, because his attention has shifted to the building, along with its absorption of the surrounding's light.

In Kahn's closer study of the temple, the Doric order stands out against a yellow sky. The charcoal lines depicting the arises of the columns barely contain light. This vital and ever-changing entity is rendered with pastels, which vary from column to column in colour, saturation, texture and degree of opacity or luminosity. He thereby ensured that each of these structural elements is unique. The corner column is extraordinary because it is almost entirely ethereal: its shifting colours - primarily red, ochre and brown - are softened and made translucent by the use of white. The anthropomorphism of the constructed column is reiterated in the illustrated open version, which is a human-scaled vessel of light. While this image is a precursor of his late esoteric theory of light, which is 'spent' in making all things, it initially informed projects with services in hollow columns.[3]

The Yale Art Gallery

A column of light figured in Kahn's design work during the early 1950s, when he sketched the ancient temple and invoked its Doric order in the Yale Art Gallery's cylinder for stairs.[4] His concrete hollow column rises through the floors of the building, to continue above the main roof and acquire a clerestory. Kahn was concerned with daylight that, passing through the high opening, is absorbed or reflected by the column's triangular ceiling and curved walls. For him, light's dynamic effects could be illustrated within the Greek monument's Doric order, as well as resonate in the open core of the constructed column in the Yale Art Gallery.

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A relationship between traditional and contemporary structural forms also enriched the design for the galleries, which are located on all levels of the university building. Kahn transformed the solid stone vaults of a medieval interior into the hollow concrete ceiling of each gallery. The solidity and logic of a Gothic ribbed vault remains intact in the dignified modern ceiling, even though the innovative triangulated structure generates voids. These harbour services, including electrical lights. Thus, while the historical source contributed to the decorous concrete structural form, present-day mundane concerns led to its openings. A visitor's appreciation of a painting or sculpture is enhanced by the monumental and functional attributes of a gallery, which ultimately depend on the ceiling.

The Temple of Apollo and medieval interiors enriched the Yale building, which was complete when a gallery's ceiling was acknowledged in Kahn's 1953 comment that 'In Gothic times, architects built in solid stones. Now we build with hollow stones'.[5] Yet the Greek monument was also relevant to the salient theme of a relationship between the past and present. In fact, the drawing of Corinth's temple was Kahn's compelling early statement on the topic: it suggests that the blocks of limestone are solid and, at the same time, modern because open. Kahn's interpretation of the temple's Doric order therefore contributed to his statement about the building at Yale, where architects constructed with solid stones in the past, but could now deploy hollow ones. In the early 1950s, a regard for historical and contemporary conceptions of architecture informed the illustrated Temple of Apollo and the design for the Yale Art Gallery. The travel sketch remained vital to ensuing work, in which hollow columns can add to the compositional logic, human scale and illumination of a building.

The Bath House

Kahn's Temple of Apollo drawing and Yale Art Gallery were followed in 1955 by the design and construction of the Trenton Bath House, where the association between past and present stones led to hollow columns that stand at the corners of four rooms. The Bath House was conceived as one of a small number of buildings for the Jewish Community Center, located on a suburban site near Trenton.[6] Although dismayed because the ensemble's main edifice was not constructed, he valued the Bath House for setting out an alternative to the free plan and universal space. Kahn devised a compositional order that underlies four interlocked tectonic frames, each comprising

hollow columns and a roof. Walls could be added, to create the two private and sheltered changing rooms.

Analysis of the Bath House will be based on three of Kahn's ideas, each involving a pair of related terms. The first is the link between traditional solid stones and their modern hollow counterparts, which he discussed with reference to the Yale Art Gallery. In the Bath House, the structural piers have a square plan but can be understood in his terms as hollow columns. Kahn's second concept pertains to the 'serving' and 'served' spaces of the Bath House. The third idea concerns interplay between light and built form. Although discussed late in his career, it was pertinent to early schemes, including the Bath House, where the sun's light is revealed by the inner walls of a changing room.

The Bath House has a Greek-cross plan, which is respected in the placement of four inner hollow columns and four pairs of outer ones. The centre of the scheme is conceived as an atrium; while the four arms are rooms, each articulated by a frame comprising concrete block columns, as well as a truncated timber pyramidal roof with a small unglazed square oculus. While bi-axial symmetry is respected in the disposition of the twelve hollow columns and their canopies, a bather weaves through rooms, distinguished by the presence or lack of concrete block walls. He or she is aware of a main axis that begins in a space with three walls. The axis continues through the atrium to a room without walls. This is the building's final setting, because a person leaves it to rise up steps and approach the outdoor swimming pool. The cross axis passes through the atrium to link the flanking changing rooms for women and men. In each of these almost identical settings, the columns support a roof that apparently hovers above four walls. A bather changes clothing within a suitably enclosed and illuminated space. The overall organisation of the Bath House is critical to the design of its privileged setting, which is a changing room.

This interior can be deemed an embryonic work by Kahn, because sunlight entering the space only accentuates the prosaic nature of its concrete block walls. After the completion of the Bath House, he sought ways to transform the appearance of a room's structure, with its austere forms apparently absorbing light, while their surfaces may shimmer. Yet the Bath House demands consideration as a stimulus for his mature projects, where an interior assumes an extraordinary character.

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History: solid and hollow columns

The Temple of Apollo and Christian churches have solid columns, which Kahn transformed into the hollow ones of the Bath House. The sketched Doric order of Corinth's temple led to the open columns of his mature buildings, with significant early examples constructed for Yale University and the Jewish Community Center. Yet this Greek monument was not relevant to the overall disposition of the columns in the Bath House. His composition was indebted to Frank Lloyd Wright's early twentieth century projects, such as the Larkin Building, where columns set out a rigorous plan.[7] Kahn also drew on pre-modern buildings. Speculation on these is prompted by his account of Gothic and contemporary architects, who construct their buildings in solid and hollow stones. When studying a Gothic cathedral or church with its typical Latin cross plan, Kahn had to focus exclusively on the columns articulating the crossing and each adjacent bay of the nave, choir and transepts. A more compelling source would therefore be an interior whose columns articulate a cross-in-square plan. In a standard Byzantine church, the four inner columns are linked to similarly-sized pairs of outer ones.[8] This familiar historical scheme could inspire the organisation of hollow columns in the Bath House.

The solid columns of an historical building with a Greek cross-plan, such as a Byzantine church, define two basic kinds of space. For the first of these, the columns support arches, vaults and domes that mould sizeable volumes, including the one associated with the centre of the plan, as well as those in the arms of the cross-axes. The second spatial type pertains to layers: these take their width from the columns themselves, while the length is that of the intercolumniations. The columns and their accompanying spaces are tightly woven together. Kahn reiterated this arrangement for the Bath House; but with the solid historical columns becoming open piers, which stand at the corners of major spaces and bracket thin ones. With the Greek cross-plan of a past monument invoked in his building, its columns generate a scheme distinguished by a network of alternating wide and narrow spaces.

History was respected in the design for the Bath House, where hollow columns unify the whole scheme, while adding to the structure of the rooms. The building's central atrium is distinguished by a circular garden that is open to the sky. The plan of this setting respects the classical definition of a human being, whose form is perfect because it can be inscribed within a square and circle. Kahn repeated the ideal geometry of the court in the

four adjacent rooms. The cohesion of his scheme hinges on the inner columns, which belong to both the atrium and the outer roofed spaces. Each covered volume has four columns, two of which are of the shared kind. Located at the corners of the space, the hollow columns take on a structural role, which involves their own small concrete roofs. The centres of these caps support blocks and, resting on them, the ends of beams that hold up the pyramidal roof. Kahn's stout concrete block columns and their light timber canopy constitute the tectonic frame of a delimited space. With past monuments underscoring the plan and hollow columns of the Bath House, he devised a fundamental unit of shelter, namely a room.

Serving and served spaces

Kahn reflected on the nature of a room in 1961, to stress that with the design for the Bath House 'I discovered that certain spaces are very unimportant and some spaces are the real *raison d'être* for doing what you're doing. But the small spaces were contributing to the strength of the larger spaces. They were serving them'.[9] He based this on the concept of solid and hollow stones, which involves historical columns or roofs that are reconstituted as open and therefore capable of assuming a modern serving role. The Yale Art Gallery's hollow stones were deployed to construct the concrete column and ceilings, which harbour spaces for services. In the Bath House, modern stones create open columns that serve each room by standing at its corners and supporting the canopy. The relationship between the four hollow columns and their larger setting was invoked in his discussion of serving and served spaces.

Yet for Kahn, the character of a room in the Bath House derives from the hollow columns and roof, as well as the walls. Analysis of his design strategy must begin with the order pertaining to the entire building. Attention can then shift to the different framed spaces, specifically the serving columns that are critical to the illumination of a changing room.

People can enter the Bath House through two doors, which are simply cut into the side walls of the initial space on the main axis. Like the building's other three rooms, it is served by a structural frame that comprises four hollow columns, whose centres are linked to the corners of the raised roof. This room, however, is unique because distinguished by a connection between the inner surfaces of the columns and the three walls. The depth of the hollow columns is thereby concealed from view, while the walls run in front of the

roof's edge. The slots between the walls and canopy admit a small amount of light, which is sufficient for an interior whose fourth side is open to the sun-lit atrium.

Bathers do not pause in this space, as they proceed to the atrium's garden and the changing rooms. Each of these roofed rooms has a front wall bracketed by two hollow columns that are vestibules. Individuals pass through the small volumes to arrive in the main space of a changing room, which is secluded because the structural frame co-exists with four walls.

Kahn's regard for the occupants of this room informed a relationship between its serving and served spaces. Human requirements and functions are associated with the changing room's four hollow columns, each measuring eight by eight feet (2.44 by 2.44 metres) and constructed with only three masonry walls. Privacy, for instance, is achieved by blocking views at the two entrances. This depends on the open sides of the two columnar vestibules facing each other, to slightly overlap the intervening long wall. While lines of sight from the atrium are thwarted, a person moves through the confined space of a column. He or she can also enter the other two hollow columns of the changing room, which contain showers and toilets. For Kahn, the functions associated with the four columns are prosaic, because they ensure the viability of the relatively important activity, in which a bather prepares for swimming by changing clothing. The theoretical categories of serving and served were therefore germane to human needs or activities, as well as the corner hollow columns and the larger setting of a changing room.

Light and structure

Kahn's 1961 account of the hierarchy pertaining to distinct spaces was followed a decade later by *The Room*, which referred to another innovative quality of the Bath House. The didactic drawing, which was conceived to sum-up his theory of architecture, combines an image of an ideal interior with written statements. One section of these implicated the poet Wallace Stevens in a discussion of interplay between sunlight and built form. This constitutes the third idea informing the Bath House, where a changing room's hollow columns lack light, yet serve their illuminated main setting.

The Room's text includes a question based on Kahn's long-standing regard for Stevens: 'A great American Poet once asked The Architect 'What slice of the Sun does your

building have. What light enters your Room,' as if to say the sun never knew how great it is until it struck the side of a building'.[10] While attributed to Stevens, the imagined interview was scripted by Kahn; to acknowledge the poet's influence on travel sketches and projects from the past twenty years, including the Bath House. This robust building and its outdoor swimming pool are used when the summer sun is high in the sky. Kahn took this into consideration in the design of a changing room: it is distinguished by a roof with the small oculus in the centre and four long openings at the perimeter, three of which are wide enough for sunlight, as well as the breezes and rain, to pass through. Stevens' poetry encouraged Kahn to welcome such light into the changing room, where it can fall onto the concrete block walls. Although the solid material is not rendered luminous, his design is worthy of scrutiny, because the association of light and structure emerged as a topic of consequence to the making of a room.

Kahn's overall scheme for the Bath House is respected in the detailed articulation of a changing room and its openings for light. The logic of his composition is predicated on the Greek-cross plan's narrow intervals, which intersect to determine the location of the twelve hollow columns, as well as a changing room's roof and walls. The four columns of this interior support a canopy that seems to float slightly above the walls. Unlike the initial interior, however, a changing room is enclosed on all sides, with the peripheral voids therefore essential sources of illumination.

These apertures are created in two ways. The first depends on the room's pair of columnar vestibules, whose centres govern the placement of the principle wall. As this is allied to the roof directly above, the slot is thin and allows only a sliver of light to pass into the interior. The second and more important kind of opening stems from the three additional walls, which are aligned with the outer surfaces of the serving columns. By running parallel to the edge of the roof but just beyond its limits, the inner sides of these walls are washed by daylight. The tartan grid of the building's plan is therefore germane to a changing room, which comprises a tectonic frame, with three of the accompanying walls strategically positioned in response to the problem of illumination. For the first time in Kahn's career, a served space is delimited so that it may be filled with light. This achievement was recalled in *The Room*, where Stevens' poetry is honoured as an inspiration for realising that the sun beauty is disclosed when its rays strike the sides of an interior.

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Having changed clothing in one of the two protected rooms of the Bath House, a bather walks out into the light of the atrium and then returns to the first covered space. He or she leaves bags with clothes in this setting, which is therefore called the 'basket' room. Turning around, this person moves to the last room, where shelter from the sun is provided, although there are no walls. Because the four serving columns and roof are plainly evident, a person is aware that this frame is the same as the ones deployed in the changing and basket rooms. Kahn's open setting therefore prompts an understanding of the structural rigour of the entire Bath House. When leaving this room, the bather ascends the small flight of stairs to the surrounding landscape with the pool.

Conclusion

My starting point for analysing the Bath House was a relationship between the past and present, which underpinned Kahn's discussion of solid and hollow stones. This prompted the supposition that traditional columns, such as those belonging to an historical monument with a Greek-cross plan, were transformed into the modern open versions of the Bath House. The hollow columns of his building assume serving roles, including the support of roofs, to create frames for the four linked rooms. The resulting compositional logic was shown to inform a changing room, where the hierarchy of serving and served pertains to human activities and their settings. Conceived as serving elements, the hollow columns help establish the privacy required by bathers within the more important served volume. The changing room was then viewed in terms of the columns, roof and walls, which interlock to generate the peripheral openings. Kahn thereby ensured that the main space is both enclosed and enriched with sunlight playing across the walls. By respecting a universal order discerned in traditional monuments, as well as the specific requirements of the occupants within the Bath House, his hollow columns assist in making the luminous served space of a changing room.

Kahn's work during the early 1950s was founded on a regard for traditional solid stones, which could be imagined as hollow and of consequence to modern architecture. He perceived light within the Doric order of Corinth's temple and then designed the top-lit cylinder for stairs in the Yale Art Gallery. While the Bath House was also significant, its hollow stones construct open columns that no longer contain a vibrant light. A novel compositional strategy was implemented instead, where hollow columns and larger

spaces are brought together as a tightly-knit whole. In a changing room of the building, the corner columns therefore add to their served setting, whose openings and walls generate a distinctive quality of light. Kahn's illustrated temple and the designs for the Yale Art Gallery and Bath House demonstrate that hollow columns may be luminous or, if this is not the case, add to the making of a substantial interior that is suffused with daylight.

Endnotes

[1] The Temple of Apollo is discussed in A. W. Lawrence, *Greek Architecture* (Harmondsworth: Penguin, 1983), 143-146.
[2] For Kahn's two drawings of the temple, see E. J. Johnson and Michael J. Lewis, *Drawn from the source. The travel sketches of Louis I. Kahn* (Cambridge, Mass and London: MIT Press, 1996), 31, 85, figs. 9, 73; and Jay Hochstim, *The paintings and sketches of Louis Kahn* (New York: Rizzoli, 1991), 280, 281, pls. 382, 384.
[3] For an introduction to Kahn's theory of materials and light, see David Brownlee and David De Long, *Louis I Kahn: in the Realm of Architecture* (New York: Rizzoli, 1991), 126-143.
[4] For the Yale building, see Patricia Loud, 'Yale University Art Gallery', in Brownlee and De Long, *Louis I Kahn,* 314-317; and Patricia Loud, *The Art Museums of Louis I. Kahn* (Duke University Press: Durham and London, 1989), 52-99.
[5] For the account of Gothic and modern architects, see Louis I. Kahn, 'Toward a Plan for Midtown Philadelphia', *Perspecta*, 2 (1953), 23; and the commentary in Brownlee and De Long, *Louis I Kahn,* 56.
[6] For recent studies of the Bath House, see Steven Fleming, 'Orthodox church plans and Louis Kahn's idiom', in *Cultural Crossroads: Proceedings of the 26th International SAHANZ Conference* (Auckland: New Zealand, 2009); and Robert McCarter, *Louis I Kahn* (London and New York: Phaidon, 2005).
[7] The influence of Wright on Kahn's Bath House is addressed in McCarter, *Louis I Kahn.*
[8] These latter columns, however, are often embedded in the walls of the interior.
[9] See Kahn, 'Interview with John Peter, Philadelphia, 1961, in *The Oral History of Modern Architecture: Interviews with the Greatest Architects of the Twentieth Century* (New York: Harry Abrams, 1994), 214. Quoted in Sarah Williams Goldhagen, *Louis Kahn's Situated Modernism* (New Haven and London: Yale University Press: 2001), 107.
[10] The statement is included on Kahn's 1971 drawing of *The Room*.

After Austerica

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Abstract

This paper considers the Gold Coast as a subject of architectural historiography, raising a series of questions to be addressed in subsequent studies. A product of urban development largely unfettered from the end of the 1950s until the 1980s by either strict regulatory control, a sense of history, or questions of architectural merit, the Gold Coast poses the curious problem of a city that has prospered while consistently demonstrating the redundancy of architectural ideas and the inefficacy of architectural agency on the city fabric. The epithet of 'city' is indeed worn uncomfortably across a conurbation organized as nodes and networks in the absence of an historical centre, but it serves this paper as an index of an historical discussion within architecture on the city as a field of architectural action that has recently seen a return. What is left, this paper asks, and what is relevant to the Gold Coast, of the theorisation of the city, within architecture, to be found in Reyner Banham's Los Angeles *(1971), Robert Venturi, Denise Scott Brown and Steven Izenour's* Learning from Las Vegas *(1972), and the 1960s discussions between Aldo Rossi and Manfredo Tafuri provoking Rem Koolhaas's response in* Delirious New York *(1978), in which the question of architecture's absence describes the scope of opportunities for contemporary architecture. As reference to Pier Vittorio Aureli's more recent* Possibility of an Absolute Architecture *(2011) demonstrates, this is not (only) a matter of nostalgia for a certain moment in the history of theory. It also returns us to the question of how to balance historical knowledge of architectural works with an historical assessment of the status of architectural ideas and actions within the city as a setting for architectural thinking and practice that is, or can be, at stake in those same ideas and actions.*

In *The Australian Ugliness* (1960), Robin Boyd captures an enduring image of the Gold Coast in the portrayal he offers of Surfers Paradise, its most urbanised moment. Surfers is the Coast's centre-by-proxy, its most concentrated, visible node along the ocean edge. Boyd found there an extreme demonstration of what he cast as an Australian 'featurism', where 'building disappears beneath the combined burden of a thousand ornamental alphabets,

coloured drawings and cut-outs'. As a general tendency that 'oozes out evenly, flatly, to the farthest places where Australians live', featurism was indebted to what one could find in the 'fashionable centres of Sydney, Surfers and St. Kilda Road'.[1] Boyd's humorous and penetrating account of Surfers Paradise—that 'fibro-cement paradise under a rainbow of plastic paint'—is nothing if not evocative in its moralism. Recounting lights and sand, improbable fashion and the 'chocolate brown' limbs it insistently reveals, he observes: 'You might call Surfers a sort of cream, or thick skin, skimmed off the top of Australia's mid-century boom. It is rowdy, good-natured, flamboyant, crime-free, healthy, and frankly and happily Austerican.'[2]

Australia's ugliness may be skin deep, as Boyd observes at the outset of his book, but Surfers is all skin. It serves as the ad hoc capital of an Austerica coined to make sense of those moments of Australia's 'entirely aesthetic' uptake of popular American culture, manifest most conspicuously in the urban signscape and the architecture of consumption. Clearly much has changed to the fabric and tone of Surfers Paradise in the intervening half-century, but the imagery Boyd invoked remains firmly wed to a popular, nostalgic image that the Gold Coast more broadly now openly cultivates for itself. His reservations notwithstanding, Boyd is relatively generous with his subject, looking to Surfers to understand what it revealed of Australian architecture and society. His generosity is not matched by the comments made by Sydney-sider Neville Gruzman a generation later, speaking of the very different city that had been realised in the interim. On the eve of the first Gold Coast regional awards of what was then the Royal Australian Institute of Architects (RAIA/AIA) Gruzman targeted the consequences of a boom of largely unguided, developer-driven building along the beach strip. For him, 'the Gold Coast is a disaster which should be bull-dozed into the surf.'[3]

Charted during the 1820s and settled steadily since the 1840s as a series of holiday, timber and farming settlements the Gold Coast (formerly South Coast) was proclaimed a city in Queensland's centenary year of 1959.[4] In that year the RAIA's journal *Architecture in Australia* dedicated a special issue to the new city, in which the editors and contributing authors already identified the problematic consequences of rapid urbanisation and comparatively laissez-faire development, even in its nascence. Articles and a series of four editorials treated matters of town planning, canal estates, suburban subdivision, architectural types related to tourism—including a proposal for an 'ideal' resort by Milo Dunphy—and the problems of regional development.[5] Peter Newell offered a potted history of Gold Coast architecture, and the journal surveyed a handful of recent and projected architectural works, including the Chevron Hotel (David Bell, from 1957) and the Torbreck Home Units (Job & Froud, unbuilt), both for Surfers Paradise.[6] Although wide-ranging within its modest scope,

the issue did not attend to what we now regard as the two landmark modernist buildings of the Gold Coast's thriving tourism industry. Karl Langer's 'luxury' Lennon's Hotel in Broadbeach was opened in December 1955, but would in 1987 experience the sting of obsolescence in consequence of retail land development. The ten-storeyed Kinkabool opened at the end of that decade in Surfers Paradise on the site of the Flamingo nightclub to the design of the freshly reorganised practice of Lund, Hutton and Newell as the city's first high-rise hotel. They nonetheless index the new city's aspiration to secure the role of Australia's playground.

Between the criticism penned for the pages of *Architecture and Australia*, the work finding its way from the drawing board to the construction site, and the account offered by Boyd, the problems and possibilities of the Gold Coast as a rapidly growing city had already been clearly described by the end of the 1950s. 'It may be too late for the Gold Coast,' wrote the editor of *Architecture in Australia* in 1959, but the rest of Australia might learn from the misfortunes of that new city: 'a wild jungle of indecorum' in which 'the higher manifestations of life' were decidedly absent.[7]

This phase of the city's life was arguably curtailed with the withdrawal of development financing and the ensuing recession of the early 1980s.[8] From this moment until the 1995 amalgamation of the Gold Coast and Albert River Shire (to the north and west of the coastal strip) something shifted decisively in the relationship of the city as a contemporary entity to the values against which it measured itself—not exactly eclipsing what Boyd and others had captured a generation earlier, but rather subjects of criticism into the bases of a carefully managed nostalgia. From the middle of the 1980s, a distinct lack of building and social controls was traded for a multi-layered approach to planning and governance shaping the environment and civic identity of what would become, by the century's end, the country's most populous municipality after Brisbane.[9] This resulted in the paradoxical regularisation of character values based in historical instances and effects in which planning regulations had been either productively absent or demonstrably malleable. One can point to repeated attempts to translate the effects of lightly planned urban development and expansion into urban design and planning principles. One can identify multiform efforts to retrospectively figure an incidental architecture of beach shacks, high-rise apartment blocks and lurid signage as a value to inform heritage assessment and architectural production. And one can sense a sustained preoccupation on the city's part with rendering positively the values Boyd and his colleagues at *Architecture and Australia* had articulated as evidence of a society in decline. This underpins an officially celebrated and propagated taste for Surfers Paradise kitsch and a highly controlled local celebration of the sky-scraping adventures of the

1950s, '60s, and '70s provoked by Bruce Small's Floridian visions for the city and Stanley Korman's unabashed capitalism.[10] In the sum of these efforts, we can encounter the Gold Coast as a city prone to stumbling self-preoccupation as it continues to wrestle with the present-day legacy of its less-than-straightforward past.

Despite the large number of notable buildings to have been proposed for, realised and demolished on the Gold Coast, the extent to which architecture has historically had any agency in that city remains decidedly unclear. Indeed, as strictly defined, architecture has arguably had *no* role in shaping the Gold Coast's morphology, character or operation except as a pragmatically necessary by-product of real-estate development, tourism, retail commerce and estate planning. What, then, is architecture on the Gold Coast, as a field of knowledge and as a practice with defensible edges? And how, then, might we constitute the Gold Coast both as a field in which architectural ideas and actions occur and are played out *and* as a subject, in itself, of architectural history and criticism? These questions open out on to issues that are too large to consider here, but we can at least begin by suggesting that the tactics lie less in looking to works like Langer's Lennon's Hotel for instances of architecture's agency in the Gold Coast than to the same architect's contribution to Bruce Small's canal estates of Miami Keys and Rio Vista or to Korman's Paradise Waters.[11] But Where Langer's hotel is long gone and with it a lesson in the key of an architecture that lost in the face of development, these estates present a more lasting and more compromised monument to his contribution to Gold Coast architecture. Therein we can understand something of the subordinate status of architecture and architectural ideas in the historical situation the Gold Coast presents, as well as of the resistance Langer mounted against this condition.

There is little enough treatment of Gold Coast architecture in the architectural historiography of Queensland (or Australia) to cast this as a plea for a radical change of pace, at least as it concerns the Gold Coast in particular. As a subject not replicated elsewhere in Australia except, as Boyd suggested, in its diffusion, the Gold Coast obliges historians who would study it to reconsider any favour they might hold with architectural history as a practice concerned with significant efforts by the architecture profession and key moments in the development of a local architectural culture. For all that it might be problematic as an attempt to regulate the Gold Coast's architectural, urban and cultural values, the 1997 *Gold Coast Urban Heritage and Character Study* offered the first major assessment of these matters. Writing on architectural and urban history therein, Philip Goad demonstrated the superfluity of specific architectural works by treating limiting his analysis to those aspects of urban morphology (beach, highway, canal estate, suburb, hinterland) and to those building types (holiday house/unit, motel, residential tower, theme park, shopping mall) that shaped the

city's character. Among numerous references to American precedents and to the clear and cultivated parallels between the Gold Coast and Miami, Langer's Lennon's Hotel is the only discrete work of Gold Coast architecture mentioned by Goad, and it had been demolished a decade earlier.[12]

This is not to suggest that a book like Andrew Wilson's *Hayes & Scott* (2005) misses the mark, especially since this book makes a valuable contribution to the regional evolution of modern architecture. It is, however, necessary to observe that the idiosyncratic ways in which architecture figures in the Gold Coast tends to authorise its exclusion from mainstream architectural history. As a problem for architectural history and criticism the Gold Coast at least runs against the dominant grain of Queensland's architectural discourse, as is borne out in two recent instances. At the exhibition *Place Makers* (Gallery of Modern Art, Brisbane, 2008), Ian Moore's Air Apartments at Broadbeach is the Coast's sole representative. In the lengthy entry on Queensland in the *Encyclopedia of Australian Architecture* (2012), principally by Don Watson, the Gold Coast is also neatly circumnavigated.[13] To paraphrase an observation made to the Gold Coast City Council recently by Michael Rayner, chair of Queensland's 2012 AIA State Awards, the axes of contextualism and experience that have long served to define the best works of Queensland architecture—epitomised in the locally celebrated tectonic and phenomenological relationship between house and site, body and view—simply fails to account for much the work undertaken by architects on the Gold Coast.[14] The effect is that this latter work is difficult to value in relation to the prevailing measures of the state's architectural culture, and that appealing to those measures locally has served to undermine the very position of architecture in the city.

The project this problem describes consciously reflects the premise of Robert Breugmann's *Sprawl* (2005) as well as the Aggregate compendium *Governing by Design* (2012).[15] What moments and tendencies shed light on the situation of architecture in this city—as moments marked by realised works, intentions, propositions or critical interventions? And in what situations is it proper to conceive of the city as a project in architectural terms—distinct from the domains of urban planning, policy and economics and of social and cultural analysis? This runs to the question of what architecture is on the Gold Coast as an institution, as an agent that figures in the development of that rapidly growing city. Although the city has been systematically turned over to architecture's cognate fields in recent decades, the 1970s presents us with a period of time in which the city was more overtly argued as a problem for architecture. The paradigmatic lessons of such idiosyncratic cases as Las Vegas, Los Angeles and Manhattan were presented by Robert Venturi and Denise Scott-Brown, Reyner Banham, and Rem Koolhaas respectively as tests of the limits of architectural knowledge

and practice.[16] These cities had largely eluded existing analytical frames established by critics, historians and theoreticians of architecture, but they were the new wine, as Banham put it, for which the historian required new bottles.[17] Although its paradigmatic role remains unproven—especially against such American cities as San Diego, or Miami, against which Goad insistently holds the Gold Coast—we can at the very least treat the Coast as new wine on Australian, regional terms.[18] In doing so it seems useful to consider the utility of existing (seemingly obvious) frames within the history, criticism and theory of architecture as a predicate for addressing the city not as a subject of urbanism, economy, planning or social or cultural history, but of architectural history and criticism. For their adherence to the idea that the city can be architecture's subject and for the (again, seemingly obvious) correspondence of their subjects with the Gold Coast, two seminal works of the 1970s require our brief consideration: Scott Brown and Venturi's *Learning from Las Vegas* (1972) and Banham's *Los Angeles* (1971).

The values celebrated by Scott Brown, Venturi and their students tapped into the cultural preoccupation with the sign and advertising landscapes popularised in the art works of Ed Ruscha and Robert Rauschenberg and addressed in the architectural criticism of Peter Blake, all of whom informed, one way or another, the framing of the Yale studio.[19] Just as Las Vegas from the 1960s moved decisively from an architecture of signs to an architecture of significant form and formal iconology—from Dunes to New York, New York—so too has the Gold Coast moved past the neon and brightly painted townscape identified by Boyd a decade earlier in Surfers Paradise. It still existed in 1973, when John Gollings ventured north to apply the lessons drawn from Las Vegas to a photographic documentation of the Gold Coast, still centred on Surfers. In returning to those very same images four decades later, however, reshooting and therefore re-documenting on the same terms as Gollings had approached the city in the 1970s, it becomes clear that the conceptual and technical framework of Venturi and Scott Brown attends to a city marked out in signs that has long been supplanted in consequence of a shift in scale towards high-rise monumentality affecting the profile and volume of the city as a whole.[20] The Gold Coast simply exceeds the frame informed by Scott Brown and Venturi and tabled as an easy comparison based on historical verisimilitude that—and quite literally, from a photographic perspective—once served it adequately.

Whereas *Learning from Las Vegas* speaks to values past and the nostalgia now attached to them, Banham's *Los Angeles* offers the more salient lesson of the necessity to adapt historiographical and critical tools to the problems at hand. As he observed in the book and memorably repeated in the BBC production *Reyner Banham Loves Los Angeles* (1972),

where English scholars had once learned Italian to study Dante in the original, he had 'learned to drive in order to study Los Angeles in the original'.[21] Read through Banham, there are several points at which the two cities can, at the least, converse: essentially centre-less, sprawling, managed by an automobile infrastructure, and divisible into distinct zones analogous to Banham's ecologies. For LA's Downtown consider Surfers Paradise as the supposed focus of a city spreading inland from the 57 kilometres of coast defining its eastern boundary; for the debts owed by the freeways to LA's original rail systems consider the trajectory from logging routes and historic train lines to the Gold Coast Rapid Transit Corridor (GCRTC). Both coastal cities, neither was settled by the sea, but from inland; and neither feels obliged to negotiate the largely transparent legacy of nineteenth-century city plan forms in the present.

Besides the lesson in methodological adaptation Banham demonstrates by trading bicycle clips for a driver's licence, his reconciliation as part of a whole of the four distinct ecologies of the Angelino case resonates with the contemporary problem of thinking of the Gold Coast as a city at all—and therefore, under his terms, as a subject of architectural history. Goad isolated the Gold Coast's various ecologies in his analysis of 1997: the beach, on which high-rise development is concentrated; the apparently infinitely extendable suburbs, which cast the beach strip into stark morphological relief; the motorways and arterials (and the GCRTC from 2014, by extension), determining zones of governance and obliging residents to rely on their cars; and the hinterland, into which suburbia drifts, but which for leaving the alluvial plane behind has a vastly different character, more akin (also in the demands of and for high-end architectural design) to the Sunshine Coast north of Brisbane. These superficial distinctions are not open for direct comparison, however, and instead speak to the hypothetical resonance Banham might have found between (his) Los Angeles and a much smaller and significantly more straightforward Gold Coast. We might read into Banham's *Los Angeles* a *strategy* for constructing the Gold Coast as a subject of analysis, an historical and critical subject that consistently fails to register against habitual measures.

A third and much more recent book suggests both an imperative and a mechanism for considering critically and historically the agency of architectural ideas and practice on the Gold Coast. The argument that architecture, in the city, is something distinct from urban planning, urban design, economics or governance is premised on the idea that the city as an entity can be understood through architecture, or in relation to an architecture that is conceivably discrete from the city, which nonetheless serves as the setting for architectural actions and ideas. Through its sustained inattention to this distinction, architecture on the Gold Coast—as it concerns the city and not the discrete, site-specific object—has

inadvertently divested itself of any agency over the course of an historical trajectory in which architecture's master has shifted from speculative development to urban and regional planning. The categories tabled by Pier Vittorio Aureli in *The Possibility of an Absolute Architecture* (2011) help us return to the historical moment in which architectural discourse sought new terms for addressing architecture's status in the city, effectively breathing new life into a decades-old debate that had been largely set aside through the seemingly obvious redundancy of architectural ideas in a field determined and changed by social, political, economic and technological interactions.[22]

Aureli returns to a territory sketched out by the Venetian discussions on architecture, history and the city that informed his own intellectual formation—most notably delineated by Aldo Rossi and Manfredo Tafuri—to reflect upon the conditions of architecture's specificity, in and of itself, and hence upon its efficacy as an intellectual and political practice.[23] He emphasises the utility of distinguishing between the city as a field of operation and management and the city as a fabric in which architecture intervenes. He describes the city as a problem of economics (invoking the Greek word *oikos*), which extends to the various levels of governance and control in which architecture is complicit as urban design and neutral form production (architectural design), but through which means architecture sacrifices its political valency. This valency, he argues, is the capacity of architectural works and ideas to stand simultaneously within and apart from the city and the forces and tactics of urbanisation for which the city stands, and to serve as a moment of critical pause beyond the reach of those processes.[24] The absolute architecture Aureli regards as possible is an architecture of limited, and hence engaged, political form as an expression of a project (on the city), in which the city is present analogously within the architectural project. Through being 'resolutely itself', such an architecture would problematise the city in which it exists or for which it is proposed, while resisting the conceptual or actual isolation of an autonomous architecture.[25] It would conduct an autocriticism of architecture itself—as his historical examples of Palladio, Piranesi, and Boullée demonstrate—a criticism of the city as an invested externality, and hence a criticism of their relationship, all at once. 'From this perspective we can say that it is precisely the condition of the *absoluteness* of the form of an object (*absolute* being understood in its original meaning, "separated") that implies what exists outside of it.'[26]

Although it is difficult to bring these distinctions back to the Gold Coast as a latent subject of architectural history in which we might find moments of the absolutism of which Aureli writes, it is not impossible to conceive of the task of assessing architecture's historical agency in this city on Aureli's terms. It is feasible, even necessary, to bemoan the failure of such contemporary projects as the Surfers Paradise Hilton (Buchan Group, completed 2011) or

Oracle (Broadbeach, DBI, completed 2010) to serve consciously as political agents in counter-point to the forces of urbanisation otherwise shaping the city. But as with these projects, or with Langer's canal estates, or the postmodern forms of the high-rise building boom, we can begin the task of treating the Gold Coast seriously as a field in which architecture has defined itself and in which it has been defined by forces of greater potency. As the basis for a research programme concerned with the architectural history of the Gold Coast, it is necessary to account for all of the various ways that architecture has been practiced and tested there—extending from the treatment of 'singular buildings, monuments, and landmarks' to considering the implications of those events describing the 'moments when architecture and design participated integrally in managing the changes' to which the city has been subject.[27] The task of this nascent research programme is, then, to understand just how architecture has reacted to the various circumstances in which this has occurred. On the back of this knowledge, we can better assess how the Gold Coast, as an urban field in which architecture raises more questions than it answers, might continue to serve as an extreme demonstration of tendencies shaping the status and scope of architecture in Australia and the region.

Endnotes

[1] Robin Boyd, *The Australian Ugliness* (Melbourne: F W Cheshire, 1960), 31, 91. By 'farthest places', Boyd specifically means Tasmania.
[2] Boyd, *The Australian Ugliness*, 68-69. Passages of *The Australian Ugliness* date to an article in *The Age*, December 28, 1957, which presumably coincided with Boyd's summer vacation of that year.
[3] Numerous citations of Neville Gruzman in the *Courier Mail*, *Gold Coast Bulletin*, *Daily Mail* and others, including Lynnette Cassells, 'High Rise "Art" Vying for an "Oscar" First', *Gold Coast Bulletin*, May 9, 1984 and John Affleck, 'No Horror in these Designs', *Gold Coast Bulletin*, May 12, 1984. The Gold Coast Region RAIA awards were made on May 11, 1984 and exhibited at Evandale May 8-18.
[4] For a brief survey of urban development, demographic tendencies and milestones in the urban history of the Gold Coast, see Aysin Dederkorkut-Howes & Caryl Bosman, 'The Unbearable Lightness of Being Gold Coast', paper delivered to the State of Australian Cities, Melbourne, November-December 2011, online at http://soac2011.com.au/full-papers-list.php (accessed March 3, 2012).
[5] H. J. Hitch, 'The Spa and Sea Resort'; Milo Dunphy, 'An Ideal Holiday Resort on the Gold Coast'; L. Peter Kollar, 'The Gold Coast and the Principles of Regional Development'; and Karl Langer, 'Development of Canal Estate on the Gold Coast', *Architecture in Australia*, 48, 1 (January-March 1959), 50-52, 53-55, 58-63, 66-67 respectively.
[6] Peter Newell, 'Umbigumbi to the Gold Coast', *Architecture in Australia*, 48, 1 (January-March 1959), 70-73. Architectural criticism follows on pages 74-79 of this issue. Compare E. J. Hayes, 'Gold on the Sand', *Architecture in Australia*, 47, 1 (Jan-Mar 1958), 87.
[7] Editor, 'Gold Coast: I. The Challenge', *Architecture in Australia* 48, 1 (January-March 1959), 47-48.
[8] Michael Jones, *A Sunny Place for Shady People: The Real Gold Coast Story* (Sydney: Allen & Unwin, 1985), 35, 42, 45.
[9] The most indicative document of this shift from the perspective of architectural culture is Allom Lovell Marquis Kyle, Henchall Hanson & Associates, et al., *Gold Coast Urban Heritage & Character Study*, report to the Gold Coast City Council, 1997.
[10] Compare this point with Alexandra Teague, 'Materialising the Immaterial: Social Value and the Conservation of Recent Everyday Places', PhD diss., University of Melbourne, 2004, esp. chapters 7

and 8, which respectively offer case studies of the Gold Coast (in general) and Lennon's Hotel, Broadbeach (specifically) as problems in architectural heritage.
[11] They are, however, addressed by a nascent architectural history research programme at Griffith University under my direction. This includes or overlaps with several discrete projects: a multi-authored, multi-disciplinary study provisionally called *Off the Plan: Considering the Gold Coast*—edited by Aysin Dederkorkut-Howes, Caryl Bosman, Donna Houston & myself, gathering work undertaken by the Gold Coast Area Research Team (GoCART) of Griffith's Urban Research Program; a Gold Coast architecture guidebook, being prepared with Katherine Rickard; an historical and critical account of the regional awards cycle of the R/AIA since its inception in 1984, again in collaboration with Rickard, and funded by the AIA and Griffith University; and a reappraisal of the 'fibro' holiday house on the Gold and Sunshine Coasts, in collaboration with the two city councils and Studio MITT. An undergraduate and graduate student research programme on local architectural and urban history has also been initiated within the Griffith School of Environment.
[12] Philip Goad, 'The Gold Coast: Architecture and Planning', in Allom Lovell Marquis Kyle, Henchall Hanson & Associates, et al., *Gold Coast Urban Heritage & Character Study*, 37-41, esp. 38-39, 41.
[13] Miranda Wallace & Sarah Stutchbury (eds.), *Place Makers: Contemporary Queensland Architecture* (Brisbane: Queensland Art Gallery, 2008), 180-87; Don Watson & Stuart King, 'Queensland Architecture', in Philip Goad & Julie Willis (eds.), *The Encyclopedia of Australian Architecture* (Melbourne: Cambridge University Press, 2012), 574-78.
[14] Seminar to the Gold Coast City Council by Michael Rayner (speaking with Mark Damant), 'Gold Coast Contemporary Architecture: A Comparison with Other Queensland Regions', Nerang Bicentennial Community Centre, April 11, 2012.
[15] Robert Bruegmann, *Sprawl: A Compact History* (Chicago: University of Chicago Press, 2005); Aggregate, *Governing by Design: Architecture, Economy, and Politics in the Twentieth Century* (Pittsburgh: University of Pittsburgh Press).
[16] Robert Venturi, Denise Scott Brown & Steven Izenour, *Learning from Las Vegas* (Cambridge, Mass.: MIT Press, 1972); Reyner Banham, *Los Angeles: The Architecture of Four Ecologies* (1971, Harmondsworth: Penguin, 1973); Rem Koolhaas, *Delirious New York: A Retrospective Manifesto for Manhattan* (New York: Monacelli, 1978). On Las Vegas, which is a popular local reference for Gold Coast architecture, see also Hilar Stadler & Martino Stierli (eds.), *Las Vegas Studio: Images from the Archive of Robert Venturi and Denise Scott Brown*, exhibition catalogue (Kriens: Museum im Bellpark, Kriens; Frankfurt am Main: Deutsche Architekturmuseum, 2009); and Aron Vinegar, *I am a Monument: On* Learning from Las Vegas (Cambridge, Mass.: MIT Press, 2008). The exhibition *Las Vegas Studio* will tour to the Gold Coast City Art Gallery in 2013.
[17] Banham, *Los Angeles*, 21.
[18] Goad, 'The Gold Coast', 37, 39. See also Allan Shulman (ed.), *Miami Modern Metropolis: Paradise and Paradox in Midcentury Architecture and Planning* (Glendale, Calif.: Balcony Press, 2009)—with thanks to an anonymous referee for drawing this collection to my attention.
[19] Compare Peter Blake's book from later that decade, *God's Own Junkyard: The Planned Deterioration of America's Landscape* (New York: Holt Reinhart Winston, 1979); also, Alexandra Schwartz, *Ed Ruscha's Los Angeles* (Cambridge, Mass.: MIT Press, 2010).
[20] This project is currently under development for exhibition in 2013, but has been predicated in Jeff Carter, John Gollings & Trent Parke, *Streets of Gold: Photographs from Gold Coast Streets, 1957-2008*, exhibition catalogue (Surfers Paradise: Gold Coast City Art Gallery, 2008); and in *Now and When: Australian Urbanism*, Australian entry to the Biennale di Venezia, 2010, re-exhibited in reduced form at the Gold Coast City Art Gallery, March 26 to May 1, 2011.
[21] Banham, *Los Angeles*, 23; Julian Cooper (dir.), *Reyner Banham Loves Los Angeles* (BBC, 1972).
[22] Pier Vittorio Aureli, *The Possibility of an Absolute Architecture* (Cambridge, Mass.: MIT Press, 2011).
[23] Two key books in this respect are Aldo Rossi, *L'architettura della città* (Padua: Marsilio, 1966) and Manfredo Tafuri, *Teorie e storia dell'architettura* (Rome: Laterza, 1968). See also Elisabeta Vasumi Rovere, *Aldo Rossi e* L'architettura della città*: Genesi e fortuna di un testo* (Turin: Allemandi, 2010).
[24] Aureli, *The Possibility of an Absolute Architecture*, 1-46.
[25] Aureli, *The Possibility of an Absolute Architecture*, ix.
[26] Aureli, *The Possibility of an Absolute Architecture*, 31.
[27] Daniel M. Abramson, Arindam Dutta, Timothy Hyde and Jonathan Massey, for Aggregate, *Governing by Design*, ix.

Ethics, Earthquakes, and The Seven Lamps of Architecture

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Abstract

From its inception in 1905, the New Zealand Institute of Architects' official seal and its emblems bore the Seven Lamps of Architecture: sacrifice, truth, power, beauty, life, memory, and obedience. Apart from the little known fact that they are based on John Ruskin's 1849 book, The Seven Lamps of Architecture*, minimal study currently exists on how they apply in the New Zealand context. The* Journals of the New Zealand Institute of Architects *from 1912 to the present reveal that the profession has evolved with the social and cultural development of the country, inasmuch as architecture is a direct manifestation of prevalent trends of the time. In addition to drawing on Ruskin, this paper expands on F. E. Greenish's initial analysis of* The Seven Lamps of Architecture *and their application in New Zealand in 1955, and explores the ethical implication for architects in New Zealand today. This paper looks at the role of the architect following the Christchurch earthquakes on September 4th, 2010, by drawing parallels from the 1931 Napier earthquake. History reveals that the challenges that architects face today are not new, nor is the tension between the Government and the Institute; the influence of local architects such as Louis Hay, and the ability of a small group of local architects to galvanise behind the present-day architectural milieu of Napier cannot be underestimated. In seeking to assess the contribution of the Ruskinian lamps to New Zealand architecture, Greenish likens this method to 'ancient lights' being examined with 'fluorescent lamps'. This paper contends that a contemporary reflection on the insignia that defines architectural practice in New Zealand is well overdue.*

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Introduction

'Law is light'[i], said Ruskin, referring to the seven guiding principles of architecture that he describes as, 'Lamps of Architecture', namely: sacrifice, truth, power, beauty, life, memory, and obedience. In 1905, the New Zealand Institute of Architect's first president, William Chatfield, presented to the Institute the seal bearing the emblems based on John Ruskin's *The Seven Lamps of Architecture.* Few Institute members at the time anticipated that it would subsequently shape the Institute's Code of Ethics. It was only in 1955, some 50 years on, that F. E. Greenish offered his initial reflections on how these Ruskinian lamps apply in the New Zealand context[ii]. In seeking to assess the contribution of the Ruskinian lamps to the post-colonial Aotearoa architecture, Greenish likens this method to 'ancient lights' being examined with 'fluorescent lamps': 'to measure, as it were, their "foot-candles" or "lumens" to decide on the "wattage" needed to produce a similar illumination'[iii]. Greenish reminds us that Ruskin's most notable contribution in architecture is the revival of Gothic architecture through reconstruction of its values. And given that Gothic Revival had long since ceased to be the major architectural movement, Greenish challenges Chatfield's intentions for favouring the words of Ruskin over that of timeless figures such as Vitruvius.

In hindsight, it is perhaps Ruskin's politicised view of architecture that drew Chatfield to *The Seven Lamps of Architecture*. Greenish contends that Ruskin's love of craftsmanship led him to 'propound social principles from the character of the craftsmanship', and subsequently influenced his ideas on the political economy of Britain at the time. While Ruskin did not himself practice what he preached, 'he was writing rather of the spirit to which a work of architecture should be conceived and designed and executed [sic], than of the process of designing it'[iv]. Taken out of context, Ruskin's aphorisms can seem dogmatic. An assertion such as, 'if there is added [sic] an unnecessary feature, as a cable moulding, that is architecture', can be misconstrued to deem beauty as mere ornament, thus unnecessary. Upon closer reading, however, Ruskin takes this a step further in his definition of architecture: '(architecture has) effect on the human mind, not merely a service to the human frame'.[v] The humanitarian in Ruskin argues that 'all men have sense of what is right… every man knows where and how beauty gives him pleasure', challenging the popular modernist stance that people must be taught to appreciate good design. At one level, modernism's efforts to globalise design are similar to humanitarian efforts following natural disasters, in that modernism seeks to restore cities through its design principles, and international aid agencies seek to do so through direct interventions. Taken to an extreme, they share similar imperialist underpinnings of exerting control under the banner of democratisation and good will. Thus, *The Seven*

Lamps of Architecture in the New Zealand context leads to some ethical questions that are contestable. This paper responds to Greenish's reflections by deconstructing Ruskin's aphorisms in today's context, to test whether it would stand further tests of time.

Figure 1. John Ruskin, *The Seven Lamps of Architecture: Lectures on Architecture and Painting; The Study of Architecture* (Boston: David Estes & Co., 1890) Cover page

An apt place to start is Christchurch, a place of 'un-building' at the time of this conference. Issues surrounding the ethics of rebuilding – architectural responses in particular – can offer useful insights, not only on the relevance of Ruskin's words, but also on the role of the architect in today's society. This paper compares New Zealand's two major natural disasters: the Napier earthquake of 1931, and the Darfield earthquake of 2010. Some of the common architectural experiences, and their ethical implications will be discussed in light of *The Seven Lamps of Architecture*. Through the contemporary application of Ruskinian ethics, this paper assesses the book's relevance, and by extension, the Institute's seal in this climate of disarray.

The Lamp of Sacrifice: Quality over Quantity

In the context of natural disasters such as an earthquake, the widespread displacement of people from their dwellings calls for immediate measures to protect the welfare of the people. Often, under the pressure of 'time compression' – circumstances of dire resources and pressure for expediency – humanitarian intervention during the emergency phase resembles an assembly line of tarps and vinyl shelters. When a magnitude 7.8 earthquake hit Hawkes Bay in 1931, temporary tent structures mushroomed up all over the city, serviced by local merchants to support the local economy.

Figure 2. The destruction from the 1931 earthquake
(© Hawke's Bay Museum & Art Gallery, 1931) 8 March 2012
<http://www.napier.govt.nz/photos/earthquake_church.jpg> Image 3

Cosmetically, tents do not provide much beyond the footprint-per-person, let alone obviate the need for other basic essentials such as food, infrastructure, water, and toilets. Yet, Napier's locals celebrated their 'Tin Town' for 'restoring a sense of purpose to a bewildered people' in the initial recovery phase of the earthquake[vi]. Similarly, in 2011, the earthquake ravaged Christchurch opened the symbolic 'Container Mall' along Cashel Street, enabling partial access to the former downtown shopping district, where local residents and shoppers could reminisce and engage in the nostalgic retail experience. Stretching from the Bridge of Remembrance to the edge of the central city cordon, the shipping container mall provides a window of relief and a grieving place for its residents.

Figure 3. Cashel Mall, Christchurch. (Photograph by author, 11 Dec. 2011.)
Figure 4. Cashel City Mall signage, overlooking the Red Zone demarcation fence and Hotel Grand Chancellor deconstruction in the background. (Photograph by author, 11 Dec. 2011).

During Ruskin's time, the growing industrialisation in Britain had largely been to blame for the building industry compromising its craftsmanship for the sake of expedience. Ruskin showed no reservations in voicing his concern, yearning for the craftsmanship in traditional buildings that have survived for centuries. Greenish echoes this by saying that 'it would be vain to plead our poverty or our parsimony: the art and the craftsmanship have died'[vii], and that Chatfield would have contended that the profession has failed to go beyond the 'call of duty' – that the work of a good architect is 'not a question of how *much* we are to do, but of how it is to be done; it is not a question of doing more, but of doing better'[viii]. But in the aftermath of a disaster, products of industrial revolution – tents, prefabs, popups, and other temporary shelters that carry the stigma of 'microwave architecture' – offer an immediate relief and a sense of belonging to the affected community. Greenish dismisses Ruskin's belief that all buildings ought to be finished down to even the unseen parts of construction. In New Zealand, a country described to be 'exquisite apart',[ix] pragmatism always wins where resources are scarce. Likewise, in the context of post-disaster relief and reconstruction, keeping 'as constantly the look of money's worth, or a stopping short wherever and whenever we can' would hardly be considered sacrifice where people's lives are at stake.

The Lamp of Truth: Role of Architects

Fueled by the global industrial revolution in the 20th Century, many countries in the West, including New Zealand and the UK, underwent significant social and economic policy changes that favoured deregulation and rapid urbanisation.[x] In the UK, this meant that the architectural profession veered away from the traditional triumvirate model of owner-architect-contractor, and moved toward the commercially-oriented, developer-dominant building industry. The financier-driven construction management meant that in large-scale projects, the end-users became consumers to the building supply-chain while not having much opportunity for input in the architectural decisions that affect them. It seemed that architects lost control of architecture, and lost their celebrated role as the prima donnas of the built environment.

1973 was a tipping point for the architectural profession. The NZIA President K.D. Marshall observed that the architect is no longer able to maintain an intimate relationship with the users of buildings until the project is finished, despite the fact that 'this relationship has… become even more so, the heart of what the architect does and has to offer the community'[xi]. Marshall proposed a revision of the architect's Code of Ethics to be 'more than mere expendable cosmeticians', as the Code is not merely a matter of 'moral rectitude', but is rather 'an attempt to achieve higher standards of… architecture so that

architects can play their part more fully in making a better community.' Also in 1973, the NZIA held a conference themed*, The Architect in the Community*. Sir Miles Warren presented his keynote address on 'The role of the architect and his responsibility to the community', but cautioned the profession against assuming that New Zealand will be a better place to live, only if architects were given the absolute control over the built environment, the purse strings, and had well-informed clients.[xii] Sir Miles believes that there is no 'magic key': '(the architect's) responsibility to the community is to make the best buildings we can to meet the community's needs… it is strictly not our responsibility as a profession to tell the community what it ought to build'. In fact, Sir Miles believes that because there is no barrier between the architectural profession and the client (the public), the New Zealand public 'has been spared from architects imposing their own aesthetic and spatial order' that was prevalent in the UK at the time. Sir Miles views the role of the New Zealand's architects in the community as no more than that of an average member of the community, a humble citizen *de la vie quotidienne*. His reasoning seems to contradict Chatfield's position for the profession to go beyond the 'call of duty'.

While Sir Miles' prescription on the role of the architect seems inconclusive and farther yet from being universally applicable, his democratic view is closely aligned with that of Ruskin. In *The Architecture of Humanism*, Geoffrey Scott offers useful interpretation on *The Seven Lamps of Architecture*, where he argues that Ruskin was the first in the age of emerging democracy (which had become the new political ideal in the post-aristocracy era), offering 'the privileges of culture without demanding its patience'. In other words, appreciation of good architecture lies along the lines of 'universal and easily applicable law or right', making Ruskinian architectural values synonymous with a pledge of social justice. What often gets left out of dialogues about architects, and their products, is everybody else.

The multi-disciplinary nature of the emergency response following natural disasters makes this context especially useful in studying the politics of architecture through the lens of the Institute, the State, and the public. In the early days following the earthquake in Napier, the local architects – such as Louis Hay – joined the *Napier Reconstruction Committee,* and the four existing practices formed *Napier Architects Association*. These groups formed with the purpose of sharing resources and to ensure that reconstruction commissions stayed within Napier. Hay was often the central conduit of information between these two groups, and was also heavily involved in the decision-making process.[xiii] However, the architect's ability to influence policy for the built environment at State level fluctuated over time, despite efforts by individual architects and interest

groups to the contrary. Architects in New Zealand have toiled away in the hope of becoming recognised as experts in disasters, as can be seen in records of the Institute's earthquake report and its authoring of one of the earliest books on earthquakes and architecture in New Zealand. The 1931 Napier earthquake was probably the profession's low point. Despite a promising start, a number of contributing factors led to the dilution of architect's credibility in earthquakes, which has since fallen into the hands of engineers.

The Lamp of Power: Architects and Engineers

> Our engineers are healthy and virile, active and useful, balanced and happy in their work. Our architects are disillusioned and unemployed, boastful and peevish. This is because there will soon be nothing more for them to do. We no longer have the money to erect historical souvenirs
>
> – Le Corbusier, *Towards a New Architecture*, 1927

Except for the brief period in which the NZIA established a liaison committee with the engineers in 1965, the relationship between the engineers and the architects were rocky, even within the government department[xiv]. The real problem, Roslyn Noonan suggests, was 'the increasingly complex nature of building and the increasing role of engineering services in any major construction work'[xv]. The construction industry has become a new frontier for the two professions to vie for authority. Yet given the growing influence of engineers in the public sector, the research raises the question of whether the NZIA might be a different organisation altogether today, had it remained a joint organisation of engineers and architects.

Dedicated local practitioners brought Art Deco style to central Napier, which has now become a celebrated attraction to an otherwise small city. When it came to rebuilding Napier, the region's construction scene – architects and engineers included – kept busy for the 5-year period following the earthquake. There was a lot of work to be done, and a strong atmosphere of collegiality and cooperation amid local groups kept the morale high. Within the Institute, however, this period was also mixed with feelings of resentment, because the Government was discovered to have excluded the members of the NZIA from bidding on key municipal projects.[xvi] Indeed, the NZIA Journals from that period indicate various struggles its member architects had in gaining the confidence of the government, despite the strong architectural legacy that was left in the reconstruction of Napier.

Several anecdotes of Louis Hay come to light. Hay was perhaps the most influential architect in Napier following the earthquake, enjoying an intense influx of work following the earthquake. Yet when it came to key civic projects such as the Municipal Theatre, Hay was passed over in favour of the Borough Architect (who is assigned by the government), J. T. Watson. Fury ensued when the initial budget for the construction given to Hay was less than half of what was given for a similar project just 20 years ago, where in the end the project was built by Watson for double what Hay initially proposed[xvii].

Figure 5. Entrance to the Municipal Theatre before 1931 earthquake.
(© Hawke's Bay Museum & Art Gallery, 1931) 8 March 2012.
(http://www.napier.govt.nz/photos/municipal_theatre_2006_170.jpg> Image 7).
Figure 6. Municipal Theatre rebuilt in Art Deco style post earthquake.
(© Napier Municipal Theatre, 1937) 8 March 2012.
(http://www.napier.govt.nz/photos/municipal_theatre_2006_158.jpg> Image 9).

Such double standards continued, and Hay's initial leadership in reconstruction and his relationship with the Government faltered. Mr. C. O. Morse, then Napier's Mayor, saw Hay's dominance in the share of architectural commissions in the area as a threat, and tried to convince Hay to share his work with other architects. Hay's anecdote suggests that the position of the architects within the reconstruction efforts in Napier hinged more upon the stability of his personal relationship with those around him, than on technical skills and experience. Unfortunately, in New Zealand, the power struggle between architects and engineers also seems to follow this logic.

Paul Walker, an architectural historian who wrote his reflection on the Napier earthquake in the 1992 SAHANZ paper entitled, *Shaky Grounds,* suggests that indeed this is so. The dominance of large corporations like the Fletchers in the early days of the post-earthquake rebuilding was largely premeditated, where 'the interests of private capital

saw themselves as being directly aligned with the national good, such that they undertook directly to advise the government as an equal party.'[xviii] Despite the level of successful, cooperative activities in Napier, there emerged a kind of 'paternalistic' corporatism which Walker describes as fundamentally undemocratic and founded on technocratic competence. The Napier earthquake brought to the fore the tension between two professions that have complementary skills yet insufficiently defined roles in the context of a natural disaster.

The Lamp of Memory: Public Architecture

Following the September 4th earthquake in 2010, local architects from the Canterbury branch of the NZIA organised an exhibition called, *Before After*. The exhibition highlights Christchurch's main challenges as well as exploring future potentials in rebuilding the city. But, more importantly, the event was a platform to engage the public by asking questions rather than providing solutions. New Zealand Architects have done some great work over the years, on a few occasions, *pro bono*, before the term became prevalent. The earliest example found within the NZIA to provide pro bono service to the State goes back as far as 1937, where the architects assisted the Government in preparing about 500 plans for the Government's State Housing scheme in Wellington[xix]. It was also one of the few occasions where the NZIA received public recognition for its service. The Institute viewed this as their professional duty, because it was 'for the betterment of individuals who were not blessed with a great amount of this world's goods'.

Figure 7. Ian Athfield giving the opening address for the 'Before After' exhibition at Christchurch City Art Gallery. (Photograph by author, 11 Feb. 2011)

While this public gesture by the local architects was overshadowed by the devastating February aftershock that followed, the Darfield earthquake gave rise to hundreds of

community initiatives. In two months following the February quake, 92 new community-based activities with web presences were found in Christchurch.[xx] Apart from the exhibition, however, the Institute's activities have largely been self-serving. The Institute also appointed Ian Athfield as Christchurch's Architectural Ambassador, to advocate for the profession. The author would contend that if the voices of New Zealand architects are being heard in the local community, it is because a small subset of the profession have found new grounds as ethical individuals, rather than because the architects are regaining credibility as disaster experts.

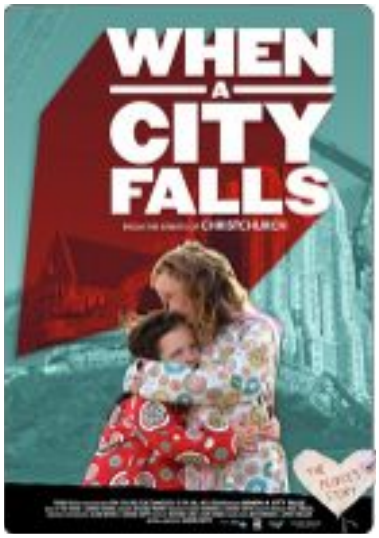

Figure 8. One of five themes covered in the 'Before After' exhibition. (Photograph by author. 11 Feb. 2011).
Figure 9. Movie poster for 'When a City Falls' (Gerard Smyth, dir. *When a City Falls*, 2012. <http://www.frankfilm.co.nz/>. 8 Mar. 2012)

The architectural profession has always been a mystery to the public at large, for its usefulness was not clearly demonstrated. In a pioneered country, the architectural profession was 'a strange animal to be viewed with suspicion'[xxi] because the public preferred to engage with builders directly. New Zealand architecture is typically celebrated for buildings designed with the greatest economy of means, which lends itself to an attitude about architecture that Sir Miles proposes:

> …most people can make what they damn well like to live in and having made it, muck it up, hash it around, abuse it, love it, make it after their own image. This does not make for architectural order and the coherent forms and spaces beloved by our orderly training, but maybe it makes for a happier community
>
> - Sir Miles Warren*, The Architect in the Community,* 1973

This enduring perception recently propelled the NZIA to launch a campaign on how the public could 'Talk to an Architect'[xxii]. An interesting analogy here is the Marxian argument of use-value, where architecture as a commodity and the usefulness of this service to the end-user is missing and undefined.

Ruskin prescribes two additional methods in this endeavour: first, it is 'to render the architecture of the day historical', then to 'preserve, as the most precious of inheritances, that of past ages.' What Ruskin means by this, according to Greenish, is to make architecture 'worthy of handing down to future generations'[xxiii]. Furthermore, Ruskin concedes that 'it would be better if… men built their own house on a scale commensurate rather with their condition at the commencement, than their attainments at the termination, of their worldly career'[xxiv], alluding to the necessary care and thoughtfulness with which every house deserves to be built. On the other hand, Ruskin strongly objects to the restoration of buildings, which is 'the most total destruction which a building can suffer… The Thing is a Lie from beginning to end.'

But what implication would this have in the case of natural disasters, where damage goes beyond the building itself and humanitarian interventions are necessary, and all that people want is to return to the way things used to be? Architecture, more than any other art, is so dependent on the 'warmth of true life'[xxv]. In fact, Ruskin advances that humanism in architecture is inherent:

> We have transcribed ourselves into terms of architecture… The whole of architecture is, in fact, unconsciously invested by us with human movement and human moods… We transcribe architecture into terms of ourselves.[xxvi]

'Architecture is still the distinctively political art', said Geoffrey Scott, urging the profession to realise that 'the phrases of Ruskin's currency are not extinct'[xxvii]. The design community in Christchurch are reappropriating the sites of ruin as fertile grounds for rebuilding and empowering communities through beautiful interventions. Gap Filler, a group of young creative professionals, 'activates vacant sites within the central city with creative projects, to make… dynamic and vibrant central city'. The Auckland Chapter of Architecture for Humanity, along with its satellite chapter in Christchurch, engages the youth organisations in Christchurch by holding creative events such as design workshops, exhibitions, and an international design ideas competition, to build capacity within the youth to voice their needs and visions for rebuilding of their schools.

Looking Forward: Christchurch

Revisiting *The Seven Lamps of Architecture* in the New Zealand context can propel architects to reassess the impact they have on the society. Disasters – in their tendency to lay bare society's vulnerabilities and draw attention to bottlenecks in the social system – present a transparent medium through which this can be assessed, including such questions as what the architect's role is in the community.

The main ethical contribution made in *Exquisite Apart*, the Centenary book of NZIA, acknowledges the antiquity of the Institute's original model, based on masculine principles and estrangement from builders as an elite group of educated gentlemen. Walker discusses two paradoxes facing modern institutes: one is that of whether professionalisation model at the end of the 19th century is still valid in the 21st century, and whether the direction of modern architectural practice can keep in tune with a rapidly developing construction industry. Although these are highlighted as practical considerations, these paradoxes raise the question about the ethical role of architects in the new urban terrain, especially since 'the gap that exists now between the specialised discourses of planning, architecture, political process and the public realm has never been so great'[xxviii]. The jury is still out.

Endnotes

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Presenting Historic Landscapes: a mobile digital guide to the Botanic Gardens Melbourne

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Abstract

Throughout history gardens and designed landscapes have come to be known, understood and captured through images, maps and immersive experience. The Picturesque, for instance, is perhaps the most well-described and analysed conjunction of designed landscapes with painting and poetic figuration and fabrication. Picturesque landscapes came with an armory of symbolic, linguistic, visual and poetic techniques to create gardened estates as diegetic landscapes that guide and instruct visitors in ways to walk through, look at, appreciate and contemplate the scenes before them.

We have worked within this tradition of the impulse to experience and understand designed landscapes and gardens by creating an exploratory mobile digital tour for the Royal Botanic Gardens in Melbourne. The iPad tour aims to guide students and visitors around a selective zone of the park, equipped with voice and text narration, historical and contemporary maps and images. The paper reflects on the design ideas and challenges that have shaped this prototype walking tour guide. These include how to encapsulate changing designs and plans over time, and how to describe formative intentions, influences (and maybe even 'fabulations') that are not readily evident in the gardens today. We trace our guiding motivations back to historical ideas about garden experience and movement, presentation and design. Following Edward Casey's distinction between representation and presentation, we explore what happens to landscape presentation and understanding when the pixel is added to the traditional media of paint, line and photographic emulsion.

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Capturing Landscapes in Time

In this paper we describe the context and motivations for creating a digital mobile tour to guide Masters of Landscape students around the Royal Melbourne Botanic Gardens. An interest in informed touring around designed landscapes - supplemented by maps and images - has a long and continuous history, fuelled by the rise of mass tourism in the twentieth century when visiting gardens became a popular pastime, but also with formative precedents from the 18th century onwards in Europe.

To promote both an informed understanding of a garden's changing design intentions over time and an appreciation of its sensory experience in the present – whether through guided tours or documentary images – is notoriously challenging. Edward Casey, in *Representing Place: Landscape Painting & Maps*, asks the question why the West was delayed (in comparison to the East) in developing visual languages for describing and representing landscape as a primary subject rather than a secondary backdrop.[1] In answering, he points to the perceived difficulties of spatially and visually encapsulating any garden or landscape in terms of broad qualities such as scale, viewpoint and movement. Responses to this challenge gave rise, for example, to experimental modes like panoramic and topographical images as potential ways of communicating expansive and layered landscapes.

Figure 1. Landscapes in TIme, (University of Melbourne iPad application, Lewi, Saniga, Smith, Monie and Trembath, 2011).

Innovative techniques to both describe and guide one around landscapes have been furthered in recent years by digital mobile media, and it is these possibilities that we explored through the making of an iPad guide 'Landscapes in Time: a walking tour of the Royal Botanic Gardens Melbourne and the Domain'.[2] Our motivation was to create a

prototype of a hand-held digital guide to support the fieldwork of students studying a historical landscape. Framing our project and this paper are the following questions. First, can delivery of digital content extend immersive ways of physically guiding students through a site of complex historical significance – whether as a replacement of, or supplement to, a conventional teacher-guide? Important to this act of guiding are the concepts of 'directed looking' and 'choreographed walking'. Second, how might the hand-held guide provide resources that inform and augment on-site experience? Resources that we used included historical and contemporary maps, archival and contemporary photographs, archival film footage, and sound and text narration. And third, how might this mode of guided touring encourage, or discourage, social interaction between students, widely understood to foster group learning?

Building on previous digital mobile guides created by the authors – for the Shrine of Remembrance in Melbourne, and a walking tour of architectural history in the central city grid of Melbourne – here we specifically wanted to explore the parameters of the iPad format in contrast to the smaller smart phone.[3] The increased dimensions of a tablet screen supports better map and image presentation and comprehension, clearly important for landscape settings. Other technical possibilities, including the use of GPS locational information, were incorporated in the design.

While these pragmatic, technological and educational concerns were centrally important, a complementary motivation was to explore ways of capturing and experiencing the changing layers of design intentions and interventions that have shaped (and sometimes failed to shape) landscapes and gardens of significance. Such design intentions and influences may or may not be extant in the physical fabric of the setting today. An attempt to understand and appreciate these partly visible and partly invisible design intentions involves the two possibly contradictory activities of firstly, promoting an immersive bodily and sensory experience of the site in a manner sympathetic to its design, and secondly, to augment that experience with information and documentation not normally on hand to the visitor. This twin agenda – of immersive experience and information – has been analysed by others through ‘reception theory’ formulated around landscape appreciation.[4]

Our spatial and historical focus is the southern region of the Royal Botanic Gardens near the Yarra River and the neighbouring Alexandra Gardens. The information we chose to present is mainly focused on the influence of the early park directors Ferdinand von Mueller and William Guilfoyle. The park was founded in 1846, with the site selected by Governor La Trobe. Ferdinand von Mueller was appointed as Government Botanist in

1853 and became the first park director in 1857. His directorship of 16 years marked a new era in garden policy, with emphasis placed on the scientific arrangement and display of plants for the purposes of expanding knowledge, and for economic advancement over and above aesthetic qualities and recreational use. In his first years, von Mueller established a Pinetum and the 2 acre Systems Garden for the cultivation of plants of economic, medicinal and commercial potential. By 1864, however, growing disquiet was voiced over the progress of the Botanic Gardens. In response in 1865 von Mueller's plans for the Domain were created and partially implemented over time. These plans were designed to rectify the perceived untidy and dangerous reputation of the area – and some 21,000 pines of various species were planted by 1867. Still the gardens proceeded in faltering starts and von Mueller was dismissed in 1873, although he continued to work in the park's herbarium until his death in 1896.[5]

Figure 2. Botanic Gardens, 1909, showing alterations and additions effected since 1873 by W R Guilfoyle. (University of Melbourne Archives.)

William Guilfoyle was appointed as the next Director in 1876. Three themes are identified as defining the Guilfoyle era: i) transplanting of trees within a new framework for the design; ii) the creation of wide, curvilinear paths with lawns and clusters of plants to replace the straight, narrow paths lined with trees and spotty planting; and iii) the beautification of a lagoon as the focal point for the gardens. The end of the 19th century also saw a new era of topographical change in the park, with substantial road and earth works around the river, and by 1906 Guilfoyle's design of the ornamental lake as a focal point was finished, complete with a rustic bridge in the manner of English garden traditions. In the early decades of the twentieth century the area between the Botanic

Gardens and the river-front was formalised, with the laying out of Alexandra Gardens and the construction of a number of commemorative imperial statues.

The approach taken in the guide was to present these various threads of the garden's history (through audio narration, text and a timeline) without attempting to reconcile them into a readily consumable overall narrative. Rather, it was left for the student visitors to encounter and make sense of disparate elements of content.

Moving Through Landscapes in Time

Two design challenges for the iPad Tour then, were: how to both immerse and inform the visitor; and how to present discontinuities in the garden as historical record. A third design challenge was how to achieve these things in the context of moving through the landscape. Guiding through a large-scale garden like the Botanic Gardens in Melbourne must involve walking. And it is the act of moving through a landscape that has been identified as formative to creating an immersive and personalised experience that also allows for an understanding of the narratives of meaning embedded in the landscape by its designers. [6] However, although this close association between gardens and motion is taken as a given, Michael Conan in his edited book *Landscape Design and the Experience of Motion* (2003), asks why there is still relative silence with respect to the experience of motion in contemporary landscape design writing. Suggesting that our understandings and descriptions of motion itself are still inadequate or elusive, he writes: 'The motion of the traveller does not seem to open aesthetic appreciation in picturesque literature'. [7]

John Dixon-Hunt has responded to Conan's provocation in his analysis of movement in gardens over time.[8] Dixon-Hunt (2003) categorises three different kinds of movement that can be found in historical gardens and other designed landscapes and, as this has been useful for conceptualising and designing the navigation in our own digital guide, it will be elaborated here in some detail. The first movement type Dixon-Hunt identifies is the procession or 'ritual'; the second is the 'stroll'; and the third is the 'ramble'.[9] A procession describes ritualised movement that follows a preordained path or purpose. It is prescribed and so is repeatable, and indeed expected to be repeated. The route is encoded in some manner – whether through a formal guide, designated paths, onsite signage or accompanying guides. The ritual experience is likely to be undertaken by a group, perhaps with set aims to be accomplished. Within the European tradition, Dixon-Hunt offers the example of the gardens of Versailles, as narrated both by Madeleine de Scudery in 1669, and later by Louis XIV's guided tours.[10] Also the garden of Stowe in

Buckinghamshire, England, is seen as a somewhat ritualistic experience where, since the mid-1700s, visitors were guided by detailed guidebooks that assisted in drawing together the many built and natural elements of the garden into a narrative sequence.[11] As evidenced by Dixon-Hunt, and other accounts of garden appreciation, the formalised guiding of movement around designed landscapes and gardens through guidebooks and similarly organised means therefore has a sustained history upon which many recent digital reincarnations build.[12]

Figure 3. Original garden 'interpretation' in the form of stone inscriptions at Stourhead, Wiltshire. (Source: Lewi, 2011)

The 'stroll' and the 'ramble' occur where visitors give themselves over more to the individual sensation of movement. They are therefore, less purposefully directed than the ritualised procession. Strolls are marked by incidents that 'punctuate and give rhythm to the movement'.[13] As exemplars of historical strolling sites, Dixon-Hunt offers the ancient strolling gardens in the Chinese tradition, and Picturesque gardens in the European tradition. Strolls are also defined by material incentives to move forward in the landscape, as found in the lakeside route famously created by Henry Hoare at the garden of Stourhead in Wiltshire. Stourhead is a fascinating precedent in guiding experience through both movement and looking, not just through guidebooks and tours, but also embedded more fundamentally in the gardens itself, including the careful placement and sequencing of statues, follies and landscaped elements, and by stone signs inscribed with poetic directions to the garden visitor. In contrast, a ramble describes 'the pleasure of movement itself' and involves 'disconnected wandering' that is likely to be solitary.[14] Central Park in New York is singled out as a quintessential place for a ramble, or Hampstead Heath in London comes to mind, alongside of course the less 'designed' landscapes of national parks and nature reserves.

Categorisations are useful but never tidy and, as Dixon-Hunt acknowledges, many gardens cater for at least two kinds of movement – both the organised guided tour in groups but also with allowance for, and indeed promotion of, informal and singular strolling. For example Lord Burlington commissioned artists to depict his gardens at Chiswick to display to visitors. These images, as analysed by Dixon-Hunt, show groups experiencing the gardens through both defined pathways and also guided tours. But they also illustrate figures obviously deviating from these prescriptions through their own individual exploration – and this apparently was encouraged.[15] At Alexander Pope's garden designed by William Kent in Twickenham, visitors might have been invited for a formal guided experience by the owner or designer, but then encouraged to follow personal curiosity by exploring the gardens over the course of an extended stay. Dixon-Hunt usefully describes this mixed experience as a 'middle mode'.[16] He also alerts us to the changing status and interpretation of such garden journeys over time, according to shifts in both narratives of design intention and use.[17] The intention of the self-directed stroll for example can become ritualised or more programmed over time – often through conscious heritage and public educational strategies and agendas.

Figure 4. Landscapes in Time. (University of Melbourne iPad application, Lewi, Saniga, Smith, Monie and Trembath, 2011).

Returning to our 'Landscapes in Time' tour, it has been conceived as a programmed walk in a prescribed journey around a carefully edited and selected part of the Botanic Gardens. So it adheres, in part, to the tradition of ritualised guiding – both as a mode of experience and as a kind of digital design metaphor. As a design metaphor for organising the iPad guide, we strove for a fairly tightly choreographed trail with 13 defined stops in the Botanic and Alexandra Gardens, and a defined route in between. However, within this

route there is the suggestion of some looseness as depicted by a red 'lava-like' flow that links the stops together as a zone, rather than a sharp line of movement. The use of GPS tracking, in the form of a yellow blinking dot on the guide's map to indicate current position, was also included to encourage more free exploration with the confidence of not getting lost. Curiously though, it was those students who were not given this GPS marker who appeared to interrogate the space more actively to construct their journey. Those with GPS seemed to move more slavishly to the prescribed route.

Each stop includes a sound and text narration by Andrew Saniga, as the tour guide and subject lecturer, accompanied by a series of images related to each location. The itinerary of the route was scripted with limits on time and stamina in mind, and therefore highlights only locations that can most directly illuminate particular historical or design themes. To take a couple of stops as examples, the first stop titled 'Straightening the River' locates the beginning of the tour at the plaque of the Botanic Gardens Directors. The first contemporary image in each stop serves as a 'you are here' indicator. At Stop 1, users are directed to look towards the rock escarpment that rises before them as a relic of what was once the edge of the Yarra River. Frequent flooding prompted mitigation works between 1896 and 1900, and the Yarra River was straightened, creating the raised causeway of Alexandra Avenue. This sliced off body of water became an enlarged lake in the Botanical Gardens. Supplementary archival photographic images and maps take the iPad user through these topographical and landform changes.

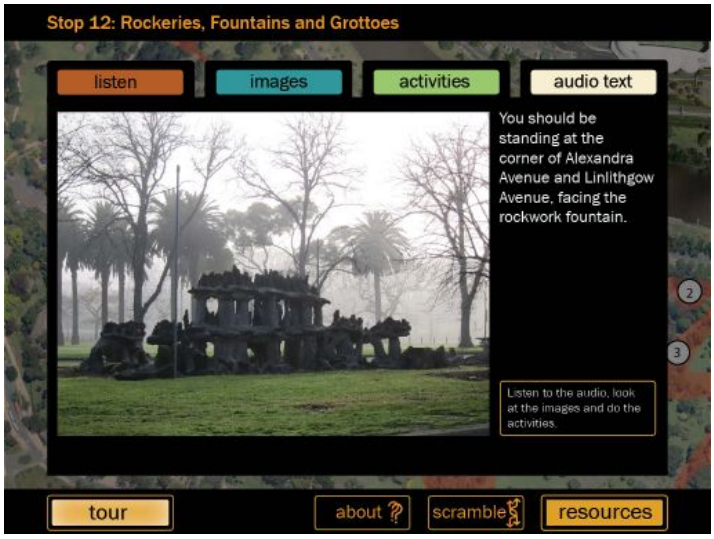

Figure 5. Landscapes in TIme, (University of Melbourne iPad application, Lewi, Saniga, Smith, Monie and Trembath, 2011).

Stop 3 was chosen to provoke consideration of the clash between colonial history and the indigenous presence in the gardens. The intention was to prompt this through experience

and explanation of the ‘Separation Tree’ which is far older than white settlement but named in 1850 as the site of celebration of the colony of Victoria’s separation from New South Wales. The stop's narration reminds us of the importance of this setting to the people of the Kulin nations as a food resource and meeting place.[18] The user is then pointed towards the nearby rest house as an example of the kinds of timber and iron structures constructed throughout the park; often, in von Mueller’s time, from the recycled waste material from shipping ballast, or from the clearing of indigenous timbers throughout the park under both von Mueller and Guilfoyle.

Stop 5 locates the user at 'Guilfoyle’s Volcano' which is a recent construction in the gardens based on an original design of Guilfoyle for a reservoir in the form of a crater-like a volcano. It is reminiscent of his experiences on plant collecting expeditions in the South Pacific in the late 1860s. Dry gardens and rockery beds represent islands, with lawn occupying the space in between as a flow of ‘lava’. In Guilfoyle's day the smoke from the adjacent wood-fired furnaces of the conservatory even created the sense that this simulated volcano was indeed active. Within a repertoire of Victorian gardening, Guilfoyle’s metaphor is conveyed as representing the tension between nature and the colonial experience in the 19th century.

There is no narration or information given between the 13 stops, and hence the guiding of movement is conducted in a somewhat staccato fashion – and perhaps thereby falls into the general criticism offered by Stephen Bann that landscaped sites are generally described throughout history as a series of still points rather than a constant flow of moving and looking.[19] Apart from this programmed guiding through a route, the tour aims to promote a less structured and sequenced experience, reminiscent of Dixon-Hunt’s ‘middle mode’ that combines the stroll and procession. This movement is embodied in both how the gardens can be physically experienced and moved through, and through the intended virtual navigation of the iPad guide. So aside from the mapped tour, a series of thematic resources, gathered and presented in ‘drawers’ allows for users to wander and pursue territories of personal interest.

In a further effort to give navigational choice and to promote longer use of the guide either at or away from the park there is also a 'Scramble' function that was inspired by the possibility of more radically mixing-up the guided experience. So a series of sound-bites cut from the stop narratives, video and still images are collaged together and can be played at leisure. The Scramble option is therefore not intended to didactically guide, but rather to create an ‘ambient’ backdrop while exploring on one’s own, and perhaps even to

induce more random-like wanderings that evoke the spatial and material qualities of the park and the historical episodes that created it. Paul Carter has described the mode of collage as a legitimate or 'normal' way of tackling representation of knowledge and place in a post-colonial setting: 'collage as a compositional technique is … to imitate things as they are and, what's more, to mirror them without any obvious addition of meaning.' [20] The goal of collage in this context is to 'decompose' straightforward linear and direct associations and interpretations, and therefore seems apt to the interpretation of a European-style park in an Antipodean urban setting. The Scramble button attempts to allude to the messiness of historical interpretation: of unfinished plans and unrealised ideas that are inherent in the making of any layered place over time.[21]

Presenting the Park

We return to an opening point raised by Edward Casey over the difficulties faced in encapsulating and presenting experience of designed landscapes and gardens that gave rise to interesting and experimental images. Casey makes a useful distinction between the terms representation and presentation. A representation strives to re-present or to replicate in another form something that attempts to stand-in for the 'real thing'. Whereas he sees most landscape images as seeking to 'present' not '*re*present', as they principally aim to show or demonstrate and interpret, and not to replicate.[22] In charting the challenges of presenting landscapes through time Casey analyses such eclectic examples as Watkin's photographs of the sublimity of Yosemite Park USA; John Constable's intimate paintings of local region of Dedham Vale in England; the tradition of the vertical and horizontal Chinese scrolls showing Chinese landscapes from the Northern Sung period; alongside a broader history of landscape mapping.

Figure 6. The Separation Tree and rest house, (Postcard, 1909, State LIbrary of Victoria) and contemporary image of same location, 2011.

The possibilities afforded by digital and mobile technologies offer new twists to this field of landscape presentation, demonstration and explication. We were interested in testing, through the garden tour prototype, how easily different types of images and maps could be read and what they would offer or hinder in terms of the immersive and informative experience. At each of the 13 stops a selection of images accompanies the narration, and directs the user to look at various features and views. For example, at Stop 3 images of the Separation Tree and shelter in 1906 highlight comparison to today. And at Stop 5 archival photographs and sketches from Fiji are presented, illustrating Guilfoyle's design influences for his vision of the garden landforms and plantings. Other stops ask the user more directly to compare an historical prospect of the park with that same view today, to appreciate some sense of change or stasis over time.

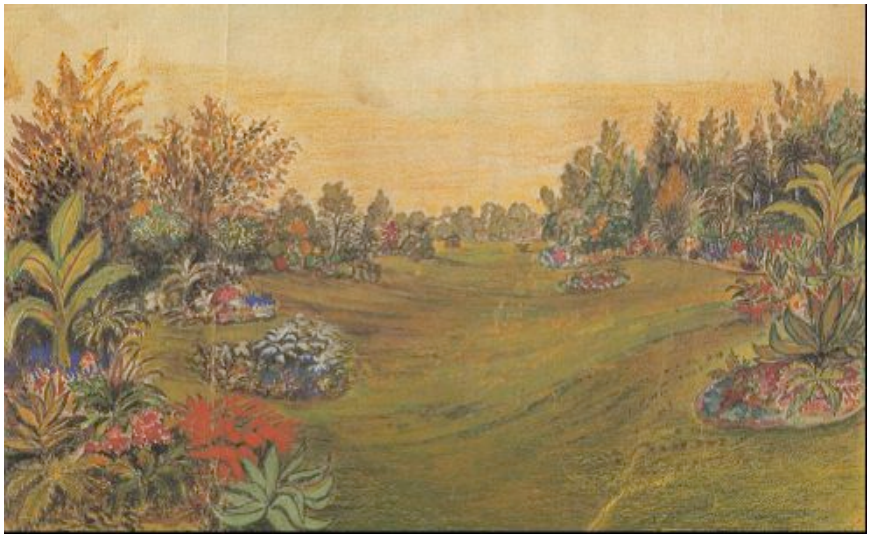

Figure 7. Guilfoyle's volcano inspiration drawn from his fieldwork in Fiji, showing tropical planting.
(Watercolour, no date. Courtesy of Botanic Gardens Archives.)

As mentioned, a series of resource drawers hold additional images, information, and a range of maps including historical plans showing the various park directors intentions, contemporary aerial views, and contour maps that show layered material and topographical information in some detail. Other drawers correspond to the organising themes of i) landform manipulation, ii) planting and vegetation, iii) social use of the park, and iv) architectural and built structures – all of which the user can wander through, either on or off site. The collections held in these drawers include captioned images relating to each theme across various genres such as paintings, photographs, sketches and postcard reproductions that capture how the park was used over time. In terms of the presentation of these on-site resources, other considerations come into play, such as: the technical surface of reproduction, the size and framing, and where it is viewed, or what

Casey has termed the 'place-of-exhibition' and the 'place-of-surface'.[23] In the digital mode, the frame and scale is quite tightly constrained by the size of the iPod or iPad frame, but is, no doubt, more open to possibilities of easy reproduction and manipulation of still and moving images than conventional guidebooks and printed resources.

Figure 8. Landscapes in TIme, University of Melbourne iPad application, Lewi, Saniga, Smith, Monie and Trembath, 2011.

Conclusions: the Challenges of Immersive and Informative Experience

In designing and evaluating an iPad tour for the Royal Botanic Gardens, one underlying interest was to ask what, if anything, might be new about this emerging digital form of guided landscape touring? On the surface, the digital guide offers a different format for delivering information to that of the human guide and the guidebook. Importantly it provides a virtual environment of information to be explored and navigated in tandem with the navigation of the physical place. At a deeper level, though, this new format is responding to longstanding and familiar issues in the visitor's encounter with historic landscapes.

To refer back to Dixon-Hunt's scheme of movement types through designed landscapes, the iPad tour recreated something of a 'procession': the ritualised route inscribed activities to be completed by the student group with a clear goal at the outset. As noted, the inclusion of GPS seemed to strengthen this processional experience by allowing the group to follow the track with little deviation or inclination for exploration. At the same time, having never taken this route before and in the absence of a knowledgeable guide, the experience was always that of the self-motivated stroll, dependent on the will of the visitors to proceed at each point but punctuated by defined points of interest.

Another issue confronted by the digital tour guide concerns Casey's distinction between presentation and representation. The individual items of content exhibited in the guide draw on various traditional forms of representation – photographic images, maps and films – that provide depictions of garden views at various historic moments. When deployed within the iPad tour as the 'place-of-exhibition', we suggest that these exhibits align with Casey's notion of presentation rather than representation, with an emphasis on comparison, interpretation and demonstration conducted *in situ*. Thus resources that might serve as representative copies when viewed elsewhere, here become tools of directed looking and interpretation when synchronised with their real counterparts in context. While such juxtaposition is possible with guide books, and common enough with fixed signed boards, it is the unexpected appearance of these elements as the visitor moves through the virtual environment of the digital guide, and their vivid alignment with the physical scene, that characterises this particular comparative experience.

Figure 9. On tour in the gardens using the ipad guide, 2011.

Further, there are many productive precedents found in modes of touring and presenting gardens in the past that remain instructive in addressing anew the challenge of offering both an immersive and personalised experience alongside an informative guide to a designed landscape. So in conclusion, if we return to the extraordinary stone signage at the garden of Stourhead, Michael Charlesworth has suggested that these inscriptions 'invite the visitor across a crucial threshold that separates the mythic domain of the garden from real space…'. It is this motif of the 'inscription' (whether instructive or poetic) as a guiding voice which has persisted in many modes of garden experience, and arguably makes us feel differently within designed gardens 'compared to how we feel in other 'everyday' spaces'. [24] Even within the formal task of university fieldwork, we

ultimately want students to benefit from the more didactically illustrated experience of 'historical' time, as offered by the resources in the guide, while also retaining some semblance of the personal, and perhaps even poetic, experience of their own time spent in the gardens.

Figure 10. Drawing by Xin Fu, Masters of Landscape student University of Melbourne illustrating the immersive potential of fieldwork.

Endnotes

[1] Edward Casey, *Representing Place: Landscape Painting & Maps*, (Minneapolis: The University of Minnesota Press, 2002) 18.
[2] The ipad prototype tour 'Landscapes in Time: a walking tour of the Royal Botanic Gardens Melbourne and the Domain' is authored, designed and created by H Lewi, A Saniga, W Smith, J Monie and D Trembath.
[3] For other studies on the iPod format see for example, Hannah Lewi and Wally Smith, 'Hand-held Histories: using digital archival documents on architectural tours', Architecture Research Quarterly (ARQ), vol 15: 1, 2011, pp. 69-77.
[4] Michael Conan, 'Introduction: Garden and Landscape Design, from Emotion to the Construction of Self', in Michael Conan (ed.),*Landscape Design and the Experience of Motion*, (Washington: Dumbarton Oaks, 2003) 28-31.
[5] Some key references consulted in creating the iPad tour content are: Paul Fox, *Clearings: Six Colonial Gardeners and their Landscapes,* (Carlton: The Meigunyah Press, 2004); Richard Aitken and Michael Looker, 2002, *The Oxford Companion to Australian Gardens,* (Melbourne: Oxford University Press, 2002); Peter Watts, *Historic Gardens of Victoria: A Reconnaissance,* (Melbourne: Oxford University Press, Melbourne, 1983); Georgina Whitehead, *Civilising the City: A History of Melbourne's Public Gardens,* (Melbourne: State Library of Victoria, 1997); William Robert Guilfoyle, *Australian Plants Suitable for Gardens, Parks, Timber Reserves, etc,* (Melbourne: Whitcombe and Tombs Limited, 1909).
[6] Michael Conan, 'Landscape Metaphors and Metamorphosis of Time', in Michael Conan (ed.) *Landscape Design and the Experience of Motion*, 300-301.
[7] Michael Conan, 'Introduction: Garden and Landscape Design, from Emotion to the Construction of Self', in Michael Conan (ed.) *Landscape Design and the Experience of Motion*, 1-2.

[8] John Dixon-Hunt, ' 'Lordship of the Feet": Toward a Poetics of Movement in the Garden', in Michael Conan (ed.) *Landscape Design and the Experience of Motion*, 187.
[9] Hunt, 'Lordship of the Feet', 188.
[10] Hunt, 'Lordship of the Feet', 291.
[11] Hunt, 'Lordship of the Feet', 202.
[12] See also Tim Richardson*, The Arcadian Friends: Inventing the English Landscape Garden* (London: Bantam Press, 2007).
[13] Hunt, 'Lordship of the Feet', 188.
[14] Hunt, 'Lordship of the Feet', 188.
[15] Hunt, 'Lordship of the Feet', 206.
[16] Hunt, 'Lordship of the Feet', 207.
[17] Hunt, 'Lordship of the Feet', 213.
[18] When Melbourne became a self-governing city in 1842, new policy resulting in the progressive exclusion of indigenous people from white society occurs, concurrent with the first park Directorship under the scientist Ferdinand von Mueller.
[19] Stephen Bann, 'Sensing the Stones: Bernard Lassus and the Ground of Landscape Design' in Michael Conan (ed.) *Landscape Design and the Experience of Motion*, 53.
[20] Paul Carter, *Living in a New Country: History, Travelling and Language* (London: Faber & Faber,1992) 186.
[21] It must be noted that the 'Scramble' idea is still very much a work-in-progress.
[22] Edward Casey, *Representing Place: Landscape Painting & Maps* (Minneapolis: The University of Minnesota Press, 2002) 18.
[23] Casey, *Representing Place*, 120.
[24] Michael Charlesworth, 'Movement, Intersubjectivity and Mercantile Morality at Stourhead', in Michael Conan (ed.) *Landscape Design and the Experience of Motion*, 285.

The Shrine of Remembrance: Addition or Subversion

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Abstract

Melbourne's Shrine of Remembrance (1934) is a memorial steeped in mythology and meaning. As an architecture, it assumes a great deal of significance - both in terms of its iconic placement within the city and as a representative of potent memorial practice within local and national culture. Ashton Raggatt McDougall's recent addition (2005) thrusts this traditional memorial into a more contemporary context and in so doing, it presents an opportunity to re-examine the memorial and the mythologising that has accompanied it. This paper undertakes an analysis of both the original memorial and its addition, in order to gain an understanding of revised notions of war and national identity and to reveal the extent to which architecture may perpetuate such narratives and fabulations.

The original memorial – initially designed to recall all who served in WW1 – has retained its potency as a highly significant representative of memorial culture, and an object around which to enact memorial practice. Such a built form reveals a great deal about historical notions of war, attitudes towards death and intentions for memorial practice. The contemporary revision recharacterises these notions – shifting not only how we may conceive of war in the 21st century, but also providing a useful counterpoint through which to re-examine the memorial's original intentions. The result is the production of an architectural underbelly, a liminal space that allows for new readings of traditional approaches to recollection and the construction of identity.

At first glance the Shrine of Remembrance seems to fit into many preconceived notions of memorialisation, adhering to the principles of a well-known typology. In many respects it conforms to familiar rhetoric around the form and meaning typically associated with national memorials and can readily be understood in these terms. The Shrine is a seminal Melbourne building, familiar in the cityscape and well-loved by Melbournians and Australians as an emblem of national pride, as receptacle for commemorative acts and as a means of mantaining a sense of connection to the past. The decision to add an

extension to the memorial was surprisingly uncontroversial, since its role in national memorial practice is so well established. Yet it seems to me, that this addition elides the traditional stability of the memorial, literally and figuratively undermining the very foundations of its position as representative of common ideology. This paper will argue that the addition uses familiar memorial tropes to convey new, less 'authorised' meaning. It produces a provocative underbelly, a liminal space that calls upon contemporary memorial practice in order to critique it. In so doing the architecture suggests an unusual and articulate response to notions of national identity and attitudes to war.

Attempts to recognise the value of memorials and to ensure their ongoing relevance have resulted in a great deal of contemporary debate over the meaning and value of contemporary memorial culture.[1] Robert Musil's famous claim of 1927 that 'there is nothing so invisible in the world as a monument' is readily contested in Melbourne's Shrine of Remembrance (1934).[2] While some monuments do, like abandoned graveyards, become less and less meaningful (especially as time passes), others are incorporated into rituals of remembrance that repeatedly draw them back into the collective psyche.[3] The Shrine of Remembrance, rather than fading into the background of the city, embodies a narrative of nationalism, nationhood and sacrifice during war. Its original architecture (dating from 1934) is perceived as telling an 'authorised' account of the past - calling on a well-established architectural palette of form and materiality to communicate notions of national identity and to faciliate recollection. Ashton Ragatt McDougall's recent addition (2005) - a subterranean collection of exhibition spaces and amenities - provides an opportunity to examine this memorial, both in terms of its original mythologising and of the revised narratives it uncovers. Yet surprisingly little has been written about this memorial, and significantly less written on the recent Ashton Raggatt McDougall addition. Thus, in providing an opportunity for analysis, the Shrine of Remembrance and its addition present a juncture in which to examine the fabulations that such architecture constructs and to reveal some of the gaps inherent in the production of these narratives.

The Theory of Memory

This discussion allows us to examine the way that meaning that may be inculcated into built form and to understand the value of examining our iconic forms as they may change in accordance with revised attitudes over time. While theorists such as Reigl, Becher and Giedeon have sought to situate memorials within a taxonomy of practice, others such as Pierre Nora have discussed the relationsip between built form and modes of remembering and forgetting. Nora suggests that the actual sites of memory can be

'material', 'symbolic' and 'functional'. He defines memory as existing in an ongoing state of change, vulnerable to remembering and forgetting, and history as a sanctioned representation of the past, a discourse, which distrusts the fluidity of memory. He asserts that a form of constructed history has replaced actual recollection. Nora posits a dual concept of 'lieux de mémoire' wherein a sense of the past is constructed from a specific entity and the 'milieux de mémoire', wherein the past emerges from lived history and social practice.[4] The Shrine of Remembrance operates as a form of the latter – allowing for notions of the past to be constructed through acts of social practice. What these notions may be, and how they may be constructed or reconstructed forms the basis of this analysis.

The ARM extension to the Shrine casts the original intentions under scrutiny, providing a forum for revised understanding and repositioning around the significance of the memorial and proffering a better understanding of the architecture as a commentary on war and conflict. But in addition to providing a point for comparison between the original memorial and its addition, this paper argues that the juxtaposition between the two provides an opportunity for slippage between the two meanings, so that other, less sanctioned narratives may be determined. It is precisely through the concurrence of these two modalities that unscripted and more personal accounts might emerge, in the gap between the two authorised accounts of the past.

This paper examines the original Shrine and then undertakes an analysis of the addition, so that it may be read in relation to current memorial practice. In particular, it aims to question attempts to shift the memorial in line with contemporary memorial practice. Finally, it examines the value of such analysis, determining whether a discussion of the memorial in these terms undermines our ability to understand the memorial or to use it as a counterpoint for reflection, or if in fact, as William Taylor suggests, we are imposing meaning onto architecture that dismisses any alternative narratives.[5]

The Shrine of Remembrance

The Shrine of Remembrance assumed an importance in the landscape of the city of Melbourne even before the monument's construction in 1934. Its size, formal language, central placement within the city and symbolic function ensured that it enjoys significance within the national psyche as a major commemorative and ceremonial site.[6] Its importance is confirmed through the rituals that occur around the memorial, which ensure that its value as a representation of and vehicle for expressions of loss (and perhaps more usefully), notions of unification and nationalism that are reinforced through the

enactment of Anzac Day rituals that are carried out on site. The importance of architecure as a mechanism for this mode of production is articulated by Robert Bevan who states, '[A]rchitecture has become a proxy by which other ideological, ethnic and nationalist battles are still being fought today.'[7]

The Shrine of Remembrance was designed by Phillip Hudson and James Wardop and emerged as a culmination of a project for commemoration that began in 1921.[8] The memorial was constructed from funds collected publicly and from the Victorian government and City Council after an open competition was held for the design.[9] In keeping with many traditional memorials of the time [most notably the Anzac Memorial in Sydney (1934) by C. Bruce Dellit], the memorial is Neoclassical in design, referencing classical antiquity directly and a historical tradition of memorialisation obliquely.[10] It commemorates the 19,000 men who died during WWI, but as Andrew Benjamin points out, the Shrine (as with war memorials in Australia and New Zealand) unusually celebrates the bravery of all those who served in the war rather than only honouring the dead.[11.] Its role has now been extended to include Australians who have served in all wars, as Victoria's memorial to 'men and women who have served in Australia's armed conflicts and peacekeeping operations throughout our nation's history.'[12.]

Placed on a central axis that corresponds to the significant urban route of St Kilda Road, the Shrine is situated atop a man-made hill to emphasise its visual impact upon the city. The original memorial consists of the Sanctuary reached by a prolonged ascent up a wide staircase. Largely constructed of marble, the Sanctuary forms a formal square geometry of columns capped with a dome. An aperture in the dome is meant to allow a ray of light to fall into the centre of the Sanctuary at 11am on the 11th of November (Veteran's Day), highlighting the word LOVE, in the phrase GREATER LOVE HATH NO MAN, that is etched into a tombstone at the Shrine's centre – The Stone of Remembrance. Beneath this poetic space for recollection lies the Crypt, originally accessed from the sanctuary by an adjacent staircase. A more subdued and arguably less popular space, the Crypt employs a similar neoclassical language and materiality arranged around a sculpted figure of a father and son who perished together during WWII (an addition from Ray Ewers in 1967).[13] The form and sculpture evident at the shrine overtly reference a classical tradition which was popular in contemporary memorials of the time, in particular recalling the frieze of the Portico of the Parthenon (referenced in the Lincoln Memorial in Washington DC completed just before the competition) and the Mausoleum at Halicarnassus (Ulysses S Grant's tomb in New York, 1897).[14] In addition to integrating imagery of antiquity, the arrangement of the Shrine: its axial relationships and clearly

articulated symmetry identify it as a neoclassical building. This emphasis and the desire to situate it firmly in a rich tradition of monumental, pathos-driven form is heightened by the use of weighty materials: locally sourced Victorian marble and basalt. Thus, in form, arrangement and construction the memorial adheres to a tradition of memorial-as-cenotaph.

The Addition to the Shrine

The very desire to redevelop the Shrine reveals the continued importance that it has held in Australian society and its ongoing relevance as an object of veneration. In part, this is an acknowledgement of the continued backdrop of involvement in and commitment to war – with various minor additions to the Shrine ensuring that it still represents all conflicts in Australia's history. (The most significant of these was the inclusion of a 12.5m Cenotaph complete with Eternal Flame on the Northern forecourt to honour the veterans of WWII).[15]

Acknowledgement of the shifting nature of memorial practice and a desire for education as an inherent component of the role of contemporary memorials is evidenced in the revised programme for the memorial. It does so in alignment with Andreas Huyssen's argument that the role of the museum *(or memorial)* needs to shift from its traditional position as purveyor of inarguable truth to that of disseminating knowledge through its place in a world of spectacle and mass entertainment.[16] While it cannot be argued that the museum radically assumes the tropes associated with spectacle, it does engage with the visceral components of the experiential model of memory making, as shall be evidenced further in this paper.

Architecturally, the impetus for redevelopment of the Shrine of Remembrance was borne out of a restoration project of the terraces surrounding the main sanctuary. This work revealed a large space beneath the original building used to create the mound upon which the Shrine was placed. The trustees of the Shrine saw an opportunity to transform this undercroft into a space for education and display – 'galleries of remembrance' with the intention to detail the story of the Victorians' history at war – from the Boer War through to the Gulf War.[17] Their intentions were set out in the Bill amending the Shrine of Remembrance Act of 1978. A competition held for the addition project was won by the Melbourne-based firm of Ashton Raggat McDougall. A canonical Melbourne practice, ARM was considered able to imbue the work with the right degree of pathos and intellectual sensibility. Their solution has been lauded as 'a very Australian piece of architecture, created from within the culture not mimicked from the inside.'[18] But surely

this begs the question – what constitutes Australian architecture and how does it fit within the paradigm of contemporary memory practice?

The shrine addition primarily comprises two courtyards – symmetrically situated to flank the original building and graduated into the side of the hill. The first operates as an 'Entry Courtyard' on the North East of the shrine, reminiscent of a bomb crater with angular walls stained red, jagged forms composed of artfully crafted concrete. The second, on the North West, contains a memorial garden or 'Garden Court', created by landscape architects Catherine Rush and Michael Wright, and filled with plants selected for their symbolism: olive, cypress etc.[19] In between these two elements lie the exhibition and amenity areas which form the new programmatic areas of the addition. These internal spaces begin with an arcaded entry space, the Hall of Medals, that displays medals of honour; each representing a number of soliders who died in the war. The Hall of Medals opens into a space for travelling exhibitions, an education area and space for other amenities, including toilets, coat check and a shop.

While at first glance these spaces may seem merely auxiliary, their inclusion may also highlight the manner in which war and acts of recollection are beginning to be recharacterised in contemporary society. In fact the desire for and expectation of such pragmatic spaces suggests revised notions of how we may experience memorials, what we might expect to encounter there and how long we may wish to stay. It seems that amenities and their availability are considered an inherent component in the process of commemoration – a desire for comfort stops and places for purchasing memorabilia. Memory in this sense can only be experienced as a commodified encounter where consumption is an inherent aspect of commemoration.[20]

These pragmatic spaces also form the conduit between the new entry and the original Crypt Space beneath the Shrine. The Crypt is now accessed via a new space termed the Hall of Columns, an existing area - previously inaccessible - composed of the innards of the hill that supports the Shrine. This cavernous space of heavy, raw brick columns operates as a powerful counterpoint to the soaring Shrine space above and to the slick, sophisticated addition.

The 'Anti-memorial'

The subterranean additions to the Shrine of Remembrance cast the existing architecture in a new light, revealing the underbelly of the building and undercutting the stoic, orthogonal of the original. Originally a visit to the Shrine would necessitate a long,

ceremonial walk up opposing stairs situated at the cardinal points of the building and highlighting visual and formal links with the surrounding city. Instead, the addition draws the visitor down into the ground and allows them to 'discover' the Shrine in a more intimate manner. This immediately marks the beginning of a shift in scale and materiality to reduce the experience of recollection to a more personal one. Such a move is in keeping with more contemporary approaches to memorialisation. Following Maya Lin's Vietnam Memorial (1982) in Washington DC, memorial practitioners have sought to shift the narrative and ritual of memorialisation away from the generalised preoccupations of collective memory and into the realm of the personal encounter.[21] Architecturally, this is often manifested as a shift in the relationship to the ground plane, but also highlights a re-characterisation of memory itself through an acknowledgement of the true price of war. This mode of memorial making is often termed the 'anti-memorial', as it often operates in almost direct opposition to the benedictive posturing of the cenotaph.[22]

In a somewhat ironic twist, the addition to the shrines witnesses a marriage of these differing approaches, which are often considered to signify differing attitudes to the past and how it should be handled in the present. In fact, rather than being understood in terms relative to one another, the cenotaph and the anti-memorial are often characterised as dichotomous. James E. Young suggests that counter-monuments emerge to contrast the formulaic and inaccessible monuments presented regularly as an authoritative take on the past.[23] He discusses the transformation of memorials

> from heroic, self-aggrandising figurative icons of the late Nineteenth Century that celebrated national ideals and triumphs to the anti-heroic, often ironic and self-effacing conceptual installations that mark the national ambivalence and uncertainty of the late-Twentieth Century post-modernism.[24]

In part, this has emerged as a result of anxiety over the decreasing relevance of memory practice in an increasingly technological world, a desire to communicate a history that is no longer relevant and a need to compete with multimedia spectacle as a means of conveying significant aspects of the past. All of these factors have resulted in the emergence of the experiential environment as a primary means for memorial production.[25]

The Underbelly

In many respects, ARM's addition conforms to this ideology. However, I would argue that in so doing it presents a revised modality for understanding the original Shrine. In acting

as a counterpoint to the stoic formality of the Shrine itself, the less formal intimacy of the contemporary space proffers a mechanism for personal engagement with the conflicts that the memorial seeks to reflect. In fact, the original shrine was always intended to engage the visitor in a visceral way: most obviously through the symbolic use of light. Additional architectural tropes are utilised - grand scale, heroic imagery and geometric proportions - to intensify the emotive power of the place transmitted through an experiential encounter within the memorial. But these effects are furthered through the visitor's initial encounter with a more intimate, modern visual language. The poppy-red stained entry, with 'lest we forget' inscribed with a casual hand on the wall, marks a stark contrast to the formality of the original building. This effect is further heightened by the personal scale of the entry and the inclusion of the arcade of medals as a point of access into the memorial. The message here speaks more clearly of personal sacrifice than of the heroism of war. In this regard, the addition appears as a revelation – the exposure of the jagged underbelly of the memorial in physical and metaphoric terms. Norman Day suggests that the small building is 'about human veracity during wartime: the original is a large building concerning war as a narrative.' He continues, 'The culture of war has been denied, too, by the burrowing of an important space under another in such a way that the legends of conflict are subsumed only to be represented in a world of peace and light.'[26] Rather than discussing the work in effusive terms, I think it is more helpful to consider what this slippage and reconfiguration that occurs at the junction between the two buildings offers us. It does not speak of war in the honorific terms that Day suggests nor does it deny that glory is a component of war, but instead it offers the possibility that war, in its experience, celebration and commemoration is multi-faceted: a narrative that assumes many dimensions.

In fact, I would argue that this sense is best expressed in the third space – the liminal space between the entry and the Crypt that is, in some respects, the most powerful. This is the Hall of Columns, wherein the existing structure beneath the soaring shrine is exposed. In this space, the columns are rough and ready, marching along with uneven regularity. The dim light and unexpected expanse of this space provide the possibility of a third narrative – not the original tale nor the revised version, but rather a personalised account, unexpected and unauthorised, but necessary, none the less.

The Hall of Columns provides an opportunity to engage with the past in an unscripted manner, inviting the visitor to consider the effects of war at their most profound. Rather than presenting a theme-parked immersive encounter, such as is evidenced at other tightly designed memorial architectures (consider the United States Holocaust Museum

as a literal example and the Memorial to the Murdered Jews of Europe as a more figurative one), the addition to the memorial is immersive in a subversive way. The deep, raw interior of the Hall of Columns tunnelled into the earth suggests the ultimate price of war – mortality. The power of this lies in the oblique, almost incidental nature of its suggestiveness where the weightiness of the memorial above hints at a sobering reality of war. The experience within this space is intensified through the red-tinted light that spills in from the benign visitor's centre behind, a hue that recalls the bloodred splashed concrete wall of the entry bunker.

The fact that this dim underbelly operates as a liminal space invites additional, arguably provocative readings of the site. The underbelly connotes the underworld suggesting a state of purgatory for those slain during the wars. This sense of limbo and state of transition is heightened as the visitor is not led underground in a prefigured path, but instead invited to explore the space beneath. Such an invitation allows for an individualised reading of the memorial and elicits questions about life after death. Significantly, this somewhat perverse reading of the memorial is not demanded of the visitor, but rather proffered through the act of visiting the site. The suggestiveness is effective in its lack of overt meaning, its refusal to tell the visitor what to think or feel. Rather the possibility of an alternative narrative is presented, one that crtitiques rather than celebrates.

In this respect, the addition suggests that the original architecture exists as a form of built fabulation, a memorial constructed to tell a constructed, authorised vision of the past. In contrast, this new architecture evidences the real costs of conflict, rather than the adulatory glorification or gratuitous re-creation typically produced in war memorials. But it does so in artful and elegant terms. The possibility of an alternative reading is merely suggested, hinted through a series of clues: the entry reminiscent of a bunker, the liberal use of red colour, the low lighting, the adjacency to the Crypt and the rough materiality. The architect's decision to use the existing form reveals their restraint. For it is this exposure of the raw space beneath the smooth world of the sanctuary that testifies to the constructed nature of the 'authorised' memorial. Each of these contributes to an suggestion of an alterantive reading, which compounds as the visitor moves into through the site and up to the final sanctuary itself. ARM are careful here not to deny the beauty and significance of the original memorial, or to refute its value as a means of commemorating the past, but rather to present an alternative narrative to read along side the authorised one. The visitor ultimately moves through the underworld of the crypt and upwards towards the soaring space of the sanctuary. Thus the sobering prospect

beneath gives way to an uplifting and affirming space above. Some visitors may experience this space with a new complexity while for others, it affirms their original expectations of the role and form of memorials. In this respect the addition to the memorial presents a provocative commentary on war in such nuanced and measured terms that it can be seen to enhance the orginal, authorised narrative.

William Taylor cautions against the propensity to generalise about correlations between forms, styles and patterns of belief, suggesting that one might be tempted to assume that a memorial conveys a conclusive and universalised reading of the past.[27] This criticism can no longer be levelled at the Shrine of Remembrance. While above ground the original building conforms tightly to memorialising conventions, employing overt symbolism and meaning to reiterate a popular vision of both the past and the appropriate ways of commemorating loss, beneath the ground is another story. Here the addition opens the door to multiple readings of the role and meaning implicit in memorial architecture. From the acknowledgement that memorials are changing to become museums, to the suggestion that war can be recalled in more ambiguous terms, the underbelly of the Shrine of Remembrance credits the visitor with an ability to critically engage with their environment. It uses architecture, not with didacticism, but as a means of opening a dialogue and allowing a personalised, critical engagement with the space and the past that it seeks to recall.

Endnotes

[1] This is a debate that has been heightened since the events of 9/11. See commentators such as Judith Butler, Andreas Huyssen, James E. Young.
[2] Robert Musil as quoted in Peter Carrier, *Holocaust Monuments and National Memory Cultures in France and Germany since 1989* (New York and Oxford: Berghahn Books, 2005), 15.
[3] Neil Leach, 'Erasing the traces, The "denazification" of post revolutionary Berlin and Bucharest', In Neil Leach (ed.), *The Hieroglyphics of space: reading and experiencing the modern metropolis* (London and New York: Routledge, 1995).
[4] Pierre Nora, *Realms of Memory* (New York: Columbia University Press, 1998).
[5] William Taylor, 'Lest We Forget', *Fabrications*, 15, 2 (Dec 2005), 95-111.
[6] Kate Darian-Smith and Jean McAuslan, 'New Technologies, New Interpretations: The Visitor Experience at the Shrine of Remembrance, Melbourne', *Proceedings Museums Australia National Conference,* (2010), 30.
[7] Robert Bevan, *The Destruction of Memory: Architecture at War* (London: Reaktion, 2006), 185.
[8] K.S. Inglis, *Sacred Places*: *War Memorials in the Australian Landscape* (Melbourne: Melbourne University Press, 2008), 302
[9] Taylor, 'Lest We Forget', 101.
[10] Inglis, *Sacred Places*, 289.
[11] Andrew Benjamin, 'A Secular Temenos', *Architecture Australia*, 92, 5 (September/October, 2003).

[12] 'The Shrine Story: Self guided tour of the Shrine of Remembrance', *Shrine of Remembrance Pamphlet 2012,*
[13] Inglis, *Sacred Places*, 361.
[14] Inglis, *Sacred Places,* 302.
[15] William Taylor, 'Lest We Forget', 102
[16] Andreas Huyssen, *Twilight Memories: Marking Time in a Culture of Amnesia* (London and New York: Routledge, 1995), 2.
[17] William Taylor, 'Lest We Forget', 102
[18] Norman Day, 'Shrine of Remembrance', *The Age*, October 20, 2003
[19] Tour of Shrine, conducted 22 February 2012.
[20] Barbara Kirshenblatt-Gimblett, *Destination Culture: Tourism, Museums and Heritage* (Berkeley: University of California Press, 1998).
[21] David Simpson, *9/11: The Culture of Commemoration* (London: University of Chicago Press, 2006), 63.
[22] James E. Young, 'The Counter-Monument: Memory Against itself in Germany Today', *Critical Inquiry,* 18 (Winter, 1992).
[23] James E. Young, *The Texture of Memory – Holocaust Memorials and Meaning,* (New Haven and London: Yale University Press, 1993).
[24] James E. Young, 'The Counter-Monument: Memory Against itself in Germany Today', 267.
[25] William Taylor, 'Lest We Forget', 104.
[26] Norman Day, 'Shrine of Remembrance'.
[27] William Taylor, 'Lest We Forget', 100.

Revisiting Kahn:
A Theological Case for Kenotic Design

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Abstract

When Louis Kahn fabulated his conversation with brick, he bequeathed to modern architecture one of its best-known myths. His interest in the brick's 'desires', coupled with his broader question, "What does the building want to be?", reveals Kahn's philosophy of deference to an essence preceding design. Kahn's approach has been extensively examined in the arenas of history, theory and philosophy. Theology, however, offers an alternative means to amplify our understanding of submission in the creative process. Although a non-observant Jew, Kahn was not without religious instincts. He viewed the universe as being animated by a creative spirit and, in his own description of world origins, employed Biblical-like prose, imagining 'an ooze without shape or direction', wherein a prevailing, metaphysical 'force of joy' is 'the essence of creativity'. He would have been familiar with a sixteenth-century Kabbalistic concept of creation called tzim-tzum*, meaning 'self-withdrawal' or 'self-contraction', but an antecedent Christian concept further illuminates the connection between theology and the role of submission in creativity. This paper explicates a central construct of Christian theology, the paschal mystery, with particular emphasis on its grounding in* kenosis *– Greek for 'emptying', but theologically applied as 'self-emptying' – and its inextricable link to creation and the creative act. In that light, it is argued that Kahn's design philosophy is a kenotic one, in which strength (solution) is, paradoxically, found in weakness (deference), and in which essence is found in immanence. The analysis then turns to contemporary philosopher Gianni Vattimo, whose paradigm of weak thought, and nihilistic interpretation of Heidegger's end-of-metaphysics philosophy, sees secularisation as kenosis and, consequently, as the fulfillment of an always kenotic but, now, non-metaphysical and immanent Christianity. Finally, the paper considers the dynamic between this postmodernist view of kenosis, and the kenosis demanded by Kahn's modernist search for essence.*

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Kahn's Invitation to Theology

Though diffident to commit his aesthetic theory to writing, architect Louis Kahn welcomed the examination and extension of the verbal fabulations that feature in his legacy. His invitation came with humility and a sense of deference:

> I don't know how to extend things, because I don't have any historical knowledge, nor any research tendencies. I can't look up and find other literature, I just can't do it. And so it's left, in a way, in a very undeveloped state, as though it were just an offering for someone else, you know, to extend.[1]

The invitation has been widely accepted by former employees and colleagues, as well as architectural historians, critics and theorists. Many analytical tools, including philosophy and spirituality, have been employed to enter and examine Kahn's mythologies. Although sharing an intimate relationship with spirituality and philosophy, theology offers a distinct arena in which to accept, yet again, Kahn's invitation to "extend things".

For Kahn, architecture constituted a search for essence, animated by a kind of divinity, a creative force, only fulfilled through love. Arguably, his search reveals significant kinship to the theology of *kenosis*, not only in its humility and deference as precursors to the creative act, but also in its promise of redemption through the discovery of pre-existent fullness and truth. In making that case, there is a need, first, to explicate the pertinent threads of kenotic theology, such that their commonality to Kahn's search can subsequently be established. The theology of kenosis originates in Christianity's central theme of the paschal mystery, then leads back to original creation, and forward to the eschaton. In each instance, it portrays a self-humbling, or self-contracting Creator God. Not only are the Christian origins and progressive development of kenotic theology important, but also the Judaic influences thereon … influences which were part of Kahn's formation.

In the light of kenotic theology, Kahn's design theories can be re-visited and extended. Useful is the analysis of Christian Norberg-Schulz, who, in *Architecture: Meaning and Place*, extrapolates the architectural thinking of philosopher Martin Heidegger, and then exposes ideological resemblances with Kahn. Essays by Michael Benedikt and Joseph Burton examine the architect's spiritual instincts and provide insights into Kahn's espoused approach. Juxtaposing such insights with relevant theological principles, a case emerges for the correlation of design and kenotic theology, generally, and for

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Kahn's exemplification of a kenotic approach to design, more specifically. Kahn differentiates approach and outcome, the 'how' and 'what' of design. Although he saw the 'what' as finally more important, he knew that the 'how' holds requisite keys to discovery.[2] The latter is the focus, here. In his more abstract musings, Kahn implies a broad definition of 'design', not limited to the act of architectural design, but pertaining holistically to the creative act. This examination continues that protocol. The 'how' of Kahn's design process is a search that paints the creative act with a decidedly sacred brush, yet reveals evidence of secularity. When Kahn summarises his vocation, saying, "For me, architecture is not a business but a religion, devotion and dedication", he admits theology as an appropriate forensic meeting ground, but when he adds, "for human enjoyment"[3], he includes a secular dimension demanding more than metaphysical discussion.

Kahn's search reflects modernist tensions of on-going secularisation. Such strain is evidence of postmodernism's pre-existence within modernism, and invites an extended view of Kahn's kenotic design approach, even beyond progressive Christian theology. Facilitating that view is the informative work of postmodern philosopher Gianni Vattimo, who sees secularisation *as* kenosis, and therefore as the logical fulfilment of Christianity. His 'continuation' of Christianity, free of all metaphysics, is recognisable only by its essence, caritas, but serves as the underlying presupposition of an immanent, pluralistic and aesthetic culture, with manifold opportunities for human creativity. Relating Vattimo's philosophy with Kahn's deferential aesthetic theory affords an opportunity to examine the place of a kenotic design approach in a secular, postmodern context. The lens of theology, and the filter of kenosis, make that examination possible.

Theology and Kenosis

Subjecting Kahn's thoughts to theological analysis requires recognition of his Jewishness *and* his secularity. He was born into the Judaic faith, a faith conscious of the divide between divine and mortal, and despite contrasting Messianic views, a faith that shares with Christianity a belief in divine intervention in human history. Kahn neither denied nor observed his inherited faith, but was influenced by the *kabbalah*, a strain of Jewish mysticism including the sixteenth-century Luriac creation story, known as *tzim-tzum*, which sees the Hebrew God of the Bible 'self-contract' in order to let creation come to be, and be what it will be. In the divine withdrawal, humanity is given the gift of life, but is obliged to respond by engaging in *tikkun olam*, a restoration of the world leading to a reunion of creation with creator.[4]

The self-contraction of God, however, can be found much earlier than Rabbi Luria's story. In the promise of a Messiah, it is anticipated by the Hebrew Scriptures, but is first seen to have eventuated with the origins of Christianity, particularly in its central theme, the paschal mystery: a complex concept of salvation, foremost referring to the humiliating and, paradoxically, life-promising death of the Messiah Jesus. The paschal mystery is amplified throughout the Christian Scriptures, but takes on a unique dimension in Philippians 2:5-11, portraying a divine Jesus who 'emptied himself' (using the Greek verb *ekenosen*) to take human form, assume the status of 'slave', and willingly suffer crucifixion, all for salvific purposes. Thus, the act of 'self-emptying' is known by the noun, *kenosis,* and is synonymous with terms including self-contraction, self-withdrawal, self-humbling, self-yielding, and dying-to-self.[5]

Because the paschal mystery incorporates the whole mystery of Jesus' life, kenosis refers to an even earlier kenotic act, God's self-emptying to become incarnate as Jesus, which Hans Urs von Balthasar describes as "the primal kenosis".[6] Balthasar and theologian François-Xavier Durrwell contend that the kenosis of incarnation also evidences a triune God, revealing the Holy Spirit as "the power of the process of begetting."[7] As such, the Spirit is an agent of God's kenosis, but is also intimately engaged in a relationship of self-yielding, mutual and, therefore, kenotic love. In the paschal mystery and its incarnational dimension, Balthasar sees a kind of "super-kenosis", in which the creator "does not cling to his divinity" but creates "the space for all the contingencies of human freedom."[8] Like the creator in *tzim-tzum*, the God in the paschal mystery seeks to let creation be what it will be, a prominent concept in Kahn's approach to the human act of creation.

Ironically, it is the union of Judaic *tzim-tzum* with Christian *kenosis*, which leads twentieth-century theologians to view the Creation (or Big Bang) as the earliest act of divine self-contraction. Evolution, then, is evidence of on-going creation, the continued self-emptying of the creator. Humanity comprises the created co-creators[9], implicitly granting to humanity a special place in the aesthetisation of life on earth. When the eschaton – the assumption (or consumption) of creation into the being of (or black hole left by) the creator – is viewed as the fulfilment of a self-contracting God, it too is a product of kenosis. Kenosis, therefore, is a concept that spans from beginning to end, from end to beginning, and is thereby ever-beginning. In those terms, kenosis is what Kahn called "the unmeasurable".[10]

Just as *tzim-tzum* calls for a human response, so does Christian kenosis. A primary model of this 'call-to-action' is found in the paschal mystery, which every Christian liturgy celebrates[11], and in which every Christian is called to participate and respond. In the context of Roman Catholic liturgy, "the paschal mystery refers not just to Jesus' death and resurrection, nor even additionally to his incarnation … but also and very importantly to our participation in that mystery as the central, on-going reality in the life of the Church."[12] Anglican views amplify the call, referring to one's participation in the paschal mystery as an "aesthetic event because it cannot be effected by coercion, but can only, like any event of the beautiful, both invite and enable my giving-over of myself".[13]

Giving-over of self, however, need not be seen as personal sacrifice. Professor Robert Daly equates spiritual self-offering with human love, saying, "For we do not experience love as something we do, but as something that happens to us, that lifts us out of ourselves and transports us, however fleetingly, to a place of supreme fulfilment … a foretaste of heaven."[14] Professor Martha Frederiks goes so far as to say that "kenosis also means plenitude." Its riches come through heightened receptivity, hospitality and, "a conscious opening up to the other in order to partially become the other", and hear what the other is saying. This conscious act of deference constitutes a "radical contextualisation" or "hybridisation", but without eradication of self-identity.[15] Notwithstanding potential rejection, struggle and requisite abandonment of preconceived ideas, the theology of kenosis is an invitation to the love of relational unity, in which the relationship itself strengthens each identity by letting each be what it will be. According to Balthasar, "The divine essence can only be love."[16] As will be seen, Kahn and Vattimo share in the essential nature of love.

Kenosis and Design: The Modernism of Louis Kahn

Late modernity presented lingering tensions between religion and science, between sacred and secular, and consequently generated renewed interest in the concept of kenosis, since it could explain some of the theological inconsistencies exposed by scientific discovery. As discussed, it is in this period that Christian theologians began to integrate *tzim-tzum* with *kenosis* and see creation in terms less biblical and more evolutionary, without abandoning their faith. In many ways, Kahn's search reflects and attempts to mediate the modern tensions of secularisation. In almost contradictory statements, Kahn differentiates but connects the mortal and the divine, saying in one instance, "Art is the language of God", and in another, "The only language of man is art."[17] He similarly differentiates but connects the mystical and the scientific, the inspiration and the realisation. "Engineering is not one thing and design another. They must be one and

the same thing."[18] Christian Norberg-Schulz interprets Kahn, saying, "The technological realisation is therefore an incarnation of the institution."[19] I would contend that the kenosis inherent in Kahn's approach is that which effects the incarnation and, using the theology of Durrwell, is the power underlying Kahn's 'process of begetting'.

Norberg-Schulz explains that Kahn saw inspiration as an "understanding" of "things that already exist." The challenge, then, is to discover the "order which precedes design", the "essence which determines the solution", and allow the pre-existing "will-to-be", or "existence-will", to reveal itself and be made manifest.[20] In a fabulation of his thought process, Kahn legendarily spoke of his conversation with a brick: "I asked the brick what it liked, and the brick said, 'I like an arch.'"[21] Implications about technology and materiality aside, this conversation points to an approach of humility and deference, first to the object of the conversation, the material, and then to the process, itself. Kahn's larger, corollary question, "What does the building want to be?", volunteers vulnerability and signals the heightened receptivity called for in kenotic theology. Both conversations demand a willingness to trust the process, to take risk, to empty oneself of preconceived ideas, to partially become the brick or the building in order to hear what each might be saying about its will-to-be. In a self-humbling summary, Kahn says, "It is not what you want, it is what you sense in the order of things, which tells you what to design."[22] Sensing that order requires conversion, 'radical contextualisation', or 'hybridisation', thereby effecting the incarnation of its essence – its beauty – via kenotic love. According to Kahn, "Beauty cannot be built into architecture by design; beauty evolves from acceptance and love."[23] His words echo Balthasar's, seen earlier, and resonate with Vattimo's, to follow.

Though humble and deferential, Kahn's aesthetic theory is true to kenotic principles in its optimism, promise of plenitude, and retention of self-identity (it being reasonably inferable that a competent and confident designer is the interrogator of the brick and the building). Like kenosis, design is a call to action. "You cannot make a building unless you are joyously engaged."[24] Like kenosis, design offers worthy, even redemptive rewards: the manifestation of a thing's existence-will, a reunion with what it has always been, the tantalising, if never fully achievable, hope for Order restored. Kahn attempted to describe Order through his pyramidal 'Silence to Light' diagrams: "I sense Silence as the aura of the 'desire to be, to express'; Light as the aura 'to be, to be'; material as 'spent light' (the mountains, the streams, the atmosphere, and we are of spent light)."[25] Using terms of architectural manufacture, he elaborates: "A work is made in the urging sounds of industry and when the dust settles the pyramid, echoing silence, gives the sun its

shadow."[26] Norberg-Schulz interprets the reward of this work as "a building which makes light a concrete reality and thereby discloses the order of silence."[27]

Each poetic description exposes theological parallels. Kahn's sense of Order can be juxtaposed against the paschal mystery and various applications of kenosis to reveal their commonality of principles:

Kahn's Sense of 'Order'	Paschal Mystery and *Kenosis*	Incarnation, Creation and *Kenosis*	Design and *Kenosis*
Silence Desire to be, to express	**Death *(Birth)*** Christ has died, self-emptied, redemptive	**Creator God** Desire to be Self-restricted to enable creation	**Creator Designer** Self-restricted Self-emptied Filled with longing
Light Desire to be, to be	**Life** Christ has risen, spirit-filled	**Holy Spirit** Power of the process of begetting	**Inspiration** Giver of presence Filler of void Human 'institutions'
Spent Light Material: mountains, streams, atmosphere, humanity	**Salvation** Christ will come again, in realisation of the 'Kingdom'	**Creation** 1st: Cosmos 2nd: Incarnation Both: Revelation, realisation	**Realisation** Essence revealed Institution incarnate Understanding Phenomenal World

Figure 1. Kahn, Kenosis and Design: Hierarchy of Principles.

Summarising, Kahn states: "Art is the making of a life" and can be found where "the will to be meets the means of expression." Norberg-Schulz describes this juncture as "the threshold where silence and light meet"[28], linking Kahn to the Heideggerian notion of boundary as "that from which something begins its presencing."[29] Theologically, the juncture is where death, or emptiness, first grants life its presencing, through kenosis. Revealed is the kenotic theology embedded in Kahn's design philosophy, including an optimistic view that the creative act results in revelation, when the desire to be and to express – that emptiness of longing or lack – joins the "giver of all presences" (Kahn's expression for 'light').[30]

Reflections of Heideggerian philosophy in the thoughts of Louis Kahn are many, according to Norberg-Schulz, who probes Heidegger's description of a Greek temple to extract architectural concepts. Heidegger describes the temple's "preserved truths": (1) it

makes "the god present", (2) it "fits together" what shapes "the destiny of human being", and (3) it makes "all the things of the earth 'visible'".[31] These preserved truths echo not only Kahn's 'Silence to Light' diagrams, but also the kenotic theology of creation and incarnation, which identifies a Creator God, a Spirit with the power to shape human destiny, and a creative act that makes visible – or incarnates – the creator in material form. Heidegger's later concept of the 'fourfold' sees the temple as a revelation of the world wherein human beings live, comprising a "'fourfold' of earth, sky, mortals and divinities."[32] To Heidegger, the temple "opens up a world and at the same time sets this world back again on earth."[33] Like Kahn's sense of Order, Heidegger's temple imagery suggests a sense of 'between-ness'. In fact, Heidegger uses the term "multivarious between" to describe the world where humans stay "between earth and sky, between birth and death, between joy and pain, between work and word."[34] This is a place quite distant, metaphysical and sacred on one hand, while proximate, temporal, and secular on the other. Kenotic concepts, evident in the thoughts of both Heidegger and Kahn, point to secularity because kenosis is a means of secularisation.

Kenosis and Secularisation: The Postmodernism of Gianni Vattimo

Michael Benedikt describes Kahn as "an architect happy to stand at the gates of Mystery", but then appears to limit the stance, saying, "Certainly, Kahn's humanism was religious, not secular."[35] I would argue that Kahn's thoughts indicate both religiosity and secularity, and that his comfort with mystery is the very attribute that equipped him to embrace both. A similar embrace – though radicalised well beyond Kahn's – is found in the creative, postmodern philosophy cum theology of Gianni Vattimo. For him, secularisation *is* kenosis, and Christianity is the religion *of* kenosis. Therefore, he concludes that the kenotic process of secularisation "is not a means to overcome Christianity, but rather a legitimate continuation of … the central message of Christianity", albeit transformed to exclude any metaphysical content.[36] In Vattimo's view, 'overcoming' a religion only leaves open the possibility of replacing it with another religion, or claimed metaphysical truth. That concerns him because he sees 'violence' – not primarily physical violence, but more insidious forms stemming from hubris and mastery desires – to be inherent in metaphysics and all claims of theological or theoretical truth. Only the weakening of God, through secularisation, can guard against such violence. Vattimo's philosophy of kenotic secularisation is a complex and well-documented construct, which need not be replicated here. More importantly, a brief review of its genealogy and precepts allows further examination of Louis Kahn's kenotic design process, in postmodern terms.[37]

Vattimo's project of 'weak thought' is heavily influenced by the work of Friedrich Nietzsche and Martin Heidegger. As discussed, Heidegger's thoughts can be seen to reveal a dimension of 'between-ness' amongst Being and beings, a 'philosophy of difference'. In his later works, as an interpreter of Nietzsche's nihilism and critic of metaphysics, Heidegger's philosophy of difference – used by some to maintain the notion of a different, distant and immutable God – becomes less focused on the 'between-ness' amongst beings and Being, and more interested in their presence in history. That shift affords Vattimo the opportunity not only to hold Heidegger's philosophy, including its view of an inevitable and tragic onset of nihilistic culture, but couple it with what he sees as Nietzsche's 'positive nihilism', not restricted to the destruction of metaphysics and loss of transcendent meaning, but positing a constructive narrative about humanity's place. Vattimo's nihilistic interpretation of Heideggerian philosophy is unorthodox, but allows him to embrace the end of metaphysics, the 'death' of God, and secularisation, while at the same time retain the concept of religious experience, and remain in accord with the essence of religion, liberated from dogma and institutionalisation.

According to Vattimo, by virtue of God's kenotic act of incarnation, "the sacred becomes flesh and thus makes it possible to speak of God as part of the secular."[38] A kenotic dissolution – or weakening – is thereby begun. The paschal mystery of Christ reveals a loving God, dispels myths of God's anger and violence, and declares the victim innocent. Christianity enters (Western) history as a search for *salvation*. With the emergence of hermeneutics in the Reformation, and scientific reasoning in the Enlightenment, the search gradually shifts toward *perfection*: the perfection of person, government, and world. The Industrial Revolution launches a ceaseless march of advancing technology and scientific discovery, eventually seeing the search turn toward *progress*. Progress, at its best, creates the conditions that foster further progress. Slowly, progress dissolves and becomes *routine*. Metaphysics is fulfilled in science and technology, and ends. The difference between art and reality blurs. The need for objective truth diminishes. "The consequence of the gospel is nihilism."[39] God's 'death' is the revelation and realisation of God's self-emptying. Christianity is not only fulfilled through secularisation, but its tendencies toward kenosis, hermeneutics, and mission uniquely position it to sponsor secularisation's outcome: "a wide ranging pluralism of religious forms that are all legitimate interpretations of the original hermeneutic event: the incarnation."[40] Secularisation enables the "aesthetisation of culture, understood as the pluralisation of lifestyles typical for our postmodern culture."[41] Though not without risk, secularisation offers opportunity. Like Heidegger, saying "art can bring forth reality", and Kahn, saying "art is the making of a life", Vattimo sees the opportunity for an aesthetic way of being,

one that is real, not supernatural. He sees human creativity escaping the limitations of science and technology to freely shape our lives, and as a result of human kenosis – that giving-over to the aesthetic moment, that voluntary hybridisation – doing so without the need for violence or self-assertion. His kenotic secularisation is a call to action, founded in hermeneutics, ultimately immanent, promising the realisation of pluralism and plenitude.

In the midst of a plurality of "legitimate interpretations", Vattimo suggests the need for only one interpretive limit: *caritas,* or love. In this, too, secularisation is a continuation of Christianity's central principles. However, in the absence of a transcendental and judgemental God, love would appear to be a choice, raising questions as to why such a choice would be made. Although a less specific facet of his philosophy, and therefore often criticised, Vattimo – with the help of Nietzsche, Heidegger, and René Girard – offers a rationale. He relies on Christian tradition, with its inherent propensity toward caritas, as an impetus for choosing to be moral, for choosing kenosis. Cognition of violence is a condition of its rejection; the very exposure of violence begins a process of change, or conversion. Thus, as the product of on-going secularisation, an increasingly aesthetic and pluralistic culture, free of scientific and technological boundaries, increasingly invokes caritas because of its symbiotic relationship with the manifestation of beauty, and increasingly comes to value kenosis over self-assertion. Vattimo therefore posits the kenosis of God – the weakening of metaphysics and the absence of an ultimate arbiter – as a strength of religiosity and humanity.

Secularisation has been underway throughout Western/Christian history. In late modernity, it fosters the transition from metaphysical world views, to more scientific and immanent ones, and points to a postmodern liberation from the sense of 'between-ness', seen earlier in the thinking of Heidegger and Kahn. Whereas modernism still searched for a single, utopian truth, postmodernism acknowledges and embraces a plurality of possibilities in a completely immanent context. By equating secularisation and kenosis, Vattimo is able to extend what he views as the essence of Christianity into postmodern philosophy. In turn, his philosophy invites another look at the kenotic aspects of Kahn's approach, through postmodern eyes.

Extending Kahn: Kenotic Design and Postmodernism

Arising from Christian theology, the concept of kenosis is explicit in Vattimo's philosophy; implicit, but evident, in Kahn's less congruous aesthetic theory. Both espouse the choice of self-restriction over self-assertion, an opening-up to the other through conversion.

Both find opportunity and plenitude in that choice. Both consider love essential to the aesthetic experience. Both see strength in weakness; for Vattimo, genuine religious experience through God's death, while for Kahn, solution through deference. Both rely on hermeneutics, the search for interpretations. Vattimo's secularisation involves "reading the signs of the times"[42], while Kahn's response to changing circumstances involves seeking "new expressions of old institutions."[43] In its kenotic aspects, Kahn's design process offers examples of postmodernism's pre-existence in modernism. However, that process is neither resolved, nor prescriptive. Self-admittedly, his thinking is left undeveloped. Vattimo's postmodern philosophy presents a useful tool to further develop Kahn's thinking, address unanswered questions, identify issues arising, and draw conclusions.

A fundamental question lurks behind Kahn's interrogation of materials and buildings to determine what they want to be. In the postmodern condition, absent an ultimate arbiter and amidst manifold possibilities, how does a human creator discern such essence, especially in a kenotic posture of openness and hybridisation, without succumbing to the seduction – indeed, hubris and violence – of fashion, trend, and fad? Clues are offered in an argument for kenotic incarnation, by philosophy professor Peter Forrest, in which Jesus is said to possess 'paradoxical attributes', namely "(1) his capacity to share human suffering at its worst …, and (2) his capacity to be genuinely tempted."[44] Transposing the argument to the arts, it could be said that Kahn had, and any kenotic creator/designer would be required to have: (1) the capacity to empathise with every element of the creative context, and each of their *desires to be*, and (2) the capacity to be genuinely tempted, by style. To be empathetic, to seek to be in solidarity, is a prerequisite for kenosis. To be temptable is recognition that seduction exists, and such awareness presents a first defence. Paradoxically, it follows that, in possession of such attributes, the human creator can self-restrict in order to de-restrict the problem, and discern the full essence of the solution that desires to be. The second attribute leaves the original question partially unanswered, but Vattimo inspires a form of resolution. Secularisation, including its futile search for progress-dissolved-into-routine, exposes and names fashion, trend and fad. Cognition initiates the process of rejection. Hermeneutics, subject to the interpretive limit of love, feeds the process of conversion, to the point where stylistic machinations are also dissolved. It is not, however, a process free of contingency. To invoke or practise kenosis is to invite spontaneity, the same spontaneity found in the original kenotic product, creation. To be fully receptive, tolerant, and pluralistic is to be open not only to foreseeable outcomes, but also to novel and unexpected ones.

Equally unresolved is the question: Why did Kahn choose to engage in a form of kenotic design, and why should anyone? True to kenotic principles, Kahn appears to adopt his deferential stance willingly, for almost religious reasons, but not without secular stimuli. His belief in love as the conduit to beauty, over and above design dexterity, virtually predestined an attraction to a kenotic process, since love is the very core of kenosis, as evidenced in both its theology and Vattimo's philosophical extension. If Kahn and Vattimo are correct about the role of love in the aesthetic experience, kenosis can be a designer's call to action. In Christian liturgy, wherein divine kenotic events are celebrated, aesthetics are afforded a special place, with beauty seen as the invitation to participation and kenotic response. Heidegger and Kahn view the making of art as having the capacity to produce reality and realise life. In his postmodern philosophy of secularisation, Vattimo envisages the aesthetisation of culture and, consequently, new creative opportunity. The arts, significantly including architecture, are central to these visions, and a kenotic approach to the creative act is a fulfilment of the secularisation that kenosis unfolds.

Vattimo's reliance on love to mediate the spontaneity and contingency of secularisation may be his most vulnerable proposal, particularly given love's mystery and subjectivity. Vattimo is criticised for invoking a contingent criterion to limit contingency[45]. He is also challenged concerning the relationship of love and justice, including the possible need for violent enforcement.[46] In the latter critique, Frits de Lange describes Vattimo's interpretation of kenosis as 'asymmetrical', seeing self-limitation as unidirectional, and suggests that justice requires the symmetry of "impartiality and reciprocity".[47] Such debate raises parallel issues of symmetry in the creative process. Kahn's kenotic approach is largely asymmetrical, in that it is only the creator/designer who undergoes self-emptying in order to discover the solution's pre-existing essence. His process becomes somewhat reciprocal, though not symmetrical, when he questions the brick and the building about their desires to be, and they 'respond' in a self-revealing, if not self-sacrificing manner. Viewing design, in general, as the relationship between creator, object and perceiver, Kahn's approach can be extended to suggest a construct of symmetrical kenosis on the part of all three 'participants', a construct better-suited to a secularised, postmodern condition of plurality. In it, the kenosis of the *creator* is that demonstrated by Kahn, though with new awareness of manifold possibilities, rather than in search of any single truth. The kenosis of the *object* begins as it does in Kahn's process, but demands far greater self-revelation, including not only what it wants to be, but the full implications of its realisation, in some cases entailing its self-sacrifice on social or ecological grounds, whereby the interpretive limit of love joins justice to produce

equitable beauty. Full symmetry is achieved when the third party to the creative process, the *perceiver* (owner, client, regulator, user, visitor, observer), engages with design – before and after its realisation – in a kenotic posture, open to a plurality of legitimate interpretations.

A symmetrical construct of the creative process may appear as idealistic and radical to design as Vattimo's project does to Christianity. As with Vattimo, plausibility relies on a potentially lengthy process of conversion, one that leads to the dissolution of all intentions of domination. Conversion is made credible in the crux of Vattimo's argument, that irrespective of diverse religious interpretations, secularisation is undergirded, at least in the West, by a "tacit agreement on essentially Christian values".[48] As seen earlier, Christian theology and ethics are profoundly influenced by the concept of kenosis and its derivatives, caritas and love. Kenosis fuels secularisation, while agreement on underlying principles guides the required conversion, and informs choices. In that light, a kenotic and symmetrical design process can be posited not only as a product of postmodern secularisation, but also as one advantageous to a pluralistic society.

In his modernist search for essence, Louis Kahn espouses a design approach that informatively correlates to the Christian theology of kenosis. Postmodernist Gianni Vattimo extends that theology, showing secularisation to be the product of kenosis, thereby effecting not the conquest of Christianity, but its continuation. Using Vattimo's logic, it can be argued that postmodernism is not a means to 'overcome' modernism, but rather to fulfil and redeem it. Although it rejects modernism's search for a single truth, postmodernism preserves its zeal and continues the search for essence(s), Kahn's 'existence-will', while pleading for the abandonment of mastery goals, Nietzsche's 'will-to-power'. A kenotic approach to design, especially if symmetrical, not only remains cogent in postmodernity, but may be more efficacious there. In its advocacy of self-restriction over self-assertion, kenotic design calls for an awakening, and poses worthy questions about its capacity to address not only issues of aesthetics, but others such as globalism, multi-culturalism and environmentalism. In response, kenotic design – like kenotic theology and the secularisation it spawns – presents the challenge of paradox, invites paradigmatic conversion, and proposes hermeneutics and its limiter, love, as a framework for creative discovery. All are detectable in the historic fabulations of Louis Kahn, but are rendered current by the openness of his invitation for others to examine his thoughts and "extend things."

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Endnotes

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[3] Burton, 'The Aesthetic Education of Louis I. Kahn, 1912-1924', 216.
[4] The origins and development of Kahn's spiritual instincts are more fully discussed in Bendedikt, 'Shiva, Luria, Kahn' and Burton, 'Notes from Volume Zero', both in *The Religious Imagination in Modern and Contemporary Architecture: A Reader*.
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[19] Norberg-Schulz, *Architecture: Meaning and Place,* 205.
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[35] Benedikt, 'Shiva, Luria, Kahn', 34.
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[39] Frits de Lange, 'Kenotic Ethics: Gianni Vattimo, Reading "The Signs of Time"', in Onno Zijlstra (ed.), *Letting Go: Rethinking Kenosis*, (Bern: Peter Lang, 2002), 25.
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Sydney Schools and the ‘Sydney School’

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Abstract

This paper examines the early career of Sydney architect Michael Dysart, in particular his role in designing a significant group of high schools while working for the NSW Government Architect’s Branch (GAB) in the early and mid 1960s. The paper situates this work within the wider context of school design in Australia in the postwar decades and addresses some of the dilemmas facing architects undertaking work for state education departments. In particular it addresses the apparent contradiction between the architectural motivation to develop typologies within specific settings, and the utilitarian thrust of cost-constrained government departments seeking templates that might ‘solve the problem’ and require as little variation as possible. This conflict between the general and the particular in school design, understood here as a relationship between system and place, opens onto the question of regional specificity in Sydney’s architecture, or the so-called ‘Sydney School’. The paper suggests that far from dismissing the whole idea of a Sydney school, we should ask whether Dysart’s school work might enable a critical expansion of the idea, beyond its rather narrow application to the freestanding, single family house.

Sydney Schools and the ‘Sydney School’

This paper is about a building type, the school, and its relationship with a school of architectural design, the ‘Sydney School.’ Narrating the development of a building type is one of the strategies, or units of analysis, available to architectural historians; examining movements and schools of thought another. But this paper is also biographical, a third unit for narrating architectural history.[1] Interest in the first, the building type, was generated by a research project on the development of the twentieth-century school. Interest in the second, the idea of the ‘Sydney School’, as a regional style or approach, has been longstanding, a product of teaching Australian architectural history and thinking about the question of regional and national identity in Australian architecture. But travelling to Sydney to look at schools, talk to educators and interview school designers last year occasioned some reflection on ‘The

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Sydney School', a consequence of the frequent use of the term 'Sydney schools' in the course of that research. The seemingly arbitrary intersection of terms prompted some consideration of the relationship between building type and architectural movement or school. It led, moreover, to an illuminating discussion with Sydney architect, Michael Dysart, who, on reflection, seemed to sit squarely at the intersection between the history of Sydney's schools and the history of the 'Sydney School.'

The School

During the twentieth century the school has been the subject of ongoing experimentation aimed at producing new models of sociality, salubrity and physical flexibility. The criticism levelled at nineteenth century schools, that they were essentially barracks or reformatories, inspired waves of progressive reform directed towards promoting the health, autonomy and capacity of school children.[2] Open-air classrooms, schools without walls, schools without classrooms, clusters, learning villages, community centres and various evocations of intimacy and home, all featured in the discussion of how to rethink and redesign the school in the twentieth century. Richard Neutra, Jan Duiker, Hans Scharoun, Eliel and Eero Saarinen, Arne Jacobsen and Alison and Peter Smithson are among the very well-known architects who contributed to this process of innovation.[3] At the same time lesser-known education specialists such as Ernest J. Kump and Ezra Ehrenkrantz, both working primarily in California, and public works departments such as the London (LCC) and Hertfordshire County councils, worked for decades on developing systems, plan forms and an architectural language appropriate for mass utilization in an era of ambitious expansion of educational opportunity.[4]

In Australia in the immediate postwar years, the work of the Victorian Public Works Department (PWD) under the leadership of former school principal Percy Everett, promised a fundamentally new approach to primary school design in particular. Ideas of child-centredness, physical flexibility and rigorous economy all informed Everett's design of what he dubbed the 'Solway' primary schools. The most distinguishing aspect of this group of schools – seventeen were proposed but we know of only six, of which three are substantially intact – were the hexagonal classrooms, which suggested a sort of cluster plan and enabled a system of trilateral natural lighting.[5]

But such were the demands placed on the state education departments by post-war population growth and the expansion of education to make high school a universal

entitlement, that a very utilitarian approach to school design prevailed across Australia during the 1950s. This encouraged the kind of 'demonumentalisation' that both architects and educators sought in the period, but did so in a relatively mean way, stripping away the sense of civic decorum embedded in the traditional styles used for schools without really providing a fundamentally new set of spatial or environmental conditions for the pupils and teachers. In the 1960s, however, beginning in NSW, that would begin to change.[6]

The Sydney School

In the early 1960s, just as the NSW Government Architect's Branch (GAB) embarked upon its reconfiguration of the government high school, Ken Woolley and Peter Johnson completed houses for their own families – the Woolley House, Mosman, NSW, (1962) and the Johnson House, Chatswood, NSW, (1963) - crystallizing what Jennifer Taylor and others described as a 'Sydney School' of domestic architecture. Taylor asserted that the 'The Sydney School' houses were 'affiliated through the use of rough textured, self-finished materials', that they exhibited 'a deliberate attempt to blend with, and hide amongst the existing environment' and that is was an 'architecture of strong surfaces and masses, principally a brick and tile architecture, disciplined by the geometry of the plan and the geometry of the wall and roofplanes (sic)'.[7] With the realization of the Woolley and Johnson houses, Taylor wrote, 'the image for a whole family of related houses was established.'[8] The Sydney School houses of the period, many of them award winners, have been much celebrated and their meaning for Australian architecture much debated. Virtually all of the important commentators on Australian architecture in the 1960s and 1970s – Robin Boyd, David Saunders, Philip Cox as well as Jennifer Taylor - had something to say about them.[9] Whether or not the view was completely positive, and certainly Robin Boyd expressed strong reservations, most seemed to agree that the Johnson and Woolley houses, taken along with Russell Jack's own house and others by Bruce Rickard, Ross Thorne, Ian McKay and Don Gazzard, to mention just a few, did constitute a new tradition or school, one that certainly had something to do with nation and region.

In 1985 Stanislaus Fung attempted to discredit the 'Sydney School' thesis, suggesting that the idea was question begging and that its major proponents based their conclusions on unargued and unsubstantiated assertions (Taylor) and 'dangerous' assumptions (Saunders).[10] Fung's negation of the idea, ironically, reinforces its existence. Certainly students regularly come away from reading his paper with a reasonably clear conception of the Sydney School. In this

Fung's piece is a bit like a political denial, sure proof to everyone listening that the thing denied is real. Of course, the idea that there was a Sydney School in the 1950s and 1960s persists in Australian architecture discourse and Jacqueline Urford's recent encyclopaedia entry on the topic makes a spirited case for why there is a meaningful unity in the work of a dozen or so Sydney architects of this period, despite the apparent formal diversity in their output.[11] She thus affirms Jennifer Taylor's argument that, even though there is an evident variety of sources underpinning their architecture, the ethic of the Sydney School was shared. Nevertheless, the scholarship on the subject leaves the distinct impression that this breadth of sources and influences did not translate into a broad impact across the field of architecture. Jennifer Taylor claimed, for example, that the proving ground for the Sydney school was the house as with most other aspects of Australian architecture. But all too rarely have historians and critics looked beyond this frame to understand Sydney's regionalism.[12]

The 'Sydney School' School

There are non-domestic examples of recognizably 'Sydney School' architecture and some of these have an educational function. One of the most highly regarded is Clubbe Hall at the Frensham School, Mittagong, (NSW) by Allen Jack + Cottier, 1962.[13] It possesses a number of the recognisable formal characteristics of Sydney School buildings – fractured forms, high lighting, exposed concrete lintels, treated timber and exposed brick. There are also several tertiary buildings of the mid-1960s that clearly deserve to be considered alongside Clubbe Hall, in particular the CB Alexander College, Tocal, NSW (1964) by Ian McKay and Philip Cox and Ancher Mortlock and Woolley's Student Union for the University of Newcastle, NSW (1964). But I am less interested here in the singular examples that might be offered an honorary place alongside the iconic houses of the 'Sydney School' than I am in the broader pattern of innovation and transformation that affected Sydney's schools in general, and examining to what extent these do or do not cohere with the 'Sydney School' approach as a whole.

The best way to do this is to turn to the work of Michael Dysart. He is the architect who had the greatest impact on Sydney schools in the period. Moreover, his trajectory as a designer more broadly was strongly linked to the concerns and formal strategies associated with the Sydney School. His project house 'Split 3' for Habitat, for example is illustrated by Jennifer Taylor in *An Australian Identity*, and is a text book example, with its split levels, sloping roof forms, and exposed brick work.[14] He developed this domestic work with and alongside Ken

Woolley – with the permission and encouragement of Harry Rembert – while at the GAB during the same period that his school ideas were evolving. Indeed together Ken Woolley and Dysart penned what might be the Sydney School's only self-conscious document, their never published and now lost 'Manifesto of Natural Materialism'. In Dysart's memory the manifesto was a 'semi-serious' critique of the excessive painting of Australia's buildings, promoted by an expanding paint industry in the 1950s.[15]

Dysart's school work, therefore, provides an excellent way of assessing the scope of what has been called the Sydney School. Indeed Dysart's work epitomises the cross currents running between the NSW GAB - a locus for the development of architectural talent in Sydney at the time - and the firm of Ancher Mortlock Woolley in this period. Dysart's output also highlights the influence that ran back and forth between the domestic architecture that was produced in private practice and the institutional work of the GAB. The schools designed in Sydney at this time thus raise the question as to why it is always assumed that 'the house' is more or less the beginning and end of the story of regionalism in Sydney.

Michael Dysart

Dysart was born in England in 1934, to an Irish mother and French-English father, and the family spent World War II in Ireland. After the War they returned to England and settled in Brighton, where Michael attended the Hanover Terrace School, sometimes called the building school. The school's houses were known as Adam, Wren, Nash and Lutyens, clearly signalling the school's focus, and its pupils were taught an academic curriculum alongside subjects in building and engineering. The school exposed Dysart at an early age to basic problems in design and construction and he says, a 'craft socialist ethos' which disposed him to view architecture in a social and ethical light.[16]

Following a trip to the cricket to see the Australian touring team in 1948, Dysart recalls that he developed a fascination with Australia that also affected his father, and the whole family migrated to Australia in 1950. They settled in the Blue Mountains town of Katoomba, where they constructed their own frame house with fibro walls and box framed windows. Completing his high school education in Katoomba, Dysart received great help from his mathematics teacher, Mr. Dillon, whom he credits with his success in gaining entry on a scholarship to Sydney University, where he enrolled in architecture. While at university Dysart worked on large construction sites in central Sydney and he found many of the exercises required in his

university degree to be remote from his other experiences of architecture and building. Dysart recalled that the old fashioned, artistic dilettantism at the university at the time was alienating and describes his career trajectory as having developed in spite of his university education. But while at university he won a traineeship in the Government Architect's Branch (GAB) of the NSW PWD. This opportunity would set the course for his career and provide the institutional and creative context, which shaped his architectural commitments and his contribution in coming decades.[17]

Dysart arrived at the GAB with an established interest in building and engineering, some experience in the construction industry and distaste for the established old boy networks of Sydney's mid-century architecture culture. Once there he came into contact with Harry Rembert, who was in charge of the design room, and Ken Woolley who had entered as a trainee the year before Dysart. Both men would come to occupy a central place in the Sydney School mythology. Rembert's own house is a kind of origin myth for the Sydney School and Peter Webber, has noted, for example, that the site of Rembert's house at Wentworth Falls and its honest approach to the expression of materials was a major source of inspiration for several of the architects who would come to be associated with the Sydney School.[18] Woolley's own house would be regarded as the Sydney School's crystallization. Despite the depth of design talent working at the GAB at the time, Dysart was able to work his way into a position of significant responsibility while still in his twenties, and in the early 1960s he took on primary responsibility for designing a new generation of high schools to meet the burgeoning requirements in the period.[19]

Places within Systems

The group of new high schools - seventeen in all - that were designed by the GAB between 1962 and 1964 and opened for the 1965 and 1966 school years, constituted the most important renewal of school design in NSW since the late nineteenth century.[20] They marked a clear departure from what came before and pointed to the possibility of totally reconfiguring the school plan, promulgating a distinct architectural language for NSW schools, and providing a richer sense of environment for pupils and teachers. It was an attempt to create an entirely new set of associations for school in NSW. The scale of the job was very large, but Dysart did possess some experience. While he had not designed a high school prior to this time, he had produced several designs for educational functions, including a hospital school at the Royal Alexandra Hospital for Children, Camperdown, NSW (1959), a primary school in Belmont on

the NSW Central Coast, (1958-62) and Robb College, a residential college at the University of New England, Armidale, NSW, (1958-1960).[21]

Each of these designs utilised a distinct architectural language and as a group they reveal the variety of sources that were influencing Dysart in his early years in the NSW GAB. The material palette of Robb College is a mix of stone and raw concrete. On the interior of the main common building the concrete ceiling is expressed as series of vaulted arches revealing an interest not only in honest, basic shelter but a more romantic predilection for vernacular building. The building owes a clear debt to Le Corbusier's Maison Jaoul, a predictable, if understandable source for a young architect at that time. But Dysart himself has remarked that the evocation of these traditional forms was derived from his admiration of sources closer to hand, such as the arches at the Sydney Hospital and the vaults in the old Lands Department building.[22] His drawings for the hospital school on the other hand point to an interest in the crisp, tectonic clarity of the post-war California case study houses. The Belmont Primary is less easily categorised in this way and perhaps drew more on the work of influential Sydney architects of the period, such as Peter Muller. What unites the three projects, however, is the approach to planning. In each case the main building is organized around an enclosed courtyard. At Robb College the three dormitory buildings, and a fourth building housing the communal functions of the college, also form a larger open courtyard space. The traditional format for arranging communities of learning thus influenced Dysart's thinking, with the covered walkways at Robb College, overtly referring to the cloister.

This approach to planning, would define the group of high schools that Dysart designed between 1962 and 1965 and set the pattern for NSW school design throughout the 1960s. In 1962 Dysart produced a plan concept for the design of the schools which proposed an arrangement quite similar to the one he had developed for Robb College: a group of courtyard buildings with open access at ground level on one side, arranged around a larger courtyard or playground space, that would be large enough to act as an all-of-school assembly area. Charles Weatherburn, at that time the Assistant Government Architect, asked Dysart to present the concept to the directors of both the Education Department and the Public Works Department. To Dysart's great relief they were happy with the scheme, which proposed completely moving away from long linear blocks of single or double loaded corridors. For the Education Department the virtue of the square donut or courtyard plan was that it addressed the most significant problems that beset the linear block types. The school blocks that relied

on a single-loaded corridor used too much space and as the schools grew larger the distances that students and teachers had to travel between classes was seen as unacceptably long. The double loaded corridors on the other hand, were more parsimonious spatially, but were compromised at the level of performance. Acoustic problems and low light at the centre were acknowledged shortcomings.[23]

For Dysart his square doughnut scheme possessed other virtues, qualities that arguably aligned the school building project with the concerns expressed in the domestic 'Sydney School' work of the same period. The courtyards were first and foremost, place defining. They provided a sense of enclosure that the architect believed might offer a sense of sanctuary from the world outside - and possibly from hostile elements within the school as well. Contemporary concern with the pervasiveness of the automobile and its dominance of the physical public realm in cities, including Sydney, heightened this concern.[24] In architectural terms the school environment was neither fully public nor overtly private. It was to be a place of refuge, strongly contrasting with the motorized world of suburbia, but also a social place that evoked idea of gathering and community. Dysart also hoped that the courtyard format would encourage the schools, perhaps via the Parents and Citizens committees, to improve the courtyard spaces with landscaping. Where possible he suggested preserving existing trees within these courtyards. But there was no money budgeted for landscaping in this group of schools – indeed classroom light fittings were not even standard at that time. But landscaping did receive some attention and funds in NSW school building efforts subsequent to Dysart's time at the GAB, from 1970s onwards.[25]

The contrast between this group of schools and the one-off designs such as Clubbe Hall, for a well resourced private institutions, is quite stark, and a reminder that art historical stories and their singular objects often suppress material and systematic constraints. Nevertheless, Dysart's concern with defining a sense of place in the landscape aligned this period of government school building with what was going on in the wider architectural culture in Sydney at the time. But the extent to which the results took on the qualities we might associate with the Sydney School in this period depended to a large degree on the specific geography involved in the projects. The schools at Malvina St, Ryde (1965), Ku-Ring-Gai (1965) and Pennant Hills (1966) each exploit the landscape qualities of the site, and hint at strong affinities with 'the Sydney School approach,' while those in the west and south west of the Sydney metropolitan area, such as Miller Technology High School, and nearby Lurnea

High School, both also part of group of doughnut plan high schools opened in 1965, conspicuously lacked the landscape qualities of the north shore schools. This was not Dysart's intent but the preservation of a smaller number of trees and the contrasting topography amplified the differences.

At Ryde, a small site with an unusually small area of flat land, called for a tight configuration in which the various courtyards units were interlocking. While the small site has obvious drawbacks, the sense of spatial discovery is pronounced as the levels change and each location and perspective within the school achieves a sense of individuality in its articulation. In this sense it reflects the strategies and formal possibilities of the Woolley House, but via a whole ensemble of buildings. Russell Jack has written of the shifting levels at Malvina St. High School that, they 'are always appealing and in the best townscape tradition entice one to further investigation.'[26]

The Pennant Hills High School (1965) occupied a more gently sloping site than Malvina St. and this prompted Dysart to give the interlocking courtyards a more open and expansive scale. As with his earlier work, Dysart's schools from this period exhibited a wide knowledge of contemporary work underway internationally and some of the photographs of the Pennant Hills school by Max Dupain – especially those depicting the drinking fountains and the bell tower – lead to easy comparisons with details from Alison and Peter Smithson's very widely publicised Hunstanton School, 1949-54. Dysart himself disavows the connection and, as with other leading figures in the NSW GAB, seems to have been actively opposed to the use of expansive areas of glazing for wall surfaces on the grounds that it was climatically inappropriate in the Sydney area.[27] But his affinities with the Brutalist ethic more widely are quite evident, especially the commitment to natural or unfinished materials and his use of details drawn from the late work of Le Corbusier. He openly acknowledged, for instance, that the gargoyles that shed into the centre of courtyards at the schools at Ku-Ring-Gai and Miller, were drawn directly from those used in the Convent at la Tourette (1959) and at Notre-Dame du Haut at Ronchamp (1955). It was certainly characteristic of Dysart's work to draw on both townscape and brutalist tendencies within the same project, reflecting an Australian architectural tradition of treating English architectural polemics as a field to be drawn upon more than a battle to take up.

But perhaps the most vital source for Dysart's school work from the period was the work of Alvar Aalto. At both the Malvina St School and Pennant Hills High School there is a strong sense of the site having been built, and that as you move around you are not just moving around a building or between buildings, but navigating a built landscape. As such they evoke qualities highlighted by Kenneth Frampton in his various articles on the topic of critical regionalism, and evident in the work of Aalto's Saynatsalo Town Hall (1949-1952) in particular. This was no co-incidence of course, Aalto's influence on Ken Woolley and other architects in the Dysart's immediate orbit, has been widely remarked upon, and if there is an international *eminence gris* behind the whole Sydney school enterprise – other than it is certainly Aalto.[28]

Of course the Dysart schools were not only the outcome of his interest in place identity, site and social refuge. They were also shaped by two systems, one a construction system devised by Dysart, the other a bureaucratic system that he did his best to work around. The demands implied by the latter, the education system, fundamentally distinguished the demands of school design from that of the better-known domestic architecture of the Sydney School, where singular problems and individual clients were the only constraint. In contrast, the set of regulations imposed by the Education Department's 'penny ruler men' – Dysart's term for the department employees responsible for making sure that everything that went into the school conformed to the Department's guidelines - affected everything from furnishings and classroom dimensions to servicing. Most fundamentally, of course, the demands imposed by the budget were very stringent and it was these that inspired the development of a new construction system.[29]

In one important respect Dysart's school construction system was like that developed by Ezra Ehrenkrantz in California in the 1960s: it was essentially designed around a roof unit that left decisions about the disposition of spaces underneath, wall materials and glazing in the hands of the architect and client. While Ehrenkrantz's system was much more intensive in its provision of services, enabled greater spatial flexibility and a higher degree of prefabrication, the implications of both systems were far reaching for education in that they pointed to the possibility of breaking with the rigidly defined classroom unit.[30] While such implications were not explored to any great extent in the use of this group of NSW high schools from the 1960s, the work of the GAB and other Australian PWDs such as Western Australia, did explore this implication quite widely in the 1970s and early 1980s.[31] Just as importantly Dysart's roof-based system enable rapid construction within the existing constraints of the Sydney

construction industry. With the roof erected in a matter of weeks at the beginning of the projects, work was able to continue during inclement weather. Consequently the schools met and exceeded expectations about budget, and the Education Department became quite enamoured of the system and with it Dysart's plan form.[32]

Their embrace of his ideas was also what ultimately pushed Dysart away from school design and out of the GAB altogether. The Education Department was so taken with the scheme that they wanted to just roll them out as fast as possible to meet the rapidly growing needs of the state's high school aged children. Dysart wanted to refine and rethink aspects of the design but it became evident that interesting re-workings of the basic ideas, such as those he had attempted at Pennant Hills and Malvina St high schools, would not be the norm and the courtyard blocks would just be repeated without much consideration for site and the specifics of school community, just as the old linear blocks had been in the generations before. The systematic aspects of the school building enterprise, therefore, ultimately overwhelmed the place-making orientation established by Dysart, at least at that moment, pushing Dysart to explore different kinds of work. But the concern with the school's setting, the disposition of its parts with respect to the whole and the way it addressed its pupils and teachers was a concern that would again motivate school designers in the NSW GAB in the 1970s and 1980s.

Conclusion

If we accept then that there is, or was, a Sydney School of architecture, there are a couple of clear lessons in attempting to map its influence into areas of architectural practice and production that were not focused on the house. On the positive side, it is evident that a concern with giving a strong definition of place and thinking about issues such as refuge and spatial interest in addition to the more diagrammatic concern with distributing bodies and functions in space, could contribute something quite vital to school design. That this might be based on a somewhat traditional conception of the community of learning, but delivered via a technically advanced construction system, did not represent a contradiction. It is also clear, however, that the systematic and repetitious aspects of this phase of school design tended to overwhelm place specificity on sites that lacked the landscape interest that was so conspicuous north of Sydney Harbour. In the west and southwest, the absence of any real budget for designing and modifying the school landscape meant that the sense of place that the architect hoped could be achieved through the inventive planning and the preservation of landscape elements, was realized quite weakly if at all. Finally, the impetus of budget

conscious government departments toward minimizing design and construction costs militated against the realisation of place-specificity and the sense of spatial discovery that was evident in the best of Dysart's schools. The government high school as a building type, therefore, invited consideration of the phenomenological and regional considerations that were such a strength of the 'Sydney School' approach, but the structural impetus towards standardization within the system also reveals the limits of this way of approaching architecture. The project houses designed by Sydney School architects, including Dysart, were perhaps the more natural way of extending Sydney School ideas beyond the individually designed house. Nevertheless, school architecture in Australia has been marked by Dysart's contribution and the wider architectural milieu within which he was working when he produced them.

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[16] Author interview with Michael Dysart, Sydney, 10/11/2011

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[18] Peter Webber, 'Rembert, Edward Henry', *Australian Dictionary of Biography*, Sydney 1982. In his interview with me Michael Dysart also acknowledged the significance of Rembert's house for this generation of Sydney architects, even though Dysart regards the Sydney School thesis itself with some scepticism.

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[26] Jack, 'The Work of the NSW Government Architect's Branch,' 98

[27] Jack, 'The Work of the NSW Government Architect's Branch,' 88-89 & Author interview with Michael Dysart, Sydney, 10/11/2011

[28] Kenneth Frampton, 'Towards a Critical Regionalism: Six Points for an Architecture of Resistance', in Hal Foster (ed.), *The Anti-Aesthetic: Essays on Postmodern Culture* (Seattle: Bay Press, 1983) 16-30. Peter Webber has noted Alto's influence in his encyclopedia entry on Ken Woolley. 'Woolley, Ken', *The Encyclopedia of Australian Architecture*, (Melbourne: Cambridge University Press, 2011), as has Jacqueline Urford in her entry on the Sydney School.

[29] Author interview with Michael Dysart, Sydney, 10/11/2011

[30] Rayner Banham, *Architecture of the Well Tempered Environment* (London: The Architecture Press, 1969.

[31] On the schools designed by the WA PWD see Adelyn Siew, 'Mapping Schools'.

[32] Author interview with Michael Dysart, Sydney, 10/11/2011

Gesamtkunstwerk or Multi-medial Distraction: Moholy-Nagy's and Dorner's collaboration on the *Room of the Present*

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Abstract

In 1930, László Moholy-Nagy and Alexander Dorner collaborated on an exhibition space that they envisaged to become the most ground-breaking museum environment of contemporary art – 'ground-breaking' insofar that the project questioned the fundamental concepts of art and museum per se. Moholy-Nagy saw his experiments with optical phenomena as a Gesamtkunstwerk without Kunst (total work of art without art) that could be applied to all areas of life,[1] whilst Dorner envisaged the new type of art museum not as an art museum and not as a museum, but as a cultural Gesamtkunstwerk that educated and activated its visitors.[2] Both men endeavoured to eradicate the boundaries between art and life and in their uncompromising embracement of new technologies and social ideals, they saw industrial design, advertising, and mass media as the logical direction for the development of both art and museum on their way towards integration with reality. The common key concept that permitted a systematic integration of all creative efforts with reality was the term Gesamtkunstwerk (total work of art) that pointed to new, productive interrelations between objects, space and inhabitants through perceptual and psychological effects.

This paper investigates Moholy-Nagy's and Dorner's interests in the relations between art, museum and mass culture through the lens of their understanding of the Gesamtkunstwerk concept and takes as a starting point their collaboration on the Room of the Present *for the Provinzialmuseum Hanover – an adaptation of Moholy-Nagy's design for Salle 2 at Walter Gropius' 'Section Allemande' of the 20th annual exhibition of the Société des Artistes décorateurs in Paris, 1930. The* Room of the Present *was never realised, but the project draws attention to shared ideas and fundamental differences about the future direction of modern life, art and museums.*

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The Gesamtkunstwerk – a definition

Despite its origins in German Romanticism and its frequent association with Richard Wagner who described it as a combination of music, poetry and dance[3], the term Gesamtkunstwerk (total work of art) is most closely linked to the emergence of the modern European avant-garde movements who adapted the term to suit their very own objectives but mainly to distinguish themselves from the traditionally-oriented institutions and universities of the time who understood art as elitist and medium-specific. It offered an alternative concept that linked art and life and stood in contrast to the dominant historicist academic definitions of art that upheld and sustained this distance.

In distinction to approaches that draw upon the formal, aesthetic qualities of total art works as suggested by Wilson Smith,[4] German philosopher Odo Marquard suggests that the Gesamtkunstwerk can only be understood from the basis of its particular connections - not only its intermediality but its relation to life:

> A definition is difficult. But criteria – in the sense of "special indicators/attributes" of its profile – can be named. In this it seems useful, to not only validate the multi-medial connection between all arts in a single artwork, but above all also another connection: that of art and reality; because integral part of the Gesamtkunstwerk is the expunction of the boundary between aesthetic object and reality.[5]

Marquard identifies three historic preconditions that enabled the historic rise of the Gesamtkunstwerk[6]

> The first pre-condition is that the work of art becomes empathic and aesthetic through its separation from the 'mechanical' artefact. Marquard links this aesthetic empathisation of the art work to the rise of Protestantism that scrutinised the 'redemptive relevance' (Heilsrelevanz) of 'good works' and forced them to migrate from religious to aesthetic territory whereby the museum replaced the church as a place for transformative sensory experiences.[7]

Marquard's second pre-condition is a new understanding of 'totality' in the form of the 'system'. When the conception of god as universal creator came under scrutiny but could not be replaced credibly by man as an alternative creator of his total reality because of

justified doubts about his almightiness, a concept for 'totality' had to be invented that remained 'neutral' in its distinction between god and man – that was the system.

The third precondition is the fusion of the first and the second precondition: that the system becomes and artwork, and the artwork becomes a system. At the point where the creators of reality - god and man - become problematic, the artist emerges as the phantasmic creator of totality, so that totality - the system – is now defined aesthetically as an artwork, and consequently the quest for the artwork which represents the totality.
Marquard sees commercial exhibitions as indirect, non-extreme Gesamtkunstwerke that attempt to aestheticise the entirety the non-extreme, normal reality - that is the everyday. For him, imagination (Vorstellung) and demonstration (Ausstellung) have affinities that are articulated in large, modern exhibitions such as the 1930 Werkbund exhibition; they are nothing other than intentional self-presentations that are oriented towards the future, idealised artificial worlds that are akin to other places of modernity such as the department store or the urban space dominated by neon-lights and advertising.[8] In the light of Marquard's ideas, the following paragraphs will investigate the synergies and differences between three examples of total works of art that came together in the design for the *Room of the Present* – firstly, Walter Gropius' overall concept for the 'Section Allemande' of the *20th annual exhibition of the Société des Artistes décorateurs* in Paris 1930, which represented a new harmonised German culture facilitated by the Werkbund and the Bauhaus; secondly, Alexander Dorner's curatorial concept for the Provinzialmuseum – a practical Gesamtkunstwerk that made his art theory visible and legible; and thirdly, Moholy-Nagy's design for Salle 2 - a total survey of optical phenomena that represented a new way of seeing applicable to all areas of life – and that was severed from the context of Gropius' commercial Werkbund exhibition and re-contextualised within the institutional context of Dorner's Provinzialmuseum.

Room of the Present: 'Gesamtkunstwerk of Culture' or 'Optical Distraction'

When Alexander Dorner saw Moholy-Nagy's design for Salle 2 at Gropius' Werkbund exhibition in Paris 1930 – he was so impressed that he subsequently commissioned him to design a comparable project for the Provinzialmuseum Hannover - a *Room for the modern artistic design of our present* (*Raum für die moderne künstlerische Gestaltung unserer Gegenwart*), later referred to as the *Room of the Present*. This room was intended to replace El Lissitzky's *Abstract Cabinet* as the climax of Dorner's museum itinerary which consisted of a series of atmosphere rooms that used colour, material and text to convey the collective spirit of respective ages. At the centre of Dorner's atmosphere concept was the idea that each period had a particular spatial concept or

spatial image (Raumbild) that was conveyed to the viewer through the experience of the exhibition rooms and through Dorner's writings, which were integrated with the museum displays in the form of labels, posters and books. The *Abstract Cabinet* was a custom-designed room for abstract art and represented a collaborative effort between Lissitzky and Dorner based on Lissitzky's earlier design for his Dresden demonstration room of 1926. Lissitzky increased the effect of the artworks through the dynamic design of the exhibition environment and Dorner contributed a glass display case that satisfied his pedagogical museum agenda and contained texts and images printed on rotating drums that interpreted abstract art as the latest stage in the self-transformative development of culture.

In contrast to the Abstract Cabinet, the *Room of the Present* was to represent the most up-to-date developments in art and no longer contained original artworks. Dorner deemed facsimiles to be sufficient to educate the visitor about the progress of modern industrial society and chose modern media to communicate the present day interrelations between art, architecture, design and everyday life. The *Room of the Present* would have been the first multi-medial exhibition environment - a kind of *Gesamtkunstwerk of Culture* - but more importantly, it represented a decisive step towards Dorner's vision of the future art museum whose sole purpose was to provide educational information and experiences relating to the cultural development from the Middle Ages to the present day. At this point, differences between Moholy-Nagy and Dorner are already evident: Whereas, for Dorner the demonstration of his art historical theses was at the heart of his museum conception, Moholy-Nagy's interests focused on the exploration of light, space and image, and the widely unexplored physiological-psychological laws of technically-generated optical effects.[9] Moholy-Nagy regarded modern media as instruments for the development of a 'new language of seeing' and not mere recordings of the realities of the modern world. The photographic images, films and models that Moholy-Nagy used for Salle 2 were concerned with exploring photographic/filmic sub-themes such as light-dark contrasts; use of materials according to their textures, structures and facture; unfamiliar forms of photographic representation such as diagonal views; mechanical phantasies in the form of visual distortions; colour photography, film and light plays. He imagined that the evaluation of these new ways of seeing would not be restricted to photography and film, but could be utilised across all areas of life – advertising, new services, science, everyday living etc. Consequently, many of the exhibits and images for Salle 2 were chosen not because of their content, but because their opticality represented one of these subthemes.

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Whose Gesamtkunstwerk? – Dorner's and Moholy-Nagy's collaboration on plans for a *Room of the Present* at the Provinzialmuseum Hannover

Moholy-Nagy and Dorner agreed on adopting the principles of the design for Salle 2 for the *Room of the Present,* as well as maintaining the original thematic focus on the achievements of modern German design over the past twenty years. Correspondence shows that, upon Moholy-Nagy's suggestion, Dorner had made contact with the proprietors of the display elements of the Paris exhibition enquiring whether they would be willing to donate these objects to the Provinzialmuseum.[10] Whilst planning to re-use the display elements and some of the materials, Dorner and Moholy-Nagy also proceeded to advance their own interests, which became legible in the revisions that were introduced to the original design.

Most importantly, the implications of re-contextualizing a temporary exhibition design within the Provinzialmuseum's programmatic framework had to be addressed. The *Room of the Present* could no longer foreground the achievements of the Werkbund, or the Bauhaus, but had to assume its intended place as the culmination of the atmosphere room sequence. Dorner had to integrate the design with his historical museum itinerary as well as re-interpret it along his art theoretical concepts. His main contribution was the addition of text, which he intended to integrate with the displays in a number of ways: Moholy-Nagy's original photo panorama in Salle 2 had small image labels and Dorner planned to expand these into short texts that provided explanations about parallel developments in science, economics and other areas of culture - similar to the texts he had provided in the other museum rooms. This combination of photographic image and text contrasted with the views of Moholy-Nagy, who considered the purposeful design of optical light effects (with or without camera) to be the alphabet of the future that was sufficiently sophisticated to supplant written language. In a lecture given at the 10th *Bildwoche* in Dresden in 1929, he envisages a 'light atelier of the future,' where a super-disciplinary light designer creates works in which the experience of light is equal to that of content, or even superior. [11]

In other instances, successful compromises seem to have been achieved: in addition to the explanatory texts for the photo panorama, Dorner had envisaged an epilogue installed at the room exit, which was to explain the relevance of the room within the overall pedagogical museum journey and to ensure that the visitor's reflections on his experiences were not left unguided. Letters made of metal or timber and suspended between metal wires were discussed. These reflected a design that Moholy-Nagy had

already used together with Herbert Bayer. The epilogue represented a materialised form of scripture that would – one can imagine – have satisfied both Dorner's and Moholy-Nagy's requirements.

In the light of the importance that Moholy-Nagy assigned to the effects of light and optical phenomena, it is not surprising that he moved the light requisite, which was placed rather obliquely at a corner of Salle 2 at the Werkbund exhibition (adjacent to a display cabinet containing Walter Gropius' total theatre model and opposite Oskar Schlemmer's life-size figurines for the Triadic Ballet) to the centre of the *Room of the Present.* This move created a circular itinerary that supported the chronological narrative of the museum and staged the light requisite as the dynamic-energetic centre of the museum room as well as hinting at its central importance within Moholy-Nagy's work.

Moholy-Nagy's light requisite as an experimental apparatus for exploring dynamic-constructive force-systems

Distancing himself from the subjective expressionist conjectures of the pre-world war years and the early Bauhaus period, Moholy-Nagy's light requisite was inspired by scientific ideas about energy systems that were interpreted as much pragmatically as creatively.[12] In a 1922 issue of *The Sturm,* Moholy-Nagy and Alfred Kemény published a text under the title *Dynamisch-Konstruktives Kraftsysstem* (Dynamic-constructive force system) that describes apparati for probing the interrelations between matter, force and space, and pictures the audience as active participants who, enabled by newly developed sensory and mental powers, can shape and influence these interrelations

> For this reason we have to replace the static principle of classical art with the dynamic principle of universal life. Practically: instead of the static material-construction (material- and form-relations) the dynamic construction (vital constructivity, relations of forces) must be organised, where material is deployed as a mediator of energies only. The development of the dynamic individual construct results in the DYNAMIC-CONSTRUCTIV FORCE SYSTEM, whereby man, who was receptive in the beholding of previous artworks, now with all his capacities amplified, becomes himself an active factor in the unfolding of forces. The problems of this force system are closely related to the problem of the free-floating spatial plastic and of film as a projected space movement. The initial designs for the dynamic-constructive force-system can only be experimental and demonstration apparati for the investigation of the relations between matter, force, space. This is followed by

> the perusal of the experimental results for the design (Gestaltung) of free (free of mechanic-technical movement) moving artworks. [13]

The light requisite, which had been shown at the 1930 Werkbund exhibition for the first time, was Moholy-Nagy's most famous apparatus for a dynamic-constructive force-system. At the beginning of his article on the light requisite published in 1930, Moholy-Nagy explicated the possibilities for the shaping of our environment opened up by electricity: 'Adjustable, artificial, electric light permits us to create rich light effects without much effort. With electric energy pre-calculated movements can be performed, that can be repeated precisely again and again'.[14] Light and movement are becoming elements of design again, Moholy-Nagy predicted, but now in relation to the present situation: The festivities of the Baroque with their water fountains and stage sets can now be re-invented in a contemporary context as light fountains and mechanical-electric dynamic plays, he suggests. Baroque festivities, of course, have been seen as the original Gesamtkunstwerk. As Aby Warburg had already observed in relation to Bernardo Buontalenti's intermedii, these spectacles blurred the boundaries between high art and low art.[15] Moholy-Nagy envisaged a variety of applications for his electro-mechanic spectacles: as advertising, as popular entertainment at fairs, or in the theatre as a means to create moments of suspension. But, significantly, he expanded its uses from spaces of collective experience to the privacy of domestic environments: in domestic applications, light requisites could be controlled via radio or varied by the owners with a set of exchangeable templates creating ever-changing dynamic play in yellow, green, blue, red, and white creating *optical distractions* for everyday life.[16]

The inside of the light requisite contained a mechanical device that was in constant movement and constructed with the same modern materials that were used throughout Gropius' Werkbund exhibition: transparent materials (zelon, glass), material pervious to light (transparent gauze, wire netting) and perforated materials (perforated nickel-plated brass plates). But, in the light requisite, the materials themselves were not used for their aesthetic appearance but for their light modulating qualities and Kai-Uwe Hemken noted that the moving elements of the requisite were intended to be hidden behind a fabric screen.[17]

Walter Gropius' total concept for Werkbund exhibition in Paris 1930 – Industrial Materials as Visual Communication and Identity System

Dorner had visited the German Werkbund exhibition in Paris, on show between 14.Mai to 13.July 1930, and was impressed by the organization of the German section. Gropius had provided the overall concept: a series of five seamlessly interconnected exhibition spaces, each of which dealt with a particular aspect of German cultural production. He designed the first room, but assigned the curation of the other four rooms to his Bauhaus colleagues: Moholy Nagy (room 2), Marcel Breuer (room 3), and Herbert Bayer (rooms 4 and 5). An undulating itinerary over different levels guided the visitors and provided ever-changing impressions. A uniform impression was achieved by adhering to clearly defined palette of modern industrial materials. The extensive use of glass, various forms of metals, and state of the art electric lighting gave the impression of absolute lightness. Max Osborn observed the reactions of the visitors who, accustomed to the highly decorative French designs of the time, were amazed, baffled and some, quite likely, alienated by the gleaming, industrially-inspired spaces that Gropius and his team presented to them.[18] In his review of Salle 2, Osborne credits Moholy-Nagy's participation for the great progress in the art of display. Although he does not identify the light requisite as a discrete object, he seems to be describing its effects and those of other lighting installations: 'Dynamics are offered instead of rigidity. Luminous arrows that point towards a new subsection protrude brightly, recede in the dark and push forward again. Theatre models by Gropius, Moholy-Nagy, Schlemmer, rotate, flicker disquietingly through little lights.'[19] Another review written by Dr. U. Gutmann, describes the first impression upon entering the exhibition: 'The clear construction, the precision of forms, and the white, denuding light. Where there are colours – strong, and luminous – they are not harmonically resolved and relaxing, but with joyful force alive and enlivening'.[20] As Moholy-Nagy hoped, the optical phenomena of his exhibition design and the light requisite assumed a role that is of equal importance to that of the exhibition's contents in conveying cultural meaning, but, in other instances, they can also act as entertainment apparati for the home – as Oliver Botar recently suggested – a 'discoball' for the living room.[21]

In his review that appeared under the title *Gedanken Zur Französisch-Deutschen Ausstellung in Paris* (Thoughts about the French-German exhibition in Paris), Dorner applauded the exhibition as an expression of a fully integrated German culture – a *Gesamtkultur*

> It is clearly demonstrated that the aim of the Werkbund's ambitions in Germany is the remodelling of our entire life organism, and consequently, everything that is part of it is shown in automatically changing image

> projections, from letter paper to chair, from cup to furniture covering, from theatre to sports field and from the newest Hanomag locomotive to the serially-produced car. [22]

The idea of a collective German identity is also highlighted by Siegfried Giedion's review which attributed the success of the exhibition to Gropius' artistic authority. Gropius' curatorial concept, Giedion observed, went beyond the aesthetic appeal of the objects on display by conveying to the visitors the idea of a collective spiritual attitude.[23] In other words, it was not only the exquisite design and quality of the objects themselves but their systematic arrangement as a sweeping survey that captured the totality of creative production and communicated the idea of a harmonised culture. French critics equated the material qualities and choices of the exhibition design with a new German mentality, as J. Grünberg noticed in his commentary in the Berliner Tageblatt 31st May 1930.[24] A 'strong mental energy' that emanates from the exhibition could be sensed. He quotes from *Temps*

> It is no exaggeration to say that the German section of the Grand Palais truthfully mirrors the face of the new Germany.[…] The interest in this exhibition is so great because it does not only give us an understanding of the new German aesthetic, but also insights into the collective psychology of the Germany of today.

Rooms are described as 'clean, clear and illuminating', the works are 'of refreshing simplicity'. Gropius' Gesamtkunstwerk positions aesthetics and politics, art and reality as interchangeable and identical, and this political dimension is underscored in Grünberg's closing comment that interprets the success of Gropius' exhibition as 'a victory of the Germany of the future'.

Consumerism or Gesamtkunstwerk: Dorner's art museum of the future as a 'harder kind of integration' of life and art

Gropius' controlled palette of industrially produced materials determined the aesthetic experience of the exhibitions rooms and was comparable to Dorner's own use of colour, materials and details in his atmosphere rooms. Dorner's enthusiasm for industrial design and modern materials was well known. In the previous year, he had directed an exhibition at the Kestner Society titled *Examples of good design in Mass-Produced Home Furnishings*.[25] Dorner equally embraced new media which he regarded as pedagogical

instruments that would facilitate the dissemination of his art theories to a wider public. Moholy-Nagy's experiments with photography, projection, film and light in Salle 2 corresponded to Dorner's own visions for an art museum of the future, which he envisaged comprising everything but original art works: controlled electric illumination, large scale facsimiles of art works, illuminated photographic images, guided tours transmitted via loudspeakers, music and film.

In the first paragraph of his preface to *The Way Beyond Art,* a summary of his art theory, Dorner points out that a more precise title for his book might have been: 'The decline of the species of visual communication called "art" and the origin of a new species of communication.' This new species of communication he saw emerging in modern commercial and industrial design.[26] He saw this direction in art as a less artistic and 'harder kind of integration' that might appear uninspired still, and his later reflections on the 'art museum of the future' reaffirm his ideas on the relations between art and mass culture.

In a letter to Walter Gropius dated 31st March 1942, he suggests that architecture is based on the same philosophy of relativity as art history and museology and they are only distinct in their different forms of manifestation: 'A building must function as a living cell of the total organism of 'life' (including economy, recreation etc.)' and translated to the art museum of the future this means: The institute must communicate to the senses how the development of the mind functions – the illustration of the development processes of which we are part.' Elaborating this comparison further, Dorner concludes that in the same way that a building cannot restrict itself to aesthetics, the art museum cannot restrict itself to art, but has to demonstrate the development (Werden) of our world. The art museum, Dorner concludes, distinguishes itself from the economics museum only in so far that it magnifies the artistic aspects of human development whilst demonstrating all other aspects only in a compact form and from a framed perspective.[27] Art works that are stripped of their aura as 'art' are reduced to a solely educative value.

Conclusion

It is possible to say that the notion of the Gesamtkunstwerk assumed remedial properties in both Dorner's and Moholy-Nagy's work: Dorner considered the pedagogical museum experience as a life-improving agent that would stimulate the visitor to actively participate in everyday life,[28] whereas Moholy-Nagy saw the Gesamtkunstwerk as the systematic application of creative principles to life itself whereby every separation between different areas of life is suspended.[29]

The *Room of the Present* was never realised – Dorner cited adverse financial and political circumstances that lead to the termination of the project. However, the collaboration between the two men had proven difficult from the beginning – Dorner being a museum director with decidedly scientific and pedagogic interests and Moholy-Nagy as an artist interested in experimentation with new ways of seeing. Although both emigrated to the U.S. in the 1930s, they never resumed work on this project. In *The Way Beyond Art,* Dorner smoothed out their differences, when he remembers that in the *Room of the Present* 'we meant to represent the new vision and its effect upon technical reproduction, such as the abstract movie, cinematography etc. Both rooms were intended to involve the visitor both physically and spiritually in the growing process of modern reality. [30] This growing process of modern reality, both Moholy-Nagy and Dorner hoped, was one where art becomes 'a continuation of communication via the same universally intelligible signs that the disciplined and socially responsible advertising uses to decode the world of consumerism for its audience - a necessary energy in the system of creative growth.' [31]

Endnotes

[1] "What we need is not the "Gesamtkunstwerk", next to which life flows separately, but the self-constructing synthesis of all moments of life into an all-inclusive Gesamtwerk (life) that dissolves all isolation by making all *individual* achievements emerge from a *universal* necessity." In László Moholy-Nagy, *Malerei, Fotographie, Film* (München: Albert Langen Verlag, 1925),13. Author's translation of the original German text: "Was wir brauchen, ist nicht das „Gesamtkunstwerk", neben dem das Leben getrennt hinfließt, sondern die sich *selbst aufbauende* Synthese aller Lebensmomente zu dem alles umfassenden Gesamtwerk (Leben), das jede Isolierung aufhebt, indem alle *individuellen* Leistungen aus einer *universellen* Notwendigkeit entstehen."

[2] The new type of art museum must not only be not an "art" museum in the traditional static sense but, strictly speaking, not a "museum" at all. A museum conserves supposedly eternal values and truths. But the new kind would be a kind of powerhouse, a producer of new energies. So long as the museum remains content to preserve old truths … it acts as an escape from life." In Alexander Dorner, *The Way Beyond Art* (New York: New York University Press, 1958), 147

[3] Cf. Juliet Koss, *Modernism after Wagner* (Minnesota: University of Minnesota Press, 2007

[4] Cf. Matthew Wilson Smith, *The Total Work of Art: From Bayreuth to Cyberspace* (New York London: Routledge, 2007), 147. Wilson-Smith discusses Wagner's Gesamtkunstwerk idea in relation to technology and mass culture. He distinguishes, for example, between the 'crystalline' Gesamtkunstwerk that reveals the mechanics of its production in a kind of mechanical phantasy as in Gropius' *total theatre,* and the 'iconic' Gesamtkunstwerk, such as Wagner's Bayreuth Festspielhaus, which conceals these mechanisms to create an illusory vision that is intended to neutralise the alienating tendency of the machine age.

[5] Odo Marquard (ed.), *Gesamtkunstwerk Und Identitätssystem: Überlegungen Im Anschluss an Hegels Schellingkritik*, Der Hang Zum Gesamtkunstwerk (Frankfurt am Main: Sauerländer Verlag,1983), 40-41

[6] Marquard (ed.), *Gesamtkunstwerk Und Identitätssystem: Überlegungen Im Anschluss an Hegels Schellingkritik*

[7] The connection of aesthetics and religion, museum and church, along the axis of sensory experience is also made by art historian Donald Preziosi. He suggests that the rise of the art museum as a modern institution was initiated, and possibly precipitated, by the emergence of

aesthetics that provided the philosophical framework for the production and reception of art. He sees aesthetics as an 'extension and transformation of activities rooted in sense experience that had long been associated in both theory and practice with the devotional function of religious images. In its European context, the transformation of long-standing religious routines into (allegedly) secular sets of practices revolved around subjective experiences with art as such'. Donald Preziosi and Claire Farago (eds.), *Grasping the World: The Idea of the Museum* (Hants, England: Ashgate Publishing, 2004), 5.

[8] Marquard, ed. *Gesamtkunstwerk Und Identitätssystem: Überlegungen Im Anschluss an Hegels Schellingkritik, 47-48.*

[9] Moholy-Nagy, "Die Photographie in der Reklame." *Photographische Korrespondenz Zeitschrift für wissenschaftliche und angewandte Photographie und die gesamte Reproduktionstechnik*, (1st September 1927), 257-60.

[10] Alexander Dorner, *Letter to Wielandwer*ke *Ulm (Donau)*, (17th July 1930)*,* in *Nachlass Alexander Dorner* Sprengel Museum Hannover.

[11] Moholy-Nagy suggested that the analphabetic of the future is not only ignorant of reading and writing but also of photography thus predicting the rise of visual arts as the primary means of communication. László Moholy-Nagy, *Das problem des neuen films: los von der malerei!*. (Berlin: Bauhaus-Archiv, 1929) in Bauhaus-Archiv Berlin, László Moholy-Nagy (Mappe 22).

[12] Moholy Nagy's writings recall Wilhelm Ostwald's *energetism* that interprets perception as an interaction of energies between the human organism and materials as well as earlier ideas of the Futurists who saw the world as traversed by interconnected energy fields. Ostwald's colour theory was highly influential in constructivist circles and was introduced to de Stijl by Moholy-Nagy's fellow constructivist and Hungarian Vilmos Huszar. Cf. Stephen Gage, *Colour and Meaning: Art, Science and Symbolism* (London: Thames & Hudson, 1999), 244.
Artistic references to modern science were a common feature of constructivist theorists. Their knowledge was characterised by a discursive contextualisation of fragments of scientific facts that circulated in intellectual circles at the time. Despite the lack of a scientific basis, these ideas had a significant influence on the formation of theories about aesthetic production, mediation and reception that interpreted these insights imaginatively and Moholy-Nagy's work was no exception. Cf. Sigrid Schade, 'Zu Den "Unreinen" Quellen Der Moderne. Materialität Und Medialität Bei Kandinsky Und Malewitsch', in Jennfer John, Sigrid Schade (eds.), vol. 9, *Grenzgänge Zwischen Den Künsten: Interventionen in Gattungshierarchien Und Geschlechterkonstruktionen* (Bielefeld: Transcript Verlag, 2005).

[13] László Moholy-Nagy and Alfred Kemény, 'Dynamisch-Konstruktives Kraftsysstem', in *Moholy-Nagy*, László (1895-1946) Werkmanuscripte (Berlin: Bauhaus-Archiv: Juni-July 1922)

[14] László Moholy-Nagy, "Lichtrequisit Einer Elektrischen Bühne," *Die Form: Zeitschrift für gestaltende Arbeit* 5, no. 11-12 (1930), 297. My own translation from the original German text.

[15] Phillippe-Alain Michaud, *Aby Warburg and the Image in Motion*, trans. Sophie Hawkes (Brooklyn, New York: Urzone, 2004), 170

[16] Moholy-Nagy, *Lichtrequisit Einer Elektrischen Bühne*, 299.

[17] Jakob Gebert and Kai-Uwe Hemken, eds., *Der Raum Der Gegenwart: Die Ordnung Von Apparaten Und Exponaten*, Kunst Licht Spiele: Lichtästhetik Der Klassischen Avantgarde (Bielefeld: Kerber,2009), 150

[18] Max Osborn, 'Zwei Werkkunstausstellungen - 1. Der Deutsche Werkbund in Paris ,' *Bauwelt*, no. 24 (June 1930), 2.

[19] Max Osborn, 'Gropius Und Die Seinen - Die Deutsche Ausstellung in Paris', *Vossische Zeitung (*22nd Mai 1930). Author's translation from the original German text.

[20] Dr. U.Gutmann, 'Zum Raum Wird Hier Die Zeit (Zur Eröffnung Der Ausstellung Des Deuschen Werkbundes in Paris)'," *Königsberger Hartungsche Zeitung* (20th May 1930). Author's translation from the original German text.

[20] Oliver A.I.Botar, "Gesamtkunstwerk ohne Kunst." In Martin Gropius Bau (eds.), *Kunst Des Lichts: László Moholy-Nagy* (Berlin: Hirmer Verlag, 2010), 159-69.

[22] Alexander Dorner, 'Gedanken Zur Französisch-Deutschen Ausstellung in Paris', *Hannoverscher Anzeiger* (6 July 1930).

[23] Sigfried Giedion, 'Der Deutsche Werkbund in Paris', *Neue Zürcher Zeitung* (17 June 1930)

[24] J.Grünberg, 'Die Gropius Ausstellung in Paris', *Berliner Tageblatt* (31 May 1930)

[25] Cauman, *The Living Museum: Experiences of an Art Historian and Museum Director. Alexander Dorner, 106.*

[26] Dorner saw this new design epitomised in the work of Herbert Bayer, to whom the first edition of the book, titled *The Way beyond 'art' – The work of Herbert Bayer,* was originally dedicated. The

second edition that appeared after Alexander Dorner's death was published in abbreviated form and de-emphasised the importance of Bayer's work in favour of a more general outlook. The reference to Bayer's work was omitted from the book title. In a letter to Ilse Gropius, Lydia Dorner explained that this seemed more appropriate to her for a general work of this kind. Lydia Dorner, *Letter to Ilse Gropius,* (18 March 1959), in Bauhaus-Archiv Berlin, Korrespondenznachlass Walter Gropius (1937-1969).

[27] Alexander Dorner, *Letter to Walter Gropius*, (31 March 1942), in Bauhaus-Archiv Berlin, Korrespondenznachlass Walter Gropius (1937-1969).

[28] Samuel Cauman, *The Living Museum: Experiences of an Art Historian and Museum Director. Alexander Dorner* (New York: New York University Press, 1958), 205

[29] Moholy-Nagy, *Malerei, Photographie, Film*, 13

[30] Dorner, *The Way Beyond Art, 17.*

[31] Stanislaus von Moos (ed.), *Modern Art Gets Down to Business*, Herbert Bayer: Das Künstlerische Werk 1918-1938: Ausstellung Im Bauhaus-Archiv Berlin, 6th Mai Bis 20th Juni 1982, [6th May until 20th June 1982], Ausstellung Im Gewerbemuseum Basel, 2nd Juli Bis 29th August 1982 (Berlin: Bauhaus Archiv,1982), 93.

Rietveld's axonometric illustrations and the problems of history

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Abstract

When, in 1992 Yukio Futagawa published the Japanese journal series Global Architecture on the Rietveld Schröder House (GA 68) *it encapsulated the representation of an apparently unproblematic historical occurrence. Included, were drawings and photographs, contextualised through commentary by the curator of the Rietveld archive in Utrecht, Ida van Zijl. Gerrit Rietveld had been the exemplar of "Dutch" and De Stijl characteristics of the modern since the completion of the Schröder House in 1924. By the mid-century, Rietveld's position in architectural history had been reinforced through the exhibition and publication of drawings and models in centres of artistic dominance like Venice, New York and his birthplace, the Netherlands. As with the Futagawa publication, these exhibitions and their catalogues were presented without referencing any issues that might be raised associated with their content. Yet, recent assertions by staff at the Rietveld Archive, Centraal Museum, Utrecht, bring to light questions of attribution and provenance and a growing debate surrounding the use of specific illustrations. At issue is the provenance of the axonometric illustrations most commonly placed beside photographs of the Schröder House as evidence of a moment of synthesis in its design. While the complicated history of their provenance might seem of little concern to explaining Rietveld's architecture, recognition of the provenance of any art work brings with it historical questions including its contemporaneous setting with implications for possible influences, concepts of representation, and techniques of production. Changes in dates and locations of conception and completion significantly modify the relationship between the artefact, its content and the intellectual processes that influence its creation.*

Curators at the Rietveld archive have verbally asserted the date of the axonometric illustrations to be as late as 1951 and therefore conceptually questionable in its inclusion in new exhibitions of De Stijl during the mid-century. If this were true, Rietveld may have been in the process of re-constructing his own historical dominance in the De Stijl movement using

the axonometric technique as representation of the concepts of the house. The illustration was first photographed as part of an exhibition at the Stedelijk Museum exhibition of De Stijl held in 1951. The alternate view is that these works were originally created to solve issues of the design, implicating thought processes linked temporally and having the same conceptual context as the house. Through close analyses of the illustrations and surrounding evidence this paper examines the claims made by Ida van Zijl and reveals the complicated role that architectural representations play in the production of architectural history.

Rietveld's Axonometric Illustrations and the Problems of History.

Gerrit Rietveld and Truus Schröder-Schräder's house in Utrecht is representative of the revolution that abstraction bought to understandings of 'the modern' in architecture. Designed in 1924, and completed enough to permit habitation in December that year, the house embodied new concepts of domesticity as well as a spatial experience hitherto unseen. The house became an immediate success with photographs, models and drawings exhibited in Europe as early as 1926. However, for the generations seeking archetypes to include in their 'canon of architecture' during the 1990s what verified the continued significance of the house was its publication in the Japanese journal series *Global Architecture* with photographs by Yukio Futagawa and text by Ida van Zijl (Figure 1). Because of the quality of its photographs and inclusion of what seemed to be original drawings in large format, this publication displayed the house's significance as one that had unified its concepts, techniques of production and built form.

Figure 1. Cover, Yukio Futagawa and Ida van Zijl, *GA- Global Architecture*, no. 68, Gerrit Rietveld - The Schroder House, 1992.

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The promises from the GA publication were of an architecture that had a consistent conceptual thread with models, drawings and building 'speaking' in unison. However, more recently there has been doubt cast on the attribution of the images. Indeed a closer reading of the 1992 GA publication would have alerted the reader to one illustration being attributed to Hanneke Schröder and dated 1951 (Figure 2). Ida van Zijl, Curator of Design and Applied Arts, and custodian of the Rietveld archive at the Centraal Museum, Utrecht, has recently verbally suggested that the provenance and attribution of the illustrations, including the axonometric of the house, were most likely from 1951 and drawn by Hanneke Schröder (Figure 3).[1] This claim is significant, as the axonometric illustration is now received with iconic status similar to that of the house. Van Zijl believes that the drawings were done in preparation for the exhibition of De Stijl initially shown at the Stedelijk Museum in Amsterdam in 1951 where it was photographed (Figures 4-5), and subsequently at the Venice Biennale in 1952 and finally in December of 1952 shown at the Museum of Modern Art, New York.

Figure 2-3. Illustrations from the *GA* publication associated with Hanneke Schröder

Figure 4-5. Cover, Catalogue: Exhibition at the Stedelijk Museum Amsterdam and Photograph from the exhibition see Marijke Küper and Ida van Zijl, Gerrit Th. Rietveld, The Complete Works 1888-1964, Utrecht, The Centraal Museum, 1992, p. 246

Van Zijl bases her claim on an interview she undertook with Hanneke Schröder late in her life.[2] If Hanneke's assertion is correct then the illustrations do not register the designing mind's struggle to resolve or represent developments of a complex formal composition. Instead, they signify a temporally removed post-rationalisation of architectural intent, one, as suggested by van Zijl that would enable Rietveld to reinvent his centrality to the De Stijl movement.[3] This paper will investigate van Zijl's claim by visually reassessing the crafting of key illustrations and documentary evidence from the 1923-8 period. Further, it will document a more complex history surrounding the illustrations associated with the Schröder house. The result of this investigation raises broader questions about the use and presentation of illustrations in historical writing and concludes with a question about the role that they contribute to understanding concepts of architectural form.

The illustrations included in the GA publication are now held in the Rietveld archive at the Centraal Museum, Utrecht. For this paper I will focus discussion on the illustration using axonometric techniques to portray spatial and formal compositional relationships of elements of the upper floor of the Schröder house. This illustration in question is a reprographic print that has had watercolour or gouache in shades of grey, black, red, yellow and blue applied after printing to highlight certain elements (Figure 7). The origin of this illustration was most probably a drawing in ink on tracing paper that but must have existed in 1963 when it was used in the publication process of Gerrit Rietveld's, *Rietveld, 1924, Schröder Huis* (Figure 5) .[4] In this publication an uncoloured original was used with the resulting dense colours applied during the printing process. Supporting this claim are notes in the publication where 'the editor' thanks Rietveld and Schröder for lending the original drawings (Figure 6).[5] In printing techniques of the 1960s it would have been impossible to remove colours from a copy of the finished

Figure 5. Cover, Gerrit Rietveld's, *Rietveld, 1924, Schröder Huis*. 1963.

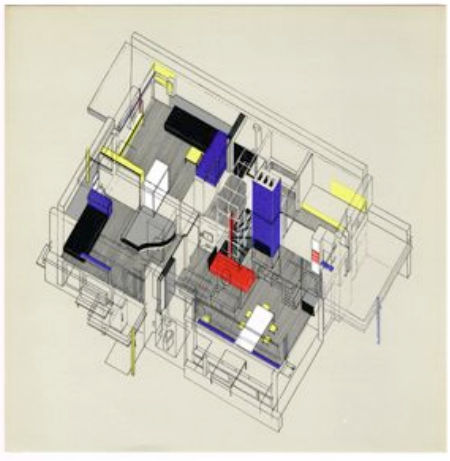

Figure 6. Axonometric, Gerrit Rietveld's, *Rietveld, 1924, Schröder Huis*. 1963.

illustration to prepare it for the application of colours during printing. Beyond this difference, the line-work in both the GA illustration and the *Schröder Huis* booklet is identical.

Establishing the provenance for the GA illustration became more complex during my investigation of the collection of illustrations held at the Rietveld archive in Utrecht. The collection holds two similar rendered reprographic illustrations (a little known fact that complicates any claims concerning provenance). The first, included in the GA publication, has the inventory number 004 A 072 (Figure 7), and a second version has the inventory number 004 A 104 (Figure 8). While curators at the Rietveld archive have known of the existence of these two coloured illustrations this knowledge has not been seen as problematic as over the years. Both drawings have been used interchangeably and in cataloguing the items, curators have presented the idea that both rendered illustrations have been printed from the same traced original.[6] However, Figure 7 has its major line work drawn with the aid of a ruler and Figure 8 uses free-hand line work. The 'original' tracing drawing is a wire-framed axonometric on tracing paper that documents the relationship between selected architectural elements, fitments and furnishings over the two floors. It is also housed in the collection with the inventory number 004 A 059 (Figure 9). Complicating provenance further, this original axonometric is drawn using free-hand ink lines over still perceptible ruled set-up lines in feint pencil with some furniture and fitments added in free-hand pencil line work. Close examination has led to the conclusion that the two coloured reprographic prints could not be made from the same original drawing and may not necessarily have the same provenance. Primary evidence for this claim is that Figure 8 thus shows direct lineage in its technical production to the existing wire-framed tracing whereas Figure 7 does not.

In examining the two coloured prints, it is my view that Figure 8 and its original wire-framed axonometric on tracing paper, Figure 9, may have been completed at a date earlier than van Zijl's proposed date of 1951. This claim is based on three aspects unique in these illustrations when compared with Figure 7: the draftsmanship of the illustrations, the techniques of its reproduction and the visible aging of the papers.

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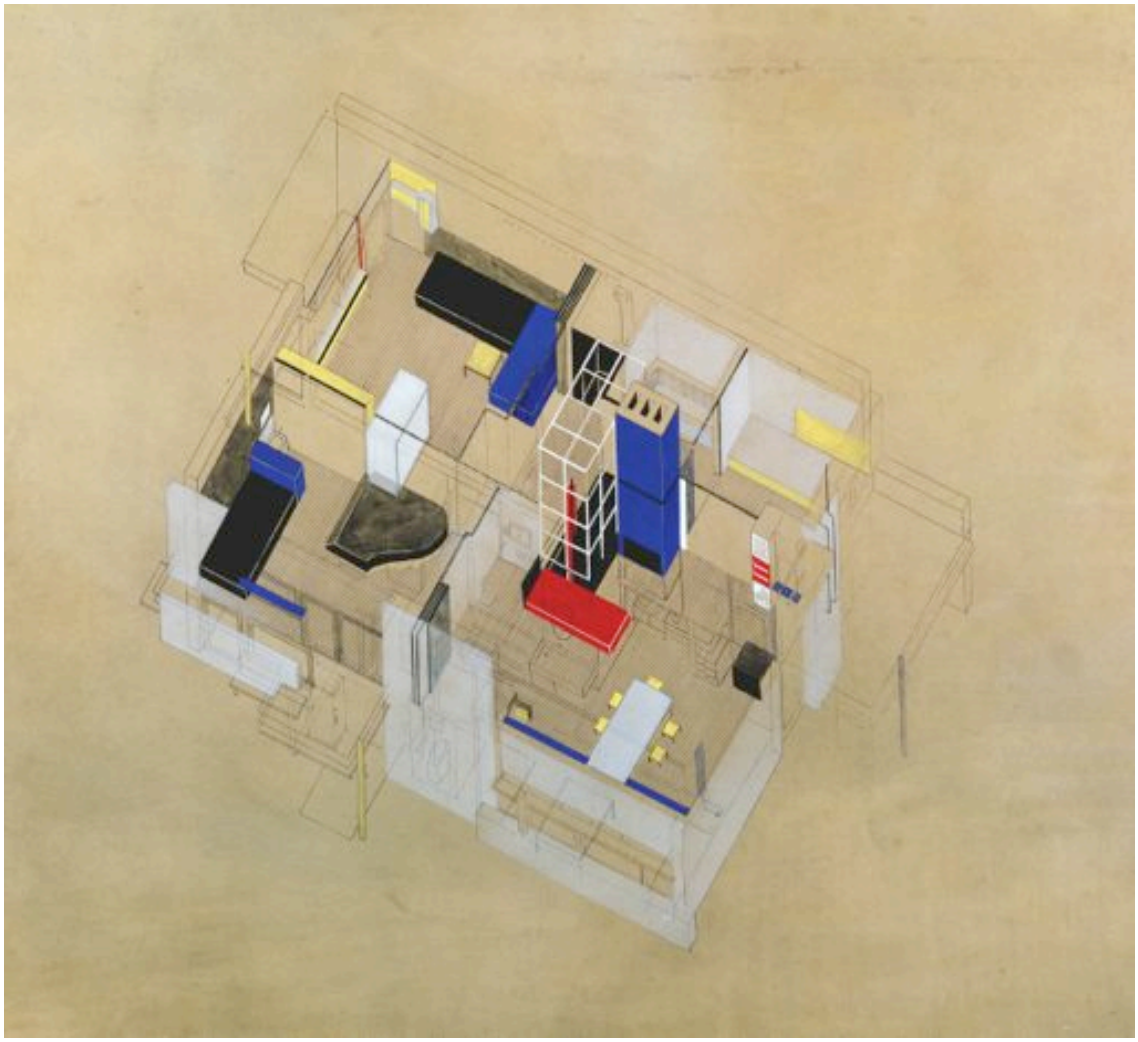

Figure 7. Rietveld Schröderhuis inv.nr. 004 A 072, Centraal Museum Utrecht. (GA 68)

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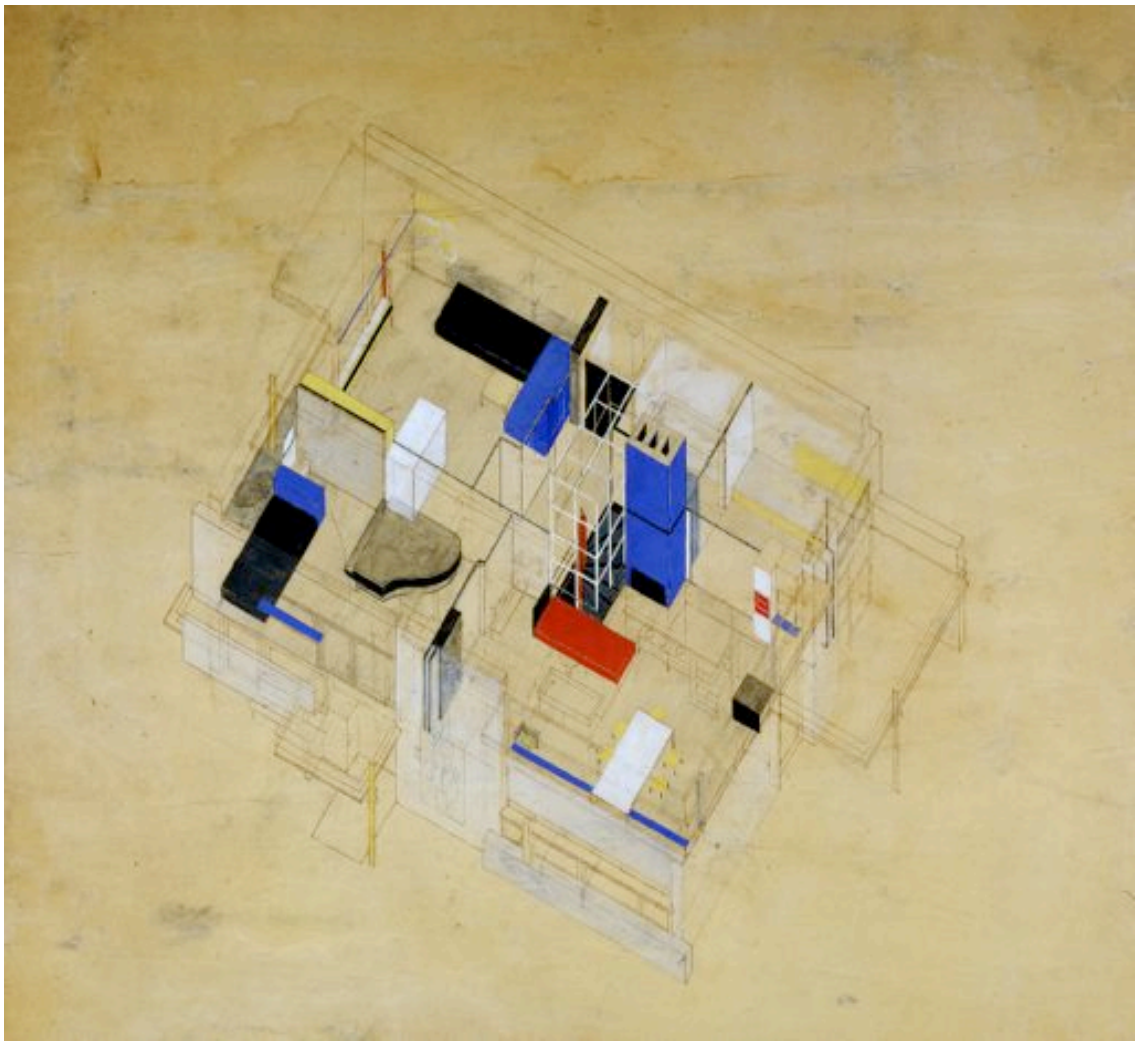

Figure 8 Rietveld Schröderhuis inv.nr. 004 A 104, Centraal Museum Utrecht.

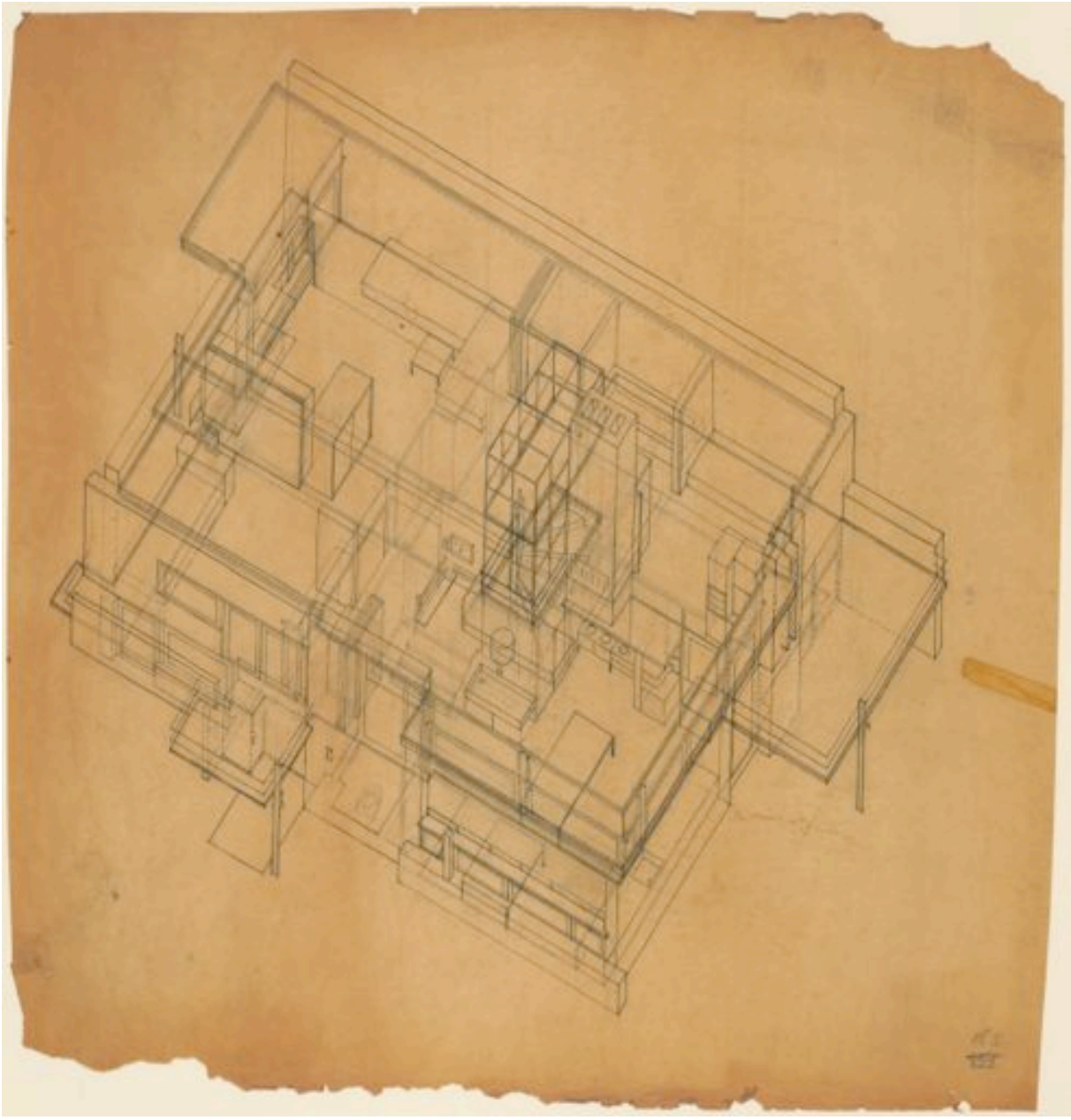

Figure 9 Rietveld Schröderhuis inv.nr. 004 A 059 Centraal Museum Utrecht

Comparing the draftsmanship in the coloured illustrations, it becomes obvious that the technically proficient and precise line work of Figure 8 with its careful hand drawn ink lines has little similarity with the quality of the line work of Figure 7 – the illustration included in the GA publication. In Figure 7, on close inspection one can observe numerous technical errors. For example, in both versions of the illustration there is a feature made of the upper floor surface showing its visible extent by drawing rigorously repeated and ruled lines spaced at one-millimetre intervals. In Figure 8 these ruled lines are added after reprographic printing processes are complete as all other lines are identical (Figures 9 and 10).

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Figure 10. Detail, Figure 8 showing the rendering of the floor surface

However, in the *GA* illustration of 1992 (Figure 7), it is not as easy to assume this feature was carried out after the printing process. The existence of the lines in both the 1963 publication illustration as well as the later published GA suggests that the lines were most probably part of its original drawing (Figure13). It is precisely in the line work of this feature that a major difference is seen when compared with Figure 8. In Figure 7 ruled lines denoting the surface of the floor lack precision. In the process of ruling the 'pen' has slipped over a fingernail disrupting the rigorousness of each line's methodical repetition(Figures 11 and 12). Other deficiencies of Figure 7 when compared with Figure 8 include for example: the interpretation of the stair treads that do not intersect with the vertical plane of the surrounding wall, they remain unfinished; the painting of the piano where the subtlety of the detail around the keyboard is reconfigured; and, the geometric logic of certain relationships of colour to form have been misinterpreted in the intersection between blue, red and yellow in the window detail of the girls' bedroom. In the *GA* illustration, Figure 7 there has been a misunderstanding of which plane to render blue, a feature corrected in the 1963 publication (Figures 14-16).[7]

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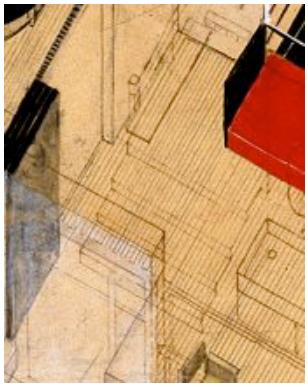
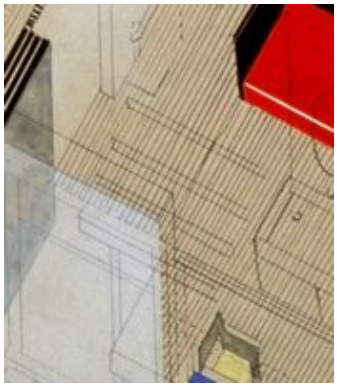
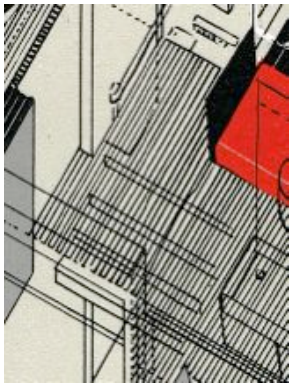
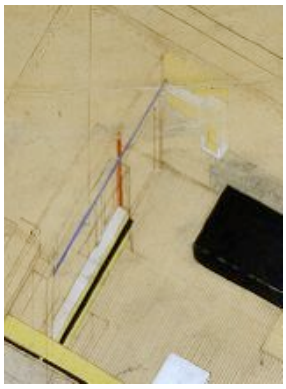
Differences are numerous and comparisons support the claim that the less published Figure 8, because of its carefully crafted nature, has been completed earlier than Figure 7. This is primarily based on the copyist characteristics and consequent technical failings of the illustration used for the *GA* publication. If accepted, my conclusions lead to an important question related to possible earlier provenance – earlier, but by how much?

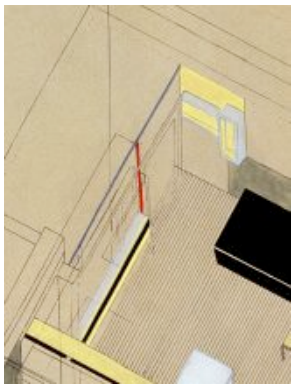


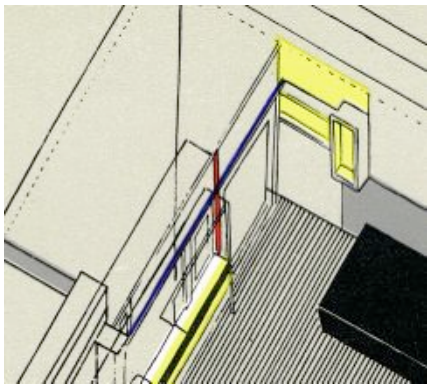




Figures 11, 12 and 13. Details Figure 8, Figure 7, and the Gerrit Rietveld's, *Rietveld, 1924, Schröder Huis*. 1963 publication showing the comparative line work.







Figures 14, 15 and 16. Detail Figure 8, Figure 7, and the Gerrit Rietveld's, *Rietveld, 1924, Schröder Huis*. 1963 publication showing the comparative colour rendering of window mullions.

In comparing the discolouration and aging of the papers, Figure 8 and its original tracing Figure 9, are discoloured consistent with traced and printed illustrations by Van Doesburg and others working in the De Stijl group during the early 1920s (Figure17). Although viewing the originals only recently, Figure 7, with already sixty years separating the time of exhibition at MOMA and my viewing, has discoloured less than Figure 8. This difference in discoloration through aging is explained further in examining reprographic techniques available during the 1920s. In their documentation

of Rietveld's complete works, Marijke Küper and Ida van Zijl described the printed axonometric including for this publication, Figure 8, as being "pencil, ink, watercolour on collotype."[8] However, if carried out in circa 1925, the process of collotype would have been a difficult one to undertake in a small architectural practice because of its use of glass or metal plate coated with dichromated gelatine and dried at a controlled temperature.[9] It is much more likely that the print making Figure 8 relied for its creation on early architectural reprographic techniques. The most likely technique for reproduction was the Ferro-Gallic printing process that was widely used in Europe until the 1930s.[10] In this process the sun was used to 'expose' a chemically coated paper and a light chemical wash developed its brown/black line work on a light background. This printing process enabled architects and engineers to produce a positive dark brown line on art-quality paper directly from a tracing paper original without the need for complex processes other than a single wash-trough. This reprographic technique is documented as costing about twice the price of a blueprint and was used for public presentation of ideas because the paper could accept rendering in coloured pencil or paint. In Ferro-Gallic processes, a pale brown stain was often left on the finished paper. Such staining is evident on the final art paper of Figure 8 and is also evident in Van Doesburg's *Contra-constructie* of 1923 (Figure 17). This suggests a commonality of approach to reproduction processes amongst the De Stijl group.

Figure 17 Theo van Doesburg, Contra-construction, 1923, Van Moorsel donation to the Dutch State 1981, Kröller-Müller Museum, The Netherlands.

Furthermore, in Rietveld's short published notes of 1963, the manner of discussing the drawings also suggests that the original illustration was used as a design aid within the design process. At this time Rietveld does not call attention to the historical state of the drawings or changes he deemed necessary for their publication but focuses on their

intent as supports for design decisions.

> This oblique projection gives a (perhaps rather vague) impression of an attempt to connect the inside and outside in one image. The outside walls are split up in open and closed sections; the continuous wall 'with holes' has been avoided. To get to a visual interplay of the walls and the floor, the various criteria, which the use imposed on the floor coverings, have been used to create a division in colour, material, light and dark.[11]

Whilst the 1963 publication includes an English translation, it lacks the nuance of the Dutch. In translating from the Dutch to English, the matter of tense has been complicated by its reliance on rhetorical context. When resolved, it is probable that the statement reinforced the idea that the coloured illustration was made to inform discussions between client and architect about the final colours for the floor. Such decisions could not be experientially resolved by walking through and examining the space but would need the mathematical and geometric verification usual in De Stijl and able to be conceptualised through of the axonometric technique.[12] For the selection of colour in De Stijl, this technique portrayed rigorously determined relationships between surfaces throughout the house. The implication for the illustration is that the logic of its composition was determined supported by geometric means rather than experiential associations. Reinforcing the need for such visual resolutions is Truus Schröder's criticism that the floor was not painted when she was ready to move into the house at the end of 1924.[13] To resolve such concerns Rietveld's processes of design would have relied on rigorous geometric techniques of representation to determine decisions on colour. Each colour would be made consistent with the spatiality of the house and its planar relationships. This practice would have been consistent with other designs where Rietveld had used axonometric illustrations to portray specific compositional relationships.[14] It is thus highly likely that Figure 8 and its traced original illustration Figure 9 were completed during the 1924-1925 period when the matter of the colouring of the floor surface was being debated between Schröder and Rietveld.

Further compelling evidence supporting this claim for an earlier completion date for Figure 8 is the listing of specific drawings in catalogues from exhibitions prior to 1928. Both the 1927 exhibition in Stuttgart associated with the opening of the Weissenhof Estate and the 1928 exhibition at the Stedelijk Museum, Amsterdam list the house as co-authored by Schröder and Rietveld and both allude to the inclusion of an 'isometric' drawing.[15] The Stuttgart catalogue lists *n. 437* as 'Entwurf zu einem Wohnhaus, isometrischer Grundriss' (Design of a house, isometric layout) and is followed by a

listing of the plan and section associated with the same house. In the Amsterdam ASB exhibition, the catalogue is more location specific and lists exhibit *n. 126*, as 'Isometrische teekening van Woonhuis Utrecht' (Isometric drawing of a house at Utrecht).[16] While the Stuttgart catalogue had not explicitly provided the location of the house, the Amsterdam ASB catalogue clearly states its location. Its listing is immediately followed by *n. 127* 'foto's,' suggesting the inclusion of both drawing and photographs of a completed house in Utrecht. That the "Woonhuis Utrecht" is the only exhibited work that included both drawing and photographs suggest the house's completion as a built work – a note clearly indicating that it was the Schröder house. The Schröder house was the only Schröder / Rietveld completed house of this time. Further acknowledging the importance given to Rietveld's work in the Amsterdam ASB exhibition is his invitation to give the opening address.[17] Because the Amsterdam ASB exhibition included all collaborative schemes designed by Rietveld and Schröder and also much by Rietveld himself as single author, it can be assumed that this isometric (or axonometric) of the Schröder house was Figure 8.[18] A further exhibition titled "New types of architecture" and held in Hamburg during 1926 suggests also, because of the house's instant noteriety, that the drawing and photographs may have existed and been shown at this exhibition.[19]

Returning to focus on the 1992 GA illustration, Figure 7, it is possible that, as stated by Hanneke Schröder, it was completed as one of those redone pieces for the 1951 Stedelijk Museum exhibition. It has been confirmed by Van Zijl that a number of illustrations were copied for this exhibition because of the degraded state of originals. Certainly, unlike present times, original architectural illustrations at that time did not have the same significance as originals in artistic practice. The members of the De Stijl group then selecting works for display were dismayed by the dilapidation of their early prototypes, drawings and models. Van den Broek had concluded,

> Putting these on the wall and in five display cases would create the impression of the tarnished remains of a hastily repressed, pathetic, dilettante and exaggerated attempt to pave the way for a new style; we certainly cannot exhibit this disgrace.[20]

The Stedelijk Museum had resolved to pay 2,500 gilders for new illustrations to be made. While van Zijl lists some of those that were copied related to the Schröder house there is no mention of the axonometric and it is left to conjecture what actually happened.[21]

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Separating the two illustrations into different time frames has an impact on what historical contexts might inform the reasoning behind the development of the illustration. De Stijl's manifestos had been popularised in their magazine and numerous interactions and exhibitions had occurred during the 1920s linking De Stijl with other avant garde artists. In a recent paper, following work by Richard Difford's analysis of possible influences on the work of Theo Van Doesburg and El Lissitzky, I presented the notion that, similar to their explorations, Rietveld used axonometric techniques as a reaction to new conceptualisation of space emerging from sciences of spatial dimensionality that were popularised during the second decade of the twentieth century.[22] The Fourth Spatial Dimension, a concept developed by Charles Hinton in 1905, was brought into European and Russian languages during the formative period of manifestoes of the De Stijl group and can be seen to have modified their understanding of abstraction.[23] Our understanding of Rietveld's expanded attitude to abstraction is apparent when we compare his illustrations with previous explorations of the axonometric used by Van Doesburg and El Lissitzky.[24] Their experimentation supported a representation of architecture whereby the viewing subject could explore the implications of spatial dimensionality beyond the third dimension (uninhibited by the impenetrability of materials and viewer gaze). Extending the methods of others of the De Stijl group by introducing transparency while maintaining geometric rigour, Rietveld's illustration also referenced a representation of architecture's symbolic characterisation of material construction and its domestic interiority. It is the relationship formed between abstraction and the architectonic surface that is uniquely expressed in his illustrations. Rather than focus on the perspectival foreground or on painterly abstraction, Rietveld's illustration became a commentary of relationships between architectural spatiality, domestic apparatus in the form of furnishings and fitments and scientific developments related to spatial abstraction.

For the Schröder house, it is relationships derived geometrically across the multiple-dimensions of space and form that are important. These relationships were fundamental to new attitudes Rietveld proposed for modern architecture. In an inquiry beyond abstraction to the experiential comprehensibility of architecture, Rietveld used the axonometric technique didactically to tell us about concepts underlying the building's three-dimensional form. Rietveld's illustration provokes understandings of architecture by privileging the conceptual relationships that can be developed, specifically in architecture, between spatial and domestic elements of a dwelling. For the discipline of architecture, the illustration provided an alternative conceptual origin based scientifically on a system of logical equivalence. For architectural spatiality, this suggested a correlation between abstract geometries of form and the contingencies of

material habitation. This proposition was a radical re-framing of architecture's potential, its means of representation and its material possibilities.

The 'power' of Figure 8, if created during the 1924-5 period can thus fundamentally inform our understanding of the conceptual bases of the Schröder house. If instead, the illustrations are from the 1950s then the context of the theoretical positioning of De Stijl is lost and the illustrations become a visual repetition of De Stijl imagery. Although he was the main proponent for developing the 1950s exhibitions, Rietveld had expressed a shift in his architectural interests as early as 1931 after the death of Theo Van Doesburg. At this time Rietveld refused to take part in the commemorative issue of De Stijl surmising, "it seems as though all that were in the past."[25] He had explained that in his quest to understand the conception of what he considered 'the new' architecture his interests in the De Stijl group and their publications were simply a 'way out of intellectual isolation' during that period.[26] Although his 1950s trip to North America had opened opportunities for a reappearance of De Stijl inspired architecture, the vigour of those early manifestos and texts had been lost to history. Given the changes in his thinking over time it would be improbable that newly created illustrations at that time would portray anything other than an as-built documentation of the building for it was in building that ideas were finalised. Rietveld's approach would more likely have mirrored an analytical investigation of the house in-situ. This is not the case. Confirming the copyist nature of Figure 7 over Figure 8 both illustrations portray an early version of the house with colours and panels in locations that by 1950s had been modified many times by both Truus Schröder and Gerrit Rietveld. It is simply not plausible to think that Rietveld would represent the clarity of concept from that earlier time without some indication of the step from creative process to analytical intent.

There is also no evidence from the catalogues of those exhibitions that would suggest a distinct aim for re-positioning Rietveld in architecture's modern development. The Stedelijk Museum catalogue, written in Dutch with some parts including English and French translations, clearly returns to original documents of the De Stijl group exploring the complexity of the early manifesto period.[27] Unlike more recent evaluations of De Stijl, for example, this catalogue from the Stedelijk Museum provides no claims for De Stijl's broader influence on French, German and Russian art and architecture. The greatest proportion of writing in the document was from published works of Theo Van Doesburg and Piet Mondrian, Rietveld holding a smaller profile toward the end of the catalogue. In the later catalogue of the exhibition at the Museum of Modern Art in New York, Philip Johnson's foreword emphasized the abstraction and asymmetrical balance of the De Stijl style juxtaposed with architecture's functionality.[28] Continuing this theme

Alfred H. Barr's twelve page essay includes only a single sentence referring to Rietveld's house saying, "Here in an actual building the partition of space into volumes by means of freely abutting and interpenetrating planes is emphasized as never before in Western architecture."[29] While these claims could be interpreted as enhancing the importance of Rietveld's role in De Stijl to a post WWII American public it does not constitute a major re-positioning of his role in modern architecture.

What is at stake in Van Zijl's acceptance and assertion of the later provenance and attribution of both illustrations is the loss of focus on what is interesting about the axonometric and its relationship to the architecture of the Schröder house. The illustration has remained emblematic but without arousing interest from historians that may clarify concepts underlying architectural thinking of the time. By not clearly distinguishing that there were two 'families' of illustrations created from different original drawings, at possibly vastly differing times, staff at the Rietveld archive in Utrecht have through innuendo quashed research that may have uncovered the historical power of the axonometric illustration. Chemical testing of the papers would reveal with certainty whether the prints were carried out using similar processes and provide indication of provenance. With provenance remaining in question, the narration of the history of De Stijl has been inadvertently directed to other issues, interests and evidence. However, encapsulated within the illustration are systems of representation, recognised now as potentially opening a productive relationships between artists, architecture and other scientific discoveries that have remained hidden.

There are three conclusions I wish to raise from this study. The first is the architectural historians' focus on building as the pre-eminent subject for architectural history. This study has unearthed specific importance that can be given to architectural illustrations and their techniques of representation as having a 'voice' in the understanding of architectural design, its contexts and public presentation. It is the technique as well as the content of drawings that often plays a didactic role from architect to a viewing public. The second is that this study points to the complex role of authorship and origin in establishing an understanding of architectural production. The impact of multiple authors and design teams has never really been resolved in the attribution of architecture. It was this very notion that became a schism in De Stijl and the problem of 'control' and authenticity remain problematic for historians. The third is a question related to the control and ownership of archives. Although having public access, archives of drawings, through fiscal constraints are rarely thoroughly investigated and documented. This neglect creates problems for architectural historical documentation especially when custodians are the primary writers focusing on the archival material.

History becomes subject to the control of the knowledge they hold and the assertions they have made. In conclusion, I end with the question of what has been lost to our understanding of architecture from a possible lack of clarity in establishing the provenance and attribution of an illustration? In this case it is the complexity of architectural knowledge, its relation to the artistic production, and its influences from scientific discovery that have been lost in the immediacy of establishing easily digested forms of historical narrative. The GA alerts us to these potential problems.

Endnotes

1. This comment came about in response to a journal article I was writing about the axonometric illustration found in the GA. Van Zijl has made these claims to me in person and in referees reports suggesting that it is now the stance of the Museum that the axonometric drawings were all created just prior to 1951. For my final article see Desley Luscombe, 'Illustrating Architecture: the Spatio-temporal Dimension of Gerrit Rietveld's Representations of the Schröder House' *The Journal of Architecture*, 2012, forthcoming.
2. Evidence of her interview interview has not been examined but may be held at either Utrecht or the archive of Henneke Schröder at Virginia Tech in their International Archive of Women in Architecture, http://spec.lib.vt.edu/iawaspec/schroder/schroder.htm.
3. Van Doesburg had died in 1931. See Ida van Zijl, 'De Stijl as Style', in Robert Dettingmeijer, Marie-Thérèse van Thoor, Ida van Zijl, (eds.), *Rietveld's Universe* (Rotterdam: NAi Publishers, 2010), 227-256.
4. Gerrit Rietveld, *Rietveld, 1924, Schroder Huis* (Hilversum: Steendrukkerij De Jong & Co, 1963). This booklet applies the same process to the screened elevations and perspectives that Ida van Zijl has suggested were replicated for the exhibition at the museum of Modern Art, New York.
5. Rietveld, *Rietveld, 1924, Schroder Huis*. Unnumbered Edition Notes.
6. The Museum provides the same caption for 004 A 072 and 004 A 104: Rietveld Schröderhuis (woning Schröder-Schräder) -lichtdruk van 004 A 059,[sic] voordat deze is verduidelijkt met de contouren van de daklijn en de stoppen vergroot zijn van stippen tot cirkeltjes. Ingekleurd met witte, blauwe, rode, grijze, zwarte en gele verf en geplakt op grijs karton, inv.nr. 004 A 072, Centraal Museum Utrecht.
7. It is interesting to note that Rietveld has corrected this in the 1963 publication with a return to the clear intersection of the primary colours.
8. Marijke Küper, Ida van Zijl, *Gerrit Th. Rietveld, 1888-1964, The Complete Works* (Utrecht: Centraal Museum Utrecht, 1993), 98.
9. Bernard Jones, *Cassell's Cyclopaedia of Photography* (London: Cassell and Company, 1911), 124.
10. Lois Price, *Line, Shade and Shadow: the Fabrication and preservation of Architectural Drawings* (Houten, Netherlands: Hes & De Graaf, with New Castle, USA: Oak Knoll Press, 2010), 172-177.
11. Rietveld, *Rietveld, 1924, Schroder Huis*, unnumbered folio, translation in discussion with Kees Dorst.
12. For discussion on the use of the axonometric technique by De Stijl see Yve-Alain Bois, "Metamorphoses of Axonometry", in W. A. L. Beeren et al., *Het Nieuwe Bouwen: De Stijl, De Nieuwe Beelding in de architectuur : Neo Plasticism in Architecture*, (Delft: Delft University Press, 1983),146-161.
13. Paul Overy, *The Rietveld Schröder House* (Houten: De Haan, 1988), 71.
14. See specifically the axonometric of the 'Tobacconist's Conversion' 1924-5; 'Design Drawing of 1927 and, 'Design of 23 Small Dwellings' 1928, in Küper, van Zijl, *Gerrit Th. Rietveld, The Complete Works*, 105, 119, and 123.
15. The term 'isometric' was commonly used to describe drawings from both iso- and axonometric origins in Europe at this time. For the Stuttgart exhibition see catalogue, *Werkbundausstellung Die Wohnung Stuttgart 1927, 23. Juli bis 23. Okt. : kleiner Führer durch die Internationale Plan- und Modell-Ausstellung neuer Baukunst / herausgegeben von der*

Ausstellungsleitung (Stuttgart: Der Ausstellungsleitung, 1927), 11. For the Amsterdam exhibition see *ASB : tentoonstelling van architectuur, schilderkunst & beeldhouwkunst, 4 febr-1 mrt, Stedelijk Museum* (Amsterdam: Stedelijk Museum, 1928), 5–6.
16. *ASB: tentoonstelling van architectuur, schilderkunst & beeldhouwkunst*, 5–6.
17. See report of Rietveld's speech in the review 'STEDELIJK MUSEUM, Tentoonstelling A.S.B.' in the newspaper, *Algemeen Handelsblad* (5th Feb., 1928), 3. See also the photograph of Rietveld at the exhibition with other artists in Ype Koopmans, *ASB, Architectuur – Schilderkunst – Beeldhouwkunst : nieuwe beelding en nieuwe zakelijkheid, 1926-1930* (Arnhem: Museum voor Moderne Kunst, 2004), 8.
18. See the list of completed works by Rietveld in Küper, van Zijl, *Gerrit Th. Rietveld, The Complete Works*, 91-124 and listing of the exhibition, 357. For discussion on the A. S. B. exhibitions see Koopmans, *ASB: Architectuur-Schilderkunst-Beeldhouwkunst,* 2004.
19. See this exhibition listed in Küper, van Zijl, *Gerrit Th. Rietveld, The Complete Works*, 356.
20. Van Zijl's essay 'De Stijl as Style' in Dettingmeijer, et al., eds., *Rietveld's Universe*, 235.
21. Ibid.
22. Luscombe, 'Illustrating Architecture,' *The Journal of Architecture*, 2012, forthcoming. See Richard Difford, 'Proun: an Exercise in the Illusion of Four-Dimensional Space'. *The Journal of Architecture*, 2, 2(1997), 113-144 and Richard Difford, 'Developed Space: Theo van Doesburg and the *Chambre de Fleurs*'. *The Journal of Architecture* 12, 1 (2007), 79-98.
23. This understanding of the impact of multiple spatial dimensions must be considered with the additional influence of Hermann Minkowski's, "Raum und Zeit", *Jahresberichte der Deutschen Mathematiker-Vereinigung*, 1908/9, 75–88, who introduced the concept of space-time relativity. Both Minkowski and Hinton had written on the fourth dimension during the early twentieth century. It was the concepts in Charles Hinton's, *The Fourth Dimension* (London, Swan Sonnenschein and Co., 1904) that were initially important to Theo van Doesburg and the De Stijl conceptualisation of space but by the early 1920s both ideas were influencing experimentation in the arts.
24. It is important to note here the influence on De Stijl ties with the Russian avant garde through Truss Schröder's sister. See Ivan Nevzgodin, "Perspective from the East: Rietveld's Impact on the Soviet Union" in Dettingmeijer, et al., eds., *Rietveld's Universe*, 217.
25. Kuper, "Rietveld and De Stijl" in in Dettingmeijer, et al., eds., *Rietveld's Universe*, 196.
26. Ibid.
27. Johannes Hendrik Van Den Broek et al, *De Stijl, Cat. 81*, Stedelijk Museum Amsterdam, 6.7.'51-25.9.'51, (Amsterdam: Stedelijk Museum, 1951).
28. Alfred Barr, Jr., Philip Johnson, *De Stijl, The Museum of Modern Art Bulletin*, XX, 2(Winter), 1952-53, (New York" MOMA, 1952).
29. A. Barr Jr., *De Stijl*, 9.

The Timber and the Trees: A Simultaneity of Nature and Colonialism

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Abstract

In 2005, in the contextual essay for the survey, Claiming Ground: Twenty Five Years of Tasmania's Art for Public Buildings Scheme, *I commented that while Tasmania's public art did not always follow that experienced overseas, differences could be largely explained through the state's lack of critical mass in terms of population, economy and political will. In the USA, for instance, the 1970s saw contemporary sculpture taken into the urban forum in an effort ot compensate for a degraded urban environment and nostalgia for lost nature. While Christo's* Running Fence *crossed Marin and Sonoma counties, Tasmania was attracting people into the wild nature that was the Gordon and Franklin Rivers, the centre of international environmental protests against the building of the Franklin Dam. Permanent public artwork was not a significant element in these events, however a unique identity for the state was being configured beyond its borders, and in the public mind, through the emerging contemporary genre of wilderness photography, exemplified in the work of Peter Dombrovskis. The new identity was taken up as reflecting both the popular image of Tasmanian nature and the equally enduring impress of colonialism. This paper draws on this context to consider the commissioning of Peter Taylor, Mervyn Gray and Kevin Perkins' suite of crucifix and Huon pine furnishings for Robert Morris-Nunn's St Paul's Chapel (1979) in the Launceston General Hospital precinct as the initiating project for the Art for Public Buildings Schem,e and as perhaps the earliest expression of a simultaneity of nature and colonialism in Tasmanian public art.*

Introduction: A Chapel, Nature and Colonialism

Through the manner of its commissioning and making, St Paul's Chapel, in Launceston General Hospital (LGH) can be demonstrated to encapsulate the loosely woven fabric of the Tasmanian experience. This experience is not just that of the late 1970s, but also of earlier moments, since Tasmania was established first as a penal colony in 1803 and

subsequently as a place of more permanent settlement, marked particularly by Lachlan Macquarie's term as the progressive, if perhaps profligate, governor of New South Wales, (1810-21). The chapel's form, and the collaborative nature of its designing and making, initiated a new relationship between architects and designers, not only in Tasmania but in other Australian projects. As the Tasmanian Art for Public Scheme (APBS) was established in 1979, the same year that work on the Chapel began, the process developed by the architect Robert Morris-Nunn, and artist-makers Kevin Perkins, Merv Gray, Peter Taylor and others, was watched closely by the Tasmanian Arts Advisory Board (TAAB). Its processes provided something of a model for the codifying of the architect-artist relationship by the APBS.[1]

Figure 1. St Pauls Chapel, Launceston General Hospital. 1979-82. Sanctuary and lectern left, font beyond. (Photograph: D. Malor)

This paper represents an attempt to find how the impress of the experience of both nature and colonialism are expressed in the craftsmanship and artistry found in St Paul's Chapel. It is an excursion into the idea that these two often-expressed aspects of being Tasmanian exist simultaneously in the forms and the ways of working that allowed the Chapel to develop as it did. The essay is in two parts; effectively two sides of the same work that is the chapel. In 'Painters, Photographers, Woodworkers', I draw on diverse visual references to figure the ground for the conceptualising and making of the chapel. In 'Disputes and Collaborations', I look at some aspects of bringing the chapel to fruition that relate to particular understandings of the nature/colonialism relationship, referencing ideas and reflections of architects, makers and users.

Given its length, the paper inevitably contains generalisations regarding the making of art and objects and the development of craft, both here in Australia and in other settler

societies. Nature is understood to be a concept full of ambivalence, shifting between being something to be viewed (the picturesque), to be exploited (through timber, mining, trapping and other industries), or to be conserved (reflecting aesthetic, ecological and political interests). These aspects could exist simultaneously sometimes even within the same time or place. Some of this ambivalence is captured in Tim Bonyhady's *The Colonial Earth*: from 1828 the settlers of Hobart Town were obliged to take to using the axe to make 'improvements' to their grants, while much later in the century artists' camps 'were at least noteworthy for their axework'.[2] Inherent in both these attitudes to nature can be found some of the drivers of colonisation, the need as much as the desire to sustain an existence on the selected land, the manner in which it was achieved, and how it was represented. Tasmania hid its convict past but retained much of its architecture. It retained and developed the crafts and skills of settlers free and emancipated, and the ability to derive a living off the land that had sustained the nineteenth century colony. In St Paul's Chapel (Figure 1), craftsmanship, architectural form and materials are made more precious by their Tasmanian context, by the rich connections that can be drawn from the nineteenth century into the twentieth, from exploitation of materials and makers, to their celebration. Kevin Perkins, the main artist-craftsman of the Chapel states that he 'only works on island issues: "Things that you are doing have got to be personal. There's a need to address the hard facts of what Tasmanians have done …If it's just the making, it doesn't hit the spot for me"'.'[3]

Painters, Photographers, Woodworkers

In establishing the idea of Tasmania in the public mind of the 1970s, a visual language developed that was first framed in the nineteenth century language of the Picturesque, a language much used in the recording of colonisation and of empire. This language which was most obviously present in paintings of the land that was found to so ideally represent the idea of landscape, significantly without the intervention of the colonists, and which obeyed the dictum of framed foreground, with winding water leading the eye to the misted, stage-lit, often towering distant mountains, as seen in WC Piguenit's *Mount King William* (1887) (Figure 2), became the aesthetic and experiential currency.

Figure 2. W C Piguenit, *Mount King William, Western Tasmania*, 1887, (National Library of Australia http:nla.gov.au/ nla.pic-an2292677)
Figure 3. Peter Dombrovskis, *Morning Mist, Rock Island Bend, Franklin River, Tasmania,* 1979. (Image courtesy of Liz Dombrovskis).

Piguenit, the first colonial-born artist in Van Diemen's Land, is also its first major artist-tourist. His work represents, like that of almost no other artist of the period, a simultaneity of nature and colonialism in what could be called academic or fine art. He went into the bush, the wilderness, to Lake Pedder and the Gordon River, and reported his travels to learned societies.[4] Piguenit's work appears to be the genesis of Tasmania in the public's mind. The genre in which he worked kept many of his paintings within art institutions, largely out of the public's eye, although prints from his images also appeared in widely-available publications.

Piguenit's visual language has been perpetuated in one particular, and popular, visual form, exemplified in Peter Dombrovskis's photograph, *Morning Mist, Rock Island Bend, Frankin River, Tasmania* (1979) (Figure 3: hereafter, *Rock Island Bend*). In identifying wilderness photography as 'very conservative art', Peter Timms observed that, 'This particular image may be exceptional in its fidelity to European artistic and cultural precedent. Picturesque conventions determine the composition of many wilderness photographs.'[5] He makes a case for the particularity of Tasmania, through its climate and geography, to support a continued picturing of wilderness that emphasises portents of death, transfiguration, transcendence. But this Romantic view is often mediated by strangeness. The viewing of the image, to extrapolate from Timothy Morton's complex argument, is undertaken in the foreknowledge that what we see has already changed, in a 'retroactivity effect' or a 'future anteriority'.[6] *Mount King William* (1887) and *Rock Island Bend* (1979) deal with both the past and the ongoing present of nature colonised by the artist and the camera.

The image *Rock Island Bend* was taken up by the Wilderness Society in the Federal electoral campaign, and now stands for environmental protest generally. Visually and technically sophisticated, it forms a fascinating contrast with the Piguenit, in that it is as if the Piguenit had been turned inside out, the mountain in the water rather than cradling it. An association with conservation is achieved by turning the colonising Picturesque aesthetic inside out – the water runs free rather than being restrained in Piguenit's or the Hydro's lake-cum-dam. Protest now referenced the picturesque construction of natural beauty as much as it called on the rhetoric of environment as nature.

Dombrovskis, after his mentor, Olegas Truchanas, consolidated the genre of wilderness photography in the public eye. Gael Newton sets out the more recent source of a particular transcendent experiencing of Tasmania's wild places in referencing Eliot Porter's photographic responses to Henry David Thoreau, in the context of the influence of the photographic image of nature on the American conservation movement.[7] Certainly, the closest antecedents of *Rock Island Bend* can be found in the America west of Yosemite, as photographed by Porter and others, but it also closely relates to the northern European aesthetic already identified in Piguenit, and suggested again by Dombrovskis and Truchanas, from their own Northern European roots. Richard Flanagan sees both photographers as 'speaking of the conflict to come – of mankind against the natural world' as a threat to our humanity (or, perhaps, human-ness), a point which again plays with Morton's sense of future anteriority.[8] In America this aesthetic is tied to an early ecological vision promulgated by writers and groups such as the Sierra Club, whose later 'coffee table' publications set the political agenda in many spheres. Where activism becomes central to the context of an image, wilderness conservation itself beomes an act of colonisation. Exploitation and activism – the timber and the trees – are present in the same images of wilderness.

Porter's Sierra Club connection links him irrefutably with one of its founders and inspiration, John Muir. Casting a wider net, I would link the Scottish-born Muir with another Scot, John Watt Beattie, Tasmania's premier late nineteenth century photographer of what we now recognise as the wilderness areas of the west and south-west of the island.[9] Their similar experiences as young migrants to new worlds in the nineteenth century saw them grapple with this simultaneity in understanding wilderness areas in settler societies, 'to enable some conception to be formed of both the artistic and commercial aspects of the State', as Beattie put it, encapsulating the

ambivalence towards the natural world I have identified elsewhere.[10] But there is not the ambiguity in this that might first appear: conservation, in itself, does not signal anti-development. Colonial families such as the Merediths managed to both develop within the colonial regime and yet took their documenting of their new land beyond the trophy-hunt of species to a desire for their conservation. Similarly, Truchanas approved of a Hydro Dam in the Gordon-Franklin area but protested the final location that saw the destruction of Lake Pedder.

The relationship of humans, as colonisers, to their environment, particularly in areas of the state now being claimed as wilderness, was brought to the public eye in Tony Woodward's *Mountain Man/ Man Mountain* (Figure 4), placed in the township of Deloraine as part of the Great Western Tiers Sculpture Trail, in 2003.

Figure 4. Tony Woodward, *Mountain man/ Man mountain*, 2003, cast concrete, coloured glass mosaic, h.4.2m, w.1.2m, depth 1.5m, Deloraine. (Photo: D. Malor)
Figure 5. Louisa Anne Meredith, *Deloraine Bridge*, (in *My Home in Tasmania, During a Residence of Nine Years,* Vol II, London 1852).[11]

Predictably this work created some outrage amongst the local community, being described as 'an insult', 'kitsch', and 'unnecessary'. Yet the artist's intent was for the work to 'Eulogise and mythologise the landscape and people of the Great Western Tiers'.[12] Here in one phrase is the simultaneous evocation of nature and colonisation. In one sense, this piece of public art is politically loaded and yet it is not a memorial to an individual, to one who stands for the processes of colonisation or, in this context, the harvesting of the resources of the Great Western Tiers – timber and furs – that guarantee that colonising process.

Almost exactly one hundred and fifty years before we could look across the Meander River to *Man Mountain* celebrating the Tiers and its people, Louisa Anne Meredith sat at the inn above the bridge, and drew a scene that includes the site of Woodward's work (Figure 5). Here the notion of simultaneity is characterised by uneasy topographical juxtapositions – Meredith is not just bowing to a fashionable pastoral aesthetic (the black-faced sheep on the bridge crossing) but is recording the process of a journey as, with her administrator husband she moves across colony to the North West coast. Post-colonisation, the journey becomes a metaphor for that very process. Here the edge of the trees not only marks the flooded, rutted road from the east, but mirrors the dark forest behind the inn, the forest into which the Meredith party must descend the following day.

When the experience of the dark forest becomes one of economic survival within the broader experience of colonialism, rather than a pause or even the limbo between colonial locations, the forest itself provides necessities. In what is now a common scenario within contemporary society, there is an ever-increasing interest in what is crafted, and in the processes and everyday objects of our many pasts.[13]

Between these two moments of Tasmanian history – of colonisation and its eulogy, a wave of consciousness of the environment arose. This was not exclusive to Tasmania, although the Tasmanian expression of the human/nature relationship in art does not correlate in genre nor intent to that located elsewhere, which is best exemplified by Land Art; the imposition on the land of a form drawn from nature and made with organic materials, by a human intent on exposing the action of nature on nature itself, as occurs in Robert Smithson's *Spiral Jetty* (1970). This is a colonisation, certainly, but too nostalgically self-aware to carry colonialism's intent. The year before, Christo and Jeanne-Claude produced the first international Kaldor art project, *Wrapped Coast, Little Bay, One Million Square Feet, Little Bay, Sydney*, and followed by *Running Fence* across Marin and Sonoma Counties, near San Francisco (1972-76). Here a fence, that as enclosure would fall well within the ambit of colonisation, contains nothing. Like the *Spiral Jetty* it is of no use. These works were constructed as ephemeral signposts of a natural environment taken-for-granted in an urbanising world. This was not post-colonisation so much as post-*Silent Spring*.[14] Although acknowledged in Australia, it was largely accepted that these works spoke about another environment. In Tasmania, skills and materials drawn from pioneer ingenuity, together with the photography of Truchanas and Dombrovskis, informed a new generation of designer-makers, many of whom went into the wilderness to understand

their craft while drawing on influential international makers such as John Makepeace (UK) and Donald Lloyd McKinlay (USA).[15]

Disputes and Collaborations

What underpins the design and making of St Paul's Chapel is not such a long throw from picturing the wilderness as one might expect. Here a modern craftsman built chapel, designed and fitted out at the height of the Gordon/Franklin campaign can provide an active connection between nature and colonialism, and on reflection, may reveal a little of the significance of both genres as accepted expressions of Tasmania. The idea of the 'dualities in Tasmanian wood and furniture' is not new, as evidenced by Glenda King's comprehensive address to questions of pluralism in regional identity through craft.[16] But locating simultaneity (rather than a more locative 'duality') of expressions of nature and colonialism as contributors to that identity across visual media and craft is less often attempted.

A new regional hospital for Launceston had been talked about for many years before January 1974 when the Department of Housing and Construction submitted its first brief and design for the development. The first contract was let in December 1975 with an anticipated completion of October 1982. At that time, the hospital was the largest single project completed by the Tasmanian Department of Housing and Construction. Accommodating a chapel in an otherwise huge State/Federal-funded hospital complex might appear insignificant but, from the start, instigated new processes in the commissioning of designed objects and artwork in an architectural context for Tasmania and, subsequently, the rest of the country. St Paul's Chapel was to be situated within the envelope of the hospital's development, indeed through the usual hospital doors from the corridor spine of the main wing. The interior of the chapel developed as a collaborative project between architect Robert Morris-Nunn and the artist-makers – Kevin Perkins (furniture), Merv Gray (furniture and turned objects) and Peter Taylor (sculpture). Other makers had smaller but nonetheless important input into the project.

The 3.5 hectare site for the development on the western side of the existing hospital, overlayed one of the oldest areas of Launceston. It included an 'open park' on the southern side of the site, formerly the Charles Street General Cemetery; to the north, 'Four blocks of dilapidated property were acquired and three roads were closed to permit the development'.[17] Amongst the 'dilapidated properties' was the Anglican parish church of St Pauls, a timber Gothic building and 'a monument to the city's

progress since 1874 … long before Fawkner sailed to create the "old" city of Melbourne.' [18] Discussions in the local press regarding the fate of St Pauls can be found as early as 1971. The parishioners were faced with the destruction of their church or its removal to another site: the first major article puts up a third alternative: 'Why can't St Pauls stay where it is and become the hospital chapel?'[19]

In 1975, the church, its rectory and hall were acquired in a unique sale agreement between the Trustees of the Diocese of Tasmania and the Minister, the Hon. Michael Barnard. At a practical level, this meant that in the planning and construction of St Paul's Chapel, all conversation and decisions took place between the representatives of the Diocese and that of the Minister, leaving the contracting government department to one side while needing to collaborate in the construction. On completion, the Chapel was to function simultaneously as a multi-denominational hospital chapel as well as the parish church of St Paul's, 'the first [chapel] in Australia as an integral part of a public hospital', with the patients 'encouraged to worship with the regular congregation'.[20] The dynamics of these arrangements can be seen played out at great length in documents and correspondence now held in the files by Arts Tasmania, both during the construction phase and in the decades following.[21]

Information sheets 'For the visitor' to the Chapel talk of the 'controversy [as] the design went forward. There was fierce public dispute in the media between church and state'.[22] The dispute was lead, for the Church, by the Anglican incumbent of St Paul's, Father David Johnston, a man who quickly understood Morris-Nunn's plans for a total and collaborative design for the new Chapel. In part, the sale agreement stated that the internal fittings of old St Pauls, "as considered appropriate", were to be used in the new Chapel; and that if it was decided to relocate the (recently refurbished) organ to the new Chapel, the Minister would purchase the organ to allow this.[23] As the design and then the work progressed, Father Johnston submitted a list of the 'Proposed LHG Chapel Ornaments and Equipment', with a 'Case for New Furnishings and Equipment'.[24]

Johnston stated that 'The Chapel will be vastly different from old St Paul's. Neither myself nor the architects ever thought that we could salvage any more than the bell and the organ from the old church. A church is a work of art, it all has to fit together.' Then, he works through his requirements, from the aumbry ('a modern design in beaten silver'), through candlesticks ('squat'), vestments ('relying more on shape and flow of material') and holy vessels ('in silver and enamel'), each to 'fit the new

situation', Out went the Gothic, the Victorian, the fussy, some consigned to 'a glass case in the cloister along with relics and photos of early days at St Pauls'.[25] It is notable that almost all Johnston's requests eventually materialised. The organ from old St Paul's proved costly to install in the available space, not least because of the need to retrofit adequate soundproofing into the concrete Chapel shell (the Chapel is sited on level 3, the hospital's entrance level), and adjoins consulting suites and wards.[26]

The very processes of finding the artist/makers to work on the project provided pages of disputation, as the government set about to call for tenders as they were doing for other hospital fittings, while Father Johnston and the architect called on the TAAB to create and follow through a short-listing process more aligned with what we now understand in commissioning creative works.

Issues of working between project managers, architects and artist-makers which were opened up during the design and construction of St Pauls, were important to the TAAB's future processes, in particular to those impacting the nascent Tasmanian Art for Public Buildings Scheme (APBS), which emerged at the completion of the chapel project as Australia's first percent-for-art scheme. It should be made clear that, while St Paul's Chapel appears as the first file in the APBS archive, it is the Chapel project that informed much of the early APBS thinking and initiated its processes, rather than being an outcome of the Scheme.[27]

The chapel was commissioned in 1979. It was, as its architect Robert Morris Nunn later wrote: '…the first significant project that was government funded … which allowed a group of artists and craftspeople to contribute collaboratively in a truly free and passionate way to create a whole interior space.[28] Morris-Nunn continued:

> The chapel interior co-incided with the major rebirth of arts and crafts in this country during the 1970s. Art was breaking away from its traditional 'high art, museum based' values. Craft, which for a long time had been viewed as being second class in terms of intellectual endeavour, was being reappraised and many artists were beginning to make functional objects that were also creatively challenging.[29]

Craft, and particularly wood craft, was mirroring photography's move from the picturesque to the political, from an apparently benign yet encompassing colonialism (reminiscent of Piguenit's landscape) to an intense free vernacular form

(Dombrovskis's landscape). Morris-Nunn echoes the schema for arts and crafts development set out by Grace Cochrane which demonstrated clearly the formalising of government support for the arts in this period, for example in the establishing of the TAAB in 1975, and also the directions in tuition of new artist-makers by the School of Art and Hobart Technical College. As Cochrane put it:

> In many ways the Tasmanian "woodies" with their cohesive interrelationship of vocations and institutions, their location in a state that had many important wood species, their own efforts to establish good relationships with the Forestry Commission about salvaging minor species, and personal relationships with timber-mills provided a model for others interstate.[30]

The materials selected for use in the Chapel in the LGH provide further nuances to reading nature and colonialism into wilderness photography and, in a clear if circuitous way, into the newly invigorated sphere of the 'beautiful and useful' that appears to have informed the refined design seen in the Jimmy Possum chair, a late nineteenth century vernacular form connected with the Deloraine region.

Figure 6. Jimmy Possum chairs, late nineteenth-early twentieth centuries. Deloraine and District Folk Museum, Tasmania. (Photo: R Malor)
Figure 7. St Paul's Chapel, Huon pine 'tractor seat' sedilia. (Photo: D Malor)

Huon pine, Kevin Perkins' material of choice, occurs only in the West and South West wilderness of Tasmania. A tree may take between 500 and 1000 years to reach maturity. The timber is easy to work and virtually rot-proof, so important for colonial shipbuilders. Cut down along the Gordon River region, logs were dragged to the banks and floated down on floods. Workable stands were mostly cut out by mid-nineteenth

century but small groups of piners continued the tradition while stands were still accessible. New technology – helicopters and chainsaws, renewed the industry post-World War 2.[31] Renewed awareness of Huon pine's properties, on the part of craftspeople, and of its rarity generally, coincided with the Lake Pedder and Gordon/Franklin protests and the development of wilderness photography by Truchanas and then Dombrovskis.

This relationship of conservation and a continuing tradition of exploitation of a resource since colonial times is not simply divided between wilderness photography and wood craft, but can exist within either at one and the same time. An example of the simultaneity of nature and colonialism is revealed in newspaper reports on the chapel's timbers and related contractual impedimenta:

> 'The pine for the chapel furniture has come from the Lake Pedder area', Perkins said. 'A feature of the furniture will be the use of the pine full width, from bark to bark'. The ceiling and wall panels will be made of celery top pine. Anglican chaplain to the hospital, Fr Johnson, said that if the Gordon River was flooded and the Huon pine lost, the chapel furniture and fittings would become really valuable.[32]

Morris-Nunn observed that the contract under which Perkins and the other makers were working was one more usual in construction contracts, in that there would be no payment until satisfactory completion and installation of the work:

> Kevin was a working artist and the cost of paying for the slabs of Huon Pine salvaged from the flooding of Lake Pedder, as well as the cost of living while making the pieces, would have been impossible for him. In the end the Anglican Bishop of Tasmania had to become the formal guarantor so that progress payments could be made even though the work was not installed.[33]

Writing as "Brickbats" in the *Examiner*, Eric Ratcliffe exclaimed that, '… words pale beside the sight of the pews, font, lectern and carved sedilia in Gordon River huon pine, crafted with a wavy edge so the true form of the timber is evident from the smooth bark edges to its soft, mellow centre.'[34] In another article, he described how 'Perkins has allowed each slab of wood speak for itself, he has resisted to carve this

most carveable of all timbers, except for small incised representations of the ancient symbols of Christianity.'[35]

Figure 8. St Paul's Chapel, detail of Huon pine altar table.
Figure 9. St Paul's Chapel, detail of surfaces and inscription on altar table.
(Photographs: D Malor)

"Brickbats" quickly identified where the public friction would occur, and this was in the one element of the chapel that did not initially appear to radiate the slow time of wilderness or the meditative processes of craft. Watching and reporting the development of the project he noted that:

> The most important development of the past year has been the visual extension of the chapel beyond its glass wall into the garden forecourt … for Peter Taylor's sculptured crucifix of Huon pine is in place … its impact is beyond design, which has the primitive force of a middle-period Epstein. It is beyond craftsmanship, which here is impeccable. It is a shock, as the vision of a crucifixion should be.[36]

In the forecourt or courtyard beyond the wide glass walls, the crucifix draws the eye as it stands, surrounded by greenery, and against the masonry wall that divides the chapel from the car park and ward access. It became a battlefield. During the period April-August 1982, articles and letters in the Launceston *Examiner* showed different reactions: 'Sculpture "grotesque"'; 'Sculpture revolting'; 'Moving sculpture to be moved', 'Sculpture change termed vandalism'; 'Crucifix must stay, priest says'; 'Crucifix brings peace'; 'Crucifix had to go, LGH board explains'. The responsible Minister was asked to act on 'the crucifix wrangle'. After a number of moves over a considerable

period of time, the crucifix took its intended place maintaining the visual connection between the interior of the Chapel and its courtyard.

Figure 10. St Paul's Chapel, the sanctuary, altar and sedilla, with courtyard beyond. **Figure 11**. Peter Taylor, Crucifix, St Paul's Chapel courtyard. (Photographs: D Malor)

The crucifix, the figure of Christ by Peter Taylor 'distinct from yet merging with' the rugged cross by Merv Gray,[37] is placed in a relationship to the earthly realm that is close to but not quite that found in a traditional church, where a conventional crucifix form would be raised above the congregation. Here, at St Pauls, Taylor's Christ is one of 'triumph through and over suffering, to which no viewer can be indifferent'.[38] Sitting in the chapel, on the soft leather on the soft pine of Perkins' pews, there is an absolute reciprocity between the walled courtyard and the figure which can be seen as a presence beyond the altar table and the lectern, the vertical profiles of both forms, and the simple branch-like tracery of the altar table's bracing cross pieces.

Conclusion: The Timber and the Trees

In the microcosm of Tasmania, the nature that is environment is much closer to everyone's everyday, as is the presence of colonisation. In Hobart, the mountain and the Georgian architecture can be caught in one frame on an iPhone. In Launceston it's possible to stand at the City Park gates and look down the axis of Cameron Street; from the colonising Robert Campbell Gunn's botanical garden, through the CBD into the wild nature of Cataract Gorge. Until recently, on the corner opposite the park was a gun shop, for the descendants and celebrators of *Mountain Man* who carry on hunting and fishing as cultural acts. Next to the park gates is Design Centre Tasmania, occasional purveyor of revivals of the Jimmy Possum chair, and home to the Wood

Design Collection that holds the work of the major makers who celebrate the rare timbers that sustained colonisation. As Timothy Morton puts it:

> Nature wants to be both substance and essence at the same time. Nature opens up the difference between terms, and erases those very differences, all at once. It is the trees and the wood – and the very *idea* of trees (Greek *hyle*, matter, wood).[39]

The material holds the essence, the idea of both nature (the idea of trees) and the colonial (the matter, the timber or wood). Morton's calling up of the trees and the wood – in terms of St Paul's Chapel – sits with Kevin Perkins' biographical comment that, as an apprentice joiner,

> Wood was just a material … wood was out the back on those racks. It wasn't anything beyond that. We only knew the different woods – or could identify them – in their dead state, so to speak … It was only later that I thought I should know, be able to identify, the trees in the landscape. Those shades of green should mean something, at least.[40]

Figure 12. St Pauls Chapel: pews and organ from altar table.
(Photograph: D Malor)

St Paul's Chapel at Launceston General Hospital brings together those two moments of nature and colonialism; the timber and the trees. In Kevin Perkin's own career it seems he has lived with these apparent contradictory understandings of material, and yet that is what gives the Chapel its completeness. It is like entering the dark forest, and seeing – simultaneously – it use and its beauty. Standing behind the altar in St Paul's Chapel, looking back across the pews towards the organ, the vertical stands of

columns and pipes, the undulating lines of Huon pine pew backs echoed by the rolling Celery top sky/ceiling, every picturesque principle is obeyed. When seated, visitors look always past the architecture towards the light of an external although still-private world. While always standing as an initiating moment for collaborative projects between artists, makers and architects, and to the recognition of wood design as a particularly Tasmanian expression of place, the Chapel simultaneously holds its visitors in a culturally-redolent framework.

Endnotes

[1] The Art for Public Buildings Scheme (APBS) is now known as the Tasmanian Government Art Site Scheme. It continues to be administered by arts@work for Arts Tasmania, the state government arts body.
[2] Tim Bonyhady, *The Colonial Earth* (Melbourne: The Miegunyah Press, 2000), 81, 190, 194
[3] Michael Bogle, 'Points of Diversity', *Craft Arts International* 37 (1996), 78
[4] For example, WC Piguenit, *Among the Western Highlands of Tasmania,* (Hobart: Government Printer, 1892), extracted from *Transactions of the Australasian Association for the Advancement of Science,* Hobart Meeting, 1892
[5] Peter Timms, 'Love, Death and Wilderness Photography', *Art Monthly*, 166, February (2004), 37
[6] Timothy Morton, *Ecology without Nature: Rethinking Environmental Aesthetics* (Cambridge: Mass./London, 2008) 75
[7] Gael Newton, 'Time, Place and Exposure: Understanding Peter Dombrovskis', in Gael Newton, Jamie Kirkpatrick, Patricia Sabine, Peter Dombrovskis, *Simply Peter Dombrovskis*, (Sandy Bay: West Wind Press, 2006), 14; Eliot Porter, *In Wildness is the Preservation of the World, from Henry David Thoreau* (San Francisco: Sierra Club, 1962)
[8] Richard Flanagan, 'The outsiders: Olegas Truchanas and Peter Dombrovskis', *Art & Australia,* 48:1, (2010), 26
[9] Muir's writing has been published in many editions but for comparisons to John Watt Beattie see: John Muir, *My First Summer in the Sierra* (New York: Mariner Books, 1998). For Beattie see especially Margaret Tassell and David Wood, compilers, *Tasmanian Photographer: From the John Watt Beattie Collection* (Melbourne: Macmillan and Queen Victoria Museum Launceston, 1981)
[10] Tassell and Wood, *Tasmanian Photographer*, 51
[11] Louisa Anne Meredith (Mrs Charles Meredith), *My Home in Tasmania, During a Residence of Nine Years* (London: John Murray, 1952); facsimile edition (Swan Bay, Tasmania: Glamorgan Spring Bay Historical Society, 2003). The image of the Deloraine Bridge appears on the title page of Vol.II, and again at the head of Chapter IX.
[12] Roisin McCann, ABC (Northern Tasmania) Online, http://www.abc.net.au/northtas/, 31 October (2002)
[13] The most comprehensive overview of the Jimmy Possum chair remains Michael McWilliams, Mary Dufour, Jenny Sharp and Adam Thorp, *Chairs – Made by Tasmanian Bush Carpenters During the 19th and Early 20th Century,* catalogue of exhibition (Hobart: Tasmanian School of Art Gallery, 1978)
[14] The reference to Rachel Carson's seminal *Silent Spring* (Greenwich, Connecticut: Fawcett Publications, 1962) serves to indicate a particularly American regionalist environmental attitude, whilst recognizing its international resonance.
[15] Grace Cochrane, *The Craft Movement in Australia: A History* (Kensington: New South Wales University Press, 1992), 234-35
[16] Glenda King, 'Regionalism and Pluralism', *Object* (1998), 61-64
[17] 'Launceston Hospital', *Constructional Review*, November (1982), 40
[18] Mark Roberts, 'Are these the last days for St. Pauls?' *The Sunday Examiner – Express,* 6 November (1971), 11

[19] Roberts, 'Are these the last days for St. Pauls?' 12
[20] Michael Barnard, Minister for Health, quoted in: 'Unique chapel for hospital', *Mercury*, 16 May (1979)
[21] In addition to File A/1/79 (see endnote 2) File A/1/80/1 covers aspects of the fit out of the Chapel.
[22] David G Johnston, 'For the Visitor', undated Xeroxed typescript (c.1980s), Local History File 'LGH Chapel', Launceston Library.
[23] Unnumbered copy of document of Agreement between the Diocese of Tasmania and The Minister of the Crown, Hon Michael Barnard, 1975: Arts Tasmania File A/1/79
[24] David G Johnston, 'Proposed LGH Chapel Ornaments and Equipment', copy of unnumbered and undated typescript (c.1980), Arts Tasmania File A/1/80
[25] Johnston, 'Proposed LGH Chapel Ornaments and Equipment' (c.1980)
[26] Morris-Nunn, email correspondence, December 2011
[27] A large but incomplete collection of the LGH Chapel correspondence and related documentation can be found in APBS File A/1/79, held by Arts Tasmania. Robert Morris-Nunn reiterated the relationship between the Chapel project and the establishment of the APBS in email correspondence, December 2011.
[28] Robert Morris-Nunn to Tim Thorne, 7 May 1996, APBS File A/1/79; Morris-Nunn reiterated these thoughts in opening the Kevin Perkins/Megan Perkins exhibition, Handmark Gallery, Hobart (2011)
[29] Morris-Nunn to Thorne, 7 May 1996
[30] Cochrane, *The Craft Movement in Australia*, 235
[31] Max Angus, *The World of Olegas Truchanas* (Hobart: Olegas Truchanas Publication Committee, 1975), 41
[32] 'Huon pine for chapel', *Examiner*, 28 June (1980), 3
[33] Morris-Nunn to Thorne, 7 May 1996
[34] 'St Paul's resurrected in new chapel', *Examiner,* 24 December (1980), 8
[35] "Brickbats" (Eric Ratcliffe), 'The unfinished view from an ancient pew', *Examiner*, 21 April (1981), 39
[36] "Brickbats" (Eric Ratcliffe), 'A strong visual impact', *Examiner*, 7 April (1982), 20
[37] Steve Tanner, 'Sculptor becomes accustomed to outrage', *Sunday Examiner Express*, 21 August (1982), 7
[38] Brickbats" (Eric Ratcliffe), 'A strong visual impact', 20
[39] Morton, *Ecology without Nature,* 18. It is worth noting here that Thoreau described Nature as 'Matter, vast, terrific…'. Henry David Thoreau, *The Maine Woods* (Harmondsworth: Penguin, 1988) 94, cited in Morton, 112
[40] Kevin Perkins interviewed by Greg Borschmann, *The People's Forest: A Living History of the Australian Bush* (Blackheath: The People's Forest Press, 1999), 207

Postcolonial Fabulations: 'Mandala' and 'Manusha' in Correa's Work

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Abstract

Charles Correa's architecture stands out for its perceptive theoretical interpretation and insight. Regarding his architectural practice as the decolonisation of Indian architectural history, Correa aims to reconnect Indian architecture through imaginative and ethical endeavours to its roots. In his work, 'Mandala', refers not to the religious diagrams, but modes of creating and interpreting order. He conceptualizes and creates a mythology of Indian architecture in the Gandhian sense as a moral fable that re-presents the 'Manusha' as central to the postcolonial Indian task.

This paper argues that 'Mandala' and 'Manusha'—tropes in Correa's architectural practice—create postcolonial fabulations to accomplish decolonisation of the imagination, to express postcolonial Indian modernity in architecture.

Correa and the Postcolonial Indian Task

Correa in his 1964 article 'The Assembly: Chandigarh' provides one of the earliest insightful critiques of Corbusier's work in India. Although critical of Corbusier's work, Correa sees in it some fundamental principles that resonate with the qualities of traditional Indian architecture. He points out that Corbusier was in some ways touching the primordial layer of Indian heritage. He says of Le Corbusier's work in India that it:

> …evoked a much deeper image. His is a more real India, an India of bazaars, sprawling, cruel, raucous in colour, with a grandeur all its own. His aesthetic evokes our history…this is why a building of Corb's sits so well on Indian soil, whereas at Harvard it seems an affectation.[1]

For Correa, Corbusier is also significant as he raised the profile of Indian architects, Correa attributes this to the changed postcolonial context, which provided Indian

architects with opportunities to invent and shape the future. Correa's work has its genesis in the issues of (post)colonial India and the desire to create alternative modernities. Correa is a committed contextualist, but he is also a universalist, in the sense that he believes in the intrinsic values of all ideas, however, these ideas had to be appropriate to the place. Thus, his work while acknowledging Corbusier's artistic genius is generated from a critique of its failings in response to Indian climate. Climate becomes one of the prime drivers around which Correa's subsequent work develops. For Correa, the nationality of the architect is not what makes a work Indian but it is the architect's sensibility.[2] For Correa the ascetic dedication and passionate qualities of Le Corbusier's work is what makes it Indian rather than any of its formal qualities.[3]

Equally important to the development of Correa's architectural thinking has been his close association with key Indian intellectuals. His association with Mulk Raj Anand (1905-2004) and Romesh Thapar provided him with a platform to express and develop his ideas in relation to the key issues facing modern India.[4] Writing with reference to the growing apathy and lack of vision in addressing and defining the key issues in India in the article 'A Question of Issues' (in the journal Seminar founded in 1959 by Raj and Romesh Thapar), Correa also pays tribute to their efforts to generate discussion on the key tasks facing Indian society.[5] His association with Pupul Jayakar through the Crafts Museum and various exhibitions was to become the catalyst for his insights into Indian spiritual heritage, discussed further in the paper.

The first two significant projects by him: the Alternative Master Plan for Bombay (1964-1965), and Lima Low Cost Housing Project (1969-1971), and his subsequent work indicate that he was defining the issues and causes that would define his philosophy and practice of architecture. Mulk Raj Anand was the first to promote and publish his ideas. He devoted the whole issue of Marg to a discussion of Correa and his colleagues on their alternative proposals for Bombay. The editorial to the issue in many ways encapsulated the concern of many Indians and the questions they posed to themselves was "will it be said that our generation, which fought for political freedom, answered the challenge of building a humane order? ...Let us have the courage to dream: For in dreams begins responsibility." The issues that Correa further developed and defined were that of expression in architecture, and its relation to the culture of India. The issue of expression in Indian architecture was debated in detail in 1959 at the first and biggest gathering of Indian architects to consider the

future direction of Indian architecture. The four issues discussed were expression in architecture, technology, the education of the architect, and self and society.[6]

At this symposium, Correa presented a paper on expression in Indian architecture in which he first articulated his ideas with reference to the issue of identity in architecture. Correa would continue to address questions of identity in his practice and theory.[7] For Correa Indian architecture is a matter of temperament and philosophy. Correa was raising and answering an important question with reference to identity. He asked 'Is there any reason to believe that we should have an Indian architecture - as compared to an American' and he asks further 'The Washington Monument - it is a monument to Washington - to Churchill - perhaps even to Nehru - could it be a monument to Gandhiji?'[8] For Correa one of the main sources of expression in Indian architecture comes from the propensity to use patterns. In his search for an appropriate expression for an alternative Indian modernity that expressed the changed context of postcolonial India; he defined a whole new set of sub-issues needing address, such as the rapid rural to urban migration, and thus the need to redefine urbanism and the urban policy in India. He also conducted investigations into the type and scale of development taking into consideration the limited economic resources and the large, but illiterate pool of skilled populace in India. Thus, the challenge for Correa has been to devise the type of architecture that would help the 'bazaar economy' in which the economic benefits filter down to the lowest strata. He also proposed new typologies that respond to contextual, climatic and cultural needs. Correa has been refining and redefining these issues generated by his concern for representing the subaltern.[9]

The main driver of Correa's work is to address economical, ecological and ethical issues and those that engaged him were enumerated in his 1983 Cubitt lecture titled 'Place in the Sun':

- Forms appropriate to the climate
- Patterns of development that allow incremental growth, finding solutions that mitigate the urban-rural dichotomy
- Inventive use of resources to generate an architectural aesthetic that is both economical and ecological as well as one that resonates with the deeper layer of culture
- Development of an Indian philosophy in architecture that addresses both physiological and psychological needs of the users[10]

His prime commitment to architecture stems from the postcolonial context of creating an alternative Indian modernity.

Decolonization of Indian architectural History

Indian modernity has been both a voyage in and out of the Indian past, making way for questioning the meta-narrative of Eurocentric conceptions of modernity. However, related to modernity is the question of the discipline of history and the role it has played in the construction of modern identities.[11] As Rao has succinctly argued:

> The 'modern' in Indian history is associated with the colonial subjugation of the country - subjugation not in the sense of drum and trumpet conquest, but as a vigorous process of ideological permeation and osmotic take-over.[12]

History as a discipline in India has its genesis in the British accumulation of knowledge of India and its people, which in a Saidian framework was produced for the management and control of the colonies. Guha-Thakurta asserts that the monuments were the:

> …product of a series of archaeological and historical mediations in nineteenth-century India that radically recast the value and meaning of architectural remains of the past. Its transference into and dissemination as an image was an integral part of the same process.[13]

However, history and the historical monument has been the very ground that had provided the Indians with essential tools with which to refute the claims of British supremacy. Thus, any challenge to the narrative of Western modernity and the creation of alternative modernities has to engage with and challenge the Western configuration and issues in Indian history. The discourse on Indian history took varied forms in the writings of key figures of India's decolonisation efforts.

Gandhi defined his conception of history based on the themes of human moral development rather than on the events or dynastic progression. He also defined his own concept of progress and the role of society. Gokhale points out that Gandhi's thinking was influenced by both Eastern and Western thought and formulated history

as the 'saga of man' and his aspiration to be at peace with himself and the society of which he is part. Thus for Gandhi, Western history was of no use, but for him:

> …history is revealed less in the conventional chronicles which pass muster for history than in the inner history which is told in allegories and parables, myths and legends whose chronology is stated not in terms of centuries, decades, years and dates but in periods and cycles of ages which are parts of cosmic processes.[14]

Out of his re-conceptualisation of history, Gandhi provided the basis of the construct of Indian modernity. His utilisation of the *charka* (spinning wheel*), khadi* (home-spun cotton cloth), *dhoti* (Indian loin cloth), *lathi* (wooden staff) and others were symbols as much of the *aam aadmi* (common man), as they were his spiritual conception of the 'ideal man' and society.[15]

The paper proposes that the challenge Correa addresses through his work is to decolonise the reading of history and to retrieve the relevance and link to Indian history with imagined futures. Correa's work has developed concurrently and in response to the issues that faced postcolonial modern Indian architects. The issues that Correa defined were that of expression in architecture, and its relation to the culture of India, but the cause that he has most championed, like Gandhi, was that of the *aam aadmi*. With the paucity of locally published knowledge about Indian architecture, Correa through his writing provides his own interpretations and evaluations of Indian architectural history.

Correa and Postcolonial Fabulations of 'Manusha' and 'Mandala'

Correa was the chairperson of the committee that prepared the exhibition and accompanying 1986 catalogue 'Vistara: the Architecture of India.' *Vistara* provide insight into how modern Indian architecture is constructed in relation to the past.[16] In this the architecture of India was divided into two sections the traditional and the contemporary at the centre of which was positioned *Purusha* (man). Correa thus established 'man' as the unchanging central concern of Indian architecture.[17]

For the exhibition Vistara he explains his use of Manusha (man) as central to the exhibition devoted to Indian architecture. He says that:

> Down the centuries (and perhaps across the globe as well) man does not change. But the context in which he perceives himself to exist varies considerably. The figure of Purusha here is thus being used to represent not only man human and cosmic, but the more generalised condition of man and his context (i.e the encompassing circle).

Rather than view this exhibition and the accompanying catalogue as shift in his writing it is argued that it is an enduring concern that is fully articulated in his introduction to the catalogue of the exhibition. The issue of expression in modern Indian architecture is not only the unwavering concern among other issues mention earlier but it has also has been central to postcolonial Indian Architectural discourse. For Correa, Indian architecture rather than being reduced to its stylistic features is a matter of temperament and philosophy embodied in its creation. Rather than see this as an essentializing Indian architecture, this move is strategic to conceptually connect modern Indian architecture to concerns that could be discerned from its historic development.

In his 1964 article 'Roots of Architecture', Correa outlined the key to achieving an authentic modern Indian architecture through rediscovering the roots of Indian architecture. He emphasized that:

> There is great lyricism in Indian temperament; in the songs, in the poetry. Lyrical –meaning the ability to sing, to make continuous patterns around a theme. Perhaps Indian architecture will be like Mozart- a great lyricism and in the centre a clear concise idea, as clean and hard as a theorem.

Correa proposes that there are three layers in a society to which architects can respond, that is: the everyday world, below which is compulsive imagery and below this, the deep structure. For Correa, the "deep structure is the well spring of architecture, a primordial force that underlies the middle level and generates its compulsive imagery." Correa also stressed that to create architecture of place, it is important to understand the aspiration and temperament of Indian people and give it expression through clearly defined values. Through his writings such as ' The New Landscape' Correa asserts the ethical tasks for Modern Indian Architecture.

Correa was urging for and searching for patterns and roots of Indian culture to create an alternative Indian modern.[18] He had a macro and micro understanding of the

postcolonial period and an insightful interpretation of the need to represent the *aam aadmi* and the subaltern artisans through ritual and associated symbolism.[19] As Gandhi did, Correa recognises the use of symbols requires an understanding of the deep structure of a culture.[20]

Mandala is variously interpreted as; magical diagrams of cosmic orders, an aid to meditation or the basis of planning from a temple to a town. Some authors such as Stella Kramich and Adam Hardy consider it as base root to an understanding of Hindu architecture, others such as Sonit Bafna see it as a construct that developed historically and has been interpreted differently.[21] Bafna makes a strong argument for refuting Stella's proposition but she fails to accommodate the invisible representation of Mandala in a building where a mandala is used as a blessing device to orientate the building with cosmic order that is perceived as concentric and hierarchal with the centre being nothingness and source of all energy. This paper argues that Mandala, as interpreted in Correa's work, is a means to decolonise the imagination and reconnect with a primordial past.

Correa argues that as societies change, so does the symbolism, and these changes are manifest in the visible layers of a culture. Correa posits that the symbols are derived from four factors, formed by two intersecting axes. One axis has dynamic aspirations at one end, and culture, the reservoir of memories, at the other. The second axis consists of climate (that is constant at one pole) and technology that is changing continuously at the opposite pole.[22] Correa argues that the interaction of these four factors produces and renews symbolism in a society; the invisible realm of the ritual and spiritual in which the deep structure of Indian architecture resides.[23]

Correa, by his emphasis on the spiritual and the sacred dimension in Indian architecture, draws on the deep and invisible values of Indian society.[24] He enacts more than a subtle decolonisation and dethronement of international architecture, he also emphasises that the route to modern Indian architecture is through the lessons learnt from the vernacular. In his article, 'The Public, the Private and the Sacred', Correa clearly articulates his aims stating:

> For the Indian architect, every built form is a Mandala, a model that represents the nature of the cosmos. The architect creates public as well as private spaces that symbolize and incarnate the nonmanifest…Indian

> architecture reflects forms found in India's geography, which have meaning for another landscape: that of Indian consciousness. Indian architects today face the challenge of designing forms that can both accommodate the masses and express their commitment to the mythic.[25]

For Correa, it is the mythic that represents the deep structure of the built form and Mandala is thus a representation of the myth of nonmanifest order. How to represent this nonmanifest has been central to Correa's thinking. It is the spiritual rather than religious interpretation of the Mandala as demonstrated in traditional Indian architecture that Correa reinterprets and seeks to incorporate in the construction of modern Indian architecture.

Incorporating the spiritual occurred through three main means: conception of space; ritual movement through space, and the use of unadorned surfaces and spontaneous painting of symbols in vernacular Indian architecture. Correa's conception of space and movement through space are implicit in his work and are evident from his built projects prior to their explicit articulation in various articles. The development of these ideas is clearly defined in the three projects: the 1958 Handloom Pavilion; a temporary structure built for International Exhibition, *Gandhi Smarak Sangrahalaya* built as memorial museum to Mahatma Gandhi (between 1958 and 1963) on Sabarmati Ashram; and the un-built India Pavilion for the Osaka World Exposition 1970. Jain states that in India, there is a common spatial order that runs through the sacred and profane structures and that this spatial order is derived from the experiential aspect of the built form and that:

> The meaning is in the space itself and the range of activities it can accommodate…Singular in form, diverse in character, the theme of architectural space has to be seen in the context of the physical as well as the metaphysical parameters.[26]

Correa's conception of space is derived from the vernacular and classical Indian architecture; therefore, it contains both spiritual and pragmatic connotations. Correa posits that a feeling for space is connected to our cultural and primordial responses. He argued that in India:

> The word akash connotes much more than just the sky, and the symbol of enlightenment …is the guru sitting under the tree. So also the

> monumental temples of the south India are experiences not just as shrines and 'gopurums' but as movements through the sacred open-to-sky spaces that lie between them. This movement almost unknown in a cold climate is a ritualistic pathway, a pradakshina, a pilgrimage. To move along such a path towards a sacred centre must trigger of some primordial memory, one so embedded in the deep structure of the human mind.[27]

Furthermore, his use of the interlocked open-to-sky courtyards in buildings such as the National Craft Museum is derived from his understanding of *rta* or the cosmic order underlying buildings of India in arid and humid zones.[28] The spatial order of the courtyard also allows the experience of *ritu* or cycle of seasons thus reinforcing the cosmic connection of earth and sky, man and nature.[29] Correa's use of the concept of the *Paradkaishina* as an organising principle in the design of display areas and movement of visitors is both a pragmatic and poetic response. It is an attempt to create a primordial sensation through the rhythmic alternation of areas of darkness and light and circumambulatory movement in the museum. Through this organising principle, he also demonstrates that the idea of India is intrinsically linked to making visible the invisible through ritual and reflection. Correa stresses the importance of this as:

> Religious ceremonies in Asia have always emphasized these open-to-the-sky spaces, and the quasi-mystical sensations they generate within us….This ying-yang relationship (open-to-the-sky space surrounded by solid built-form, and vice-versa) generates figure/ground patterns in which the open spaces can act as areas of visual rest between the enclosed volumes - a principal of enormous potential for museums.[30]

Thus, Correa engages and evokes the corporeal, and the spiritual, by arrangement of spaces and movement through them. Pinney in another context argues:

> …circularity and desire to find, through a corporeal fluidity, a core power is a very different kind of spatial practice from that of the colonial land survey and the "mathematical" knowability within which it is necessary to position much of the nineteenth-century attention to Indian architecture.[31]

Correa through the concept of the *Paradkaishina* proposes particular individual and collective experiences of the space. This mode of representation acknowledges the 'world as presence' rather than the mode that views the 'world as picture'.[32]

Defining the Ethical task of Indian modern

Correa's concern for Manusha (man) stems from a number of sources: the postcolonial context of creating an alternative Indian modernity, but of more significance is his activist stance, derived from Gandhian philosophy. That is, if you want to change the world, you have to be an agent of change. Correa argued that the underprivileged require the most creative input and it is imperative for architects to address these issues, if architecture is to be an agent of change.

Correa understood that to create an alternative Indian modern, he would have to rethink international modern architecture with its emphasis on form following function. Through his reinterpretation, he redefines the purpose of a modern Indian architecture that would be meaningful to the masses, he writes:

> Architecture too is myth-based expressing the presence of a reality more profound than the manifest world in which it exists. As the centuries progress, the myths change. New ones come into being, are absorbed, ingested, internalized - and transformed into a new architecture. Each time this metamorphosis occurs, a new area - a Vistara opens up to our sensibilities.[33]

Correa, like Gandhi, was thus attempting to define a new modern linked to a different conception of history that utilises symbolism derived from India's deep-rooted structure. His macro understanding of the changed postcolonial context is that, although initially it was euphoric to consider the *tabula rasa* approach, which was an outcome of the age of rationality, for him this has resulted in the devaluation of architecture. Therefore, for Correa, architecture is also a means to create new myths that contribute to the sacred realm. For Correa, in modern architecture, there has been a propensity to give importance to the private and public realm, however, the sacred is not limited to the religious, and the primordial and nature itself are ways of expressing our sense of the sacred In Correa's conception, history is significant not for the narration of events or the chronological calendar of various dynasties, but for the changes it marks in people's conception of a worldview. In his work Mandala and

Manusha are thus fabulations in narration of the history of Indian architecture and used as tropes to construct an Indian modern.

Endnotes

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[3] Charles Mark Correa, "Chandigarh: The View from Benares," in H. Allen Brooks (ed.), *Le Corbusier: The Garland Essays* (New York: Garland, 1987),197-202.
[4] Charles Mark Correa, Pravina Mehta, and Shirish B. Patel, "In Dreams Begin Responsibility." *Marg* 18, 3 (1965), 3.
[5] Charles Mark Correa, "A Better India." *Seminar 340*, December (1987), 32.
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Modernist politics in English pre-war architecture: McGrath, Lubetkin and the radical divide.

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Abstract

Radical politics represented something of a handful for many early modernist architects, and for later critics. On the one hand, through its conviction of the perfectibility of the world, it opened the door to radical formalism as a hint at this perfectibility. Conversely it also laid out a continuing challenge: how to change the world through formal means alone?

This dilemma was particularly pronounced in the English-speaking world, where the alignment of modernism and radicalism in the hands of German practitioners such as Hannes Meyer was met with deep suspicion. Representing modernist architecture as stylish, yet politically acceptable, was a major task for figures such as Raymond McGrath. For Berthold Lubetkin the task was more politically charged: architecture needed to display its rationalist underpinnings as part of a broader challenge to English architecture and its 19th century antecedents.

Despite his early success, there has been little critical interest in McGrath's work since his death. Lubetkin, conversely, has been the subject of a number of studies. This paper proposes that it was the radical intent in the latter's work that underwrote the longevity of his reputation and interest in his work.

Introduction

One of the most striking aspects of architectural life in England in the 1930s is the wide range of opinions driving through the profession, representing not only the views of English-trained practitioners but also those of architects formed abroad. The country hosted many itinerant architects, from the Dominion-trained such as Wells Coates, Amyas Connell, Basil Ward and Raymond McGrath, to the German and Russian émigré group which included Chermayeff, Mendelsohn, Lubetkin and Gropius. Each of these intersected with the English profession, as well as English taste and politics, in a distinctive way.

The key years appear to be from 1933 onwards. Although the Dominion group had generally arrived in England earlier, by 1933 they had established themselves and begun building. Connell's *High and Over* was completed in 1931. Coates had completed a series of shops for Cresta Silks in 1931, and by 1930 McGrath had completed the remodelling of the house *Finella* in Cambridge, which led to his appointment as Decoration Consultant (interior architect) for the new BBC studios. Less visible but equally influential, Australians Henry Pynor and Oscar Bayne had played a role in Burnet Tait and Lorne becoming a leading modernist firm.[1]

By 1933 modernist architecture, broadly defined, could claim a visible presence, at least in southern England.[2] Lubetkin had arrived in 1931, and a year later set up Tecton with a group of Architectural Association graduates. Serge Chermayeff worked with McGrath on the BBC, and in 1933 established a partnership with Mendelsohn. Gropius partnered with Maxwell Fry a year later.

These two groups came from widely differing social circumstances. The Dominion-trained were rarely radicalised in the European sense in their home countries, but bore a looser sense of social convention, and often knew construction well.[3] Paul Walker has argued that Ward and Connell carried with them from New Zealand a technical competence and colonial impatience that resonated with the modernism they encountered. Coates had studied engineering, and was widely travelled and broadly educated. Pynor was a radicalised itinerant trained at the Sydney Technical College, who had worked for Wright and spent much of 1932 and 1933 working in Russia as a foreign consultant.

The range of political views prevailing in England in the 1930s, and their architectural manifestations, defies précis. W.H. Auden famously referred to it as a 'low dishonest decade'.[4] Alan Powers, in his history of modern architecture in Britain, takes a thematic approach, covering the period as an expression of both industrial efficiency and social compassion. He sees the latter as folded into the former: 'The new thinking of the 1930s was that compassion was a precondition for efficiency, not a hindrance'.[5] For David Dean, the period is characterised by the polarisation between traditionalists and the younger architects of progressive intent. In the introduction to his study of the period, he writes:

> How these clashes were reflected in architecture is part of the theme of this book. But only part, for many capable and prosperous practitioners, neither

> radical in their views nor 'progressive' in their work, simply got on with the job largely untouched by the turmoil around them.[6]

The intent of this paper is to show that modernists themselves could be further bifurcated: the intent of modernism could be directed to stylistic reform, as in the case of McGrath, or towards a more radical transformation, as for Lubetkin. The paths they took determined the nature of their legacy, and the programmatic content of the latter has left a more enduring one. In addition, their respective passages into the English profession reveal much about its attitude to events abroad and at home.

McGrath

In any history of the period Raymond McGrath stands out, not only for his early success as a modern architect, but for the means by which success came to him. Young and inexperienced, he arrived in London as the outstanding graduate of the new architecture course established at the University of Sydney in 1921. Recalling his education in an interview many years later, McGrath remarked that

> In general our schooling had turned us out as good classicists, with a fair training in construction...What was happening in Europe was a closed book to us. The word 'modern' had not crossed our paths, and it is hard to realise how isolated we then were on the other side of the world.[7]

Carrying no evident radical convictions, McGrath left Sydney for England on a Wentworth Travelling Scholarship in 1926. His early experiences were serendipitous, and a chance meeting with an Oxford don, Mansfield Forbes, led to his first building, the remodelling of a Cambridge Victorian house into a showpiece for emerging materials such as glass and lined plywood.

The house became a centre in Cambridge for those interested in modern sentiments and taste. McGrath and Forbes arranged for Jacob Epstein's *Genesis* to be exhibited in the house, now named *Finella*, in 1931. The collaboration between Forbes and McGrath was fruitful in proselytizing for an acceptance of modernism, albeit one with no discernible social imperative.

McGrath's success in England, where he was busy and widely published as both writer and architect throughout the 1930s, seems to rest on his easy adaptation to the English attitude to early modernism and its continental associations. Whereas Ward may have recalled of his

fellow colonials that they 'were impatient then with that strange mixture of matter-of-factness and lyricism, with the worship of history and literature, that goes in part to make up the character of the native Englishman', McGrath was shaped more comprehensively, in taste and outlook, by his English experience.[8] Thus he could write in his paean to classical modernism, *Twentieth Century Houses* (1934), 'This old English way of ours of jumping in two directions at the same time and hoping for the best takes a long time to get us anywhere'.[9] Nonetheless he remained sure-footed in straddling the prevailing sentiment of modernism as desirable, but divorced from its politicization in continental Europe.

Twentieth Century Houses can be scrutinized for its framing of the desirability of the modern, with a composite picture emerging of a practice and style beholden to taste and mechanization. McGrath writes in the introduction that 'the examples of new building in this book have a more serious purpose than to give interest to the eye. They are an education in a new way of thought and a wise way of living.'[10] The key motive force behind this is mechanization: 'In the almost unlimited power of the machine Man has a servant well able to do three parts of his work and to make him freer than he has ever been.'[11]

Whereas these sentiments may be commonplace for the time – recall Le Corbusier's championing of mass production in *Towards a New Architecture*– they belie a more nuanced, and more conservative, politics that can be read through specific clues.[12]

English architecture and the proximity of revolution

The 1930's were marked by powerful vectors reshaping English cultural, imperial and class identity. McGrath may have spoken for England relatively soon after his arrival, but the value of his cultural position (which he affected with some subtlety) was recognised by others. In 1929 Christian Barman, editor of the *Architects Journal*, wrote to Forbes that McGrath

> will...be able to hand on to students and other visitors from overseas something which is entirely English, but which they at the same time can take back with them without having to subject it to an arduous process of assimilation before it can be put to some practical use.[13]

This recognition is testament to a certain malleability on McGrath's part. Forbes no doubt played a large hand in this, his background in philology and Scottish mythology skilfully used to merge modern materials with idealised history. For this was the theme of *Finella*: a crystalline experience invoking the fate of the mythical Scottish queen of the same name, to whom was attributed the discovery of glass. The word is an anglicisation of Fionnuala, and

Forbes' historical evocation carries some evident invention. The license he took may have amused McGrath, but the social dimension of Forbes' thinking informed many aspects of McGrath's architectural thinking.

The larger political context of McGrath's work in the 1930s must be read through both his proposals sketched out in *Twentieth Century House* and the political interests of Forbes, as these overlap substantially. The proximate sense of revolution that marked the 1930s, driven by the example of Russia and the devastating effects of economic depression, have an attenuated life in Forbes' writings. Russia, as the site of revolution and the test of the most radical idealism inherent in modernity, was of intense interest to a number of architects. The Australian Henry Pynor, amongst others, had worked there in 1933, and his experiences were relayed to the NSW Chapter of the RAIA some years later.[14] Pynor had an acute sense of irony, and Russia of the period provided numerous examples. However Pynor revisited his experiences in more dire circumstances at an address to the Aid-Russia Cultural Conference in Sydney in November 1941, organised to 'aid Russia in her fight against world-fascism'.[15] Here the tenor of Pynor's remarks is far more idealistic, polarised by the Nazi invasion and oblivious to the hardening of Stalinism in the late 1930s.

Pynor's accounts may be balanced against the pessimism of the West Australian Marshall Clifton, whose stay in Russia in 1932 left him disillusioned and deeply pessimistic:

> The cold becomes trying. There arises within the desire to return to one's own country already and enjoy a little more of the old life before a new system such as this eventuates there, too. Not that that ever seems probable, but who can say that anything is not possible of the younger generation now in Russia, who have been taught, and have absolutely no doubt about it, that the U.S.S.R. is the rightful saviour of the world.[16]

In England, too, Soviet Russia elicited extensive debate in architectural circles. Clough William-Ellis, who McGrath recalled after their first meeting as being 'resplendent in his checked trousers...almost as baroque in his dress and conversation as he is in his design', waxed enthusiastic.[17] The sense of purpose he encountered in his month-long visit in 1932 was no doubt in sharp contrast to a depressed England, but his mischievous sense of the absurd, like Pynor's irony, found rich material:

> It is a most exhilarating experience... After all, I like rather funny things. You have heard of the housing shortage in Russia. Well, my wife and I were there

> in our room at the hotel. We liked to call it our room, but, as a matter of fact, there was a strange man and another married couple with which we shared it. Very interesting – impossible anywhere except there.[18]

However it was the sense of industry, misguided as it may have been, that most impressed him:

> The scope of their activity is just fabulous. It is staggering, and the marvel is not that it is done badly, as a lot of it is, but that it is done at all. Against conditions we should here consider impossible, they are doing these things.[19]

In these accounts, there are a number of constructions placed on the Russian experience. Clifton, with some discomfort, discerned a revolutionary consciousness, and its concomitant program. Both Pynor and William-Ellis were taken with the collective action in Russia, and what they perceived to be the directness with which the Soviet system had cut the Gordian knot of credit supply and economic contraction afflicting the capitalist world. The truly captivating aspect of Russian modernity was its clarity of purpose, state planned and independent of profit or credit.

Inevitably McGrath, too, turned to matters of economics and planning, though with different reference points. In this he seemed to be influenced by Forbes, who by 1935 had become an active advocate for a number of schemes which emerged in response to the Depression. He was well placed for this – he was a friend of John Maynard Keynes, who in 1930 wrote a strong letter supporting the extension of Forbes' overdraft to cover the expense of *Finella*. Keynes wrote 'The decoration and equipment of the house in question represent a most interesting and important experiment of real industrial importance, which Mr Forbes has undertaken in a spirit of generosity and for the public advantage'.[20]

Thus it is not surprising to find Forbes reading economic theory in order to make sense of the economic impasse which followed from 1929. The idea of a state supported building program, undertaken despite dire economic conditions, was a widespread one. It appears in Keynes as countercyclical investment by government to counteract economic slowdown.[21] In a more nationalist vein, Forbes was drawn to the ideas of Arthur Kitson, who had developed his theories of credit and value in a number of books. Kitson was a fierce opponent of the gold standard, whereby the value of money was guaranteed by gold deposits held by central banks. When governments needed to expand the money supply (as they did in times of war), they severed this link between currency and bullion. In Kitson's eyes the gold standard indentured government to holders of bullion, often foreign, and thus impinged on national

sovereignty. These ideas he promulgated tirelessly, but during the depression they took on a xenophobic, and ultimately conspiratorial tone.[22]

Forbes was not only a friend of Kitson's but he became an active proselytizer for his views. Weeks before his death in January 1936, and confined to bed by thrombosis, he wrote to McGrath informing him that 'I'm doing quite a lot of propaganda from bed'. He adds: 'I enclose Prospectus-es Arthur Kitson's latest "A Modern Pilgrim's Progress". Hope you have got the copy I asked him to send to No. 10 for Mary and you-?' In a further flier for the Kitson publication *The Bankers' Conspiracy*, the Synopsis reads: 'This little book gives particulars of the Conspiracy to enslave the world by debt,' with the last 5 words underlined in pen by Forbes.[23]

This sojourn into Forbes' reading and beliefs is relevant insofar as it is reflected in McGrath's writings. It is hard to gauge how far he shared his friend's sentiments, if at all. In *Twentieth Century Houses* he makes an oblique reference to economics: 'And when – it may not be long now – the strange behaviour of money and credit is at last got under control and put to its right use the time will have come when a new England will be ours for the making.'[24] This can be interpreted in many ways, including a conventionally Keynesian one. Elsewhere he quotes the 'Hundred New Towns' movement, associated with the Welsh planning advocate Tristram Edwards but also a vehicle for Forbes:

> The Hundred New Towns organisation puts forward the suggestion that "the treasury", without any further gold backing or any cover other than that of the property given existence by its use, might make and give to an authority specially formed for the purpose the money which is needed for building a hundred new towns in Britain...[25]

What can be inferred from the above? That McGrath, influenced by ideas with reactionary roots prevalent in Depression Britain, embraced a politics of planning which set itself against the radicalism shaking the rest of Europe. This in itself is not remarkable in the English context: what is perhaps instructive is the reminder that no-one of the period was without a politics. He simply found himself unable to link it to his architectural sentiment.

This is consistent with his buildings and interiors. Representative of these is *Fischer's Restaurant* in New Bond Street, London, published in 1933. McGrath produced a range of studies for the restaurant, including coloured pencil drawings and pen and ink washes. The most evident quality is a stylishness, which emphasises the diners in their fashionable garb

engaged in effete conversation. McGrath's heads are part primitivist and part Modigliani, the attenuated silhouettes exaggerating physical gestures. The final result was an elegant modernist shopfront framing a bar at street level, and a large basement restaurant. The staircase swept diners down in a dramatic half-spiral, their entry into the restaurant highly visible and demanding of presence.[26]

Thus, apart from a slightly paternalistic call for the decentralised rehousing of the English working class through the Hundred Towns movement, a familiarity with interwar economics, and a certain excitement at being part of the intellectual ferment associated with early modernism, it seems difficult to glean much more about McGrath's politics in the operative sense. The natural elitism of the Vorticists, as embodied in Wyndham Lewis, seems foreign to him.[27] The trenchant Englishness of an earlier generation would also have been foreign to him as an Australian. Misreading McGrath's naïve intent, the admired Arts and Crafts architect Voysey replied to an invitation to write a foreword to *Twentieth Century Houses* with unalloyed bitterness:

> As a consistent individualist I am violently anti-international, and against collectivism, mass production of thoughts and sentiments. Regimentation I detest. Also town planning that plays ducks and drakes with private property and vested interests. Any interference with individual privacy is to me quite wrong. All are the outcome of a poisonous socialism and communism.[28]

Lubetkin as foil

Few careers could be contrasted as acutely with McGrath's, within English modernism, as that of Berthold Lubetkin. The two certainly knew each other: they were both involved in entertaining Le Corbusier during the 1934 C.I.A.M. conference in London. Whereas McGrath's accounts of his early years in Sydney are idealised, and refracted through an imaginary colonial classicism, Lubetkin's youth was a passage through some defining events of the twentieth century. Witness to the Russian Revolution as a student in Moscow in 1917, he experienced the Vkhutemas and Svomas design schools in their formative years. In 1922 he arrived in Berlin: three years later he worked with Ernst May for a short period. Shortly thereafter he moved to Paris, and ultimately in 1931 arrived in England to commence practice.

The English profession in which Lubetkin found himself was not inured to events on the continent, despite the lack of engagement or indeed the nationalism of many practitioners. A

lively correspondence arose in 1934 in the architectural press, driven by both the success of Chermayeff and Mendelsohn in the Bexhill Concert Hall competition and by the growing currency of fascist ideas within England, led by events in Germany and Italy.

The general tenor of the profession was liberal, indeed welcoming, to the wave of immigrants fleeing Germany. Mendelsohn's achievements were recognised by the Royal Institute of British Architects, and his right to practice defended editorially.[29] Lubetkin, having arrived some years earlier, allied himself with a group of Architectural Association graduates who had grown impatient with British attitudes to modernism. As he observed in 1932, 'Before embarking on any new course, the English always want to be quite convinced of its merits. One easily understands why there is little here to be found of what we have somewhat hastily christened the 'modern style''.[30]

Part of the appeal of Lubetkin to his younger colleagues, especially Francis Skinner, lay precisely in his unabashed politicised view of architecture. In a Britain in deep collective bewilderment at the apparently intractable crisis of capitalism, for a generation of intellectuals and artists the radicalisation of the Continent, both towards the left and the right, seemed to hold some promise for renewing national purpose. In this sense Forbes' flirtation with nationalist economics, and its associated paranoia, was not unusual. However the English architectural profession's liberalism acted as a counterweight to any serious flirtation with fascism.

The correspondence around the editorial in the *Architects' Journal* in 1934 titled ' A Question to Sir Oswald Mosley' is indicative of this. The piece asks of the fascist leader what his architectural policy is – what style would the British fascists deem appropriate? In this the editorial takes issue with unfolding events in Germany, describing the Nazi constraints on architecture as the most brutal example of the censorship of design 'exercised by the sadistic boy scouts who are at present in charge of Germany...there is something dully academic as well as rawly juvenile about the deliberate suppression of what is known as "The Art of the Left".'[31] The reply from a group of fascist architects is vague, but cognisant of developments in Italy where Mussolini's rule had not proved inimical to modernism. They state 'there is a movement towards an architecture of hopeful and encouraging vitality. It is this movement, seen as yet only as the endeavour of a minority, that Fascism is concerned to foster and develop.'[32]

Through the course of the decade the politicization of intellectual life in Britain continued apace. Within the architectural profession this resulted in a popularization of modernism, but

the result was hardly a foregone conclusion. Lubetkin recalled the period in clear terms in 1975:

> But at a time of impending change...apparently opposing attitudes can easily shade into one another, the very sense of uncertainty and foreboding sponsoring a deep yearning for rationalism and objectivity. It is only thus that one can begin to explain the simultaneous coexistence, in those early years of the Thirties, of the darkest most destructive social forces on the one hand, and on the other, the most radiant optimism and rationality.
>
> The piecemeal engineering methods of stable periods were no longer appropriate. Confronted with such a transformation we had to reach out for total visions, overall views – whereby in the full face of possible disaster we could proclaim the proposal for a new Utopia.[33]

For Lubetkin, a skilled dialectician, this inversion may have seemed natural in hindsight. For British architecture, though, it ran against the grain of a profession whose crowning achievement of previous decades, the Arts and Crafts movement, was still proximate and its practitioners still arguing for its validity. They were well placed: in the rampant nationalism of 1930s Europe, the *heimatstil* of the Nazis must have seemed infantile alongside the charm of the English house as documented by Muthesius.[34]

The question here is why did the English architectural establishment lean towards an architecture with a recognisable Utopian component in defiance of a traditionally guarded empiricism or an idealised nationalism? This of course was not confined to architecture: a whole generation of intellectuals discovered the left in 1930s, in a display of confidence in rationalism and its Marxist efflorescence.

Although formal membership of the Communist Part of Great Britain (CPGB) was never great, and overwhelmingly working class (Juliet Gardiner estimates about 200 members each for Oxford and Cambridge mid-decade), the appeal of Communism in the arts was widespread. For some historians Cambridge in the 1930s has a singular place in British radical intellectual history.[35] Best known among its sympathisers were W.H. Auden and his circle, which included Cecil Day Lewis. Echoing Lubetkin, Lewis recalled ‘no one who did not go through this political experience during the Thirties can quite realise how much hope there was in the air then, how radiant for some of us was the illusion that man could, under Communism put the world to rights’.[36] Another of the group, Louis MacNiece, offered that many young poets found the Labor party ‘notoriously lacking in glamour’.[37]

In the larger context, though, what seems to have held the English intelligentsia steady against a reactionary nationalist nostalgia was the standing of science. Prominent amongst its champions was J.D. Bernal, a physicist who believed both in science and in socialism. Energised by circumstances, and in a political environment that had suffered no serious threat to its stability despite the depression, rationalist thinking espousing both Marxist and scientist ideas began to effect an intellectual migration of sorts. Within the AA, for example, 1934 saw a distinct politicization of the student body, led by Anthony Cox and Richard Llewellyn Davies, a Cambridge graduate and member of the CPGB.[38]

Lubetkin, at this point, was aware of developments in Russia and came early to the conclusion that to save his idealism it was necessary to abandon belief in the Soviet system. A master of rationalisation, he carefully steered Tecton on a course between using architecture as a vehicle for social concerns, and alienating clients who might represent bourgeois or reactionary interests. In this a form of scientism seems to have assisted: their work for various zoos entailed an architectural expression which married the scientific respectability of observing animals with an abstract dynamism. In the famous penguin enclosure at London Zoo, for example, the animals are rendered by their environment not as oddities, but as fascinating links in a rationalist cosmology.

For McGrath, however, the new intellectual environment proved beyond his ken. His buildings, always opulently detailed despite their modernist thrust, made them ideal vehicles to link the Arts and Crafts sympathies of the establishment with the formal experimentation of early modernism. In two telling interviews conducted roughly a decade apart in 1976 and 1987, McGrath and Lubetkin reflect on their respective periods of prominence.

Hindsight

Lubetkin's conversation with Gavin Stamp veers across architectural topics as they exchange likes and dislikes. Despite retreating from architecture into farming around 1950, Lubetkin retains a sense of currency and firm convictions, bolstered by the acknowledgement of his achievements through the award of the RIBA Gold Medal in 1982. Nonetheless his sense of the betrayal of modernism is palpable: after admitting to being profoundly influenced by the early Corbusian work, he describes his disenchantment with Le Corbusier's architecture after his flirtation with fascism, as well as his turn from a rationally-inspired vocabulary. Of La Tourette, he states:

> in all other languages [other than English] panopticon means simply the show of all sorts of oddities. *Kunstkamera*. That's what he does. Windows here and there, a sort of pseudo-mysticism, cheap and horrid. I am not religious but I respect religion and its traditions well enough not to make it a sort of road show.[39]

And on the emergence in the 1980s of a stylistic modernist revival for restaurants and shops, he ventures 'I can't even imagine that. To me it was a definitive, religious mood. The testimony of one's belief in the future and so on. To get into the restaurant level, means nothing to me. It's just apeing.'[40]

McGrath, a decade earlier, recalls the1930s with equal enthusiasm, but emphasises his lack of radicalism. His enthusiasm for the machine as metaphor for modernity remains, but he defends his assertion in *Twentieth Century Houses* that modernism in England could claim Regency antecedents: 'I have always thought that where the Regency stopped, modern architecture might well have begun, but for the revivals that took place...I wasn't one for abandoning tradition. I suppose I was very determined to see things as part of a continuous tradition.'[41]

History remembers them differently too, despite their simultaneous prominence in the 1930s. McGrath's strengths lay in his detailing: his interiors are meticulously crafted, with rich materials sumptuously worked. Lubetkin had greater conceptual intent, infused as it was with both an adjacent Utopianism and a view of architecture as a rich vehicle for clarifying personal politics, a view which fostered intense debates within Tecton. Philip Drew commented in 2000 that 'Raymond McGrath, who left Sydney in 1926 for a career in Britain, is remembered (when he is remembered) as a superb water-colourist and a champion of glass in architecture with his 1937 text, 'Glass in Architecture and Decoration'.'[42] His testimonial is a biography written from within his extended family. Lubetkin has been the subject of avid reappraisal, culminating in books such as John Allan's comprehensive and aptly titled *Berthold Lubetkin: architecture and the tradition of progress*, and Peter Coe and Malcolm Reading's *Lubetkin and Tecton: architecture and social commitment*.[43]

Thus ideology has outlived style. McGrath's work, unshaded by the' light of redemption', as Adorno put it, recedes as a curiosity representative of an age marked by liberal indecision.[44] Lubetkin, invoking the possibility of formal and social perfectibility, has proven the more enduring. John Allen attributed this to Lubetkin's early success, before modernism was adopted by the post-war state, in whose service it is widely regarded as a failure. His post-war work, less well known, allowed the view of him as a principled and crusading figure. 'It is

because enough of the legend is sufficiently true, and perhaps also because it preserves the ideal of an untainted Modernism, that it has proved so durable'.[45]

The subtext, though, is surely a falling away from the Arts and Crafts tradition which marked English architectural leadership. McGrath tried to reconcile it with Modernism, and ultimately alienated both. Like entropy, Lubetkin's bright moment hid a longer decline. The joylessness of much English post-war building parallels the bureaucratization of social idealism, and the dulling of the progressive view.[46] With the re-assertion of individualism in the 1980s came Lubetkin's resurrection. Perhaps this also signalled a more realistic view of the status of British architecture, whose 'most interesting moments occur when its perspectives are raised above a parochial insularity to embrace the broader continental vision'.[47]

Endnotes

[1] David Walker, 'Monumental Modernist', *RIBA Journal* August 1991, 24.
[2] The geographic concentration of modernism in the south of England is noted by David Dean. See David Dean, *Architecture of the 1930s* (New York: Rizzoli, 1983), 22.
[3] See David Saunders, 'So I decided to go overseas', *Architecture Australia* February-March 1977, 22-28.
[4] Cited in Juliet Gardiner, *The Thirties: an intimate history* (London, Harper Press, 2010), xiii.
[5] Alan Powers, *Britain* (London: Reaktion Books, 2007), 56.
[6] Dean, *Architecture of the 1930s*, 8.
[7] Raymond McGrath, interview with Brian Hanson, *AR* 162 (1977), 59.
[8] Cited in Paul Walker, 'Migration and Modern Architecture: the case of New Zealand', *Fabrications* 18:1, 43.
[9] Raymond McGrath, *Twentieth Century Houses* (London: Faber and Faber, 1934), X.
[10] McGrath, *Twentieth Century Houses*, X.
[11] McGrath, *Twentieth Century Houses*, XI.
[12] Le Corbusier, *Towards a New Architecture,* trans. Frederick Etchells (London: John Rodker, 1931), 6.
[13] Cited in Donal O'Donovan, *God's Architect: a life of Raymond McGrath* (Bray: Kilbride Books, 1995), 112.
[14] Henry Pynor, 'An architectural foreign specialist in Russia', *Architecture* 1 May 1937, 96-101.
[15] Henry Pynor, 'Architecture' in *Soviet Culture* (Sydney, NSW Aid-Russia Committee, 1941), 64-72. The publication is a transcript of addresses delivered to the Aid-Russia Cultural Conference, Sydney, 8 November 1941. Other speakers included Professor I. Clunies Ross, Bernard Smith, Miles Franklin and Katherine Susannah Pritchard.
[16] *Architecture* (Aus), 1 July 1933, 163.
[17] Cited in O'Donovan, *God's Architect* , 59.
[18] Clough Williams-Ellis, 'Building New Russia: a lecture before the Architectural Association, London', *Architecture* 1 March 1932, 66.
[19] Williams-Ellis, 'Building New Russia', 67.
[20] J.M. Keynes, typewritten note dated 13 March 1930, Clare College Archives Acc. 1986/17:1.
[21] As outlined in his pamphlet *The Means to Prosperity* (Edinburgh: R&R Cark, 1933).
[22] His pamphlet 'The Bankers' Conspiracy' was published in *The Living Age* (USA), February 1934, 496-502. Kitson's rejection of the gold standard may seem prescient, but the odious anti-semitic parable titled 'No-Money Island', the last chapter in his *A Fraudulent Standard* (London: P.S. King, 1917) gives the work a more repugnant inflection.

[23] A Fellow Pilgrim (Arthur Kitson), *A Modern Pilgrim's Progress* (Oxford: The Alden Press, 1936). Annotated flier in McGrath Collection, Irish Architectural Archive, Dublin. Acc. 78/30.
[24] McGrath, *Twentieth Century Houses*, XI.
[25] McGrath, *Twentieth Century Houses*, 30.
[26] Published in *The Architectural Review (AR)*, 73 (February 1933), 70-73.
[27] See Wyndham Lewis, *Blasting and Bombardiering* (London: John Calder, 1982) for an exposition of his elitist aesthetics.
[28] O'Donovan, *God's Architect* , 149.
[29] See editor's comment below the reprinted article from the *Fascist Week* published in the *Architects' Journal (AJ)*, 15 February 1934, 244.
[30] John Allan, *Berthold Lubetkin: architecture and the tradition of progress* (London: RIBA, 1992), 102.
[31] 'A Question to Sir Oswald Mosley', *AJ*, 22 February 1934.
[32] 'Fascist Architecture: a reply to 'a question to Sir Oswald Mosley'', *AJ*, 19 April 1934, 565.
[33] Allan, *Berthold Lubetkin*, 131.
[34] Hermann Muthesius, *Das englische Haus*, 3 vols. (Berlin: E. Wasmuth, 1904-5).
[35] Stephen Woodhams, *History in the Making: Raymond Williams, Edward Thompson and radical intellectuals 1936-1956* (London: The Merlin Press, 2001), 2.
[36] Gardiner, *The Thirties*, 185.
[37] Gardiner, *The Thirties,* 186, see also Woodhams, *History in the Making,* 1.
[38] Elizabeth Darling, *Re-Forming Britain: Narratives of Modernity before Reconstruction* (Abingdon: Routledge, 2007), 185
[39] *AJ*, 16 and 13 December 1987, 36.
[40] *AJ*, 16 and 13 December 1987, 38.
[41] *AR* 162 (1977), 63.
[42] http://www.architecturemedia.com/aa/aaissue.php?issueid=200005&article=10&typeon=2, accessed 8 March 2012.
[43] Notable examples include: Allan, *Berthold Lubetkin* and Peter Coe and Malcolm Reading, *Lubetkin and Tecton: architecture and social commitment* (London: Arts Council of Great Britain, 1981). Allan also produced a shorter colour monograph. John Allen, *Berthold Lubetkin* (London: Merrell, 2002).
[44] 'Knowledge has no light but that shed on the world by redemption: all else is reconstruction, mere technique.' Theodor Adorno, *Minima Moralia* (London: Verso 1978), 247.
[45] Allan, *Berthold Lubetkin*, 577.
[46] Anticipated, ironically, by J.M. Richards, who saw the large public architecture offices as bastions of conservative design. Their conversion to modernism hardly solved the problem, despite his conviction that 'we shall come to appreciate in time the special form of dignity produced by orderliness and spacious planning'. J.M. Richards, *An Introduction to Modern Architecture* (Harmondsworth: Penguin, 1962), 97,98.
[47] Allan, *Berthold Lubetkin*, 602.

My Father, and Stories of a Larrikin Architect

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Abstract

'Larrikin' does not seem to be a common or complimentary way to describe an architect yet when I think of my architect father, Lynthorne (Lyn) Matthews (1940 -), this is what comes to mind. Lyn has often recounted stories of his larrikinism, his favourite stories being of childhood antics. However, it was not until I carried out a series of life story interviews with him in 2011 that I began to consider how important storytelling and the notion of larrikinism was to an understanding of Lyn's life and work as an architect.

This paper is part of a broader social and cultural study of the Perth Hills and its architecture. The Hills, as it is locally referred to, is the place where Lyn lived for almost twenty years and the place where many of his best-known projects are located. Through Lyn's stories, along with his architectural drawing archive and personal collection of correspondence, photographs, newspaper clippings and magazine articles, this paper demonstrates how architecture can be intertwined and inseparable from the act of storytelling.

Introduction

> If meaning springs from experience, what is it about buildings, texts and subjects that matters? The answer returns to the idea of an unfolding serial event, a building as a narrative. From the moment it is conceived, through its design, production, use, continuous reconstruction in response to changing use, until its final demolition, the building is a developing story, traces of which are always present.
>
> Thomas A. Marcus, *Buildings and Power*[1]

I have always been fascinated by the work of my architect father, Lynthorne (Lyn) Matthews. Lyn worked as an architect in Perth for over forty years and some of his best known projects are located in the Perth Hills. While not a big story teller, Lyn has always been happy to recount family stories particularly of his childhood larrikinism, however, he

rarely discussed his work as an architect. In 2011 he agreed to be interviewed as part my study of the Perth Hills and its architecture. What surprised me most about the interview with Lyn was how important the act of storytelling and the notion of larrikinism is to developing an understanding of his life and work as an architect.

While the idea of storytelling in writing history is not new, through recent research centred around ways of writing architecture and architectural history there has been renewed interest in architecture as storytelling or narrative. In Andrew Ballantyne's essay 'Buildings as evidence' (2006) he writes: 'Most architectural history continues to treat social and economic history as something altogether alien…'[2] and that in his opinion, 'for buildings to be given their proper due as evidence, they need to be included in narratives that are constructed in ways that allow for multiple perspectives.'[3]

One way of constructing narratives of architecture that allow for multiple perspectives is through lifestory accounts of the architects involved in its production. This story of Lyn's life and work as an architect is one such narrative that primarily draws on lifestory interviews along with other sources, including Lyn's personal collection of his architectural drawings, correspondence, newspaper clippings and magazine articles. In telling Lyn's story, the aim of this paper is to demonstrate how architecture can be intertwined and inseparable from the act of storytelling, not only through its production and use, but also through the stories we tell of architecture's history.

The Young Larrikin

Lyn was born in 1940 in Collie, a town in the southwest of Western Australia best known for coal mining and timber production, and where his father had a local dental practice. His parents both came from large families; Keith was the youngest of nine children and Phyllis (nee Hollett) the youngest of thirteen. It was a close-knit extended family and that meant regular visits to Perth. Lyn enjoyed these trips and says that he would 'break out in an excitement rash every time we came to Perth'.[4]

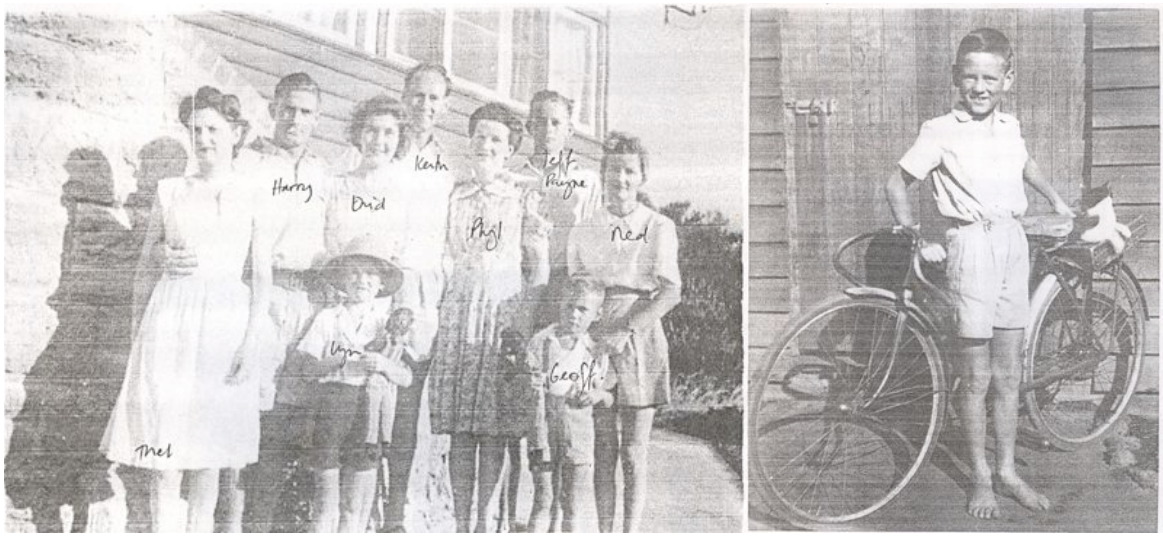

Figure 1. Lyn's family on holidays at North Beach (left), Lyn (right).
(Photographer unknown.)

Most of his relatives lived within streets of each other in the Maylands area and were members of the same congregation of the Church of Christ. The church was a big part of Lyn's upbringing and his parents were strict in a lot of ways. Lyn remembers having to spend most of Sunday going to church and attending Sunday School. He was not supposed to play with certain children, 'Catholics' and those regarded as 'unsuitable' by his mother. In order to play with whom he liked Lyn would 'sneak off' on his bike, with his head down so his mother couldn't see him over the picket fence. There was meant to be no talking at the dinner table, which as far as Lyn was concerned was an opportunity to torment his brother, Geoff, and get him into trouble. Having to learn the piano, however, looms largest in Lyn's childhood memories. He recalls that

> My younger brother Geoff and I had to learn piano. My mother had wanted to learn the piano but her family didn't have the money, so she had this idea in her head that we would learn to play. We weren't given any choice. The surgery and waiting room was at the front of the house and when I had to practice, I'd thump out these tunes that I'd learnt off by heart and I'd have a comic up in front of me, I'd be reading the comic and I'd make sure that all Dad's patients suffered. When the nurse's boyfriend would come to the door to pick her up after work I used to play 'Here comes the Bride' as loud as I could, thump that out and all the patients in the waiting room used to laugh. I still resent all the wasted time I had to spend practicing.[5]

Lyn's dislike of being made to play the piano eventually got the better of him and he stopped going to lessons, instead he would sit under the clock at the Collie Railway Station

until it was time to go home. As the story goes, it was some time before his parents discovered that they had been paying for lessons unnecessarily.

Lyn has always liked making things and in his early teens wanted to leave school and become a cabinetmaker. His parents, however, wanted him to finish high school. With his interest in building and an understanding that through a family connection with the Perth architectural firm Oldham Boas and Ednie-Brown he would be able to get a job, Lyn decided to become an architect.

Figure 2. Lyn the individual (top left hand corner of image), note his attire.
(*The Arch* 1957, courtesy John McGeachie)

While he was completing his Leaving Certificate at Collie High School, his mother was diagnosed with cancer and died in August 1957. As a consequence he failed his final year, repeating and finishing high school with his younger brother Geoff's class at the end of 1958. The loss of his mother brought about significant changes in Lyn's life and while there was a great sadness there was also a sense of freedom.

Getting on With the Business

In 1959, the two brothers left Collie and moved to Perth to study, Geoff went to teachers' college and Lyn began studying architecture at Perth Technical College (PTC). From Lyn's first day at PTC he remembers: 'the head of department, Mr Douglas, spoke to us and said if you're in this course because you want to make some money you may as well get up and leave now. Nobody left – everybody was supposed to be dedicated.'[6] Lyn enjoyed being a student and being in Perth.

Fabulation: Proceedings of the 29th Annual SAHANZ Conference
University of Tasmania, Launceston, 5-8 July 2012

> It was a good life…Perth Tech was in town and you could do what you wanted, nobody seemed to care much. We had studio every day and three or four hours of lectures down stairs or down the alley. I would stay up all night to get studio projects done. I didn't do much in studio; I thought it was a waste of time. I realise now though, that the things they used to talk about were to get you thinking, but at the time I wanted to do some real stuff, wanted to get on with the business, get out and do some building, make some money.[7]

Figure 3. John Coleman, Lyn (centre) and Tom Purling in studio at PTC c1959 (left)
John Coleman, Lyn and Pang Yew Wing 1960s (right).
(Photographer unknown.)

After his second year at PTC Lyn started working at Oldham Boas and Ednie-Brown. As far as he is concerned most of the work that he was involved in was pretty uninteresting and he remembers spending a lot of time making prints. He says: 'I only used to like being in the print room because the girls were out there.'[8]

However, it was while Lyn was working at Oldham Boas and Ednie-Brown that he undertook his first major commission, designing a home in Armadale for his recently married father and stepmother, Isla. According to Lyn: 'Dad paid fees to Oldham Boas, but it was my project, I did all the drawings and went to site.'[9] It is not difficult to see in Lyn's design for the house, with its wide gabled roof, composition of materials and modern planning, the influence of his PTC education, alongside his admiration for the work of Frank Lloyd Wright.


MODERN LIVING

ARCHITECTURE

Architect Plans Hills Home For Parents

By FRANK PLATELL

Figure 4. Matthews Residence, Armadale.
(*The West Australian*, Saturday, October 29, 1966,17.)

By the mid 1960s Lyn left Oldham Boas and Ednie-Brown and began freelancing for the Perth architect Ernest Rossen. Working in Rossen's West Perth office Lyn met the developer Ron Morellini, as well as the speculative builders Tony Fini, Vince Lacava, Joe Ioppolo and Sam Serra. While completing projects for Rossen, through his new contacts, Lyn began working on his own projects:

> One of my earliest projects was for Ron Morellini - a block of units in Como that was built by Cliff McSharer, who years later I designed a house for in East Fremantle. Cliff was a hands on builder, he was a carpenter and he also built boats. He was very particular, everything had to be right, and it was Cliff who helped me get experience in construction. You're green when you first go out as an architect and I learnt a lot from him about building.[10]

In December 1965 Lyn registered as an architect and established his own practice. Initially he worked from home before setting up an office in Ord Street, West Perth. During this period he worked on development projects with Joan Watters and also designed and developed a construction system for building economical houses.

> I was always, and I still am today, thinking about how I could possibly build something for nothing…the most basic building. The curved roof just came to mind - a simple roof with no structure. The walls poured from a basic material like plaster and then protected by overhangs. A house with an Australian feel, with verandahs all around.[11]

The curved roof houses were rectangular in plan with the metal sheeting of the roof sprung over the outer walls, generally gypsum plaster panels or brick, and held down by slim steel columns located along the perimeter of the verandah. The internal walls were non-load bearing so there was a degree of flexibility in the planning.

The houses were commissioned on a design-build basis, a number were built in the Perth suburbs, as well as in the country where they had the advantage of being largely pre-fabricated, and therefore easy to transport and quick to construct. Lyn's sister-in-law recalls:

> Lyn was in the process of building 4 bedroom homes that could be erected very quickly…[and] Having just acquired a C.P. farm block some 350k's north of Perth, we were very interested…Lyn was to bring a team of builders…during the January break, to erect one of these houses…all supplies were trucked north [and] unloaded on site…a couple of tents had been set up to hold food and provide a little shelter. Arriving in the dark along a dirt track, they must have been ready to turn home. However somehow Lyn was able to get the team going and after 10 days working well together the house was completed. I still have pictures in my mind of Lyn pushing a barrow full of cement, always with a ready smile.[12]


Reduction In Housing Costs

Figure 5. Curved Roof House, Greenmount.
(*The West Australian*, Saturday 24 February 1968, 33.)

Lyn also built two houses speculatively in Greenmount. In February 1968 the first of the Greenmount houses was complete and open for inspection. Lyn recalls: 'It was through the first Greenmount house that I met Ken Ryan. He had set up a deal to build a resort at Coral

Bay on the remote northwest coast of Western Australia. Lyn's recollection is that Ken Ryan came along and said, 'we want to build Coral Bay like that!'[13] Ryan was a developer and together with an English financier he set up a syndicate, Coral Bay Proprietary Limited, to finance the project. With the involvement of the English financiers, the Western Australian State Government backed the project through the Department of Industrial Development and were the first mortgagees. Lyn agreed to design and build the resort and says

> The only reason I got involved was because I received a hundred thousand dollar deposit before I did anything and with the Government being first mortgagees I thought it was a secure project. The trouble was I didn't realise that most of the money had already been spent [by the company] on Maud's Landing [an early settlement further north] before we even got started.[14]

Construction on the project began in October 1968. The work included a hotel-motel, ablutions block, service station, general store and fishermen's quarters. The Coral Bay Holiday Resort was officially opened less than five months later on February 12, 1969. The resort and its opening attracted a lot of media attention. This was big news for Perth at the time, the opening appeared in a number of local papers and as a 'special feature' in *The West Australian*. There was even a segment about the resort on the local ABC television production of *Today Tonight*. However, by March of that year the Coral Bay company had accumulated losses of $78,417.00 and owed nearly $250,000.00 to around two hundred unsecured creditors.


Coral Bay—a tropical retreat

Minister to open new resort hotel

Announcing
WESTERN AUSTRALIA'S FIRST
HOLIDAY RESORT HOTEL
Coral Bay HOTEL
ALL YEAR ROUND PLAYGROUND OF THE NORTH

ACCOMMODATION

Figure 6. Coral Bay Holiday Resort opening
(*The Sunday Times*, February 2, 1969, 4.)

Apart from the initial deposit, as the builder Lyn received no further payments and was left with a large debt. He was twenty-nine years old and had a young family to support. Lyn negotiated settlements with most of his creditors and managed to stay solvent but the experience had taken its toll. Lyn claims he didn't work as an architect for four years.

> I still had the office but we used to go to lunch at eleven in the morning. Brian Bethune, who had been the accountant for the developers but had become a friend of mine, helped me out. He went through all the plan drawers and sent out accounts for work that hadn't been billed. I probably never would have charged for a lot of that work. We were also running Coral Bay and we started a generator hire business. We both lived off this money for four years. The first architectural project after all that was a house for Vince Ridolfo on the scarp in Lesmurdie.[15]

A Hills Architect and Being Different

The house for Vince Ridolfo is just one of many houses Lyn designed and built in the Perth Hills and he is regarded as one of a group of architects, along with Wally Greenham, Gene Mapp, Ken Waldron, Bill Kierath and Frank Young, whose work in the Hills is representative of an organic tradition in Western Australian architecture. Previous discussion of Hills architecture and the work of these architects has been limited, however, architectural historian Duncan Richards identifies that part of the significance of this work is that it presents: 'an alternative to the normal approach to architectural design' and that, 'our architectural circumstances are richer for the possibilities of the alternative.'[16] Richards also points out that the Hills

> was a logical choice for architects who saw their work as organic and who wished to sympathetically relate a building to a natural environment and to site. In many cases the difficult or even impossible sites that exist in the hills were not only economical for clients to acquire, but also demanded the most innovative and creative design solutions.[17]

The Hills holds a particular allure for Lyn, not only as a place with picturesque qualities and challenging sites, but also as a place perceived as being hidden from all-seeing eyes and therefore a place where you were relatively free to do your own thing. Wally Greenham, a tutor at PTC in the early 1960s, is another Hills architect known for doing his own thing. Lyn regards Greenham as an influential figure in his architectural education and developing an understanding of architecture and site.

> While I don't specifically remember the things he talked about, he was interesting and you wanted to listen. Wally encouraged students to think outside the square, to design buildings that pushed limits, buildings that just balanced or could span further. I never got to see Wally's house at Whistlepipe Gully, but he was building it at the time and he would bring in photos to show us in studio. The house appealed to me, it was like Frank Lloyd Wright's 'Fallingwater', with water passing through it and trees that grew up through the roof. I guess I was always looking for a site like that.[18]

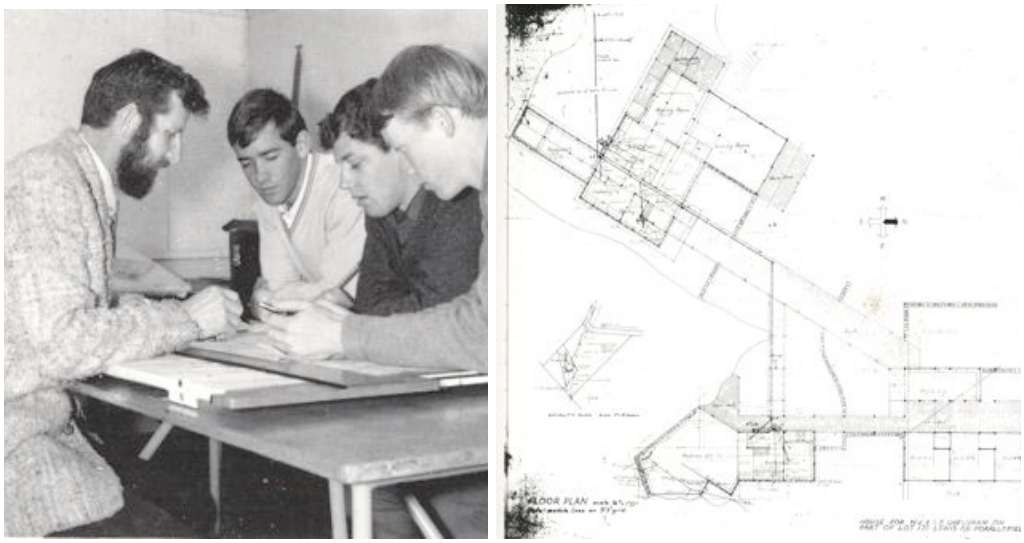

Figure 7. Wally Greenham in studio at PTC (left)
Plan Greenham Residence, Whistlepipe (right)
(Courtesy D. Richards)

In 1962 Lyn met Nola Johnstone on a blind date and they married the following year. Not long after I was born in February 1964 and we moved to the Hills. Lyn recalls

> I was looking in the paper and saw a house for sale in The Hills at Greenmount for 2700 pounds. We went up there, we stood on the verandah and we saw the view, we could see the city, we had to have it. We bought it, much to Nola's father's disgust - to be buying something for that much money that was so run down and with no money. Despite this, he lent us the money for the deposit, one hundred pounds.[19]

Lyn was still studying at PTC and working at Oldham Boas Ednie-Brown earning seven pounds a week so there was very little money. The house at Camfield Road needed a lot of work and parts did not even have a roof. Lyn says, 'you could see planes flying overhead

from the bathroom, ' and so, 'with the help of a group of about twenty fellow students, we put a new roof on over a weekend.'

The Camfield Road property was sold in 1969 and we moved down the hill to one of the curved roof houses at Greenmount. We moved again in 1973 to Glebe Road, Darlington.

> Brian and his wife Jan asked me to look at a house they were thinking of buying in Darlington. For years I had looked at the block, with its small fibro house, and thought it would be a terrific place to do something with; I couldn't believe it when we drove down the drive. Brian's reaction was that it had 'too much bloody garden' and I went along with that. Then as soon as I had taken them home, I drove down the hill and picked up Nola so I could show the property to her. Just driving down the driveway and over the wooden bridge that crossed the winter creek was enough. Without even going inside the house, we put an offer on it.[20]

From this time on Lyn relocated his office to home. Over the years the Glebe Road house underwent a series of alterations and additions. Lyn did most of the building work and so it progressed as time allowed and materials became available. This house is an early example of Lyn's assemblage method of construction. The existing carport was converted to a family room, the roof deck was used as formwork for an upper floor and the profile formed the pattern on the ceiling. The walls of this room were lined with locally handmade bricks salvaged from the demolition of the Camfield Road house and two fireplaces were also made from salvaged objects, one from a sea mine and the other from a buoy.


Treating a house like a sculpture

MORNING TEA in the Matthews household in Darlington can be a noisy affair, with a background of crashing and banging as the huge timber house submits to seemingly endless extensions and improvements.

Continued with pictures page 76

Figure 8. Lyn at the drawing board.
(*The Sunday Times*, May 7, 1978, 75,76.)

Lyn enjoyed designing and building for himself and around 1983 my parents purchased the block next door from a family friend and Lyn began the construction of the 'Pyramid House'. This house is the first of a series of square plan projects he designed and built and reflects his interest in geometry and structural efficiency. Lyn recalls

> The idea for the square plan came about because Vince Ridolfo had bought a whole yard of scrap metal and said I could have anything I wanted. I was interested in the economy of the square plan. If you compare a square and rectangular plan with the same floor area, the rectangle has a much bigger perimeter and the perimeter is where all the cost is. The use of a square frame is economical as well because the materials are all the same size. I measured up the site at Glebe Road and worked out the steel I needed to span over the rocks without interfering with them too much.[21]

Figure 9. Pyramid House under construction 1984, Darlington. (Photographer N. Matthews.)

During construction my parents decided to move into the pyramid house but this was only for a short period of time as by the end of 1984 they had decided to leave the Hills and bought a house in Bicton. Reflecting on the difference between his work in the Hills and on the plain he says: 'The difference … is the people… they want something different, otherwise they wouldn't go to the hills.'[22] For Lyn being a Hills architect means being different and to him this is important.

Just Enough For a Building Licence

As Lyn's architectural reputation for doing something different had grown, so to did a popular myth develop about his architectural drawings or more precisely the lack of

drawings. These stories were told by Lyn, by his clients and his tradesmen and then repeated by journalists and others.

Often this lack of drawings was presented as evidence of Lyn's intuitive genius. For example journalist Frank Platell's description of the Ridolfo Residence:

> Just like any artistic work of merit, a big mansion on the Lesmurdie escarpment was a case of total involvement. The creator had basic ideas of a free-flowing shape and the owner's accommodation needs. But because of the complexity of the project, it was a house that evolved as the work progressed. No detailed construction drawings were prepared in advance. This was possible because the architect, Lynthorne Matthews, was also the builder.[23]

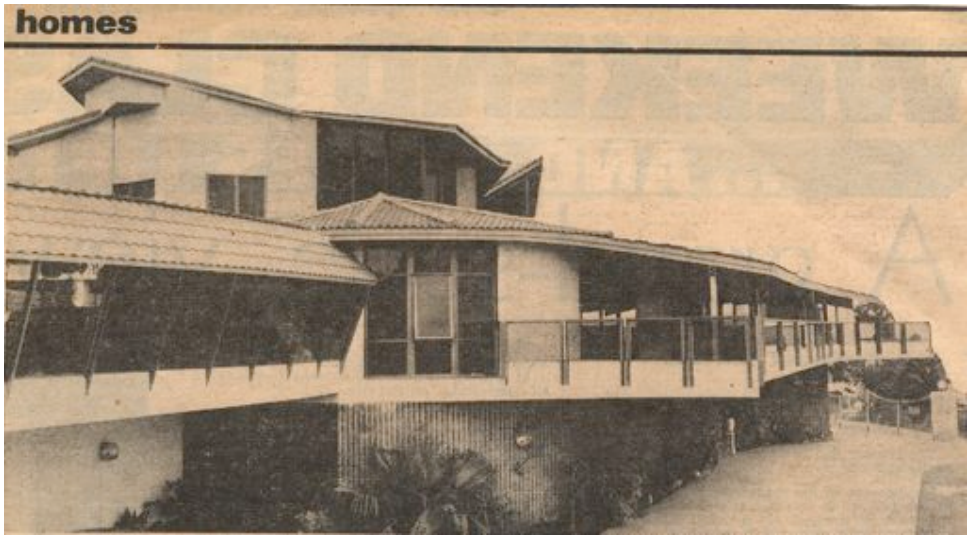

Figure 10. Ridolfo Residence, Lesmurdie.
(*The West Australian*, Saturday September 23, 1978.)

Maureen de la Harpe's article on the Brookes Residence provides a further example of the notion of intuitive genius:

> When architect Lynthorne Matthews met James and Madeleine Brookes on their steep 17-acre bushland block in the Perth Hills, he took one look at the encircling forest and stunning view, and knew exactly where and how to build their retirement retreat. He scrawled a quick pencil drawing on a sheet of paper to explain his idea. Later, when the final plans were complete, they were identical to the hastily scribbled sketch. The Brookes have it to this day – a framed memento of the moment of inspiration.[24]

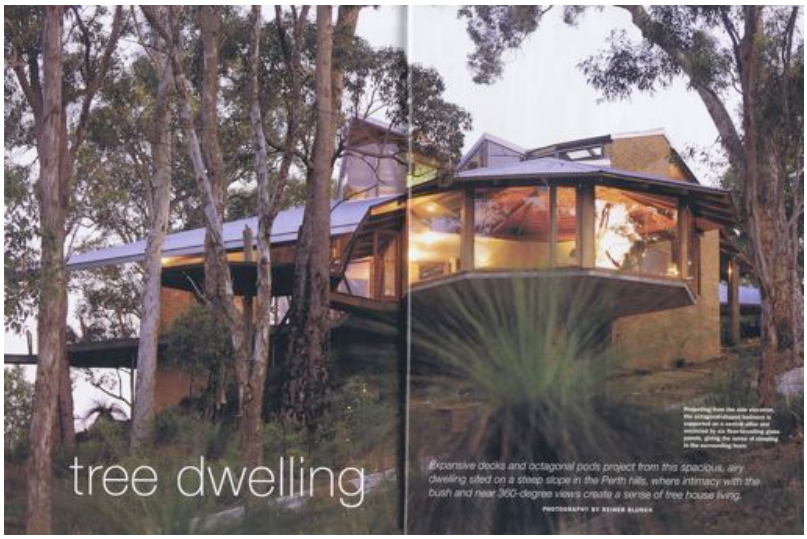

Figure 11. Brookes Residence, Kalamunda.
Vogue Living Australia, August/September 4,1996, 132, 133.
(Photographer: Reiner Blunck)

However, for Lyn drawings play a minor role in the production of architecture. He uses sketches to express ideas and to resolve details during the building process. The working drawings are usually a basic set of drawings that include plans, elevations and sections, 'just enough to get a building license'. For Lyn there was no point in drawing more, allowing space for opportunities that arise during the process, the contingent forces that according to Jeremy Till, architects often try to deny.[25] In Lyn's work these forces include such things as the ability to find the right materials and to work with the unknowns of the site, as well as developing the projects in collaboration with his clients and trades where the process of communication is through the act of storytelling rather than drawings alone. As Till points out: 'storytelling is probably the least used but potentially the most productive,' and that through storytelling as a method of communication the process becomes 'externalized and shared rather than being internalized and exclusive.'[26]

Working in this way also requires a high degree of mutual trust for all those involved. In 1986 Lyn began the design and construction of a new house for Rainer and Renata Erler, German filmmakers who planned to live for six months of the year in Perth and the other six months in Munich. The Erlers had visited an open house of Lyn's recently completed 'pyramid house' in Glebe Road, Darlington, and were impressed by the project, commissioning Lyn to design their new house at Swanview. As he always did with new projects, Lyn's first meeting with the Erlers was on their bush block and he was excited to be working with such an extraordinary site with views of the coastal plain to the west and John Forrest National Park to the east. While drawings were produced, Lyn also set up a scaffold and string lines for the Erlers to describe the design that was loosely based on the

idea of a tent. Like other clients, the Erlers were also directly involved in the project, being on site, dealing with contractors and suppliers, as well as playing a part in sourcing salvaged materials.

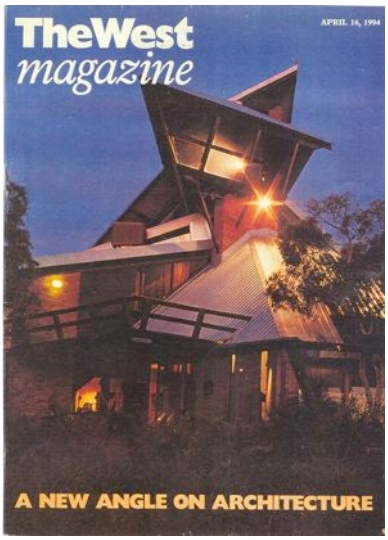

Figure 12. Erler Residence, Swanview.
(*The West Magazine*, April 16, 1994.)

The Erler Residence is one of Lyn's most significant works and is very much the result of a trusting client as this account attests:

> Rainer and Renata Erler…went overseas during the construction of their house in Swan View and left Matthews with their cheque book. When they returned they found…[Matthews had] added a triangular crow's nest to the roof of the towering abode, having decided on impulse that the house needed extra shape on top. The Erlers were delighted…[27]

However, Lyn's way of working was not always understood nor appreciated by local authorities and it was often a struggle to obtain a building licence. For example the Ridolfo Residence was only partially approved when construction first started on the project and this was noted in newspaper reports at the time:

> …If the specially-designed home is finished – and there are some doubts about this – it will be one of the biggest and most unusual in Australia.
> The architect, Mr L. J. Matthews is using a bridge principle for building the home because of the huge span…The Kalamunda Shire Council, which met this week, has agreed that Mr. Ridolfo can build the first two sections of the home – but he cannot include the top section…[28]

Figure 13. Lyn on site, Ridolfo Residence, Lesmurdie.
(Photographer unknown.)

In Lyn's opinion, the difficulties he encountered in obtaining building permits was not because he provided insufficient details, but that local authorities lacked the expertise to assess the projects. Some of his dealings with these authorities only verified his opinion. Lyn tells the story of a project where the client had obtained a building permit for a house and then changed their mind and asked him to design a new house. When the building inspector came on site to inspect the footings with the approved plans in hand he failed to recognise that he was looking at footings for a totally different project.

There are many similar stories about Lyn's relationship with local authorities and building inspectors. Ernie Willgoose, a bricklayer who worked with Lyn for many years, recalls

> …I remember working on the boundary of Isabelle and Newton Herbert's property, a Council Building Inspector approached Lyn and complained that the wall was too high and as to what was the building with the two fourteen foot piers attached. "What building" Lyn declared "that is a letter box"…[29]

Figure 14. Letterbox, Darlington.
(Photographer: R. McDonald.)

In the mid 1980s John Izzard approached Lyn to help him design and build a 'Japanese style' house. Izzard had no previous building experience but he was committed to the idea of the project. Izzard later writes of his first meeting with Lyn:

> I want to build a Japanese house Lynn [sic]" "I want it to have a curved roof". "And it has to protrude halfway over a creek"! "And, by the way - we can't cut down any trees or remove any shrubbery". "And, and Lyn. I want to build it…[with] 50 old sewerage pipes I've picked up cheap". "Oh! and one final thing…I've only got $30,000.[30]

Figure 15. Izzard Residence under construction, Glen Forrest.
(Photographer: J. Izzard)

The house was a labour of love, completed over a number of years with Izzard doing most of the building. Lyn recalls that 'he wouldn't call on any other people, he would just battle it out himself. With the exception of the roof that we built together and put up in pieces.'[31] However, in Izzard's project there is still the question of the building permit.

> You know, or at least you suspect that someone at the council has seen the plan…I mean there's just the slightest suspicion – mainly because you haven't got a set of plans and you're working from sketches on the backs of cigarette packets, McDonald's wrappers and odd bits of fibro – that perhaps – just perhaps the council isn't quite up to speed with what's going on in Hardy Road, Glen Forest.[32]

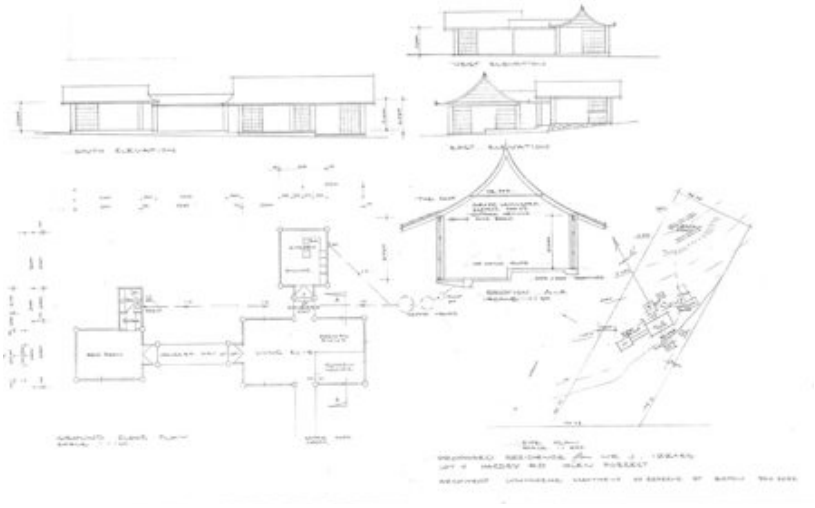

Figure 16. Working Drawings Izzard Residence.
(Lynthorne Matthews Architect.)

Going out too Far

While Lyn was used to having his fair share of run-ins with authorities, in the mid 1990s he started to run into major trouble. It had come to the attention of the Builders Registration Board of Western Australia that he had allowed a past associate to use his registration to obtain a building permit, a common practice known as 'licence lending'. Around the same time a client lodged a complaint to the Builders Registration Board about the materials, including the use of recycled timber, and workmanship in their house at Chittering.

For Lyn matters got worse. The client lodged another complaint, this time to the Architects Board of Western Australia. The result of these complaints were that Lyn's builders registration was cancelled and in October 2000 his registration as an architect was suspended for six months for professional misconduct. Earlier that same year Lyn had

been declared bankrupt and on top of this the client continued to pursue the matter further in court. With an unfavourable outcome my parents were forced to sell the family home in Bicton to pay for costs and damages. Lyn had no professional indemnity insurance.

Conclusion

Perhaps it would be easy to simply dismiss Lyn's actions as reckless and foolish, however, there is something sad about the vulnerability of the larrikin. As historian John Rickard points out: 'It is as though there is something incomplete about the larrikin. Even as we are drawn to the performance, we are wondering at the risks he is taking.' and that perhaps, 'his is a masculinity whose strength and charisma mask a core of uncertainties.'[33]

Lyn on the other hand is philisophical, '[It was] pretty costly, but still in the end, better. I wouldn't like to be doing the same things now.'[34] I am reminded of a quote from Ernest Hemingway's classic *The Old Man and the Sea*, the only book Lyn claims he's ever read, 'It is easy when you are beaten, he thought. I never knew how easy it was. And what beat you, he thought. "Nothing," he said aloud. "I went out too far."'[35]

Endnotes

[1] Thomas A. Markus, *Buildings and Power: Freedom and Control in the Origin of Modern Building Types*, (London: Routledge, 1993), cited in Sarah McGann, 'The Production of Hospice Space', Unpublished Doctoral Thesis, Curtin University, 2009, 118.
[2] Andrew Ballantyne, 'Architecture as evidence' in Dana Arnold, Elvan Altan Ergut and Belgin Turan Ozkaya (eds.), *Rethinking Architectural Historiography*, (Abingdon, Oxan.: Routledge, 2006), 40.
[3] Andrew Ballantyne, 'Architecture as evidence', 48.
[4] Lynthorne Matthews, interviewed by author March 2011.
[5] Matthews March 2011.
[6] Matthews March 2011.
[7] Matthews March 2011.
[8] Matthews March 2011.
[9] Matthews March 2011.
[10] Matthews March 2011.
[11] Matthews March 2011.
[12] Elaine Barnetson, Correspondence 2000.
[13] Matthews March 2011.
[14] Matthews March 2011.
[15] Matthews March 2011.
[16] Duncan Richards, 'The Influence of Frank Lloyd Wright: Western Australian Domestic Architecture and its Relationship to Landscape 1960-1990', *Voices: The Quarterly Journal of the National Library of Australia*, 2, 4, (Summer 1992-93), 102.
[17] Richards, 'The Influence of Frank Lloyd Wright', 97.
[18] Matthews March 2011.
[19] Matthews March 2011.
[20] Matthews March 2011.
[21] Matthews March 2011.
[22] Matthews March 2011.
[23] Frank Platell, *The West Australian,* Saturday September 23, 1978.

[24] Maureen de la Harpe, 'tree dwelling', *Vogue Living Australia*, August/September, 4, 1996, 133.
[25] Jeremy Till, *Architecture Depends*, (Cambridge, Massachusetts: The MIT Press, 2009).
[26] Till, *Architecture Depends*, 114, 115.
[27] Joanne Hutton, 'Beyond the City Limits', *The West Magazine,* April 16, 1994, 18.
[28] Barry Robertson, newspaper clipping, source unknown.
[29] Ernie Willgoose, Correspondence 2000.
[30] John Izzard, Correspondence 2000.
[31] Matthews March 2011.
[32] Izzard Correspondence 2000
[33] John Rickard, 'Lovable larrikins and awful ockers', *Journal of Australian Studies*, 22,56 (1998), 84.
[34] Matthews, March 2011.
[35] Ernest Hemingway, *The Old Man and the Sea* (London: Arrow Books, 2004), 93.

Architect Barbie through the Looking Glass: Gender, identity and architecture

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University of Queensland

Abstract

In February 2011, Architect Barbie® was launched in New York, her appearance endorsed by the American Institute of Architects and advised upon by architectural historian Despina Stratigakos and architect Kelly Hayes McAlonie. The Institute also ran a Barbie Dream House competition for its architect members. Both Architect Barbie and the Dream House winning entry feature pink used in rather non-architectural but absolutely Barbie ways.

Dolls have always been used as part of fantasy play for children and there are multiple stories that might be fabricated for Barbie's architectural career. If, as Judith Butler argues in Undoing Gender*, 'Fantasy is part of the articulation of the possible, it moves us beyond what is merely actual and present into a realm of possibility,' what becomes possible when Architect Barbie exists?*

This paper seeks to investigate responses mainly from the profession to Architect Barbie® to question whether the fabulations created by the doll might effect change for women in architecture. Stratigakos argues strongly for Barbie's relevance and importance as an agent for change. However, each online publication announcing her architect incarnation has generated lines of comments and arguments which suggest other possibilities. Drawing on Butler's work on fantasy, this paper asks whether Architect Barbie might fulfil 'the critical promise of fantasy… to challenge the contingent limits of what will and will not be called reality.'

Introducing Architect Barbie

In February 2011 the toy maker Mattel revealed Architect Barbie at an industry toy fair in New York. She was the latest in its series 'I Can Be…' – a line of dolls designed to both portray and explain different careers to young girls. The series began in 2001 and in 2002 Mattel held a public voting competition to determine Barbie's next career. Although the

'architect' won, Mattel decided that they would not produce the doll, as architecture was considered too complex for little girls to understand.[1] Eight years later, Mattel reconsidered and decided Architect Barbie was viable.

Critical to the realisation of the Barbie doll as an architect has been the work of architectural historian Despina Stratigakos. In an essay titled 'What I Learned from Architect Barbie,'[2] Stratigakos outlines the lobbying she had led since 2002, and describes the subsequent consultation process with Mattel about Architect Barbie's outfit and accessories. The previous year when Mattel produced 'I Can Be... Computer Engineer Barbie', they likewise worked with and consulted the Society of Women Engineers and the National Academy of Engineering, to achieve 'authenticity'.[3] Joining Stratigakos in both the lobbying and consultation was architect and 2011 President-Elect for AIA New York State, Kelly Hayes McAlonie.

Architect Barbie was fully supported and endorsed by the American Institute of Architects (AIA) who announced her imminent arrival on their website in November 2010. They commented that exactly 125 years earlier, in November 1885, Louise Bethune had been the first woman accepted into a professional architectural association in the United States.[4] (The Mattel Barbie media site also notes this anniversary.[5]) The full launch, or perhaps debut, of the doll was at the AIA convention (Regional Design REVOLUTION Ecology Matters) in May 2011, in New Orleans.[6]

In addition, the American Institute of Architects ran a Barbie Dream House competition for its architect members. The brief required accommodation for an extensive wardrobe, three cars, five pets (including a giraffe), and the house had to be sustainable. In August 2011 the winners, determined by popular vote, were announced – two graduates from the Harvard University Graduate School of Design, Ting Li and Maja Paklar. Appealing to the client-base of Barbie admirers the renderings feature extensive use of pink and the design pivots around a four-storey high glass circular closet/wardrobe for Barbie's clothes making them 'visible from every angle of the house.'[7] The clothes rack is computerised so that the clothes swirl through the closet on 'the double helix moving rack.'[8]

Surrounding Architect Barbie is rhetoric from both Mattel and the AIA about role models, and 'encouraging a new generation of girls to pursue a career in architecture.'[9] The aim is to normalise architecture as a career for women. Stratigakos describes a pervasive idealised image of an architect in the profession and popular culture that insists that architectural and the feminine are incompatible. She argues the existence of Architect

Barbie counters such perception, as Barbie's strength is that 'she has the power to make things seem natural to little girls.'[10]

If, as Judith Butler argues in *Undoing Gender*, 'Fantasy is part of the articulation of the possible, it moves us beyond what is merely actual and present into a realm of possibility, the not yet actualised or the not actualisable,'[11] what becomes possible when Architect Barbie exists? This paper investigates and analyses the reactions to Architect Barbie and considers whether the fabulations of a doll always packaged in pink might have the power to effect the kind of change in the status of women in architecture that her promoters maintain.

Barbie's Influence

In 2002 the newspaper *The Economist* noted: 'Of all the forces against which resistance is futile, Barbie ranks right up near the top.'[12] She is famous. By 2001, over a billion Barbies had been produced since the first in 1959.[13] Nearly 100 million were sold across the world in 2008 alone.[14] Barbie has spawned an enormous range of accessories including additional toys, games, videos, and home wares; not just a doll but 'a lifestyle' with product lines to completely surround the Barbie admirer.

Although designed for young girls, Barbie is also popular with adults. Barbie Collector dolls have become an important part of the Barbie franchise with the collector's website separate from the site for girls (and featuring far less pink). Collector dolls sport clothes designed by famous fashion designers, or inspired by famous artists, and other are based on celebrities, and film and television characters.

Barbie is, in the opinion of her unofficial biographer and cultural critic MG Lord, 'the most potent icon of American popular culture in the late twentieth century.'[15] She has extraordinary staying power in the highly competitive toy market. The doll maintains that position, according to Barbie Media, because she is 'in tune, in time and always in fashion.'[16]

In the 1950s the toy doll market in the US consisted predominantly of baby dolls designed to encourage maternal habits. Barbie's inventor Ruth Handler, however, observed that 'little girls just wanted to be bigger girls.'[17] She designed Barbie to meet what she saw as a need for fantasy and role-playing so that girls could play act living in a non-maternal grown up world. First introduced as a 'teenage fashion model' Barbie has always been sold as an independent career girl.[18] Over the decades Barbie has explored multiple

careers – more than 126 to date including ballerina, astronaut, and surgeon. The marketing of the 'I Can Be…' series dolls states that the range is 'designed to inspire your daughter to discover her dreams through a variety of empowering career-themed roles;'[19] a clear appeal to parental aspirations.

The Role of Dolls

Psychiatrist Ann Ruth Turkel notes that dolls are anthropomorphic sculptures and as such have been used ritualistically for millennia; equally they have been used by children for play and by their parents to introduce them to important social rituals.[20] Developmental psychologists maintain that such 'fantasy and play are vital parts of socialization in which [children] internalize ideals and values.'[21]

Judith Butler's philosophical and political writing on fantasy and the body argues understanding fantasy 'as taking the body as a point of departure for an articulation that is not always constrained by the body as it is.'[22] As such, Barbie becomes a means by which a young girl can project herself into another body, another life; to step outside her current reality. Architect Barbara Campagna recalls that even though she and her friends all had identical Barbies, to them they looked different and the dolls did indeed allow them to create private worlds where they could be anything they wanted.[23]

But Barbie has her critics who argue that along with ideas of independence and careers, young children also absorb and internalise ideas about ideal body shape (or normalisation of a physically impossible body shape) and a superficial attention to the world (of which her multiple careers can be seen as an indictment, rather than inspiration). For Turkel, 'Barbie represents obsession with material values and an unachievable, distorted body image.'[24] Barbie's body has been the subject of multiple criticisms around the sexual politics of body image, including arguments that she is a cause of eating disorders and the growth in demand for breast implants by teenage girls.[25] Social psychologists Helga Dittmar et al tested the hypothesis of whether 'Barbie makes young girls want to be thin' and concluded that Barbie must be considered 'a highly significant, if not the only, vehicle through which very young girls internalize an unhealthily thin ideal.'[26]

However, psychologists Tara Kuther and Erin McDonald studied the play patterns of different aged girls and observed different phases and types of play. Younger girls did indeed fantasise with Barbie, but older girls tended to mutilate Barbie. Although this may simply be a rite of passage of growing up and separation from what becomes to be seen

as a juvenile toy, Kuther and McDonald speculate that this 'torture play' may be more and 'may symbolise girl's loss of voice and self, or 'silencing'.'[27] However, Butler maintains that violence is a way of disciplining societal norms, citing the vulnerability of those who breach strict binary gender roles to such violence.[28] In this light, Barbie torture can be seen as a rejection of Barbie's body as positing a 'norm'.

Certainly, children as they grow do seem to absorb and echo critiques of Barbie from the adult world and in doing so shift from seeing Barbie as a viable role model.[29] If this is the trajectory how then might Architect Barbie be able to impact on architecture?

The Body in Architecture

Some critics have cited Barbie's body shape to argue against her suitability as an architect.[30] Butler argues that 'it is through the body that gender and sexuality become exposed to others, implicated in social processes, inscribed by cultural norms, and apprehended in their social meanings.'[31] The body also has a long history in Western architectural theory. From Vitruvius embedded into Western architectural thought is the idea that the symmetry and proportion evident in the human body are natural laws of beauty. Therefore, in order to attain beauty in architecture, the building needs to follow the example of the body: the form of the human body should generate architectural form, its proportions define architectural proportions, and its parts supply the measures necessary for building.[32] But that 'well-proportioned body' is always male.

Mirjana Lozanovska has written of the way this 'universal man' is 'the image of the imaginary that is internalised by contemporary architects and critics… In other words they measure against an imaginary that is marked by a male morphology.'[33] She further argues: In this sense an imaginary informed by a female morphology is foreclosed in architectural production'.[34]

If such a female morphology has been foreclosed to date, then Mattel's Architect Barbie might be seen as the beginnings of an alternate morphology, a challenge to the normative universal man. She could then be the beginnings of what Butler describes as positing 'possibilities beyond the norm or a different future for the norm itself.'[35] This Butler considers is the role of fantasy. Butler's argument is based on what the political potential of changing norms gives to the transgendered; but Barbie could be consider the epitome (or parody) of a certain type female body that pushes the norms of that body already as do some transgendered. Were Barbie to be human her BMI would be so low she would not be able to menstruate;[36] so extreme in her 'female-ness' that she could not

be a 'functional' woman in the sense of being able to have a child. (For that matter Barbie has always been anti-maternal given her genesis as a doll competing with baby dolls.)

But here lies a problem: the Barbie doll was based on a German sex doll marketed for men, Bild-Lilli. She has thus been shaped and determined by what might be described as a male fantasy: blonde, disproportionally slim and large-breasted. Barbie is also shaped by the expectations of young children for whom clear gender differentiation appears to be important as they try to figure their place in the world.[37] Barbie's body constitutes a particular 'norm' that is highly stereotyped and the question becomes whether it is possible to subvert or challenge one normative stereotype (universal 'man') by introducing another. In the end, Barbie's alternate morphology is no alternative at all; it is simply the reinstatement of traditional gendered stereotypes and the potential to rework any norms is once again foreclosed.

For Architect Barbie to posit possibilities beyond the norm for women in architecture her identity as an architect needs investigation. Although identity, as Swedish organisational theorist Mat Alvesson explains, 'is heavily gendered as perhaps nothing is so crucial as gender for one's self-definition and other's inclination to fix a person in a social category,'[38] there are further constructions to identity.

Architect Barbie's Reception in Architecture

> Barbie® is ready to tackle the daily responsibilities of a professional architect, wearing a symmetrically stylish outfit with bold colors and clean lines showcasing a city skyline. She also carries essential accessories for the job, including a hard hat for safety, a carrying case for her latest designs, and a model of her newest Dream House.[39]

Reactions to Barbie's incarnation as an architect have produced multiple articles, stories and comments, especially on the internet. Most particularly her outfit is critiqued. Barbie's clothes are critically important. After all, not for nothing did Li and Paklar place Barbie's closet at the core of their Dream House design and shape the rails in the double helix of DNA. She may be plastic, but her DNA is fashion.

Clothing is also important in architecture for conveying identity. The most common critiques of the authenticity of Architect Barbie's costume and accessories are that she isn't wearing enough black, her boots with heels would be a liability on a site (as would the skirt), the skyline on the bodice is 'cheesy', the drawing tube is out of date (pink or

not), and where is the computer? One states that Barbie should have a further pink accessory: the pink slip, which in the United States announces redundancy – a likely scenario in the current economic climate.[40] Another maintains a realistic representation of an architect would be 'dressed in black, bags under eyes from not sleeping properly (stress), pale from sitting all hours in the office, no nice clothes as won't be able to afford them.'[41] More particularly the outfit is critiqued for not showing sufficient 'creative stylishness'. One blog commentator maintained that Mattel's 'Architect Barbie made us look like we dress from a home-ec class in the 5th grade.'[42] What one wears is a reflection of an aesthetic sensibility, and for architects ensuring that sensibility is visible is important.

Other Barbie career outfits have also received criticism, particularly for the 'non-traditional' careers. Palaeontology Barbie in 1997 had women palaeontologists arguing that the doll did not represent the 'grooming challenges' of working in the field. They speculated that her long hair would end up with bugs and bats in it.[43] In 2010, Computer Engineer Barbie's outfit included sparkling leggings and she carried a pink laptop displaying a binary code which read as 'Barbie Barbie' in ascii language.[44] Although some noted that they had never seen anyone 'dress even remotely like that,'[45] predominantly comments were about whether she would be Mac or PC user, what language she would programme in, and was the doll also a USB device.[46] The public reactions to Computer Engineer Barbie clothing were far less extensive and critical than those for Architect Barbie.

Stratigakos heads off a number of criticisms about Architect Barbie's clothes in her essay. and argues that the outfit decisions were guided by not 'miniaturising the adult world' but translating that world into a child's terms or, rather, Barbie terms, which means pink and pretty. No matter what we know about what 'real' women architects wear (and carry), Barbie would not be Barbie without that pink (the online Barbie shop exhorts 'Shop Barbie. And think pink!'[47]). Stratigakos maintains: 'We wanted Architect Barbie to be both recognizable as an architect, which meant drawing on popular conceptions, and yet also challenge those conventions. Who says an architect can't wear pink?'[48]

As Luke Butcher argues in his blog that whilst 'her appearance may not stereotypically be that of an 'architect'… stereotypes themselves [are] often out-dated.[49] Jessica Lane, a San Francisco based architect, in her posting entitled 'The Audacity of Architect Barbie'[50] submits that critiques of Architect Barbie's appearance miss the point. What does an architect look like, she asks, in the twenty-first century when notions of identity are

considered flexible? She admires Barbie's 'un-architect-ey' appearance, and considers 'the audacity of the ultra-feminine icon as an architect is actually pretty inspiring.' This is, as Stratigakos notes, the tactic 'of a younger generation, which seeks empowerment by playing up femininity in contexts that prohibit it.'[51] She describes highlighting Barbie's girlie-ness as a mark of resistance, rather than oppression.

Lisa Boquiren reporting on a local AIA event 'Ladies and [Gents] Who Lunch with Architect Barbie' observed a strong generational difference in reaction amongst women architects, with younger ones enthusiastic. But older women have been 'horrified' and claim that the doll is offensive, 'trivializes the profession and objectifies its female practitioners.'[52] Boquiren records her initial scepticism wondering how could the AIA – an organisation 'created in part to 'elevate the standing of the profession' – engage in something so commercial?'[53] That architecture is itself often commercial is noted by one commentator,[54] whilst Boquiren herself becomes persuaded that the association might not even be 'inspired'. As Lane puts it: 'Barbie suggests that women infiltrate male-dominated professions by bringing our own personality and unique talent to bear.'[55] For such women Architect Barbie is a radical role model.

Architect Barbie critics see her less as a doll for five year old girls and more as a representative of women in architecture – and one they argue over: from exposés of the reality for women in the profession to denunciations of whining feminists; from detailed critique of her clothes as misrepresenting architects to critique of the unsustainability of the Dream House competition winner (particularly given the high level of Barbie's consumerism); from statements that women can't be architects to her adoption as a mascot in the building industry.

The Problem of Women in Architecture

The flurry of comments raised about Architect Barbie, particularly by the profession, is partly an indication of just how 'non-normal' women in architecture are. The problem is not attracting women to architecture, as Mattel and the AIA state. Women have been 40-50% of the graduating cohort from schools of architecture for decades. As *The Guardian* newspaper architectural commentator Jonathan Glancey observed 'pop stars [Justin Bieber], actors [Brad Pitt] and even toys [Barbie] seem so very keen to be architects.'[56] These ambitions, he argues, represent 'the enduring dream of the architect as a kind of glamorous, intellectual, artistic star... the image of the architect as hero and artist is clearly both enduring and marketable.'[57]

The problem is *keeping* women in architecture.[58] They are currently approximately 21% of registered architects in Australia[59] and 17% in New Zealand.[60] These are figures far lower that what might be projected from the graduation rates. It is also lower than the proportion of women in law (46%) and medicine (36%);[61] professions that like architecture saw increased numbers of women studying beginning in the 1970s. Dolls have always been used as part of fantasy play and there are multiple stories that could be fabricated and fantasised for Architect Barbie's career. But if they were to replicate what seems to happen to real women, in the majority of the stories Architect Barbie would leave architecture. If she were to represent the current norm for women architects, then she would demonstrate women disappearing from the profession, often feeling pushed out rather than choosing to go.[62]

What Architect Barbie does as she is, is reveal architectural identity stereotypes; stereotypes that attempt to control the body of woman in architecture. As British equal opportunities professor Barbara Bagilhole notes, women's gender identity can put them into conflict with the symbolism or discourse of the occupation.[63] Stratigakos argues that combining 'a hard hat with a dress – symbols of building and femininity – channels the spirit of girl power, flaunting that which has been prohibited.'[64] Such a statement draws on her historical research into women in the building trades who were banned from sites because they wore dresses, but who were also forbidden to wear pants – thus excluding them completely.[65]

The Identity of Architect Barbie

A challenge to Mattel's Architect Barbie identity as signalled by clothing was raised by *The Architects Journal* in the UK. The editors disagreed with the AIA that a toy plastic doll could in any way be a 'viable role model' and in the January 12, 2012 issue published the work of 'more than 60 non-plastic practising architects… to present successful female architects for women considering architecture and show that the glass ceiling can be broken.'[66] On the cover is a 'renovated' Architect Barbie. She is dressed in black leather, and carries a white hard-hat and blue drawing roll, the blue of which matches the colour of her eyes. The shawl/collar of the outfit is a Mobius strip, an acknowledgement of architecture's current fascination with unusual forms. The only pink is on Barbie's lips.

In contrast to the Mattel outfit, the *AJ*'s Architect Barbie portrays a more interesting and 'appropriate' architectural identity – or at least how the profession would like to see itself. The colour (black), the material and its emphasis on form signal creativity, important to the conception of an architect as noted by Glancey.[67] The form emphasised, however, is

not that of the female body, as the clothing of the *AJ* Architect Barbie erases some of the specificity of her body: the outfit has no defined waist and the collar/shawl obscures that prominent bust line. The costume might be described as disciplining or regulating the female body.

This is not especially unusual as most professions have their requirements of appropriate clothing. As Bagilhole notes: 'to succeed in organisations people may have to conform to a model of success, which often includes accepting the 'uniform' of the occupation.'[68] For women that usually means adopting and appropriating masculine forms of dress, downplaying the difference marked by their body. However, it is not just a matter of complete adoption. American law professor Joan Williams argues that 'successful women typically mix masculinity with feminine 'softeners'.'[69] For women to perform conventional masculinity without the 'softeners' triggers social sanctions,[70] these 'socio-emotional 'softeners' assuage resistance and increase their influence in the group'.[71] Williams points out that a commonplace strategy is for career women to wear high heels, as this signals femininity without deferential behaviours that would undercut their authority.[72]

Barbie is a doll from the 1950s, a period of high gender differentiation. She enters the 21st century into an era of less gender differentiation. Or perhaps it is more accurate to say Barbie enters a more complex gendered world, with less rigid notions of masculine and feminine, where gender studies talk of masculinities and femininities and try to unpack the cultural ideologies of gender stereotypes conflated with biology. It is also a world where identity is more flexible as Lane noted.

Confusing and confounding the standard analyses of gender are what Alvesson describes as the presence of local constructions of gender set up by the particularities of a profession and workplace.[73] In his analysis of a Swedish advertising agency, Alvesson argues that the specificities of the advertising world lead to unsettling or compromised identity issues, particularly for men. It is an industry that values creativity, intuition, and non-bureaucratic organisation, and client relations are often subservient; none of which are hallmarks of traditional 'masculinity' and are often in fact read as 'feminine'. As a consequence, in this workplace 'masculinities and femininities do not form simple patterns of domination and subordination, but interact in more complex ways.'[74] Architecture has some similarities.

In addition, Alvesson argues, gender 'is typically embedded in other sources and constructions of identity, such as age, ethnicity, organisation, occupation,'[75] class and

sexuality, which add further complexity. He cautions that simple alignment of men/masculinity and women/femininity potentially reinstates traditional dichotomies and makes transgression difficult. Considering that social change has meant considerable 'convergence, divergence and complex interactions between various masculinities and femininities,'[76] unlinking bodies/biology from notions of masculine and feminine gives the most potential for Butler's ideas of 'the critical promise of fantasy… to challenge the contingent limits of what will and will not be called reality.'[77]

The Fantasy of Architect Barbie

Butler maintains that 'when the unreal lays claims to reality... the norms can become rattled, display their instability, and become open to resignification.'[78] This rattling is the ambition of Stratigakos and the AIA, and Architect Barbie has definite unreal qualities. But Mattel's Architect Barbie whilst challenging some stereotypes of what an architect might look like does so in such a way that she can be dismissed by the architectural profession. The *AJ*'s Architect Barbie presents an image more acceptable to the profession but it is the image of a woman disciplined by the peculiar operation of both architecture and the need for any career woman to exhibit a balance of traditional notions of what is masculine and feminine. The ability of either to act as role models or agents for change is limited. Being super-femme is not a radical role model. For women in the profession both versions of Architect Barbie can do little to normalise women in architecture.

That normalisation is not easy to effect as it involves shifting the underpinning ideas and images within architecture as well as identity issues; a tall order for 'just a toy'. Stratigakos was always clear that Architect Barbie cannot carry all the weight of shifting, deeply held attitudes about women in architecture[79] on her slim plastic shoulders. However, her ability to carry any of that weight is limited. She challenges part of the stereotype but only by invoking another stereotype re-embedding highly distinct versions of masculinity and femininity. The 'limits of reality'[80] are re-established.

She might be a very small (pink) step in the endless negotiation of what it means to carry bodies marked as biologically different in a world where social constructions of what those marks mean are slippery and in constant flux. But to posit possibilities for gender beyond the norm in architecture would involve deeper investigation of how architecture constructs what Alvesson calls localised gender constructions.

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Architectures of the Impossible Gaze: The Spatio-temporal Archaeologies of the New Acropolis Museum and the Jorvik Viking Centre

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Abstract

Archaeology increasingly disrupts cities. Taller buildings require deeper foundations. Commitment by city authorities to comprehensive transport systems often results in excavation for such underground infrastructure. This paper looks at how, several decades apart, two cities have used architecture to represent below ground archaeology: Jorvik, York (1984, 2001, 2010) and the New Acropolis Museum, Athens (NAM) (2009). The paper is specifically interested in how interior architecture mediates time and space. It uses these examples, where representations of in situ *archaeology abut the present-day museums, to test interior architecture's capacity to represent time and space. Such an exercise is neither apolitical nor ahistorical but dangerously utopian, and will make specific reference to Žižek's 'Thinking Backwards' in his* Living in the End Times *(2010).*

Introduction

Slavoj Žižek, in *Living in the End Times*, identifies the 'disembodied gaze observing our own absence ... [as] fantasy at its purest.'[1] He proposes examining the subjective position of the disembodied gaze as a structure 'at the very heart of utopia,' rather than the content of utopia.[2] This 'fantasmatic narrative always involves an *impossible gaze*, the gaze by means of which the subject is already present at the scene of its own absence.'[3] Žižek's argument is both spatial and a critique of historical nostalgia. Its contorted structure posits the viewer as identifying with the perspective of the self they impossibly watch, producing the 'paradoxical implication ... [that they disappear] from the field of vision.'[4] Utopia is the mechanism, which endows both the viewed self as oblivious to this surveillance, and the obliterated viewer as jealous because they are excluded and de-realized from the imagined perfect world. This is exemplified, for Žižek, by animal documentaries 'in which everyone spontaneously knows his or her role,' and where animals 'are able to 'have sex ahistorically'.'[5] He asserts that holding on to 'the topos of an alternate reality' avoids the 'utopian reduction of the subject to the impossible gaze witnessing an alternate reality from which it is absent.'[6] The 'What If' history enables a

rendering of such an alternate reality: the idea that reality is 'one possible ... outcome of an 'open' situation ... that other possible outcomes are not simply cancelled but continue to haunts us as spectres of what might have been, conferring on our 'true' reality the status of extreme fragility and contingency.'[7]

The New Acropolis Museum (NAM) (Athens, 2009) and Jorvik Viking Centre (York, 1984, 2001, 2010) both exhibit the past as interfaced with the present, through spatial and temporal mechanisms of disembodied gazing, and through vertical departures (one upward, the other down), where passage through time is made analogous to spatial progression. Critical to the constructed interface between past and present is how the museums negotiate the insertion and disembodiment of visitors into and out of the fabricated and alternate past. Žižek's suggestion, that the notion of the impossible gaze entertains 'the topos of an alternate reality,' stipulates the theoretical mechanism by which interior architecture persuades a fabulation, which is desired to be, or to make fragile historical reality.[8]

The NAM has always had at its basis the desire for the return of the Elgin Marbles from the British Museum to Athenian soil. At Jorvik, archaeology has rewritten the historical significance of the city. Addyman (founder of the York Archaeological Trust) is now able to describe Viking York as 'one of the largest European cities of its day,' with Kemp proposing it as ''the Hong Kong or the New York of the period!''[9] Additionally the Jorvik excavation and exhibition literature propose a more domestic rendering of the stereotypical Viking, rectifying 'the Viking image, horned helmets and all.'[10] At both sites visitors are asked to return to a previous time and entertain the possibility of an alternative to that historically understood: What if Elgin hadn't taken the Parthenon marbles? What if the Jorvik excavation hadn't taken place?

New Acropolis Museum, Athens (NAM)

The NAM, designed by Bernard Tschumi Architects with Michael Photiadis and opened on the 20 June 2009, sits on a dense archaeological site in a densely archaeological city.[11] Melina Merkouri's campaign for the repatriation of the Parthenon Marbles provided the political impetus for the NAM, associating it also with other infrastructure projects supporting the narrative of Athen's great Hellenic past.[12] Its brief was to be an architecture which proposed the undoing of history, the return of the Eglin Marbles to their original site - or at least *as* close to it as preservationists would allow. From the exterior, the intimate relationship of architecture with the archaeological site is apparent, as the giant columns, which pin the museum to the *in situ* archaeological features of ancient

'houses, baths, shops, workshops, roadways and alleyways' below, are made explicit in a cut in the entrance forecourt, creating a mezzanine gallery.[13] Additionally, structural glass (frenetically black dotted), and metal grills interrupt the pedestrian path into the museum, allowing one to walk on and see evidence of the past beneath. Architecture and archaeology work to bring, to the closest proximity, disparate historical times.

Reflections

Beyond the entrance paraphernalia (security screening, ticket counters, information leaflets), a lobby space, caught between the adjacent Slopes Gallery and the Archaic Gallery above, vertically confines the archaeological site inside. Space leaks across the past and present up through the building, as the interior architectural schema traces, in various degrees of transparency and translucency, an echo of the ancient path to the Acropolis.[14] This displaced trace of ancient passage coincides with the path of tourist circulation. The adjacency of the museum to the Acropolis means that the visitors to one site are frequently visitors to both. In the NAM they mimic the climb to the Parthenon, reinscribing the desire for retrieving an historical moment prior to the departure of the Elgin Marbles, and, consequently, the historical fabulation which might allow this to happen. The museum's contents and internal view shafts locate the visitor as always floating above and in a physically and politically fragile artefactual environment; ethereal and visually detached. The ease of apparent detachment makes possible connections to other spatial or temporal, or imaginary contexts. Glass, polished floors and the glare of outside light displace the idea of transparency as related to seeing, as a certain blindness alternates with moments of revelation.[15] Windows at this level cherish monofunctionality, admitting light over view. The Slopes Gallery (officially 'The Gallery of the Slopes of the Acropolis') turns the visitor left. It is 'an imposing space, brilliantly conceived - a broad, inclined ramp, evoking ascent of the Acropolis, devoted to finds from its slopes.'[16]

On the ramp, reflections of the glass floor above insinuate themselves into the glass floor suspending us over the Roman and early Byzantium archaeology.[17] Visual confusion though denies a simple notion of alternative realities, instead the occupant of one space and time is inflected into the other. In this way the museum presents a way of projecting people into another temporal realm, into an historical space where a disembodied imaging of potential occupation occurs. Reflection conflates what's above and what is below, compressing architecture and archaeology into this thin, transparent layer, as the contemporary gallery and its occupants are unable to be detached from the city's past cast physically below. The glass, as visually transparent mediator, brings or perhaps forces these seemingly counter architectures and histories together.[18] It is a boundary,

which joins and constructs an ever-changing, but perennially present, reconstitution of temporal and spatial connection. Knowing that they were not present in the archaeological past, museum visitors are instead visually insinuated into the past, watching their presence in a scene in which they were knowingly absent. A disembodied slippage, where the restrained past becomes ideally inhabited, enables the mechanism of utopia to infect the content of a past which never existed, but which now might. Such conditional existences comprehensively and fleetingly permeate the narrative logic of the museum.

'Tasteful' monochromy

The slope becomes stepped, transiting into the 'creamy white Helicon marble flooring' of the Archaic Gallery.[19] Again the architecture of the new building actively engages with the archaeological site. Rather than *in situ* features, this nine metre high gallery amplifies the verticality of the ancient statuary, removed archaeological artefacts.[20] These elevated, life-size sculptures stretch the space assisted by the unadorned, schematic columnary; a rare occasion when platform heels are actually needed. Strident columns and elegant statues articulate the geometric cacophony of social promenade, inducing walking, pacing, and talking. Is this aestheticised beauty of frozen action (the sculptural pose) where the temporal disparity between ancients and moderns dissipates? Perhaps Jeffrey Kipnis' description of the modern as 'a desire to collapse the time of impact of a work to the immediate' is distilled in this portrait of the about-to-happen, which pulls the ancient artefacts immediately into place.[21] There is an acute awareness of the spatiality of moving figures, of which you are both apart of, and consciously witnessing their arrested movement. Again the visitor occupies the twin existences of the present and the past, of being and disembodiment. The perfection of Ancient Greece behaves 'as if we are not part of the reality we observe,' a critical characteristic, for Žižek, of the utopian fantasy.[22] This spatial isolation, despite co-occupation of space, amplifies temporal disjunctions, and the potential for more than one past to co-exist with, or produce a present.

Exemplar & Support

The crowning glory of the building is the Parthenon Gallery on the third floor.[23] This is the political, aesthetic and cultural climax 'designed to house the Parthenon sculptures and intriguingly, echoes the temple's own orientation.'[24] The entrance to the gallery, which occupies the periphery of this floor level, is via the building's core and a looped video, alternating in Greek and English, which recounts the museum's contextual narrative, concluding that the museum is the appropriate housing for the Elgin Marbles.[25] In this inner core to the third floor, the floor is again visually cut, accessing the ancient civic

substance the building stands in. Beyond this core, an abstract frame, erected to rehouse the Parthenon marbles, sandwiches the resident sculptures 'between gray concrete and stainless steel, in a squat space.'[26] This constructed echo of the Parthenon projects a future time, in the way that the Archaic Gallery extends a past one. The abstract armature, geometrically replaying the proportions and dimensions of the Parthenon, adjudicates the ethics of presence and loss. As Lending observes: 'Loss is accentuated by empty spaces and reproductions that make the absent pieces as spectacularly present as those actually displayed. Thus, the display holds the intriguing duality of being both a tomb and a vacancy nuturing the expectation of a return of the removed objects.'[27] This explicit rendering of loss as both the potential future and the result of history asserts the fabulation and the current situation as both fated by history. It constructs alternate interfaces for pasts, presents and futures. Fabulations contest each other unrestrained to one temporal condition faced with the image of the Partheon as view, and the fractured image of it as composite lost and collected fragments. The proximate framing of the Acropolis assists the nationalistic aspirations in the way that before and after comparsions conventionally demonstrate remediation.

The Parthenon Gallery amplifies the building's narrative role, manipulating the view, and the Attica light, which, it is argued, recoups the environmental conditions that the sculptures were originally designed for.[28] Light is hence cast as historic and as situating an authentic context, enabling *the* truthful representation of the Elgin Marbles, unachievable in London. Blinds throughout the building blinker the visitor, amplifying the intended conflation of the NAM gallery and the picturesque Parthenon it strives to abstractly echo. As the gauze blinds turn the viewer north to the *raison d'être* for the museum, the windows:

> afford a partial view of the Parthenon's south flank. These wonderful transparent 'walls' should beautifully illuminate the sculptures, but during this reviewer's visits - no matter the weather or the time of day - black mesh shades have always been drawn on all sides save for the Acropolis-facing one. This counterproductive annoyance is presumably a political gesture.[29]

The gauze filters the Athenian cityscape converting this into a muted greyscale depiction, contrasting the full colour monument, in the uneven panorama. The visitor hence occupies a middle ground, perhaps the point of indecision, that Žižek suggests that Marxist history yearns for, 'before the fateful decisions were made or before the accidents occurred that generated the state which now seems normal to us.'[30] The temporal return

is here nostalgic but simultaneously reveals the provisional and unstable nature of the history, which underpins 'reality'. The armature, impatient for the Elgin Marbles, exhibits the political jealousy Žižek notes of those excluded from their fantasies. While Žižek examples 'anti-Semitic fantasies about the excessive enjoyment of the Jews ... [and the fantasising of] Christian fundamentalists ... about the weird sexual practices of gays and lesbians,' the jealousy of this Parthenon double, and its viewed better self, commits spatial operations pulling the insides of the British Museum Athensward, while rewinding time from Elgin's nineteenth-century onward.[31] The NAM hence locates these multiple Parthenons as subject to the mechanics of the impossible disembodied view, which manufactures utopian fantasies and necessitates provisional productions of history.

Jorvik Viking Centre, York[32]

While the NAM is architecture of light and translucency, Jorvik is one of seeming dirt and darkness. Both buildings are definitively vertical, but, while the NAM's verticality is one of ascent, Jorvik delves down to reach its past. Located under a Yorkshire shopping mall, Jorvik relishes its twenty-first century environment as the logical descendent of the Viking village, which previously inhabited the site.[33] Goulding might argue that the centre's commodification of history and its contribution to the notion of heritage consumer, adds a post-modern layer to earlier Nordic trading.[34] Copper Gate (the development within which Jorvik is located) derives its name from the Old Norse 'kopr-gata,' referring to the cup makers of the Viking-age street; linguistic survivors forging occupational continuity across the ages.[35]

Under

After ticket buying and admission spaces, visitors to Jorvik step downward, encountering a five metre descent through the archaeological strata signalled by lit words in historically regressive order: 'Stuart,' 'Tudor,' 'Medieval,' 'Norman,' 'Viking Age.'[36] Increasing depth becomes increasing darkness, co-opted analogies for temporal distance, supporting the metaphor of movement down through space as substitute for travel through time. Interiority is amplified through the introversions of both the underground and decreased lighting levels. The world becomes smaller and tighter.

A structural glass floor spans a large part of this lower level, lit by fibre optic cables, which cast light on to the unambiguous surface of a full-scale reconstruction the 1976-1981 archaeological dig and mitigate against reflections from above.[37] The ability of visitors to stand on the glass suspended millimetres above the reconstruction strangely positions the tourist levitating supernaturally above the recent past. This museum fabricates its *in*

situ archaeology. Interior architecture is hence called on to doubly represent the archaeological site. Grimy light, rather than the difficulties of dirt, convey a sense of earthiness; a committed and raw sepia palette popularly favoured in nostalgic renditions of the past. The insertion of the fabricated image of the 1981 dig, into its exact location, displaces the present, which becomes instead a temporal doppelgänger, demonstrating the vulnerability of the present to representations of past times and places. The matter-of-fact realism mundanely confronts the potential for the fantasmatic narrative from which Žižek plants his reconstruction of the critical role of the alternative reality in our comprehension of 'actual history.'[38] The spatial adjacency of the two historical representations (archaeological site and Viking village), the consistency of naturalism as the privileged mode of depiction, and the site as 'witness' to temporally-defined places, representationally connect Jorvik as archaeological dig to Jorvik as Viking village. Yet they also demonstrate the power of interior architecture to convince and order the historical past; how place is made volatile though time. These are both exterior sites whose 1,000 year old materiality now renders radically different interior representations; two alternative histories for the same site; two temporal locations from which to speculate 'how, at that point, history might have taken a different turn.'[39]

Framing

The reconstructed excavation is supported by a perimeter of audio visual images which provide twin historical contexts to the Viking occupation and the archaeological dig.[40] This juxtaposition of the architectures of video game arcade and the x-ray vision cutaway (provided by the glass floor) employ technologies, which are native to our time. Both are screens and portals. In many ways they further develop the spatio-temporal architectures underpinning the 'time machine' ride, which, in the earlier 2001 incarnation of Jorvik, occupied this initial space in the progression of exhibition spaces, and 'literalised' thinking backwards to an historic moment which, if replayed differently, might offer a preferential present.[41] This ride required visitors to stand in a 'time machine' (complete with manufactured turbulence) for three minutes watching an instrument panel displaying changing images of a man and a woman, as the clothes and architecture of each descending era relocate the couple in time, with the time machine finally halting, 1,000 years into the past, due to a malfunction.[42] The dark interior invested heavily in this notional instrument portal as a naturalised frame to the changing outside world.[43] The new gallery's conceptual breaching of interior linings (the floor and the walls) to punch out of twenty-first century time (and into the time and space of the fabricated excavation site and Viking village), similarly uses naturalised frames to bring a more comprehensively depicted and academic underpinning to the gallery as re-construed 'time-machine,' its

irregular plan and periphery of screens, effects an awkward and darkly lit space-ship interior. Frames provide an architectural mechanism to allow representations of contrary time periods to meet where one time is figured interior to the other. Yet these mechanisms of deploying distance (intimate or far away) appear to ensure personal detachment; the de-realization which, for Žižek, 'characterizes utopian fantasies.'[44]

Temporal tourism is explicit in the ride through the mock Viking village, which has been a consistent, though updated, feature of the tourist attraction. Here a full-scale image of another time confronts the twenty-first century visitor. Insistently archaeologically correct, the recreated village naturalistically represents a three dimensional Viking York, somewhat flattened by the two-dimensional inclinations of the linear progression of amusement rides.[45] The 'time capsule' cars in which visitors travel through the tenth-century village imply a narrative (time travel) which explains how these two disparate times intercept each together, and enables visiting the past without leaving the apparatus of the present. Vehicular, rather than architectural, interiors provide this mechanism of counter-temporal representation, as the vehicle, which carries us into this historical reconstruction also becomes the means by which a temporal interface is effected. The cars operate as 'a sign we are seeing not the world, but a depiction of the world,' and as vehicles for utopian assertions of the disembodied gaze.[46] Pound claims the frame as signal of depiction in relation to painting, explaining how the mechanism of framing 'prevents us [from] mistaking a painting for nature.'[47] The frame hence prevents spatial confusion and enables the story of time travel attain some spatial credibility, while we watch a scene presented as a fantasy.[48]

Naturalistic Space: Abstract Time

Clamped securely into 'time capsule' cars, visitors experience a carefully-timed and uniform representation, curated with the mass-produced consistency of a scripted tour bus, including the pre-recorded commentary available in English, French, German, Spanish and Japanese.[49] Pictorial naturalism is deployed in order to effect realism, to 'bring archaeology to life,' and to enable the suspension of disbelief needed for temporal tourism to be indulged in; to quash inklings for fabulation.[50] The suspended metal vehicles, as chronologically foreign technologies, effect the temporal disjunction confirming the narrative of time travel. Naturalism presents an image of authenticity, an architecture of imitation, which extends uninterrupted to aspects which test archaeological accuracy and site-specificity, but it is always maintained as an image.[51]

The representation of the village emphasises the occupational interrupted by stereotyped village life (the gossiping lady, the naughty child, the arguing couple, dogs fighting) as if to insist a social and human continuity between Viking lifestyle and culture and us; a narrative technique deployed to generate audience identification.[52] Yet there is no expectation that the Jorvik visitor will mistake the village for their reality. The village is like-life not life, and, in the way the Bhabha reminds us that 'to be Anglicized is *emphatically* not to be English,' its life-likenesses introduce doubt, and hence fragility, into historical production.[53] The ambitions of naturalism and the vitally imitative (the forensic reconstruction from Viking skulls of the face of animatronic figures, the recreated oak and wattle and daub houses, and the decorated antler combs) only serve to reinforce the staged condition of the village imagery.[54] The multiple forms of framing, the 'time capsule' cars, the recorded commentary interpreting the scene, the inflicted confinement and passivity of the visitor, all work to distance and make discrete the geospatial realities of the time represented. The contrast with the NAM Archaic Gallery is striking. In the NAM's unabashed abstraction one sensed a feeling of another time and place.

Jorvik's selective naturalism emphasises the visual and the olfactorial in its underground construction of an exterior site.[55] The museum's representation of time, in contrast to the largely naturalistic representation of place, is inconsistently abstract. Time is 'frozen' to ensure that the recreated moment (5.30pm 25th October 975 CE) can be reliably revisited, if not experienced. Advertised as recreating a single minute, the village tour actually takes 12 minutes, extenuating time along the route through the mock village, and countering the 2001 time-machine's compression of a thousand years into three minutes. The introduction of animatronic figures also challenges the consistency of the proposition that this is a representation of a single moment in time. Moving in real-time, the animatronic figures (who talk, turn wood, build a house, excrete etc.) cut through the abstract ambitions of the frozen minute and the tourists' experience of its extenuated duration.[56] Time is: frozen, naturalised and slowed, traversing a range of temporal scales. Žižek does not explicitly comment on the potential of contrary temporal scales for thinking backwards or reclaiming 'that point ... [when] history might have taken a different turn.'[57] Yet implicit to his argument is the conceptual manipulation of time, which points to its representational capacity. The representation of time at the NAM wrestles with a notional timelessness, which adheres easily to Greek classicisms, and the explicit narrative of historical time as in need of political repair with the return of the Elgin Marbles. Duration is experiential and individually determined, yet both museums rely on articulating a specific journey through, or to, a specific place.

Conclusion

Žižek, in his claim that ‘‘The world without us’ is ... fantasy at its purest,’ locates history and hence heritage museums as fantastic, as sites of fabulations.[58] Critical to this construction are the complementary notions of the impossible gaze and an alternate reality. Archaeology, as evidence of past human habitation, demonstrates historic space where the twenty-first century viewer was absent but now, at sites such as the NAM and Jorvik, can begin to imagine an architectural life different to the one they inhabit. Interior architecture is a complex representational medium. Designing the past and the present insists on the representations of presence and loss. The NAM, founded by a narrative of loss, explicitly represents loss as a political challenge, a wero.[59] Jorvik is less comfortable with explicit gaps in historical knowledge, apparent in its attempt to recreate the illusion of a physically- and archaeologically-seamless site. Instead its aim to recreate a comprehensive past, to demonstrate the significance and effectiveness of archaeological knowledge, minimises space for ambiguity and doubt, and aims suppression of historical provisionisms.

Yet this ephemeral and uncontrollable space of lack is perhaps also the space in which the visitor might insert themselves into the past. Jorvik, with its rigorous framing and disciplined actioning of history, largely denies audience agency. In the context of developer-driven archaeology, Jorvik becomes a moral lesson; the 1981 dig a turning point to avoid alternate realities of archaeological destruction and the retrievable loss of history to imagination, where Vikings inaccurately roam clad in horned helmets and blood-thirst lust. This is not to argue that the NAM is not a contrived, controlling interior architecture, but that its more abstract engagement with the archaeological past, although as political as that of Jorvik, appears to allow for more complex spatio-temporal architectural play, and representational sociability.

Endnotes

[1] Slavoj Žižek, *Living in the End Times* (London; New York: Verso, 2010) 80.
[2] Žižek *Living in the End Times* 80, 84.
[3] Žižek *Living in the End Times* 84.
[4] Žižek *Living in the End Times* 84.
[5] Žižek *Living in the End Times* 81-83.
[6] Žižek *Living in the End Times* 84.
[7] Žižek *Living in the End Times* 86.
[8] Žižek *Living in the End Times* 84.
[9] Peter Addyman, 'Jorvik: rebirth of a city' *History Today* 34 (May 1984) 43. Kemp quoted, Nicholas James, 'Presenting history: development and failure in York' *Antiquity* 74, 286 (December 2000) 744.

[10] James, 'Presenting history', 744; Also *Jorvik Viking Centre Guidebook* (Coppergate, York: JORVIK Viking Centre, 2011), 6.
[11] This is a specific site rather than a general comment regarding Athens rich below ground archaeology. As Cohen notes: "Decades ago, in the area earmarked for the museum, an ancient urban site, ranging from before the fifth century B.C.E. to the Byzantine period in the ninth century C.E., was discovered." Beth Cohen, 'Museum Review: Deconstructing the Acropolis' *American Journal of Archaeology* 114, 4 (October 2010), 745.
[12] Kalliopi Fouseki, 'Conflicting Discourses on the Construction of the New Acropolis Museum: Past and Present' *European Review of History* 13, 4 (December 2006), 536-537.
[13] Miriam Caskey, 'Perceptions of the New Acropolis Museum' *American Journal of Archaeology* 115, 3 (July 2011), 2.
[14] Caskey 'Perceptions of the New Acropolis Museum' 2.
[15] Cohen elaborates this relationship to light more precisely: "Despite the museum's vaunted natural lighting, here and elsewhere, viable viewing conditions exist only when artificial lights are turned on, which rarely happens during daylight hours." Cohen, 'Museum Review', 747.
[16] Cohen, 'Museum Review', 745.
[17] The windows do not exclusively provide access to the archaeological site. As Cohen notes there is "an artificial "excavation window" in the floor displaying in gravel the *engainon* (sacrifice of pottery and burnt offering) from a house of the third century B.C.E. preserved beneath the museum. Other transparent panels in the ramp's glass floor provide dizzying views of the actual archaeological site, which will eventually open to the public." Cohen, 'Museum Review', 745.
[18] Christine McCarthy, 'Glazing over the Past: Thoughts on Interior Archaeology' *Interiors:Design, Architecture and Culture* 2, 2 (July 2011), 173-175.
[19] Cohen, 'Museum Review', 747.
[20] Cohen, 'Museum Review', 747. Rask describes this arrangement as a "veritable forest." Katie Rask, 'The New Acropolis Museum: Where the Visual Feast Trumps Education' *Near Eastern Archaeology* 73, 1 (March 2010) 57.
[21] Jeffrey Kipnis, 'The Cunning of Cosmetics', in A. Krista Sykes (ed.), *Constructing a New Agenda: Architectural Theory 1993-2009* (New York: Princeton Architectural Press, 2010) 160.
[22] Žižek, *Living in the End Times,* 82.
[23] A restaurant and viewing deck occupy the second floor.
[24] Cohen, 'Museum Review', 745.
[25] Cohen notes the different emphases distinguishing Greek and English narratives. "The English soundtrack says that Lord Elgin, "taking advantage of the situation at the time, proceeded to violently remove and carry off much of the temple's sculpture." In the other [Greek] version, the verb employed is "steal."" Cohen, 'Museum Review', 750.
[26] Cohen, 'Museum Review', 751.
[27] Mari Lending, 'Negotiating absence: Bernard Tschumi's new Acropolis Museum in Athens' *Journal of architecture* 14, 5 (October 2009), 572-573.
[28] Plantzos quotes Tschumi: "the light of Attica is different from the light anywhere else in the world ... Only under this light may one view the Marbles properly. Indeed ... one sees the Marbles differently, as one would if they were still intact on the Parthenon." Dimitris Plantzos, 'Behold the raking geison: the new Acropolis museum and its context-free archaeologies' *Antiquity* 85, 328 (June 2011) 619. Also Fouseki, 'Conflicting Discourses', 538.
[29] Cohen, 'Museum Review", 752; Also pp. 747-748, 752. Plantzos describes the arrangement of blinds and drapes as "sensibly placed ... to obscure the view to the surrounding *polykatoikies*, commanding our gaze north, towards the newly restored Parthenon." Plantzos 'Behold the raking geison', 622.
[30] Žižek, *Living in the End Times,* 87-88.
[31] Žižek, *Living in the End Times,* 81.
[32] This discussion primarily draws on a visit to Jorvik (pronounced Your-vick) in October 2011, but is conscious that the current iteration of Jorvik is its third, the first having opening in 1984 (which depicted October 948CE), the second opening in 2001 (which depicted 5.30pm, 25th October 975CE), the third opening in 2010 (also depicting 5.30pm, 25th October 975CE). (James, 'Presenting history', 744; "Jorvik in 1984: Time has stopped ... History is frozen ... This is Jorvik" http://www.jorvik-viking-centre.co.uk/about-jorvik/14-/ (*Jorvik Viking Centre,* accessed 02 March 2012); Addyman, 'Jorvik', 45; John P. Aggleton & Louise Waskett, 'The ability of odours to serve as state-dependent cues for real-world memories: Can Viking smells aid the recall of Viking experiences?', *British Journal of Psychology* 90, 1 (February 1999), 2; "Jorvik in 2001: Look back

to AD 975 & uncover life in Jorvik", http://www.jorvik-viking-centre.co.uk/about-jorvik/15-/ (*Jorvik Viking Centre*, accessed 02 March 2012); "The JORVIK story" (https://www.youtube.com/watch?v=yBvRyfULMWo, 22 July 2009).

[33] Addyman, 'Jorvik', 44, 45.

[34] Christina Goulding, 'The commodification of the past, postmodern pastiche, and the search for authentic experiences at contemporary heritage attractions', *European Journal of Marketing,* 43, 7 (2000), 837.

[35] *Jorvik, Viking Centre Guidebook,* 24.

[36] 'Jorvik', *Visit York,* http://www.visityork.org/media/factsheets/jorvik.aspx (accessed 02 March 2012). A previous development of Jorvik used the excavated locations of the built environment to indicate depth as temporal: "Modern concrete," "Cobbled yard AD1700," "House wall AD 1300," "Cellar AD 1900,""Viking Age House AD 974" 'Jorvik Viking Centre' (6 September 2007) https://www.youtube.com/watch?v=zMzYj0PsKWs.

[37] This new (2010) glass floor was instituted to better accommodate the history of Jorvik as archaeological site: ""We've reconstructed part of the Coppergate dig and we're putting glass over it so you'll be able to walk across it. Under your feet you'll see how we did the excavation and what we found. So with this revamp, we've re-addressed the storyline of JORVIK and taken it back to the beginning."" Sarah Maltby quoted, Tony Greenway, 'Moving with the times at top visitor attraction', *This is Hull and East Riding* (15 March 2010) http://www.thisishullandeastriding.co.uk/Moving-times-visitor-attraction/story-11971010-detail/story.html. 'Projects: Jorvik' *RMA Themed Attractions* (2011) http://www.rma-themedattractions.co.uk/jorvik. Addyman 'Jorvik' 44; 'Projects: Jorvik' unpaginated.

[38] Žižek, *Living in the End Times,* 88.

[39] Žižek, *Living in the End Times,* 88.

[40] 'Jorvik, Viking Centre, York' (14 March 2010) https://www.youtube.com/watch?v=33i2g8nG7ww. "The processes of archaeological investigations - excavation, finds, recovery, photography, drawing are everywhere seen to be in progress, and the visitor is able not only to recognise what is left of the Coppergate alley after a thousand years, but to see how the archaeologist uncovers and records it." Addyman 'Jorvik' 45

[41] Žižek, *Living in the End Times,* 88.

[42] Larry Phillips, 'Jorvik Viking Centre's last Time Machine Ride' (15 March 2010) https://www.youtube.com/watch?v=PRu87id_8aY.

[43] Pound describes the frame as a sign of "depictivity" (Francis Pound, *Frames on the Land: Early Landscape Painting in New Zealand* (Auckland; Sydney; London: Collins, 1983) 13). Naturalised (even crudely) by the conceit of an time-machine instrument panel, the images are more easily able to be proposed as "reality."

[44] Žižek, *Living in the End Times,* 82.

[45] Addyman, 'Jorvik', 44, 45. Yet we know that the archaeologically correct is not the only influence in the design and construction of the exhibition spaces. A significant driver for representation is the need to maintain and increase visitor numbers to ensure the self-sufficiency of the York Trust's archaeological work.

[46] Pound *Frames on the Land* 13.

[47] Pound *Frames on the Land* 13.

[48] Žižek *Living in the End Times* 82.

[49] This description is based on a visit to Jorvik on October 2011. Earlier versions of Jorvik used different vehicles: "a silent battery-driven automatic car" (1984) (Addyman 'Jorvik' 45); "Capsules" allowing 50% more exhibition space (James 'Presenting history' 744). Aggleton & Waskett 'The ability of odours' 2; 'Jorvik' unpaginated.

[50] 'The JORVIK story' unpaginated

[51] The riverfront included in the 1984 depiction, for example, which is "the one element not excavated on the Coppergate site - has been included, using evidence from recent excavations at the tenth-century London waterfront." Addyman 'Jorvik' 45.

[52] "[P]eopled with 20 figures engaged in a variety of activities including leather working, bone, antler, wood and metal working, buying and selling, spinning, waeving and dyeing, cooking, chatting and playing, as cargoes of herring, skins and furs are being offloaded from ship to warehouse and sailors and fishers nearby mend the nets." Addyman 'Jorvik' 45. *Jorvik Viking Centre Guidebook*. 20-21.

[53] Homi K. Bhabha, *The Location of Culture* (London; New York: Routledge,1998 [1994]), 87.

[54] *Jorvik Viking Centre Guidebook* 27-29.

[55] A rare exception is when the "time capsule" cars pass through a sectioned house as the museum strives to accommodate the suspended, capsule-bound sedentary armchair traveller, the cut building, as twenty-first century pragmatic solution, renders the abstract intervention invisible.
[56] Greenaway 'Moving with the times' unpaginated. *Jorvik Viking Centre Guidebook,* 30, 31, 33.
[57] Žižek, *Living in the End of Times,* 88.
[58] Žižek, *Living in the End of Times,* 80.
[59] Wero is the term used on the marae when the tangata whenua (hosts) challenge the manuhiri (guests) in order to test the intentions of the visitors.

At the origins of Postmodernism: Paolo Portoghesi's studies on Baroque architecture

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Abstract

*Paolo Portoghesi begins writing his articles on baroque architecture when he is still a student in Rome. In 1956 he publishes his first book on Guarino Guarini and his attention is already focused on Francesco Borromini's work. Meanwhile, other intellectuals are also concentrating their attention on Baroque, such as Sigfried Giedion, Rudolf Wittkower and Giulio Carlo Argan. Their contributions appear to Portoghesi as confirmations of his own intuition that the modern architecture could be read through the investigation of baroque architecture, a study that would produce useful instruments for developing contemporary 'architectural composition'. The intentions which animate Portoghesi's approach to the Baroque as a fertile ground for his activities, both as historian and as architect, are revealed in his book '*Borromini nella cultura europea' *(1964). There he writes that 'before being an occasion of historical and philological analysis, the knowledge of Borromini's work is an instrument of autocriticism for the modern culture [...] Borromini's controversy puts in crisis the basis of the linguistic conventions restored by the Renaissance, sweeping away, in its most intense moments, its hesitations and inhibitions'. Driven by the anticlassicist passion inherited from Bruno Zevi, Portoghesi's attention is caught by Borromini's skills in breaking the theoretical and design rules fixed by renaissance architecture. From Casa Baldi (1959-61), through the Islamic Cultural Center (1974-95), both in Rome, to Via Novissima at Biennale di Venezia (1980), the lesson of Baroque has had meaningful reverberations on Portoghesi's architecture, particularly concerning themes of the 'curve', the 'angle' and the 'façade'. This paper seeks to rebuild the intellectual entourage in which Portoghesi led his studies on baroque architecture, to describe the influence of Borromini's work on his own architecture and to investigate the effects of these studies on the birth of postmodern architectural culture, to which Portoghesi made a considerable contribution.*

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'The architecture can fix the old rules
and invent new ones.'
(Guarino Guarini)

Paolo Portoghesi (born in Rome, 1931) is one of the most respected architectural historians of twentieth century Italy. His studies range from the Renaissance, including the investigation of Leonardo's technical drawings and the edition of Leon Battista Alberti's *De Re Aedificatoria*, through to Michelangelo's architecture and studies on nineteenth century Art Nouveau. Nevertheless, Portoghesi's attention was predominantly devoted to Italian baroque architecture. When he enrolled at the Faculty of Architecture in Rome, Portoghesi was aware of two arguments that could guide his training: one, that baroque architecture anticipated the theme of freedom from tradition and the other, on the contrary, that modern architecture took root in classicism. Portoghesi, who was formed in the wake of Bruno Zevi's anticlassicism, opted for the recovery of the inheritance of the Baroque.

In the 1950s a disciplinary discussion devoted to the critical revision of the architectural heritage of seventeenth century was initiated by the 'third generation of historians'[1]. Sigfried Giedion's second edition of *Space Time Architecture*, Rudolf Wittkower's *Art in Italy 1600-1700* (1958) and Giulio Carlo Argan's *Borromini* (1952), *L'architettura barocca in Italia* (1957) and *L'Europa delle capitali 1600-1700* (1964) were all influential books Portoghesi had access to. He recalls the particular importance of Argan's essay on Santa Maria in Campitelli, which argued the conscious abandonment of the desire to represent absolute values through architecture. From this debate Portoghesi was able to confirm his own intuitions, producing a mature line of research. In 1957 he published his first book *Guarino Guarini 1624-1683*[2]. His analysis of Guarini's buildings proceeded by analogies and contrasts with Borromini's buildings, about which Portoghesi was writing significant articles. Although Portoghesi is recognized among the most preminent scholars of Borromini, claimed to be his 'favourite issue'[3], the importance of his studies on Guarini cannot be ignored. His Guarini publication, along with his 1972 essay on Vittone and the baroque tradition in the 18th century[4], were greatly appreciated by both Wittkower and Argan, who considered Portoghesi one of the leading experts on the Baroque in the Italian post-war context. In 1964 Portoghesi published *Borromini nella cultura europea*[5], together with *Roma Barocca* (1966), the result of twelve years of research on the tradition of baroque architecture. Significantly, in the foreword to the book Portoghesi presents himself as an 'architect' and not as a 'historian', as one might expect[6].

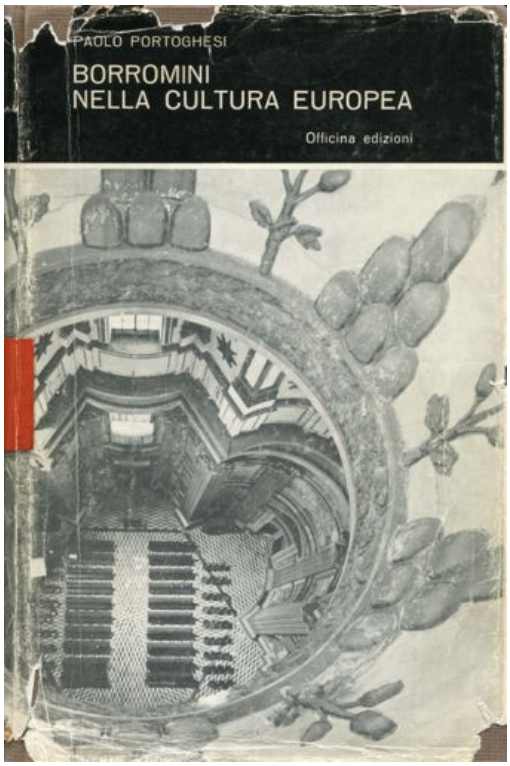

Figure 1. Paolo Portoghesi, *Borromini nella cultura europea*, (Città di Castello: Officina 1964), cover.

Portoghesi soon became one of the principal heirs of the architectural tradition of the Baroque in the twentieth century. 'Heir' and not 'custodian', for the one who guards, aspires to maintain without change the object which has come into his possession, whereas Portoghesi instrumentally returned it to contemporary architecture as a 'live matter'. Unique in his generation of historians, Portoghesi showed that the foundations of baroque architecture, subject to a process of critical review, had a surprising utility in the contemporary context. His research activity thus plays on two fronts: the theoretical assumptions obtained from historical investigations are methodically poured into the project. If the project becomes a place of checking the validity of theoretical assumptions recovered by the legacy of tradition and the moment of their overtaking, it is necessary to consider it a tool of analysis and criticism of architecture, as well as of history. Argan has observed that 'Portoghesi, as an architect, puts in his critical vision an operative interest that gives to his prose a unique character in our criticism of architecture, unique because Portoghesi has the architect's sensibility for architectural form'[7]. In respect to this method that crosses historical epochs, Portoghesi insists that his greater ambition is 'to create a bridge between writing history indirectly, designing and writing history directly, investigating the legacy of the past and in its structures'[8]. The duality of 'Portoghesi as scholar' becomes clearer if seen in the broader context of Italian architectural culture of

the fifties and sixties when the entire generation of architects sought a critical review of the themes of the Modern Movement, whose values were considered germane for a renewal of design. At that time the problem of defining the role of architectural history was pressing. 'History' and 'project' were considered synergic factors, and architects, during their training, undertook rigorous historical studies accordingly.

Disappointed by academic teaching Portoghesi took an autonomous path based on the concept of contamination, sure that each architecture is generated by other architectures 'by a not so fortuitous convergence among precedents combined together by the imagination'[9]. Baroque culture formulated a new design method that broadened the formal historical repertoire. In order to recover that lesson, Portoghesi chose Francesco Borromini as 'ideal master', particularly for his relationship with the classic legacy through the Renaissance tradition. Portoghesi observes that Borromini 'while claiming responsibility for the right to invent new things'[10], always looks for a dialectic between the new and the ancient. This was a goal pursued with the same determination by Borromini's follower Guarini, who was conscious of the need to adhere to the spirit of the age[11]. Paraphrasing Argan, Portoghesi's goal is to find those reasons that reveal ancient architecture to the modern consciousness as a problem of the contemporary culture.

The interest of Borromini and Guarini in the dialogue between 'revolution and tradition, rule and freedom'[12] indicated a way to avoid a contemplative or revival-like approach to history, considered impractical at the time in which Portoghesi was working[13]. Portoghesi is fascinated by the critical attitude – never burlesque nor subversive – that the *maestro* reveals in using the classic tradition in a new way. The innovative spirit of Borromini's work is recognized in Sant'Agnese, Piazza Navona, whose façade reproduces the structure of the circus in a minor scale; or in the façade of Propaganda Fide, where the relationship between the internal and external space is mediated by a little Doric temple.
In referring to Borromini's example, Portoghesi is keen to use the history of architecture as a 'repertoire' of solutions, neither direct 'quotations' nor formal 'mechanical transpositions'[14]. Hence Portoghesi's buildings don't suffer of *borromonismo* but are wise revisions of baroque issues, useful for the renewal of the modern language. The control of 'space', the drawing of the 'curve', the definition of the 'corner', and the problem of the 'opening', questions often darkened by modern orthodoxy, are liberated by Portoghesi and seen as design instruments that enhance his buildings. As Argan observed, in Portoghesi's view history is not soaked in politics, as for Zevi, rather it is dedicated to the investigation of form and its meanings[15].

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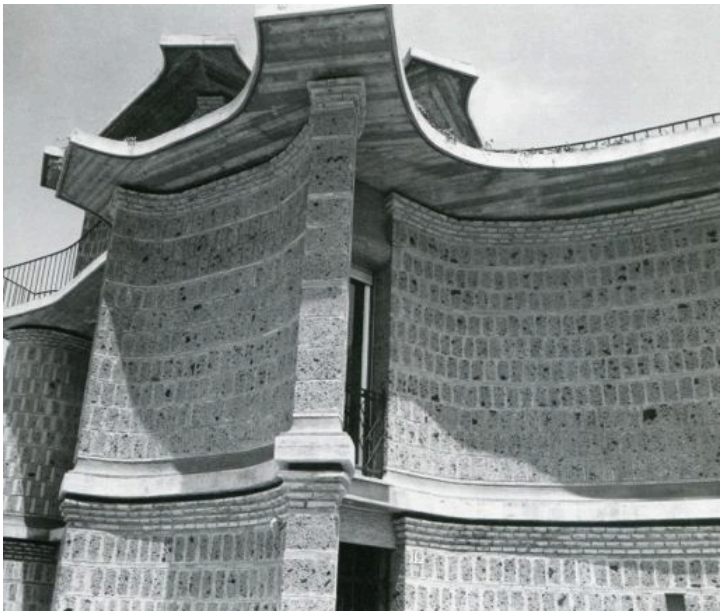

Figure 2. Paolo Portoghesi, Baldi House*,* Rome 1959-61 (from Giovanna Massobrio, Maria Ercadi, Stefania Tuzi (eds.), *Paolo Portoghesi architetto*, Milan: Skira, 2001).

Baldi House (Rome 1959-61) is the first opportunity to rebel against the modern orthodoxy. Portoghesi explains that the design process of the building has neoplastic origins and it comes from 'the transformation of the joint experimented with by Rietveld in the Schröder house [...] But Rietveld's space is geometric, the goal of my research is to create an organic, pulsating one'[16]. The stiffness of Rietveld's orthogonal scheme is overtaken by way of Borromini's example, his boldness in breaking the rules at the same time being aware of the limits of action, because 'his rebellion, his protest is 'put into verse', in a controlled and subtle form'[17]. The space of Baldi House is defined by the combination of inflected walls that absorb light. Their dialectic relationship of concave-convex forms makes the space continuous but not monotonous. The iconographic analogy between the lantern of S. Ivo alla Sapienza and the soffit edge of Baldi House[18] suggests that the cornice obtained by the alternation of concave and convex lines of S. Ivo have been elaborated as elements that joins the inflected walls and exalt their expressive power. Through the use of the curve, Portoghesi reconsidered the lesson of De Stijl in order to broad its thematic horizon. As presented in the section 'Dissolvenze incrociate' in the book edited by Francesco Moschini[19], the neoplastic models that act as precedents for the Baldi House are presented through photographic combinations that show the desire of 'contamination': Schröder house has been put close to Ronchamp Chapel by Le Corbusier and the house for Berlin exhibition by Ludwig Mies van der Rohe. As Portoghesi underlined: 'Since then up to now, the game has turned into a ritual'[20]. If Borromini's example helped to destabilize the dogmatic rules imposed by the Modern Movement, conversely Portoghesi recognizes how the achievements of this historical

phase allow the correct interpretation of Borromini's work. This led Argan to state that Portoghesi's historical method 'doesn't consist of the quite easy operation of finding Palladio in Aalto or Borromini in Wright, but in the opposite and more difficult direction of finding Aalto in Palladio and Wright in Borromini; that is to demonstrate that given Palladio and Borromini, cannot not also exist Aalto and Wright.'

In 1967, during the celebrations of the third centenary of Borromini's death, an international congress was organised at the Accademia Nazionale di San Luca in Rome. Portoghesi was invited to moderate the third round table entitled 'L'eredità di Borromini in Italia'. Nevertheless Portoghesi's overall ideas on Borromini's work[21] are presented during a polemic debate with Bruno Zevi at the end of his speech 'Attualità del Borromini'. Distancing himself from the assumptions of Zevi 'who needs to hide some emerging parts of Borromini's work in order to expose him as a subversive'[22], Portoghesi recovers some aspects of Borromini's design as instruments to make 'useful' lessons for the present. The aim is to formulate a historical interpretation of Borromini's architecture based on objective values. Avoiding 'reading Borromini as Bernini-like' (*berninizzare il Borromini*), as Zevi intends, Portoghesi thinks philological analysis and critical observations are not enough: it is necessary to enact the 'verification of the drafting table' in order to continue that interrupted research so full of premises[23]. The 'critical drawing' is the means of this verification, the middle passage between word and project[24].

This conviction permeates the exhibition *Disegni di Francesco Borromini*, edited by Portoghesi at the Accadamia di San Luca in 1967. In the premise of the catalogue, Portoghesi confesses his fascination with the analytical technique of representation that unites the drawings displayed, but also with the obsessive geometrical construction of the forms. Drawings reveal not only an exceptional 'drawing ability' but also 'a rigorous design logic'[25]. In order to understand what Portoghesi means by 'drawing ability' it's useful to look at the analytical boards included in the catalogue. The drawing of board no. 50[26], representing the section and the front of the lantern of S. Ivo alla Sapienza, is evaluated 'as one of the most fascinating accounts of the art of construction we have so far'[27]; Borromini's boldness relying on the simultaneous representation of structural development and form[28].

Beyond Borromini's surprising ability to synthesize in the drawing the idea of space, structure and the technologies of building, Portoghesi also observes the 'rigorous design logic', understood as the ultimate instrument to face problems'posed by historical tradition[29]. The design phase occurs in two different moments: the 'design genesis' and

its 'geometric verification'[30]. The 'design genesis' precedes the 'geometric verification' and is based on a revolutionary method of typological and linguistic synthesis. In order to demonstrate this thesis the example of San Carlo alle Quattro Fontane is chosen. Its crooked curve is the result of the contamination of the classical language by Gothic infiltrations, a tradition inherited by Carlo Maderno in Lombardia in the first stage of Borromini's work. The 'design genesis' (ideative phase) is followed by the 'geometric verification' (control phase), based on the scientific construction of plans and facades[31]. Portoghesi notices how verified and verifiable Borromoni's projects are, because architecture embraces geometry, understood as 'a means of extending to wider and wider fields the process of rationalization of visual knowledge'[32]. That practice allows the removal of every approximation of the form and whim of invention, tracing back each structure to a universally readable scheme. Once the scheme of San Carlo was established, Portoghesi observes that Borromini faces 'the problem of carrying the scheme out through a rigorous method able to reduce the empirical choices'[33].

The theme of the geometric principle as a moment for the project's verification is the object of the section *La geometria borrominiana. Saggio di analisi sintattica*, published in *Borromini nella cultura europea*[34]. Its position at the beginning of the book indicates the importance it holds. Through a series of analytical boards, Portoghesi points out the possible origins at the base of the architectural idea of San Carlo alle Quattro Fontane, Sant'Ivo alla Sapienza, Sant'Andrea alle Fratte and Collegio di Propaganda Fide. Their plans or details are schematically re-drawn by Portoghesi step-by-step, following the geometrical traces. These interpretative schemes are finalized to demonstrate scientifically Borromini's design principle, which comes out of the combination of regular forms. The consequence is the generation of complex schemes dominated by a curved line not generated by arbitrary choices. Argan and Wittkower were engaged in discovering the genesis of Borromini's work too, but Portoghesi studies reveal an originality of method that distinguishes them.

In the case of San Carlo, Portoghesi reconstructs the development of the scheme of the church starting with the original drawing kept at Albertina Museum and published in the very first pages of *Borromini nella cultura europea*. Differently from Argan, who indicates as precedent the Greek cross hall of the Piazza d'Oro in Villa di Adriano at Tivoli[35], Portoghesi suggests that Borromini's church comes from the scheme of Michelangelo's San Pietro. About the geometric analysis he agrees with Wittkower, when he states that the geometrical concept of the final project is a scheme of two equilateral triangles with the base in common. Portoghesi goes deeper with this explanation:

'The first phase of the layout regards the design of the oval of the dome, constructed with the rule of equilateral triangles; the vertices of two pulled up triangles are the centers of the four segments of the circle forming the oval, while the bisectors of the angles mark the horizontal axis and the stitches between the curves of different radius. Thus, the equilateral triangle, a symbol of the Trinity, is placed as a latent form, at the origin of the compositional process.'[36]

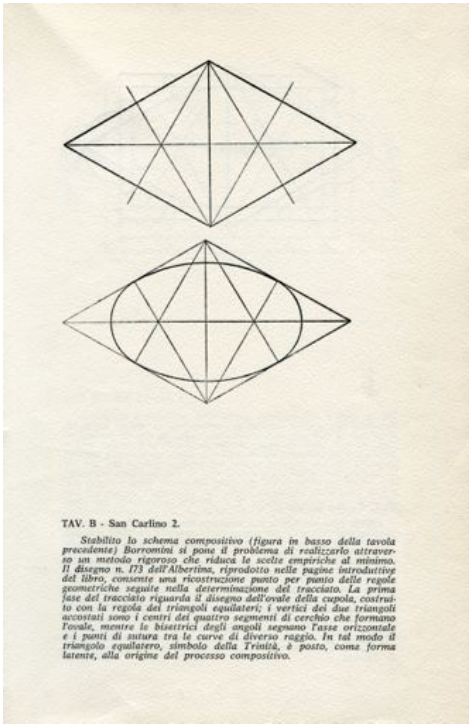

Figure 3. Reconstruction of the scheme of San Carlo alle Quattro Fontane plan, TAV. B, (from Paolo Portoghesi, *Borromini nella cultura europea*, Città di Castello: Officina 1964).

The same analytical furore distinguishes the verification of Sant'Ivo alla Sapienza. Portoghesi focuses his attention on the scheme of the church, where an equilateral triangle contains a hexagon. In drawing up the schemes, Portoghesi is humbly executing a job of self-discipline, geared toward learning a logical and rational design method able to guarantee him that 'freedom' he is looking for. Zevi has recognized in his totalizing research a 'relationship of affinity and almost of identification' with Borromini[37].

Considering that the studies conducted for writing *Borromini nella cultura europea* covered a period of more than twelve years, it is plausible that some of the issues were already under observation when Portoghesi began his design activity. Again, Baldi House is the experimental occasion for exercising the method borrowed by Borromini. In this

sense the sketches of the house are revealing. A sketch[38] shows the geometric construction through generative dots of curve segments – 'force fields', as defined by Christian Norberg-Schulz. They are fixed within the perimeter of an hexagon. The hypothesis of the pentagon has been soon abandoned[39]. The 'force fields' generate 'grammatical chords', obtained by the juxtaposition of inflected walls that determine the openings[40]. Also the drawings for Andreis House (Scandriglia, Rieti 1964-69) are exemplary for understanding the geometrical construction of the 'regulating layout' and for its volumetric development. A first sketch shows that Portoghesi has been working on a grid of modular squares whose vertices generate concentric circles. The drawing evolves into a second layout where three adjacent scalene triangles led to fix the 'centres of curvature'[41].

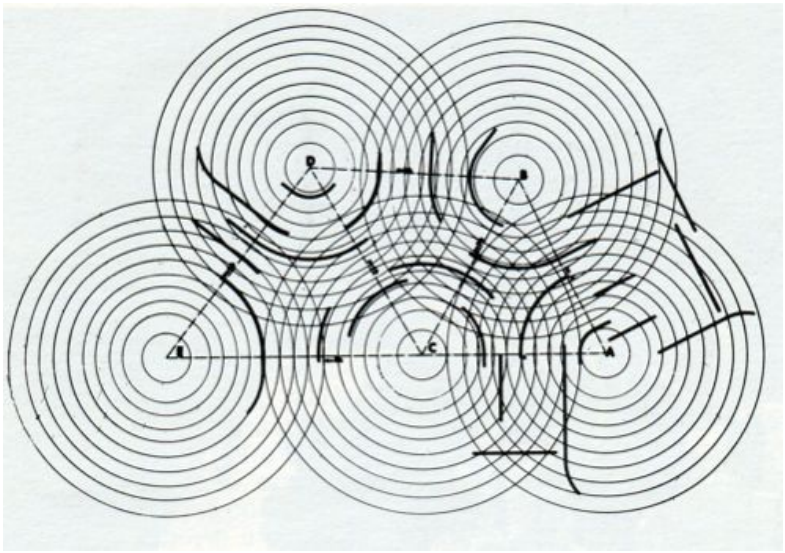

Figure 4. Paolo Portoghesi (with Vittorio Gigliotti), Andreis House, Scandriglia, Rieti 1964-69, drawing of the plan. From Giovanna Massobrio, Maria Ercadi, Stefania Tuzi, eds., *Paolo Portoghesi architetto*, (Milan: Skira, 2001).

Only the geometric organization of the plan can bring to a rhythm of surfaces whose disposition is ruled by a principle of 'order in the movement'. But that geometric order that characterises the houses of the exordium is wildly stressed in Papanice house (Roma 1966-70). The geometry of its layout is more complicated, the spatial rhythm gets psychedelic and the overall volume of the building, obtained by the exhausting repetition of cylinders, definitely assumes a playful, even ironic character[42]. The Arts Academy in L'Aquila (1978-82) is the synthesis of three models of star-shape plan: Santuary of Saar by J. Santini Hichel; Haus des Himmels by Bruno Taut and Lina House by Mario Ridolfi[43]. The centrality of the layout, topped by the glassroof, is controlled by the form of a regular pentagon, whose sides are rotated by one degree with respect to the five prismatic bodies which compose the building – a strategy to soften the rigidity of the geometric

pattern. If in Portoghesi's poetic, the contamination of historical forms becomes 'ritual', then the geometric verification of drawings becomes systematic. The historical-design method so obtained is not the result of a personal invention: its "fatherhood" has never been claimed.

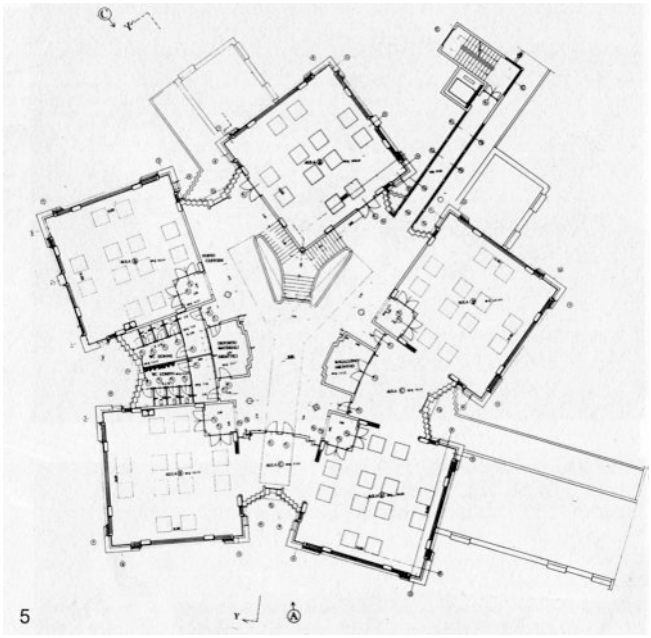

Figure 5. Paolo Portoghesi (with Giampaolo Ercolani and Giovanna Massobrio), The Arts Academy, L'Aquila 1978-82, plan (from Giancarlo Priori, *Paolo Portoghesi*, Bologna: Zanichelli, 1985).

In 1975 Paolo Portoghesi is involved in a decisive project in relation to his research. It is the Islamic Cultural Center in Rome, designed with Vittorio Gigliotti and Sami Mousawi and completed in 1995. The theme is problematic in both political and religious terms: the international economy is under threat by a worrying petrol crisis; moreover the building will be the first Islamic center to be built in the heart of the Catholic capital, Rome. Portoghesi's attention is focused on how to put the Oriental Muslim tradition in dialogue with the Western Christian one. Once again, that 'ritual of contamination', developed in the past decades and inherited from Borromini and Guarini proves to be a decisive method in order to establish a perfect formal balance and to reach a surprising degree of structural complexity. As in the case of Convento dei Trinitari and San Carlo alle Quattro Fontane designed by Borromini, the organism of centre/mosque has been generated by a 'psychological program', exploiting the gap between the simplicity of services and the complexity of the linguistic-spatial place of worship. The plan of the mosque is generated from the regular repetition of a square matrix. The architectural idea of the building, that makes the internal space of the mosque an impressive 'artificial universe', is based on a cross-arch system. As pointed out by Portoghesi himself, the cross-arch system is a

recurring theme in both the Eastern and Western history of architecture: from the Armenian example of Acphat to the Gothic interwoven ribs, from Leonardo da Vinci's explorations for the building system of the tiburio of Duomo in Milano to Berta stadium in Florence by Pier Luigi Nervi[44]. As a result the theme shows a high degree of 'cultural synthesis':

> 'While posing again the interwoven ribs into the mosque in Rome, I wanted to offer the minds of observers a commuter route from East to West, recalling meetings that already took place between Islamic and Italian culture, resuming a dialogue interrupted several times.'[45]

The approach to the solution of the cross-arch system as a bridge-theme between Eastern and Western cultures comes through the study of Guarini's architecture too. As observed by Christian Norberg-Schulz: 'It is already possible to glimpse a synthesis of these two cultures in Guarini's work'[46]. Guarini, a 'Borrominian recruit', is praised by Portoghesi for his 'high receptiveness, that exceptional openness to listening'[47] but also for his structural boldness, both factors that characterize Borromini's work itself. Portoghesi had had the opportunity to appreciate Guarini's extraordinary formal rigor too, elaborated in its geometry and considered a fruitful compositional tool. Among Guarini's buildings, San Lorenzo church in Turin caught Portoghesi's attention. Its structure is animated by a similar 'calculated' movement, with 'the famous plot of the dome [...] a wonderful petrified flower' motivating Portoghesi to track down its precedents. Beyond the dome of Mir'hab of al Hakem Mosque in Cordoba, already indicated by Giedion in his analysis of the Baroque in *Time Space and Architecture*, Portoghesi suggests the narthex of the romanic Church of Sant'Evasio in Casale Monferrato[48]. Nevertheless, Portoghesi once again sees the most relevant inspiration coming from Borromini's work, in particular from the example of cross-arches of the chapel dedicated to the Magi in Collegio di Propaganda Fide, 'center of the spread of Catholicism throughout the world'.

The whole arched structure of the Mosque in Rome is independent from the inner part of the dome, increasing the spatial tension and providing the building with a high architectural expressiveness. It should be noted how the stellar plot of the arches propagates, in a more simplified way, even in the lateral spaces covered by sixteen smaller domes, providing an effect of spatial unity despite different heights. The arches of the central space soar from eight mixed columns, which form an irregular octagon in plan and whose capitals announce a Liberty influence in forms. In concieving the spatial idea of the mosque, Portoghesi faces the problem of light control and again the solutions

offered by the baroque architecture are extremely 'useful'. The stepped central dome is in fact rhythmically pierced by narrow openings. The natural light is homogeneous and gives the structure a surprising antigravity effect, a device borrowed from the spatial solution developed by Guarini in the Cappella della Santa Sindone in Turin. Although characterized by a delirious pace upward, the weight of the dome structure and language of the chapel seems to dematerialize thanks to the effect of suspension achieved by the light filtering through the small windows. To prove the originality of Portoghesi's intellectual and design position and the outcomes of his project, Argan words for the 1995 opening of the Islamic Centre in Rome appear significant: 'Until a few days ago I admired you more as historian of architecture than as an architect. Maybe I was not entirely wrong, then: now, yes. But only a great historian could make a great architectural work, like you have'[49].

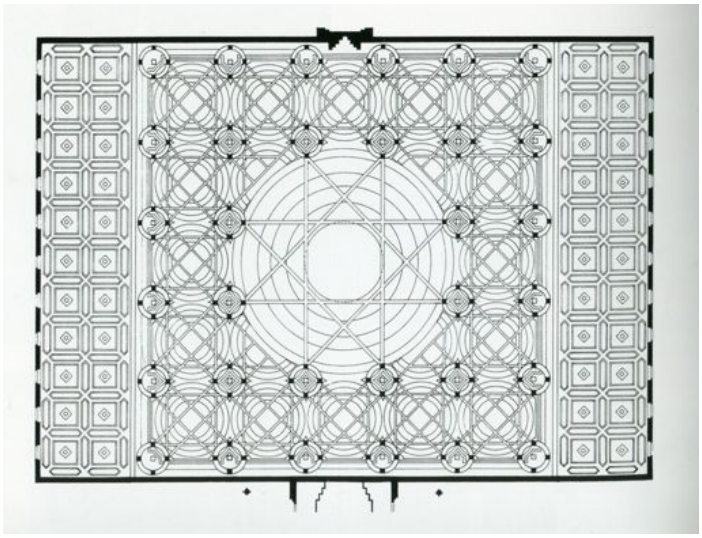

Figure 6. Paolo Portoghesi (with Vittorio Gigliotti and Sami Mousawi), Islamic Cultural Center, Rome 1975-95, plan of the mosque. From Giovanna Massobrio, Maria Ercadi, Stefania Tuzi, eds., *Paolo Portoghesi architetto* (Milan: Skira, 2001).

In 1980 Paolo Portoghesi is appointed director of the I Biennale di Architettura di Venezia, significantly intitled 'La Presenza del Passato' [The Presence of the Past]. The exhibition, in which the process of overcoming of modern architecture is finally brought to completion, can be considered the culmination of his personal historical research project begun during the 1950s. Portoghesi honours with three solo shows Philip Johnson, Ignazio Gardella and Mario Ridolfi, architects who have distinguished themselves for their efforts in recovering history within design practice in the postwar years. However it is the staging of Via Novissima [new street] at Corderie building in Arsenale which becomes the real 'show' of the event. It has to do with the construction of a urban backstage at 1:1 scale, a real 'street' whose twenty façades, ten per side, are commissioned from many

Italian and international architects and architectural firms. The criterium used by Portoghesi to select his guests is their ability to abandon the modernist orthodoxy, to offer solutions that suit contemporary times[50]. The research started in Italy in a state of relative autonomy, is thus enriched by a range of international contributors. The theme of the composition of the 'front' is exquisitely baroque. It commits architects to tackle purely linguistic-formal design issues, since the façades are temporary structures made of wood behind which the works of individual authors are exhibited. This exercise in composition leads directly to another theme that always fascinated Portoghesi in his studies of the Baroque: the 'popular persuasion', or form as a vehicle of communication: 'The rhetoric and persuasive essence of Baroque, its search for a direct communication outside the conventions of a restricted class, its substantial popularity ... '[51].

More than in any previously completed project, in the design of his façade (drawn with Francesco Cellini and Claudio D'Amato), Portoghesi makes explicit homage to Borromini, taking some elements that distinguish the formal front of the Oratorio dei Filippini.

Figure 6. Paolo Portoghesi (with Francesco Cellini and Claudio D'Amato), Via Novissima, Biennale di Venezia 1980, façade. From 'La Presenza del Passato', *Controspazio*, 1-6, 1980.

The same idea of motion that innervates the façade of the Roman building features in Portoghesi's drawing, which gives more prominence to vertical lines of force rather than to horizontal ones. The typical idea of baroque architecture, of tying together all the elements of the front, is complemented by the alternation of concave and convex surfaces, although the same tension generated by the compression of the façade of

Oratorio dei Filippini is not fully reached. Nevertheless, the most surprising compositional solution can be found in the termination of the façade, which literally becomes a quotation – such explicit formal provocations were never found in Portoghesi's buildings before. An intentional, single act of *borrominismo* over twenty years of research, demonstrating that the process of appropriation of the architectural heritage of the baroque architecture has reached full maturity.

In the same year of the exhibition, Portoghesi's second theoretical book was published: *Dopo l'architettura moderna* [After modern architecture]. As the title indicates, the book presents the evolution of his historical and design research developed in the wake of baroque tradition. The topics presented – 'The post-modern', 'Architecture and energy crisis', 'The primitives of a new sensibility', and 'The American affair' – announce a new and freer opening phase of his research horizon:

> The characteristics of this post-modern architecture are captured mainly by ther difference compared to the Modern Movement, but also by analogy with the cultural production of historical periods similar to ours, as Mannerism and the Baroque. First the Post-Modern is more evolutionary than revolutionary, does not deny the modern tradition, but freely interprets, integrates, critically recounting the glories and mistakes. Against the dogmas of uniqueness, of personal stylistic consistency, static or dynamic balance, against the purity and the absence of any 'vulgar' element, post-modern architecture re-evaluates the ambiguity and irony, the plurality of styles, the dual code that allows us, on one side, to turn the popular taste by historical or vernacular quotations, and on the other to address insiders.[52]

The book *Postmodern: l'architettura nella società post-industriale* [Postmodern: architecture in post-industrial society][53], written after the construction of Via Novissima in 1982, places Portoghesi among the founding fathers of the postmodern movement. Even in this intense period of theoretical and design evolution, enhanced by new architectural themes and dialectical relationships with new partners, Portoghesi did not stop his historical investigations so synergistic to his project. From his studies on Borromini's work and baroque culture Portoghesi gives subsequent attention to 'Liberty', in particular focusing on the work of Victor Horta, considered the most 'borrominiana' figure in the context of Art Nouveau[54].

[1] Cfr. Liliana Barroero, 'Wittkower ven'anni dopo', in Rudolf Wittkower, *Arte e architettura in Italia 1600-1750* (1958), (Turin: Einaudi, 2002), XXX.
[2] Paolo Portoghesi, *Guarino Guarini 1624-1683* (Milan: Electa, 1956).
[3] Paolo Portoghesi, *Le inibizioni dell'architettura moderna* (Rome-Bari: Laterza, 1974), 85.
[4] Paolo Portoghesi, 'Vittone nella cultura europea', *Controspazio*, 10 (1972), 38-52.
[5] Paolo Portoghesi, *Borromini nella cultura europea* (Città di Castello: Officina, 1964).
[6] 'The book written by an architect has been [...] an instrument of methodological research, of clarification of the problems, not only in relation the operation of critical history but also as an operative action in the field of modern architectural culture', in Paolo Portoghesi, *Borromini nella cultura europea*, VII.
[7] Giulio Carlo Argan, in Paolo Portoghesi, *Roma Barocca. Storia di una civiltà architettonic,* (Rome: Bestetti, 1966), back cover.
[8] Paolo Portoghesi, *Le inibizioni dell'architettura moderna,* 74-75.
[9] Francesco Moschini (ed.), *Paolo Portoghesi. Progetti e disegni 1949-1979* (Florence: Centro Di, 1979), 15.
[10] Cfr. 'Intervento di P. Portoghesi sulla relazione di B. Zevi', in *Studi sul Borromini. Atti del Convegno promosso dall'Accademia nazionale di San Luca*, *Vol I* (Rome: De Luca, 1967), 534.
[11] Portoghesi, *Borromini nella cultura europea*, 13.
[12] Portoghesi, *Borromini nella cultura europea*, 13.
[13] The interpretation of historical revaluation given by Borromini's method is explained in the very first pages of *Borromini nella cultura europea*: 'Before being an occasion of historical and philological analysis, knowledge of the work of Borromini is a tool for self-critique of modern culture. Against its own intentions for the expansion of classical orthodoxy, Borromini's controversy ends up undermining the very foundations of linguistic conventions restored by the Renaissance, overwhelming, in its strongest moments, impediments and inhibitions that still weigh, like mortgages, on modern architecture', Portoghesi, *Borromini nella cultura europea*, introductory note to the book.
[14] Bruno Zevi, 'Attualità del Borromini', in *Studi sul Borromini. Atti del Convegno promosso dall'Accademia nazionale di San Luca*, 509.
[15] Giulio Carlo Argan, 'Nella crisi del mondo moderno', in Mario Pisani, (ed.), *Paolo Portoghesi* (Rome: Gangemi, 1993), 13.
[16] Paolo Portoghesi, 'Casa Baldi sull'ansa della Flaminia, a Roma', *L'architettura cronache e storia*, 86, (1962), 510-21: 512.
[17] 'Intervento di P. Portoghesi sulla relazione di B. Zevi', in *Studi sul Borromini,* 532-33.
[18] Portoghesi, *Le inibizioni dell'architettura moderna,* 41.
[19] Moschini (ed.), *Paolo Portoghesi. Progetti e disegni 1949-1979*, 79-152.
[20] Moschini (ed.), *Paolo Portoghesi. Progetti e disegni 1949-1979*, 16.
[21] See the discussion between Zevi and Portoghesi in *Studi sul Borromini. Atti del Convegno promosso dall'Accademia nazionale di San Luca*, 507-42; see also Giovanna Massobrio, Maria Ercadi, Stefania Tuzi, (eds.), *Paolo Portoghesi architetto* (Milan: Skira, 2001), 37-39.
[22] 'Intervento di P. Portoghesi sulla relazione di B. Zevi', in *Studi sul Borromini. Atti del Convegno promosso dall'Accademia nazionale di San Luca*, 531.
[23] Portoghesi, *Le inibizioni dell'architettura moderna*, 76-80.
[24] Portoghesi, *Le inibizioni dell'architettura moderna*, 85.
[25] Paolo Portoghesi, *Disegni di Francesco Borromini,* [catalogue of the exhibition], (Rome: De Luca, 1967, p. 3.
[26] Albertina 510, published in Portoghesi, *Disegni di Francesco Borromini*.
[27] Portoghesi, *Disegni di Francesco Borromini,* 19.
[28] "The drawing with its transparencies, its veilings, is a true X-ray that shows, where it is needed, the internal structure, qualifying itself as a section or describes the surfaces like a elevation, or both together...", Portoghesi, *Disegni di Francesco Borromini,* 19.
[29] 'Intervento di Manfredo Tafuri', in *Studi sul Borromini. Atti del Convegno promosso dall'Accademia nazionale di San Luca*, *Vol II*, (Roma: De Luca 1967), 16.
[30] 'Intervento di P. Portoghesi sulla relazione di B. Zevi', in *Studi sul Borromini. Atti del Convegno promosso dall'Accademia nazionale di San Luca*, 533-34.
[31] This moment of the project has already been suggested by Wittkower in *Art and Architecture in Italy*, see Wittkower, *Arte e architettura in Italia*, 170-171.
[32] Portoghesi, *Borromini nella cultura europea*, 15.
[33] Portoghesi, *Borromini nella cultura europea*, XI.

[34] Portoghesi, *Borromini nella cultura europea*, IX-XXIV.
[35] Giulio Carlo Argan, *Borromini*, *(1955)* (Milan: Mondadori 1978), 71-72.
[36] Portoghesi, *Borromini nella cultura europea,* XI.
[37] B. Zevi, 'Attualità di Borromini', *L'Architettura*, 519, (1999), 50.
[38] Centre Pompidou Drawings Archive/AM 2009-2-856. The drawing has been only partially published in Maria Ercadi (ed.), *Paolo Portoghesi. Disegni 1949-2003* (Milan: Federico Motta, 2003), 44.
[39] Centre Pompidou Drawings Archive/AM 2009-2-858.
[40] Portoghesi, 'Casa Baldi sull'ansa della Flaminia, a Roma'*,* 512.
[41] Paolo Portoghesi, 'Casa Andreis a Scandriglia, Rieti', in *L'Architettura cronache e storia*, 137, (1967), 706-19: 713.
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Archipelego Architecture:
Housing for Polynesians in Auckland

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Abstract

Fabulations and utopian dreams are often located on islands. The architecture of Tasmania, New Zealand, Papua New Guinea, and the other Pacific Islands can be seen as potentially different from that of the mainland to which they are connected (yet separated) by water. Common to all islands is the surrounding sea where boats are more necessary than houses for survival and the architecture derives from boats. On islands the coast is continuous and life is always on the edge.

An island aesthetic develops from this, which favours formal relations of openness rather than enclosure, because on islands closure is provided by the tilt of the horizon and the dome of the sky. A particular architecture follows that might be called archipelago architecture. This paper focuses on Samoa, which is a Polynesian archipelago with specific modes of traditional space organization that determine the architecture of the village and the houses.

Auckland often boasts that it is the biggest Polynesian city in the world but there is a wide agreement that the needs of Pacific Islanders are seldom being met in the architecture of the housing. The project is concerned with designing a framework that would allow Polynesians to operate in their traditional living patterns yet still exist in within the fabric of suburban Auckland. This paper describes the thinking behind a housing study for Samoan families that attempts to design for their needs as an island of fabulation in the suburban sea.

Introduction

‘There is no vastness on an island. The perplexity of vastness isn’t something that troubles you on an island.’ [1]

Sociologist Epeli Hau'ofa discusses the island worldview:

> There is a world of difference between viewing the Pacific as "islands in a sea" and as "a sea of islands". The first emphasizes dry surfaces in a vast ocean far from the centers of power. Focusing in this way stresses the smallness and remoteness of the islands. The second is a more holistic perspective in which things are seen in the totality of their relationships.[2]

A particular way of life, and an island aesthetic follows from this that is very different from a land-based aesthetic. Life is always on the edge on islands where edges are continuous Common to all islands is the surrounding sea and boats are more necessary than houses for survival. The sea, which separates and yet connects islands, has been (until the advent of air travel) the means by which everything arrives and departs. Arata Isozaki in his architectural mini-biography talks about the island aesthetic:

> On an island something unique can be produced free from any exterior disturbance. However, its aesthetic is born out of pushing the productive energy to the brink of death by drying out its living contingency. This might be an eroticism attained only by courting Thanatos to the most extreme proximity. [3]

An island aesthetic favours formal relations of openness rather than enclosure because on islands closure is provided by the tilt of the horizon and the dome of the sky. Territorial division on Pacific islands is divided into slices of land in pie like fashion radiating out from the centre, and even extending in some cases into the lagoon and out to the reef.[4] This means that each group has access to a range of ecological conditions. While islands might be thought to be homogenous they are always divided into sides. Opposing sides of islands can be different in environment, culture and even language.

Figure 1. Samoan Village. Thomas Andrew 1905.

Space Organisation

Pacific Islands have a particular conception of space, which revolves around the notion of va, which is sometimes compared to the well known (if not well understood) Japanese principle of ma. Literally *va* can be translated as space – but its meaning is much more complicated. According to the Polynesian story of creation, as retold by Fraser, the separation of the sea from the sky created a space – the *va* which man could inhabit.[5] The people exist within the va, and from this space, islands rose to be populated. With this worldview, the space between entities is not a void but an armature that locates and binds individuals. It is a 'negotiated space' meaning that it is not a fixed entity, but flexible to accommodate daily life'[6]. *Va* is the space between two things and *Vasa* – the body of water between two islands. *Va nimo nimo* is expansive space the immeasurable. *Va'a* is an Ocean going canoe and Kramer identified the term *vailiu* (va-i-liu) as being the "the space between two hulls of a catamaran"[7]. *Va* is the fundamental principle of the island mentality – for without space the islands do not exist. Albert Wendt describes the *va* as being:

> … the space between, the betweenness, not empty space, not space that separates but space that relates, that holds separate entities and things together in the Unity-that-is-All, the space that is context, giving meaning to things.[8]

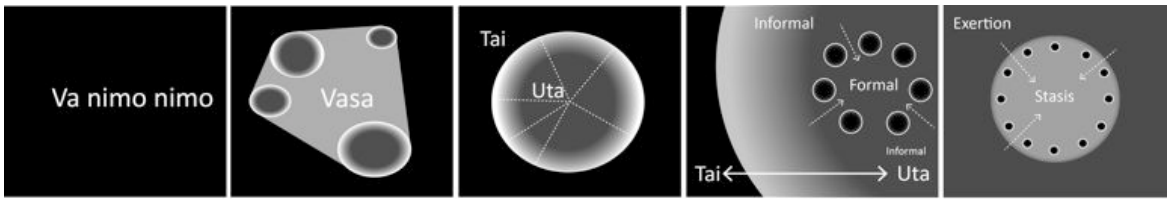

Figure 2 The concept of *va* in the Samoan world view.

The Village

The organisation of space in a Samoan village according to anthropologist Bradd Shore revolves around two complementary planning principles, and (following Levi Strauss) he refers to these as 'concentric dualism' radiating from the *malae* which is the open space at the centre of the village (most formal) to the bush or sea (least formal). The other

model he identifies is 'diametric dualism', which divides the village laterally into *tai* (seaside) and *uta* (inland). The *tai* or seaside is seen as the place of public formal interaction while the *uta* is seen as private informal. These models are associated with the orientation of the body - facing towards the *malae* with back to the informal –and facing towards the *tai* or sea with back to the *uta* or bush. This opposition at village scale can be read as light and dark, formal/informal, extroverted/introverted. Through these devices Samoans have managed to create spatial hierarchies without the need for walls and fences. Structuralism with its oppositions is of course, now out of fashion, but Shore justifies argues that 'Samoans become their own structuralists'.[9]

However these polarities are not quite that opposed, because it can be argued that diametric dualism derives from the concentric arrangement at the island scale. Space radiates out from the centre of the island the *mauga* (mountain) to the '*va nimo nimo*' (vastness, of the sea) This creates a ring circumnavigating the island and at the location of each village becomes Shore's diametric dualism. Consequently what Shore sees as an oppositional and linear model derives from the larger concentric organisation of the island as a whole, while the village also operates concentrically, from formal in the centre of the *malae* to the lawlessness of the bush and the reef on the periphery.

The spatial organisation of the village also dictates the intensity of movement and activity. The periphery of the village is the place of hard work and exertion, such as working in the plantation or fishing. Activity becomes slower, more considered, more formal as one approaches the centre of the village to the point where all movement stops at the *paepae* (threshold) where the *matai* sits or women are weaving mats. The formality and openness of the centre of the *malae* where visitors are received gives the impression that this is a place of utopian dreams and indeed utopia has always been an island. So observing the romantic setting of the Samoan village, one could be drawn to the conclusion that this serenity is indeed the Garden of Eden. And essentially this is true. As paradise the Pacific Island is seen through Western eyes as the original garden.[10] But for the inhabitants gardens are not necessarily places of delight and pleasure - they are often the location of back-breaking work and daily chores.

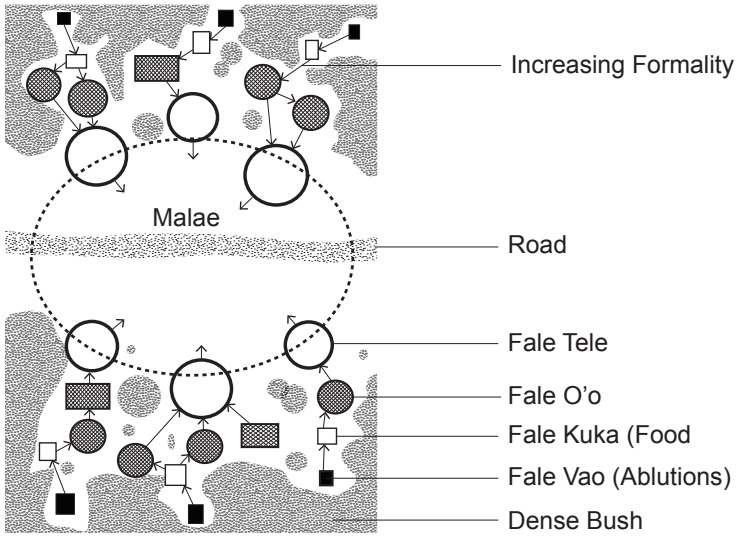

Figure 3. Typical Samoan Village showing building relationships

Compared to the centre, the periphery is also the location of objectionable behaviour. Samoans do not refute the existence of this, which Shore explains by the concept of duality, the splitting of light and dark *Sa* and *Taga* (*tapu* and *noa* in Maori). In the light the public space is *tapu* and certain behaviours are expected. However the dark outer reaches of the villages are lawless. On the light side all is well, but the dark is a place for less desirable behaviors. It is another realm the existence of which Samoans do not openly acknowledge, or celebrate but accept it as an integral part of Samoan society. In Samoa the day and night offer two different worlds and the slippage between is fleeting. The sunsets and sunrises occur rapidly in the tropics. When the dark sets in people retreat to the perceived safety of their houses – or adventure into the darkness.

This divides the village, diametrically extending to the separation of the genders, a version of 'brother sister avoidance' hinged on the maintenance of family honour and the fear of possible incest between family members. Shore says everybody of a certain age is either a potential lover or a brother or sister. Architecturally and spatially this manifests itself in the physical separation of the genders: the unmarried women are kept close to the centre of the *malae*, constantly in view, while the young men are located well back at the periphery. The young women of the village are seen to be the upholders of dignity for the village. Their virtue is to be displayed in front of the male. The young men perform the task of maintaining that dignity.

Shore describes these two gender powers as 'formal' and 'instrumental'. Formal power is allocated to the sister, as the representative of the family, and the preservation of their dignity is of the utmost importance. The sisters' behaviour is constantly monitored. They

are kept in a place of high visibility to ensure their safety from potential suitors and to display their virtue to the entire village. This role of the *taupou* (highest ranking village virgin) at the centre of the village is that of a figurehead for the family, in full view and highly visible. This spatial organisation can be seen in the Samoan dance the *Taualuga* in which the *taupou* is surrounded by men who all pay her obeisance by dancing what is termed the *ai'aiuli* which means 'to humble oneself so as to draw attention to another'.[11] This is a dance performed by the young men in a comedic fashion which contrasts with the *taupou*'s graceful movements. The *Taualuga* is the final dance in a night of performances originating from a pre-Christian event called the *Poala*, hosted by the *aualuma*, (sisters and daughters of the village) when a visiting party arrives. *Taualuga* is also the name of the ridge capping placed on the *fale tele* (meeting/guest house) to hold down the roof thatch – this signifies the completion of the construction process. The dance, and the village and *fale*, therefore have commonalties with status and completion.

The Fale

Shore discusses the *fono tavaiti* which is the occasion of the assembly of the whole village:

> As a sign of its importance, this meeting took place outside, on the *malae* itself, rather than inside a meeting house. The malae became like the floor of a great house. And each house that encircled the village green became like one of the house posts that framed the meeting house and at which chiefs usually took up their stations [12].

The f*ale* is the Samoan house which is open and central and as Shore points out is a microcosm of the village as a whole The historic layout of the village plan is as shown with the main formal building the *fale tele* at the front of the extended family complex the dwelling houses behind and beyond that the *fale kuka* (kitchen) and further still the *fale vao* (latrines).

The *fales* are islands, the edge mimicking the permeability of the beachfront, as a zone of encounter. This permeability was remarked upon by Margaret Mead, who in a letter justifying her decision to not live in a *fale* spoke about

> The nerve wrecking conditions of living with half a dozen people in the same room in a house without walls always sitting on the floor and sleeping in the constant expectation of having a pig or a chicken wish itself upon one's notice...[13]

In parenthesis, it remains one of the extraordinary anthropological scandals that Margaret Mead persuaded the world that rape was unknown and virginity had no importance in Samoan life, when there was a particularly Samoan version of sexual coercion (*moetotolo*) and there was the *taupou* cult of the virgin that was so important in Samoan life.

The openness of the *fale* is the extraordinary feature to a visitor. There are coconut blinds (*pola*) around the perimeter but these are used as wind protection and not for privacy:

> Even when there is a storm, Samoans have told me that some of the blinds – at least one- should always remain up because if all of them are lowered 'it becomes very dangerous'… When the blinds are up, the 'space between the posts ' (va – significantly, the word is also used in the general sense of 'social relation') is significant because it is *visible*. Each man must then choose his point of entry into the house and his sitting position according to his rank in relation to the rank of the other men seated there.[14]

Today of course not everyone lives in a picturesque *fale* and Samoa has been influenced by European architecture for 200 years with the introduction of Christianity. Christianity has brought (among other things) modesty – the need to cover the body and to have privacy in the family home. European architecture through the imposition of walls, doors and windows, has bought pockets of darkness into the heart of the village. Pacific-Island societies do not necessarily share the Western difficulties with imitation and reproduction, so that one response to Western culture has been to copy it, and what may be seen as copying often has subtle complications. In addition, local variations and differences from the European model are introduced so that, in the process of getting it 'wrong', slippage occurs between the western original and the Pacific copy. Further it is suggested that it is this very slippage that produces the local regional identity and character.

The process that produces this pragmatic slippage can be described again by reference to Levi Strauss, where he spoke of bricolage as demonstrating the disparity arising from the differing worldview between Polynesian and European populations. Levi Strauss characterised these opposing mindsets as the bricoleur and the engineer where he claimed 'the engineer works by means of concepts and the bricoleur by means of signs.'[15] The bricoleur 'makes do with whatever is at hand' and operates pragmatically with what already exists.[16] To order life he applies signs to these components and assembles and re-orders them as a means of organising and understanding the world. The engineer

operates, by contrast, in concepts, and specialises in speculation. The bricoleur chooses to engage with the environment directly.

This process can be seen everywhere in the architecture of the islands and was especially apparent in Samoa after the 8.1 magnitude earthquake and tsunami of September 2009, which killed 150 people, leaving 3000 homeless. The displaced population set about housing themselves improvising shelter with whatever was at hand.

> In the immediate need of requiring temporary housing, some people have relocated to inland sites occupying land that may or may not belong to their extended family. People are using old material from the original village in addition to such found in the surroundings and the tarpaulins received from donors…[17]

Polynesians in New Zealand

Pacific Islanders have been migrating to colonised New Zealand for 60 years. The largest influx was in the late 1960s to 1970s. Many settled in South Auckland, close to work in the expanding manufacturing industry. Manukau City in South Auckland is now home to more than 85,000 Pacific Islanders, of whom nearly half identify themselves Samoan.[18] It is generally accepted that Samoan and other Pacific Island immigrants to New Zealand have difficulty adjusting to the dwellings of their new homeland. They are faced with overcrowding, poor buildings and spatial planning that hinders the rituals and traditions of their culture and there is an assumption that the way of life rather than the architecture has to adapt.

Overcrowding is seen as a major issue for many Pacific Island families in New Zealand. There is evidence that over-crowding, due not only to poverty, but also cultural practice, is leaving Polynesians vulnerable to close contact infectious diseases (CCIDs) such as rheumatic fever and impetigo[19]. In suburban Auckland, functions and ownership are not separated by space and hierarchy but by walls and fences. In the typical suburban house spaces are linked via a central passage, corridor or hallway and all rooms face outwards towards the boundary.

The central hallway, a descendant from the nineteenth century villa, acts as an armature grounding the spaces. It is not an occupied but rather a transitional space. Problems arise when an extended family inhabits such a dwelling; privacy and hygiene are not

activated through the physical separation of spaces and functions into individual buildings. This is a factor in the perception of overcrowding. Traditionally one nuclear family would occupy one space – a *fale* - a single building that is functionally separate from the formal *fale tele*, the food preparation areas and the ablutions.

It is this separation of spaces that allows many family members to occupy one site and share facilities without overcrowding. Each family has their own house and belongings in that space but the compound belongs to the extended family as a whole. When these spaces are clustered together around a hallway in the traditional urban Auckland house, activity is intensified and internal, and it is easy to see how the mismatch of life and dwelling can lead to illness and dissatisfaction. If the overall health of Pacific Islanders living in New Zealand is to improve an alternative housing model is needed: one that is sympathetic to cultural practice.

The Proposal

This project is concerned with designing a framework that would allow Samoans to operate in their traditional living patterns yet still exist in within the fabric of suburban Auckland. The site chosen for the study is an existing but recent residential development by Housing New Zealand located in, the predominantly Polynesian suburb of Mangere in South Auckland. The site comprises 21 units of various sizes, from 2 to 4 bedrooms, which have been designed, according to the architect, using the principles of Oscar Newman's concept of 'passive surveillance' where community security is ensured through the observing of people.[20] Passive surveillance is in stark contrast to the Samoan security system of mutual recognition. What many tourists find endearing (and sometimes annoying) in Samoa is the unrelenting friendly greetings experienced in many Pacific Islands; what may be interpreted as a friendly gesture and overt curiosity is actually the village security system at work. It operates on a pre-emptive basis; the stranger is greeted in a jovial manner before suspicion sets in.

In the project the architects (Design Group Stapleton Elliot) were commissioned to create a new housing complex which would more than double the density on land previously occupied by ten Housing New Zealand dwellings. They have included what is called a 'homezone' a pedestrian prioritised street aimed at creating a community friendly space. However, as residents outside the development are not aware of such design intentions, the results have been less than optimal. Many residents from the surrounding area drive through the homezone as a shortcut, failing to recognise visual clues that the street is pedestrian prioritised. This may be due to the lack of people on the street, as the street

was designed to be observed by people from within their homes, not as a place of interaction. The terraced units have shared party walls that direct the view along a single axis. Fences further divide the site, ensuring that interaction between neighbours is restricted.

The alternative architectural proposal is a group of buildings ranking from the *fale tele* to the *fale vao*. These clusters radiate around the *malae* creating a formal centre with the most informal areas on the periphery. The *fale tele* (guest house/ reception pavilion) is the architectural embodiment of the *taupou* adorned with a 'tuiga' (headdress); it is symmetrical and static. The *fale tele* is served by the *fale kuka*, which also includes and informal dining area. This can be left open to the to the kitchen for informal times or closed off to provide a space where visitors can be served while shielded from the commotion of the kitchen. The *fale kuka* lies directly behind – in support of the *fale tele*. While traditionally at the back of the complex the *fale kuka* has moved closer thanks to modern cooking practices.

Figure 4. Proposed site plan – Ventura Street Development.

The *fale o'o* or smaller houses are occupied by a single family unit. In a village situation children are often grouped in age and gender so children may not necessarily sleep in the same house as their parents or siblings. The *fale o'o* could potentially be self-built (or at least fitted out) by the occupants. The *fale vao* or bathroom is the smallest most rudimentary building on the site. It is therefore the least complex, least adorned building.

FIgure 5. Sectional axonometric through living space.

The sectional axonometric in Figure 5 shows the operation of the main living spaces, where buildings are sited close to one another yet transparency is enabled. The site is laid out according to Samoan spatial principles. Buildings are clustered closely together on the site – surrounded by vegetation. An unsealed driveway skirts either side of the *malae*. The site is accessed by two bays emulating the *tai* (seaward) edge of the island as a point of initial encounters. A large hedge mirrors the dense bush of the mountainside (*uta*). Each extended family cluster is linked together by a covered walkway. Boundaries between neighbours are not defined yet spaces are allocated through consultation and negotiation with neighbours and within the extended family unit. Each group can be reconfigured to accommodate different family occasions: a death in the family, a large informal gathering such as Christmas or the event of a special guest. Cars are important but not fetishised in Samoan life – they are parked wherever there is space. The flexible space will allow varying degrees of access and exposure.

It is proposed that returning to this traditional island spatial hierarchy will give the residents a feeling of consolidation and confidence of their place within their new location of suburban Auckland. It might be noticed that the scheme is island-like and is an island in the sea of suburbia. This is not accidental.

Endnotes

[1] Stephen Jewell, “The Fascination of Islands”, *New Zealand Herald*,16 April 2010, B15.
[2] Epeli Hau’ofa, “Our Sea of Islands,” *Island Studies Journal* 1, no.1 (1994), 7.
[3] Isozaki, Arata, *An Island Aesthetic* (London: Academy Editions,1996), 20.

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Inventing the Renaissance Garden: Fascism, Violence and Historiography

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Abstract

In 1930 the future Nazi Minister of Agriculture, R. W. Darré, claimed that:

> *He who leaves the plants in a garden to themselves will soon find to his surprise that the garden is overgrown by weeds and that even the basic character of plants has changed. If therefore the garden is to remain the breeding ground for plants, if, in other words, it is to lift itself above the harsh rule of natural forces, then the forming will of a gardener is necessary, a gardener who, by providing suitable conditions for growing, or by keeping harmful influences away, or by both together carefully tends what needs tending, and ruthlessly eliminates the weeds which would deprive the better plants of nutrition, air, light and sun.*

The sociologist Zygmunt Bauman has since suggested that the gardening impulse was an unacknowledged motor of Nazi racial politics and, ultimately, ethnic cleansing. In his analysis of Darré's statement, the violence that art does to nature in gardening and landscape design turns out to be an endemic feature of the Fascist project and, indeed, of modernity.

This provocative thesis may have more rhetorical than heuristic potential, but it does draw attention to an intriguing misprision in modern landscape history. Since the 1930s, the Italian garden has been defined as an architectonic, geometric and morphologically stable spatial formation—a manifestation of the triumph of art over nature—the principles of which were established during the Renaissance. The vast Mostra del giardino italiano*, organized by local Fascist authorities at the Palazzo Vecchio, Florence in 1931, was crucially important to this claim, and to its subsequent*

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enshrinement in the historiography of the Italian garden. This paper will present an analysis of the Mostra *and its ideological background before considering its later under-acknowledged influence on landscape history.*

'Humiliated by Shears'

In his classic study of the Villa d'Este at Tivoli (1960), David R. Coffin stated that: 'Italian sixteenth century gardens were simply to decorate architecture. In the tradition of ancient Roman gardening, all the elements of nature—water, stone, and verdure—were meant to reveal man's dominance'.[1]

Coffin's claim closely recalls the views of Ugo Ojetti, the architect, writer and president of the organizing committee of the *Mostra del giardino italiano* (1931).[2] In his preface to the catalogue accompanying the exhibition, Ojetti wrote that the defining characteristic of the Italian garden was 'the continuous and orderly and visible dominion of man over nature' through design.[3] Nature was 'made obedient and domesticated'[4] to the extent that, as Adolfo Callegari put it in his catalogue entry on Venetian gardens, the plants were 'humiliated by shears'.[5]

Ojetti was a frequent collaborator of the Fascist journalist Luigi Dami, whose book *Il giardino italiano* was published a few years earlier (1924), and he was clearly influenced by Dami's account of the development of Italian landscape design. Dami writes approvingly of nature submitting 'to the tyranny of art' in the Renaissance garden.[6] According to him, the sixteenth-century garden:

> is the outcome of a keen mind and of a deliberate will. In it nothing is casual, nothing uncertain or temporary. Everything is definite, decided, well balanced, closely connected with the rest with no wavering or weakness of any sort. It is made for man, arranged for him so that he may live and be at ease in it; and in fact, man in such a garden is king; in the Italian garden there is no room for romantic sentimentality…Here instead, nature is composed of a certain number of soulless things, each one of which can be catalogued, numbered, indicated in exact terms, of which man can dispose as he likes best…we choose them and surround ourselves with them, ordering them to be not as their natural instinct would suggest, but as our will

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> commands…The builder of our garden looks upon nature as rough material to be moulded according to his fancies.[7]

Dami and Ojetti's chief bête noire was the English landscape garden or the 'Romantic' garden ('giardino romantico all'inglese'[8]). In Dami's opinion: 'A garden arranged to the "imitation of nature" was a mere delusion, or at most a sentimental aspiration'.[9] Ojetti believed that the classical *tempietti*, which from the late eighteenth century were erected in the faux ('finto') 'romantic forests' of the new gardens, comprise a 'lament for the lost architecture'.[10] Both writers themselves lament the loss or obscuration of the Italian garden, by which they mean the garden type that evolved in sixteenth-century Italy (especially in the environs of Florence and Rome). By the eighteenth-century, the principles of Renaissance landscape design had been superseded by the English style in a Europe-wide phenomenon.

The explicit purpose of the *Mostra del giardino italiano* was, as Ojetti wrote, 'to restore to honor an art that is singularly ours, which after having conquered the world was obscured by other styles or hidden under foreign names'.[11] The exhibition thus had a nationalistic purpose not unlike the contemporary German celebration of the sixteenth-century painters Cranach, Holbein and, more problematically given his cosmopolitanism (and, indeed, Italophilia), Dürer. Both cases present a political appropriation of the concept of style in the visual arts as an expression of unified and coherent nationality. They also testify to what Walter Benjamin called the 'aestheticised politics' of Fascism.[12]

For Ojetti the Italian garden was fundamentally a 'garden of intelligence', which recalls Dami's claim that the sixteenth-century 'garden is the outcome of a keen mind and of a deliberate will'.[13] Their emphasis on the penetrating mind and will of the designer has several implications, besides its uncomfortable recollection of the future Nazi Minister of Agriculture, R. W. Darré's conviction that: 'If therefore the garden is to remain the breeding ground for plants, if, in other words, it is to lift itself above the harsh rule of natural forces, then the forming will of a gardener is necessary'.[14] First, it establishes a dualistic relation between the *intellectual* Italian garden and the *emotional* (sentimental) and, by implication, irrational English or 'Romantic' garden. Mind is pitted against emotion; reason against sentiment. It is no coincidence that Ojetti believed that the time was right for a revival of the Italian garden owing to the recent 'return of reason in

architecture' (by which he must mean the modern movement).[15] This idea has become a definitive one in subsequent scholarship. The prominent Italian art and garden historian, Cristina Acidini Luchinat, for example, wrote in 1996 that by definition a garden required order and rationality.[16] She claims that this is not just true of Tuscany but is a basic principle of garden design throughout Italy. For her the Italian garden is straightforwardly a 'garden of reason', as Mussolini-era architects and writers insisted; an idea that she approvingly states was consolidated in subsequent twentieth-century scholarship.

Second, Ojetti and Dami characterize nature as mere raw material, inchoate, mute, and 'soulless' as the latter put it. The application of the mind and will of the designer or 'garden builder' has a transformative effect on the elemental latency and formlessness of nature. The designer's interventions on this malleable territory are necessarily decisive, even violent. In a remarkable discussion of the use of *chiaroscuro* lighting effects in Renaissance gardens, for example, which surely owes something to a familiarity with De Chirico's uncanny and dramatically lit cityscapes, Dami writes that:

> Here too there are no soft transitions, blandishments or complexities, but firm and resolute blows…I might call it almost a game in black and white, carried out along violent lines. Shadows are rigid, compact and deep as in a public square in August, and even when they cut the air, they seem to cut planes across a geometrical body.[17]

This uncompromising language of 'blows' and 'cuts' is, third, inescapably gendered. Claudia Lazzaro has drawn attention to the efforts of Italian writers of the 1930s to identify the garden as male. In a review of Ojetti's *Mostra* in the Fascist newspaper *Il Popolo d'Italia*, for example, it was noted that the gardens selected for excursions in association with the exhibition all still possessed 'the original and male structure of our architecture'.[18] Gherardo Bosio in another review, this time for *Domus*, described the Italian garden as 'subjugated' to the villa but, nonetheless, unmistakably 'male' in character.[19] Arguably, therefore, Dami and Ojetti's oppositional logic—the Italian garden versus the English or Romantic garden, mind versus emotion, and art versus nature—reduces to a single binary: male versus female.

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Lazzaro and D. Medina Lasansky have convincingly demonstrated how this rhetoric corresponds to that of Italian Fascist politics.[20] Under Il Duce, who was himself regularly promoted as an athletic and strong masculine ideal, Italy was to be virile and male again, no longer weak and vulnerable to foreign influence. The *Mostra del giardino italiano* actively promoted this ideology in its rejection of the English and Romantic garden types, which had so perniciously inveigled their way across the peninsula and in the violent metaphors and images of male control and domination that Italian garden writers of the period rely upon.

The *teatrini*

The *Mostra* was installed in fifty-three rooms of the Palazzo Vecchio, the most important of which was the Salone dei Cinquecento (or Sala Grande). In this room, ten *teatrini* or scale models of historical Italian garden 'types' were exhibited. These ranged from a 'giardino dei romani' (Roman garden), which was based on Pompeian wall paintings, to a 'giardino romantico' complete with a *tempietto*. Each model was designed to illustrate and corroborate Ojetti's arguments.[21]

According to the catalogue, the architect Enrico Lusini's model of a 'giardino fiorentino del Cinquecento' (Florentine garden of the sixteenth-century) was inspired by Tribolo's landscape design for the Villa Medici, Castello, Giorgio Vasari's detailed description of the garden in his *Lives of the Artists*, and the lunettes by Giusto Utens depicting Castello and the Boboli gardens in 1599 (as well as some details taken from the designs of Ammannati).[22] It was, in other words, supposedly based on extant images and descriptions of Castello, and thus provides an opportunity to compare representations of the garden from the Renaissance with those of the 1930s.

Lusini's model is clearly based on Utens's painting, but the differences are revealing. The cypresses at the centre of the garden have become much larger and architectonic in appearance. Not unlike the later French development of the *palissade*, they have the solid density of a wall in Lusini's design. To each side, the geometry of the compartments has become emphatic. In fact, as Lazzaro points out, in Lusini's model, nature is banished to the peripheries, entirely superseded by a superimposed abstract pattern.[23] The variety and contrast of Tribolo's original design—an important principle of the Renaissance garden that is partially preserved in the Utens lunette—has been

eliminated in favour of a perfectly symmetrical ground plan.[24] The precisely clipped, or perhaps 'humiliated' box hedges in the foreground likewise have few equivalents in Renaissance landscape design.

Lusini also contributed to the restoration of historical gardens.[25] It may not be surprising therefore that his 'giardino fiorentino del Cinquecento' more closely resembles the restored garden at the Villa Farnese, Caprarola (1940s) than it does any sixteenth-century garden. The rigorous geometry of the Villa Farnese restoration, like that of Lusini's model, is a product of a much later cultural moment—a retrospective revision of the Renaissance garden motivated by contemporary ideas about design and national identity rather than by historical sources.

Figure 1. Villa Farnese, Caprarola, restored 1940s (Photo: Luke Morgan).

Something similar occurred in the restoration of Renaissance paintings during the 1930s. The face of Giorgione's Benson Madonna, for example, was 'restored' by the unfortunately (or perhaps aptly) named conservator Bogus, to make it conform more closely to the contemporary ideal of beauty promoted by Estée Lauder and other fashion houses, but this surely had little or nothing to do with fascist ideological positions.[26] Suffice it to say that though we are now aware of the 1930s revision of Giorgione's Madonna, the idea of the Italian garden promoted by Ojetti's *Mostra*, Lusini's models and

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contemporaneous garden 'restorations' is still very much with us. In the space remaining, it will be argued that Renaissance sources reveal quite a different attitude towards the significance of geometrical design and the relations between art and nature in the garden.

Geometry

Leon Battista Alberti believed that 'it is obvious from all that is fashioned, produced, or created under her influence, that Nature delights primarily in the circle.[27] For this reason, he argued in Book 9 of *On the Art of Building* (1452) that the 'circles, semicircles, and other geometric shapes that are favored in the plans of buildings can be modeled out of laurel, citrus, and juniper when their branches are bent back and intertwined.'[28] A few years later in his *Trattato di architettura, ingegneria e arte militare* (after 1482), Francesco di Giorgio Martini recommended that whole gardens be designed as geometrical figures (circles, squares and triangles).

These brief comments on garden design, both from the fifteenth-century, have often been interpreted as implying the received and still commonplace idea that the Renaissance sought to impose an artificial order on nature through geometrical plantings and compartment designs; that, in other words, the geometry of the Italian garden is primary evidence of the period's belief in the pre-eminence of the individual human subject in an increasingly secular world. On this view, in the Renaissance garden nature submits to and is *improved* by art. This is, as has been suggested, the view advanced by Italian writers of the 1930s.

Rudolf Wittkower's critique of the notion that Renaissance architects were more interested in aesthetic and formal issues than they were the sacred function of ecclesiastical buildings is relevant here. Alberti's advocacy of centrally planned churches, for example, seemed to an earlier generation of scholars to imply a lack of interest in the practicalities of liturgy and worship (centralised planning makes the placement of the altar problematic, for example). Yet, as Wittkower argued, 'in such centralized plans the geometrical pattern will appear absolute, immutable, static and entirely lucid. Without that organic geometrical equilibrium where all the parts are harmonically related like the members of a body, divinity cannot reveal itself'.[29]

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Wittkower's hypothesis has implications beyond architectural history. Although the imagery of Renaissance landscape design is almost exclusively profane (derived from Ovid's *Metamorphoses* in most cases), contemporary ideas about nature as God's Creation and of God himself as a 'Deus Geometer' may well have informed the layout of sixteenth and early seventeenth-century gardens, as they did contemporary architecture. It is worth proposing that an insufficiently acknowledged objective of Renaissance landscape design was to reveal the divine, that is to say, inherent geometrical order of the natural world; not to 'improve' or supersede nature through the imposition of an artificial geometrical scheme. This is the sense in which Alberti's statement that 'Nature delights primarily in the circle' should probably be understood. God's Creation is, indeed must be, inherently rational and constructed on geometrical principles. Landscape design of the period thus sought to *reveal* nature's concealed order rather than *impose* a new, artificial geometrical regime.[30] Nature was conceived as anything but 'soulless', as Dami thought.

The 'Three Natures'

Modern historians of landscape design continue to interpret gardens in terms of sets of polarities or as Manichean 'battles of seeming oppositions'.[31] The most important of these oppositions remains that of art and nature; the early modern contest between which is usually seen as having been won by art. To recall Coffin: in the Renaissance garden, nature was dominated by art. Certainly, the Renaissance aesthetic concept of *paragone* (rivalry) was as important in landscape design as it was in other fields, and some evidence can be found in support of the idea that the garden was occasionally conceptualised during the period as a triumph of art over nature. The sixteenth-century Florentine sculptor Baccio Bandinelli, for example, once claimed that 'the things one builds must be the guide and superior to those one plants,' when he was asked to design a fountain for the Boboli garden in 1551.[32] In fact, Bandinelli's statement is the only sixteenth-century source cited by Ojetti in his catalogue essay for the *Mostra del giardino italiano*.

Yet Bandinelli is not representative. In mid sixteenth-century writings on landscape and gardens, the relationship between art and nature was more often described as a fluid one, which was understood as collaborative rather than antagonistic in character. Claudio Tolomei, for example, claimed in 1543 that:

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> By combining art with nature, it has become impossible to discern which is which. Sometimes it looks like a natural artifice, sometimes like an artificial nature: in this way nowadays they have learned how to make fountains which look as if they had been made by nature, not by chance but through a masterful artifice.[33]

Jacopo Bonfadio made the same point in a letter of 1541, when he wrote that in garden design the mutual (and benign) interaction of art and nature produces more extraordinary effects than either could achieve on its own.[34] According to him, this collaboration results in a 'third nature', a phrase that was also used by Bartolomeo Taegio in his *La Villa* (1559). In Bonfadio's words: 'nature incorporated with art is made the creator and connatural of art, and from both is made a third nature, which I would not know how to name'.[35]

In conclusion, neither the geometry of the Renaissance garden nor the sixteenth-century concept of the garden as a 'third nature' legitimizes the triumphalist rhetoric of Dami, Ojetti and his collaborators. The now clichéd modern view of the Renaissance garden as a representation of the domination of nature by art finds little justification in the historical sources. The Fascist project was, of course, closely linked to political convictions about national identity, strength and vitality, which help to explain (if not justify) the willful historiographical misrepresentation of the Renaissance garden by Italian designers and writers of the 1920s and 30s. What is more surprising is that such a blatant fabrication could survive intact and unnoticed in the work, not only of Coffin, but also more generally in post-war landscape history down to the present.

Coda: *Hitler in Italien*

Seven years after the *Mostra del giardino italiano*, in 1938, Adolf Hitler made an official state visit to Italy. A commemorative picture book—*Hitler in Italien*—with photographs by Heinrich Hoffmann, shows the German chancellor visiting major Italian historical monuments such as the Coliseum and the Villa Borghese in Rome, inspecting military parades and greeting Fascist youth groups. He also watched what the book describes as 'enchanting historical presentations' and 'images of Tuscan colorfulness' in the Boboli Gardens. These photographs are suggestive of the political uses that were made of the

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so-called 'Italian garden' under Mussolini in the 1930s. Hoffmann's image of the Piazzale Michelangelo, which depicts in the foreground a fragment of what Ojetti would perhaps have called a 'garden of intelligence' is, in this sense, exemplary. The geometry of Nazism—the swastika—has here been imposed on the landscape in honor of Hitler.

It is worth pointing out that the idea of a national garden type or style was initially imported from Germany to Italy, where the 'natural' garden designs of Willy Lange and others were intended as expressions of the German national character and of *Bodenständigkeit* (rootedness in the soil); and despite the fact that the German concept of a national garden type was diametrically opposed to the Italian one of the 1930s.[36] Indeed, in 1933 Lange denounced the 'formal' Italian type as characteristic of what he called the 'South Alpine race'. As Joachim Wolschke-Bulmahn and Gert Gröning have argued: 'The formal garden was seen [by Lange] as an attempt of this "un-Nordic race" to weaken the "Nordic race" and to strengthen international, anti-German forces'.[37] The main difference here is that whereas the Italians wanted to reclaim and revive their own historical garden, the Germans wanted to forge a new national garden. In both cases, however, foreigners and foreign influences were demonized.

The absurd essentialism of Lange and, to a slightly lesser extent, Dami and Ojetti—their conviction that a garden design could somehow embody and express a highly dubious notion of (necessarily homogeneous) national character is exposed in the critical comments of the Jewish writer Rudolf Borchardt, who perished fleeing Nazi persecution in 1941, and which will serve as an admonitory coda.

> If this kind of garden owning barbarian became the rule, then neither a gillyflower nor a rosemary, neither a peach-tree nor a myrtle sapling nor a tea-rose would ever have crossed the Alps. Gardens connect people, times and latitudes. If these barbarians ruled, the great historic process of acclimatization would never have begun and today we would horticulturally still subsist on acorns…The garden of humanity is a huge democracy…It is not the only democracy which such clumsy advocates threaten to dehumanize.[38]

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Endnotes

[1] David R.Coffin, *The Villa d'Este at Tivoli* (Princeton: Princeton University Press, 1960), 38.
[2] The literature on the *Mostra del giardino italiano* is small. The only studies worth mentioning here are: Vincenzo Cazzato, 'I giardini del desiderio', in Alessandro Vezzosi (ed.), *Il Giardino Romantico* (Florence: Alinea, 1986), 80-88, Claudia Lazzaro, 'Politicizing a National Garden Tradition: The Italianness of the Italian Garden', in Claudia Lazzaro and Roger J. Crum (eds.), *Donatello Among the Blackshirts: History and Modernity in the Visual Culture of Fascist Italy* (Ithaca and London: Cornell University Press, 2005), 157-69, and Raffaella Fabiani Giannetto, '"Grafting the Edelweiss on Cactus Plants": The 1931 Italian Garden Exhibition and Its Legacy', in Mirka Beneš and Michael G. Lee (eds.), *Clio in the Italian Garden: Twenty-First-Century Studies in Historical Methods and Theoretical Perspectives* (Washington, D.C.: Dumbarton Oaks Research Library and Collection, 2011), 55-77.
[3] '[I]l contiunuo e ordinate e visibile dominio dell'uomo sulla natura'. *Mostra del Giardino Italiano: Catalogo* (Florence: Comune di Firenze, 1931), 23. (Note that all translations are my own unless otherwise indicated.)
[4] '[U]na natura fatta obediente e domestica'. *Mostra*, 24.
[5] In his brief description of Venetian gardens, included in the catalogue, Adolfo Callegari discusses the 'giardino architettonico con le piante mortificate dalle cesoie'. *Mostra*, 209-10.
[6] I have used the English edition, published a year later: Luigi Dami, *The Italian Garden*, trans. L. Scopoli (New York: Brentano's, 1925), 24.
[7] Dami, *Italian Garden*, 21-22.
[8] *Mostra*, 23.
[9] Dami, *Italian Garden*, 29.
[10] 'Ma classici tempietti rotondi od ottagoni sorgevano ancóra nel folto dell'elegante foresta romantic come un rimpianto per l'architettura perduta'. *Mostra*, 23.
[11] 'Anche questa Mostra intende rimettere in onore un'arte singolarmente nostra che dopo aver conquistato il mondo sembrò offuscata da alter mode o nacosta sotto nomi stranieri'. *Mostra*, 23.
[12] Walter Benjamin, 'The Work of Art in the Age of Mechanical Reproduction', in Hannah Arendt (ed.), *Illuminations*, trans. Harry Zohn (New York: Schocken. 1969).
[13] For Ojetti's 'giardini dell'intelligenza', see *Mostra*, 24. For Dami's comment, see Dami, *Italian Garden*, 21.
[14] For the full text of this excerpt from Darré's 'Marriage Laws and the Principles of Breeding', see *Nazi Ideology Before 1933: A Documentation*, introduced and translated by Barbara Miller Lane and Leila J. Rupp (Austin and London: University Texas Press, 1978), 111-18. In Zygmunt Bauman's analysis of Darré's statement, the violence that art does to nature in gardening and landscape design turns out to be an endemic feature of the Fascist project and, indeed, of modernity. Bauman argues that the gardening impulse is indistinguishable from the motive behind the racial politics and, ultimately, the ethnic cleansing of Nazi Germany. See his *Modernity and Ambivalence* (Cambridge: Polity Press, 1991), 27. For two useful discussions of Bauman's argument, see Martin Jay, 'No State of Grace: Violence in the Garden', in Dianne Harris and D. Fairchild Ruggles (eds.), *Sites Unseen: Landscape and Vision* (Pittsburgh: University of Pittsburgh Press, 2007), 45-60, and Michael Crozier, '*Inter putatorem et vastitatem*: The Ambivalence of the Garden Metaphor in Modernity', in Michael Crozier and Peter Murphy (eds.), *The Left in Search of a Center* (Urbana and Chicago: University of Illinois Press, 1996), 64-85.
[15] '[R]itorno della ragione nell'architettura'. *Mostra*, 24.
[16] Cristina Acidini Luchinat, 'I giardini dei Medici: Origini, sviluppi, trasformazioni; L'architettura, il verde, le statue, le fontane', in Cristina Acidini Luchinat (ed.), *Giardini medicei: Giardini di palazzo e di villa nella Firenze del Quattrocento* (Milan: F. Motta, 1996), 48.
[17] Dami, *Italian Garden*, 23.
[18] Lazzaro, 'Politicizing', p. 161
[19] Lazzaro, 'Politicizing', p. 161

[20] See Lazzaro, 'National Garden Tradition' and D. Medina Lasansky, *The Renaissance Perfected: Architecture, Spectacle and Tourism in Fascist Italy* (Pennsylvania: Pennsylvania State University Press, 2004).
[21] The *teatrini* are currently housed at the Villa Medici, Castello, where they have recently undergone a restoration. See Cristina Acidini Luchinat, 'Il modello del giardino fiorentino del Quattrocento nella mostra del 1931', in Acidini Luchinat (ed.), *Giardini Medicei*, 138-45.
[22] The full entry is as follows: 'Invenzione dell'architetto ENRICO LUSINI, ispirata al giardino di Castello quale appare nel disegno del Tribolo, con l'aiuto della descrizione che ne fa il Vasari nella Vita di lui. Alcuni elementi sono tratti dai lunettoni del Museo Storico Topografico di Firenze [themselves exhibited in rooms 4, 5, 6 and 7 of the Palazzo Vecchio] che riproducono I giardini di Castello e di Boboli. Le parti maurate derivano da creazioni dell'Ammannati'. *Mostra*, 29. Vasari dedicates several pages to the Villa Medici, Castello, more space than he devotes to any other garden or garden feature in his *Lives*. See: Giorgio Vasari, *The Lives of the Painters, Sculptors and Architects*, trans. A. B. Hinds. London: Dent and New York: Dutton, 1963. See Lazzaro, 'National Garden Tradition', 163, for a reproduction of the Utens lunette.
[23] Lazzaro, 'National Garden Tradition', 163.
[24] See Luke Morgan, 'Design: From Villeggiatura to Voyage', in Elizabeth Hyde (ed.), *A Cultural History of Gardens in the Renaissance* (Oxford and New York: Berg, forthcoming 2012), for the concepts of variety and contrast in early modern landscape design.
[25] See Lazzaro, 'National Garden Tradition' 164.
[26] My thanks to Jaynie Anderson for discussing the restoration of the Benson Madonna with me. See her *Giorgione: The Painter of Poetic Brevity* (Paris and New York: Flammarion, 1997), for more detail.
[27] Leon Battista Alberti, *On the Art of Building in Ten Books*, trans. Joseph Rykwert, Neil Leach, and Robert Tavernor (Cambridge, Mass. and London: The MIT Press, 1988), 196.
[28] Alberti, *Ten Books*, 300.
[29] Rudolf Wittkower, *Architectural Principles in the Age of Humanism*, 4th (ed.) (London: Academy Editions, 1973), 7.
[30] Chandra Mukerji has made a similar point about 'bourgeois' gardens of the Renaissance in France. See her: 'Bourgeois Culture and French Gardening in the Sixteenth and Seventeenth Centuries', in Michel Conan (ed.), *Bourgeois and Aristocratic Encounters in Garden Art, 1550-1850* (Washington, D.C.: Dumbarton Oaks Research Library and Collection, 2002), 178-79.
[31] Mark Francis and Randolph T. Hester, Jr. (eds.), *The Meaning of Gardens: Idea, Place and Action* (Cambridge, Mass.: MIT Press, 1990), 4.
[32] 'Le cose che si murano debbono essere guida e superiori a quelle che si piantano'. *Mostra*, 23.
[33] For Tolomei, see Carlo Ginzburg, 'Montaigne, Cannibals and Grottoes', *History and Anthropology* 6, 2-3 (1993), 130.
[34] For Bonfadio and the concept of the 'three natures' in general, see John Dixon Hunt, '*Paragone* in Paradise: Translating the Garden', *Comparative Criticism* 18 (1996): 55-70.
[35] See Claudia Lazzaro, *The Italian Renaissance Garden: From the Conventions of Planting, Design, and Ornament to the Grand Gardens of Sixteenth-Century Central Italy* (New Haven, Conn.: Yale University Press, 1990), 9. Taegio's *La Villa* has recently received its first English edition. See: Bartolomeo Taegio, *La Villa*, (ed.) and trans. by Thomas E. Beck (Philadelphia: University of Pennsylvania Press, 2011).
[36] See Joachim Wolschke-Bulmahn and Gert Gröning, 'The National Socialist Garden and Landscape Ideal: *Bodenständigkeit* (Rootedness in the Soil), in Richard A. Etlin (ed.), *Art, Culture and Media Under the Third Reich* (Chicago and London: University of Chicago Press, 2002), 73-97. See Fabiani Giannetto, '"Grafting the Edelweiss"', 74, n. 26, for the German origin of the idea of a national garden style.
[37] Wolschke-Bulmahn and Gröning, 'The National Socialist Garden', 76.
[38] Quoted in Joachim Wolschke-Bulmahn and Gert Gröning, 'The Ideology of the Nature Garden: Nationalistic Trends in Garden Design in Germany During the Early Twentieth Century', *Journal of Garden History*, 12, 1 (1992), 79-80.

Seidler on tour 1955-1970: Sources and influences in the international context

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Abstract

The work of 20th century émigré architects to Australia and New Zealand is often seen as the product of their early formation as practitioners - those educational and professional experiences that occur prior to their arrival and that shape them as architects. Such a view has particular myth-making power in the discussion of émigré architects, whose origin in the international context marks out their difference from their local architectural contemporaries. Yet the engagement of émigré architects with their international context goes beyond their early formation overseas. Thus, as much as local circumstances particular to the Australian and New Zealand context can be seen to inflect the work and practice of the émigré architect, so too might their later engagement in the international context from which they emerged. As illustration the paper will report on international tours undertaken between 1955 and 1970 by the Austrian émigré architect, Harry Seidler (1923-2006) to consider how the architectural work he encountered overseas provided sources and influences for his ongoing practice work based in Australia. The paper will show how Seidler sought to invest his work with key ideas of contemporary practice - often derived from the work of North American based architects including Victor Gruen (1903-1980), Bertrand Goldberg (1913-1997) and John Portman (b.1924). The paper proposes that the evolution of Seidler's work subsequent to his arrival in Australia is just as interesting, if not more interesting, than his pedigree on arrival.

Introduction

Between 1955 and 1970 the Austrian émigré architect, Harry Seidler, took nine documented international trips.[1] The trips included visits to buildings and also to architects, artists and consultants with whom Seidler collaborated on architectural projects he was undertaking in Australia. The trips were well-organised. Seidler sent letters in advance of his visits to various architects, individuals and architectural practices in order to introduce himself and his Australian work and to organise meetings. The trips were also geographically extensive, taking in destinations in Asia, Europe and North

America. Seidler undertook extensive photographic documentation of buildings on his international visits. On the advice of his brother Marcell, himself a photographer, Seidler used a Leica camera and Kodachrome stock in order to have archival quality images, with a handpicked collection of his photographs eventually being published to a broad public in the 2003 book, *The Grand Tour: Travelling the World with an Architect's Eye.*[2] This collection featured pre-20th century architecture but also focused on 20th century Modernism up to the 1970s – the later period including those masterworks by renowned architects Seidler both knew and personally admired - Marcel Breuer, Oscar Niemeyer, Walter Gropius and Le Corbusier amongst others.

In an interview with his biographer Alice Spigelman, Seidler confesses that his frequent travels overseas were not simply about his work with expert consultants, he also sought to keep abreast of the latest architectural developments around the world.[3] Such a claim might seem obvious. Many Australian architects had travelled internationally to see contemporary works and bring back ideas and techniques they observed. Yet Seidler's background as an émigré has led him to be treated differently in scholarly accounts.[4] These accounts tend to the view that the work of 20th century émigré architects to Australia and New Zealand can be seen as the product of their early formation as practitioners - those educational and professional experiences that occur prior to their arrival and that shape them as architects. Such a view has particular myth-making power in the discussion of émigré architects, whose origin in the international context marks out their difference from their local architectural contemporaries. Yet the engagement of émigré architects like Seidler with their international context goes beyond their early formation overseas placing their work in a context that is more interesting and diverse than is often assumed. Before considering the diversity of influences on Seidler's work that can be revealed through an account of his overseas tours however, it is useful to understand how Seidler dealt with his early influences at the level of his own processes or design method.

Seidler, Le Corbusier and design method

By his own account Seidler saw modern architecture as a process of form giving pioneered by Wright, Gropius, Le Corbusier and Mies van der Rohe. While Gropius provided an intellectual mentor for Seidler it was Le Corbusier's work that provided the strongest formal cues. On the international tours (later described) it is clear that visits to the buildings of Le Corbusier were a high priority. Seidler held copies of Le Corbusier's serial architectural monographs, the *Oeuvre Complète,* in his Sydney studio, which he had brought with him from New York.[5] The series also provided Seidler with a model for

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his 1954 monograph *Houses, Interiors and Projects* and his later collection, *Harry Seidler 1955/63* in terms of both presentation and layout.[6]

Seidler's reception of the work of Le Corbusier can be traced to the period in which he worked with Marcel Breuer. While in Breuer's office in 1947 Seidler produced a sketch design for a house with an associate, Rolland Thompson, which was subsequently published in *Arts and Architecture* in January 1948.[7] This project has been acknowledged as substantially the Rose Seidler House, the architect's first Australian work realised the same year.[8] Yet both of these plans are based on Le Corbusier's famous Villa Savoye, pointing directly to Seidler's chief source. A comparison at the same scale shows that their geometry and layout are basically similar to the point where it can be assumed that Seidler's plan was derived from close study or by tracing over the plan of the Villa Savoye.

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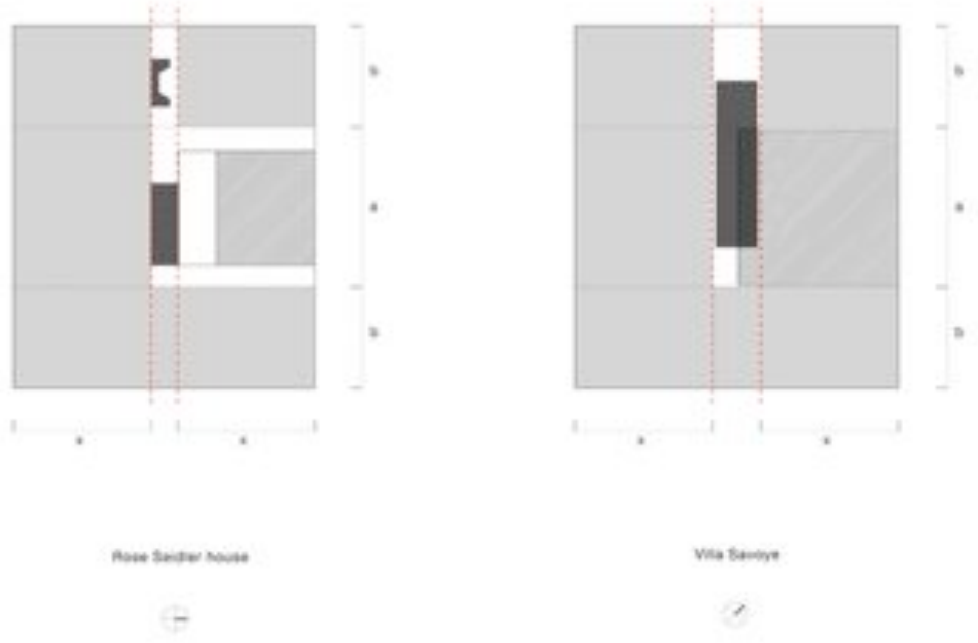

Figures 1 & 2. Comparative analysis of the Rose Seidler House & the Villa Savoye. (By author. Drawings by I-wen Kuo).

Both plans have a proportional layout whereby a central bay (length a) relates to bays on either side (of length b) by roughly the ratio of the golden section [Figure. 1]. In each plan this division marks the position of various partitions and depth of rooms, establishing relationships of part to whole in plan. Both plans also exhibit the same proportions either side of their main central circulation elements – the famous ramp in the case of the Villa Savoye and the stair from ground to the first level in the Rose Seidler House [Figure 2]. Organisationally the plans are also obviously similar, both featuring a box-like outdoor space penetrating to the centre of an almost square plan surrounded in a U-shape by rooms and functions.

In recounting Breuer's design method in 1973, one that influenced his own practice, Seidler observes of Breuer how his 'plans were always direct in organisation and resulted in beautifully related and sculptural masses.'[9] This method relates directly to Seidler's appropriation of Le Corbusier's work that involved close study of proportions and geometrical relationships that might be applied in his own architecture to achieve the type of sculptural massing idiomatic to modernism (and particularly, of course, to the works of Le Corbusier). Seidler's interest in the modernist works he admired was not simply about their forms or motifs but also their underlying geometric and organizational basis, as Seidler's close attention to Le Corbusier's plan of the Villa Savoye attests.

In two projects designed in 1957 Seidler brings a similar analytical method to his appropriation of works by Le Corbusier, specifically from the *Oeuvre Complète 1946-1952*. For the House in Clifton Gardens (1957) Seidler draws directly upon the form, massing and proportions of Le Corbusier's housing at La Sainte-Baume project (1948) with its distinctive shallow vaulted profile.[10] At a larger scale but seemly as directly, Seidler draws upon the urban organisation, massing and proportions of Le Corbusier's mid-rise slab blocks for the concourse of Strasbourg project (1951) for his McMahon's Point Development Scheme at North Sydney (1957).[11] While Seidler himself extolled Le Corbusier's Unite d'Habitation to the North Sydney Council as an appropriate model for the type of apartments that could be made[12], in terms of his own design work it was the little known project for Strasbourg that appears as the architect's chief source.

Seidler's analytical method, which plays into his process of design, is not limited to his consideration of the work of Le Corbusier. On the overseas tours described below it is evident that Seidler saw a range of work and took up influences, both directly and indirectly, for his own architectural production.

Seidler's tours

Subsequent to his arrival in Australia in 1948, Seidler returned overseas for the first time in late 1955, with an itinerary that took him through Europe, the United States and Asia. The tour included his first return to Vienna since fleeing the city during the Nazi occupation in 1938. Joining Seidler on his first tour was Peter Miller, an Australian engineer who worked as consultant on some of the architect's early projects including the Williamson House, Mosman (1951).[13] The purpose of the tour through Europe was to witness new methods in construction and the pair visited buildings in Germany, Holland, Belgium and France on recommendation of Walter Gropius, his teacher and mentor from the Harvard Graduate School of Design, who Seidler had written to for advice prior to leaving Australia.[14] Seidler had earlier arranged for Gropius to be invited to Sydney for the Australian Institute of Architects 1954 Conference and Gropius made several lectures, dining at Rose Seidler House (1948-1950), the project by which Seidler had made his early reputation in Australia.[15]

Meanwhile as part of this first tour Seidler and Miller also visited England to see new works of public architecture by the London County Council (LCC). They are likely to have seen the Loughbrough Estate public housing project for Brixton (1953-1957), then being overseen by LCC Deputy Architect Leslie Martin, and to have visited his earlier Royal

Festival Hall (1948-1951) on London's Festival of Britain site at Southbank. Seidler also wrote to architect/historian Siegfried Gideon, who had lectured him at Harvard, for a meeting in Zurich as well as to Mies van der Rohe hoping to visit him in Chicago. On his tour of the United States Seidler visited the Bauhaus teacher and artist Josef Albers at Yale, whose art course at Black Mountain College he had attended in 1946. Seidler had also written to Le Corbusier in Paris in late 1955 and met with him at Chandigarh, where Le Corbusier showed him through the Secretariat building (1953).[16] While in Europe Seidler had also visited Le Corbusier's recently completed Chapel at Ronchamp (1950-1955) and had been greatly impressed.

On his next overseas tour in 1958 Seidler took the opportunity to combine architectural visits to Japan, China and Hong Kong with his honeymoon. Harry and Penelope Seidler stayed at Frank Lloyd Wright's Imperial Hotel, Tokyo (1916-1922) and visited Le Corbusier's Museum of Western Art (1957-1959) then under construction.[17] He also met Maekawa Kunio, an early exponent of modernism in Japan who had worked for Antonin Raymond, and saw works by both architects in particular Raymond's US Embassy apartments (1951-1952).[18] Seidler encountered the work of Kenzo Tange including the Kagawa Prefectural Government Building offices, Takamatsu (1958).[19]

In 1960 Seidler accompanied the Dutch-Australian developer Gerardus (Dik) Dusseldorp, on a trip to New York to meet the American developer William Zeckendorf and Seidler's Harvard colleague I.M. Pei to discuss the proposed Australia Square high-rise project for Sydney. While unsuccessful in meeting Zeckendorf, the pair did meet with Pei, who accepted the commission for the sketch design of the Australia Square project in a joint-venture with Seidler.[20] Dusseldorp was the founder of the building company Civil and Civic who later established the offshoot corporation, Lend Lease. He was then working with Seidler on the Blues Point Tower Apartments at North Sydney (1959-1961).[21] In New York Seidler visited Philip Johnson in his offices at the Seagram Building (1954-1958). He also returned to the Harvard Graduate School and again visited Joseph Albers. Continuing his travel in Europe, Seidler met his mentor Marcel Breuer and toured Breuer's Van Leer Building, Amsterdam (1957-1958), UNESCO Headquarters, Paris (1953-1958) and his Staehelin House, Switzerland (1957-58).[22] Subsequently, he met Jorn Utzon in Denmark before visiting England and seeing the London County Council's Roehampton public housing scheme, Alton Estate (1958-1959).

In 1963 Seidler travelled to Rome to consult with the Italian engineer Pier Luigi Nervi on the structural design for the Australia Square project. On route he also toured Canada

and the United States as well as other destinations in Europe, ostensibly to study the latest advances in concrete construction for high-rise buildings.[23] On his trip through Canada Seidler visited old colleagues from the University of Manitoba, where he had taken his undergraduate architectural education.[24] Again Seidler called on Walter Gropius at Harvard and took the opportunity to visit Le Corbusier's Carpenter Centre (1961-1964). He was greatly impressed by Le Corbusier's work describing it in a letter to his office in Sydney as 'surprisingly intricately put together [and] spatially an utter joy.'[25] In the same letter he also claimed to have obtained 'full details of the Corbu building from Sert's office'[26] (it was Josep Sert who, as Dean of the Harvard Graduate School of Design, offered Le Corbusier the commission for the Carpenter Centre in 1961). Seidler also saw Louis Kahn's Richards Medical Laboratories (1957-1960) at the University of Pennsylvania but declared himself unimpressed.[27] In Chicago Seidler was intrigued by the circular form of Bertrand Goldberg's Marina Towers (1959-1964) for the manner of their construction and the arrangement of their floor plans.[28]

While in Italy Seidler organised to see buildings designed and engineered by Nervi. These included his exhibition building in Turin (1949) and the Pirelli Tower in Milan designed by Gio Ponti (1950). On his stay in Rome Seidler visited the city's Roman architecture as well as its Baroque buildings including Borromini's San Carlo Quatro Fontane (1638-1641) and Bernini's San Andrea (1658-1661). The 1963 tour also involved a return trip to India with a visit to meet architect B. V. Doshi in Ahmedabad, who had worked with Le Corbusier, and to see Le Corbusier's works there: Shodan House (1951), the Mill owners' Association Building (1954), and the Sarabhai House (1955). He also visited the Mughal capital Fatehpur Sikri (1571-1585) and the cities of Jaipur and Agra.

In 1965 Seidler took his most involved and extensive overseas tour, one that was chiefly associated with meeting and interviewing artists for consideration in the commissioning of works for Australia Square. The list of artists included Alexander Calder, Clement Meadmore, Henry Moore, Isamu Noguchi and Herbert Bayer, then living in the United States, who had been a student and teacher at the Weimar Bauhaus.[29] Yet the tour also involved meeting a host of others - architect contemporaries working for themselves or in larger offices, architectural consultants and journal editors – who might assist Seidler as he sought to stay abreast of international developments in the field of architecture and design. He contacted Carson, Ludin & Shaw Architects in relation to their work with Eero Saarinen on the CBS Tower, New York (1961-1964) as well as contacting Saarinen's office directly. He wrote to Marion Vanderbilt of Skidmore, Owings and Merrill (SOM) regarding advice on sculptors for the Australia Square project and about visiting SOM's

latest buildings while also contacting architect William Dunlap at SOM's Chicago office in relation to the seeing the Brunswick Building, Chicago (1961-1965). The Brunswick Building featured a novel reinforced concrete tube structure that was later taken up in the construction of SOM's John Hancock Building (completed 1970).[30] Seidler was in touch with several firms about lighting and furnishings; Mel Berman (Architectural Lighting Division) and Alden Boyd (Vice President of Knoll International) amongst others.[31] He contacted Edgardo Contini at Victor Gruen and Associates to discuss shopping centre design and wrote to Craig Ellwood, the designer of Case Study Houses 16, 17 & 18, about visiting him and his works. Seidler also had an interest in apartment buildings to pursue contacting Rollo Thompson of Kelly & Gruzen Associates about a meeting on the topic. It is likely that Seidler sought to discuss and visit Kelly & Gruzen's Chatham Towers, New York (1961-1965) which featured an innovative in-situ concrete construction technique that allowed for column-free interiors.[32] Seidler also wrote to other famous architects of the period to discuss their work. These included his former employer and mentor Marcel Breuer, Richard Neutra, Alison and Peter Smithson and the Mexican architect Felix Candela.[33]

Seidler met Jorn Utzon in Denmark who showed him his Fredensborg Housing project (1959-1962) with which Seidler was greatly impressed. Seidler also continued on to Finland and visited the modern planned town of Tapiola, a community built through the 1950s and 1960s, which again impressed the architect.[34]

Seidler was also in touch with the editors of several architectural journals regarding the publishing of his Australian work. In the United States Seidler met with David Travers, editor of *Arts and Architecture* who headed the journal from 1962 to 1967. Seidler's work appeared regularly in the journal with 35 of his buildings and projects being featured between 1948 and 1965. Such strong coverage was important to Seidler's standing within the American architectural scene, particularly for the fact that the journal sought to publish the latest examples of modernist architecture. Other editors who Seidler met with to discuss and organise the publication of his work included J. M. Richards of *The Architectural Review*, Reneé Diamant-Berger of *L'Architecture d'Aujord'hui* and Gilbert Pfau of *Bauen + Wohen*.[35]

In 1966 Seidler travelled to the United States where he was made an Honorary Fellow of the American Institute of Architects (AIA). In 1968 Seidler was once again in the United States, this time at national AIA convention in Hawaii where he was awarded the Pan Pacific Architectural Citation for his work. In 1969 his trips to North America continued,

related to his Condominium Apartments for Acapulco, Mexico (1969-1970)[36], then under construction.

Sources and influences

Seidler believed that his overseas trips were of key importance to his practice and there are certainly observable formal links between the works he saw overseas and projects he proposed in Australia. For example, the elevation of Seidler's proposal for Flats in Camperdown (1959) exhibits a distinctive articulated edge that recalls the articulated structure of Kenzo Tange's Kagawa Prefectural Government Building, which Seidler saw only a year before. Links might also be drawn between the shopping mall planning strategies of Victor Gruen, which Seidler investigated on his North American trip in 1965, and the planning of Sydney's Mid-City Centre, designed a decade later.

A more complex example of resemblance concerns Bertrand Goldberg's Marina City Towers and Seidler's Australia Square project. Seidler worked on Australia Square from 1960 through to the building's completion in 1967. The design went through various iterations beginning as a rectangular form tower designed in conjunction with his Harvard colleague, I. M. Pei. A second scheme designed by Seidler alone and dated 1961 shows the distinctive cylinder-like shape of the tower with a low rectilinear slab block adjacent. On this 1963 international tour Seidler made a point of visiting Goldberg's similarly circular Marina City Towers in Chicago, then under completion, to gather information on its construction and its tenancy layout that might assist with his on-going work on Australia Square. Clearly Seidler was intent on informing his project with the latest international knowledge yet it is also conceivable that the architect knew of Marina City Towers earlier than 1963. Goldberg's project was described in the January 1962 issue of *Arts and Architecture* so it likely that Seidler saw it as he developed his proposal for a circular form tower, begun in 1961.[37] Indeed the model of the Marina City Towers project pictured in *Arts and Architecture* also shows a low rectilinear slab block adjacent a circular tower, which strongly echoes Seidler's final urban solution for Australia Square. Drawings of an early version of Australia Square project are also comparable to Marina City Towers in terms of their overall organisation with the segmentation of the whole by bands in elevation being a feature of both.

Once we admit this logic in looking at Seidler's work other associations emerge beyond those evidenced by the tours described. For example, the Hilton Hotel, Brisbane (1984-86) is clearly based on the precedent of John Portman's Hyatt Regency, San Francisco

(1973) in the tapered form of its atrium and the treatment of the balcony edges to the interior void.

Seidler and North America

On the evidence of his tours from 1955 to 1970 (and the formal influences described above) it is plain that Seidler international outlook favoured the American context. The trips documented reveal how well connected Seidler was in the international post-war scene, particularly in North America, and how he sought to maintain, cultivate and develop his connections there. Significantly, his itineraries in America show that the architect did not merely hold to contacting those other European émigrés such as Walter Gropius, Joseph Albers and Marcel Breuer who were instrumental to his early formation as a practitioner. While they were centrally important to the tours he took up to 1960, through 1963 and 1965 Seidler greatly expanded his connections in North America. He met with a range of architects working on similar project types and at similar scales. Indeed his place in the post-war North American architectural scene is evident despite his Australian base. Through the regular publication of his work in *Arts and Architecture* during this period Seidler becomes well known within the profession in the United States, culminating in his recognition by the AIA in the late 1960s – a sign that the architect was not necessarily isolated in his Australian practice but could use that distance to his advantage. As a result, and despite Australia's distant location, Seidler achieved the acknowledgement of his work within the American scene – a place that valued and promoted an international modernism to which Seidler was also devoted.

Through journals such as *Arts and Architecture* and through his own contacts Seidler studied the North American scene closely. He sought an architecture that was progressive and seems intimately aware of developments around the world despite his remote Australian base, studying new overseas works directly and at the point of their realisation. His interest in the very latest developments in the field were not simply formal or, in his own terms, about a 'dizzy tumble from novelty to novelty.'[38] From his letters to architects to organise meetings it is clear that he was keen to witness and to understand new techniques of construction, new types of programmatic organisation and the latest thinking regarding building servicing and fitout. It is evident that the European architectural scene of the same period was more reflective and critical around issues of internationalism, beginning to exhibit stronger nationalistic tendencies. Seidler by contrast was clearly aligning himself as an inheritor of the International Style situated in North America that held to a positivist view of architecture's progress which eschewed questions of nationalism. By travelling so regularly to the United States Seidler

deliberately positions himself in the context in which he trained as an architect, amongst architects who he clearly regards as close peers. In this context Seidler's Condominium apartments project for Acapulco (1969-1970), which seems an aberration in relation to his Australian based work, appears neatly consequent to the cultivated connections built over more than a decade of contacts and tours in North America.

Conclusion

It could be argued that Seidler took forward his broad analytical design method, practiced on the work of Le Corbusier, to a range of architectural works he encountered through his carefully planned international tours in the period 1955-1970 - works that continually contributed, in varying degrees, to his own education and practice as a modernist architect. His evident strong connection into the North American scene augmented and reinforced the positivist and progressive view of international modernism to which he subscribed. More than this it is apparent that Seidler personally identified with the American scene, drawing inspiration from it and situating his work within it through regular publication. Seidler's interest was increasingly in what the American architectural scene had become rather than what it had been for him when he left it to join his parents in Sydney in 1947. In this sense, and in the development of his work, he had clearly moved beyond those early formative influences that so dominated his first professional works in Australia. Indeed, the tours reveal that the evolution of Seidler's work subsequent to his arrival in Australia is just as interesting, if not more interesting, than his pedigree on arrival.

Endnotes

[1] Harry Seidler Correspondence. NSW Library, Special Collections.
[2] Harry Seidler, *The Grand Tour: Travelling the World with an Architect's Eye* (Koln: Taschen, 2004).
[3] Alice Spigelman, *Harry Seidler: Almost full circle* (Sydney: Brandl & Schlesinger, 2001), 199.
[4] The focus on Seidler's early influences and the legacy of modernism is well served by current accounts. See in particular Kenneth Frampton & Philip Drew *Harry Seidler: Four Decades of Architecture* (London: Thames & Hudson, 1992).
[5] Ann Stephen, Philip Goad and Andrew McNamara (eds.) *Modern times: the untold story of modernism in Australia* **(**Carlton, Vic.: Miegunyah Press, 2008), 118.
[6] Le Corbusier, *Oeuvre Complète Vols 1-4* (London: Thames & Hudson, 1964). Harry Seidler, *Houses, Interiors and Projects* (Sydney: Associated General Publications, 1954).
[7] Harry Seidler and Roland Thompson, 'Preview project', *Arts and architecture*,65, (Jan 1948), 32-33.
[8] Kenneth Frampton & Philip Drew *Harry Seidler: Four Decades of Architecture* (London: Thames & Hudson, 1992), 18.
[9] Blake *Architecture for the new world*, 232.
[10] Seidler *Seidler 1955/63*, 64-67; Le Corbusier, *Oeuvre Complète 1946-1952* (Zurich: Girsberger, 1955), 34-35.

[11] Seidler *Seidler 1955/63*, 194-199; Le Corbusier, *Oeuvre Complète 1946-1952,* 112-113.
[12] Spigelman *Harry Seidler*, 205.
[13] Harry Seidler, *Houses, interiors and projects* (Sydney: Horwitz, 1954), 82-86.
[14] Spigelman *Harry Seidler*, 200.
[15] Spigelman *Harry Seidler*, 195.
[16] Spigelman *Harry Seidler*, 201.
[17] Spigelman *Harry Seidler*, 225.
[18] Seidler *The Grand Tour*, 615.
[19] Seidler *The Grand Tour*, 616-617.
[20] Spigelman *Harry Seidler*, 225.
[21] Harry Seidler *Harry Seidler 1955/63* (Sydney: Horwitz, 1963), 118-127.
[22] Marcel Breuer, *Marcel Breuer: Buildings and Projects 1921-1961* (London: Thames & Hudson, 1962).
[23] Spigelman *Harry Seidler,* 267.
[24] Spigelman *Harry Seidler*, 267-268.
[25] Letter dated October 31, 1963. NSW Library, Special Collections.
[26] Letter dated October 31, 1963. NSW Library, Special Collections.
[27] Spigelman *Harry Seidler,* 270.
[28] Spigelman *Harry Seidler,* 270.
[29] Harry Seidler Correspondence. NSW Library, Special Collections.
[30] http://www.som.com/content.cfm/brunswick_building Accessed March 3, 2012.
[31] Other offices and consultants contacted included Richard Kelly (lighting consultant) and Kim Lighting Company. Seidler also contacted Philip Johnson to discuss lighting. NSW Library, Special Collections.
[32] http://www.docomomo-us.org/register/fiche/chatham_towers. Accessed March 3, 2012.
[33] Harry Seidler Correspondence. NSW Library, Special Collections.
[34] Spigelman *Harry Seidler*, 278-279.
[35] Harry Seidler Correspondence. NSW Library, Special Collections.
[36] Kenneth Frampton & Philip Drew *Harry Seidler*, 82-83.
[37] Seidler *Seidler 1955/63*, 202-207; Bertrand Goldberg, 'Marina City Towers', *Arts and Architecture*, 79 (1962), 12-13.
[38] Peter Blake *Architecture for the new world. The work of Harry Seidler* (Sydney: Horwitz, 1973), 232.

The Politics of Contextual Specificity and Global Architectural Trends[1]

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Abstract

This paper explores issues of regionalism and contextual specificity in relation to architecture in two moments in twentieth-century Iranian history: firstly, the International Congress of Architects, inaugurated on 14 September 1970, by Queen Farah, in the historic city of Isfahan, and secondly, the first significant national architecture competition held after the Islamic Revolution in 1991, with entirely Iranian participants, for the Iranian Academies Complex. That competition and subsequent debates activated professional and academic circles. At the centre of this activation was the government-sponsored journal, Abadi*.*

The paper will refer to the proceedings of the 1970 Congress and to journal archives on the top five competition submissions, in order to articulate persistent discourses related to contextual specificity. The paper demonstrates the persistence of global architectural trends and debates despite the ideologically charged Iranian environment. In conclusion, it suggests the futility of the regionalist position, which is too easily appropriated by totalitarian political systems, and identifies an anxiety over identity as a leitmotif of the Iranian culture in the late twentieth century. It will also remark upon the inherent disconnection between cultural production and crises of political ideology in Iran.

Introduction

In this paper, we review the theory of regionalism in relation to one case study, the Iranian re-evaluation of its architectural heritage. Our study will examine two moments in history: firstly the first International Congress of Architects in Iran, which was inaugurated in September 1970 in Isfahan and was attended by leading international figures who generally espoused a regionally-specific architecture, and secondly, the first nationally significant

architectural competition, the competition for the Islamic Republic Academies, held in 1991 after the architectural hiatus caused by the eight year war between Iran and Iraq.

The first moment followed rapid socio-economic and cultural changes enforced by the state under the aegis of its 'White Revolution.' The second moment occurred after the Islamic Revolution and the subsequent educational reforms of the Maoist-inspired 'Cultural Revolution'.[2] Islamist ideologues often assert that the Islamic Revolution was cultural in essence, with political consequences – indeed, the Islamic state followed a strong, albeit ideologically-driven, cultural agenda from the outset. In order to test this notion of a cultural basis to the revolution, we will examine the specific test-case of architectural discourse – here the official discourse of architecture. We will analyze the early issues of the first government-supported architecture journal, *Abadi*, specifically focusing on the competition for the National Academies Complex, and will compare this discourse to the politico-historical milieu of the country in the decades leading to the 1979 revolution. We will conclude that, despite revolutionary rhetoric favouring variants of nativism, the architectural discourse of Cultural Revolution in practice followed the local contextualist and traditionalist discourses of the 1970's and, perhaps with some delay, reproduced aspects of Western regionalist theory.[3]

Moment 1: The Isfahan Congress 1970

In the aftermath of WWII, Iran was the recipient of American aid through a local version of the Marshal Plan, known as 'Point Four', which linked aid to required social and economic reforms.[4] There were also domestic demands for change, driven in part by a burgeoning middle class that demanded economic and social change (Ansari: 2001: 3-4).[5] In response, and to legitimise and strengthen the monarchy's rule, a raft of reforms was packaged under a comprehensive program known as the White Revolution (Ansari: 2001:1).[6] The program, formulated between 1958 and 1963, and launched in 1961, pursued 'liberal' policies including land reforms, privatisation and women's suffrage.[7] From the standpoint of the religious and conservative sectors of the society, as well as those opposing the regime, the White Revolution represented yet another deviation from Islamic tradition, and appeared to conservatives to be driven by foreign interests.[8] By the 1970's, transformations were apparent in the state cultural policies and in its support and promotion of the fine arts and architecture. This was a personal passion of the person of the Queen, Farah (Diba) Pahlavi, who before her official position, was an architecture student at the Ecole de Beaux-Arts in Paris.

Figure 1. Left: Queen Farah giving her Inaugural Address to delegates. Right: Forughi, the honorary Chair of Iranian Institute of Architects giving his address (Farhad, Liela, and Laleh Bakhtiar, (eds.) 1970. *Investigating the Possibility of Linking Traditional Architecture with Modern Building Methods: report of the proceedings of the First International Congress of Architects*. Isfahan, 13, 19).

It was in this atmosphere of contested change that, on 14 September 1970, the Queen inaugurated the First International Congress of Architects in the city of Isfahan entitled 'Investigating the Possibility of Linking Traditional Architecture with Modern Building Methods.' In her inaugural speech (Figure 1), she declared the importance of reconciling traditions with progress.[9] The location of the Congress was important, given Isfahan's many exquisite examples of Islamic art and architectural heritage. Delegates were also taken to Persepolis, the exemplary pre-Islamic monument. Participants included eminent international intellectuals and practitioners including Louis Kahn, Oswald Matthias Ungers, George Candilis, Ludovico Quaroni and Paul Rudolf, and their Iranian counterparts, including Nader Ardalan a prominent Traditionalist, and Kamran Diba, perhaps the first advocate of contextual or environmental architecture in Iran.

The Congress was a response to contemporary conditions in Iran, a rapidly modernising country where tradition was increasingly problematised. It was, as the Minister for Development and Housing remarked,[10] an attempt to address problems born of liberal (and modernising) economic and educational policies, and their repercussions for the field of architecture, problems we can characterise today as pertaining to an identity crisis. The central theme of the conference was to investigate "the mutual impact of tradition and technology."[11] Echoing the Queen's introduction, the conference concerned itself with the relevance and validity of tradition in the present. Forughi, a prominent architect and honorary Chair of the Architects' Institute, former Dean of Faculty of Fine Arts and politician,

formulated the theme thus: '…since the continuity (consistency) between traditional and contemporary architecture is now gone, we do not know to what extent we can be inspired by the form and spirit of past art.'[12] This problem would persist until a few decades later.

Under the theme of tradition and progress, delegates also concentrated on the problem of the relationship of architecture to its physical and cultural context, under the following themes: the meaning and value of heritage, the expression of identity through architecture, the distinction between tradition and the traditional, authenticity in architecture and the social and ultimately political context of architecture. The latter, mainly brought up by Candilis, was never elaborated in the Congress proceedings, an omission that perhaps reflected the specific conditions of absolute monarchy in Iran. The exchanges in that Congress were important in two respects. Firstly, the issues were globally pertinent and not limited by the context of Iran – the Congress was addressing a global concern through the example of Iran, a country that sat on the periphery of Western modernism. Quaroni argued that this conference was '…the first time that anyone has found the courage to discuss this important problem [of tradition and modernity], which is so hard to resolve.' [13] Questions of the relationship between creativity and technology and architecture and national development would only be discussed in the International Union of Architects (UIA) congresses in 1975 and 1978.[14] Secondly, these issues determined the tone and direction of architectural discourses and tendencies in Iran in the forthcoming decades to the present. The Congress formed a pivotal moment that architects of that generation would never forget. Furthermore, this was not a theoretical conference foreshadowing an architectural direction to come. Under the existing system of architectural education and practice at the time, local architects experimented with some of the ideas that took place during the Congress. In this respect, the Congress was a means for articulating existing practical tendencies and strategies within the country, and perhaps, for the local organisers, to influence or even codify it. While some international participants, such as Quaroni, the joint designer of the Neo-Realist Tiburtino housing project in Rome (1949-54), saw tradition as a thing of the past, others, including the Iranian Ardalan ascribed a timeless and immutable quality to it and yet others, including the German Rationalist Ungers thought of it as being in a dialectical relationship with the present and therefore in a constant state of change.[15]

The debate over the relation of tradition and modernity set the tone for architectural discourses of the next three decades in Iran. Another participant, Abtullah Kuran, a Turkish theorist and architectural historian, argued that the region existed in a condition of peripheral modernity, noting:

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> Modernity is not about relinquishing cultural specificities in order to arrive at a common global thought, it means rather, that the architect combines his creative spirit and thought and feelings, which are coloured by his cultural and social milieu with new materials and modern technology and present a good combination of them in the form of a building. [16]

He went on to suggest that there may be a global culture emerging from the mixture and acknowledgement of different cultural sensibilities: '…alongside technological development, cultural specificities and thoughts and sensibilities specific to societies become less prominent and humanity becomes more uniform.'

Figure 2. Ludovicio Quaroni, Adolfo de Carlo, Massimo Amodei, Roberto Berardi, Behamin Hagler: Government Centre, Tunis, 1966, Model (Source : Vittorio Gregotti, *New Directions in Italian Architecture* (New York: Braziller, 1968), 116)

Quaroni, too, thought it was '…possible that we will end up having a global style that is differentiated by its local manifestations in accordance with local traditions and a country's "inherent spirit"', speculating that perhaps tradition, in its internal sense, no longer existed. Rejecting attempts to imitate traditional motifs, he asserted that there remained perhaps only '…a false tradition made of shallow forms or discrete parts that is forced upon people. This is a global crisis.' The way out of such falsehood and superficiality would be to situate architecture within its urban context '…by revitalisation of the spirit of the city in relation to the spirit of architecture. One can show the dominance of geometry (as means of expression) anew.' He advocated internalizing the [essence/principles of] masterpieces of Iranian architectural heritage in …new projects so that an internal relationship with the past could be preserved (Figure 2).[17]

Sardar Afkhami, a prominent Iranian practitioner, located the problems of contemporary architecture in the crisis of tradition and the social discontent arising from modernity, one that was, he argued, social and spiritual[18] While traditional means and methods were no longer sufficient for today's problems, architecture could not be seen as a field upon itself.[19] His comments were pointed at a group of Traditionalists, among them Congress organisers, who advocated return to Islamic traditions of the past.

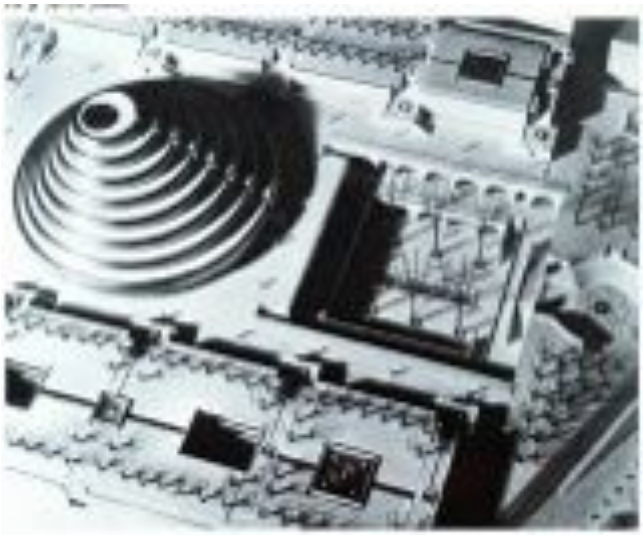

Figure 3. Nader Ardalan, Design for the Iranian Centre for Music (partial photograph of model). (Source: Amir Bani Masoud, *Iranian Contemporary Architecture*, (Tehran Honar-e Memari Publications, 2010), 319)

Another group of traditionalists sought a more authentic, and perhaps Islamic-nationalist, approach in architecture and rejected the universalising aspects of modernity – they advocated a return to origins and localities. Prominent among them, on the Iranian side were Nader Ardalan and Naser Badi`, the Congress secretary. Ardalan, a Harvard Graduate and Iranian only by birth, had decided to return to Iran after what may be described as his own identity crisis, which had led to a quest for a more authentic and meaningful approach to architecture.[20] He developed an admiration for the traditional desert architecture of Iran and for the esoteric schools of thought, articulated by prominent Traditionalist Seyyed Hossein Nasr. At the time of this conference, Ardalan was, together with his wife, the Congress proceedings editor Laleh Bakhtiar, in the process of writing a book, *The Sense of Unity: The Sufi Tradition in Persian Architecture* (1974), in which they adopted the methods of urban formal analysis of Colin Rowe and others, in seeking to define the quintessential typologies and geometries of traditional Iranian cities and buildings (Figure 3). At the congress, Ardalan asserted: '…the Islamic tradition is [the] most direct manifestation of Iranian culture,' particularly since architectural and material evidence of that tradition was, he argued, more readily available.[21] His position was reinforced by Congress Secretariat Badi` who called for

a contextually-specific architecture and rejected the International Style, which he described as unsuitable for the local, climatic and racial [ethnic] characteristics of the nation's architecture.[22]

The Traditionalist position was perhaps aided by Louis Kahn's long and elliptical discussion – in a Platonist vein – on the nature of inspiration, and in defence of an intuitive (as opposed to a rationalistic) approach to understanding relationships in nature, humanity and architecture – an approach that located the source of inspiration not in the promise of the future, but in a distant past. Despite the inherently universalizing nature of his design approach, his words authenticated the position of those Iranians who were alarmed by the rapid changes of modernity and sought a return to the security of familiar traditions. In the following decades, this quest for authenticity would inform both a social upheaval – the Islamic Revolution – and the official discourse of architecture it espoused.

End of an Era? The Islamic Revolution and the Rhetoric of Cultural Transformation

Nine years after the Congress, the Islamic revolution took place in Iran. The revolutionary state intended to transform all facets of life and this became evident in public sphere, in mass media, in sanctioned dress, modes of speech, education, and forms of artistic and architectural expression.[23]

Attempting to put into practice the anti-colonialist and traditionalist ideologies they had adopted from European models, Islamist ideologues intended to reverse the Pahlavi westernising tendencies, and to restore national and religious identity on the basis of Islamic dogma. They argued there was a need for a cultural revolution in the people's mentality such that it was aligned with an ideological interpretation of Islam. This cultural revolution necessitated the Islamicisation and depoliticisation of higher education.[24]

While the intellectuals and academics operating under the old regime were targeted as proxies of the colonialist west,[25] universities were censured as part of the apparatus of western domination through which a 'cultural assault' on domestic culture was effected. [26] Islamist revolutionaries further argued that such universities (established with a westernising and modernising agenda) were displaced from their social and historical context and failed to project or respond to an authentic identity.[27] This process came to its logical conclusion when Khomeini, the leader of the Revolution, decreed the Cultural Revolution on 12 June 1980.[28] Amongst the ten objectives of the Cultural Revolution were:

1. the expansion of the influence of Islamic culture in different facets of the society and the reinforcement of cultural revolution and the elevation of popular culture;
2. the cleansing of the scientific and cultural environments of materialist thought and rejection of expressions and effects of 'westoxification'[29] from the cultural sphere of society.

Moment 2: (post-)Revolutionary Architecture, the Persistence of a Discourse

Following the purges of the Cultural Revolution, universities remained closed for almost two years. By the time they had re-opened, the country found itself at war with Iraq and the economic conditions impeded architectural ambitions in both the public and private sectors for over a decade. Professional journals were scarce, and limited to the struggling local *Architecture and Urbanism* journal, the pre-revolutionary journal archives in private and university libraries, and the scarce copies of current international journals that made it through the Islamic vetting system of imports.

The first prominent local journal after the Cultural Revolution was *Abadi* (its title meaning 'Development' in Persian). It was published quarterly under the auspices of the Ministry for Housing and Urbanism with the Deputy Minister, Seyyed Reza Hashemi, as its Editor-in-Chief (Figure 4). The journal reflected the official position of the ministry, which was in charge of all major public works. In its very first issue (Summer 1991) Hashemi set forth, in an editorial, the general direction of the journal, one that articulated current issues in practice and the education of architecture.[30] He criticised the weight given to socio-political debates surrounding problems of urbanism instead of practical know-how. His emphasis on concrete problems rather than social debates, while pertinent, represents more broadly a familiar official attempt on the part of state officials to divorce all fields from their possible political implications.[31] Ironically, this position recalled the avoidance of political debates in the Isfahan congress under the Pahlavi monarchy. Hashemi's position was clear: "…since we played no part in the international transformations of industrialisation in architecture, we failed to preserve and transfer the traditions of that rich and magnificent and humane patrimony (of past architecture) to a contemporary civilisation."[32]

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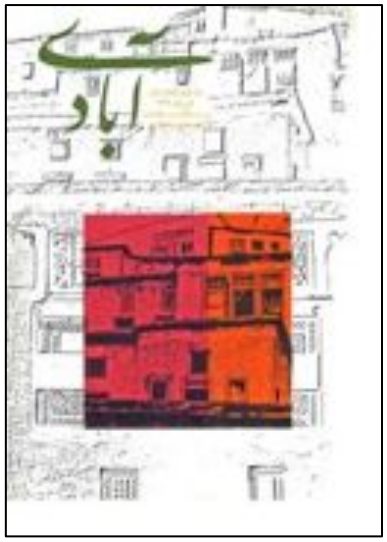

Figure4. Cover of the first issue of *Abadi*. The graphics seem to emphasise the vernacular.

While pursuing its sanctioned apolitical agenda, *Abadi* followed an established (western) style in its content, publishing discussions on education and curriculum, practical problems, introducing (and then promoting) architects through their projects, including interviews with practitioners and academics in the field, and running annual architectural awards. Much of this was new for the post-revolutionary environment. Representing the establishment discourse on architecture, *Abadi* sought to engage academics and practitioners, organising events and debates around pertinent topics such as national projects.

The Quest for a Contextual Architecture: the Competition for the Iranian Academies

The first significant post-Revolution architectural competition was the competition for the Iranian Academies. The competition was announced at the beginning of the so-called 'Constructivity Period', an era of economic liberalism ushered in by the government in the aftermath of the eight-year Iran-Iraq war. This would be one of a repertoire of projects representing the state's architectural and development ambitions. The Ministry for Housing and Urban Development was at the centre of the event, as was *Abadi* through its introduction and critique of the projects (issues 12 and 13, 1994). The submissions, and more importantly the selected projects, reflected the dominant perceptions of official Iranian architecture at the time. The brief consisted of a design for three Academies – Science, Medicine, and Persian Literature – and their support spaces, totalling 58,400m^2 in an 82,350m2 lot of land in what would become the new official cultural centre of Tehran.[33] When the competition was announced in 1993, 64 expressions of interest were received, of these 44 proceeded to registration, and ultimately 15 schemes were submitted.[34] Despite the

low entry numbers, this was to be considered a significant participation on the part of the profession, given the social context.

At the time of the competition's announcement, the country was still relatively closed to an influx of information or architecture graduates from western universities. However, professionals and academics were gradually becoming exposed to European and American developments through university libraries, whose collections were being replenished, and the occasional private copies of books, which were then photocopied and circulated. Thus, for example, architects took an interest in the works of James Stirling, and ideas developed by Rob Krier in his books, *Stadtsraum* (Urban Space) and *Elements of Architecture*.[35] There were developments taking place within the country as well. The Agha Khan Trust and its award for Islamic architecture was taken more seriously by practitioners and academics alike. In conjunction with this, there was a new appreciation of Ardalan and Bakhtiar's book, *A Sense of Unity* (1974), a traditionalist study, which approached the question of esoterism in architecture through typology and formal language. Anecdotal evidence suggests that such interest would inform approaches to design and the formation of architectural styles and taste.

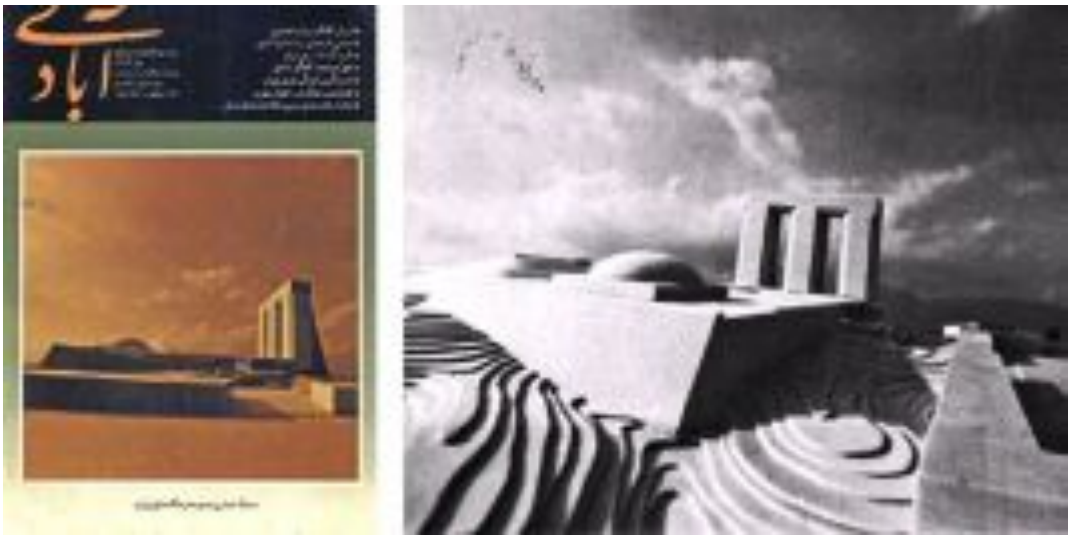

Figure 5. Left: cover of Abadi no. 12 depicting the winning scheme for the Islamic Republic Academies. Right: another view of the winning competition entry by Mirmiran (*Abadi* 12, 49).

In his Editorial in issue 12 of *Abadi*, Hashemi pointed out that despite the passing of a few years since the Islamic Revolution, and the reopening of universities after the Cultural Revolution, there had been little serious conversation about architecture, just as there had been little enthusiasm expressed in architecture classes and studios or through graduation projects. If there was anything written by commentators, he wrote, it mostly consisted of

translations and quotations of non-Iranian architects and critics in an unfamiliar (meaning jargonistic and foreign) language. The competition for the Iranian Academies, he argued, changed this situation. This was the first time that such a complicated and significant project would be entrusted to Iranian designers, implying that it was a step forward in self-reliance (self-sufficiency?) and independence in this field, and thus in line with revolutionary rhetoric.[36]

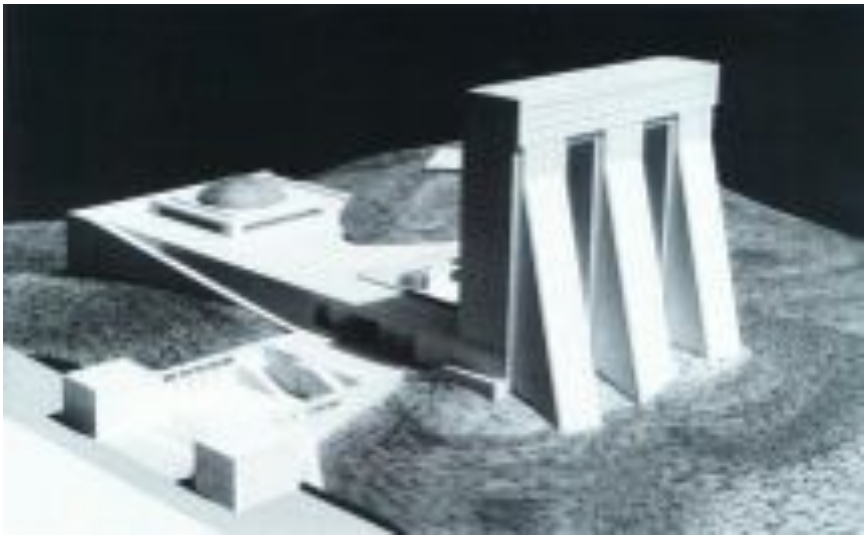

Figure 6. View of the model of Mirmiran's competition entry (Source: Bani Masoud, *Iranian Contemporary Architecture* 392)

Publication of the submissions in *Abadi* instigated the first serious post-Revolution conversation about architecture, tradition, and identity in the professional and academic circles (Figure 5). The exchanges reflected deep-seated anxieties over architectural authenticity and 'Iranianness.' Ironically, the calls for a regionally and culturally specific architecture recalled similar positions advocated in the 1970 Isfahan Congress of Architecture. Architecture was in a time-warp that had lasted 23 years and was going to last even longer. The confusion felt between tradition and modernity in the 1970's was still persistent in the mid-90's and this was apparent in the jury's position which emphasised 'cultural aspects' (meaning specificities) and normative modernist universalisations such as the inherent value of simplicity in design. The first prize went to Naqsh-e Jahan Pars group (Seyyed Hadi Mirmiran) for 'simplicity in expression, clarity in design and spatial organisation' and for its urban monumental qualities (Figure 6). The second prize went to Tajir (Ali Akbar Saremi) for its '…new expression and the creation of consistent and flowing spaces', Third was Ivan Hasht-Behesht (Darab Diba) for 'rational distribution of spaces and simplicity of relationships', Fourth place went to Bavand (Iraj Kalantari) for 'the balanced combination of vernacular and modern architectural elements', and the fifth place went to Memar-Naqsh group for 'their attention to cultural and functional [design] aspects'.[37]

From the explanations and discussions of designers in *Abadi*, it is possible to discern a number of regionalist tendencies in four of the five participating designs, some of which enjoyed strong official backing.

Regionalist Rhetoric

The first tendency, articulated by Mirmiran, suggested a typological essentialism that ascribed a trans-historical, timeless and essential quality to Iranian architectural patterns and spatial configurations such as the dome.[38] The premise was that such elements might be recreated, perpetually, in new contexts without losing their meanings. However, in the process, such motifs and elements were decontextualized, thus blurring the boundaries between traditional and modern iconography, much as in Western Post-Modernism. The monumental design combined typological elements of courtyard, dome, gateway, and platform in a manner reminiscent of certain Rationalist projects of the 1970's. The towers – Gateways – resembled Achaemenid (pre-Islamic) palace structures evident in archaeological remains (Figure 7). While the dome could be read as an Islamic symbol, it also recalls the forms of Oscar Niemeyer's National Congress of Brazil (Figure 8). The ultimate driver is a formal and geometrical order that, rather than internalising past masterpieces as Quaroni had advocated in 1970, reproduced and juxtaposed their motifs in an historicist pastiche.

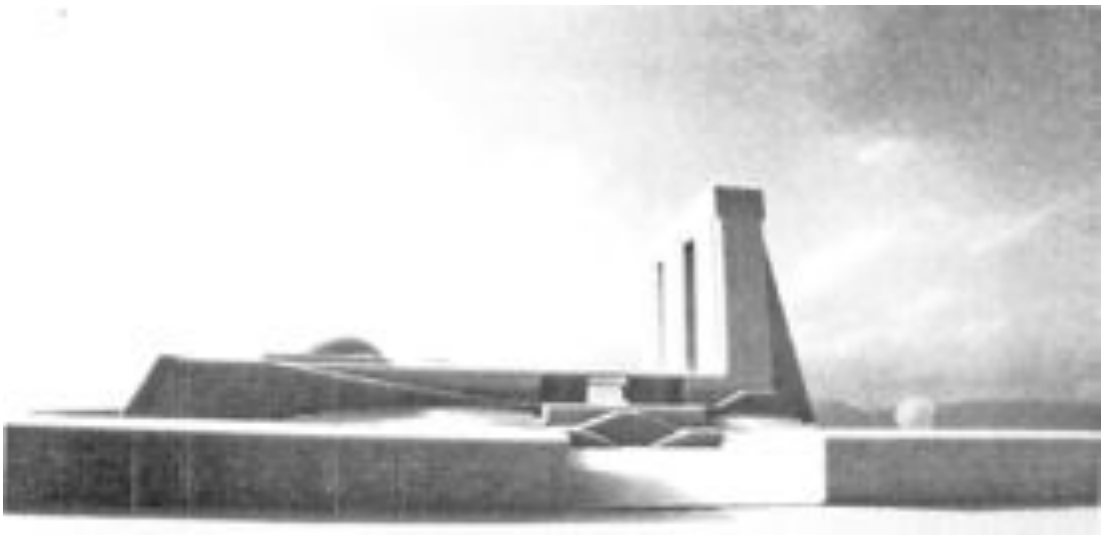

Figure 7. View of the model for Mirmiran's competition entry. The ceremonial stairs leading up to the platform replicate similar stairs in Persepolis, the Achaemenid capital (520-330BCE). (Source: *Abadi,* 13, 6)

Figure 8. View of Niemeyer's National Congress of Brazil (1985).
(Source: http://commons.wikimedia.org)

Diba's work (Figures 9 and 10) represented a second tendency; one concerned with establishing an architectural identity by pursuing geometrical and formal consistency between architecture and its cultural, historical and environmental context. Contextual continuity was apparently expressed through the geometrical organisation of the architectural plan. In its totality, however, the design resembled certain Euro-American architecture of the 1960's to 80's and, in particular, Kahn's monumental projects such as Dhaka.

The design was explained as a process of appropriating of multiple sources. The team claimed to have studied traditional Iranian architecture to find its '…timeless artistic richness,' and, in particular traditional Iranian geometric 'science'. The architects referred to precedents from other Islamic countries in order to define typological elements pertaining to Islamic identity, while acknowledging developments by modern architects, ranging from Mies Van der Rohe to Doshi.[39] The outcome of this historical and theoretical soup, however, appeared to be a homage to Kahn's work. This model suggested that an authentic identity could be achieved through the application of eclectic bricolage of elements from other Islamic and Western contexts in addressing the issue of identity crisis; it was reminiscent of the discourse at the 1970 International Congress in Isfahan.

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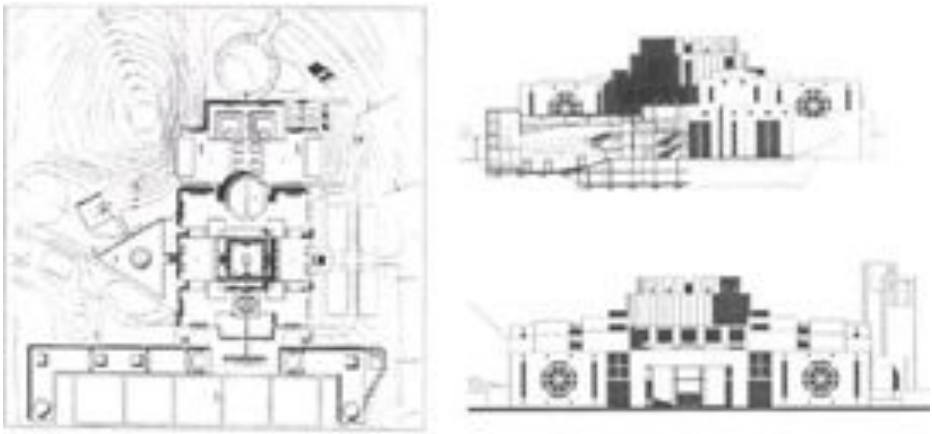

Figure 9. Diba's entry for the Academies Competition, site plan and elevations. . (Source: *Abadi*, 13, 11-13)

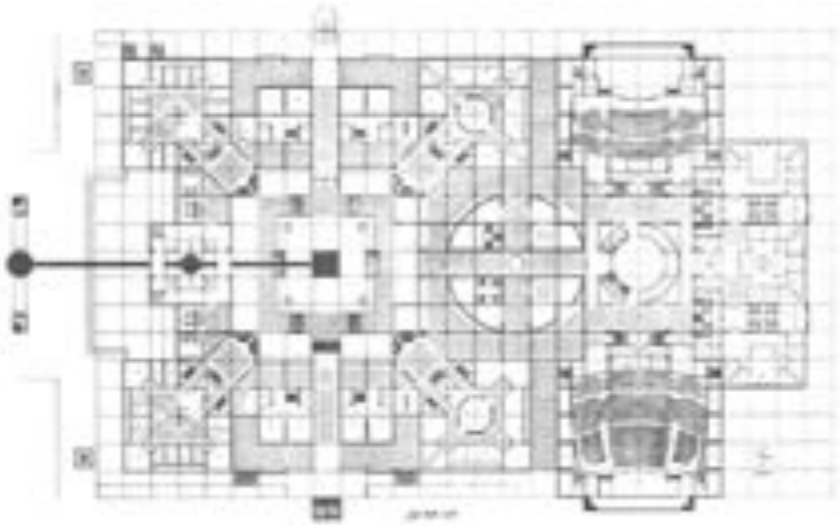

Figure 10. Diba's entry for the Academies Competition, Plan. (Source: *Abadi,* 13, 10)

Kalantari represented a fourth tendency that sought symbolic expression and vernacular identity within an eclectic historicism (Figure 11).[40] The design followed an organisational hierarchy reminiscent of traditional cities. The centre, defined by a tower (housing the libraries), was demarcated by a citadel – the walls reminiscent of traditional citadels such as the one in Birjand (Figure 12) – outside of which a series of functions were housed at a domestic scale. Kalantari's typological reference to the medieval Islamic city and his playful use of its architectural motifs, while essentially postmodernist, accords with one of the possibilities discussed in the 1970 Congress by Kuran.

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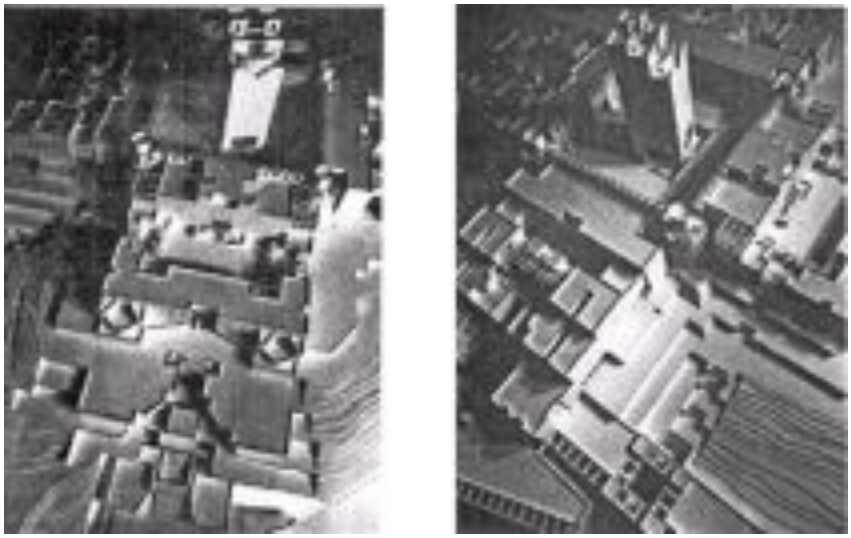

Figure 11. Kalantari's entry featured an Islamic city typology with a citadel . (Source: *Abadi,* 13, 14-15)

Figure 12. Aerial image of the city of Birjand, east of Iran, with its citadel and surrounding historical district.
(Source: http://commons.wikimedia.org)

The fourth tendency was apparent in the project by the Memar-Naqsh group, the project that would subsequently be chosen for construction (Figure 13). The design in this instance is authenticated with reference to the reproduction of geometrical relations and patterns such as axiality and central courtyards found in the traditional desert architecture of Iran, which it interprets with an impoverished and fetishized iconographic expression. On paper, the design was a faithful reproduction of traditional rules, patterns, and formal relations, perhaps a perfect response to the official projections of architectural identity. In reality, however, as evidenced in the constructed Academies complex, the outcome is familiar to our eyes- resembling a post-modern mock-monumentality, with traditional motifs uneasily integrated with utilitarian modern concrete frame construction.

In theorising their work, the designers claimed that they sought to attain order, clarity and simplicity in their designs, normative principles that recall early modernist creeds rather than traditional Iranian architecture.

Figure 13. Right: Memar-Naqssh competition entry. (Source: *Abadi*, 13, 16), Left: Memar Naqsh design as constructed. (Source: Bani Masoud, *Iranian Contemporary Architecture* 470)

Conclusion

From the cited projects, one can adduce a characteristic regionalist discourse that was shaping up as the preferred establishment style of the Islamic republic.[41] This could be characterised in retrospect by what Quaroni had called a 'false tradition' – the appearance of motifs and patterns of geometrical relations that aided the use of tradition as an ideological veil concealing actual discursive inconsistencies.[42] Abstracted from their context, idealised traditional forms became fetishized, and turned into ideological devices reproducing the political relations that dominated the society. As had occurred in Iranian political discourse, this was a highly aestheticised architecture where patterns and theories (such as resistance and regionalism) replaced genuine, lived experience. In justifying their works, architects felt compelled to reproduce a sanctioned rhetoric, while in practice they may have been doing something else. In their quest for an authentic identity many Iranian architects, and their politically compliant intellectuals reproduced Western anti-enlightenment discourses.[43] This situation was not new. Since the 1970s, Iranian intellectuals and ideologues had been bewildered by an ineluctable modernity, and remained trapped in a peculiar position where they identified themselves as the colonised, thus appropriating, often unknowingly, anti-enlightenment western discourses, while as their means to attain an authentic position. In doing so, they failed to recognise the global context of their condition, that of a peripheral modernity. This would, decades later, result in a hangover that left them confused about their

place in the world and thus about their sense of ownership in cultural products such as architecture.

As the competition entries suggest, even by the 1990's many architects and theorists clung to a form of regionalism that concealed the global nature of their problems. This was consistent with the creeds of Cultural Revolution, which advocated a return to the indigenous. However, this discourse was neither new nor revolutionary, in the sense of being a disruption of the old relations in the field. It was, rather, a continuation of a discourse first articulated in the Isfahan Congress of Architects in September 1970, indicating that cultural transformations have a life of their own, one which does not necessarily accord with political ruptures.

Meanwhile, the anxiety over identity is slowly dissipating in the younger generation of architects, giving place to a sense of nihilism characterised by a decline in interest in place and identity; superficial and formal appropriation of foreign trends that increasingly suggest alienation from local cultural context. This nihilism is yet another quintessentially modern experience.[44]

Endnotes

[1] This paper is part of a larger Research Development Award project generously funded by the University of Western Australia and Carried out by Ali Mozaffari at the Centre for Muslim States and Societies. The authors hereby acknowledge the support of Centre for Muslim States and Societies (CMSS) and the University of Western Australia in making this paper possible.
We also thank Mr. Bijan Shafei, a fellow researcher and colleague in Iran for his generosity in supplying us with historical documents of the Isfahan Congress, Mr. Afshin Taslimi in obtaining archival materials and our indeed our anonymous reviewers who made encouraging and constructive comments to help us improve this work.
[2] There is anecdotal evidence to suggest a connection between the Iranian and communist versions of Cultural Revolution. An early example of this comparison is found in Khosrow Sobhe, 'Education in Revolution: is Iran duplicating the Chinese Cultural Revolution?', *Comparative Education*, 18:3(1982), 271-280.
[3] In architecture, this was first enunciated by Frampton in: Kenneth Frampton, 'Prospects for a Critical Regionalism', *Perspecta*, 20. (1983), 147-162.
[4] During the War, Iran was occupied in 1942 by the allied forces under the pretext of the King, Reza Shah Pahlavi being sympathetic to Germans. The occupation caused the abdication of the King.
[5] The shah and his ministers frequently described the country's conditions as medieval or from the dark ages, which shows that an ideal of Western progress and historical transformation was what they had in mind See: Ali M. Ansari, 'The Myth of the White Revolution: Mohammad Reza Shah, 'Modernization' and the Consolidation of Power', *Middle Eastern Studies*, 37, 3, (2001), 1-24.
[6] Ansari, 'The Myth of the White Revolution', 1-2. Ansari refers to the White Revolution as "a legitimating myth for the Pahlavi Monarchy" that ultimately "undermined the structural foundations of the Pahlavi monarchy" and "contributed to its ideological destabilization."
[7] Industrialisation was at the forefront of the agenda.

[8] In 1963, in reaction to land reform and women's suffrage, two of the principles of the White Revolution, Khomeini, the would-be leader of the Islamic Revolution (1979), called for an uprising that led to bloody suppression by the state and thus marked what his Islamist followers would identify as the beginning of the Islamic Revolution.
[9] Farhad, Liela, and Laleh Bakhtiar (eds.), *Investigating the Possibility of Linking Traditional Architecture with Modern Building Methods: report of the proceedings of the First International Congress of Architects,* (Isfahan, Ministry for Development and Housing, 1970), 13.
[10] Farhad and Bakhtiar, *Investigating the Possibility,* 16.
[11] Farhad and Bakhtiar, *Investigating the Possibility,* 5
[12] Farhad and Bakhtiar, *Investigating the Possibility,* 20.
[13] Farhad and Bakhtiar, *Investigating the Possibility,* 60. In the following decades and under the influence of anti and post-colonial discourses of Europe (motivated by Fanon, and their Iranian followers such as Shari`ati and Al-Ahmad) and the European revolutions of the 1960's, ideologues would interpret the Iranian problems as the result of colonial ambitions of the West and thus assume a limited perspective on the global aspects of their local problems. Later, the proponents of Cultural revolution would follow this line and argue that Iran was culturally dominated by the West and thus cut off from its roots, its identity and traditions and was therefore, in a state of inauthenticity. See: Nahid Roshan Nahad, *Cultural Revolution in Islamic Republic of Iran*. (Tehran: The Centre for Islamic Revolution Documents, 2004), 32-33.
[14] These conferences were: 1975, Mexico City- 'Architecture and National Development; 1978: Warsaw- Architecture, Man, Environment.
[15] There is, however, a strand in the so-called rationalist movement of the 1970's that indeed sought the timeless and immutable – the analogous city of Aldo Rossi 1973, as seen in the first Milan architectural Triennale of that year. Rossi emphasised architectural autonomy and others, such as Giorgio Grassi defined rationalism in a Platonist vein, as a trace or impression of what is absent.
[16] Farhad and Bakhtiar, *Investigating the Possibility,* 2.
[17] Farhad and Bakhtiar, *Investigating the Possibility,* 75. Quaroni's statement coincides with his late urban projects which follow metabolism (eg. Tange, Tokyo Bay 1961) in imposing a macro form on a new city that was otherwise still articulated through modernist principles. Also see Vittorio Gregotti, *New Directions in Italian Architecture* (New York: Braziller, 1968), and Manfredo Tafuri, *History of Italian Architecture 1944-85* (Cambridge, MIT Press,1989).
[18] Perhaps not surprisingly, Saradar Afkhami's words resonate with what Ali Mirsepassi relates as the Heideggerian spiritual crisis of the west, an idea that many Iranian intellectuals of the 1960's found appealing. See: Ali Mirsepassi, *Political Islam, Iran, and the Enlightenment: Philosophies of Hope and Despair*, (Cambridge, New York: Cambridge University Press, 2011), 89.
This group of intellectuals "postulated resistance to deculturation and Westernization; they advanced a critique of Europe and the United States from a radical, populist, Islamic and Third Worldist perspective." (Val Moghadam, 'Socialism or Anti-Imperialism? The Left and Revolution in Iran', *New Left Review* 166 (1987), 5-28.)
Central to the Islamist self-perception was a false dichotomy between East and West. In its radical form, this would become a futile attempt at distinguishing between the local and the global. This was a line of thought articulated by nativist intellectuals. See: Jalal Al-Ahmad, *On the Service and Treachery of Intellectuals [in Persian]* (Tehran, Kharazmi Publishers, 1979).
[19] Farhad and Bakhtiar, *Investigating the Possibility,* 66.
[20] For further on this refer to Haeri, Shahla. *Ardalan, Nader* [Interview]. Foundaiton for Iranian Studies, 21 July 1991. Available from http://fis-iran.org/en/oralhistory/Ardalan-Nader.
[21] Farhad and Bakhtiar, *Investigating the Possibility,* 31.
[22] Farhad and Bakhtiar, *Investigating the Possibility,* 24.
[23] Revolutionaries in general and Islamists in particular, argue that the monarchy forced people to abandon their authentic culture, traditions and customs, which were their source of innovation, turning them to pure consumers (Roshannahad, Cultural Revolution in Islamic Republic, 36-37).
[24] Roshannahad, Cultural Revolution in Islamic Republic, 30.
[25] For an example of this kind of rhetoric about intellectuals see: Masoud Khorram, *Identity [Persian: Hoviyyat]*, (Tehran, Hayyan Cultural Publishing Institute, 1997). Fanon foreshadowed this position remarking that

> "The colonialist bourgeoisie, in its narcissistic dialogue, expounded by the members of its universities, had in fact deeply implanted in the minds of the colonized intellectual that the

> essential qualities remain eternal in spite of all the blunders men may make: the essential qualities of the West, of course. The native intellectual accepted the cogency of these ideas, and deep down in his brain you could always find a vigilant sentinel ready to defend the Greco-Latin pedestal."

See: Farnz Fanon, *The Wretched of the Earth*, (New York, Grove Press, 1963), 46.
[26] Roshannahad, Cultural Revolution in Islamic Republic, 88, 106-107.
[27] Roshannahad, Cultural Revolution in Islamic Republic, 114-118.
[28] In March 1980, in his first New Year message after the Islamic Revolution, Khomeini called for a revolution in the higher education system of the country. This revolution would aim at "turning universities to a healthy environment for flourishing of sublime Islamic sciences." Subsequently, all universities were close down in 5 June 1980 and on June 12th, Khomeini decreed Cultural Revolution. The event would be post rationalised as a remedy for the lacking contextual specificity and applicability (usefulness) of knowledge in higher education under the previous regime. See: Roshannahad, Cultural Revolution in Islamic Republic, 102-106.
[29] 'Westoxification' or 'Occidentosis' was an idea initially discussed by the Heideggerian philosopher Ahmad Fardid but later popularized by Al-Ahmad in his famous book of the same name. It designates a kind of 'disease' that destroys the culture from within but is inflicted upon Iran (and other countries) by the West and its culture of domination. For a succinct treatment of the concept in the intellectual discourse of 1960s-70s Iran see: Brad Hanson, 'The "Westoxication" of Iran: Depictions and Reactions of Behrangi, al-e Ahmad, and Shariati', *International Journal of Middle East Studies*, 15, 1 (Feb., 1983), 1-23.
[30] Hashemi, Seyed Reza. 1991. 'Foreword'. *Abadi* 1, 1 (1991), 2-3.
[31] Part of the agenda of the Cultural Revolution was to enforce a singular, state-sanctioned political position upon all educational institutions. Hashemi's position was also a reaffirmation of the place of instrumental rationality, the type of rationality that was, since the late nineteenth century, advocated by Islamic modernists who argued for the compatibility between Islam and modern scientific endeavours.
[32] This remains a well-known rhetoric about contemporary Iranian history, one that blames nineteenth century Qajar dynasty and its softness toward European colonialism in particular, for the country's ills. In such a narrative, Iran would have had its own indigenous modernity.
[33] (Unknown author), 'Competition for the Design of the Iranian Academies Complex', *Abadi* 3,12 (1994), 49-50, 49.
[34] (Unknown author), 'Competition for the Design of the Iranian Academies Complex', *Abadi* 3,12 (1994), 2-3. This was despite the official announcement that, based on their professional standing and experience, up to 18 would receive a small fee to cover basic costs. See: Competition for the Design of the Iranian Academies Complex', *Abadi*, 50.
[35] Much of this was propelled by the demands of post Iran-Iraq war reconstruction of cities which had brought numerous master plans and urban design projects to practices. The historicist and postmodernist underpinnings of the 'new' scholarship was seen to be suitable to the cultural and political demands of the country at the time.
[36] Hashemi, Seyed Reza, 'Editorial', *Abadi* 3, 12 (1994), 2-3.
[37] (Unknown author), 'Competition for the Design of the Iranian Academies Complex', *Abadi* 3,12 (1994), 49-50, 49.
[38] (Unknown author), 'Architectural Competition for the Design of the Iranian Academies Complex: Introducing Winning Schemes', *Abadi,* 4, 13 (1994), 4-17.
[39] 'Architectural Competition for the Design of the Iranian Academies Complex: Introducing Winning Schemes', *Abadi,* 13, 12-13.
[40] (Competition for the Design of the Iranian Academies Complex 1994, 14)
[41] While other Iranian scholars have observed the flourishing of different strands of regionalism in Iran, under labels such as traditionalism, *culturalisme*, or nativism, none have explored the political imperative in shaping and supporting this movement. For examples refer to: Amir Bani Masoud*, Iranian Contemporary Architecture,* (Tehran Honar-e Memari Publications, 2010) or Sayyed Mohsen Habibi, *Intellectual Trends in the Contemporary Iranian Architecture and Urbamnism (1979-2003),* (Tehran, Cultural Research Bureau), 2007.
[42] This includes myths such as the claim that Iranian architecture embodies attributes such as honesty, directness, and simplicity, tenets that seem more like modern projections onto the past than an intended effect on the part of past masters.

[43] For an interesting reading on this topic, from a committed post-colonialist perspective, see: Mirsepassi, *Political Islam, Iran, and the Enlightenment*, 67-84.
[44] This assertion is based on a small sample of field survey and interviews carried out in Iran by Ali Mozaffari with the generation of architects who were educated after the Cultural Revolution.

Client intentions and Bruno Taut's *Glashaus*

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Abstract

An often overlooked aspect concerning the Glashaus is the significant influence exerted by the client in the design of the building. In an intentional endeavour to create an exhibition pavilion that best showcased their glazed products and construction technologies, the German Luxfer Prism Syndicate both commissioned and majority financed the Glashaus. It would therefore seem strange that the official histories of the Glashaus would rather record the utopian, romanticised and arguably imagined intentions of Bruno Taut as the architect, as opposed to the reality of the client's intentions. This paper offers a reinterpretation of the Glashaus from the perspective of German Luxfer Prism Syndicate. This reinterpretation is achieved through an investigation that primarily concentrates on the glazed areas of the Glashaus where the German Luxfer Prism Syndicates products were most evident. Using the arguments initially presented by Dietrich Neumann as a foundation, this research is additionally interwoven with inquiry into diverse aspects such as patents filed by the Luxfer group of companies and a close examination of the original black and white photographs of the Glashaus. A dramatically different understanding emerges when the Glashaus is argued from the perspective of the client; an understanding that is cold, hard and commercial as opposed to utopian and romanticised. As a result, this research makes a contribution to the current debate concerning the Glashaus and the re-evaluation of the histories of the modern movement.

Introduction

The *Glashaus* is both a seminal example of early modernist architecture and Bruno Taut's signature building (Figure 1). The official history of the *Glashaus* has primarily been established by the art critic Adolf Behne who proposes the building as Expressionist architecture.[1] This label, having endured to the present, implicates the *Glashaus* with the generally accepted Expressionist associations of a cosmic, crystalline, mystic and religious utopian architecture.[2] This paper departs from this traditional understanding and explores the *Glashaus* from the perspective of the client, the *Deutsche Luxfer Prismen Syndikat - GmbH.* (German Luxfer Prism Syndicate – Limited Liability Company). Through this process it becomes evident that a very different understanding of the *Glashaus* emerges that recasts the building not as fanciful and utopian, but rather as a prescriptive object that 'borrows'

much of its form and effect.

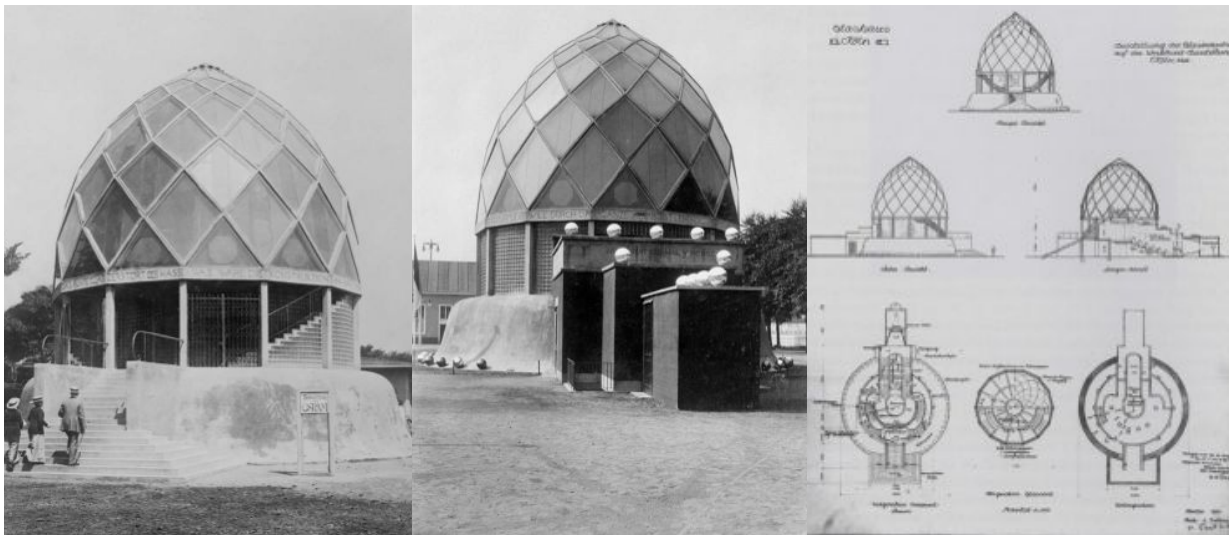

Figure 1. Bruno Taut's *Glashaus* constructed for the 1914 *Werkbund* Exhibition in Cologne, Germany. **Left** - The east elevation. **Centre** - The west elevation. **Right** - The drawing that the practice of Taut and Hoffmann submitted to the Cologne City Council for building approval. Source: http://www.bildindex.de.

The Luxfer Prism Company

Established in April of 1897[3], the Luxfer Prism Company was one of a number of companies involved in the manufacture and distribution of glass pavement lights, art glass and the product that they were most famous for, patented Luxfer prismatic glass tiles (Figure 2). Prismatic glass was an architectural product that was placed on the facade of a building to precisely redirect natural light to interior spaces, through both refraction and reflection.[4] Patented Luxfer prism glass tiles were generally 100mm square and approximately 4.75mm thick. These tiles were traditionally assembled into regular metal frames that were usually 600-1200mm high and as wide as the opening into which they were to be inserted.[5] The tiles were held together in the frame by a grid of thin metal bars that were either zinc soldered together, or by the later more complicated and expensive system of electro-deposition, patented by William Winslow in 1897.[6]

In an effort to increase the distribution of their products, the Luxfer Prism Company initially established a number of directly owned foreign branches. One of the most successful of these foreign branches was the German branch.[7] In the early 20th century the Luxfer Prism Company appears to have departed from directly owned foreign branches; instead establishing franchise operations. Thus in 1907, the *Deutsche Luxfer Prismen Syndikat GmbH* (DLPS), under the directorship of Friedrich Keppler was established in Germany. Keppler quickly acknowledged that patented Luxfer prismatic glass tiles, their methods of

construction and their architectural applications had little practical application value in the European context.[8] Thus, Keppler patented a number of innovations, the most notable being a system of structural glazing called *Glaseisenbeton*, commonly known as the 'Keppler System' (Figure 3). The 'Keppler System' was initially patented in 1909 and further refined in 1913.[9] At its core the 'Keppler System' departed from the traditional method of assembling patented Luxfer prism tiles in two main respects. First, Keppler used reinforced concrete instead of solder or electro-deposition to secure the glass tiles. Secondly, this use of reinforced concrete resulted in a thicker, heavier glass tile. These 'simplified' glass tiles lacked the precise prismatic ridges of patented Luxfer prism tiles; had exposed edge ridges that secure the tile into the reinforced concrete; and because they were heavier and thicker, were also less transparent than patented Luxfer prism tiles.[10]

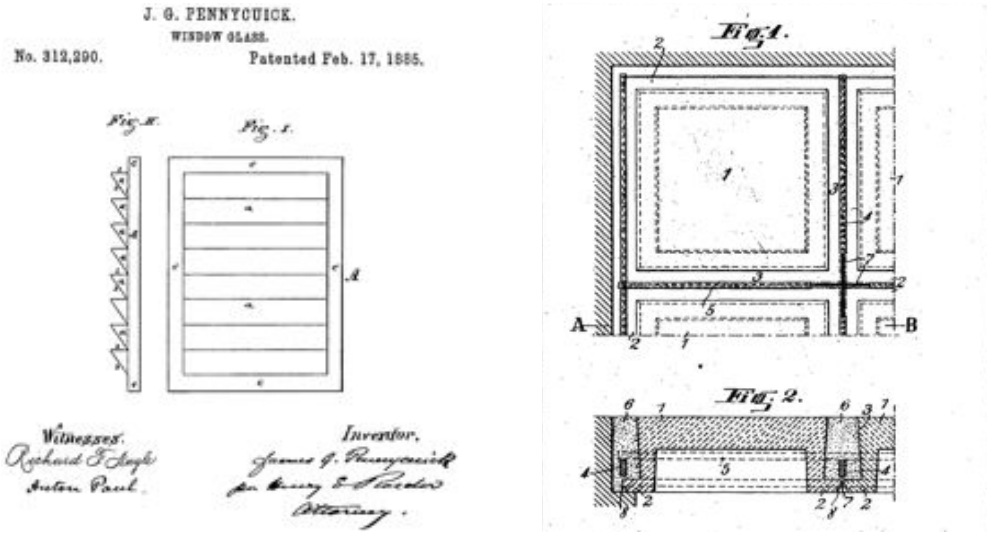

Figure 2. Left – Luxfer prismatic glass tiles were initially patented as 'an improvement in window-glass' by J. G. Pennycuick in 1885. Pennycuick founded The Radiating Light Company to commercialise his 1885 patent. The Radiating Light Company later became the Luxfer Prism Company in 1897. Source: James Pennycuick, *Window-glass*, U.S. Patent Number 312,290 (1885). **Figure 3.** Right – Friedrich Keppler's 1909 patent for the 'Keppler System' or *Glaseisenbeton.* Source: Friedrich Keppler, *Improvements in or Relating to Reinforced Concrete Structures*, G.B. Patent Number 24,457 (1909).

Luxfer's exhibition and trade fair pavilions

Originating in the late 19th century there was a long standing American and European tradition of glass manufactures exhibiting their products at trade fairs and public exhibitions. According to Neumann, the 'glass pavilions' built for these exhibitions, formed a unique building style that owed much of its effect to the particular details of the products used.[11] Many of these buildings followed an established programme of glazed domes, staircases or even a central fountain.[12] As a member of these glass manufactures and in an attempt to attract public interest, Luxfer's European branches also frequently participated in trade fairs,

exhibitions and actively sought the attention of architects.[13] According to Neumann, Luxfer presented it products in a separate exhibition pavilion at the Brussels International World Fair in 1910.[14] *Diamant* periodical makes mention of the DLPS as having delivered magnificent domes of prism glass for several exhibition pavilions at Brussels International World Fair. These domes, according to *Diamant*, offered amazing lighting effects.[15] In 1913, the DLPS participated in the *Baufachausstellung* (Building Trade Exhibition) in Leipzig (Figure 4). At this exhibition, the DLPS won a gold medal for a Bruno Möhring designed domed pavilion that used "...prismatic glass, glass tiles and reinforced concrete."[16] According to *Diamant* periodical, this Leipzig pavilion was located in close proximity to the six sided pavilion of the Association of German Plate Glass Factories (*Vereins deutscher Spiegelglasfabriken*). This *Kuppelbau* (Domed building) is further described as having had a reinforced concrete structure that was infilled with 'art glass'. The dome is further described as having been exceptionally beautiful and made from *Elektroglasprismen* (electro-deposition fixed glass prisms) that were contained in a dainty copper frame.[17]

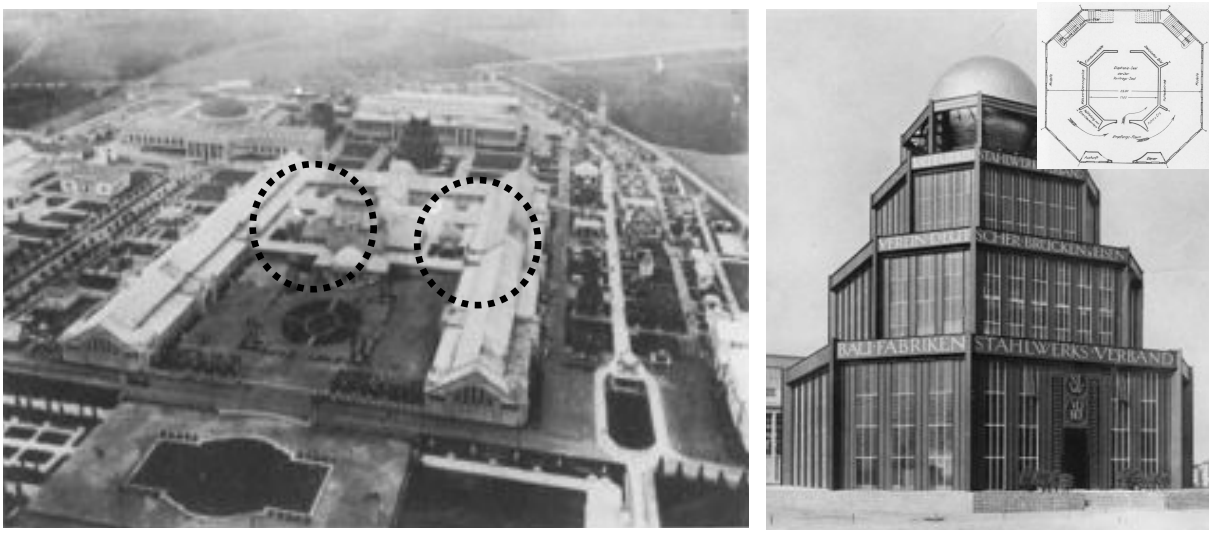

Figure 4. Left - The 1913 Leipzig *Baufachausstellung.* The large 'U' shaped building in the foreground comprises a number of long shed like buildings: *Baukunst* (Building art) is on the left, *Raumkunst* (Interior art) at the rear centre, while *Baustoffe* (Building materials) is on the right. Directly to the rear of the 'U' shaped building is Bruno Taut's *Monument des Eisens.* Located in the middle of this 'U' shaped building is what appears to be the Pavilion for *Vereins deutscher Spiegelglasfabriken*.[18] Considering the DLPS pavilion is apparently in close proximity to that of the *Spiegelglasfabriken,* then one of the circled *Kuppelbau* could be the DLPS pavilion. Source: http://www.bildindex.de. **Figure 5.** Right - An exterior view and plan of Bruno Taut's *Monument des Eisens.* Source: Perspective - http://www.bildindex.de. Plan - Kurt Junghanns, Bruno Taut 1880-1938 (Berlin: Elefanten Press Verlag, 1983).

Also exhibiting at the 1913 Leipzig Exhibition were the *Deutscher Stahlwerks-Verband* (Association of German Steel Workers) and the *Verband Deutscher Brücken-und Eisenbaufabriken (*Association of German Bridge and Steel Fabricators). These two

associations chose Bruno Taut to design their pavilion, the *Monument des Eisens* (Monument to Iron).[19] In the 'Monument to Iron', (Figure 5) Taut, much like the architects to the glass manufactures, "...used the very material he was hired to advertise and promote in order to create an abstract, geometric, exposed steel-frame construction."[20] Neumann states that images of the DLPS's 1913 Leipzig pavilion are yet to be found.[21] However, if Figure 4 is studied in conjunction with the descriptions of the pavilion above, it is probable that that one of the circled buildings could well be Luxfer's 1913 pavilion. If this is the case, then it is clear that this existing prototype enforced by the DLPS could have dictated and limited Taut's design choices for the 1914 *Glashaus.* This is supported by the fact that while the *Glashaus* has a reinforced concrete structure, Taut initially proposed an iron skeleton for the dome and columns.[22] Taut's intended use of structural steel in all probability derives from his experiences with the material in both his *Monument des Eisens,* and his earlier 1910 pavilion for the structural steel manufacturer *Träger Verkafs-Kontor* at the 2nd Ceramic, Cement and Lime Industrial Exhibit in Berlin. Apart from the construction of the *Monument des Eisens,* the Leipzig Exhibition could have been significant for Taut because it could have afforded him an opportunity to make contact with the DLPS. Another explanation for the Taut/DLPS relationship could be that DLPS's Berlin office was located at 204 *Friedrichstrasse*[23], while the offices of Taut & Hoffmann were located a short distance away at 20 *Linkstrasse.*[24]

From these descriptions of glass pavilions, especially those of the DLPS, there is a tendency to focus on the areas of these buildings where glazed products were most visible; particular the dome. Other aspects that are frequently mentioned include geometry and construction materials, method and technologies. Thus, considering that the products and construction technologies of the DLPS were most evident in the upper two thirds of the *Glashaus* i.e. the dome and its lower supporting base that contained both the stairs at the periphery and the fountain at its core, these areas will be investigated further.

The Deutsche Luxfer Prismen Syndikat and the Glashaus

In keeping with the company's desire to associate with progressive architects, the DLPS chose Bruno Taut to design their *Glashaus* pavilion at the Cologne *Werkbund* Exhibition of 1914. The DLPS both initiated, majority funded, donated the building materials and supplied many of the exhibits to the *Glashaus*.[25] Nevertheless, Taut acting much like a modern developer also sourced other financial contributions and products, with Taut & Hoffmann ultimately contributing 20,000 Reich Marks to the cost of the *Glashaus*.[26]

In the drawing that Taut and Hoffmann submitted to the Cologne City Council for building approval[27], the voids between the rhombic structure of the *Glashaus'* dome are drawn as

double glazed, with the outer skin labelled as *Spiegelglas* (Plate glass) and the inner layer labelled as *Luxferprismen* (Luxfer prisms). The floor to the dome roof is labelled as *Boden Luxferprismen mit Betonrippen* (Floor of Luxfer prisms with Concrete beams), while the stairs to the Dome Room are labelled as *Treppe Glassteine auf Eisenkonstru.* (Glass block Stairs with Steel construction). Further, the glazed non-structural infill that partly surrounded the staircases is simply referred to as *Glassteine* (Glass blocks); while the flared circular ceiling below the oculus appears to be labelled as '*Uelmfang' Glas.* However, this is in all probability *Umfang Glas* or Circumference Glass. It is a common misconception that patented Luxfer prisms were used in the *Glashaus'* dome. In reality 'simplified' glass tiles filled the voids between the reinforced concrete structures to the *Glashaus'* dome.[28] When Figures 6, 7and 12 are referenced, these simplified tiles departed from the traditional 100mm square configuration of patented Luxfer prism tiles. Supposedly in keeping with the DLPS desire to diversify its product range, these simplified tiles constituted a variety of square, rectangular, circular and polygonal shapes, and appear to have a simple pressed surface design. Further, the simplified glass tiles to the *Glashaus'* dome were held together by copper frames and strips, not according to the newer 'Keppler System', but using William Winslow's electro-deposition process.[29] This use of Winslow's electro-deposition process resulted in much lighter triangular shaped glazed infill panels, when compared to the heavier but newer 'Keppler System'.

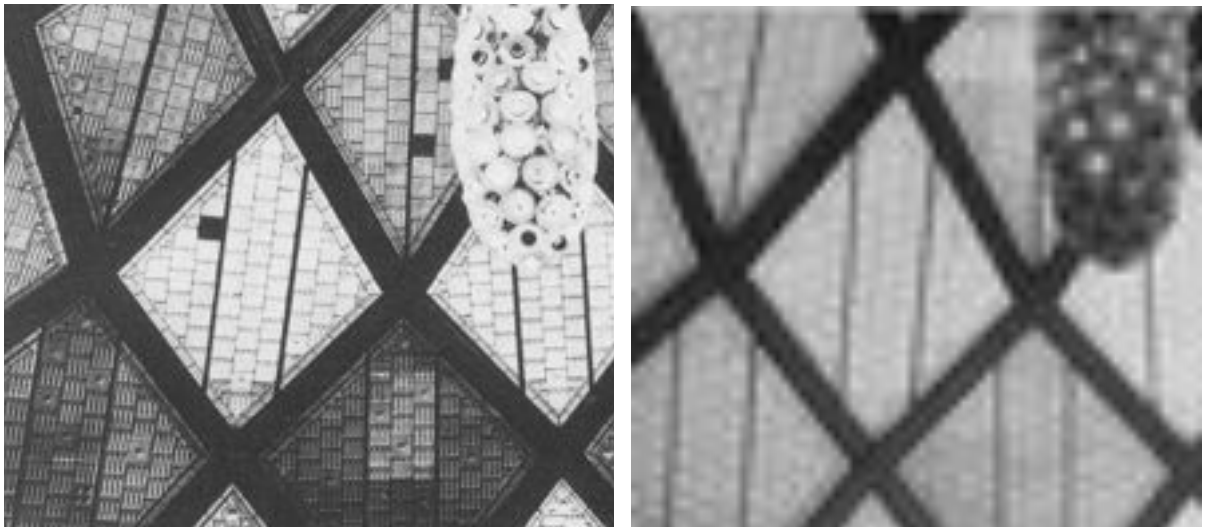

Figure 6. Left – An image of the *Glashaus'* dome illustrating the presence of a 'third' coloured layer of 'glazing'. If the individual 'simplified' glass tiles were coloured through a process of metal deposition, then the colour would be uniform across the entire tile. Clearly this is not the case as the circled portions of image show individual tiles with more than one colour. Thus, the infill glazing panels of 'simplified' glass tiles are either coloured through the application of transparent paint, or through a further or third layer of interior coloured glass. Source: Angelika Thiekotter (Ed.), *Kristallisationen, Splitterrungen: Bruno Taut's Glashaus,* (Basel: Birkhauser Verlag, 1993), 44. **Figure 7.** Right – A further image of the interior of the *Glashaus'* dome. The colouration of the glazed infill panels is not visible in this image. This would tend to indicate that either the coloured layer is not yet present, or the lighting conditions are different. Source: http://www.bildindex.de.

Thiekotter, states that at some point the depth of the structural members in the *Glashaus'* dome decreases from an initial 20cm to 12cm.[30] This fact could be indicative of the heavier 'Keppler System' being the initial specification, but later being superseded by electro-deposition. In addition to the infill panels of simplified glass tiles, the *Glashaus* also had a second outer layer of simple plate glass; effectively 'double glazing' the *Glashaus'* dome. It has also been proposed that the *Glashaus* dome constituted not two layers of glazing, but three.[31] In one particular photograph of the *Glashaus* (Figure 6) there appears to be a 'third' coloured layer, possibly of glass or paint, to the interior of the dome. However, in other photographs this layer is not visible (Figure 7). In an attempt to explain this discrepancy, numerous facts should be considered. For example, in his later 1913 patent, Keppler mentions the colouring of hollow bricks of blown glass either through the use of metal deposition or paint.[32] Furthermore, the total unfinished state of the *Werkbund* Exhibition was universally deplored.[33] Even five weeks after the opening of the Exhibition on the 16th of May, 1914, the *Glashaus* was still not fully operation. Additionally, the *Glashaus* dome is expressly mentioned as multicoloured; starting at its base in deep blue, then progressed upward through moss-green, golden yellow and eventually culminated at the apex in brilliant creamy white.[34] If all of these facts are considered then it becomes highly probable that the glazed panels installed in the *Glashaus* dome were initially clear, with colour only being added later. Once the panels were installed the most cost- and time-effective way to add colour would have been through painting. As such, the 'third layer of glazing' is in all probability a coating of coloured transparent paint, applied after installation was complete.

The reinforced concrete structure of the dome's floor comprised 14 beams, which radiated outward from a small inner ring beam towards a larger outer ring beam that was supported by 14 columns. The 14 radiating beams were laterally braced midway by a further third ring beam. Infilling the gaps between the floor structure were circular glass tiles, possibly secured according to the 'Keppler System'. In the drawing submitted to the Cologne City authorities, this floor is labelled as comprising *Glassteine und Eisenbeton* (Glass Blocks and Reinforced Concrete). The word *Glassteine* is also used to describe the walls that surround the staircases. According to Neumann the floor to the *Glashaus* dome "...was made of concrete with coloured glass lenses embedded in it."[35] However, what is unclear is whether the 'lenses' that Neumann references allowed the transmission of light to the Cascade Room below. If the floor was a 'Keppler System', then it would seem logical to assume that it did. However, considering the extent of the concrete between the glass tiles, and the load bearing nature of the surface, if the floor did allow the passage of light, then it could also have been another of the DLPS products – Vault, or Sidewalk Lighting.

The reality of the dome's floor construction is revealed, when the ceiling to the Cascade Room below is considered. In the Cascade Room directly below the oculus, Taut constructed a flared circular ceiling (Figure 8). At first glance the construction of the panels that constituted this ceiling appears to be similar to the dome above, in that it is apparently comprised of a regular series of framed panels containing 'glazed' tiles. However, on closer examination these ceiling panels appear as similar to ceramic tiles on the walls of the Cascade Room. The ceiling panels appear to have a thin metal frame to the periphery that is then immediately lined by one row of square tiles. The rest of the panel is then in infilled in a regular pattern, also using the same square tiles. However, unlike the panels to the dome above, these ceiling tiles appear to be highly reflective, non light transmitting, and strongly coloured; indicating that they are possibly ceramic glazed tiles rather than 'simplified' glass tiles. Furthermore, if the ceiling panels were constructed using 'simplified' glass tiles, then it would be logical to assume that they would also have been painted just like those in the dome above. However, the photographic evidence does not support this explanation.[36]

According to Neumann, the glazed non-structural infill (Figure 9) that partly surrounded the staircases was pure 'Keppler System'.[37] The staircases proper, leading from the entrance to the Dome Room and then downward toward the Cascade Room, were constructed using a steel frame that was infilled with 'prismatic tiles'. [38] However, when the staircases are examined in detail, these 'prismatic tiles' are not the same as those used in the dome and are fixed according to the 'Keppler System'; as evidenced by the presence of thick mortar joints.

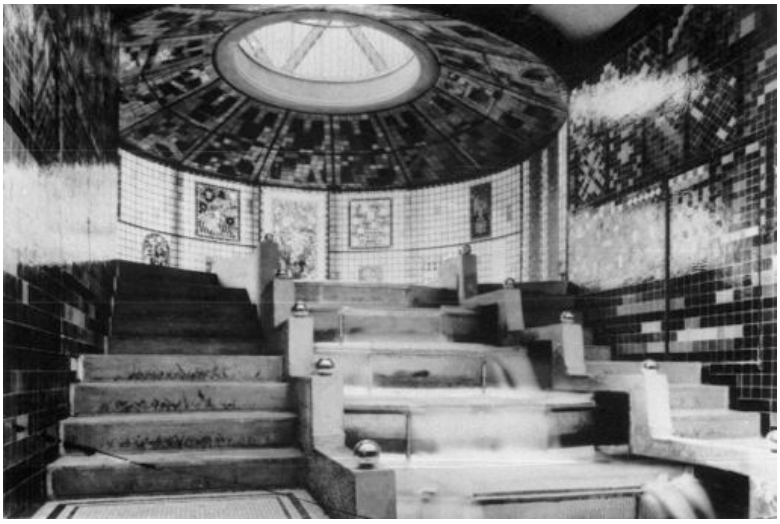

Figure 8. Left – The flared circular ceiling above the *Glashaus'* Cascade Room. Source: http://www.bildindex.de. **Figure 9.** Right – The glazed non-structural 'Keppler System' walls that partially surrounded the *Glashaus'* staircases. Source: http://www.bildindex.de.

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Discussion

From the above argument it is clear that certain accepted understandings regarding the *Glashaus* are unclear. The first and most obvious of these is that patented glass Luxfer prism tiles are not used in the *Glashaus*. While the drawing submitted to the Cologne City Council specifically refers to *Luxferprismen* as having been applied to both the floor and cladding of the *Glashaus'* dome, the reality is that simple pressed glass tiles of varying shapes are used.

The second unclear fact is arguably more important as it concerns the generally layout and aesthetics of the *Glashaus*. When the planning of the *Glashaus* is compared to that of the earlier 'glass pavilions', many similarities are evident such as the use of a glass dome, staircases and a central fountain. Further, the *Glashaus* like these 'glass pavilions' owed much of its sparkling, delicate and jewel-like effect to the particular products used in its construction. Furthermore, the *Glashaus* is also similar to Möhring's 1913 pavilion, as it also used glass tiles and reinforced concrete. Interestingly, this planning arrangement and desire to exhibit the clients' materials in the best possible manner also has a connection to earlier 1913 *Monument des Eisens;* because both have similar plans, with similar plan elements, and both express an aesthetic that best portrays the products of the client. From this it is clear that the *Glashaus* follows an established prototype. The larger implication is that the *Glashaus* is far from being "...captivating in its individuality and completeness"[39] and is actually forcefully prescribed and controlled. However, this would have run contrary to what Taut, as the architect, would have intended in his *freie künstlerische kraft* (free artistic will).[40]

One of the only aspects of the *Glashaus* that does not appear to be referenced by these earlier precedents is the rhombic aesthetic of the dome's structure. Earlier DLPS domes are assumed to have had a regular structure of reinforced concrete, for example, the original glazed dome over the *Krüger-Passage* in Dortmund, Germany by the architects Hugo Steinbach and Paul Lutter. (Figure 10)

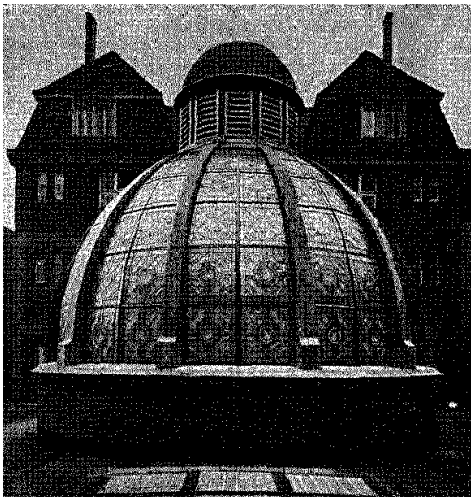

Figure 10. The original DLPS dome over the *Krüger-Passage* in Dortmund, Germany by the architects Hugo Steinbach and Paul Lutter. Source: Paul Liese, "Glas als Baustoff", *Braunschweiger GNC Monatsschrift* (1923), 162-70.

However, on closer examination even this argument for 'free artistic will' becomes irrelevant when the structural aesthetic of the *Glashaus'* dome is compared to Stuttgart's *Stiftskirche* (Collegiate Church), that Taut uses to create his argument for 'free artistic will'. The original vaulting above the south aisle to Stuttgart's *Stiftskirche* comprises a number of rhombic shaped facets that when viewed in plan assumes a star like arrangement (Figure 11). When the aesthetic of the *Stiftskirche* is compared to that of the *Glashaus'* dome (Figure 12) they appear as remarkably similar, if not identical.

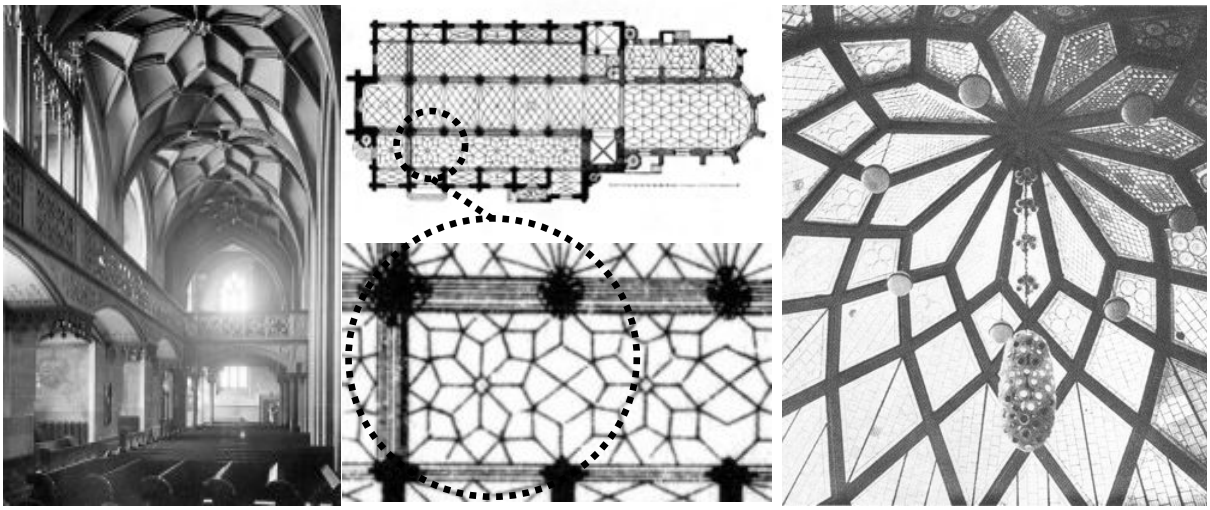

Figure 11. Left – Interior of Stuttgart's *Stiftskirche* showing the south aisle with its original vaulting. Source: http://www.stiftskirche.de Centre – Plan of Stuttgart's *Stiftskirche* with an enlarged portion showing the layout of the rib vaulting above the south aisle. Source: Georg Dehio & Gustav von Bezold, *Die Kirchliche Baukunst des Abendlandes* (Stuttgart: Arnold Bergsträsser Verlag, 1901)

Figure 12. Right - An interior image of the *Glashaus'* dome. The aesthetic and structural arrangement is remarkably similar to that of Stuttgart's *Stiftskirche.* Source: Angelika Thiekotter (Ed.), *Kristallisationen, Splitterrungen: Bruno Taut's Glashaus,* (Basel: Birkhauser Verlag, 1993), 32.

Conclusion

One perspective on the *Glashaus* proposes the building as a fanciful, utopian phenomena; and it is this fabricated, expressionist propaganda that is mostly acknowledged in any debate concerning the *Glashaus*. However, this paper has established another distinct viewpoint by explaining the building from the perspective of the client. When the *Glashaus* is viewed from this perspective, it becomes something very different. Therefore, the *Glashaus* can be proposed as a building whose planning, form and materials closely resemble earlier precedents; and that is the result of an intentional, prescribed formula that best showcases the commercial interests of the client.

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Endnotes

[1]Kai Gutschow, *The Culture of Criticism: Adolf Behne and the Development of Modern Architecture in Germany, 1910-1914* (PhD diss., New York: Columbia University Press, 2005).
[2] Wolfgang Phent, *Expressionist Architecture* (New York: Praeger Publishers, 1973).
[3] Ian Macky maintains an excellent online resource that includes extensive historical information on prism glass and all things Luxfer. http://www.glassian.org.
[4] http://www.glassian.org.
[5] Dietrich Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', *The Journal of the Society of Architectural Historians*, 54, 1 (March 1995), 24-53.
[6] William Winslow, *Method of Electrolytically Uniting Glass Tiles into a Body*, U.S. Patent Number 574,843 (1897).
[7] Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', 42.
[8] Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', 42.
[9] Friedrich Keppler, *Improvements in or Relating to Reinforced Concrete Structures*, G.B. Patent Number 24,457 (1909).
Friedrich Keppler, *Improvements in Glazed Ferro-concrete Structures Such as Floors*, G.B. Patent Number 21,130 (1910).
Friedrich Keppler, *Improvements in Glazed Ferro-concrete Structures Such as Floors and Partitions*, G.B. Patent Number 14, 999 (1913).
[10] Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', 43.
Although the 'simplified' glass tiles of the 'Keppler System' were not patented Luxfer prism tiles, Neumann states that they were still frequently referred to as 'Luxfer Prisms'.
[11] Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', 44.
[12] Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', 44.
[13] Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', 41.
[14] Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', 44.
[15] Unknown author, 'Die Glasindustrie auf der Brüsseler Weltausstellung', in *Diamant: Glas-Industrie-Zeitung*, 31, (1910), 834-6.
[16] Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', 44.
[17] Unknown author, 'Die inter. Baufachausstellung in Leipzig', in *Diamant: Glas-Industrie-Zeitung*, 35, (August 1913), 439-44.
[18] Unknown author, 'Die inter. Baufachausstellung in Leipzig', 740. This *Diamant* articled describes the Pavilion for the *Vereins deutscher Spiegelglasfabriken* as being located at the entrance to the *Hallen für Baustoffe und Bauliteratur.* The *Spiegelglasfabriken* Pavilion is further described as a six sided domed steel framed building. Once the author of the *Diamant* article is finished describing the interior of the *Spiegelglasfabriken* pavilion, he then immediately starts a discussion on the DLPS pavilion. This would imply that the DLPS pavilion is in close proximity to the *Spiegelglasfabriken* pavilion.
[19] Kai Gutschow, 'From Object to Installation in Bruno Taut's Exhibit Pavilions', *The Journal of Architectural Education*, 59, 4 (May 2006), 63-70.
[20] Kai Gutschow, 'From Object to Installation in Bruno Taut's Exhibit Pavilions', 65.
[21] Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', 52, Footnote 111.
[22] Angelika Thiekotter, (ed.), *Kristallisationen, Splitterrungen: Bruno Taut's Glashaus* (Basel: Birkhauser Verlag, 1993).
[23]Keppler, *Improvements in Glazed Ferro-concrete Structures Such as Floors and Partitions*, G.B. Patent Number 14,999.
[24] Kurt Junghanns, *Bruno Taut 1880-1938* (Berlin: Elefanten Press Verlag, 1983).
[25] Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', 43.

[26] Thiekotter, *Kristallisationen, Splitterrungen: Bruno Taut's Glashaus,* 15.
[27] Unknown author, *Glashaus Köln*. Drawing (Berlin: Taut and Hoffmann, 1914).
[28] Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', 43.
[29] Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', 43.
[30] Thiekotter, *Kristallisationen, Splitterrungen: Bruno Taut's Glashaus,* 101.
[31] Thiekotter, *Kristallisationen, Splitterrungen: Bruno Taut's Glashaus,* 46.
[32]Keppler, *Improvements in Glazed Ferro-concrete Structures Such as Floors and Partitions*, 2.
[33] Thiekotter, *Kristallisationen, Splitterrungen: Bruno Taut's Glashaus,* 171.
[34] Bruno Taut, "Beobachtungen Uber Farbenwirkungen Aus Meiner Praxis" *Die Bauwelt* 10, no. 38 (1919), 12-3.
[35] Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', 43.
[36] In the drawing that Taut submitted to the Cologne City authorities, he appears to label the ceiling panels as *Umfang Glas* (Circumference Glass) Further, the ring beam that is evident in the photograph is not evident in the section and the wall finish is labelled as *Glas kacheln* (Glazed tiles)
[37] Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', 43.
[38] Neumann, '"The Century's Triumph in Lighting": The Luxfer Prism Companies and Their Contribution to Early Modern Architecture', 43.
[39] Peter Jensen, 'Die deutsche Werkbund-Ausstellung Köln 1914', in *Jahrbuch des Deutschen Werkbundes 1915 (*Munich: 1915), 25.
[40] Bruno Taut, 'Natur und Kunst', in Manfred Speidel, *Bruno Taut: Ex Oriente Lux, Die Wirklichkeit einner Idee* (Berlin: Mann Verlag, 2007), 50-55.

‘The old bark school is gone … There’s a brick school on the flat’: Reflections on the fitness for purpose of William E. Kemp’s school buildings

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Abstract

This paper considers the fitness for purpose of the school buildings designed by William E. Kemp (1880-1896). It discusses the influence of their built form on the teaching, learning and activities that took place within them and the symbolic role of the buildings in representing political objectives, social values and economic progress. In addition to the obvious functional requirement of facilitating a system for the education and moulding of a generation of children, the buildings also gave physical form to the culture of the colony of New South Wales in the final decades of the nineteenth century. Their ubiquity, civic prominence and role in social reform in a time of rapid change mark them as culturally significant.

The surviving primary evidence provided by Kemp is limited and does not extend to his thoughts about the ideological function of his schools. Thus the research supporting this paper has attempted to gain insights by examining other material from the era. This has involved searching for the scarce recorded experiences of those inhabiting the schoolrooms – the pupils (and their parents), the teachers and the district inspectors – hidden amongst the pages of school histories, archived school files, miscellaneous photographs and newspaper reports. These recorded experiences have been placed in the context of the dominant ideologies pertaining to education in the colony in the late nineteenth century: Britishness, colonial progress, patriotism, discipline and public hygiene. They have been evaluated alongside reports commissioned by the NSW Government on public education – one in 1880, looking towards the future on the eve of the Public Instruction Act, and the other in 1903, looking backwards after Kemp’s retirement. The very prolific yet incomplete historical records of New South Wales schools, the invisibility and elusiveness of their history, offer countless opportunities for reinterpretation based on the material to hand at a particular point in time.

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The introduction of the New South Wales Public Instruction Act in 1880 made elementary education free, compulsory and secular. It ushered in an era when schooling became a major part of childhood and children spent more time in the schoolroom and the playground than they did anywhere else, except their homes. Compulsory school attendance enabled the government to keep records of all children and, more importantly, allowed it to work towards universal literacy and the inculcation from an early age of moral values and patriotism. This paper considers the fitness for purpose of the school buildings designed by William E. Kemp (1880-1896). In addition to the obvious functional requirement of facilitating a system for the education and moulding of a generation of children, the buildings were also expected to give physical form to the broader ideologies of civilisation and progress. Within and outside their walls particular ways of envisaging the world and of constructing individual and collective identity were instilled and imagined.

Historians investigating nineteenth-century education in New South Wales have focussed on the narrative and politics of mass education,[1] taken diverse socio-political perspectives, or turned to the world of childhood as a topic for research.[2] Despite this substantive historiography there is still no scholarship by others addressing the role that school buildings played in supporting colonial ideologies, school work and school activities. Kemp's school buildings are a product of the culture of the colony of New South Wales in the final decades of the nineteenth century and their ubiquity, civic prominence and role in social reform in a time of rapid change mark them as culturally significant.

The primary evidence provided by Kemp is limited to his surviving buildings, correspondence of an administrative nature concerning sites, construction and maintenance, and a public address to the Sydney Architectural Association in 1893. It does not extend to his thoughts about the ideological function of his schools. Thus the research supporting this paper has attempted to gain insights by examining other material from the era. This has involved 'looking for the needle in the haystack': searching for the scarce recorded experiences of those inhabiting the schoolrooms – the pupils (and their parents), the teachers and the district inspectors – hidden amongst the pages of school histories, archived school files, miscellaneous photographs and newspaper reports. These recorded experiences have been placed in the context of the dominant ideologies pertaining to education in the colony in the late nineteenth century: Britishness, colonial progress, patriotism, social values, discipline and public hygiene. They have been evaluated alongside reports commissioned by the New South Wales Government on public education – one in 1880 authored by Edward Combes looking towards the future

on the eve of the Public Instruction Act and the other in 1903 authored by G. H. Knibbs and J. W. Turner looking backwards after Kemp's retirement.

The author's task in writing this paper has been rather like that undertaken by Sid Hammet in *Gould's Book of Fish*, who trawled through the Archives Office of Tasmania only to discover that there was 'little that was helpful, with the exception of the wise and venerable archivist' with whom he took to drinking.[3] In synthesising fact, ideology and representation of schools as places of memories, both told and untold, the author has, like Hammet, exalted in the new revelations that come from stumbling across material not noticed in previous readings and that can prove to 'contain a new element of the story that … force me to rethink the whole in an entirely changed light.'[4] The very prolific yet incomplete historical records of New South Wales schools, the invisibility and elusiveness of their history, is as powerful as it is frustrating. It offers countless opportunities for reinterpretation based on the material to hand at a particular point in time. One cannot follow a straight line of inquiry but must work in 'infinite circles, like rings proceeding ever outward from a stone sinking in the water of Now.'[5]

A New School Typology to Accommodate the Educational Reforms of 1880

In 1878 there were 7,742 children enrolled in provisional schools and 1,758 in half-time schools, often occupying primitive slab huts offering limited shelter from the elements.[6] Henry Lawson later reminisced with some sentimentality about 'The Old Bark School' of his childhood in the years before the reforms of 1880:

> It was built of bark and poles, and the floor was full of holes
> Where each leak in rainy weather made a pool;
> And the walls were mostly cracks lined with calico and sacks –
> There was little need for windows in the school…[7]

The Public Instruction Act gave the New South Wales government full responsibility for providing suitable accommodation for the colony's children. Such bark schools as Lawson recalled could no longer be accepted, particularly as compulsory school attendance raised issues of health and hygiene in what were frequently overcrowded and unsanitary buildings. Faced with the demand for a large number of new schools, it was natural for the colony of New South Wales to turn to Britain for advice. In 1878 Dr Richard Ryther Steer Bowker,[8] member for Newcastle, wrote to the Premier James Squire Farnell,[9] urging him to formalise the government appointment of Edward Combes to investigate the lighting, heating and ventilation of school buildings in Great Britain,

Europe and America,[10] with the observation that 'I am quite sure … that here we are all wrong in our buildings. Although no one at home has settled the matter for a semi-tropical country such as ours, yet valuable notions and advice might be obtained by Mr Combes.'[11] Combes was already in Europe and representing the colony as the NSW Executive Commissioner for the 1878 Paris Exposition Universelle.[12]

The denominational and national schools in New South Wales were already operating along British lines and the English pupil-teacher system was well established. Where school buildings were purpose built, they were designed in the Gothic style, representing an English model of education closely associated with the church, and were usually located in the central precinct of the town alongside the post office, police station and law court. Such towns provided the infrastructure for the perpetuation of British civilisation and its civilising forces of progress, democracy, justice, morality, and decorum. A recent journal article examining Kemp's early life and the colonial culture that shaped him as an Australian architect gathers broad supporting evidence to demonstrate that he shared the British belief in the importance of the urban setting and civic architecture as a means of both promoting and demonstrating the civilisation and progress of the colony.[13] In country towns the acquisition of a school building was a symbol of progress and local identity and Kemp deliberately positioned his larger schools within the class of civic architecture that comprised the democratic, commercial centre. The symbolic value of school buildings as a feature of civic pride is rarely mentioned in surviving documentary material, but in the protracted negotiations for a new school at Orange East (1890) it became clear that 'The real, but unstated, argument was that Orange East needed a school of its own to promote its identity and status; … because of its recent growth, [it] *deserved* a school.'[14]

Britishness was also embodied in the place names of colonial towns, and therefore in the names of public schools. For example, Auburn, now a high-density multicultural suburb of Sydney, was named after 'Sweet Auburn, Loveliest village of the plain' from an Oliver Goldsmith poem[15] in the expectation that the new 'Auburn under the Southern Cross' would be a similarly idyllic rural village. Auburn Public School (1886) designed by Kemp completed the tableau and, perhaps inspired by the beauty of its setting, it is more picturesque than many of his schools, with steep terracotta tiled roofs, terracotta ridge capping, fancy timberwork to the gable ends and turned finials.[16]

While investigating schools throughout Great Britain, Europe and America, Combes concluded that the schoolhouse and the plan of the school should suit and be subservient

to the system of teaching.[17] Kemp explained that this principle was the foundation of his school designs, which were to suit the pupil-teacher system, but nowhere does he identify the architectural sources or influences for the internal planning of his schoolrooms or their external architectural style. He concluded his only public address (found to date) with the vague comment that 'What I know of school building has been acquired in the daily routine of my work.'[18] A correlation has been found with the schools of Edward R. Robson, the first architect of the London School Board from 1871 to 1889.[19] However 'a new element to the story' is provided by a hitherto unconsidered set of standardised school plans used by the British Council of Education that are tucked away in Appendix Z[20] of the Combes report. This set comprises four standard plans (A-D) plus a plan (E) for an infants' school, each being a large schoolroom with separate smaller classroom(s) and stepped galleries so that the large numbers of pupils could see the teacher (Fig 1).

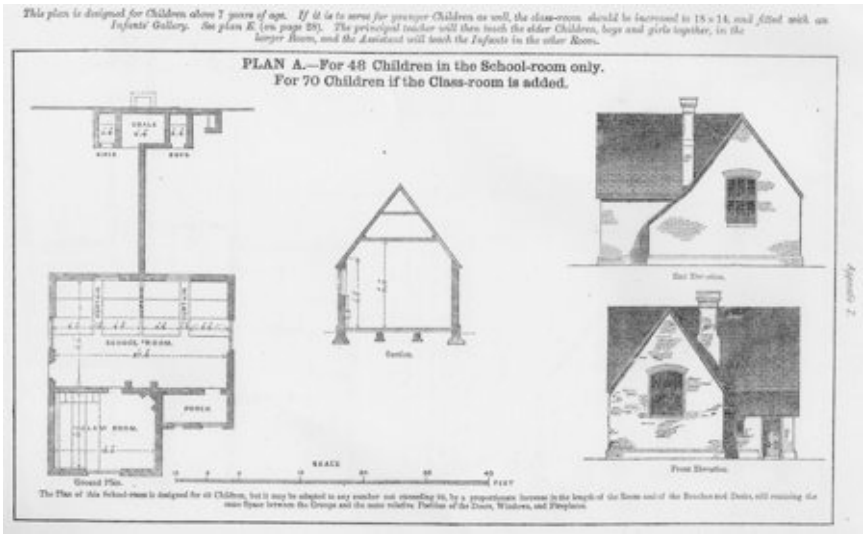

Figure 1. British Council of Education Plan A.
(Source: Combes, *Report on the Lighting, Heating, and Ventilation of School Buildings in Great Britain, the Continent of Europe, and America*, Appendix Z, 251-).

The external appearance of the British schools, featuring steep slate roofs, tall chimneys, and shallow-arched window openings, is quite different from the style devised by Kemp. However, he used similar layouts for his schoolhouses – although many were much smaller, often only catering for around twenty pupils. In 1890 Kemp fully embraced the British idea of standardised plans, producing a set of his own 'Progressive Plans' for school buildings to be passed on to each of the School Inspectors for their guidance and designed to allow progressive enlargement as the school population grew.[21] In addition to varying the type of construction and floor area depending on the size of the school, Kemp varied the ceiling height to increase air volume. There were seven standard plans (A-G) for different classes of school. The Meadows Public School (now Seven Hills) (1890) was one of the small schools built to Kemp's standard Plan B.[22] It was a simple

timber building, containing a single schoolroom 26 feet long by 14 feet wide, with a ceiling 10 feet 5 inches high. 'It provided floor space for 45 children or air space for 38' and was furnished with six desks and forms 7.5 feet long, in three blocks on a stepped floor, and 'so had seats for 30 children.'[23]

Unlike the standard plans of the 1890s, there is little evidence of standard plans being used during the 1880s, Kemp's first decade as 'Architect for Public Schools'. This is not to say that Kemp did not produce a set, for various government departments in the intervening years have destroyed large quantities of historical material when storage space was limited.[24] A standard plan for a small school and teacher's residence dated 5 February 1883 exists in the 'Architect 1876-83' file held by NSW State Records (Fig 2).[25]

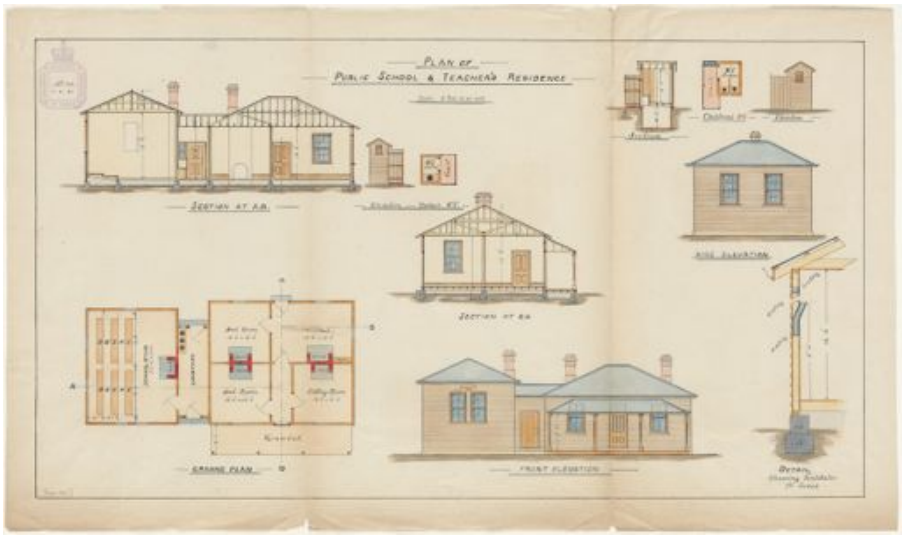

Figure 2. Kemp Standard Plan of Public School and Teacher's Residence (1883). (Source: NSW State Records, Container 20/12484 Architect 1876-83. Drawing dated 5 February 1883.)

This drawing matches the new buildings for Old Junee Public School (1882), a short distance from Junee in the Riverina area of NSW, except that Junee has a verandah across the front elevation.[26] It is currently believed that Kemp preferred to design his 1880s schools individually on a case-by-case basis but other standard plans may be hiding in the hundreds of individual school files. If more drawings are uncovered then this narrative may need to be rethought. Nevertheless all of his designs were characterised by a long schoolroom up to 70 feet long, often accompanied by smaller classrooms. Stroud Public School (1885) was centrally located and had a long British schoolroom 39 feet by 20 feet and a classroom 16 feet by 14 feet. The town had been established as a British outpost in a remote location, named after Stroud in Gloucestershire, and proudly displayed an ancient carved stone sent with the good wishes of Stroud Parish Church in England. Young Public School (1884) was a much larger school with two long

schoolrooms, one 66 feet by 24 feet, the other 67 feet by 24 feet, and a series of other smaller classrooms and infants rooms.[27] The town in the South West Slopes region of New South Wales did not conjure up images of England and was instead named after the Governor, Sir John Young. The long schoolrooms, like those at Young, appear to have been phased out by Kemp because his standard plans from the 1890s show the maximum size reduced to 25 feet by 19 feet and classrooms separated by 9 inch masonry walls.[28] From this it can be inferred that the long schoolroom was a difficult environment for both teachers and students, although no recorded memories of the difficulties have yet been found.

Built Form and Behaviour

Schools such as these provided more than a functional setting for education. Their physical form, derived from a British heritage, imparted cultural messages of Britishness and at the same time participated in the evolutionary processes of cultural development and identity formation of future generations in the colonial environment. Architects have long recognised that built forms influence behaviour and their designs usually implicitly embody psychological notions of the relationship between buildings and behaviour. In the case of schools, the Organisation for Economic Co-operation and Development (OECD) has for a number of years been conducting research on the interrelationship between school buildings and student performance with particular reference to developing countries. A report of the research presented at the '12th Architecture and Behaviour Colloquium' finds that there is evidence 'that the built environment is an important aspect in enhancing learning. Architects pointed to their experience with projects that took quality into account and often led to exciting pedagogical changes.'[29] The internal arrangement of Kemp's long schoolrooms reflects his implicit understanding of the relationship between the built form and the type of behaviour that was intended to take place and the lessons to be learnt. He would have understood that the pattern of school life would be rigidly formulated and highly disciplined, that the curriculum would nurture patriotism and inculcate social values and that the building and the educational activities it accommodated would contribute to colonial progress. In turn, the characteristics of the built form influenced the behaviour of the children and the responses of the community.

Victorian children were subjected to strict discipline at home and at school, justified by the Christian belief that children were born with a tendency to sin and should be punished for bad deeds so that they would learn to be good. Industrialisation also called for a large, disciplined workforce. School 'served as a preparation for employment and participation

in a society increasingly conforming to the rhythms of industrial capitalism'[30] where clocks and bells, punctuality and time keeping were paramount. During this period of preparation, school attendance transferred 'children's labour power from the household and, or labour market to the schoolroom' which would be compensated for by 'preparing them for their eventual place, as adult or juvenile workers in [the labour] market.' While compulsory education was enforced by the State, it could not have been 'effected without co-operation from many families.'[31] Within the schools the morality arising from British Protestantism taught an ethic of hard work, whether or not it would improve one's material well-being.[32] Miles Franklin's character Sybylla, was typical of many country children, who already knew about hard work:

> Besides the milking I did, before I went to school every morning, for which I had to prepare myself and the younger children, and to which we had to walk two miles, I had to feed thirty calves and wash the breakfast dishes.[33]

At Young Public School, students were seated at long cedar desks on forms ranging from 12 feet to 25 feet long. [34] Kemp drew up similar furniture specifications for all of his schools,[35] ignoring Combes's advice and Robson's practice of seating pupils on individual seats. The reason for this is unknown. One can only assume it was financially motivated and provided flexibility for the number of students that could be accommodated. At Lockhart Public School (1897) a rough plan dating from 1901 shows how the classes were arranged in three rows of four 9 foot desks. First class occupied the north end of the room, second class was in the middle, and third class was at the southern end with a very few fourth class pupils by the southern-most wall.[36]

There is scant information about how this arrangement affected learning and behaviour. We know that the class sizes were large (with an average teacher to pupil ratio of 1:66),[37] the furniture was uncomfortable, the cane was regularly applied and strict routines and drills were implemented for all aspects of schoolroom activity. For example, William Dennison, a pupil in the 1890s at a school near Dubbo recalled that, 'One day I was caught reading under the desk and I was caned for it. The teachers were often brutal, but it was accepted – that was the way it was.'[38] The Headmaster of Junee Public School (1884), Mr Francis McPhail, justified his use of the cane as reasonable:

> There were 22 school days in October and 3.5 canings per day. The average attendance for the month was 130 and 3.5 canings per day is an average of 2.74 percent of the pupils. This does not appear to me to be excessive.[39]

Even the smallest of Kemp's brick schools incorporated a belfry and his larger schools were characterised by large bell towers. The bell played an important role in regulating school discipline. Lena Powell remembered that the school bell 'used to ring at nine o'clock, half past nine of a morning; first thing I went to school, then at half past twelve we'd come out for lunch till half past one and then we'd go back till four o'clock in the afternoon.'[40] Mrs Eva Stone (née Jeffress), a pupil at Fairfield Public School (1889), remembered the children of the district being called to school each day by the tolling of the solid iron school bell. It was rung three times at nine o'clock and again at half past nine. 'It was a great honour for the master to say, 'You may ring the bell today.''[41] At South Wagga Public School (1892), the extra-large bell, specially made to inhabit Kemp's landmark Italianate belltower, fell to the ground and cracked soon after the school opened. It was a matter of great concern as the bell was essential 'to ring the children up in time' (Fig 3).[42]

Figure 3. South Wagga Public School (1892) in the 'Grand Classic' style with landmark Italianate belltower.
(Source: Lewis, *The Belltower: A history of South Wagga Public School, 1892-1992* (Wagga Wagga: South Wagga Public School Parents & Citizens Association Centenary Committee, 1992), 11.)

Another means of maintaining discipline was through the use of drills for everything from distributing books and slates from the book press (designed by Kemp) to methods for seating children at the long desks and teaching lessons. Combes suggested that drills should regulate all aspects of school life, including 'opening the windows and ventilators' and 'registering the temperature by thermometric observation.'[43] Mrs Dixon, a former pupil of Orange Grove Public School (1894) in the early 1890s, remembered sitting 'at one of the bolted down wooden desks arranged in long rows. Up front sitting on a high

stool … was the class teacher drilling Spelling or Tables' assisted by young pupil-teachers.[44] Such memories portray an authoritarian environment necessitated by the long schoolroom and large classes.

Marching drill had been introduced as a disciplinary aid in the national schools around 1867[45] and in 1871 it spawned a system of patriotic military drill at four of the largest Sydney schools under Sergeant-major Mulholland. It was intended to 'drill the boys with rifles and when a sufficient number provide themselves with uniforms, to form a cadet corps.'[46] By 1884 cadet corps were well established in many New South Wales schools (Fig 4) and W. J. Trickett, Minister for Public Instruction, inspected the combined public schools cadet corps at the Paddington Barracks.[47]

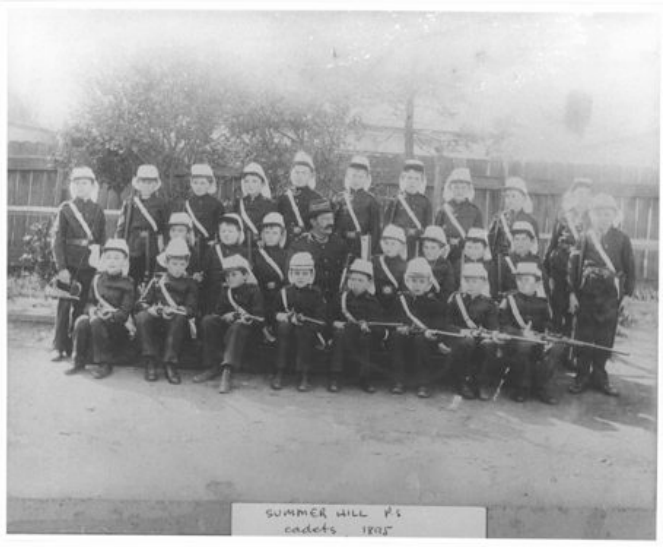

Figure 4. Cadets at Summer Hill Public School (1883) in 1895.
(Source: Photo in 'SummerHillPS' folder in DET photos, electronic resource held by DET Library.)

Their guns were stored in gun racks designed by Kemp and included in his specifications for school furniture. Trays for dumb-bells and boxes for rods used in other marching and gymnastic drills, as well as map racks to store the maps of the British Empire (always in pink), were also the products of Kemp's design.[48] The schoolroom walls often displayed a set of maps, although one enterprising teacher at Hurstville West Public School (now Beverly Hills) (1892) found another use. He wrote to the Department complaining that 'the sun is so very hot in the afternoons, I am obliged to place the maps over the windows to prevent injury to the children.'[49]

The military drill, maps and textbook curriculum were intended to instil proper attitudes to important issues, such as Britain's glorious place in history, the causes of progress, the

meaning of patriotism, and moral values. The expanses of flat playground area surrounding Kemp's schools provided the space for cadet training, marching, calisthenics and gymnastic exercises. These were worked into displays on important patriotic occasions, such as the record reign celebrations for Queen Victoria's Diamond Jubilee in 1897. S. G. Firth, examining school textbooks in New South Wales schools from 1880-1914, identifies the emphasis placed on Empire and British history and superiority in the march of human progress.[50] It was not until 1895 that the use of British textbooks was questioned and Australian content introduced.[51]

Moral improvement was an underlying force for education in New South Wales, which still felt the taint of her convict past and sought to redress it. Sir Alfred Stephen held the view that 'crime descends, as surely as physical properties and individual temperament.'[52] Colonial elites believed in moral improvement through education, in the ancient Greek sense as a means of developing the strength of character of an individual and of integrating him into society. Because of these beliefs, social and moral values of regularity, cleanliness and order were a fundamental concern of elementary public schooling in New South Wales, but were hard to enforce under the makeshift conditions endured by many schools awaiting their permanent brick or timber building. These schools were temporarily housed in tents, rented rooms or slab huts, where non-attendance of the children was frequently caused by the extremes of temperature, wind, heavy rain and snow. At Kurrara provisional school, a remote settlement in the cane growing district on the Tweed River, the teacher, Christopher McCallum defied any 'Teacher in the Commonwealth' to teach some of his pupils reading and dictation. Moreover, they had 'voices like locusts' and 'their father's & mother's monotonous way of speaking & I cannot break them of it.'[53] McCallum had clearly given up the struggle, but in an equally challenging community of itinerant railway workers in the Glen Innes area the teacher, Lucy Williams, a young widow who had previously taught in England, was uncompromising in her enforcement of values. One parent complained of her insistence that children who came to school with bare feet should have to go to the 'frozen tank' to wash off the mud before entering the schoolroom. However she argued strongly for the importance of maintaining the cleanliness and moral character of her school and considered them related.

> From the day of my arrival here I have had to battle determinately with uncleanness, lying, foul language & laziness single handed, & all reproofs & punishments awarded to the children of those families with whom I have had the most trouble, have been taken as personal offences by the parents,

> simply because the reproofs have 'struck home'. The whole matter resolves itself into this question: Shall I still endeavour to do my duty by carrying out the Regulations of the Department for the proper Management of my School, or, give in to those who are worrying me with these petty persecutions?[54]

Not surprisingly, recent scholarship by Pia Björklid on the relationship between learning and the physical school environment identifies cleanliness as an important aesthetic quality for engendering care and respect.[55]

Another social value that the new public schools sought to uphold was the separation of the roles and spheres of work for men and women.[56] Boys and girls were segregated as much as possible in the schoolroom and the playground. Mrs Dixon, a former pupil of Orange Grove Public School in the early 1890s, remembered, 'While the boys played exciting games like cricket and marbles, the girls sat and talked sedately or played skippings.'[57] At Thirlmere Public School one concerned parent wrote to the Department about the segregation in the playground:

> During the dinner time the master (Mr Loader) will not allow [my three boys] to eat or stay under the verandah, the only shady spot in this hot weather, but will only let the girls stop there …One, only 6 years old, looked like a Boiled Lobster when he came home yesterday and as there is no shed or shady trees they eat their tucker in the boiling hot sun.[58]

At some small schools the boys were allowed to play with the girls but Inspector Kevin made it plain in his annual report of 1883 that this was to be avoided and 'gave the teachers concerned very positive directions in this matter.'[59] The separation also occurred inside the schoolroom and Henry Lawson recalled that one form of punishment at his Old Bark School was being sent to sit with the girls. 'I was sent there once, by mistake. I felt the punishment, or the injustice of it, keenly.'[60] Gender differences were also highlighted and reinforced by different activities such as cadets and woodwork for the boys and maypole dancing and needlework for the girls. At larger schools, such as Croydon (1884), the boys and girls had separate entrances and single-sex schoolrooms.

Health and Hygiene

In implementing a compulsory schooling clause the New South Wales government took responsibility for safe-guarding pupils' health. Combes's report on the heating, lighting and ventilation of school buildings is peppered with aphorisms such as 'health is the basis

of all social virtue'; [61] 'public health is a nation's wealth'[62]; and 'if we injure the health of the child we injure the health of the man.' [63] He canvassed the latest science of ventilation, including quantitative and empirical research on the gasses contained in exhaled air and the relationship between density of pupils in a classroom, the method of ventilation, and the health of those pupils. He compared a number of different appliances and natural and artificial systems for heating and ventilating schoolrooms from around the world for their efficiency and applicability to the local context and recommended the optimum design and orientation for windows. His particular interest in the relationship between climate and ventilation was informed by his own experiences of the hot summer conditions of regional NSW where he had built his own house, Glanmire Hall (1881), near Bathurst.[64]

Kemp installed a system of ventilation shafts in the walls of his schools – his own version of the Tobin tube[65] – and roof cowls which were similar to the diagrams in Combes's report.[66] A previous article[67] raised a number of questions about the sources of Kemp's ideas on ventilation, some of which appear now to be answered in the pages of Combes's report.[68] A large square opening previously noted in the classroom ceiling at Young Public School is probably part of a ventilation device invented by W. F. Gray and used by the Educational Department of South Australia in their public schools.[69] Combes described it at length and included an illustration.[70]

Despite the efforts of Combes and Kemp to ensure that the new school buildings would meet health requirements, they were insufficiently ventilated because of the lack of cross-ventilation and unsanitary. Frequent overcrowding caused by the policies of the Department of Public Instruction exacerbated the problems. At Berrigan Public School (1891), near Jerilderie in the South West of the colony, severe overcrowding was reported in 1896.

> Some children only attend half-time, others have been withdrawn, and, in some cases sent to work on the plea that if they attend, they must stand. Both the magistrate and the police state that they are powerless to secure conviction for non-attendance till sufficient space be provided.[71]

In 1891, when a new classroom was opened at Rockley Public School to ease the overcrowding the *Bathurst Free Press and Mining Journal* commented

> How the teachers and pupils have so far managed to escape the fate of the inmates of the black hole at Calcutta is a mystery. Possibly our hitherto unusually cool summer explains it in part.[72]

The layout of the long schoolrooms constrained the placement of windows and forced Kemp to locate them at the back of the room behind the pupils. Moreover, orientation of school buildings for the most favourable lighting conditions to protect pupils' eyes was a particular problem on small sites and in the depression years of the 1890s when only the front face of the building was built of a quality fit to address the street. At Young Public School, the large windows on the western side provided plenty of light but resulted in a 'blaze of sunlight from the windows in the teachers' eyes and great heat affecting all therefrom'.[73] At the little country school of Gum Flat (1883), curved sun hoods were placed to create artificial shade over the west-facing windows but it is not known whether these were specified by Kemp or added by the district inspector and local builder (Fig 5).[74]

Figure 5. Gum Flat Public School (1883) in 1929 with curved sun hoods to west-facing windows. (Source: 'Gum Flat PS, 1929' in 'GumFlatsPS' folder in DET photos.)

Education for a New Era

The year 1880 that saw the passing of the Public Instruction Act was a time of prosperity and vigour in the colony of New South Wales. The Sydney International Exhibition that had opened in 1879 was still drawing crowds, Sir Henry Parkes was Premier and loan funds were readily available to finance railways, schools and other public works. The overland telegraph lines that had spread across the continent in the 1860s, and the overseas telegraph links, had already connected the Australian colonies more closely

with the Mother Country, between each other and within their own boundaries. The railways were extending out from Sydney and the isolation of the far west of the colony was ending. In a single month, February 1881, the link between Wellington and Dubbo was opened, the final section from Gerogery to Albury opened, and the line between Junee and Narrandera was opened. In 1885 the line to Bourke opened. The five years from 1879 to 1884, according to John Gunn, were 'the great railway years'.[75] Similarly, the years 1882 to 1885 can be described as the great school building years, a period in which Kemp's office designed and built 313 new schools.[76] In this period there was a net increase of 518 in the number of ordinary public schools.[77] This number included schools converted from denominational or provisional status and small country schools that were built under the supervision of Inspectors. The revolution in communication and education networks throughout the colony increased and strengthened the government's reach to all inhabitants, and a family had to live in a very inaccessible outpost to not come into regular contact with government administration and agency through interactions with the postmaster, the policeman, the school teacher and the railway worker.[78]

Sir Henry Parkes, the architect of the Public Instruction Act, believed that education was the means to a better future for the people and the colony. The Public Instruction Act was the outcome of nineteenth-century democracy and liberalism, which together became a force for secularism in education and a major step towards universal literacy.[79] It was Parkes's belief that free, compulsory and secular education would give equality of opportunity. 'The son of the poorest inhabitant had just as good a chance of winning fortune, distinction, and honour as the son of the richest man in the country.'[80] His belief was clearly shared by parents from all walks of life who wanted to send their children to school, even when they were a necessary part of the local (agricultural or mining) workforce. An enormous volume of petitions and application forms was received by the Department of Public Instruction from such diverse groups as fishermen, shepherds, railway men and miners, themselves uneducated but keen to have a school and secure a better future for their children.[81] Eric Hobsbawm has noted this nineteenth century belief in education as a 'way out of the manual working class' and a 'way forward to self-respect and pride'.[82] At the opening of Balgownie Public School (1889), on the hillside below the Mt Pleasant mine, the Mayor of North Illawarra expressed the sentiment that:

> a better addition could not be given to any district than the diffusing of a liberal system of education. It was the means of fitting the rising generation for high positions, without the aid of which the majority would be at a loss.[83]

Frederich James Cram remembered marching up the steep hill from Fairy Meadow School to the opening of Balgownie when he was 6 years old because it was the biggest event ever held in the district, and the Headmaster had warned that 'if he saw anyone at the opening of Balgownie School who had not marched they would 'cop it'. This was no idle threat as some of the Mt Pleasant boys who disobeyed this order were caned the following day.'[84]

The Symbolic Role of School Buildings in the Progress of the Colony

In the opening speeches there was generally little reference to the school building, creating yet another gap in the narrative. Even though these occasions celebrated the opening of new buildings, there was no verbal articulation of the complementary roles of the building and teachers in the education process. The building was neither mentioned as a functional object nor as an object of cultural significance.

In his 1893 address to the Sydney Architectural Association, Kemp focussed his discussion on the functional and utilitarian aspects of his buildings, describing in great detail how they accommodated the English pupil-teacher system and how they incorporated best practices in lighting and ventilation. He did not divulge an architectural philosophy or ideology beyond the cultural significance of abandoning the Gothic style with its ecclesiastic associations that he thought inappropriate for the new secular education. He made a passing reference to the Vitruvian ideal of 'commodity, firmness and delight'[85] and appears to have translated 'commodity' as 'utility.' His whole thinking predated the later functionalist approach to architecture. Yet it is clear from the buildings themselves that he was also aware of their important symbolic role in the progress of the colony. Mike Dillon's historical study of school buildings in South Australia notes the importance of public buildings displaying distinctive styles to denote their functional and symbolic purpose.[86] Likewise, Kemp was committed to endowing his buildings with a dignified 'school-like' character, complete with a bell tower, wherever possible (Fig 3). He was in step with nineteenth-century writers on educational reform who thought that schools should be ''noble' structures that would support the inculcation of appropriate social values and transform children into virtuous literate citizens.'[87] He never actually said that this is what he thought, but it can be inferred from the quality of the buildings themselves, particularly the early schools completed before cost pressures came to bear. It would appear he intended his schools to express civic values: his design and construction of public schools across New South Wales in the 1880s and 1890s complemented the already widespread presence of court houses and post offices designed by his mentor, Colonial Architect James Barnet. The Italianate style of Kemp's

'Grand Classic'[88] schools has previously been thought to have been influenced by these buildings and their suitability for the Australian climate.[89] However, in Hammet's terms, a 'new element of the story' has emerged. A plan and elevation of a typical school of the Irish National Board of Education, published in Combes's report and hitherto unnoticed, may also have influenced Kemp's architectural style, being similar in style (Fig 6).

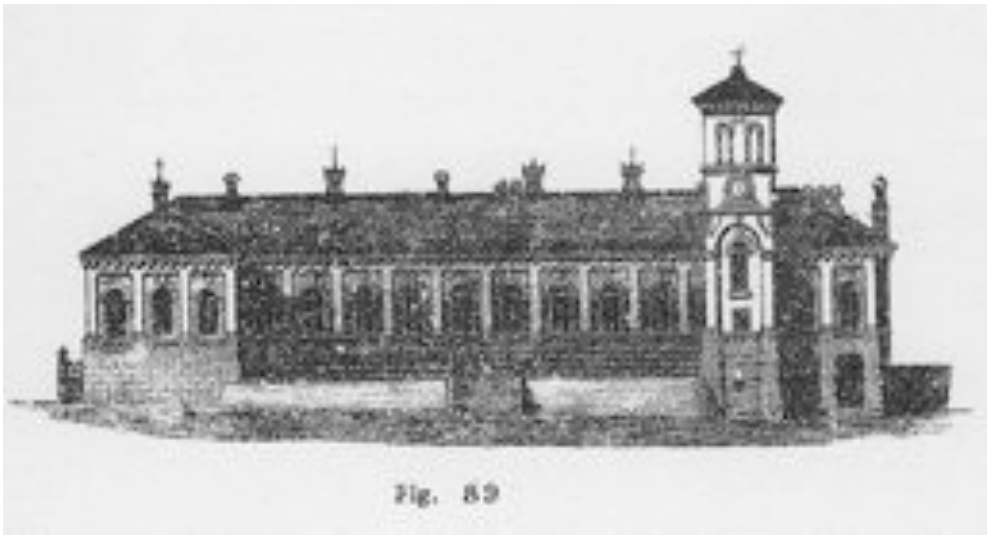

Figure 6. Irish Board of Education school suggested as a model for New South Wales schools by Combes. (Source: Combes, *Report on the Lighting, Heating, and Ventilation of School Buildings in Great Britain, the Continent of Europe, and America* (Sydney: Thomas Richards Government Printer, 1880), figure 89 on unnumbered page facing 62.)

Kemp was charged with devising a new architectural style for school buildings that rested on the foundations and traditions of its predecessors, encompassed the system of teaching and marked the momentous reform taking place in education, as it moved from an era in which education was closely linked to the church to a new era in which it would be free, compulsory and secular.[90]

By the turn of the century, when G. H. Knibbs and J. W. Turner reviewed primary education in New South Wales, they concluded that it was necessary to abolish the pupil-teacher system, to make the education and training of teachers more thorough and to provide separate classrooms for each teacher.[91] Such a reform to school design had the potential to address many of the problems Kemp had experienced in providing satisfactory ventilation and lighting. Moreover, individual classrooms would allow for a less authoritarian method of teaching, as the theory of mental discipline in which children were drilled to exercise their mental faculties gave way to a neo-Herbartian philosophy in which development of a sound character was the central purpose.[92] They observed that, 'The past practice of New South Wales of having a row of classes in a very long room is practically unknown, except in England … *such an arrangement is a very bad one*.'[93]

Instead, each class group should have its own classroom and the recommended form of the school was a 'long building with small wings at the end, and a long corridor running along the whole length of the class-rooms, etc' (Fig 7).[94] In addition, it was recommended that school sites be increased to 5 acres.

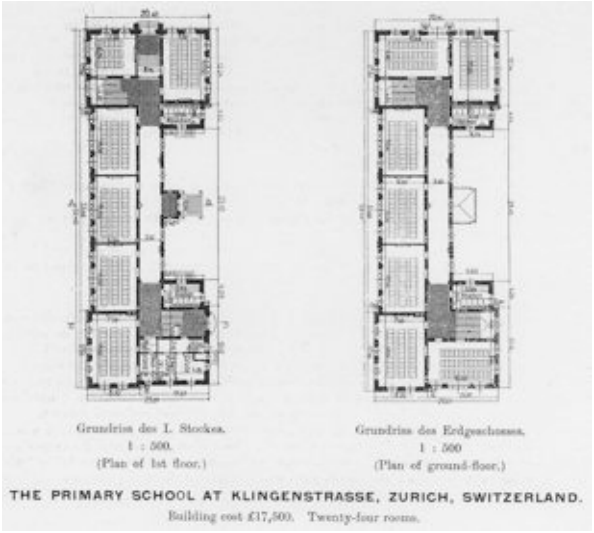

Figure 7. Typical Swiss school plan suggested as a model for New South Wales schools by Knibbs & Turner. (Source: G H Knibbs and J W Turner, *Interim Report of the Commissioners on Certain Parts of Primary Education*, (Sydney: William Applegate Gullick, Government Printer, 1903), 409.)

Knibbs and Turner criticised the poor hygiene in New South Wales schools and commended those of Switzerland for their hygienic standards. As well as securing the health of the pupils, they considered it important to set an example to the general population and they hoped that the indifferent attitude of Australians towards hygiene could 'be totally changed for the better, and thus cleanlier homes and habits become characteristic of our people.'[95] Knibbs was of the opinion that in New South Wales,

> Some of our buildings are by no means unworthy as regards ordinary architectural ideas, but through and through they shew a want of knowledge of the contributions of modern research to the subject of school hygiene, and are built on principles that are completely discredited, and quite out of date. Compared with modern schools in Europe and America, they are poor and unhygienic … yet, considered in themselves, they are often fine buildings, of good appearance.[96]

Conclusion

Lawson first published his poem 'The Old Bark School' in 1897, the year after Kemp's retirement. By then, he observed, the Department of Public Instruction had replaced all the makeshift bark schools of his childhood with purpose-built Kemp-designed buildings of brick or timber.

> But the old bark school is gone …
> There's a brick school on the flat…[97]

Kemp had been charged with determining a new typology to meet the needs of the educational reforms of 1880 and his designs were shaped by the political, social and economic context of late nineteenth century New South Wales. He sought to provide the most appropriate built form to accommodate the teaching system and educational theories of the time; to devise a style that would denote the civic purpose of public education, with due regard to economy; and to safeguard the health of the children by incorporating suitable heating, lighting, ventilation and sanitation.

This paper has considered the influence of the built form of Kemp's schools on the teaching, learning and activities that that took place within them. It has also discussed the symbolic role of the buildings in representing political objectives such as universal literacy, democracy, secularism and equality of opportunity; their contribution to social values of Britishness, civic pride and moral virtue; and their place in the economic progress of the colony. By the time Knibbs and Turner published their report in 1903 great changes had taken place. New South Wales was no longer a British colony, but a federated state of the Australian nation. Political, social and economic conditions had changed and it is not surprising that Kemp's school buildings were found wanting in the twentieth-century context. Nevertheless they are a product of the culture of the colony of New South Wales in the final decades of the nineteenth century and their ubiquity, civic prominence and role in social reform in a time of rapid change mark them as culturally significant.

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Botta's Striped Historicism:
Historicism, Myth and Fabulation in Mario Botta's Stripes

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Abstract

This paper will examine the presence of stripes in the work of Mario Botta, and the range of historical interpretations that the stripes have attracted, as an index of broader, and often contradictory, tendencies in his practice. These interpretations oscillate between claims for the Modernist rationality of Botta's work on the one hand—its formal autonomy, lack of excess, and its emergence from the internal logic of its construction—and, on the other, its Post-Modern continuity with the past—its archaism, symbolic forms, and reference to traditional and regional typologies. These tensions are all revealed in the discourse surrounding Botta's stripes.

While most writers remain silent on the matter of Botta's stripes, a small number have made various claims about their origins. These include what appear to be chronologically and stylistically incompatible framings of Botta's stripes: as a reference to a medieval Italian tradition of striped construction (argued by Joseph Rykwert); as an abstract form of classical rustication (proposed by Charles Jencks); and as a continuation of a 19th century Ticinese masonry tradition (presented by Kenneth Frampton).

Such interpretations oscillate between literal and abstract forms of historicism, and seem to float around Botta's work, with no one reading ever gaining purchase as a definitive explanation of his stripes. The result might therefore be called a striped historicism, built upon multiple layers of rich speculation, myth and semantic projection. In other words, his stripes construct a 'fabulation,' which will be shown to be a productive, albeit ambiguous, layering of meaning that offers new insights into some of the implicit contradictions of Botta's work.

Fabulation: Proceedings of the 29th Annual SAHANZ Conference
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Introduction: Mario Botta's Stripes

Between 1975 and 1976, Mario Botta designed and built a formative residential project: the single family house in Ligornetto (Figures 1 & 2). Located in the southern Swiss canton of Ticino—where Botta was born, raised, and has run his architectural practice for more than forty years—this modest, three storey house sits at the edge of Ligornetto's buildable limits, literally marking out the boundary between the town and the cultivated landscape beyond. Since its completion more than three decades ago, the house has been published extensively, and is regarded by many critics as a key project in Botta's early career.[1] It even appeared on the cover of the first monograph of his work published in 1979.[2] Yet, for this paper, the interest of the project lies principally in its façade, as the first of a significant number of Botta's buildings to exhibit alternating bands of coloured stripes.

Figure 1. Mario Botta: Single Family House, Ligornetto, 1975-76.
(Photograph: Ashley Paine, 2012).
Figure 2. Detail. (Photograph: Ashley Paine, 2012).

The Ligornetto house, however, was no tentative first step towards a banded style of polychromy. Rather, the project is emphatically striped in a veneer of pink and grey cement blocks, organised into horizontal bands each three courses high that cover the building from top to bottom. The stripes are distributed equally over the façade (except for a double height pink band that forms the parapet) and articulated with raked mortar beds that produce fine shadows between the bands of colour for additional emphasis. Intriguingly, while the house itself seems to develop out of a number of formal themes already present in earlier projects, the use of dichromatic stripes appears without precedent in Botta's practice. Moreover, for an architect who is routinely examined within the framework of his education under the guidance of Modern masters—Le Corbusier, Louis Kahn and Carlo Scarpa—this bold use of decorative pattern is certainly

unexpected, and deserves more than just the passing description that it has typically received from architectural critics.

It is the purpose of this paper to look more carefully at Mario Botta's use of stripes that began with the Ligornetto house and has continued ever since, on a wide range of domestic, public and institutional works. The stripes appear in places as diverse as Italy, Germany, France, Korea, Japan, Argentina and, of course, in his native Switzerland, making use of chromatically and texturally banded materials including brick, stone and coloured concrete blocks. It is my contention that a detailed examination of these stripes can reveal much about the work of this Ticinese architect. Such an analysis brings to the surface a range of inherent tensions and contradictions in Botta's work, including those between its clearly Modernist tendencies and certain historical evocations and references that mark the work as Post-Modern. But the particular concern for this paper lies in the origins of Botta's stripes, and what these decorative bands might reveal about Botta's use of history, and the presence of a certain kind of historicism in his work. Of course, Botta would never use historical references in a nostalgic revival of the past. His is not that kind of historicism. It is also quite distinct from that of his Post-Modern contemporaries: it lacks the irony of James Stirling, avoids the explicitness of Michael Graves and Robert A. M. Stern, and does not exhibit the play of figurative imagery we might expect to find in the work of Robert Venturi and Denise Scott Brown. Botta's historicism is much more veiled.

While little critical attention has been given to Botta's stripes, their presence has attracted some brief interpretations from a number of major historians of the latter half of the 20th century. What is surprising is the variation between these interpretations—stylistically, geographically and chronologically. This is not to argue that such varied interpretations are not all valid, or that Botta's stripes cannot refer to more than one thing at a time. Certainly, they can.[3] The point here is that these interpretations have a cumulative value, as an index of the broader tensions, unspoken contradictions, and implicit historicism of Botta's practice. This is laid bare on his striped façades for all to see.

The paper proceeds through a discussion of three common framings of Botta's work that locate the origins of his stripes within various geographical, temporal and stylistic frameworks. Each of these will be discussed in some detail below. First, however, it is pertinent to look at Botta's own discussion of his use of stripes, and the broader rhetoric with which he presents his architectural practice.

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Botta's Framing of Stripes and History

In comparison to the huge number of articles, books and monographs published on his work, Botta's own writings are comparatively scarce.[4] Botta's texts tend to frame his work in terms of its role in the city, its relationship with landscape, and its evocation of the eternal, sacred and ancient. They present his buildings as self-evident constructions emerging almost inevitably out of their own internal constructional logic. Botta does not discuss his work in terms of its intended meaning, nor does he discuss his forms, techniques or their derivation from specific periods, places or precedents in architectural history. Regarding this selective silence, Irena Sakallaridou suggests that form is the medium with which Botta creates his spatial art and, she argues, like an artist's use of paint, it needs no explanation.[5] By extension, we might assume that the (striped) surfaces that constitute those forms, are part of his unarticulated working palette. While Botta's unspoken formal process leaves much room for critics to explore various critical interpretations of his work, (as evidenced in the later discussion of this paper), it could also be argued that this silence allows Botta to profit from a certain sense of mystique, authority and artistic genius.

Not surprisingly then, Botta has made only a small number of direct references to the stripes found in his work. These tend to focus on the way in which stripes contribute to the monumental presence of the building, and to the expression of the wall. In other words, Botta highlights the *function* of the stripes on his façade, and not their *meaning*. The following comments from the architect illustrate this point. First, in relation to the Ligornetto house, Botta has described the banded concrete block pattern in contrast to nature, thereby reinforcing the artificiality of architecture, and drawing attention to the built boundary marked by the house at the limits of the town.[6] He writes:

> The will to create a clear relation between the new building zone and the remaining countryside has determined the project. The treatment of the façade with horizontal stripes wants to underline the "designed" aspect of the new artefact as a contrast to the nature around. This theme of façade—"design" is found again in the local building tradition: it is a sign of care, attention and love for one's own habitat in a constructive tradition […]. It is a sign of the "richness" of the poor.[7]

In *The Ethics of Building*, Botta describes the textured brick bands on the façade of an office and apartment building in Lugano (Figures 3 & 4): 'Laying brick in a variety of patterns can create a two-tone effect, while recessing the mortar joins behind the front

line of the bricks (which are thus highlighted by shadow) gives the wall a powerful, solid appearance.'[8] Finally, in an interview with Mirko Zardini, Botta has discussed the civic ambition behind the Villeurbanne Mediatheque façade, and the need for buildings to have a monumental presence and impact upon their public audience. It is in this context that he draws attention to the building's stripes: 'The large striped façade of the library in Villeurbanne, looking some what [sic] like a banner, is a seemingly trembling landmark along the street.'[9] Again, it is the operative effect of the stripes that Botta describes: the physical marking of a boundary rather than its concept; the expression of the solidity of the wall, not its meaning; and the monumental impact of the façade instead of its semantic content. We can also see Botta consciously connecting his ostensibly decorative façades to larger concerns for the site and built context. But never does Botta provide clues to the specific historical context of his stripes.

Figure 3. Mario Botta: Office and Apartment Building, Lugano, 1985-90. (Photograph: Ashley Paine, 2012).
Figure 4. Detail. (Photograph: Ashley Paine, 2012).

In terms of his work and its relation to history more broadly, Botta is a little more forthcoming. For Botta, the past contains lessons for architects—primitive forms, archetypal ideas and original, archaic meanings—that can help generate a new built expression relevant to the time. In this respect, he argues for a continuity with the past, contributing to, and building upon its traditions and memory.[10] But Botta is clear that this does not imply imitation, stating that architects must: 'take a careful and critical look at the past, not to emulate its procedures, but to understand what it has to teach us about the potential of our own age.'[11] It is the task of the architect, therefore, to re-create the forms and memories of the past, in new and relevant ways.[12] It is a method of connecting us to

our cultural history in a dialectical relationship, without recourse to nostalgia, imitation or citation.

> I do not see conflict between the new and the past. Instead, I see a dialogue, a comparison, in that the new needs the ancient in order to feel like it is part of history. However, the old needs the new to suggest a reading of the here and now.[13]

What emerges from this rhetoric is a conventional and often repeated interpretation of Botta's work and its relation to history that operates through the re-invention of tradition and not its direct quotation. For example, Benedetto Gravagnuolo describes the emotional, spiritual and 'primitive force' of the Chapel on Monte Tamaro (1990-1996) and the absence of any traditional forms or iconography that would be expected in sacred buildings.[14] Elsewhere, Gravagnuolo writes of Botta's work: 'the past is alluded to and in some ways re-invented, but never evoked.'[15] Yet, in spite of this hegemonic reading of Botta's work and its use of the past, some direct historical precedents can be identified. This is particularly true of Botta's stripes, upon which a number of writers have made conflicting historical claims. Three of these interpretations will be considered in detail below, to re-examine Botta's work and its relation to history.

Figure 5. Banded brick and stone construction (Opus Vittatum) on the Aurelian Walls near Porta Ardeatina, Rome, 3rd Century AD.
(Photograph: Ashley Paine, 2012).
Figure 6. Detail. (Photograph: Ashley Paine, 2012).

Botta's Stripes as Italian

Perhaps the most common claim made about the genesis of Botta's stripes, is that they refer to various Italian traditions of striped building. These traditions begin with the

Roman practice of banded brick and stone construction that emerged in the third and fourth centuries (Figures 5 & 6), and evolved over some 1000 years into the striped façades of medieval Romanesque and Gothic churches found primarily in the northern parts of Italy.[16] Proponents of this Italian conception of Botta's work include Joseph Rykwert who writes that: 'Over and over again, he has returned to the old Lombardian and Tuscan manner of alternating layers of light and dark stone, even colouring alternating courses of concrete blocks.'[17] Harald Szeeman agrees, citing an affinity between the stripes on Botta's Watari-um Art Museum in Tokyo (Figure 7), and the stripes of Siena Cathedral (Figure 8).[18] Other critics focus on less specific references to the Italian tradition. For example, Francesco Dal Co writes of the Ligornetto House that: 'The exterior walls, with tinted courses achieved from the arrangement of gray and rosy bricks, are meant to evoke abstractly the chromatic values of ancient walls.'[19] Importantly, by locating the origins of Botta's stripes in this Italian tradition, these authors begin to identify a geographically specific meaning in the stripes, which goes beyond Botta's mere operative description of them.

Figure 7. Mario Botta: Watari-um Art Museum, Tokyo, 1985-90.
(Photograph: Ashley Paine, 2010).
Figure 8. Siena Cathedral, Siena, 13th-14th Century.
(Photograph: Ashley Paine, 2012).

The interpretation of Botta's stripes as Italian gains credibility when we look more closely at their apparent similarity with the Italian tradition. Significantly, the comparison of Botta's stripes with specific historical precedents reveals not an abstracted re-working of the tradition, but a more direct, almost literal, quotation of them. A likeness is particularly evident between Botta's work and the Italian Gothic churches of the twelfth to fourteenth centuries. Formally, both can be characterised by the use of regular dichromatic bands of masonry, organised uniformly and insistently over entire buildings. Often, Botta's colour

combinations have apparent precedents in the Italian tradition as well. Take, for example, the light and dark stripes of Botta's Watari-um (Figure 7), along with his single family house in Losone, the Mediatheque in Villeurbanne, and the Bank of Buenos Aires in Argentina, which all bear a familial resemblance to the often high-contrast tonality of the Italian stripes. This is exemplified by the bands of pale travertine and dark green-black basalt on the walls of Orvieto and Siena Cathedrals (Figure 8). A similar chromatic connection might be made between the courses of pale pink and grey stone on the left transept of the Santa Maria Maggiore, Bergamo (Figure 10), and Botta's pink and grey stripes on houses in Ligornetto (Figures 1 & 2) and Massagno (Figure 9) in Ticino, as well as the Banco del Gottardo in Lugano. Equally convincing is the connection between the soft grey and white stone polychromy of Botta's Union Bank of Switzerland, Basel, and the use of a similar pairing of two-toned stone on the San Lorenzo Cathedral, and the churches of Sant'Agostino and San Matteo, all in Genoa.

Figure 9. Mario Botta: Single Family House, Massagno, 1979-81.
(Photograph: Ashley Paine, 2012).
Figure 10. Left Transept, Santa Maria Maggiore, Bergamo, 14th Century.
(Photograph: Ashley Paine, 2012).

The resemblances are striking, and expose what might only be described as a latent and literal historicism in Botta's work—the similarity is too great to call it anything else. Botta's stripes are, of course, a much less obvious choice of historical reference than might be found in much Post-Modern architecture. (Venturi and Scott Brown's use of columns on the Sainsbury Wing extension to the National Gallery in London is an obvious example.) Moreover, Botta's referencing of architectural history exists in the details, in his handling of materials and articulation of construction, rather than at the scale of the overall building form, shape or planning.

Botta's Stripes as Ticinese

Another literal interpretation of Botta's stripes was first put forward by Kenneth Frampton in his essay 'The Will to Build,' published in the 1979 monograph on Botta already mentioned. In this explanation, the stripes on Botta's Ligornetto house are said to follow a specifically nineteenth century Ticinese tradition that was re-discovered by architect Ivano Gianola in 1975 during the renovation of his own house in Morbio Superiore (Figure 11).[20] The idea has been supported by Gerardo Brown-Manrique in his guidebook to Ticinese architecture, suggesting that the stripes of the Ligornetto house allude not only to those on Gianola's restored house, but to other Ticino precedents as well, including some older buildings found in the nearby town of Mendrisio, and on various constructions in Balerna's local cemetery. (Figure 12).[21] These funerary buildings include the very stripy nineteenth century entrance structures and adjoining chapels by Giovanni Tarchini.[22]

Figure 11. House, Morbio Superiore, date unknown. Restoration by Ivano Gianola, 1976. This recent image shows some modifications since Gianola's renovation. (Photograph: Ashley Paine, 2012).
Figure 12. Giovanni Tarchini: Balerna Cemetery, Balerna. (Photograph: Ashley Paine, 2012).

While it is difficult to determine the exact status of these Ticinese stripes in relation to the northern Italian tradition already discussed, it seems highly likely that a connection exists. After all, the Italian-speaking Swiss canton of Ticino shares much of its cultural history with northern Italy, and has variously come under the control of the Romans and the Lombards, as well as the regional influence of Milan. However, it is intriguing that both Frampton and Brown-Manrique identify the genesis of Botta's striped Ligornetto house within the specifically nineteenth century Ticinese tradition, using Ticinese rather that Italian precedents to evidence their claims. There also exists a significant chronological difference between the nineteenth century conception of Botta's stripes by Frampton and

Brown-Manrique, and the much older framing of the stripes as Roman and Medieval by the likes of Rykwert and Dal Co.

Also of interest in the writings of Frampton and Brown-Manrique is their defence of Botta's work against the suggestion of it as Post-Modern. They acknowledge Botta's stripes only as an 'allusion' to local traditions. Certainly for Frampton, this interpretation provides him with an important substantiation of his concept of Critical Regionalism. Brown-Manrique maintains a similarly defensive position in his discussion of the work of Botta and his contemporaries in Ticino. He writes that: 'Their architecture […] does not follow the post-modern orthodoxy of historicist revival. Instead, their projects result from each architect's conceptual understanding of the traditions of the region.'[23] Elsewhere, Brown-Manrique reiterates that their work mines the 'conceptual qualities' rather than the stylistic aspects of the local built context.[24] Yet this position, premised on Botta's reinvention of a vernacular tradition, is hard to maintain, at least as far as Botta's stripes are concerned. As it has already been argued—and irrespective of whether they are seen as either Ticinese or Italian—Botta's stripes unavoidably display a kind of imitative historicism, that exhibits little transformation or innovation beyond their original use. Rather, they have been shown to repeat earlier masonry traditions in their form, material, colour and handling on the building surface. Why then do Frampton and Brown-Manrique open up Botta's stripes to the discussion of history at all, risking the exposure of such latent historicism? It might be because they simply do not, or will not, acknowledge the literalness of Botta's stripes. But perhaps it is due to another, greater threat: the troubling perception of the stripes as superficial, or worse, as decoration. If this is the case, the interest of these authors in the particular origins of Botta's stripes might be grounded as much in a desire to authorise and validate the stripes through historical and regional precedent, as it is a conscious defence against Post-Modernism.

Curiously, in the second text of the 1979 monograph (appearing immediately after Frampton's essay discussed above), Emilio Battisti argues for an entirely different origin of Botta's stripes. Once again in reference to the Ligornetto house, Battisti says of the bands of coloured block:

> The by now customary concrete block of his minor works, used by juxtaposing two different colours in horizontal strips, measures the volume with extreme precision. This constructional feature is extremely economical; it is no longer just an ordinary building material, but something as subtle as the courses of

> different marbles in Romanesque architecture or like the projecting surfaces of many Renaissance buildings.[25]

In addition to returning the discussion of the Ligornetto stripes to the medieval Italian tradition of striped masonry, Battisti seems to be introducing an additional reference to classical rustication. This interpretation of the stripes presents a much more abstract kind of historicism than that argued by Rykwert and Frampton, and is supported by the prominent theorist of Post-Modern architecture, Charles Jencks.

Botta's Stripes as Post-Modern Classicism

Although Jencks has made a number of interpretations of Botta's buildings, he has most often argued that Botta's stripes constitute a mannerist form of Classical rustication, thereby connecting the horizontal bands to a different, but equally long, tradition. He writes of Botta's Ticino houses:

> [T]he semantics are Mannerist: these houses look like heavy rusticated bases awaiting a *piano nobile* and roof. […] Nowhere is this clearer than at Massagno where he has constructed another one-family house with banded rustication of light red and gray concrete.[26]

Jencks takes the classical conception of Botta's work further still, with a broader labelling of the architect as a 'Post-Modern Classicist.'[27] In particular, he identifies Botta's work with the latent Classicism of the Modern Movement, and with the Tuscan Order, for its use of symmetry, Platonic forms, weighty proportions, and the predominance of the wall plane. He supports this idea by citing Serlio's description of the Order as the "solidest and least ornate", befitting defensive and fortified building types, and suitably accompanied by the use of rusticated masonry.[28]

Of particular interest here is that Jencks chooses not to emphasise a literal appraisal of the stripes as a reference to Italian or Ticinese polychromy. Instead, and in contrast to Frampton and Rykwert, he interprets them as an abstraction of the play of light and shadow on rusticated surfaces—quite transformed from the dressed stone blocks to which they purportedly refer. In fact, Jencks goes to some length to explain that Botta's Classicism emerges not through the literal adoption of its language of forms (a la Venturi), but through a return to, and development of, its latent embodiment in Modernism, especially as it is found in the work of Kahn and Le Corbusier.[29] While Jencks downplays the seemingly obvious connection to the northern Italian churches

argued earlier, he re-affirms the idea of Botta as re-inventing the past, instrumentalising history in the pursuit of a new and relevant expression in architecture. Jencks also co-opts Botta's work, using it to bolster his own particular conception of Post-Modernism: a pluralist combination of Modernist techniques with re-worked historical content aimed at communication with a public audience, and used to engage with real, contemporary social issues. After all, to highlight Botta's stripes as a direct reference or revival of a vernacular tradition, would render Botta's architecture useless to Jencks' promotion of his particular conception of Post-Modernism.

In this way, Jencks' interpretation not only identifies a certain classical bent in Botta's work, but at the same time, argues its Post-Modernity. Thus, despite their purported classical origins, Jencks has in fact revealed Botta's stripes as a twentieth century invention. In light of this, we must now also consider Botta's banded buildings not simply within the frame of a Roman, Italian, or Ticinese genesis, but as emerging out of the global context of late twentieth century Post-Modernism. Here we find another point of reference for Botta's stripes in the work of other contemporaries, both in his native Ticino (as seen in the work of Aurelio Galfetti, Ivano Gianola and Rudy Hunziker), and in the work of countless other stripe-making Post-Modernists (the likes of Venturi, Stern, Graves and Stirling have already been mentioned).[30] What is interesting about Botta's stripes when considered in this context, is that they remain quite different from those of his contemporaries. Arguably, this is due to a consciousness of these other works, and the desire to maintain a stylistic difference from them. It might also suggest that Botta's idiosyncratic use of stripes is part of a constructed personal style or signature, which brands his work across the world with his appropriation of a vernacular striped tradition.

Conclusion: A Striped Historicism

Collectively, the interpretations discussed in this paper do not capture all of the possible meanings buried in Botta's stripes, nor can they account for all the speculative ideas that have been associated with them. Moreover, Botta's claims on the visual and civic function of his striped façades certainly need more exploration than is possible here. Nevertheless, this brief look at the historicising discourse surrounding Botta's stripes, still offers some new insights into his work. First, it tells us something of the stripes themselves. It reveals the capacity of Botta's banded architecture to accommodate many different readings—the stripes exhibit a semantic slipperiness that allows them to be read in multiple and often contradictory ways, accepting of a wide range of interpreted and projected meanings. In particular, it has shown how Frampton and Jencks have each appropriated the stripes towards opposite personal ends: Jencks as an illustration of his

particular conception of Post-Modernism; and Frampton as an instantiation of Critical Regionalism in a defence against such claims of its Post-Modernity. Botta's stripes have also been shown to register a broad range of tensions in his work, drawing particular attention to his use of history, and its difficult and contested presence in his work. In particular the stripes have revealed a contradiction between claims of Botta's literal adoption of the formal qualities of banded architecture in Italy, and the more abstracted and transformed use of Classical rustication. They could also be said to highlight further struggles between the meaning of stripes as emerging from a specific regional vernacular, in contrast to Botta's actual use of them on buildings around the globe as a kind of personal signature. Such conflicts are largely unarticulated by critics, remaining as an intriguing and unresolved presence in the work.

Still, and despite their contradictions, all these interpretations of Botta's stripes maintain a degree of validity. No one can provide a definitive or complete explanation of the origin of Botta's stripes and to search for, or to make claims upon, their precise origins seems futile. Yet, here lies what is perhaps the most important insight of this study: that these historic and semantic claims on Botta's stripes have a cumulative value in so far as that together they reveal an ultimately ambiguous relationship between Botta's work and architectural history. Virgilio Gilardoni has come to a similar conclusion about Botta's work more generally, suggesting that: 'Almost all his references to "history" are abstract, generic—it seems they mean either to affirm that "architecture is the formal expression of history," or to state that it is necessary to draw "from primitive history as a source for the comprehension of today's problems […]"'[31] Yet rather than taking Botta's ambiguity for a 'generic' or all-encompassing abstraction of time, place and history as collective wholes, I would argue another position. As this paper has illustrated, Botta's historicism is constituted by an array of possible historical references and projected meanings: literal and abstract, generic and specific, local and international, exhibiting both Modern and Post-Modern tendencies. The similarities with the pre-Modern Italo-Ticinese language of construction may be ambiguous, even ambivalent, but they are not generic. We might therefore better describe Botta's use of history as a complex, layered—and perhaps striped—kind of historicism. The result might also be described as a fabulation.

The resulting 'striped' or 'fabulated' historicism is strategically useful for Botta. Whether intentional or not, Botta's silence on his specific historical sources has propagated and maintained the gathering of ambiguous meanings about his work. His use of stripes certainly contributes to this, openly accepting such a range of interpretations. The resulting fabulation enables Botta's work to resist strict categorisation—as Modernist,

Post-Modernist, Revivalist, Traditionalist, Classicist, or any other term—because it appears to be all of these things at the same time. Certainly, this striped understanding of Botta's historicism yields a more rich and complex understanding of Botta's work than its conventional reading as archaic, eternal and sacred. Yet, one must also concede that, in the end, it adds just another layer to the already dense gathering of speculation, myth and interpretation surrounding Botta's architecture.

Endnotes

[1] Emilio Battisti referred to the project as Botta's residential masterpiece. Emilio Battisti, "Architectural Experience," in Emilio Battisti and Italo Rota, (eds.) *Mario Botta: Architecture and Projects in the '70* (London: Academy Editions, 1981), 24.
[2] The first edition was published in Italian in 1979. The first English edition was published in 1981: Emilio Battisti and Italo Rota, (eds.) *Mario Botta: Architecture and Projects in the '70* (London: Academy Editions,1981).
[3] Charles Jencks has long argued that such "double coding" is a quintessential characteristic of Post-Modernism. See, for example: Charles Jencks, *What is Post-Modernism?*, 2nd ed. (London: Academy Editions, 1987), 14.
[4] The primary text available in English is: Mario Botta, *Ethik des Bauens = The Ethics of Building* (Basel; Boston: Birkhäuser, 1997).
[5] Irena Sakellaridou, *Mario Botta: Architectural Poetics* (London: Thames & Hudson, 2001), 6.
[6] Mario Botta, "House at Ligornetto," *GA Houses* 3 (1977), 62-73.
[7] Botta, "House at Ligornetto," 62-73.
[8] Botta, *Ethik des Bauens,* 52.
[9] Mirko Zardini, "Interview: Mario Botta / Mirko Zardini," *A + U* 89, no. 01 (1989), 116-21.
[10] Botta, *Ethik des Bauens,* 156-59.
[11] Botta, *Ethik des Bauens*, 159.
[12] Botta, *Ethik des Bauens*, 26.
[13] Mario Botta, *Mario Botta, Architektur und Gedächtnis* (Brakel: FSB Franz Schneider, 2005), 45-53. Extracted and re-published as: Mario Botta, "History and Memory," in Alessandra Coppa, (ed.) *Mario Botta*, *Minimum* (Milan: Motta, 2009), 91.
[14] Benedetto Gravagnuolo, "Sacred and Profane," in Luca Molinari (ed.), *Mario Botta: Public Buildings: 1990-1998*, (Milan: Skira, 1998), 13.
[15] Benedetto Gravagnuolo, "Towards an Architecture of the New Millenium [Introduction]," in Mario Botta (ed.), *Ethik des Bauens = The Ethics of Building* (Basel ; Boston: Birkhäuser, 1997), 16.
[16] While this medieval use of stripes in Italy is particularly associated with the northern parts of Italy, examples can be found all over the Italian peninsula, and on the islands of Sardinia and Corsica.
For a more detailed account of this tradition, see: Ashley Paine, "Façades and Stripes: An Account of Striped Façades from Medieval Italian Churches to the Architecture of Mario Botta," in Antony Moulis and Deborah van der Plaat (eds.), *Audience: 28th Annual Conference of the Society of Architectural Historians, Australia and New Zealand* (Brisbane, 2011).
[17] Joseph Rykwert, "Design Dialogue: Mario Botta: Views of a Modernist," *Architectural Digest* January (1988), 56, 60, 62, 64.
[18] Harold Szeeman, "A Sounding Triangle," in Marion Botta, *Mario Botta: Watari-um Project in Tokyo 1985-1990* (Tokyo: Watari-um, 1990), 38.
[19] Francesco Dal Co, "The Patience of Things," in Francesco Dal Co (ed.), *Mario Botta: Architecture 1960-1985*, (Milan / New York: Electa / Rizzoli, 1987), 28.
[20] Kenneth Frampton, "The Will to Build," in Emilio Battista and Italo Rota (eds.), *Mario Botta: Architecture and Projects in the '70*, (London: Academy Editions, 1981), 11.
[21] Gerardo Brown-Manrique, *The Ticino Guide* (New York, NY: Princeton Architectural Press ; London ADT, 1989), 108.

[22] It is also interesting to note that Brown-Manrique recalls discussing the stripes on Gianola's renovated home in Morbio Superiore: Gianola referred him to the Balerna cemetery. Gerardo Brown-Manrique, [Email Correspondance], 1 February, 2012.
[23] Brown-Manrique, *The Ticino Guide*, 9.
[24] Brown-Manrique, *The Ticino Guide*, 15.
[25] Battisti, "Architectural Experience," 24.
[26] Charles Jencks, *The New Paradigm in Architecture: The Language of Post-Modern Architecture* (New Haven ; London: Yale University Press, 2008), 120-21.
[27] Charles Jencks, "Mario Botta and the New Tuscanism," *Architectural Design* 53, no. 9/10 (1983), 82-85.
[28] Jencks, "Mario Botta and the New Tuscanism," 82-85.
[29] Jencks, "Mario Botta and the New Tuscanism," 82-85.
[30] The relationship between Botta's stripes and those of his Ticinese and international contemporaries has been discussed in my essay: Ashley Paine, "The Problem of Stripes," *AA Files* 63 (2011), 70-73.
[31] Virgilio Gilardoni, "Gli spazi dell'uomo nell'architetture di Mario Botta," *Archivio Storico Ticinese* 100 (1984), 219-44. Extracted and re-published in: Francesco Dal Co (ed.), *Mario Botta: Architecture 1960-1985* (Milan / New York: Electa / Rizzoli, 1987), 273.

Temporal Occupations: the material traces of internment

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Abstract

The temporality of internment sites, their impermanent architectures, construction, destruction and dereliction, challenge the certainty of total institutions and leave them unacknowledged in the architectural canon. Their absence as knowable artifacts and location outside discourses of sovereignty exacerbate their marginality in social terms. Although literature on penal, 'total' institutions and their punitive regimes is considerable, and much cited (Michel Foucault 1999; Ervin Goffman 1990), their corollary: camps, detention centres, or de-commissioned prison buildings have garnered less interest. Concerned by what this means for the social histories contained within these facilities or those shaped by the passage of subjects through such spaces, this research proposes to reinsert internment sites as proper objects of Architectural History. Methodologically it combines architectural, material culture and landscape analysis to scrutinise how fragments and representations may construct meaningful socio-spatial records. This research is preliminary with a view to shaping a larger subsequent project.

The two sites explored are Changi Prison and prison camp and the Woomera Immigration Reception and Processing Centre, which are no longer extant, and need to be constructed through historical research. In both cases we have selected situations where those interned, although incarcerated, have no known criminal convictions. We also engage with issues of citizenship that are shaped by the inclusions and exclusions projected by such facilities. The niggling question underlying our examples and approach is how spatial histories might usefully engage with spatial justice concerns. We engage with a series of binaries such as outside/inside; past/present; figure/ground and test two very different perspectives on internment – one, by Australian citizens located outside its geography and the other of citizens-in-waiting interned in Australian detention centres.

Historical Erasures

In a long drawn out process that went against a strong Australian lobby to preserve the building, the notorious Changi Prison located in the eastern part of Singapore was torn down by the Singapore government between July and November 2004. It made way for a billion dollar mega prison-complex proposed for the site and was just another instance in the destruction of colonial-period, industrial buildings in Asia. But Changi, unlike other sites, has a wider geographic reach due to its use as a POW internment camp during the Second World War. The (by then) 68 year old prison, designed by the British Colonial government in 1936 to accommodate 600 prisoners eventually housed a total of 3000 POW's held captive by the Japanese Imperial Army. They were captured after the fall of Singapore on 15 February, 1942. Along with Pudu Jail in Malaysia and the Kranji War Memorial in Singapore, Changi was an important part of WW2 memory for veterans and their families in Australia, New Zealand and Britain. Although the Singapore Government agreed to preserve a 180m stretch of prison wall including two turrets, and to relocate the main gate of the prison in this wall, this move did little to convey the poignant memories connected with the site.

The controversy surrounding the demolition of Changi in 2004, which resulted in the erasure of an important part of Australian history, is a recurring tension in the Australian national narrative where numerous memorial sites at Gallipoli, Flanders, in Vietnam, South Africa, and now Afghanistan and Iraq, lie outside the Australian nation. Fought on behalf of Great Britain as one of its colonies or as an allied force following the 1951 ANZUS treaty, many of these battle sites remain remote in the Australian imagination. Conversely, the fall of Singapore, which marked the beginning of the Pacific conflict, posed a very real threat to the Australia's physical geography. Its memorialisation through TV shows, films, exhibitions and books constantly evokes the individual narratives of Australian soldiers and their families. They are represented as protecting the Australian geography during the Pacific War. Yet the politics of the 'absent body' – of the dead soldiers buried overseas – is reproduced across all these arenas. It is a political terrain determined by a host geography which is free to determine how Australia's contribution is commemorated - or not. The space of Changi, albeit occupied temporally by Australian POWs, persists as a site of Australian memory and politics outside the nation's boundaries.

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The act of demolishing Changi Prison on November 1, 2004, despite Australia's request for its preservation as a heritage site, needs to be understood within a larger context of the extensive erasure of industrial sites in Asia, the relative disinterest in colonial history and deals struck over post-war reparation agreements with Japan.[1] In the case of the latter, continued Japanese investment in Singapore must be measured against the Singapore government's willingness to prolong Pacific War memories.[2] However, the argument for Changi's removal put forward by Singapore's Home Affairs Ministry was the scarcity of land for a new complex, which considering Singapore's punitive ethos is in high demand. Yet there is another absence that haunts the history of Changi, one that is exacerbated by the paucity of interest in colonial prison architecture. Whereas memoirs, histories and academic research on the POW experience, including that on Changi is abundant, none of these studies contain a physical, spatial account. Architectural histories have not engaged with Australia's vibrant war industry. The demolition of Changi Prison effectively erases the last piece of architectural evidence.

Material Traces

Fortunately for historians, a wealth of material, recorded by its former occupants, offers an alternative resource for the reconstruction of Changi Prison and prison camp.[3] Many of the Australian POWs kept captive there by the Japanese during the Pacific War (1942-45) were literate and, following a tradition already entrenched since WWI, kept careful records of their experiences.[4] Their accounts found in numerous memoirs, many of them published, with scathing accounts of their Japanese captors, unwittingly offer a parallel critique of the colonial, cellular penitentiary designed for non-European prisoners. The Australian War Memorial archive contains several hundred artifacts collected from the 3000 POW's held captive by the Japanese Imperial Army since 1942. The visual records of activities such as George Aspinall's photographs and the cartoons of George Sprod help recreate the spatial context.[5] Additionally, the official war artist Murray Griffin's careful rendition of spaces and activities offers a continuous visual account of the penal environment.[6] Changi memorabilia is not limited to Australians. The murals drawn on the prison chapel walls by Bombadier Stanley Warren (between 1942-3),[7] and the sketches of George Searle are particularly famous. We can attempt a reconstruction of history through visual records. My analysis of Changi will initially focus on a drawing by H.E. McKenzie, reproduced in the *The Illustrated London News* of 27 October 1945.

The sketch titled, A CORNER OF THE OLD PRISON WORKSHOP IN CHANGI JAIL, SINGAPORE, 14FT. BY 11FT., IN WHICH SIX INTERNEES WERE FORCED TO LIVE,

WITH ALL THEIR IMPROVISED POSSESSIONS FOR TWO YEARS, depicts the interior of a typical cell and enumerates the various quotidian objects that had been invented by prisoners for their convenience and comfort. It is, perhaps, the only record of its kind. A closer look gives us details of a process of adaptive reuse such as item 3. Wash basins made of half kerosene tins; item 11. Cloth-covered box covered box-cupboard for food with home-made tin mugs at end; item 20. Packing case table, on which is a pair of spectacles whose frame was home-made from tooth brush handles. The caption to the drawing observes that

> …each of the more than 3000 internees had a space of approximately 8ft. by 3ft. in which to live, move, breathe, eat and sleep. The only way in which most of them could accommodate such miserable baggage and clothing as they possessed, or were able to contrive from camp oddments, was by suspending it from walls and ceilings.[8]

The ethos is reminiscent of a 1943 self-portrait by artist Ronald Searle while a POW in Konyu, Thailand, where every reusable part of his shirt had been wittled away for a different use.

The AWM offers a few sobering examples that corroborate this story. Produced by amateur artists on scrappy pieces of paper, often drawn with a single tone, suggesting the scarcity of materials, images such as these are starkly different to those of Murray Griffin. Griffin's work is on canvas, beautifully executed, with great attention to colour and detail. The examples compared here, by Australian internees Greig Allister and Richard Cochran both showing prison cells at Changi give us a better sense of the harshness of wartime conditions.

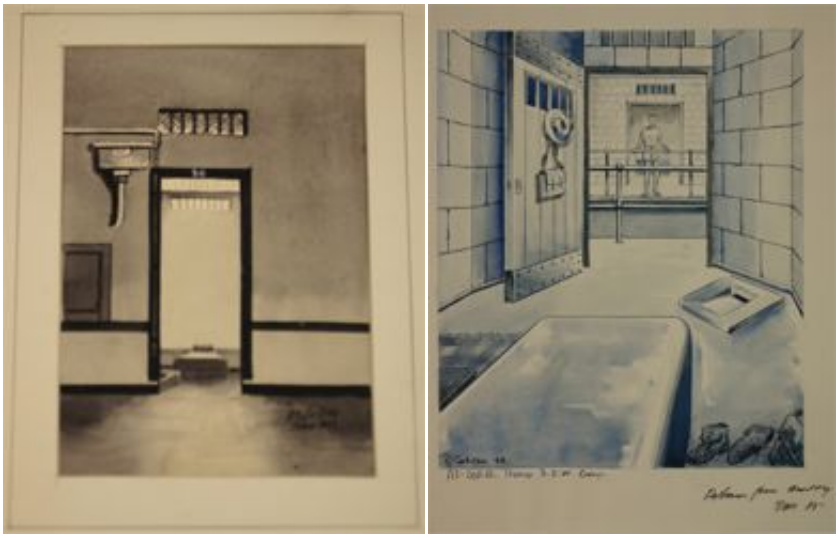

Figure 2. Artwork from the AWM collection, (ART26749 Allister and ART28907 Cochran, copyright Australian War Memorial Archives).

Others in this specialized but insignificant collection capture sadness, nostalgia and the horror of death in depictions of pastoral scenes, verandas, bushlands and cornershops, evocative of the artists' Australian origins. Such random examples, outside the official record, offer a complex understanding of the trace, as a lingering association, a transformation of use, and a praxis by which inmates maintained their civility under duress.

Physical Displacements

Perhaps the most resilient example of this practice is the Changi Chapel, crated and shipped to Australia in 1947 and erected in 1987 at the Royal Military College at Duntroon. It was officially opened as a national memorial in 1998. Meanwhile a replica of this chapel built at Changi in Singapore in 1988 (by inmates of Changi Prison), was an important commemorative site for visiting veterans. It, too, was moved in 2001 to a spot beside the Changi Museum.[9]

The journeys of the two chapels, a facsimile on a real geography and the authentic artifact on Australian soil suggest the temporality of commemorative traces. The remains of the chapel, recreated at Duntroon, commemorates bodies that never returned. The major function of this chapel, apart from sustaining community coherence was in services for deceased POWs. Although the sadness of this association is not conveyed in the material artifact, its resilience against the crumbling physical history of Changi prison and its isolated haunting in these two separate geographies convey a sense of its history. Apart

from its commemorative role, the replica of Changi Chapel in Singapore is one of many WW2 tourist sites on the Pacific War trail.

Figure 3. Changi Chapel at Changi (left) and Duntroon (right), (photo: Pieris).

Traces of Australian internment overseas, archived in Australia, are not treated as military collections. Although the Australian War Memorial or the location at Duntroon are invariably connected with the military there is a keen awareness that the histories on record are of civilians turned soldiers or civilian captives, which adds a different dimension to internment. There is no doubt that the actual military experience of many interned at Changi was a brief training before leaving Australia. The number of soldiers turning 21 inside the prison walls is testament to the fact. The imprisonment of civilian men, women and children alongside the camp and in the Changi Jail confirms this association through narratives such as the 'Diary of a Girl at Changi.'[10] Stories of Changi offer us insights into a displaced Australian community, while their efforts at maintaining civility suggest Australian cultural traits. The horror of internment is magnified by the act of imprisoning civilians. This history of civilian internment is one that is mirrored in Australia and is the basis for a complex immigrant history.

War-time Internment

Changi has its counter narrative in the Australian geography, one worth mentioning briefly although we will not pursue it here. Made notorious by the breakout in August 1944, Cowra was a major thirty hectare prison camp for Japanese and Italian prisoners of war. The space, internal to the geography but outside citizenship parallels that of Changi prison camp; inverted in the Australian geography with the oppressors as prisoners. The attempted break out by Japanese military prisoners left 231 dead and 108 injured, a tragic and unnecessary outcome. The memorial gardens at Cowra, the war cemetery and relics of the camp offer traces of this difficult history, reframed through the language of peace. Here, the new landscape is potentially cathartic; a Kaiyushiki (strolling) garden designed by Ken Nakajima (1979). But the space of Cowra is also cluttered with other histories of internment of post-war refugees and immigrant internment that set the stage for

contemporary detention centres. The punitive landscape is the point of origin for citizenship production.

The use of prisons and military camps as starting points for war-time internment (e.g. Boggo, Gaythorne-Enoggera) of enemy soldiers, resident enemy aliens and non-resident enemy aliens largely of German, Italian and Japanese origin form the prehistory of contemporary detention centres to penal facilities. Increasing numbers provoked the establishment of large communities or camps (e.g. Loveday, SA; Harvey, WA; and Rushworth, Holsworthy, Bonegilla, Hay and Cowra in NSW). In 1942, at the peak of internment 10,731 internees (4022 Japanese, 3836 Italians and 2661 Germans) were interned (Beaumont , O'Brian and Trinca, 2008: 3). The presence of women and children provoked the simulation of community environments with hospitals, schools and gardens established within the camp-compound diffusing and conflating the two models. These and immigrant hostels were used to house waves of European immigrants after the war and in some cases have been retained as museums and heritage sites (e.g. Block 19, Bonegilla; Tartura; Dunera museum, Hay). Former immigrant housing sites have also been converted to community detention centres (Inverbrackie) and student housing (Maribyrnong Migrant Hostel).

Their passage from prison to community housing exposes the insidious spatial undertones of citizenship narratives that are predicated on initial confinement. Where once prisons were for punishment, their passage through history and social difference has converted them into facilities deemed suitable for housing civilians. They occur as sites of difference within the Australian geography, sites alienated by the anonymity and non-citizenship of internees.

Detention centres include community detention, transit accommodation and residential housing, broadening the types of facilities involved to houses (Dhurringile Mansion, VIC; State House-Nauru), hostels ,(Maribyrnong, Villawood), housing estates (Inverbrackie), and camps (Woomera, Villawood) each with their own military associations or previous histories of immigrant internment.[11] On 30 September, 2011, there were 4446 in detention centres and 1151 in community facilities (including 446 children).[12] Such facilities have polarised the community around social justice, local politics and real estate concerns. As with Changi, the site at Nauru offers an alternative off-shore example connected to the history of the Pacific War.

The detention centre

'The camp', writes N. Mirzoeff, 'is the panopticon for our time, at once the site of deployment of new visual technologies, a model institution for global culture and a powerful symbol of the renewed desire of nation states to restrict global freedom of movement to capital.'[13] The current policy towards asylum seekers in Australia is part of a history of race-based exacerbated by the post-national politics caused by global reconfiguration.[14] Internally, incarceration or internment fulfils the nation's reformative agendas against deviance or dissent and is often marked by economic and/or racial difference. Increasingly, as is evident in the examples cited here, they adopt the morphologies of communities, reinserting Australian spatial types into holding facilities. Attempts at integrating detainees into the wider community blur these distinctions between community and carceral norms.

Woomera

The site of the small village of Woomera has a multilayered spatial history, the impetus of which was war and different forms of internment or incarceration. At the core of this history is the site's remote location in arid South Australian desert roughly 500km north west of Adelaide. Woomera Village was conceived in 1947 to house and service defence and civilian personnel associated with the Long Range Weapons Project and subsequently became the infrastructure on which to hang a variety of other government activities such as space research (Australia's first satellite was launched from Woomera) and more recently, a highly contentious Immigration Reception and Processing Centre (IRPC), a temporary repository for illegal immigrants. In its heyday in the 1960's, more than six thousand people lived in Woomera Village and correspondingly, social and cultural life bloomed. As a government-owned village, Woomera was well resourced and in the context of extreme conditions this produced great feats of design and engineering largely fuelled by a belief that barren desert could be made to sustain life and even be productive.The Arcoona Plateau is treeless and is paved with shards of stone which clink and slide beneath one's feet when walked upon. Water is not seasonal; when it comes it floods and the ground becomes mud, then the rain can refuse to fall, sometimes for years on end. Summer produces temperatures well into the forties with hot winds bringing a pervasive dust. Winter nights can be clear and icy and by day an unrelenting cold wind. To the north, east and west of Woomera lie hundreds and thousands of kilometres of largely undeveloped land, the traditional owners of which include different tribes of Aboriginal people many of whom have been displaced by large but thinly spread homesteads. It was these characteristics that made Australia an ideal place for the English and the Australians to jointly test bombs, military hardware and to hurl rockets towards the sky, activities linked ultimately to the underground skirmishes of the Cold War.

Woomera Village rose with recalcitrance from its desolate location and from the extreme socio-political context of the post-World War II years. Using steel, wood and other recycled materials scored from the dismantling of military bases across the country, the first workers who built the 2.5 square kilometre village of Woomera occupied a canvas tent camp at Woomera West, approximately a kilometre from the site of the township they were building (Figure 4). In this camp, men slept two to a tent on straw mattresses. Living conditions were poor and wanting of resources. Labour in Australia was also a scarce resource. Many of the first workers at Woomera were 'Balts', a collective term referring to Displaced Persons from countries like Poland, Lithuania, Ukraine and the former Yugoslavia who, compelled to work for a year in a fixed location with a set occupation, found themselves isolated and engaged in the building of Cold War military hardware, in a sense perpetuating the reality of their flight from war time Europe. In the context of Australian fears of enemy aliens, communism, fascism and even just competition for work, the Balts attracted controversy with headlines like; 'Pro-Nazi Balts with Cameras Roam Over Rocket Range Site.'[15] Only an estimated 18% of the workforce that was building Woomera constituted the 'Balts', but the encampment of Woomera West, and the project of Woomera itself, was, nonetheless, an entrapment that was only endured for a matter of months for those, unlike the Balts, able enough to leave.

Figure 4: The construction camp at Woomera West circa 1950 when workers slept within tents inside huts. This site became the site of the IRPC and later, Camp Rapier. (Source: P Morton, *Fire Across the Desert* (Canberra: AGPS Press Publication, 1989), 127.)

A mere sixteen months after the Woomera West camp began, the first homes of Woomera Village accepted residents and by the end of 1950 Woomera's population was 3500. Into the 1960s a village had bloomed, tenuously kept alive by water pumped hundreds of kilometres in a pipeline from the Murray River. Landscape formed not only a natural isolation; it manifested the 'top secret' activities at Woomera despite the very human side to the village. Southall summed up; Woomera was 'hazily known to the Western World, and to the Eastern

world as well; but Woomera is not vague. Woomera is a real place inhabited by real men and women and children.'[16] The size of the Woomera Rocket Range area made it impossible to fence but checkpoints were set up and residents of the village needed a special pass to enter and leave the village. Security was a major issue and a general mood of paranoia, largely associated with spies active in the war that had turned cold, constrained and impacted upon residents in the most extreme ways. For example, the confiscation of cameras upon entering the village made the taking of happy-snaps of a children's birthday party problematic; and the simple process of mixing concrete on a building site became something to be monitored and carefully controlled.[17]

Woomera West was continuously used for military and other purposes but when the Cold War ended and activities in the Woomera Prohibited Area dwindled, Woomera West was recycled to become the site of detention for illegal immigrants to Australia. Again, landscape created a ready-made site of internment physically remote and symbolically remote in terms of the Australian public's conscience. Still, a massive steel fence was constructed around Woomera West and the site became the IRPC (Figure 5a) and was run by Australasian Correctional Management (ACM) from 1999 until it was closed in 2003 amidst national and international controversy. The site is now occupied by Camp Rapier, a defence garrison facility. Anecdotal evidence suggests that many of the demountables that housed illegal immigrants were subsequently transported to Alice Springs in the Northern Territory to be used for Aboriginal housing in the town camp of Little Sisters.[18] The 'town camp' consists of communities of Aboriginal people by family or language group often occupying sites that were traditionally ceremonial camps pre-European contact.[19] It is not the purpose here to comment on the concept of the 'town camp' or of housing conditions for Aboriginal people in Alice Springs but what can be said, if the evidence can be substantiated, is that structures used for one form of marginalisation may have subsequently been transferred to another.

Woomera's recent demise, arguably dating from the late 1980s' collapse of the Soviet Union, produced an array of relics, the architecture and landscape of which form a myriad of infrastructural relics and modernist buildings cast despondently in the Australian desert. Woomera has two distinct museum facilities yet the interpretation of Woomera's Cold War history, and its history of detention, remains latent in relics. The military does a good job at recycling or blowing up some of this history, but like Smithson's studies of entropic decay[20], sites of carceral spaces at Woomera seem to move endlessly through states of transformation and, in moving, toward gradual erasure (Figure 5b).

Figure 5: [a] Woomera's IRPC in operation (Courtesy Danius Kesminas, March, 2003), and [b] in demise (Photo: Saniga, March 2008).

Conclusion

Historic examples of incarceration offer spatial and social strategies by which to measure other forms of internment that test the prerogatives of citizenship. They pose the model of the determined environment against its indeterminate counterpart in a common polemic regarding freedom and spatial control. Architecture's pedagogical capacities and representations are tested by these examples as are the models it has developed for institutions, residences and town centres in Australia. Architecture is also drawn into this discussion through the conservation, adaptive reuse and commemoration of such sites as part of its historical landscape. Former sites of incarceration are produced, consumed and represented as architectural spaces. For example, the Changi experience was the subject of a design studio 'A Museum for Difficult Memories,' at the Melbourne School of Design in 2007. Designs addressed the housing and display of evocative memories through ordinary artifacts. Similarly, the IRPC when in operation and even after its closure was a heavily guarded facility, but a group of architecture and landscape architecture students on fieldwork in 2003 produced a series of water colour renderings of the facility at sunrise (Figures 6 & 7).[21] This event and the artistic work it produced was subsequently recycled by Australian artist Danius Kesminas into an exhibition in Berlin under the title, 'A Soft Touch'[22], a quip, of course, on arguments that had been raging over the strength of political stances to illegal immigration taken by the government at that time.

Figure 6: Landscape architecture students on fieldwork in 2003 with IRPC in background, (Photo courtesy Danius Kesminas)

The significance of such sites for narratives of spatial/social justice is harder to represent, and their persistence as spaces of civilian incarceration is troubling. The emotional outpourings of Changi memorabilia suggest that durations of internment however brief have a lasting impact on internees. Whereas in the wartime environment conditions are bleak due to oppressive captors or scarcity of resources, the act of incarceration even in peacetime produces trauma and difference. Although our disciplines seem marginal to histories of incarceration and their social realities they do intersect with the spatiality of the internment experience. A project that draws on research, pedagogy and artistic work could potentially locate these histories within our disciplines, offering insights and pathways into new and socially responsible professional engagements.

Figure 7: Water colour renderings of the Woomera IRPC in March 2003, (Courtesy Hui-Chuan Wang).

Endnotes

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[21] Since the year 2003 Andrew Saniga has taken students from the Faculty of Architecture Building and Planning at the University of Melbourne on field excursions to Woomera to study landscape, history, heritage and conservation.
[22] Danius Kesminas, 'A Soft Touch', exhibition in Berlin (details forthcoming), 2003.

The Wintergarden

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Abstract

(This paper is part of a larger body of research that has looked at ways in which spaces, places, and spatial experiences have been perceived as 'magical'. The word is used in its purely colloquial sense, with no supernatural connotations.)

Professional conjurors suggest that there are a limited number of basic 'feats' of entertainment magic, in which the things that happen appear to go beyond the boundaries of what is normally possible and are hence felt to be 'magical'. They emphasise that the magic happens in the mind of the audience, and that it works by playing on things that the audience feels to be significant, and worth attending to. In the paper I show how one particular spatial typology, 'the wintergarden', can be interpreted in many ways, and given my own interests, I have chosen to interpret it as an example of spatial magic. Behind spatial magic lies science, but also attention. It is affected by the changing technologies of its times and the culture ('that to which it gives its attention') of the society that observes it. I look at the ways in which the wintergarden has been reconfigured over the years to match the aspirations of its period for spaces with somewhat magical properties that nevertheless sit within the reach of everyday life.

As a device through which to discuss this, various wintergardens are considered as spatial entertainments and examined in relation to the conjuror's 'feats'. By offering more than was normally possible, each of the wintergardens discussed in the paper reveals ideas or aspirations that had heightened significance for its audience - at that period*. The examination of the wintergarden as a* concept *as well as a typology offers many spatial histories of waxing and waning prestige and glamour. The paper considers a range of wintergardens, from the 19th century to the present day, at their moment of glory - and suggests that the concept continues to be a powerful one which continues to find new forms.*

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Introduction

In 1844 Sir Samuel Morton Peto, a fabulously wealthy railway magnate, bought Somerleyton Hall, in Suffolk, and had the original Jacobean house and gardens remodelled and extended at immense expense. In his hauntingly nostalgic text (fiction? memoir?) *The Rings of Saturn*, W.G. Sebald describes the major renovations that were made to Somerleyton Hall as being notable in their day for the scarcely perceptible transitions that they created between interior and exterior.[1] Alluding to descriptions in unspecified 'society periodicals', Sebald describes, in an incantatory list of free-floating images, the ways in which the exterior was reproduced on the interior through subtle shifts from real to virtual created by glass and mirrors, or by the way that the forms of living foliage in the gardens were echoed in the wallpapers and hangings within. Whether truth or fiction, Sebald's evocative paragraph called up the imagery of fairy-tales of the nineteenth century sort, filled with mechanical nightingales, and gold and silver birds - while references to 'the dome of a fantastic mosque' carried a hint of exotic 'otherness'. It suggested the transformation scenes in pantomimes when the furnishings of the interior would melt away and turn the stage into a garden, or the ways that the extensive use of costly plate glass in windows and mirrors could create illusive layered reflections. Above all, the text created the impression that the way in which these images were folded one upon the other caused the actual and the imagined spaces to combine with one other to create a dreamlike reality in which one could be both here and there, inside and out, in summer yet in winter.

Sebald's text is subtly worded so that it leaves a sense that such interwoven impressions were perceptible to every visitor, and that they did truly speak of them in the terms that he uses. But my own attempts to find Somerleyton in nineteenth century journals and newspapers in the way that Sebald describes it have offered me mostly the usual unctuous Victorian acclamations of its tasteful display of wealth and propriety. It seemed to me that the spatial magic lay more in the text that Sebald had spun out of the impressions left on him by the available material, rather than in any sensitive perceptions by the laudatory nineteenth century society columnists. Sifting through the verbiage of such articles reveals some of the fragments from which Sebald may have composed *his* Somerleyton. One point that they all reinforce is that the highlight of Somerleyton was the unforgettable Winter Garden, which was described in the sale catalogue that had to be prepared for the sale of Somerleyton Hall when Sir Morton's financial empire, built on borrowed money, finally crashed. It was 'a magnificent structure unsurpassed by anything of its kind in Europe. A crystal building in the Renaissance style with mosque dome.' We

also learn from the catalogue that the central cupola was lit by a circle of sixty-three gas jets (at that date still a rarity in a private home), whose light was reflected downwards by silvered reflectors on to a central fountain, which itself was reflected in a large mirror set in a white and gold frame.[2]

Figure 1. The Winter Garden at Somerleyton
(From *The Illustrated London News*, January 10, 1857)

For reasons that will become clear, the Winter Garden seemed to me to have been the likely catalyst for Sebald's alchemical prose. 'There were winter gardens...' intones Sebald, in one of the long hypnotic sentences through which he conjures up the world of *his* imagined Somerleyton, so different to the one described by others. His interwoven imagery ('the lawns like green velvet, the baize on the billiard-room table') suggests a multiplicity of spatial enchantments, whether the single prestigious structure illustrated in the society journals, or the thoughts called up in the reader's mind by Sebald's own sensibility to the subtle flux of interior and exterior at every scale throughout the house and grounds. Such conceptual spatial sensations present themselves to the mind as compelling yet ephemeral ideas, rather than as places.

The wintergarden as a feat of magic

At times certain spatial typologies have taken on an allure that goes beyond mere functionality. The wintergarden, for example, is more than 'a conservatory in which flowers are grown in winter', as *Collins English Dictionary* puts it. A wintergarden is an oxymoron, a contradiction in terms. Particularly in the Northern Hemisphere, where 'winter' stands for coldness, darkness, and death and 'garden' stands for life, warmth and growth, there is an implicit cognitive disjunction between the two words. When the wintergarden is considered as a gently impossible concept rather than a building, and

one that is provocative to the spatial imagination, its different reconfigurations at different periods offer a history of changing concerns and desires. They show what was absent from the everyday world. As I will show, wintergardens have created many opportunities to move outside of everyday reality. (Capitalization and hyphenation of the words vary from source to source: there are wintergardens, winter gardens, winter-gardens and Winter Gardens. In this paper I will use the term 'Winter Garden' when referring to specific buildings and 'wintergarden' when referring to the ambiguous concepts in which 'winter' and 'garden', or their synonyms, have been coupled together in ways that seem to charge them with a special energy or charm.)

One connection, however, between a wintergarden in its purely horticultural sense of 'a conservatory in which flowers are grown in winter' and other magical realms is that, although its workings may be explained by science, they are not explained *away*, because this apparently 'unnatural' garden under glass in fact is a demonstration of 'natural magic', or phenomena drawn from the sciences, and it is indeed rather wonderful that plants can be coaxed to grow out of season or out of their natural habitat. For the purposes of this paper however, a more important connection is that in many other configurations in which horticulture is of minor importance, the wintergarden has taken on connotations of 'prestige' and 'glamour', which of course are words from the lexicon of magic.[3]

Professional conjurors suggest that there are a limited number of basic 'feats' of performance magic.[4] These may be largely summed up as: transformations, productions, transpositions, 'the feeling that natural science laws have been disobeyed' (David Devant's famous definition of magic),[5] and disappearances. These basic feats must be re-enacted in new routines if performances are to retain their urgency and not become obsolete. Consider then the wintergarden as a magical performance, one whose reception changes as the audience's tastes, technical knowledge and interests change, and which must continually reinvent itself to remain relevant to the mood of the time.

Feat No. 1: Transformations, or '*from being in this way to being in that*'

The wintergarden's protean nature has given it many forms. It has changed its shape, scale and purpose, but still retains its ability to create enclosed alternative worlds, although these are by no means always innocent or delightful. The private *orangerie* of eighteenth century European nobility morphed into the status-giving glass-roofed Winter Garden of the private Victorian country house, but also became the Conservatory, Palm House, Hot House or Temperate House in the public municipal gardens of many

nineteenth century cities, where it could not only serve scientific horticulture but also provide public recreation by sanctioning gentle exercise in an intemperate climate while pleasurably servicing genteel and improving cultural interests, such as botanizing. The great exterior had become an interior. In its miniature form, the self-sustaining atmosphere of the wintergarden became the amateur naturalist's Wardian Case[6], terrarium, or fern case on the windowsill of the Victorian parlour. In gigantic scale, its structural innovations created the archetype for the iron and glass structures that housed the 19th century's Great Exhibitions.

Figure 2. 'Ornamental Fern Case Outside Window'
(D.E. Allen, *The Victorian Fern Craze*, (London: Hutchinson, 1969))

The domestic wintergarden appears in late nineteenth century paintings as an enclosed and somnolent twilight space of reverie and contemplation, whereas in novels it is often the site for flirtations and proposals. Behaviours that are very close to the interior of the self may be made public in these fictional interiors, as if by tacit agreement it was more acceptable to show a portrait of a woman asleep in her conservatory than in her drawing room.[7]

Public wintergardens (now capitalized, and often named simply 'The Winter Gardens') became features of Northern European seaside resorts, especially towards the end of the century, when what had previously been private showpieces became the settings for public entertainment, with tearooms, string quartets and even dance bands among the aviaries and potted palms. For many today, the name 'Winter Garden' (whether as one word or two, singular or plural) is more readily associated with theatres and cinemas, or with shopping centres, than with horticulture. Dion Boucicault, the Irish impresario and king of melodrama, gave the name to an older New York theatre when he had real and

artificial plants installed in the auditorium during its remodelling in 1859. Many other theatres since have carried the same name - there have been three in New York, one in London, one in Toronto, and one in Brisbane.[8] In the 20th century the horticultural associations atrophied further, so that the name became widely and perhaps predominantly associated with entertainment complexes containing indoor bowling greens, concert halls, ice-rinks, cinemas and cafeterias. Today many shopping centres throughout the world bear the name, providing a further type of enclosed alternative world.

Elsewhere in the 20th century the wintergarden kept its magical connotations of subtly nourishing the life-force, but adopted a new *scientific* persona to suit a more serious mood. 'Vita' glass, for example, was a wonderful medium for 20th century magic. Glass, which supported the hygienic aspirations of the light-filled spaces of early Modernism, could be even better if it was 'Vita' Glass, which allowed more ultraviolet radiation to pass through it, so promising to transmit those properties of sunlight that were considered health-giving, rather than block them as other glass did. Vita Glass was promoted in the 1920s and into the 1930s in the way that vitamin supplements can be promoted today, by taking a little scientific truth and massaging it so that it seemed to be implying a great deal more. Rather than merely killing germs and so improving the general standard of hygiene and hence health of citizens in former slums (which was demonstrably provable), the manufacturers implied that the light that passed through Vita Glass would actively promote *superior* health. 'Scientific' diagrams in advertising material suggested that animals gained weight faster and children grew taller and heavier when reared under it. A plaintive voice from one serious investigator posed the question of why supernormal growth should be assumed to be superior, even if it were actually happening, which his own experiments had not found to be the case. 'One fails to see what advantage the overgrown animal (or child) has over its "normal" brother. It may be that normal growth is optimal growth', he wrote.[9] However, the glass was installed in special sunrooms in many institutional spaces, such as schools and sanitaria, in the inter-war years.[10] (One such room still existed in the boarding department of my British school. Although it was not known to us as a space for promoting health or (horrors!) gaining weight, this room, which was simply called 'the Vitaglass', retained the sense of being outside the normal rules of school life and so was the room of choice for mildly transgressive behaviour.)

The environmental control embodied by the wintergarden has been received in subtly different ways between the nineteenth and the twenty-first centuries. Whereas the demands for heating and lighting made many nineteenth century wintergardens vehicles

for the luxurious display of expenditure, by the twentieth century the costs of such consumption were unacceptable in private ownership but more acceptable if borne by bodies such as multinational corporations. The tree-filled atria of corporate office towers and the fantastic interior landscaping of international hotel lobbies of the 1960s, 1970s and 1980s still represented, to some, environmental vandalism coupled with corporate greed and duplicity[11] but today in the twent-first century wintergardens have been recast in heroic mould as high-tech environmental control devices that create an internal lung in newly eco-conscious high-rise towers. The architects of *Q1* in Queensland and the *Eureka Tower* in Melbourne, both of which claim to be the tallest building in Australia, cite wintergardens as part of their cutting-edge environmental control components. More recently a fashionable buzz around bio-art, ecology, ethics, food production and design has led to the appearance of terrariums both in art galleries and in restaurants. The many masks worn by the wintergarden allow it to be presented equally as the fantastic and grotesque space where shopping centres and theme parks collide, and as the ecologically virtuous laboratory of the Eden Project in Cornwall, which claims to house the largest conservatory in the world.[12] The complex also contains an ice-skating rink.

Feat No. 2: Productions*, or 'from not being to being'*

Each of these incarnations could be explored from different viewpoints to reveal the forces that brought it into existence. Such exploration would illuminate the ways in which each incarnation reveals both a physical and a cerebral space: both the built outcome and the space to consider the thrilling web of people, technology, money, desire, influence, and interest that the thing manifests. Consider Somerleyton, for example, whose wintergardens and Winter Garden reflected the fabulous and chimerical wealth of Sir Morton Peto, the sleights of hand by which he raised his fortune, the fortuitous fact that he built his empire through railways and filled his new house with glass and mirrors where the interiors of Somerleyton and the exterior merged like the reflections in a train window, that his fortune rose up and vanished (harming his creditors but not him), that the next owner had made *his* fortune from the carpets and velvets that created the stereotypical claustrophobic late-Victorian interior and which further informed Sebald's interwoven imagery ('the lawns like green velvet, the baize on the billiard-room table'). One could ponder the fact that although Karl Marx used the term 'phantasmagoria' to denigrate the alienating circling of commodities that built Peto's fortune, yet he considered contemporary capitalists like Peto to represent 'the highest type of civilisation before Communism'.[13] This web fascinates me, as an historian of spatial magic, but there are many other lenses through which the wintergarden could be examined.

Consider, for example, the public Winter Gardens of the nineteenth century. An historian of technology could demonstrate that these were shaped by innovations in production methods and construction techniques in glass and cast iron;[14] a political economist could point to the effect that lowering the tax on glass in 1845 had on its affordability and availability, which sweep the Winter Garden into an avalanche of other glass artefacts with subsequent repercussions on social histories and spatial practices (consider the spatial and social impact of the portable glass beer bottle in comparison to the earlier barrel and tankard); an architectural historian may (or may not) follow the lineage of twentieth century architecture back to the Winter Garden via the engineering innovations of the buildings that housed the nineteenth century's Great Exhibitions;[15] an urban theorist could muse on the ways in which the design and location of these 'must-have' public buildings in 19th century cities were influenced for personal profit by the machinations of powerful industrialists and property developers;[16] cultural historians and social scientists might relate public Winter Gardens to the 19th century's obsession with collection and classification, or to medicine's new belief in the benefits of sunlight on both health and morals, or to the expansion of leisure, or to a fascination with travel and the exotic.

Feat No. 3: Transpositions, *or 'from being here to being there'*

Leisure, travel and the exotic take us to the factors that made the seaside entertainment centres called Winter Gardens so appropriate as a transporting component of seaside *summer* holidays, apart from their obvious appeal in the face of unpredictable British weather. They were sited on the very margin of the land, often even on a pier stretching out to sea. Their Oriental styling could take holidaymakers far away from their everyday environment without actually travelling abroad, while their ballrooms and theatres made further excursions from the everyday. This sort of wintergarden plays a tiny part in a negative trajectory in which Michael Sorkin links the 1851 Great Exhibition, 'the first great utopia of global capital'[17] to the mass tourism, relentless circulation, and universal placelessness of theme parks like Disneyland. Sorkin's skilful and entertaining essay has a dark tone. The seaside Winter Garden's role in *his* trajectory was to promote the idea of simulated travel, its modest saving grace was the inaccessibility of the places it evoked, and its eventual redundancy was the result of the spread of the railways that made actual exotic travel possible but started a downwards slide towards the creation of Disneyland's vast undiscriminating audience for simulated experiences in a postmodern world.

Sorkin cites Charlotte Brontë's description of the hushed silence of the crowds that she saw when she visited the Crystal Palace in 1851 as seemingly 'ruled and subdued by

some invisible influence', and uses her words as early evidence of the mindless passivity that would be induced by mass leisure. However, here he is taking Brontë's words from a passage where they are cited by Stewart Ewen, who also interprets her words negatively, as implying that 'the masses' were tamed (his word) into self-discipline by the visual impact of the Crystal Palace.[18] But neither theorist quotes Brontë's letter in full, and her words can be read in a different way; that the silence of the crowd was just one among the many magical effects that impressed themselves on her and made the totality of the place 'strange, new and impossible to describe'.[19] The otherworldly quietness of thirty thousand living people moving among a world of glittering objects in one vast space could well have been a powerful and beautiful thing to experience, and one that would linger in the memory because of the scale of its contradiction. Contradictions are integral qualities in a wintergarden, and implicit in the name itself.

Charlotte Brontë's words also alert us to the shift in sensory perception that a wintergarden may trigger. The moment of entering an actual wintergarden (in its incarnation as a place in which to enjoy plants made exotic by being out of geographical location or out of season) works on the physical senses by enforcing a slowing of pace as we are overcome by the alteration in the warmth and moisture of the air, the unaccustomed acoustics, the rediscovery of half-remembered scents. We wake into a dream. 'When the sphere of planning creates such entanglements of closed room and airy nature, then it serves in this way to meet the deep human need for daydreaming', Walter Benjamin wrote, responding to Woldemar Seyffarth's slightly querulous observation that the Jardin d'Hiver on the Champs-Elysées hardly deserved to be called a wintergarden since it was open in summer too, for Benjamin placed wintergardens among his nineteenth century 'dream houses of the collective'.[20]

And then there was the magical material, glass. Worlds held in glass are other spaces, with a particular enchantment. It makes perfect sense that terrarriums are sold in Melbourne in the same shop that sells magic tricks and optical toys. Glass allows us to be in one world and look at another - it situates us between temporalities.[21] It may have been the thought of the vast scope of the world contained within the Great Exhibition at the Crystal Palace that tripped its visitors into reverie, but the miniaturised form of the crystal ball, the Claude Glass, the snow globe, the vitrine, or the bell jar also create spaces that we may enter mentally. They exemplify the way in which a wintergarden can be a separate, self-contained world of meaning, with its own laws and rules of time and space that, although different from everyday reality, are not so different that they are merely fantastic.

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Feat No 4: *'Natural science laws disobeyed'*

Of course, the power to control the seasons, to promote magical germination and rapid growth, and so turn a barren landscape into a living oasis were all part of much older magical regimes that were supplanted by modern science and relegated to fairy-tales, pantomimes and other delightful amusements such as conjuring. Sam Sharpe[22] places *rapid germination* among these 'primary feats of magic'. The magical production of living blooms was a feature in several nineteenthth century conjuring routines. For example, in Robert-Houdin's famous 'Marvellous Orange Tree' various highly symbolic elements (a lady's handkerchief, an egg, a lemon, and an orange) were all made to vanish one into the other, leaving a magic dust that he would then burn below a small, bare tree, which responded to the flame by producing first flowers, then real and edible oranges, and then a final orange inside which was the original handkerchief. In the wintergarden, however, the *glass* itself can do the work of the conjuror, and not only by defeating season or climate. Glass has always had an element of magic, both in its creation and in its properties. Through fire and strong handling, opaque particles of sand that in themselves are almost worthless become a transparent, precious thing. Glass is redolent with the contradictions that make the world interesting (and that facilitate illusions), for although the literal transparency of glass makes solid walls that can be seen through and lenses that bring the world to the private view of the eye, it also dazzles as it shimmers. In different words, 'glass...deprives the wall of its significance', for 'the entire space of the room [can] be dissolved in lustre'. So wrote A.G. Meyer, drawing a comparison between the walls of the Crystal Palace and the shimmering metal plates that, he says, covered the walls of ancient Mycenaean chambers,[23] and which call to mind the conjuror's use of light to hide things.

There does often seem to be some sort of ‘trick’ to these glass worlds, which seem counterintuitive to the uninitiated. Once again, some natural law appears to have been disturbed, when in fact it is working exactly as it should and thus, for example, allowing a plant to live in a closed Wardian Case where an animal would suffocate. In those early glass conservatories with beautiful curving domes, like the small Palm House at Bicton (c.1820 -1840), or the enormous Palm House at Kew (1845-8), structural laws may seem to be flouted, but the glass is acting as a stressed skin and it is the glazing itself that keeps the structure stable. Mark Wigginton’s description of the Bicton house evokes the magic:

> The structure, and what was hitherto known as 'architecture', is nowhere to be seen. Extremely slender columns support equally insubstantial arches of iron, and the whole support is effectively invisible.[24]

Wigginton's beautiful description of the great Palm House at Kew is moving:

> From a distance, particularly on a slightly misty morning, it appears as a delicate formal cloud settled mysteriously into the trees; closer to it can be a reflective machine, or a transparent and almost non-existent bubble…[it] is arguably the most beautiful glass structure in the world.[25]

Feat No: 5: Disappearances, or 'from being to not being'

Some of the wintergardens that I have described are prosaic, meretricious, deceitful, and they lend themselves to metaphors that express more complex emotions, from optimism to pessimism. One quality of a wintergarden is that it is a place that no-one ever stays for long; it is essentially 'outside' of everyday life in spite of its interiority, a place from which to come and go, rather than inhabit. Like entertainment magic, wintergardens have a brief life. Many of the original wintergardens today are nostalgic ones - places in decay, or in memory - derelict seaside pavilions, demolished theatres, and so on. The wilted pot plant in the corner of the office and the half-dead (or plastic) palm tree in the shopping centre share an air of time out of joint. Like Tinkerbell, they ceased to exist when no-one believed in them.

The *Art Journal* of 1872 cited an anonymous writer as describing the way that the Somerleyton estate featured 'as if evoked by a magician's wand, a range of fantastic palaces of glass, their many sheeny domes and pinnacles sparkling like diamond facets in the noonday sun.'[26] To a twentieth-century eye the charm had faded. The Somerleyton Winter Garden was pulled down in 1914-15 to save expense, and was replaced, according to *Country Life* (1982) by an 'attractive sunken garden with beds for flowers in season, and a central circular pool filled with hardy waterlilies',[27] which does sound rather prosaic in comparison.

Although the Winter Garden at Somerleyton Hall no longer exists, the house and gardens are still there and are now are available for hire for conferences, conventions, weddings and the rest. There are picnic areas and playgrounds in the gardens. In 2011 the Somerleyton Estate opened a 'winterwonderland' theme park in Fritton Lake, with Santa's Grotto and Toy Factory, Ice Rink, Alpine Food Court, Santa's Woodland Trail, Road

Train, Children's Shows and Christmas Themed Adventure Playground. Whilst the Somerleyton Estate has an admirable track record as a prize-winning tourist attraction, it does follow Sorkin's more gloomy trajectory. The publicity material for the 'winterwonderland' uses snow-filled scenes that seem sadly implausible for the local Lowestoft climate. However, on reflection, it replaces a damp and chilly English winter with a magical one, and to my consolation, a giant snow-globe has been constructed in the heart of it.

Figure 3. Giant Snow Globe[28], Fritton Lake, Somerleyton Estate - one of the attractions at the winterwonderland 2011.
(There is an extra charge for the photo-opportunity.)
www.frittonlakewinterwonderland.com

Endnotes

[1] W.G. Sebald, *The Rings of Saturn*, trans. Michael Hulse (New York: New Directions, 1998), 33-35.
[2] The catalogue is quoted by Arthur Hellyer, "Victorian Fantasy Simplified: Gardens of Somerleyton Hall Suffolk", *County Life*, 171, 4424 (1982), 1668-1672.
[3] A 'prestige' is an older term for a conjuring trick; a 'glamour' is an enchantment or spell. (*Oxford English Dictionary*, 2nd edition online, March 2012).
[4] See for example Sam Sharpe*, Neomagic: The Art of the Conjuror* (London: G. Johnston, 1932), 41-45.
[5] David Devant, *Magic made Easy* (London: Castell & Co. Ltd, 1909).
[6] Wardian Case: a closely glazed case in which plants can grow with very little need for watering, as most of the moisture in the case recirculates. The atmosphere inside the case is purified by the plants. The principle was not invented by the naturalist Nathanial Ward, but his experiments with it were popularised by J.C. Loudon in the *Gardener's Magazine* in 1834.
[7] See for example James Tissot's use of conservatory settings for many of his studies of women, alone or together, including paintings and sketches of his mistress Mrs. Kathleen Newton.
[8] My thanks to an anonymous reviewer for pointing out that the Civic Theatre Complex (1929) in Auckland also contained a Wintergarden in its basement.
[9] Ian Sutherland, "Growth Under Vita Glass", *Journal of Hygiene*, 32, 2, (1932).

[10] John Sadar, "The Healthful Ambience of Vitaglass"*, Architectural Research Quarterly*, 12, 3/4 (2008), 269-81.
[11] The dichotomies of the corporate atrium are discussed in Dan Graham, "Corporate Arcadias", *Artforum*, (December 1987), 68-74.
[12] www.eden-project.net (accessed December 2011).
[13] Marx cited in Adrian Vaughan, *Samuel Morton Peto, a Victorian Entrepreneur* (Horsham Surrey: Ian Allen Publishing, 2009), 52.
[14] See for example Michael Wigginton's opening chapter in *Glass in Architecture* (London: Phaidon Press, 1996).
[15] A.G. Meyer in *Eisenbauten* (1907) claimed the greenhouse as 'the origin of all present day architecture in iron and glass', (cited in Walter Benjamin, *The Arcades Project*, trans. Howard Eiland and Kevin McLaughlin, (Cambridge, Mass.: Bellknapp Press, 1999), 158. Other historians disagree, e.g. J. Mordaunt Crook, *The Dilemma of Style: Architectural Ideas from the Picturesque to the Post-Modern* (Chicago: University of Chicago Press, 1987), 105.
[16] See for example Vaughan, *Samuel Morton Peto, a Victorian Entrepreneur*, for details of the financial benefits that flowed to Sir Morton (builder, railway magnate, property developer and Member of Parliament) from his association with Paxton, the Great Exhibition and the subsequent relocation of the Crystal Palace.
[17] Michael Sorkin, "See You in Disneyland", in Susan Feinstein, Scott Campbell, (eds.), *Readings in Urban Theory* (Cambridge, Mass.: Blackwell, 1996), 395.
[18] Stewart Ewen, *All Consuming Images: The Politics of Style in Contemporary Culture* (New York: Basic Books, 1988),164.
[19]Margaret Smith, (ed.), *Selected Letters of Charlotte Brontë, Volume 2, 1848-1851* (Oxford: Oxford University Press, 2000). Charlotte Bronte visited the Exhibition five times in June 1851.
[20] Benjamin, *The Arcades Project*, 423; 405.
[21] My thanks to Freya Robinson for pointing this out, and drawing my attention to the etymology of 'paradise', literally a 'walled enclosure'.
[22] Sharpe*, Neomagic: The Art of the Conjuror.*
[23] Cited in Benjamin, *The Arcades Project,* 541.
[24] Wigginton, *Glass in Architecture,* 36.
[25] Wigginton, *Glass in Architecture,* 38. The majority of later 19th century iron and glass structures however adopted Paxton's ridge and furrow glazing, for a variety of reasons both to do with control of light (for horticultural purposes) and with pragmatics of construction and procurement.
[26] S.C.Hall, "The Stately Homes of England: Somerleyton", *The Art Journal*, (1872), 15.
[27] Hellyer, "Victorian Fantasy Simplified: Gardens of Somerleyton Hall Suffolk", 1668.
[28] Image of Fritton Lake Snow-Globe from www.frittonlakewinterwonderland.com (accessed December 2011).

Hybrid Histories:
A Framework to Rethink 'Islamic' Architecture

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Abstract

The Adelaide Mosque (1888-1889), the first urban mosque built in Australia, was founded by Afghan cameleers whose contribution to the exploration of Australia's vast desert interior is largely untold. The cultural significance of the mosque is recognised locally and it is identified as "one of the few relics of Afghan immigration to South Australia and embodies in built form Afghan and Mohammedan culture which is otherwise not significantly represented" (City of Adelaide Heritage Study Item No. 159, Adelaide Mosque file, Heritage South Australia). However, despite this recognition, this unadorned bluestone structure has failed to draw the attention of architectural historians in surveys of 'Islamic' architecture. The scope of recent surveys in this field is increasingly inclusive. However, very few studies focus on the architecture of Muslim communities in regions where Islam is not the predominant faith, especially in the southern hemisphere. The Adelaide Mosque, and many others, is excluded from the historical record despite the instrumental role it played in the life of Muslim settlers. This absence raises questions about gaps, or histories untold, as well as myths received, in histories of 'Islamic' architecture that raise questions about the truth-value of the past. There is a need to examine hybridised forms and shared architectural narratives to counter the myopic but persistent representation—or fabulation—of supposedly authentic, largely Arab-centric, forms of 'Islamic' architecture. This paper argues, then, that new theoretical frameworks are required to interpret this architectural hybrid that is, we argue, typical rather than exceptional. Through a case study of the Adelaide Mosque, this paper critically re-examines the reductive but pervasive conceptions of 'Islamic' Architecture that obscure the historical processes of hybridization and its diverse morphological outcomes to comprehend the process of resilience and assimilation through which architecture is shaped in a particular context.

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Historical Confabulators: *Terra Australis Incognita*

In the great age of exploration and discovery the demand for popular tales of derring-do created, according to historian Geoffrey Gunn, a wide niche "for historical confabulators and, alongside them, pure literary fabulists."[1] In this context, the work of French author Gabriel de Foigny was published, *Les Avantures de Jacques Sadeur dans la Decouverte et le Voiage de la Terre Australe. Contenant les Coûtumes & les Moeurs des Australiens* (The Adventures of Jacques Sadeur in the Discovery and Voyage to Australia. Containing the Customs and Mores of Australians, 1692), which Gunn identifies as one of the best known of the French 'utopias' and which depicts the hero's fantastical journey to a classless island of hermaphrodites. While this popular literary genre flourished it was also "transitional literature in the sense that reality caught up as the last tracts on earth became known and mapped and, indeed, the Newtonian revolution arrived."[2]

More than a century later the vast desert interior of Australia was one of these last tracts to be explored and mapped. However, this interminable process was only achieved through the exploits, not of exotic Australians envisioned by authors like Gabriel de Foigny, but of a culturally diverse group of predominantly Muslim cameleers hailing from the deserts of the Indian subcontinent whose arduous journeys inland were further subjects of imagined journeys as early as 1830 and the romantic imagery typical of Orientalism. Early representations of the cameleers briefly captured the public imagination during the Burke and Wills expedition. However, as anthropologist Philip Jones observes, the often heroic contributions of the cameleers was rapidly marginalised—and long since forgotten—as evidenced in a sequence of images by William Strutt. The artist's early works depict the cameleers in their finery, proud, regal and independent, whilst in his later drawings Burke is the hero of the legendary inland journey leading his obscure Afghan subordinates.

Today the pioneering contributions of the cameleers are beginning to receive the scholarly attention that befits their exploits and redresses mythical representations of a transient and predominantly mobile existence at the fringe of Anglo-Australian society in the mid to late nineteenth century. The cameleers forged communities, and founded settlements, known as Ghantowns, that dotted the routes that penetrated the interior for the purposes of discovery, communication or haulage.[3] Knowledge of the architecture of these settlements is limited to a handful of images of modest dwellings built in the early colonial style and, notably, mosques in remote Ghantowns including Hergott Springs (Maree after 1863, Figure 1) and Broken Hill. A place for communal prayer was of vital

importance to the nascent Muslim community, irrespective of the ethnic diversity, evident in the different styles of turban worn by the cameleers performing ablution at Hergott Springs, or the impermanence of a mosque's structure. This paper focuses on the Adelaide Mosque, founded by cameleers from Oodnadatta and Alice Springs and begun in 1888, which was the first urban mosque built in Australia (Figure 2). This mosque is recognised by the City of Adelaide Heritage Study (1990) as a significant cultural artefact of the Afghan community in the late nineteenth century. It is identified as "one of the few relics of Afghan immigration to South Australia and embodies in built form Afghan and Mohammedan culture which is otherwise not significantly represented."[4] However, the Adelaide Mosque, which offers vital clues to the customs and mores of these early Muslim settlers, is absent from the historiography of 'Islamic' architecture.

Figure 1. Maree Mosque, State Library of South Australia B15341.

This paper contends that such examples, which are excluded from the historical record, raise questions about gaps, or histories untold, as well as myths received, in histories of 'Islamic' architecture that raise questions about the truth-value of the past. Few studies focus on the architecture of Muslim communities in regions where Islam is not the predominant faith, especially in the southern hemisphere. The hybridized form of the Adelaide Mosque, which was recently measured and documented by the principal author and which will be examined in this paper, is an important counterpoint to historical confabulations which champion selective, supposedly authentic, largely Arab-centric—possibly mythologised—forms of 'Islamic' architecture or privilege the dynastic marvels of imperial patrons.[5] This paper argues, then, that a new theoretical framework is required to interpret architectural hybrids like the Adelaide Mosque that are, we argue, typical rather than exceptional, and no less important, despite the antipodean locale.

Figure 2. The Adelaide Mosque , State Library of South Australia B 15429

A Hybrid Community

From the outset it is necessary to qualify the diversity of the Afghan and Mohammedan culture that is identified by the City of Adelaide Heritage Study. The cameleers were tribesmen from Afghanistan and the northwest frontier province and they belonged to four main ethnic groups: Pashtun, Baluchi, Sindhi and Punjabi. Each group had cultural and linguistic differences and while Islam was introduced into the region between the 7th and 10th centuries, providing a common bond for the cameleers in Australia, their "faith blended with local custom such as the Pashtun code of honour, the *Pashtunwali*."[6] Hence, the origins of the cameleers were plural and in Australia their language and customs were increasingly hybrid through cohabitation with each other as well as intermarriage by the cameleers with Indigenous women and European women who had been marginalised from Anglo-Australian society for a variety of reasons.[7] In this context, it is unsurprising that this also led to hybridised architectural forms.

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Hybrid Architecture and Islam

However, the celebration of hybrid architecture, or indeed the hybridity of Muslim communities, is a recent phenomenon in studies of 'Islamic' architecture. In the most recent cycle of the Aga Khan Award for Architecture (AKAA), for example, which celebrates the built environment of Muslim communities past and present, pluralism and hybridity are key themes. In the opening essay to *Intervention Architecture* (2007) featuring the winners of the 10th cycle of the Award founded in 1977, AKAA jurist and esteemed post-colonial theorist Homi K. Bhabha identifies an "ethic of global relatedness that reflects the ideals of a pluralist *umma* at the heart of Muslim societies which is repeatedly celebrated by the cycle of awards."[8] Moreover, Farshid Moussavi makes a case for hybrid or cosmopolitan identities with reference to the winning projects that is perceived as a post-national condition resulting from processes of globalisation:

> Through their cosmopolitan societies Cairo, Leeds, Istanbul and Kuala Lumpur are being drawn ever closer together. Hybrid identities and cultures are emerging through the 'intersection and combination' of identities with other identities (Ulrich Beck), which then determines social integration. Cosmopolitanism is generated through hybridity and the transformation that arises from new and unexpected combinations of cultures and ideas. Unlike Universalist ideas that enforce one vision of reality, cosmopolitanism is avowedly pluralist.[9]

This stance is presented in contradistinction to the historiography of 'Islamic' architecture:

> As opposed to starting from an imagined whole (as is the case with stylistic approaches), the whole is grown out of the hybridisation of the parts, akin to the way hybrid identities evolve in individuals. Hybridisation transforms fixed architectural categories and unleashes possibilities for architectural experimentation.[10]

However, the focus of these essays by Bhabha and Moussavi is on contemporary buildings and landscapes located within the traditional geographical band of the Islamic world: Egypt, Lebanon, Yemen, Burkina Faso, Bangladesh, and Malaysia etc. This perception of hybridity advocated by Moussavi, with the endorsement of the Award committee, corresponds to a positive and celebratory discursive shift that is also identified by anthropologists Kapchan and Strong: "Viktor Turner noted that "what was once considered 'contaminated,' 'promiscuous,' 'impure' [was] becoming the focus of postmodern analytical attention."[11] Such derogatory appellations of hybridity can be identified in representations of Islamic architecture from Istanbul to Lucknow.

However, this paper presents the argument that architectural hybridisation is not limited to post-colonial cities or, as Moussavi argues, to the post-national condition. It is a phenomenon that goes hand-in-hand with the mobility that has long characterised the emergence and diffusion of Islam, the submission to Islam by peoples of different cultural backgrounds, and the mobility of Muslims whether for the purpose of the Hajj, the fulfilment of knowledge (العرفان), missionary imperatives, ambassadorial exchange, or travel for the sake of curiosity.[12]

It is necessary, then, to reflect on a definition of hybridity and its antecedent symbiosis, and to draw parallels between architecture as a material expression of culture and language as an intangible expression of culture. In *The Cassell Concise Dictionary* hybrid is defined as follows:

> hybrid *a.* 1 (*Biol*.) produced by the union of two distinct species, varieties etc. 2 mongrel, cross-bred. 3 heterogeneous. 4 derived from incongruous sources. *n.* 1 an animal or plant produced by the union of two distinct species, varieties etc. 2 anything composed of heterogeneous parts or elements. 3 a word compounded from elements from different languages. 4 (*offensive*) a person of mixed racial origin. 5 a mongrel.[13]

Putting aside well rehearsed nineteenth century definitions of hybrid architecture that echo Turner's identification of 'contaminated,' 'promiscuous' or 'impure' unions, this paper interprets the hybrid as a heterogeneous union akin to the creativity or experimentation of a new word compounded from elements from different languages. Importantly, the union may be plural. Applying this interpretation of hybridity to architecture, Bermudez and Hermanson (1996) identify the human body as a hybrid based on symbiotic relationships that defy any clear-cut dualist differentiation. They argue that architecture oscillates, "between a call to express our time and a call to creatively resist it. Rather than taking a side, we suggest considering the 'hybrid' and 'symbiotic' as mutually compatible, yet paradoxical states that offer architecture further choice and evolution." [14] Symbiosis, then, defined as "a mutually beneficial relationship between people, things or groups" precedes hybridity.[15] According to Kurokawa, symbiosis implies a relationship of mutual need between different parties in which there still could be competition, opposition, and struggle as long as there are common elements and values that keep the interaction going. He adds that "the concept of symbiosis is basically a dynamic pluralism. It does not seek to reconcile binomial opposites through dialectics..."[16] A plural and polyvalent process emerges whereby hybridity and symbiosis can be perceived as the generators of creative and dynamic historical processes which shape diverse morphological outcomes.

Different Priorities for Architectural Historiography

To take the analogy with language further, the writing of Jacques Berque has enduring resonance to interpret the architecture of Muslim communities.[17] Berque argued that the Islamic built environment could be understood using a linguistic model of morphology and rhetoric. Like language, the rhetoric might be in common and shared between cultures, regions and contexts, but the morphology that combines the rhetoric in a system, should be constant for a particular architectural vocabulary. This morphology is the system of the invariables (*thawābit*) and the variables (*mutahawilat*) are the rhetoric. As long as the invariables remain with the original system, the identity exists. Islamic architecture must have a morphology that goes beyond its history, geography, culture and all other boundaries. However, unlike other building traditions this morphology is not materialised in architecture. Rather what makes architecture 'Islamic' are the invisible aspects of buildings, which may or may not completely translate themselves onto the physical plane of the built environment.[18] The inherent morphology of Islamic architecture is always the same, due to the permanence of the fundamental philosophy and the values. What changes are the ways and means with which people materialise such philosophy and values to their own circumstances.

Based on the linguistic model offered by Berque, Islamic architecture can be divided into two major paradigms. The first replaced the morphology with the rhetoric as the main determinant and confined Islamic architecture within the elemental domain of forms and styles based on dynasty, local tradition and building typology. These presuppositions about Islamic influence, artefacts and cultures are baffled in a situation where supposedly 'Islamic' elements have no precedents in the other parts of the Islamic world. Hybridized forms and shared architectural narratives that arose during the Islamic period in a particular region and which are unique to the material culture of that place sometime remain elusive due to the myopic but popular perspective of 'correct' forms of an 'Islamic Identity'. These stereotypical conceptions of Islamic architecture obscured historical processes of hybridization and its diverse morphological outcomes and hence failed to appreciate the value of buildings like the Adelaide Mosque. This paper is intrigued by this very problem.

Stylistic categorization has not only failed to identify the architecture of Islam through time and space, but sometimes attributes a pseudo-Islamic notion. As it is not possible to prescribe a common form for mosques around the world, it is not possible to identify particular styles or forms as 'Islamic'. Examination of the built environment of Muslim

communities must put aside formal concerns to concentrate on prescriptive codes of conduct as outlined in and interpreted from the Qur'an, Hadith and previous juridical decisions. The nature of Islamic Architecture should be determined by the morphological elements of architecture that facilitate these codes of conduct within the multiple regional and historical contexts of the Islamic world. It necessitates a close observation of the process by which diverse peoples across the world integrate cultural-historical contexts, regional styles, functional needs, and environmental possibilities within that system.

Once this linguistic model is accepted, then focus should be placed on identifying the system and its working principles. There is no doubt that for Muslims this system should be based on unity (*Tawhid*), the Quran and Sunnah, as well as Shariah. As there were no direct guidelines in Islamic religious texts regarding architecture, the interpretation remains subjective and discursive. However, presumably the system should be pragmatic and conceivable enough so that it could be applied in any context at any time, as Islam is all encompassing and always contemporary for all the ages.

In Islam, the notion of worship is a universal one encompassing Muslims' every action (Qur'an, 51:56).[19] The Islamic world view never separates the life-spiritual and life-mundane. It does not confine itself to the development of the spiritual and the moral life of man in a limited sense. Instead it permeates the entire gamut of life. It moulds individual life as well as the social order, as Allah has mentioned, "(They are) those who, If we establish them In the land, establish Regular prayer and give Regular charity, enjoin The right and forbid wrong: With God rests the end (And decision) of (all) affairs" (Qur'an 2: 62).

Man has to identify his role as vicegerent (*Khalifah*) of Allah in this universe of creation and "in every action of his—including building—man tends to express consciously or otherwise his outlook on life and the whole of universe, Islamic architecture is then nothing but a medium of Islamic doctrine".[20] A Muslim is reminded many times that while he is allowed to enjoy the normal and serene pleasure of life, excess and grandeur in any form is contrary to the will of Allah. Hence his life and actions must express harmony, respect and interdependence with the other elements of the creation. It should respect what is around and does not abuse the environment by overruling it. As Allah depicted,
"But seek, through that which Allah has given you, the home of the Hereafter; and (yet), do not forget your share of the world. And do good as Allah has done good to you. And desire not corruption in the land. Indeed, Allah does not like corruptors" Quran 28:77).

Materializing Shared Values

"O People who Believe! When the call for prayer is given on *(Friday)* the day of congregation, rush towards the remembrance of Allah and stop buying and selling; this is better for you if you understand. And when the prayer ends, spread out in the land and seek Allah's munificence, and profusely remember Allah, in the hope of attaining success" (Qur'an 62:9., 62:10).

These verses from the Holy Qur'an aptly describe the life a Muslim should live and how it is integrated with religious pursuit. The majority of early cameleers were practicing Muslims. Although living in an alienated environment, they never forgot the customs and religious traditions of their homelands. However, the camaraderie and the sense *ummah* (community) that Islam bestows upon Muslims was absent in their early years in outback Australia. There were no mosques to provide a sense of belonging. Daily prayers were performed in the desert or empty bushland. With the increasing number of early Australian Muslims the need to build their own mosques was felt overwhelmingly. The mud and tin-roofed mosques in remote areas like Marree (Hergott Spring) and Coolgardie were early instances of creating a place that concretised the sense of *ummah* for this small and isolated group along with the formation of the Ghantowns . These mosques not only provided space for prayers, they were places for gathering and celebrating particular religious events together that strengthened the *ummah*. For example,

> The highlights of the year were the celebrations for *Eid ul-Fitr*, marking the end of Ramadan (the month of fasting), and *Eid ul-Adha*, 90 days later. According to Islam, fasting should not be undertaken while travelling, so the men would cease working and join together during Ramadan. At the end of the 30 days, during which no food, water or tobacco could pass their lips from sunrise to sunset, the men would enjoy the Eid-ul-Fitr celebration. On festival days there was no loneliness, just plenty of food, laughter, smiles and stories as they lounged around, feasting and enjoying each other's company."[21]

Failing to obtain government support to secure land for the mosque, Muslims in Adelaide took the initiative to build their own mosque in 1890. Haji Mullah Mehrban the Afghan leader was the driving force behind the mosque.[22] Another Afghan leader Abdul Wade[23] purchased the land at 20 Little Gilbert Street from a European settler and built on the land with the financial support of the Afghan community in Adelaide. Abdul Wade was the rightful owner of the mosque building from 1890-1920. The mosque became a place of identity for the Muslims of Adelaide and other parts of South Australia, who were still struggling to get lawful citizenship. This building further provides a sense of place and

respite for the Muslim camel drivers who came to Adelaide between their expeditions. Hence a residence or guest house was constructed beside the mosque as a resting place for these roaming cameleers. Although there is no evidence of the construction process it is highly unlikely that Afghans built this structure. They would have relied to a large extent on a local builder, especially in the specialized construction of the minarets. Nonetheless, there must have been a considerable process of communication to guide the builder, who would have had no experience of building mosques.
The mosque is a simple rectangular building (approximately 12m x 7.5m) with unadorned bluestone masonry, a typical feature of Adelaide architecture. The main prayer chamber had a verandah at the front (later joined to the main chamber) as additional space. The large open square on the east had a rectangular tank with a fountain for ablution. Initially the building had no Minarets and in terms of its appearance it could only be differentiated from the neighbouring pitched roof residences by its scale (Figure 5). In 1903-5 four minarets were added at the four corners of the mosque. In 1978 a major renovation was completed that resulted with the integration of the verandah and the main chamber to a larger prayer hall and the addition of a mezzanine for women over the verandah.

The apparently non-descript structure, other than its four chimney-like minarets was excluded from the main stream study of 'Islamic' Architecture. However, as we discussed earlier it is time to re-examine this architecture under the new framework. Architecture played an instrumental role in recording the facets of Islamic Diaspora through time and spaces. The emergence of Islam in a particular place and its subsequent impact on the social, political and cultural life of the people generally determined the character of Islamic architecture of that place. Two things worked together to do so. On the one hand, there was the conscious attempt of creating a particular place with religious and symbolic meaning, which is reflected at the most explicit level. On the other hand, at the most primary level exists the realm of the vernacular mode that centered on the world view of a particular culture, its values and attitudes towards space. Thus while the theme of the religious consciousness shapes the 'visible' superstructure; the underlying idea of the vernacular defines the 'true' nature of the space. Hence the production of architecture throughout the Muslim world is diverse and enriched with different varieties in terms of forms, articulation as well as morphology.

Hence, the mosque should be examined from the perspective of settlement history and the Islamic Diaspora; how were the spatial concepts realized in a non Muslim environment? As architecture the mosque represents a particular time and material culture of the people who belong to it. It reflects their value system, their social status,

resilience and assimilation and most importantly their imaginary parallel of space a homely space in a foreign and apparently hostile land.[24] It is not the mosque as object that we must value, rather it was the means through which it was realized that should be assessed and its impact on the contemporaneous Muslim society in Australia as an institution needs to be examined.

The hybridized forms and shared architectural narratives that arose through the resilience and assimilation of the minority Afghan group are absent in the majority of studies of Islamic architecture. In the Quran and Hadith a mosque has been described as an institution for Muslims, it is not identified as a sacred or sanctified space for ritual worship. By examining the Prophet's mosques in Madinah, it is evident that a mosque can be a social, political and religious centre. It served as a place for political discussions, communal celebrations, a guest house and even a place to hold prisoners of war. As Islam is a holistic religion and it encompasses every aspect of a Muslim's life, the mosque should cater for all the activities the Muslims perform as social units. Hence it provides the sense of identity of Muslim community. It is a place for congregation as well as a centre for information, education, or to resolve settlement disputes.

However, Hadith[25] has prescribed three important features that must be present in a mosque to perform its function properly. Firstly, prayer is universally accepted to be the basic reason for the existence of the mosque. Hence, this is the most important function of the Mosque. The space, therefore, has to be suitable for prayer, specifically it has to be clean as one places their face on this surface. Secondly, the space has to accommodate congregational prayer which is performed in straight rows parallel to Kiblah wall. The Prophet said, "Straighten your rows as the straightening of rows is essential for a perfect and correct prayer".[26] Finally and most importantly, Islamic prayer requires no tangible object, such as an icon or a statue. Visual engagement is therefore unnecessary. The only visual engagement it requires is that whereby Muslims orient themselves toward the Kiblah: "And from whence-so-ever you start forth (for prayers) turn your face in the direction of (the Sacred Mosque of Mecca) Al-Masjid-ul Haram" (Qur'an: 2:149).

In the light of the Qur'an and Sunnah, it can be concluded that the following conceptual features determine the morphology of a Mosque as a multivalent space for Muslims:

1. Directionality (Qibla)
2. Cleanliness of space
3. Suitability for Rows of prayer (Saffs)
5. The multi-purpose nature of the space

If these functional requirements are fulfilled, the scale, form and decoration are open to creative interpretation.

As the Indian subcontinent (including present day Afghanistan, Pakistan, India and Bangladesh) has a strong legacy of mosque building under the Pre-Mughal Muslim and Mughal rule, the Afghan cameleers would have had preconceived ideas about the appropriate form of a mosque. However, these ideas could not be realized with limited funds, inexpert labour or alien resources. However, the basic morphology of the mosque remains unchanged. The sequence of space that can be commonly observed in a typical south Asian mosque, the transition from external to internal space is successful. A place for ablution was provided as well as a means to mitigate the extremes of heat which was also a very common feature of mosques in their homeland.[27] Hence, the description of the mosque by Sayed Jalal Shah (1915) "…with a basin in the yard for ablutions and a garden with fig trees and vineyard" seems to be exaggerated to some extent, but it renders the aspirations of the users of the mosques and how they wanted it to emulate mosques on the subcontinent. Their ambition and aspirations were also reflected when Jalal Shah further reported "£500 was currently being raised to build a madrasa (school) for the instruction of the children of the growing Muslim community".[28]

From this we understand that Adelaide Mosque was not only, "a meeting place for the cameleers, a place to exchange religious, economic and political views, to discuss contracts and to be with Muslim compatriots, safe for a time from prevailing spiritual and racial intolerance."[29] It was also a locus for their aspirations about the future of the community. It was a place that provided them with hope to be settled as a member of the society. This might be one of the reasons it was possible for them to gather well over £500 required for the madrasa from their meager incomes. Therefore, undoubtedly the Adelaide Mosque, regardless of its size and shape, was able to work as a multivalent space and institution for the contemporary Muslim society.

Hasan Fathy (1978) once commented that in New York "The tree is wiser than man, because every leaf is placed where it can take the sun, the wind and everything else, but in New York you stacked everything over the other".[30] With reference to the quote the Adelaide Mosque can be described as the tree. It might not be a unique piece of architecture in terms of exterior appearance. Rather, it is unique in the way it blends subtly with the urban fabric of Adelaide. The building was constructed using the local blue stone masonry, in a load bearing system, as the main building materials. The four minarets were constructed using bricks. The construction technique was simple using the

technology available at that time. The sequence of spaces within the building are arranged as a response to the traditional use of those in their (Afghan) homeland. Rather than mimicking their own images of a mosque, the Afghan builders relied solely on the local builder for the interpretation of a mosque in the setting of colonial Adelaide. Unlike other urban mosques in Australia (for example, the Perth Mosque or the Auburn Mosque in Sydney) the images of homeland, the aspirations of the user, the fabric and the scale of the neighbourhood and the available technology were hybridized together to create the first urban mosque in Australia.

Interestingly, the minarets that give the mosque its distinct identity in the Adelaide townscape, are not separate from the surrounding and does not make it an atypical piece of architecture; rather it works as an interface by creating a dialogue between the city and mosque. Once we examine the process of construction of the mosque, the intention and the aspirations of the builders, it became clear that the intention behind the erection of the minarets were not to segregate the little Muslim community and their physical existence in the city fabric, but to become deeply rooted in the locale.

Concluding Remarks

This paper aimed to examine the Adelaide Mosque with emphasis on the innate quality of organizing space and forms (rhetoric) and using them to connect the microcosm of architecture to the macrocosm of the world rather than focusing on elements, motifs or decorations (morphology) that may or may not exemplify typical representations—fabulations—of 'Islamic' architecture. It focused on how religious beliefs, social and economic structures, political motives, and aesthetic sensibility were articulated in the Adelaide Mosque. The paper is not concerned with the beauty of the mosque, although beauty and utility are never separated in the Islamic perspective. According to Seyyed Hossein Nasr, the art of making is equally as important as the product.[31] Hence the focus was to discern the process through which this architecture was shaped and materialized.

In the case of the Adelaide Mosque the respect for the needs of the users is evident. The structure fulfils the purpose and aspirations of Muslims in the local and regional context to ensure both relevance and authenticity. It is a true example of hybrid or symbiotic architecture that encompasses Islamic values as well as local and regional particularities.

Three major concepts are materialised in the Adelaide Mosque. Firstly, it is the concept of the mosque as a religious and social centre and, thus, a locus of identity for the Afghan community. Secondly, it embraced the available technology and local architectural

practice. Finally there was the underlying imagery from homeland that was reflected in the articulation of space and the erection of the minarets. Nevertheless, most importantly this building elucidates the process of continuous resilience and assimilation between these three. In summary it could be said that the architecture of the Adelaide Mosque is the result of the process of hybridization where the Quranic tenet of communal prayer, the local architectural language, and imported values are fused together in a purposeful creation that served the needs of a hybrid community.

Endnotes

[1] Geoffrey C. Gunn, 'Historical Confabulators and Literary Geographers', in *First Globalisation: The Eurasian Exchange 1500-1800* (Lanham, Maryland: Rowman and Littlefield, 2003), 57.
[2] Gunn 'Historical Confabulators and Literary Geographers,' 57.
[3] Christine Stevens, *Tin Mosques and Ghantowns: A History of Afghan Cameldrivers in Australia*, (Melbourne: Oxford University Press, 1989).
[4] City of Adelaide Heritage Study Item No. 159, Adelaide Mosque file (Adelaide: Heritage South Australia, 1990).
[5] This project was funded by the International Islamic University Malaysia. As part of this project the principal author travelled to Adelaide in January 2012 to conduct measured drawings of the Adelaide Mosque, with the permission of the Mosque Secretariat, and undertake archive research.
[6] Philip Jones, *Australia's Muslim Cameleers: Pioneers of the Inland, 1860s-1930s* (Kent Town, Australia: Wakefield Press in association with The South Australian Museum, 2007), 29.
[7] Regina Ganter, 'Muslim Australians: The Deep Histories of Contact', *Journal of Australian Studies* (Routledge)*'* 32, 4 (December 2008), 488.
[8] Homi K. Bhabha, 'Architecture and Thought', in Aga Khan Foundation (ed.), *Intervention Architecture: Building for Change* (London: I.B.Tauris & Co Ltd., for the Aga Khan Award for Architecture, 2007), 7. Katharine Bartsch argues that this recognition of pluralism has not been celebrated or prioritised throughout the award process as Bhabha states, rather, it is a theme that has emerged as the Award has matured. *Rethinking Islamic Architecture: A Critique of the Aga Khan Award for Architecture through the Paradigm of Encounter* (PhD dissertation, The University of Adelaide, 2005).
[9] Farshid Moussavi, 'Hybrid Identities', in Aga Khan Foundation (ed.), *Intervention Architecture: Building for Change*, 166.
[10] Moussavi, 'Hybrid Identities', 167.
[11] Viktor Turner (1982) is quoted by Deborah A. Kapchan and Pauline Turner Strong, 'Theorizing the Hybrid', *The Journal of American Folklore*, 112, 445 (Summer 1999), 239.
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and Ian Richard Netton (eds.), *Across the Mediterranean Frontiers: Trade Politics and Religion, 650-1450* (Leeds: David Brown Book Co., 1997). For studies of cultural encounters amidst world systems prior to the modern period see Samir Amin, 'The Ancient World-Systems Versus the Modern Capitalist World-System', in Andre Gunder Frank and Barry K. Gills (eds.), *The World System: Five Hundred Years or Five Thousand?* (London: Routledge, 1993), 247-277. Studies that explore world-systems theory are evident in world historiography, archaeology, ancient history, economic history and political geography. For further discussion of the proliferation of world-systems theory in relation to Islam, see Janet Abu-Lughod, *Before European Hegemony: The World System, A.D. 1250-1350* (New York: Oxford University Press, 1989).

[13] *The Cassell Concise Dictionary* (London: Cassell, 1997).

[14] Julio Bermudes and Robert Hermanson, 'Tectonics After Virtuality: Re-turning to the Body', *Proceedings of ACSA International Conference* (Copenhagen, Denmark: Royal Academy of Fine Arts School of Architecture, 1996), 66-71.

[15] *The Cassell Concise Dictionary* (London: Cassell, 1997).

[16] Kisho Kurokawa, *The Philosophy of Symbiosis* (London: Academy Editions, 1994).

[17] Berque was a Professor of Sociology at College de France, scholar and writer on traditional and modern Muslim Societies. This model of an Islamic city was discussed during the seminar on *Architectural Transformations in the Islamic World* held at Aiglemont, Gouvieux, France in April 1978, organized by the Aga Khan Foundation. See Jacques Berque, 'An Islamic Heliopolis?' in Renata Holod (ed.), *Toward an Architecture in The Spirit of Islam*, 19-31 (Cambridge: MIT Press, 1978).

[18] Stefano Bianca, *Urban Form in the Arab World* (London; New York: Thames and Hudson. 2000).

[19] All the references of the Qur'an are taken from *The Holy Quran*, Trans. Abdullah Yusuf Ali, Islamic Book Trust, Kuala Lumpur, 2000.

[20] Spahic Omer, *Studies in The Islamic Built Environment* (Kuala Lumpur: IIUM Press, 2002).

[21] National Archive of Australia, 'Uncommon Lives' http: uncommonlives.naa.gov.au/muslim... /cameleers-and-hawkers.aspx

[22] The Afghan Mehrban, of the Tarin tribe, was born in 1801. He was the caretaker of Adelaide Mosque in the 1890s. 'Chief among the Adelaide Muslims'. In the Adelaide mosque he conducted the Eid–Ul-Adha services, 1890-94 (in 1890 for – eighty Afghan and one Hindu'. In 1894 for '67 turbaned residents of Adelaide'). Mehrban lived in Coolgardie from 1894-1897 (SA register, 30 July 1890).

[23] The Afghan Abdul Wade was a native of Quetta. He arrived in Australia in 1879. He was a merchant, and a cameleer for the Bourke Expedition. Wade was fluent in English and was the Trustee of the Adelaide Mosque.

[24] Peter Scriver, 'Mosques, Ghantowns and Cameleers in the Settlement History of Colonial Australia', *Fabrications*,13, 2 (May 2004):19-41.

[25] As Sahih Al Bukharee is considered as the most authentic compilation of Hadith amongst Sunni Muslims, the quotes and references used in this paper also refer to Hadiths regarding the construction of mosque as documented in Sahih Al Bukharee (See Chapter 7 and 9).

[26] The Hadith is reported by Al-Bukharee [2/176 - al-Fath, Boolaaq edition], Ahmad [3/182 and 263], and al-Mukhallis in al-Fawaa'id [1/10/2].

[27] Most of the earlier mosques in Afghanistan are highly influenced by the Persian Mosques. A typical Persian mosque was built after the concept of 'Charbagh', a rendition of paradise in the earth, containing water bodies and gardens. For example,The Blue Mosque of Mazar E Sharif.

[28] Stevens, *Tin Mosque and Ghantowns*

[29] Stevens, *Tin Mosque and Ghantowns*

[30] Hasan Fathy, 'Towards New Model for the Islamic Future City: Discussion', in Renata Holod (ed.), *Toward an Architecture in the Spirit of Islam*, 55-60 (Cambridge: MIT Press, 1978).

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Learning from Aalto:
Fabulations of Utzon and Venturi

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Abstract

Rafael Moneo observed in 2004 that Jørn Utzon and Robert Venturi were completely 'opposite' kinds of architects; yet both figures independently held the work and thinking of Alvar Aalto in high esteem. Utzon's work seems aligned with Aalto's sense of natural forms and patterns; Venturi adopts different Aalto strategies, especially inflection to context, inside-outside contradiction and poché.

Venturi found Aalto's work 'the most moving, the most relevant, the richest source to learn from in terms of its art and technique'. Utzon found Aalto reassuring: 'I knew his ideas, his buildings and what his work meant for our society.' Venturi designed with knowledge of Rome, American vernacular, and literary criticism; Utzon drew on hunting experiences, working with Aalto, and international travels.

To Utzon, Aalto offered the assurances of a Goethean philosophy, accepting the natural world's forms and variations as a sourcebook for architectural ideas. To Venturi, Aalto's plans, symbols and strategies offered license to transcend 'serene' Modernism in pursuit of an architecture that could be complex, historicist, everyday, and aware of national and regional vernacular. Notions of nature and culture thus suggest themselves as 'complementary' framings of architecture, through which to gauge the extent of Aalto-like instincts in Utzon, and at the same time, Aalto-like contrivance and accommodation in Venturi's work.

This paper regards Moneo's 'cordial observations' as a 'fabulation' about Venturi and Utzon. It asks whether the differences between Venturi and Utzon, as diagnosed by Moneo, are particularly clear: is there a measure of common ground in the methods of the two architects? This paper investigates certain differences between the work and philosophies of Utzon and Venturi in terms of 'learning from Aalto'.

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Introduction: opposite kinds of architects

In 2004 Spanish architect Rafael Moneo observed that Jørn Utzon and Robert Venturi were 'opposite' kinds of architects: 'There is no place in Jørn Utzon's architecture for the ambiguous . . . His work is always clear and luminous, without a hint of pain or doubt. Utzon is the complete opposite to Venturi.'[1] Meanwhile, Venturi, according to Moneo, 'proceeds to look for distortions and anomalies that in architecture become asymmetries and unexpected juxtapositions, fractures and ruptures, fragmentations and changes of scale'.[2] Moneo, 1996 Pritzker laureate, would appear to have some authority on both figures: he worked for Utzon in the 1960s, and contributed to the catalogue for the Louisiana Museum's 2004 Utzon retrospective; in the collection of essays derived from his Harvard GSD lectures of the early 1990s, *Theoretical Anxiety and Design Strategies in the Work of Eight Contemporary Architects* (2004), Moneo devotes forty-seven pages to Robert Venturi and Denise Scott Brown.

It is intriguing and historically interesting that despite their differing approaches to architecture, both Venturi and Utzon – Pritzker laureates in 1991 and 2003 respectively – had the highest regard for the work of Alvar Aalto. The work of Utzon, with his interests in locating people in the landscape, in natural forms and dynamics, and his repertoire of 'ancient gathering forms'[3] gathered over a lifetime's travels, can be aligned with Aalto's reading of site and contour, his Goethean sense of natural pattern and variety, and his abiding love of Italian urbanism.[4] Venturi, who famously prefers 'complexity and contradiction in architecture'[5] seems to have learned from Aalto a separate suite of architectural strategies: use of historical precedent; contradiction of inside and outside; external inflection to circumstance; and 'heterotopic' design strategies.[6]

These divergent approaches to architecture – Utzon's seemingly rooted in an understanding of 'nature', and Venturi's grounded in 'culture' – seem to introduce Aalto as a contradictory figure worthy of study on this topic alone. However, this paper uses Aalto as a base and regards Moneo's 'cordial observations' as a germinal 'fabulation': that is, an utterance that may be intended as a provocation – a speculation, a hypothesis, a passing opinion, a possibly groundless speck of mischief, or even a call for presentation of a counter-speculation or a kind of counter-fabulation, to wonder, based on selected writings and images – about gaps and connections, distance and overlaps between Venturi and Utzon. What kind of architectural historian makes 'cordial observations'? Thus this paper asks whether differences between Venturi and Utzon, at least as diagnosed by Moneo, are so clear-cut: is there a measure of common ground in the methods of the two architects? And by challenging what could be seen as Moneo's

cordial fabulation or 'myth-making', can history achieve either a 'clearer' narrative, or, more interestingly, a more nuanced, even 'ambiguous' narrative? This paper uses existing documents and published work to investigate certain differences between the work and philosophies of Utzon and Venturi in terms of 'learning from Aalto'. The paper also forms part of a longer research corpus, a body of work that attempts to investigate intersections between the work of Aalto and Utzon.

Venturi And Utzon: Philosophies

Danish architect Jørn Utzon (1918-2008), is renowned as the designer of the Sydney Opera House, Bagsvaerd Church, Copenhagen, two houses on Majorca, and the Utzon Center, Aalborg (2008). American architect Robert Venturi built the Vanna Venturi house in Philadelphia (1962) and published *Complexity and Contradiction in Architecture* (1966). Venturi, along with his wife Denise Scott Brown, in their firm VSBA continue to practice in Philadelphia in 2012. Scott Brown, a distinguished planner, teacher and researcher in her own right, has been involved in most of Venturi's design and writing work since the mid-1960s.

Utzon's philosophy, set out in a 1948 article 'The Innermost Being of Architecture', ties together the human self, the natural world, the materials of architecture, the work of design, and ideals of harmony and imagination.[7] Architectural work, he proposes, demands 'common-sense understanding' of 'walking, standing, sitting and lying comfortably, of enjoying the shade, the water on our bodies, the earth and all the less easily defined sense impressions.' Writing against abstract minimalism, Utzon sought an architecture which celebrates the embodied joys of everyday human life, based on 'personal sensitivity, an understanding of the laws of nature and on the need for imagination and dreams.'[8] This was Utzon's connection to Aalto's lifelong concern for a harmonious relation between architecture and nature for the 'little man' in the street.[9]

Philadelphia architect Robert Venturi (b.1925) wrote two famous books: *Complexity and Contradiction in Architecture* (1966), and (with Denise Scott Brown and Stephen Izenour) *Learning from Las Vegas* (1969); the books became pillars for postmodern theory within and beyond architecture, and prompted a less pure, more inclusive, and historically informed 'Postmodern' architecture across the world.[10] The metonym 'Venturi', standing for his buildings and writings – usually carried out in association with Denise Scott Brown – and a philosophy embracing both Classical and vernacular in art, music and architecture, re-energized architecture with a new awareness (if not an understanding) of history, of Main Street vernacular architecture, and of context.[11]

Venturi's philosophy, summarized briefly in the section titled 'Nonstraightforward Architecture: A Gentle Manifesto', in *Complexity and Contradiction*, was cerebral and scholarly, yet spontaneous and combative – and always about architecture as architecture, as he wanted to practise it; it was not about architecture as geography or landscape, philosophy or theory. Venturi 'liked' ambiguous architecture from many eras and cultures (the personal, vernacular 'I like', 'learning from', and more recently 'Viva!',[12] are catchphrases of Venturi's non-academic discourse), and disliked the 'puritanically moral language of orthodox Modern architecture.'[13]

Both Utzon and Venturi shared a social purpose which also distinguished their work: a considerable concern for their fellow man, following from Aalto's ideal of fusing nature and culture at different scales, indoors and out, and in non-abstract ways, for the improvement of human life – a strategy for constructing an 'earthly Paradise for people'.[14] Venturi aspired to 'architecture as shelter and symbol – buildable and usable shelter that is also meaningful as a setting for living.'[15] Utzon believed in 'the most important thing of all, which is that you are able to imagine a life lived by people before you begin to design the house.'[16]

Aalto's interest in the relationship between inside and outside provided examples and lessons to both Utzon and Venturi. This reciprocity or contradiction is an important aspect of Mannerist architecture, as Venturi points out in his written work and in his buildings.[17] It was also a rich area of thinking and making for Aalto and for Utzon, and is discussed below. Indeed, the inside-outside relationship is a key area of both similarity and difference between the work of Venturi and Utzon.

Learning From Aalto: Utzon

Goethe's ideas were central to Aalto's early education in regional Finland. Schildt describes Aalto as having a sense of the relationship of man and nature – and of creative activity – different from his contemporaries; Aalto, he observed, was 'a Goethean in Modernist disguise, an adherent of ancient Greek cosmology in an age of technology.'[18]

To Utzon, Aalto appears to have represented the assurances of a Goethean philosophy, along with a sense of the natural world as a rich source of architectural ideas. Mogens Prip-Buus locates Utzon's method of working within a Scandinavian intellectual context of natural scientists and philosophers such as Tycho Brahe, Ole Rømer, Steno, H. C. Ørsted and Linnaeus; their starting points are 'observation and experience instead of

detailed theory, which they encounter with a certain scepticism. This manner of learning from Nature's own book corresponds to Utzon's interest in the culture of the East.'[19] Weston recounts Aalto's simile from a 1944 lecture, of flowers on a cherry branch:

> Aalto invited the audience to think of a group of houses as being like a branch of flowering cherry: all the flowers are essentially the same, yet each is unique, looking this way or that, expanding or retreating, according to its relationship to its neighbours, and to the sun and wind.[20]

Utzon often recalled Aalto's lesson: 'even though I have a classical orientation, nature has continually taught me something new. I learnt that people can design buildings just as wonderful and vibrant as the flowers on a cherry tree.'[21] This parable's philosophy underlay much of Utzon's thinking about variation in repetitive elements and industrialized production; it can be seen on the tiled roof lids of the Sydney Opera House, and in the many variations on the courtyard house theme in Utzon's Skäne and Kingo housing.[22] Weston notes the power of this lesson: 'Not even Aalto . . . explored its architectural implications with such telling results as Utzon.'[23]

Utzon designs: from inside to outside, from outside to inside

Erik Gunnar Asplund (1885-1940) was an influential father-figure for Aalto and for Utzon. Unlike Asplund, Aalto and Le Corbusier, Utzon (Aalto's junior by twenty years) had no Neo-Classical or National Romantic phase; his family was revolutionized into Modern life by visiting Asplund's 1930 Stockholm Exhibition. For Aalto, the expo spoke out 'for a joyful and spontaneous everyday life [and] a healthy and unpretentious lifestyle based on economic realities.'[24] Utzon's father, radicalized by the exhibition, rapidly converted the family lifestyle to one that embraced good design, healthy eating, exercise, and Nordic timber furniture.[25]

Yet in Utzon's creative imagination there was room for complexity. Utzon wrote in 1948 that 'Asplund had the ability to liberate his imagination and mingle a large number of contrasts without spoiling the overall effect.'[26] Utzon had strong interest in 'the important zone' between interior and exterior: 'A very particular issue. All these transitions. From the sea to the house. From nature to man-made. From the terrace to the sitting-room, from the public to the private.'[27] Aalto had explored some of the possibilities of this dual condition in his early essay 'From Doorstep to Living Room', considering indoor courtyards, outdoor halls, rooms without roofs, Pompeiian ruins, and Le Corbusier's Pavilion.[28] His courtyards, outdoor theatres, large living rooms and the flowing spaces of

his theatre lobbies explore inside-outside differences: at the Villa Mairea, wrote Giedion, 'the forest seems to enter the house and find its concomitant echo in the slender wooden poles employed there.'[29]

In the Fredensborg housing, Utzon designed the courtyard walls from inside out and outside in: he carefully considered the stepped wall openings, working with landscape architect Jørn Palle Schmidt. Levels and plantings were designed from inside each house and courtyard for orientation, privacy, views, and sunlight; they were also designed by eye and measurement from outside, in terms of form, heights and the overall visual effect of the walls and buildings in the landscape.[30]

The windows, terraces and courtyard spaces of Utzon's Majorca houses constitute a suite of indoor-outdoor questions. The Can Feliz house (1992) particularly seems like an 'experimental house' for investigating walls and windows and outdoor spatiality, even questioning by experiment the very ontology of 'house' or 'room' or 'window'. Utzon assembles rooms on two or three sides of an open courtyard of numerous layers and levels, stepped from far inside to far outside, both across and down the hill slope. He tests the nature of outdoor courtyard rooms, of indoor rooms in the landscape, of bringing sun into rooms, of shading open outdoor spaces and covered porticoes. He creates deep window zones of frames and columns; he refines window spaces, glazing and reveals, to see how they contain and reflect light, through days and seasons, to manage glare and to make comfort for eyes and body – using masonry, glass and space.[31] The switching of indoors to outdoors seems to enact a form of 'Mediterranean dreaming', relating to Utzon's ideals of bodily delight in sun, shade and water rather than pursuit of pure architectural ideas.

Yet the intense thought – and the sheer amount of space and building materials – invested by Utzon in the Can Feliz windows (as he had done earlier at his Can Lis house), and the evident respect for, and learning from, the 'window thinking' of Sigurd Lewerentz and Louis Kahn,[32] indicates that the skins of walls and the spaces of windows was an area of fascination for Utzon. Windows and walls also provided a rich space for Venturi to 'learn from Aalto'.

Learning From Aalto: Venturi

Venturi locates Aalto among the historical masters of complex architecture:

> The desire for a complex architecture . . . is also a continuous strain seen in such diverse architects as Michelangelo, Palladio, Borromini, Vanbrugh, Hawksmoor, Soane, Ledoux, Butterfield, some architects of the Shingle Style, Furness, Sullivan, Lutyens, and recently, Le Corbusier, Aalto, Kahn and others.[33]

Such historical contextualizing in a list of a practitioner's 'likes', particularly of figures like Furness and Lutyens, was unusual in 1966.[34] Venturi acknowledged Aalto's legacy in 1976: 'Alvar Aalto's work has meant the most to me of all the work of the Modern masters. It is for me the most moving, the most relevant, the richest source to learn from in terms of its art and technique.'[35] In *Complexity and Contradiction* Venturi mentions Aalto on twelve occasions, and includes ten illustrations of Aalto's work. He admired Aalto for avoiding simplicity and serenity: 'Aalto's architecture acknowledges the difficult and subtle conditions of program, while "serene" architecture, on the other hand, works simplifications.'[36] Against Giedion's categorization of Aalto as 'irrational',[37] Venturi preferred to consider Aalto's work 'as contradictory rather than irrational—an artful recognition of the circumstantial and the contextual.'[38]

Venturi was also interested in the idea that the inside of a building could be different to the outside. Venturi admired its Mannerist beginnings; he discerned its rare Modernist instances (Wright, Johnson, and Aalto); and he saw it as a counter-strategy to the Modernist orthodoxy of 'flowing space', one which implied a new valuation of the wall and its possibilities for enclosing space. Venturi drew diagrams of contradictory plans and façade strategies in *Complexity and Contradiction*.[39] Venturi particularly liked Aalto's detachment of the inner and outer windows, and the different 'skins' of the wall at the Vuoksenniska Church: this was a familiar Baroque device, yet one 'unique in recent architecture.'[40] Venturi defended Aalto's expressionism at Imatra against charges of 'willful picturesqueness':

> I do not consider Aalto's Imatra church picturesque. By repeating in the massing the genuine complexity of the triple-divided plan and the acoustical ceiling pattern, this church represents a justifiable expressionism . . . Aalto's complexity is part of the program and structure of the whole rather than a device justified only by the desire for expression.[41]

Referring to the plan, Venturi notes, 'Contradiction between the inside and the outside may manifest itself in an unattached lining which produces an additional space between

the lining and the exterior wall.'[42] He also notes how in section the shed-like mono-pitch roof of Aalto's Maison Carré 'contradicted' the complex planning, curved ceilings, various floor levels and subtle connections with outdoor spaces.[43]

In Utzon's Sydney Opera House the great shells, radiant and outwardly focused, were different from the interiors. The two exceptional entities were separated by a vast volume of sectional poché, as in the Maison Carré; Weston illustrates this separateness using an image of the walnut shell and kernel: a natural simile of a durable exterior protecting fragile contents.[44] The Sydney shells, Utzon's 'fifth façade', also suggest the question of exterior perception and silhouette.

Silhouettes, Roofs And Walls

In a sustained formal exegesis, Andres Duany identifies in Aalto's buildings a set of 'consistently rational principles underlying their apparently idiosyncratic formal and organizational structures'.[45] One of these 'rational principles' is silhouette, the outline of the building against the sky. There seems to be a common interest in aspects of silhouette in both Utzon and Venturi; this interest can be traced to Aalto.

Figure 1. Alvar Aalto, Säynätsalo Town Hall, Finland.
Changing silhouette of the Council Chamber.
(Photograph J. Roberts 2011)

Duany notes the architectural importance of the perception of Aalto's buildings from pedestrian vantage points (based on the human cone of vision) and especially the associated control of silhouette.[46] Aalto's silhouettes are manipulations of roof edges, parapet walls, or the outlines of massive elemental forms. They result from close attention to the building's perceptual potential, related to situation and to (otherwise unperceivable) plans and sections.[47] Aalto had little interest in roofs: they seem to have been shelter elements with minimum expressive value; the overall profile of the building mattered as a perceived entity from all angles and distances, and was largely a consequence of building mass defined by walls.

Aalto's building silhouettes also have considerable metaphoric power when experienced: Seinäjoki Town Hall rises like an artificial mountain off a flat site; Finlandia's forms ride their level base like icebergs; the Otaniemi theatre, its summit constantly visible to a pedestrian, is like a pyramid or a sacred mountain, a chiselled brick pharos for navigating the university campus. The silhouette of the Säynätsalo Town Hall (Fig. 1), observed by an interested visitor, constantly changes as one approaches, enters, walks around, and looks up or looks out.

In Utzon's work the value of silhouette manifests dramatically in the Sydney Opera House's tiled roofs, and in other unbuilt projects. The cloud-like roof was central to Utzon's conception of architecture: he saw 'magic in the play between roof and platform.'[48] Yet at Bagsvaerd, in his courtyard housing at Kingo, and at Can Feliz on Majorca, Utzon's principal silhouettes are made by tile-topped stepped walls and chimneys: roofs are straightforward mono-pitch elements, fitted between the parallel lines of rectilinear parapet walls, and below the primary silhouette line – a lesson taken from Danish church architecture, and from Chinese houses and monasteries.[49] The freestanding brick wall protected and visually finished with pantiles is also found in the 'ruined' courtyard walls of Aalto's Muuratsalo house; and in whitewashed eighteenth century Danish buildings directly adjacent to the Utzon Center in Aalborg.

In the essay 'Two Naifs in Japan', the Venturis depict Japanese architecture as 'elemental shelter' with 'roof as umbrella', and 'walls as furniture'. They see roofs on garden walls, gates as roofed shelters,[50] and 'the ubiquity of decorative and symbolic roofs in the sacred precincts'.[51] And while Venturi also sees the house itself as 'elemental shelter', the roof, as with Aalto, is often not celebrated; rather, it is flat or hidden behind parapet walls or façades. Exceptionally, as in the Trubek and Wislocki houses, or the Coxe and Hayden house and studio, pitched roof forms are borrowed from local vernacular or Shingle Style precedents.[52] The Vanna Venturi house's functional roofs slope, like Utzon's monopitch roofs, below the principle silhouette line of parapet walls: the windows, entries, mouldings and decorations are applied, incised or excavated on the external walls, while the roofs unobtrusively provide shelter.

Venturi's architecture may be said to be typically an architecture interested less in roofs than in walls: walls support decoration and contain doors and windows; walls inflect; walls carry messages. While roofs (barns, Shingle Style, Ise shrine) may convey ideas of 'elemental shelter', in Venturi and Scott Brown's thinking it is walls (Porta Pia, Laurentian Library, highway billboards, Times Square) that rise, loom and communicate – literally

'vulgarly', to the crowd – whether layered Mannerist ornament in Rome, or electronic signage in Tokyo. Venturi's later work, since Gordon Wu Hall, has particularly looked to variations on the idea of the 'generic loft', a type which is adaptable, expressive, tectonically uncomplicated, decorated on its exterior surfaces, and able to be modulated.[53] Traceable to Aalto, a common interest in silhouette and walls in both Utzon and Venturi serves to both differentiate and find common ground between the two architects.

Common Ground: Japan

Venturi's writing uses dialectical terms opposite to Utzon's 'clarity': Venturi likes 'elements which are hybrid rather than pure . . . distorted rather than straightforward . . . redundant rather than simple . . . inconsistent and equivocal rather than direct and clear.'[54] And yet when Venturi writes, 'I am for richness of meaning rather than clarity of meaning', the same sense can be detected in Utzon. Some of Aalto's most renowned work – Villa Mairea, Säynätsalo – is admired for its richness and layers of meaning more than its 'clarity'.[55] When Venturi claims 'I prefer "both-and" to "either-or"', Utzon might recall the dualities of Aalto's Muuratsalo house, and his own courtyard houses: simultaneously enclosed and open, ancient and modern, rural and urban, architecture-in landscape and landscape-in-architecture.[56]

It is interesting to consider Japan, a topic common to Aalto, Venturi and Utzon. Through the work of Bruno Taut and Frank Lloyd Wright, Japanese architecture played a formative role in Modernist architectural aesthetics.[57] Aalto appears to have 'learned from Japan', largely from books; Japan infiltrates the Villa Mairea (1937-39) through Aalto's borrowings: paving and column bases at the entry porch; details of the garden room; and the sauna as a meticulous tea-house.[58]

In 'Platforms and Plateaus' Utzon contrasted the 'firmness and security' of the massive platforms of Chinese houses and temples with the 'delicate bridge-like platform' of the floor of the traditional Japanese house.[59] Utzon's interest in Japan was early and fundamental: he admired the structure and construction of the Zui Ki Tei tea-house, built in Copenhagen in 1938; Katsura Palace exemplified 'refined post-and-beam' construction and the 'flow of space'.[60] Japanese ideals helped Danish architects recognize and assimilate their own traditions; Utzon particularly admired methods of standardization and repetition-with-variation found in traditional Japanese and Chinese building.[61] Utzon also noticed other contrasts in the Japanese house: 'An almost violent, but highly effective and

wonderful contrast to this calm, linear, natural coloured architecture is created by the Japanese women moving noiselessly around like exotic butterflies in their gaily coloured silk kimonos.'[62]

Venturi saw in Katsura not so much space and clarity, but ambiguity and double-functioning.[63] Kyoto's Zen gardens 'symbolize natural landscape through diminution and stylisation.'[64] In the 1990s, after visiting Japan, the Venturis responded to the exuberance of everyday popular culture, recognizing the 'urban mannerism' of Tokyo as 'even more horrible – I mean wonderful – than America's commercial manifestations.'[65] They liked its 'mannerist architecture of communication', both the 'Shinto minimalism' of temples and landscapes, and its 'Buddhist complexity'; they grasped the 'valid chaos' of Tokyo, 'a city of *now*': a Venturi graphic envisions Tokyo as a city of villages, 'as patterned kimonos with a "hidden order."'[66]

Conclusions

It could be said, as a reflective and mildly 'fabulatory' conclusion, that Alvar Aalto's work represented for Utzon and Venturi ideals achieved. 'Alvar Aalto' was a place where dreams different to the dissatisfactions of international Modernism had actually been realized: lessons (like those of Japan) could be learned, newer ideals could be formed. In that world, kimonos are glimpsed; roofs and silhouettes appear and vanish; inside becomes outside; outdoor terraces and courtyards become rooms; walls open, becoming windows and doors. These ideas had been built and could be re-thought and re-built.

Through his book, Venturi brought (back) into architecture lost resources (Lutyens, Hawksmoor, Vanbrugh, Soane) which, until he presented them to his Modern readers, had no part in the 'Modern' world. And – as a further speculation – had Utzon written a similar kind of book in 1966, his text on architectural 'clarity and harmony' might have included Chinese temples, pagodas and monasteries; Asplund's sky ceilings; the platforms of Elsinore and Yucatan; Sydney sandstone and Hawaiian clouds; and images of Chartres and flight-feathers.

At the heart of Alvar Aalto's speculations was the 'little man in the street', his idealized and actual client. Throughout his career Aalto held genuine respect and affection for the 'little man', and comprehended the difficulties of modern life:

> On a higher level scepticism is transformed into its apparent opposite, to love with a critical sensibility . . . it can result in such a love for the little man

> that it functions as a kind of guardian when our era's mechanized lifestyle threatens to strangle the individual and the organically harmonious life.[67]

Aalto comprehended the 'guardian' task of the architect. As he said, like a veteran traveller, 'Architecture must be deeply rooted in place and circumstance; it requires a delicate sense of form; it must support human emotions.'[68] Both Utzon and Venturi also understood the need to think of the everyday human, how emotions are connected with places, and how architectural form, carefully deployed, can look after people.

In challenging Moneo's myth-making, this investigation, itself a fabulation, may have achieved neither a 'clearer' narrative, nor the more interesting, 'ambiguous' narrative that had been hoped for. It has not ventured into other shared fascinations for Aalto and Venturi: the work and ideas of of Wright, Kahn and Le Corbusier. Yet it has managed to bring together Utzon and Venturi in one approximate overview, to begin considering their supposed differences and to chart common ground. Further fabulations, perhaps using different and involved discourses of history, theory and even landscape, may yet be required to tell this story more completely, perhaps more originally and radically.

Endnotes

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[2] Rafael Moneo, *Theoretical Anxiety and Design Strategies in the Work of Eight Contemporary Architects* (Cambridge, Mass., London, England: The MIT Press, 2004), 56.
[3] Brit Andresen, 'Alvar Aalto and Jørn Utzon: An Architecture of Ancient Gathering Forms', in Michael Mullins and Adrian Carter, eds., *Proceedings of the First Utzon Symposium: Nature Vision and Place* (Aalborg, Denmark: Institute of Architecture and Design, University of Aalborg, 2003).
[4] Eeva-Liisa Pelkonen, *Alvar Aalto: Architecture, Modernity, and Geopolitics* (New Haven and London: Yale University Press, 2009), 39.
[5] Robert Venturi, *Complexity and Contradiction in Architecture* (New York: The Museum of Modern Art, 1977/1966), 16.
[6] Demetri Porphyrios, *Sources of Modern Eclecticism: Studies on Alvar Aalto* (London: Academy Editions, 1982); introduction to Aalto's 'heterotopic' design strategies, 1-4.
[7] Jørn Utzon, 'The Innermost Being of Architecture' (1948), in Richard Weston, *Utzon: Inspiration Vision Architecture* (Hellerup, DK: Editions Blondal, 2002), 10-11.
[8] Jørn Utzon, 'Tendenser i nutidens arkitektur', *Arkitekten* [DK], 7-8-9, 1947.
[9] Marc Treib, 'Aalto's Nature', in Peter Reed, (ed.), *Alvar Aalto: between humanism and materialism* (New York: The Museum of Modern Art, 1998), 64; Treib regards Aalto's entire body of work as 'the making of a sublime forest, constructed for the "little man," denying any grand formal scheme in deference to accommodating human activity and the nature of the site.'
[10] Venturi, *Complexity and Contradiction*; Robert Venturi, Denise Scott Brown, Steven Izenour, *Learning from Las Vegas* (Cambridge, Mass.: MIT Press, 1977/1972).
[11] See Charles Jencks, *The Language of Post-modern Architecture* (London: Academy Editions, 1978).

[12] Robert Venturi, *Architecture as Signs and Systems for a Mannerist Time* (Cambridge, Mass.; London, England: Belknap Press of Harvard University Press, 2004), 1, 219.
[13] Robert Venturi, 'Nonstraightforward Architecture: A Gentle Manifesto', in Venturi, *Complexity and Contradiction*, 16.
[14] Alvar Aalto, 'The Architect's Conception of Paradise' (1957), in Göran Schildt, (ed.), *Alvar Aalto: Sketches*, Stuart Wrede, trans. (Cambridge, Mass., and London: MIT Press, 1978),157-59.
[15] Robert Venturi, 'Sweet and Sour: As a Comparative Method of Analysis and a Way of Design That Accommodates Mannerist Duality; An Argument for a Generic Architecture Defined by Iconography and Electronics' (1994), in *Iconography and Electronics upon a Generic Architecture: A View from the Drafting Room* (Cambridge, Mass.: MIT Press, 1996), 3.
[16] Jørn Utzon, 'Dear Aarhus Eleven' (1988), in Weston, *Utzon*, 410.
[17] Venturi, *Complexity and Contradiction*, 70-74.
[18] Göran Schildt, *Alvar Aalto: The Early Years* (New York: Rizzoli, 1984), 200.
[19] Mogens Prip-Buus, Introduction, Jørn Utzon, *The Courtyard Houses: Jørn Utzon Logbook Vol. I*, (ed.) Mogens Prip-Buus (Hellerup, DK: Edition Bløndal, 2004), 9.
[20] Weston, *Utzon*, p26-28.
[21] Jørn Utzon and Henrik Sten Møller, 'Conversations', in Henrik Sten Møller & Vibe Udsen, *Jørn Utzon Houses* (Copenhagen: Living Architecture Publishing, nd), 25.
[22] See Utzon, *Logbook Vol. I*, *The Courtyard Houses*.
[23] Weston, *Utzon*, 26-28.
[24] Alvar Aalto, 'The Stockholm Exhibition 1930', in Göran Schildt, (ed.), *Alvar Aalto in his own words*, Timothy Binham, trans. (Helsinki: Ottava, 1997), 72.
[25] Weston, *Utzon*, 16.
[26] Weston, *Utzon*, 64; article in *Byggekunst*, 1948.
[27] Jørn Utzon and Henrik Sten Møller, 'Conversations', in Henrik Sten Møller & Vibe Udsen, *Jørn Utzon Houses* (Copenhagen: Living Architecture Publishing, nd), 25.
[28] Alvar Aalto, 'From doorstep to living room' (1926), in Schildt, (ed.), *Alvar Aalto in his own words*, 52.
[29] Sigfried Giedion, *Space, Time and Architecture: The growth of a new tradition*, 5th edn (Cambridge, Mass.: Harvard University Press, 1967/1941), 646.
[30] Weston, *Utzon*, 107.
[31] Tobias Faber, 'Two Houses on a Mediterranean Island', in Jørn Utzon, *Utzon's Own Houses*, (ed.) Martin Keiding (Copenhagen: The Danish Architectural Press, 2004), 86-91.
[32] John Pardey, 'Windowless Windows', in Jørn Utzon, *Two Houses on Majorca: Jørn Utzon Logbook Vol. III*, (ed.) John Pardey (Hellerup, DK: Edition Bløndal, 2004), 62-63.
[33] Venturi, *Complexity and Contradiction* 19.
[34] See Vincent Scully, Introduction, Venturi, *Complexity and Contradiction*, 9-11.
[35] Robert Venturi, 'Learning from Aalto', in *Iconography and Electronics*, 77. Originally published as 'Alvar Aalto', *Arkkitehti*, July-August 1976, 66-67.
[36] Venturi, *Complexity and Contradiction*, 102.
[37] Giedion, *Space, Time and Architecture*, 414.
[38] Venturi, *Complexity and Contradiction*, 44.
[39] See plan diagrams in Venturi, *Complexity and Contradiction*, 74; see façade diagrams, 85.
[40] Richard Weston, *Alvar Aalto* (London: Phaidon, 1996), 206.
[41] Venturi, *Complexity and Contradiction*, 18-19.
[42] See plan diagrams in Venturi, *Complexity and Contradiction*, 74; see façade diagrams, 85.
[43] Venturi, *Complexity and Contradiction*, 72-73.
[44] Weston, *Utzon*,, 164-71.
[45] Andres Duany, 'Principles in the architecture of Alvar Aalto', *Harvard Architecture Review* 5 (New York: Rizzoli, 1986), 105-119. Duany identifies three sets of principles: 1. A dialectical design process creating complex, dualistic, comprehensive solutions; 2. Strong consideration of the perception of buildings from pedestrian vantage points, and an associated control of silhouette; 3. Allusions and quotations from classical Greek architectural principles and paradigms, in order to 'enhance the visual character of a place and thereby inscribe it in the memory.' (105.)
[46] Duany, 'Principles in the architecture of Alvar Aalto', 115.
[47] Duany, 'Principles in the architecture of Alvar Aalto', 111.
[48] Jørn Utzon, 'Platforms and Plateaus: Ideas of a Danish Architect.' *Zodiac* ,10, 1962, 116.

[49] See Johannes Prip-Møller, *Chinese Buddhist Monasteries: Their Plan and its Function as a Setting for Buddhist Monastic Life* (Hong Kong: Hong Kong University Press, 1982 [Copenhagen, 1937]). Noted in Weston, *Utzon*, 294.
[50] Robert Venturi and Denise Scott Brown, 'Two Naifs in Japan', in Robert Venturi, *Iconography and Electronics upon a Generic Architecture: A View from the Drafting Room* (Cambridge, Mass.: MIT Press, 1996), 109-118.
[51] Stanislaus von Moos, 'The City as Kimono', in *Venturi Scott Brown & Associates: Buildings and Projects, 1986-1998* (New York: Monacelli Press, 1999), 57-63.
[52] David B. Brownlee, 'Form and Content', in David B. Brownlee, David G. De Long, and Kathryn B. Hiesinger, *Out of the Ordinary: Robert Venturi Denise Scott Brown and Associates* (Philadelphia: Philadelphia Museum of Art, 2001), 52-55; also 64-66.
[53] David G. De Long, 'Seeking a Rational Mannerism', in Brownlee, De Long and Hiesinger, *Out of the Ordinary*, 97-98.
[54] Robert Venturi, 'Nonstraightforward Architecture: A Gentle Manifesto', in Venturi, *Complexity and Contradiction*, 16.
[55] Juhani Pallasmaa, 'Alvar Aalto: image and form: the Villa Mairea as a Cubist collage', *Studio international*, Nov, 1987, v.200, no.1018, 42-47. Richard Weston, 'Sense of Place', in *Alvar Aalto*, 122-45; Weston investigates the layered meanings of the Säynätsalo Town Hall; photographs illustrate silhouette.
[56] Utzon, *Logbook Vol. I*, *The Courtyard Houses*.
[57] William J.R. Curtis, *Modern Architecture since 1900*, 3rd (ed.) (London: Phaidon, 1996), 385.
[58] Richard Weston, *Alvar Aalto: Villa Mairea, Noormarkku 1937-39* (London: Phaidon, 1992).
[59] Utzon, 'Platforms and Plateaus', 116.
[60] Weston, *Utzon* 20.
[61] Weston, *Utzon* 56-58, 252-53. See also Tetsuya Yoshida, *The Japanese House and Garden* (London: The Architectural Press, 1955), 9-10.
[62] Utzon, 'Platforms and Plateaus', 116.
[63] Venturi, *Complexity and Contradiction*, 34-35.
[64] Venturi, *Architecture as Signs and Systems*, 25.
[65] Venturi, *Architecture as Signs and Systems*, 94.
[66] Venturi, *Architecture as Signs and Systems*, 93.
[67] Alvar Aalto, 'Speech for the centenary of the Jyväskylä Lyceum', in *Alvar Aalto Sketches*, 163.
[68] Alvar Aalto, 'In Memoriam: Eliel Saarinen', in Schildt, *Alvar Aalto in his own words*, 246.

Fabulating Landscape: Utzon and McCahon

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Abstract

Jørn Utzon's 1962 article 'Platforms and Plateaus' includes sketches of flattened yet leavened landscapes: flat-topped mountains and built platforms from ancient Mexico, rising skyward. The landscape idea of a plateau, transposed into the architectural idea of a built platform – in Utzon's words, a 'deep idea', of 'great strength' – embeds landscape concepts in Utzon's architectural thinking.

Utzon's platforms have echoes and resonances in the work of New Zealand painter Colin McCahon, where hills and mountains rise against dark or bright sky spaces, making grounds for words, numbers, verse and biblical texts. Contrasting valencies of light and earth endow McCahon's works with physical presence and spiritual resonances.

Norberg-Schulz, in Genius Loci, *suggested the cosmic capacity of landscapes as metaphors of spatial archetypes: a sky-oriented landform represents Apollonian intellect and clarity, while low, concave landscapes manifest chthonic forces. These ancient tropes invest natural landscapes with mythic cultural presence.*

It is possible to see common mythopoetic themes, related to communicating human presence on the earth, in the work of Utzon and McCahon. Their work arguably achieves significance in accommodating or depicting human drama against elemental spatialities of landforms, horizons and sky, and through poetic materials of light and dark.

In this paper, mythic potentialities of landscape in art and architecture are explored through selected works and images by Utzon and McCahon. Themes of light, darkness and earth in Utzon's work are considered together

with McCahon's syntheses of landscape, light and words. This paper exploits the renown of two major antipodean creative figures to consider landscape and myth-making in art and architecture.

An imaginary dialogue: a quotation from Borges

> Two Greeks converse: perhaps Socrates and Parmenides.
> It is best if we never know their names; in that way, the story will be simpler and more mysterious.
> The theme of the dialogue is abstract. They sometimes allude to myths, in which they both disbelieve. The reasons they allege may abound in fallacies and they do not come to a conclusion.
> They do not polemicize. And they do not want to persuade or be persuaded: they do not think in terms of winning or losing.
> They are in agreement on a single point: they know that discussion is the not-impossible way to find a truth.
> Free of myth and metaphor, they think or attempt to think.
> We shall never know their names.
> This conversation between two unknowns someplace in Greece is the capital event in History.
> They have forgotten prayer and magic.
>
> - Jorge Luis Borges, 'The Beginning'.[1]

Beginnings: an architect and a painter

This paper brings together strands of thought on two major figures of late modern culture in Australia and New Zealand, to consider the role of landscape in cultural myth-making. Danish architect Jørn Utzon – whose Sydney Opera House 'has become the symbol of a city and . . . of an entire country'[2] – and Colin McCahon – 'New Zealand's foremost painter . . . a distinctive figure in twentieth-century art',[3] also 'New Zealand's first and greatest modernist'[4] – are highly regarded in their respective fields. Utzon and McCahon do not seem to have met or conversed, or to have acknowledged each other's work; little critical writing seems to have conjoined the two figures.[5] The method of this paper involves a sustained process of looking at images of buildings and artworks to find correspondences between images, by which to construct a minor historical 'fabulation' connecting art and architecture, via a nexus of landscape. The paper is also part of a larger sequence of work by the author, attempting to find or negotiate a space of thinking and research work 'in-between' architecture and landscape; this paper uses McCahon's

paintings and drawings as a body of thought and work which concerns landscape, amongst other topics, in the life and work of a 'great' artist from New Zealand, whose work ought to be familiar (and also more familiar) to architects and architectural historians from Australia and New Zealand, as well as the rest of the world.

As in Borges' tale of the two philosophers who 'think or attempt to think', this paper does 'allude to myths'. Myths – exaggerated or idealised conceptions of persons – surround Utzon and McCahon, in the presencing of their buildings and paintings; their major works are physically big, occupying space in a city, a suburb, a gallery or a museum; the works are made and placed on a monumental scale, and they deal with themes of light and dark, earth and sky, humankind and nature, in a serious and uncompromising manner. Their work also involves landscape – ideas and images of the earth as a base and a physical mass, and as a setting for human existence – as a resource for their philosophies and made work.

The ideas of Utzon and McCahon are manifest in physically large works and projects that are often elemental, sparse, laconic, yet complex and enduring. Their work, through different kinds of professional difficulties, has become heroically mythologised: Utzon and McCahon have each been raised to a 'mythic', even tragic, level as artists and cultural figures. This paper observes and investigates a number of similarities in the work of two leading cultural characters, particularly their approaches to landscape as a source and a theme for their work.

Majorca and myth

It is fitting to research mythopoetics, of the making and use of storytelling to explain and understand something of human existence, by reading the fictions of the Argentinian fabulist Jorge Luis Borges.[6] His *Atlas* (1985) is a non-fiction travel diary of brief *contes*, fables, reflections and photographs: a picture book by a blind man. Borges sets two accounts in *Atlas* on the Mediterranean island of Majorca, home to Jørn Utzon since the late 1960s. In 'Robert Graves at Deyá', Borges visits poet and mythologist Robert Graves (1895-1985), old and dying in his house on Majorca in 1981; Borges borrows an idea from a Graves poem in a tale about Alexander the Great as a nameless mercenary who recognises his own profile on a silver coin, made 'when I was Alexander of Macedon.'[7] Borges ends by saluting Graves: 'This fable deserves to be very ancient.' Before the reader's eyes, Borges has conjured a mythic story, a fable of identity and time, from the materials of an unnamed poem.

Robert Graves lived at Deyá on northern Majorca from 1948. Jørn Utzon (1918-2008) lived near Porto Petro on south-eastern Majorca, in two houses, 'Can Lis' (from 1971) and 'Can Feliz' (from 1992). Illustrating Borges' story, an uncaptioned photograph shows a woman washing clothes in a deeply shaded laundry, under a roof built in the trabeated Majorcan mode, of stone columns, perforated beams and rafters, and arched terra-cotta tiles.[8] Utzon's houses are built in the same local idiom as the veranda in the Borges photograph; architect John Pardey celebrates Utzon's resurrection of the local vernacular of 'blocks, beams and *bovedillas* [arched clay tiles]'.[9] Describing the quarrying of the soft sandstone, Pardey tends to mythologise Utzon, who chuckles, 'perhaps this is how they built the Pyramids.'[10] Pardey sees Utzon's new ceiling vaults of *bovedillas* as 'appropriate to an architect who so frequently sees the roof as a cloud floating above space – from the rolling clouds of Bagsvaerd Church to the vaults in Sydney'.[11] The stone columns at Can Lis are described in terms of ruins, while at Can Feliz, the structure 'resembles a Greek temple.'[12]

Other historians seem to enjoy similarly grand speculation on Utzon and his work: Françoise Fromonot forms eloquent myths around the Can Lis masonry, which 'reveals mysterious *pentimenti* . . . such messages as those found in Egyptian temples and speculated on by archaeologists.'[13] The 'archaic gravity' of the stone house attracts mythic epithets: 'Perched above the Mediterranean, Can Lis is a refuge for a returning Odysseus.'[14] Utzon and his commentators, like Borges, can transform beautiful, everyday local items into things of monumental and mythic scale.

Myth and Place?

This argument is framed against some ideas of myth and place. Myth and myth-making are not presented here as false or misleading modes; nor are myths to be 'debunked'. Anthropologist Thomas Hylland Eriksen proposes that myths are societies' stories of origins, of ideology, of 'the social production of distinctions and classification – differences that make a difference.'[15] Myths are valuable in identifying and distinguishing between things of importance: life and death, good and evil, beginnings, dark and light, humankind and nature.

In his essay 'Place and the Problem of Landscape', Jeff Malpas cites Cézanne: 'within us they have not gone to sleep . . . the old memories of our youth, of these horizons, of these landscapes, of these unbelievable lines which leave in us so many deep impressions.'[16] Landscape seen thus, by an artist, is a matter of personal engagement, of experience, of memories and self. Yet landscape can be conflated with ideas of place, in

Malpas' sense, derived from 'experience of landscape', which is 'as much of wind and sun, hill and plain, sound and smell, as well as the movement and feel of a place, as of anything purely visual.'[17] It is interesting that Utzon – who experienced and had affinity for many landscapes in his life – did not discourse overtly on 'place', although he is nominated by Norberg-Schulz for creating 'unified settlements which possess figural character in relation to the landscape, and a strong sense of place as a meaningful, social "inside"'.[18] Place, writes Kate Nesbitt, offers a way 'to resist the relativism in modern theories of history through the engagement of the body and its verification of the particular qualities of a site.'[19] In what follows here, place is neither the topic, nor the discourse, of the discussion.

Myth is not a personal mode of utterance, an introverted expression of individual emotions. Myth is big, monumental and for others: its insights transcend self and are to be shared by telling. In myth, individual characters are archetypes, not real in an everyday sense. Jean-Paul Vernant traces the difference to Classical Greece: myth in Western civilization 'is defined in terms of what is not myth, being opposed to reality (myth is fiction) and, secondly, to what is rational (myth is absurd).'[20] The difference is between *mythos*, fantasy, and *logos*, rational argument. Mythic characters such as Achilles or Odysseus 'are presented as if historical, and so of intense human interest.'[21] In this sense, Utzon and McCahon can be understood as both 'mythic' and historical characters.

It is valuable to consider correspondences between works from different fields, dealing with similar topics or subjects. The works considered below contain images of sea and horizons, mountains and plateaus, presence and being, space and light, light and dark, and clouds. Utzon and McCahon, in the works selected, appear to embrace and exploit the mythic potentials of particular landscapes for their qualities as artistic subject matter, rather than thinking of 'place' or 'place-making' as an end in itself.

Landscape, platforms, drawings: a fine hand

Utzon's intention in using drawings such as those included here is not to analyse (site, brief, program) or to design or document, but to communicate visually, about the ideas behind or within the work of architecture as imagined or built. This is made apparent through comparison with McCahon's works: the rawness of the images of both, the sketchiness of the finished drawings and paintings – such qualities keep the image alive. The traces of the moving, mortal hand in pencil or crayon sketches – the rubbings, the adjustments, the rough lines – give a sense of conversation and negotiation, of testing

and finding the right word, and the continuing living presence of the artist. Paradoxically, the roughness of the work seems to confer a kind of immortality to it and its makers.

McCahon's drawings and paintings are based on New Zealand landscape. They also often contain or are even made of words, largely biblical and Maori references, or extracts from verse by New Zealand poets such as McCahon's friend John Caselberg.[22] Utzon's sketches and drawings are of his travels and imaginings around the world – Morocco, Mexico, Australia, Hawaii: the precise locality or 'place' is rarely an issue; Utzon often drew from memory rather than notebooks.

Utzon's 'manifesto' is an essay from 1962, 'Platforms and Plateaus: Ideas of a Danish Architect', where he announced the platform as a 'fascinating feature', and 'always with a deep idea behind. A great strength radiates from them.' The strength came in part from human recognition of 'this wonderful variation in feeling from the closeness in the jungle to the vast openness on the platform top.'[23] The platform idea literally underpins many Utzon projects.[24] Utzon drew very finely at the drafting board, and elsewhere more loosely and conceptually, with materials as they came to hand: pencil lead, chalk, crayon, ink, salt, a finger on a foggy window.[25] Utzon's sketches and photographs are loosely hand crafted though concentrated, contain ambiguity and potential, and often have 'a deep idea behind them'.[26] They are intended to communicate, to persuade.

Wystan Curnow commented on McCahon's handwriting style that he 'has not got "a fine hand". His is not the italic script of the architectural draughtsman.'[27] McCahon found a means to communicate that was unaffected yet monumental, full of words and other symbols, yet laconic: he did not use his own words, his work is not 'concrete poetry'. Summing up his artistic aim McCahon wrote, 'Most of my work has been aimed at relating man to man and man to his world, to the acceptance of the very beautiful and terrible mysteries that we are part of.'[28]

The following sections consider images by McCahon and Utzon, covering topics of sea and horizons; mountains; platforms and plateaux; presence and being; space, light and dark; and clouds.

Sea and horizons

In his fable 'The Temple of Poseidon', Borges ponders early Greek concepts of the sea and Poseidon:

> I suspect that there *was* no God of the Sea, nor a God of the Sun: both concepts are alien to the primitive mind. There was simply the sea, and there was Poseidon, who was also the sea. The theogonies and Homer came much later . . . Time and its wars have carried away the likeness of the God, but there is still the sea, his other effigy.[29]

It is useful to compare drawings by Utzon and McCahon sharing similar subject material. Utzon's sketch (1973-76) of the Bagsvaerd Church has two parts: the first shows people gathering in the open beneath a ceiling of cumulus clouds on a beach or headland; the sketch is said to be inspired by clouds over Hawaiian beaches.[30] In the second part people congregate between vestigial columns, under a ceiling of rolling curved forms. Above the horizon, at the end of perspectival vanishing lines, a bright crucifix is suspended, shining before the worshippers. The primordial nature of Utzon's drawing has been linked to architecture's founding myths, Laugier's 'primitive hut' and Semper's 'Four Elements of Architecture'.[31]

McCahon made various drawings and paintings which included crosses.[32] McCahon's *Untitled (Jet Plane to Reinga and Three Kings)*, 1973, concerns the spirits of the dead returning to Hawaiki – over water, across spaces, times, races, religions.[33] The black cross becomes a 'jet plane' on its way off the end of the North Island towards the Three Kings Islands. The dark land, the ruffled horizon, the bright sky in both Utzon's and McCahon's drawings are similar supports for human gathering or departure, platforms for mythic drama: the small, dense hand drawings, little more than carbon smudges on paper, carry compressed significances of faith and landscape.

Mountains, platforms and plateaux

In mountainous country on New Zealand's North Island, Colin McCahon's *Urewera Mural* was commissioned to hang in a special gallery in the Urewera National Park Headquarters (1974–76), designed by Maori architect John Scott (1924-1992).[34] The painting was stolen in 1997 and later returned.[35] In the gallery the painting originally faced a flag and other objects of the Maori prophet Rue Kenana, who claimed 'strange and mystic origins . . . he was brother to Christ and son of the still feared visionary and guerrilla leader Te Kooti Rikirangi.'[36]

The mural, a large dark triptych on unframed canvas, can be seen as a metonym of social and historical contestations between Pakeha and Maori; its contents include

mountains, words, symbols, and a cross/tree. McCahon's mountains, looming in shades of black, dark grey and dark green, rise to form natural platforms under a dark sky; mist swirls, and words about people and land are visually incantated in the picture: it is not warm or chatty in character: its laconic darkness emanates sacredness and respect.[37]

McCahon wrote of his *Necessary Protection* series

> They have to do with the days and nights in the wilderness and our constant need for help and protection. The symbols are very simple. The **I** of the sky, falling light and enlightened land, is also ONE. The **T** of the sky and light falling onto a dark landscape is also the **T** of the Tau or Old Testament or Egyptian cross.[38]

McCahon's phrase 'necessary protection' seems appropriate for architecture – religious, domestic, or even monumental – in its role of sheltering people from physical and spiritual harm. His physical T, an object dominating the picture field, shelters and brings sky and light 'onto a dark landscape': the words and things in the picture are elemental and archaic; the painting has considerable cultural value and significances. The work could be seen as a local emblem of 'place', but raised to the degree of myth.

Amongst Utzon's best-known sketch drawings are those of Mexican platforms, accompanying his 'Platforms and Plateaus' article in 1962. The landscape sections, in crayon or pencil, of Monte Alban in Oaxaca, and Chichen Itza in Yucatan, show two different artificial platforms – the first, a mountain with its top flattened, sculpted and built on for ceremonial purposes; the second, a platform raised above rainforest: 'They had from here the sky, the clouds and the breeze, and suddenly the jungle roof had been converted into a great open plain.'[39] Associations with artificial or natural mountains, given the advantages of elevation, outlook, mass, and topography, seem congruent with mythic, religious and social authority. Such works of art and architecture engage with materials of elemental significance, of sacredness and authority, of human myth and history; the images underpin understanding of human presence on earth.

Presence and being; space and light

McCahon's *Victory Over Death 2*, 1970 is an architectural-scale artwork, approximately 2m by 6m. The letters suggest mountains, the 'I' resembling a Doric column, or a gate (after the 'I AM' in McCahon's earlier *Gate III*); a dark echo of the words appears in the

left section. The painting 'is one of the treasures of the National Gallery of Australia's collection.'[40]

The elemental presence of *Victory Over Death 2* has a curious parallel with Utzon's own photograph of the colonnaded patio of his Can Lis house.[41] The sun shines from above a cloud onto the Mediterranean. Light pours through the columns and onto the two levels of the stone terrace. The columns support the concrete frame like the verticals in McCahon's painting, standing light against dark land; the rippled surface of the sea beyond its resembles the ripples of McCahon's cursive freehand. Weston calls Can Lis 'one of the finest houses of the twentieth century', representing a Modernism which 'sought to renew a declining Western civilization through recourse to the primordial.'[42]

Looking at both images, of a painting and a building mythologised by experts, a viewer is struck by pure presences: dark, light, sky, horizon, a geometry of squares and angles in the photograph; in the painting, reduced colour, no 'subject', no perspective, no figures, no horizon, no mountains. The architect and the painter make elemental gestures of presence with 'primordial' elements: space and light, darkness and words, it appears, will have to suffice to revive a 'declining Western civilization'.

Light and dark and words

In a black and white publication from 1984, Utzon photographs the Can Lis living room and its now-famous beam of light: most of the room's detail, as in a charcoal sketch, is in darkness.[43] Utzon's camera discerns window voids, a beam of light, a figure, some objects and a bright floor, in the stone and dark; there is a binocular view of sea, horizon, sky. The Utzon family room is reduced to heroic essentials: a shaded refuge for viewing the Mediterranean.[44]

In McCahon's picture *Are there not twelve hours of daylight*, 1970, he paints darkness as matter, and light as its opposite, painting/writing words of light over the darkness; the words become the painting, its subject a biblical text about time and light, resurrection and doubt, paradox and belief.[45] The Auckland Gallery website clarifies and sets the work in context: 'In numerous works after this, McCahon's own paint-laden brush set down words as scripted light, as disputational voice, prophetic declamation, lament, song and haunted recitation.'[46] McCahon's 1984 Sydney Biennale exhibition and catalogue were fittingly titled 'I Will Need Words'.[47]

It is instructive to compare Utzon's photograph and McCahon's painting. There are similar overall proportions, and coincidences: a patch of bright light in the top right hand corner, a blaze of horizontal light from the right, forms and figures visible in the obscurity. In McCahon's work, the square of bright light is a picture of light, possibly divine light, given the religious nature of the quoted parable. In Utzon's photograph a moving finger of bright afternoon light enters the room, a moment which he describes: 'A narrow slot in the west wall invites the sun for a visit to the south wall for a few minutes every day, making you aware of the passing of time.'[48] The room – now oriented for the reader/viewer – becomes a meditation, a parable of time and being, light and materialised space: the gesture of the sun penetrating the dark and falling on the Majorcan stone. The moving finger of a greater force from the sky makes writing on the wall; the wall – like McCahon's unprimed, unframed canvases, a raw material surface – becomes the locus of inscription and revelation from an unseen source. And of course this strategy also recalls one of Louis Kahn's aphorisms on the significance for architecture of light: 'Architecture appears for the first time when the sunlight hits a wall. The sunlight did not know what it was before it hit a wall.'[49]

In McCahon's painting the strong word DAYLIGHT exclaims itself in capitals across the black field, above a fine margin of horizon: the upper part of the painting could be a cloud moving over dark land, with a 'sky dado' between the two entities.[50] The dark upper section of Utzon's picture, above the horizon, is devoted to the myth of light and dark, while the lower section shows quotidian wonders: the Mediterranean and family life. A silhouetted figure stands between the two zones, deployed to confer human scale and presence like Leonardo's or Le Corbusier's archetypal 'man'.[51] In both works, the dark, solid contents of the picture space are overseen and indeed interrupted by the light of a greater presence – real sunshine or real white paint – without which significance is reduced, or simply fails.

Utzon has also spoken metaphorically of the valued moments of his life resembling the few minutes when sunlight strokes the living room wall.[52] Light and life are connected by building, and by painting. The image and the painting are self-contained parables, each both personal and universal. Utzon has also told a parable of light about the Bagsvaerd Church: two ministers approach him at an exhibition of his work, offering a commission to build a church: 'There I stood and was offered the finest task an architect can have. A magnificent time when it was the light from above that showed us the way.'[53] Utzon's language of spiritual good fortune – 'the light . . . the way' – seems to have migrated directly from a McCahon painting.

Utzon has even used words explicitly; he produced a number of 'calligraphic sections', where the finely drawn rectilinear outlines of a shed-like building are countered by supple lines inside the box of the building, resembling calligraphy: a theoretical 1947 project for a printing factory in Morocco; and the ceiling section of the Melli Bank, Teheran (1959-60).[54] At Bagsvaerd, Utzon made a drawing where he inscribed Arabic script within the boxy silhouette of the church:[55] the cloud-like script at both Teheran and Bagsvaerd links ceiling construction and interior spatiality with clouds, light and words; the different settings (bank, church) for this grand compound play of ideas provokes further questions of intentionality and universal symbolism, which may be considered in future research.

Clouds: mythic images

Clouds have been a part of twentieth-century architects' visions: Le Corbusier used clouds in his Maison du Brésil lobby; a film still shows a 'stairway to heaven' at the Garches villa.[56] Alvar Aalto used clouds as a central metaphor for ceiling forms at Seinäjoki Municipal Library.[57] Utzon's sketches for Bagsvaerd use clouds as metaphors: he built the ceilings as concrete clouds, massive and powerful, yet floating, high in white light, and low overhead, in shade.[58] Appleton, via his prospect-refuge theory, saw a cloud as a protective landscape element symbolic of refuge

> When we talk of a 'refuge' we may mean, on the one hand, a hiding-place screening us from a hostile observer, or a cottage sheltering us from the real adversities of the weather, or, on the other, a sense of being enclosed, overshadowed, protected by some ineffective barrier, such as a cloud, against an unidentified and perhaps wholly imaginary source of danger.[59]

Norberg-Schulz describes 'enormous clouds, fairly dark below and with radiant vaults above' in the Danish landscape; and in Scandinavia generally: 'the sky is rarely a high, light-filled space. It is in fact "low", and seems to descend, while the light tells us that "something else" is hidden behind the enormous, undulating banks of clouds.[60] Curtis refers to Utzon's cloud sketches (for the Sydney Opera House) as like 'a Chinese ideogramme', even a 'cloud of unknowing': he sees the drawing of clouds over a sea horizon as 'a mythic image distilling Utzon's vision of the world.'[61]

McCahon painted a variety of clouds: as misty colourful volumes over the sea surface, in the 'Turneresque' seascape *View from the top of the cliff, no.4 (series 1)*, 1970;[62] as doughy numbered meteorites in the Magritte-like *Clouds I*, 1975; or as smudges with

numerals adrift above a hard, bright plateau, in the *Rocks in the sky*, 1976, series.[63] Painted clouds, smudges of black, white, grey or coloured pigment, can seem indecisive, or can be diagrams of numinous power. McCahon's clouds lose these ambiguities when drawn above a horizon, becoming hovering forms, reflecting light and making shadow, menacing like an Old Testament God, speaking like billboards, reflecting like cartoon thought bubbles, or even possibly offering humankind, in McCahon's words, some degree of 'necessary protection'.

Utzon described how at Monte Alban 'the mountain top has been converted into a completely different thing, floating in the air, separated from the earth, and from up there you actually see nothing but the sky and the passing clouds – a new planet.'[64] That Olympian viewpoint is implied in Utzon's cloud 'ideogramme', whether as a sketch of transcendent Hawaiian cumulus, or in the immanent cumulonimbus,[65] dark and close overhead, and also soaring in the high white light, in the Bagsvaerd ceilings.[66] The cosmic scale of clouds, and their mystery and ambiguities, seem to position clouds as ideal materials for myth and fable.

Conclusion: Necessary Protection

It is possible to see common mythopoetic themes, communicating human presence on the earth, in the work of both Utzon and McCahon. Their work achieves significance in depicting human drama against elemental spatialities of landforms, horizons and sky, and through poetic materials of light and dark.

As in Borges' tale, this paper has alluded to myths: of architecture and art by Utzon and McCahon, dealing with elemental valencies – light, dark, sky, and so on; they use landscape ideas and images as resources for their philosophies and their made work. McCahon's term 'necessary protection' seems to reach towards architecture, towards, say, Utzon's Bagsvaerd sketches, where the ground platform supports and elevates, and the cloud ceiling protects and shelters, while the horizon shines and attracts the eye. And at Can Lis, in the stone living room, with its view of sea and horizon, Utzon reduced the program and the drawing, and even his photographed image, to show an essential volume of family refuge by the Mediterranean.

This paper has exploited the renown of two major figures of antipodean culture, and their work and philosophies, to consider the presence of landscape in myth-making in art and architecture. It has attempted to investigate similarities in the work of Utzon and McCahon, and to locate landscape ideas as both source and theme for their work.

Painting and architecture, in the hands of renowned practitioners, seem to use landscape as a substance of significance to communicate strong and serious ideas of presence and being. In the examples considered in this paper, where words, clouds, platforms, and light and dark are placed before a viewer or visitor, the communication may carry mythopoetic weight and resonance from being placed in the landscape or from using landscape elements (sky, clouds, mountains, light, etc.). Landscape seems to provide materials which enable artists like Utzon or McCahon to offer both insight and 'necessary protection' for human viewers and visitors, and a necessary space for reflection on art and architecture.

Almost total certainty: second quotation from Borges

The research process of attempting to conjoin architecture, art and landscape recalls the process of discovery, as described by the fabulist Borges

> To discover the unknown is not a prerogative of Sinbad, of Eric the Red, or of Copernicus. Each and every man is a discoverer. He begins by discovering bitterness, saltiness, concavity, smoothness, harshness, the seven colours of the rainbow, and the twenty-some letters of the alphabet; he goes on to visages, maps, animals and stars. He ends with doubt, or with faith, and the almost total certainty of his own ignorance.[67]

Acknowledgement

The authors would like to thank Peter Myers, who triggered this paper's topic during a conversation at the 2010 Newcastle SAHANZ conference.

Endnotes

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http://www.sauer-thompson.com/junkforcode/archives/2008/04/colin-mccahon.html
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[7] Jorge Luis Borges, 'Robert Graves at Deyá', in *Atlas*, 51-53.
[8] Borges, 'Robert Graves at Deyá', 52.
[9] Jørn Utzon, *Two Houses on Majorca: Jørn Utzon Logbook Vol. III*, ed. John Pardey (Hellerup, DK: Edition Bløndal, 2004), 64-65.
[10] Utzon, *Two Houses on Majorca*, 58.
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[17] Malpas, 'Place and the Problem of Landscape', 13.
[18] Christian Norberg-Schulz, *Genius Loci: Towards a Phenomenology of Architecture* (London: Academy Editions, 1980), 198.
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[24] Michael Asgard Andersen, 'Embedded Emancipation: the field of Utzon's platforms', *Fabrications*, Vol.15, No.1, July 2005, 28-37.
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[26] Utzon, 'Platforms and Plateaus', 114.
[27] Colin McCahon, *I Will Need Words: Colin McCahon's Word and Number Paintings*, curated and with an essay by Wystan Curnow (Wellington, NZ: National Art Gallery, 1984), np.
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[31] Weston, *Utzon*, 296.
[32] See *Crucifixion according to St Mark* (1947), *Crucifixion: the Apple Branch* (1950), *The Days and Nights in the Wilderness* (1971); all in Brown, *Towards a Promised Land*, 85, 111, 13.
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[35] http://www.doc.govt.nz/conservation/historic/by-region/east-coast/te-urewera/museum/urewera-mural/ Retrieved 1.11.2011.
[36] Judith Binney, Gillian Chaplin, Craig Wallace, *Mihaia: The Prophet Rua Kenana and His Community at Maungapohatu* (Wellington: Oxford University Press, 1979), 15.
[37] In Binney, Chaplin and Wallace's *Mihaia*, the caption to the illustration of McCahon's triptych reads: 'The references are to Maungapohatu, the mountain, and to Tuhoe the people; to their prophets Te Turuki and Rua Kenana; to the founding ancestors of Tuhoe – Toi the wood-eater, Potiki, and Hape; and to man and the land. At the bottom, McCahon inscribed, "At the boundary can I forbear From turning back my head."' Binney, Chaplin, Wallace, *Mihaia*, 185. Mihaia is Maori for Messiah.
[38] Colin McCahon, gallery invitation statement, Nov. 1971. In Brown, *Towards a Promised Land*, 12.

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[42] Weston, *Utzon*, 388.
[43] Jørn Utzon, 'The Importance of Architects', in Denys Lasdun, (ed.), *Architecture in an Age of Skepticism* (London: Heinemann, 1984), 226-27. Utzon's photographs, originally in colour, are printed in Lasdun in black and white. Later publications have used colour printing.
[44] Different editions crop or lighten Utzon's photograph. The image's right side is cropped of an important dark vertical framing section in Weston, *Utzon*, 384; in Utzon, *Two Houses on Majorca*, 67, the image is entire, with darker tones. The latter version also affirms the sense of an outward gaze looking in, and an inward view looking out as from the refuge of a bunker or a helmet.
[45] Brown, *Towards a Promised Land*, 106-07.
[46] http://www.aucklandartgallery.com/the-collection/browse-artwork/12601/are-there-not-twelve-hours-of-daylight. Retrieved 1.11.2011.
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[52] Pi Michael, *Skyer* [*Clouds*], colour film, 55 minutes, DR-TV, The Danish Broadcasting Corporation, 1994.
[53] Weston, *Utzon*, 281.
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[61] William J. R. Curtis, 'The substance of architectural ideas: Jørn Utzon: Jørn Utzon 1918–2008', *Arkitektur DK*, Jan. 2009, 4.
[62] Description by critic Anthony Green in 1971, cited in Brown, *Towards a Promised Land*, 47; image, 46.
[63] Full title: *Rocks in the Sky, series 2, no.5: The lagoon, plankton* (1976); see Brown, *Towards a Promised Land*, 19.
[64] Jørn Utzon, 'Platforms and Plateaus', 116.
[65] Richard Hamblyn, *The Cloud Book: How to Understand the Skies* (Cincinatti OH:David & Charles, 2008).
[66] For discussion of cloud symbolism and architectural significances, see Weston, *Utzon*, 298-99.
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Civilising Climate:
Tropical Queensland and geographies of comfort

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Abstract

At the beginning of the twentieth century, it was believed that the long-term settlement of Europeans in the tropics was hindered by tropical disease, isolation and acclimatisation. Yet, over the next fifty years, tropical medicine came to understand the origins of diseases such as hookworm and malaria and the climatic and social conditions to control their geographical spread. Advances in communications, such as aviation, the automobile and the telephone allowed greater connection between centres of power and outposts. Yet acclimatisation was still an area of much speculation.

Many of the engineers and physiologists involved in the nascent development of thermal comfort studies made frequent reference to the writings of the geographer Ellsworth Huntington. Huntington's contribution to bioclimatic architecture has largely been overlooked, despite the prominent recognition given to him by Victor Olgyay. Huntington considered that civilisation was ultimately determined by changes in climate, what he termed climatic pulsations. This not only sought to explain the climatic basis for Northern European and American civilisation in terms of the adaptation of race to place but suggested locations for colonisation.

This paper seeks to explore how between 1914 and 1940 physiologists, engineers, architects and geographers viewed the permanent settlement of Europeans in the tropics as primarily a thermal rather than medical problem. Taking the case of Northern Queensland, it outlines how the problem of long-term settlement came to be defined and how theories of racial acclimatisation were used to both advocate and critique the use of air-conditioning in the tropics. It questions the passivity with which bioclimatic architecture values the 'natural climate' by investigating the beliefs concerning links between

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climate, comfort and civil degeneracy contained in a number of the key texts on thermal comfort during the interwar period. The paper proposes that critiques of air-conditioning based on cost and natural adaptation were transformed into arguments about permanent European migration connected with the control of fuel supply, comfort ranges and the spread of civilisation.

Introduction

At the beginning of the twentieth century, it was believed that the long-term settlement of Europeans in the tropics was hindered by tropical disease, isolation and acclimatisation[1]. Yet, over the next fifty years, tropical medicine came to understand the origins of diseases such as hookworm and malaria and the climatic and social conditions to control their geographical spread. Advances in communications, such as aviation, the automobile and the telephone allowed greater connection between centres of power and outposts. Yet acclimatisation was still an area of much speculation.

Acclimatisation must be viewed in the context of the belief in the early twentieth century that Europe and America should settle their colonies to relieve overcrowding. The ability of Europeans to settle in 'unnatural' climates and the ongoing fears that this would lead to racial degeneration formed the backdrop to debates about the relative influence of race or place on productivity.

This paper seeks to review how key authors in the disciplines of geography and tropical medicine sought to establish norms of reference regarding the influence of climate on people. As the analysis of climate became more systematic, indexes of European comfort in the tropics became the basis for measures to determine when and how architecture or air-conditioning could act as a corrective to facilitate permanent European settlement of the tropics. The study of climate was viewed not simply to ensure tolerable living and working conditions, but considered a necessity for settlement and population growth by Europeans.

Starting with a brief review of how science was applied to the service of Empire, the paper looks at how climatic determinists such as Ellsworth Huntington and Thomas Griffith Taylor sought to determine an ideal climate for civilisation. It then compares this

to DHK Lee's later attempt to determine the suitability of Queensland for white settlement on the basis of the new science of thermal comfort.

Recent scholarly enquiry questions the ahistorical assumptions about nature in contemporary discussions about sustainable architecture in the tropics.[2] While the post-war history of tropical architecture focuses on its institutionalisation and networks of influence, from the perspective of the decolonisation of the British Empire after the Second World War, Australia's position as a settler society requires a somewhat different reading.[3] Where 'Colonies of Empire' had a small group ruling over a large population, 'Colonies of Settlement', or the *Neo Europes* as Thomas Crosby termed them, are identified by their extermination of most of the existing population and the on-going settlement of the land by a foreign group.

Chang and King's recent genealogy of tropical architecture highlights not only the increasingly systematic approach to settlement by colonial administrators but also their dependence on applied science for the conception of environmental design problems.[4] The application of science within a colonial setting depended not only on the political imperatives of the day but also the institutional ethos and economic and technical objectives of the period.[5] This deals not only with the interdependent interactions between science in the metropolis and colony but also the development of independent scientific traditions in colonial settings.[6] In Robin's developmental model of science, during the nineteenth century in Australia, the sciences of exploration such as geophysics, astronomy and natural history gave way to the sciences of settling such as tropical medicine, agricultural science and veterinary science as the country dealt with 'the ecological limits of imperial development'.[7] This raises the question of how the applied sciences, in particular tropical medicine, physiology and geography conceived of the environmental limits to settlement during the interwar period.

This is not an esoteric question to architecture as even current theories of environmental architecture, particularly the bioclimatic method, as originally published, cites the work of climatic determinists such as the geographer Ellsworth Huntington and the politician Clements Markham in general considerations of the environmental problems architecture has to solve.[8] Closer to home, the investigations of the Commonwealth Experimental Building Station under J.W. Drysdale remains largely unexplored in the

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history of architectural science and the pre-history of bioclimatic architecture, though Graham Holland has briefly highlighted the importance of his work in the understanding of thermal comfort in domestic Australian housing.[9] These investigations relied on physiological expertise. When Drysdale tested the thermal relationship between climate and housing design, he acknowledged that 'the interpretation of temperature data with respect to physical comfort was greatly facilitated by the advice and guidance of Professor Douglas H.K. Lee.'[10]

Acclimatisation

The interpretation of temperature data is a fundamental aspect of the bioclimatic method to generate a regional evaluation of climate that assesses the thermal requirements for a person to maintain physiological comfort. Yet in the first half of the twentieth century, the geographic distribution of temperature became a battleground for theories of productivity and settlement. Politically, Europe and Asia were seen to have reached their population limit and the tropics were considered seriously for long-term White settlement. The theory of evolution was interpreted by tropical medicine as confirmation of the adaptability of people to climate. At the turn of the century, to doctors such as Dr. Luigi Sambon, germs rather than climate were the cause of ill-health of Europeans in the tropics and where tropical colonisation had failed in the past, what was needed instead was a discussion 'to place it on the sound basis of modern scientific knowledge'.[11]

Seventeen years later as the Panama Canal came to completion, Ellsworth Huntington travelled to Central America. Huntington believed the climate ultimately determined the productivity of a race. Climate could act both as a stimulant or alternatively degenerate a race. While acknowledging that advances in medicine could overcome tropical disease, he asked whether this was grounds 'for believing that races of European origin can dwell permanently within the tropics and retain not only their health, but the physical energy and mental and moral vigor which have enabled them to dominate the world?' Huntington equated the exploitation of tropical America and Africa with development, naturally to be performed by Europeans 'for the native races seem incapable of doing it alone and Europe and America are scarcely willing to leave it to the Asiatics.'[12] Huntington's study of 'tropical America' mixed racial theories of society with climatic determinism. He was convinced that productivity was climatically dependent, citing evidence of the seasonal dependence of test scores at American military academies and factory wages in Connecticut. However in the tropics, Huntington portrayed both the

climate and the indigenous population as long-term handicaps to white settlement claiming that 'experience in all parts of the world shows that the presence of an inferior race in large numbers tends constantly to lower the standards of the dominant race'.[13] And though Huntington saw that physically and medically Europeans could be protected from the tropics, ultimately, in a fit of Lamarckism, 'he must apparently face the fact that his vitality and, still more, that of his children, will inevitably be depressed'.[14]

To Huntington, climate and civilisation were intrinsically interlinked. His research in Central Asia on the desiccation of lakes, and archaeological excavations in Turkey convinced him that past climates were not static and that changes in climate were the ultimate cause of the downfall of ancient civilisations. He advanced a hypothesis that seasonal change, frequent storms and a mean outdoor temperature of 60 to 65 degrees Fahrenheit (15.5 – 18 degrees Celsius) were the ideal conditions for the stimulation of productivity.[15] Using his hypothesis on climate and civilisation, he developed two types of map; one based on optimum temperature, humidity and storm frequency, showing the 'distribution of human energy according to climate', and another showing the distribution of civilisation. Though the climatic map relied on incomplete meteorological information and a crude correlation of the relationship between *outdoor* temperature and indoor factory production, it reinforced the climatic superiority of industrial Europe and America. Such information was not really about improving conditions for workers.

> 'For instance', he proposed, 'we shall be able to determine in what parts of our country or of the world the greatest amount of either mental or physical work can be accomplished. We shall be able to measure the differences in the efficiency of labourers and other workers of various races, and shall use these differences as the basis for determining where factories, schools, or other institutions can most profitably be located. We shall find that certain climatic conditions that seem pleasant are in reality debilitating. And, above all, we shall discover exactly what conditions are most harmful in such places as the tropics. With this knowledge we shall go to work, not to change the climate, but to supply some sort of stimulus or other corrective which shall overcome the effects of the specific meteorological conditions which are proving most harmful.' [16]

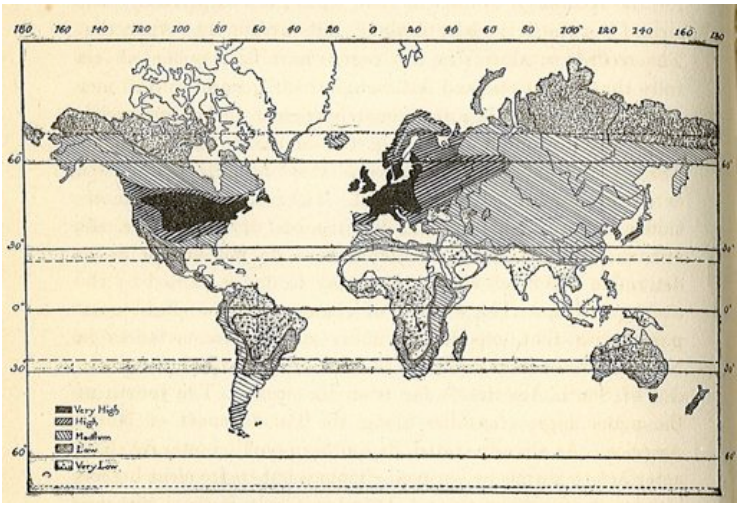

Figure 1. *The Distribution of Energy on the Basis of Climat* (sic)
(Ellsworth Huntington, 'Climate and Civilisation', *Harper's Magazine*, February, 1915, 142)

Huntington's fellow determinist, the Australian geographer and explorer Thomas Griffith Taylor, was also cautious of the prospects of long-term settlement in the tropics, arguing that while the tropics were not detrimental to health, they were far from comfortable.[17] Taylor took a slightly different approach to Huntington, using humidity and wet bulb temperature as the key determinants of settlement. He plotted mean monthly values of each against one another in a graph he called a 'climograph'. Averaging the climographs of 'twelve important centres of Anglo-Saxon settlement', he created a 'type white climograph'– its usefulness perceived as an attempt 'to give a scientific basis to the climatic aspect of Empire-building and Empire Welding'.[18] Griffith Taylor would later expand on the climograph to attempt to define the suitability of tropical Australia for permanent white settlement. As well as temperature and rainfall, he accounted for natural resources, means of communications and the level of population and health of an area. These figures were weighted, allowing for isolines to be plotted and the relative suitability of each geographical region to be determined; the higher the suitability of a location, the greater the possible density. Although Griffith Taylor attempted to offer possibilities for the settlement of tropical Australia, he preceded this by concluding the impossibility of large-scale settlement at the time.

> Probably none of these can overrule the fundamental law controlling settlement that no one will occupy distant and unfamiliar regions who can gain a satisfactory living under more attractive circumstances.[19]

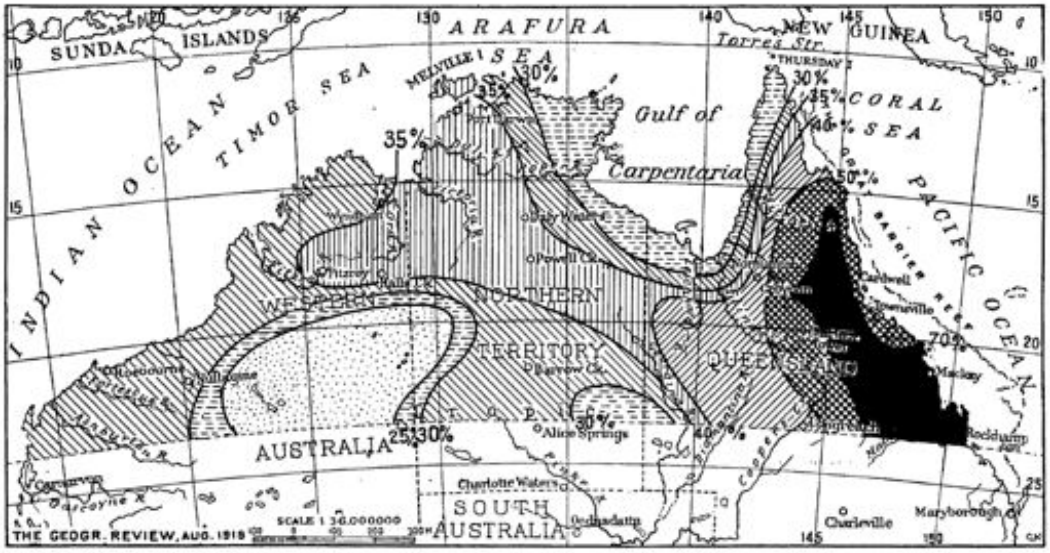

FIG. 23—Potentialities of moderate settlement in tropical Australia. The maximum (black) represents perhaps six people to the square mile. The minimum (dotted) has no possibilities of moderate settlement. The figures are percentages, where the maximum (100) represents an area with all the advantages described in the text. The distribution lines have been termed "isoiketes".

Figure 2. Potentialities of moderate settlement in tropical Australia
(Thomas Griffith Taylor, 'The Control of Settlement by Humidity and Temperature (with Special Reference to Australia and the Empire): An Introduction to Comparative Climatology', (Melbourne: Commonwealth Bureau of Meteorology Bulletin, 1916), 114).

Huntington's visit to Australia in 1920 tested his theory of the influence of climate on health and energy.

> By far the most important reason for doubt, however, is that the low death rate of Queensland occurs not only where the semi-tropical climate is obviously enervating and is so recognized by most of the people, but where doctors are less numerous than in southern Australia.[20]

Instead he advanced that natural selection was at work with people chosen on the basis of 'health, industry and initiative'. Ellsworth Huntington's 'haphazard opinions' of the multi-generational effects of the tropical climate did not impress the director of the Townsville Institute, Rafael Cilento, who to counter such claims sought to determine to what extent the Queensland population was selected.[21] Cilento would later dismiss Huntington's theory of climatic determinism, arguing that the rise and fall in civilisations could be better explained by the control of disease.

Just a year before Huntington's visit, in 1919, Cilento's colleagues, Anton Breinl and W.J. Young of the Townsville Institute argued that up to that point the possibility of Europeans living, reproducing and 'thriving' in the tropics had been considered only from the point of view of health[22]. Instead economic conditions and housing standards were affecting the long-term viability of the settlement of the tropics. Breinl and Young considered that due to the climate and isolation of the place, people put up with discomfort in Northern Queensland as they were only planning to stay there for a short length of time. While the authors highlighted how the majority of house types created uncomfortable conditions, in particular the galvanised iron humpy, they singled out for praise the Darwin houses adapted from 'the Far East' with their 'open verandahs and bamboo shutters which are kept shut during the heat of the day and thus prevent the heating up of the rooms and at the same time allow for sufficient ventilation'.[23]

Though Breinl and Young could reference a set of principles for how tropical residences could adapt to the climate to catch breezes, they turned to Townsville architects Charles Dalton Lynch and Walter Hunt for consideration of how to do this economically. They referred to an experienced, 'leading firm of architects', perhaps Lynch and Hunt, who claimed that a 'prejudice against novel ideas' was to blame for their never having produced a cottage in northern Queensland 'as it should be designed'. The architects provided a set of recommendations for a £200 to £600 house adapted to the climate, offering advice on orientation, resistance to cyclones, ventilation of rooms and roofs. Of note is that while Lynch and Hunt mandated front and back verandahs they recommended against building side verandahs at the expense of smaller rooms.

Having set out their recommendations for cheaper housing, C.D. Lynch provided a 'novel suggestion' for an ideal verandah house (Figure 2). Its plan is most unusual for Northern Queensland as it contained a cross-shaped internal verandah with four blocks of rooms arranged at each corner. Stairs in the verandah, we are told, lead to a flat roof. The external double leafed walls were of masonry construction, 'dispensing with the necessity of the verandah…by having a suitably ventilated air-space'.[24] A small porch was indicated at the end of each verandah, producing a *parti* bearing a striking resemblance to Palladio's Villa Capra. Of interest is Lynch's rejection of the verandah and attempt to provide cross-ventilation through the depth of a square plan. Further

research on Lynch and Hunt would help establish their relationship to the earlier work of Robin Dods and the later climatic adaptations of Beni Burdett in the Northern Territory.

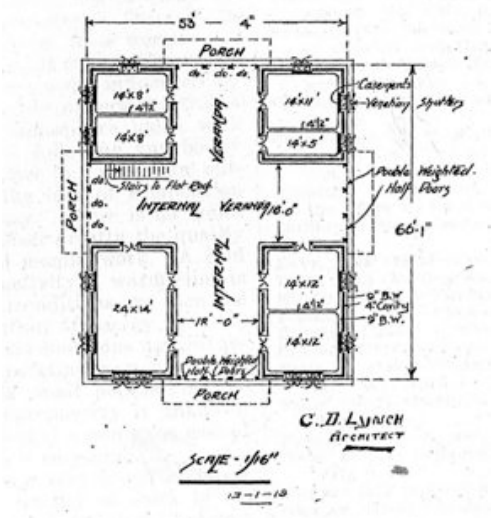

Figure 2. Lynch's 'Novel Suggestion for Building Suitable Houses'
(Anton Breinl and W.J. Young, 'Tropical Australia and Its Settlement',
Medical Journal of Australia May 3,10 and 7, (1919), 21)

Domestic Hygiene

For Cilento, hygiene rather than temperature was of greater importance for housing. His 1925 survey of living conditions in Queensland housing was both a means to assess the environmental influences on health and a method to ascertain the 'housewife's domestic knowledge' and the 'mother's knowledge of domestic science' regarding 'infant welfare', 'scientific cookery', 'insect and dirt-borne disease' and finance. Cilento even went so far as to survey the onset of menopause and the fertility of the women interviewed. This survey may be read as part of a national project at the time of simplifying and making visible the citizen's body.[25] Yet it also makes visible the expectation of what medical hygienists saw as important in tropical housing at this time: meat safes, refrigeration, the location of stoves, sanitary facilities, ceilings of rooms and the presence of verandahs. Australia was viewed as separate from other tropical countries on account of its high wages and few servants and the fact that European men and women carried out physical labour. Cilento considered that the issue with buildings was that they still followed English traditions such that hot, ill-ventilated kitchens, poor orientation, no

attempt to use 'natural conditions' and a lack of labour saving devices all conspired to produce a sense of discomfort.[26] The 'excellent results' obtained showed that natural selection was not at work but, rather, despite adverse environmental conditions health was maintained.[27]

D.H.K. Lee and Climatic Deviation

Ten years later, Cilento appointed the young medical scientist, D.H.K. Lee as the Chair of Physiology at the University of Queensland. Lee's inaugural address in October 1936 demanded that physiology, and the school itself, answer the question 'To what extent and in what way is the settlement in tropical Australia possible'.[28] Lee's speech was an attempt to offer a biological solution to a political problem, the fear of invasion of 'our occupied tropics'. Dismissing climatic determinists' lack of distinction between universal climate and social, economic and racial variables in their study of tropical settlement, Lee singled out Huntington's 'formidable theory of human habitation and climate' as 'one in which facts are forced by ingenious and sometimes naïve reasoning to cast a mantle of verisimilitude over a ghostly frame'.[29]

At University College London, between 1933 and 1935, Lee developed a model of how the body's physiological systems interact in relation to climatically induced heat loss. At the end of his studies he was invited to spend a summer working at the Harvard Fatigue Laboratory where he came into contact with Constantin Yaglou who introduced him to his 'effective temperature' index of heat.[30] The effective temperature was developed by Yaglou as a scale of equal sensation of warmth or cold, based on the combination of air temperature, moisture content and air movement. Yaglou later developed a 'comfort zone' through climate chamber studies, allowing the replacement of the geographic search for ideal climate with the mechanical reproduction of manufactured weather.[31]

Where Griffith Taylor and Huntington used outdoor climate to ascertain the productivity of a White population, Lee turned to Yaglou's effective temperature scale, the preferred index of heat by the American Society of Heating and Ventilating Engineers who had helped devise it. Yaglou sought to reduce the problem of human habitation to 'as few dimensions as possible'. It was this reduction of nature and habitation that rendered the presumed interaction between climate and settlement not only visible, but controllable.

Griffith Taylor had mapped physiological climate by plotting isolines of mean annual air temperature and the average relative humidity in January. Lee was critical of such an approach, characterising the general method of describing climate in relation to thermal comfort using dry bulb temperature and humidity as crude.[32] The effective temperature scale was best suited as a climatic index, he reasoned, as it combined 'at least three of the four climatic elements' and had been 'empirically devised from a statistically adequate series of direct experimental observations on human subjects'.[33] The fact that it omitted radiation, did not trouble him, as a corrective factor could be applied. Lee took standard weather data for 12 Queensland towns by the Commonwealth Meteorological Bureau and translated observations for 9am and 3pm of air temperature, wind speed and humidity into the preferred effective temperature index.

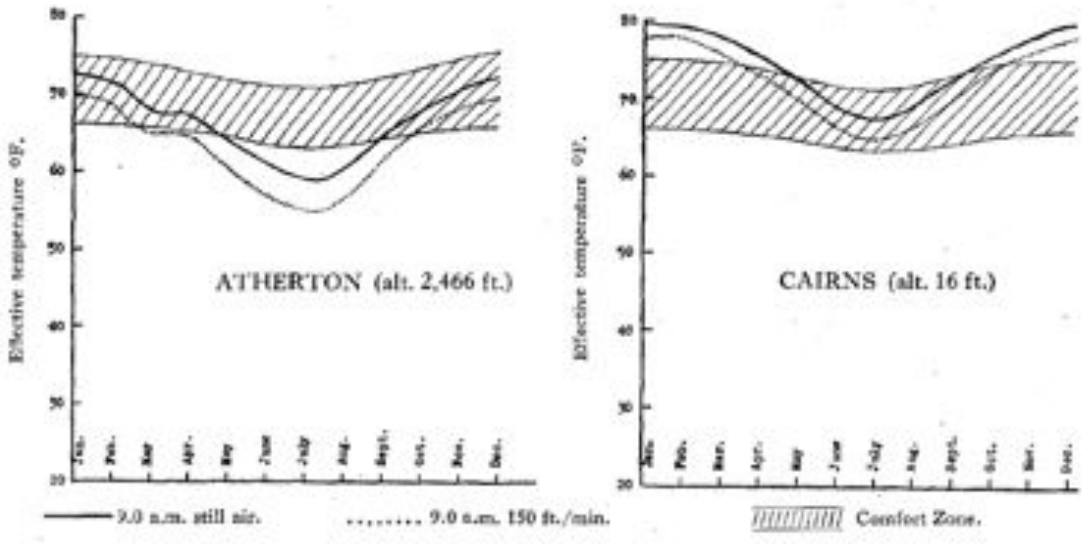

Figure 3. Potentialities of moderate settlement in tropical Australia (Douglas H.K. Lee, 'Assessment of Tropical Climates in Relation to Human Habitation', *Transactions of the Royal Society of Tropical Medicine and Hygiene* 33, 6 (1940), 612.)

The studies not only allowed for the comparison of the climates of different towns and of coast to hinterland but by plotting the 'comfort zone', Lee translated the level of 'deviance' of each location from this ideal zone. The comfort zone had been developed by the air conditioning industry, to give engineers and their clients greater certainty in the control of 'manufactured weather'.[34] By using the effective temperature index and quantifying the net seasonal excess of degree days, Lee not only allowed for an understanding of the expected level of thermal discomfort but he translated the weather of each town into the language of the heating and ventilating engineer. Towns could be

grouped according to what corrective action was necessary and the level of selection necessary for successful European settlement. Lee organised the towns into three classes: Class 1, in the sub tropics was 'quite suitable for Caucasian habitation' having no annual excess degree days, Class 2, in the 'marginal tropics', was 'suitable for Caucasian habitation but requires adaptation in summer' while Class 3, in the tropics was only 'permissible for Caucasian habitation' provided there was 'selection and marked adaptation'. However a subclass existed whose 9am effective temperature reached 80°F (26.7°C) at Cape York and Burketown and this was beyond the limit of 'Caucasian habitation'. Lee's M.D. thesis from Sydney University further expands on climatic selection of people: 'By "imposing a strain" we do not mean necessarily prohibitive to European settlement but that selection and adaptation of both person and mode of life will be definitely necessary for continued health and efficiency'.[35] Even as late as 1940 and despite Cilento's previous assertions, selection was still a precondition to European permanent settlement.

One may finish the study of norms by considering briefly the contribution of Karl Langer in his short University of Queensland paper of 1944 on Sub-tropical housing[36]. Where Huntington sought to consider industrial productivity, Langer viewed the aim of design of the house and control of climate as the alleviation of fatigue. As Cilento before him, he emphasised the lack of domestic help for his imagined housewife. One aspect of Langers approach borrowed from Clarence Stein's Radburn plan, so that all community facilities would be within a ten minute walk, with separation between cars and pedestrians to reduce 'nervous reactions'. While Langer placed greater emphasis on efficient space planning, even advocating getting rid of stairs and building houses in Queensland on the flat, his consideration of the outdoor use of houses showed a growing appreciation of the leisure possibilities of outdoor living in the sub-tropical climate.

Conclusion

After the Second World War, the Commonwealth Experimental Building station pioneered the study of the thermal effects of climate on buildings, with DHK Lee advising on the interpretation of temperature data. Lee's research into acclimatisation acts as a transition between specifically racial studies of adaptation and broader considerations of fatigue and climatic stress.[37] He himself viewed the work of Huntington and Griffith

Taylor as part of the 'statistical correlation' phase in the development of the integrated field of Physiological Climatology. The naming of this field was more a reflection of Lee's synthetic interests, as the term is mostly associated with his name during his tenure as Professor of Physiological Climatology at John Hopkins University. The description of settlement on the basis of climate during the interwar years reflects both a fracturing of climatology away from Griffith Taylor's holistic consideration of agriculture and thermal comfort, and a shift in concern from the outdoor climate as a source of racial stimulation to consideration of technological correctives in the form of building envelopes and air conditioning.

Within domestic Australian architecture, the norms created by Lee, and survey work by Cilento, Breinl and Young created a reference point to judge the 'appropriateness' of designs for Australia's climate, effectively conflating a national approach with regional climate. This aspect of how climate became a primary determinant of the appropriateness of Australian domestic architecture requires further study, as does the role of climate as justification for the geographical borrowings of architects such as Leslie Wilkinson and Hardy Wilson.

The belief that an architecture appropriate to Australia may be deduced by understanding its climate remains an accepted norm of contemporary practice. As Sean Godsell noted in 2000, 'The only fundamental question for Australian architects is: "are we being appropriately Australian and what is appropriate?" Is it appropriate to produce or reproduce an architectural language that's coming from a different climate? I'd say no.' [38]

Endnotes

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[13] Huntington, 'The Adaptability of the White Man to Tropical America', 193.
[14] Huntington, 'The Adaptability of the White Man to Tropical America', 209.
[15] Ellsworth Huntington, 'Climate and Civilisation', *Harper's Magazine*, February, 1915, 367-73
[16] Ellsworth Huntington, 'Work and Weather', *Harper's Magazine*, January 1915, 233-44.
[17] Thomas Griffith Taylor, 'The Settlement of Tropical Australia', *Geographical Review* 8, 2 (1919) 84-115.
[18] Thomas Griffith Taylor, 'The Control of Settlement by Humidity and Temperature (with Special Reference to Australia and the Empire): An Introduction to Comparative Climatology', (Melbourne: Commonwealth Bureau of Meteorology Bulletin, 1916); See also R. DeCourcy Ward, 'Geographical Record: Review of Graphic Representation of the Effect of Climate on Man', *Geographical Review* 5, no. 1 (1917) 86.
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[27] Cilento, 'Observations on the White Working Population of Tropical Queensland', 20.
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[36] Karl Langer. "Sub-Tropical Housing." *Faculty of Engineering University of Queensland papers* 1, no. 7 (1944).
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Of and for the context: Achyut Kanvinde's Modern Indian architecture

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Abstract

Architectural history of post-independent India published from 1980 onwards traces the triumph of the modernist project as it achieves an appropriate self-conscious regionalist expression. The rhetoric of 'Indian identity' was proclaimed to be the single most important goal, while the means to achieve it were arguably vague and questionable at an operative level. Despite being celebrated locally as an influential architect with a prolific career spanning over five decades, the late Achyut Kanvinde, one of the foremost modernists remains largely unacknowledged within this history. With scattered mentions he is marginalised into functionalist or Brutalist categories, implying that his works could not fit easily in the dominant narratives of the period. A closer look at Kanvinde's works suggests a sensitive interpretation of international modernism to the Indian context, but with a resistance to obsessive pan-Indian identity constructions based on imagined pasts. By examining two of his campus projects, the Indian Institute of Technology (IIT) at Kanpur (1960-66) and National Insurance Academy (NIA) at Pune (1986-91), this paper will demonstrate that Kanvinde negotiated eloquently between the universal and the local, engaging with the changing concerns of the time. While his earlier campus, the IIT project, is synonymous with nation building and development through the modernist language, it reflects an impending critique of International modernism with a direct response to local climate, materials and program needs. Towards the other end of the spectrum, the NIA campus - designed at the crest of postmodern Indianisation - makes a case for a specific resistance through a commitment to a modernist ethos emphasising abstraction over translation of historical precedents. Thus, it could be argued that a study of Kanvinde's 'Indian' buildings - how he subtly reconfigured the modernist language without resorting to popular trends, provides an alternative understanding of the history of modern architecture in India.

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Introduction

Post-independence architecture of India has been much discussed and documented in a variety of local and international publications. By now a celebrated and legendary architect of twentieth century India, Achyut Kanvinde is somewhat an unfamiliar figure worldwide. While most of the publications about post-independence Indian architecture have acknowledged his work, at best it remains fragmented and scattered.[1] Having built over four hundred buildings along with his two partners, Shaukat Rai and Murad Choudhary;[2] and over hundred buildings for which he is primarily responsible,[3] it is surprising that his contribution has not received much critical attention. Though the reasons for this marginalisation could be debatable, this paper suggests that Kanvinde's trajectory challenged prevailing themes and categorisations. However, the point here is not to demonstrate his larger contribution per se, rather it draws attention to his approach of 'coming to terms' with the postcolonial contextual realities as it bridged the mid-century promise of development and its subsequent crisis in the post-eighties through case-study method. In specifically choosing Kanvinde, a prominent figure in the nation-building phase who arguably finds himself somewhat 'out of fashion' from the mid-seventies onwards with a global questioning of modernised progress and a growing historicism, this paper situates itself at this nexus.[4]

The aim of this paper is to show Kanvinde's sensitivity towards local issues resulting in a unique vocabulary as seen through two of his key projects: Indian Institute of Technology at Kanpur (1960-1966) and National Insurance Academy, Pune (1980-84). Using these two campus projects, I will argue that the boundaries between modern and postmodern get blurred in Kanvinde's architecture reflecting the current debates on oversimplified distinctions.[5] While his commitment to principles of modern architecture is discernable, his buildings are strongly rooted in their context, which forms the analytical focus of this paper. Also the span of these two campuses offers a longer perspective; the architect's approach to campus as building type through changing times and campuses as rooted in the larger social context.

Indian Institute of Technology at Kanpur (1960-1966)

Any understanding of Indian modernity does not escape the struggle between its two opposing ideologies predominantly Gandhian and Nehruvian (Jawaharlal Nehru, the first prime minister of India); translating into rural and industrial, subaltern and the dominant or more commonly traditional and modern. After India's independence in 1947, Nehru's government advocated the central role of science and technology and launched massive

building program to modernise the country based on socialist pattern of democracy. Gyan Prakash, a subaltern scholar's reading of Nehru's blueprint for modern India is highly relevant as it refutes the orthodox opinion of Nehru's wholesale adoption of Western modernity; rather views it as its critique mediated by the internal cultural difference.[6] It is argued that Kanvinde, an architect trained in the Nehruvian model of training technocrats abroad for the progress of country, returned and worked with the same sensibility, constantly aware of this dialectic. His architectural journey from 1947 onwards when he started working for the Council of Scientific and Industrial Research (CSIR) to the design of Indian Institute of Technology (1966) at Kanpur in Uttar Pradesh (IITK) is perceived as a struggle to understand and implement this critique of Western modernism.

The IITK was one of the five technical universities established by the Indian government with assistance from United States to provide high quality technological education in order to support the industrial growth.[7] The firm of Kanvinde and Rai from Delhi was selected for master plan of the campus spread over an 800 acre agricultural site on the outskirts of Kanpur as well as the detailed design of academic complex which is the present focus.[8] The academic complex located centrally in the campus and organised within a quadrangle of 50 acres was completed within the first phase in 1966. With the university officials a new concept was evolved wherein individual departments and disciplines were integrated.[9] No separate department buildings were envisioned, rather a common curriculum and facilities, equality and mutual association fostering a campus spirit defined the objectives of the architectural program.

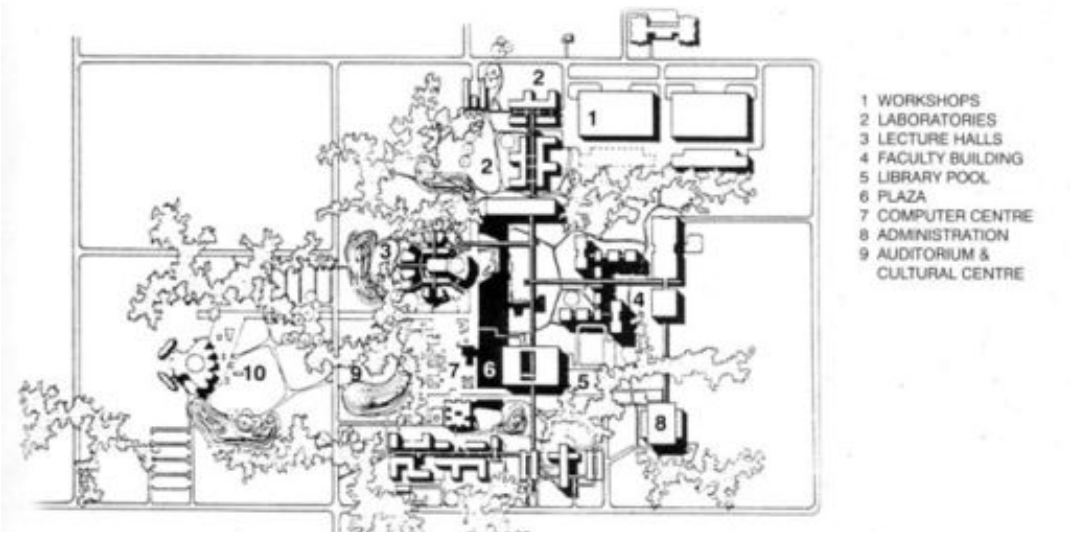

Figure 1: Site plan of academic complex of IIT, Kanpur (Source: Courtesy: Sanjay Kanvinde, KRC India).

For Kanvinde, this integration of sorts led to developing the central idea of his design in the form of linkages. Broadly defined functions like laboratories and workshops, library,

lecture halls, computer centre, faculty and administration were grouped in building clusters which were linked by cross spines. Double level pathways or covered corridors linked the individual buildings that form a unique feature of this campus even today. While the vehicular and service movement is restricted to the periphery of the quadrangle, these pedestrian and bicycle friendly walkways function effectively in the summer and winter extremes. This idea even gets extended in the lab complex as the walkways get separated from the main block with the help of light wells and intermittent bridge-like connections. Along with the service tunnels that run under the lower level walkways and spatial and visual connections to the exterior landscaped courts, they serve the campus like 'arteries'.[10] Thus movement is epitomised to encourage mutual interaction between the students and the faculty as well as the physical setting. At the same time, they help in unifying the clusters as they branch out from the spines or assist new connections as buildings get added.

Figure 2: Long corridors connecting admin building and labs
Figure 3: Interconnected double level corridors as seen from the southern lab complex (Source: Author 2011).

All individual buildings were developed using modules consisting primarily of 'lab and non-lab' areas excluding lecture halls and library and were laid out in a geometric layout defined by the pathways.[11] These modules were converted into a structural system of reinforced frame construction with exposed brick infill panels using the local technology. The tectonic character of buildings was deployed as a strategy in achieving a visual unity and scale. Within this somewhat rigid framework, individual building types based on their interior needs like the large workshop sheds, southern labs and multistorey faculty block were planned. These were connected to the library as a prime centre of knowledge which formed the core of the campus, retaining its identity even in today's expansion. Its centralised form flanked by open plaza and a cooling pool connected seamlessly to stilted

ground floor, and the stepped self-shaded floors above held sky-lit reading areas on the periphery creating an imposing structure.

Figure 4: Library building showing structural framework and infill brick panels and skylight. (Source: Author 2011). **Figure 5:** Southern Lab complex (Source: Author 2011).

Interpretations

Kanvinde's response to the design of the project can be interpreted at two levels. The architectural response – principally its three aspects: circulation, geometry and materiality; and the contextual response at micro and macro levels. Kanvinde's earlier buildings during the CSIR tenure espoused functionalism and other formalist tenets of the International Style mainly as a result of his higher education at Harvard under Walter Gropius. On the one hand, aligned as he was with Nehru's thrust of modernisation, Kanvinde had found a fertile ground for modernist principles in the context of CSIR, in particular its rational underpinnings and abstract ahistorical forms.[12] On the other, in the late fifties he was drawn into the fermenting debate on its appropriateness to culturally and historically rich India with its traditional architecture.[13] With the completion of Chandigarh, while many architects in the country were largely influenced by Corbusier's Indianised grammar of sculptural forms, parasols and repetitive sun-breakers, Kanvinde was striving to evolve his own version shaped by emerging concerns. After testing alternatives in other small-scale projects, this reconfiguration of the modernist idiom found full expression at IITK.[14] Time-wise it stands in comparison with architect Charles Correa's Gandhi Memorial Museum (1958-63), a low-key ensemble of square pavilions in brick and concrete. While Correa's museum required sensitivity towards the Gandhian vernacular and austere context, IITK campus set a precedent in using a more humane vocabulary of local brick at the large scale of a technical campus. Kanvinde has himself

talked about this shift in terms of self-discovery towards humane spaces in many of his interviews.[15]

Figure 6: View of the double level corridors (Source: Author 2011); **Figure 7**: View of the curved lecture hall complex at IITK (Source: Author 2011)

With his specialization and experience in laboratory design under CSIR he was well versed in its functional aspects and solutions to local problems; which proved to be an immense advantage in the planning of IITK labs and workshops. Thus geometry derived out of the square structural grid for non-lab areas (like the library grid: 5m x 5m) and extension of the same grid for rectangular lab blocks, served to establish the design framework and integration of services right from the initial design stage and formed the guiding factors for modular design. This reflected the rational thinking and systematic solution-based approach to the needs of the program. It has been noted that though the overall layout makes reference to Graduate Centre at Harvard, the buildings themselves mark a significant departure.[16] Even if the geometric rigour was sustained through the structural framework and its overt expression reflecting the beginnings of a Brutalist aesthetic, its subtle variations were achieved through projections and massing. Deviation from pure forms is evident in the curved lecture-hall complex while plasticity of concrete is highlighted through the pyramidal concrete skylights, which yield an even lighting in the library interiors and dominate the skyline from a distance. A deeper consideration of climate is achieved with clustering of modules enclosing courtyards, local brick walls and through sunken windows or weather shades discarding the restrictive strip windows, which opened up proto-regionalist avenues. The dark gloomy corridors were given an identity of their own by disconnecting them from the main body of the building or extending them in the landscape whilst retaining a modest scale of a 2.4m wide by 2.5m high.

In other university campuses built during the period under similar aspirations, like the IIT-Kharagpur (1956 onwards), IIT- Madras (1961 onwards), IIT-Delhi (1963 onwards) some key unresolved issues emerge for example: at IIT Delhi the monumental academic block in Corbusier language lacks human scale; rigid zoning and lack of movement clarity at IIT- Madras and a lack of cohesive planning at IIT-Kharagpur which makes IITK distinctive in many respects.[17] Due to the absence of any strong physical context, the larger context of post-independence progressive aspirations came into play at IITK. With a fresh beginning, the problem was to create a context - an educational hub or a small university town, and with the American involvement, a more obvious American university model became a reference point. Individual buildings set within landscape aside from the city; anchored by library building, unified with local materials and fostering a sense of community were translated in the local Indian idiom.[18]

At the same time, Kanvinde was aware of the traditional models of university campuses in the country – the Buddhist monastic Nalanda University (300BC - 1200AD) – a clustered community around a central stupa temple in stone, Ajanta Cave monastery (200BC - 700AD) – a rock hewn series of chambers completely integrated in the nature by a singular approach; Aligarh Muslim University (1921) – a grand Islamic garden campus but largely disintegrated due to lack of a master plan; and Benares Hindu University (1917) – a progressive university planned geometrically in semicircular arcs radiating from a unified centre but an overarching Hindu style imposed on buildings and over-rigidity of geometry defy the original intentions.[19] Along with the lessons learnt from the traditional and western models, a notion of responding to one's time and place etched itself on Kanvinde's mind. Thus Kanvinde played the role not only of an interpreter of Nehru's vision of progress but also reinterpreted the imported model of modern architecture based on local context thus setting up precedents for various educational buildings and housing schemes in the following decade. IITK also anticipated Louis Kahn's still to be completed Indian Institute of Management campus (1962-74) at Ahmedabad in some aspects and pointed towards the subsequent reassessment of the style resonating locally and internationally. Recent scholarship on the 'entangled' elements of modernity could thus be observed in Kanvinde's architecture.[20]

National Insurance Academy, Pune (1986-1991)

The National Insurance Academy (NIA) is comparatively a much smaller campus project done twenty years later in Kanvinde's career. The NIA was an initiative of the public sector partnered with the government during the 1980s for building up the insurance and

finance sector through training, research, consultancy and publications.[21] Envisaged as a self-sufficient educational village, its fairly conventional programme requirements included residential facilities, library and computer centre, teaching block, administration, hostel block and other ancillary activities like sports and recreation. A roughly pentagonal site of 32 acres was chosen was on the outskirts of Pune, a fast developing town with a rich history of colonial buildings and sprawling educational campuses.

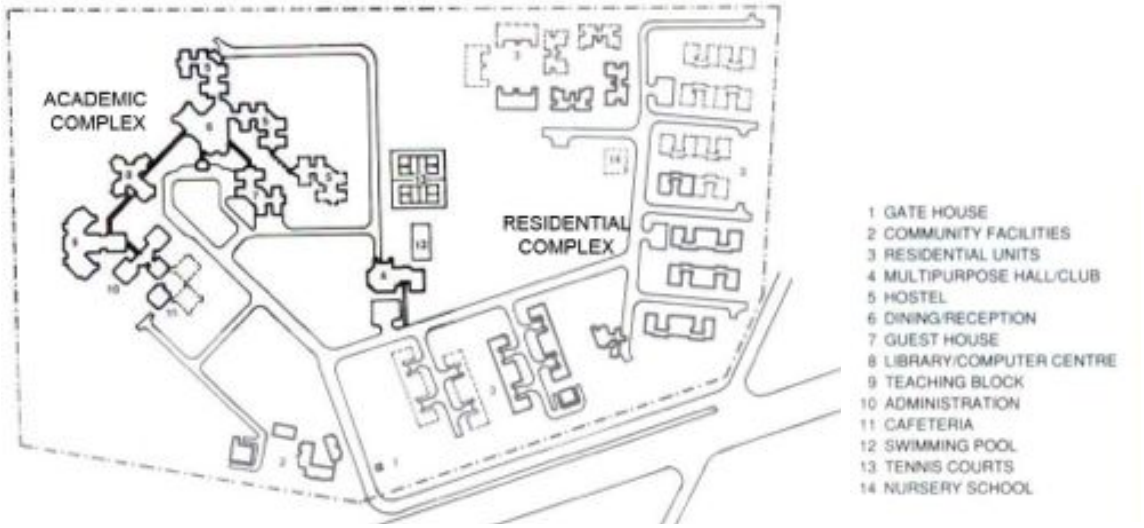

Figure 8: NIA Site plan showing academic and residential complexes (Source: Courtesy Sanjay Kanvinde, KRC India).

Kanvinde's response at NIA could be described as a low-lying citadel composed of multifaceted, interconnected buildings. One of the important design considerations was to weave in the academic areas with the residential ones such that the entire complex remains alive with activities. Here I focus on the academic cluster, which is organised on a diagonal grid to catch the local southwest breezes buffered from the adjoining roads by placing residential blocks perpendicular to the boundary. A thematic association to the traditional *gurukul* system where teaching and living takes place under one roof led to grouped placement of these functions around a larger open space.[22] The decision to site academic group of buildings on the lowest level of the gradually sloping site was a deliberate one such that all the storm water could be collected in a central water feature surrounded by landscape.

Kanvinde's design relied on modular planning to arrive at a unified solution. However, the geometry itself had substantially moved from IITK days from purist and visually simple forms to a more complex and hybrid composition. Octagonal units, as in the library and dining hall, or chamfered rectangles underlie the structural grid, and the functionality assumes a subservient position. These modules when joined together do not follow a

very rigid pattern and the spaces created out of joining exercise are dedicated to service activities like lobby, toilets and staircase without emphasising their existence unlike his earlier Kahnian influence. A centralised geometry in the library recalls the Beaux Arts forms but the exterior treatment defies any such connections. Sloping roofs, series of skylights, stilted or double height spaces, use of stone grit plaster with horizontal graphic banding inform the sculptural handling. Sunken windows, pergolas and use of local grey basalt stone for grit plaster reflect sensitivity towards Pune's context and a preference for permanent materials and natural textures.[23] A C-shaped pedestrian ring links all the individual clusters with the help of a continuous street like corridor. Stepped according to the buildings levels, the corridor gets suspended off the landscaped grounds and water body forming a bridge while the degrees of enclosure vary encouraging outdoor interactions and adding to the sense of discovery upon movement. Thus each building functions as a part of the cluster and as a part of the whole complex in a cohesive manner.

Interpretations

Reminiscent of IITK linkages which were however much subtle, the corridors at NIA seem overemphasised with extracted framing details. The same holds true for rest of the complex – hybrid geometry and overlaying of grids, layering of functions, highly articulate fenestration of the openings all add to the sculptural quality or hint towards the 'excessive' as in the post modern sense. The rational expression of structure turns selective only to establish horizontality and the columns are drawn out and expressed in a circular form adding to the articulation. It may be argued that the comparatively small scale of the project permitted the superfluous elements of design and also reflects the Kanvinde's repertoire built over a period of forty years. At another level, the same tools of circulation, geometry and materiality deployed intellectually call for a larger interpretation.

Nehru's optimism of the post-independence era had long since evaporated by the 1980s leaving India to question modernisation and progress based on technology. This period marks an important shift, a neo-patriotic and populist turn in politics, which focussed on reflecting the individual reality – an Indian self-consciousness and a need to project India's image to the world. This post-colonial identity construction was closely tied to postmodern thinking and the worldwide questioning of modernism. In architecture, it was manifested through application of historicist, mythical imagery at a superficial level or through a deeper approach of regional responses. Extensive use of traditional elements

and images, renewed interest in the sacred, and the symbolic past of India which was earlier believed to hamper progress now surfaced with full force.

Figure 9: View of bridge like corridors overlooking landscape features and leading to the library (Source: Author, 2011). **Figure 10:** A closer view of an individual block showing hybrid geometry (Source: Author 2011).

Legitimised by prominent Indian architects' works and writings like those of Charles Correa, B.V.Doshi and Raj Rewal amongst others, the sole aim of reflecting Indian-ness was considered a defining virtue.[24] An architectural comparison can be drawn with Charles Correa's contemporaneous Inter-University Centre for Astronomy and Astrophysics (IUCAA) campus in Pune (1988-92) - a scientific facility within the colonial Pune University area.[25] In an attempt 'to express our contemporary notions of what the Universe is all about' Correa resorted to multiple references ranging from the Indian *kund* (steps around a traditional water tank) strewn with statues of Newton, Einstein, Galileo, and the Indian scientist Aryabhatta in the central courtyard, the fractal Sierpinski triangle in the hostel court, Foucault's pendulum floor-cut in the faculty offices, an ancient Ayurvedic pattern under the central dome with night sky stars cut in the roof; all amounted to populist (but not an Indian) understanding of science reflected through an obvious collage like superficial imagery. The buildings in the unique colourful 'Correa vocabulary' – a modernist ensemble of clusters around courtyards in striking visual compositions assume a secondary position. In the international narratives of Indian architecture, it would be worthwhile to see the framework developed by William Curtis as an example. Curtis, one of the leading British architectural historians, has written extensively on modern architecture in a series of publications around 1987, which predominantly centres on the concept of transformations of modernism using 'authentic regionalism.'[26]

From Corbusier's synthesis of ancient and the modern, Curtis builds up his thesis taking interest in Indian architects like Doshi (an obvious choice since Doshi worked with Corbusier and Kahn), Correa and Rewal.[27] In an article in *Architectural Review*, he talks about the multiple roots of early Indian modernism, the first being the historical roots of subsequent civilisations in the history of India, the second being Achyut Kanvinde who arrived before Corbusier, bringing the Functionalist philosophy and international vocabulary, and the third being American architect Joseph Allen Stein. But the main focus of his essay remained "pivotal Correa" and three buildings by Doshi, Raj Rewal, and Correa respectively which he believed would make 'long range contributions to Indian architecture.'[28] At the time he was writing a monograph on Doshi and Correa's own monograph was already popular.[29] Curtis's analytical framework consisted of integrating the old and the new, the monumental and the folk, the regional and the modern; a theme which he explored at length in the subsequent editions of his book *Modern architecture since 1900*.[30] Though Achyut Kanvinde curiously gets mentioned amongst the 'cross-breeding' tendencies in his canonical book, there is no attempt at elaborating it further.[31] Most of the prominent publications on Indian architecture published mainly after the 1980s thus built upon the conceptual framework of search for 'Indian identity', which was well aligned to the changing climate worldwide.[32]

However authenticity, regionalism, fabrication of Indian ethos to gain popularity and commissions have been recently challenged along with the framework which has defined them. These prevailing themes of the time have been taken up by critics like Vikramditya Prakash raising questions of authenticity targeting Charles Correa's Jawahar Kala Kendra Museum in Jaipur (1988-92). He criticises identity construction process without an attempt at unravelling the 'true' or 'authentic' identity, which he argues is best left concealed.[33] A.G.K Menon, an architect-critic and educator from India has been writing about "identity production"; an evaluation he believes is completely based on western criteria of aesthetic appreciation. He argues for an "independent, hybrid, local framework" for assessing these architectural developments emerging from local needs and situations.[34]

Within this strong cultural context, NIA campus by Achyut Kanvinde is a valuable site of enquiry. A contextual grounding of buildings to create a humane environment seemed to be the overarching theme of his evolution. However in the process, Kanvinde in contrast, consciously refrains from making any visible or recognisable references to traditional elements preferring, on the contrary, increasingly abstract geometric compositions. Though he used the local stone at NIA it is manipulated in the form of grit plaster. The

building is not legible through symbols or images but unravels through its actual usage. Though constantly aware of history and changing trends, Kanvinde increasingly uses geometric rigour to advance his quest for quality of spaces and environment, which he believed were a true measure of good and timeless architecture.[35] As he has said, 'Good architecture did not merely emerge by imitating a so called style of any particular period, but an honest expression of time backed by human need and knowledge.'[36] In that sense, Kanvinde never left his modernist sensibility, rather extended and evolved its regional variations. It could also be argued that NIA, like many of Kanvinde's later buildings, respond to their immediate context and needs but the growing abstraction through architectonics was a critique of the larger cultural context challenging the prevailing themes of the period.

Conclusion

In examining the IITK and NIA campus, designed and built during two distinct periods particular attention was focussed on how Kanvinde approached the contextual issues through formal and spatial aspects of design. In both the projects he is concerned with local climate and materials, spatial organisations reflecting users' needs and integration of indoor-outdoor as emphasised through articulate movement corridors. This is achieved through a rational approach of modular planning and structural grid, both imparting order to the resultant form. While the visual expression remains true to underlying structural logic, it relies on abstraction as a tool to respond to the changing context. At IITK, he discovers alternative ways to make his buildings more locally grounded and in the process negotiates with imported modernity. At NIA, this language of abstraction is extended further as a critique of ongoing shift towards Indianisation. As seen through both the projects, there is a definite blurring between the boundaries of modern and postmodern, the universal and the local, reflecting a unique regional sensibility. Thus context plays a pivotal role in Kanvinde's architecture and the way it gets woven in or challenged proves to be a useful framework for its analysis.

Endnotes

[1] Some notable publications include: Vikram Bhatt and Peter Scriver, *After the Masters: Contemporary Indian Architecture* (Ahmedabad: Mapin Pub., 1990); Jon T. Lang, Miki Desai, and Madhavi Desai, *Architecture and Independence : The Search for Identity--India 1880 to 1980*, Architecture & Independence (Delhi ; New York: Oxford University Press, 1997); Kazi Khaleed Ashraf and James Belluardo, eds., *An Architecture of Independence : The Making of Modern South Asia : Charles Correa, Balkrishna Doshi, Muzharul Islam, Achyut Kanvinde* (New York, N.Y. : Architectural League of New York,1998); Sharveya Dhongde and Chetan Sahasrabudhe, eds., *Achyut Kanvinde* (Pune, India: BNCA Publication Cell, 2009).

[2] 'Kanvinde and Rai' was established in 1955 in Delhi and became 'Kanvinde Rai and Choudhary' (KRC) after Murad Choudhary became partner in 1971. Mr. Shaukat Rai was a civil engineer and

handled the operative aspects of the firm like tendering, bill of quantities, office administration etc while Kanvinde focussed on architectural design and its execution. This distinction in tasks remained right throughout their partnership, and continuing even after architect Murad Choudhary joined as a partner. He and Kanvinde handled most of the projects separately and the projects are credited accordingly in their office project list. This working method was verified by the author through various interviews with Kanvinde's colleagues including Mr. Murad Choudhary.

[3] Achyut Kanvinde. Unpublished letter from personal archives of Ram Paradkar, 28th October 1996.

[4] Kazi Khaleed Ashraf et al., "Building the Nation: The Architecture of Achyut Kanvinde and Muzharul Islam," in *Crossing Boundaries. (*ed.) *Geeti Sen* (London & Delhi: Sangam, 1997), 208.

[5] Sarah Williams Goldhagen and Rejean Legault, eds., *Anxious Modernisms : Experimentation in Postwar Architectural Culture* (Montreal: Cambridge, Masachusetts and London: MIT Press,2000). Also can be seen extensively discussed in the introduction of *Neo-Avant-Garde and Postmodern : Postwar Architecture in Britain and Beyond*, (ed.) Mark Crinson and Claire Zimmerman (Yale Center for British Art ; London: Paul Mellon Centre for Studies in British Art ; New Haven, CT : Distributed by Yale University Press, 2010), 7-10. See also Ananya Roy, "Traditions of the Modern: A Corrupt View," *Traditional dwellings and Settlement Review* XII, no. 11 (Spring 2001) for the distictions between modern and traditional.

[6] Gyan Prakash, *Another Reason : Science and the Imagination of Modern India* (Princeton, N.J.: Princeton University Press, 1999), 233.

[7] The other universities included were geographically distributed at Kharagpur (1951), Delhi (1963), Bombay (1958) and Madras (1959). Ross Bassett, "Aligning India in the Cold War Era: Indian Technical Elites, the Indian Institute of Technology at Kanpur, and Computing in India and the United States," *Technology and Culture* 50, no. 4 (2009).

[8] A. P. Kanvinde and James H. Miller, *Campus Design in India: Experience of a Developing Nation*, Sponsored by United States Agency for International Development (Manhattan, Kansas, U.S.A.: Kansas State University, 1969), 107. A flat topography with a canal on one side and major transport links on other, hot and dry climate, phased development, future expansion, interaction between diverse activities and segregated movement determined the overall organisation of the campus. The design of staff and students housing was allocated to Kothari and Associates. The campus was envisioned for 2400 students and 500 staff with possibility of doubling in the following years.

[9] "Indian Institute of Technology, Kanpur," *Design. Bombay* 13(1969): 13-18. Kanvinde worked closely with Professor P.K. Kelkar, director of IITK and Professor Norman Dahl from USA to evolve the design according to this concept.

[10]Achyut Kanvinde, 1968, in conversation with students when asked about so many walkways in the campus replied that these will function similar to arteries and veins linked to the heart. Discussion with Ram Paradkar at Pune in January 2011. The use of 'circulation' as a scientific metaphor used extensively in modern architecture could justify Kanvinde's explanation, see its discussion in Adrian Forty, Words and Buildings : *A Vocabulary of Modern Architecture, Vocabulary of Modern Architecture* (London: Thames & Hudson, 2000), 87-101.

[11] "Indian Institute of Technology, Kanpur," 18.

[12] Kanvinde's initial buildings like ATIRA (Ahmedabad Textile and Research Association: 1953) and PRL (Physical Research Laboratory: 1953) both at Ahmedabad are often seen as best examples of the imported modernism.

[13] A seminar was organised by the Lalit Kala Academy in Delhi to debate and decide a direction for the future of Indian architecture, which was convened by Kanvinde and attended by Nehru and other politicians as well as active professional members. "Seminar on Architecture", (New Delhi, March 1959).

[14] The problem of dark and gloomy corridors at ATIRA was resolved with the help of semi-enclosed corridors as seen in St. Xavier's School and Carmel Covent School both at New Delhi (1961-63). Here he also moved away from monolithic blocks and strip windows to create self-shadowing projecting and receding floors. The tectonics of framed construction got more accentuated as its openings got interwoven with structural logic. In this process, the surfaces became more articulat(ed.) A combination of exposed brickwork came into play at the NCAER, Delhi (National Council of Applied Economic Research: 1961) which developed further at Darpana School of Dance (1963), Ahmedabad abandoning the white walls. The process of IITK designing started concurrently with these projects from 1959 onwards.

[15] Ashish M.N. Ganju, "Achyut P. Kanvinde-Doyen of Indian Architecture," in *Vistara*, (ed.) Carmen Kagal (Bombay:Tata Press Limited: The Festival Of India, 1986); Harsh Kabra, "An Architect of the People," *The Times of India* 27 August 1999; Prabhakar Kulkarni, "Senior Architect Honoured," *The Times of India (1861-current)* 1990; "Interview of Achyut Kanvinde by Narendra Dengle," (Nashik: Indian Institue of Architects: Nashik Chapter, 1997); "Interview of Achyut Kanvinde by Narendra Dengle", (Pune: FEED 2000). In all these interviews, Kanvinde has repeatedly talked about human spaces and humane values as the core of his work.
[16] Ashraf and Belluardo, eds., An Architecture of Independence : The Making of Modern South Asia : Charles Correa, Balkrishna Doshi, Muzharul Islam, Achyut Kanvinde, 73.
[17] Kanvinde and Miller, *Campus Design in India: Experience of a Developing Nation*, 97-105.
[18] Aaron Betsky, "American Dream," *Architect* 99, no. 9 (Sep 2010): 56-58.
[19] Kanvinde and Miller, *Campus Design in India: Experience of a Developing Nation.*This book on campuses published soon after the completion of IITK reflects on the various models of university campuses, both in India and abroad to arrive at guidelines.
[20] Lu Duanfang, "Architecture, Modernity, and Knowledge," F*abrications: The Journal of the Society of Architectural Historians Australia & New Zealand* 19, no. 2 (2010): 153.
[21] From the NIA official website: http://www.niapune.com (accessed on 15/11/2011)
[22] Kiran Kalamdani, "Design Review: Campuses Revisited," *Architecture+Design* XII, no. 6 (Nov-Dec1995): 57. This article by Kalamdani is the only one published which covers this campus design extensively though it has been featured in a few other instances. *Gurukul* was a traditional system of education in India, which involved students going to teachers' place (a small village like complex) which was often situated outside the towns in a serene setting.
[23] This was amply evident in his preceding campus in Pune for the National Institute of Banking Management (NIBM: 1980-84) where Kanvinde had used local stone masonry and composite construction. Interview with Sharad Shah, Bombay, structural consultant for both the projects (NIA & NIBM), January 2012. Shah talks about the decision to use local basalt stone as chosen by Kanvinde and the team to respond to the colonial context of Pune. However, over a period of time it posed leakage problems which thus had to be discarded for grit plaster at NIA.
[24] Many of Correa's articles voice the changing concerns from climate to myths mark this period. See for example, Charles Mark Correa, "A Place in the Sun," *Places*, no. 1 (1983); Charles Mark Correa, "Open to Sky Space," *Mimar: architecture in development*, no. 5 (1982); Charles Mark Correa, "The New Landscape," *Mimar: architecture in development*, no. 17 (1985). Arguments progressed by Western historians like William Curtis and Kenneth Frampton with respect to authenticity and regionalism were grounded through monographic works for example William J. R. Curtis, *Balkrishna Doshi : An Architecture for India* (New York: Rizzoli, 1988).
25 Charles Correa, (ed.) *Charles Correa* (London, England : Thames & Hudson, 1996).
[26] William J. R. Curtis, "Towards and Authentic Regionalism," *Mimar: architecture in development* 19(1986).
[27] William J. R. Curtis, "Authenticity, Abstraction and the Ancient Sense: Le Corbusier's and Louis Kahn's Ideas of Parliament," *Perspecta* 20, no. ArticleType: research-article / Full publication date: 1983 / Copyright © 1983 Yale School of Architecture (1983); Curtis, "The Ancient in the Modern."; Curtis, *Le Corbusier : Ideas and Forms*.
[28] William J. R. Curtis, "Modernism and the Search for Indian Identity," *Architectural review* 1086(1987); Curtis, *Balkrishna Doshi : An Architecture for India*.
[29] Charles Correa and Sherban Cantacuzino, *Charles Correa, Architects in the third world* (Singapore: Concept Media, 1984)
[30] William J. R. Curtis, *Modern Architecture since 1900* (London : Phaidon, 1982-96). See chapter 31 and 34 in the third edition.
[31] Ibid., p.571.
[32] Bhatt and Scriver, *After the Masters : Contemporary Indian Architecture*; Lang, Desai, and Desai, *Architecture and Independence : The Search for Identity--India 1880 to 1980*.
[33] Vikramaditya Prakash, "Identity Production in Post-Colonial Indian Architecture: Recovering What We Never Had," in *Postcolonial Space(S)*, (ed.) Gulsum Baydar Nalbantoglu and Wong Chong Thai (New York Princeton architectural Press, 1997), 14-15. Ritu Bhatt attributes this construction of historical narrative to legitimise specific cultural agendas by connecting Correa's participation in the Festivals of India and his concurrent building – Jawahar Kala Kendra in: Ritu Bhatt, "Indianizing Indian Architecture : A Postmodern Tradition" TDSR, XIII, 1 (2001); Newton D'souza, "Signs That Don't Mime: Re-Examining Correa's Late Architecture," *Architecture + Design* (Nov-Dec 2003).

[34] Krishna Menon, "Interrogating Modern Indian Architecture."; A. G. Krishna Menon, "The Invention of the Modern Architect," *Architecture+Design*, (March 2008). According to him most of the architects have only transferred the images of 'International style but continued to use local technology in the initial period and later only reinterpreted traditions limited to the planning and spatial organisation but did not address the development of their architectonic form.
[35] Achyut P. Kanvinde, "Kanvinde's Journey in Architecture" - Dialogue with Ar. A. P. Kanvinde " (FEED Pune, July 1999).
[36] Achyut Kanvinde, "Quest for quality in architecture and urbanisation," in Dhongde and Sahasrabuddhe, eds., *Achyut Kanvinde*.

Bernhard Hoesli and Colin Rowe: Phenomenal Transparency as method for analysis and design

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Abstract

In their time as 'Texas Rangers', Swiss architect Bernhard Hoesli and British architectural historian Colin Rowe taught together at the School of Architecture in Austin, Texas. Their collaboration was intense during these years in Austin. Although it was not Hoesli, but Robert Slutzky with whom Colin Rowe wrote his famous essay 'Transparency: Literal and Phenomenal', Hoesli not only translated this essay into German, but he also based much of his studio teaching in Zurich on the idea of a phenomenal transparency.

In his comprehensive retelling of the story of the 'Texas Rangers', Alexander Caragonne has already shed some light on Hoesli's teaching in Zurich, based on the material he found in the gta archives at the ETH. Swiss historian Werner Oechslin has also pointed out that Hoesli had repeatedly been criticised for being too deterministic with his practical application of phenomenal transparency for his teaching purposes. But the story of three young academics who set out to reinterpret visual ambiguity through architectural spatiality has not yet fully been told. In short, Hoesli's contribution to the development and dissemination of the idea of phenomenal transparency has largely been overlooked in the English speaking part of academia. Although the English-language original of 'Transparency' is so well-known, the German translation is not. But this translated version was enriched by a lengthy commentary written by Hoesl,i which turned the article into a whole book – as which it is still published by gta in Zurich.

Making use of archival materials from the estate of Bernhard Hoesli at ETH Zurich, this paper revisits the genesis of the German language version Transparenz, attempting to adjust the role that has been attributed to Hoesli in the development and dissemination of phenomenal transparency, while arguing for the equal value of Hoesli's and Rowe's differing positions.

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Introduction

As happens often in the history of modern architecture, an event of limited duration occurring in a very restricted location has had lasting effects on the intellectual approach to architecture and the approach to design teaching: the short, but intense experiment of the 'Texas Rangers', a group of young architects and academics who came together at the Architecture School in Austin, Texas in the early 1950s, changed the ways in which architecture was interpreted and taught. And before they even knew it, the small group had been dispersed again. They were: architect-historian Colin Rowe, painter Robert Slutzky, architect John Hejduk and architect Bernhard Hoesli, to mention the central four protagonists of this group.[1] Rowe's presence in Austin has been the subject of sufficient attention over the last years, but his Swiss colleague Hoesli attracted much less interest. What this small group left to the world of architecture was the notion of 'phenomenal transparency', a way of spatially reading flatness or two-dimensionally understanding depth. This was promoted by Rowe and Slutzky in their famous article 'Transparency: Literal and Phenomenal', written in 1955 but published only eight years later in *Perspecta*. Another five years later it was published as *Transparenz* in Zurich, translated into German and edited by Hoesli, who had been in Austin together with Rowe and Slutzky; indeed, he had both arrived earlier and stayed longer than the other two at the University of Texas Architecture School.[2] Hoesli's translation is notable in that he made the idea of a 'phenomenal transparency' available to design teaching in the German language context beyond the ETH Zurich; and, particularly, in his substantial addition of visual material and commentary to the article – which turned it into a book in its own right. These additions added quantitatively and qualitatively to Rowe's and Slutzky's original article.

Difficult friendship in Austin: Colin Rowe and Bernhard Hoesli

Rowe remembers how he had been 'summoned' to Austin, Texas by the Head of School's wife, Mrs. Jean Harris, in mid-1953. The 'Czarina', as Rowe called her, 'abruptly […] invited my presence in Austin and so, inevitably, I obeyed. […] after all, it was the equivalent of a royal command'.[3] Thus, Rowe joined the faculty at the University of Texas in January 1954, for five semesters only, as it turned out. Mrs. Harris had requested that he should pay regular visits to the Harris' house. 'At these it was Mrs. Harris who, for the most part, presided; and Harwell was, for the most part, little more than a recessive note taker. […] In other words, by late February our meetings were effectively comprised of Jean Harris, Bernhard Hoesli and, myself.'[4]

This was three years after Hoesli had arrived in Austin. Bernhard Hoesli, from the Swiss Canton Glarus, had begun his studies of architecture in Zurich in 1943, during the Second World War, and graduated from the ETH in 1948. From October 1948, he spent a year in Le Corbusier's office at 35, Rue de Sèvres, in Paris. There he worked on 'a piece on the Modulor and on the *plan directeur* for Smyrna.'[5] He was also active on the building site of the Unité d'Habitation in Marseille. But in addition to his time at Le Corbusier's office, he worked, 'twice a week in the atelier of Fernand Léger.'[6] Hoesli was obviously both keen and lucky to work for two of the central figures in contemporary art and architecture. He left Europe for New York where he arrived in January 1950 to find work, without worrying too much about what the future would have in store for him.[7] Hoesli was convinced that now that modernism was firmly established, this was the right time to be 'building, this is not the time any longer to write manifestos – the theory is there, one doesn't need to repeat this, it is much more difficult now to put these ideas into reality, to do instead of talking and criticizing.'[8] He found himself at the right place for action instead of theorising, but New York must have come as a shock: Hoesli had to discover that his all-round education from the ETH was not of much help here: 'the employer doesn't know which work to assign one to. 'I can't see how you could be of any use' said a senior draftsman after having leafed through my portfolio.'[9] Hoesli even had to realise that his experience in Le Corbusier's office was of no particular value for a New York employer and that a young architect had to be useful, like a tool in a Taylorised work process.[10] Despite these difficulties, Hoesli found a job and also private clients, the Untermyers, for whom he designed his first house in West Deerfield, Illinois, in 1951.[11] After one and a half years in New York, Hoesli came to Austin in the autumn of 1952, thinking that he might stay for two or three years. A year later, Colin Rowe joined the faculty, later remembering that 'Bernhard and I shared an office together for the five semesters that I was at the University of Texas'.[12]

Hoesli's New York experience, which called into doubt the time in Le Corbusier's office, must have had a direct impact on Hoesli. Rowe showed himself taken aback by the architectural position that his Swiss colleague took, in apparently exchanging Le Corbusier as a model for Frank Lloyd Wright:

> To me, Bernhard seemed desperately anxious to shed the Corbusian influence which he had been privileged to acquire at first hand. The redeeming message now could only come from Spring Green, Wisconsin, and Scottsdale, Arizona; and, failing access to the source, it could only derive from such a Wrightian disciple as Harris.[13]

Just having visited a number of Wright's houses himself, Rowe found them 'gruesome/lugubrious/coercive', adding that 'I must have made this evaluation highly evident and remonstrated with Bernhard for what I, probably, called his apostasy.'[14] Despite these differences they worked together very closely, indeed co-authoring a paper in early 1954. This was a letter presented to the Faculty by Harwell Hamilton Harris in May 1954 as his own thoughts, in which Hoesli and Rowe had developed a strategic re-orientation of the school's teaching programme, 'intimating a triangle of relevant achievement comprised of the productions of Wright, Mies, and Corbu'.[15] It distinctively changed the direction of teaching in Austin and led to the appointment of John Hejduk, Robert Slutzky and Lee Hirsche. When the new staff members all took Le Corbusier and Mies as models to employ in their teaching, this led to major conflicts, particularly with Mrs. Harris, whose husband was the great advocate of Wright's work in Austin.[16]

According to Rowe, his opinions and aims and Hoesli's were very similar then: 'But how to distinguish Bernhard's contributions from my very own […] at a time when neither of us had any philosophical dispute beyond the problems of English flippancy and Zurich *seriosità*?'[17] Given this close intellectual collaboration, one might ask why it was not Hoesli, but Robert Slutzky, with whom Rowe would write his article on transparency.

Rowe's and Slutzky's discovery of a 'Phenomenal Transparency' in architecture

'Transparency: Literal and Phenomenal' was written by Rowe a year after the letter to the Faculty, in autumn 1955, together with Robert Slutzky. According to Rowe's recollection, 'though the words were mostly mine, the leading ideas must mostly have been Robert's.'[18] But it was only published in *Perspecta*, No. 8, in 1963.[19] They establish the now well-known and influential distinction between literal and phenomenal transparency, using Cubism as their starting point. Ideas by Gyorgy Kepes from his *Language of Vision* are utilised to define phenomenal transparency, and in a second step, applied to architecture.[20] Rowe and Slutzky engage in a highly sophisticated debate, defining space and spatial qualities of modern architecture almost tangibly. About Le Corbusier's and Pierre Jeanneret's League of Nations project of 1927 they say that 'if we could attribute to space the quality of water, then this building is like a dam by means of which space is contained, embanked, tunnelled, sluiced, and finally spilled into the informal gardens alongside [Lake Geneva].'[21] Phenomenal transparency takes on two different manifestations, one being a vertical 'system of spatial stratification' as found in the façades of Le Corbusier's Villa Stein/de Monzie in Garches;[22] the second being a similar reading of the floor plans as horizontally overlapped planes.[23] Having established the

qualities of Le Corbusier's architecture, their verdict regarding literal transparency is almost damning, with Moholy-Nagy and Gropius as the victims of their judgement, in that 'these possibly cerebral refinements are scarcely so conspicuous at the Bauhaus; indeed they are attributes of which an aesthetic of materials is apt to be impatient.'[24]

Rowe's and Slutzky's discovery has remained significant in that it describes an intricate and ambiguous way of designing architectural spaces. As Bruno Reichlin has recently suggested, the notion of phenomenal transparency might better be identified as 'enjambment'. With this, Reichlin at once refers to Le Corbusier's own use of this term in 1926 and to the technique as used in poetry, 'the breaking of congruence between syntax and meter, which occurs when the end of a phrase […] does not coincide with the end of a line.'[25] This, Reichlin claims, could be applied to Le Corbusier's treatment of space in the Villa Stein/de Monzie in Garches. Whichever way one looks at 'phenomenal transparency', the fact remains central that Le Corbusier was the ideal test case since he consciously worked with techniques that allowed the interpretation of architecture as being phenomenally transparent. At the time of Rowe's and Slutzky's writing, few other architects had attempted to create such ambiguous overlaps between spaces and shifts between the vertical and horizontal space, between flatness and depth. Following a similar argumentation, and having called into doubt whether there was any cubist architecture at all, Yve-Alain Bois identifies Le Corbusier as the only architect whose works can be rightly called 'cubist' architecture.[26] Bois draws attention to one *papier collé* by Picasso, called *Bottle of Vieux Marc, Glass, and Newspaper* of 1913, describing the manipulations of formal affiliations in the piece as an 'endless play of the interchangeability of signs that follows from their arbitrary character' and adds: 'When Le Corbusier engages in the same kind of whimsical games, and he does so often, I am glad to bestow on him the title of *cubist* architect.'[27] Bearing this in mind, it is no surprise to see Bernhard Hoesli engage with this play of layering through Le Corbusier's paintings and architecture – but the question then arises how to react to Hoesli's attempt to declare 'Transparenz' a 'universal criterion for the characterization of a system of form.'[28]

Early indications of Hoesli's interest in transparency/layering

Almost ten years before Rowe and Slutzky would formulate the idea of a 'phenomenal transparency' in architecture, Hoesli had shown interest in the notion of spatial layering apparent in cubist and purist painting. A first indication of this interest is recorded in a personal note of July 1947, from Hoesli to Sigfried Giedion, his Professor at the ETH. Hoesli, still a student of architecture, thanks Giedion for his lecture and requests additional seminar sessions, to be devoted entirely to the topic of sculpture and painting

since 1910 and to single architects like Le Corbusier and Gropius.[29] From this time also dates a sketchbook in which Hoesli explores aspects of what could be called a 'flatness-depth-debate'. Dated 25 June 1947, he sketches an endless, varying façade, with cubic elements apparently protracting from the picture plane (Figure 1). Other sketches appear to be adaptations of Le Corbusier's contemporaneous designs while again other drawings appropriate some of Le Corbusier's graphic techniques.

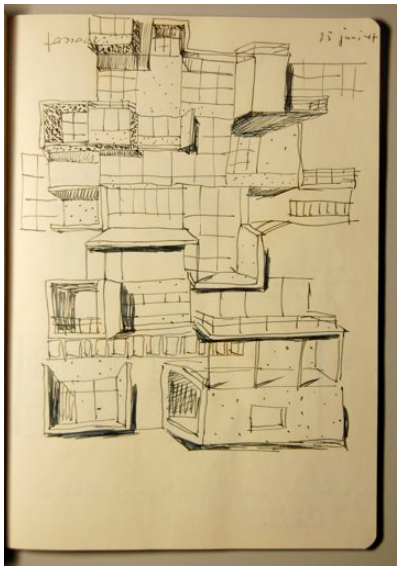

Figure 1. Drawing from Hoesli's sketchbook, dated 25 June 1947.
(Hoesli estate, archives of the gta, ETH Zurich).

Remarkable is a coloured drawing in wax crayon (Figure 2), dated the 1st of June, 1948, in which flat and three-dimensional organic objects float in the undefined space of the book's white paper while overlapping semi-transparently so that that some of them oscillate between being observed as placed before or behind the other object – in short: Hoesli is applying techniques that are reasonably close to what Rowe and Slutzky, seven years later, will call 'phenomenal transparency'. Was Hoesli consciously exploring the topic of spatial ambiguity or is this mere coincidence? In a further black and white pen drawing, Hoesli explores this topic again (Figure 3), managing to draw an elliptical figure in such a way that it seems to protrude horizontally towards the viewer, while also fitting into the vertically drawn configuration which might, according to Hoesli's own caption, be read as exhibition space: 'establish relationships – it might as well be an exhibition with spatial relationships, views through space, encounters'.[30] There are further drawings with slightly overlapping surfaces but these two stand out.

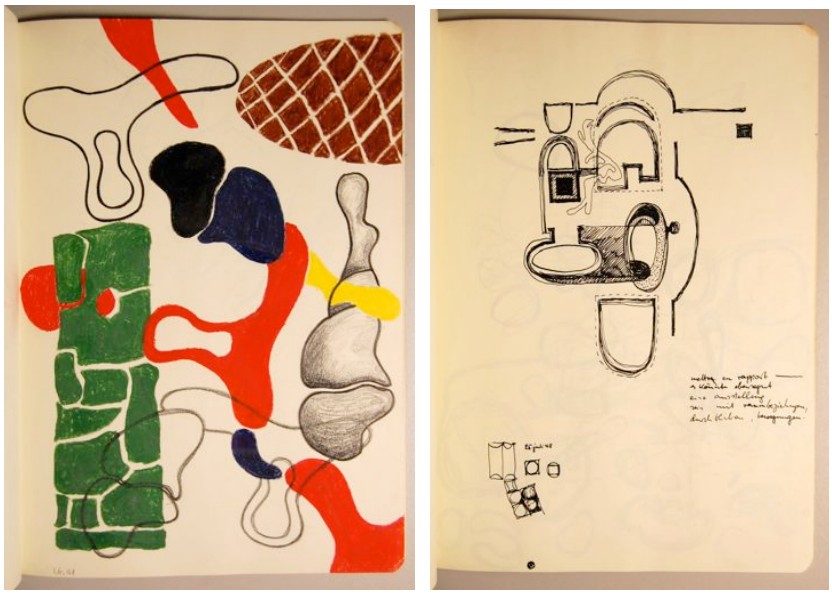

Figure 2. Drawing from Hoesli's sketchbook, dated 1 June 1948.
Figure 3. Drawing from Hoesli's sketchbook, dated 25 June 1948. 'mettre en rapport – es könnte ebensogut eine ausstellung sein mit raumbeziehungen, durchblicken, begegnungen.' (Both images Hoesli estate, archives of the gta, ETH Zurich).

In these small sketches and diagrams Hoesli positions layers three-dimensionally, at times giving them precise spatial allocation, at other times creating ambivalent spatiality, not unlike Le Corbusier's drawings and paintings of this time. Having been taught by Sigfried Giedion at the ETH, Hoesli must have been au fait with his professor's use of the 'Wölfflinian' method of visual juxtaposition. Undoubtedly, he would have known Giedion's image pairing, as published in *Space, Time and Architecture*, of Picasso's *L'Arlésienne* of 1911-12 and Walter Gropius' Bauhaus building in Dessau of 1925-6. Giedion aimed at proving that 'the cubist device of simultaneity' as found in Picasso's painting had been taken over by architecture's transparency which allowed the 'kind of overlapping which appears in contemporary painting'.[31] Even if Rowe was to seriously disagree with Giedion on the interpretation of transparency, the Swiss art historian served as source of inspiration and critical energy for both Rowe and Hoesli.[32] These observations are not intended to make the improbable claim that it had really been Hoesli who came up with the notion of phenomenal transparency, but it stands to reason that through his diverse first-hand exposures to the best in contemporary architecture, art and art history, he had his own, pre-established interest in this field which, in the debates between the 'room-mates' Rowe, Hoesli and Slutzky in Austin, would have helped the formulation of phenomenal transparency. And it would explain Hoesli's deep interest in an expanded and commented version of it – the German language *Transparenz* of 1968.

Transparenz: the German version of Transparency

As Swiss historian Werner Oechslin has aptly pointed out, the history of the various editions of the 'Transparency' articles is anything but transparent.[33] Indeed, it is rather confusing, which has to do with the long delays of publication of Rowe's and Slutzky's 'Transparency' I and II and with the fact that Hoesli, knowing both articles from the originating moments, added his own editorial work when translating 'Transparency I'. In the German language version, *Transparenz*, Rowe's and Slutzky's article thus turned into a veritable little book, which in its latest version (1997) contains 120 pages. For the first German edition in 1968, Hoesli wrote a 'Kommentar': a richly illustrated commentary of some 28 pages, to explain the significance and applicability of Rowe's and Slutzky's theory. Then, in the third edition of 1989, five years after Hoesli's death, the publishers added a further illustrated comment of another 35 pages which Hoesli had written in 1982. And in the fourth edition of 1997, a 12-page foreword by Oechslin was added, which acts as an historiographic account and interpretation of Hoesli's work.[34] All these additional texts are of merit, but the most important to compare with Rowe/Slutzky in this context is the Kommentar, which will henceforth be referred to under its German title.

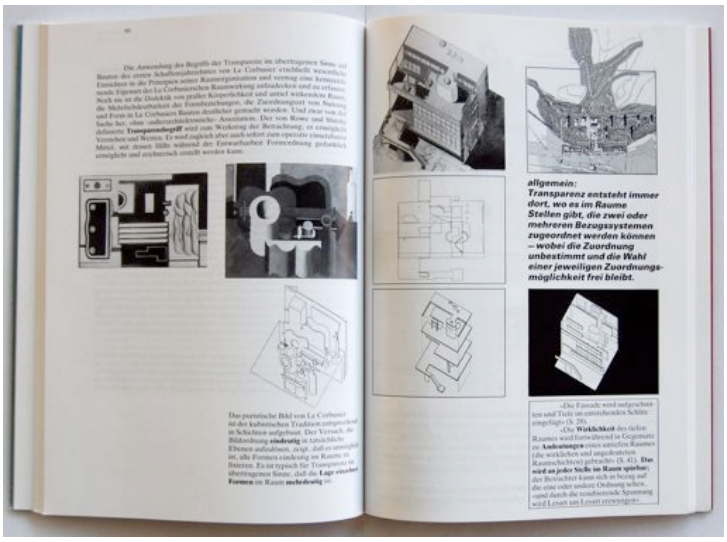

Figure 4. Bernhard Hoesli, 'Kommentar' to his German translation of 'Transparency: Literal and Phenomenal', (in Colin Rowe and Robert Slutzky, *Transparenz*, Basel and Zurich: Birkhäuser and gta, (4th edition) 1997), 60-1.

In the Kommentar, Hoesli uses a very particular layout technique in order to break down the complexity of Rowe's and Slutzky's arguments into digestible bits of illustrations and text. This indicates his strong educative stance towards architectural theory. Consisting of two parts, one being a traditional text of some four pages, the Kommentar displays as its

main element a visually compelling series of text boxes alternating with images, part plans, elevations or perspectives, and part analysis of the buildings investigated (Figure 4). It shows characteristics of a comic strip or an illustrated newspaper. Hoesli develops his 'explanatory aid' of the illustrated Kommentar in two steps, which become intermingled in the draft as preserved in the archives in Zurich, and are not apparent in the book as printed. He bases his layout scheme on a 'unit' of 64 x 49 mm which resemble slides. Often zooming in or out in scale, they endow the Kommentar with a notion of movement, as if some architectural film was shown in stills.[35] Interspersed are text blocks, mostly of the size of a slide, either quoting passages from Rowe/Slutzky or explaining Hoesli's choice of illustration. Two draft layout drawings exist of this educational architectural film.[36] One is executed in pencil, while the other, drawn with a black felt pen, plays with the contrast of the figure-ground technique: some of the 'slides' are black panels, containing white drawings, thus adding contrast and legibility to the whole layout (Figure 5). Hoesli thus adds a strong aesthetic dimension to the whole Kommentar, although the printed version is slightly less consistent in using the figure-ground technique than the draft version.

Hoesli uses the same buildings as Rowe and Slutzky: the Villa Stein/De Monzie to begin with; and the façade of the Cà d'Oro in Venice as well as Michelangelo's designs for the façade of San Lorenzo in Florence. The latter two are analyzed in detail in Rowe/Slutzky's second article on transparency of 1956 that had not yet been published when Hoesli's *Transparenz* was printed in 1968, but which Hoesli knew well from the Austin days. The additional eighteen examples of buildings – shown in plans and sections – plus town plans go beyond the very restricted range of buildings discussed in Rowe/Slutzky I and II. As such, Hoesli's Kommentar has become a publication very much of its own, which only takes Rowe's and Slutzky's 'Transparency' as its starting point.

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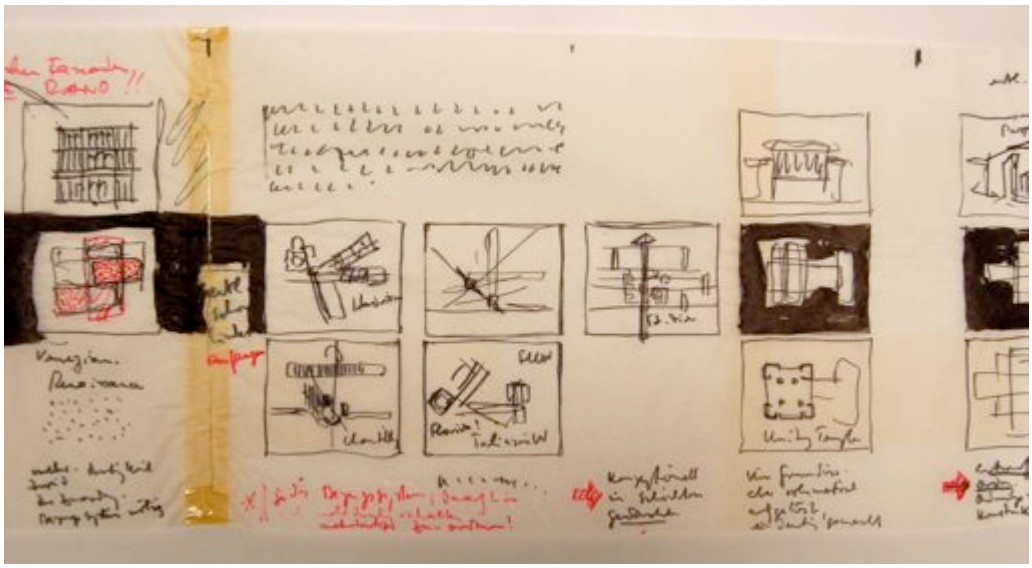

Figure 5. Bernhard Hoesli, sketch design layout for *Transparenz*, c.1968. Felt pen on paper.
(Hoesli estate, archives of the gta, ETH Zurich).

It seems as if Hoesli had translated graphic elements of books by Le Corbusier and Sigfried Giedion into an educative and interpretative tool. Both are likely precedents since Hoesli, while working for Le Corbusier, had designed a leaflet of poster-size on the Unité d'Habitation for the seventh CIAM meeting in Bergamo, Italy, in July 1949, which explores similar means of presentation. The leaflet combines printed and handwritten text, drawings and photographs in a semi-collage layout. Hoesli later wrote comments onto his own copy, reassuring himself of the role that he had played in promoting Le Corbusier's work and ideas, not least at this CIAM meeting. One of these comments is written next to the well-known section drawings of the Unité, saying: 'These drawings by me were later to be found in many publications.'[37] This detail may demonstrate the high regard in which he held Le Corbusier's work, and temper Rowe's memories of Hoesli completely shifting allegiance from Le Corbusier to Frank Lloyd Wright. Having studied under Giedion at the ETH Zurich, Hoesli would also have been familiar with Giedion's publications and thus with the art historian's use of the 'Wölfflinian' method of visual comparison, as well as his graphic devices of visually highlighting arguments that needed to be brought forward. Particularly in *Bauen in Frankreich. Bauen in Eisen. Bauen in Eisenbeton*, Giedion strongly used graphic means to transport his message to the 'hurried reader'.[38] Given these links, it is not far fetched to assume that Hoesli had learned some of his graphic techniques from Giedion and Le Corbusier.

What is the content of the well-designed Kommentar? Hoesli shows and explains, with the help of modern as well as Renaissance examples, where and how phenomenal

transparency can be discovered in architecture. First and foremost, he employs examples from Le Corbusier's work, beginning with the main 'drawing card', the Villa Stein/de Monzie. Hoesli extends this to examples of urban or semi-urban plans – Le Corbusier's plan for St.-Dié, the Villa Hadriana and Jaipur, India. These are followed by further examples, in no particular order, of buildings by Le Corbusier and others. Further architects featuring in the Kommentar are Frank Lloyd Wright, Alberti, Michelangelo, Palladio, Philip Johnson – and Mies van der Rohe, only for Hoesli to claim that the intricate spatial order of Mies' pre-USA plans did not lend itself as an example for phenomenal transparency, since 'the reduction of spatially defining elements to freestanding walls and the dissolution of spatial relationships between inside and outside are fostering literal transparency.' Comparing this technique of planning with Moholy-Nagy's painting *La Sarraz*, used by Rowe/Slutzky as an example of literal transparency, Hoesli adds that here, 'the reading of spatial relationships remains unambiguous'.[39]

Hoesli employs two main diagrammatic techniques in order to demonstrate where, in the chosen examples, phenomenal transparency can be perceived. One way is by pulling apart the vertical planes of a building, for example of the Villa Schwob in La Chaux-de-Fonds, and showing them as isolated in an axonometric diagram. Another way is by hatching areas of a building in floor plans. The hatching shifts where overlaps occur in order to indicate that these areas can be read as belonging to two different spatial systems, mostly as axes crossing one another. Hoesli thus reacts to the two different systems of phenomenal transparency that Rowe and Slutzky had identified and analyzed in their article, but simultaneously simplifies Rowe's complex formulations. It comes as no surprise to see the Villa Stein/de Monzie used for the most elaborate diagrammatic analysis in this context. Hoesli also draws Le Corbusier's early purist painting *Still life with stack of plates* (1920) as dissolved into vertical planes, in order to demonstrate the ambivalent role the circle in the left hand centre of the painting plays – in that it can be read either as a guitar hole (vertical) or as the top plate of the stack of plates (horizontal). Hoesli's analysis as such is less original than explanatory but it relates closely to the aforementioned drawings in his 1947-8 sketch book, in which he had done exactly this – drawn an elliptical form so that it could be read as vertical and horizontal at the same time.[40] Many of the architectural examples called on by Hoesli are only depicted and analyzed in a few drawings, with one exception to be pointed out. Over a suite of six pages, Hoesli analyzes Le Corbusier's design for the Palace of Justice in Chandigarh (Figure 7). The reader does not immediately understand what would distinguish this example from the others to warrant closer examination, since it is mainly its façade in which phenomenal transparency appears, and looked at superficially, it seems

straightforward. But Hoesli explains its complexity through introducing an earlier version of the façade which appears as a simple 'inventory-like enumeration of all its constituent elements'.[41] Addition instead of overlap is Hoesli's verdict for the original design version. In the drawings as executed, however, Hoesli finds the façade changed 'radically'. The spatial and structural elements of the façade are now 'portrayed by horizontal and vertical formal elements which are interwoven into a complex system of form, in which alignment [Reihung] and layering overlap and permeate each other.'[42] From here on, Hoesli virtually pulls the façade apart and puts it together again, showing through a diagram and photographs how Le Corbusier managed to create this complex overlap in which 'the two vertical layers of the spatially activated façade are visually juxtaposed.'[43] Hoesli gives an important clue to understanding this complexity by referring to Le Corbusier's Duval factory in St.-Dié, which displays a similarly layered façade but in which these two layers are strictly separated, running along behind each other in a quasi-musical manner like bar lines (the brise-soleils) and syncopated notation (the fenestration behind).[44] In Chandigarh, however, these two layers 'seem to permeate each other, then appear separate again,'[45] thus creating the necessary tension for phenomenal transparency to appear.

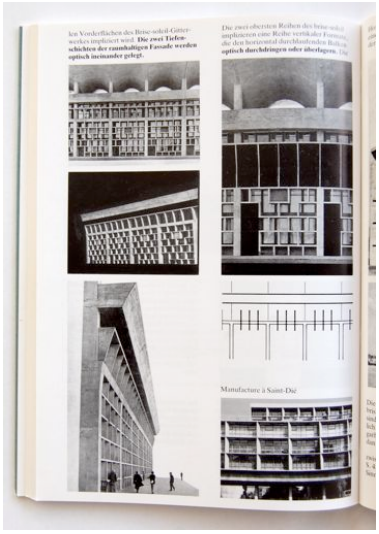

Figure 7. Bernhard Hoesli, analysis of Le Corbusier's Palace of Justice, in the 'Kommentar' to his German translation of 'Transparency: Literal and Phenomenal', in Colin Rowe and Robert Slutzky, *Transparenz*, 80.

What is Hoesli's role in the gestation of 'Transparency'?

In his account of the *Texas Rangers*, Alexander Caragonne develops a reading of Hoesli's role in the gestation of the 'Transparency' articles which is less than flattering for

Hoesli, leaving him with an almost tragic role to play. Caragonne partly relies on conversations with one of Hoesli's former colleagues, Professor Furer in Zurich who sees Hoesli as 'transmitter' rather than inventor of ideas: 'he was not the script writer but rather the actor.'[46] Caragonne claims that in the relationship between Rowe and Hoesli there was jealousy and envy involved from Hoesli's side, and he criticises Hoesli for his 'self-appointed role as bearer of the message [who] also understood his task to be that of an interpreter of the significance of the modern movement.'[47] This implies that Hoesli should have been following Rowe rather than developing his own position. While crediting Robert Slutzky with the background knowledge necessary to provide the painterly material to the understanding of transparency, Caragonne attributes Rowe with having put the essay into words, thus following Rowe's own account. Nevertheless Caragonne acknowledges Hoesli's participation 'in most, if not all, of the discussions during the gestation of the article.'[48] But he adds that '[g]iven Hoesli's fascination with the implications of transparent space within the work of Frank Lloyd Wright, it is perhaps of crucial significance that nowhere in the article do we find mention of that inventive genius and his work.'[49] Again relying on Rowe's memory, Caragonne argues that this was because 'Hoesli (inexplicable to Rowe) had transferred his allegiance to Wright.'[50] Therefore, Caragonne suggests that if not Slutzky, but Hoesli had collaborated with Rowe on 'Transparency' it would have become a different essay – as the German translation, *Transparenz* clearly shows, in which Hoesli 'gratuitously provided a commentary that could only have been intended to 'correct' what he must have understood to be certain deficiencies in the original, among other things the absence of a strong Wrightian component'[51]. And Furer even claims that Hoesli's 'colleagues were obliged to step in to protect him to avoid publishing Transparenz under his own name'.[52] These claims need to be revisited, as far as is possible with even greater distance from the events.

This paper has attempted to show that Hoesli was far more than just a transmitter of someone else's discoveries who would have had no right to add his own comment to the notion of phenomenal transparency. The claim that he intended to shift the emphasis of phenomenal transparency in architecture must seem correct, but our analysis here should have made clear that – as much as jealousy and envy may have been involved – the shift was intended to make the difficult theory of transparency easier to understand and to become a methodology for designing. Also, our detailed enumeration of architectural examples that were added to the Kommentar helps to adjust Caragonne's verdict: of 18 buildings introduced in the Kommentar in addition to Rowe's and Slutzky's selection, only four were by Wright, two of which were even used as examples for *not*

providing phenomenal transparency. Hoesli had not given up allegiance to Le Corbusier at all, as the eight additional Corbusian examples in the Kommentar demonstrate.

In his reading of façades, Hoesli remains close to Rowe's and Slutzky's original formulation of the ambivalent overlap of spatial layers. It is in the reading of floor plans where a difference lies. In his Kommentar, Hoesli describes single storey floor plans – by Philip Johnson, Alberti, or by Le Corbusier – as phenomenally transparent, simply because two spatial systems are overlapping in them: a church nave versus its side chapels, for example. He explained: 'Transparency always comes into being where there are points in space that can be attributed to two or more systems of reference, with the attribution remaining undetermined.'[53] For Hoesli it was not a problem to read phenomenal transparency from *inside* the space. Rowe and Slutzky however had worked with the notion, taken from Kepes, that 'figures' overlapped and that a frontality was necessary to perceive phenomenal transparency: 'As a Fernand Léger and a Piet Mondrian man [Slutzky] insisted upon the assertive contributions of frontality and upon the supremacy of the picture plane.'[54] Thus, they had developed an elaborate reading of superimposed overlaps of floor plans in the Villa Stein/de Monzie that required an imaginary point in space, *outside* the building, from which to perceive the overlap of plans.

Rowe's and Slutzky's second 'Transparency' article has not been the subject of this investigation, but it might be used to support the perceived difference between Rowe's and Hoesli's reading of phenomenal transparency. 'Transparency II' culminates in a series of diagrams, interpreting the layering found in Michelangelo's proposed façade for San Lorenzo in Florence.[55] These twenty diagrams, all showing alternative readings of the organization of the façade, leave out the aspect of space almost entirely, particularly the topic of suggested versus real depth of a façade – which had been one of the strengths of the first 'Transparency' article. Rowe's reference to Piet Mondrian's painting *Victory Boogie-Woogie* in addition to a discussion of Gestalt diagrams with reference to Rudolf Arnheim, demonstrates how Rowe's interest in phenomenal transparency had moved towards the reading of ambivalent or alternative *figures* rather than *spaces*. This was not the route Hoesli wanted to go. To him, the spatial aspect of phenomenal transparency – or simply Transparenz – was crucial, undeniable and universal. If it was not about architectural (and urban) space, it had no meaning. And space was 'homogenous, isotropic and infinite'. It was not necessary to emphasise that 'this space possesses no animism, is not alive, can neither be 'extended' nor 'compressed' and certainly not 'flow'. It is simply there. It is in no way mysterious. It is simply there.'[56] With

this reductive definition (that is pointed at Rowe's imaginative interpretation of the liquid quality of space around Le Corbusier's League of Nations design), Hoesli prepares his definition of space as one homogenous element, whether inside or outside a building. Thus he was able to insist on the figure-ground phenomenon of mass and void which he used in his own drawings and in his teaching. Gianbattista Nolli's map of Rome comes to mind, in which public space inside the buildings is included in the figure-ground map of the city space.[57]

In making it more approachable, particularly for students of architecture, Hoesli simplified the essence of 'phenomenal transparency'. And why should this be a mistake? After all, Rowe's writing is often cryptic. He kept ideas as open as possible in his writings, attempting to not give definitive answers, while this was impossible for Hoesli who needed to find ways in which Transparenz could be taught. It would be unfair to see Hoesli as no more than a 'simplifier'. In fact, some of his own examples show a high degree of complexity, as do some of his students' works. Mark Jarzombek's final thesis, *Diplomarbeit*, of 1979-80 stands out as an intriguing investigation of spatial overlap of two grids that are twisted against another by ca. 30 degrees. The resulting spatial ambiguities of the building complex are handled masterfully. In some respects, this project anticipates Peter Eisenman's design for the Wexner-Center for the Arts, Columbus/Ohio (1983-89). It is also wrong to call Hoesli a 'transmitter'; it would have to be a 'translator' – in the wider sense of the term – at least, but as the paper has argued, Hoesli was not just playing a passive part in the discovery of phenomenal transparency in architecture. His prior experience in the ateliers of Le Corbusier and Fernand Léger, as well as his study under Giedion, had already provided him with sufficient insight to be an active part in the discussions among the young colleagues in Austin, and thus his wish to rectify the perceived omission by adding his own reading of transparency is more than understandable.

Endnotes

[1] The story can be followed in Alexander Caragonne, *The Texas Rangers. Notes from an Architectural Underground* (Cambridge, Mass.: MIT Press, 1995), and Colin Rowe (ed. Alexander Caragonne), *As I was Saying. Recollections and Miscellaneous Essays*, vols. I-III (Cambridge, Mass.: MIT Press, 1996).
[2] Colin Rowe and Robert Slutzky, "Transparency: Literal and Phenomenal", first published in *Perspecta* 8, 1963, later in Colin Rowe, *The Mathematics of the Ideal Villa and Other Essays*, (Cambridge, Mass.: MIT Press, 1976). German translation: Colin Rowe and Robert Slutzky, *Transparenz. Mit einem Kommentar von Bernhard Hoesli und einer Einführung von Werner Oechslin,* Bernhard Hoesli (trans.), (Birkhäuser: Basel/Boston/Berlin,1997).
[3] Rowe, *As I was saying* I, 27.

[4] Rowe, *As I was saying* I, 30.
[5] Letter Hoesli to Giedion, 2 December 1948. Archives of the gta, ETH Zurich. Translation by author.
[6] Letter Hoesli to Giedion, 2 December 1948. Archives of the gta, ETH Zurich. Translation by author.
[7] Letter Hoesli to Paul Vogler, 10/17 October 1952. Archives of the gta, ETH Zurich. Translation by author.
[8] "man muss zum bauen kommen, es ist jetzt nicht mehr Zeit Manifeste zu machen, die Theorie ist da, man muss nichts wiederholen, es ist jetzt viel schwieriger, alles in Wirklichkeit umzusetzen, zu tun statt zu reden und zu kritisieren." Letter Hoesli to Theo ... (?), 2 July 1950. Archives of the gta, ETH Zurich. Translation by author.
[9] Letter Hoesli to Theo ... (?), 2 July 1950.
[10] 'Also Spezialisierung. Mit der all-round Ausbildung von der ETH ist man am Anfang nur im Nachteil. Der Arbeitgeber weiss nicht, wo er einen einteilen soll. I can't see how you could be of any use… sagte mir so ein senior draftsman, nachdem er ein bisschen schräg durch meine Fotos geblättert hatte. Ich habe dann gemerkt, dass sich dies nicht auf mich persönlich – wie zuerst natürlich gemeint – sondern auf meine Verwendbarkeit als Werkzeug bezog. Es kommt in dem Fall ja nicht auf die Fähigkeiten an, und auf Corbusier pfeift man sowieso, sondern ob man einsetzbar ist als Funktion im Rahmen des gerade eben im Gange befindlichen Arbeitsprozesses.'Letter Hoesli to Theo ... (?), 2 July 1950. Archives of the gta, ETH Zurich. Translation by author.
[11] Drawings and correspondence of the Untermyer house in the archives of the gta, ETH Zurich.
[12] Rowe, *As I was saying* I, 31.
[13] Rowe, *As I was saying* I, 31.
[14] Rowe, *As I was saying* I, 31.
[15] Rowe, *As I was saying* I, 32.
[16] Rowe, *As I was saying* I, 32.
[17] Rowe, *As I was saying* I, 42.
[18] Rowe, *As I was saying* I, 73.
[19] In the publication, the article became even compromised: through editorial interventions the typical flow of Rowe's language was changed, but more so, the editors, Jonathan and Michael Dobbins, insisted on abridgements since the original was seen as too long. These changes are recorded nowhere else but in Hoesli's German translation. The original version was only published in 1976, in the collection of Rowe's essays entitled *The Mathematics of the Ideal Villa* and is thus – finally – the more accessible version.
[20] I have argued that Rowe and Slutzky were producing a short circuit in their argumentation by 'discovering' that Le Corbusier had applied the same techniques to his architecture as to his painting. Cf. Christoph Schnoor, "Colin Rowe: Space as well-composed illusion", in *Journal of Art Historiography* (*JAH*): http://arthistoriography.files.wordpress.com/2011/12/schnoor.pdf
[21] Rowe/Slutzky, "Transparency: Literal and Phenomenal," 176.
[22] Rowe/Slutzky, "Transparency: Literal and Phenomenal," 168.
[23] Rowe/Slutzky, "Transparency: Literal and Phenomenal," 169.
[24] Rowe/Slutzky, "Transparency: Literal and Phenomenal," 170.
[25] Bruno Reichlin, "Le Corbusier, Painter-architect", in Eve Blau and Nancy J. Troy (eds.), *Architecture and Cubism* (Montréal and Cambridge, Mass.: CCA and MIT Press, 1997), 195-218, here 205-6.
[26] Yve-Alain Bois, "Cubistic, Cubic, and Cubist", in Blau & Troy (eds.), *Architecture and Cubism*, 187-194.
[27] Bois, "Cubistic, Cubic, and Cubist", 192.
[28] Bernhard Hoesli, "Addendum" to Rowe/Slutzky, *Transparenz*, 85.
[29] 'Wäre es nicht möglich im winter neben einer allgemein gehaltenen vorlesung entsprechend der jetzigen noch je eine stunde nur über plastik und malerei seit 1910 und über eine einzelne persönlichkeit wie corbusier oder gropius zu lessen. dazu wäre ein seminar zur übung und discussion sehr wertvoll.' Response Hoesli to Giedion, July 1947. Archives of the gta, ETH Zurich. Translation by author.
[30] Hoesli sketchbook 1947-8. Archives of the gta, ETH Zurich.
[31] Sigfried Giedion, *Space, Time and Architecture. The Growth of a New Tradition* (London and Oxford: Geoffrey Cumberledge and Oxford University Press, 3rd ed. 1954 (1941)), 490-1.
[32] Schnoor, "Colin Rowe: Space as well-composed illusion", 16.

[33] Oechslin, Introduction to Rowe/Slutzky, *Transparenz*, 11.
[34] Colin Rowe and Robert Slutzky, *Transparenz. Mit einem Kommentar von Bernhard Hoesli und einer Einführung von Werner Oechslin* (Birkhäuser: Basel/Boston/Berlin), 1997.
[35] This anticipates Bernhard Tschumi's graphic technique of the *Manhattan Transcripts* by about a decade.
[36] Archives gta, ETH Zurich.
[37] Bernhard Hoesli, leaflet for the seventh CIAM congress in Bergamo, Italy (July 1949); handwritten commentary in red pen: 'Diese Zeichnungen von mir gingen dann in viele Publikationen ein'. Archives of the gta, ETH Zurich. Translation by author.
[38] Sigfried Giedion, *Bauen in Frankreich. Bauesn in Eisen. Bauen in Eisenbeton* (Leipzig: Klinkhardt und Biermann, 1928).
[39] Hoesli, "Kommentar" to Rowe/Slutzky, *Transparenz*, 71.
[40] It might be interesting to compare Hoesli's analysis of the Villa Stein/de Monzie with Peter Eisenman's analytical drawings of the same building in his 1963 doctoral thesis (which remained unpublished until 2005), because it seems that both architects, Hoesli and Eisenman, visualise the vertical layering employed by Le Corbusier in a very similar manner.
[41] Hoesli, "Kommentar" to Rowe/Slutzky, *Transparenz*, 78.
[42] Hoesli, "Kommentar" to Rowe/Slutzky, *Transparenz*, 79.
[43] 'Tiefenschichten der raumhaltigen Fassade werden optisch ineinander gelegt.' Hoesli, "Kommentar" to Rowe/Slutzky, *Transparenz*, 80.
[44] Le Corbusier himself refers to the musical analogy for the Duval factory in St.-Dié, calling it comparable to the music of Claude Debussy: 'On peut dire, que cette musique jouée ici par l'architecture sera ferme et subtile, nuance comme du Debussy.' Le Corbusier, (Willy Boesiger, ed.), *Œuvre Complète 1946 – 1952*, Zurich: Edition Girsberger, 1953, 14.
[45] Hoesli, "Kommentar" to Rowe/Slutzky, *Transparenz*, 81.
[46] Caragonne, *The Texas Rangers*, 388.
[47] Caragonne, *The Texas Rangers*, 389.
[48] Caragonne, *The Texas Rangers*, 391.
[49] Caragonne, *The Texas Rangers*, 391.
[50] Caragonne, *The Texas Rangers*, 391.
[51] Caragonne, *The Texas Rangers*, 391.
[52] Furer, as cited in Caragonne, *The Texas Rangers*, 391.
[53] "Transparenz entsteht immer dort, woe s im Raume Stellen gibt, die zwei oder mehreren Bezugssystemen zugeordnet warden können, wobei die Zuordnung unbestimmt und die Wahl einer Zuordnungsmöglichkeit frei bleibt." Bernhard Hoesli, "Kommentar" to Rowe/Slutzky, *Transparenz*, 60, and "Addendum" to *Transparenz*, 85.
[54] Colin Rowe and Robert Slutzky, "Transparency: Literal and Phenomenal II", in Rowe, *As I was saying*, Vol. I, 73 – 106, here 74.
[55] Colin Rowe and Robert Slutzky, "Transparency: Literal and Phenomenal II", in Rowe, *As I was saying*, Vol. I, 73 – 106, here 92-3.
[56] Hoesli, "Addendum" to Rowe/Slutzky, *Transparenz*, 90.
[57] Hoesli, "Addendum" to Rowe/Slutzky, *Transparenz*, 95.

Tokyo Tropes, the Poetics of Chaos

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Abstract

Emerging in conjunction with the bubble economy of the 1980s, Tokyo prodded the architectural imagination as a hyper-dynamic metropolis offering new lessons in urban organisation. Toyo Ito's contribution to the Visions of Japan Exhibition (1991), at the Victoria and Albert Museum, crystallised this image of Tokyo and helped perpetuate the discursive fabrication of Tokyo as a "chaotic" city. This paper examines the recurring tropes of chaos in the fabulation of Tokyo by Japanese and international observers over the past thirty years. Building on Ito's exhibition and his accompanying essay "Architecture in a Simulated City", the paper examines a cross-section of accounts. The Learning from Tokyo Forum (1993) at the Royal Academy of Arts and Japanese Architecture special issues of Architectural Design exemplify poetic formulations of Tokyo's chaos. Livio Sacchi's Tokyo City and Architecture *(2004) reinforces prevailing narratives of chaos in contrast to alternatives emerging in Japan such as Atelier Bow-Wow's* Made in Tokyo *(2001) and Yasutaka Yoshimura's* Super Legal Buildings *(2006), which represent recent efforts to move beyond fables of chaos.*

Although focused on discursive constructions of Tokyo, the paper resonates with the continued development of narratives curating alternative urban organisations, whether the informal urbanism of favelas, incipient urbanism in Lagos, or instant urbanism of rapidly transforming Asian cities. Comparative analyses of recurring tropes of chaos in Tokyo illuminate efforts to grasp urban complexities, fabulations of alternative urban models, and rationalisations for architectural interventions. While tracing "fanciful" representations of an "extraordinary" city, the paper scrutinises the stories congealing into our histories of contemporary Tokyo.

Introduction

Chaos is one of the most common descriptors of Tokyo, which gained increasing global attention in conjunction with its rapid growth and post-war and post oil shock economic

booms. By the 1980s Tokyo was a vibrant international metropolis gaining status as a quintessential twenty-first century global capital, on par with ancient Rome, nineteenth century Paris and twentieth century New York. Beyond being an object of Orientalist affection, Tokyo came to represent a dynamic conglomeration of urban configurations offering provocative alternatives to Western cities. Like contemporary interest in Lagos and informal urbanisms, Tokyo presented different models of urbanism as a rich resource for expanding understanding of and generating strategies for cities.[1] Tokyo has attracted much international attention and within Japan catalysed a branch of studies known collectively as Tokyology.[2] Yet, whether foreign observers or Tokyo based architects, chaos has been a recurring trope in the discursive fabrication of the city over the past thirty years. This paper examines a cross-section of chaotic accounts illuminating efforts to grasp urban complexities, rationalisations for architectural interventions and fabulations of alternative urban models.

Poetics of Chaos

To set the stage, the following sampling of quotes suggest the contours of common claims of chaos in characterizations of Tokyo:

Kazuo Shinohara, architect: “Chaos is the only word to describe the total effect.”[3]

Peter Popham, author of *Tokyo City at the End of the World* (1985): “The chaos is so vast and so unrelieved.”[4]

Yoshinobu Ashihara, architect and author of *Hidden Order: Tokyo Through the Twentieth Century* (1989): “It is certainly true that Tokyo is chaotic and lacking in artistic coordination as well as clear identity.”[5]

Shuji Takashina, author of “Tokyo: Creative Chaos” (1987): “Tokyo’s labyrinth of streets is the very image of chaos.”[6]

Wim Wenders, director of *Tokyo Ga* (1985): “The images I was searching for were only to be found down here below in the chaos of the city. In spite of everything I couldn’t help being impressed by Tokyo.”[7]

Arata Isozaki, architect: “Tokyo’s problem is that its expansion has been fueled by the enormous growth in the economy. This has stopped it from developing according to some

fixed image of what a city should look like and in that sense it is chaotic. It is developing in a messy way."[8]

Martin Davidson, director of *Tokyo Newtown* (1991): "It kept going through my mind that it was chaos we saw exemplified both in the city fabric and specific buildings."[9]

Livio Sacchi, author of *Tokyo City and Architecture* (2004): "Tokyo emerges as a city where, on closer inspection, the strongest, most persistent impression comes not from its architecture but more from its chaotic mass of buildings."[10]

As these quotes suggest characterizations of chaos have various shades. Moreover, while the term chaos is commonly invoked notions of chaos also reverberate through a host of nuanced synonyms. Portraying Tokyo as a complex urban environment, Franco Purini succinctly captured both a rich description and the variety of chaos in the following depiction:

> The city spreads in successive waves in an infinite, chaotic mass of different yet curiously similar buildings that are almost like three-dimensional evolutions of the ideograms that cover them. The minute and the colossal follow one another and clash in a powerful energetic flow that knows no rest, while tangled strips of infrastructure wind between the buildings in spectacular spatial combinations…the visual trauma is due to Tokyo giving no sense of any recognizable structure…in Tokyo you find a randomness in which every urban rule is overturned or negated.[11]

Figure 1. Tokyo cityscape. (Source- author)

While Sacchi similarly noted that "Tokyo appears vast, uncontrollable, incomprehensible, chaotic, ugly",[12] Botond Bognar directly addressed the confronting aspects of the city conflated in the chaos characterizations above, explaining

> What are the qualities that make the city appear so incomprehensible, at least to Westerners? The list of extremes starts with the immediately apparent: the radical heterogeneity…the pervasiveness of signs, symbols. Billboards and supergraphics, as a kind of 'progressive anarchy'…visual uncertainty…There are no clear rational patterns with which to structure both perception and understanding of the physical environment as a totality…a feeling of impermanence prevails.[13]

Parsing Purini and Bognar, uncoordinated mixtures, unplanned growth – exacerbated by limited government control of private development – unclear order, dynamism and image/media saturation emerge as key characteristics of chaos repeatedly identified in Tokyo.

Figure 2. Tokyo cityscape. (Source- author)

The following sections examine how foreign authors and Japanese architects constructed chaotic Tokyo as territory for intervention and inscrutable organisation. Subsequent sections examine evolving notions through recent reactionary responses to the cacophony of chaos claims emerging in conjunction with finer grain studies seeking to identify urban ecologies rather than illuminate order. These recent studies point the way towards richer descriptive vocabularies emerging beyond the poetics of chaos.

Fabulation: Proceedings of the 29th Annual SAHANZ Conference
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Chaotic Tokyo as Territory for Intervention

In 1991, in conjunction with the Japan Festival, the Victoria and Albert Museum hosted the Visions of Japan exhibition. Toyo Ito's multimedia installation contribution to the exhibition exemplified and reinforced chaos conceptions of Tokyo. With forty-four projection screens cycling through collages of video footage and sixteen-channel speakers dispersing environmental sounds, Ito captured and made visceral the diverse uncoordinated mixtures, dynamism and image/media saturation of Tokyo. He described "this space was an exact simulation of the reality of Tokyo. Perhaps it would be more correct to say that Tokyo itself is a simulated city…In both places our bodies float in a sea of images and noise"[14] In his corresponding "Architecture in a Simulated City" essay Ito elaborated on contemporary urban conditions and described how his architectural projects attempt to reconcile and intervene in such conditions. Projects such as the Tower of Winds (1986) and Egg of Winds (1991) represented Ito's efforts "to trace the image of urban life that day after day grows less real, in parallel with the transformation of urban space into images."[15] These projects also reflected his belief "that in the simulated city there can be no architecture without simulated manipulation."[16] For Ito, architecture is intimately connected to urban dynamics and understanding of the city guides architectural production.

Following a trend exemplified by Ito, responding to the chaotic complexities of Tokyo was readily adopted as a rationalization for the diversity of Japanese architecture in general, especially amongst foreign observers. Accounts by Bognar and Vladimir Krstic in the Academy Editions special issues of *Architectural Design* on Japanese architecture exemplify this discursive construction and intimate connections between architecture and city.[17] In "Architecture in the City of Creative Chaos" Bognar claimed

> while it is undeniable that Tokyo's restless and chaotic urbanism has rendered the fate of architecture unpredictable, it has also opened up virtually limitless possibilities for experimentation and innovation. Tokyo, which 'invites description but defies analysis,' has elicited an astonishing broad spectrum of architectural directions.[18]

He further suggested that "it is no surprise that in the in(de)finite city of Tokyo, designers go to extreme lengths to search for strategies to define or address new realities in their architecture."[19] Krstic similarly argued "all modes of architectural production can only be measured against one single parameter: the schizophrenic texture of the city" and "every

act of architecture is thus founded on the need to construct a hypothetical resolution of the city as a basis for the argumentation and assertion of its own authenticity."[20] Tokyo represents a physical and conceptual context for architectural production. The chaotic city offers architects territories for intervention and discursive rationalizations for diverse responses ranging from stalwart rejection, retreat, exuberant hybrids, new natures, and going with the flows.[21] Yet as Popham suggested

> the fact that architects have a enormous amount of freedom to build what they want; it's surely very enviable from the point of view of architects working here and yet because the chaos is so vast and so unrelieved the effect of any particular architectural design, I would suggest, is very limited by this.[22]

The chaos of Tokyo served as context, catalyst and constraint for discursive and architectural interventions.

Chaotic Tokyo as Inscrutable Urban Organisation

In addition to providing contexts for architecture, chaotic Tokyo provided global audiences clues on alternative forms of urban organisation. Tokyo's confounding urban order presented challenges and provocative potentials. The Learning from Tokyo Forum, published in Academy Editions *Japanese Architecture III* (1994), and contributions from Kisho Kurokawa and Yoshinobu Ashihara exemplify efforts to discover alternative orders in Tokyo. Fables of hidden orders and efforts to illuminate underlying urban mechanisms emerged with concurrent interest in fractals and chaos theory expanding notions of order and complex organisation. The Learning from Tokyo Forum and *Japanese Architecture III* volume propelled growing interest in Tokyo in the wake of the Japan Festival and Visions of Japan exhibition.[23] In the opening editorial of *Japanese Architecture III* Maggie Toy framed concerns explaining "Japanese architecture appears to confront the arrogant clairvoyance of Western city planners without imposing a brief for urban anarchy. This influence is being discussed at length and therefore being felt."[24] The Learning from Tokyo Forum grounded subsequent expositions on recent projects in concerns with chaotic urban environments and their responses in a similar manner to Bognar's essays in the *Japanese Architecture I & II* volumes. The forum, moderated by Charles Jencks, brought together a range of disciplinary perspectives including architects Kisho Kurokawa, Peter Cook, Rem Koolhaas, Colin St John Wilson, Sir Philip Dowson, Kevin Rhowbotham and Dominic Papa; editor Paul Finch; authors Peter Popham and Paul Waley; and *Tokyo Newtown* (1991) filmmakers Benjamin Wooley and Martin Davidson.[25]

The conversations were catalyzed by presentations from Kurokawa and Popham and circled around individual impressions and grappling with unfamiliar urban organisations.

Popham described that despite poor impressions

> there are reasons why people grow very fond of the city, the first is that every type of architectural development is crammed in without any concern for the impression which the whole picture makes, it is just a complete random conglomeration of economically viable elements. Second, the most glamorous face of modern Tokyo, which is only apparent at night, has a lot to do with the fantastic quality and importance of Japanese neon signs.[26]

He echoed the uncoordinated mixtures and image saturation aspects of the chaos trope.

Beyond labeling Tokyo as chaotic participants sought explanations for urban configurations. Wooley proposed that "one of the main characteristics with chaos is that it has always been a very high volume of energy; there's a lot of economic energy feeding into the system that's keeping it chaotic."[27] Davidson opined "it suddenly occurred to me that the reason that the architecture is chaotic is because the social structures aren't."[28] Dowson questioned "what is it in Tokyo that can provide the loose framework in which this volatility and vitality can live, and people can actually use the city as well as being a part and feeling a part of a larger corporation?"[29] While Wilson argued it "actually isn't chaos. It's just a different kind of order, it has to be because it has a structure."[30]

While participants grappled with Tokyo's inscrutable organisations, Jencks invoked chaos theory as an explanatory framework and sought to recuperate beauty. He argued "all this ugliness is really beautiful, we just aren't looking at the right patterns of chaotic! There is a way in which there is an order amid all this jumble but it isn't the usual kind of order those of us who have been to Tokyo might have expected."[31] He suggested "due to chaos theory and Jane Jacobs' writings we are now in this position of looking at Tokyo very positively, its mixture and its urbanization which takes to an extreme."[32]

Kurokawa's lead off presentation at the forum and Ashihara's subsequent contribution to the *Japanese Architecture III* volume offered Japanese perspectives crafting explanatory narratives for underlying organisational principles. Kurokawa attributed current configurations to historic influences identifying four aspects: 1) the invisible tradition; 2) provisionality; 3) holistic structure; 4) dense society.[33] Citing the cyclical rebuilding of Ise

Shrine and the use of hidden flavors in Japanese cuisine, Kurokawa explained the invisible tradition as underlying beliefs that maintain consistency but do not necessarily have physical manifestations or expression. His notion of provisionality was described through responses to frequent natural disasters, a Buddhist inspired belief in transience and aesthetics of asymmetry. For Kurokawa dense society and its implications for urban form spanned across large population, physical agglomeration, prolific information and collective identification. Finally, his notion of holistic structure addressed the accumulation of interconnected parts with a limited concern for an overall coordinated and hierarchical whole. Understanding Tokyo as a symbiosis of parts and whole was the crux of Kurokawa's contention. Addressing the desire to find order in Tokyo he concluded

> No city-center or plaza, no boulevards or landmarks are necessary and there seems to be no order except for the energy, freedom and multiplicity that comes from the parts that are there. The creation of this new hierarchy is a process which makes use of spontaneous occurring forces, and for that reason it is probably more accurate to say that Tokyo today, where private investment plays too strong a role, finds itself somewhere between chaos and order.[34]

Echoing Kurokawa's invisible tradition and holistic symbiosis of parts Ashihara argued for a hidden order. He explained "cities in the West may give greater priority to form than does Tokyo, but with its concern for content Tokyo thrives according to an order hidden within its chaos. If there were no such order, then how could the citizens of the world's second largest city lead the lives they do in such reasonable comfort."[35] Ashihara reinforced nagging beliefs that organisational structures are operating. Addressing dynamism and diversity Ashihara maintained

> At first glance Tokyo looks chaotic, but if we consider that there is an invisible order, a random-switch mechanism through which each level of the whole structure tolerates some haphazardness so as to respond to changes in the environment – rather like the action of genes in the development of a multicellular organism – then we begin to see an order in city structure. The whole of Tokyo is a perpetual formation and re-formation of parts, which are endowed with a measure of randomness and haphazardness.[36]

Ashihara vehemently contended "there is a 'hidden order' in such amorphousness, that it cannot be said to be complete chaos, and architecture and cities characterized by it have

a potential not sufficiently appreciated until now."[37] Ashihara upheld the potentials of organisations in Tokyo. Yet, although calling for an underlying hidden order the mechanics of this order never gained sufficient clarity to become extractable strategies able to be utilized in a global toolkit of urban interventions. However, Ashihara and Kurokawa's examinations of Tokyo contributed to expanding international perspectives on alternative urban organisations.

Over ten years later, Sacchi, authored *Tokyo City and Architecture* (2004) and continued to argue "chaos is no more than an order to be deciphered."[38] His book represents further efforts to illuminate inscrutable Tokyo. He maintained chaos tropes contending that Tokyo is a "chaotic cyclonic mass" composed of predominantly recent buildings within a palimpsest of urban fabrics and traditions. Sacchi extended the legacy of Ito's simulated city, Bognar and Krstic's urban rationalizations for contemporary architecture, Kurokawa's historical trajectories and Ashihara's hidden orders.

Figure 3. Tokyo cityscape. (Source- author)

Exceeding Chaos Tropes

Although Sacchi reflects the continued repetition and reinforcement of chaos tropes recent work by Atelier Bow-Wow and Yasutaka Yoshimura represent reactionary approaches to the cacophony of chaos and revised approaches to the diverse dynamic metropolis. Bow-Wow positioned their work in contradistinction to the discursive constructions disseminated through the Academy Editions *Japanese Architecture* volumes, which epitomize what Bow-Wow described as the "1980s background of chaos affirming theory and Tokyology, and the spatial expression of architectural works [that] displayed confusing urban landscape as a metaphor."[39] Bow-Wow sought to develop new

approaches rooted in bottom-up investigations and value neutral assessments. Outlining the ambitions of their *Made in Tokyo* research they explained

> We tried to look at everything flatly, by eliminating the divisions between high and low cultures, beauty and ugliness, good and bad. We thought that such a way of seeing is called for by the urban space of Tokyo, which is a gigantic agglomeration of an endless variety of physical structures. If we describe this agglomeration simply as confused or chaotic, or understand it with a predetermined story, then probably our own experience of Tokyo's atmosphere will disperse.[40]

Bow-Wow maintained faith in the positive potentials of chaotic, dynamic, mixed environments noting "even though the urban space of this city appears to be chaotic, in exchange, it contains a quality of freedom for production. The landscape of Tokyo is a random layering of different buildings corresponding with multiple social purposes."[41] They reiterated urban diversity and dynamism, characterized as chaos, but unlike Jencks' desire for order and beauty Bow-Wow focus on performative aspects of the built environment. They argued

> Even in the landscape of Tokyo, which is so often claimed to be 'chaotic', a certain environmental coordination made up of categorical crosses between architecture, civil engineering and geography can be found. There is a clear logic in the way that differing activities are brought together by physical convenience such as scale and adjacency. We can see that part of Tokyo's dynamism is ordered through physical terms rather than the categorization of contents. We start to recognize the unexpected interdependence of activities by looking at Tokyo in this kind of positive way.[42]

In *Made in Tokyo,* Bow-Wow examined what they characterized as "shameless spatial compositions and functional combinations, unthinkable in the traditional European city," advocating "let's start by considering that these shameless buildings are not collapsible into the concept of 'chaos', but are in fact an intricate reporting of the concrete urban situation."[43] Focusing on the everyday built environment rather than high design architectural responses Bow-Wow maintained that "although these buildings are not explained by the city of Tokyo, they do explain what Tokyo is. So, by collecting and aligning them, the nature of Tokyo's urban space might become apparent."[44] In response

to the challenges of establishing grand order and grand narratives Bow-Wow opted for a piecemeal accounting of typical and typo-morphological urban conditions.[45]

Figure 4. Tokyo cityscape. (Source- author)

Similarly, Atelier Bow-Wow's ongoing academic and professional design research reflects a shift to an ecological approach that exceeds the limitations of semantic, syntactic and mechanistic urban studies. They explained:

> Tokyo is an agglomeration of buildings, traffic infrastructure, civil engineering. Its landscape is said to lack visual control and is popularly thought of as chaotic or as 'white noise.' However this kind of interpretation is based on mechanistic theory and semiotic systems. So, if we change the premise, a totally different interpretation of the city should be possible. Actually, despite these claims of chaos, Tokyo is interesting in its own way of functioning. It resembles the unstructured forms of the rainforest, within which there is in fact many types of creatures co-existing, whilst each constructing their own world.[46]

The *Made in Tokyo* study and its related *Pet Architecture* project position Atelier Bow-Wow, and their collaborators, as explorers scouring the urban jungle looking for new "species" of urban configurations and seeking to understand these species in their larger contexts and habitats. Understanding chaos is no longer reduced to the explication of hidden orders operating in a mechanistic manner, but is repositioned as a context for understanding networks of interrelationships within the built environment.

Yoshimura's *Super Legal Buildings* project provides a related type of ecological urban analysis aiming to decode the city, and represents a further rejection of earlier chaos theories. Yoshimura eschewed the rampant capitalist rationalization for the radical heterogeneity and unbridled entropy of Tokyo. He explained "it is not enough to argue that Tokyo's jumbled urbanity is either the failure of civic vision or the product of unrestrained corporate development."[47] Instead *Super Legal Buildings* sought "to determine the true source of the city's form and attempts to understand how this confusion and convenience have materialized."[48] Returning to the pragmatics of the regulatory context shaping the built environment Yoshimura argued "we know from our everyday work as architects that the apparent chaos of Tokyo is produced through a set of simple rules," because it is dictated in part by the legal constraints on building envelopes.[49] Summarizing the project he explained that *Super Legal Buildings* seeks to "answer the question why we have such scenery in the city by exploring the relationship between a regulation and the building form it dictates… decipher the code that produced anomalous form" and "seeing each building as a unique response to regulation."[50] Through analytical drawings Yoshimura illuminated how certain building regulations generated a diverse cityscape. For Yoshimura regulation was not a mechanistic hidden order but a set of environmental pressures shaping responses within urban ecosystems.

For Bow-Wow and Yoshimura chaos was no longer an urban condition to respond to or a potent alternative to international urban configurations. However, reinforcing Krstic's contention, their construction of a hypothetical resolution of Tokyo through an ecological perspective still provided a basis for arguing their own architectural productions. Shifting scale to finer grain analyses of the built environment and away from semiotic and mechanistic perspectives Bow-Wow and Yoshimura generated new fabulations for Tokyo and introduced richer descriptive vocabularies exceeding the poetics of chaotic Tokyo.[51]

Tokyo Tropes

As illustrated through this cross-section of international accounts, chaos has been a common trope to characterize conditions in Tokyo. Whether foreign observers or Tokyo based architects, chaos has been a foundation for the discursive fabrication of the city. Chaos helped rationalise architectural interventions, offered fabulations of alternative urban models, and supplied lenses to grasp urban complexities. Chaos presented contexts, catalysts and constraints for architectural production. Chaos also provided descriptive categories and the promise of alternative urban organisations. Analyses of chaotic accounts of Tokyo offer clues and cautions for contemporary efforts to discover further alternatives emerging from informal and instant urbanisms. Though it is likely that

maintaining a trajectory of uninhibited diversity, entropic dynamism, media saturation, capitalist expansion and non-hierarchical growth will contribute to the persistence of the trite trope of chaotic Tokyo, reflecting on some recent "fanciful" representations of an "extraordinary" city helps increase sensitivities to the stories congealing into our histories of contemporary Tokyo.

Endnotes

[1] See for example Rem Koolhaas and Bregtje van der Haak *Lagos Wide & Close Interactive Journey into an Exploding City* (2006), Diego Ramirez-Lovering, *Opportunistic Urbanism* (Melbourne: RMIT Publishing, 2008), Felipe Hernandez, Peter Kellett, and Lea Allen, *Rethinking the Informal City: Critical Perspectives from Latin America* (New York: Berghahn Books, 2010).
[2] See for example Fumihiko Maki, *Miegakuresuru Toshi: Edo kara Tokyo e* (Tokyo: Kajima Shuppankai, 1980) or Hidenobu Jinnai, *Tokyo, a Spatial Anthropology* (Berkeley: University of California Press, 1995).
[3] Quoted in Rene Kural, *Architecture of the Information Society, the World City Expressed through the Chaos of Tokyo*. Trans. Kenja Henriksen. (Copenhagen: Royal Danish Academy of Fine Arts, 2000).
[4] Popham in 'Learning from Tokyo.' In Maggie Toy (ed.) *Japanese Architecture III, Architectural Design Profile #107*, (London: Academy Group Ltd, 1994), 12.
[5] Yoshinobu Ashihara, 'The Hidden Order, Tokyo through the 20th Century', In Maggie Toy (ed.) *Japanese Architecture III, Architectural Design Profile #107*, (London: Academy Group Ltd, 1994), 24.
[6] Shuji Takashina, 'Tokyo: Creative Chaos.' *Japan Echo* 14 Special issue, (1987), 5.
[7] Wim Wenders, *Tokyo Ga* (1985).
[8] Tokyo Newtown BBC interview http://www.youtube.com/watch?v=9plNQtrnHaM
[9] Davidson in 'Learning from Tokyo', 16.
[10] Livio Sacchi, *Tokyo, City and Architecture* (New York: Universe, 2004), 223.
[11] Franco Purini, 'Introduction' in Livio Sacchi, *Tokyo, City and Architecture* (New York: Universe, 2004) 7-8.
[12] Sacchi, *Tokyo, City and Architecture,* 13.
[13] Botond Bognar, 'Archeology of A Fragmented Landscape', in Botond Bognar (ed.), *Japanese Architecture, Architectural Design Profile #73* (London: Academy Group Ltd, 1988), 16. Subsequently, Bognar succinctly claimed "chaotic conditions, congestion, radical heterogeneity, the variety and proliferation of signs, along with the lack of any centre or regulating order are well-known features of capricious Japanese urbanism." Botond Bognar, 'Between Reality and Fiction', in Botond Bognar (ed.), *Japanese Architecture II, Architectural Design Profile #99 (*London: Academy Group Ltd, 1992), 10. Bognar's essays in *Japanese Architecture I & II* provided the foundations and narratives for his subsequent *World Cities Tokyo*. (London: Academy Editions, 1997).
[14] Toyo Ito, 'Architecture in a Simulated City.' In Andrea Maffei (ed.) *Toyo Ito, Works, Projects, Writings* (Milan: Electa Architecture, 2002), 334.
[15] Ito, 'Architecture in a Simulated City', 335.
[16] Ito, 'Architecture in a Simulated City', 336.
[17] Botond Bognar (ed.), *Japanese Architecture, Architectural Design Profile #73* (London: Academy Group Ltd, 1988); Botond Bognar (ed.), *Japanese Architecture II, Architectural Design Profile #99* (London: Academy Group Ltd, 1992); Maggie Toy (ed.) *Japanese Architecture III, Architectural Design Profile #107*, (London: Academy Group Ltd, 1994).
[18] Botond Bognar, 'Architecture in a City of 'Creative Chaos', in Botond Bognar (ed.), *World Cities Tokyo* (London: Academy Editions, 1997), 74.
[19] Bognar, 'Architecture in a City of 'Creative Chaos' ', 74.
[20] Vladimir Krstic, 'Stillness of Hyperreality, the in(De)Finite City', in Botond Bognar (ed.), *Japanese Architecture II, Architectural Design Profile #99 (*London: Academy Group Ltd, 1992), 24. Krstic elaborated: "the most important aspect of the chaotic urban condition brought about by the uncontrollable proliferation of autonomous parts, is the displacement and subversion of any fixed sense of reality. The primary reason for this phenomenon resides in the obliteration of an

idea(l) city plan...The modern Japanese city hence embodies an inverse (or antithetical) concept of urbanity where individual urban artifacts invent and frame their own realities; they are independent of each other and the city as a whole which, within this process, comes to represent an elusive, almost non-physical form of a locale. Created through such haphazard constructions, the hybrid structure of the city envelops its own territory with an incessant spectacle of urban phantasmagory in which delirious acts of architecture stand in indifferent juxtaposition to engineering stunts and to the perverse contraptions of electronic technology."

[21] See Bognar, 'Archeology of A Fragmented Landscape', Bognar, 'Between Reality and Fiction' Hajime Yatsuka, 'An Architecture Floating on the Sea of Signs, Three Generations of Contemporary Japanese Architects', in Botond Bognar (ed.), *Japanese Architecture, Architectural Design Profile #73* (London: Academy Group Ltd, 1988).

[22] 'Learning from Tokyo', 12.

[23] Academy Editions sponsored a series of Learning from…. Forums. In June 1993 they hosted the Learning from Tokyo International Forum at the Royal Academy of Arts in London.

[24] Maggie Toy 'Editorial.' In Maggie Toy (ed.),*Japanese Architecture III, Architectural Design Profile #107* (London: Academy Group Ltd, 1994), 7.

[25] *Tokyo Newtown* (1991) was a BBC production that also coincided with the Japan Festival and the Visions of Japan exhibition.

[26] 'Learning from Tokyo', 11.

[27] 'Learning from Tokyo', 16.

[28] 'Learning from Tokyo', 16.

[29] 'Learning from Tokyo', 17.

[30] 'Learning from Tokyo', 17.

[31] 'Learning from Tokyo', 15.

[32] 'Learning from Tokyo', 15. Previously while commenting on Tokyo for the Tokyo Newtown documentary Jencks noted "architects up until the last ten years all hated it visually. They said it has no grand order it doesn't look like Paris, London or New Deli all the great cities and therefore it's a mistake. The architects up to ten years ago tried to reorder it, put a grand pattern on it, but they couldn't do that. So finally, recently, architects have said well its really this beauty of chaos the beauty of anarchism the beauty of small piecemeal economic growth where everything is layered on another thing, a jumble, a jumblefication if you like of different technologies. Now at a certain level that has its own kind of beauty you just have to look at it again." Tokyo Newtown BBC interview see h ttp://www.youtube.com/watch?v=mn05yWFp24w

[33] 'Learning from Tokyo', 8-19.

[34] 'Learning from Tokyo', 10. The combination of chaos and order echoes William Coladrake's observations in the catalog from the American exhibition Tokyo Form & Spirit (1986). Coladrake argued "the history of Tokyo since 1868 has been a ceaseless struggle between order and anarchy… there is order in this apparent anarchy, not a consciously planned order but some inexorable, indelible pattern to the growth, development and interaction of people and built environment of Tokyo that has continually reasserted itself despite the disjunctions of disasters and the erosion of order by change." William Coaldrake, 'Order and Anarchy: Tokyo from 1868 to the Present', in Mildred Friedman (ed.) *Tokyo Form and Spirit* (New York: Harry N Abrams, 1986) 74.

[35] Ashihara, 'The Hidden Order, Tokyo through the 20th Century', 24.

[36] Ashihara, 'The Hidden Order, Tokyo through the 20th Century', 24.

[37] Ashihara, 'The Hidden Order, Tokyo through the 20th Century', 22. Ashihara elaborated his position in Yoshinobu Ashihara and Lynne E. Riggs, *The Hidden Order: Tokyo through the Twentieth Century* (New York: Kodansha International, 1989).

[38] Sacchi, *Tokyo, City and Architecture,* 32.

[39] Momoyo Kaijima, Junzo Kuroda, and Yoshiharu Tsukamoto, *Made in Tokyo* (Tokyo: Kajima Shuppankai, 2001),10.

[40] Kaijima, Kuroda, and Tsukamoto, *Made in Tokyo,* 10.

[41] Kaijima, Kuroda, and Tsukamoto, *Made in Tokyo,* 14-15.

[42] Kaijima, Kuroda, and Tsukamoto, *Made in Tokyo,* 23.

[43] Kaijima, Kuroda, and Tsukamoto, *Made in Tokyo,* 8.

[44] Kaijima, Kuroda, and Tsukamoto, *Made in Tokyo,* 9.

[45] See also Yoshiharu Tsukamoto and Ryuji Fujimura, 'Typo-Morphology of Tokyo', *Perspecta,* 40 (2008), 32-41.

[46] Kaijima, Kuroda, and Tsukamoto, *Made in Tokyo,* 35-36.

[47] Yatsutaka Yoshimura, 'De-Code', In George Wagner (ed.), *Tokyo from Vancouver* (Vancouver: School of Architecture University of British Columbia, 2005), 165.
[48] Yoshimura, 'De-code', 165.
[49] Yoshimura, 'De-code', 166.
[50] Yoshimura, 'De-code', 167,168,173.
[51] In addition to expanding beyond the trite trope of chaos, both Bow-Wow and Yoshimura adopted quirky naming conventions to describe the species they discovered in Tokyo's urban jungle. For example Bow-Wow explicated cinebridge, golf taxi building, and centipede housing, while Yoshimura identified setback cathedrals, boot streets, and unicorn building.

So They Ought To Know What Goes On
The First Group Houses and a Māori Tradition

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Abstract

Explaining their first two houses (1949-50 & 1950-51) a young member of New Zealand's Group Construction Company said, 'The Maoris lived here for hundreds of years so they ought to know what goes on.' The longitudinal gable and prominent front verandah of the Second House, in particular, recalled what many understood as the traditional Māori house form. The early Group designs are now often seen as a defining moment in the country's design history, where – for the first time – designers incorporated into mid-century architecture a structure that was intentionally derived from the traditional meeting house. Nevertheless, it seems very likely that the bold claim for a Māori origin aroused mixed response, although the detractors did not express their views in print. Although Wilson continued to draw from this source, he downplayed his strategy. Emphasising a debt to Pakeha pioneering traditions, he remained silent on overseas influences. While Julia Gatley's recent monograph on Group Architects repeatedly refers to the inspiration of the Māori whare, not all commentaries have noted this connection. This paper redefines the lineage of the Group's whare-derived structures and identifies further possible influence from abroad. It finally examines the shifting presentation and reception of the claim over the last sixty years that the Group drew inspiration from the Māori whare.

In 1946 six Auckland architecture students seeking 'to further the appreciation of good planning and design in New Zealand' formed The Architectural Group.[1] This centred about an older second year student, Bill Wilson (1919-1968), who is remembered as a mentor, stimulating and questioning the Group members and, later, students at Auckland University College School of Architecture. He championed an architecture that he determined was appropriate to New Zealand's specific conditions, arguing against following overseas trends. The Group operated under several guises between 1946 and 1968: The Architectural Group (1946), Group Construction Company (1949-51), Group Architects (1951-63) and Wilson & Juriss (1963-68). They sought to extend

architectural practice in a way that was appropriate to the users' lives, using local materials, clearly expressed structure and elements reduced to minimum dimensions.

The First and Second Houses

While Group house designs clearly drew from building tradition of early Pakeha, some early designs also recalled traditional Māori house form with published commentary of the Group's First House (designed collectively, 1949-50) and Second House (designed by Bill Wilson, 1950-51) explicitly making this point (Figures 1 & 2). The houses were modest, open-planned spaces of timber construction with single-gable roofs formed with a folded-plane principle.[2] A.R.D. Fairburn wrote in the *New Zealand Listener* that the students were designing and building the houses in an effort to reduce costs through material specification and economy of labour. Describing the structure of the Second House, he stated that the students had taken the 'simple rectangular form of the Maori meeting-house, with its low-pitched roof, and cantilevered the roof-slopes, out over two rows of supports at the mid-way points.'[3] Fairburn's claim echoes his and Theo Schoon's championing of the appropriation of Māori rock art in contemporary art practice.[4] Francis Pound has observed with respect to art practice in the 1940s, that such co-opting of antecedent Māori forms (as the Group did here) served to announce 'New Zealandness'.[5]

Figure 1. Group Construction Company, First House, Takapuna, Auckland, 1949-50, Frank Hofmann photographer. Low to the ground, the floor level follows the earth contour. The butterfly chair under the verandah eave is a New Zealand made copy of a design that Knoll put into production in the USA in 1947. (Group Architects Collection, GP3, Architecture Archive, University of Auckland Library).

Almost twenty years earlier the British art teacher, Christopher Perkins, who had recently taken a teaching position in Wellington, identified two starting points for the

development of an 'indigenous domestic architecture' in New Zealand: 'the Maori house with its noble porch in simple continuation of the main roof, and the cubic unit of ferro-concrete, quake proof and permanent.'[6] In 1940 Paul Pascoe described the Maori buildings at length and noted that, for a brief time in the nineteenth century, New Zealand houses had combined styles of both its peoples.[7] Group members may have been familiar with these texts. Bill McKay has noted that in their search for local building expression the Group drew from the meeting house, settlers' buildings and the farm shed.[8] While he acknowledged that the Second House could easily relate to a bungalow or Scandinavian tradition, he identified it as one of the first examples where mid-century New Zealand designers supposedly drew from the whare. He specifically identified the gabled porch and vertical cladding as significant, tempered with the house's horizontal expression and lack of central ridge-beam and post. Significantly, he stated that the veracity of the Group's claim for kinship had not been at issue.[9]

Figure 2. Group Construction Company, Second House, Takapuna, Auckland, 1950-51, photographer not known. Framing for the adjacent Adair House, 1951, appears in the foreground under construction. (Group Architects Collection, GP4, Architecture Archive, University of Auckland Library).

Although this was not common knowledge in the 1940s, it is now widely understood in New Zealand that wharenui (Māori meeting houses) often symbolically represent an ancestor, with parts of the building relating to specific body parts.[10] For example, the tāhuhu (ridge-beam) represents the ancestor's backbone while the heke (rafters) represent their ribs. Sometimes the tāhuhu is used to set out myth cycles with the heke denoting descendents. The upright poutāhū (front post), the poutokomanawa (centre post within the house) and the poutuarongo (back wall post) support the tāhuhu, corresponding to the connection between Rangi, the sky father, and Papatūānuku, the earth mother. The poutokomanawa represents the heart of the ancestor, the ancestor

or other significant ancestors.[11] It is notable then that, as MacKay noted, the Second House is without this internal structure that is crucial to the symbolic composition of the wharenui. Instead, two internal freestanding beams take the structural load-bearing role of the tāhuhu, run through the house supporting the sloping rafters at a distance of about three fifths along their length.[12] As far as I can ascertain, there has never been an overt suggestion that these beams derive from the tāhuhu, although this may have been Wilson's intention. The side-walled verandah under the gable which echoes the front of the meeting house is also somewhat problematic. The verandah of the wharenui opens onto an atea space, which as the site of meeting, challenge and other activities is core to the marae.[13] Without a central ridge-beam or any sense of space beyond the verandah, these houses lack fundamental features of a wharenui. To an extent this is not surprising, because – as noted earlier – these issues were little understood among Pakeha in the 1940s. The Second House, in particular, appears to be an aestheticised interpretation of Māori tradition, where the designers took the look of the meeting house without drawing upon its cultural meaning. This now appears as a naive appropriation which also ignored a wider body of Māori architectural design, although this may not have been widely perceived in 1950.

Independently of the Group, Fairburn's article was later sent to the *Architects' Journal* in London which repeated much of his text including the reference to the meeting house.[14] The students also referred to a Māori design source in a local newspaper interview in the *New Zealand Herald*[15] which was also dispatched to the *Architect and Building News* in London where the editor promptly reprinted the text:

> The object of the exercise is to rehash the early New Zealand vernacular style of architecture. There has been much deep research. 'The Maoris lived here for hundreds of years so they ought to know what goes on,' said one of the group. 'They evolved a style of house suited to the climate and that is exactly what we are doing. Some of the people who come to see the houses remark on the modern designs and compare them with those seen in overseas magazines, but they are completely different. The basic design is peculiar to New Zealand.'[16]

Sceptically, the editor then rounded off the piece adding, 'You don't say.' Nevertheless, the Group were earnest in their attempt to follow the Maori lead.[17] Trevor Murphy, the builder of the Group's Adair House (which sits next door to the Second House) has recently recalled that his clients called their neighbouring house the 'Māori House'

because of its wide gable form, to which one of the Group countered that it was the 'Pakeha House' (where the word 'Pakeha' refers to a New Zealander of European descent).[18]

Local response to the house was mixed (and in time design problems emerged).[19] While some detractors have subsequently come forward[20], many younger and more innovative architects appear to have been enthusiastic, with the Auckland School of Architecture lecturer and Group mentor, Vernon Brown, selecting the house for publication in the *Arts Year Book* of 1950.[21] The houses featured in a two-minute newsreel item which included a model to show the stiffness of the folded roof, and there was a well-attended architects' open day.[22] Letters to the *Listener* following Fairburn's 1950 article indicate that some readers were also unimpressed by the project, although none overtly queried the claim for a Māori design source.[23] While this may seem to suggest that this issue was uncontroversial, the designers' explicit citation of a Māori structural form was novel and must have seemed outrageous to some.

An American Source for the Second House?

A Wellington reader of overseas architectural journals writing under the pen name 'Cellini' stated that the young architects had achieved nothing new.[24] This assertion is not surprising: there were numerous house competitions and modest house designs published in the American journals in the 1940s, which appear to have impacted on the Group's early projects.[25] (As various academics have identified, as the 1950s and 60s progressed, the Group looked to work from Scandinavia, Japan, USA and at projects by Le Corbusier, Frank Lloyd Wright and Aalto in particular.[26]) Sometimes early Group houses included details which were published abroad. For example, the distinctive cutaway fireplace of the Group's Adair House (1951) resembles that of Thornton Abell's Case Study House no. 7 in San Gabriel, California.[27] In 1947 *Life* magazine published results of a competition for contemporary house designs in their American edition including an entry for a Minimum House by Pietro Belluschi which, at first glance, bears some resemblance to the Second Group House (Figure 3).[28] This may highlight a synchronous phenomenon that can occur when designers – separated by distance – respond in contemporary ways, using similar materials and out of a somewhat shared architectural culture. Closer inspection reveals that the planning and structural systems of the Belluschi and Group houses differ. Whereas the Belluschi scheme uses a system of horizontal purlin rafters, the Group house incorporates a folded-plane roof supported by two principal beams which support sloping rafters.

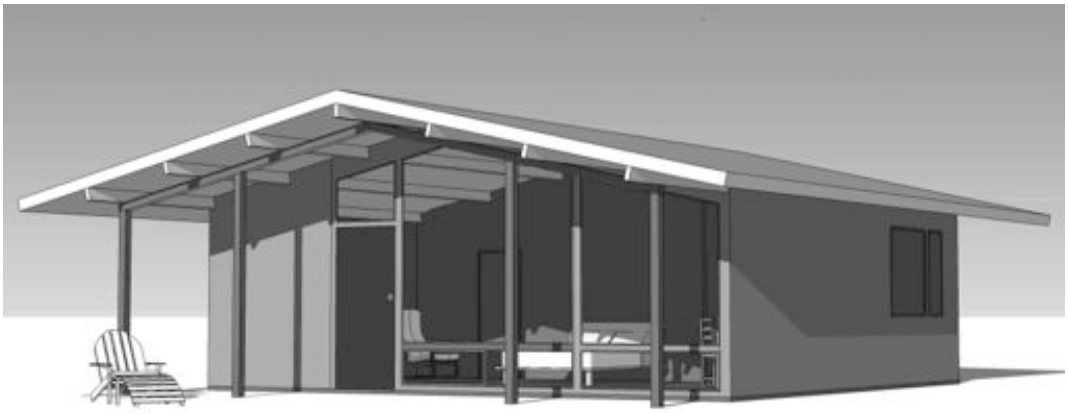

Figure 3. Belluschi's scheme for the Minimum House. This recent render is based upon drawings which appeared in *Architectural Forum* in 1947 (R. Skinner, 2012).[29]

Meredith Clausen records that Belluschi's design was very influential in the United States and on the West Coast in particular.[30] It is possible that Wilson could have known of this scheme when he was studying at Auckland University College. The international edition of *Life*, which was then distributed in New Zealand, did not carry the house competition; however, Belluschi's design appeared in another Time Inc. publication, the *Architectural Forum.*[31] The exterior view, in particular, could have attracted Wilson's attention and may have provided a germ of an idea from which he developed the Second House. Design is often, sometimes subconsciously, triggered from various, often disparate, sources and we may speculate that the Second House design may have been prompted to an extent by Belluschi's scheme. Whether Wilson was aware of the Belluschi scheme or not, its similarity to the Second House again reinforces our awareness of a shared material and aesthetic which extended across the hemispheres. The Belluschi scheme and other architectural references which scholars have identified for Group work emphasise that the wharenui was not the dominant design source of the first houses as readers of the *New Zealand Listener* and *New Zealand Herald* in 1950 may have thought.

At that time architects and architectural commentators in New Zealand rarely mentioned that their output drew from work abroad, and the Group were no exception.[32] While Bill Wilson was very happy to quote overseas architects' texts freely[33] and to discuss their work with others, he did not often publicly acknowledge the architectural quotation and critical engagement which is clearly apparent in the Group's built work. To an extent Wilson's reticence on the Group's debt to these external sources may stem from a wider modernist concern with originality and truth; however, the 1950 references to work of Māori as a point of architectural origin indicate a desire to articulate a primal relationship to place and to announce 'New Zealandness'.[34]

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Māori References Subside

In the 1950s Group projects began to be more widely published, although commentaries made no overt reference to Māori design generators. Following Allan Wild's 1952 move to Wellington, the more forward-thinking *Design Review* magazine published several projects as examples of innovative local design.[35] Articles also appeared in *Australian House and Garden*.[36] From 1952 onwards, the magazine, *Home and Building*, which Wilson had publicly ridiculed in 1948 (and would deride again in 1954), published Group projects.[37] Pointedly, Wilson's initial biographical statement described him thus: 'Interested in development of an indigenous N.Z. house. Believes rational building methods with available materials can be the key to both lower costs and better building.'[38]

In 1956 *Home and Building* published the Group Architects' modest design of the Grant-Taylor house (Wilson's 1954 design) with a verandah, central post and gable form similar to that of a whare[39] (Figure 4). This now-demolished 3-bedroom design was designed for Dorothy Grant-Taylor and her daughter Patricia. It was planned with separate rooms without open planning and with five sets of French doors opening out to the garden or verandah. The central ridge-beam running through the house, which determined the bedroom wall positions, was visible in the living room where it extended through the glazed wall out to the centre verandah post. Whereas the ridge-beam was dispensed with in the Second House, in this house it was exposed and celebrated.

Figure 4. Grant-Wilson House, Benson Road, Remuera, 1954, Barry Martin photographer (GP109, Group Architects Collection, Architecture Archive, University of Auckland Library).

While the front elevation notably parallels the traditional image of the whare, it is uncertain how deliberate this design move was. Patricia Grant-Taylor does not recall Wilson voicing any such reference in discussion with her and her mother.[40] She indicates that they thought that the front of the house was that end first approached (with the garage entry and back door) while the porch was at the back of the house. She recalls that Wilson arrived with plans on Boxing Day (probably in 1953) and that her mother opposed his initial ideas for open planned spaces. Gatley has also described an earlier unbuilt barrel-vaulted scheme which presumably Dorothy also rejected.[41]

Wilson's commentary on the Grant-Taylor house which he submitted to *Home and Building* did not explicitly mention that the design drew from a Māori tradition, although his text may include an oblique reference. Writing on the natural effortlessness that develops from the fusion of dwelling and a work of art, Wilson stated:

> That this house has that ease and comfort, and some graces to boot is an indication to the dubious [people] of the breadth of feeling and potential that lies as yet undeveloped (or undiscovered) within the beginnings of modern architecture in New Zealand.[42]

If this somewhat garbled statement refers to Māori beginnings, it was far more veiled than that made by the young house designer in 1950, and may indicate that their earlier claim had met some derision. A photograph of the Grant-Taylor house along with a plan of the modest 868 sq ft R.B. Thompson House at Taumata St, Castor Bay[43] were featured in the 1971 report of the New Zealand Commission of Inquiry into Housing as typical examples of innovative work by New Zealand architects. The report noted that while the Group's attempts to simplify house construction and planning had resulted in significant impact on other architects' work, their mission had failed to impress the public.[44]

Dorothy's father was the notable botanist and sole curator at the Auckland Museum for nearly fifty years, Thomas Cheeseman. Together she and her daughter extended his ambitious planting activity. While Cheeseman was an eminent botanist who made many significant findings and corresponded with Darwin and Hooker, a biographer has recalled that his 'greatest contribution in the museum field was his early realisation of the importance of acquiring irreplaceable Māori artefacts'.[45] Whether or not

Cheeseman's commitment to the Māori collection impacted on Wilson's design decisions is unknown.

Before the war Bill Wilson had lived close to Māori communities: first at Otaki, then in Northland.[46] In 1953 he wrote to his brother-in-law[47], John Scott:

> We are quite convinced that the normal house (e. State house) takes very little account of the real family needs of the ordinary paketa (sic.) family let alone of Maori family needs and manner of living. And we are equally convinced that there are elements visible in the life of the Maori family and community which are lost in the normal N.Z. house and which preserved for the Maori and recaptured for the pakeha would greatly enrich and ease our daily lives. I think our houses at best show this conviction even where they have failed in the part (sic.)[48] in other directions.[49]

Although we cannot be certain what aspects of Māori life Wilson lauded here, it seems likely that he may have been thinking of connection with the land, intergenerational cohabitation and the shared life experience which comes from open planning. He gave no further information on what he perceived to be shortcomings of the early Group houses. As the Group further explored alternate gabled forms, with shifted axes, clerestories and central courtyards,[50] published references to their work and Māori meeting house form, as far as can be ascertained, ceased. By 1961, when Wilson wrote on the development of housing in New Zealand in a commissioned newspaper article, he made no mention of Māori architecture or lifestyle.[51] In print at least, the early strategy to draw from Māori tradition had ceased.

Reassessment: 1968 Onwards

Since Wilson's untimely passing in 1968, commentary on his use of Māori design generators has varied. In his 1968 4th Year Building Report on the work of the Group, Graham Pitts discussed the influence of the whare form on early Group houses writing 'Only one building form is unique to New Zealand, this being the Maori whare. The whare has a simple gabled roof over a rectangular plan, and a verandah beneath the gable, from which the house is entered.'[52] He later observed that the first Group houses, with verandahs and gabled roofs, 'suggest the influence of the Maori whare' and that one could not mistake the Māori heritage of the Second House in particular.[53]

While Allan Wild provided Pitts with extensive corrections on his report, he made no comment on Pitts' observation on the influence of the whare.[54]

In his winter lecture of 1970 on the architecture in the cultural environment of New Zealand, Wild did not refer to pre-European architecture and made no explicit link to indigenous sources for Bill Wilson's project.[55] Nor was there any mention of Māori generators in Wild's 1977 interview by young architects, or in the accompanying article by David Mitchell.[56] While Wild mentioned their earnest socialism and acknowledged admiration for Frank Lloyd Wright, Le Corbusier, Mies, Aalto, Gropius and Gordon Drake, he did not mention that the Group had looked to Māori house form. The student interviewers, some of whom must have read Pitts' report, failed to pick up on this issue. Many architectural commentators who mentioned the Group, such as James Garrett, Martin Hill and Miles Warren, did not do so either, and presumably did not regard it as significant.[57]

However, others did mention it. In a contribution to the proposed book on New Zealand architecture which was being prepared by Allan Wild about 1980, E.M. Farrelly listed references in the Group's work: 'The ubiquitous NZ hall, woolshed, school, marae, factory. The hall of trees? (post and beam was standard construction of these houses and atypical for the time.)'[58] Significantly, this text appeared alongside a thumbnail illustration of the Second House. Others associated with the Group did not readily make a connection with the traditional Māori house form. No mention was made at a 1982 discussion on the Group where a 1963[59] tape recording of Wilson lecturing on recent Group work was played.[60] Reference was made to influences such as socialism, the work of Frank Lloyd Wright, Le Corbusier, and Gordon Drake, to Japanese and Scandinavian architecture, and to Wilson's wartime travel through the Middle East including modern work in Tel Aviv and the Roman ruins at Baalbek. Nevertheless, there was no mention of Māori tradition in the lengthy discussion, and no one thought to ask.

Almost ten years later, a few months before the release of his book *New Zealand Architecture* (1991), Peter Shaw wrote an article on Vernon Brown and the Group where he related an anecdote told to him by former Group member, Jim Hackshaw[61] (which concurs with the statement by Trevor Murphy mentioned earlier): 'The Group called it, jokingly, the Pakeha House, but behind the joke lay a serious attempt at finding a vernacular architecture to replace the English cottage-derived New Zealand state house.'[62] Shaw's source for this observation was Jim Hackshaw, a former Group member.[63] Allan Wild did not refute this in a list of corrections he sent to Shaw.[64]

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However, Rotherham wrote from London that he had no recollection that the Second House was ever called this.[65] In the meantime, the expression 'Pakeha House' became regularly repeated in discussion of the Group's Second House.[66] Later Wild openly discussed this issue in a 1999 paper where he stated:

> Our second house, next door to the first, was much more straightforward in many respects. The plan was still more open, diagrammatic even, with a long glazed gable with overhang and verandah giving a character which we felt had something of the indigenous quality of a Maori whare, but still was somehow less satisfying than the ground-hugging two-level richness of our first house.[67]

As far as has been ascertained, this carefully measured statement is Wild's first reference in print to the whare form of the house.[68] Over the years he has diligently collected, and responded to, writing on the Group. His papers include recollections from many associates, although few refer to any Māori design source. Freddie Hackshaw, whose husband was a Group member, is an exception, stating in 2004:

> While the Group idolised 'Mies' and 'Corb' who were forever talked about, they had a passionate and idealistic resolve to re-design and revolutionise the New Zealand house. This meant using local materials (timber or concrete blocks for the outside cavity walls, super 6 for roofing, rimu ply walls inside, sarked or gibbed ceilings) and designing the house to take advantage of light, sun and protection from the weather, not hiding the basis of the structure (so exposed beams, not covering the soffits) and concrete bases to allow natural & easy access to the outside. 'Maori whare' and 'a tent on the horizon' were terms used to express what the Group aimed to achieve.[69]

As has already been noted, others had been writing on Māori influence on the early Group houses for some time: Fairburn and the *New Zealand Herald* in 1950, Pitts in 1968, Farrelly in 1980, Shaw in 1991, McKay in 1995, Clark and Walker in 2000, and there are several acknowledgments in Julia Gatley's recent monograph.[70] While the whare reference or 'Pakeha House' have often been mentioned by Pakeha architectural historians and theorists, they have not been held it up as an exemplar of cultural integration. In recent times, some architectural commentators look for examples of cultural appropriation, integration, exchange or rupture; however, the early Group

houses have not been given a great deal of critical scrutiny. They have not been subjected to analysis as have works by architect, John Scott, or artist, Gordon Walters.[71] This is due in part to the exalted status often accorded to the Group and their work. Significantly, like Scott's Futuna Chapel, Wellington (1960), the early Group houses have rarely been discussed by Māori.[72]

From the mid-1950s through to the 1980s, those associated with the Group were silent on Wilson's appropriation of Māori meeting house form. While people were probably aware of it, they may have thought it unimportant or silly, or in time they may have forgotten.[73] This is not the case now, as is evidenced by recent citation. Although Wilson's formal references to whare in the Second and Grant-Taylor Houses appear superficial and naive, and may have been aimed to announce 'New Zealandness', nevertheless they were earnest attempts to acknowledge and draw from an earlier tradition which few architects in New Zealand then attempted. In these terms, and in many other respects, these first two houses remain important events in the development of architecture in New Zealand. Furthermore, that commentators have increasingly referred to the Group's Māori sources, albeit somewhat uncritically, indicates that the Group oeuvre will continue to be the subject of further architectural and cultural contestation.

Endnotes

I thank Julia Gatley, my reviewers, Tessa Brawley at the Special Collections Research Center, Syracuse University Library, and Sarah Cox at the Architecture Archive, University of Auckland, for very helpful discussion and assistance.

[1] Julia Gatley and Bill McKay, '"Overseas Solutions Will Not Do"', in Julia Gatley (ed.), *Group Architects: Towards a New Zealand Architecture* (Auckland: Auckland University Press, 2010), 20.
[2] Folding the sarked roof plane along the gable ridge (as occurs in many early Group houses) increased the effective depth of the roof structure as a whole, making it stiffer – as it also does in the case of a butterfly roof. The rafters meeting along the ridge line of the First House connect at an indented scarf, which – with only one structural beam in the interior – allows vertical loading from the rafters on the open side to be transferred via adjacent rafters to the interior beam. This connection can be seen in a photograph in Gatley's *Group Architects*. Julia Gatley and Bill McKay, 'Novel Building Ventures: Group Experiments in Design and Build', in Gatley (ed.), *Group Architects*, 36. I thank Graham Pitts for drawing my attention to this detail.
[3] A.R.D. Fairburn, 'Another Student House', *New Zealand Listener*, 22, 568 (12 May 1950), 6.
[4] Theo Schoon, 'New Zealand's Oldest Art Galleries', *New Zealand Listener*, 17, 429 (12 September 1947), 6-7; A.R.D. Fairburn, 'Polynesian Cave Drawing', *Home and Building*, 11, 4 (June-July 1949), 32-33, 63-64.

[5] Francis Pound, *The Invention of New Zealand: Art and National Identity, 1930-1970* (Auckland: Auckland University Press, 2009), 276.
[6] Christopher Perkins, 'New Zealand Academy Annual Exhibition', *Art in New Zealand* 4 (1931), 103. It is interesting to note that Wilson was also experimenting with reinforced concrete house construction at this time.
[7] Paul Pascoe, 'Houses', in E.H. McCormick (ed.) *Making New Zealand: Pictorial Surveys of a Century*, 2, 20, (Wellington: Historic Publications Branch, 1940), 2-3.
[8] Bill McKay, 'The Whare Face of Modernism', in *Firmness, Commodity and Delight: the 15th Annual SAHANZ Conference, Melbourne, 1995* (Melbourne: the Society, 1995), 260. Mackay suggested that the Group may have identified with the pioneer role of the settler and farmer. See also Justine Clark and Paul Walker, *Looking for the Local: Architecture and the New Zealand Modern* (Wellington: Victoria University Press, 2000), 29-30.
[9] McKay, 'The Whare Face of Modernism', 260. Possibly McKay here also refers to kinship to the pioneering settler and farmer traditions.
[10] Joan Metge, *The Maoris of New Zealand: Rautahi*, rev. (ed.) (London: Routledge & Kegan Paul, 1976), 230-31. Metge did not make this observation in the 1967 edition of this book.
[11] Deidre Brown, *Māori architecture: from fale to wharenui and beyond*, (Auckland: Raupo, 2009), 51-54.
[12] The First House has one internal beam at about four fifths along the rafter length. See footnote 2.
[13] Michael Austin, 'A description of the Maori Marae', in Amos Rapoport (ed.), *The Mutual Interaction of People and their Built Environment* (The Hague: Mouton, 1976), 236-40.
[14] 'House Built By New Zealand Students', *Architects' Journal*, 113 (22 March 1951), 362. When Bill Wilson later wrote to the journal requesting a copy of that issue, he asked who had sent the original item as he wanted to obtain copies of the photographs. W.D. Wilson, letter to editor of the *Architects' Journal*, May 1, 1952, Group Architects Folder, Box 3, Group Archive, Architecture Archive, University of Auckland Library.
[15] 'Novel Building Venture: Student Architects: Evolving a New Zealand Style', *New Zealand Herald* (11 May 1950), 11. Although the *Listener* issue post-dates the newspaper article, it would have been available a week earlier, and may have prompted the newspaper item.
[16] 'New Zealand Vernacular', *Architect and Building News*, 197 (9 June 1950), 585.
[17] Pers. comm. Margaret Pollard, the initial owner of the First Group House, to R. Skinner, May 2012.
[18] Pers. comm. Trevor Murphy to Julia Gatley, October 2010; Pers. comm. J. Gatley to R. Skinner, April 2012; 'Thoroughly Modern Outlook', *New Zealand Herald*, (30 May 2012), Viva section: 27.
[19] The first house floor is so low to the ground that some of it rotted, the (later shortened) tapering eave overhang darkened the interior, timber volumes exceeded that of comparable conventional houses and there was poor thermal performance. Peter Shaw, 'Modernism in New Zealand Architecture', in Debra Daley (ed.), *New Zealand Home & Building: the Newstalk 1ZB 1950s Show, Auckland City Art Gallery*, (Auckland: Robin Beckett, [1992]), 26; Brenda Vale, 'A House for the Real New Zealander', in Julia Gatley (ed.), *Group Architects*, 192-96. Commenting on an early draft of Shaw's paper, Wild wrote that he wasn't aware of the rot and daylight problems. Allan Wild, 'Peter's Paper: Some Comments', [1992], Group Allan Wild Box, Allan Wild Archive, Architecture Archive, University of Auckland Library. Shaw has no recollection of receiving these comments. Pers. comm. Peter Shaw to R. Skinner, May 2012. The First House's original owner has noted that they re-roofed following excessive nail hole enlargement in the original aluminium roofing due to thermal expansion. Pers. comm. Margaret Pollard to R. Skinner, May 2012.
[20] Ted McCoy, 'Influence and Inspiration', *Architecture New Zealand* (March-April 1999), 60; Giles Reid, 'Icons and Iconoclasts', *Architecture New Zealand* (March-April 1999), 70-74; Felicity Wallace, 'Isn't It Iconic', *Architecture New Zealand* (July-August 1999), 6; Mark Southcombe and Wendy Pettigrew, 'Bringing the World Home', *Home New Zealand* (April 2008), 43; John Walsh, 'Russell Walden: Unplugged', *Architecture New Zealand* (September/October 2010), 30.
[21] 'Experimental House at Takapuna, Auckland', *Arts Year Book 6: Annual Review of the Arts in New Zealand*, Eric Lee-Johnson (ed.) (Wellington: Wingfield Press, 1950), 26-27. One could reasonably speculate that Brown may have been the person who dispatched the items to the British journals. He was supportive of student ideals and enthusiasms, and – as an architect –

he was more aware of the architectural press than the poet, Fairburn. See 'Obituary: Vernon Akitt Brown', *Journal of the New Zealand Institute of Architects*, 32 (1965), 31.
[22] 'Experiment in housing', *Weekly Review*, No. 455, newsreel released 14 July 1950, 2'06" duration.
[23] 'A Registered Architect' (nom de plume), 'Letters from Listeners: Student Houses', *New Zealand Listener*, 22, 581 (2 June 1950), 5; 'Cellini' (nom de plume), 'Letters from Listeners: Student Houses', *New Zealand Listener*, 23, 586 (7 July 1950), 5; W.G. Morrison, 'Letters from Listeners: Student Houses', *New Zealand Listener*, 23, 590 (4 August 1950), 5. Fairburn replied in defence.
[24] 'Cellini', 'Letters from Listeners.'
[25] McCoy, 'Influence and Inspiration', 60-61; Robin Skinner, 'False Origins: The Group, California and the Desire for Indigeneity', *Fabrications*, 22, 1 (June 2012), 120-41.
[26] James Garrett linked the Group's work to Californian, Scandinavian and Japanese traditions in 1954 and 1958. James Garrett, *Homebuilding 1814–1954: The New Zealand Tradition* (Auckland: Pelorus, 1954), 18; Garrett, 'Home building – Our Tradition,' *Home and Building* 21, 5 (October 1958), 41-45. See also G. L. Pitts, 'A Review and Assessment of the Work of Group Architects', BArch Building report, University of Auckland, 1968, 11-12, 75, 104, 158, 181; Peter Shaw, *New Zealand Architecture: From Polynesian Beginnings to 1990* (Auckland: Hodder and Stoughton, 1990), 154, 159; Douglas Lloyd Jenkins, *At Home: A Century of New Zealand Design* (Auckland: Godwit, 2004), 119, 123-124, 178-181; Gatley, *Group Architects*, 3; Gatley, 'House Typologies,' in Gatley (ed.), *Group Architects*, 98-102, 135, 138-143; Andrew Barrie, 'Aesthetic Robin Hoods', in Gatley (ed.), *Group Architects*, 208-216; Skinner, 'False Origins'. On the New Zealand-international nexus of the 1950s, see Clark and Walker, *Looking for the Local*, 35-43.
[27] 'Case Study House Seven: Thornton M. Abell, architect', *Arts and Architecture*, 65, 7 (July 1948), 32-26.
[28] 'Life presents Three Modern Houses: They are the Kind of Homes U.S. Now Can Have', *Life*, 22, 17 (28 April 1947), 77-91, 94.
[29] Further documentation of this design is held at Syracuse University Library, New York.
[30] Meredith Clausen, *Pietro Belluschi: Modern American Architect* (Cambridge, Mass.: MIT Press, 1994), 130-31.
[31] 'Life Houses: Moderate Modern in Three Price Brackets', *Architectural Forum*, 86, 4 (April 1947), 15.
[32] Skinner, 'False Origins', 134.
[33] Wilson's quotation was often inaccurate. In his essay in the Group's single issue magazine, *Planning*, Wilson misquoted several unattributed sources. W.D. Wilson, 'Education for Architecture', *Planning: The Magazine of the Architectural Group* (1946), 28-30. He quoted: T. S. Eliot 'Modern Education and the Classics', in *Selected Essays 1917–1932* (1932) although left out the following sentence which significantly tied the problem of education to religion; William E. Channing, 'Spiritual Freedom' (1832) (misquoted); Louis Sullivan, *The Autobiography of an Idea* (1924), 189 (misquoted).
[34] As noted earlier, Pound, *The Invention of New Zealand*, 276.
[35] 'A House at Avondale: Group Architects—James Hackshaw', *Design Review*, 4 (1952), 77-79; 'Living Rooms', *Design Review*, 5 (1953), 63-65; 'Tried and Proven: Ways to Better Housing at Less Cost', *Design Review*, 5 (1953), 83-84; 'Your House from the Outside', *Design Review*, 5 (1953), 87; 'House for Titirangi', *Design Review*, 5 (1954), 114-15. Allan Wild, Ian Reynolds and Anthony Treadwell edited the special housing issue of March 1954. Reynolds had contributed to the Group's 1946 magazine, *Planning*, and Treadwell painted a mural in the First House.
[36] Barbara Neville, 'Object Lesson in Economy', *Australian House and Garden*, 12, 2 (July 1954), 44-44, 52; Myra Wilson, 'We Find a World-Beater in a Simple, Perfectly Planned N.Z. House', *Australian House and Garden* 18, 4 (September 1957), 18-19, 83.
[37] Bill Wilson, 'The Small House', *Kiwi: Annual Magazine of the Students' Association, Auckland University College*, 43 (1948), 33; W.D. Wilson, 'Your New House', *Here and Now: an Independent Monthly Review*, 38 (1954), 29; Gatley, *Group Architects*, 247.
[38] 'Contributors', *Home and Building*, 15, 9 (February 1953), 18.
[39] Compare for example, Phillip Parker King's drawing of Pomare's hut in the Bay of Islands in 1839. Pascoe, 'Houses', 2.
[40] Pers. comm. Patricia Grant-Taylor to R. Skinner, 6 May 2012.

[41] Gatley, 'House Typologies', 101-12.
[42] Bill Wilson, 'House for Mrs D. Grant-Taylor', typescript, 10 February 1956, Grant-Taylor House Folder, Group Box, Group Archive; 'A Modern House for Otherwise Conservative Tastes', *Home and Building*, 18, 10 (March 1956), 29. The text was provided by Wilson. See Architect's statement, 10 February 1956, Grant-Taylor House folder.
[43] R.B. Thompson House, Taumata St, Castor Bay (2nd scheme: designed 1952?-53, built 1953-54. 'Three Houses under 2500 pounds', *Home and Building*, 18, 5 (October 1955), 22-23; 18, 6 (November 1955), 5.
[44] 'The latter group [of young mostly Auckland architects] had a widespread influence upon other architects, but, on the whole, failed to impress with their honesty of approach a nation somewhat conditioned to meretricious symbolism in house design.' *Housing in New Zealand: Report of the Commission of Inquiry Wellington, April 1971* (Wellington: Government Printer, 1971), 119.
[45] Arthur William Baden Powell, 'Cheeseman, Thomas Frederic (1846–1923)', *Encyclopædia of New Zealand*, A. H. McLintock (ed.) (Wellington: Government Printer, 1966).
[46] Julia Gatley, 'Who was Who in the Group?', in Gatley (ed.), *Group Architects*, 10.
[47] Joan Moffatt (Scott) and Phyl Maxwell (Wilson) are sisters.
[48] It is uncertain if Wilson meant to state 'even where they have failed *in part* in other directions' or 'even where they have failed *in the past* in other directions'.
[49] W.D. Wilson, letter John Scott, 30 April 1953, Maori Welfare Housing File, Box 7, Group Archive.
[50] Pitts, 'A Review and Assessment', 49-50; Gatley, 'House Typologies', 58; Barrie, 'Aesthetic Robin Hoods', 208.
[51] W.D. Wilson, 'A Century of Housing', *New Zealand Herald* (1 November 1961), Section 2, 11.
[52] Pitts, 'A Review and Assessment', 48.
[53] Pitts, 'A Review and Assessment', 49, 61. Pitts spoke with Jim Hackshaw and Ivan Juriss when preparing his report. He now finds his observations on the whare somewhat far-fetched. Pers. comm. Graham Pitts to R. Skinner, May 2012.
[54] Allan Wild, 'Notes on 'Group Architects' of Graham Pitts', an annotation in Pitts, 'A Review and Assessment', 3pp. This was subsequently inserted by Pitts in August 1969.
[55] One could argue that Wild attributed John Scott's innate architectural ability to his racial heritage, describing him as 'a Maori from Hastings, who was a late starting member of Group Architects', who had a 'natural feeling for building materials' and a 'natural understanding of how people live' and that he produced 'exciting houses that despite their dramatic and unconventional forms seem to grow naturally out of the ground'. Allan Wild, 'Architecture in the Cultural Environment of New Zealand', 10. Group and Allan Wild Box. (Page 11 is currently missing).
[56] David Mitchell, 'Group Architects: Hot and Cool', *Auckland Architectural Association Bulletin*, 86 (December 1977), 4-6; 'Allan Wild: an Interview', *Auckland Architectural Association Bulletin*, 86 (December 1977), 6-7, 9-11. While Mitchell's title may have then been understood to echo the two media types identified by Marshall McLuhan, this does not extend to the article text.
[57] Martin Hill, *New Zealand Architecture* (Wellington: Department of Education, 1976), 37; Miles Warren, 'Style in New Zealand Architecture', *New Zealand Architect*, 3 (1978), 2-15
[58] [E.M. Farrelly], 'Thinning-down and Evening-out', unpublished ms, c.1980, Group and Allan Wild Box.
[59] This recording was probably Wilson's address to the Pacific Congress in Auckland in 1963. Wilson's lecture typescript opens with text which coincides closely with a quote published in the proceedings. 'Extracts from Tapes of Bill Wilson's Lectures Compiled Especially for the 26th March Meeting of the Auckland Architectural Association in Honour of the Group', Wilson Personal File, Box 13, Group Archive; W.D. Wilson, 'New Zealand Housing', in Dick Scott (ed.), *Report '63: a record of the Pacific Congress organized by students of the School of Architecture, University of Auckland, September 2-7, 1963*, (Auckland: Architectural Students Society, [1964]), 34-35. The typescript of Wilson's recording also refers to Australian students being present.
[60] 'Extracts from Tapes.'
[61] Pers. comm. Peter Shaw to R. Skinner, May 2012.
[62] Peter Shaw 'The Group Architects and the Auckland House', *Metro*, 20 (June 1991), 125; Peter Shaw, *New Zealand Architecture: From Polynesian Beginnings to 1990* (Auckland: Hodder and Stoughton, 1990), 154.

[63] Pers. comm. Peter Shaw to R. Skinner, May 2012.
[64] Allan Wild, letter to Peter Shaw, 24 June 1991, Group and Allan Wild box.
[65] Bruce Rotherham letter to Allan Wild, 26 August 1991, Wilson Personal File, Box 13, Group Archive. My memory also recalls that Wild also disputed this in a private conversation at that time. Pers. comm. Allan Wild to R. Skinner, March 1992.
[66] McKay, 'The Whare Face of Modernism', 260; Clark and Walker, *Looking for the Local*, 30; Julia Gatley (ed.), *Long Live the Modern: New Zealand's New Architecture 1904-1984* (Auckland: Auckland University Press, 2008), 57; 'Gatley and McKay, 'Novel Building Ventures',43; 'Thoroughly Modern Outlook', 27.
[67] Allan Wild, 'A Tale of Two Cities', *Proceedings from the Launch of Docomomo New Zealand* (Wellington: Docomomo New Zealand, 1999), 8.
[68] The caption referring to the 'Pakeha House' which accompanied Wild's entry in *Long Live the Modern* was written by Gatley.
[69] Freddie Hackshaw, 'Group Architects', typescript, 27 July 2004, Group and Allan Wild box. 'Super 6' refers to corrugated asbestos cement roofing then manufactured by James Hardie & Co. 'Gibbed' ceilings are those lined with locally made 'Gibraltar' plaster board.
[70] Clark and Walker, *Looking for the Local*, 30; Gatley and McKay, 'Novel Building Ventures', 40, 43, 46; Gatley, 'House Typologies', 58; Barrie, 'Aesthetic Robin Hoods', 208.
[71] McKay's paper 'The Whare Face of Modernism' is noteworthy for its critique of many buildings by Pakeha architects.
[72] Bill McKay, 'Halfcaste or Bicultural: John Scott, Maori and Architecture in the 1960s', in Terrance McMinn, John Stephens and Steve Basson (eds), *Contested Terrains: Proceedings of the 23rd Annual SAHANZ Conference*, *2006* (Perth: the Society, 2006), 365-71.
[73] Jim Shanahan, who owned the Second Group House between 1971 and 2008, has indicated that he only learnt of his home's 'Maori House' moniker when he read it (probably in a publication by Shaw or Gatley). Pers. comm. Jim Shanahan to R. Skinner, June 2012.

The Architecture and Surfaces of Reza Negarestani's' *Cyclonopedia*

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Abstract

This paper explores the invocations of architecture and landscape through readings of surface, solid and space within a specific creative textual work: Iranian philosopher Reza Negarestani's Cyclonopedia: complicity with anonymous materials*. The philosophical notions of 'fabulation' and 'creative fabulation' are used as a conceptual framework to explore and characterise these readings. The paper suggests that the text's creative readings of Middle Eastern architectures and landscapes are integral to a particular narrative within the* Cyclonopedia *text.*

The philosophical notions explored in this paper are primarily drawn from the writings of philosopher Gilles Deleuze, including the collaborative works he produced with psychoanalyst Félix Guattari. Deleuze and Guattari specifically refer to the notions of 'fabulation' or myth-making and 'creative fabulation' within their text, What is Philosophy?, *in which they also refer to philosopher Henri Bergson's original conception of fabulation. Thus the present paper will reference Bergson, concentrating on his text,* The Two Sources of Morality*.*

Introduction

This paper refers to the philosophical notions of 'fabulation' and 'creative fabulation'[1] to explore a complex literary work by Iranian philosopher Reza Negarestani, titled *Cyclonopedia: complicity with anonymous materials*.[2] *Cyclonopedia* has been self-positioned as: 'a horror fiction, a work of speculative theology, an atlas of demonology, a political samizdat and a philosophical grimoire.'[3] There appear to be two main protagonists. The first is a fictional character, former Tehranian academic, Dr. Hamid Parsani.[4] Parsani who, following his academic dismissal, was successively employed within an Egyptian architectural practice and was a founder of an archaeological research organisation, has disappeared without a trace.[5] The second character is an unnamed female narrator-journalist, who is on a quest to discover and research Parsani and his writings.[6] Parsani appears to be a fictitious character invented by Negarestani, although as with the entire text itself, there is an arguable complexity to the question of what constitutes fact and fiction, and

its 'real-life'[7] characters and narratives.[8] The philosophies, theories, historical events, architectures and cultures discussed in the text appear to simultaneously refer to 'real life' texts and sites,[9] and Parsani's unusual writings and narratives.[10] For this reason, the opinions expressed by Parsani are taken to be synonymous with the narratives of the *Cyclonopedia* text itself.

The complexities of the text make it difficult within the scope of a conference paper to articulate and generalise *Cyclonopedia* as a literary work. It is not the specific intention of the present paper to demonstrate, or prove, specific interpretations of *Cyclonopedia's* narrative(s), and the focus is instead on the role and deployment of architectures and spaces in the construction of particular narratives and discursive threads. Due to the continuous interweaving of 'fact' and 'fiction,' it is also difficult to articulate an absolute plot structure or narrative (in the conventional sense). While there may not be a singular narrative, it is nevertheless possible to chart a significant and imaginative binary relating to the notions of the 'Whole Earth'[11] and the '()hole complex'.[12] The Whole Earth relates to a conception of the earth as a singular celestial body, or object, with a continuous surface topography which is overseen by the domineering Sun, a deity-like presence. In contrast, the ()hole complex relates to the undermining of the purity and singularity of the same planetary body and its surfaces. *Cyclonopedia* is of particular interest in its seeming ascription of sentient and political capacities to the 'entities' of the Sun and the Earth's core, which is referred to as the 'Earth's Insider'.[13] This approach produces a literary work that suggests a unique way of understanding the Middle East, its architectures and landscapes, in which there is a complexity to the notion of what is 'real' and 'fabulated',[14] to use Henri Bergson's terms.

The fabulations of Deleuze, Guattari and Bergson

To better understand and explore *Cyclonopedia*, reference will be made to the philosophical notions of fabulation and creative fabulation as primarily distilled from the writings of French philosopher Gilles Deleuze—including the collaborative works he produced with psychoanalyst Félix Guattari. Deleuze and Guattari also draw from the writings of French philosopher Henri Bergson, who originally elaborated the concept of fabulation in his text *The Two Sources of Morality and Religion*.[15] In *What Is Philosophy?*, Deleuze and Guattari associate the notion of fabulation with the construction of narratives or 'myths' which support an established view or position.[16] In contrast, creative fabulations are associated with new ways of seeing and understanding, that challenge existing or habitual perspectives; this understanding may be prompted by a challenging artwork exploring confronting experience and so forth.[17]

These notions (and their conceptual relation) are seen as a productive framework for exploring *Cyclonopedia* for two main reasons. First, the notions of fabulation and creative fabulation are useful to characterise the Sun's and the Earth's Insider's conflict and binary, their attendant ideologies, and Negarestani's readings of architecture and landscape: readings that complicate what might be considered 'real' and imagined'. Second, *Cyclonopedia* involves a complex and imaginative interweaving of fact and fiction,[18] life and creation, in a manner that appears to correspond to Deleuze and Guattari's notions of fabulation and creative fabulation. While not expanded upon within this essay, *Cyclonopedia* also makes numerous direct references to the writings of Deleuze and Guattari and their geophilosophical notions including: 'stratification,'[19] 'the plane of consistency,'[20] 'holey space'[21] and 'Earth.'[22] Associated descriptions of ground, planes, surfaces and porosity influenced by these geophilosophical notions are integral to the invocations of architecture and landscape throughout *Cyclonopedia.*

Bergson's notion of fabulation is differently nuanced to that of Deleuze and Guattari (who extend the notion to creative works),[23] and it is difficult to understand their notion without reference to Bergson. Bergson develops the notion of 'fabulation' or the 'myth-making faculty'[24] as part of an exploration of the nature of religion and society within his text *The Two Sources of Morality and Religion,*[25] first published in France in 1932. For Bergson, myths or 'fabulations' are created to help cohere the devotees of 'static religions'[26], and protect its membership from outside influences which may promote different life perspectives (and consequently, threaten the coherence of the group).[27] For Bergson, religion's primary method is 'action'.[28] Through ritual, rite and ceremony, religion maintains its myths or fabulations by working to align all experiences and phenomena with its 'moral' world.[29] Thus it possible to suggest that key characteristics of Bergsonian fabulations or myths are that they are created to support dominant ideologies or positions, and that they prompt action, in order to ensure preconceived outcomes, particularly with respect to cohering the membership of religious groups. Bergson differentiates fabulations from creative acts that prompt new conceptual understandings and life perspectives.[30]

In contrast, and for Deleuze and Guattari, '[c]reative fabulation'[31] refers to the creation of a new way of conceptualising life which differs from dominant narratives, and is prompted by creative acts and works, such as the paintings of Van Gogh[32] and works by Kafka.[33] For Deleuze and Guattari, the artist experiences or engages with a confronting life experience which both challenges established understandings, and prompts a new conception of life which is then invoked in a subsequent artwork—a creative fabulation. They make the point that the creative work itself cannot be considered representational, of memory or even its

fantasy: instead, the creative work itself is positioned as a transformative agent.[34] This creative work is also associated with a productive desire to see and 'create' the world anew in a way that is alternative from established narratives and ideologies.[35] For Deleuze and Guattari (and in contrast to Bergson), fabulation and creative fabulation operate differently, but can be associated. This is because the original event or events that undermine existing, dominant fabulations or myths might prompt a new creative fabulation or narrative.[36] As such, and for Deleuze and Guattari, a fabulative or imaginative[37] process might be associated with any consequent creative fabulation it prompts. Thus it is possible to characterise creative fabulations as; achieved through a material creation in the physical world (a work of art), associated with a productive desire to create a new world; and generative, in the sense that they yield alternatives to existing positions, and therefore challenge established ideologies, hierarchies and 'habits'.[38]

Cyclonopedia's fabulations

The present paper's specific interest is in Cyclonopedia's discussion and conception of architectural surface, form and space; it will be argued that this conception is intertwined with the creation the particular narrative relating to important fabulations within Cyclonopedia—that of the 'Whole Earth'[39] and the '()hole complex'.[40] For this reason, it is difficult to describe and articulate the approach to architecture within Cyclonopeda without first elaborating the approach to landscape and surface, and associated narratives and discursive threads. Through characteristics shared with Deleuze and Guattari's notions of fabulation and creative fabulation (elaborated above), the two important fabulations of the 'Whole Earth' and '()hole complex' relate to *Cyclonopedia's* narrative of conflict between the sentient entities of the Sun and the Earth's Insider, and associated spatial and surface conceptions. This conflict appears to hinge (in part) upon an initial ideological conception of the Earth's celestial body as a complete, or whole, independent form and the subsequent complication of this conception. The surfaces of the Earth are said to be presided over by the gazing[41] Sun, variously referred to as the Sun, the 'solar outsider'[42] and god.[43] The sun is positioned as a deity-like monotheistic entity that exerts a hegemonic dominance over the Earth's planetary body and surfaces.[44] Interestingly, the actions of the Sun's 'agents' and associated 'agencies', who operate to restore surface continuity, include both devotees of Abrahamic monotheistic religious traditions[45] and 'technocapitalist'[46] societies.[47]

Through descriptions relating to the operations, surfaces and processes of the Sun and the Earth, the Sun appears to be in a conflict with the operations of the Earth's core, referred to as the 'Earth's Insider';[48] an emergent, creative entity beneath the Earth's surface, actively operating to undermine the Sun's omnipotence.[49] The notion and entity of the Earth's Insider

is difficult to imagine and articulate, and Negarestani's clearest reference is to 'the Earth's burning core (the Insider)'.[50] The Earth's Insider's operations—which might be visualised as geological flows and processes in the Earth's core that undermine or erode the Earth's surface—threaten the purity or continuity of the Earth's landscape and surface and, by association, the dominance of the Sun over the Whole Earth. Importantly, the Earth's Insider authors the creative fabulation of the ()hole complex, described by Negarestani as 'a model of participation with and grasping of the earth as a twisted zone of insurgency.'[51] The two fabulations of a Whole Earth and the ()hole complex are articulated through readings of surface, architecture and landscape throughout the *Cyclonopedia* text, further elaborated below.

Whole Earth: a fabulation of the ground, architectural surface and solid form

Cyclonopedia's myth of a Whole Earth could be described as a conceiving of the Earth's planetary body as a single monolithic 'solid' with an uninterrupted, continuous exterior 'surface'.[52] The deserts of the Middle East — read as an idealised landscape, in their 'flatness',[53] absence of surface articulation and surface continuity — are described by Negarestani as surfaces belonging to the Sun. For Negarestani, the Sun is the monotheistic god;[54] the surface of God is the desert, where the myth of a Whole Earth is most complete.[55] When invoking the wholeness and conceptual completeness of the Earth, Negarestani refers to actions that maintain the purity of the desert surface, such as the destruction of buildings and entire cities that interrupt the idealised landscape.[56] Negarestani describes the unforgiveable sin of 'idolatry' as extending to the belief that buildings and, by extension, entire cities are 'terrestrial idols':[57] their 'elevations' [58] become affronts to both the sun and the myth of a Whole Earth.

To further illustrate his understanding of buildings as idols, Negarestani describes a sequence of events relating to the Islamic prophet Muhammad and the House of Ka'aba, described as 'the most significant building in Arabia'.[59] The temple's idols are said to have been destroyed by Muhammad because 'he declared that Ka-aba was in the possession of Allah alone, who resides outside of it'.[60] Following the evacuation of Ka'aba's interior of its idols, an anonymous Islamist is said to have concluded that the building itself is an idol, because if 'Allah resides outside any house, even his own abode, then the Ka'aba itself is a terrible idolatrous redundancy.'[61] According to Negarestani, it is possible to conclude that the evacuation of Ka'aba's interior, and 'relocation' of god's presence from the interior to exterior of the temple, lead to a reading of the building itself as a threatening 'idol'. In this reading of architecture, buildings may conceived as complete contained bodies or singular objects.

Understood in the context of a desert landscape, these objects interfere with the purity and continuity of the Earth's surface.

Negarestani extends this idolatrous reading of buildings to entire cities, which are conceived as 'collections of idols'[62] during urban conflicts in the Middle East, particularly during the 'War on Terror'.[63] In these conflicts, Negarestani suggests that religious groups are joined by 'technocapitalist' coalition forces who are also conceived of as Solar agencies because they destroy the cities that contain the conflicts. Their destructive actions are said by Negarestani to be attempts to restore the 'the consolidating power of the ground' of the Earth.[64] The preconceived outcome of the synergistic Solar agencies' actions is the restoration of the idealised, continuous desert landscape, and thus the aligning of the physical world with a 'Whole Earth's' mythic world.

()hole complex: a creative fabulation of exhumation and subterranean space

Cyclonopedia's conceptual model of a ()hole complex could be considered a creative fabulation, because it both generates a new model of the Earth and simultaneously 'degenerate[s] the Earth as a ground for supporting formations, establishments, modes of dwelling and governance'.[65] *In Cylonopedia,* the myth of Whole Earth appears threatened by the physical creation of a ()hole complex. *Cyclonopedia's* ()hole complex operates through processes involving porosity and 'surface dynamics'[66] and is said to undermine a sense of the Earth's wholeness by confusing its 'surfaces and its solidity'.[67] The ()hole complex is the physical product of 'Surface Dynamics';[68] a process which results in complex relationships between surface, solid and space. 'Surface Dynamics' are said to be generated by the interaction of two types of surface: a 'Surface-Supporter', and a 'Surface-Transmitter'.[69] A Surface-Supporter refers to the surface of the solid, it's outside or visible surface. A Surface-Transmitter is the surface of a space within the solid, an inside or invisible surface. ()Hole Complex threatens the myth of Whole Earth by conjoining these supporter/outside and transmitter/inside surfaces; in other words, creating a 'hole' in the 'whole'. Importantly, the creation of 'holes' is said to be an 'ungrounding'[70] act which may be understood as undermining the Sun's dominant narratives and fabulations.

The Earth's Insider or Earth's core is said to produce a 'convoluting plague' of holes; its creative processes are enacted upon the earth itself.[71] The various agencies of the Earth's Insider are also described as proliferating ungrounding acts and 'holey spaces'[72] throughout the Middle Eastern deserts. Negarestani provides examples of this 'holey space-making', including exhumative acts associated with archaeology,[73] grave-robbing and grave-digging.[74] For example, a sealed tomb in its 'natural' state is inferred to support the myth of Whole

Earth because even though a space exists within the tomb, the surface-supporter or continuity of the outside surface remains intact; thus the Earth remains 'grounded' and the internal space compartmentalised.[75] The act of exhumation exposes the tomb's interior space because the 'surface-supporter' of the tomb's exterior is ruptured through its contact with the interior space's 'surface-transmitter'. This exhumative process produces complex outcomes: it creates a hole, 'ungrounds' the earth, undermines 'the architectural policy of solid',[76] and is described as an act of insurgency against the sun.[77]

Negarestani also reads the Battle of Tora Bora, during the War on Terror, as militarised action against the 'architecture of such ()hole complexes'.[78] During Tora Bora, Western 'Solar agents' attacked the network of caves within the Tora Bora Mountains, supposed to accommodate vast armies of insurgents. This focused the agents' energies on destroying 'these convoluted and subterranean architectures'.[79] Negarestani cites other examples of 'subterranean architectures' riddling the Middle Eastern deserts, including necropolises,[80] underground cities,[81] cross-border tunnels and terror compounds[82] as evidence of the ()hole complex.

Above the Earth's surface, architectures are understood as independent, idolatrous objects, or forms, interrupting the surface of the landscape and the attendant sense of the 'wholeness' of the Earth. Sub-surface or subterranean architectures lack a complete or contained form, and are instead characterised as a network eroding their 'container': the 'Earth object'. Through its various agencies and agents, the notion and entity of the Earth's Insider is said to create the ()hole complex; its alleged insurgency against the Sun could be said to be associated with a productive desire to create the earth anew. The creation of the ()hole complex could be understood as generative, in the sense that it creates an alternative reading of the Earth to that of the Sun's mythic ideology of Whole Earth.[83]

Summary: the fabulations, surfaces and spaces of Cyclonopedia

Although *Cyclonopedia's* narrative or focus is not predominately architecture, it could be argued that the text challenges the way in which we conceptualise architecture and the architectural, through readings of surface, space and form, particularly within the field of architectural theory. Throughout *Cyclonopedia*, architecture appears to be conceptually 'constructed' and subsequently eroded in continuous relay with political and religious arguments, and their undermining. Importantly, the text involves a 'geophilosophy'[84] which operates beyond human-centric discussions of subjectivity, philosophies and social politics. Instead, the operations and the processes of celestial bodies are engaged to prompt alternative conceptions of planets, landscape, form and space. Cyclonopedia's two

fabulations of a Whole Earth and ()hole complex are suggestive of how readings of architecture and landscape could be used to support an ideological position, and simultaneously undermine that same position, using a strategy Negarestanti describes as 'arch-sabotage'.[85] Similarly, it could be argued that the notions and readings of architecture and landscape within *Cyclonopedia*—as invoked by discussions of uninterrupted surfaces and architectural forms—involves myth-making or fabulation, because surface continuity is inextricably associated with the myth of a Whole Earth, ideological dominance and actions that maintain this ideology. In contrast, the creative processes of ungrounding and exhuming—as invoked by subterranean interior spaces—involve a creative fabulation, that of the ()hole complex. The creation of the ()hole Complex acts as a challenge to the myth of a Whole Earth, whilst simultaneously invoking a new conception of the 'Middle East as a living and sentient entity'.[86]

Endnotes

[1] Gilles Deleuze and Félix Guattari, *What Is Philosophy?,* (trans.) Hugh Tomlinson and Graham Burchell (New York: Colombia University Press, 1994), 171.
[2] Reza Negarestani, *Cyclonopedia: complicity with anonymous materials* (Melbourne: re.press, 2008).
[3] Negarestani, *Cyclonopedia,* rear cover. *Cyclonopedia* is a highly complex and potentially contentious textual work. This is because the text interweaves narratives, history, philosophies, politics, religion, the sacred and the profane into descriptions of the landscape and architecture of the Middle East.
[4] Negarestani, *Cyclonopedia*, 9. The first chapter of *Cyclonopedia* opens with the history of the character Parsani, whose own writings—like much of the *Cyclonopedia* text itself—appear to blend and reference fact and fiction. The point is made that: '[a]rrested by SAVAK secret police during the Shah's regime in Iran for his unpatriotic activities and dissemination of fake versions of the glorious Persian history, Parsani was finally dismissed from Tehran University during the cultural reformation following the 1979 Revolution, for what was termed 'insufficient scholarship'.'
[5] Negarestani, *Cyclonopedia*, 10. According to *Cyclonopedia*: '[a]fter his academic exile (1981-1995), Parsani was hired by a middle-eastern architectural practice based in Egypt. Enjoying financial security over a long period, he eventually nullified his contract with the company and established a private research institute which lasted for nine months. It seems the only aim of the institute was to acquire permission from Iran's Cultural Heritage Organization to cooperate with public bodies involved with archaeological projects led by government, and to assemble an elite team of reliable and professional archaeologists, linguists and even mathematicians.'
[6] Parsani, according to the text, first disappeared in 2000, and reappeared later in the same year, only to subsequently vanish: see Negarestani, *Cyclonopedia*, 10.
[7] Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, (ed. and trans.) Brian Massumi (London: Continuumm, 2004), 412. Deleuze and Guattari within this collaborative text, use the term 'real-life' to differentiate between operations deployed in actual sites, as distinct from the detached theories and abstractions developed away from real-life. Within the present paper, the term 'real-life' is used to refer to examples of landscape and architectural monuments that can be physically experienced in physical real-life in the Middle East—as distinct from hypothetical or unbuilt monuments that appear to be fabricated for or exist within the *Cyclonopedia* text itself.
[8] Negarestani, *Cyclonopedia*, 219-221. *Cyclonopedia* chronicles and unfolds Parsani's complex writings and philosophies; and yet the focus of *Cyclonopedia* slides between the invented biography of Parsani, and the content of Parsani's experimental, philosophical and possibly 'paranoid' writings. A 'loose' association is suggested between Parsani's writings, and 'radical paranoia'.

[9] Such as, for example, the sacred form of the 'The House of Ka'aba', which is a real religious building associated with Islamic ceremonies: see Negarestani, *Cyclonopedia*, 172. Note the building is often referred to as the 'Kaaba'.
[10] Interestingly, the text itself is ambivalent about the impact of Parsani's writings and philosophies, as established through the following early observation made by a character who was a previous student of Parsani's: '[i]t is difficult for me, as one of Parsani's first students, to be forced into any premature conclusion as to whether his recent comments on the genealogy of Monotheism and the rise of the Middle East as an autonomous identity are really of any intellectual value or not.' Negarestani, *Cyclonopedia*, 11.
[11] Negarestani, *Cyclonopedia*, 17. In establishing a binary between a notion of a Whole Earth and a ()hole Earth, Negarestani first refers to the 'Earth as a Whole'.
[12] Negarestani, *Cyclonopedia*, 42.
[13] Negarestani, *Cyclonopedia,* 65. The significant point is made that the 'Middle East [is] a sentient entity, a literally living one.' With respect to the sun as a dominant entity ascribed with a capacity for politics, there is reference to the Sun's own 'solar capitalism' and the 'solar economy:' see Negarestani, *Cyclonopedia*, 19. Finally, and in relation to the binary and conflict between the two entities, the 'Earth' is positioned as dismantling 'the hegemony of the sun on a subterranean (blobjective) level'. Negarestani, *Cyclonopedia*, 19. See also *Cyclonopedia*, 42,181.
[14] Note that within the English translation of *The Two Sources of Morality and Religion*, the term 'myth-making' is used as a substitute for the term 'fabulation.' Theorist Roland Bogue also draws attention to this point: see Ronald Bogue, 'Fabulation, Narration and the People to Come,' in Constantin V. Boundas (ed.), *Deleuze and Philosophy*, 'Deleuze Connections' series, ed. Ian Buchanan (Edinburgh; Edinburgh University Press, 2006), 204.
[15] Henri Bergson, *The Two Sources of Morality and Religion*, (trans.) R. Ashley Audra and Cloudesley Brereton with the assistance of W. Horsfall Carter (Indiana: Holt, Reinehart and Winston, 1977). Bergson's original text was first published in in 1932 in France. Reference will also be made to a specific piece of writing by literary theorist Roland Bogue, titled 'Fabulation, Narration and the People to Come,' in Boundas (ed.), *Deleuze and Philosophy*. In this text, Bogue compares Bergson's notion of fabulation to that of Deleuze.
[16] Deleuze and Guattari *What is Philosophy?,* 168-171.
[17] Bergson, *The Two Sources of Morality and Religion*, 257; Bogue, 'Fabulation, Narration and the People to Come', 207.
[18] Negarestani, *Cyclonopedia,* 242. The point is made that the vital forces of oil (and its associated processes and spaces) is inseparable from any story or narrative about the Middle East: thus 'oil is the undercurrent of all narrations.'
[19] Deleuze and Guattari, *A Thousand Plateaus*, 45. Deleuze and Guattari refer to the 'Earth'.
[20] Negarestani, *Cyclonopedia,* 238. *Cyclonopedia* refers to and redeploys Deleuze and Guattari's notion of the 'plane of consistency' with respect to thinking about the desert as signifying a whole or complete entity. The point is made that: '[d]esert signifies a militant horizontality or a treacherous plane of consistency – in a Deleuze-Guattarian sense - between monotheistic apocalypticism and Tellurian Insurgency against the Sun (god).'
[21] Deleuze and Guattari, *A Thousand Plateaus*, 459. It is important to note that Negarestani directly refers to Deleuze and Guattari throughout *Cyclonopedia.* A reference to Deleuze and Guattari's conception of 'holey spaces' occurs in the chapter Machines are Digging;' the focus of the present paper. Negarestani, *Cyclonopedia,* 43. *Cyclonopedia* also refers to the 'hole complex'.
[22] Negarestani, *Cyclonopedia,* 43. *Cyclonopedia* makes reference to Deleuze and Guattari's notion of a 'new earth' to invoke an alternative conception of life beyond customary understandings (the ground'). Negarestani suggests that: '[t]o talk about holey spaces and Earth is to insinuate the Earth as the Unground. But what constitutes the ungrounding mechanism of holes? How does holey space degenerate the Earth as a ground for supporting formations, establishments, modes of dwelling and governance? Deleuze and Guattari's slyly appropriated 'New Earth' presents a model of an earth whose every surface and trellis is an unground, a terminal planetary body tolerating neither solar economies nor its own terrestriality.' Deleuze and Guattari discuss the Earth in *A Thousand Plateaus*, 373.
[23] It is important to note that Bergson's conception of fabulation is differently nuanced to that of Deleuze and Guattari, in some respects. This is because Bergson differentiates creative acts that prompt a new conception of life, from fabulations or myths that support existing ideologies. Deleuze and Guattari, on the other hand, suggest that a creative fabulation, and the associated new way of seeing life, might emerge from the undermining of an original fabulation. According to Bogue: '[f]or

Bergson, the 'leap forward' of genuine creation is unrelated to the shock of the event that induces fabulation. For Deleuze, however, the leap forward *is* the shock of the event, and fabulation is part of the genuinely creative process that makes of the event the occasion for the invention of a people to come.' Bogue, 'Fabulation, Narration and the People to Come,' 209.

[24] Bergson, *The Two Sources of Morality and Religion*, 119.

[25] Bergson, *The Two Sources of Morality and Religion*, 119: Bogue, 'Fabulation, Narration and the People to Come', 204.

[26] The reference to static and dynamic religions occurs throughout Bergson's *The Two Sources of Morality and Religion.* Chapter two is titled 'Static Religion,' and chapter three is titled 'Dynamic Religion.'

[27] The fabulations of established religions establish belief systems and guidelines to provide the moral compass for the behavior and restricted world outlook of the religious group. The 'fabulative function' can be seen in examples of religious belief systems which function to oversee and constrict individual impulses and behaviours, such as those which prevent its members from interacting with 'non-believers.' Thus in closed societies, fabulations serve to protect members from the outside world and any experiences that might otherwise undermine the coherence of the group, and the stability of their shared belief systems and morality. In Bergson's words: '[t]he closed society is that whose members hold together, caring nothing for the rest of humanity, on the alert for attack or defence, bound, in fact, to a perpetual readiness for battle.' Bergson, *The Two Sources of Morality and Religion*, 266.

[28] Bogue, 'Fabulation, Narration and the People to Come,' 207.

[29] Bogue, 'Fabulation, Narration and the People to Come,' 207. According to Bogue, 'the purpose of fabulation is to impel humans to act in accordance with religious dictates'.

[30] Bergson, *The Two Sources of Morality and Religion*, 267. Bergson distinguishes between the construction of a fabulative narrative or myth, and creative acts and fabulations that are produced by more open societies and religions. This is encapsulated in Bergson's following point about society and creation: '[t]he open society is the society which is deemed in principle to embrace all humanity […] it embodies on every occasion something of itself in creations, each of which, through a more or less far-reaching transformation of man, conquers difficulties hitherto unconquerable.' Bergson argues that mystic religions—including Christian mysticism—are open to and embrace of life itself, in all its complexities. See Bergson, *The Two Sources of Morality and Religion*, 246. For Bergson, this openness to life is understood as the 'vital impetus [of] a creative evolution.' Bergson, *The Two Sources of Morality and Religion*, 249. Bergson associates the latter approach with the creation of artworks, music, and so forth, which emerge from the 'well' of life itself and suggest a new life perspective. Bergson contrasts this creative and productive embrace of life with the fabulations and myths supporting closed religions (that are isolated and protected from the vitality and complexities of life itself). In terms of discussing the creative impulse embedded in creative productions involving matter, Bergson refers to; '[t]hat current of life which transverses matter, and which accounts for its existence.' Bergson, *The Two Sources of Morality and Religion*, 257.

[31] Deleuze and Guattari, *What is Philosophy?,*171.

[32] Deleuze and Guattari, *What is Philosophy?,* 170.

[33] Deleuze and Guattari, *What is Philosophy?,* 171.

[34] Deleuze and Guattari, *What is Philosophy?,* 171. According to Deleuze and Guattari: '[c]reative fabulation has nothing to do with a memory, however exaggerated, or with a fantasy. In fact, the artist, including the novelist, goes beyond the perceptual states and affective transitions of the lived. The artist is a seer, a becomer […]'

[35] Gilles Deleuze, 'Mediators,' in Gilles Deleuze, *Negotiations 1972-1990*, (trans.) Martin Joughin, 'European Perspectives' series, Lawrence D. Kritzman (ed.) (New York: Columbia University Press, 1995), 125-126. Importantly, the creative process is also associated with the creation of a new people for the art, and who might also connect to, or share, this new conception of life. Deleuze makes the point that a fabulation potentially prompts the audience to share or connect with a new way of engaging with life: thus the work invokes 'the constitution of a people.'

[36] Bogue, 'Fabulation, Narration and the People to Come,' 209. According to Bogue's interpretation of Deleuze and Guattari, the 'shock of the [unfortunate] event' in life may prompt a new way of conceptualising life, and an associated artwork that embodies this conception. The creative process helps with the processing of the confronting life experience, particularly as 'the artist, including the novelist, goes beyond the perceptual states and affective transitions of the lived.' Deleuze and Guattari *What is Philosophy?,* 171.

[37] The term 'imaginative' is specifically used here to suggest that while myth-making may indeed be perceived to involve some degree of creative thinking or process, it is not the same kind of creative thinking that is invoked in Deleuze and Guattari's use of the term 'creative fabulation'.
[38] Bergson himself refers to the habits imposed by 'moral institutions,' included those passed on to children: 'the acquired habit that has frequently become grafted onto the natural tendency.' Bergson, *The Two Sources of Morality and Religion*, 272. Bergson also refers to the 'passing on' of unsocial patterns of behavior, including 'habits and dispositions' passed on via the mechanisms of institutional indoctrination. Bergson, *The Two Sources of Morality and Religion*, 275.
[39] Negarestani, *Cyclonopedia*, 17. In establishing a binary between a notion of a Whole Earth and a ()hole Earth, Negarestani first refers to the 'Earth as a Whole'.
[40] Negarestani, *Cyclonopedia*, 42.
[41] Negarestani, *Cyclonopedia,* 238. The sun is conceived as dominating the surface of the Earth, and its narratives, including religious narratives, and is also described as possessing its own 'Solar Empire'.
[42] Negarestani, *Cyclonopedia*, 16, 157.
[43] Specific reference is made to 'the Sun (god)'. Negarestani, *Cyclonopedia*, 238.
[44] Negarestani, *Cyclonopedia*, 18, 20, 42.
[45] Negarestani, *Cyclonopedia*, 16.
[46] Negarestani, *Cyclonopedia*, 18-19.
[47] Negarestani, *Cyclonopedia*, 58. Here, the term 'agencies' refers to organised social groupings, including military and religious organisations.
[48] Negarestani, *Cyclonopedia*, 237. Specific reference is made to 'A Revolution against the Sun in favour of the Earth's Insider.' See also *Cyclonopedia*, 42.
[49] For example, the comment is made that: '[t]he Insider or the black egg which the Earth is hatching within itself (ge hinnom) extends the geopolitical reality of hell beyond the boundaries of the Solar Empire.' Negarestani, *Cyclonopedia*, 147. See also *Cyclonopedia*, 18, 42.
[50] Negarestani, *Cyclonopedia*, 18, 147.
[51] Negarestani, *Cyclonopedia*, 42. The term '()hole' derives from the term 'whole': Negarestani refers to the parentheses standing in for 'an evaporative W' (Negarestani, *Cyclonopedia*, 44), implying both a 'destituted whole' and 'holeyness' (Negarestani, *Cyclonopedia*, 42).
[52] Negarestani, *Cyclonopedia*, 244.
[53] Negarestani, *Cyclonopedia*, 139.
[54] Negarestani, *Cyclonopedia*, 238. Reference is made to 'the Sun (god)'.
[55] Negarestani, *Cyclonopedia*, 244. Negarestani states that: 'The foundation of all monotheistic religions or systems with religious platforms is the Desert. Monotheism has developed a fetishistic outrage against idols, it is because monotheism must eventually sprawl over a desert whose contours (idols) are all levelled to 0 and whose formlines (worshipping terrains) are incorporated to 1 and only 1'.
[56] Negarestani, *Cyclonopedia*, 135. Negarestani refers to all objects with a sense of 'verticality' on the Earth's surfaces as being an affront to the omnipotence of the Sun as an entity and object. See also *Cyclonopedia*, 16, 18.
[57] Negarestani, *Cyclonopedia*, 18.
[58] Negarestani, *Cyclonopedia*, 21.
[59] Negarestani, *Cyclonopedia*, 172.
[60] Negarestani, *Cyclonopedia*, 173.
[61] Negarestani, *Cyclonopedia*, 174.
[62] Negarestani, *Cyclonopedia*, 135.
[63] Negarestani, *Cyclonopedia*, 17.
[64] Negarestani, *Cyclonopedia*, 239.
[65] Negarestani, *Cyclonopedia*, 43.
[66] Negarestani, *Cyclonopedia*, 45.
[67] Negarestani, *Cyclonopedia*, 43.
[68] Negarestani, *Cyclonopedia*, 45.
[69] Negarestani, *Cyclonopedia*, 46.
[70] Negarestani, *Cyclonopedia*, 43, 47.
[71] Negarestani, *Cyclonopedia*, 44.Reference is to the 'convolutions inspired by the void […] solid surrenders itself to the plague'.
[72] Negarestani, *Cyclonopedia*, 43.

[73] Cyclonopedia's main character, the fictional Dr. Hamid Parsani, is an archaeologist who suggests that: '[a]rcheology's main goal must be to turn the Earth into an artefact'. Negarestani, *Cyclonopedia*, 50.
[74] Negarestani, *Cyclonopedia*, 51.
[75] Negarestani, *Cyclonopedia*, 47 & 51-52.
[76] Negarestani, *Cyclonopedia*, 51.
[77] Negerestani suggests that: '()hole complex reinvents the Earth as [..] 'A Revolution against the Sun in favor of the Earth's Insider'. Negarestani, *Cyclonopedia*, 243.
[78] Negarestani, *Cyclonopedia*, 55, 56, 71.
[79] Negarestani, *Cyclonopedia*, 56.
[80] Negarestani, *Cyclonopedia*, 63.
[81] Negarestani, *Cyclonopedia*, 58.
[82] Negarestani, *Cyclonopedia*, 47, 55.
[83] Negarestani, *Cyclonopedia*, 238, 239.
[84] Deleuze and Guattari, *What is Philosophy?,* 85.
[85] Negarestani, *Cyclonopedia*, 45.
[86] The full quote reinforces the unique notion that the Middle East is quite literally sentient: '[t]he Rise of the Middle East denotes the Middle East as a living sentient entity in a literal and non-metaphorical sense.' Negarestani, *Cyclonopedia*, 243.

Practice after television: Architectural stories in real time

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Abstract

The role of photography in telling stories about architectural history centres on, for the most part, its capacity to identify, depict and describe architecture. In these stories, architecture enters as a finished product, a visual interpretation frozen and removed from historical events and human activity. Within these frozen snapshots, architectural stories are supported and framed by the depiction of space, but what is lost, or absent, is the messy, complicated and negotiated history of the space's design.[1] Architectural practice binds architects to the demands of clients, sites, regulations, media and economics, and these temporal relations are crucial components of designed space. For Borden, this means that architectural historians need to look wider than still photographs of space and find other sources that engage with the processes of its making.[2] We suggest that reality television shows allow a rich understanding of the temporal and complex relations surrounding practice, despite their framing within academia as 'trash, filth and a waste of time'.[3] To explore how the television can supplement the historical story of practice, this paper compares two accounts: one based on moving images and the other on a reality television show. The first account looks at Beatriz Colomina's seminal account of the impact of media on architecture, in her discussion of Charles and Ray Eames' film practice. This is compared with contemporary scholarship on practice that looks to current media phenomena, including reality television shows depicting architectural processes, such as Grand Designs*. These present a highly mannered yet powerful portrayal of the process of bringing architecture into being, and as such emphasise practice, in all its contingency. This paper considers these two accounts of architectural practice and argues that reality television offers a way to inflect critical historical approaches; by its visual focus on the fraught, messy and temporal characteristics of the practice of architecture, it provides another story of practice.*

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Introduction

The illustration of architecture's historical stories through photography is for the most part analytical, abstract, emphatically editorial and self-referential in nature.[4] Typically, photographs with the intent of showing architectural merit are taken once a project is finished, often before the building is occupied. In this series of events, architecture enters into history as a finished product, a visual interpretation, frozen and removed from historical events and human activity. [5] These frozen images have lent themselves, in our recent past, to a critical approach where they have been understood as a text: as a system of signs that can be read. This textual interpretation is apparent in Beatriz Colomina's critique of the careful retouching of photographs employed by Le Corbusier, in order to maintain seamlessness between images of his work and his theories.[6] Similar critical interest is directed at Ludwig Mies van der Rohe's (1968–1969) photomontages and his photographic distortions.[7] In a more contemporary example, Charles Jencks interprets *S, M, L, XL* as 'representative of a Post-Modern hypertext, mixing genres as an 'ultimate hybrid' and once more relocates the book within a textual framework.'[8] But this textual reading of photographic images does not allow us to understand how architecture 'affects the viewer and is 'experienced.''[9] What is lost, or absent, in these frozen images and their textual interpretation is the messy, complicated and negotiated history of practice.[10]

In contrast to this, television offers a way to consider experience and emotion, which gives it the potential to record the complexity of architectural practice.[11] Television is also a popular medium. After work and sleep Australians spend more time watching TV than any other activity.[12] Despite its presence in our daily lives, television has only recently been taken seriously as an object of academic study.[13] This distrust of television is clearly articulated by John Hartley, who argues that 'television's populism and immediacy make it an unreflective – even 'scandalous' –medium.'[14] Underlying this position is a class division between elite and popular cultural forms where 'mass culture is not academic culture.'[15] This negativity towards television within academia, as a medium or object of study, is also manifest in architecture's own history: with the often quoted words of the BBC broadcaster and executive Huw Weldon 'You can't do architecture on television.'[16] Yet a shift has occurred: architecture has become television worthy; our 'profession and our aesthetic values – those of the media and those of the architectural hierarchy- totally concur.'[17] The ups and downs of architects' practice are now considered prime time viewing.[18]

To explore how practice is presented in moving-images, we signal the 'practice turn' in social science. We then look at the seminal writing of Beatriz Colomina, in particular her work on the design practice of Charles and Ray Eames. Colomina links the Eames' exploration of media, in particular moving images, to their design practice. This is compared with more contemporary scholarship, outside of the discipline, looking at architecture practice and the process of making architecture through reality shows, such as the popular television program *Grand Designs.*[19] This paper considers these two accounts of architectural practice and argues that television gives us a methodology to grasp aspects of practice parallel to but outside historical discourse, aspects that can bind back into and supplement architectures' historical narrative.

Practice

The everyday act of designing buildings involves many overlaid criteria and events: clients' wishes, regulatory constraints, market values, council negotiations; even drawing software has its internal economy of spatial resistances. These weird and ordinary events in the design process have a significant influence on how space materialises, and architects are adept at the messy negotiation between them. Despite this messiness of practice, when architecture enters into architecture stories it is through images of a final form and in contemporary writing interpreted through a critical and textual framework. By assuming a discursive privilege in our relation to the world, we place interpretation, meaning and signification in the foreground and favor certain terms over others, such as: power, discourse, consciousness and subjectivity. Yet this academic faith in language's ability to 'grasp' the world has now diminished.[20] Architecture's loss of faith in a textual, theoretical framework is not new. For Mitrovic the first cracks in the 'dogmatic faith in language' appeared in architecture as early in the 1970s.[21] This shift away from the textual and critical frameworks has provided a leverage to move towards the digital, the post critical and towards practice.

The move away from textual concerns is evident in the recent naming of a 'practice turn' in social science,which suggests a wariness towards certain textual accounts and instead, favours a view of the world as more than text: something multi-sensual and more than just human.[22] The effect of this practice turn on academia, following Whatmore, is a shift in research focus: emphasis is placed on relocating agency within practice, rather than discourse, on affect rather than meaning; non-human actors are valued as much as human actors and finally, the 'recognition of multiple knowledge practices and communities that bear on the framing of inherently uncertain socio-technical problems.'[23]is emphasised. We now find ourselves immersed in matter, practice,

emotions, feelings and affective relations, which to a spatial and sensorial discipline such as architecture, is an ironic rebalancing. But how do we tell the stories of practice, when historical stories of architecture are supported by a reading of images; or images that inform, depict and describe.[24]

Beatriz Colomina

Beatriz Colomina has looked extensively at the relationship between media and architecture through a critical re-reading of Modernism. Works such as *Privacy and Publicity: Modern Architecture as Mass Media, Architectureproduction* and *Sexuality and Space* are testament to this focus.[25] Colomina looks at how space, for example, is mediated by the moving camera, the effect of which 'produces a space defined by walls of (moving) images.'[26]She also looks at how the domestic is organised around the performative and visual pleasure.[27] And further, she investigates how Le Corbusier's portrayal of buildings through film, photographs and drawings reinforce the notion that woman is placed "inside," the man "outside;" the woman looks at the man the man looks at the "world."[28] In this critical approach the images are framed as text, as a system of signs that unveil the underlying typologies of meaning, or the fabrication of meaning, such as gender, positionality, views/viewing and so forth.[29] But what happens, to paraphrase Karen Barad, if we take grammar too seriously, where we begin to argue that discourse itself shapes or structures our world?[30] For Barad, criticism binds us to look at and to ask questions about representation and its correspondence with reality, rather than looking at the matters of practice: doings and actions.[31]

In this paper we focus on Colomina's article 'Enclosed by Images: The Eames' Multimedia Architecture.'[32] She begins her article looking at the 1959 American exhibition opened in Sokolniki Park in Moscow. She outlines its context, atmosphere and the particular series of events that led to its inception. The Eames' created the film, *Glimpses of the USA,* for the 1959 exhibition, to be shown on television screens. More than 2,200 still and moving images were used from varied sources, such as the *Saturday Evening Post*, *Sports Illustrated, Sunset* through to images from individual photographers and architects.'[33] There were simultaneous images of ordinary things: of people getting ready for work, going to school, getting into the school bus, kissing each other goodbye and so on. The images were collated in seven separate film reels and shown simultaneously through seven interlinked projectors.[34] The images were projected 'onto seven twenty-by-thirty-foot screens suspended within a vast (250 feet in diameter) golden geodesic dome designed by Buckminster Fuller.' [35]

The still images included those of Julius Shulman, whose photographs show more than just built space, as they are concerned with occupied space.[36] Shulman's photographs depict architecture occupied by a body that is either present in the image or has an implied presence. Some of these events are staged and some are background moments, part of everyday life, which he is intent on capturing.[37] In contrast, for example, the architecture of Eliot Noyes, which is also presented in *Glimpses of the USA,* is for the most part shown devoid of people, habitation and process of design. In the Eames' film these varied images were compressed into a moving story showing glimpses into ordinary lives, occupation, and experience - as well as architecture in a formal and spatial sense.

These stories of intimate, ordinary and domestic life were then viewed through this 'new spatial system.'[38] The system of multiple screens meant that you could not take in all of the information at once; there was no privileged point to view the work from. [39] Rather than being passive, the viewer had to piece together their own story – to make connections that would otherwise not be made. But this project was not just about viewing work in a contemplative or in a distanced way. As one journalist described, the 'Eames wanted an emotional response, produced as much by the excess of images as their content'.[40]

Colomina traces the Eames' approach to film, leading us through their other filmic projects, including one that centered on their own home: *House: After Five Years of Living,* 1955. The film was made from color slides the Eames' took over five years of occupation. [41]Similar to their previous work, they used multiple screens to convey information about the project. Images of everyday use and inhabitation over a five year period were compressed onto multiple screens, each screen telling a different story about the same general subject.[42] In this, the viewer is drawn into a story of architecture that, as Colomina writes, creates an 'intense sensory environment.' [43]

Colomina's narrative then folds a story of the Eames' multi-screen film exploration into their architectural practice. She discusses their designs as providing 'a framework in which objects can be placed and replaced. Even the parts of their furniture can be rearranged. Spaces are defined as 'arrays of information collected and constantly changed by the user. '[44] Their films offer ways to understand their built projects, as spaces that can never be pinned down to a singular narrative, the dynamics of depiction mirroring dynamics in the spaces of their design. What was the process of making their architecture? Colomina's narrative leads us through their exploration, experimentation

and their resolution of the final built form. But the relations of practice, for the most part, are still left mute; Colomina's text stitches the project together. Yet there is a problem here in critiquing Colomina for not exploring the messy side of architecture practice. We still need to insist that the politics of the present are acknowledged, or specifically, the location of the storyteller, as it is a recent phenomenon that practice has become prime-time entertainment, transforming private matters into public spectacle.[45] But conversely, there is a particular focus in her critical framework that draws us towards a 'reading' of images and moving images and shifts us away from discussion of matter, practices and doing. In the next section we look at reality television where the practice of architecture is made evident as a messy and fraught process.

Grand Designs

It is hard to deny the popularity, visibility and profile of lifestyle programs, which are a sub-genre of reality television.[46] Lifestyle shows such as *Location Location*, *The Block*, *DIY Rescue*, *The Property Ladder*, continue to see high ratings compared with other segments of the television market.[47] The reason why we might turn to lifestyle programs, particularly in Australia and New Zealand, for Buchanan, is a reflection of the rising cost of houses and falling levels of affordable housing.[48] Our interest has also been ascribed to our lack of civic engagement, and also to a desire to retreat from the turmoil of the world around us, sating a need to quietly disengage while watching other people renovate, build a new house or chose a new paint color for their walls.[49] In a more positive assessment, lifestyle television offers an 'important means of signifying individuality, self-expression, and a stylistic self-consciousness' rather than celebrity lives beyond our reach.[50] But what also connects us to these shows is their celebration of ordinariness, an excess of ordinary private moments, publically showcased. [51]

Any built piece of architecture is a concrete record of the soap opera-like process that preceded it. Kevin McCloud's *Grand Designs* take these dramas 'the emotional highs and lows that a build entails' and turns them into compelling viewing.[52] The viewer is taken through a project from start to finish. McCloud leads us to idyllic yet satisfyingly problematic sites in the countryside and tough urban sites engaged with the vagaries of the city. He takes us through a range of projects and building techniques from self-build timber dwellings in the forest, slick modernist urban dreams to prefabricated buildings shipped from Germany, with their attendant rigor of completing exactly on time and budget.

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In *Grand Designs*, it is not just the content of the images or the portrayal of the process that is important; it is what McCloud says and how he says it that creates the drama.[53] McCloud punctuates the many return visits to the project with a somewhat formulaic dialogue. The opening part of the program is always tinged with his doubts that the project will be finished on time, on budget or within his framework of aesthetic success. The viewer is led on to the site: an empty lot, an old castle or a forest setting, where the client tells us of their dreams, hopes and ambitions. The resolution of these dreams into built form is explained through animated computer sequences that magically construct the building as an assembly of key spatial and material decisions. The program then draws the viewer into myriad problems of finances, time, emotional problems - the fraught negotiations with council and local residents – as all the while, McCloud casts doubt that the 'build' will succeed. The program leads the viewer to half- finished projects to witness the complications which have vindicated McLeod's gloomy earlier predictions. Inevitably, the final scene is of elated clients recounting the problems, yet attesting to their completed house being worth every penny and everything they went through. McCloud then applauds their endeavor and commitment to architecture and deems the project a success.

Running parallel to McCloud's dialogue is the strong connection between his words and the images of the project being built. The camera leads us through the project in an observational way, documenting events as the camera walks along with McCloud.[54] The moving images are used in a way that conveys a real life performance that occurs within a specific context, which is personal and domestic. As the camera pans around the building, the viewer is drawn to look at the 'glimpses of the outside'. The framing by the camera adjusts to bring our visual experience in line with McCloud's framing of the project. The camera draws the viewer close to emotional reactions when things do not go as planned and where the uncertainties of the messy business of making architecture become palpable. We feel for these people. We are drawn into their haptic inter-relations, their gestures, bodily actions, narratives and responses; we feel a sense of connection with them. [55] Opportunities also arise, in these tension-ridden moments, where the medium allows us to observe the micro politics of power that are felt rather than abstracted through discourse. [56] The camera brings the viewer in to witness heated negotiations. In the showcasing of the finished project, the viewer inhabits the new building vicariously through moving images and words, led by McCloud, and then the scene shifts to present the owners enjoying their newly acquired space. The happy owners are all smiles at what they have achieved, the images of the house acting as a supporting testament.[57]

Inherently embedded within his dialogue is McCloud's championing of architects, and their worth in the design and management of a project. Clients who diminish the role of the architect are invariably rebuked by McCloud for their short sightedness. McCloud seems to embody the mission of lifestyle television to 'inform, educate and entertain' [58]
He wants the wider public to understand the uniqueness of architecture and the role of the architect.[59] And that is where Kevin McCloud has been given credit, for bringing architecture and its minutiae of processual detail to the general public and placing the architect as central to the resolving the process. The recognition of his contribution to architecture was clearly indicated through his role as host for the RIBA award ceremonies 2008. This is more nuanced than the common portrayal of architecture as finished objects and architects as high profile stars, running over budget and time frames.[60] Architects often fall prey in these situations, to being portrayed as 'arrogant, out of touch; as crazily constructing an entirely unpopular environment' a view that *Grand Designs* does not readily impose.[61]

Discussion

Grand Designs and Colomina's critical reading of the Eames' work seem vastly divergent in terms of a number of hierarchies: academic - non-academic, film-television, critical-practice and high culture-mass culture. In this next section we compare how reality television may inflect a critical approach to photographic imagery to provide another story of practice. We suggest that television offers us a closer connection to the heartfelt, the sensate, and the affective. This differs greatly from a history where architecture enters as a finished product, removed from historical events and human activity.

In Colomina's account, these stories of practice are told through a critical framework: close textual readings of still photographs. In Colomina's framework 'film is seen as means for or mode of signification and representation'[62] but this approach struggles to capture and appreciate the 'multi-sensory energies and intelligences of human and nonhuman bodies, gestures and events (as well as of images and texts themselves).'[63] There is a gap here. A gap is evident between how the architect's work was created intellectually and the actual messiness of practice, a messiness that is visible in the moving images of the Eames'. In Colomina's narrative it is her own words that provide the link, or the bridge, between ideation and finished product. The architectural process in navigating this gap becomes frozen.

However, Colomina still takes us through the imagery. For example, to illustrate the *Eames House*, 1945–49, Colomina uses two images. The first is an oblique shot of the building. In this image we are close enough for form not to be dominant in the telling of the story; this image is inhabited, by the reflection of the trees in the windows that connote the passing of time. In the second image we are positioned at the front of the house and allowed to look inside towards the circular stairwell. It is clear that the building is inhabited even if it is by the traces of inhabitation. We can make the leap as the reader, to imagine how the building will allow us to move and the spaces perform, to come alive. In a positive reading of these images we could suggest that these wo single photographs bring components of the building together 'as though for a short film that dissects its subject matter into sequences, showing it from different perspectives—an approach that would be described these days as "performative."'[64]

To say there is a stark difference between Colomina's critique and a methodology derived from reality television would require certain quotations in Colomina's work to be omitted. Clearly within the discussion of the Eames project there is an importance placed on how the exhibition is felt. Through her framing of the images we are moved in a way where the images are a type of doing, as she writes: 'film is also "primarily tactile" it "hits" the spectator like a "bullet." Unlike a painting, "which invites the spectator to contemplation" the spectator before the "move frame" can no longer do that"'[65] In this paper we suggest that there are opportunities to stress links between what reality television highlights and what is present, albeit quietly, in Colomina's text. So rather than focusing on the discontinuities between the 'critical' and 'practice' theoretical frameworks, following Hemmings, we focus on connections between the texts to provide 'a way of challenging the linear 'displacement' of one approach by another' when we tell our historical stories.[66] A story premised on discontinuities between practice-criticism, or matter-text would only lead once more to the reproduction of a linear story of history – one of progress, where one way of thinking surpasses another.

Grand Designs allows a story of practice to be told that includes the temporal, the messy, and the contingent aspects of architecture. Architectural practice is a moving history. But it is a history that is difficult to capture and represent.[67] Television gives us a methodology, we argue, to grasp aspects of architecture practice that are not part of discourse and in doing so, television highlights a gap in our historical stories. For Vivian Sobchack it is moving images' 'affective materiality' that gives them their allure and evocative power.[68] *Grand Designs*, through its televised medium, carries to us the story of practice through spoken narrative, music, color, movement; it is 'a movement-image, a

body in process, which can convey and receive a range of affective responses'[69] This makes us think and feel beyond the sensorial limits of sight and sound.[70] This framing of reality television chimes with our desire to access another side of architecture. In *Grand Designs* the affective is rendered visible through the medium of television. By focusing on affect it also enables us to step outside architectural imagery that is solely a means to provide information – distanced, objective and atemporal.[71]

The affective moving image of *Grand Designs* allows us to make a sense of a different historical story about architecture, one that is experientially based. In a similar manner Alvin Boyarsky in his account of the changing presence of architecture in the media claims 'there must be room in this world for contributions of the intense, close up and heartfelt.'[72] However, one can still not deny how 'affect is cultivated by television producers to encourage certain kinds of intensely intimate engagements with the medium.'[73] Whilst television may offer us a different way to look at architecture - to supplement how we tell stories of architecture - one cannot forget that *Grand Designs* is still highly edited and curated in its construction of reality.

Conclusion

There is a gap in architectural history that is a product of the familiar methods with which we approach text and imagery which prevents a close understanding of architecture practice. In Colomina's critical history, signification and perception is privileged, rather than practice and experience - yet people's experience of the Eames' project is clearly important. *Grand Designs* is able to grasp practice through the temporal, moving and affective possibilities of the reality show medium. This moving-image methodology favours seeing the world as more than text, something multi-sensual and more than just human.[74] This paper considers these two accounts of architectural practice and argues that the messiness, temporality and experience of practice in reality television offers a way to inflect a critical historical approach, allowing another story of practice to emerge. This focus on television's experiential or affective power enables a way to go back to a critical interpretation of modernism and create connections with contemporary frameworks that focus on practice, matter and doing. But to explore practice, the actual messiness of practice, *Grand Designs* offers us a particular way to capture the processes of design, and how history is being made in the present, which can be used to supplement stories of architecture.

Borden argues that shifting what counts as historical imagery, 'has considerable ramifications for both what might be called the archive of architectural history and its

dissemination'. Technology itself seems to provide weight to Borden's problem with how to store other ways of framing architecture, as we can now embed conventional pdf documents with moving images. Our papers, articles and performances can be embedded with moving images of practice, such as stories from *Grand Designs*. This would allow further meanings to be derived, implied or experienced in the developing stories of architecture's history.

Endnotes

[1] Iain Borden, 'Imaging Architecture: the Uses of Photography in the Practice of Architectural History', *The Journal of Architecture,* 12, 1 *(*2007), 55-77.
[2] Borden, 'Imaging Architecture', 2007.
[3] Amy West, 'Reality Television and the Power of Dirt: Metaphor and Matter', *Screen*, 52, 1 (20.11), 63-77.
[4] This framing of images in this objective way works 'to reinforce the professional identity of designers within the larger population of experts in the building industry; to set normative benchmarks in the value judgment of a particular scheme; and to establish paradigmatic norms of spatial representation.' Pierluigi Serrraino, 'Framing Icons: Two Girls, Two Audiences, The Photography of Case Study House # 22' in Kester Rattenbury (ed.), *This is Not Architecture* (London & New York: Routledge, 2002), 127-135, 127.
[5] Borden, 'Imaging Architecture', 2007.
[6] Beatriz Colomina, (*ed.),Architectureproduction* (New York: Princeton Architectural Press, 1988), 15–16; see also Jean-Louis Cohen, 'Introduction', in Le Corbusier, *Toward an Architecture* (Los Angeles: Getty Research Institute, 2007), 1–78.
[7] Maria Antonella Pelizzari, & Paolo Scrivano, 'Intersection of Photography and Architecture', *Resources: An International Journal of Documentation,* 27, 2 (2011), 07-112. George Dodds, *Building Desire: On the Barcelona Pavilion* (Abingdon [UK]; New York: Routledge, 2005).
[8] Charles Jencks, 'Post-Modernism and the Revenge of the Book', in Kester Rattenbury (ed.), *This is Not Architecture*, (London & New York: Routledge, 2002), 174-197.
[9] Philip Ursprung, 'Limits to Representation: Peter Zumthor and Hans Danuser', *Visual Resources: An International Journal of Documentation*, 27, 2 (2011), 172-184, 174.
[10] Borden, 'Imaging Architecture', 2007.
[11] Alexia Smit, 'Reailty TV Review', *Screen*, 51,1 (2010), 92-95.
[12] Graeme Turner, and Stuart Cunningham, *The Australian TV Book* (NSW: Allen & Unwin, 2000), 3.
[13] Turner, & Cunningham, *The Australian TV Book*, 3.
[14] John Hartley, *Tele-ology: Studies in Television* (London: Routledge, 1992). Or as Amy West articulates, academia generally turns away from the television because it is framed, as trash, filth and a waste of time. Amy West, 'Reality Television and the Power of Dirt: Metaphor and Matter', *Screen*, 52, 1 (2011), 63-77.
[15] Judith Williamson, 'Women is an Island: Femininity and Colonization,' in Tania Modleski (ed.), *Studies in Entertainment: Critical Approaches to Mass Culture* (Bloomington: Indiana University Press, 1987), 100.
[16] Huw Weldon quoted in Kester Rattenbury,' Naturally Biased', in Kester Rattenbury (ed.), *This is Not Architecture* (London & New York: Routledge, 2002), 139.
[17] Rattenbury, 'Naturally Biased', 154
[18] Paul Finch, 'Architecture Publishing', in Kester Rattenbury (ed.), *This is Not Architecture* (London & New York: Routledge, 2002),
[19] Series: Talkback Thames Freemantle Media, *Grand Designs* [television series]. (BBC 4, United Kingdom, TV, (April 1999 to present).
[20]NigelThrift, and John-David Dewsbury, 'Dead Geographies and How to Make Them Live', *Environment and Planning D: Society and Space* 18 (2000),411-432; Catherine Nash, 'Performativity in Practice: Some Recent Work in Cultural Geography', *Progress in Human Geography,* 24 (2000), 653-664; Hayden Lorimer, 'Cultural Geography: the Busyness of Being

'More-Than-Representational,'' *Progress in Human Geography,* 29, 1, (2005), 83-94; and Nigel Thrift, *Non-Representational Theory: Space, Politics, Affect* (London: Routledge, 2007).
[21] Branco Mitrovic**,** 'Architectural Formalism and the Demise of Linguistic Turn', *Log*, (Fall 2009), 17-25.
[22] Lorimer, 'Cultural Geography: the Busyness of Being 'More-Than-Representational'', 2005; Paul Harrison, 'In the absence of practice', *Environment and Planning D: Society and Space,* 27, 6 (2009), 987 – 1009.
[23] Sarah Whatmore, 'Materialist Returns: Practising Cultural Geography in and for a More-Than-Human World', In Nuala Johnson, (ed.), *Culture and Society: Critical Essays in Human Geography* (Belfast: Ashgate, 2008), 481-490. As Nigel Thrift sums up the practice turn, '[I]t is concerned with practices through which we become 'subjects' decentred, affective, but embodied, relational, expressive and involved with others and objects in a world continually in process.'.Thrift, Nigel. 'The Still Point: Resistance, Embodiment and Dance', in Steve Pile and Michael Keith, (eds.), *Geographies of Resistance*, (London: Routledge, 1997), 124-151, 142.
[24] Borden, 'Imaging Architecture', 2007.
[25] Beatriz Colomina, (ed.), Architectureproduction, (New York: Princeton Architectural Press, 1988). Beatriz Colomina, (ed.), *Sexuality and Space.* (New York: Princeton Architectural Press, 1992) and Beatriz Colomina, *Privacy and Publicity: Modern Architecture as Mass Media,* (Cambridge, Mass.: MIT Press, 1994).
[26] Colomina, Privacy and Publicity', 7.
[27] Colomina, *Privacy and Publicity',* 1994. Colomina, *Sexuality and Space, 1992.*
[28] Colomina, Privacy and Publicity', 296.
[29] Colomina, *Privacy and Publicity',* 1994. Colomina, *Sexuality and Space, 1992.*
[30] Karen Barad, 'Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter', *Signs: Journal of Women in Culture and Society*, 28, 3 (Spring 2003), 801-831.
[31] Karen Barad, Posthumanist Performativity, 802.
[32] Beatriz Colomina, 'Enclosed by Images: The Eameses' Multimedia Architecture', *Grey Room*, 2 (Winter, 2001), 5-29
[33] 'Thousands and thousands of images were pulled from many different sources, including photo archives (such as Magnum Photos, Photo Researchers and the magazines *Fortune, Holiday, Life, Look,* the and *Time*), individual photographers (such as Ferenc Berko, Julius Shulman, Ezra Stoller, Ernst Braun, George Zimbel, and Charles Eames), and friends and associates of the Eames (including Eliot Noyes, George Nelson, Alexander Girard, Eero Saarinen, Billy Wilder, Don Albinson, and Robert Staples).' Colomina, 'Enclosed by Images', 9.
[34] Colomina, 'Enclosed by Images', 10.
[35] Colomina, 'Enclosed by Images', 9.
[36] Joseph Rosa, *A Constructed View: the Architectural Photography of Julius Shulman* (New York: Rizzoli, 1994), .95.
[37] Rosa, A constructed View, 1994.
[38] Colomina, 'Enclosed by Images', 12.
[39] Colomina, 'Enclosed by Images', 14.
[40] Colomina, 'Enclosed by Images', 19.
[41] Colomina, 'Enclosed by Images', 17.
[42] This is a story about occupation and experience, where the secrets of the building are disclosed, where the Eames' occupation activates architecture, making its form breathe. Borden, 'Imaging Architecture', 69. Or in another line of thinking: The buildings occupied history, the dirt, the rain and the effects of people undermines an understanding of architecture as 'a stable power, existing over the dynamic forces of time. Jeremy Till, 'Thick Time: Architecture and the Traces of Time', in, Iain Borden and Jane Rendell, (eds.), *InterSections: Architectural Histories and Critical Theories* (London, Rutledge, 2000), 283-296, 286.
[43] Colomina, 'Enclosed by Images', 14.
[44] Colomina, 'Enclosed by Images', 22.
[45] Feona Attwood, 'Inside out: men on the 'Home Front'', *Journal of Consumer Culture,* 5 (2005), 87-107.
[46] Su Holmes & Deborah Jermyn, *Understanding Reality Television* (New York: Routledge, 2004).
[47] Ian Buchanan, 'Renovating Reality TV', Australian Humanities Review, 2004, http://www.australianhumanitiesreview.org/archive/Issue-April-2004/buchanan.html, accessed 12/11/2011. Attwood, 'Inside out: men on the 'Home Front'',2005.
[48] Buchanan, 'Renovating Reality TV', 2004.

[49] Buchanan, 'Renovating Reality TV', 2004, Holmes & Deborah, *Understanding Reality Television*, 2004.
[50] Mike Featherstone, *Consumer Culture and Postmodernism* (London: Sage, 1991).
[51] See also Lisa Taylor, 'From Ways of Life to Lifestyle: the 'Ordinari-ization' of British Gardening Lifestyle Television', *European Journal of Communication,* 17 (2002), 479-493.
[52] People, 'Grand Master', *Architects Journal*, (November 13, 2003) http://www.architectsjournal.co.uk/home/grand-master/147281.article accessed 12/1/2012.
[53] Featherstone, *Consumer Culture and Postmodernism.* 211.
[54] Arild Fetveit, 'Reality TV in the digital Era,' *Media Culture Society*, 21, 6 (November, 1999), 787-804, 804.
[55] Jamie Lorimer*,* 'Moving Image Methodologies for More-Than-Human Geographies', *Cultural Geographies*, 17 (2010), 237-258.Misha Kavka, *Reality Television, Affect and Intimacy: Reality Matters* (Basingstoke and New York, NY: Palgrave Macmillan, 2008), 17.
[56] We observe the 'complex micro politics of domination, subservience, transgression and resistance played out in this unequal context.' Lorimer, 'Moving Image Methodologies for More-Than-Human Geographies', 244.
[57] Fetveit, 'Reality TV in the Digital Era,' 793.
[58] Attwood, 'Inside out: men on the 'Home Front'', 2005.
[59] 'I want the audiences we get who know nothing about architecture - but who may, as a result of enjoying the stories - come out of the experience of watching the films with a better understanding of what buildings are, how they are put together and what good design is.' People, 'Grand Master', 2003.
[60] People, 'Grand Master', 2003.
[61] Kester Ratternbury, Naturally Biased,' 137.
[62] Lorimer*,* 'Moving Image Methodologies for More-Than-Human Geographies', 240.
[63] Lorimer*,* 'Moving Image Methodologies for More-Than-Human Geographies', 239.
[64] Ursprung, 'Limits to Representation',174. For another approach see Borden: this pairing of images, by the combining of images and text, through this dialectic imagery allows (for Borden) the access through photographs of the social process as well as the object of architecture through dialectical imagery – and at its crudest Colomina has paired two images. Although the importance of this technique is that more disparate images are used to create meaning as much as the written word*, S.M.L.XL* of course being an exemplar of work that drives people through the vast material covered in this book. Borden, 'Imaging Architecture, 2007.
[65] Colomina, *Privacy and Publicity*, 72.
[66] Claire Hemmings, 'Telling Feminist Stories', *Feminist Theory,* 6, 2 (London,Thousand Oaks, CA and New Delhi :SAGE Publications, 2005), 115–139, 131.
[67] Lorimer*,* 'Moving Image Methodologies for More-Than-Human Geographies', 2010.
[68] Lorimer*,* 'Moving Image Methodologies for More-Than-Human Geographies', 2010 referring to the work of Vivian Sobchack, *Carnal Thoughts: Embodiment and Moving Image Culture,* (Berkeley: University of California Press, 2004).
[69] Mike Featherstone, 'Body, Image, Affect in Consumer Culture', *Body Society*, 16, 1 (2010),1 93-221, 200.
[70] Lorimer, 'Moving Image Methodologies for More-Than-Human Geographies', 2010. Quoting Donato Totaro, 'Deleuzian film analysis: the skin of film', 2002, available at: http://www.horschamp.qc.ca/new_offscreen/skin.html.
[71] Ursprung, 'Limits to Representation', 2011.
[72] Interview with Alvin Boyarsky, Design Book Review 18 (Spring 1990), reprinted in Robin Middleton (ed.), *The Idea of the City* (London: Architectural Association, 1996), 225-30.
[73] Kristyan Gorton, *Media Audiences: Television, Meaning and Emotion* (Edinburgh: Edinburgh University Press, 2009),1.
[74] Hayden Lorimer, 'Cultural Geography: the Busyness of Being 'More-Than-Representational,'' *Progress in Human Geography,* 29, 1 (2005), 83-94; Paul Harrison, 'In the absence of practice', *Environment and Planning D: Society and Space,* 27, 6 (2009), 987 – 1009.

Epigraphs, Poetics, Architectural History

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Abstract

This paper is a formalist investigation into the use of epigraphs within the discipline of architectural history. It examines epigraph use in an archive of scholarly papers with the help of Gérard Genette's four functions of the epigraph: 'title-commentary', 'paper-commentary', 'author-effect', and 'epigraph-effect'. The archive is extracted from previous proceedings of the Society of Architectural Historians, Australia and New Zealand. SAHANZ is an established and respected institution of architectural history scholarship. Its papers are double-blind refereed at both abstract and full paper stage, delivered at conferences in Australia and New Zealand, and published for a worldwide readership. The five most recent editions of SAHANZ, Panorama to Paradise *(2007),* History in Practice *(2008),* Cultural Crossroads *(2009),* Imagining… *(2010), and* Audience *(2011), are taken as material for analysis. The paper details how the epigraph works within this specific context of contemporary architectural history, revealing how epigraph-effect functions by means of 'scholarship-effect' through 'date-effect' and 'foreign-language-effect'; and how epigraphs draw in authority and history directly, through names and dates. Epigraphs that take full advantage of formal opacity are shown to be most prevalent and effective, suggesting functionality is derived – and may well be best achieved – through overt usages of 'poetic' language.*

0.

The phenomena of language must be classified from the point of view of the speaker's particular purpose as he forms his own linguistic pattern. If the pattern is formed for the purely practical purpose of communication, then we are dealing with a system of *practical language* … in which the linguistic pattern[s] … have no independent value and are merely a *means* of communication. But other linguistic systems, systems in which the practical purpose is in the background (although perhaps not entirely hidden) are conceivable; they exist, and their linguistic patterns acquire *independent value*.[1]

– Leo Jakubinsky, 'O zvukakh poeticheskovo yazyka' (1916)

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1.

This paper is a study of the use of epigraphs in scholarly papers within the discipline of architectural history. It is an investigation into how a technique native to works of literature is employed and inflected in a specific academic context. It will demonstrate how a critique formed around and directed at the figure of the epigraph in works of literature can be applied and adapted to works within a scholarly genre and institutional setting. Revisiting the theoretical grounds of Russian formalists, the paper considers its focal linguistic device as an expression of 'poetic' language.[2] The paper will attend to significance resting in 'perceptible form' structurally sited within the context of a particular scholarly discipline;[3] and address the ultimate question: how do epigraphs function within the discursive setting of architectural history scholarship?

To conduct this analysis, the paper needs a sample set. The set has been extracted from the proceedings of previous editions of this very conference, the Society of Architectural Historians, Australia and New Zealand (SAHANZ). SAHANZ is a respected institution of architectural history that ensures a high standard of scholarship by using a double-blind refereeing process for each of its conference papers; and as such this set is characterised by an agreed-upon quality. As this present paper forms a part of SAHANZ 2012, the set is of a specific interest to the conference audience, effectively allowing for self-reflection. Papers published in the last five years – those in the proceedings of *Panorama to Paradise* (2007), *History in Practice* (2008), *Cultural Crossroads* (2009), *Imagining…* (2010), and *Audience* (2011) – provide enough data to assess the prevalence of the use of epigraphs, and more importantly, theorise their significance within this chosen discourse and time period.[4]

2.

The word 'epigraph' combines the Greek prefix *epi-*, meaning 'upon,' 'besides,' 'attached to,' 'over,' 'outer,' or 'after'; and *-graph*, from *grapho*, meaning 'write.'[5] Both parts of the word present a subtle complexity. *Epi-* ambiguously integrates an object with its given context. While the difference between an object hanging 'over' a context and one 'attached to' it is significant – the former lacking the latter's essential contact – all of the meanings of *epi-* establish a relationship of *an object* to *something else*: each use of the prefix *epi-* nominates a discrete occurrence of distinction and separation. The English suffix *-graph* describes both something that is written – something found written – and an instrument involved in the act of writing – for example, a telegraph, or a cardiograph. This complexity in the definition can be explained by the suffix's etymology: the neuter Greek

word *graphon* was integrated into the Latin -*graphus*, discarding the cases *graphos* – 'written' – and *graphein* – 'to write.' In so doing, a process and the result of such a process were co-implicated. As a result, writing is reduced to its resultant form: it becomes 'perceptible.' By definition then, epi-graphs *write what is written*; and relate some identifiable material to a new and given context. These two basic definitional themes – the distinction of the epigraph from the body of the paper, and the relational tense of the epigraphic text to the paper in which it features – underlie the analysis of this paper. It is these bases that focus attention on the formal significance of epigraphs.

Gérard Genette defines an epigraph as 'a quotation placed *en exergue*, generally at the head of a work or a section of work.' He goes on to define *en exergue* as 'literally' meaning '*off* the work,' but suggests 'at the *edge* of the work' is a more reasonable characterisation.[6] The *Dictionnaire des literatures* adds a qualitative element of intention to its definition of epigraph, where the 'rich' and 'suggestive' figure is in some way representative of the work; but also reinforces the positioning of the epigraph after the title of the work.[7] For this paper, the formal definition is the critical feature. The epigraph – from its Greek roots to its current definition – is an established and recognisable formal element; and one that is visually prominent, appearing underneath the title – and thus within the definition of the paper – but appreciably, *perceptibly*, above and outside the body of the essay – *en exergue*.[8]

3.

The epigraph is highly common to works of literature. It is a device familiar to many discourses; and scholarly papers within the discipline of architectural history – as is shown below – is no exception. Familiarity does not always translate to thorough understanding: quite the contrary. In '*The Resurrection of the Word*' (1914), Viktor Shklovsky writes: 'We do not experience the commonplace, we do not see it; rather, we recognise it.'[9] In this case, once the reader is furnished with the name 'epigraph,' each instance is indeed easily 'recognisable'; but if interpretations are attempted through practical frames, the functions each case is performing remain obscure.

The epigraph – by its very constitution – discourages such a practical reading. Shklovsky, this time in 'Potebnya' (1919), writes: 'Poetic language is distinguished from practical language by the perception of its structure.'[10] The particular form of the epigraph, its distinction and relative position, *is* expressed structure. The placement of the epigraph – *en exergue* – 'roughens' the form of the paper, disrupting formal unity.[11] Paraphrasing Shklovsky, when encountering an epigraph 'we experience form – perhaps not form

alone, but certainly form.'[12] This is not *mere* form prompting commonsense *recognition*; but expressed, 'perceptible form.'[13] As such, epigraphs can be considered 'special artistic techniques which force the reader to experience the form'[14] – making epigraphs, this time using Roman Jakobson's term, 'opaque' evidence of poetic language.[15] Following the trajectory these Russian formalists established in the years leading into and out of 1920 – captured in the expression 'poetics must explain its literary function'[16] – this paper analyses how epigraphs work as a 'contrived'[17] form; and how, in this context, the device is indeed most efficacious *as a contrivance*.

4.

An epigraph is highly readable in terms of its quality *qua* epigraph: it is distinctly on display. In literature and poetry, epigraphs are sited below the title: some novelists and poets choose to place them after book titles – on their own recto page, following the title page and before the body – and some place them under chapter titles.[18] Siting epigraphs under titles is also conventional in academic essays. In theory anything publishable can be used as an epigraph;[19] but in most cases – and indeed in all the cases under our direct consideration – epigraphs are segments of writing.[20] The situation for members of SAHANZ is complicated by the requirement for papers to be preceded by abstracts. This complication can be seen most pressingly in Nicole Kalms's 'Raunch City: The Hypersexual Spectacle,' which sites the same quotation both before the abstract and before the paper proper, in an endeavour to epigraph both. In all SAHANZ papers, the abstract itself sits *en exergue* – underneath the title – and affects where the 'paper' starts: it has an intermediating influence on the relationship of parts to whole.[21] Importantly for this paper, while each epigraph is no longer strictly 'besides' or 'attached to' the title due to the abstract, it remains in the necessary relation to the paper body.

5.

Though the epigraph is a very well-established feature of writing, referencing standards for epigraphs are inconsistent.[22] Genette specifies that while 'the most common custom is to name the author without giving a specific reference,' the quotation 'may be printed within quotation marks, in italics, or in roman type, and the name of the author being epigraphed may be written within parentheses, in capital letters, and so forth, with all the possible combinations of these variables.'[23] Inconsistency of this kind is a feature of the epigraphs under consideration in this paper. In Christine McCarthy, 'Irregular Sleep Architecture: Snoring and the Master Bedroom,' we see a quotation of Peretz Lavie's quotation of H. V. Morton, and a reference that includes source and even page number:

> ‘‘no boot could have interrupted the snorer of Kilkenny. He actually shook the air. He filled the universe. I could feel his bass notes in the wall. ‘How that man made me suffer. His ghastly organ recital was as regular in its devilish rhythm as a saw-mill. Once every half-hour he was seized with a kind of convulsion. I hoped that he was dying. The debasing sounds shuddered to pianissimo and ceased, then he gave a violent gasp, a snort, appeared to be choking, grunted, gasped, and got into top gear again.’’
> H.V. Morton of the snorer of Kilkenny, Lavie, *Restless Nights*, p. 119.

On the other hand, in David Beynon’s ‘So Flat, So Cute! Robots, Superflatness and Asian Architectural Futures,’ we see no inverted commas and no reference:[24]

> It may surprise some of you when I say that I first began to acquire a knowledge of Buddhism through a study of robots, in which I am still engaged today. It may surprise you even more when I add that I believe that robots have Buddha-nature within them – that is, the potential for attaining Buddhahood.

Epigraphs, then, are not conventionalised – especially compared to quotations from within scholarly papers, which are *highly regulated* by style guides and standards. This paper contends this lack of citational convention, rather than revealing a practical deficiency,[25] highlights the separation each epigraph attains from the paper that it heads. The unique standards applied – both within each paper, and between papers in the set – help to increase epigraph perceptibility; and encourage ‘poetic’ readings.[26] Following *conventional non-conventionalism*, each paper displays its own distinctive form.

6.

The formal inclusion of an epigraph overtly introduces another text into a paper. Direct quotation in general places another text within a new context. Direct quotation also separates out an excerpt from its immediate context by way of inverted commas. In comparison with epigraphs however, direct quotations achieve less separation due to the embedding of their content within the body of the paper. Epigraphs heighten the distinction of the two texts: the prominence of the quoted excerpt – at the head of the paper, and separated from it – makes both the *inclusion of* and the *distinction from* the paper more evident. This suggests an epigraph is, ‘as Antoine Compangnon rightly says, ‘a quotation par excellence’.’[27] By definition, the epigraph must have no introductory or accompanying text, and must be a direct quote in no way paraphrased or framed through

the words of the author of the paper. If the textual borrowing is in any way integrated into the paper – through an act of phrasing accompanied by a change of authorial voice – the quotation is no longer an epigraph. Discounting the practices of false or fictive epigraphy – cases fabricated by the author of the paper, pretending to be in the voice of another – the epigraph is literally someone else's pre-existing text 'above' the author's text; and it is expressed as such: an epigraph is a *written excerpt* that is attached to but separate from a unique and focal *written body* – in the case of this study, a scholarly paper.

Quotations in essays are overt displays of a certain type of reading. They suggest the thesis is based on a close study of relevant texts. When used in papers, quotations reduce a source; and by extension an author; and by further extension, a broader discourse.[28] As such, inclusions of the texts of others become representations of scholarship, signs of scholarly practice.[29] In this sense, quotations in general and epigraphs in particular assume some of the significance held most acutely by the footnote, as discussed in Anthony Grafton's *The Footnote: A Curious History*. For Grafton, the footnote is a mark of scholarly professionalism – and indeed the professionalisation of scholarship. Its presence 'reassures' the reader that the paper's author has undergone 'specialised training,' and has received 'the approval of one's teachers, one's peers, and, above all, one's readers.'[30] The starchiness of the footnote, 'the tedium it inflicts,' is a representation of 'modern life' and 'the technical practices of a profession.'[31] Epigraphs demonstrate a similar familiarity with the conventions of scholarly writing, as shall be seen in the incidence of use within papers from SAHANZ conferences 2007-11.

7.

Of 388 papers from SAHANZ Proceedings 2007-11, 33 papers are headed by epigraphs.[32] The distribution is reasonably consistent: 7 of 80 papers in 2007; 7 of 71 in 2008; 7 of 85 in 2009; 8 of 73 in 2010; and 4 of 79 in 2011. This list offers many interesting leads; for example: why is the number of epigraphs in SAHANZ 2011 markedly lower than the preceding four years?; Do conference themes affect writing habits?; Do cycles of fashion influence writing styles? The contents of the list – the 33 papers – provide more-than-ample fodder for individuated analyses of the qualitative relationship between epigraph and paper. This paper's analysis, however, pursues a more general line of investigation into the significance of the practice of epigraphy. The paper will develop the theoretical work of Gérard Genette on epigraphs in literature, testing his four classifications of the 'functions' of epigraphs with the 33 SAHANZ papers to see how they perform in this context.

8.

Given the high occurrence of epigraphs in all forms of literature, it is surprising how little they have been theorised as metatext or paratext.[33] This discrepancy suggests that epigraphs are either taken as too 'commonplace' – unseen, or too easily 'recognised,' and as such overlooked – or too ambiguous – discarded as 'impractical' – to be placed under critical regard. No studies of epigraph use within the genre of scholarly writing have been found in the research for this paper, suggesting their establishment within scholarly fields is especially uncritical. Again, this could be because they are not seen, or not taken to be functional in the contexts of individual papers and the broader discourse. To gain traction on epigraphs, the paper utilises Gérard Genette's four functions of the epigraph, published in *Paratexts: Thresholds of Interpretation*.[34] These functions can be summarised as:

> (a) Positioning the title of the work – 'elucidating and thereby justifying' the title, reinforcing its effect 'with a meaning that [is] more precise, or profound, or more ambiguous';[35]
> (b) Commenting on the work itself – framing or specifying the significance the author is projecting is contained within the paper, the supposed 'meaning';[36]
> (c) Introducing an author, what might be called 'author-effect' – appropriating the 'backing' of a usually famous or otherwise significant author;[37]
> (d) Communicating the 'epigraph-effect' – the 'most powerful oblique effect'[38] that comes, according to Genette, from an epigraph's mere presence.

While Genette describes the first two of these functions as 'direct' and the second two as more 'oblique,' it can also be argued that the four represent a progression of increased opacity of linguistic form, to the point where, in epigraph-effect, the epigraph functions in part through its basic form, as the signifier 'epigraph.' Epigraphs from SAHANZ 2007-11 will be examined in the following four sections to develop these four functions. Case studies will expose the manner in which the functions operate in this specific institutional and disciplinary context of the Society of Architectural Historians, Australia and New Zealand.[39]

9.

Of the 33 papers in SAHANZ proceedings 2007-11 that use epigraphs, only 6 can be seen as actively functioning to position the title of the paper. By this count this function can be classified as a minor practice within the context of SAHANZ. The prevalence of

convention-bound and drily informative titles that function for the paper directly – within this paper's sample set, for example, Brenda and Robert Vale's 'The Solar House in New Zealand: A Study of the Sunroom,' or Steven Fleming and Matthew Dwyer's 'Quantifying the Value of an Architect's Fame, Using Game Theory' – may require less elaboration and justification than titles from a more 'literary' genre.[40]

Within this minority, the epigraph that best exemplifies this title-commentary function is found in the 2007 Proceedings, and heads the paper written by Leonie Matthews, 'Messages in a Bottle: The Writings of Duncan Richards and Oline Richards.' It sits under the heading 'Preamble,' and reads:

> Usually one does not send a message in a bottle to a specific place but rather it is left to make its way to another place, any place other than that from which it was sent ... most often the sender has no means of knowing whether his or her message has been received and by whom.

The title of the paper, 'Messages in a Bottle,' is echoed in the first sentence of the epigraph. This acts as a justification of this title, which, without such a textual backing, is ambiguous. The paper does not speak of literal, *practical*, messages in bottles, but rather of the subject of the subtitle, 'The Writings of Duncan Richards and Oline Richards.' The title is established as a metaphor, linked to the subject matter by the author, a link that can be seen as both creative and arbitrary. Evidence of this arbitrariness can be seen in the endnote affixed to the epigraph, which cites an unconnected website essay discussing an exhibition.[41] No mention is made of the significance of this essay or exhibition to the paper. The connection of Duncan and Oline Richards to Layla Curtis or Jeremy Millar remains unexplained. In this context, it is evident why the title required the collusion of an epigraph, but not evident why that title or quotation was chosen.[42]

10.

Function (b) – using an epigraph to pass commentary on a work – is the most common frame of analysis in the field of literature criticism; and in that field produces the most involved works of critique. Literary critics extract what can be called 'work-commentary' from epigraphs to allow themselves to write about the themes of works of literature as they interpret them. This function malleably responds to the purposes of the critic writing a work of literary criticism.

A critic motivated to see thematic links between epigraph and paper investigating the papers of SAHANZ 2007-11 would see this function as ubiquitous. Every epigraph can be interpreted as expressing themes within the content of the paper that it heads. For example, Michael Hill and Peter Kohane's 'Rhetoric, Weight, and Race in the Theory of Mouldings' starts with the epigraph:

> Whoever does not have, among other branches of knowledge, an understanding of how to compose mouldings […] cannot be called an architect.
> – Martino Longhi the Younger

Critics can develop interpretations of the epigraph's significance to the paper if they are motivated and disposed to do so: archaism, epistemological deconstruction, absurdist comedy or parody, and so on.[43] The relationship between the epigraph and the body is one constructed by the critic, and not one strictly contained within the paper under investigation. Epigraphs are rarely reflected on directly in the body of the paper: generally, assistance for interpretation comes merely in the form of vague allusions. As a function, work-commentary – though pervasive – is thus intrinsically equivocal and weak.

11.

Of the 33 SAHANZ papers containing epigraphs, 19 – over half – can be seen to function through author-effect – Genette's function (c) – to greater or lesser degree. Author-effect within the selection of papers is thus a major component of epigraph use within SAHANZ. It functions through simple formal means: naming the authorising agent – the author of the quotation; or in one case, the voice of the sentiment[44] – in the epigraph. Usually this naming simply follows the convention of referencing the source. Whether the author's name follows a dash, is different by font or alignment, is accompanied by a date, or title, or even page, affects author-effect significance. The relative strength of the function can also be judged by the discursive prominence of the name.

A key example is found in the paper 'Should we Zeitgeist yet again?: From Corb to Rem via Badiou,' written by Bernard Brown for the 2008 SAHANZ conference. It consists of two parts: the quotation, two simple declarative sentences; and a reference:

> A great epoch has begun.
> There exists a new spirit.
> Le Corbusier 1923.

While citing 'Le Corbusier' in full achieves a measure of title-commentary – the name developing a dialogue with the informal reductions of the title's 'Corb' and 'Rem'[45] – the author-effect function is primary. It acts directly through naming this canonical figure of twentieth-century architecture. The name is supported by the quotation which is itself canonical: it expresses a thesis considered 'tried and true'; and as such, the canonical – like the *cliché* – draws in other elements of the canon, its smoke 'like the trail of perfume.'[46] The epigraph gains strength through its summary in-text citation, which treats the source – 'Le Corbusier 1923' – as merely another clause: no dash or change of alignment signifying its identity as referent: it is just a whiff. This is exaggerated by the omission of inverted commas, which naturalises the quotation, embedding it as part of a more commonly-accessed discourse.

Complications arise, however, from closer study: the epigraph is supplemented by the paper's first endnote, which reads:

> Le Corbusier, *Towards a New Architecture*, trans. Frederick Etchells, 1963. Originally published in French as *Vers Une Architecture* by Editions Cres, 1923 (ed.) (London: Architectural Press, 1946; reprint, 1963).

Notable here is the tension between good epigraphic practice – as shown in the reductions and cursory treatment of the source in the epigraph – and thorough, proper, conventionalised scholarship – as shown in the highly elaborate endnote. This tension does not expose a *lack* of conventionalism in the epigraph, but rather reveals the epigraph's faithfulness to the standards of *non-conventionalism*. The epigraph functions through strengthening the 'perceptibility' of the non-conventionalised standard. The epigraph – focused around the signifier 'Le Corbusier 1923' – works as a 'defamiliarisation'[47] device, retarding the paper's start through a familiar, 'canonical' text.

12.

Genette's function (d) is intrinsic to epigraphs: *all* epigraphs – by their very nature – possess and project an epigraph-effect. Indeed this is the underlying base to this paper's analysis: it is the visible presence of the epigraph – its appreciable, perceptible form – that makes it a significant object of study. In effect, the epigraph-effect directs this paper's formalist analysis. How does the epigraph-effect function in the contexts of architectural history?

Genette's functional classifications were developed around the use of epigraphs in works of literature – specifically, novels and poems. Genre conventions of literature are naturally distinct from those of scholarly writing. This is expressed in the differing citation requirements. Authors of literary works can gain power by absorbing other texts without revealing their influences; by contrast, authors of scholarly papers gain access to epistemological power by exploiting rhetorical tropes and conventions of the genre of scholarly writing. Articulating codes governing text production functions to access prestige and thus gain argumentative support. This subfunction of epigraph-effect – which can be called the 'scholarship-effect' – operates through graphic evidence of acts of scholarship. Its works not indirectly through the information revealed by processes of scholarship, but rather *directly* through discrete signifiers giving graphic representation of these scholarly processes. Judging very conservatively, the epigraphs of 6 papers from the proceedings of SAHANZ 2007-11 strongly manifest the scholarship-effect; but the manner in which it can be broken down into discourse-specific inflections suggests it is significant to scholarly writing within the discipline of architectural history.

The functioning of scholarship-effect is evident in the epigraph to Teresa Stoppani's 'Representing Venice: One, Multiple, Impossible' (2007). This example reveals two distinct sub-functions of the scholarship-effect. The epigraph reads:

> To those who consider it carefully, Venice shows itself not as one city but as many separate cities, all joined together. Indeed, if one considers its situation, reduced on a plan and without the bridges, one can see that it is divided in many different districts and cities, surrounded by their canals and linked to one another by the stone bridges or more commonly by the wooden bridges that hold it together.
> – Francesco Sansovino, *Venetia città nobilissima et singolare* (1581)

The scholarship-effect functions through the signifier placed at the end of the epigraph, singularly defined by parentheses: the date '1581.' A sub-subfunction that can be called 'date-effect' – seen in six SAHANZ papers – draws attention to the presence of an aged, *historical* text in the background to the composition of the paper. Inherent in this venerable 431 year-old object is a romantic idea of a deep structure of knowledge esteemed by time. These qualities are leant upon and valorised in this epigraph. The sixteenth-century signifier functions to connote the scholarly exercise of archival research: the romance of an obscure, hidden text – not easily accessible, exclusionary,

elite – read with the specific intent of a directed research agenda, implies a dedicated and time-consuming engagement. This is reduced to a superficial signifier.

Scholarship-effect also functions through the Italian-language *Venetia città nobilissima et singolare*. Transcribing the title in Italian gives what can be called the 'foreign-language-effect' – a rare sub-subfunction seen in only two papers. Shklovksy traces foreign-language use back to Aristotle; and nominates 'strange and wonderful' traditions in 'the Sumerian used by the Assyrians, the Latin of Europe during the Middle Ages, the Arabisms of the Persians, the Old Bulgarian of Russian literature.'[48] The endnote attached to the epigraph helps elaborate:

> 'A i sottili consideratori della cosa, [Venezia] si mostra non una sola ma più città separate, et tutte congiunte insieme. Percioché se si considera la sua situazione, ridotta in pianta senza i ponti, si vedrà ch'è divisa in tante grosse castella et città, circondate da suoi canali, alle quali si passa dall'una all'altra co' ponti o di pietra per la maggior parte o di legno che la congiungono insieme.' Francesco Sansovino, *Venetia città nobilissima et singolare* (Venice, 1581) (Bergamo: Leading Edizioni, 2002). My translation.)

The mention of the actual edition consulted – Leading Edizioni's 2002 publication[49] – reduces the date-effect of '1581' in the endnote; but this is compensated for by the credit – 'My translation' – which functions to assume linguistic capacity. Capacity in a language other than English is highly esteemed within academia. Providing the entire Italian-language paragraph – a tract that, through its unrelenting form, approaches Futurist 'nonsense language' – underlines the foreign-language-effect to non-Italian readers.[50]

13.

Genette's four functions of the epigraph can all be identified in SAHANZ papers. Within this sample set, function (a) – title-commentary – is minimal; function (b) – paper-commentary – may be ubiquitous but is individually debatable, weak and indirect; function (c) – author-effect – is present in a majority of cases, and dominates the epigraphs; and function (d) – epigraph-effect – is genre-inflected in scholarship-effect, functionally evident through date-effect and foreign-language-effect. Least significant among these functions is title-effect, the function that relies on an intensive qualitative elaboration of one discrete linguistic unit – the title – by another – the epigraph. Detailed linguistic endeavours focusing on developing the complex conceptual underpinnings of papers thus seem least suited to this specific context. More expansive gestures – calling in

'authority' and signifying 'history' – expressed through more discrete signifiers – names and dates – have been shown to be most prevalent and functional. This is in keeping with the idea of 'poetry' as 'language that tends to become opaque.'[51] Within these papers of architectural history, then, epigraphs function best as 'poetic' figures, functioning through discrete formal opacity.[52] As such, the more an epigraph can be taken as a *contrivance*, the more functionality it will possess, and the more 'poetically' it will perform. Epigraphs with a high degree of perceptibility – expressed through discrete, identifiable elements – are thus most appropriate to this discursive context.

14.

This study has shown that within the scholarly discipline of architectural history, the functionality of epigraphs is linked to the foregrounding of discrete signifiers. Overt elements – conspicuous nonconventionalisation of form, and the inclusion of names and dates – within a setting that is inherently separated and on display – *en exergue* – make epigraphs formally perceptible. The functional value of epigraphs is seen through viewing these figures as opaque, 'poetic' language. Epigraphs within SAHANZ 2007-11 are signs of scholarly practice: each one is a token that reflects the underlying system of scholarship, a symbol of the conventions of the professionalised scholarly discipline – conventions that include the perceivably nonconventionalised though recognisable epigraph. An increased awareness of epigraphs should encourage less commonplace usages and a more strategic concentration on contrived and discrete signifiers.

Endnotes

[1] Leo Jakubinsky, 'On the Sounds of Poetic Language' ['O zvukakh poeticheskovo yazyka'] (1916), quoted in Boris Eichenbaum, 'The Theory of the 'Formal Method',' in *Russian Formalist Criticism: Four Essays* (Lee T. Lemon and Marion J. Rees trans., Lincoln: University of Nebraska Press, 1965), 108. Fittingly, the essay written by Eichenbaum [also spelled Eikhenbaum] begins with an epigraph: '[']The worst, in my opinion, are those who describe science as if it were settled.['] [*Le pire, à mon avis, est celui qui représente la science comme faite*.] A. de Candolle.'

[2] As such, it does not look for significances in symbolic, prosaic, or 'practical' language.

[3] In a more common reading, the epigraphic form is 'integrated' into the paper: transposing Roland Barthes's study of narrative 'forms of discourse,' this paper 'transcends its contents' and its underlying codes to realise its 'ultimate form' *as academic paper* – Roland Barthes, *The Semiotic Challenge* (Richard Howard trans., Oxford: Basil Blackwell, 1988), 126-127.

[4] Analysis will reveal the epigraphy practices of the architectural historians within this set are, in some cases, highly attenuated to their specific discourse and audience. Further study of epigraphs in other institutional and discursive setting should be conducted to reveal a broader account of the practice and its significance.

[5] http://www.merriam-webster.com/dictionary/epi- (accessed 17 February, 2012); http://www.empire.net/~merlin/greek.html (accessed 17 February, 2012).

[6] Gérard Genette, *Paratexts: Thresholds of Interpretation*, Jane E. Lewin trans. (Cambridge: Cambridge University Press, 1997), 144.

[7] 'Epigraph: Mot ou formule d'un sens riche et suggestif, emprunté à un texte ou à un auteur célèbre, place après le titre d'un ouvrage ou d'un chapitre et destineé à en suggérer l'intention profonde.' Entry in Philippe Van Tieghem (ed.), *Dictionnaire des literatures*, (Paris: PUF, 1968), I, 1273.' – cited untranslated in Michael Peled Ginsburg, 'Psuedonym, Epigraphs, and Narrative Voice: Middlemarch and the Problem of Authorship,' *ELH* 47:3 (Autumn, 1980), 556. Google translates the definition as: 'A word or formula of a rich and evocative sense, borrowed from a text or a famous author, placed after the title of a book or chapter and intended to suggest the underlying intention.'

[8] The overt placement of the quotation at the head of the paper suggests the extended French phrase *mettre en exergue*, which carries the meaning 'to highlight.' that the quotation is 'highlighted' to the reader. Allowing some graphic, artistic licence, the epigraph could be characterised as a decapitated head, perhaps the bronze or marble representation of the head of an esteemed intellectual forefather, or indeed the blood-dripping decapitated head of a member of the opposition held out to the surrounding revolutionaries by the operator of the *guillotine*. Naturally, we need not be quite so literal. It is enough at this stage to specify that when an epigraph is included in a paper, its presence is demonstrable.

[9] Viktor Shklovsky, '*The Resurrection of the Word'* [Voskresheniye slova] (1914), quoted in Eichenbaum, 'The Theory of the 'Formal Method',' 112.

[10] Viktor Shklovsky, 'Potebnya' (1919), quoted in Eichenbaum, 'The Theory of the 'Formal Method',' 114.

[11] The term 'roughen' comes from Viktor Shklovsky, 'Art as Technique,' in *Russian Formalist Criticism: Four Essays,* trans., Lee T. Lemon and Marion J. Rees (Lincoln: University of Nebraska Press, 1965), 22.

[12] Shklovsky, 'The Resurrection of the Word,' quoted in Eichenbaum, 'The Theory of the 'Formal Method',' 112.

[13] Eichenbaum, 'The Theory of the 'Formal Method',' 112.

[14] Eichenbaum, 'The Theory of the 'Formal Method',' 113.

[15] Jakobson, quoted in Tzvetan Todorov, *Theories of the Symbol* trans., Catherine Porter (Oxford, Basil Blackwell, 1982), 279.

[16] Eichenbaum, 'The Theory of the 'Formal Method',' 117.

[17] Roman Jakobson in 'On Czech Versification' ['O cheshkom stikhe preimuschectvenno v sopostavlenii s russkim'] (1923), in Eichenbaum, 'The Theory of the 'Formal Method',' 128.

[18] Novels like Victor Hugo's *Han d'Islande* and Umberto Eco's *Foucault's Pendulum* have epigraphs for every chapter: Hugo has 'fifty-one chapters … duly armed with at least one epigraph (the record is four)' (Genette, *Paratexts*, 147); Eco has one hundred twenty chapters, in various languages, all untranslated, some highly difficult to translate.

[19] '[O]ne may … use as an epigraph a quotation – or reproduction – of a nonverbal work, such as a drawing or a musical score.' – Genette, *Paratexts*, 150.

[20] 'From the fact that the epigraph is a quotation, it almost necessary follows that it consists of a text.' – Genette, *Paratexts*, 150. While Genette allows images as epigraphs, due to SAHANZ conventions all images within the papers under consideration here are figures numbered in sequence; thus any image that sits at the head of a paper, even if it outside of the body, is integrated.

[21] Interestingly, the abstract itself can thus be seen formally as a 'roughening' agent.

[22] Evidence of its well-established status will be seen in the number of SAHANZ papers that use these linguistic forms.

[23] Genette, *Paratexts*, 151-2.

[24] A complete reference is given in an endnote.

[25] Citation standards are a 'scholarly obligation,' developed around making further research practicable – providing the necessary information to allow for follow-up reading. Robert Hauptman, *Documentation: A history and critique of attribution, commentary, glosses, marginalia, notes, bibliographies, works-cited lists, and citation indexing and analysis* (Jefferson NC, London: McFarland and Company, 2008), 10.

[26] It would be an interesting to chart the non-conventionality of epigraphs, but such an inquiry is outside the scope of this paper.

[27] Genette, *Paratexts*, 151.

[28] Such a suggestion would be challenged by Pierre Bayard. In his book *How To Talk About Books You Haven't Read*, Bayard writes 'even the most serious and thorough reading quickly metamorphoses after the fact into summary,' and that what the reader is left with are 'approximate

recollections' that can be 'rearranged as a function of current circumstances' (Pierre Bayard, *How to Talk About Books You Haven't Read*, trans. Jeffrey Mehlman, (London: Granta, 2008), 47; 48). If the processes of summary and rearrangement are natural to all but those with eidetic memory, the quotation is not a product of close reading, but an artificial display of the academic practice of note-taking.

[29] Charles Sanders Peirce's famous definition: 'A sign is something by knowing which we know something more' – cited in Umberto Eco, *Semiotics and the Philosophy of Language* (Bloomington: Indiana University Press, 1984), 26. Expressing what Thomas A. Sebeok defines as the its 'bifacial' nature, the sign has two distinct 'moieties' – the signifier (the Stoics' *sémainon*, Saussure's *signifiant*; the 'thing') and the signified (*sémainomenon*, *signifié*, the 'concept') – Thomas A. Sebeok, *Signs: An Introduction to Semiotics* (Toronto, Buffalo, London: University of Toronto Press, 2010), 39-40. To emphasise, this paper concerns the epigraph *as signifier*.

[30] Anthony Grafton, *The Footnote: A Curious History* (Cambridge, MA: Harvard University Press, 1997), 5. This is particularly the case with SAHANZ papers, which are double blind-refereed at abstract and full paper stage.

[31] Grafton, *The Footnote*, 5. Inclusions of these demonstrations of professional competence do come at a price: the continuity of the text is disrupted, and the reading is interrupted. '(Noel Coward made the same point more memorably when he remarked that having to read a footnote resembles having to go downstairs to answer the door while in the midst of making love.)' – Grafton, *The Footnote*, 69-70.

[32] The author would like to sincerely thank and acknowledge the authors of the thirty-three papers of SAHANZ 2007-11 whose use of epigraphs made this work possible.

In Steven Loo and Katharine Bartsch (eds.), *Panorama to Paradise: Scopic Regimes in Architectural and Urban History and Theory: 24th International Conference of the Society of Architectural Historians, Australia and New Zealand*, (Adelaide: 2007):
Leonie Matthews, 'Messages in a Bottle: The Writings of Duncan Richards and Oline Richards.'
Dolly Daou, 'In Between Shifts: Research Trip to Lebanon in Summer 2006.'
Rene van Meeuwen and Nigel Westbrook, 'Modelling History – Simulating Ambiguity.'
Julie Nichols, 'Mapping the City: Revisiting the Map in Contemporary Urban Design'
Branko Mitrovic, 'Leon Battista Alberti and Euclid's *Elements.*'
Teresa Stoppani, 'Representing Venice: One, Multiple, Impossible.'
Anthony Worm, 'Manifest Aberration: Are Architectural Drawings Conveyor or Purveyor?'

In *History in Practice: 25th International Conference of the Society of Architectural Historians Australia and New Zealand*, David Beynon and Ursula de Jong eds., SAHANZ, Geelong, AU, July 2008:
Bernard Brown, 'Should we Zeitgeist yet again?: From Corb to Rem via Badiou.'
David Beynon, 'So Flat, So Cute! Robots, Superflatness and Asian Architectural Futures.'
Flavia Marcello, 'A Hunter of Images: Space, Frame and Materiality in the Photography of Giuseppe Pagano.'
Russell Rodrigo, 'The Spectacle of Memory: Remembrance and the Aestheticisation of Loss in Contemporary Memorial Design.'
Richard Tucker, 'Morality and the Orders: Inigo Jones's Annotations on Decorum in Scamozzi, Palladio and Serlio.'
Mirjana Lozanovska, 'Resisting Assimilation: The Mild Aesthetics and Wild Perceptions of the Migrant House.'
Christine McCarthy, 'Irregular Sleep Architecture: Snoring and the Master Bedroom.'

In Julia Gatley (ed), *Cultural Crossroads: 26th International Conference of the Society of Architectural Historians, Australia and New Zealand*, Auckland, NZ: 2009:
Karen Burns, '*The Grammar of Ornament*: A Pacific Tale.'
Stephen Frith, 'The Absent Centre of Utopia: Fair and Fruitful, Filthy All About.'
Scott Hill, ''An Edifice Worthy of a Rising Empire': Reconstructing John Macarthur's Pyrmont Estate, 1799-1827.'
Tara Mallie and Michael J. Ostwald, 'Reflecting on Contemporary Architectural Interpretations of Australian Aboriginal Identities.'
Christine McCarthy, 'Free Trade and Joy-riding: Amusement, Capitalism, and the 1925 New Zealand and South Seas International Exhibition.'
Brenda and Robert Vale, 'The Solar House in New Zealand: A Study of the Sunroom.'
Rene Van Meeuwen, 'National Museum of Australia: Can a Building say 'Sorry'?

In Michael Chapman and Michael Ostwald (eds), *Imagining... : 27th International Conference of the Society of Architectural Historians Australia and New Zealand*, Newcastle: 2010:
Karen Burns, 'Frontier conflict, contact, exchange: re-imagining colonial architecture.'
Steven Fleming and Matthew Dwyer, 'Quantifying the Value of an Architect's Fame, Using Game Theory.'
Michael Hill and Peter Kohane, 'Rhetoric, Weight, and Race in the Theory of Mouldings.'
Kate Linzey, 'Theme-Park Utopia: Len Lye, Allan Temko and Coney Island.'
Julie Nichols, 'Imaginative Geographies: Cosmography and Cartography in Pre-modern Southeast Asia.'
Patricia Pringle, 'Performing Interiors: A Situation Comedy.'
Rebecca Sinclair, 'Is-land Spaces: Language, Imagination and Spatiality in the Autobiographies of Janet Frame.'
Andrew P. Steen, 'The Case of *Made in Tokyo.*'
In Antony Moulis and Deborah van der Plaat (eds) *Audience: 28th International Conference of the Society of Architectural Historians Australia and New Zealand*, Brisbane: 2011:
Simone Brott, 'Violent Urbanism is Us.'
John Harwood, 'The other end of the trajectory: Danger zones.'
Nicole Kalms, 'Raunch city: The hypersexual spectacle.'
Silvia Micheli, 'Look at the architect! The effects of the star system on the communication of contemporary architecture.'

[33] Studies of the significance of particular epigraphs in context – epigraph-text, epigraph-author, and so on – are quite common in literary criticism, the works of George Eliot being a particularly regular focus.

[34] Genette, *Paratexts*, 144.

[35] Genette, *Paratexts*, 156-157.

[36] 'The second possible function of the epigraph … consists on commenting on the *text*, whose meaning it indirectly specifies or emphasizes. This commentary may be very clear… More often the commentary is puzzling ….' – Genette, *Paratexts*, 157-8. This 'puzzling' nature requires interpretation, which largely takes this function outside of the scope of this current paper.

[37] '[A] backing that, in general, is less costly [than a preface], for one can obtain it without seeking permission.' – Genette, *Paratexts*, 159. For example, I did not contact the estates of Leo Jakubinsky or Boris Eichenbaum.

[38] Genette, *Paratexts*, 160.

[39] The functions do not classify the epigraphs; the epigraphs instantiate these functional classes. The aim is to exemplify the functions, and reveal particular features of use within the discourse of architectural history. As discussion will indicate, epigraphs can perform more than one function.

[40] A difference in title opacity is readily evident between, for example, Brenda and Robert Vale's SAHANZ paper, 'The Solar House in New Zealand: A Study of the Sunroom,' and Umberto Eco's novel *Foucault's Pendulum*: the reader of the former has solid expectations about what light will be shed upon, the reader of the latter is left to oscillate between any number of possible leads, none solid.

[41] The endnote reads: 'Jeremy Millar. 1995. *Message in a Bottle: From Ramsgate to The Chatham Islands*. Exhibition catalogue to accompany exhibition of Layla Curtis' work at Droit House. <http://www.laylacurtis.com/bottle/jeremyessay.htm>, accessed 10 August 2007 .' Interestingly, this website essay also begins with an epigraph: ''The function of art is to imitate nature in her manner of operation, and nature operates from chance. Simple minds cling to the illusion of an orderly, powerful universe because it gives them a sense of security.' – John Cage, American composer, writer and artist.' I would argue Cage – and indeed the contents of Cage's quotation – occupies a position quite contrary to both appropriation of the works of others, and more broadly, the formal definition of a discrete device. Again, we see evidence of theme as content subjugated by form as content.

[42] A title focused on 'The Writings of Duncan and Oline Richards,' followed by a paper that began without 'preamble,' *in media res*, would arguably lose no essential argumentation.

[43] To suit this paper, the best theme might be structural gratuitousness. I leave it to individual readers to make their own interpretations.

[44] Dolly Daou, 'In Between Shifts: Research Trip to Lebanon in Summer 2006': 'Foucault held there [*sic*] events in the sorts of spatial distributions in which we find ourselves, in the spaces we construct for ourselves to inhabit. We construct ourselves in part in response to events; and such

self-constructions are in turn exposed to other events yet to come.' Note possible typographical error faithfully transcribed.

[45] The theorist not native to the discipline, Alain Badiou, suffers a less-'familial' naming reduction in comparison to Le Corbusier and Koolhaas – arguably due to a developed aspect of the author-effect with respect to specific institutionalised disciplinarity.

[46] Umberto Eco, 'Casablanca, or the clichés are having a ball,' in Marshall Blonsky (ed.), *On Signs* (Oxford, Baltimore: Basil Blackwell & John Hopkins University Press, 1985), 36; 38.

[47] Shklovsky, 'Art as technique,' 13.

[48] Shklovsky, 'Art as technique,' 22.

[49] Interestingly, there is a now a digital copy of the original book available online at the address http://www.archive.org/details/venetiacittanobi00sans. Whether a digital copy of an original publication holds more scholarly prestige than a more recent analogue edition will be revealed as scholarly practice responds to the changing information landscape.

[50] Eichenbaum, 'The Theory of the 'Formal Method',' 108. Following the argument of this paper, the using the Italian-language original may have been more 'poetic' *and more functional* – non-English-language is highly perceptible, and, in the context of a prosaic or practical reading, is an opaque contrivance.

[51] Roman Jakobson's definition of poetry, quoted in Todorov, *Theories of the Symbol*, 279.

[52] 'Devices are laid bare because a perceptible device is permissible only when it is made creatively outstanding. When a device is noticed despite the author's attempt to conceal it, it produces a detrimentally comic effect.' – Boris Tomashevksy, 'Thematics,' in Lee T. Lemon and Marion J. Reis (eds.), *Russian Formalist Criticism: Four Essays* (Lincoln: University of Nebraska Press, 1965), 95.

Other Australian Architecture: Excavating alternative practices of the 1960s and 1970s

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Abstract

Architecture is being rethought in the shadow of global financial crises, climate change and intensifying urbanization. An interest in more sustainable, socially engaged practices that expand architecture's agency is evident, as well as a growing discourse seeking concepts and terms to sustain and legitimate those practices. These debates and shifts can also be found in Australia; registered, for example, in the theme for the 2012 Australian Exhibition at the Venice Architecture Biennale: 'Formations; New Practices in Australian Architecture.'

The recent calls for more socially and politically engaged practices resonate with alternative, and often marginal, architectural experiments and polemics of the 1960s and 1970s, connected to growing global criticism of architectural late-modernism. Indeed, internationally there has been significant work done towards tracing an alternative genealogy of the postmodern turn in architecture.

In Australia the experimental and subversive projects, conceptual work, pedagogical initiatives, exhibitions and publications of that earlier period remain largely unexamined – the stuff of local mythology. This paper will suggest that there is a need to trace the alternatives they projected, not to reclaim them for the present but to consider the dialogue with history as a site of potentiality. An important project lies in the excavation of those little-known, alternative architectural initiatives – one that could significantly reshape understanding of postmodern Australian architectural history.

Excavating Mythologies

In the past decade, attention to the significance and prospects for 'alternative' architecture has intensified. These experiments in other ways of doing architecture – practices that seek to challenge the dominant professional model of capital-intensive, client-dependent architectural production – can be figured as part of a wider reconsideration of socio-political concerns of the 1960s and 1970s in the context of

recent economic and environmental 'crises'. More concretely, the aesthetics, posturings and forms of radical, contestatory architecture from that period frequently haunt more recent alternative practices. Imbricated with these material retracings has been an historical return to the period. Scholarly excavation of peripheral architectural experimentation has subjected dominant narratives of the discipline's postmodern turn to revision and reframing – undermining myths about the successes and failures of 1960s radical architecture.

Although contemporary debates and shifts around architecture's agency – and the delineation of sustainable, socially-engaged practices – are clearly visible in Australia, the historical and theoretical contextualisation is drawn almost exclusively from an Anglo-American scholarly axis. Evidence of architecture's *subversive* engagement in that earlier period with new social movements and technologies; emergent economic, administrative logics and new theoretical paradigms, comes largely from the study of European and American examples; from Archigram to Archizoom to Ant Farm. It will be argued here that a similar mapping is needed of Australian architectural engagement with critical social, cultural, political and economic shifts of the 1960s and 1970s.

Locally, the experimental and subversive projects, conceptual work, pedagogical initiatives, exhibitions and publications of that period remain largely unexamined – the stuff of mythology. The importance of exploring Australia's fringe and non-traditional practices is not simply the recognition of history 'the way it really was', or the supplementing of well-known histories, but the exposure of suppressed narratives and the provision of a situated accounting for alternative tactics. The (often brief) lines of flight such activity projected beyond dominant paradigms warrant examination not in the hope of reclaiming them for the present but rather in considering the dialogue with history as a site of potentiality. An important project lies in the excavation of those little-known, alternative architectural initiatives – one that could meaningfully reshape understanding of postmodern Australian architectural history.

Other ways of doing architecture

> Practices that made brief appearances in the cities of the 1960s and 1970s are now resurfacing, after having fallen into a temporary obsolescence. Like an underground river, they continued to flow and re-emerged in new forms in unexpected places.[1]

Taken from his introductory essay to the book *Actions: What You Can Do With the City* (2008), Mirko Zardini's observation points to renewed connections between architecture and alternative, collective appropriations of urban space. The book accompanied an exhibition at the Canadian Centre for Architecture and was co-published by SUN – a Dutch publisher specialising in architecture. It documented and analysed a host of experimental interactions with urban environments, seeking to reveal potentials for people to positively shape their cities. The *Actions* exhibition and book are indicative of a strong contemporary interest in the 'bottom-up' development of imaginative and practical counter-proposals to existing dynamics of spatial production. That an *architectural* research centre and publisher would generate a project focused on such a variety of practices (from freegan-ing to illicit road repair) and such a variety of actors (mostly non-architects) reflects a renewed attention within the discipline to questions of user participation and self-determination in the production of urban space.

One of the characteristics of urban activism in the wake of the 1960s social movements was a rejection of what the German psychologist Alexander Mitscherlich called 'the inhospitality of our cities.'[2] Protests in Western countries focused on the barren character of planned, zoned urban development, quality and cost of housing, public transport, childcare and other public services, and – importantly for this discussion – the limited opportunity to participate in their design. Demands for participatory politics thus had implications for architecture and planning – community activists and political radicals decried the authoritarian, over-determining and alienating qualities of urban planning and design. By the early 1970s architects had begun to propose and experiment with participatory design, advocacy and self-help architecture – their strategies often aimed at transforming professional structures and inverting traditional client-architect relationships.[3] One of the most well-known early manifestations is the 1969 proposal for the "Non-Plan" program, by Cedric Price, Reyner Banham, Peter Hall and Paul Barker; a proposal that called for the abolition of planning in order to allow a freedom in urban development that would emancipate urban inhabitants.[4] Ideas about user empowerment and participation began circulating even within mainstream journals of the profession such as *Architectural Design*.[5]

Many of the values and strategies developed around that time recur within contemporary social movements, albeit framed by different technological, political and cultural environments.[6] For example, a key strand of recent urban political research has highlighted a shift in emphasis from 'old' concerns over collective consumption and social reproduction to a 'new' urban politics centred on issues of competitiveness and

economic development.[7] In parallel, a renewed urban politics of inhabitation has recently emerged. A huge range of social movements, undefined self-organising groups, and cultural and social activists populates an associated landscape of contemporary urban activism. This self-organisation is present in an active and identifiable set of material practices, and is (re)emerging in contemporary theoretical discourses of political art, social theory and urban practice.[8] An accompanying array of publications has focused on urban 'informality', unintended uses of public space, and the exploration of alternative modes of spatial production.[9]

These practices of urban activism have frequently involved design professionals directly, in all manner of roles – generative, supportive and collaborative – and have often adopted architectural techniques, processes and forms. A range of exhibitions, public projects, books and websites has similarly explored the potential of projects expanding the capacities of architecture and design as disciplines.[10] For architecture, a particularly strong point of mobilization in this regard is the issue of participation and empowerment in processes of spatial production and design. Reconsideration of the discipline's agency is underpinned by the recognition that urban spaces are constantly produced on multiple registers by shifting social practices and dynamics of power and expertise.[11] As Henri Lefevbre succinctly put it: '(social) space is a (social) product.'[12]

Rethinking the social efficacy of architecture as built form, the position of the architect as designer/citizen, and the power of its educational and professional structures – what architecture is, what it does, and what it can be – has become a common objective. The curators of the 2006 exhibition *Talking Cities* posited that its participants 'stretch the boundaries of architecture and urban design and shift our perceptions of contemporary city spaces.'[13] The *Trans(ient) City* public art project in Luxembourg (2007) – which involved architectural offices such as OMA, Périphériques and Atelier Bow Wow – emphasised a role for architects in 'envisioning new urban spaces and life while being totally open to the shared participation of the people who inhabit these spaces.'[14] The architect and artist editors of publications by the European Platform for Alternative Practice and Research on the City (PEPRAV) – *Urban/Act*: *A Handbook for Alternative Practice,* and *Trans-Local-Act: Cultural Practices Within and Across* – explore activities that reinvent the uses and practices of traditional professional structures, ranging from 'radical opposition and criticism' to 'propositional acting'.[15] The work begun by PEPRAV is a notable attempt to understand and develop 'a collective critical enquiry into contemporary alternatives to practice and research on the city.'[16]

The realigned dimensions of architectural practice that these explorations suggest are even more clearly demonstrated by projects for the fourth International Architecture Biennale Rotterdam (IABR) in 2009: "Open City: Designing Coexistence". The Biennale, directed by Dutch architect and urbanist Kees Christiaanse, asked 'how can architects and urban designers make an active and specific contribution to the promotion of social, cultural and mutually beneficial coexistence?'[17] The selected designers (including artists, writers, curators, geographers, planners, cinematographers and economists) were called on to explore ways that 'spatial design practices' could be applied to create the conditions of an "Open City." 'Situations' were explored, not related to particular programs or sites but to 'socio-spatial processes.'[18]

Very broadly, if the practices discussed so far might be placed towards one end of a spectrum, where the deployment of architectural, spatial or design intelligence occurs within fluid activist urbanisms (activist architectures), at the other end are more recognizably 'architectural' practices that operate with socially responsible commitment. Recent books such as *Design Like You Give A Damn: Architectural Responses To Humanitarian Crises* (2006) and *Expanding Architecture: Design as Activism* (2008) describe and advocate ways in which architecture firms, community design centres, design/build programs, and service-based organisations procure, design and construct buildings for underserved and disadvantaged groups.[19] They connect with an established history and set of practices (from Walter Segal's self-build housing of the 1950s through to the Rural Studio program in the 1990s) and point to a resurgent interest in the deployment of architectural expertise as social service: 'social architecture.'[20] Probably the most high profile marker of this recent social turn was the *Small Scale Big Change* exhibition, mounted at The Museum of Modern Art in New York (3 October 2010 – 3 January 2011). Curated by Andres Lepik, the exhibition and accompanying book were focused on projects that demonstrated 'a renewed belief in the social responsibility of architecture.'[21]

In Australia, the distinctions in present socio-economic circumstances and architectural culture from the largely American and European activity described above caution against a tracing of outright correlation. Still, a similar activist, social turn can be traced in the formation of architectural non-profit organisations such as Architects for Peace (established 2003), Emergency Architects Australia (established 2005) and Bricks and Cartwheels (established 2006), experimental research and teaching initiatives, and the discourse developing in professional journals (such as *Monument*'s 2007 special issue on architectural responses to social and environmental sustainability).[22] It can also be

found prominently in the 2010 Australian Institute of Architects' conference, titled *extra/ordinary.* Directed by Mel Dodd, the conference was formed around 'an inspirational group of lateral thinkers, known for their ability to collaborate, improvise, and inspire by inventing new practices and systems of operating.'[23] Conference themes included the exploration of how architects can contribute to 'more reflexive and responsive cities' and influence 'housing 'design', sustainability and social injustice.'[24] In 2011, the smaller, interdisciplinary *The Right to the City* exhibition and symposium in Sydney examined the development by artists, activists and architects of critical spatial practices deployed in micro-political actions – 'seeking to remake cities in more socially connected and sustainable ways.'[25] Most recently, the Australian exhibition at the 2012 Venice Architectural Biennale, has been positioned to similarly explore an expanded notion of architectural practice. *Formations: New Practices in Australian Architecture* is intended to showcase "a range of possible futures for architectural practice. From engagement with humanitarian causes to the creation of specialised technology and education networks for advanced material cultures, Australia has a wealth of innovation in its architectural community."[26]

This local and international constellation of practices, publications, exhibitions and events reconfirms the ceaseless fluctuation of architecture's boundaries. It also reveals the lasting traces of architecture's experimentation with social and political engagement in the 1960s and 1970s. Many of the counter-cultural concerns of those periods seem prescient of current preoccupations with alternative forms of community, the natural environment and impacts of technology.[27] However, aspects such as sustainability, networking, participation and information sharing were more connected with radical political action than the popular mainstream strategies they have come to imply. Writing in the *Architectural record* in 2008, Alastair Gordon captured a certain reflective mood:

> It's a good time to look back at the originating seeds of green, to the anarchic 1960s and Bucky Fuller's philosophy of ephemeralization (doing more with less). Conspicuous similarities can be detected between then and now, certainly a general ennui and loss of confidence in the status quo, along with the urge to save our planet. Conventional parameters of city, community, family and housing were all thrown out in the psychedelic era, seen as part of the same mindset that brought carpet bombing to Vietnam.[28]

As well as the parallels that might be drawn between the social, political and economic contexts of each period (and accompanying disciplinary debates), the aesthetics, forms

and tactics of radical architectural practices from the 1960s and 1970s are persistently echoed in more recent work. This is apparent in such diverse continuities as the adoption of sustainable strategies, ongoing fascination with inflatable architectures, alternative technologies, and the reworking of tropes such as participation and collaborative design.

These resonances inevitably invoke questions about the shifts and transpositions effected in the re-emergence or continuity of particular forms, issues or tactics; what ramifications do they suggest for the ethical and political capacities of architecture? Radical and alternative architectural practices of the 1960s and 1970s are often understood to have 'failed'. Their fate has been seen as one of institutionalisation or subsumption: recuperated in the forms of a 'neo-avant garde', or overtaken by the discipline's dominant postmodern concerns with autonomy and the cultural legibility of its forms. However, that narrative is being rethought. For example, Jeffrey Inaba has argued, in a recent issue of the architectural journal *Volume,* devoted to reflection on 'counterculture', that:

> [W]e have come to know what is now called the counterculture through coherent terms and tendencies which are the pretext for architecture. Its sensibility is assumed in the basic responsibilities we have as designers: we are supposed to thoroughly process the latest technical knowledge in our field, design buildings that are environmentally conscious and form a sense of community around our projects.[29]

Revision

Since the mid-1990s, a slew of marginal, but 'visionary', architectural production has been reappraised. In the light of renewed interest in the radical politics of the 1960s, the contemporary legacy of countercultural movements, and a broad historical rethinking of the trajectories of modernism, figures including Yona Friedman, Superstudio, and Constant, have had the relevancy of their work from the 1950s through to the 1970s recast.[30] Monographs and exhibitions have claimed the period as one of the most active, important eras in experimental practice, appropriating previously peripheral work as a vital experimental lineage for contemporary digital precocity as well as a provocative rejoinder to a current apolitical malaise.[31]

This recuperation of radical architecture 'heroes' has accompanied a more widespread re-examination of the experimental architectural culture of the 1960s and 1970s,

including associated publishing, educational and institutional shifts – such as the spectacular growth of independent, non-commercial and unconventional "little magazines."[32] In the last decade or so, historical and theoretical excavation of that period has increasingly engaged with architectural practices whose concerns (often more focused on the ways in which people might live than how buildings looked) were consistently seen as *not* the legitimate concerns of architecture – exploring a myriad possibilities, from technologically enabled ambient environments to the deprofessionalisation of design.[33] Often at the edges of the discipline, these practices re-imagined architecture's ethical and political capacities, its engagement with new technologies, and questions of environment, alternative communities, and the impact of knowledge–based forms of production.

The work being done in uncovering and rethinking such practices can be connected to an ongoing (re)historicisation of architecture's postmodern turn and there has been significant scholarly work done in complicating the conventional narratives of postwar modernist domination and its subsequent rejection.[34] However, it also informs (and forms) work that opens up thoroughly different avenues for thinking about that period: retheorising the associated historical formations, recasting their political implications, and reinvigorating engagement with neglected issues.[35]

Turning again to Australian circumstances, it is difficult to observe anything like a parallel historical and theoretical interrogation of Australian architecture's dissident fringes and occluded experiments during the 1960s and 1970s. Looking back, the only attempt at a comprehensive history of Australian architecture – J.M. Freeland's *Architecture in Australia: A History* (1968) – concludes its account in 1967, with the grave forecast of an increasing corporatisation of professional practice.[36] Perhaps the most comprehensive local history that does deal with the timeframe this essay highlights is Jennifer Taylor's *Australian Architecture Since 1960* (first published in 1986). Taylor's overview of Australian architecture from the 1960s through to the 1980s focuses on the development of regional architectural identity (addressing issues such as housing, landscape and urban design), and it does this through a well honed account of aesthetic and formal influences; 'themes' debated and 'concepts' realised in the conventional building production of various architect groups and individuals. The extra-disciplinary activity that is being suggested by this essay as a worthwhile subject for examination fails to register in Taylor's conception of architectural practice, or is reduced to a minor reference by the emphasis on aesthetic impact and formal lineage (for example, Morrice Shaw's experiments with collaborative community design during the 1970s).[37] Taylor's

emphasis is on 'buildings of intellectual and aesthetic quality as these established the ethnic [sic] and imagery later taken up by others.'[38]

Mythologies

By the early 1970s the village of Nimbin in northern NSW, once a thriving service centre, was like a ghost town. As the legend goes, the village was saved by a group of student radicals looking to stage a major counter-cultural lifestyle event called the Aquarius Festival in early 1973. The attraction of Nimbin was the possibility of recycling existing, unused buildings in the town. The event was funded not only by the Australian Union of Students (AUS), but also the federally funded Australia Council for the Arts' Community Arts Committee. It was justified as 'an experiment, an exercise in togetherness and the simple pleasures of arts and crafts activities.'[39]

More than 5000 people, mostly students from the major university campuses in Sydney, Brisbane, Canberra and Melbourne attended the festival, which has become an enduring expression of the 1970s Australian counterculture – replete with tales of sexual and social experimentation, drugs, expanded consciousness and rock n' roll.[40] The "May Manifesto", written by the festival organizers, spoke of a 'concentration of arts and artists', 'survival on earth', 'self sufficiency' on a 'tribal basis', 'living in harmony with the natural environment', and 'participation rather than consumer entertainment'.[41] At the festival's close, a number of groups decided to remain, and a major legacy was the ongoing establishment of intentional communities in the region; Nimbin became increasingly identified as a centre for the counterculture as well as environmental and sustainability movements in Australia.

The festival is far from being a key reference point in discussions about Australian architecture of the period. However, it is important to this discussion for the way it connected all manner of architectural experiments and their participants. In fact, the Sydney architect and lecturer Colin ('Col') James was critical in its formation – originally suggesting the AUS 'recycle a town.'[42] James was also the architect for the overall planning of the festival.[43] At this point, a brief account of some events and projects will sketch the contours of alternative modes of engagement and negotiation with architecture's ethical and political terrain and the implications of an altered historical understanding. Focused on activities in and around Sydney, the discussion is intended to highlight some initial threads of investigation that are indicative rather than exhaustive.

A year prior to the festival, during Peter Johnson's tenure as Dean, architecture students in the Faculty of Architecture at the University of Sydney went on 'strike'. The precise circumstances that precipitated the strike, the details of its resolution and the subsequent impacts on curriculum are unclear, although Mark Stiles gave his account, as an involved student, in a later issue of *Architecture in Australia*.[44] Architectural historian Jennifer Taylor, in her second year of teaching in the faculty at the time, saw student unrest and upheaval in the air: 'the students had long hair, were against capitalism and against architects who designed buildings.'[45] The strike forced the cancellation of classes and it is said the building was scrawled with the words 'pig architecture'. A connection was seemingly being drawn between the local educational context and the discontent, protest and social revolution that spread around the world in the late 1960s.[46]

Local architectural engagement with social and environmental activism, particularly in a political context, was not uncommon at the time. For example, the New South Wales Builders' Labourers' Federation, in alliance with sections of the student movement, including students and supportive staff from the University of Sydney's Faculty of Architecture, instituted the famous green bans that blurred social and environmental boundaries.[47] The architect and activist Milo Dunphy left practice in 1972 to establish the Total Environment Centre, which would become one of Australia's key organisations campaigning on environmental protection issues in both the city and the country.[48] Australian Student Architecture congresses leading up to that year also point to students' shifting aspirations for what architecture could be and do. Attendance sometimes outstripped that of the national professional conferences and the guest speakers were more radical and diverse. They included Buckminster Fuller, Cedric Price, Dennis Crompton (Archigram), Christopher Alexander, and Aldo van Eyck (Team 10).[49]

By 1972, amid the milieu of University of Sydney student activism, the social and environmental agency of architecture was being reconsidered. Students and some staff from the Faculty of Architecture had become extremely dissatisfied with what they perceived as a narrow and inflexible architectural curriculum – technocratic and monolithic. Following negotiations with the Dean a new curriculum was developed. A more open model, it fostered experiments with self-assessment and the introduction of an independent research project (one subsequent 'thesis' was the construction and operation of an Indonesian restaurant on campus).[50] Not without some ongoing tension

(Stiles aired considerable disappointment in his article about continuing constraints and failings), architecture students and staff more openly pursued educational projects that addressed pressing social and environmental issues.

One of the most ambitious (and notorious) projects to emerge from the new conditions ran from approximately 1974 to 1978. The Autonomous House – a bricolage of alternative technologies on the lawn beside the architecture faculty – was one of the earliest experiments of its kind in the world.[51] Designed and constructed by architecture students using recycled and donated materials, it employed passive solar strategies (including a Trombe beer bottle wall), and ambitiously aimed to generate its own power, harvest and heat its own water, produce its own food supply and recycle all of its waste (sadly, biogas production was thwarted by Council's refusal to allow pigs on campus).[52]

Far more than a technical exercise, the house was an experiment in rethinking design processes, community engagement and the mediation between people and environment. The approach developed resonates strongly with the contemporaneous countercultural thinking of 'whole design' associated with the *Whole Earth Catalog,* and architectural interest (following the oil crisis and a decade of intense environmental debates) in terms such as *self-sufficiency*, *self-reliance*, *autonomy* and *life-support.*[53] Simon Sadler has described, in an essay theorising and historicising the whole design aesthetic, the way it 'favored social and technological practices that evolve by continual reconfiguration [and that it] relished amateurism, welcomed change, and was unerringly optimistic.'[54] As Col James, the staff member who instigated the Autonomous House described the *bricoleur* qualities of the students' work: 'None of those working on the project were technologists, amateur or professional, and they did not really come up with any startling new devices.'[55]

The project can also be associated with a moment of excitement within architectural culture connected to the counterculture's rediscovery of ecology.[56] Indeed, in his 1974 article summarizing the research that had been gathered on the technologies applied in the project, Tony ('Tone') Wheeler detailed some of the international contacts that had been made with, for example, Steve Baer of Zomeworks in the US and Graham Caine of the Street Farmer group in the UK.[57] Like Caine's "Eco House" in East London, the Sydney Autonomous House was understood as an inhabitable housing laboratory. It was used extensively as an educational tool in this regard: 'The four years of exposure with fairs and school visits did demonstrate the technological impact of solar and wind power, passive solar design, rainwater collection, productive gardens and recycling waste.'[58] Its

meaning for the student inhabitants also went beyond professionally proscribed notions of architectural design as a client-driven, building procurement:

> Perhaps it is not so absurd to see The Autonomous House as a prototype of the house of the future - a prototype not defined by engineering specifications or measured with thermometers and galvanometers but as a process of people living together and working together with the goal of living more creatively, not confining themselves to the narrower horizons of efficiency and convenience.[59]

Participants in the Autonomous House project, as well as other architectural students and tutors were also involved in the 1973 Aquarius Festival. The account of Gary Fidler, who subsequently settled in the Tweed region, is representative of the energetic, optimistic and collective-focused experience:

> We came up on a bus, probably about a dozen students, with people like Glen Murcutt and Richard Leplastrier who are really well regarded architects now. We came up and designed toilets with alternative technologies, natural saunas utilising steam tents, hot rocks, and creeks with geodesic domes and all sorts of things like that. Also social experiments – like setting up the food co-ops where it was up to you to decide what you were going to pay for the fruit and vegetables.[60]

Intertwined with the activity focused on ecological concerns at Nimbin was a strand of experimentation with psychedelic and intermedia environments. While Leplastrier and Murcutt were designing toilets, the Sydney artist/filmmaker/architect collective Bush Video were already encamped in a geodesic dome, establishing a rudimentary community multimedia network, intended to provide 'democratic and accountable media'.[61] Festivalgoers were given access to video portapaks and the resulting experiments were to be broadcast around Nimbin via a collection of secondhand TV sets (however, it took almost the whole festival period just to lay the coaxial cable required for the network).

Mick Glasheen, an architecture student from UNSW, was a key figure in the loose collective that formed Bush Video. In the early 1960s he began making experimental audiovisual and film work for the annual Architecture Students Association conferences; these included *Who + Lives = Home* (based on the ideas of Aldo van Eyck) and *The*

Evolution of 1966 (inspired by Buckminster Fuller and Marshall McLuhan's ideas about the evolution of technologies). At the 1968 conference in Sydney, Glasheen screened *World* - a forty-five-minute, three screen film (funded by architect Ian Mackay) that evolved out of his conversation with Fuller at the 1966 conference and was intended as a contribution to the latter's *World Science Decade* project.

Bush Video initially operated out of the Fuetron building in Sydney, where they held regular Bush Video Theatre sessions, involving filming, music, video mixdown, conversation and improvisation. From 1974 they occupied an old mansion in Paddington, offered by the architect Bill Lucas (sometimes associated with the Sydney School). The collective had diverse interests but consistently explored the possibilities of video as a tool for participation and community exchange. Glasheen was particularly interested in the communicative and aesthetic potentials of video feedback (he wrote a Fuller derived piece in 1967 titled "Communication as Sharing of Conscious Experience of Energy").

One of the biggest impacts of the festival was that it 'introduced many to a region where they felt they could experiment with alternative lifestyles through an escape from the nuclear family structure, practice a new environmental ethic, follow an anti-war stance and reject corporate capitalism.'[62] The experience for the architects (particularly students) who attended was often similarly liberating and connections were maintained.[63] Some moved to the area and developed architectural practices aligned with those experimental lifestyles (for example Hop.E, a founding member of the Caldera Environment Centre); others pursued alternative practice formations back in the major cities.

"Archanon 2", an architectural collective that moved between the city and the bush, attempted to rethink conventional professional priorities and processes. The group worked with clients such as a farming commune, the Aboriginal Legal Service and also planned a community "Architectural Shopfront" for South Sydney: 'a free service that enables people to modify their own environment if they so wish with minimum of expenditure and fuss.'[64] In 1974 they described their approach in terms that effectively summarize basic strands of critique and action being explored by the Australian architectural 'counterculture' sketched out above, and that prefigure contemporary discussion of "alternative practice formations" and an expanded agency for architecture. They outlined an evolving emphasis on working with groups and communities who struggled to access design, planning and building advice, they advocated working with

those most directly affected by projects, and they challenged an emphasis on the built object:

> We can act as catalysts, facilitating the process between idea and action. Our role is to make decisions more informed by expanding options, helping to distill group aims, then coordinating these towards immediate working solutions. The nature of these solutions many not necessarily require a new building but may optimally be solved by recycling existing infrastructure.[65]

Conclusions

Julie Willis and Philip Goad, writing recently in the Society of Architectural Historians of Australia and New Zealand (SAHANZ) journal *Fabrications,* have gestured towards the importance of rethinking the approach *Australian Architecture Since 1960* took to understanding postmodernism in Australian architecture, suggesting: 'the seeds of this latter phenomenon (now past) were sown much earlier and now require documentation.'[66] In the same essay, they also suggest that from the 1980s onwards the history of Australian architecture, stimulated by the foundation of SAHANZ as well as the journals *Transition*, *Fabrications,* and *Architectural Theory Review*, 'was being discussed in smaller and smaller pieces, albeit more critically.'[67] They go on to contend that, while important, these contributions that have 'drastically expanded our understanding of particular eras' have yet done nothing to seriously alter the overall understanding of the country's architectural evolution.[68]

While Willis and Goad make these observations in the context of their argument for a new comprehensive survey history of Australian architecture, the proposition of this essay (whatever the merits of a new comprehensive history) is not that the breadth and understanding of an established Australian architectural canon be extended or modulated, or the knowledge of a particular period simply flourishes in detail. Rather, it is to suggest that useful attention might be paid to marginal practices – experiments in participation, advocacy, teaching, design and publication – that tested the limits of the discipline locally through a receptivity to social transformations, new economies, materials and media.

This paper has briefly highlighted some examples of such experimentation centred on Sydney, and in doing so the intention has been to affirm the potential of a larger research project. The vignettes provided here are partial and tentative; they obviously require further research and consideration to better elucidate the implications and

significance of the activity described. For example, the relationships identified between local and overseas practices - through personal contacts or intellectual and material resonances - is schematic. Further, the narrow geographical focus of this paper should not be taken as the suggestion of a limited presence of such activity in Australia – it was certainly much wider spread. Critical to the larger project proposed by this paper would be a tracing of alternative architectural practices across the nation, the networks they propagated and connected with, as well as an interrogation of the nominal timeframe deployed here. It remains, though, that the argument being made through this preliminary sketching of such lines of enquiry is that a rich vein of material remains to be uncovered by an investigation looking to sites of architecture as a sprawling, unruly and opportunistic activity, veering from the bounds of professional-client relationships and the commissioned design of buildings.

The potential result of such reexamining of the period in Australia from the 1960s to the 1970s, particularly the responses of a local architectural culture to issues of technology, community and environment, is the provision of a more nuanced, situated accounting of alternative architectural formations and a rethinking of familiar historical narratives - meaningfully reshaping historical understandings of postmodern Australian architecture.

Endnotes

[1] Mirko Zardini, "A New Urban Takeover" in Giovanna Borasi and Mirko Zardini, (eds.), *Actions: What You Can Do With the City* (Montréal: Canadian Centre for Architecture (co-published by SUN), 2008), 15.
[2] Mitscherlich quoted in Margit Mayer, *Civic City Cahier 1: Social Movements in the (Post-) Neoliberal City* (London: Bedford Press, 2010), 19.
[3] A significant early collection of analyses and descriptions of architects as social change agents can be found in C. Richard Hatch, (ed.), *The Scope of Social Architecture* (New York: Van Nostrand Reinhold, 1984).
[4] Paul Barker, Reyner Banham, Peter Hall and Cedric Price, "Non-Plan: an experiment in freedom", *New Society* No.338 (1969).
[5] See, for example: *Architectural Design,* No.3 (1976), which features articles from Henry Moss ("Professional Backlash") and John Turner ("Housing by People").
[6] Bryn Jones and Mike O'Donnell, (eds.), *Sixties Radicalism and Social Movement Activism: Retreat Or Resurgence?* (New York: Anthem Press, 2010). The book's contributions assess resonances between the radical/ libertarian emphasis on civil society "freedoms" in 1960s cultural radicalism and contemporary political global human rights movements. A general conclusion is that, in some senses, the sixties live on today in discursive and political themes.
[7] See, for example: Jason Hackworth, *The Neoliberal City* (Ithaca, NY: Cornell University Press, 2007); Bob Jessop, "Globalization, entrepreneurial cities and the social economy", in Pierre Hamel, Henri Lustiger-Thaler, and Margit Mayer. (eds.), *Urban Movements in a Globalizing World*, (New York: Routledge, 2000).
[8] One mapping can be found in Helge Mooshammer and Peter Mörtenböck, *Networked Cultures: Parallel Architectures and the Politics of Space* (Rotterdam: NAi Publishers, 2008). The book and DVD investigate urban network processes, spaces of geo-cultural crises, and forms of cultural participation and self-determination in Europe.

[9] See, for example: John Leighton Chase, Margaret Crawford and John Kaliski. (eds.), *Everyday Urbanism* (New York: The Monacelli Press, 2008 (expanded edition)); Karen Franck and Quentin Stevens, (eds.), *Loose Space: Possibility and Diversity in Urban Life* (London: Routledge, 2006); Lorett Lees, (ed.), *The Emancipatory City? Paradoxes and Possibilities* (London: Sage Publications, 2004); Sophie Watson, *City Publics: The (Dis)enchantments of Urban Encounters* (London: Routledge, 2006); Jeffrey Hou, (ed.), *Insurgent Public Space: Guerrilla Urbanism and the Remaking of Contemporary Cities* (London: Routledge, 2010); Brett Bloom and Ava Bromberg, (eds.), *Belltown Paradise/Making Their Own Plans* (Chicago: Whitewalls, Inc. 2004); Temporary Services, *Public Phenomena* (Chicago: Half Letter Press LLC, 2008).
[10] In addition to the aforementioned exhibitions and their accompanying publications, also of note are: *Trans(ient) City,* a city-wide program of urban installations supported by the City of Luxembourg in 2007; *Unplanned: Research and Experiments at the Urban Scale,* an exhibition curated by Mitch McEwan at Superfront Gallery, California in 2010; *just space(s),* an exhibition and program of events organised by Ava Bromberg and Nicholas Brown at LACE (Los Angeles Contemporary Exhibitions) in 2007; *Designcity: Design for Urban Space and the Design City Discussion,* Berlin: Transform-Berlin e.V. (2006) (published on the occasion of Designmai 2006, Berlin); Rochus Urban Hinkel, (ed.), *Urban Interior: Informal Explorations, interventions and occupations i(*Baunach: Spurbuchverlag, 2011); Tim Rieniets, Jennifer Sigler and Kees Christiaanse, (eds.), *Open City: Designing Coexistence* (SUN Publishers: Amsterdam, 2009); Bartolomeo Pietromarchi, (ed.), *The (un)common place: art, public space and urban aesthetics in Europe* (Barcelona: Fondazione Adriano Olivetti; Actar, 2005).
[11] Two strands of thinking in this regard (with quite different implications) are represented by work on 'spatial agency' and 'unsolicited architecture'. Discussion of spatial agency by Jeremy Till and others is focused on reframing conventional understandings of the architect as expert author and the limited treatment of architecture's social efficacy. Ole Bouman's articulation of 'unsolicited' architectural practice emphasizes the regaining of power and autonomy for the discipline by rethinking the reactive stance of conventional professional activity. See: Nishat Awan, Tatjana Schneider, and Jeremy Till, *Spatial Agency: Other Ways of Doing Architecture*, London: Routledge, 2011; www.spatialagency.net; *Volume,*14 (2007) (Special issue on 'Unsolicited Architecture').
[12] Henri Lefebvre, *The Production of Space* (London: Wiley-Blackwell, 1992) 26.
[13] Francesca Ferguson & urban drift, (eds.), *Talking Cities: The Micropolitics of Urban Space* (Basel: Birkhäuser, 2006) 2.
[14] Hou Hanru, "Trans(ient) City: A Public Art Project for Luxembourg 2007" in *Trans(ient) City,* (Barcelona: Books on the Move, 2008) 8.
[15] Doina Petrescu, Constantin Petcou and Nishat Awan, (eds.), *Trans-Local-Act: Cultural Practices Within and Across* (Paris: aaa-PEPRAV, 2010).
[16] aaa-PEPRAV, (eds.), *Urban/Act: A handbook for alternative practice* (Paris: aaa-PEPRAV, 2007) 13. European Platform for alternative Practice and research on the City (PEPRAV) is a project partially funded by the CULTURE 2000 program of the European Union. It initially ran as a partnership between atelier d'architecture autogérée (aaa, Paris), the School of Architecture, University of Sheffield, Recyclart (Brussels) and metroZones (Berlin), between September 2006 and September 2007. For more on PEPRAV's work see: www.peprav.net
[17] Rieniets, Sigler and Christiaanse, (eds.), *Open City: Designing Coexistence,* 12.
[18] Rieniets, Sigler and Christiaanse, (eds.), *Open City: Designing Coexistence,* 209.
[19] Kate Stohr and Cameron Sinclair, (eds.), *Design Like You Give A Damn: Architectural Responses To Humanitarian Crises* (London: Thames & Hudson, 2006); Bryan Bell and Katie Wakeford, (eds.), *Expanding Architecture: design as activism* (New York: Metropolis Books, 2008).
[20] See, for example: the organisations Architecture for Humanity (established in 1999), Architects without Frontiers (also established in 1999) and Public Architecture (established in 2002, especially noted for an initiative to professionalize pro bono work in architecture).
[21] Andres Lepik, *Small scale, big change : new architectures of social engagement* (New York: Museum of Modern Art, 2010) rear cover.
[22] See, for example: Hinkel, (ed.), *Urban Interior: Informal Explorations, interventions and occupations*; *Monument* 97 (2007) (special issue themed: "Give a Damn).
[23] Australian Institute of Architects, "Eight unconventional architects headline one 'extra/ordinary' national conference" (media release: 11.04.2010) http://www.architecture.com.au/i-cms?page=14060

[24] Australian Institute of Architects, "Eight unconventional architects headline one 'extra/ordinary' national conference."
[25] See: Lee Stickells and Zanny Begg, (eds.), *The Right to the City* (Sydney: Tin Sheds Gallery, 2011).
[26] Australian Institute of Architects, "Six innovative FORMATIONS to challenge international views of architectural practice" (media release: 07.12.2011) http://www.architecture.com.au/i-cms?page=20173
[27] A recent, influential accounting for the ongoing impact of 1960s counterculture on contemporary "mainstream" technologies, and our relationships with them, can be found in Fred Turner, *From Counterculture to Cyberculture* (Chicago: University of Chicago Press, 2006). On resonances specifically related to the politics and rhetoric around environmental concerns, see Andrew G. Kirk, *Counterculture Green: The Whole Earth Catalog and American Environmentalism,* (Lawrence: The University of Kansas Press, 2007).
[28] Alastair Gordon, "True green: lessons from 1960s-70s counterculture architecture", *Architectural Record* v.196 n.4 (April 2008) 78-82, 84.
[29] Jeffrey Inaba 'counterculture?' *Volume* 24 (2010), 5.
[30]For example, exhibitions include: *Constant – New Babylon* (Witte de With Center for Contemporary Art, Rotterdam, 1998); *The Inflatable Moment: Pneumatics and Protest in '68* (Architectural League of New York, 1998); *Superstudio – Life Without Objects* (Design Museum, London, 2003); *Ant Farm: 1968-1978* (University of California, Berkeley, Art Museum, 2004); *Archigram* (Design Museum, London, 2004); *Cedric Price – Doubt, Delight and Change* (Design Museum, London, 2005); *Future City: Experiment and utopia in Architecture* (Barbican, London, 2006); *Yona Friedman: About Cities* (The Drawing Center, New York, 2007); *Megastructure Reloaded* (Former State Mint, Berlin, 2008); *Spatial City: An Architecture of Idealism* (touring exhibition in the United States of the collections of Frac - French Regional Contemporary Art Funds, 2010)
[31] The former approach underpinned the 2006 *Future City* exhibition at the Barbican, London, while the latter prompted the conference and book Martin van Schaik, Otakar Mácel, (eds.), *Exit Utopia: Architectural Provocations 1956-76* (Munich: Prestel, 2005).
[32] See, for example, Beatriz Colomina, Craig Buckley, (eds.), *Clip, Stamp, Fold: The Radical Architecture of Little Magazines, 196X – 197X* (Barcelona: ACTAR, 2010) and Véronique Patteeuw, "Architecture and Criticism in the 1960s and 1970s: The little magazine as *agent provocateur*", *Architectural Theory Review,* 15, 3 (2010), 281-297.
[33] See, for example: Marc Dessauce, *The Inflatable Moment: Pnuematics and Protest in '68* (New York: Princeton architectural Press, 1999); Constance M. Lewallen, *Ant Farm 1968 - 1978* (Los Angeles: University of California Press, 2004); van Schaik, Mácel, (eds.), *Exit Utopia: Architectural Provocations 1956-76*; Simon Sadler *Archigram: Architecture without Architecture*, (Cambridge: The MIT Press, 2005); Larry Busbea, *Topologies: The Urban Utopia in France, 1960 – 1970* (Cambridge: The MIT Press, 2007); Stanley Mathews, *From Agit Prop to Free Space* (London: Black Dog Press, 2007); Felicity D. Scott, *Architecture or Techno-Utopia: Politics after Modernism* (Cambridge: The MIT Press, 2007).

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[37] Jennifer Taylor, *Australian Architecture Since 1960,* 2nd (ed.) (Red Hill: Royal Australian Institute of Architects, 1990) 162-163.
[38] Taylor, *Australian Architecture Since 1960,* 10.
[39] Gay Hawkins, *From Nimbin to Mardi Gras: Constructing Community Arts*.

(Sydney: Allen & Unwin, 1993): 42-43. The event signified some of the more startling impacts of the Whitlam government's first initiatives in aid to the arts.
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[41] Graeme Dunstan, 'Nimbin: The Vision and the Reality,' in Margaret Smith and David Crossley, (eds.), *The Way Out: Radical Alternatives in Australia* (Melbourne: Lansdowne, 1975), 20.
[42] Col James quoted in Vanessa Bible, *Aquarius Rising: Terania Creek and the Australian Forest Protest Movement* (unpublished Masters Dissertation, University of New England, 2010), 19. On the economic situation of rural NSW and the influx of 'new settlers' see: Peter Murphy, 'Sea Change: Re-Inventing Rural and Regional Australia' *Transformations*, 2 (March 2002),
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[44] Mark Stiles, "Contribution from Sydney University", *Architecture in Australia,* v.63 n.1 (February 1974), 63.
[45] Jennifer Taylor, "In Memoriam: Professor RN (Peter) Johnson 1923 – 2003", *Archetype*, 10 August 2003, 8.
[46] On the protests, occupations and strikes in architecture schools From France in 1968, to Italy, France, England, Germany and Belgium during the 1970s, as well as in iconic US architectural schools, including Massachusetts Institute of Technology (MIT), Columbia University, the University of California Berkeley and Harvard University, see: Thomas A. Dutton, *Reconstructing architecture: critical discourses and social practices* (Minneapolis: University of Minnesota Press, 1996).
[47] Col James, interview with Glen Hill, 11 November 2011.
[48] The Total Environment Centre is still in existence. http://www.tec.org.au
[49] Byron Kinnaird and Barnaby Bennett, (eds.), *Congress Book V1.0* (Melbourne: Freerange Press, 2011).
[50] Col James, taped interview with Therese Kenyon, 9 August 1994.
[51] 'Australian Autonomy', *Architectural Design* 47, 1 (1977), 15-17.
[52] Col James, taped interview with Therese Kenyon, 9 August 1994
[53] For example, in 1972 *Architectural Design* (*AD*)'s July issue invited architects to *Design for Survival*. In 1976 it published a special issue on *Autonomous Houses.* Closer to home, *Architecture in Australia's* 'objective', descriptive stance of the late 1960s was dissipating as the journal began to feature more material concerned with articulating architecture's social role and environmental impact. For example, see the August 1971 special issue on the national conference of that year, themed 'The consequences of Today.' On the journal's 'objective' stance of the 1960s, see: Paul Hogben, "Managing and Image of Objectivity: *Architecture in Australia,* during the 1960s", *InSite: Studies in the Built Environment,* n.1 (March 1999)).
[54] Simon Sadler, "An Architecture of the Whole", *Journal of Architectural Education,* 61, 4 (2008, 109-110
[55] "Australian Autonomy", *Architectural Design* 47, 1 (1977), 15.
[56] See: Sadler, "An Architecture of the Whole", 109.
[57] Baer founded Zomeworks in the 1960s to construct buildings with unusual geometries (zomes). His work was highlighted by the *Whole Earth Catalog* and he authored the *Dome Cookbook* as well as collaborating with the intentional community "Drop City" on a number of projects. Graham Caine was a member of the anarchist group Street Farmers. He built one of the earliest ecological houses, the Eco-House, in South London in 1972. At the time he was a fourth-year student at the Architectural Association of London, and he built the house with scavenged materials and a £2,000 grant from Alvin Boyarsky, the chairman of the AA.
[58] Col James, "A Trickle Up Effect: Towards Affordable and Sustainable Housing" (Presentation to Shelter NSW, 12 November 2002), 2.
[59] 'A Resident Reflects', in anonymous pamphlet describing Autonomous House project: '54 Alma St Darlington' (publisher unknown, c1978).
[60] Johanna Kijas, *Caravans & Communes: Stories of Settling in the tweed 1970s & 1980s* (Tweed Shire Council, 2011), 106.
[61] Stephen Jones, *Synthetics: Aspects of Art and Technology in Australia, 1956-1975,* (Cambridge: The MIT Press, 2011), 249. My description here of the activities of Bush Video and Mick Glasheen draws heavily from Chapter 7, "Video Art".
[62] Kijas, *Caravans & Communes*, 24.
[63] The architecture school at the University of Sydney was involved in a number of projects that assisted the formation of rural "alternative lifestyle" communities, such as research commissioned

by the NSW Minister for Environment and Planning, and courses for owner-builders run by the School's Continuing Education Programme. See: Margaret Munro-Clark, *Communes in Rural Australia: The Movement Since 1970*, (Sydney: Hale & Ironmonger in association with the Ian Buchan Fell Research Centre, 1986).

[64] *Architecture in Australia,* v.63 n.3 (August 1974), 79-83

[65] *Architecture in Australia,* v.63 n.3 (August 1974), 81.

[66] Julie Willis & Philip Goad, "A Bigger Picture: reframing Australian Architectural History" *Fabrications,* 18, 1 (June 2008), 18.

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Politeness and Perambulation: The Etiquette of the Street in Nineteenth Century Advice Manuals

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Abstract

The nineteenth century witnessed a vast increase in the publication of advice manuals in many fields of interest, including the production of treatises on etiquette, manners and behaviour that were aimed at both male and female readers. Treatises such as The Laws of Etiquette *(1836),* A Manual of Politeness *(1837) and* Martine's Hand-book of Etiquette and Guide to True Politeness *(1866) advised their readers on the proper codes and practices of behaviour at the dining table and in the ballroom, as well as more general advice on small-talk, avoiding awkwardness and characteristics of good-breeding.*

While the emphasis of such publications was, generally, in advising individuals on the proper customs and behaviours within the domestic sphere, they also offered advice on correct behaviour when travelling outside of the home: both in the city or town of one's residence, and when travelling further afield. In particular, such publications commonly featured sections on 'street etiquette' that outlined the proper conventions for walking, meeting, greeting and deportment on the street. The overwhelming emphasis of such advice was the proper behaviour of and towards ladies in the public realm of the street. This paper will examine the codes of behaviour for the street and contextualise these advice manuals amongst architectural and social practices of the city.

The eighteenth and nineteenth centuries witnessed significant growth in the publication and availability of advice manuals in various fields of interest, including those that focussed on matters of etiquette. While some of the most famed treatises on manners and civility emerged during the Renaissance, with works such as Castiglione's *The Book of the Courtier* (1528) and Erasmus's *De Civilitate Morum Puerilium* (1530), the genre underwent a significant transformation during the eighteenth and nineteenth centuries in

terms of both content and audience.[1] During this time the focus of advice manuals shifted from social ascent to general propriety for (and subsequently maintaining) one's social level. While texts frequently contained advice for both genders (and a number were specifically aimed at gentlemen), the increased availability of books and the growth in literacy rates among women saw the largest proportion of advice manuals from this period read by, and primarily directed towards, young ladies in their mid-to-late teens, living mostly in middle-class households.[2]

Such treatises advised their readers on the proper codes and practices of behaviour at the dining table and in the ballroom, as well as more general advice on conducting small-talk, avoiding awkwardness and characteristics of good-breeding. While the emphasis of these publications was, generally, in advising individuals on proper customs and behaviours within the domestic sphere, they also offered advice on correct behaviour when travelling outside of the home - both in the city or town of one's residence and when travelling further afield. In particular, such publications commonly featured sections on 'street etiquette' that outlined the proper conventions for walking, meeting, greeting and deportment, and in particular, the proper behaviour *of* and *towards* ladies in the public realm of the street.

Focusing largely on nineteenth century sources, including literary writings and treatises on etiquette, manners and civility, this paper will examine the codes of behaviour for the street as recommended in English-language advice manuals. The paper will contextualise these advice manuals amongst architectural and social practices of the city and the way in which architecture and urban planning engaged notions of propriety during the nineteenth century.

Behind the art of etiquette

In 1840, *Chambers Edinburgh Journal* published an article titled 'A Few Plain Observations on Politeness', that defined politeness as a: 'refined species of civility … which is an exterior indication of good breeding or good manners'. [3] Politeness was thus a 'mode of behaviour which not only gives no offence but which affords agreeable sensations to our fellow citizens.'[4] The article continued, stating:

> Civilised society has in the course of time instituted certain rules in the code of politeness, which, though of little value, it is of every one's duty to learn, because by knowing and acting upon them, we can make life glide on much

> more smoothly and pleasantly than if we remained in ignorance of them … these rules are sometimes called the rules of etiquette.[5]

Of these rules, the article argued, the most important related to honouring the female sex, general courtesy and respect, personal behaviour and gentility, and finally, vulgarity. These principals were at the heart of the advice offered in the etiquette guides that were popularised in the eighteenth and nineteenth centuries.

While the intended audience (in terms of gender) of the guidebooks was generally made clear, the motivations behind the publications (and thus, the true audience) were often less defined. Early guides, such as Erasmus Jones's *Man of Manners* (1737), were written chiefly to educate those of lower education or social standing who were in the midst of social ascent.[6] The treatises and guidebooks published in subsequent centuries were seemingly less concerned by social ascension, and instead were motivated by the need to reinforce norms of behaviour in the changing city. The author of *Etiquette for Ladies, Being a Manual of Minor Social Ethics and Customary Observances,* (1857), for example, suggested: 'Etiquette … is chiefly founded upon the necessity for such rules in large societies of men and women, where few people can be expected to know each other thoroughly, and all the dangers of misapprehension are needful to be removed.'[7] Thus, such a source was targeting readers in *cities* rather than those inhabiting small towns or villages. Alternatively, other publications positioned themselves as reinforcing the basis of civilised societies, and noting that rules of etiquette were particularly important when various ranks intermingled.

Identity on the street

It was the general consensus among treatises on etiquette and manners that one's behaviour on the street was critical in establishing character and identity. Public identities of 'the man on the street' also transferred to private society, as observed by the author of *A Manual of Politeness Comprising the Principles of Etiquette and Rules of Behaviour of Genteel Society for Both Sexes* (1837), who reminded readers of the public nature of the street, asserting that 'vulgarity there goes far to establish a character for it everywhere.'[8] Similarly, Rose Hartwick Thorpe wrote in *As Others See Us* (1895), that:

> Upon the Public Promenade manners become the only index to character in the eyes of strangers, who cannot be expected to mingle with the verdicts, the charity or the generosity of a friend, nor to regard other than scrutinisingly and critically, the person who in any way attracts their notice. It is therefore of the

> utmost importance that one should look to his behaviour under such circumstances.[9]

Significantly, this text referred not just to everyday activities on the street, but more specifically, the fashionable strolling of the leisure class engaged in promenading - an activity that David Scobey argued was related to 'the construction of class identity and the demarcation of class boundaries', and was a stabilising factor in Victorian middle-class society.[10] The act of promenading was seldom identified in etiquette manuals – which rarely distinguished between walking with purpose and walking for leisure - although the sections on street etiquette in sources such as Thorpe's *As Others See Us*, and a number of other American texts, imply the advice was being directed towards promenaders. Another exception was *The Rules of Etiquette and Home Culture* which, offering advice on the problem of salutations on the crowded promenade, suggested: 'On parting from a lady the hat should always be removed, and when promenading where the same people pass and repass it is sufficient to bow once.'[11]

The idea of identities being formed in the public spaces of the city echoed the conceptualisation of the *flâneur*, an identity that was inherently linked to one's behaviour and presence on the street. The moral constitution of the *flâneur* was, as Benjamin noted, clouded by ambiguity, as evidenced by his citing of a 1798 police report that observed 'it is almost impossible to summon and maintain good moral character in a thickly massed population where each individual, unbeknownst to all the others, hides in the crowd, so to speak and blushes before the eyes of no one.'[12] Benjamin continued, discussing the moral climate of the Parisian street whereby inferior and superior citizens had become indistinguishable as a result of disguise. It is these issues of the ambiguity of moral character in the crowd that the etiquette guides essentially addressed. It was argued that it was through one's deportment, behaviour and conduct that one's identity could be asserted.

While moral character may have been difficult to discern in Benjamin's example, in larger cities, such as New York, rank and class could be determined by a variety of factors, such as the side of the street that one used, and the time of day that one walked. In *New York in Slices* (1849), for example, George Foster, describes the social and class variations experienced throughout the day on the streets of New York. He begins by firstly describing Broadway in early morning as 'hushed' and 'solitary' comparing it to the theatre stage after a performance has concluded, then describing how the sidewalks are soon filled with workers until within a few hours:

> [T]he great thoroughfare will be alive and the whole city will go surging through it…. To see Broadway in its glory, however, you must wait till six o'clock, P.M. Then … you will see … beautiful women, scrupulously-dressed dandies, and pretty children. It is only at this hour of the day that the distinction between the east and west side is imperative. In the morning, or at midday, if absolutely forced to go through Broadway, you may take the sidewalk most shady or convenient without positive loss of character. But at grand promenade hour, wo be to unhappy wight or distressed damsel who should be seen plodding along the shilling pavement![13]

In addition to the class distinctions alluded to above, he also discusses the importance of salutations from other walkers, writing, that Broadway, 'above all other streets, localities, and positions [is] the test of respectability. If you can touch your hat to fifty people in Broadway, your character is "O.K."—you are an established man.'[14]

The coexistence of classes on the street was largely unacknowledged in etiquette guides, although a number advise on how to negotiate the awkwardness of encountering one's servants in public places, and the appropriate way to acknowledge one's milliner or dressmaker.[15] Exceptions to this largely constitute advice to gentleman about detaining businessmen. Flora Klickman in *How to Behave: A Handbook of Etiquette for all* (1898), for example, advises gentlemen: 'During business hours and in crowded business streets no man should ever stop another, whom he knows to be necessarily occupied at such times, except upon a matter of urgent need.'[16] *How to Behave: A Pocket Manual of Republican Etiquette* (1887) by Samuel R Wells, also instructs the reader to avoid stopping a businessman *during business hours*. However, in this instance, while the advice is offered to prevent detaining him from appointments, the tone seems to imply concern for the consequences of interrupting class distinctions in public.[17]

In Australia, where class distinctions operated quite differently, advice for conversing with businessmen on the street focused on gender rather than class. Mrs. Erskine's *Etiquette in Australia* (1905), advised that 'a well-bred woman avoids wasting the time of a business man, by stopping him to exchange remarks on the weather when he is hurrying to his work.'[18] The tone of *Etiquette in Australia* is very different from advice books produced only a few years earlier in America and England – being more casual and light-hearted. This source was also concerned with establishing rules for the new conditions of Australian modernity that, distinct from the European and American leisure classes,

enabled Australians to be more 'relaxed' in their social formalities. For example, the chapter on public behaviour opens by mocking both the formalities prescribed by other guidebooks, and the forgetful behaviour of the Australian male. Discussing the rules of 'olden times', Mrs. Erskine writes:

> Most of these formal rules have gone out with … the custom that men should walk on a lady's right, that his sword-hand might be, free to defend her from the foot-pads who infested the highway … and all the stately modes of more leisured periods. Probably people's manners were not in reality one whit better then than they are nowadays, but they were undoubtedly more picturesque. In the rush and hurry of the modern era we regulate our movements by the directions of the municipal council, and it is only the punctilious man who remembers to walk on the outside.[19]

Erskine's advice is significant, not only in its recognition of 'the hurry of modernity' and the uniqueness of antipodean conditions, but its reference to the regulations of council, represents a unique perspective within the genre.

As Erskine discusses, gentlemen were generally advised, when walking with ladies, to adopt the position most likely to protect them from 'inconvenience or danger'.[20] In most circumstances gentleman were advised to take the position closest to the curb to protect ladies from carriages and their by-products.[21] Evidence of this arrangement can be found in paintings of the time, such as Caillebotte's *Paris Street: Rainy Day* (1887) and *The Pont de l'Europe, Paris* (1876).

The American text *Rules of Etiquette and Home Culture* was more flexible in its advice, suggesting that a gentleman: 'may take either side of the walk; but he will always give [the lady] the preferred side, or that side on which she will be least exposed to crowding-usually the side toward the wall.'[22] However this position presented a different type of danger for pedestrians, as demonstrated by Charles Dickens in *The Old Curiosity Shop (1841).* Here Dickens wrote: 'the parlour window of this little habitation … is so close upon the footway that the passenger who takes the wall brushes the dim glass with his coat-sleeve—much to its improvement, for it is very dirty.'[23]

While the hazards to one's coat-sleeves were generally overlooked, etiquette guides had fixed ideas on appropriate attire for the street. In *Man of Manners*, Erasmus Jones stated that, while on the street, respectability is entirely determined by one's appearance,

warning against overdressing, writing, 'people are caught at first view by a genteel dress; but they soon grow impatient to hear, whether the Man who wears it be a fine *Gentleman*, or a *Coxcomb.'*[24] Similarly ladies too were warned against attracting unwanted attention through opulent clothing. In 1846, *The Laws of Etiquette* warned:

> Any lady who walks much in London … should be careful to select a very quiet costume, one that will not attract attention, as that is always to be avoided in the streets of a city or town, therefore the darker the dress the better, and it should be made as simply as possible, for much trimming only adds to the weight, and is too *loud* and visible.[25]

Etiquette guides also offered advice about accessories such as umbrellas. However, those inclined to carry umbrellas were attacked not on the grounds of pessimism, but for boredom and affectation. *The Laws of Etiquette* stated: 'Some men are always seen in the streets with an umbrella under their arm. Such a foible may be permitted to such men as Mr Southey and the Duke of Wellington: but in ordinary men it looks like affectation, and the monotony is exceedingly *boring* to the sight.'[26] The umbrella posed a number of other problems for pedestrians on the sidewalk. *A Manual of Politeness*, for example, warned: 'When walking with an umbrella raised, it is particularly rude to thrust it before you in such a manner as to present to every person you meet the alternative of giving up the whole side-walk, or receiving a push in the face'.[27] The misuse of the umbrella was subject to caricature in George Cruickshank's *Grievances of London* where a careless lady precariously positions her umbrella adjacent to a gentleman's throat.[28] The dangers of the umbrella were also satirised in an article titled 'The Umbrella Rifle' published in *Punch* in 1860 that introduced the public to a new weapon that supposedly combined the parasol with the whip.[29] Even Renoir's painting *The Umbrellas* (c1881-6) conveyed the awkwardness of the umbrella in a crowd.

The frustration with the umbrella was further reflected in Bellamy's 1888 novel *Looking Backward 2000-1887,* whose protagonist, Julian West, awakens in a futuristic Boston in the year 2000, to find the city radically transformed in line with Socialist principals. On a rainy evening West discovers the umbrella has become obsolete, 'for a continuous waterproof covering had been let down so as to inclose [sic] the sidewalk and turn it into a well lighted and perfectly dry corridor' that resembled those imagined by Fourier as well as those realised in the Paris Arcades. The 'private umbrella' was thus emblematic of the transformation from individualism to socialist principles, used 'to illustrate the old way when everybody lived for himself and his family.' In the novel, the character of Edith

Leete observes, 'There is a nineteenth century painting at the Art Gallery representing a crowd of people in the rain, each one holding his umbrella over himself and his wife, and giving his neighbours the drippings, which … must have been meant by the artist as a satire of his times'.[30]

Reputations

For ladies especially, there were serious consequences for breaking social etiquettes in public places such as the train station or the street, as exemplified in Elizabeth Gaskell's novel *North and South* (1854-5), when the heroine, Margaret Hale, is seen after dark near the street with an unknown gentlemen.[31] In Edith Wharton's *House of Mirth* (1905) Lily Bart's interception on the sidewalk outside the apartment building of Mr Selden was the catalyst for her social descent.[32] Similarly, the impropriety of the younger Bennett sisters on the streets of Meryton, in *Pride and Prejudice* (1813), was undoubtedly one of the points of reference, when later in the story, Mr Darcy wrote to Elizabeth about the 'total want of propriety so frequently… betrayed by … [her] three younger sisters.'[33] Walking was similarly a point of criticism earlier in the novel, following Elizabeth's solitary walk to visit her sister that prompted Miss Bingley to surmise: 'To walk three miles … above her ankles in dirt, and alone, quite alone! What could she mean by it? It seems to me to show an abominable sort of conceited independence, a most country-town indifference to decorum.' [34]

While, in *Pride and Prejudice,* Elizabeth's solitary walk was condemned for demonstrating 'conceited independence', the issue of walking alone was only occasionally addressed in advice manuals. In *Etiquette for Ladies, being a manual of Minor Social Ethics and Customary Observances* (1848), this constituted the only advice on street etiquette. This source advised, that while it was permitted for a lady to walk the streets alone, they should take care not to 'look (long) in at shop-windows; or behind you; nor stay out later than you can help.'[35] *The Rules of Etiquette and Home Culture* stated that it was unacceptable for a lady to traverse the streets alone after nightfall.[36] This point also was echoed by *Etiquette for Ladies with Hints on the Preservation, Improvement and Display of Female Beauty* (1840), which advised: 'After the close of the day, a young lady would conduct herself in an unbecoming manner if she should walk alone'.[37]

Advice was also included for public walking in more unusual situations. In *Family Etiquette: A Complete Guide to Conversation, Parties, Travel and the Toilette with hints in Domestic Affairs* (1876), ladies were offered advice about forming acquaintances with gentlemen while travelling on ships. On this point the reader is advised that:

> [receiving] the attentions of strange gentlemen on board is only permissible to the extent of procuring you a camp stool, or assisting you from the deck to the saloon. To take the arm of one and promenade the deck, though by no means an uncommon practice, is reprehensible, it will encourage him to renew acquaintance on shore, which you might not find agreeable.[38]

If one wished to avoid someone on the street, such as an unfortunate acquaintance made on-board a ship, *The Laws of Etiquette* advised: 'do not avoid looking at him, unless from the nature of things the quarrel is necessary for life. It is almost always better to bow with cold civility, though without speaking.'[39] Recourse was sometimes made towards the act of 'cutting', which referred to the act of 'refusing to return a salutation'. While this was to be avoided, it was advised as sometimes being necessary for a lady to exercise 'severe means to rid herself of a troublesome would-be-gentleman'.[40]

Movement

Even in the early nineteenth century the emphasis of one's behaviour on the street was primarily related to movement. *The Laws of Etiquette*, for example, warned ladies against curtseying, as this was seen to impede locomotion. *A Manual of Politeness* also advised ladies to bow to acquaintances they meet when walking, warning that 'the *courtesy* is rather an awkward manœuvre in this case.'[41] In 1893, *Rules of Etiquette and Home Culture* advised its readers that 'persons walking together in the street should keep step; especially if walking arm-in-arm'.[42]

Conversations were also not permitted to disrupt locomotion. Gentlemen were advised that: 'when you wish to converse with a person you meet, on affairs interesting to both, it is proper, instead of stopping him, to turn and walk a short distance with him, as you thus make sure of not encroaching on his time.'[43] The advice proffered in *The Laws of Etiquette* was quite similar, stating: 'If you have anything to say to any one in the street, especially a lady, however intimate you may be, do not stop the person, but turn round and walk in company; you can take leave at the end of the street.'[44] *The Art of Conversing* proffered advice to Gentlemen on determining whether parties are willing to be detained in conversation, and how to read cues of encouragement.[45] Advising against many forms of interaction, it stated:

> The street is not a suitable place for common-place conversation. It is very improper to detain a lady upon the sidewalk, exposed to the jostling of dirty

> boys, and the peltings of mud from carriage wheels. To turn around and walk with her is the only polite mode[46]

Limitations were also imposed about the kinds of conversation to conduct in the street. Polite pedestrians were warned against inquisitiveness, and instructed to avoid asking intrusive questions about 'where he is going, where he has been…. Let him make the first advance on these themes. Prying curiosity is indelicate, even if the victim be your most intimate friend.'[47] These discussions, through focussing on conversations, highlight the fact that the street was not just a place of passage, but a fundamentally social space.

Good and Bad Manners in Architecture and the City

The notions of propriety and manners suggested in etiquette manuals were also evident in discussions of the streets themselves. Lord Tyconnel's 1742 bill for street reform in the City of Westminster, for example, showed concern that the 'neglect of cleanliness' on the streets of London would influence the impressions formed by foreigners of 'a city famous for wealth, commerce and plenty and for every kind of civility and politeness'. He suggested that travellers would 'imagine us a people, not only without delicacy, but without government, a herd of barbarians, or a colony of hottentots'.[48] The codes specifying the behaviour of individuals on the street were also evident in public nuisance laws, which often went further than etiquette guides and urban treatises in describing the allowable encroachments, activities and conditions that were permitted on sidewalks and streets.[49] Interestingly the patterns of use for the sidewalk, or footway, were largely overlooked in the texts discussing their design and construction.[50] However, a sense of proportion of existing footpaths was implied in etiquette guides, for example through advice offered for pedestrians walking in parties of three.[51]

During the eighteenth century, architecture itself was commonly classified as one of the 'polite arts', a term equivalent to *beaux-arts* or fine arts. Ideas of propriety, morality and decorum were also evident in architectural and urban treatises, such as discussions of taste, ornament and authenticity in architecture.[52] In architectural discourses, politeness has often been interpreted as a matter of aesthetics rather than behaviour. More broadly the notions of politeness and manners have been historically invoked in the justification of good design, particularly as it pertains to the appearance of buildings, or, as Edward Lacy Garbett interprets it, *'*Architecture Proper'.[53]

In his book, *Rudimentary Treatise in the Principals of Design in Architecture* (1850)*,* Garbett conceived that four points were necessary for the creation of 'Architecture

Proper', being: politeness, beauty, expression and poetry.[54] The author invoked terms such as politeness, selfishness, offence and rudeness largely in relation to matters of appearance and taste. For example he wrote:

> [A]n unarchitectural building is *seen* and *felt* to be unpleasing, without the ordinary mass of spectators being able to state the steps of the argument which has led them to this conclusion,— not even the *last* of these steps, viz. the *quality* which, by being displayed or expressed in the building displeases them. Now I believe that this quality is *selfishness* … this is a mental quality, and has nothing whatever to do with bricks or stones, or architectonic forms…. The expression of this or other mental qualities has everything to do with beauty in buildings.[55]

Selfishness in architectural design was equated with ugliness, a condition Garbett suggested was unique to architecture. A selfish building was one that only addressed function, without compensating its users and neighbours with the provision of beauty. He wrote:

> A building devoid of architecture displeases all who see it… because they see and feel that it benefits it owners at their expense;— they have not been thought of in the design; it is *all* for self, without appearing to care whether they are incommoded or not, or to know that there are eyes without as well as within. It is this crude, selfish *rudeness* which requires to be softened down by *politeness* either natural or acquired, and this politeness we term architecture…. The building that aims at being any thing more than useful and strong, must first be polite, this is the lowest quality in architecture as distinguished from building.[56]

The ideas explored by Garbett were further developed by A. Trystan Edwards in his text, *Good and Bad Manners in Architecture* (1945), where the notion of good manners is invoked to explain aspects of thoughtful and considerate design, particularly in the civic realm.[57] In the second edition, he addresses criticism often directed towards theories of good manners in architecture that in many ways echo those found in 'A Few Plain Observations on Politeness' (1840) and *Etiquette for Ladies* (1857) regarding criticisms that equate politeness with insincerity. Indeed, for Edwards the concept of 'good manners' is used as a means to critique notions of truth and authenticity in relation to function and materiality.

The importance Edwards placed on good manners in architecture was unsurprising in view of his earlier book *The Things Which are Seen* (1921). Here Edwards proposed a new hierarchy of the arts, whereby *manners* enjoyed a privileged position, seeing it ranked as more important than architecture itself, and second only to beauty.[58] While Edwards acknowledged the controversial nature of his rankings, he argued his hierarchy was representative of the judgement of 'the average man'.[59]

Edwards pondered how architecture may serve the arts of beauty and manners respectively, writing, 'If architecture offends against the first of the arts it become injurious to the health; if it offends against the second it becomes vulgar.'[60] He later elaborated suggesting that despite possessing other virtues, a building 'will never be of the first rank unless it also possess the gracious attribute of manners.'[61] This argument was used largely in service of two lines of reason, the first being a critique of the aesthetic sacrifices that result from an architects' allegiance to 'truth in materials', and the second, being 'buildings which show a total disregard of their environment', which was, in part, a further critique of truthfulness. While these arguments were largely aesthetic, the definition of manners in relation to architecture is later elaborated to include that which consists of maintaining correct social values.

Conclusion

Given the interest from the discipline of architecture in the poetic identities of the streets, such as the *flâneur,* and activities such as rambling and promenading, it is somewhat surprising that the discourse on street etiquette published in nineteenth century advice manuals has been largely overlooked. Particularly given potential relationships between the texts and theories of the nineteenth century city contained in the writings of theorists such as Simmel, Kracauer or Benjamin, that this paper has not begun to consider. These books offering advice on etiquette, manners and civility, potentially offer an intriguing new layer to nineteenth century urban discourses, bridging architectural and urban theory with notions of behaviour and identity.

Endnotes

[1] For a brief discussion on the history of etiquette guides, see F. Paul Grendler, "Advice and Etiquette Books." *Europe, 1450 to 1789*: *Encyclopaedia of the Early Modern World*. Jonathan Dewald (ed.), vol. 1. (New York: Charles Scribner's Sons, 2004), 16-18. *Gale Virtual Reference Library*. http://www.gale.cengage.com (accessed 14 May 2012.)

[2] Kate Flint, *The Woman Reader, 1837-1914* (Oxford: Clarendon Press, 1993), 71. Kate Flint notes that these manuals frequently supplemented the advice passed on to daughters from their

mothers (although in some situations these served as a substitute for it), which was reflected in what she terms, the 'conversational, occasionally sententious, guiding prose', *71.*
[3] Athenaeum, 'A Few Plain Observations on Politeness', *Chambers Edinburgh Journal,* 449 (1840), 264.
[4] Athenaeum, 'A Few Plain Observations on Politeness', 264.
[5] Athenaeum, 'A Few Plain Observations on Politeness', 264.
[6] Erasmus Jones, *The Man of Manners, or, Plebeian polish'd: being plain and familiar rules for a modest and genteel behaviour, on most of the ordinary occasions of life: whereby the many vanities, weaknesses and impertinences incident to human nature (which expose persons to ridicule) may easily be avoided: written chiefly for the use and benefit of persons of mean births and education who have unaccountably plung'd themselves into wealth and power* (London: J. Roberts, c. 1737, 2nd ed), i.
[7] *Etiquette for Ladies, Being a Manual of Minor Social Ethics and Customary Observances,* (London: Knight & Son, 1857), 5.
[8] *A Manual of Politeness Comprising the Principles of Etiquette and Rules of Behaviour of Genteel Society for Both Sexes* (Philadelphia: W Marshall & co, 1837),142.
[9] Rose Hartwick Thorpe, *As Others See Us, or the Rules and Customs of Refined Homes and Polite Society, Including Home Training, What and How to Read, Literary Clubs, Courses of Reading for the Young etc., also complete Self Instruction in Physical Culture for both Ladies and Gentlemen* (Detroit: F. B. Dickerson Co., 1895), 121.
[10] David Scobey, 'Anatomy of the Promenade: the Politics of Bourgeois Sociability in Nineteenth-Century New York', *Social History*, 17, 2 (1992), 204.
[11] Walter R. Houghton, James K. Beck, James A Woodburn et al., *Rules of Etiquette and Home Culture; or, What to do and How to do it*. (Chicago & New York: Rand McNally & Co.,1893, 25th ed.), 96.
[12] Police report of Paris Secret Agent from October 1798, cited in Aldolf Schmidt, *Pariser Zustände Während der Revolution*, vol. 3 (Jena 1876), cited in Walter Benjamin, *The Arcades Project*, Howard Eiland & Kevin McLaughlin (trans.), (Cambridge, Mass.: Belknap Press, 1982), 417.
[13] George G Foster, *New York in Slices: By and Experienced Carver* (New York: W. F. Burgess, 1849), 9.
[14] Foster, *New York in Slices,* 11.
[15] See for example, Flora Klickman (ed.), *How to Behave: A Handbook of Etiquette for All* (London: Ward, Lock & Co Ltd., 1898), 51.
[16] Klickman, *How to Behave,* 12.
[17] Samuel R. Wells, *How to Behave: A Pocket Manual of Republican Etiquette, and Guide to Correct Personal Habits, Embracing an Exposition of the Principals of Good Manners; Useful Hints on the Care of the Person, Eating, Drinking, Exercise, Habits, Dress, Self-culture, and Behavior at Home; the Etiquette of Salutations, Introductions, Receptions, Visits, Dinners, Evening Parties, Conversations, Letters, Presents, Weddings, Funerals, the Street, the Church, Places of Amusement, Traveling etc., with Illustrative Anecdotes, a Chapter on Love and Courtship and Rules of Order for Debating Societies* (New York: Fowler & Wells Co., 1887),100. Interestingly Wells's text exhibits a different set of divisions from the other etiquette guides, devoting a chapter to 'the etiquette of places that combines advice for street etiquette with public buildings and places such as the art gallery or amusement venues – specific locations that are rarely described so specifically and usually see public buildings separated from the street.
[18] Mrs. Erskine, *Etiquette in Australia (*Sydney: William Brookes & Co, 1902), 57.
[19] Erskine, *Etiquette in Australia,* 56.
[20] Klickman, *How to Behave,* 9.
[21] For a discussion of the dangers and annoyances of streets and sidewalks in the eighteenth century, see Rodolphe el-Khoury, 'Polish and Deodorize: Paving the City in Late-Eighteenth-Century France', *Assemblage*, 31 (1996), 6-15.
[22] Houghton, Beck, Woodburn et al., *Rules of Etiquette and Home Culture*, 99.
[23] Charles Dickens, *The Old Curiosity Shop,* (London: Chapman & Hall, 1841), 204.
[24] Jones, *The Man of Manners,* 3.
[25] Lady Constance Howard, *Etiquette: What to Do, And How to Do it* (London: F. V. White & Co, 1885), 158.
[26] A Gentleman, *The Laws of Etiquette, or, Short Rules and Reflections for Conduct in Society,* (Philadelphia: Carey, Lea & Blanchard, 1836), 164.

[27] *A Manual of Politeness Comprising the Principles of Etiquette and Rules of Behaviour of Genteel Society for Both Sexes*, 142. In his short story, 'The Man of the Crowd' of 1840, Edgar Allan Poe, observed the way the fog and rainfall would transform the crowd, and change the tempo of the street writing: 'this change in the weather has an odd effect upon the crowd the whole of which was at once put into new commotion, and overshadowed by a world of umbrellas. The waver the jostle, and the hum increased in a tenfold degree.' Edgar Allen Poe, 'The Man of the Crowd' in *The Fall of the House of the Usher and Other Stories,* Marshall Cavendish, London, 1986, 284.
[28] For a discussion of this work, see: Alison O'Byrne. 'The Art of Walking in London: Representing Urban Pedestrianism in the Early Nineteenth Century', *Romanticism*, 14, 2 (2008), 94-107.
[29] 'The Umbrella Rifle', *Punch*, July 7, (1960), 10.
[30] Edward Bellamy, *Looking Backward 2000-1887,* (Oxford: Oxford University Press, 2007), 89-90.
[31] Elizabeth Gaskell, *North and South* (London: Penguin, 1996), 258. The gentleman that Mr Thornton sees Margaret was seen her brother Frederick, whom – exiled in Spain - was visiting his dying mother in secret. Describing Mr Thornton's feelings, after witnessing this incident, Gaskell wrote: 'He was haunted by the remembrance of the handsome young man, with whom she stood in an attitude of such familiar confidence … At that late hour, so far from home! It took a great moral effort to galvanise his trust—erewhile so perfect—in Margaret's pure and exquisite maidenliness, into life; as soon as the effort ceased, his trust dropped down dead and powerless: and all sorts of wild fancies chased each other like dreams through his mind', 264.
[32] Edith Wharton, *The House of Mirth,* 234. A journey that began when a chance meeting with Mr Selden in the railway station (after Lily Bart misses her train to the country), resulted in the pair taking a stroll whereby Miss Bart was drawn to Mr Selden's street because, someone had, as she stated, the 'humanity' to plant some trees in it (227).
[33] Jane Austen, *Pride and Prejudice* (London*:* Marshall Cavendish, 1986 (1813)), 75, 201.
[34] It was stated: 'That she should have walked three miles so early in the day, in such dirty weather, and by herself, was almost incredible to Mrs. Hurst and Miss Bingley; and Elizabeth was convinced that they held her in contempt for it.' Austen, *Pride and Prejudice*, 33, 36.
[35] *Etiquette for Ladies, being a manual of Minor Social Ethics and Customary Observances*, 27.
[36] Houghton, Beck, Woodburn et al., *Rules of Etiquette and Home Culture,* 104.
[37] *Etiquette for Ladies with Hints on the Preservation, Improvement and Display of Female Beauty,* (Philadelpia: Lea & Blanchard, 1840), 45. Similarly this source forbade ladies from attending the library or art museum alone, unless visiting as a scholar or artist (44).
[38] Samuel Orchart Beeton, *Family Etiquette: A Complete Guide to Conversation, Parties, travel and the Toilette with hints in Domestic Affairs* (London: Ward, Lock & Tyler, 1876),113. Similarly, ladies were advised against accessing the deck prior to 8 o'clock in the morning to avoid gentlemen who may be lounging on the deck in a state of undress. While not pertaining specifically to ships, *Etiquette for Ladies*, instructed that, while random conversation should not be encouraged, one should not be overly cautious when travelling and refuse to converse with unfamiliar gentlemen when their address is polite. *Etiquette for Ladies, being a Manual of Minor Social Ethics and Customary Observances,* 20-1.
[39] *The Laws of Etiquette, p. 35.*
[40] Houghton, Beck, Woodburn et al., *Rules of Etiquette and Home Culture,* 97. In *Pride and Prejudice*, Jane Austen wrote of country encounters between the main protagonists, 'More than once did Elizabeth, in her ramble within the park, unexpectedly meet Mr Darcy. She felt all of the perverseness of the mischance that should bring him where no one else was brought, and to prevent its ever happening again, took care to inform him at first that it was a favourite haunt of hers. How it could occur a second time, there fore was very odd! Yet it did, and even a third. It seemed like wilful ill-nature, or a voluntary penance, for on these occasions it was not merely a few formal enquiries and an awkward pause and then away, but he actually thought it necessary to turn back and walk with her.' Austen, *Pride and Prejudice*, 185.
[41] *A Manual of Politeness Comprising the Principles of Etiquette and Rules of Behaviour of Genteel Society for Both Sexes*, 145.
[42] Houghton, Beck, Woodburn et al., *Rules of Etiquette and Home Culture,* 99.
[43] *A Manual of Politeness Comprising the Principles of Etiquette and Rules of Behaviour of Genteel Society for Both Sexes*, 142-4.
[44] *The Laws of Etiquette, p. 35.*
[45] A Society of Gentlemen. *The Art of Conversing; Written for the Instruction of Youth in the Polite Manners and Language of the Drawing-Room* (Boston, 1846), 54.

[46] A Society of Gentlemen. *The Art of Conversing,* 54.
[47] Houghton, Beck, Woodburn et al., *Rules of Etiquette and Home Culture,* 98.
[48] Lord Tyrconnel, "Bill for the better Paving and Cleansing of the Streets within the city of Westminster" (1733), cited in L. W. G Malcolm, 'Early History of the Streets and Paving of London', *Proceedings of the Newcomon Society,* xiv, (1933), 89.
[49] Thank you to Bill Taylor for suggesting this line of enquiry.
[50] See, for example, Henry Percy Boulnois, *The construction of carriageways & footways. London: Biggs & Co* (1895). This source, in specifying how the dimensions of the footway were to be established, referred only to the proportions of the adjoining carriageway and shops, and neglecting any reference to its functions for the columns of traffic to be accommodated.
[51] See for example, Klickman, *How to Behave,* 50. Klickman, wrote that in such as situation: 'it is better for one to keep a little in advance of the other two than for all three to persist in maintaining one unbroken line' As in such situations 'They cannot all join in conversation without talking across each other – a thing that, in-doors or out-of-doors is awkward, inconvenient and should always be avoided.' There was also concern that a party of three 'walking abreast occupy too much of the pavement, and, therefore incommode the other pedestrians'.
[52] For a discussion of these issues, see: David Watkin, *Morality and Architecture* (Chicago: University of Chicago Press, 1984); Peter Kohane and Michael Hill, 'The Eclipse of a commonplace idea: decorum in architectural theory', *ARQ,* 5,1 (2000), 63-77.
[53] Edward Lacy Garbett, *Rudimentary Treatise on the Principals of Design in Architecture as Deductible from Nature and Exemplified in the Works of the Greek and Gothic Architects* (London: John Weale,1850).
[54] For an overview of this argument see E. L. Garbett, 'Design in Architecture—It's Principles', in John Bullock (ed), *The Rudiments of Architecture and Building, New York: Stringer & Townsend*, revised edition (1855), 115-120.
[55] Garbett, *Rudimentary Treatise on the Principals of Design in Architecture*, 7.
[56] Garbett, *Rudimentary Treatise on the Principals of Design in Architecture,* 7-8.
[57] A. Trystan Edwards, *Good and Bad Manners in Architecture* (London: John Tiranti Ltd., 2nd edn, 1945 (1924)), ix.
[58] A. Trystan Edwards, *The Things Which are Seen: A Revaluation of the Visual Arts* (London: Philip Allan & Co, 1921), 15. Edwards argued: 'The first of the visual arts is the art of the cultivation of human beauty, the second is the art of manners, the third is the art of dress, and the fourth is architecture; and there are the minor arts of painting and sculpture' This hierarchy emerged from the tradition of those hierarchies, or systems of the arts, that began to emerge in the early eighteenth century, as famously outlined in Paul Oskar Kristeller, 'The Modern System of the Arts: A Study in the History of Aesthetics (II), *Journal of the History of Ideas*, 13,1 (1952), 17-46.
[59] Edwards, *The Things Which are Seen,* 15.
[60] Edwards, *The Things Which are Seen,* 82.
[61] Edwards, *The Things Which are Seen,* 89-90.

Darker, Slower Eloquence

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Abstract

One day, architecture's ubiquitous drive to futural, fabulous speculation will have to face up to something lost along the way: place, poetics, myth, nature, heritage. There remains for architecture to reinvent a language, a mythopoietic, tectonic language with the capacity not only to register absence without reification or sentimentalisation, but also to take what has irremediably withdrawn from it to the verge of eloquence. This paper attempts to sketch the conditions of such a speaking (out); the framework for an architecture of resistance to the hegemony of spectacle and novelty that continue to plague the architectural imaginary, in favour of something darker and slower, taking instances from music (The Necks, Arvo Part), cinema (Andrey Tarkovski) and architecture (Sigurd Lewerentz).

Expanding

The arts are expanding—architecture expands into cinema, computational simulation and fabrication; music expands into the material and machinic vibrations of the military/industrial complex; cinema expands into AI, VR, CGI and gaming. The arts have always been tantalisingly close, to the extent that each functions as a virtual threshold for the other: poetry for music; music for architecture; architecture for cinema. Yet the arts are radically disparate. The Muses form a community, but they have nothing in common.[1]

Many are recent claims that architecture is not about building but about much more than building.[2] As if building were a minor or accidental condition of the architectural. Are such claims made by those who have no voice to think or speculate through architectural production—through architectonics and through building as such? Might they evidence political manoeuvres to substitute other kinds of voices and agencies in order to constitute parallel forms of power and control? Hence the value ascribed to where architecture `is heading,' to innovation, to the `broad' and the `beyond,' to the `expanded territories' that architects may not have ready access to. Likewise the call for relocating the discipline inter-disciplinarily, transactionally, transformatively—

in other words, to displace it `elsewhere.' Where else? Into the techno-sciences—medical engineering and imaging, computational simulation, CGI, the immersive multimodal performance art, geomorphological, statistical, climatic, chemical or biological modelling; gastronomy, viticulture… Little is spared in this `leveraging' of different angles on the discipline, different footholds and voices.

No doubt, in expanding something is gained—a field is amplified or taken to a higher power. It assumes greater scope, a larger set of compossibilities. It also grows in its capacity to fascinate, create desire or generate new economies: political, libidinal, material… The energy that attends this expansionist drive is undoubtedly tied to capitalist imperatives (for globalisation, exponential growth of goods, processes, markets, images…) and, in the guise of novelty and futural promise, the attendant apparatuses that produce desire (libidinal economy), manipulate retentional capacity $(ADD)^3$ and produce infrastructures and mechanisms of control.

But these tendencies are not necessarily inviolate. They are not `natural' outcomes but constituted of epistemological and philosophical registers, irrespective of how foregrounded these are in our ways of being, thinking, speaking and speculating. These registers have a history. Or else, do these claims call for a genuine recasting of the architectural, and on what grounds? Two arguments come to mind:

1. The world has moved on, traditional disciplinary boundaries are henceforth unviable, debilitating and regressive; architecture will become irrelevant unless it regroups and finds new voice and agency.
2. The formal and tectonic conditions of architecture are exhausted, there is no more to say; new situations, narratives and lexicons need to be elaborated.

On that basis, a widespread devaluation of architecture's formal, tectonic conditions immediately follows, framed by a recognisable modernist trajectory entirely directed towards evolution, progress and the future spectacular; and markedly *impatient*, if not dismissive toward whatever stands to delay its arrival. But are not such grounds radically *conservative*? Is their objective not to *safeguard* the profession, albeit in modified form; to not let it dissipate, to not let authority and control slip away to *others*? Yet, if modernity is by definition anti-conservative then it must by definition be `disservative'—that is, rather than keeping and withholding-together (con/com), it will always tend to serve-apart (de/dis). Its modus operandi is disservice. The `modern' is what pertains to the *modo*, the `just-now, in a (certain) manner.' Tied to

both measure and manner, the `modern' begs a sense generally not imputed to it: the constitutive alignment of manner, mode, mood or style and measure, matter or form—the first related to *techne* and *ethos*, the second to *praxis* and *aesthesis*. The commonplace meanings of contemporaneity and currency or `current fashion' are relatively late (17thC). The lexicon derives from the etymons *MEN = to bind, limit and *MED = to think, consider, reflect upon. To meditate on (Latin: *meditare*—cf. `mediate') and to look after, care for, heal, cure (Latin: *mederi* – cf. `medical') are cognates. Both relate to the theme of the mean and the middle—essentially an ethical undertaking or medial practice of tempering and conciliating.

What else, today, could be said about the modern? Is the concept not exhausted? Yet this sense of solicitude that haunts the idea is disarming, if to be modern means to serve, attend to, keep watch over, maintain and care for. This careful medial attentiveness, this concern for the milieu, is not a passive disposition or countenance, devoid of undertaking. On the contrary, soliciting means rousing, agitating, setting in motion. Solicitation summons and cites; it is a kinematic praxis.[4] Something surges or emerges, yet without breaching any limit. The German words for care (*Sorgen*), concern (*Besorgen*) and solicitude (*Fürsorge*) all hinge on Sorgen, 'surging.' In contrast with e-mer-gence, or what comes 'out-through-the-margin,' surgence is a surfacing by which what arrives does not leave the surface but appears as a kind of fasciculation or scintillation that preserves the integrity of the ground. Hence solicitude does not merely attend to the release of latent potential. It safeguards potential by maintaining rather than expending it—revealing both its presence and its unfathomable reserve.

Surgence, emergence, resurgence, insurgence, expansion, evolution, broadening, exploring, innovating—the lexicon begs a line of inquiry which is foundationally a matter of limits. Beyond the oppositional logic of limits—either this side or that—might there be a way of thinking the limit outside of or aside from the `expanse,' the `span' or `spacing' itself? Rather than looking beyond, consider the words themselves. The common etymon of `expanse,' `span' and `space' is *SPA, which designates both the `measure of a stretch' (Latin: *pandere*—an unfolded or extended interval in space or in time) and `joining' or `fastening' (Old English: *spannen* = to clasp, fasten, stretch, span). The related etymon *SPEN means to draw, stretch, spin —as if subject to weight (Latin: *pendere* = to hang; *pondus* = weight of a thing, measured by how much it stretches a chord) and to think, consider, weigh up or *ponder* (Latin: *pensare*). Evidently, thinking and thoughts *weigh*.[5] Curiously, another

kind of measure, the metrical foot of two syllables, spondee, is named after the meter accompanying libational chants (Greek: *sponde* = solemn libation). Making such libations is *spendein*—spending as pledging, making an offering, promising engagement, performing a rite, sacrificing. Finally, this spending is by nature *spontaneous*; it surges of its own accord and springs out willingly, freely out of itself, *sua sponte*.

The point of this excursus? Essentially, that `expanse' is poised on contraction; that spanning and spacing are founded on a concurrent retraction; that such retraction is the mark of a withholding tendency to join and connect accompanying every surgence. In other words, the limit is always a medial region of contesting forces and trajectories, rich with transactional potential—never a singular borderline delineating opposites. So instead of instead of expanding `beyond' a limit into other domains to extend and overlap reach and scope, might there be a manner of testing the limit `internally,' `retractively' and by way of external influence—that is, not outwardly but *into* the resistances that both define a discipline and enable it to eclipse itself *sua sponte*? Might this be enabled by devising `openings' in the disciplinary fabric itself through stressing or dilating, compacting or saturating its constitutive substance and structure, its texture, grain or nap, its mass or density?

Figure 1. Sketch of Sandro Botticelli, *Cestello Annunciation* (1489-90)

Consider Botticelli's *Annunciation* (Figure 1), where the constraining `frame' of the painting enjoins the psychological experience of the Virgin's discomfiture at hearing

news of her impending destiny; or again Bosch's *Triptico de Los Improperios* (Figure 2), where Christ fixes His gaze on the viewer who is thereby effectively projected into the past and implicated in the causes of His predicament.[6]

Figure 2. Sketch from Hieronymus Bosch,
Triptico de Los Improperios (1510-1515).

Both instances show what it is still possible to say by working and maintaining the constitutive limits of framing, portraiture and representation. At least this is my contention; and in the three instances that follow from music, cinema and architecture, I would like to suggest that in outwardly `expanding' we risk overlooking the inner capacity of a discipline—and in particular architecture—to be, *sua sponte*, brought to account, to account for itself and for what is proper to it.

Festina lente: hurrying slowly

For Russian filmmaker Andrey Tarkovsky, the temporality of the cinematic shot is not determined by the chronological time of the take or the editing, but by what he calls 'the pressure of the time that runs through the shots.' His aim is not to render an *exact* sense of chronological time but a sense of the existential character of the time proper to the affect being conveyed, by explicitly and purposefully *manipulating* realistic duration: stressing time, subjecting it to tension and pressure in order to dilate or intensify it into an altered time, closer to the temporality proper to the moment. The goal is not spectacle but *ethos*—not to create special effects but attend to and enable the special characteristics and ambiance of a given moment to emerge in a genuine way.

Tarkovsky's time-pressure is not a vague notion, but something physically 'imprinted in the frame.' It has *material* and substantial (rather than merely referential, metaphorical or symbolic) presence, and can therefore directly affect the film's reception and experience. Time-pressure is both an internal state of tension within duration, and a specific tendency, dynamic or inclination that constitutes the duration's outward trajectory and transactional potential—something Tarkovsky calls 'operative pressure, or thrust.'[52] The idea corresponds in music to the inherent dynamics of a tone, given the mode or scale in which it is set. Individual tones and groups of tones, runs or chords, will manifest particular energies, kinetics, tendencies and propensities or 'desires'—for example the tendency to repetition, to remain in suspense, to be resolved, to lean towards chaos, and so on. Music then becomes the management and assemblage of these propensities towards a given dramatic purpose. A good example is The Necks' performance of *Aether* (2001), which conveys a sense of interminable beginning and infinite finishing. The opening structure consists of four chords. The first three are repeated and harmonically open while the fourth is lower and harmonically closes the sequence. This motif is repeated with varying duration between the chords at each iteration, reducing over the length of the piece. Over and above the chords, multiple layers of sound are introduced—first wholly within the chord intervals, then overlapping and extending across chords until they develop continuity and extend across the repeating motifs. These layered sounds are piano notes, percussion beats and riffs, bells, organ and electronic sound textures whose eventual overlapping overtake the initial fourfold structure. The sound texture very slowly fills and densifies musical space, while the increasingly reducing duration between chords and beats compresses and accelerates time. The piece creates its own tempo and temporality. Because of its immersive character, and the psychosomatic affect of music, chronological succession is supplanted by a wholly other existential temporality that totally conditions its reception and experience.

Well into the piece, initially unconnected and suspended tones come to be linked into variations on a run of paired notes, unfolding into an assertive short and repeating melody that is doubled by multiple variations and echoes. In this way the music pivots on the interval between the initiation and termination of a melody that is interminably sought and endlessly deferred. This deferral is musical and temporal since it works both harmonic and durational material to create compressions and dilations, contractions and expansions, densifications and rarefactions of the tonal and temporal fabric. In deferring melody the dynamics of overlaid chords constantly

point in its direction but also disperse into multiple retreats and detours without ever acceding to, declaring or setting upon it. The reiterative deferral being played out functions to preserve pure musical energy and to maintain rather than consume the melodic potential latent in the mode or scale in which the chords are set. At the same time, the piece builds in density, complexity and texture through figural overlay, instrumental timbre and rhythmic juxtaposition. The rhythmic pattern thickens to such an extent that it becomes pure and relentless beat, tending to but never reaching its limit in the single wavering and shimmering tone that opens, underlies and concludes the whole piece. What *Aether* performs is a process of intertwined envelopment and elaboration of possibilities, articulated from pure acoustic and resonant material through a practice entirely founded on the kinetics of sound and time.

Another example might be Arvo Pärt's *Festina Lente* (1988-90), where the same melody is played simultaneously by three groups of instruments at three different time scales—slow, natural and fast. The instruments begin together but the disjunction in tempo causes the three streams to immediately diverge. During the piece, the three will develop radically different dynamic and harmonic relationships as they separate, cross-over and align with each other. This will range from resonance and concord to complete discord and chaotic deconstruction of the melody; from dynamic alignment, upgathering and amplification to an extreme opposition and cancellation of energy. *Festina Lente* is an investigation of music as the playing out of pure resonant time, which parallels Tarkovsky's contention that cinema is first and foremost a tectonics of time. The contradiction in the music's title—*festina lente* means 'to hurry slowly'—also defines its ambit. By overlaying one melodic pattern with its accelerated and decelerated variations, Pärt constructs an image of time in the process of unravelling and decompressing—the present put into tension and stress by the antagonistic of a propellant future and a restraining past. The piece moves from stable regular organisation to irregular coagulations of multiple layers; then inexorably towards deconstitution as the texture of the piece disentangles into broad horizontal sheets of sound decreasing in proximity, separated by intervals growing in distance. Pärt effectively spatialises both sound and time through a texture that fades to an indefinite and infinitely finishing end.

Memory, collapse, recollection

Comparing the centrality of time in film and music, Tarkovsky writes of cinema as a tectonics of time:

> Of course in music too the problem of time is central. Here, however, its solution is quite different: the life force of music is materialised on the brink of its own total disappearance. But the virtue of cinema is that it appropriates time, complete with that material reality to which it is indissolubly bound… Time, printed in its factual forms and manifestations: such is the supreme idea of cinema as an art… What is the essence of a director's work? We could define it as sculpting in time.[7]

The factuality and materiality of time does not refer here to concrete chronological time, but to the particular time or duration—'the very *movement* of reality: factual, specific, within time and unique'—that attaches to events, objects and people interacting in particular situations and circumstances. Various time frames, rhythms or tempos are made to coexist within chronological time without necessarily following or being subject to it. This phenomenological, experiential and existential temporality—subjective at the core—parallels the existential spatiality that constitutes place as something exceeding concrete abstract space.[8]

Figure 3. Sketch from Andrey Tarkovski, *Mirror* (1975)

In an extraordinary sequence of *Mirror* (Figure 3), the protagonist is shown as a child before his mother's dressing table mirror. As he looks into it the scene shifts to the past and his young mother washing her hair. The woman is framed within a dark, glistening space with mirrors dissimulated into the deep background. Her slow, deliberate gestures slow time down and convey a premonitory tone. As she stands dripping in the centre of the space the entire room begins to weep water from all

surfaces and collapse. Tarkovsky films this moment in slow motion. The young woman is then shown reflected in her mirror, surrounded by surfaces of extreme elemental materiality—water washing over glass; rough, opaque and wet masonry; walls with gnarled welts like oozing bitumen. The scene then shifts to a dark room, presumably the same room at a later time, in which, again presumably, the protagonist's now elderly mother approaches the glass (Figure 4). The mirror doubles a window set alongside it, and is unframed so that it does not read as an opening in a wall like the window, but as pure surface and aperture.

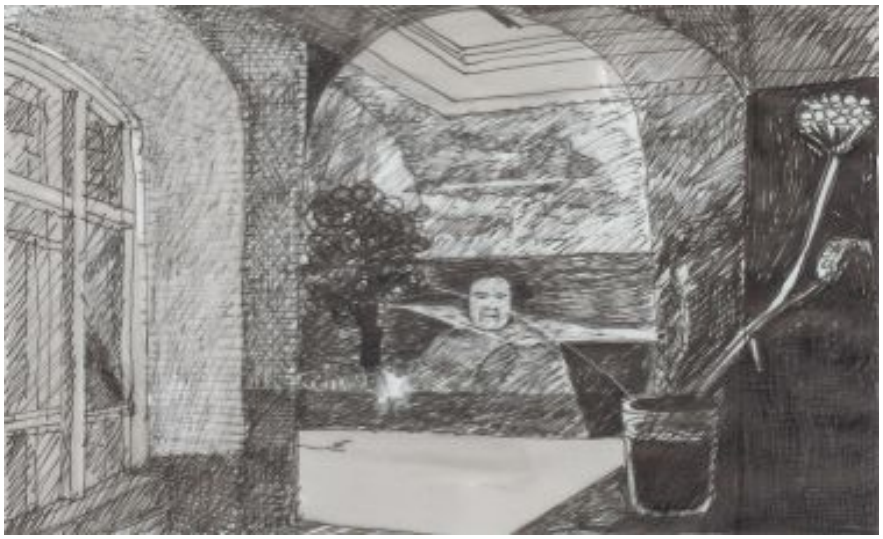

Figure 4. Sketch from Andrey Tarkovski, *Mirror* (1975)

The mirror's ambiguous position (it appears suspended in space *and* part of the room's boundaries) and its transparent immateriality that yet reflects multiple overlaid images, situate it as a threshold to other worlds within the room itself. The woman raises her hand and places it on the glass. This gesture not only validates but produces the duality of the two sides and the filmic boundary that separates them. She looks into the mirror as if questioning the materiality of its surface, as if it were on the verge of yielding and giving access to the multiple spatialities and temporalities of memory. The surface of mirrors operates in several ways but always as a cipher of cinema itself. It is a filmic screen onto which images are projected—but from both directions, and exchanged into both of the spaces that front onto its surface. It is a frame which delimits and veils compossible worlds; a translucent doorway connecting places and times; an apparatus of memory, recollection and projection and a surface of monstration.

The collapse of the room marks a crisis in the concrete reality and existential milieu of the scene. The actual time of the sequence is left ambiguous since multiple temporalities are simultaneously fielded. There is clearly a looking back to the author's childhood in the early scenes. The old mother might herself be looking back, looking forward, returning from the dead or returning to meet her younger self. The question is less a matter of conveying chronological accuracy than of showing the circulation of real and imagined, actual and virtual, remembered and projected places, times and events within a single setting made possible by this rupturing plane of inflection. The implausibility of the event amplifies this moment of crisis, enabling the images to convey more *realistically* what an experience of this rupture might feel like. It is not only the room that collapses but all the spatial, temporal and subjective coordinates of concrete existence. The moment triggers a disorientation in the subject and an avalanche of images which had welled up, to only now break through the resistance of forgetfulness—just as water violates the architectural skin and takes with it all guarantee of stability, shelter and safety. The sequence works metaphorically to convey, through a monstrous architectural catastrophe, the exposure of consciousness to a surfeit of the repressed memory and potentiality of the subject.

Tectonic overcoding

At the churches of *St Marc* and *St Peter*, Swedish architect Sigurd Lewerentz makes predominant use of brick in floor, wall, roof and fixed furnishings. At Björkhagen (Figure 5) the brick walls are laid in free running bond, with contrasting light grey mortar for the widely varying beds and perpends. This gives the walls the quality of pure texture and surface rather than the mechanically regular, modular quality normal for brickwork. The surfaces read like a patinated rockface, a tight fabric or gauze that billows outwards into the birch grove surrounding the building; and to such an extent that its mass, surfaces and cubic presence begin to vacillate. This achieves an unexpected leavening of materiality, a forwarding and receding of surfaces and fields so that the boundary ceases to delimit and begins to encompass.

The chapel ceiling is of shallow clustered brick vaults, set within steel *I* beams which span across the width of the space (Figure 6). The beams are laid in alternating converging fan shapes in plan, and in an alternating sloping pattern in section. Together, they give the ceiling the quality of a tent fabric billowing upwards. Ceiling and walls lose their interiorising, enclosing and spatially compressive character. Their limits and the density of their material presence begin to fluctuate and loosen their grip on the interior.

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Figure 5. Sigurd Lewerentz, *St Marc*, Björkhagen, (1956-60).
Figure 6. St Marc, interior ceiling.

Lewerentz' working of masonry seems directed to a dematerialisation of mass and of the sharp edges and outlines that reinforce volumetric gravity and weight. He does not achieve this deconstitution of the building's materiality through a literal fragmentation of forms, a substitution of non-Euclidean geometries or lightweight, transparent and translucent materials. Instead he achieves it in the material itself, using standard components, formal typologies, technologies and processes, but subjecting these to modest shifts and stresses and to modest small scale moves that carry considerable tectonic and experiential implications.

At Klippan (Figure 7), the material and tectonic moves are more risky but also more significant. The three existential and structural dimensions of space—up/down, left/right, front/back—manifest in architecture by the ceiling, wall and floor, are here fused together by a common material. Each becomes a modulation or reverberation of the other, rather than being radically distinguished as three separate and separable components of architectural space.

Figure 7. Sigurd Lewerentz, *St Peter*, Klippan (1962-66).

The floor reads as a woven surface of homogenous pattern with no predominant direction (Figure 8). The wall functions more like a carved mass, its thickness giving reveals, openings and the interior space itself a cave-like quality. The roof is the most liberated element in its form and its remoteness from light and the ground. The uniformity and palpable difference between the material and tectonic character of these three components allows Lewerentz to conjugate and diversify the ambiguity of the space.

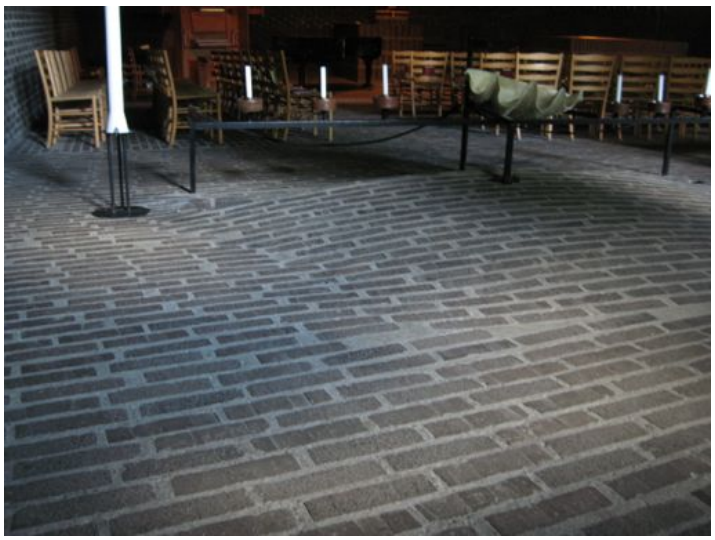

Figure 8. Sigurd Lewerentz, *St Peter*, Klippan.

Interpreting Lewerentz' *Chapel of the Resurrection* at the Woodland Cemetery, Stockholm, Colin St John Wilson notes the disengagement of the building's portico

and its slight angular shift from the main volume, as well as the chapel roof and eaves that hover above the wall cornice. He reads such modifications to or 'abandonment' of classical architectural syntax as having both programmatic and symbolic functions. They create an enigmatic, ramifying and insistent strangeness:[9]

> ...to what end did Lewerentz, the most poetic master of the classical language of architecture in this century, abandon that language? As a student of Schinkel, Lewerentz would have been aware of that master's own conviction that the means of architecture would have to be 'created anew. It would be a wretched business for architecture… if all necessary elements… had been established once and for all in antiquity' but Lewerentz' concern lay at a much deeper level than the pursuit of novelty…. In the Church of St Peter… an unprecedented austerity of means prevails. But this austerity is not an end in itself—it is the means by which the tragic aura of the Mass envelops us with a breathtaking primitiveness. Once again there is the element of strangeness… The building's mystery lies in the discrepancy between its apparent straightforwardness and its actual obliqueness. The harder you look, the more enigmatic it becomes.

To venture an explanation of how this enigmatic quality is achieved, St John Wilson cites Lewerentz' own motto for his work: '*Mellanspel*'—meaning a playing (*spel*) between (*mellan*). The contention is that Lewerentz sets up various antinomical oppositional themes, which he then plays or shuttles-between to create discrepancy, ambiguity, indeterminacy and obliquity. From that result a sense of enigma and unexplainable mystery that St John Wilson implies might be proper to a sacred building. The discrepancies which Lewerentz plays out in the geometry and materiality of St Peter do confirm this.

The plan is square rather than basilican, therefore centralised rather than linear. But the altar is not literally centralised in the space. It is located just to one side of the central axis and diagonally opposite the entrance door (Figure 9).

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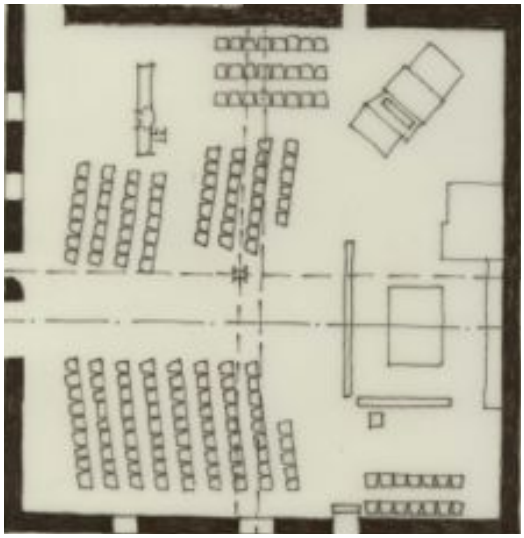

Figure 9. Sigurd Lewerentz, *St Peter*, Klippan, sketch of the chapel floor plan showing multiple axes of symmetry. North is uppermost

While the space is square, which in an ideal version no single direction predominates, Lewerentz carefully but forcefully differentiates between several of the axes that traverse and bisect the space. There are four entrances into the chapel. These are differently proportioned and unaligned to each other, to the room's cross axes or to anything in the four quadrants. One entrance is into the north-west corner from the wedding chapel; another is into the south-west quadrant from outside; a third is into the south-east quadrant from the external L shaped courtyard and the last into the north-east quadrant from the sacristy. The axes linking these doors and the altar form a cross that is unaligned to the cross axis of the geometric centre of the room, or the cross axis through the central column. Such a discrepant structuring of space produces multiple gaps and misalignments that add to its resolute indeterminacy.

Lewerentz simultaneously adopts and departs from normative formal and co-locational rules of church layout. He works the space and he works *into* the space so as to overlay multiple overlapping geometrical alignments, directions and dynamics that contest the apparent simplicity of the square and distort its rational order. The offset position and different orientation of elements—floor paving patterns, vaulted ceiling, entry doors, windows, baptismal font, congregation, choir, altar, organ and so forth—create a web of geometric and spatial tensions that charge the space. The vaulted ceiling billows in uneven waves due to the alternating pattern of ribs (Figure 10). The undulating, folded brick ceiling is read against a pair of deep steel beams that give mid-span support to the vaults and span the full width of the space. These

beams sit on a secondary beam, almost imperceptibly asymmetrical to the single column that supports it. The column is marginally off centre within a space that is exactly square. The column and beams are themselves assembled from two unequal sections with gaps between them sufficient to allow light through their mass. The asymmetry of the column is reinforced by the offset assembly of beams—the two major cross beams also having the effect of countering the orientation of the vaults. This steel assembly effectively subdivides the square chapel into four smaller regions. The altar is marginally offset to the south of the central axis of the room and placed in the quadrant opposite the entry door. The baptismal font is in the quadrant closest to the entry. The lectern and organ occupy the third quadrant and the major portion of the congregation occupies the fourth. None of the windows or doors is symmetrical to or aligned with the geometric axes of the whole space, or with the quadrants in which they are located. The combined effect of this highly complex but barely perceptible setup, made of very slight nuanced geometrical shifts and overlays, is considerable.

Figure 10. Sigurd Lewerentz, *St Peter*, Klippan,
vaulted brick ceiling and composite steel beam

In terms of directionality and dynamics, the ceiling vaults run west-east towards the altar to emphasize a processional direction. This conforms to a traditional liturgical orientation. At the same time, the vaults rise from each side to a north-south pitching ridge above the column assembly. The combined effect is to stretch the west-east dimension and at the same time to gather, centralise and raise the space upward. This tension between two tendencies holds the space in suspense, in an

indiscernible state somewhere between stability and dissolution. In the brick floor the bed joints run north-south, but at an angle to the square plan.

Figure 11. Sigurd Lewerentz, *St Peter*, Klippan,
sketch of multiple brick paving directions in the chapel.
North is uppermost

Within this linear pattern Lewerentz inserts several areas of paving at other angles—like rugs or patches set within a larger web (Figure 11). Only the paving in the zone of the altar conforms to the orientation of the walls. Despite reading more like a woven multidirectional surface than a linear array, the heterogenous patterning of the floor counters the orthogonal alignment of the overall space and the altar, as well as the walls. These contrasting shifts in pattern and geometry create disjunctions and incommensurabilities in the spatial order and slow down or discharge the dynamics that suffuse the room.

The intricate juxtaposition of geometries, spatial directions, tensions and proportions tends to overburden, materialise and condense the space; turning it from an empty container into a solid woven network. At the same time, Lewerentz mobilises the materiality of the space, causing it to fluctuate, alternate and oscillate—but in minor, almost imperceptible ways. This imperceptibility, made more acute by the dimness of the interior, conveys Lewerentz belief that 'the nature of the space has to be reached for, emerging only in response to exploration.'[10] St John Wilson has read this as a desire of Lewerentz' to convey and represent the numinous. But the tectonic implications exceed any semantic, metaphorical or symbolic readings that could be ventured for the building. What Lewerentz achieves spatially, tectonically and materially has important value in terms of transferable strategic agency. The central

armature that supports the roof may well evoke the cross on Calvary, but it also has a significant role in zoning the space to foreground the differentiated collectivity that characterises a congregation. It works to gather and amplify a distinctive weightiness in the space—a gravity that corresponds to the internalised disposition of grief and joy that surround reflection, prayer and celebration in the Christian mass. It acts as a pivot that keeps the various sectors and trajectories of movement in asymmetrical balance as if to convey a sense of anticipation and suspense, or to frame the conditions of advent and of the uncanny. As such, the armature enables and mobilises before it represents. It turns an abstract spatial structure into a world or a place, calibrated to specific modes of being, of being-with-others, and of being-with-otherness. Lewerentz does not achieve this through formal complexity, large-scale compositional moves, distinctive articulations and separations between parts or unusual geometries. The scale of his tectonic endeavour is extremely modest, but every move carries considerable weight and enduring affect. He does not abandon architecture's foundational tectonic dimensions or remit but works *at* the tectonic by subjecting it to significant strain and working it until it *yields.*

Darker, slower eloquence

In each of the instances I have cited, speculation and innovation emerge in the materiality of the respective works, in their structure, grain and substance; by holding to and *working* what is proper to their respective disciplinary field—music, cinema, architectonics. None of them promotes an `expanded' territory that would overreach into other neighbourhoods. Each work produces insight and innovation by manipulating the normative conditions and boundaries of its own domain (sound for music, the moving image for film and tectonics for architecture). In that sense the works are radically conservative because they remain with the radix or roots and foundational constitution of their discipline. The perspective ventured here is likewise conservative since it promotes the sustainment of a dynamic and risky process that pivoting on the radical, rather than maintaining a static state or familiar, safe outline.

The recurrent tactic involves putting the material conditions of a particular discipline under strain and duress—subjecting them to considerable stress until those conditions massify and coagulate or dilate and yield. In both cases, something novel emerges, something dark and eloquent. It does not arrive by overlooking or eclipsing structural or material limits, but precisely by iteratively (re)working those limits; leavening or spatialising the borderlines until they produce an interstice, interval or

residual region: that is, a novel circumstance that remains to be transactionally (net)worked.

Endnotes

[1] See Jean-Luc Nancy, "Why are there several arts and not just one (Conversation on the plurality of worlds)," in *The Muses*, trans. Peggy Kamuff, (Stanford: Stanford University Press, 1996), 1-39. Nancy's argument develops from the (philosophically and historically) situated notion of `art' as a singularity; whereas the arts, each related to a distinct sense, constitute an irreconcilable yet consilient multiplicity.

[2] For example, Anthony Burke and Gerard Reinmuth, with TOKO Concept Designs "Formations for the Australian contribution to the Venice Biennale" by http://www.architecture.com.au/i-cms?page=1.64.34.15164.17622 (accessed 7 March 2012): 'Describing the exhibition, Gerard said: "By exploring innovative practice types and their design output, the exhibition will provoke discussion around issues of the future of the profession and the kind of problems architects are becoming involved with." Outlining the exhibition focus, Anthony said: "It's very exciting to see where architectural work is heading, the new domain areas that are being explored and the vitality and variety of innovative architectural types that Australia seems to foster." They added: "'**Formations'** tackles questions such as: What are the influences shaping the built environment and how are architects creatively responding? How are architects thinking more broadly about their role and having a positive influence on the built environment? Is it possible to think of the architect as just 'one thing' any more?"'

[3] Bernard Stiegler has made a connection between technology and memory through the motif of *mnemotecnics*—that is, the intrinsic 'retentional' role of technology in embedding knowledges and practices in the objects, systems and apparatuses (*dispositifs*) that it produces (language, ritual, books, tools, music, buildings, films). Bernard Stiegler, *Économie de l'Hypermatériel et Psychopouvoir* (Paris: Mille et une Nuits, 2008) and also Giorgio Agamben, *"What is an Apparatus?" and Other Essays*, (trans.) David Kishik and Stefan Pedatella (Stanford: Stanford University Press, 2009).

[4] Greek: *kinomai* = I go, I hasten. Cf. *kinesis*, *kinesthesis*, `cite' and `cinema,' from the same etymon. That to `cite' means to summons (and not merely to `reference') is intriguing, but likely anathema to modernity's abiding Protestantism.

[5] See Jean-Luc Nancy, *The Gravity of Thought*, (trans.) François Raffoul and Gregory Recco (New Jersey: Humanities Press, 1997).

[6] I gloss these two works in Michael Tawa, *Theorising the Project. A Thematic Approach to Architectural Design* (Newcastle upon Tyne: Cambridge Scholars Publishing, 2011), 157-159 and *Agencies of the Frame. Tectonic Strategies in Cinema and Architecture* (Newcastle upon Tyne: Cambridge Scholars Publishing, 2010), 142-144, respectively.

[7] Andrey Tarkovsky, *Sculpting in Time*, (trans.) Kitty Hunter-Blair (Austin: University of Texas Press, 2006), 94.

[8] Jeff Malpas, *Heidegger's Topology. Being, Place, World* (London: MIT Press, 2008), 92-96.

[9] Colin St John Wilson, "Sigurd Lewerentz. The Sacred Buildings and the Sacred Sites," in Nicola Flora, Paola Giardiello and Gennaro Postiglione (eds.), *Sigurd Lewerentz 1885-1975* (Milan: Electa, 2001) 21.

[10] St John Wilson, "Sigurd Lewerentz," 20.

Wrack and ruin, rust and rot: Sketch for an alternative account of 'character' and the Australian colonial prefabricated building

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Abstract

In Oscar and Lucinda *(1988), Peter Carey has the novel's protagonists conspire to build and transport a church made of iron and glass into the Australian outback. The church, which is prefabricated, assembled on a raft and floated upriver to a remote district of New South Wales, meets with disastrous results. One reading of the scene says it serves to symbolise both colonial aspirations for bringing 'civilisation' to the wilderness and the tenuousness of the enterprise. The structure's arching supports and glass panes evoke the primitive hut, or so one can imagine, reflecting and refracting the surrounding aboriginal forests, though it moves slowly to oblivion, an emblem of thwarted ambition to make nature and consequently, pioneer society into 'something else'.*

This paper takes its cue from Carey's ruined church. It begins by interrogating Australian architectural histories, particularly where nineteenth century themes of industry, prefabrication and technological innovation overlay and bolster (perhaps unwittingly, but tenuously nonetheless) expectations for the exceptionality of Australia's architectural heritage. The conference theme of 'fabulation' is explored here in the historian's attraction to exotic, idiosyncratic architecture that is formed from bits and pieces and held together by movements from old world to new, from ship to shore and from metropolitan centres to remote landscapes. The paper seeks to sketch a complementary, but opposing tradition gleaned from colonial history and period literature. This is where the fabulist's bricolage is counterpoised by disassemblage *and the risk of dissipation of Australian building and material culture and quotidian habits for 'making do'.*

Introduction

This paper makes for a comparison of two buildings. Both were prefabricated and devised to be portable in anticipation of the pre-industrial and immature mercantile conditions of early colonial Australia. They highlight the remoteness of the continent and its interior regions from more fully developed capitalist centres. The first building is fictional. The second comes with

writing on the history of prefabricated colonial buildings; its study aspires to attain empirical veracity as a 'real' building type manifesting a distinct manner of building and dwelling. One is iron and glass and made to look like a Victorian church or garden conservatory (either resemblance appearing decidedly out of place). The other is mostly timber and fashioned with comparable self-consciousness, though—unlike the first—seems to have been made to perform and appear responsive, functionally and aesthetically, to its new environment.

The first building features in an allegory about human aspirations and self-understanding, actions and their consequences at the frontier of settler- or neo-European society. In this regard the novel and film O*scar and Lucinda* give dramatic form to multiple economies within which the protagonists' iron and glass church figures alternatively as symbol, habitable vessel and commodity. In his critical study of Peter Carey's fiction, Bruce Woodcock provides this interpretation of the building, calling on the pivotal scene where it is floated up the Bellinger River, NSW in 1870:

> The church on the barge in *Oscar and Lucinda* is as 'elegant as civilisation itself' we are told (490); but civilisation, empire, pioneering, the glorious myths of the Victorian age and of the Australian outback are exposed for their devastating effects and their true history. Like Fitzcarraldo's opera house or Aguirre's lust for gold, the glass church is a grand idea whose implementation becomes an *idée fixe*, a horrendous and destructive obsession. It costs Oscar his life as he goes down trapped in the church like one of the insects, and enacts his own worst nightmare of drowning. But it is more than personally destructive: it is emblematic of the whole imperial venture, the conquest of Australia itself, the land and the people, by a seemingly transparent but ultimately destructive material invasion of people and culture.[1]

It is fitting that Carey's building trope is made from iron and glass, the materials *sine qua non* of nineteenth century architecture. It is an assembly that has come to be emblematic of Victorian industrial prowess all the while exhibiting mixed properties (such as strength and fragility) much like the morally ambivalent character of Oscar himself: the resolute visionary and 'delicate' colonial, the calculating technician and compulsive gambler.

The fictional device of Carey's chapel invites reflection on the representation of the pre-fabricated and/or portable building type in Australian architectural discourse where similar buildings are interrogated for their "true history".[2] The mythical qualities of the church derive largely from a psycho-symbolist dynamic whereby Carey incorporates the structure into a

literary narrative about Oscar's visionary, but ill-fated quest to bring civilisation to the wilderness. Other novels and films come to mind.[3] The story in *Oscar and Lucinda* invites comparison to analyses of historical, social and particularly technological contexts that render ingenuity, prefabrication and portability in the nineteenth century features of a distinctive colonial experience.

Highlighting the oftentimes vague line between fact and fiction is a paradox that while historians Miles Lewis and Jenny Gregory contribute to a detailed, comprehensive and largely 'functionalist' record of the pre-fabricated building type,[4] their analyses nonetheless conform to a rhetorical ethic that makes the buildings significant—one could say 'exceptional'—pushing the boundaries of routine empirical accountability. On the one hand, the technology is viewed as responsive to "a market need" like any other (for food or clothing, for instance) "rather than to any specifically colonial physical restraint".[5] On the other hand, it is required to demonstrate both the distinctive capacity of Australian colonial society to shape imperial markets and the possession by Australians of a distinctive colonial inventiveness and industry.[6] Caught between these two possibilities is a mixed and contradictory view of the Australian colonial subject. It is a figure at once immersed in relations of production and consumption, but not wholly formed by them; rather, the figure of the colonial acquires a unique character and complex psyche distanced from the realm of social determinism.

This paper outlines the functional pragmatics and the moral simplification at work in these historical accounts of the prefabricated colonial building. It proposes a different reading of the concept of 'character' and technological agency to the one found in such accounts which more or less presuppose the invariability and determining influence on these structures of creative inventiveness based on foresight, logistical thinking and pragmatism.

The moral economy of the prefabricated colonial building

Miles Lewis is probably the leading authority on prefabricated Australian colonial architecture. His research provides the reader with a survey of manufacturers and users of the building type, cataloguing both timber and iron buildings that demonstrate the range of factors influencing their design, and outlining circumstances governing the scope and pace of their distribution across the colony.[7] He makes the case that although Australia was typically on the receiving end of these buildings, given its proximity (geographically, commercially and culturally) to other centres of production—in India, China and Singapore, California and the US East Coast and, of course, Britain—the Australian perspective on the global trade in them and the nation's collection of extant specimens is particularly significant.

The assessment is convincingly made for the California and Victorian gold-rush years of 1849 and 1850 when demands for kit buildings of standardized and dimensionally coordinated components that could be transported with comparative ease, assembled quickly with minimal skill on remote sites arose, seemingly overnight.[8] As evidence pointing to the two-way traffic in prefabrication technology a notice in the South Australian Register (16 January, 1850, 2) tells of a brig departing from Hobart for California with fifteen passengers, building materials and merchandise as well as "four framed stores, thirty-one framed houses, one house, complete, and a large number of doors, sashes, etc.".

The punishing conditions experienced by prospectors on Californian and Victorian gold-fields, the remote and difficult terrain, the relative shortage of on-site materials and labour, and urgency with which prospecting was undertaken were preceded by these and other equally demanding circumstances by early European settlers to the Australian colonies in the 1820s and 30s. Gilbert Herbert provides a straightforward explanation for the appearance of the prefabricated colonial cottage:

> The early pioneering days were hard, and the hastily improvised shelter provided by tents and flimsy huts woefully inadequate. A few of the settlers, however, were more fortunate, or perhaps more farseeing: they had provided themselves with small well-made wooden houses, built in sections in England, and packed especially for export.[9]

Gregory closely follows this lead, citing Lewis, Herbert and others to emphasise the relevance of the technology for understanding early Western Australian colonial history.[10] Structures such as WA Governor Stirling's first residence and commercially purchased timber kit-house or "Manning Cottage" appear in response to the "fundamental needs" of the first British settlers to the Swan River Colony for shelter, comfort and security. Records show that in 1829 at least four settlers bought "houses in frame or 'compleat' with them". The following year another twenty-two dwellings arrived in various sizes. Gregory draws this picture of the houses and their owners:

> Captain J. Bamber brought a 60 x 40 ft house for himself (aged 43), his wife Mary (aged 48), their three children (aged 27, 19 and 11) and thirteen dependents (including five children and two stonemasons). James Birkett, a 47-year old retired army officer, brought a 20 x 22 ft house for himself, his wife, daughter and a servant. John Bateman brought a three-room house for himself, wife and five children. W. Brockman, a 26-year old agriculturalist brought a

'double house compleat' for himself, his wife, child and seven servants. While the 35-year old merchant George Cheyne, brought a 38 x 32 ft house from Sweden. George Williams (aged 26), who arrived with his wife, sister-in-law and three servants, brought out a Manning House, which according to a pencilled note on the record from the auditor would have cost '£60 in London'. Four other settlers brought the frame for a house and four more brought timbers etc (for example, builder John Morrell brought '1 room and street doors, 20 sashes and frames, one thousand Duchess slates, 6 common chimney pieces').[11]

Figure 1. View of an Emigrants' Home to accommodate 72 persons, erected by S. Hemming, Esq., at the Clift House Works, Bristol, on the plan suggested by Mrs. Chisholm (London: Day & Son lithographers to the Queen, 1853?). National Library of Australia, an8926526.

Historians commonly represent the Manning Cottage as an early nineteenth century exemplar of the prefabricated colonial building made of timber.[12] Herbert describes how the Cottage:

> […] came into being, through personal circumstances, when the needs of the emigrant were being defined; its techniques were evolved in the early 1830s when the demand was still small; it was exploited commercially when the flood tide of emigration to Australia dramatically expanded the market; and it set an example for emulation that was followed by other manufacturers, not only in Britain, but in the United States.[13]

Figure 2. Portable house for erection in the colony [by] the Melbourne & Colonial House Investment Company, London (1853?).
National Library of Australia, an8713107.

The building entailed a system of prefabrication devised by a London carpenter and builder (and father of a Swan River Colony settler) of the same name in the 1830s and 40s. This was based on a module of three feet, the system included standardised wall units comprising an outer frame, muntins or vertical intermediate studs and infill panels; both glazed and solid interior door panels; and a window and spandrel component. The influential social reformer and horticultural and architectural critic John Claudius Loudon included details of the system in his *Encyclopaedia of Cottage, Farm and Villa Architecture* (1833). An advertisement identifies some of the challenges facing settlers in a new world, while providing column space to claim:

> These cottages were found to be of the greatest service to settlers, both in protecting their families from the weather, and their property from theft […] Many persons who took out only tents, suffered severely in both respects; their tents were frequently blown down in the middle of a stormy night, and their goods being thus not only exposed to the weather, but to pilfering. Provided with a cottage of this description, an emigrant might land from a ship in a new country in the morning, and sleep in his own house on short at night.[14]

Citing testimonials by a number of South Australian colonials, including one chaplain and several government and military officers, an advertisement in the *South Australian Record* (27 November 1837) highlights how:

> From the well-known superiority of these Cottages over any others hitherto introduced into South Australia [Henry Manning] considers it unnecessary to add more than to state that they pack in a small compass [ie, moderate space], and may be completely erected in a few hours, with joists, doors, and locks; windows glazed and painted, inside and outside. Price is £15 and upwards.

Timber was the chief material for many of the early prefabricated buildings, being readily sourced near most manufacturing and export centres worldwide and affording a number of practical advantages. Given traditional carpentry and joinery methods before the introduction of the balloon frame and cheaply, industrially-produced iron nails and other fasteners, timber was well adapted to prefabrication and the production of both standardised and 'one-off' or specialised components. Both were provided with numbered components and could be taken apart with relative ease and moved elsewhere for re-assembly.[15]

Such factors lead Lewis to write that prefabricated buildings make for "a telling reflection of peculiar historical conditions which made the transportation of such buildings physically and economically feasible."[16] One can begin to unpack this view by observing that prefabrication and portability reflect the colonial context, though partly because historians have established that context as particularly efficacious—even extraordinary in some instances or "peculiar"—a distinctive conceptual and geographic terrain in which supplies and demands, needs and desires, production and consumption can be understood and counterpoised according to an overarching rationalist conception of action.[17] The availability and apparent desirability of portable kit houses over tents and "crude brush shelters" (Gregory) points to the state of technological innovation across the British Empire at the time (and the pre-industrial state of peripheral territories like Western Australia). However, these factors also alert the more discerning reader to a context whereby the historian (Lewis, Gregory and others) represents the settlers as though they were more or less 'rational-deciders' aware of and acting on recognisable and largely incontrovertible self-interests.

Gregory, for instance, fails to acknowledge the provenance, patterns and types of reasoning (entailed in foresight, for example) substantiated—and sometimes challenged—by the technology of prefabricated shelter. Rather, she alludes to these indirectly, as though forward thinking was largely synonymous with a spontaneous pragmatic response to emigration. The promotion of wooden portable houses by inventors and manufacturers and their occupation by prospective settlers, effectively or otherwise, are historical facts made to speak (categorically) about "the people who lived in them".[18] However, as she describes

them, these "people" seem to have been of one 'mind' for the most part. They seem not to have been changed much by their devising, purchasing and inhabiting and finally (for the most part) rejecting prefabricated buildings in preference for other ways of living.

A more nuanced view holds that prefabrication and portability entailed particular (though by no means self-evident, universal and timeless) values and ways of thinking that were cultivated by different means, highlighting the problematic and conceivably traumatic reality of the emigrant experience. Accordingly, prefabrication may be a question of "economics" (Lewis) though one can question just what kind of economy or rather, *economies* are involved. Can these can be adequately known, as he seems to propose, by conventional thinking involving familiar variables such as material availability, transport networks and the proximity of production centres to markets, and labour costs relative to places of production and consumption.[19] Might there be additional equations that come into the picture, including formula making for a *moral* economy in which the goal of prefabrication becomes desirable for making *sense* (however partially or imperfectly) of the novel circumstances and vagaries of colonial settlement? Might there be questions of an ethical or even existential order these circumstances may have posed?

In a moment of pique, seemingly directed towards the critical excesses of post-colonial theory and the tendency to denigrate 'the colonial' Australian as the unimaginative lackey of empire and victim of power, Lewis writes that most colonial Australians were likely to view themselves and their society (and their technology) as up-to-date and as thoroughly "British" as anyone resident in the home counties.[20] Perhaps, but then this argument fails to recognise that 'Britishness' was a subject of considerable debate in the Victorian era, partly because colonisation—like nineteenth century urbanisation and its attendant challenges—gave many pause to think about what settlement (and 'civilisation', a commonly used term and equally elusive goal conveyed in period texts) really meant and required in terms of material resources. Julie Willis and Philip Goad have argued that Australia's colonial condition "not only underpins the country's cultural and political psyche but also its two hundred and twenty years of urbanisation."[21] Possibly, but let's not forget that uncertainty about the future nation's spirit or character ("psyche" is either too old or too new a term) were part of that condition—and this also partly accounts for routine writing about architecture and Australian national identity today.[22]

The moral economy of the prefabricated colonial building is evident in the attention given in period literature to particular ways of thinking about re-settlement in Australia and Britain's other overseas territories. The values of foresight, forward planning and the judicious

management of resources and the requirement that emigrants be prepared to adapt themselves to unforeseen circumstance were advocated by colonial agents and targeted by industries that arose to service emigration. A useful reference here is Ian Hunter's work on the emergence of character as a new literary moral object in the nineteenth century.[23] Formerly an aspect of rhetoric, a dramatic convention on par with plot and scene, in its modern form, characterisation involves an operation in which literary figures and topographical settings serve to illustrate moral truths and desirable forms of behaviour. A process of self-identification serves pedagogic practices aimed at transforming individuals into 'better'—that is better behaved, more responsible and productive—citizens, at home and abroad.

It was the settler's "willingness to work", for instance, that was believed to have allowed the Englishman to bring “order out of the chaos of his natural instincts” and accordingly, to value personal aptitude and the capacity of tools to transform nature for the purpose of survival and for furthering more elevated or ‘civilised’ aims.[24] Other character traits were encouraged. Describing the people best suited to tame the wilds of Australia and arguing against the forced transportation of Irish labour to the continent, John Stuart Mill wrote that:

> ...the Celtic Irish are not the best material to colonize with. The English and the Scotch have the proper stuff for the pioneers of the wilderness. The life of a backwoodsman does *not* require the social qualities which constitute the superiority of the Irish; it *does* require the individual hardihood, resource, and self-reliance which are precisely what the Irish have not.[25]

Mill highlights the degree of difficulty associated with colonial enterprise; this emphasis is resonant with the significance Victorian moralist Samuel Smiles gave to hardship as having determined British character:

> The school of Difficulty is the best school of moral discipline, for nations as for individuals. Indeed, the history of difficulty would be but a history of all the great and good things that have yet been accomplished by men. It is hard to say how much northern nations owe to their encounter with a comparatively rude and changeable climate and an originally sterile soil, which is one of the necessities of their condition, - involving a perennial struggle with difficulties such as the natives of sunnier climes know nothing of.[26]

In the early days of European settlement in Western Australia foresight was required for what now seem like 'obvious' reasons given period reports anticipating the hardships likely to be caused by the deprivations of terrain and weather and the possibility of a less than wholesome society establishing itself there. The majority of emigrants to the Swan River Colony in the 1820s and 30s possessed little or no experience of locales or travel more than a few miles from home.[27] Consequently, one can more precisely observe that vague apprehension at the prospect of transporting oneself, family and worldly possessions to the far side of the globe was sharpened, focused and addressed as explicit and actionable fears by commercial publicity and testimonials for prefabricated and transportable buildings. This is not to say that prefabricated buildings were necessarily obvious or successful remedies for the perils of settlement. Rather, assessments of them in period literature, whether positive or negative, prospective or retrospectively made, contributed to expectations that settlers were ultimately responsible for themselves and had to plan accordingly. Countering claims made in Loudon's 1833 *Encyclopaedia*, for instance, Captain Frederick Irwin, a military officer charged with protecting the Swan River Colony warned only two years later:

> It may be well to caution emigrants against bringing out wooden houses from England. They are very uncomfortable dwellings in such a climate, for not only are they liable to warp and shrink, and thus to admit too freely the external air; but [even] if constructed with every such well-seasoned materials, they are rarely a sufficient protection from heat and cold.[28]

For the first settlers to Western Australia, prudence was caught up with the novel circumstances of emigration, including their removal from ancestral lands and transportation to unfamiliar terrain, but also with the challenging material economy encountered upon their arrival at the Swan River Colony. Gregory fills out her account of early settlement, citing details such as the Applications for Land which show that allocations were made on the basis of the amount of goods and chattels that each person brought with them rather than, for example, reserves of gold or banknotes. Over-capitalisation resulted in the landing of large quantities of material possessions and indentured servants (these counted in the tally) with no place to accommodate them safely. Pilfering, commonly associated with illicit activity in Britain's docklands and urban warehouse districts, was a significant problem in the Colony for decades to come. It was cited in early colonial literature as one reason why settlers should quickly acquire semi-permanent accommodation or bring a secure portable enclosure with them along with other goods.

Complicating matters further the prefabricated cottages were commodities in their own right, included in the assessments determining land grants and equally subject to pilfering (or vandalism due to break-ins) and monetary depreciation. Largely viewed as temporary measures, some portable cottages proved so inadequate upon first assembly they were hastily abandoned. Others appear from time to time in the trade in second hand goods throughout Victorian era. In such cases, varied circumstances including the unexpected behaviour of building materials or familiar environment, false advertising and making-do—more so than market feasibility (Lewis)—are more likely to account for the history of the building type.

Conclusion: prefabrication, comfort and propriety

Like many visionaries and purveyors of novel buildings of all sorts in the nineteenth century, whether directing their wares to would-be colonists or Britain's rapidly expanding population content or obliged to stay at home, prefabricated buildings were devised to service seemingly self-evident requisites for shelter, security and practical expediency. However, these needs were partly (one might argue largely) dependent upon such devices and accompanying literature for substantiation. The elaboration of needs and desires called upon accompanying nineteenth century domestic discourses establishing the values of comfort, private property and judicious household management to facilitate their full recognition and incorporation into daily habits, expectations and actions. In other words, publicity, such as Loudon's testimonial for the Manning Cottage, though directed toward manifest markets, played pedagogic and moralising roles as well as commercial ones in the dwelling stakes.

Domestic discourses worked to incorporate different kinds of people (types of settlers or home populations) into broader social and economic networks and material cultures with global reach. Manning had a portable colonial cottage for every class of settler, as this excerpt from a 1830 promotional pamphlet suggests:

> Gentleman emigrating to the New Settlement, Swan River, on the Western Coast of Australia, will find a great advantage in having a comfortable Dwelling that can be erected in a few hours after landing, with windows, glazed doors, and locks, bolts, and the whole painted in a good and secure manner, carefully packed and delivered at the Docks, consisting of two, three, four, or more roomed Houses, made to any plan that may be proposed; likewise Houses of a cheaper description for labouring men, mechanics, &c. &c.[29]

The functionality or 'serviceability' (Loudon) of these dwellings is emphasised in period literature and appears as an underlying theme in architectural histories. However, it becomes difficult to ascertain the feasibility (Lewis) of one or the other prefabricated building, technological system or detail by relating them to an economy or fundamental need (Gregory). This is because familiar measures of 'functional' shelter like comfort and security (similarly, a measure of technological efficaciousness like ease of assembly) have only relative value. For instance, Tomas Maldonado writes that the idea of comfort:

> ...may be understood as a device for social control. Concerning the domestic sphere, we note that it deals with a very special discipline. In this specific case, in fact, comfort is seen as a procedure with a compensatory function, that is, a procedure seeking to restore - as much physically as psychologically - the energies consumed in the hostile external world of work. With standards more or less formalised, more or less explicit, comfort serves to structure daily life, to ritualise conduct, especially the attitudes and postures of the body in relation to furniture and objects intended for domestic use.[30]

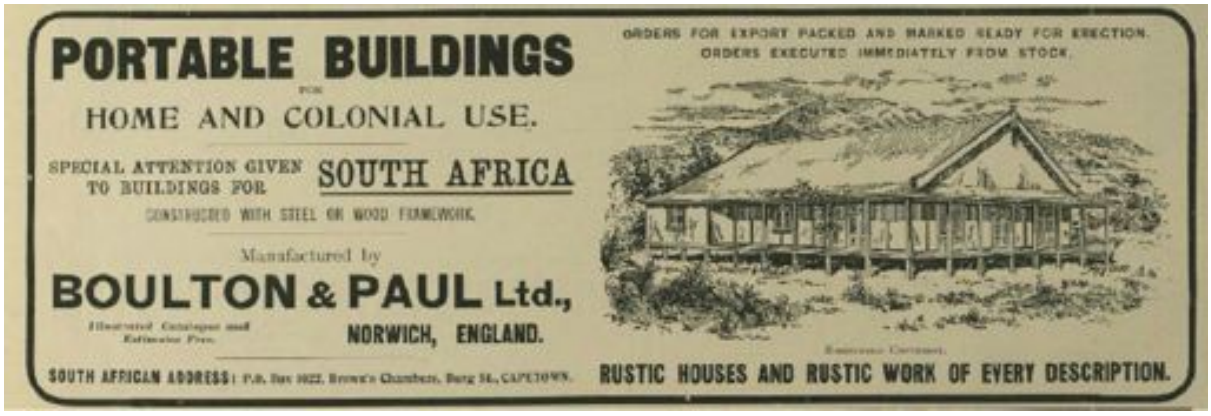

Figure 3. "Portable Buildings for Home and Colonial Use." Boulton & Paul Ltd.. *Illustrated London* News (26 July, 1902, 152).

Given the migrations and labours associated with colonialism, Maldonado's "external world of work" was a large one, encompassing places and environments far removed from Britain's domestic landscapes. Along with the opportunity to reflect on the hardships and practical requisites of emigration—and the settler's preparedness for the experience—the moral economy of the prefabricated colonial building was also evident in the opportunity the structures provided for aesthetic commentary and the cultivation of 'good' taste at the periphery of empire. One observer of Melbourne's civic life and architecture writing in 1851, the year of the city's Exhibition (*The Sydney Morning Herald*, 21 October, 4-5.) observed:

> The superior character of the imported houses of wood and iron to be found in the suburbs of Melbourne is particularly striking. Many of these are really elegant and commodious villas, and those even of the smaller and cheaper kinds are for the most part very tasteful. The fact is that as the south has a superior reputation for wealth with inferior facilities for building a class of portable houses have been sent there and have doubtless paid their importers very well, which would not here have commanded a sale at remunitive prices. A good many of those villas too, I am told, have been sent out to order at a time when from the prevalence of the gold mania, and its all absorbing power there was scarcely a possibility of getting a decent house put up in or near Melbourne with the expenditure of a fortune. The introduction of the English made houses has doubtless had a considerable influence in creating the taste for adornment already alluded to among the lower orders as exhibited in buildings of the smallest class. The building which has been put up for exhibition of colonial manufactures etc. preparatory to their transmission to Paris was in its early stages of erection when I saw it. It is of wood, large and elegant with galleries, balconies and continuous ranges of windows; in fact a little exhibition palace of wood and glass.

In terms of visionary excess—the nearly mad quest to realise his dream of a church in the wilderness and thereby extract a measure of civilisation there—Peter Carey's Oscar joins a host of other fictional and historical characters bent on a similar path. Besides the functional pragmatics and moral simplification of the prefabricated colonial cottage—the historian's 'just-so' story about the perils of a distant continent and the pioneers who faced them—lurk deep anxieties about the colonial project and the material culture of accumulation, phantasmal projection and waste that went along with it. There are barely disguised doubts of an existential order over the failure of technological closure and environmental mastery, individual control and social resilience which are enlarged, rather than masked by the historian's quest for empirical verisimilitude—the latter perhaps as equally "emblematic of the whole imperial venture" (Woodcock) as Oscar's church.

Endnotes

[1] Bruce Woodcock, *Peter Carey* (Manchester, New York: Manchester University Press, 1996), 84-85.
[2] For convenience, the terms 'prefabricated' and 'portable' will be used synonymously to describe a building type and an approach to building. The author recognizes that historically, not all portable buildings were prefabricated so they could be transported in kits and conversely, not all prefabricated buildings proved to be easily transportable.

[3] The protagonist in Werner Herzog's 1982 film *Fitzcarraldo* is an opera-obsessed adventurer who, having nearly bankrupted himself to build a trans-Andean railway, organises native labour to pull a steamship over a Peruvian mountain. He does this in order to more readily access rich rubber territory beyond and finance construction of an opera house in Iquitos with the profits. Australian film director Peter Weir's 1986 adaptation of Paul Theroux's novel *Mosquito Coast* (1981) plays out a similar scenario.

[4] A 'functionalist' account in this case is one whereby an artefact such as the prefabricated dwelling is positioned between manufacture and consumption, the two activities imagined to have some kind of structured relationship between them that is amendable to quantifiable analysis. Though elaborated by means of adding historical detail, including exacting description of material and fabrication processes, details regarding their assemblage and performance, the social formations responsible for and shaped by either action are largely overlooked or else reified so they demonstrate a mode of (in this case) capitalist, colonial production that undergoes no real change. As David Summers writes: "A functionalist history of art is not a history of how art has changed, or even in a simple sense of what art "means." It is rather a history of what art has done, or to put two goals together, it is a history that explains why works of art look the way they look in terms of what art has been meant to do." See '"Form," Nineteenth-Century Metaphysics, and the Problem of Art Historical Description', *Critical Inquiry* 15 (1989), 393.

[5] Miles Lewis, 'The Imperial Technological Cringe' (1996), reproduced in Andrew Leach, Antony Moulis & Nicole Sully, (eds.), *Shifting Views: Selected Essays on the Architectural History of Australia and New Zealand* (St. Lucia, Qld.: Queensland University Press, 2008), 87.

[6] Lewis, 'The Imperial Technological Cringe', 94.

[7] Miles Lewis, 'The Diagnosis of Prefabricated Buildings', *Australian Historical Archaeology* 3 (1985); and 'Prefabrication in the Gold-Rush Era: California, Australia, and the Pacific', *APT Bulletin: Journal of Preservation Technology* 37, 1 (2006). See also Lewis 'The Portable Church in Australia', *Historic Environment* IV, 1 (1984); 'Those Elusive Paper Houses', *Heritage Australia*, Summer (1985); 'The Portable House' in Robert Irving (ed.), *The History and Design of the Australian House* (Melbourne: Oxford University Press, 1985); 'The Asian Trade in Portable Buildings', *Fabrications* 4, June (1993); 'Prefabrication' in Andrew Brown-May and Shurlee Swain (eds), *Encyclopaedia of Melbourne* (Cambridge University Press, 2005).

[8] Lewis, 'Prefabrication in the Gold-Rush Era: California, Australia, and the Pacific', 14-15.

[9] Gilbert Herbert, 'The Portable Colonial Cottage', *Journal of the Society of Architectural Historians* 31, 4 (1972), 261.

[10] Jenny Gregory, 'Home and away: early portable housing', *Journal of the Royal Western Australian Historical Society* 13, 3 (2009), 289-308.

[11] Gregory, 'Home and away: early portable housing', 294.

[12] Herbert, 'The Portable Colonial Cottage', Journal of the Society of Architectural Historians 31, 4 (1972); *Pioneers of Prefabrication* (Baltimore, MD: John Hopkins University Press, 1978); and 'A Short Impressive Campaign—the Manning Cottage in the Settlement of South Australia 1835-1842, *Historic Environment* IV, 1 (1984). Lewis, 'The Diagnosis of Prefabricated Buildings', 59-60; and 'The Imperial Technology Cringe', 88-89. Gregory, 'Home and away: early portable housing', 296-98.

[13] Herbert, 'The Portable Colonial Cottage', 265.

[14] John Claudius Loudon, *An Encyclopaedia of Cottage, Farm and Villa Architecture and furniture* (London: Longman, 1833), 256.

[15] Lewis, 'The Diagnosis of Prefabricated Buildings', 58.

[16] Lewis, 'The Diagnosis of Prefabricated Buildings', 56.

[17] This is a philosophical conception whereby human action—including the series of decision-based choices manifest by the invention, purchase and occupation of prefabricated and portable buildings—is assumed to be governed by rational calculation. This conception can be opposed to and challenged by, for example, varied circumstances, including responses to social factors like marketing or peer-pressure (or their historical antecedents) and reactions to accidents of time and place. See Barry Hindess, *Philosophy and Methodology in the Social Sciences* (Brighton: Harvester, 1977), 7-10.

[18] Gregory, 'Home and away: early portable housing', 289.

[19] Lewis, 'Prefabrication in the Gold-Rush Era', 7.

[20] Lewis, 'The Imperial Technological Cringe', 81, 94.

[21] Julie Willis & Philip Goad, 'A Bigger Picture: Reframing Australian Architectural History', *Fabrications* 18, 1 (2008), 8.

[22] Willis & Goad, 'A Bigger Picture: Reframing Australian Architectural History', 13. See also 'Modernism from Empire: the charting of an Australian government architecture 1901-1950', in

Darian-Smith, Grimshaw, Lindsey & Mcintyre, (eds.), *Exploring the British World: Identity, Cultural Production, Institutions* (Melbourne: RMIT Publishing, 2004), 823-39.
[23]Ian Hunter, 'Reading Character,' *Southern Review* 16 (1983), 226-43.
[24] T. P. Hughes, writing of the valorisation of the colonial engineer in Samuel Smiles's work in *Selections from 'Lives of the Engineers'* (Cambridge, MA, 1966), 11.
[25] Excerpt in Richard Lebow, *John Stuart Mill on Ireland* (Philadelphia, 1979), pg. 30.
[26] Samuel Smiles, *Self Help; with illustrations of Character and Conduct* (London, 1859), 278.
[27] It is clear from historical accounts that most early settlers to the Swan River Colony were city dwellers—half came from within 50 miles of London—and were routinely criticised upon arrival for their unpreparedness for the experiences of the bush. See *Western Australian Readings* (Perth: Churchlands Teachers College, Department of Social Sciences, 1975), 64.
[28] Frederick Irwin, *The State and Position of Western Australia commonly called the Swan River Settlement* (London: Simpkin, Marshall & Co, 1835), 43.
[29] John Manning, promotional pamphlet, London, c. 1830 British Museum, cited in Herbert, *Pioneers of Prefabrication*, 14 and Gregory, 'Home and away: early portable housing', 296-97.
[30] Tomas Maldonado, 'The Idea of Comfort' in V. Margolin and R. Buchanan (eds), The Idea of Design (Cambridge, MA: MIT Press, 1995), 249.

Courts in Kuching:
The development of settlement patterns and institutional architecture in colonial Sarawak, 1847 - 1927

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Abstract

James Brooke's Sarawak Government originally obtained jurisdiction over the Lundu, Sarawak and Samarahan River basins that made up 'Sarawak' in 1841, when he was conferred the title of Rajah by the Brunei Sultanate. During his and his successors, Charles Brooke's and Vyner Brooke's, century-long rule of Northwest Borneo as the 'white Rajahs,' Sarawak's territory expanded several times to become what is now the Malaysian state of the same name. While he employed Europeans in his government, Brooke also relied on indigenous officers and groups (and their spatial practices) as part of his adoption of indigenous forms of rule. He also appropriated indigenous and vernacular architecture and settlement patterns for his capital, Kuching, as well as new territories, during his tenure as Rajah. The location of his original court in Kuching followed Malay tradition by being located in his Malay nobleman's house, built for him by Sarawak's Bruneian governor in 1841. He began to develop the court as an institution when he moved his court out of his residence and across the river to the commercial side of Kuching in 1847. This location has had three different courthouses constructed on it. The third courthouse was then extended four times before World War Two, during the reigns of Charles and Vyner Brooke. This paper explores how the Government adopted and began to change indigenous spatial practices as part of their diverse approaches to governing. It argues that the development of their governance can be read through the development of their institutions (particularly the Courthouse complex) and its effect on the urban morphology of Kuching.

When James Brooke first arrived in Northwest Borneo, indigenous spatial practices were not based on permanence and ownership of territory. The indigenous groups that Brooke originally encountered were mercantile Malays, and agriculturalist Ibans and Bidayuhs,

who all had distinctive but mobile spatial practices, and less than permanent settlement patterns. While strategic locations were significant to the socially stratified Malay groups who relied on trade, their followers and personal relationships with suppliers and other traders was more important. When threatened, they generally migrated (or strategically retreated) to new locations, rather than to lose their followers in battle, as they were considered as labour, wealth and prestige. In contrast, both Iban and Bidayuh groups had an egalitarian social structure, but interpersonal relationships within and between groups was still important due to the way they shared and exchanged labour. As agriculturalists, they were less mobile, but they were still prone to regular migration, due to shifting cultivation practices. Overfarming was a tendency, and access to new agricultural areas was more important than ownership of existing farmlands. For these reasons, the material culture of Malays, Ibans and Bidayuhs was not invested in permanent construction and materials. Ibans also used the mobile practice of raiding as a way of acquiring labour through slavery, and wealth and prestige, through material gain and headhunting. The Malays and Bidayuhs of Sarawak, before James Brooke, fell victim to raiding by Ibans from the Skrang and Saribas River Basins. As I have discussed elsewhere, not all indigenous groups in Northwest Borneo were as mobile - Kenyah and Kayan groups, who inhabited the headwaters of large rivers in Northwest Borneo, were more permanent, and their architecture reflected that. However, they were geographically peripheral to the original area ceded to Brooke.[1]

Sarawak was a vassal of the Brunei Sultanate, and Kuching was established in the 1820's by Sarawak's Bruneian governor, Pengiran Mahkota.[2] According to indigenous practice, Kuching was so named as it was settled at the confluence of the Kuching and Sarawak Rivers. It was settled as a riverine Malay trading town, from which they also ruled Malay, Bidayuh, Iban and Chinese groups in the Sarawak, Lundu and Samarahan Rivers. The first rajah gained control of Sarawak by being able to read and employ indigenous power structures for his own ends.[3] While he maintained his relations with individuals within the British colonial system, he was estranged from many aspects of Britain's colonialism due to its support of large commercial interests at the expense of all else. This was partly brought on by his inability to interest Britain in taking on Sarawak as a colony, and he decided to become the independent European ruler of an Eastern state.

From 1841 to 1868, the first rajah leveraged both his colonial relationships and his indigenous title (and associated forms of rule and spatial practices) to establish, strengthen and protect not only his position in Kuching and Sarawak, but also his unique

approach to Eastern rule. While part of his aim was to prevent his subjects from becoming victims of colonial commerce, he also began to introduce western principles to indigenous law and its institutions. The second rajah, Charles Brooke, (1868 to 1917,) generally consolidated the state's position, and continued the adoption and appropriation of indigenous forms of rule (and spatial practices,) especially in the new river basins that the government acquired. However, a more modern and approach began to influence the government during this period. While the third rajah, Vyner Brooke, (1917 to 1946,) was sensitive to the indigenisation of his predecessors, he began to modernise the government and the state. He finally ceded Sarawak to the British after the Japanese Interregnum during World War Two, in 1946, when the state became a colony of Britain. The different approaches to governance of these three rajahs are represented in the development of the settlement patterns of Kuching, and its institutional architecture, especially the three different courthouses.

James Brooke and the Adoption and Modification of Indigenous Practices

James Brooke's first house (1841) in Kuching was a Malay nobleman's house, built for him by Sarawak's Bruneian governor. It was appropriate (in design, size and materials,) for his position as rajah of Sarawak, and Brooke's occupation of this house demonstrates his willingness to live as a Malay regent.[4] However, as John Walker has noted, Brooke immediately began to modify the use of his residence with the use of European furniture, and used as his court for both public and private audiences.[5] Traditionally, an open pavilion, or *balai*, adjacent to the regent's residence, was used for public audiences and dealing with public matters whereas the residence was reserved for private meetings. This personalisation of his rule was the first significant architectural modification of Malay governance. Walker goes on to discuss Brooke's decision to introduce a non-Malay veranda when he built his second house around 1843, which he continued to use as his court.[6] This second house is also significant as it was the first building to be designed and implemented by Brooke, in contradiction to what I have suggested previously.[7] Similarly, he introduced some general principles of European law to his governance of Sarawak, which overrode some indigenous traditional practices, such as debt bondage, head-hunting and raiding.[8]

The return of Sarawak's Bruneian overlords to their homeland, and the government's prevention of raiding by Ibans from the Skrang and Saribas River basins in the Sarawak River changed not only the security situation, but also indigenous settlement patterns. When Brooke first arrived in Kuching in 1839, it contained somewhere between 800 and 1500 inhabitants, comprised mostly of the local followers of the Brunei governor, as well

as a handful of Chinese traders.[9] Prior to 1841, defence was the main factor that drove the location and layout of indigenous settlements in Northwest Borneo, with longhouses being protected by their height, palisades, and location on mountains, and aristocratic and noble Malay houses being fortified, and protected by high timber fortifications. The improved security conditions saw a relaxation of defensive architectural devices, including the Rajah's second house, which was not protected by a fence or palisade. Rajah James also attracted aristocratic Malays and their followers from upriver to settle around his Kuching court. Brooke understood that the permanence of the raj ensured the permanence of his Malay followers. Although Bidayuh settlements remained close to their agricultural lands in the hinterland, they began to move off the mountains and settle closer to rivers. Only the largely self governing Chinese miners did not change their settlement patterns, although more Chinese and Indian traders began to feel safe enough to settle in Kuching, across the river from Brooke's residence. By 1847, Kuching was reported to have grown to about 8,000, including several hundred Indians and 150 Chinese traders.[10]

Brooke also adopted indigenous defence methods, with the establishment a timber fort in Kuching, (most likely in 1844,) to control movement and communications up and down the river.[11] Malay forts and Iban (and Bidayuh) fortifications were traditionally located on the same side of the river as their settlements, so that they could be quickly manned by the inhabitants of the settlement, but also so to form a secure refuge if their compounds were breached. While his use of the fort followed Malay practice, its location was a modification of the Malay fort as it was separated from his residence by the river. The institution of the Malay court was further modified by Brooke in 1847, when he moved his court across to the commercial side of the river, to a recently abandoned two storey timber school building, located behind the fort.[12] This was his re-adoption of a *balai*, although it was not adjacent to his residence, and not an open-sided pavilion. Dividing the space of his court and residence indicated a desire to de-personalise the state's rule of law. While he still received guests at his residence, he was also conducting the state's affairs from a different official location. The noble Malay institution of the 'court' therefore became a 'court of law,' and his new office became Kuching's first courthouse, located between the Chinese and Indian commercial bazaars along the riverfront.

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Figure 1. View of the first courthouse, which is the small building to the left of the flagpole. The building on the right is the Kuching fort, (1844,) and the large two storey building in the background is shophouses from the Indian *pasar*. (Image from Grant, Charles Thomas. *Scenes in Borneo and the East Indian Archipelago &C.,* 1888, viewed at the National Library of Australia.)

Unlike Kuching's Malay settlements, Brooke introduced colonial land control practices with Chinese and Indian traders where he formalised their land tenure, by selling plots of land to them soon after he came to power. They were not formally surveyed and evenly laid out like future Sarawak settlements, which suggests a more informal process of apportioning land, possibly based on how much was cleared from the secondary forest along the river, and occupied by the trader and his family. As with other Malay riverine trading towns, upriver inhabitants brought agricultural and mining produce to trade with Kuching's traders. Traditionally, Sarawak's Malay aristocracy were heavily involved in trade, but Brooke coaxed them away from commercial activities by formally appointing them to salaried positions within his government, further tying them to Kuching's location. This was the beginning of colonial pluralism in Sarawak, and allowed Indian and Chinese traders to take over the settlement's commercial activities. While more substantial timber shop-houses were eventually built along the bazaars, early traders originally built vernacular timber and leaf thatch structures, and cleared space behind their land for vegetable gardens.

In 1857, the state suffered an insurrection by the upriver Chinese miners, unhappy at government taxes, and culturally unable to understand his authority in the same way as Sarawak's indigenous groups.[13] Although the rajah managed to escape, the town fell to the insurgents, whose leader established himself in the courthouse.[14] During the insurrection, the rajah's house was burnt down, although the fort and the courthouse

survived. It only lasted a few days before government troops from the new Simanggang division (made up of the Lupar, Saribas and lower Rejang Rivers, acquired from Brunei to be part of Sarawak in 1853,) arrived to violently put down the rebellion. In the aftermath of the insurrection, and in response to it, the rajah shored up Kuching's defences by leveraging Iban migratory practices. He invited a group of Ibans from Balau to settle in Kuching, at Kampung Tabuan on the Sarawak River, 4.5km downriver from the bazaar, with the promise of material reward. This group had collaborated with the government against Iban raiders from the Skrang River in the late 1840's, and was known to be strong warriors. They established their longhouse in Kuching in 1858, and added to the plural mix of Malays, Chinese, Indians and Europeans.[15]

The rajah's intention was for this community to operate as an on-call paramilitary to boost government forces at Kuching on short notice. The rajah also built three new buildings in response to the uprising. Firstly, in 1857, he built his third residence across the creek from the site of the second one, a fireproof rendered brick building (called Government House) in an architectural style that further contrasted from indigenous and vernacular models.[16] Secondly, he constructed a fort at Belidah in 1858, (on the site of a Malay fort that he had come across in 1839), for the purposes of employing the indigenous strategy of controlling movement along the river, particularly of future Chinese miners.[17] The third building he built, most likely in the same year as the fort, was Kuching's second courthouse, which replaced the one occupied by the insurgents. It is not known whether or not the insurgents played a role in his decision to replace the first courthouse, but it is known that the second courthouse, called the 'Public Offices,' constructed in timber, was a larger single storey 'shed-like structure'.[18] There are no known images of this courthouse.

The brutal response to the equally brutal Chinese uprising scared away Kuching Chinese groups who were not involved in the insurgency, fearing government reprisals due to their ethnicity. These Chinese groups had been established at Kuching's bazaar, and their absence effectively shrunk the commercial activities of the state. Over the next few years, confidence grew and the Chinese slowly returned to Kuching. During this time, the government continued to expand its sphere of influence, bringing the Bintulu and Mukah Rivers under their jurisdiction. Government forts were built at each of these rivers, as well as within the government controlled rivers of the Saribas, (Fort Lily at Betong, 1858,) Rejang, (Fort Brooke, at Sibu,) Upper Lupar, (1865, later called Fort Arundel,) and Kalaka Rivers (1865, later called Fort Charles.) Key to much of this expansion was the rajah's

nephew (and successor,) Charles Brooke, who managed the Simanggang and adjacent outstations, as well as leading military forces against local groups, and established stations at acquired rivers. These new acquisitions, previously affected by local and regional raiding groups and groups politically opposed to the rajah, allowed commercial activities to be reestablished there. The relative political and military stability allowed the government to begin planning improvements to the state, including Kuching.

By 1865, the rajah was in the process of finalising plans for the third, larger courthouse in Kuching, in order to accommodate the growing administration due to the state's expanding area and commerce.[19] While the second courthouse had one large room which contained different administrative and court functions, each function was to have its own office in the third one, including offices for the resident of Kuching, printing, post, treasury and audit, and shipping. The first rajah did not implement this project however, as he died in 1868. Charles Brooke became the second rajah of Sarawak, and was responsible for the completion of the project, and the construction of the building.

Establishment and Change during the reign of Charles Brooke

While the second rajah continued the first rajah's trajectory of the survival and security (through expansion) of the fledgling state, he also began to refine Sarawak's institutional architecture as a representative tool. While he was often involved first hand in the functions of state, James Brooke delegated much, and was often not too concerned with detail. This contrasted with Charles' micro-management style. Charles also governed as an indigenous regent but began to introduce modern ideas, such as confirming the international border with Dutch Borneo.[20] The second rajah used architecture in a much more representative way. The existence of an institutional building to claim a river was not enough, its construction and appearance was also important. This was apparent in the outstations, where his communications from his officers showed that he wanted to know that the forts, (by then used mostly for civil rather than defensive purposes,) were kept in a good state of repair, including being white-washed.[21]

He took this a step further in the capital Kuching, where he heavily renovated Government House in 1870 and renamed it the *Astana* (palace), rebuilt the timber Kuching fort in whitewashed rendered brick (1879, called the Square Tower,) and built a new, larger whitewashed rendered brick fort on the north side of the river (Fort Margherita, also 1879.) These three structures were located on the river, architecturally representing the state along the primary access to the capital. In addition to the many

other public buildings and infrastructure that were established during the second rajah's reign, Kuching was beginning to display architecturally more and more colonial order. Private structures did not escape his attention either. In 1870, Charles ordered that all thatched roofed timber shop-houses facing the river be rebuilt in rendered brick with *belian* shingle roofs.[22] *Belian* is a very dense, hard and durable wood species found only in Borneo, which is resistant to rot, even when immersed in water. He also ordered that the shop-houses be rebuilt with a 'five-foot way,' a covered walkway at the front of the shops, a colonial invention employed in the British colonies of Singapore and Penang.[23] More ordered public facilities began to be built with the construction of a building to house the *pasar* (market) in 1870.[24] Prior to this time, as per indigenous practice, the *pasar* was disordered and informal, made up of local and upriver vendors who occupied the space between the bazaar shop-houses and the river to sell their agricultural and forest produce. However, the key building which represented his ambition for the capital's representative architecture was the courthouse.

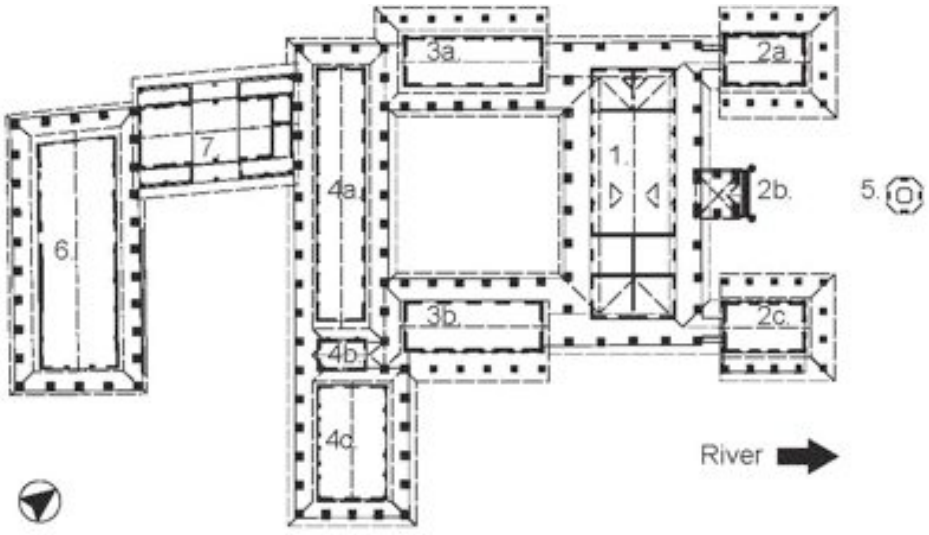

Figure 2. Plan of the third courthouse about 1942. 1. The original wing, 1874. 2a, 2b & 2c. The first extension, 1883. 3a & 3b. The second extension, 1900. 4a, 4b & 4c. The third extension, 1907. 5. The Rajah's Memorial, 1924. 6. The fourth extension, 1927. 7. The wing built during the Japanese Interregnum, about 1942. (Drawing by John Ting Architect)

The completion of the third courthouse in 1874, contrasted with the timber one it replaced, as it was constructed in more permanent brick. Officially called the 'Public Offices,' the whitewashed courthouse had a deep veranda that ran around the building, supported by brick columns in the Tuscan style (see Figure 3).[25] The architecture was a deliberate combination of colonial and indigenous architecture – while classical columns were employed, so were deep eaves, used in indigenous and vernacular architecture as

sun shading and protection from the heavy rain. The floors and roof were constructed of *belian* timber, with *belain* shingles used as the roofing. The government newspaper, The Sarawak Gazette, (undoubtedly supervised by the rajah,) recognised that 'it has been pronounced by all to be a very handsome plain building suitable for the purpose; if boasting no [colonial or western] architectural beauties, it is free from blemishes and is not an eyesore', and went on to rationalise the unsuitability of buildings without eaves in Sarawak's climate.[26] While 'plain,' the architecture of this first wing was to be employed in the four extensions of the courthouse complex over the next 53 years. The fifth extension was built by the Japanese during World War Two, likely in 1942. The seemingly seamless architectural transition from extension to extension (except for the Japanese building,) has caused many to hold the mistaken belief that the entire complex was constructed at the same time.[27]

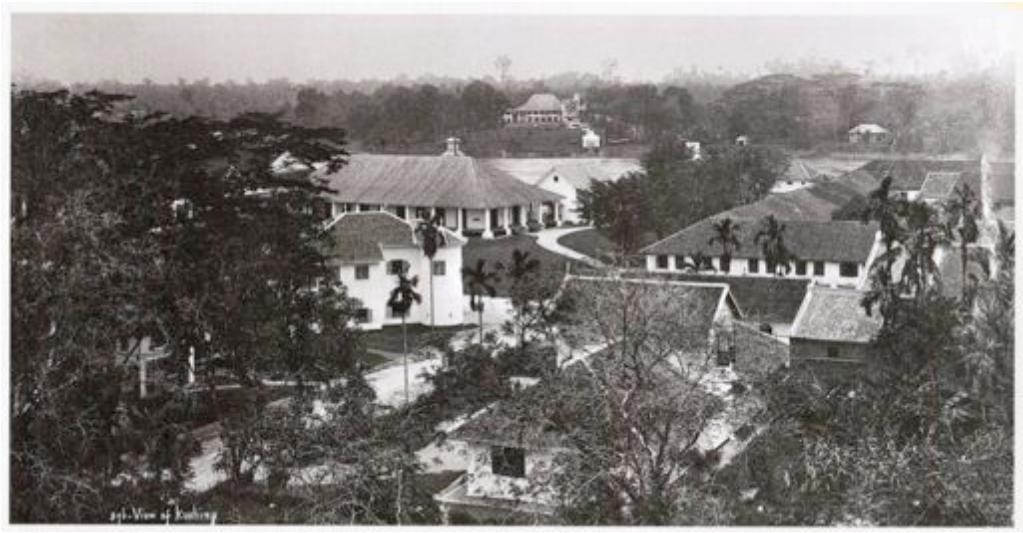

Figure 3. Figure 3. View of the rear of courthouse after the first renovation – one of the new wings and the top of the clocktower can be seen behind it. The photograph was taken sometime between 1883 and 1905. (Photograph courtesy of John Falconer)

In 1883, the third courthouse received its first extensions, with the addition of two office wings, as well as a clock tower, to the north of the original block, facing the river.[28] As a piece of public infrastructure, the clock tower brought a visible colonial sense of permanence and order to Kuching's timekeeping. It put everyone on Kuching's riverfront on the same time. It was visible not only to the adjacent inhabitants of the bazaar, but also river and wharf users, across the road. It was even visible from the rajah's residence across the river. The other works were more prosaic. One of the wings was for the Resident of Kuching's office, whose original office in the first wing was less than half the floor area. The design of these two new wings was visibly similar in design and

construction to the first wing, although they were narrower. This narrow format was the basis for the design of the next two wings, as were the attached roofs (but unattached rooms.)[29] The spaces vacated in the first wing were modified to provide spaces for the remaining functions there to expand into. These works represent a willingness to invest in public works that was not always seen during the reign of the first rajah. This growing confidence in Sarawak's permanent survival and success accompanied a time when Sarawak's accounts were beginning to return a profit.

Figure 4. View of the front of the third courthouse in the 1970's. The first wing (1874) can be seen behind the clock-tower and the side wings, which were built in 1883. The Rajah's Memorial in the foreground was built in 1924. (Photograph by Ho Ah Chon, reproduced with permission from Pustaka Negeri Sarawak)

Around that time, Kuching had grown to about 12,000 inhabitants.[30] Council rates for private buildings owned by non-Malays in Kuching had been updated the year before, as had the boundaries of the expanding township.[31] While he did not seek to re-order the indigenous and vernacular morphology of Kuching, Charles Brooke continued to modernise many aspects of the settlement, implementing major infrastructural works and other new institutional buildings. The Gartak River, on the western edge of the Indian bazaar, was filled in and reclaimed, and a covered drainage system put in to deal with the stormwater (completed 1899.)[32] This additional land allowed for a new road and new shophouses to be built on the site where Kampung Jawa was located, as well as a second row on Khoo Hun Yeang Street. A new public park, the Esplanade, (now cleared and called Padang Merdeka,) was also built on swampy land associated with the Gartak River, behind the courthouse in 1889.[33] Also built during this time were the Kuching Town Reservoir (1895,) and the Malay Courthouse (1886.) Perhaps the one project of this time that best displays the second rajah's growing sense of permanence was the Sarawak

Museum (1891), which demonstrated the government's commitment by aiming to be 'the most expensive permanent edifice in Borneo…'.[34]

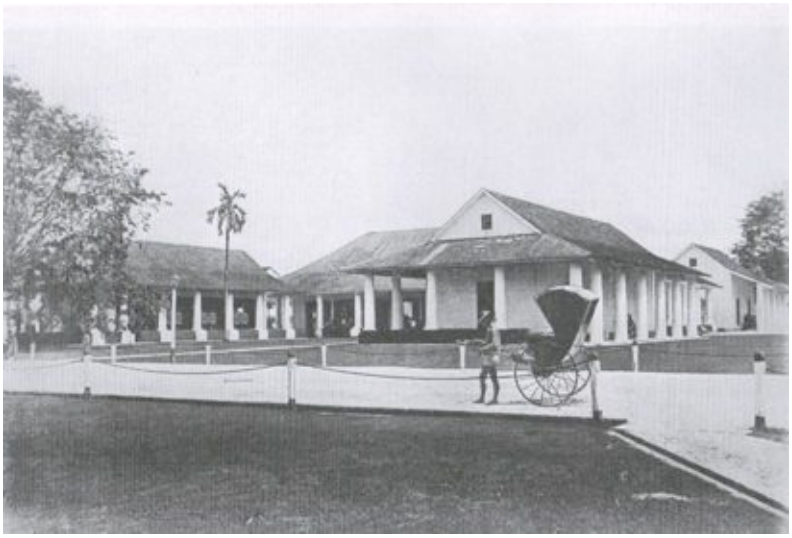

Figure 5. View of the rear of courthouse after the second renovation. The photograph was taken between 1900 and 1905, when the photographer left Sarawak.[35] (Photograph from Robert Shelford, *A Naturalist in Borneo*. (London: T. F. Unwin, 1916))

The courthouse was extended a second time in 1900, with two large wings being built to accommodate the expanded requirements of the Public Works Department, the Shipping Office and Post Office.[36] The Shipping and Post Offices moved from their smaller offices in the first wing into one of the new wings, whereas the Public Works occupied the other. The new wings were located off the south side of the original wing, at its east and west corners, forming three sides of the eventual courtyard. The design and construction remained essentially the same as earlier wings, although the use of a steam-powered pile driver was new to Sarawak.[37] Using powered pile drivers soon became standard, and is still the case in the state. Similarly, the third extension of the courthouse (1907) employed new construction technologies. During the conservation process in 2009, the conservation architects, Arkitek JFN, discovered that these three blocks, although they appeared externally similar to the earlier blocks, were constructed with a reinforced concrete frame and brick infill, before being rendered and whitewashed. This construction method also became standard in Sarawak, and is still in use today. The third extension included a new courtroom and offices.[38] It was made up of three blocks, running east to west, and a closed courtyard. While the roofs of the four sides of the courtyard were attached, walkways were maintained between the wings, making the courtyard accessible to the public at all times.

It is during this period, in the early twentieth century, the number of Kuching's inhabitants rose significantly – by 1920, it had reached about 20,000.[39] Infrastructural improvements in Kuching continued to improve, with the Kuching Municipal Board being established in 1906, likely housed in the courthouse complex. A new Dry Dock was also constructed in 1911. New institutional buildings continued to be built – the Islamic School in 1902, the Chinese Court in 1912, and a new building for the Government Printing Office (1914, see Figure 6 below.) The interesting thing architecturally about these (and future) buildings is that they demonstrate the government's search for a style. While the courthouse continued to follow the same design as had been established in 1874, other institutional buildings were designed in a different architectural styles – while buildings without eaves were considered unsuitable when the first wing of the courthouse was built, newer buildings were constructed with some parapets, and some buildings, like the Chinese Court and the Government Printing Office, had no eaves whatsoever. By this time, the cost and effort to maintain parapet walls in the tropics was considered to be a bearable trade-off for newer architecture. The reign of Charles Brooke came to a close when he died in 1917. He was succeeded by his son Vyner, who became the third rajah. Similarly to his father Vyner had been an officer in the Sarawak government, and had been stationed in many outstations across the state. Where he differed from his father was his management style – he had a much more modern approach, choosing to delegate tasks rather than to micro-manage them as the second rajah was notorious for.

Figure 6. The Government Printing Office (1914) in the 1950's. (Photograph by Ho Ah Chon, reproduced with permission from Pustaka Negeri Sarawak)

Permanence, Modernisation, Tradition and the Governance of Vyner Brooke

In 1924, the government of the third rajah constructed the 'Rajah's Memorial,' (see Figure 4), commemorating the rule of Charles Brooke, located in front of the courthouse. Although the monument's construction was implemented by the Public Works Department, this was the first publicly recorded time where an overseas architect (Swan and McLaren, Singapore,) was used to design a structure Sarawak.[40] The fashionably current art deco architecture of the monument contrasted with the tropical colonial architecture of the courthouse, perhaps indicating the differences in the approaches of the second and third rajahs. Unlike his father, he third rajah also encouraged high-tech solutions, such as the suspension bridge at Satok, opened in 1926 (Figure 7).[41] While his father had been suspicious of this approach, preferring a more conservative solution with large masonry pylons set in the river carrying the bridge, Vyner embraced it to spectacular modern effect.

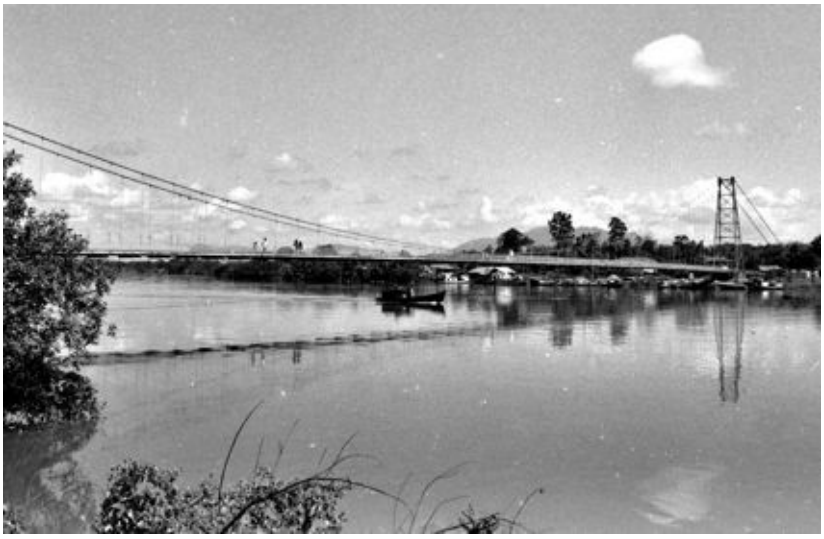

Figure 7. The Satok Suspension Bridge (1926) in the 1970's.
(Photograph by Ho Ah Chon, reproduced with permission from
Pustaka Negeri Sarawak)

The third rajah was also modern in terms of management. Previously, all structures and buildings were both designed and implemented by Sarawak's Public Works Department, but the use of overseas architects signaled the beginning of a new level of delegation by the third rajah and engagement with the British colonial world, and the transition away from the Public Works Department being solely responsible for the design of government buildings. While Swan and McLaren were to go on and design many more government buildings in Sarawak, the fourth extension of the courthouse, built to house the Treasury Department, was designed and implemented under the auspices of the Public Works Department. While the third rajah was interested in modernity, he also maintained the

unique character of Sarawak's government set up by the first rajah. The courthouse's fourth extension (in 1927, for Sarawak's treasury) demonstrates this approach in built form. It was located across a side street and not attached to the main courthouse complex, but it followed the tradition of courthouse extensions being built to the same design as the original 1874 wing. While its design and proportions were essentially 50 years old, its construction was thoroughly modern, with reinforced concrete piles and structural frame being used. The construction technology of the floor was the most modern, as it was a prefabricated system of T-section reinforced concrete planks, which allowed for faster construction and less construction elements.

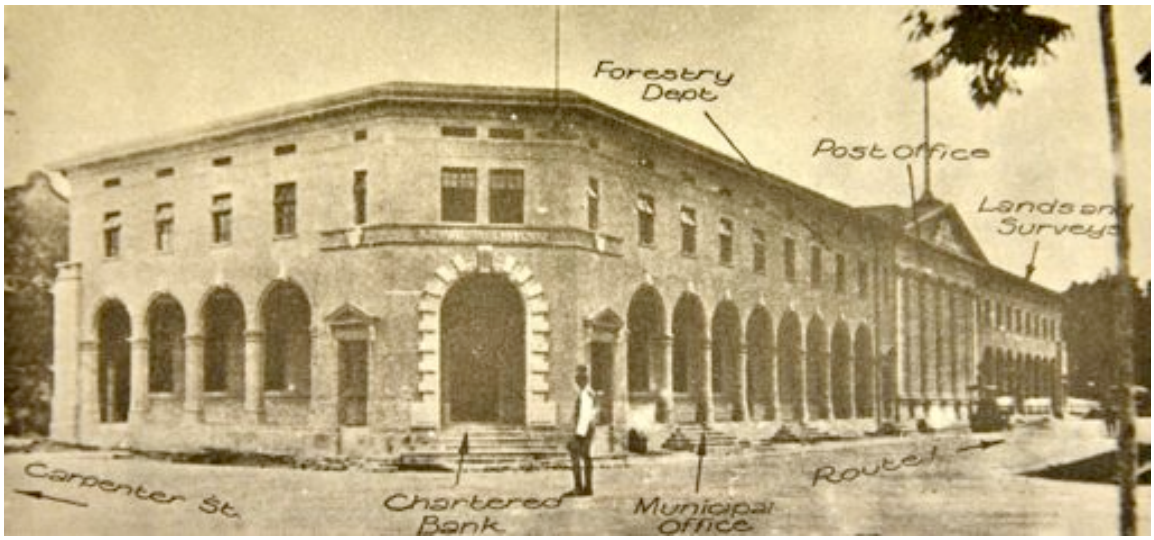

Figure 8. View of the new Government Offices, across the road from the courthouse complex. (Image from National Library of Australia)[42]

When additional space was later needed for the state's public offices in Kuching, it was not built on the land available behind the treasury wing, but further down the street, and across the main road from the courthouse complex. The reasons for this are not clear, but the architecture of the new Government Offices, completed in 1931 to a design prepared by Swan and McLaren, was conventionally modern in a colonial sense, and contrasted with the courthouse complex. Its neoclassical design was achieved with modern construction and materials, including steel-framed glass windows (Figure 8). By this stage, Kuching's urban morphology had also become much more conventionally ordered, with new subdivisions needed to be laid out by a surveyor, and required the approval of the Department of Lands and Surveys. While the older parts of the settlement, including the shop-houses and Malay *kampungs* along the river, displayed vernacular and indigenous settlement patterns respectively, and came about due to the personal presence of the rajah, Kuching's new suburbs (both Chinese and Malay) were

laid out according to western surveying practices, and ordered by gridded road patterns. Towards the end of Brooke rule in Sarawak, many of its urban spatial practices were approaching that of more conventional British colonies in Southeast Asia. However, by then, the principles that contrasted with conventional colonialism, (established by the first rajah, James Brooke, had been well established), and were to go on to affect the development of settlement patterns and urban morphology in Sarawak to the current day.

Figure 9. Part of a map of pre-WW2 Kuching from 1945.The courthouse is in the centre of the map, with the Astana directly to its north. While it has named the *kampungs* north of the river, it has left out the actual *kampung* houses. (Image from National Library of Australia)[43]

Endnotes

[1] John Ting, 'The Egalitarian Architecture of the Iban Longhouse' in Andrew Leach and Gil Matthewson (eds.), *Celebration: Proceedings of the 22nd Annual Conference of Sahanz*, (Napier, New Zealand: SAHANZ, 2005), 359-366.
[2] S. Baring-Gould and C. A. Bampfylde, *A History of Sarawak under Its Two White Rajahs, 1839-1908* (London: H. Sotheran, 1909), 64.
[3] J. H. Walker, *Power and Prowess: The Origins of Brooke Kingship in Sarawak* (Sydney and Honolulu: Allen and Unwin and University of Hawai'I Press, 2002), 40-43.
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Twelve urns, three mirrors and six containers: Images of internal excess

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Abstract

The vehement arguments that gathered around novels closely shaped by history, have been rebutted by writer and academic Amanda Johnson. She pointed to political factors that drove the denigration of empathetic approaches to the past, and noted the expressed fears of disciplinary erosion and lack of an acknowledgement of the historian's own employment of narrative techniques. Johnson, observing the permeability of history and literature, concluded that, 'There will always be novelists who take on the provocative role of historiographical fool within the archive.'[1]

A work of two historiographical fools, the proposed paper takes a selection of archival photographs from the time of colonial New Zealand and shapes the details of the depicted drawing rooms into a narrative that is a critical and imaginative examination of domestic, internal excess. The photographs, from the 1900s, present the decoration and disposition of objects including urns, botanical specimen, portraits, mirrors and fabric. Considered as static resonance of the Commandant's Great Mah-Jong Hall from Gould's Book of Fish: A novel in Twelve Fish *by Richard Flanagan, the oppressive interiors are repainted with words. Consideration is given to trade and material excess and architectural acts of accumulation and acquisition.*

The analysis is set beside a twenty-first century event in New Zealand, which also involved material excess and the circulation of goods. On Wednesday, 5 October 2011, while sailing in clear weather to Tauranga on the east coast of New Zealand, MV Rena *ran aground on the Astrolabe Reef. It was reported that the ship was carrying 1,368 containers, eight of which contained hazardous materials, as well as tonnes of heavy fuel oil and marine diesel oil. In the days following the grounding, the ship listed heavily and containers and*

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oil spilled into the sea, with the oil slick clogging up birds, fish and beaches. The paper will deploy a stifling thickness of oil, things and words.

Introduction

Richard Flanagan wrote that

> Colonialisation is not just a process, it is also a state of mind that demands one willing to be colonised as much as a coloniser. As a contemporary Australian novelist you begin to feel somehow ashamed. The deployment of more playful forms, the use of fable or allegory or historical elements, is seen to be a creative failure, a retreat. The liberating possibilities, the political edges of story are denied. You sense a collective loss of nerve, a fear of using the full arsenal of fictional techniques to confront fully our experience.[2]

Flanagan is pointing to a debate that took place in Australia on the validity of engaging with history though fictional texts. Amanda Johnson has considered these issues in depth in her article titled 'Archival Salvage: History's Reef and the Wreck of the Historical Novel'. Her careful analysis of the contested use of archival history in fictional writing points out that the functions of narrative and story telling technique also inevitably occur in historical writing, and she produces a defense of the work of novelists such as Richard Flanagan, locating the roots of the debate in the context of political maneuvering designed to control accounts of Australian colonisation and settlement. The government, she points out, had desired a singular shared point of celebratory origins that suppressed the violent acquisition of land; novels that allowed other voices to emerge were viewed with disapprobation.

In support of the insights that Richard Flanagan's *Gould's Book of Fish: A novel in Twelve Fish* brings to colonisation and its enduring legacies, this paper addresses archival images through fictional writing and close observation, and also deploys the metaphor contained in the title of Amanda Johnson's essay, which brings together an archive, a reef and a wrecking that undoes consumption. The paper follows an architectural figure that emerges from Flanagan's novel, The Great Mah-Jong Hall. The hall is fictional and also a hallucinatory manifestation of architectural desire considered as an instructive manifestation of colonial architecture. Traces of the Great Hall have been pursued in a selection of archival photographs of drawing rooms in New Zealand. In both the Hall and the drawing rooms can be discovered conditions of the colonial psyche; mislaid

expectations and an awkward relationship with 'home' that swings between nostalgia and a need to outstrip.

Attentive to detail and atmosphere, following Flanagan's constructions, the paper writes together his extraordinary critique of colonial dreams of grandeur and inconsequential, yet excessive, furnishings of middle class rooms in Edwardian New Zealand. The writing attempts to fabricate a continuous flow of goods; dreamed in the case of the Mah-jong Hall, imported and collected in the drawing rooms and finally floated into the sea, the ultimate accumulating depth, with the wrecking of MV Rena, which ran aground on Astrolabe reef in the Bay of Plenty in 2011.

The Great Mah-jong Hall

Gould's Book of Fish offers an instructive account of the trajectories of colonial architecture with Flanagan's descriptions of the inception, construction and dissolution of the Great Mah-jong Hall. This excessive and transient structure offers to all colonial architecture a mirror image of expansive desire, coloured by the corruption of acute nostalgia, material gain and a distorting lens of distance. Compiled with dreams and complicit patterns of power, status and violence, through techniques of dreamy watercolours, the Mah-jong Hall sits in the book like a liquefying residue of dreams, ferocity and architecture. The dissolution of the energetic dreams that propelled the hall parallels the trajectory of the colonial economy in New Zealand following the first expansive period of the mid nineteenth century.

Historian James Belich has pointed out that

> Before the 1880s, New Zealand imported people, goods and money at rates that were gargantuan in proportion to the numbers already here. After the 1880s, though growth eventually recommenced and even became quite respectable, it greatly diminished in rate and changed in kind. History slowed down.[3]

In the 1880s New Zealand was subject to a period of 'long stagnation' that saw the end of progressive colonisation and the end of large quantities of capital arriving from England. Jobs faded and many left for Australia; depression ensued, followed by a reorientation away from America and back to England. Belich charts a shift in the New Zealand economy from an extractive to a more sustainable economy and argues that, 'Essentially

New Zealand became a town-supply district of London. London became the cultural capital of New Zealand.'[4]

Framed by its desire to be a 'Better Britain,' the architecture associated with colonisation in Aotearoa New Zealand, gathering together objects and dictums from the centre, carries a trace of the extreme architectural images of the Great Mah-jong Hall. Like the Hall, architectural dreams in the colonies, and their residue, were to be subject to limited finance, imperfect memories and shifting angles of observation. The Hall, as a model, or perhaps, an acute reference, also suggests that violence is inherent in colonial enterprises shaped by the always-tottering dreams of a better life. In relationship to the trajectory of the architecture of the Great Mah-Jong Hall, colonial space in New Zealand might be understood through the entwined needs to repeat and improve, to remake and exceed, to dream and forget. Characteristics shared with a particular moment in the country's history, the 1880s-1920s, which historian James Belich has described as a period of re-colonisation; the reinstatement and re-inscription of a close relationship between New Zealand and Britain.

Images of excess

A series of archived photographs, from the period of re-colonisation, record the flush of the earlier stage of galloping colonisation when imports exceeded exports; they also seem to foreshadow the subsequent stagnation. The images depict drawing rooms copiously furnished, shaped by catalogues, furniture and furnishings ordered from Europe, evidence of a vast and, at the time, proliferating array of imported goods. The overwhelming number of items apparent in the rooms, and the stifling effect, suggest that consumption is more than a social process through which cultural and social identities are shaped and reshaped, but rather might be a form of desperate bulwarking against incipient famine, a hoarding that acknowledges illegitimate acquisition at the base of colonisation.

In Flanagan's book, Gould was instructed to decorate a building that had been designed by Capois Death, 'The publican was ordered to design a building combining the wonder of Versailles with the cruder pleasures afforded by the Four Courts bear-baiting pit. Inspired though he was only by what he had seen – sea shells and silk sails & the parabolic etching of the night sky glimpsed while lying with the Siamese girls beneath the manfern fronds …'[5].

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Death's new world and its putative architectural forms – the Fibonacci spiral of a sea shell, the tensile strengths and curves of sails and a parabolic etching of the sky - suggests an architecture that is light, finely structured, full of pleasure. But this was not to be. The architecture extolled to the Commandant, the instigator of the building, was not the new structures that Death had observed but, instead, was drawn from old dream images of the imperial centre; 'all of them professed a love of the Commandant's stated ambition to outdo Europe by rebuilding it.'[6]

As with the Edwardian drawing rooms, The Great Mah-jong Hall was to utilise wealth drawn from the global circulation of traders engaged in the exploitation of indigenous resources, such as the Japanese sawyers who stripped the forests, turning the ground into a boulder desert while the logs went off shore. Excessive and spectacular the architecture of the hall was to entice the equivalent of contemporary tourists: 'It would attract Japanese & Chinese traders, Moluccan pirates & Dutch merchants, English sailors & French scientists, all searching for a place in the South Seas to gamble their hard-won fortunes.'[7]

The design of the hall was praised for 'the plaster busts of Cicero that began to arrive even before the plans were complete', sonnets were written 'in imitation of styles long dead & succeeded in creating Art that was a death mask of fashions buried elsewhere.'[8] The distance and difference of colonial contexts seems to endorse an architectural tendency to persist with the once known, to attempt resurrection of the corpses of past styles; colonial architecture as a death mask closely adhering to familiar forms, the closest of copies. The drawing rooms, like the Hall, have a faint necrophiliac whiff.

Words in huge gilt script were to decorate the Great Mah-jong Hall; the Commandant decreed that the advice on the interior decoration offered by 'Miss Anne' was to be painted by Gould. Initially pencilled, and then gilded and later painted straight onto the plaster, were 'all of her descriptions of the new miracles of mechanickal steam and unfettered poesy. It was as if the Commandant wished both to extol these wonders & yet prove by their very capture in the Great Mah-jong Hall that he had escaped them… '[9] Advice from 'home', from *The Furniture Gazette* and the like, words of instruction and reassurance that could not predict the vicissitudes of the new everyday life; words that lost their aura over time until remaining as a sickly lingering trace.

In the Great Mah-jong Hall:

> encroaching rising damp and descending mists…pervaded its interior, Miss Anne's letters grew bedraggled and her words began washing away. Within a short time those wet tales of the wonder and glory … were flecked, then covered with the refuse of rainbow hued rosellas & harsh crying yellow-tailed black cockatoos that took to flying in flocks through the vast emptiness.[10]

Emptiness was to be feared, extolled and possessed as a colonial condition; an absence of family and friends, a loosening of class affiliations with obligations diminished. Space in the colonies, seemingly expansive, yet occupied, exceeded any capacity to fill, structure and order. In images and writings on colonial New Zealand is a fearful emptiness through which forces of the natural world course.[11]

The architecture of the Great Mah-jong Hall was to be covered with decorative scrolls and loops of words, patterns of gilt and curvilinear design. Objects ornamented the hall but in all its glory and desperation the hall was reduced to housing the excrement of birds; the busts of Cicero could not sustain dreams of grandeur and elegant society. Touched with base excess, the dreams of the high life persisted in the colonies and reappeared at regular intervals. Architectural historian Douglas Lloyd Jenkins has pointed out that the 1901 drawing room interior of the Governor General's wife, Lady Ranfurly, in full acquisitive splendour, 'represented a style that was already passed.'[12]

In the photographs of New Zealand Edwardian drawing rooms something of the Great Mah-jong Hall appears. Despite the much-reported sparseness of the colonies, in the dreams of a new elsewhere, a deployment of excessive labour and objects is held within the ambit of imminent dissolution. The photographs of the rooms show a proliferation of objects, a swathe of fabrics that conceal underlying structure; modernity would eventually sweep the Edwardian rooms bare and yet extreme consumption still persists. The discomfort and unease evoked by the depictions of the drawing rooms is caused by a lack of a potential for change; stifling and restrictive, the rooms insist on tradition. In the twenty first century, supposedly desensitised to waste, accumulation persists.[13]

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Figure 1. 'Drawing room', ca. 1900-1909, B&W photograph, glass plate negative. (Photographer Hubert Earle Vaile, (Sir George Grey Special Collections, Auckland Libraries), Ref. no. 2-V669.)

Darkness prevails with control of light that fades fabrics and ruins complexions meant to assert whiteness. Gloom gathers in the corners of the room and image, gathering shadows; objects emerge with slivers of light that catch on white porcelain bodies. The room is claustrophobically full with small items; there is no air. In the room are four wall plates, eleven portraits, nine china ornaments, two upside down horse-shoes, three fans (one very large), six different fabrics (one draped on the wall), one screen, one scroll, two chairs, one cane day sofa, a table, a stool, a piano, a piece of music, two candle holders, two displays of ferns and aspidistra, two flower arrangements in vases, two toi toi arrangements, an animal skin rug, a fire place with fabric, some lights and a mirror.

Objects that allude to the classical, to nature controlled and decorative, to absent relatives and heroes, all construct a tightly constrained interior. Fans are ubiquitous; presentation at court required ostrich plume fans; millions of fans were shipped to the West from China depicting both scenes from Chinese life and Western-inspired scenes, and elements of both.[14]Fans from the Pacific and fans that cooled bodies, hid emotions and signalled war adorned the wall of the room, with their potential to create a draft stymied in the thickness of the gloom.

At the back of the mantle piece, reflected in the mirror, is a woman in a chair. Head turned, arms crossed over an ample chest, she has become an ornament in her own room. Placed on the mantelpiece, another miniature figure amongst the white classical figures, she looks tired and resigned. The music on the piano, *England!*, by Louis Gregh, is illuminated, floating in the darkness of the image, reinforcing the desire of the room to be elsewhere. Virginia Woolf wrote, that in contrast to books about war, 'This is an insignificant book because it deals with the feelings of women in a drawing-room.'[15] Part of the nineteenth century construction of the domestic, and the growing separation of masculine and feminine spheres, drawings rooms were associated with the withdrawal of women from the society of men and the rooms supposedly reflected feminine preoccupations.

Figure 2. 'View of a corner of a drawing room of an unidentified house, probably in the Wanganui region', ca. 1905-1910, B&W photograph, glass plate negative. (Photographer either Frank Denton or Mark Lampe, (Alexander Turnbull Library, Wellington, New Zealand) Ref. no. 1/1-017508-G.)

Another drawing room contains similar items: five containers of peacock feathers, one upside down horse shoe, eight fans, three china swans, six plates on the wall, two corner brackets (one mirrored), twenty portraits, three landscape paintings, eight ferns, fourteen china ornaments, eleven items of tea service, an animal rug with approximately sixteen

tails, twelve different patterns of fabric (one draped across wall), five bamboo tables, four chairs, one sofa, one screen, one scroll, three cushions, one wall mounted candleholder, three mirrors and one clock reflected in a mirror.

Birds are plucked, and hollowed out, animals are skinned to furnish the room: fern leaves mimic the sag and swags of cloth that conceal the hole that is the fireplace. Nature is represented in fabric pattern, floral wallpaper, pot plants, daisy patterns on a vase, water lilies on a screen. The natural world is evoked in landscape paintings, china patterns, in the background of portraits. *The Furniture Gazette* of 1884 asserted that:

> Nature is the source of all power in art, and every designer must go to the fountain-head. You may dress nature up in the garments of the fourteenth or of the seventeenth century if you will; but be sure you start with nature, for nature alone can make you work thoughtful and beautiful ….[16]

Engraved plants and flowers are cut into in timber: roses and birds embellish fat cushions. The putative inhabitants of the room would wade across a plant-strewn carpet with a waxing moon attached to a velvety darkness. The walls of the room start to dissolve with the plethora of objects, each small item working to prove a lack of resolution in the scene.

Figure 3. 'Drawing room of an unidentified house', ca. 1890s, B&W photograph, film negative, (Photographer unidentified, (Alexander Turnbull Library, Wellington, New Zealand) Ref. no. 1/2-010924-F)

In this room with its myriad of objects there is a sense that acquisition has reached its limits and can no longer be sustained; the dissolve of imperfect photographic technique swallows up the edges of the room. Did the woman of the household layer in the twenty portraits as if each person, dead or alive, might visit her in the remoteness of the colonies? But the floor across which a social event might take place is covered with furniture; the room is no longer for inhabitation. Was each item in the room intended to fill an aching gap, filling the absence of friends and community, the lack of employment and meaning, acquisition as a panacea for an engaged life?

Why does the room contain seven chairs, nine tables, thirty portraits, five vases of pampas or toi toi, seven potted ferns, four china birds including two swans, six lamps, one upside down horseshoe, seven trailing pot plants, ten wall plaques, five ornamental vases, three urns, eight different fabrics, a screen, three vases of flowers, a tea set, three paintings, two crescents and four mirrors, an animal skin rug and more? The objects make it uninhabitable, occupiable only with extreme caution, like the already occupied land within which the rooms are located.

To make an inventory of this drawing room is to attempt to rationalise what is clearly, pathological, blackly absurd; the words of the lists wash away as did the instructions on interior decoration given by Miss Anne to the Commandant. Compulsive consumption, conspicuous consumption, chasing a state of being in the world through objects, small household items and furniture, that was available in catalogues, shipped from England in consignments eagerly awaited; behaviour that still persists. Ronald Bogue, who cites Deleuze reshaping Bergson, suggests that such 'Fabulation creates visions that falsify received truths by rendering visible the intolerable, thereby critiquing the present, while those same visions loom like giant mythic figures of yet to be explored possibilities'[17]

MV Rena

On 5th October 2012, at 0214 the MV Rena hit the Astrolabe reef in the Bay of Plenty. What occurred twelve nautical miles off the coast of Papamoa beach has had far-reaching consequences. The fallout from a series of minor events, (the Captain's birthday, a misreading, the effects of tiredness), the grounding of the ship was, in a sense, an everyday occurrence not uncommon in global waters. Small by worldwide standards, the Rena carried 1368 containers, 480 of which were said to be empty. What was in the other approximately 888 has not been released officially but the contents have been washed

ashore, caught along coastlines and islands, floated to the surface and eventually poured out at Braemar Howell's container processing site.

The Rena's containers carried wheelbarrows, furniture, timber planks and framing, hardwood, chipboard, shavings, pulp, paper, white and yellowy powders (milk and possibly flour), butter, whey, serum, fridges, patties, fries and battered cod, hides, skins, noodles, twine, wine, beads, rice, wool, pet food, scraps, metal, ingots, plastic waste bundled together, gloves of latex, and boxes labelled 'fish cocktails'. The cargo included cryolite or trisodium hexafluoride, a by-product of the aluminium smelting process, considered to be low risk, unless ingested or inhaled directly in its dry powdered form. Ambiguously recorded in the ships manifest as 'Cover Bath Material' and 'Pure Tapped Bath Material' it escaped classification as a dangerous good until November 22, 2011.

Alkylsuphonic liquid, (UN2586), used for detergent, surfactants, dyes, as an acid catalyst and sometimes in the production of drugs, was disgorged along with tanks that once held hydrogen peroxide (used in varying strengths for wastewater treatment, pulp/paper bleach, as hair bleach, to whiten bones and disinfect cuts). Four containers held ferrosilicon, potassium nitrate, as well as potassium superoxide, and below deck was trichloroisocyanuric acid. (In a dry form it is used as an industrial disinfectant or bleach, in white crystalline, tablet or granule form is it designed for use in domestic pools. Commercially it is used in textile dyes, sanitation procedures, food preservation, wastewater treatment, as an algaecide for recycling water, an anti-shrink treatment for woollens and in the organic synthesis industry). As well as the commercial and industrial cargo, personal collections of household items were packed into shipping containers in the stewardship of the Mediterranean Shipping Co. who chartered the *MV Rena*.

The *Rena* left Singapore on 5 September 2011 and had stopped at Fremantle, Melbourne, Sydney, Bluff, Port Chalmers, Lyttelton, Wellington and Napier. It was registered to a Marshall Islands company trading on the NYSE as Daina Shipping Co. and a subsidiary of the Greek company Costamare Inc., who crewed it with Filipino seafarers from their technical management company Ciel Ship Management S.A. *Rena* was the ship's third name. Liberia was the third flag it flew.

The *Rena* was part of a complex network of trade, and her consignments were among millions of passages criss-crossing the globe, connecting raw materials, intermediate goods, semi-finished products with their next consumer, manipulator or procurer. The *Rena's* cargo was diverse and is now strewn and smeared across oceans and shorelines,

along with the engine oil, soiling beaches, fouling wildlife, tainting images. Or sinking. Settling on the bed of the sea in piles, in layers, are thick deposits of black cloying oil; submerged, adhering and slowly dispersing the oil has killed over 1300 birds.

In May 2011 the World Shipping Council estimated that 'the number of ocean shipping containers in use in the global fleet of container equipment is roughly 18.605 million units or 28.535 TEU or million standard international containers'.[18] The numbers surrounding the shipping industry are hard to fathom in their enormity, but it is the sheer size and expanse of this operation that sustains it with desired economies-of-scale. As Susan Stewart points out, 'The gigantification of commodity relations is experienced as an abstract materiality that is equally separate from the body: the gigantic scale, the parade of values'[19] and '[t]he gigantic is moved from a pre-social world of the natural to a social world of material production'[20]

By creating the container and standardising how ships carry their cargo, the process of moving goods around the global could be completely mechanisied. This mechanisination significanltly reduced the time spent unloading and loading a vessel.[21] Cranes allowed a seamless transition from road, to rail, to ship; goods traveled faster, more securely and more reliably. This has allowed countries like Aotearoa New Zealand, wet, warm and unpopulated, to sell produce (milk, meat and timber) to the other side of the world at a cost lower than the receiving country can achieve. Colonisation was an early form of this practice and the interdependence that resulted ensures a global economy subject to tariffs and trade negoiations. As Levison recognises, '(t)he radical decline in ocean freight rates during the nineteenth century, the result of technological change and improved navigation techniques, encouraged a huge increase in world trade and added to Europe's eagerness to found colonies.'[22]

The Rena, with the spilled wheelbarrows, burger patties and plastic bottles that litter the once bare beaches, is evidence of current waves of consumption and the absurdity of much circulation of goods. Current interiors with sparse furnishings, clean lines, open spaces are promoted but it is a minimalism that conceals an ongoing, heavy consumption; power cables run discretely under the sea bed, under floorboards and carpets, mirrors retreat to the inside of wardrobes, sheets with the highest of possible thread count. Physical existence is denied; light fixtures recessed, cabinets built into walls and portraits that graced walls now fill social networking websites.

In Rem Koolhass' essay; 'Junkspace – The debris of modernization' he states that

> Minimum is the ultimate ornament, a self-righteous crime, the contemporary Baroque. It does not signify beauty, but guilt … Ostensibly a relief from constant sensorial onslaught, minimum is maximum in drag, a stealth laundering of luxury: the stricter the lines, the more irresistible the seductions. Its role is not to approximate the sublime, but to minimize the shame of consumption, drain embarrassment, to lower the higher. Minimum now exists in a state of parasitic co-dependency with overdose: to have and not to have, craving and owning, finally collapsed in a single signifier…[23]

Conclusion

As photographs available for interpretation from a distance, the Edwardian drawing rooms seem to imply an architecture structured by portraits, (an architecture that needs reference to geneaology), attempting to dissolve its own separation with signs of nature, (plants that would return to the glass houses that sustained them), even as it spins a very dark interiority. An architecture that is above all concerned with objects that circulate. Alex Calder in his book, *The Settler's Plot: How Stories Take Place in New Zealand*, noted that; 'In stories about early settlers … we often find contrasts between the settler who establishes 'natural occupancy' by casting off pianos and other old-world paraphenalia, and colonists who make a baggage-laden but less adaptable landfall.'[24]

Global circulation of objects for consumption, manipulated by political systems, became acute in islands connected by the expansive Pacific ocean in the late nineteenth century. As New Zealand shifted from progressive colonisation to Belich's 'Long Stagnation', the morbid nature of the Edwardian drawings became apparent. Like the Great Mah-jong Hall they are excessive and transient, perversions of femininity, and evidence of a pathological aspect of colonisation. As K Michael Hays wrote;

> I trust the reader will not forget … in Marxian thought … privacy and the accumulation of private 'stuff' is just a bourgeois attempt to shore up a self that is inevitably 'deterritorialized' by material life. The thematic of individuality and loss, then, is integral to the question of disembodied privacy versus concrete social life.[25]

Amanda Johnson noted that 'Novelists (and some historians too – the late Greg Dening is a compelling example) have always been compelled to approach the wreck of history, opening it up in imaginative ways to retrieve other voices from the hold.'[26] The hold of the Rena released commodities, the scale and materiality of which are subject to

suppression; the history of colonisation is tightly bound to the circulation of goods and the drawing room photographs are eloquent images of both accumulation and suppression. Far too attentive to the small details and tiny things, the writing on these rooms will no doubt also come to grief, wrecked on an archival reef of propriety.

Endnotes

[1] Amanda Johnson, "Archival Salvage: History's Reef and the Wreck of the Historical Novel", *Journal of the Association for the Study of Australian Literature, Special Issue: Archive Madness* http://www.nla.gov.au/openpublish/index.php/jasal/article/viewArticle/1829, 1
[2] Richard Flanagan, quoted by Sophie Cunningham, "Making up the Truth", *The Age*, September 13, 2003, accessed 16 May 2012. http://www.theage.com.au/articles/2003/09/12/1063341762041.html
[3] James Belich, *Paradise Reforged: A history of the New Zealanders from the 1880s to the year 2000* (Auckland: Allan Lane The Penguin Press, 2001), 30.
[4] James Belich, Paradise Reforged: A History of the New Zealanders from 1880s to the Year 2000, 2001, 30.
[5] Richard Flanagan, *Gould's Book of Fish: A novel in Twelve Fish* (Sydney: Pan Macmillan Australia Pty Ltd, 2001), 208.
[6] Flanagan, Gould's Book of Fish: A novel in Twelve Fish, 2001, 208.
[7] Flanagan, Gould's Book of Fish: A novel in Twelve Fish, 2001, 207/8.
[8] Flanagan, Gould's Book of Fish: A novel in Twelve Fish, 2001, 209.
[9] Flanagan, Gould's Book of Fish: A novel in Twelve Fish, 2001, 215.
[10] Flanagan, Gould's Book of Fish: A novel in Twelve Fish, 2001, 219.
[11] See Francis Pound's discussions of emptiness in *The Invention of New Zealand Art and National Identity, 1930-1970, (*Auckland: Auckland University Press, 2010).
[12] Douglas Lloyd Jenkins, *At Home: A Century of New Zealand Design* (Auckland: Random House, 2004), 10.
[13] In 2012, television programs on hoarding are currently popular. See *Hoarding: Buried Alive* produced by TLC Discovery Communications http://tlc.howstuffworks.com/tv/hoarding-buried-alive, *Obsessive Compulsive Hoarder*, Channel 4 http://www.channel4.com/programmes/obsessive-compulsive-hoarder, *Hoarders*, A&E Television Network, http://www.aetv.com/hoarders/
[14] From the Fitzwilliam Museum website *Oriental Fans* http://www.fitzmuseum.cam.ac.uk/gallery/fans/oriental.html
[15] Virginia Woolf, *A Room of One's Own* (London: The Hogarth Press, 1946).
[16] *The Furniture Gazette*, 21, (London, 1884), 114.
[17] Ronald Bogue, "Fabulation, Narration and the People to Come," in Constantin V. Boundas (ed.), *Deleuze and Philosophy* (Edinburgh: Edinburgh University Press, 2006), 202-23.
[18] World Shipping Council, *Container Supply Review*, 2011,1.
[19] Susan Stewart, On Longing: Narratives of the miniature, the gigantic, the souvenir, the collection (Durham: Duke University Press, 1993), 85-6.
[20] Stewart, On Longing: Narratives of the miniature, the gigantic, the souvenir, the collection, 80.
[21] The factors driving the recent explosion in worldwide exchange of goods are numerous and complex, but decreased costs, increased reliability and faster shipping has been crucial incentives. This is the subject of Marc Levinson's book: *The Box: How the Shipping Container Made the World Smaller and the World Economy Bigger* (Princeton: Princeton University Press, 2006).
[22] Marc Levinson, The Box: How The Shipping Container Made The World Smaller And The World Economy Bigger, (Princeton: Princeton University Press, 2006), 12.
[23] Rem Koolhaas, 'Junkspace – The debris of modernization', in Chuihua Judy Chung, Jeffrey Inaba, Rem Koolhaas, Sze Tsung Leong (eds.), *Harvard Design School guide to shopping* (Köln : Taschen ; Cambridge, Mass. : Harvard Design School, 2001), 408-21.
[24] Alex Calder, *The Settler's Plot: How Stories Take Place In New Zealand* (Auckland: Auckland University press, 2011), 167.

[25] K. Michael Hays, 'Hejduk's Chronotope: An Introduction', http://www.boeldieu.com/leonard/Observation/Observation/PAROLES%20D%27ARCHITECTES/050980D2-F154-4D31-A766-D7DE590EC8B0.html

[26] Amanda Johnson, "Archival Salvage: History's Reef and the Wreck of the Historical Novel" in *Journal of the Association for the Study of Australian Literature, Special Issue: Archive Madness* http://www.nla.gov.au/openpublish/index.php/jasal/article/viewArticle/1829, 16.

Elevating the Tāhuhu:
A Historical Reconstruction

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Abstract

The Māori building element 'tāhuhu' is translated in English as 'ridgepole', a term that connotes both a structural element and a geometry. It is a structural option somewhat eschewed in the West where trusses and walls tend to be the preferred pathway of roof loads. In wider Polynesia and Aoteoroa it could be argued that the limited associations of the term 'ridgepole' constrain the scope of the tāhuhu which, it will be argued, has wider and more complex cultural and structural responsibilities.

It is generally understood in New Zealand that the structure of the meeting house can be read as the body of the eponymous ancestor and that the tāhuhu becomes the backbone from which lines of descent can be traced down the rafters to ancestor figures carved as wall posts.

NIneteenth century Europeans in the country were often troubled by the extreme size of tāhuhu and were concerned by the methods by which they were raised into position. This issue has come to occupy its own area of scholarship expressed most vividly in the publications of Richard Sundt.

However recent research proposes that tāhuhu were elements indivisibly part of complex structural and cultural assemblies. This paper reconsiders the raising of the tāhuhu as part of the Māori building system and presents it as participating in multiple and often simultaneous structural, social, and cosmological roles.

The Tāhuhu in the Nineteenth century

The tāhuhu is, in many ways, the sign of Pacific architecture, forming, in association with its supporting posts, the structural genesis of Pacific built space.[1]

Between settlement and the 18th century, the whare Māori, while responding to the colder climate of New Zealand, varied little in form and didn't exceed 30 feet long and 15ft wide.[2] From the 19th century it appears that, in response to various social changes (including perhaps the growing contact with Europeans), the size of houses progressively increased. It is generally accepted that by the 19th century the largest houses in settlements (hitherto the chiefs' houses) were being replaced by progressively larger and more ornate houses which were to acquire complex social, political and narrative roles in the collective life of iwi.

The increased width of these larger houses was accommodated by the rafters on both sides of the ridge pole - each set of rafters assuming half of the increase in the buildings' width. Along the front and back walls the number of posts was increased as required. As houses increased in length from between 5-6m to upwards of 25m, the length of the single ridge beam was increased to match. This single element of the building was increased by up to 5 times its pre-nineteenth century length. With few exceptions the tāhuhu of the large churches and whare buildings of the nineteenth century were cut out of single trees.

This paper considers the tāhuhu in its nineteenth century trajectory within the existing mytho/technical and social formations of nineteenth century Māori architecture and its penetrations beyond the confines of European technical imaginings.

The Tāhuhu in Context

In the Māori world the tāhuhu is conventionally understood as representing the backbone of the eponymous ancestor in the anthropomorphic house. But its representational role of defining the origin of ancestral and social relationships within the house is overlaid by equivalent structural centrality within the house, in which its effects can be mapped in parallel with the social relationships which give purpose and life to the house.[3] In this sense the tāhuhu is more than a metaphor: it can be seen as a relational element in which structure and genealogy are, intertwined. The tāhuhu might be argued in this sense to exceed the dichotomy of western structural thought in which representation is necessarily separate from origin.

In Te Ao Mārama (enlightenment) in Māori origin cosmology it was the forcible separation of Ranginui the sky father from Papatūāuanuku the earth mother that created the space and light of the world. In this foundational story, it was Tāne Mahuta, the last of the offspring gods, who was successful in prising apart his parents: "It was the fierce thrusting of Tāne which tore the

heaven from the earth, so they were rent apart, and darkness was made manifest and so was the light".[4] Importantly for this paper, Tāne Mahuta was the god of the forest, birds, insects and timber of all kinds. It is in relation to both this origin story and to Tāne in particular that the tāhuhu can be understood. The pāne section of the Tāhuhu (over the porch), conflated with Tāne, is traditionally carved as the separated figures of Rangi and Papa, drawn apart in structure and representation.[5]

Figure 1. Pāne section of tāhuhu Te Poho-o-Hiraina meeting house Pakowhai, near Gisborne. Photographer unidentified.
With permission Alexander Turnbull library G- 51500-1/2

Te Ao mārama will be more closely considered in relation to the technical and cultural act of hoisting the tāhuhu. In a further intensification of narrative significance, the very end of the tāhuhu is also known as the location of the mythic demigod Maui's symbolic return to the whanau following his abandonment at birth by his mother (in the first of the Maui cycle of myths).[6] This traditional position on the tāhuhu is marked by the ancestral tekoteko, found at the gable end of most whare, drawing together the ancestral and the mythical into the observable world.

The Social Context

The axial nature of the tāhuhu also gives direction to a social gradient within the house in which mana is consolidated at the front of the house, in the light of the doorway and (in the 19th century) at the window. Lower status resides in the dark at the back of the house. In this sense the tāhuhu of each whare might be seen as giving physical scale to social distinction within the social world constructed by the house. The same axis however also divides the house longitudinally; the window side is considered tapu, and is associated with men, visitors and death, the other side seen as noa (secular) and is associated with hosts, women and life.[7]

In a traditional story from Tainui, (a foundational waka) a younger brother fabricating a house with which to demonstrate both a skill in construction and also a measure of mana within the iwi is tricked by an older brother into shortening the tāhuhu. The tāhuhu in the story is shown to function as a linear measure of the length and therefore also the volume of the house. In this way the tāhuhu is also a measure of the younger brother's social capacity within his hapu and iwi. The older brother's larger house and longer tāhuhu wins the prestige of the iwi and the hand of the woman. This story is foremost a genealogical narrative but also operates to indicate that whare capacity and therefore social status was measured by the length of the tāhuhu.

As the tāhuhu reached 25m in length in the mid 19th century, so did it cease to be built from timber cut trees as much as it could be seen as a singular embodiment of one tree and, as such, it became in its own right a manifestation of the god Tāne Mahuta. In this paper I will further argue that this correspondence of the tāu as a god figure and as a structural member is important in understanding its constructional role in the whare.

European Response

The increased size of the tāhuhu and perhaps too its influence and significance within Makari āori building caused Europeans unease and the need to reframe it within western schema. 19th century accounts of tāhuhu inevitably described it in relation to its size and weight. Typically it is recorded as 'huge', 'massive', 'cumbrous' and its erection is usually discussed in relation to the difficulty of the task. However perhaps the most well-known account of European unwillingness to consider the capability of Māori technology concerns the amputation of the tāhuhu at Rangiatea. Canon Hoepa Taepa wrote in 'The Rangiatea Story',

> Tradition has it that Samuel Williams disputed the Māori's ability to erect a building ninety-six feet long. A whole day, it is said they argued, but Samuel Williams remained adamant. In the late hours of the night, unbeknown to the Māori builders he cut ten feet from the ridge pole. To say the least the Māori people were disappointed. [8]

In respect of the same issue, local historian Francis Simcox referred to, "a matter of wonder to many of us as to the method employed in erecting the building", concluding that "the job would have been done with pulleys and blocks made available by whalers and seamen in Otaki".[9] Canon Taepa had more confidence in Māori construction capability and personally favoured the idea that the ridge pole was raised in stages supported by scaffolding (Hākari) as illustrated by the large examples being built by Māori at this time. It is not clear if he was referring to the widely known and equally 'excessive' Hākari stage being constructed in the Bay of Islands at the same time that Rangaitea was being built (1849).[10]

In 1952 W.J Phillipps, (ethnologist at the Dominion Museum and familiar with Māori collective engineering) described in Art New Zealand 1941, 'Rangiatea Māori Church Otaki', possibly drawing from Taepa and Symcox, how the totara logs were felled and floated to the sea before being dragged overland to the building site. His account is more in line with Canon Taepa when he wrote, *"*Stages were used to place the ridge pole in position; and in all operations about 1000 Māori participated.*"*[11]

Eric Ramsden in 'Rangiatea, the Story of a Māori Church' recorded doubt about Māori capability: 'It is to be regretted that Selwyn [Bishop Selwyn visited the church during construction] did not provide a description of just how the Māoris by [their native methods] raised the ridge pole above the supporting pillars, a feat that always intrigued visitors, including engineers, to Rangiatea."[12]

It is to this debate that American art historian Richard Sundt makes his contribution. In 1999 Sundt wrote a paper particularly concerned with the raising of the tāhuhu for the Māori church in Otaki - Rangiatea.[13] He followed this up with a wider discussion of whare karakia in 2009 in which the issue of construction and the raising of the tāhuhu at Rangiatea remained a central theme.[14]

Sundt dismissed the proposition that Samuel Williams decapitated the tāhuhu for any reason other than the William's lack of confidence in Māori technology.[15] He argued that Samuel

William's actions, if true, were "prompted by technical and practical concerns".[16] And while setting aside the issue of the possibly apocryphal nature of the Samuel William's story he seized upon the validity of Samuel William's concern, "The account may be apocryphal but yet the controversy at the time as to how best to raise the giant ridge beam to height of over 40 feet and then lower it in to position was real".[17]

While this paper is more concerned with the lack of investigation into Māori technology there are issues arising from Sundt's developed argument that the engineering of Rangiatea relied on European technology that need discussion. As Rangiatea lacked any eyewitness testimonies concerning the raising of the tāhuhu, Sundt turned to the East coast, where a whare karakia, likely to have been even larger than Rangiatea, was being erected. The church at Kaupapa was watched over and recorded by the missionary William Williams and his wife Jane. Much of Sundt's argument for the use of block and tackle and tripods at Rangiatea is based around his analysis of this following quotation.

On 28 September 1840 Jane Williams recorded

> ...had various parties of natives to talk in the veranda, after which I walked with him to see the progress of the church. Two sides of the frame are up and the ridge pole which is suspended by ropes till the posts which are to support it are in their places. Their machinery and mode of proceeding seems to me more curious than safe[18].

To unfairly reduce Sundt's argument to essential points the following can be stated: Sundt writes of Jane William's account,

> Her description of hoisting procedures is much too brief and not very technical but her mention of machinery and mode of proceeding in connection with the lifting of a ridge pole suspended with ropes is nevertheless sufficient to suggest that a system of tripods of ropes and pulleys was employed at Kaupapa for the raising of the tāhuhu.[19]

Jane William's use of the word 'machinery' to describe the Māori strategy of lifting the tāhuhu could equally indicate that she was being ironic, or, was not familiar with the Māori process of lifting. 'Machinery' is a 16th century word whose use in the 19th century was often as a generic or general reference to a process or mechanism such as 'the machinery of government'.[20] In itself 'machinery' is a general term used to avoid describing an unfamiliar specific mechanism

or sequence of machine operations. Jane Williams arrived in New Zealand on a sailing ship and would have been completely familiar with both the mechanism and process of hoisting spars and controlling rigging with pulley blocks. She is therefore very unlikely to have used a word like 'curious' to describe something she had seen the use of everyday in the course of a three month sea voyage to New Zealand. It is therefore reasonable to interpret Jane William's last sentence as meaning that she was looking at a technology she had never seen before - Māori technology.

The other issues Sundt identifies as supporting the case for the use of European pulley blocks and tripods (shearlegs) in Jane William's account of the building site were: 1) the ridge pole is suspended awaiting its supporting posts, and 2) that the side wall posts are already in place.

For this part of his analysis Sundt draws his argument from the much cited 1897 translation by the Rev William Williams' of the Rev Mohi Turei's description of the process of constructing a whare. Rev Mohi Turei was Ngāti Porou and was endorsed as an authority of East coast practice by Sir Apiriana Ngata [21]

Historical representations

Unfortunately Herbert William William's translation of the Rev Mohi Turei's account of whare construction seems to have created confusion. Williams described the process of raising the tāhuhu;

> The difficulty of raising it to its position on the pou-tahu [post to support the tāhuhu] was overcome by the use of **tokorang**i at each end, a scaffolding, **rangitapu**, being erected to support it in different positions, until it finally rested on the flat tops of the pou-tahu, the rear end resting on its post, while the excess mentioned above projected in front of the whare.[22]

In the previous paragraph Rev H.W Williams described 'Tokorangi' as 'a pair of shears'[23] and in the subsequent paragraph 'Rangitapu' as a scaffolding'. It appears that Herbert drew his definitions from the 3rd edition of the *Dictionary of the Māori Language* edited by his father William Leonard Williams and published in 1871[24] and, that this edition was the first time these words appear in this regularly updated family dictionary. Also listed in the dictionary was the root word 'toko' which was glossed as 'a pole to shove with' and, also as 'rays of light' translated as 'Kai hapai nga toko o te rangi'.

It initially appears that Williams is describing a logical process – incorporating two devices; one to lift and the other to support. The authority that this apparently simple functionalism suggests was to be radically undermined by subsequent writing and by reference to the Māori words themselves.

In 1924 ethnologist Elsdon Best wrote about the process of raising tāhuhu in two separate a passages that are worth quoting at length; in 'The Māori as He Was' he wrote,

> The lifting of the huge, massive ridge pole of a large house was another heavy task. The rangitapu method of raising the tahu, or ridge pole, was as follows: It [the tāhuhu] was hauled into position at the base of the two posts; two tall, stout rickers were set upright, one on either side of the rear post. These were somewhat higher than the post and had a cross-piece lashed across them above the top of the post. Stout ropes were attached to either end of the tahu and passed over the cross pieces above the post heads. These ropes were brought down and under similar cross pieces at the bases of the posts. The men hauling had thus two substitutes for pulleys, and were enabled to lift the ridge pole into position. The cross–pieces were freshly barked pieces or round houhou, having a smooth glairy surface. If this was a pre European usage it is an ingenious device. [25]

Clearly the 'rangitapu' that Elsdon Best describes here is a lifting frame and not the scaffolding as described by Williams. There is no mention of tokorangi, scaffolding or temporary props; just a description of a simple hoisting mechanism.

However in another publication that year 'The Māori', Volume Two, Best also wrote,

> A form of trestle termed a 'tokorangi', seems to have been employed when raising heavy posts, and an erection termed a 'rangitapu' when a heavy and cumbrous ridge pole of a large house had to be hoisted on to the tops of the lofty posts. The rangitapu served the same purpose as do the sheers used by us in lifting heavy weights. The contrivance consisted of two gallows, one erected at either end of the house site, the upright posts and cross piece enclosing both ridge pole and supporting pillars. The illustration serves…[26] (Figure 2)

In this second version of Best's there is a tokorangi which is described, not as Williams does as 'a pair of shears', but as a 'trestle' a term that retains some implication of the portability necessary for supporting the tāhuhu between lifts. Best's rangitapu however remains explicitly a simple lifting frame with a rope, whereas for Williams, it was a scaffold.

Both missionary Herbert Williams and the ethnologist Elsdon Best employed functionalist narratives to explain the 'machinery' of this challenging engineering task. Māori terms are retained in both accounts. Williams adopts the linguistic definition from his missionary father's dictionary of the Māori language and Best uses the objective prose of natural science. However Best further interprets his material through the development of a descriptive drawing of the rangitapu.

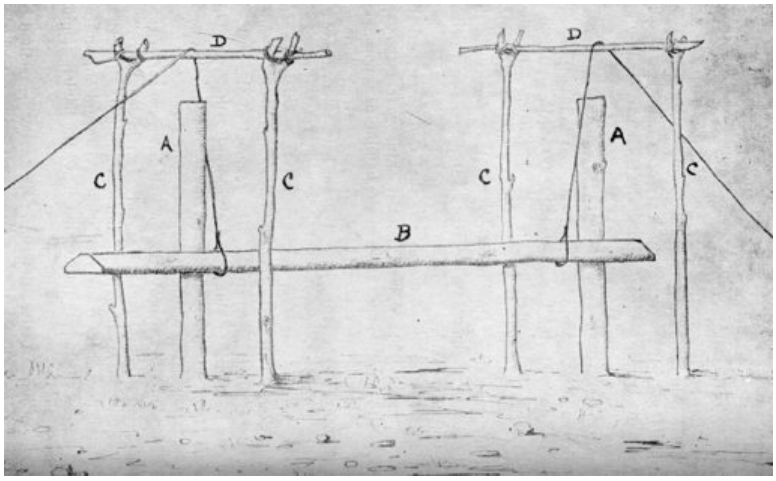

Figure 2. 'Miss E. Richardson Appliance for lifting ridge pole in House'
in, Elsdon Best, *The Māori*,1924, p.194

Miss Richardson's drawing of the Rangitapu fails to convey the desperate physical nature of the task inferred by Richard Sundt and others; the tāhuhu appears to almost hover beside the poutahu, and the woven rope is draped just more than casually over the cross beams. There are no people to strain or shout, no awareness of the inevitable deflection of the uprights caused by pulling almost a ton in weight both outwards and down from the cross bars of the gallows.

Although the drawing is strangely empty we cannot escape Best's intention to represent the rangitapu as a lifting mechanism rather than a scaffold or prop. No equivalent images have

been found to depict the functional appearance of the tokorangi - only disjunctive images evoked in the mind by the words ‘shears’ and ‘trestle’.

The significant implication of all this is that, whether tripods and pulleys were used or whether a Rangitapu did the lifting, Jane Williams would have observed a tāhuhu suspended by ropes waiting for the erection of the supporting posts. Her observations cannot be seen as singular evidence of the use of western technology. Equally using this analysis and illustrations above in which fixed scaffolding is absent there is also no problem about rearranging the sequence of construction, and building the side walls before the central posts as Sundt proposes.[27]

How difficult was it?

What is of greater interest than any of the above is why, in this ‘controversy’ about the lifting of the tāhuhu at Rangiatea and elsewhere, did not the proponents for the use of European technology ask questions about the capability of existing Māori technology? It seems reasonable as an initial response to the issue to ask the question: what kind of physical task was involved in raising these long heavy beams and what approach did Māori bring to it?

Of interest here is that in accounts of Māori engineering projects such as the construction of the whare Hotunui we find that seventy Ngāti Awa traveled north to Thames to build the house.[28] At Rangiatea the number of Māori recorded as being involved with the project varied from three hundred to over a thousand.[29] There are many accounts of such projects in which Māori participated collectively. Ethnologist W.J. Phillipps wrote of this,

> Colenso’s house appears to be a good example of one of those supreme community efforts of which from time to time the Māori people are capable. This may be noted even today in industrial activities. Quite a number of buildings, temples or whare have been built on this community plan under the direction of tribal elders…[30]

If we imagine the Rangitapu not as the forlorn and ineffective structure illustrated in Figure 2 from *The Māori,* but instead from Best’s more lengthy description in ‘The Māori As He Was’, a sophisticated lifting frame powered by a collective of strong men used to active work. In this scenario we confront an entirely different model of engineering.

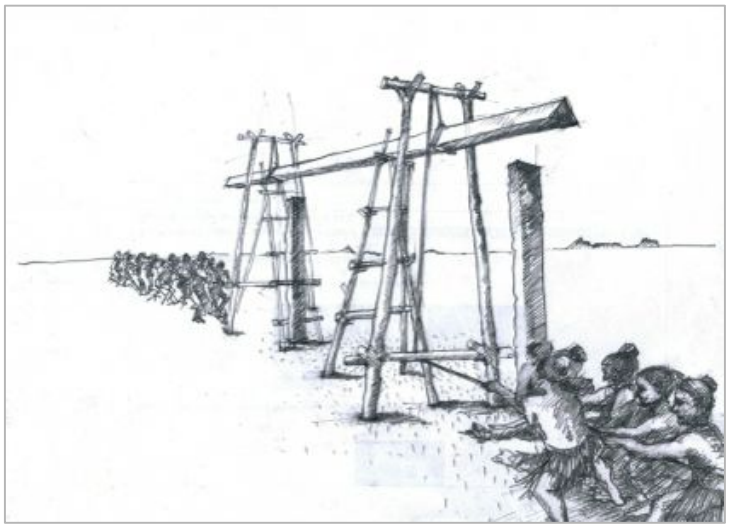

Figure 3. J.Treadwell, Interpretation of Elsdon Best's description of the Rangitapu in, *The Māori As He Was: A Brief Account Of Māori Life As It Was In Pre European Days*, (Wellington: Government Printer, 1924). Note speculative tokorangi

In this drawing we include the lower cross bar described by Best but not illustrated by Richardson. There are two important advantages to this addition: one, it removes the overturning effect of pulling down from the upper cross bar and two, it allows as many men to be added to the now horizontal rope as are necessary to raise the tahu. The disadvantage is of course the doubling of friction but, according to Best, this was offset by the use of a slimy surface beneath the bark of the houhou tree.

Using data for Totara timber from '*NZ Wood'*, which was used for the tāhuhu of Rangiatea, we can calculate that the beam would have weighed approximately 1133 kg. Lifting one end at a time would involve lifting 566kg. Twenty men would each have to provide 28kg of lift with some additional men added to overcome friction. Clearly then there is capacity in both the formula and the structure to make feasible the use of a Rangitapu to lift the tāhuhu at Rangiatea and any of the largest whare built after this. The question now is, of course, why this issue has generated so much European concern and, as a related matter, why have the parameters of the debate, in the main, been defined by Europeans?

As Māori saw it: Cosmological Context

In the same way the Richardson drawing of the Rangitapu cut from its subject all implications of physicality in the hoisting up of the tāhuhu, the modernizing narratives of natural science and the Christian church omitted all theological and cosmological dimensions that Māori had invested into the etymologies of 'Rangitapu and 'Tokorangi'.

What is less commonly related about the Te Ao Mārama (the Māori creation) paradigm is that when Tane pushed Rangi from Papatuanuku with his legs, he then propped his father and mother apart with four prepared poles – toko - one for his feet, two for his armpits and one for his head. In this act of opening space and letting in light between his parents Tane himself became the first Toko – tokorangi.[31]

This enlightenment act was not only to bring physical light into the darkness (po) but it was to activate cosmological time and space and set in relationship the atua (realm of gods) with the people and what is now called the environment. Equally important, it was also the beginning of the enlightenment of knowledge that lay within the whare wananga, that institution of tapu (restricted) learning where the learned engaged the knowledge structures that brought into relationship the cosmos, the atua and the social living world. It is into these understandings that words like tokorangi and rangitapu were invested.

From this we can understand that the toko and tokorangi are foundational to Māori cosmology and theology, and to Māori tectonics. As the first tokorangi and atua, Tāne is foundational to Te Ao Mārama and the life that followed. And we can also see that to hoist the tāhuhu in the building of a whare is to recapitulate that original awakening and enlightenment.[32]

It is this significance that Bishop William Leonard William was to strip from the entries of 'Rangitapu' and 'tokorangi' in the 1871 edition of the *Dictionary of the Māori Language*, substituting instead the functional nouns of 'scaffolding' and 'shears'.[33] By reducing Tokorangi and Rangitapu to functional terms, the church removed written reference to a Māori cosmological and theological world view. Raising the tāhuhu in these straitened terms was reduced to a mechanical task. In the 19th century the printed word was becoming crucial in recording but also defining indigenous cultures. Objectivity may have been too difficult for lexicographers whose primary mission was based on a different version of creation.

Māori and the Mechanical

If 18th and 19th century European engineering was driven by the abstract and objective nature of machine function, Māori engineering might be seen as deriving from the collectivity of social,

cultural and technical structures. When trees were felled for building projects and the logs hauled overland the project simultaneously engaged a physical present and a spiritual and mythological past. As karakia were offered to Tāne for the trees to be taken from his forest, opposing realms and knowledge systems were carefully navigated into appropriate and productive alignment. In the same way that these feats of construction were physically risky so too were the roles of tohunga seen as an engagement with the uncertain and perilous dimension of the atua.

It is important to acknowledge too that for Māori the spiritual and collective dimension of civil engineering extended back to origin stories and voyages. The history of waka in Aoteoroa and vaka elsewhere in Polynesia is a story of socially cohesive engineering which encompassed the processing of timber to the hauling of double hulled oceanic canoes across beaches and reefs.

Māori construction narratives revealed both the physical and spiritual risks implicit in projects. such as building a whare. Mereana Mokomoko, widow of the chief, W H. Taipari, spoke of the construction of the large rununga whare Hotunui that is now in Auckland Museum,

> The first post erected was named after Pereki Awhiowhio, chief of Ngātiwhanaunga. When an attempt was made to lift the ridge-pole it failed: then we sent for Paroto Manutawhiorangi, who uttered an incantation, or karakia, called “Tehuti o Tainui” (the raising of Tainui), and lo! the great tree was lifted up quickly and easily. Such was the power of magic as exercised by Māori priests of old. [34]

Of significance to this discussion is that the karakia voiced to raise the tāhuhu is the same chant for the raising up and floatation of the great ancestral waka Tainui. Mereana’s narrative also collapses the ‘Tainui’ and the ‘tāhuhu’ into, “the great tree” which, as discussed above, is understood as a manifestation of the God Tāne. As Pei Hirunui Jones wrote, “when the canoe Tainui became stuck on the portage between the Waitematā harbour and the Manukau the hauling chant was called. In the chant Tainui the canoe is conflated with Taane (God of the Forest)”. The accompanying footnote records, “The canoe is referred to as Taane, for it was made from a tree which was itself the manifestation of Taane. In facing the wrath of Tangaroa (god of the sea), the canoe continues the primal struggle between the two sons of Rangi and Papa (Sky and Earth).”[35]

The act of raising the great tāhuhu was the conferment of an ancestral identity, in the case above of the ancestor 'Hotunui', onto a material embodiment of the god figure Tāne. This took place as a simultaneous reaffirmation of primal cosmological relationships made manifest as a demanding social, physical and technical act.

The argument here is that Māori engineering proceeded not as a machine operation of measureable and predictable outcomes but as a complex negotiation of relations between the sophisticated technology of the everyday with a continuing presence of a cosmological past. And, that the internal relations within this cultural technology should be seen, as Māori saw them, as both indivisible and performative.

Anthropologist Tim Ingold, in his discussion of tools minds and machines' tracked the development of the distance that evolved between the operative and the artisan with the development of the machine.[36] As J Bruzina put it, 'the entire work-action becomes something that can be dealt with independently of human being in its properties and principles of function." [37] to which Ingold added,

> Whether or not the work is actually powered by human muscles is beside the point. Whatever the motive force, where the movement of an instrumental apparatus in the execution of a given design are independently prescribed in its initial conditions, and follow a set course, we are dealing with machine performance.[38]

While it has been argued in this paper that block and tackle and the rangitapu could both account for the description of the suspended tāhuhu, the difference between the technologies in Ingold's construction is profound. This distance between the abstract ratios of rotational distance implicit in pulley dynamics and a technology fuelled by cultural meaning and collective endeavor may also begin to explain the reluctance of western culture to allow the pre-industrial society technical capability.

In Ingold's argument the relationship of the western machine operator to the underlying technology of the machine is not necessarily one of functional understanding or cultural significance. In this sense the impulse of the colonial commentator to deny indigenous agency

is, in addition to that of 19th century racial and cultural supremacism, perhaps a measure of the alienation already operating as a result of the autonomy of European machine operation to its human operator.

In place on top of its supporting posts the tāhuhu extends its structural and cultural trajectory away from a predictable confinement in the category of a 'simply supported beam', to participate within a complex amalgam of intertwined cultural and structural formations. However this is the subject of another paper.

Endnotes

[1] Mike Austin, 'Pacific Island Architecture', '*Fabrications: The Journal of the Society of the Architectural Historians of Australia and New Zealand*,11,2 (2001),13.
[2] Nigel Prickett, 'An Archaeologists' Guide to Māori Dwelling', *New Zealand Journal of Archaeology*, 4 (1982) 112-12.
[3] Deidre Brown, *Māori Architecture From Fale to Wharenui and Beyond* (Auckland, New Zealand: Raupo, 2009), p. 53.
[4] *Reed Book of Māori Mythology* (Wellington: Reed, 2004),11.
[5] W.J Phillipps, 'Historical Notes on the Carved House Nuku ti Apiapi', *Journal of the Polynesian Society,* 1 (1970), 79.
[6] Brown, *Māori Architecture,* 53.
[7] Anne Salmond, 'Te Ao Tawhito:A Semantic Approach to the traditional Māori Cosmos', *Journal of Polynesian Society*, 24, in Deidre Brown, *Māori Architecture,* p.54.
[8] Canon Hoepa Taepa, *The Rangiatea Story*, Vestry of Rangiatea, [1966], 36
[9] Francis Symcox, *Otaki: The Town and District* (Wellington: A.H & A.W Reed,1952), 70.
[10] Sarah Treadwell, 'Categorical Weavings: European Representations of the Architecture of Hākari' in, Alex Calder, Jonathan Lamb and Bridget Orr, (eds.), *Voyages and Beaches*, *Pacific encounters 1769-1840* (Honululu: University of Hawaii Press, 1999), 265- 284.
[11] W. J. Phillipps, 'Māori Houses and Food Stores', *Dominion Museum Monograph* (Wellington: Govt Printer,1952) 8, 86.
[12] Eric Ramsden, *Rangiātea: The Story of the Otaki Church, its first Pastor and its People* (Wellington: Reed, 1951).
[13] Richard Sundt, 'On the erection of Māori Churches in the mid 19th Century: Eyewitness testimonies from Kaupapa and Otaki', *Journal of the Polynesian Society*, 108, 1(1999).
[14] Richard Sundt, *Whare Karakia Māori church Building, Decoration and Ritual in Aoteoroa New Zealand 1834–1863* (Auckland: AUP, 2010).
[15] Sarah Treadwell, 'European Representations of the Architecture of Rangiatea', Unpublished PhD Thesis, University of Auckland 1995, p.42. Treadwell argues that the decapitation could be viewed as an act to prevent the church taking on the form of the whare with an open porch.
[16] Sundt, Whare Karakia, 114.
[17] Sundt, 'On the erection of Māori Churches,.17.
[18] Sundt, 'On the erection of Māori Churches,.18
[19] Sundt, 'On the erection of Māori Churches,18. ,
[20] http://dictionary.reference.com/browse/machinery

[21] A.T. Ngata, 'Notes on the William's Paper on the 'The Māori Whare, *Journal of the Polynesian Society,* 6, 2, (1897), 85. Ngata carefully confirms that Turei's account is a discussion of Ngāti Porou building tradition, of which there are certain practices such as the omission of a post supporting the end of the tāhuhu that were not necessarily practiced elsewhere. The implication here is that Sundt's reliance on William's translation of Turei may be misplaced when considering Ngāti Toa or Te Atiawa projects.
[22] Rev H.W Williams, 'The Māori Whare: Notes on the Construction of a Māori house, *Journal of the Polynsian Society,* 5, 3, (1896),147.
[23] http://en.wikipedia.org/wiki/Sheers - Sheers (Shears, Sheer legs, or Shear legs) are a form of two-legged lifting device, that were used by sailboats and dockyards for tasks such as lifting masts and heavier parts of the rigging on board. Unlike in a gyn, which has three legs and is thus stable without support, stability in sheers (and in a derrick) is provided by a guy. Sheers comprise two upright spars, lashed together at their heads and their feet splayed apart. The heels of the spars are secured by splay and heel tackles. The point at the top of the sheers where the spars cross and are lashed together is the **crutch**, to which a block and tackle is attached. Unlike derricks, sheers need no lateral support, and only require either a foreguy and an aftguy or a martingale and a topping lift. Being made of two spars rather than one, sheers are stronger than a derrick of the same size and made of equivalent materials. Unlike the apex of a gyn, which is fixed, the crutch of a sheers can be topped up or lowered, via the topping lift, through a limited angle.

[24] W.L Williams (ed), *A Dictionary of the New Zealand Language*: *To which is added a selection of colloquial sentences* (London: Williams & Norgate, 1871),152 & 204.
[25] Elsdon Best, *The Māori As He Was: A Brief Account Of Māori Life As It Was In Pre European Days* (Wellington: Government Printer, 1924), 24.
[26] Elsdon Best, '*The Māori Volume 2' Memoirs of the Polynesian Society* (Wellington: Board of Māori Ethnological Research,1924), 5, 193.
[27] Richard Sundt 'On the erection of Māori Churches',19.
[28]Mereana Mokomoko, 'The Building of Hotunui, Whare Whakairo, W. H. Taipari's Carved House at Thames: Told By Mereana Mokomoko, widow of the late chief, W. H. Taipari, to Gilbert Mair', *Transactions and Proceedings of the Royal Society of New Zealand,* 30, V (1897) 41.
[29] W.J Phillipps, *Māori Art* (Wellington. Whitcombe and Tombes 1946),37
[30] W. J. Phillipps, *Māori Houses and Food Stores* (Wellington: Dominion Museum, Govt Printer,1952). 8,.86
[31] Hone Sadler, Māori Studies Department University of Auckland, Personal Communication, May 2012
[32] Hone Sadler, Māori Studies Department University of Auckland, Personal Communication, May 2012. Consistent with the above Hone has analysed the whare as a metaphor for Te Ao Mārama, in which the roof of the whare can be understood as Ranginui and floor as Papatūānuku.
[33] W.L Williams, (ed.), *Dictionary of the New Zealand Language* (Turanga, 1869), 152
[34]Mereana Mokomoko, *The Building of Hotunui, Whare Whakairo*, 1897.
[35] Pei Hurunui Jones, Bruce Biggs, *Nga Iwi o Tainui, 'The traditional History of the Tainui People'* (Auckland: AUP Press, 1995), 44.
[36] Tim Ingold, *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill* (London: Routledge, 2011)
R.Brusina in, Ingold, '*The Perception of the Environment* 2011, 296.
[37]R.Brusina in, Ingold, '*The Perception of the Environment* 2000, 296.
[38] Ingold, *'The Perception of the Environment*, 296.

Myths, Metaphors and Histories: Architectural education from a hermeneutic perspective

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Abstract

This paper examines Gadamerian hermeneutics in relation to the interpretation of historical 'texts'. History is significant in the education of architects, facilitating interpretation of the present in the light of the past, and providing a means of developing understandings of human existence in the world, to inform design. Historical narratives in the postmodern period draw from disciplines across the Humanities, leading to interesting pedagogical opportunities for interpretation of difference through the 'fusion of horizons'. This develops as a result of interaction between interlocutors, engaging through play (Spiel) in a game involving interpretations of truth claims derived from language (whether of works of art, text or speech). These cross-disciplinary understandings are pertinent to architecture, which is a combination of disciplines in the humanities and sciences; importantly, it is always culturally situated, interpreting tradition to meet the needs of the future. The new perceptions which arise, enrich our understanding of the human in his/her 'life-world' and can then be applied to design thinking, using phronesis.

History is an interpretive tradition and this is discussed in relation to understanding the 'fictions of history'. Metaphorical thinking and myth are discussed from a hermeneutic perspective, using Snodgrass and Coyne's theme of excursion and return, where the Seeker travels in search of understanding and returns changed by the experience.

Myth, although not objectively 'true' becomes relevant through what Bultmann and Ricoeur call 'demythologization', where it is symbolic of our existential condition, providing a gateway to imaginative thinking. The 'journey' is undertaken by interpreting a variety of historical 'texts'. Their purpose is not chiefly to understand historical precedents, but to engage with values and worldviews informing architecture. 'Texts' refer to both written and visual materials, which address us with their meaning via an interactive process,

when different perspectives are encountered within the learning community.

Architectural history as a cultural practice

This paper examines the role of architectural history in the education of future architects from a Gadamerian hermeneutic perspective, discussing the relevance of an interpretive engagement with history to learning and design thinking. The discussion considers the role of hermeneutics in the interpretation of history and its capacity to develop students' understandings of the 'lived world'. Metaphoric thinking, myth and narrative are considered in relation to learning by engaging with the 'Other'.

Developing a hermeneutical dialogue with architectural history (in its written or built form) enables students to engage with architecture as a cultural practice, as a means of informing design. By investigating how this approach to history and theory can facilitate understandings of the interactions between human society and architecture, this discussion aims to contribute to the narratives and practice of architectural education.

Changing attitudes to history in architecture

The rise of the Modernist movement in architecture led to a rejection of architectural history, as part of the project to develop a new architecture free of the past, to 'express the triumph of techno-rational positivism'. As a result history became 'marginalized' in the design school.[1] However in the postmodern period it has been recognized as Aldo Rossi said, that 'history is the material of architecture', because architecture is always culturally situated. [2] Architectural history can now be broadly interpreted (as Snodgrass and Coyne have suggested) as 'architectural texts: buildings, cities, theories, drawings, virtual designs in cyberspace, anything from the past, remote or recent, that conveys architectural meaning'.[3]

However, there is still some residual thinking left over from modernist rationalism, where architecture is seen as a technical practice and historical texts are often regarded as not particularly relevant to design, as the methodologies of history and design are seen as essentially different. As Hans Morgenthaler points out, although history and design constitute major components of the education of an architect, 'in current educational practice, these areas are not combined in a mutually beneficial manner'**.** [4] Traditionally, history had the task of informing us about the past, using an 'objective' or empirical approach that works on the basis of facts arranged in a linear chronology; whereas, the purpose of design is to create, through 'a successful combination of intuition, synthesis,

and integration, viable and beneficial environments for human beings'[5]. The nature of architecture as a scientific and artistic practice, (*techne* and *praxis*, resulting necessarily in built form), requires engagement with architecture's existence in socio-cultural contexts. As Jorge Silvetti indicates, creativity requires input and design is not just about drawing esoteric diagrams, it must relate to socio-cultural circumstances to be meaningful.[6] Understandings of these 'circumstances' in relation to the past gives students a stable base from which to interpret architecture in society and hence for design.

However architecture's theoretical discourses often seem further distanced from practice, as, according to Silvetti, during the last 20 years the dominant discourse has **'**involved the reconfiguration of the practices of theory and criticism', looking at architecture 'perhaps for the first time…from its outside', in an effort to 'understand it as a cultural and ideological practice'[7]. This has involved fascinating and complex discourses developed from structural linguistics and philosophical and aesthetic perspectives. However it has also distanced architecture from building, the authorship of the architect and its socio-cultural enframing. [8]

Historians recognise the relativism of historical interpretation: that history cannot represent 'pure truth' and is never fixed in meaning, as 'every piece of historical writing has a theoretical basis on which evidence is selected, filtered and understood.'[9] Even in the recent past, it was recognized within the profession that 'the facts of history…are always refracted through the mind of the recorder'[10] in this sense, the interpretation of history is inherently hermeneutic.

In the post-modern period, many historians have moved away from historicism, creating multiple approaches to historiography, which allow for a more creative and fluid view of what history can contribute to understandings of humans in society and these have become part of the discourses of architectural education. Architectural history can still be interpreted in narrative frameworks, which (although they may be expressive of their own zeitgeist) can be engaged with, not only from a critical perspective, but also in an intuitive, fluid, hermeneutic sense 'positioning' itself to meet the needs of 21st century designers and users of architecture. Multiple perspectives on the history of architecture are accessible through anthologies of architectural theory such as Kate Nesbitt's *Theorizing a new agenda for architecture* where chapters 1-8 interpret issues of 'meaning history and society' [11]providing a structured overview of how the theoretical discourses of architecture

have led to reinterpretation of architectural history since 1966, when Robert Venturi's *Complexity and Contradiction* 'radically changed attitudes towards modern architecture'.

Hermeneutics, History and Language: the fusion of horizons

From a hermeneutic perspective, as interpreted by Gadamer, humans are situated in time, that is, historical contexts; thus for Gadamer 'what we can understand alone is limited by our historical and cultural horizons; and we use language to mediate experience.' [12] This is particularly relevant to architecture, where there has been a constant interplay between sign and signification throughout its history.

Language is essential to our interpretation of the world, as it is social, it is needed for thought and we become aware of the thoughts of others in dialogue or conversation.[13] In this context 'others' can be conceptualized as other humans or 'the Other' - where thoughts and ideas are represented by written or visual texts, across cultural and temporal boundaries - referred to by Gadamer as 'horizons.' Horizons here are considered to be perceptual boundaries, which are capable of transforming or 'fusing' when we engage with new and different points of view. This occurs when 'we encounter horizons that make something present in a different way than we are used to'.[14] Horizons 'fuse' when these perceptual possibilities become part of our own understanding, and we 'come to understand the limitations of our previous horizons.' [15] It follows that interpretation of historical and visual texts provides architecture students with representations of different worlds or horizons to interpret, in relation to society, ethics, or ways of coping with social and political change, or 'being-in-the-world' all of which relate to designing space.

The key to hermeneutic interpretation of history is that there is no correct way to interpret texts, no stable set of facts, but it is the process of fusing horizons, which is important for understanding and which can be translated into design practice.[16] For example, in this paper, this process is engaged with by interpreting Gadamer via secondary sources who have understood his work in relation to contemporary issues in the humanities. By engaging with recent interpretations of Gadamer's work, it is hoped to produce new understandings of the relationship of history to design thinking, as part of a larger doctoral research project.

History as Language

History also is communicated by language, (whether visual or written) making experience intelligible to us and mediating our perception of the world, 'just as our eyes mediate

wavelengths of light.'[17] This is not to suggest that the world is somehow 'created' by language, but that language enables us to describe elements of the world which we experience and enables us to share our thoughts and feelings with others.[18] As Monica Vilhauer points out, Gadamer insists that tradition (history) is 'language' (*Sprache*) or a type of speech, because it expresses itself as a 'Thou' rather than an object, operating as a 'voice' which 'speaks to us across time".[19]

The connections between Gadamerian hermeneutics, language and architectural history are clear: a hermeneutic approach to history has a significant role in architectural education, as it facilitates interpretation of the present in the light of the past, and also provides a means of developing understandings of human existence, to inform the future.

Engaging with 'the Other' through interpretation of texts: the concept of play

According to Vilhauer,[20] an important corollary to the fusion of horizons expressed by Gadamer in *Truth and Method* is the concept of play, where through the back and forth dialogue with texts and other people we come to create 'a joint articulation of truth' …[21] For example, when we encounter a work of art, Gadamer says that we engage in a 'to-and–fro dance of presentation and recognition' from which meaning emerges and is understood. However we can only understand and interpret the truth claims of a text by understanding how it is applicable to our 'concrete situation'.[22] The work of art does not impose its meaning (or 'claim to truth') on us, rather it asks for our recognition of the subject as the 'way things are' and it is by understanding this claim about the world that communication occurs.

As part of the 'interactional event' of play in architectural history, the interpretation of texts can lead to broader perspectives, including understanding socio-cultural themes in architecture derived from ethno-history, sociological history and psycho-history, rather than just being about precedent analysis, traditionally used as a way of learning the building typologies and stylistic variations of different historical periods. For example, a text with an anthropological focus, such as Paul Oliver's 'Problems of cultural specificity and cross-cultural comparability',[23] creates a dialogue with the reader, who engages with its 'difference' and in the process becomes aware of how cultural difference produces new insights into spatial relations.

Similarly, the concept of home varies across cultures, with many psychological, phenomenological and anthropological iterations of home – not just as built form but as places which facilitate family relationships and embody human experience. By engaging

in a backwards-and-forwards dialogue with texts such as Pallasmaa's 'Identity, Intimacy and Domicile'[24] or Troutman's 'Inside Fear: Secret Places and Hidden Spaces in Dwellings',[25] and being open to the possibility of new meanings (which may also conflict with each other), interlocutors are able to understand their own assumptions and become aware of their prejudices and contexts of meaning.[26]

This cross-fertilization of ideas is important for developing understanding 'as we do not learn from sameness, but by questioning the unfamiliar and the alien, and allowing it to question us'.[27] The process of play-or *interplay* between the meaning offered by the Other, and our own often unreflected views, contributes to *Bildung*, which is a term conveying a richer sense of meaning than 'education'. As Gadamer asserts, it refers to 'the properly human way of developing one's natural talents and capacities'.[28] Interpreting historical themes in this way is relevant in our present era, where in an increasingly urbanised, globalised environment, we have been disconnected from traditionally effective social patterns and forms of habitation.

Narrative and Architectural History

The narratives of architectural history provide temporal perspectives on the significance and purpose of architectural form. Thus they contribute to understandings of the human condition by prospective architects. As architecture is always situated in social, cultural and environmental contexts, built form and its accompanying historical narratives preserve a record of the changing social and philosophical underpinnings of human society. As Morgenthaler points out, architects do not determine 'the problems their work deals with', or 'establish the criteria used to evaluate a design'. This is done by 'cultural standards', created by value judgements about form and significance, which change over time and are recorded in the historical record, giving extra weight to the architect's opinion.[29] Thus the importance of language in creating meaning in the human mind[30] is reflected in historical narrative, which helps us to make sense of our place in the world through story.

However, there is disagreement among historians, concerning the role and definition of the narrative mode in history writing. It is clear that history does not represent 'objective truth'; as Hayden White points out, both history and fiction deal with domains of human experience: although there are important differences between fictional events and historical events, the forms of both are often the same [31]Both are fictive in their own way and factual representation is in itself a fiction, as historiography relies on interpretation and the point of view of the author.[32] The relevance of narrative in teaching architectural

history may be that it invites the reader to engage imaginatively with the 'other' by simulating engagement with the past, as though it were being experienced by the reader.

Ontology and history

In Gadamerian terms, different people, texts, cultures and times have different horizons and all understanding occurs as a 'fusion of horizons' thereby enriching our understanding of the ground of our being. The ontological significance of history and theory to architectural education is even more relevant now than in the past: as Ronald Barnett points out, 'in a world beset by 'super complexity,' the educational task is not epistemological, it is ontological'.[33] He sees the dilemma of modern pedagogy as deriving from the incessant challenges of a world so complex, and in such a state of intense and rapid change that it cannot be described. In this context, knowledge is no longer fixed but constantly changing, so students need to develop a sense of 'being-for- uncertainty'. This involves being able to communicate with others and a certain 'flexibility', where rather than being attached to epistemology, students learn by a process of interpretation: for example, if we consider the value of precedent study in architecture we can see that the precedent is a text, from which we can take what we find useful, to apply to present circumstances.

Similarly, the Gadamerian view of history is that it should not be seen as an 'object' which 'may be understood through a kind of impartiality that requires forgetting ourselves in our own historical situation'.[34] For Gadamer, 'real historical thinking must take account of its own historicity'; however when 'faith in scientific method' insists on the objectivity of history, this can result in an actual deformation of knowledge'.[35]

The creative processes of history: phronesis and wiederholung

The role of history in design in hermeneutic terms is that it enables us to reinterpret the past, in a way relevant to present conditions, rather than merely recollect (in a Platonic sense) or repeat it. This is not the same as 'literal mimesis or exact repetition, but it allows the past to inform the present in an authentic and dynamic way.' [36] This process is known as phronesis, where prior understandings derived from the past are applied to meet particular situations in the present, to create new possibilities for the future. Heidegger referred to this process as '*wiederholung*' or 'retrieval' and saw it as creative.[37] This way of looking at the role of the past in imagining the future gives us an understanding of the importance of history to architecture.

The best studio work produced by students in History and Theory in Design exemplifies this sense of creative re-engagement with history, where a new understanding of the past contains 'traces of memory'[38] rather than the copying of precedent. This could be considered the 'What if…?' of history. Similar to Richard Flanagan's re-imagining of Tasmanian colonial history in *Gould's Book of Fish*, or Paul Carter's theatrical re-imagining of the relationship between an aboriginal woman Patyegarang and William Dawes, the First Fleet astronomer,[39] the creative development of fictive narrative can allow the un-represented to have a voice. This is another type of fusion of horizons - where different narrative approaches from history and literature can provide stimulus for thinking differently about history, which can be translated into design. There is an abundance of recent architecture which can function as 'text' supporting phronesis as the creative application of history to design, in order to create contemporary narratives and give the dispossessed a voice - e.g. Leibeskind's Jewish Museum in Berlin, and for indigenous Australians, Uluru Kata-Tjuta Cultural Centre and Bunjilaka at the Melbourne Museum.

Metaphorical thinking and Myth.

There is a renewed interest in the capacity to think creatively in the sciences, referred to by Richard Dawkins as 'poetic science'[40] and much has been written about the importance of archetypes in influencing human behavior and the value of the 'big stories'.[41] Richard Dawkins in *Unweaving the Rainbow*,[42] makes a case for the evolutionary importance of the development of metaphoric thinking in our early hominid ancestors, suggesting that as part of a need to hunt large herbivores, they learned to track animals and draw two-dimensional maps, to aid group communication. This ability to make one thing stand for another assists communication, which may have given our ancestors an evolutionary edge. Dawkins points out that the ability to see analogies and to express meaning in terms of symbolic resemblances to other things, may have contributed to human brain evolution. Humans have the unique ability to 'notice when things are like other things and use[sic] the relation as a fulcrum for our thoughts and feelings'.[43] Metaphor can be seen as part of the 'gift of imagining', which enables our brains to simulate a model of what the sense organs are telling it, progressing to the capacity to truly simulate things that are not actually there at the time, creating a vision of the future connected to the past.

Derrida says that any attempt to displace or erase myth is finally doomed because metaphor and myth always lurk in the back of our rational concepts. Thus the persistence

of myth may reflect a human need for different ways of interpreting reality, from a stable base: this connects to phronesis in design, where metaphoric thinking can allow us to interpret in 'other ways' to produce a type of invention for specific current circumstances, enabling creative connections to be made.

Myth and Demythologisation

History and myth are inextricably connected according to Dalibor Vesely, where situations 'endow experience with durability in relation to which other experiences can acquire meaning and form our memory and history.' [44] However myth has lost credibility in recent times, a process that started with Plato and has accelerated since the Enlightenment. According to Bultmann, informed by an Enlightenment view of truth,[45]culture should be regarded as a 'nut' containing a kernel of truth, and layers of myth and language must be peeled away to reveal it. However Vico saw culture as an onion, and its narratives or myths are not separable from the truth. Here myth, language and culture are inextricably bound together.

This reflects the split in Western philosophy between rational thinking (*logos*) and creative or poetic thinking (*mythos*).[46] This split has led to rationality being seen as scientific, representing 'truth', for example, the Enlightenment view of language, according to Bultman, accepts that 'truth can be expressed only in rational propositions',[47] and the metaphoric imagery of myth is seen as 'a mere adornment (culturally conditioned and time-bound)'. Similarly, creative thinking since the Enlightenment has been seen as mysterious and marginal - relegated to the arts rather than the sciences. This 'dual knowledge thesis'[48] is challenged by hermeneutics, as if all understanding occurs via interaction with the objective world, the difference between design thinking and scientific thinking represents (as Dewey suggests) 'a difference in tempo and emphasis rather than in kind'.[49] Similarly, mythic thinking can be viewed as a metaphor structure, rather than 'objectively true'.

There is a more 'rationalist' interpretation of myth: which becomes relevant, through what Bultmann and Ricoeur call 'demythologization', where myth can be critically interpreted as symbolic of our existential condition[50]. As Joseph Kockelmans suggests, myth is a way of dealing with *geworfenheit*[51] or the sense of being 'thrown out' of continuity with the past. Through engaging with myth, we connect with the 'big stories' of humankind, which provide a sense of societal meaning. This is relevant to architecture as a cultural practice, which must integrate intuitive, sociological and techno-rationalist thinking.

The existential condition of *geworfenheit* is particularly relevant to the current generation of students, who have grown up in a mediatised world, where techno-rationalist thinking is the norm. However this type of thinking tends to be less than adequate for dealing with the complexities of human feeling and experience. In this sense, metaphor and myth have relevance to hermeneutic interpretation, not only by allowing for a fusing of the horizons of reason and imagination (*logos* and *mythos*) relevant to design interpretation, but also because 'myth has the capacity to take us out of our current space-time mental framework and connect us with the significant underlying issues which affect all humans.'[52]

To use a mythological metaphor, the study of architectural history can be envisioned using the metaphorical theme of excursion and return, where the Seeker travels in search of understanding, and returns changed by the experience.[53] This is a common theme across all cultures, where a young person leaves their home and sets out on a quest to discover 'truth' (in the form of new understandings) in the world through encounters with the unfamiliar or 'Other'.

In the context of an undergraduate degree, the 'journey' is symbolised by a wide variety of historical 'texts' representing seminal projects in the history and theory of Western architecture, from the ancient Greeks through to the present day. The purpose of this journey is not chiefly to understand and be able to identify historical precedents and building typologies, but to gain some understanding of the values and world views which have been concomitant with, and have informed, architectural production and design, creating an environment in which imagination can inform design thinking, by creating new perspectives on the social. Here, Gadamer's metaphor of horizons can be seen as open and variable rather than closed: a gateway rather than a limit, moving as our perceptions change.[54]

Endnotes

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Contrasts (agency and difference) in nineteenth-century writings on architecture and design: Pugin, Ruskin and Wilde

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Abstract

The juxtaposition of style or historical epochs (Gothic against Greek, past against present) is a common attribute of nineteenth century architectural criticism. While Pugin's Contrasts; Or, A Parallel Between the Noble Edifices Of The Fourteenth And Fifteenth Centuries, And Similar Buildings of the Present Day *(1836) provides an explicit example of this methodology a similar reliance on stylistic and/or temporal binaries is also evident in the later writings of John Ruskin and Oscar Wilde. The aim of this paper is to compare Pugin's* Contrasts *with those of Ruskin and Wilde. Initially adhering to the romantic proposition that all objects are dependent on the development of an 'opposite' for their representation and being, the treatment of this 'other' by each critic reveals divergent stylistic motives ranging from the hierarchical (asserting the authority of one by the denigration of the other), appropriation (where opposites combine to generate a third and superior category) and analogical (the simultaneous acknowledgement and autonomy of similarity and difference). Acknowledging a third conceptualisation of the 'other' (analogy) that fails to conform with postcolonial models of appropriation and denigration, the paper will also demonstrate the methodological importance of 'difference,' and the varying tolerances to it, within internal critiques of English architectural practice throughout the nineteenth century.*

In the mid-nineteenth century, the German naturalist Alexander von Humboldt (1769–1859) published his scientific study, *Cosmos: A Sketch of the Physical Description of the Universe* in which he inverted the romantic association of the *imagination* with a superior faculty and artistic genius with the gifted few. Arguing that the imagination was present within all people, but that it often lay dormant, especially among the masses, Humboldt also suggested it could be activated by contrasting botanical species from tropical and temperate climates. Such visual juxtapositions, he believed, could induce 'more vivid impressions in the minds of [the] less highly gifted . . . heightening their powers of artistic creation.' This idea built upon his hypothesis that the greater a region's biodiversity, the better an individual may grasp the inherent unity binding nature's infinite variety. By seeking the known in the foreign (or the

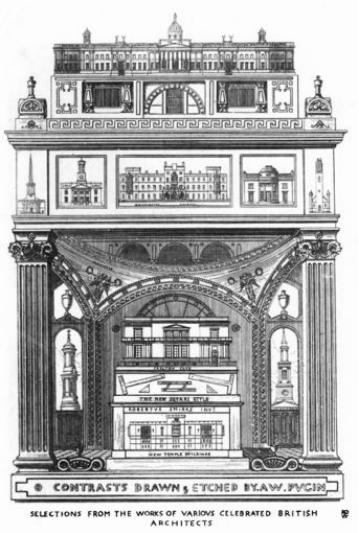
similarities binding 'strongly contrasting forms') 'the spontaneous impressions of the untutored mind' would lead, 'like the laborious deductions of the cultivated intellect, to the same intimate persuasion, that one sole and indissoluble chain binds together all nature.' [1]

Humboldt's interest in visual contrasts was importantly a strategy that was also common to nineteenth century architectural criticism. While Pugin's *Contrasts; or, A Parallel Between the Noble Edifices Of the Fourteenth and Fifteenth Centuries and Similar buildings of the Present Day; Shewing The Present Decay of Taste* (1836, 2nd edition 1841) offers the most explicit example of such a methodology, parallel practices are found in the writings of John Ruskin (1819-1900) and Oscar Wilde (1854-1900).[2] The aim of this paper is to consider the methodological function of such juxtapositions as it is revealed in the writings of these three critics, and specifically in Pugin's *Contrasts*, Ruskin's *Stones of Venice* (1851-3) and Wilde's *Critic as Artist* (1891).[3] Seeking to "contrast" rather than "compare" the use of such juxtapositions in the writings of each, the aim of the paper is to consider the varying conceptualisations of the "other" or "difference" (stylistic or temporal) that each critique promoted. Linking these constructs to debates on architecture's disciplinarity—its status as a fine or noble art—and theories of artistic agency, such as the Romantic or Victorian imagination, the paper identifies a discourse on "difference" and the "Other' within internal critiques of nineteenth-century British architecture. In doing so, it also questions the exclusive attachment of such concepts to unequal power relations (colonial, racial, gendered or religious) and strategies of denigration and appropriation.[4]

Pugin's *Contrasts.*

Pugin's *Contrasts* (1836, revised ed. 1841) brings together a series of illustrated plates, drawn and engraved by Pugin himself, and six short chapters which trace the decline of English architectural taste from it's peak in the fourteenth and fifteenth centuries through to Pugin's architectural present. Inverting a thesis of progress which positioned the nineteenth century as the 'great age of improvement and increased intellect,'[5] the first plate in Pugin's series, *Selections from the Works of Various Celebrated British Architects* (Fig 1), and its companion, *Of the Practise of Architecture in the 19th Century on New Improved and Cheap Principles* (Fig 2), considers the aesthetic and systems of production informing early nineteen-century architectural practice. The first plate depicts a series of contemporary compositions—including the recently completed Westminster hospital (1834)—in an equal mix of Gothic (or castellated) and classical styles. Each project is represented in elevation only and rendered as flat, two-dimensional objects with minimal detail. At the centre of the composition, directly above the main title, is an image of the Carlton Club (1835) under which appears the inscription 'The New Square Style' alongside a series of drawing instruments.

Directly beneath is written the name of the architect Robert Smirke, which sits directly above a sketch of a 'New Temple Building' undertaken in the Gothic style.



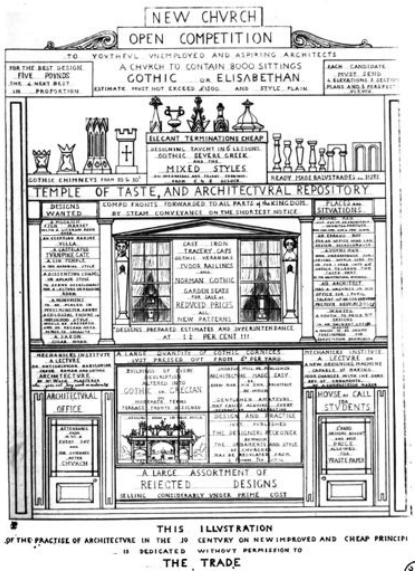


Figure 1. AWN Pugin, Selections from the works of Various Celebrated British Architects*,* and **Figure 2.** AWN Pugin, Of the Practise of Architecture in the 19th Century on New Improved and Cheap Principles, (*Contrasts, or, A Parallel Between the Noble Edifices Of the Fourteenth and Fifteenth Centuries and Similar buildings of the Present Day; Shewing The Present Decay of Taste* (1836, 2nd edition 1841), frontispiece & appendix)

While the dual representation of the Gothic and Classical styles may in the first instance appear to reference the 'Contrasts' suggested by the title given at the base of the image, it is clear by the equal treatment given to each that Pugin's intent, in this instance, was not intended to be oppositional. Rather the focus of the image settles on the eclectic and 'fashionable' use of style as a 'scenic' device, disconnected from function or type, to generate picturesque effect or associations.[6] Its companion image, *Architecture in the 19th Century on New Improved and Cheap Principles,* the first in the series of illustrated plates following the text, continues with this theme, referencing the new industries (manufacturing and design), modes of mass production, and the commercial values which supported this eclectic and [for Pugin] uncritical use of style.

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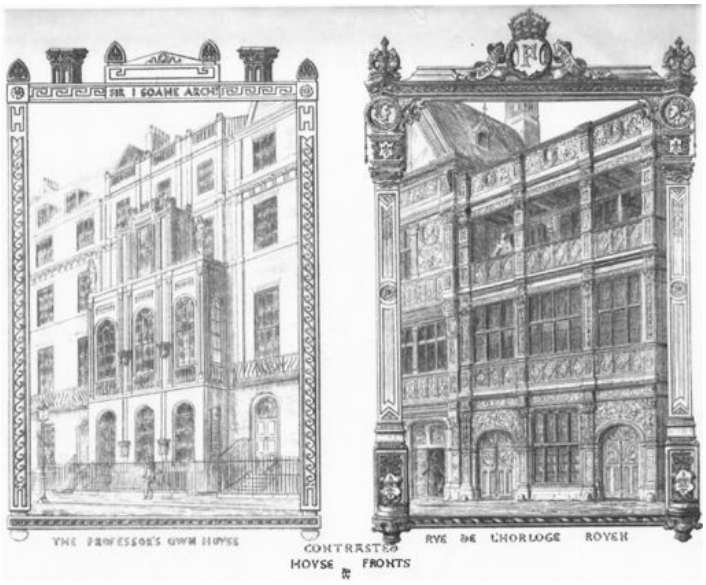

Figure 3. AWN Pugin, Contrasted House Fronts, (*Contrasts, or, A Parallel Between the Noble Edifices Of the Fourteenth and Fifteenth Centuries and Similar buildings of the Present Day; Shewing The Present Decay of Taste* (1836, 2nd edition 1841), appendix.)

Having established principle themes for nineteenth century architectural taste, Pugin's goes on to assert the failings of these by "contrasting" various nineteenth century typologies against their fourteenth and fifteenth century (Gothic) counterparts. Using a double plate format that allowed direct visual juxtapositions, Pugin presented the observer with a multiplicity of built forms, including churches, chapels, cathedrals, college gateways, town crosses, bishop's residences, church monuments, town halls, house fronts, public conduits, inns and even a complete town. Reinforcing the failings of his nineteenth-century examples, Pugin's renderings are characterised by a simple flatness and a minimal use of line and detail. When compared to the richness of ornament, texture and surface depth of the accompanying Gothic equivalents, Pugin's engravings of contemporary practice appear to be little more than summary sketches and suggest a more limited period of execution, both graphically for Pugin in his rendering of the buildings and for the masons and craftsmen in their construction (Fig 3).[7]

The temporal hierarchy of past over present suggested by this simple formal distinction finds additional visual confirmation in the negative content often included in the nineteenth-century examples, including the policeman denying a young boy access to the public water supply (while a gentleman looks on) in *Contrasted Public Conduits* (Fig 4) — in in which the tap is chained and locked — or the juxtaposition of factories, gas works, lunatic asylum, prison and toll bridge against a medieval walled city in *Contrasted Towns of 1440 and 1840* (Fig 5). A final image of a scale on which the architecture of a Gothic past is weighed against the present completes the series (Fig 6). Titled in a preliminary sketch as *They are weighed in*

the balance and are found wanting, which is omitted in the published version, it is the Gothic architecture of the past which tips the scale and visually asserts its superiority.[8]

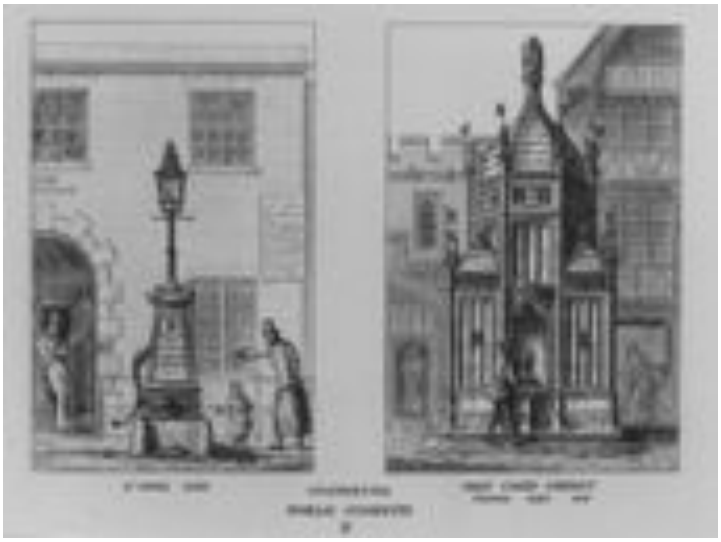

Figure 4. AWN Pugin, Contrasted Public Conduits, (*Contrasts, or, A Parallel Between the Noble Edifices Of the Fourteenth and Fifteenth Centuries and Similar buildings of the Present Day; Shewing The Present Decay of Taste* (1836, 2nd edition 1841), appendix.)

Importantly, the hierarchy of past over present (or Gothic over the nineteenth century) asserted in the drawings is qualified by Pugin in the accompanying text. Consisting of a short preface and five chapters, the essays trace the decline of architectural taste within Britain from its moment of perfection, the Gothic architecture of fourteenth and fifteenth century England –or 'that which immediately preceded the English reformation' (chapter II)—through two phases of destruction, first under Henry VIII (chapter III) and then Edward VI (Chapter IV) and culminating in the 'degraded state of ecclesiastical buildings' in the nineteenth century (Chapter V). Pugin's thesis within the essays is one that is focused almost exclusively on religious buildings, unlike his accompanying plates which include a broader range of examples including the inn, the urban house, the water conduit and town planning. It is also one that is strongly focused on the Catholic church within England prior to the reformation and which reflects his own conversion to Catholicism in 1834, two years prior to the publication of *Contrasts.*

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Figure 5. AWN Pugin, Contrasted Towns, (*Contrasts, or, A Parallel Between the Noble Edifices Of the Fourteenth and Fifteenth Centuries and Similar buildings of the Present Day; Shewing The Present Decay of Taste* (2nd edition 1841)).

Pugin's aims within the 6 chapters appear to be multiple. The first and most commonly acknowledged was his desire to [re] advance utility as a primary generator of style and as a viable alternative to the pictorial biases of nineteenth century architectural taste. Identifying the 'greatest test of Architectural beauty' as 'the fitness of design to the purpose for which it is intended' Pugin argued that the 'style of a building' should also 'correspond with its use so that the spectator may at once perceive the purpose for which it is erected.'[9] His interest in the Catholic (or Gothic) church of the fourteenth and fifteenth centuries, rather than the later Protestant or Anglican Church, is partially due to his belief that it better represented this basic principle.

> Here every portion of the sacred fabric bespeaks its origin; the very plan of the edifice is the emblem of human redemption—each portion is destined for the performance of some solemn rite of the Christian church. Here is the brazen font where the waters of the baptism wash away the stain of original sin; there stands the gigantic pulpit, from which the sacred truths and ordinances are from time to time proclaimed to the congregated people; behold yonder, resplendent with precious gems, is the high altar, the seat of the most holy mysteries, and the tabernacle of the Highest! It is, indeed a sacred place; and well does the fabric bespeak its destined purpose….[10]

A second objective was to identify that which associated architecture with the, 'noble arts' and distinguished it from lower or 'mechanical' activities,' such as building. Suggesting that a good understanding of the 'mechanical part of Gothic architecture' already existed, Pugin

went on to argue that it was the 'soul' and 'ancient feelings and sentiments' that truly explained such buildings.[11] It is this second observation which led Pugin to his third, and for the current paper, most important conclusion; that in lacking a parallel soul or sentiment, nineteenth century architectural practice was also found to be wanting.[12] Seeking to challenge the claim for the 'immense superiority' of the nineteenth century— as a 'great age of improvement and intellect'—Pugin set the 'works of the leading men of the day' against a 'true scale of excellence,' the architecture of the fourteenth and fifteenth centuries.[13]

> I hope it will be acknowledged that I have conducted the comparison with the greatest candour; and in selecting the Works of the leading men of the day, I have placed the architectural productions of the Nineteenth Century in fair contrast with those of the Fourteenth and Fifteenth. That the former Edifices appear to great disadvantage, when thus tried by the scale of real excellence, will be readily admitted by all who are competent to think on the subject: and I hope this Work will prove how little title this Age has to one of Improvement on the score of architectural excellence, when, in truth, that science is at a very low ebb; in which state, I fear, it will remain, unless the same feeling which influenced the old designers in their composition of their Works can be restored.[14]

Acknowledging that the nineteenth century had seen 'great and important inventions' that were 'brought to perfection' he also argued that these were 'purely mechanical in nature.' As 'works of this description [had] progressed, works of art and productions of mental vigour [had also and more importantly] declined.'[15]

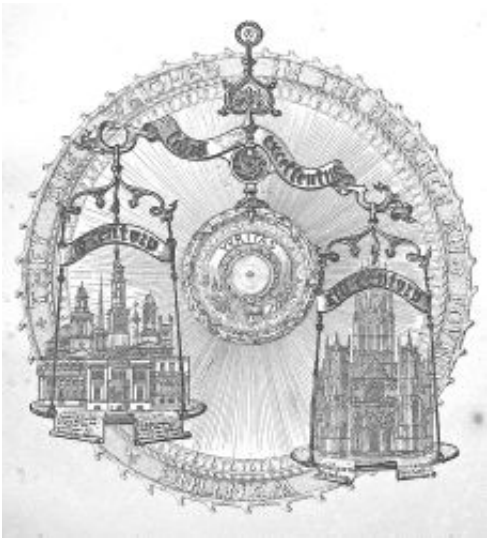

Figure 5. AWN Pugin, They are weighed in the balance and found wanting, (*Contrasts, or, A Parallel Between the Noble Edifices Of the Fourteenth and Fifteenth Centuries and Similar buildings of the Present Day; Shewing The Present Decay of Taste* (1836, 2nd edition 1841)).

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Pugin's distinction between mechanical and vital suggests an understanding and sympathy for Romantic theories of artistic agency and specifically its distinction of the Imagination and Fancy[16]. This is an idea considered in more detail in the next section of the essay. The reliance of his critique on contrasting values also suggests an understanding of the romantic thesis that 'every Power in nature and in spirit must evolve an opposite, as the sole means and condition of its manifestation.'[17] Avoiding the synthesis or union of such opposites, however, the ultimate if unobtainable objective of romantic agency, Pugin also maintained a dualistic system based not only on the representation of difference (both temporal and stylistic) but also of its denigration. Replacing a binary system of opposites with a hierarchical one, the role of such opposites (or difference) was no longer to realise or give manifestation to its counterpart (as in a romantic thesis), but rather to assert the superiority of one by claiming the inferiority of the other. This encouraged a seemingly straightforward mode of critical judgement in which things were deemed to be either 'good' or 'bad', a system that maintained significant currency throughout the nineteenth century as demonstrated by the gallery of 'Decorations on False Principles' (Marlborough House, 1853) and nineteenth century art criticism in general.[18] It was also one that was ultimately intolerant of difference, architectural or otherwise. While the scenic and eclectic character of nineteenth-century architectural taste aided Pugin in articulating the values he favoured in Gothic architecture, his simultaneous denigration of these ensured such practices could not exist as autonomous or alternative systems of architectural design within his critique. Calling for a strict adherence to architectural 'unity' and homogeneity—one that would avoid 'mixed and base style[s] devoid of science or elegance' and 'great incongruities, varieties, and extravagances,' Pugin also effectively negated the value of the architectural "Other" within his critique despite its ultimate reliance on such values.[19]

Romantic Synthesis.

The critical use of temporal and stylistic contrasts was also a strategy used by Pugin's near contemporary, the critic John Ruskin. A reoccurring theme throughout his writings (Fig 7), it is perhaps no better demonstrated than in his juxtaposition of the Gothic and Renaissance in the *Stones of Venice*. Echoing Pugin's thesis of architectural decline, Ruskin's purpose in this essay was to 'compare the forms' of Gothic and 'all its leading features' with those of the following Renaissance, 'in which [the same forms] were corrupted by the Classicalist.'[20] Like Pugin before him, the objective underpinning Ruskin's contrasts was a desire to assert the superiority of the Gothic, an authority that is defined by its oppositional relationship with, and by default, a lesser architectural "Other" (the Renaissance). Ruskin, however, also uses contrasts in his consideration of the history of Venetian Gothic. In this instance, his

construction of oppositional categories becomes attached to a romantic thesis of artistic agency or invention, the forces underpinning the evolution of the Gothic form. In making this connection, Ruskin effectively avoided the simple dualism of Pugin's earlier formula. In its stead he posits a romantic coalescence of opposites that at the outset is suggestive of architectural hybrids, made evident in Ruskin's reading of the Ducal Palace. Embracing a romantic mantle, however, Ruskin also inherits its subjectivity, one that effectively appropriates and subsumes any autonomy of the "Other" or "difference" within Ruskin's critical system.

Figure 7. John Ruskin, Types of Towers, British and Venetian (*The Stones of Venice,* ed. J.G.Links, (New York: Da Capo Press, 1960), facing page, 97).

Defining 'Art' as a 'divinely imagined thing' and identifying the creative act which elevates the artefact to a fine art—be it a painted image, architectural structure or literary text—to a 'certain condition of mind' that 'groups ideas' and 'reveals the unseen,' Ruskin demonstrates his debt to romantic theories of the Imagination:[21] a mode of artistic agency identified by the poet Samuel Taylor Coleridge (1772-1834) as 'a *vital* power' able to 'fuse divers materials into one.'[22] Prefiguring Pugin's later distinction of the 'mechanical' and 'soul' or sentiment of Gothic architecture, the significance of the Imagination for Coleridge and his colleagues was that it represented the sole faculty within man that was able to achieve the romantic synthesis of the worlds of self and of nature. Noting that every object within the natural world was dependant on an opposite for its manifestation[23] the role of the imagination Coleridge concluded was to 'coalesce' such counterparts.

> That synthetic and magical power reveals itself in the balance or reconciliation of opposite or discordant qualities: of…idea with the image; the individual with the representative … a more than usual state of emotion, with more than usual order; judgement ever awake and steady self-possession, with enthusiasm and feeling profound or vehement.[24]

While seeking to produce something 'original' and with no natural equivalent, a product that allowed the romantic poet to claim his practice as a 'repetition' of the 'eternal act of creation', this process also encouraged an atomistic and subjective outcome. Attempting to 'make the senses out of the mind—not the mind out of the senses,' the romantic imagination ensured that thought and reality grow indistinguishable and intelligent self-consciousness becomes inseparable from artists' perception of the world.[25] Embracing an agency which Coleridge described as 'ESEMPLASTIC, meaning 'to shape into one' and 'to convey a new sense',[26] Ruskin's thesis, while initially acknowledging and valuing the autonomy of contrasting values (architectural or otherwise), ultimately collapsed these to produce a third and superior category (or style).

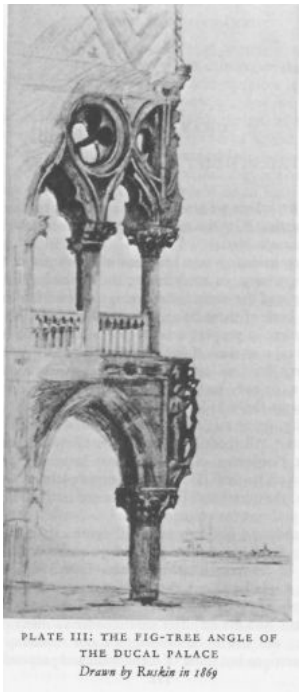

Figure 8. John Ruskin, *The Fig –Tree Angle of the Ducal Palace,* 1869 (*The Stones of Venice,* ed. J.G.Links, (New York: Da Capo Press, 1960): 112).

The idea of the coalescence of opposites and architectural hybrids lies at the core of Ruskin's theory of Venetian Gothic, and is one that is revealed in the meeting of 'Roman, Lombard and Arab, be it over a number of centuries, within the Ducal Palace (Fig 8).

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> Opposite in their character and mission, alike in their magnificence and energy, [the Lombard and Arab] came from the North and the South, the glacier torrent and the lava stream … [and] met and contended over the wreck of the Roman Empire; and the very centre of the struggle, the point of pause of both, the dead water of the opposite eddies, charged with embayed fragments of the Roman wreck, is VENICE. [27]

Hints of synthesis are also evident in Ruskin's theory of Constitutional or Christian [and by default Gothic] ornament which reconcile the categories of Servile (Greek and Egyptian) and Revolutionary ornament to counter or balance the negatives of both; artistic slavery and unrestrained liberty.[28] Importantly this synthesis is dependent in the first instance on the autonomy and independence of architectural opposites (the Lombard, the Arab and the Roman). In seeking a synthesis of these traditions, one that gradually generates Venetian Gothic, these divergent traditions are valued not in their own right but only for their contribution to the development of an additional and superior category or style. Reverting to a romantic thesis of invention Ruskin is able to avoid Pugin's hierarchical oppositions of past and present (or good and bad), although he does revert to these when comparing the Gothic more broadly to the Renaissance or the nineteenth century. In fact it could be suggested that the artistic process demonstrated by Ruskin's Venetian Gothic prefigured the progressive or evolutionary eclecticism of the late nineteenth century.[29] The appropriating tendencies of this process, however, also ensured that the ultimate consequences are little different to those of Pugin before him; the autonomy of architectural difference and variation is set aside for the priorities of synthesis and union and stylistic homogeneity is both encouraged and ultimately maintained by Ruskin's critique.

Victorian Analogy.

Occupying the same relation to the work of art as the artist does to the visible world of form and colour, the role of the critic, the Irish playwright and aesthete Oscar Wilde argued, was not to explain the intent of the artist or determine the truth of the work, but simply to represent the 'impressions' the work has produced on the critic himself.[30] Seemingly "esemplastic" in motive, Wilde's critic also appears to partake in and extend the atomistic heroism of romantic agency. 'It is only by intensifying his own personality' Wilde argued, could the critic interpret the 'personality and works of others.' The 'more strongly this personality enters into the interpretation the more real … the more satisfying, …convincing … [and] true' the interpretation becomes.[31]

Yet, Wilde's critic breaks with romantic agency in two important ways. Maintaining a romantic reliance on opposites, as a means and condition of manifestation and representation, Wilde's critic avoided the coalescence of such binaries by employing a mode of invention that was analogical rather than metaphorical in intent. Effectively avoiding the strategies of appropriation inherent to the romantic imagination, he also marked out a new autonomy for stylistic difference or the "Other".

Wilde achieved this by arguing the importance of the critic to occupy multiple lives and views points at any one time, be they racial, geographical or historical. Suggesting the development of the critical spirit was dependent not only on an understanding of the nineteenth century, but also of 'every century which preceded it,' and that to 'know oneself, one must know about all others,' Wilde also stressed the importance of the critic to empathise with the art of all ages and places. 'There must be no mood with which one cannot sympathize, no dead mode of life that one cannot make alive.'[32] In doing so, the critic could facilitate a process that remained in Wilde's view open ended and 'incomplete.' Locating the critical method in 'those modes which suggest reverie and mood' rather than the 'obvious'—'art forms that have but one message to deliver'—also ensured that all 'interpretations [were] true' and none 'final.'[33]

Wilde attributed this aspect of his thesis to his reading of the Greek philosopher Plato.[34] In making this connection, Wilde provided some insight into the mode or agency he felt underpin an aesthetic strategy. The art historian Barbara Maria Stafford in *Visual Analogy, Consciousness and the Art of Connecting* (2001), explains Plato's thesis as one that is determined by the ancient ideal of 'participatory analogy.' Distinguishing participatory from proportional analogy, a method based 'on establishing quantitative proportions using a geometrical language of equality and inequality,' the rhetoric of participation relied on a 'a mimetic vocabulary of similarity and dissimilarity.'[35] Identifying the latter 'specifically with Plato,' who 'declared that analogy was the most beautiful bond possible,' Stafford goes on to describe analogy as a 'metaphoric and metamorphic practice for weaving discordant particulars into a partial concordance' that 'spurs the imagination to discover similarities in dissimilarities.' An important aspect of this thesis, Stafford has argued, is its, continued acknowledgment of 'difference' by avoiding the 'subsumption of two inferior, dichotomous terms into a superior third (as in Hegel's principle of *Aufhebung* or Marx's theory of exchange).'[36] Analogy can also be contrasted with the 'associative method' inherent to Romantic theories of artistic agency—'allegory or disanalogy'—an opposed method for relating part to whole which in its desire for complete synthesis fails to discriminate and acknowledge 'competing characteristics.'[37]

For Stafford, a revival of analogy offers present day art practice the opportunity to develop a 'language for talking about resemblance' and to counter an 'exaggerated awareness of difference' in contemporary western culture. Significantly, this too was a concern for Wilde and his contemporaries. Critical of English educational systems in the nineteenth century, Wilde was wary of the role given to the accumulation of information within this system. 'Burdening the memory with a load of unconnected facts' 'we teach people how to think' yet 'we never teach them how to grow.'[38] Advocating the re-introduction of 'wisdom' and a critical temperament in education, Wilde also encouraged a return to the strategies of the ancient Greeks, the analogical practice of reconnecting unlike things (be it form, media or discipline), as a means of enacting this process:

> The Greeks did this, and when we come in contact with the Greek critical intellect, we cannot but be conscious that, while our subject-matter is in every respect larger and more varied than theirs, theirs is the only method by which this subject-matter can be interpreted.[39]

Figure 9: Walter Crane, frontispiece to Clarence Cook, *The House Beautiful: Essays on beds and tables, stools and candlesticks,* 1878 (Stephen Calloway and Lyne Federle Orr, *The Cult of Beauty: The Aesthetic Movement 1869-1900* (London: V&A Publishing, 2011), 131). Cook's text was the inspiration for Wilde's American Lectures on the House Beautiful.

Such critical processes were, for Wilde, made manifest by a number of common artistic practices. The first was the use of a keynote colour, be it in painted imaged or a decorated

interior. Unifying a composition into 'a harmonious whole', colour also left the work open to a multitude of readings: 'Mere colour, unspoiled by meaning, and unallied with definite form can speak to the soul in a thousand different ways.'[40] A reliance on 'artistic convention', a practice Wilde labelled "Orientalist" achieved a similar result. Embodying the 'transmutation of visible things into beautiful and imaginative work' it offered a counter to the 'imitative spirit' in Western art, one focused on life and nature, and one that was ultimately for Wilde, 'vulgar, common and uninteresting.'[41] The eclecticism of the 'House Beautiful' (Fig 9) – where careful arrangements of wallpaper, furniture, decorative arts, ornament and plants "contrasted" the natural and the artificial, the medieval and Renaissance, the handmade with the mass produced, and the English and non- English—offered a third example.[42] Providing a visual palate for both romantic synthesis, the generation of a unique space (the House Beautiful) through the juxtaposition of visual opposites, these interiors also provided a platform for a new mode of critical engagement; a contemplation and acknowledgement of the "differences" that exist across multiple design traditions, be they temporal, geographical or stylistic. Avoiding the hybridity of Ruskin's Ducal Palace in which the Lombard and Arab merge with the Roman to produce a third and superior style (Ruskin's Venetian Gothic) the extreme eclecticism of the aesthetic interior effectively maintained the autonomy of the architectural "Other" in it multiple variations. To quote Wilde, cultivating a 'habit of intellectual criticism,' the aesthetic interior set out to 'annihilate race prejudices' by insisting 'upon the unity of the human mind in the variety of its forms.'[43]

Conclusion.

Pugin, Ruskin and Wilde are bound by their common critique of nineteenth century architecture and design and by their reliance on the oppositional strategy of contrasts. Made explicit by Pugin's etched *Contrasts* of nineteenth century and Gothic typologies, parallel stylistic juxtapositions also underpin Ruskin's thesis of Venetian Gothic (as embodied by the Ducal Palace) and the eclecticism of Wilde's (and the late nineteenth century's) aesthetic interior. While initially adhering to the romantic proposition that all objects are dependent on the development of an opposite for their representation and being, the treatment of such opposites by each critic also reveal divergent conceptualisations of difference and the stylistic "Other." These range from the hierarchical (the assertion of the authority of one style by the denigration of the other), synthesis or appropriation (where opposites combine to generate a third and superior category) and analogical (the identification of unity or shared principles while maintaining the autonomy of the "Other", stylistic or otherwise). Attached, in the case of Ruskin and Wilde, to varying conceptions of artistic or critical agency, including the Romantic and Victorian Imagination, demonstrates the dependence of such constructs on formal critiques of architectural production and disciplinarity. Questioning the exclusive

attachment of "difference" and the "Other" to the representation of power and its unequal distribution, be they racial, Imperial, gendered, or religious, also identifies representational motives, such as Wilde's idea of analogy, that deviate from the commonly accepted strategies of denigration or appropriation.[44] While the latter have typically been attached to the stylistic outcomes of nineteenth-century English architecture, the presence of the former has yet to be acknowledged or understood.

Endnotes

[1] Alexander von Humboldt, *Cosmos: A Sketch of the Physical Description of the Universe* (5 vols), trans. E.C. Otte (London: Bohn, 1849), 1, 5-6 & 2. 455.
[2] Augustus Welby Northmore Pugin, *Contrasts: Or, A Parallel Between the Noble Edifices of the Fourteenth and Fifteenth Centuries and Similar Buildings of the Present Day. Shewing the Present Decay of Taste* (General Books, 2009) originally published and printed by the author in London, 1836.
[3] John Ruskin, *Stones of Venice*, vols I-III, 1851-3, in E.T. Cook and Alexander Wedderburn (eds.), *The Works of John Ruskin* (George Allen: London, 1903-12): 9-11; Oscar Wilde, 'The Critic as Artist, Part I: With some remarks upon the importance of doing nothing,' and 'The Critic as Artist, Part I: With some remarks upon the importance of discussing everything,' in *Intentions* (New York: Prometheus Books, 2004) (1891), 95-149 & 153-217.
[4] See for example Michel Foucault, *The Archeology of Knowledge and the Discourse of Knowledge,* (trans.) A.M. Sheridan Smith, (New York: Pantheon Books, 1972) and Edward Said, *Orientalism: Western Conceptions of the Orient* (London: Routledge, Kegan and Paul, 1978).
[5] Pugin, *Contrasts,* 27.
[6] Pugin, *Contrasts*, 29.
[7] Stanton describes Pugin's representation of his nineteenth-century examples as 'paltry' while Crowder links this method in Pugin's to his father's early comparison of ancient and contemporary architecture. Phoebe Stanton, 'The Sources of Pugin's Contrasts,' in John Summerson (ed.), *Concerning architecture: essays on architectural writers and writing presented to Nikolaus Pevsner* (London: Allen Lane, 1968): 120; Ashby Bland Crowder, 'Pugin's Contrasts: Sources for its Technique,' *Architectura* 12 (1983): 60.
[8] See Rosemary Hill, 'Reformation to Millennium: Pugin's Contrasts in the History of English Thought,' *Journal of the Society of Architectural Historians,* 58:1(1999): 37, fig. 18.
[9] Pugin, *Contrasts,* 2.
[10] Pugin, *Contrasts,* 2-3.
[11] Pugin, *Contrasts,* 21.
[12] Pugin, *Contrasts,* 1.
[13] Pugin, *Contrasts,* 1.
[14] Pugin, *Contrasts,* 1.
[15] Pugin, *Contrasts,* 27.
[16] See for example Samuel Taylor Coleridge, *Biographia Literaria,* J. Shawcross (ed.), (Oxford: Clarendon Press, 1907): I, 202.
[17] Samuel Taylor Coleridge, 'The Friend,' in G.T. Shedd (ed.), *The Complete Works of Samuel Taylor Coleridge* (New York: Harper & Bros, 1853), II, 91n.
[18] Christopher Frayling, *Henry Cole and the Chamber of Horrors: The Curious Origins of the Victoria and Albert Museum* (London: V&A Publishing, 2010).
[19] Pugin, *Contrasts,* 3-4.
[20] Ruskin, 'Stones of Venice,' 1851, vol I,. *Works,* vol. 9: 47.
[21] Ruskin, 'Stones of Venice,' 1853, vol. III, *Works,* vol. 11: 119; 'Modern Painters,' vol. IV, 1856, *Works,* vol. 6, p. 42; 'letter to Rev W. L. Brown, September 28, 1847, *Works,* vol. 36, p. 80. The role of the imagination in the creative process is outlined by Ruskin in a number of his earlier texts including the second volume of *Modern Painters* (1849). However it is only in his later writings, and specifically

in the first three volumes of the *Stones of Venice* (1851-1853) that Ruskin develops a clear statement on the role of the imagination in the creative process. John Ruskin, 'Modern Painters,' vol. II, Part 3, section 2, chapters 1-4 in *Works,* vol. 4, 223-313; 'Stones of Venice,' vols I-III, 1851-3, *Works,* vol. 9-11. The clearest example of Ruskin's theories on the imagination, revealing a debt to the earlier Romantic distinction between Fancy and Imagination, is found in a letter written to Rev. W. L. Brown in 1847.

[22] Coleridge: Imagination quote:

[23] Coleridge, 'The Friend,' in G.T. Shedd (ed.), *The Complete Works of Samuel Taylor*, II, 91n.

[24] Coleridge, *Biographia Literaria,* II, 12. For a more detailed discussion of this coalescence see Baker, *The Sacred River,* 133.

[25] As Coleridge was himself to point out, 'the identity of thesis and antithesis is the substance of all being.' Coleridge, 'The Friend', in *The Complete Works of Samuel Taylor Coleridge,* II, 91n.

[26] Coleridge in the tenth chapter of *Biographia Literaria* described this ability of the imagination as 'Esemplastic.' Noting that esemplastic was a word he borrowed from the Greek 'to shape,' Coleridge explained that it referred to the imagination's ability to 'shape into one, having to convey a new sense.' He felt such a term was necessary as 'it would aid the recollection of my meaning and prevent it being confounded with the usual import of the word imagination.' Coleridge, *Biographia Literaria,* I, 86. See also I. A. Richards, *Coleridge on Imagination* (London: Routledge & Kegan Paul Ltd, 1962), 96 & 84.

[27] Ruskin, 'Stones of Venice,' I, 1851. *Works,* 9: 38.

[28] Ruskin, 'The Nature of Gothic,' *Works,* 10, 188-90.

[29] J. Mordaunt Crook, *The Dilemma of Style: Architectural Ideas of the Picturesque to the Post-Modern* (Chicago: University of Chicago Press, 1987), 161-192.

[30] Wilde, 'Critic as Artist,' 136-7, 142-143, & 139 respectively.

[31] Wilde, 'Critic as Artist,' 155-156.

[32] Wilde, 'Critic as Artist, 172-3.

[33] Wilde, 'Critic as Artist,' 147-8.

[34] Wilde, 'The Critic as Artist,' 194-5.

[35] Barbara Maria Stafford, *Visual Analogy: Consciousness as the Art of Connecting* (Cambridge, Mass. & London: MIT Press, 2001), 2-3.

[36] Stafford, *Visual Analogy,* 8-9.

[37] Stafford, *Visual Analogy,* 58-60.

[38] Wilde, 'Critic as Artist,' 209.

[39] Wilde, 'Critic as Artist,' 209.

[40] Wilde, 'Critic as Artist,' 147-8.

[41] Oscar Wilde, 'Decay of Lying,' in *Intentions,* 25.

[42] Oscar Wilde, 'The House Beautiful,' 1882, reproduced in Kevin H.F. O'Brien, '"The House Beautiful": A Reconstruction of Oscar Wilde's American Lecture,' *Victorian Studies* 17, no. 4 (1974): 401-12. Maureen Frances Moran, 'Walter Pater's House Beautiful and the Psychology of Self -Culture,' *English Literature in Transition* 50, no. 3 (2007): 291-312. See also, Jason Edwards, 'The Lessons of Leighton House: Aesthetics, Politics and Erotics,' in Jason Edwards and Imogen Hart, (eds.), *Rethinking the Interior, c. 1867-1896* (Ashgate: Farnham & Burlington, 2010): 85-110.

[43] Wilde, "The Critic as Artist," 212.

[44] See for example Mark Crinson, *Empire Building: Orientalism & Victorian Architecture* (London & New York: Routledge, 1996); Daryl Ogden, 'The Architecture of the Empire: "Oriental" Gothic and the Problem of British Identity in Ruskin's Venice,' *Victorian Literature and Culture* 25:1 (1997): 109-20; Robert J.C. Young, *Colonial Desire: Hybridity in Theory, Culture and Race* (London: Routledge, 1995); John. M. MacKenzie, *Orientalism: History, Theory and the Arts* (Manchester and New York: Manchester University Press, 1995).

Building Authority
Charles Brooke, Legitimacy and the Built Environment in Sarawak, 1865-1907

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Abstract

This paper explores the second Rajah of Sarawak's search for, and expression of, authority following his accession to the rulership in 1868. Charles Brooke's succession was highly contentious, even if, ultimately, uncontested. Brooke's own family, his predecessor's closest friends and collaborators and, possibly, the Malay elite in Kuching, were all sympathetic to the claims of his older brother, Brooke Brooke. Noting Charles's early sponsorship of the Malay language text, Hikayat Panglima Nikosa*, which explicitly links construction to prosperity and political legitimacy, the paper maps Charles's early building program, including his relocation of forts, his encouragement of the building of new 'hygienic' longhouses, his redevelopment of Main Bazaar (Kuching's commercial precinct) and, notably, his construction of a new Astana (palace) and Court House, which together constituted the principle physical representations of his regime.*

Charles Brooke succeeded as second Rajah of Sarawak following the death of his uncle, James, in 1868. As Charles was acutely aware, his succession was a highly contestable event. Until he was outlawed in 1863, the Rajah's recognised heir had been Charles's older brother, Brooke Brooke.[1] The first Rajah had removed Brooke, with Charles's support, but in the face of considerable support for Brooke Brooke by both the European and Malay elites of Sarawak, in response to Brooke Brooke's own attempt to seize the rulership and to exclude the first Rajah from the Government.[2] Unable to persuade all of his senior officers to serve under Charles when he returned to England later in 1863, the Rajah had left the country under the joint administration of Arthur Crookshank, based in Kuching, and of Charles in the Skrang River.[3] Moreover, it was not until early 1864, that James wrote, *privately*, to Charles to advise him, '…[y]ou are my successor, either directly or indirectly, in Sarawak, and the inheritor of the chief part of my private fortune'.[4] The ambiguity of Charles's claims, even after he received these private assurances, can

be gauged by the Rajah's continued (but probably insincere) negotiations with his family over a possible reconciliation with Brooke.[5]

Charles's recognition of the vulnerability of his position as heir is demonstrated by his response to receiving news of the Rajah's death, which was discretely forwarded from Singapore on 12 June.[6] Charles kept the news secret for six weeks, until an official dispatch was received from Britain, in the interval launching an attack on the Iban of the Katibas River, which served, no doubt, to remind any Malays and Europeans who continued to be sympathetic to his brother, of the (Iban) armed forces he could raise in his own support.[7] Even to his closest family, Charles falsely maintained that the official dispatch was the first news he had received of the first Rajah's death.[8]

Charles's caution concerning the extent of his own support in Kuching, and in ensuring his own succession, was well-founded. The period following Brooke Brooke's exile had not witnessed any noticeable increase in Malay support for Charles. In 1866 Bishop McDougall suggested that Charles's influence among Kuching Malays was minimal,[9] while in 1875, Oliver St. John claimed that Charles was 'most unpopular' among them.[10] Spenser St. John also considered that Charles's influence among the Malays wanting.[11] In fact, however, Brooke Brooke was in no position to challenge Charles's succession. By late 1867, he was reported as being gravely ill. He suffered 'severe fits, which have been followed by utter prostration of the mental facilities',[12] dying on 1 December 1868.[13]

James Brooke's authority derived in part from his understanding and manipulation of Malay and other indigenous sentiments, beliefs and expectations. His public performances in Sarawak were defined in large measure by his need to enact the, often, arcane elements of Malay and other indigenous ideas about kingship.[14] James enjoyed such performances, even finding the Bidayuh's belief in his supernatural powers 'highly gratifying'.[15] In contrast, the second Rajah was impatient with such expressions of belief. As Bob Reece noted, 'he found it hard to conceal his contempt for omen-taking and other superstitious practices which were central to ...[Iban] social action'.[16] This posed a considerable problem for the second Rajah, undermining as it did, indigenous sources of his own legitimacy.

Charles's answer to these problems appears to have been to promote a new, secular and rationalist idea of kingship in Sarawak, in which legitimacy derived from the achievement of material successes rather than from the engagement with the supernatural. Whereas the first Rajah had revelled in his *kerajaan*, which denotes, essentially, the ritual and

cosmological aspects of Malay kingship, the second Rajah preferred to head a *perintah*, or administration. In 1873 Charles reformed the maze of ritual and other relationships which comprised the Government and through which the first Rajah had deployed power, influence and status, into a coherent system of administration, based on three Divisions, each under the charge of an officer he termed 'Resident First Class'.[17] Although the actual bureaucracy these reforms created remained rudimentary, a system was established which could be developed as additional officials were recruited and deployed. This diminution of ritual necessitated an increased emphasis on function as Charles sought to transform the *kerajaan* into a *perintah*; to transform the basis of the polity, in Weber's terms, from charismatic into bureaucratic power.[18]

Consequently, the 1870s saw Charles concentrate, in ways quite beyond the interests or abilities of his predecessor, on public policies such the pursuit of self-sufficiency in rice production and the diversification of commercial agriculture.[19] Reforming and rebuilding Sarawak's institutional, domestic and commercial architecture were, however, the most essential elements of this program.

Charles Brooke had demonstrated a longstanding interest in both planning and building. In 1864, even prior to his succession as Rajah, Charles had ordered the relocation of the fort and town at Skrang to Simanggang, whilst the following year he had the fort and town on the Kalakka River moved down to river's mouth.[20] In April 1868, Charles sought to initiate the rebuilding of Kuching, itself. He ordered that the row of Chinese shophouses fronting the river be rebuilt in brick and mortar, allowing property owners twelve months to comply.[21] The relocating and rebuilding of small and remote settlements was easier than enforcing the compliance of Chinese merchants in the capital, however. Charles's desire for urban improvement was frustrated until 1871, when he also deemed houses near the bazaar to be 'unsightly and insecure', requiring them to be 'rebuilt in a more solid manner and on a larger scale'.[22] By October, the *Sarawak Gazette* could report that the

> order of Government that the houses facing the river should be rebuilt, brick being substituted for wood, and bilian ataps made compulsory, is being gradually carried out. ... The transformation which has taken place in Carpenters' Street is still more wonderful. The old tumbledown abodes, inhabited for the most part by the poorer artisans among the Chinese have given place to neat plank houses roofed with bilian, and built with the same approach to regularity.[23]

Moreover, the Government's attentions were not confined to its capital and outstations. It is clear from contemporary reports that, whenever European officers travelled among the Bidayuh Dayaks, they tried to persuade them to build new, cleaner villages. In 1872, Houghton persuaded the Bidayuh at Staang to rebuild their village because their existing houses 'are not good'. He also considered the village of the Si Bungo Bidayuh 'very filthy and the houses in a most dilapidated condition', persuading them also to rebuild.[24] Consequently, when another Government official, Noel Denison, visited the Si Bungo two years later, he found their houses 'clean, with broad verandahs in good order, and there is an air of prosperity about the place which augurs well for the future'.[25]

Denison's apparent linking of the broad and well-kept verandahs of the Si Bungo with their prosperity suggests the inextricable and causal connection, which Europeans assumed, between sanitation, solid construction, industry and affluence. Denison hinted at these links in comments about other Bidayuh, writing that

> Simpoke is one of the worst-conditioned villages which it has been my fortune to visit. The houses are small, dirty, ill-kept, and in wretched repair, but some of the rooms of the houses which I entered are cleaner than one would imagine, still very inferior to other tribes, and there was little or no personal wealth to be seen in the apartments. Altogether the place had a miserable, poverty stricken appearance.[26]

Although the village of Tringus was composed of 'ill-constructed, slovenly, and shaky buildings', Denison noted an affluence among the Tringus Dayaks which should have challenged the connections he was inclined to make.[27] Denison's record of his tour is a catalogue of poorly built and dirty villages which affronted his sense of domestic order and sanitation, and which explained, rather than just indicated, Dayak poverty. Thus, the four villages on Peninjau Mountain were 'just as dirty as ever, filth and refuse had accumulated under the houses...'[28] Denison found the village of Grogo to be in the same state as that of Singhi - '...all around is filth and refuse'. And at Grogo, he yet again 'suggested to the Orang Kaya the necessity of re-building ..., but the force of my remarks seemed to create little effect'.[29]

The concern with domestic hygiene which the Rajah's officers began to express reflected deep cultural differences between Europeans and Dayaks. Although Europeans were happy to live in close proximity to some animals, they drew sharp distinctions between pets and livestock. Dogs, cats and even rabbits might live in a house, but not pigs or

goats, or rabbits bred for meat. Similarly, Europeans distinguished between birds kept for their song or plumage, and those valued for their aggression, eggs or flesh. Dayaks, however, were accustomed to living in much closer proximity to their animals than Europeans. Fighting cocks were highly valued and tethered in, or adjacent to, living quarters. Pigs and other livestock foraged under and around houses. Longhouses were, and remain, confronting to many European ideas about order and hygiene.

Additionally, Denison's views quoted above reflect broader developments in European thinking about health and hygiene. Europeans in southeast Asia, and elsewhere in tropical climates, were becoming increasingly aware that health was determined by science-based regimes of hygiene, and could be pursued through public health programs. As Brenda Yeoh has observed (of Singapore), the 'earlier preoccupation with tropical climate and natural topography as the main source of ill-health had by the last quarter of the nineteenth century given way to theories which espoused human behaviour and the conditions of human habitation as the chief causes of disease.'[30]

Charles's preoccupation with building, and the ways in which he hoped that building would underpin his authority, are well represented in a Sarawak Malay text from the 1870s, the *Hikayat Panglima Nikosa (HPN).* I have detailed elsewhere my arguments that the production of *HPN* was supported by the second Rajah as a means of promoting his secular world view, a range of specific policies his Government initiated and his own claims to legitimacy.[31] The importance that Charles ascribed to building in the establishment of his own legitimacy is evident in *HPN*, which describes how one day the Panglima Nikosa gathered his people together. Nikosa explained to them that he had

> summoned you all to confer over building a new village on good land and to build sturdy houses from heartwood so that people can walk and garden near their houses easily and so their wives and children can live in safety when their husbands go far away to fish or to hunt in the jungle.[32]

Although the *hikayat* does not explicate the connection, this construction of a new village is described as securing further prosperity for the people, attracting traders from other places. However undefined, this relationship between rebuilding the village and achieving prosperity is essential to the legitimacy of Nikosa's leadership, and even marks his greatness. 'All this', we are told, 'proved Nikosa to be a great penghulu, as they said, he became a model for the common people'.[33] The implications that Charles wanted drawn in support of his own claims to 'greatness' are clear.

Thus the first decade of Charles Brooke's reign was punctuated by his Government's initiation or encouragement of improvements in Sarawak's built environment, and by the promulgation of the *HPN*, which sought, overtly, to link urban and village renewal to health, prosperity and to the Rajah's own legitimacy. Notwithstanding the importance of fort relocations and the rebuilding of Chinese shophouses and Bidayuh villages, however, the two most important architectural expressions of the second Rajah's accession to power remained his construction in 1870 of a new residence and, in 1874, of a new Courthouse and Government administration office.

In 1869 Charles returned to Europe. In order to house the wife who he anticipated finding in England, Charles ordered the dismantling of his predecessor's residence, known as 'Government House',[34] and the construction of a much grander residence which was completed in 1870 (figure 1). His motives in undertaking such an expensive project at a time when his finances were extremely uncertain remain unclear. Chater speculated that Government House might have been regarded as unlucky, since Charles's brother had lost two wives and a son there in the space of three and a half years.[35] But, although Charles was not, himself, superstitious, he was extremely parsimonious. Thus, it is more likely that the new house, like his other building activity in Sarawak, was intended as a demonstration of power and resources, and related to his search for authority, Charles named his new residence the *Astana*, the *Sanskrit* loan word in Malay for palace, signalling his claims to sovereignty and explicitly revoking any suggestion of dependency on the British that the name, 'Government House', might have invoked or implied.[36]

The *Astana* is far grander than any of the first Rajah's houses. Built in bricks and mortar, its high pitched roof, its *belian* shingles and its wide eaves demonstrate clearly the continued influence of Malay architectural traditions, with its deep verandahs pointing to colonial influences. This hybrid architectural design not only continued the pattern of much elite architecture that was established during the period of the first Rajah, [37] it mirrored, also, the second Rajah's ideas about the secular, hybrid nature of the Sarawak Government. Speaking in 1873, at Harry Skelton's installation as Resident of the First Division, Charles emphasised 'the necessity of the European and Native elements comprised in the Government being firmly and steadfastly bound in unity of accord to administer justice among the various classes of the population'. [38]

Figure 1. The *Astana*, Kuching, in 2006.
(Photo by John Ting, reproduced with permission.)

The Rajah's inclusion in the *Astana's* design of a castellated tower, although in strong contrast to the hybrid architectural tradition to which the building otherwise conformed, anticipated his subsequent construction of castellated fortifications in the Square Tower and Fort Margarita, both completed in 1879,[39] and both, in their Ruritanian whimsy, emphasising his European, princely status. Such a concern with asserting his princely pre-eminence can also be discerned in that his *Astana* was significantly larger than both the Bishop's House, and *Rumah Batu*, the largest privately owned (Malay) house in Kuching.[40]

Importantly, these self-important considerations, however, appear to be almost entirely absent from the second major architectural representation of Charles Brooke's authority: a new Courthouse and Government office completed in 1874.[41] Charles's new Courthouse was a simple, unassuming, single storey, rectangular, pavilion-like room, constructed in bricks and mortar. The building relied for distinction solely on, and made its claims to grandeur only through, the use of heavy, neo-Tuscan pillars to support its deep, overhanging eaves,[42] this last element pointing perhaps to the ubiquity with which the Malay vernacular preference for deep eaves had been adopted by Europeans in Sarawak.[43]

Given that this building was intended to represent the Rajah's official authority, as his *Astana* represented his official status, the Courthouse seems much, much too modest. Contemporary observers also seem to have been disappointed and puzzled by its lack of pretension. Indeed, the editor of the Sarawak Gazette was openly equivocal in his public appreciation of the building, noting, 'it has been pronounced by all to be a very handsome

plain building suitable for the purpose, if boasting no architectural beauties, it is free from blemishes and is not an eyesore'.[44] Faint praise, indeed!

Figure 2. Central Courtyard, Old Kuching Courthouse. (Panel produced by Arkitek JFN. Reproduced with permission.)

It is important to emphasise the contrast between the designs of the Courthouse, and those of the Rajah's other main public buildings dating from the latter nineteenth century. In addition to the pretensions of the Astana, already noted, and of the Square Tower and Fort Margherita, the Round Tower, constructed in 1886 behind the Courthouse,[45] conformed to Fort Margherita's and the Square Tower's Ruritanian feel, while the Sarawak Museum, completed in 1891, was graceful, imposing and double storied, copied in design, as John Ting has recently established, from an children's hospital in Adelaide.[46] Yet none of these buildings, each one either more pretentious, more imposing or more graceful than the Courthouse, could rival the latter's symbolic and actual importance in the government of the country. The modern observer, like the contemporary editor of the *Sarawak Gazette*, is left puzzled by the Rajah's purpose in creating this discrepancy.

Moreover, as the Courthouse required expansion, the Rajah chose not to add an imposing second storey to the original pavilion, but rather, in 1883, to add two wings in front of and perpendicular to the original block, with a central clock tower.[47] Further extensions followed in 1900 and 1907. Interestingly, all these extensions continued to adhere closely to the style of the original building, even when, as Ting has noted, construction techniques changed.[48]

> Starting with the main rectangular block, the two front annexes were added forming a forecourt facing the river. Eventually, there were more additions to

> the back forming a cloistered courtyard … The buildings are single volume spaces with generous window openings and wide, overhanging roofs forming shaded spaces.[49]

The result is an harmonious and subtle complex, so well integrated that Alice Ho, and I, were deceived into assuming that all the buildings were constructed at the same time[50] (See figures 2 and 3).

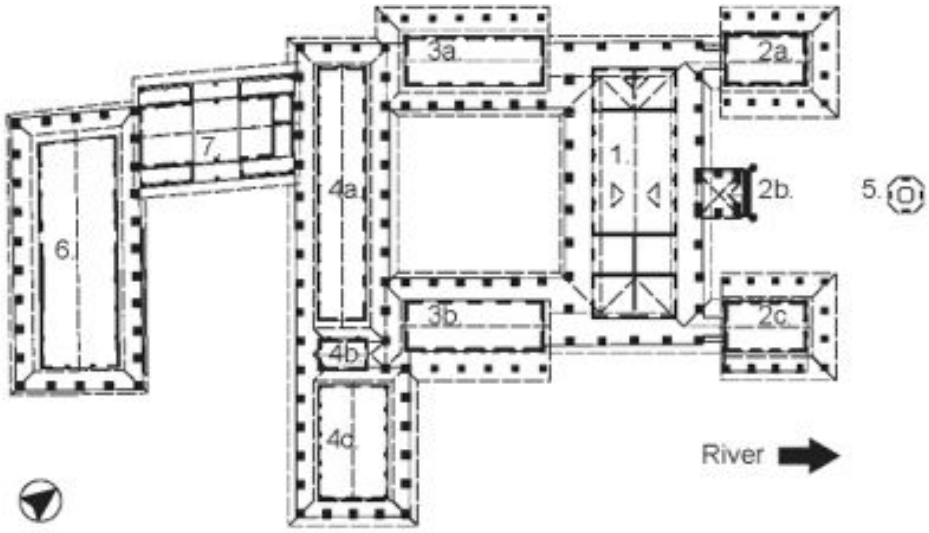

Figure 3. Plan of the third courthouse about 1942. 1. The original wing, 1874. 2a, 2b & 2c. The first extension, 1883. 3a & 3b. The second extension, 1900. 4a, 4b & 4c. The third extension, 1907. [Note that 5. The rajah's Memorial, 1924. 6. The fourth extension, 1927. 7. The wing built during the Japanese Interregnum, about 1942, are beyond the considerations of this paper.]
(Drawing by John Ting Architect. Reproduced with permission.)

That the second Rajah built the extensions to the Courthouse in the same style as his original block surely is important. At any time subsequently he could have changed the design of buildings. In particular, he could have constructed double storied buildings, as he did in other cases. These matters began to interest me acutely after I visited the *kratons* of Surabaya and Jogjakarta in central Java in July 1997. Although the design of Javanese pavilions was very different in style from that of the Courthouse, I was struck by the similarity in the use of courtyards, around which pavilions were arranged, and by the aesthetic use of pillars and of pillared walkways linking them (Figures 2 and 4). Indeed, van Beek's comments on the *kratons* could apply equally to the Courthouse complex:

> The splendour which is visible is rather that of a contemplative and retrained kind. One can hardly accuse the Sultans or Susuhunans of ornamental

excess. The mood almost reflects somnolence, yet is devoid of indifference (Compare figures 2 and 4).[51]

Figure 4. *Kraton* courtyard, Surabaya. (Photo by Mike Boon)

If these aesthetic similarities are no more than coincidences, three further aspects need to be considered. Javanese cosmology required *kratons* to be built on a north-south axis. The Courthouse complex conforms closely, though not exactly, to this, facing nor-nor-east. Ideally, *kratons* were constructed with a mountain to their north, the ocean to their south. The Courthouse reverses this, facing the South China Sea, to its north, and having a large hill, largely obscured, now, by urban development, to its south. Finally, *kratons* featured an *alun-alun*, an assembly ground in front of the complex.[52] Charles's 1883 extensions created just such a space in front of his original building – an area flanked by buildings on three sides where petitioners and others could assemble, and where important state ceremonies could be conducted.

These approximations invite speculation about the source of Charles's inspiration for the Courthouse complex. The second Rajah had visited Java in 1872.[53] Although I have not yet established his itinerary,[54] it is possible that he visited central Java. Even if he did not, he is likely to have seen photographs of the *kratons* and, as John Ting has demonstrated, the second Rajah was not above using photographs of buildings as inspiration for his own constructions.[55]

Such speculation draws support from the similarities between the design of the Courthouse and the Dutch colonial architecture that Charles would have encountered in Java. Indeed, Helen Jessop's characterization of the 'typical Dutch Indies house' might

have been written with reference to Charles's Courthouse: 'thick walled, high ceilinged … with a large central room giving on to a deep verandah in front and back'.[56] Conrad Busken's rather unflattering characterisation of Batavian villas might also apply. According to Jessop, Busken considered that 'to create a Batavian villa one needed only to brush with whitewash a Zealand cow shed with its long, drooping roof, and add some thick pillars'.[57] Jessop demonstrated convincingly that, from the 1830s, the Dutch in the East Indies constructed single storey houses distinguished by columned porches 'flush with the ground rather than commandingly atop a flight of stairs', behind which were external walls punctuated by 'floor-length windows'. Both or either of the columned houses Jessop illustrated on pages 35 and 36, or any of the house forms which these illustrations are intended represent, [58] are reflected in the Rajah's Courthouse, constructed after his return from Java and, further, they or others like them, probably inspired the Courthouse's design (Figure 5).

Figure 5. One wing of the 1883 extension in 2006.
(Photo by John Ting. Reproduced with permission.)

Although the details of Jessop's analysis of the emergence of the Dutch colonial villa are beyond the scope of this paper, one further element of her argument deserves consideration. Although Jessop noted that '[a]daptation to the tropical climate offers a simple explanation of the development of high ceilings, low-sweeping roofs and wide verandahs', she considered that such utilitarian explanations 'do not fully account for the stylistic details'.[59] Rather, she located inspiration for these architectural features in central Java's *kratons.*

> To find a convincing source for this kind of house one should look not only at climatic and European influences but also at indigenous architecture. The

> earliest images of this can be seen in many of the bas reliefs on the eighth century Buddhist temple of Borabudur and the ninth century temple complex of Loro Jonggrang at Prambanan, both in central Java. In the carvings one frequently glimpses groups of people sitting in small pillared structures, some of which appear grand, while others are clearly domestic in scale and atmosphere.[60]

Just as the aesthetics of the Courthouse recalled for me the aesthetics of central Javanese *kratons*, Jessop found aesthetic similarities between the *kraton*-form and the Dutch colonial villa.

> Of the structures traditionally found in the *kraton* complexes, it is the pillared *pendopo* used for formal social gatherings which suggests the closest functional and well as stylistic precedent for the 'Dutch Colonial' gallery, or front verandah. One can also find indigenous buildings which bridge the social and scale differences between the palatial and the domestic. The *panggerangans* of regional administrators (the district *bupati*) with their deep low verandahs, where unpretentious poles support broad roofs in simple dignity, are a direct link between the *kraton pendopo* and the colonial villa.[61]

Figure 6. Columned walkway, Surabaya *kraton.*
(Photograph by Mike Boon. Reproduced with permission.)

Jessop's observations thus encourage speculation about the sources of the Courthouse's design. Recently returned from Java, did the Rajah consciously seek to reproduce in the Courthouse both the Dutch colonial architecture he had encountered there and, in the layout of the subsequent Courthouse complex, the aesthetics of the Javanese *kratons*

which Jessop believed had inspired it? If he did, there is no reason to believe that these aesthetics and their association with Javanese royalty would have resonated in any way with local people. But it is possible that the second Rajah was content with the more obvious architectural claims to power made by the form, scale and design of the *Astana*, Fort Margherita and the Square and Round Towers. Indeed, it is even possible that Fort Margherita and the Square and Round Towers, with their obvious allusions to medieval military and royal installations, were intended to correct the obscurity (to Sarawak people) of the Courthouse's own design. In the absence of any direct comments on the design by the second Rajah, himself, we cannot be certain, but it is possible also that he did not wish for the Courthouse, as the architectural expression of his administration and therefore, as he, himself, publically recognised, of the efforts also of 'the European and Native elements comprised in the Government',[62] to rival the *Astana*, which gave expression to his own undivided authority.

Endnotes

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[2] These events are detailed in J. H. Walker, *Power and Prowess: The Origins of Brooke Kingship in Sarawak* (Sydney and Honolulu: Allen and Unwin and University of Hawai'I Press, 2002), Chapter 8.
[3] Walker, *Power and Prowess*, 197.
[4] J. Brooke to C. Brooke, 12 January 1864. Gertrude L. Jacob, *The Raja of Sarawak: An Account of Sir James Brooke, KCB, LLD, Given Chiefly through Letters and Journals* (London: Macmillan, 1876), 352
[5] See for example, his letter to his sister, Mrs Savage, dated 26 January 1865, which held open an unambiguous possibility of reconciliation. Basil Brooke Papers. vol. 6. f. 242.
[6] W. H. Reade to C. Brooke, 12 June 1868. Brooke Family Papers, vol. 2. ff. 41-42.
[7] Martin to Lord Stanley, 4 August 1868. FO 12/34A/187.
[8] C. Brooke to E. Evelyn, 2 August 1868, Basil Brooke Papers, vol. 8. f. 245.
[9] F. T. McDougall to W. Bullock, 5 October 1866. USPG Archives, Book II (1860-67), f. 176 (Typescript).
[10] O. St. John to C. Grant, 30 December 1875. Basil Brooke Papers, vol. 15. f. 20.
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[15] Henry Keppel, *A Visit to the Indian Archipelago in HMS Meander, with portions of the private journal of Sir James Brooke, KCB* 2 vols (London: Richard Bentley, 1853,) II, p. 66.
[16] R. H. W. Reece, 'Introduction', to Charles Brooke, *Ten Years in Sarawak* 2 vols (Singapore: Oxford University Press; 1990 (1866)) I, viii.
[17] *Sarawak Gazette*, No. 59, 1 March 1873.

[18] J. H. Walker, '*Hikayat Panglima Nikosa* and the *Sarawak Gazette*: Transforming Texts in Nineteenth Century Sarawak', *Modern Asian Studies*, 36 (2002), 427-460.
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[20] M. B. B. (ed.), *A Few Months in Borneo, Being a Few Short Sketches from the Journal of a Naval Officer*. (London: Society for Promoting Christian Knowledge, 1867), 91 and 78.
[21] Order of 27 April 1868, "HH The Rajah's Order Book, vol. 1, 1863-1890", C/E/d3, 1, f. 58.
[22] *Sarawak Gazette*, No. 19, 16 June 1871.
[23] *Sarawak Gazette*, No. 27, 16 October 1871.
[24] *Sarawak Gazette*, No. 35, 15 February 1872.
[25] Noel Denison, *Jottings made during a tour amongst the Land Dyaks of Upper Sarawak, Borneo, during the year 1874* (Singapore: Mission Press, 1879), Chapter VI.
[26] Dennison, *Jottings*, Chapter VII.
[27] Dennison, *Jottings*, Chapter IV.
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[30] Brenda S. Yeoh. *Contesting Space: Power Relations and the Urban Built Environment in Colonial Singapore (*Kuala Lumpur: Oxford University Press, 1996), 90.
[31] Walker, *Hikayat Panglima Nikosa* and the *Sarawak Gazette*.
[32] Walker, *Hikayat Panglima Nikosa* and the *Sarawak Gazette,* 28-29.
[33] Walker, *Hikayat Panglima Nikosa* and the *Sarawak Gazette* 30-31.
[34] For significance of this nomenclature see J. H. Walker, 'Culture, Power and the Meaning of Built Forms in Sarawak, 1841-1868', *Review of Indonesian and Malaysian* Affairs, 44:2 (2010), 89-128 and 111-112
[35] W. J. Chater, *Sarawak Long Ago* (Kuching: Borneo Literature Board, 1969), 21-22.
[36] See Walker, "Culture, Power and the Meaning of Built Forms in Sarawak, 111-112.
[37] See Walker, "Culture, Power and the Meaning of Built Forms in Sarawak", and John Ting, "Fort Alice - Syncretic Architecture in Sarawak under the Brooke Regime" in T. McMinn, et. al., (eds), *Contested Terrains*: *Proceedings of the 23nd Annual Conference of Sahanz*, (Perth: SAHANZ, 2006).
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[39] Alice Yen Ho, *Old Kuching* (Shah Alam: Oxford University Press, 1998), 34.
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[53] "Radja Brooke en Serawak", *De Locomoteif* (Semarang), 23 December 1872. I am grateful to Paul Tickell for this reference.
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[59] Helen Jessop, 'The Dutch Colonial Villa', 39.
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[62] *The Rajahate of Sarawak*. 28.

‘Without Favour or Prejudice’: Justice, Culture, and the New Zealand Supreme Court Building

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Abstract

An architectural work of national significance, the New Zealand Supreme Court building (2010) embodies 21st century aspirations for the New Zealand judicial system, reinforcing Charles Goodsell’s observation that civic buildings embody a nonverbal statement emanating from the political culture of their time. The question remains, however, which and whose aspirations are embodied? Despite an important political driver for the patriation of New Zealand’s highest court being the view that New Zealand law should be developed by its judges within the context and understanding of New Zealand society, a key architectural move in the Supreme Court building was to avoid what various stakeholders in the Court’s design described as ‘cultural ownership’ of the building. To that end, the Court’s design ostensibly aims to avoid overly specific reference to any one of New Zealand’s many constituent cultural groups. This paper addresses the ‘fabulation’ of this courthouse being ‘culturally neutral’ by highlighting the historical and cultural context of the Supreme Court within New Zealand’s judicial architecture. This paper concludes suggesting that the fabulation of culturally blind Justice cannot, and ought not, be embodied within New Zealand’s judicial architecture.

Introduction

The nature and expression of Australasian judicial architecture has in recent years received increasing public attention.[1] In New Zealand, commentary and analysis has been fuelled by a number of significant courthouse upgrades since the late 1990s and the 2010 opening of the New Zealand Supreme Court in Wellington. This paper addresses the New Zealand Supreme Court, in light of observations by Charles Goodsell on the communicative function of civic architecture. It challenges the notion expressed by the patrons, judicial advisors and architects of the Supreme Court that the building can be a ‘culturally neutral’ forum for the ultimate administration of justice in New Zealand.

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The New Zealand Supreme Court Complex

The Supreme Court complex which comprises the new Supreme Court and the adjacent Old High Court buildings (1879-80) ('OHCB') is located in Central Wellington at a site of significant cultural heritage value (Figure 1). It sits on the edge of the central business district within the government quarter and at the beginning of the Lambton Quay commercial area, diagonally across from the parliamentary precinct dominated by Sir Basil Spence's Beehive which houses the parliamentary executive. The proximity of the OHCB demanded a considered response for the Supreme Court building. The scale of the new building is sympathetic to the OHCB and forms an appropriate step in vertical scale from Whitmore Street and Lambton Quay to the taller buildings fronting Stout and Ballance Streets.

Figure 1. The New Zealand Supreme Court Complex.
(Image: Paul McCredie.)

Early in the design process, the architects discounted a much taller building (which would also have accommodated commercial floor space) in favour of something 'small and special, rather than tall and commercial.'[2] The new addition is essentially a 'regular modernist box'[3] of concrete and glass, with a prominent recycled bronze pōhutukawa/rātā screen enveloping the upper level to provide strong visual impact to the exterior and privacy, shelter and shading to the interior. This sets it apart from the ubiquitous surrounding concrete and glass buildings. Increased density of the branch pattern at the top and bottom of the screens provides shading from high sun, and privacy from the gaze of passers-by below, while achieving clear observation out at mid-range. The screen's legible rhythm and modulation has led one commentator to find a parallel with the OHCB elevation.[4]

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Figure 2. Entrance to the New Zealand Supreme Court.
(Image: Paul McCredie.)

The brief stipulated placement of the entrance to the Court square onto Lambton Quay to mirror and extend the strong axial symmetry of the OHCB (Fig. 2).[5] The interior of the courtroom is visible from the building's entrance allowing the visitor, or passerby, connection with the heart of the Court. This fulfilled the Supreme Court judges' request for visual links from the bench to the exterior of the building, both horizontally and vertically. It marks a significant break from the tradition of fully enclosed and isolated courtrooms. Entering into the courthouse lobby, visitors are immediately struck by the primacy of the courtroom housed in the dominating copper-clad ovoid form at the heart of the new building, extending from ground floor to above the roof line. The restrained palette of concrete and stone, timber and glass, and copper and bronze emphasises substance and longevity; these are materials that have a life and 'mana'[6] of their own. Courtroom ritual can usually be observed from the reception area through switchable glass which allows the judges to screen the courtroom at times where confidentiality is required (Figure 3). The courtroom interior of the externally clad copper ovoid is lined with some 2300 panels of sustainably harvested New Zealand silver beech, *Nothofagus menziesii*, which the architects state was influenced by the cone of the New Zealand kauri tree, *Agathis australis*, which has led some commentators to interpret 'the idea of the court as the seed of a new tradition in New Zealand'[7] (Figure 4).

Figure 3. Exterior of the courtroom. The glazed panel in the centre of the image permits a view from the lobby into the courtroom. (Image: Paul McCredie)

Planning and acoustics provide a more intimate relationship between bench and counsel (and the public gallery) than exists in earlier New Zealand courtrooms. The curve of the bench, which was a judicial requirement to facilitate better sightlines between up to five sitting judges, represents a notable departure from traditional courtroom planning. This curve continues through the space and, coupled with outstanding acoustic performance, creates a greater feeling of in-the-round participation than a rectangular courtroom would achieve.

The bench is also the location of three key symbolic elements (Figure 4). Firstly, the New Zealand coat of arms is prominently displayed on the wall behind the judges. In addition, at the front of the bench are two glass boxes. One contains a sterling silver inkwell gifted to the Supreme Court by the Privy Council in 2004 which was given to the Privy Council by Queen Anne in 1702. The other contains a waka huia[8] of similar size and age to the inkwell (but without a specific provenance) on loan from Te Papa Tongarewa/Museum of New Zealand, an indigenous counterpoint to the English inkwell. The waka huia was chosen by Warren and Mahoney ('WaM') architect Roy Wilson and the Chief Justice on grounds of its similar size and age, and because this specific waka huia lacks verified provenance which means that it can be viewed as a universal symbol of a time and culture. Together, the inkwell and waka huia symbolise the twin ancestors of New Zealand's current legal system.

Figure 4. The New Zealand Supreme Court bench with coat of arms, Queen Anne inkwell and waka huia.
(Images: Paul McCredie)

Judicial aspirations, legislation, and architectural briefs

The aspirations and influences which drove the *design* of the Supreme Court can be tested against those aspirations which are evidenced in the official rhetoric which established the *institution* of the Supreme Court created by an Act of Parliament.

The judicial aspirations of the Supreme Court are evinced through two sources:

1. the wording of the purpose section of the Supreme Court Act 2003 ('SCA'); and
2. the translation of these legislative aspirations into requirements within the Supreme Court building's briefing documents.

The Supreme Court Act 2003

In legal parlance, the Supreme Court is a creature of statute, that is to say, it exists by virtue of a statute enacted by Parliament to manifest its political will. Accordingly, the Supreme Court legislation reveals the aspirations for the New Zealand judicial system that were intended with the establishment of the court. Section 3 of the SCA states:

> **3 Purpose**
>
> (1) The purpose of this Act is—
>
> (a) to establish within New Zealand a new court of final appeal comprising New Zealand judges—
>
> (i) to recognise that New Zealand is an independent nation with its own history and traditions; and

(ii) to enable important legal matters, including legal matters relating to the Treaty of Waitangi, to be resolved with an understanding of New Zealand conditions, history, and traditions; and

(iii) to improve access to justice; and

(b) to provide for the court's jurisdiction and related matters; and

(c) to end appeals to the Judicial Committee of the Privy Council from decisions of New Zealand courts; and

(d) to make related amendments to certain enactments relating to courts or judicial proceedings.

(2) Nothing in this Act affects New Zealand's continuing commitment to the rule of law and the sovereignty of Parliament.

In strict legal terms, section 3 expresses the purpose of the Act rather than the Supreme Court itself. However, this section inherently expresses a mix of the purposes of the *legislation* and the purposes of the *institution*. For example, providing for the Supreme Court's jurisdiction and ending appeals to the Privy Council are purposes of the *legislation*. The purposes of the *institution*, on the other hand, are:

a) To recognise New Zealand as an independent nation with its own history and traditions (section 3(1)(a)(i));
b) To enable important legal matters, including those relating to the Treaty of Waitangi, to be resolved with an understanding of New Zealand conditions, history and traditions (section 3(1)(a)(ii));
c) To improve access to justice (section 3(1)(a)(iii)); and
d) To continue New Zealand's commitment to the rule of law and sovereignty of Parliament (section 3(2)).

These institutional purposes are significant then, in that they express the judicial aspirations of the Supreme Court at the time of its establishment.

Briefing the Supreme Court

In early 2006 officials at the Ministry of Justice ('MoJ') began to develop a brief for stand-alone premises for the Court. In addition to the SCA, the various formal and informal requirements of the project's judicial and political advisors, which informed the premises brief, reveal how the aspirations for the Court were translated into built form. The Project Steering Group assembled to develop the Supreme Court design comprised representatives from the MoJ, members of the Supreme Court judiciary and registry staff, WaM, and project

managers The Building Intelligence Group. This collaborative approach also included extensive consultation with the Minister for Courts, the New Zealand Historic Places Trust, and the Ministry for the Environment, all of which influenced the framing of the brief.[9] After significant negotiation three explicit directions were given to WaM under the final iteration of the premises brief:

1. the new building was to be located on the site between the OHCB and Lambton Quay (known as Justice Park), with public entry to the building from Lambton Quay;
2. the OHCB was to be modified by removal of the 1981, 1913 and part of the 1907 additions, and fully restored to provide for better efficiency, functional improvements, and achieve a 100 year design life (Figure 5); and
3. the new building exterior should reflect the status of the Supreme Court as the repository of NZ law and the apex of the third arm of Government. The building should not be ostentatious but was to be of substance and of enduring design. It was to be respectful to the OHCB and not to dominate it in relation to height.[10]

Figure 5. Restored former judge's chamber, OHCB, now the link between the OHCB and the Supreme Court.
(Image: Paul McCredie.)

MoJ officials described the substantial debate at the briefing stage over what sort of 'cultural identity' the building should have, whether it should have a substantial Māori cultural content or whether to bring in references to other cultures in New Zealand. There were reportedly a range of views among the judges as to the extent to which the building should reference Māori culture. While recognition of Māori as New Zealand's first people was seen as appropriate, significantly the judges expressed a desire that the building be representative of all New Zealanders as a nation, and not pay too much more recognition to any one cultural

background than others. They effectively wanted a building that was 'culturally neutral,' a politically loaded direction given the fundamental constitutional status of the Treaty of Waitangi in New Zealand today. The decision was made instead to incorporate references that were 'of New Zealand,' namely the references to native trees and traditional Māori tukutuku panels. Although the wishes expressed by the judiciary strongly influenced the design of the courthouse throughout, it should be noted that final approval of the design of the Supreme Court complex was made at ministerial level.

While there is no direct evidence that the provisions of the SCA informed the Supreme Court project brief, its formal and informal requirements support such a view. A notable exception, however, is the desire for 'cultural neutrality' for the Supreme Court building. Significantly, this aspect of the complex's brief and design seems notably at odds with the judicial aspirations recognising the extant constitutional importance of the Treaty of Waitangi contained in the legislation. This 'fabulation' of 'cultural neutrality' invites critical attention.

The communicative function of judicial architecture

Considering the constitutional importance of the judiciary in democratic societies, judicial architecture has traditionally received limited and sporadic attention as an architectural typology. Civic architecture, of which judicial architecture is a subset, has received more attention. American public administration researcher, Charles Goodsell, states that civic spaces are 'enclosures within governmental buildings designed for the performance of political rituals before audiences'[11] which are 'relatively accessible but not entirely unguarded'[12] and are 'built with the realisation that outsiders may be present on auspicious occasions.'[13] Goodsell's study of American city council debating chambers provides a useful lens to a consideration of the New Zealand Supreme Court as their performative function is clearly analogous to that of judicial architecture. Goodsell believes that all civic architecture contains an expression of political ideas, 'a nonverbal statement emanating from the political culture of the time'.[14] This paper does not seek to challenge Goodsell's observation, which could be the subject of future research.

Courthouses are stages constructed for the purpose of performing the rituals of justice, namely enquiry into grievances and the passing of judgment, and are *prima facie* open to the public at large in order that the community may be part of this ritual.[15] It is judicial architecture's fundamental role of enabling and supporting the public aspects of the justice system that makes the investigation and understanding of the courthouse typology so important. This view of judicial architecture was reinforced by the Law Reform Commission

of Western Australia ('LRCWA') in its review of the WA justice system.[16] The LRCWA study recognised the role that judicial architecture plays in communicating the values of those who administer the justice system and the values placed on the users as participants in that system. The Commission ultimately concluded that the shape and content of judicial architecture is of fundamental importance in the delivery of justice in the community.[17] Writing on ritual and ceremony in relation to civic architecture, Goodsell notes that participants' experience is a function of the staging presented, since '[e]mbodied in the staging are, not objective facts, but our deepest understandings of the world and the underlying values with which we engage it.[18] In relation to this staging, Goodsell cites Joseph R. Gusfield's observation that ''cohesive' symbolic gestures embrace, in a unifying way, all persons who are present, whereas 'differentiating' symbolic gestures divide people according to status or subgroup.'[19] This point of view is reinforced by the observation of the LRCWA that 'the characteristics of courthouse spaces tacitly inform the users of their status before the law'.[20]

This understanding of the communicative function of judicial architecture is significant in that it highlights that deep understandings of the administration of justice and the system's underlying values are communicated by courthouse buildings. As the court of final appeal in the New Zealand judicial system, the aspirations communicated by the Supreme Court building set the example for all inferior courts. As noted previously, there is an apparent disconnect between the aspirations expressed by the Court's enabling legislation and those expressed in the formal and informal premises briefings, in particular surrounding the 'cultural neutrality' of the courthouse.

'Without Favour or Prejudice'

It is suggested that the 'fabulation' of the Supreme Court building being 'culturally neutral' cannot be sustained once the the historical and cultural context of the building within New Zealand's judicial architecture is considered.

A direct descendent of the English judicial system, both institutionally and architecturally, in style and substance, the New Zealand system developed to meet the needs of the nation as required, evolving from a single court into a complex hierarchy of tribunals, trial courts and courts of appeal. Similarly, its early judicial architecture predominantly referenced English courthouse design until the post-WWII period when international styles were appropriated. Towards the end of the 20th century, however, courthouse design began to respond to international architectural shifts to better represent regional perspectives in architecture.

The fundamental planning of the courtroom has remained closely tied to tradition common law models world however. The *Supreme Court Conservation Report* identified the OHCB as a continuous link with the administration of justice in New Zealand over 130 years[21] and this heritage is intentionally referenced in the relationship between the Supreme Court and the OHCB. Restoring the OHCB was more significant in this context than simply renovating an old building (Figure 6). It anchored the Supreme Court within a recognisable context and heritage, providing it, as Howard observes, with an appreciable identity.[22] This grounding of the Supreme Court was important for the founding of a new legal tradition in New Zealand given the significant concern expressed by some sectors of the legal and business communities that a new Supreme Court would lead to an era of judicial activism by a bench that felt suddenly unfettered by the past.[23]

Figure 6. Baldacchino with British Royal Arms, No. 1 Courtroom, OHCB.
(Image: Paul McCredie.)

The OHCB is emblematic of the direct history of the Supreme Court, but this grounding within the traditional judicial architecture typology goes further than simply having the OHCB to hand as a reference point. For all that at first glance appears divergent between the OHCB and the Supreme Court, a remarkable amount of the latter remains consistent with the 19th century courthouse typology, including:

- The basis for the planning of the two courthouses is as near to identical as possible with primacy given to a central courtroom in each building with supporting spaces surrounding;
- The clear relationship between the materials employed in the two courthouses - rendered masonry and rich native timbers of the OHCB are echoed in the basalt, concrete and pale beech of the Supreme Court.

- The scale of the Supreme Court is intentionally sympathetic to the OCHB; the rhythm of the classical proportions of the OHCB informs the fenestration and rhythm of the pōhutukawa/rātā screen. It is suggested that this symmetrical connecting with the past is significant as it suggests order, stability, and permanence in the new Court.[24]

It is noted above that some acknowledgement of the status of Māori as New Zealand's first people was considered appropriate in the Supreme Court design. It has been suggested that the acoustically reflective copper screens to the left and right of the bench recall tukutuku panels in traditional Māori carved houses,[25] thus being symbolic of the Māori culture in New Zealand (Figure 7).

Figure 7. Tukutuku panel-inspired screens.
(Image: Paul McCredie.)

Further, the Queen Anne inkwell and waka huia are intended to reference New Zealand's dual legal traditions and reflect the extant relationship embodied in the Treaty of Waitangi which is specifically referred to in section 3 of the SCA. Although New Zealand has had competing systems of justice, it has only ever had one legal tradition. While Māori have operated with their own understanding of justice, the English common law tradition was and remains the sole basis for all 'Justice' in New Zealand, albeit with occasional reference to Māori concepts of justice within certain limits. The formal relationship of the Supreme Court building to the OHCB is perceptibly one of cohesion and complement, not challenge and departure. The colonial *status quo* reigns and is evident in symbolic gestures such as the New Zealand coat of arms over the entrance and in the courtroom, the relationship of the Queen Elizabeth II-gifted inkwell to the waka huia of intentionally obscure provenance, and nods to Māori culture in the borrowed artworks in the secure, private areas of the

courthouse. Even the so-called tukutuku screens in the courtroom could more easily be described as having a traditional European tabby weave pattern. Ignoring the status of Māori enshrined in the Treaty of Waitangi and by reference in s 3 of the SCA, the entire architectural tradition and heritage embodied in building is Pākehā, making the Court itself a symbol of the Pākehā claim to administer justice in New Zealand. The significance of this condition must not be downplayed by appealing to a misguided notion of 'cultural neutrality'.

Conclusion

There can be no doubt that the Supreme Court is firmly rooted in the English courthouse typology and thus carries with it the cultural precepts about the content and process of 'Justice' that gave rise to and continue with that architectural model. Given the political significance of the Treaty of Waitangi in present-day New Zealand, the notion of 'cultural neutrality' in this context is impossible. Understanding, expressing, and embodying the Treaty relationship is challenging and always has been, not least in architecture. The New Zealand judicial system has struggled with the concept and content of the Treaty since its signing, and will continue to do so. In the words of Ranginui Walker, *ka whawhai tonu matou* – we struggle without end. The critique presented here is not intended to isolate the Supreme Court from the context of that ongoing struggle so as to indict the patrons and architects of the building, but rather to use the building as illustration of that struggle. Further, the intention is to highlight and warn against fabulations relied upon by some to say 'we have done enough, it is time to move on.' Those engaged in the briefing and design of New Zealand's courthouses must be cognisant of the fact that the fabulation of culturally blind Justice cannot, and ought not, be embodied within New Zealand's judicial architecture.

Endnotes

[1] See for example, 'The Courts and Justice Issue – Paradigms and Projects.' *Architecture Australia* 98,5, (Sept/Oct, 2009).
[2] Roy Wilson, Chris Cochran, Tommy Honey, & Gerald Blunt. 'Natural Justice.' *Architecture NZ* 2: (March/April, 2010), 50-60, 52.
[3] Wilson, *et al.*, 'Natural Justice,'60
[4] Wilson, *et al.*, 'Natural Justice,'52.
[5] Project Steering Group, 'Supreme Court Permanent Premises Project, Option C (Modified) Parameters' (6 April 2006), 2.
[6] *Mana*, (Maori) prestige and character.
[7] Wilson, *et al.*, 'Natural Justice,' 52.
[8] A *waka huia* is a vessel for containing objects of significance to the owner. The name relates to the tail feathers of the huia bird (now extinct) which were worn by Māori of chiefly status in times past.
[9] Office of the Minister for Courts, 'Memorandum for Cabinet Policy Committee' (undated, c. March 2006).

[10] Project Steering Group, 'Supreme Court. Premises Brief Version 4' (28 March 2007) 1.
[11] Charles T. Goodsell, *The Social Meaning of Civic Space. Studying Political Authority Through Architecture* (Lawrence: University Press of Kansas, 1988), xiv.
[12] Goodsell, *Civic Space*, 11.
[13] Goodsell, *Civic Space*, 11.
[14] Goodsell, *Civic Space*, xiv.
[15] See Judith Resnik & Dennis E. Curtis, 'From 'Rites' to 'Rights' of Audience. The Utilities and Contingencies of the Public's Role in Court-Based Processes' in Antoine Masson & Kevin O'Connor, eds., *Representations of Justice* (Brussels: P.I.E. Peter Lang, 2007), 195-236.
[16] Law Reform Commission of Western Australia. *Review of the Criminal and Civil Justice System in Western Australia* (Project 92 – Consultation Papers) (Perth: Government Printer, June 1999), 1017.
[17] Law Reform Commission of Western Australia. *Review of the Criminal and Civil Justice System in Western Australia* (Project 92 – Final Report) (Perth: Government Printer, September 1999), 304.
[18] Goodsell, *Civic Space*, 25.
[19] Joseph R. Gusfield, S*ymbolic Crusade: Status Politics and the American Temperance Movement*, (Urbana: University of Illinois Press, 1966), cited in Goodsell, *Civic Space*, 37.
[20] LRCWA, Consultation Papers, 1027.
[21] Chris Cochran. *Supreme Court. 42 Stout Street. Conservation Report for The Ministry of Justice*. (Wellington, New Zealand, 2006), 66.
[22] See Peter Howard, *Heritage: Management, Interpretation, Identity* (London: Continuum, 2003), 147.
[23] See for example Supreme Court Bill 2002 (16-2), Commentary, 22 and Dame Sian Elias, 'Speech at the Special Sitting of the New Zealand Supreme Court' (1 July 2004). (Wellington, New Zealand) http://www.courtsofnz.govt.nz/from/speeches-and-papers/#speechpaper-list-first-sitting
[24] See René Smeets, *Signs, Symbols and Ornaments* (New York: Van Nostrand Reinhold, 1973) and Rudolf Arnheim, *The Dynamics of Architectural Form* (Berkeley: University of California Press, 1977).
[25] *Tukutuku* panels are ornamental lattice-works used particularly between carvings around the walls of Māori meeting houses. Traditional patterns have names and symbolic meanings.

In the Sewer: Evidence for the street Layout of Byzantine Constantinople in the Mamboury Archive

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Abstract

Byzantine Constantinople was structured upon arcaded streets of shops, or 'emboloi,' and formal public fora, which usually served the purpose of housing various kinds of markets. The largest and perhaps oldest of these was the Strategion, which consisted of two courts that were adjacent to the inlet of the Golden Horn, giving access to the Bosphorus, and thus to the Mediterranean and Black Seas, in the period up to the seventh century. However, the exact location and scale of the Strategion has not yet been determined. In this paper, I will examine field drawings, executed by the Swiss archaeologist Ernest Mamboury in the 1920s, of building foundations uncovered during council canalisation works for the new sewer system in Istanbul, in order to propose a new layout of the street system in the north-eastern sector of Byzantine Constantinople leading to the Strategion. The paper is based upon analysis of digital maps that place the found remains in relation to site contours, modern and existing Byzantine buildings, and current streets. Notably, the study locates what appear to be two major streets, with what appear to be shops and courtyards aligned along them. These streets will be reconciled with known buildings and structures, such as the Milion, and churches of St. Sophia and St. Mary Chalkoprateia. I will argue that locating the streets has enabled determination of the entrance to the forum, and thus adds to knowledge of the topographical layout of this district of Constantinople.

Introduction

In this paper, I will propose aspects of the urban layout of the harbour district of Byzantine Constantinople, based upon a study of several unpublished documents from the archive of the Swiss amateur archaeologist, Ernest Mamboury. In particular, I argue for the existence of two major streets, and the general location of the Strategion, a major forum with an adjacent market-place in early Constantinople, located adjacent to the Golden Horn.

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The classical, Greek or Roman city plan is typically associated with geometrical organisation, orthogonal street layout, and hierarchy of streets and squares. As it has come down to us through historical interpretation, it has become overlaid and inflected by the inventions of the early and high Renaissance and baroque periods – here think of the ideal urban prospects of Mantegna, Filarete, and Piero della Francesca, but above all by Alberti, who may be said to have invented the classical world anew. They are fabulations in the sense proposed by this conference.

Recent architectural studies of High and Late Roman cities, on the other hand, reveal another city layout, one based upon a combination of utility, ritual and spectacle. Major urban assemblages 'stood for' both synechdoche and representation, the city as a whole. Moreover, cities which were layerings of settlement, like Rome itself, but also Constantinople, present a far more complex topography, one formed by the contingencies of site conditions, ideal prospects, the necessity to build around revered old structures, and innovations and redundancies in social and political structures. In this paper I will introduce a new interpretation of archival evidence to call into question recent reconstructions of the city of Constantinople as an 'ideal' Roman grid-plan city.

Sources And Current Scholarship

The Strategion is mentioned in the Book of Ceremonies as the site where the emperor Justinian arrives having ascended from the Golden Horn.[1] He is received by courtiers, who crown him with the *aurum coronarium,* before the procession ascends to the Great Palace. Mango has interpreted this passage to suggest that the emperor would have entered the city through the Gate of Eugenius in order to reach the Strategion.[2] The question remains as to the route one would take to reach Hagia Sophia and the Great Palace from the Strategion.

Albrecht Berger has recently proposed in two essays (1997, 2000) that the urban layout of Constantinople, in its earlier period, was planned around parallel streets descending to the north-east and south-west from the main streets running along the ridge of the peninsula. He thus places the layout in the context of the orthogonal type of Roman urban plan. In the area facing the harbours of the Golden Horn, Berger proposes three parallel streets: A, B and C. These are located on the basis of several alignments of archaeological features: a possibly fifth century colonnaded façade, several cisterns, the Basilica Cistern and the church of St. Mary Chalkoprateia (of the Copperworkers).[3] Of particular relevance to this study, his proposed 'Street B' is proposed to have led directly

from the Forum of Constantine to the Strategion, while the 'Street C' ran past the entrances to the Basilica Stoa and the forecourt of the Chalkoprateia church.[4]

Bardill (1997) has corrected the location of the find-site of the façade, and relocated the implied street to the location of the present-day Çatalçeşme Street, using Byzantine accounts to suggest that it ran obliquely from the Mese past the church of St. Mary to the Copper Market. Bardill cautiously suggests that if, leaving the Copper Market, the street continued the same course downhill towards the Golden Horn, it would have passed close to the Strategion and would have reached the shore at the east end of the Neorian and Prosphorian harbours.

Dark (2004, 2005), again on the basis of archaeological evidence found in Çatalçeşme Street, proposes that another street on this alignment ran down from the central street of Mese to the harbour. Dark plausibly argues in his critique of Berger's plan that, as the city is built on hills, a straight line is not necessarily the most convenient street layout.[5] It is argued here that, in addition to Dark's revisions, Berger's 'regular plan' thesis must be corrected on a further point – the plan does not compensate for the change in ground level from the Early Byzantine period to the present,[6] and places the forum of Strategion north of where, Dark has argued, the early harbour-front lay. This calls into question Berger's proposed relationship between that forum and street 'B.' The evidence for this, and another street may, however, be supplemented by evidence not cited by these authors. In December 1928, Ernest Mamboury recorded a succession of mostly Early Byzantine walls revealed during the excavation of a trench for sewer works in Alemdar Caddesi, north-east of the location of the church of St. Mary.[7] These drawings will be re-analysed below.

The Evidence in the Mamboury Archive

Mamboury, was an amateur archaeologist at a time where archaeology in the new nation of Turkey was in its infancy.[8] He is best known for his work on the Great Palace campaigns by the DAI and the University of St. Andrews, contributing fine measured drawings without which we would have very little record of major Byzantine structures that have vanished over the course of the twentieth century. Presumably with approval from the Istanbul Archaeological Museum authorities, Mamboury followed the work teams as they dug, demolished or excavated streets and building sites, performing what is now called 'rescue archaeology.' Some of the material formed the basis for journal articles. However other archival material remains unpublished, including the field notes discussed here.

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Between 1925 and 1936, the municipality of Istanbul undertook the installation of a modern sewer network and water supply through the area of the Istanbul peninsula.[9] During the course of the excavations, largely following the alignment of existing streets, Mamboury was present to record Hellenistic, Roman, Byzantine and Ottoman structures. In December 1928, he recorded excavated features during the digging of a trench along Alemdar street, the main street running from Hagia Sophia down to Sirkeci and the Golden Horn, near to the Sublime Porte.[10] This section of Alemdar street forms an S-bend around the Topkapi gardens, with Alay Köşkü street meeting it at the SW.

Figure 1. Alignment of ruins recorded by Mamboury in relation to figure-ground of buildings (Author).

The excavation revealed parallel brick walls, existing in two identifiable configurations. which Mamboury recorded over an unknown period during the dig. While the drawings made by Mamboury south of Hagia Sophia were published by Mango in his monograph on the palace vestibule of 1959,[11] no detailed analysis to my knowledge has been made of Mamboury's record of the excavation in Alemdar street. The recorded structures are important evidence in support of the proposition that a Byzantine street ran north-east to the harbour from the main street of Mese on the alignment of Çatalçeşme street, and of textual accounts of a street leading up from the harbour to Hagia Sophia.[12]

In a later article, Mamboury comments thus on the ruins in Alemdar Caddesi:

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> In the vicinity of St. Mary of the Copperworkers [Chalcopratia], either in Alemdar street, or in that of Zeyneb Djami Sultan, walls, two mosaic floors, belonging to the famous church, were uncovered. Since the entry is the old Sublime Porte to St. Sophia, the trenches all showed at three or four metres, and at one metre of depth, a succession of walls going in somewhat all directions. It is certainly difficult to identify all these remains, but nevertheless it indicates how dense the constructions were in this district.[13]

In other words- confusion!

In his papers, Mamboury did not provide details of the mosaics which, nevertheless, indicate the presence of one or more high-status buildings in this area.[14] However, four sheets in the Mamboury archive relate to the ruins in Alemdar Street and can be used to partially reconstruct the alignment of streets leading down to the Golden Horn in this district.

Sheet 1

The first drawing, apparently the earliest, shows two isolated features measured in relation to adjoining building structures. These occur at the two bends of Alemdar street, and indicate substantial wall remains. Two reference points for the ruins, 'A' and 'B' were noted, and tied back to fixed points.

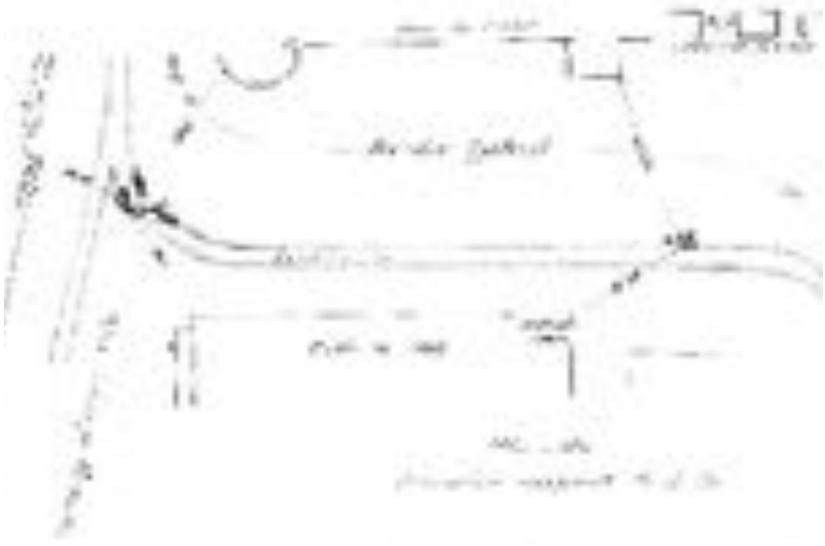

Figure 2. E. Mamboury, field sketch ('Sheet 1') of Byzantine structures excavated in Alemdar street.

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Sheet 2

On the second sheet, Mamboury described walls at the eastern bend of Alemdar street, next to the street fountain of Lala Haireddin mosque, consisting of parallel, north-west-oriented brick walls seated on a stone levelling course. These walls are oblique to the walls crossing the east-west bend of Alemdar Caddesi and the two groups appear to be close to 90^0 in divergence, thus probably related.[15] Despite the limited evidence, the fabric of the walls appears to be early – perhaps fifth – sixth century.[16] Thus, these bricks would appear to be a different phase of construction, possibly, but not necessarily, later than the large bricks noted below in relation to 'Sheet 3' and the western structures along the lower section of Alemdar Caddesi.[17] Further to the west, Mamboury observed a brick wall, again possibly fifth – sixth century, which showed evidence of fire damage.[18] This accords with reference in a Byzantine text, the *Miracles of St. Photeine*, to a fire in the 'broad way' leading up to Hagia Sophia, interpreted here, after Mundell Mango, as the street connecting the forum of Strategion with the church.[19] Another set of approximately parallel massive masonry cross-walls were noted to the south-west in Alay Köşkü Street – suggesting the location of a very substantial building or group of buildings. [20] They can be identified as the remains of street-level structures.[21] The alignment of the walls is given as approximately normal to the street, thus these ruins could be plausibly associated with a Byzantine street running from the Mese close to the Forum of Constantine along the alignment of Çatalçeşme street, which is almost congruent with Alay Köşkü street.[22]

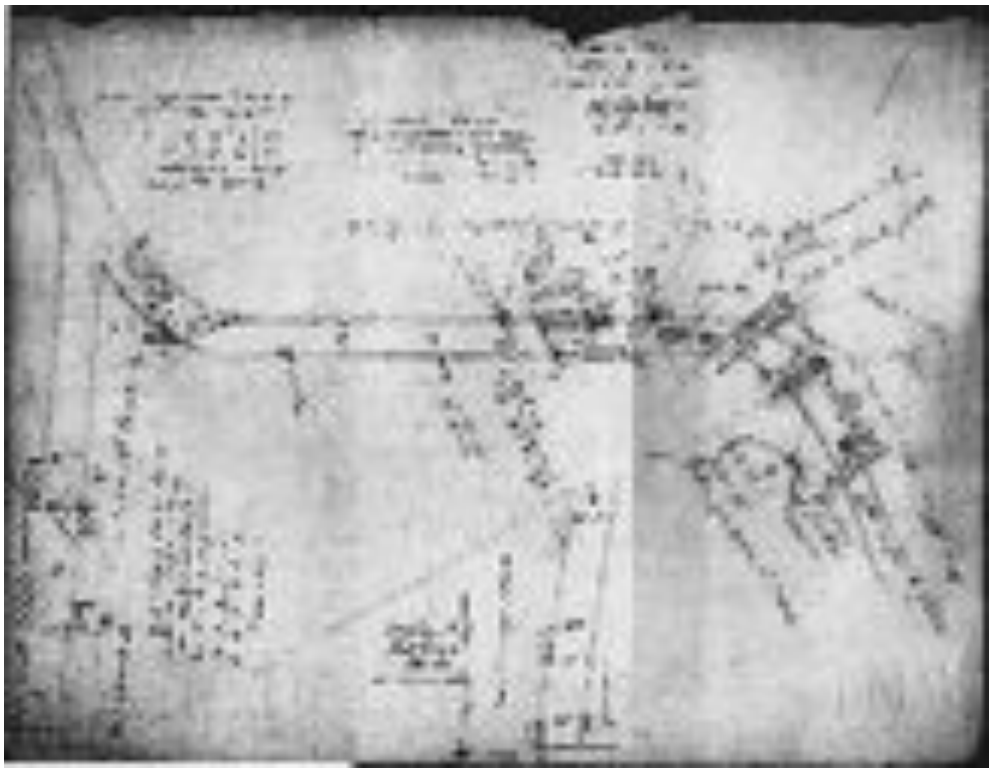

Figure 3. E. Mamboury, field sketch ('Sheet 2') of Byzantine structures excavated in Alemdar and Alay Köskü streets.

Sheet 3

On the third sheet, Mamboury described structures in the continuation of Alemdar street north of the Sublime Porte: a series of parallel brick walls and a transverse arch, preserved in its entirety. From the dimensions given by Mamboury, it is possible to calculate the approximate floor level of the structure as 9 m. below the then-current street level.[23] The current contour level in this location is 18 m. above sea level, so the Byzantine structure appears, therefore, to have had a ground level of about 9 m. above sea level, thus approximately 7.5 m. above the quay-side level.[24] These walls are aligned 33^0 west of north, with approximately the same alignment as the walls in Alay Köşkü street, further supporting the presence of a street continuing towards the port. It would appear that several very substantial brick structures were located in this area, which may have had courtyards or small *plateiai* accessed from the streets – both groupings of walls had features which Mamboury extrapolated as internal angles. This location is quite close to the posited location of the Prosphorion harbour.[25] Given the close proximity of the ruins to the probable location of the Strategion and the level difference, there would probably have been a descent by stairs, to reach the level surface of the forum and markets of Strategion, with the harbour-front further down, as suggested by the passage in the *Book of Ceremonie*s cited above.

Mamboury's 'rescue archaeology' sketches are insufficient to draw any but generalized and vague conclusions as to what the buildings were. The 3.8 m inside dimension between the piers, which were probably vaulted – would be sufficient perhaps to house a shop stall, workshop or store.[26] The evident storey(s) above, implied by the massive walls, could, on the basis of precedents such as Sardis, have been living or storage quarters.[27] The all-brick construction of the piers suggests a construction of early date, perhaps fifth - sixth century,[28] thus of a similar period to the colonnade found in Çatalçeşme Street.[29] It seems clear that the excavated structures belong to a ground-level structure - perhaps the shops and stores that lined the flank of a major mercantile street, or *embolos*, descending to the forum of the Strategion.[30]

Despite uncertainty over their function, the orientation of the ruins, approximately normal to the alignment of Çatalçeşme Street, strongly suggest a relation to it. If the latter street can be identified with the street of the copper workers, as Bardill has suggested, then its continuation towards the port could be expected to contain workshops, shops and

possibly also dwellings. The great width of the excavated piers would easily be able to support one or more upper storeys.

Figure 4. E. Mamboury, field sketch ('Sheet 3') of Byzantine structures excavated in Alay Köskü street.

Sheet 4

The measured drawing on the fourth sheet allows one to conclude that the recorded structures crossing the eastern, north-west-directed branch of Alemdar street form a cohesive grouping of consistent orientation that extends for a considerable length and appears to belong to one complex.[31] Again, the described construction, a stone base of large blocks of sandstone or marble, supporting parallel brick walls, recalls known examples from the end of the fourth to the sixth century:[32]. Again, like the ruins in Tchengal Hamami and the north-western continuation of Alemdar streets, it may be the case that these ruins belong to buildings fronting a Byzantine street that ran in a northern direction towards the harbour and the forum of Strategion. This hypothesised street would have been located immediately to the east of the section of Alemdar street south of the palace park entrance, and would have followed a natural valley in this region. Its projected alignment meets the north-east corner of the Basilica Stoa, and the south-west corner of the now vanished arcaded forecourt of Hagia Sophia. It may indeed correspond to the street mentioned in the *Miracles of St. Photeine*.[33]

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Figure 5. E. Mamboury, field sketch ('Sheet 4') of Byzantine structures excavated in Alemdar street, overlaid with proposed configuration of structures (Author).

Topographical implications

It remains to consider this evidence in relation to recent reconstructions of the urban area between the Mese and the harbours of the Golden Horn. This area, as indicated in the *Notitia*, was the most densely populated area of the city in the period from the fourth to the seventh century. As Magdalino has argued, it began to go into decline in the sixth century, before reviving from the eleventh century onwards. Thus, structures found in this area are most likely to belong to the periods before its decline, or after its resurgence.[34] One important, but unresolved topographical question is the location and extent of the Strategion,[35] which Mango has identified as the agora of ancient Byzantion and the first maritime point of entry. He proposes that it was accessed in the Byzantine period through the Gate of Eugenius which he associates with Yalıköşkü kapısı, and notes that it possessed a number of military monuments, as well as an equestrian statue of Constantine, and an obelisk erected by Theodosius I.[36]

The Strategion, and the road connecting to Hagia Sophia is also associated with processions up to Hagia Sophia – the Book of Ceremonies mentions a processional route that ran from the Strategion to the old city centre.[37] The chronicler Marcellinus refers, for example, to a statue of Fortune holding a horn of plenty. It was located above an archway

('Arch of Urbicius') at the Strategion that caught fire in 510 – perhaps the above gate.[38] The mention of an archway suggests either that it formed a threshold between a street or streets outside (probably to the south) and the open space of the forum. Mango's association of the early possibly fourth century Gate of Eugenius with the Yalıköşkü kapısı may require reconsideration. Dark's evidence for the location of the Prosphorion harbour suggests that the Ottoman gate lay on what would have previously been the site where the eastern mole of the harbour met the headland and curved to the west to provide protection for ships. [39]The logical way for visitors to arrive by ship would have been to dock at the quay, then proceed south through the gate into the forum of Strategion and the Lesser Strategion, proposed by Mango to be a market.[40] The marble arch with statue of Julian would logically have been found closer to the Strategion, and possibly inserted into the old wall of Byzantion. The Strategion is here proposed to be located, against Berger's and Mango's suggested sites, towards the east and south of the Prosphorion harbour and inside the old walls, thus a short distance north-east of the Alemdar street excavations.[41] Located in the vicinity were meat and fish markets, and a grain store, or *horreum*.[42] Linking this forum to the central area of the city were several major roads, lined with *emboloi*, which are here proposed to include the two streets proposed below.[43]

While the street layout near the harbour, given the limited archaeological evidence, must remain uncertain in its details,[44] the street facade found in Çatalçeşme street, and the discovery of a fragment of harbour front have helped to define alignments and spatial limits.[45] It is proposed here that the Alemdar street drawings in the Mamboury archive provide significant evidence for the topography of this area in the Early Byzantine period, as Dark and Bardill have placed the Strategion towards the east, and thus in alignment with the two postulated streets.

Based upon his observations, Mamboury argued that Early Byzantine Constantinople was built in large part upon artificial terraces linked by a network of streets.[46] The fifth century *Notitia* indicates that a number were lined with colonnaded porticoes: the several sections and branches of the Mese, running along the ridge of the promontory; the north-south-aligned Portico of Domninos, later called the *Makros Embolos*; its southern continuation leading down to the Harbour of Julian, later Sophiae, and several others.[47] Of these, the alignment of the Mese has been confirmed by archaeological evidence. Significantly, in the area leading to the forum of Strategion and the harbours on the Golden Horn, the ground slopes steeply downwards, necessitating in the Byzantine period the construction of a series of terraces for buildings, as was also the case in the

area overlooking the Marmara. This suggests that streets in this area would need to accommodate themselves to the terrain, as do modern-day streets in the area.

On the basis of Bardill's corrections, and Dark's determination of the harbour-front, Berger's configuration needs revision.[48] Mamboury's archaeological evidence of the excavations at Alemdar street may be cited in support of the location of two other streets leading to the Strategion, one following approximately the alignment of the present-day Çatalçeşme street down to the harbour, and the other descending north from Hagia Sophia, similar to the porticoed street depicted by Mundell Mango in Region V (V.1 & 2).[49] Facing the first (Çatalçeşme) street at its southern end, where it would have met the Mese, is the Bin Bir Direk cistern. This raises the possibility that an open space, perhaps a market, was located on the roof of the cistern, similar to the stoas and courtyard located over the Basilica (Yerebatan) cistern. In addition, as was discussed in a previous paper, a third street connected the Augusteion and Hagia Sophia to the Forum of Leo to the NE.[50] The postulated Forum of Leo I suggests that there would have been a fourth major street leading up to it from the Strategion. This is further suggested by Byzantine descriptions of the Nika Riots, in which a mob initially attacked the headquarters of the praetorian prefect, before inflicting damage elsewhere. As this complex can be established to be well north of Hagia Sophia, it suggests that the rioters moved up from the heavily populated port area in the vicinity of the Strategion, directly to the praetorium at the Forum of Leo I.

Figure 6. Topography of the northern slopes of Istanbul showing proposed streets leading to the general location of the marketplace/forum of Strategion. A third street leads to the Forum of Leo (Author).

Mamboury's eastern road is suggested by textual and archaeological evidence to have followed the approximate orientation of the upper section of Alemdar street, in the direction of the Strategion and the harbours on the Golden Horn. Berger proposed a street 'E' running north to a sea-gate – this seems unlikely, given the steep descent to the north-east. It is proposed instead that a street ran along the ridge to the Forum of Leo I, then may have bent to the north-east past the curving building complex of unknown function described by Müller-Wiener, and discussed by Dark and Harris (2008), before descending to the harbour.[51] This latter orientation may have been that of the street north of the Column of the Goths, as it follows the contour lines in the area.[52] Certainly, the north-eastern orientation seems plausible, as it would accommodate the alignment of the street further south.[53]

In conclusion, Mamboury's evidence helps us to understand more about the urban layout of this commercial district of Constantinople. The postulated streets, connecting Hagia Sophia, the Augusteion and the Forum of Constantine with the harbours on the Golden Horn, reinforce the central importance of the Strategion as the major commercial centre of the early city. The excavated structures indicate substantial buildings, perhaps of mercantile function, fronting onto the descending streets. Their continuation would descend some 7 m. to the harbour front.

Figure 7. Relation of approximate orientation of proposed streets to present day urban layout (Author).

These streets, and the forum of Strategion, would appear to have formed an interconnected network of primary streets, off which terracing supporting residences

appears to have existed. Thus, between the street leading to the Forum of Leo and the easternmost of the projected Alemdar streets, cisterns have been discovered, suggesting that high-status houses were sited east of the Strategion, with views down to the Golden Horn.[54] In conclusion, through the evidence of the close observations of Mamboury during the digging of the sewer system, It may be concluded that the ruins along Alemdar and Alay Köşkü streets support the existence of two ancient streets, corresponding to the routes connecting between the Forum of Constantine and that of the Augusteion, down to the Strategion. The structure of streets and fora suggests that an urban layout, forming an inverted 'L', existed in the Early Byzantine period, centred around the important mercantile node of the Strategion, fronting the ancient Neorion and the Prosphorion harbours.

Endnotes

[1] Cer 497 = Haldon 138 702ff Berger *Patria* 408; Guilland *Études* II, 56; F. A. Bauer*, Stadt, Platz und Denkmal in der Spätantike. Untersuchungen zur Ausstattung des öffentlichen Raums in den spätantiken Städten Rom, Konstantinopel und Ephesos* (Mainz: von Zabern, 1996) 225-6.
[2] C. Mango, 'The Triumphal Way of Constantinople and the Golden Gate,' *Dumbarton Oaks Papers* 54 (2000) 173-88 at 178.
[3] A. Berger, 'Streets and Public Spaces in Constantinople,' *DOP* 54 (2000) 161–172, at 164, fn. 17 & fig. 1.
[4] Albrecht Berger, 'Regionen und Straßen im frühen Konstantinopel', *Ist. Mitt.* 47 (1997) 349-414; Albrecht Berger, 'Streets and Public Spaces in Constantinople'*,* in *DOP* 54, (2000) 161–172.
[5] Ken Dark, 'Houses, Streets and Shops,' *Journal of Medieval History, 30 (2004),* 104.
[6] Ken Dark has, in two articles, presented an interpretation of evidence crucial to the location of the Early Byzantine north-eastern harbours, associating the waterfront at around the present day eight metre contour line, thus proving that the waterfront in this period differed markedly from that depicted in, for example, Lorichs' Panorama of 1559. See K. R. Dark 'The New Post Office Site in Istanbul and the North-Eastern Harbour of Byzantine Constantinople', in *International Journal of Nautical Archaeology* 33/2 (October 2004) 315-19; K. R. Dark, 'The Eastern Harbours of early Byzantine Constantinople,' *Byzantion. Revue Internationale des Études Byzantines* (2005) 152-163. On the panorama, see C. Mango and S. Yerasimos (eds.), *Melchior Lorichs' Panorama of Istanbul 1559*, (Istanbul: Ertug & Kocabiyik, 1999). For an interpretation of the evidential value of the Panorama, see N. Westbrook, K. R. Dark and R. van Meeuwen, 'Constructing Melchior Lorichs' Panorama of Constantinople,' *Journal of the Society of Architectural Historians*, 69/ 1 (March 2010) 62-87.
[7] Mamboury Archive, Deutsche Archäologisches Institut, Istanbul. I thank the Institute, and Dr. Andreas Schachner in particular, for making the archive available for inspection.
[8] Cyril Mango, says this of Mamboury:
I should like to express the gratitude that all students of Byzantine antiquities owe to Ernest Mamboury, a scholar who devoted forty years of his life to recording the minutest remnants of ancient monuments found at Constantinople.' C. Mango, *The Brazen House, A Study of the Vestibule of the Imperial Palace of Constantinople* (Copenhagen: Munksgaard ,1959) 20.
The Belgian-born Mamboury was a professor at the Galatasaray Lycaeum (*Galata Sarayı Enderun-u Hümayunu* founded 1481) where he taught French language and literature. From the evidence of student drawings in his archive, he evidently also taught technical drawing. There is no evidence that he was a trained archaeologist or architect. Nevertheless, he was responsible for producing the measured drawings contained in the important study of the Great Palace he co-authored with Theodor Wiegand, under the auspices of the Archäologisches Institut des Deutschen Reiches. See E. Mamboury and Th. Wiegand, *Die Kaiserpaläste von Konstantinopel,*

Zwischen Hippodrom und Marmara-Meer (Berlin and Leipzig: Walter de Gruyter and Co., 1934). These drawings represent the most important record of Byzantine remains in the area.

[9] This was a major project in the modernisation of the city. Prior to the First World War, the Ottoman government had commissioned the Berlin Surveying firm Havestadt und Contag to prepare the first comprehensive survey maps of the entire city (see fig. 1), together with spot-levels, and these detailed maps formed the basis for successive urban renewal projects, and the plan for provision of the first modern water-supply and sewerage system for the city. See İ. Dağdelen, *Alman Mavileri. 1913-1914 I. Dünya Savaşı öncesi İstanbul Haritaları* : German blues. I. 1913-1914 Pre-World War I Maps of Istanbul, 3 vols. (Istanbul: İstanbul Büyükşehir Belediyesi-Kütüphane ve Müzeler Müdürlüğü, 2006, 2007). The maps are labelled 'Havestadt u. Contag Berlin-Wilmersdorf' and dated 1913 or 1914.

[10] Mamboury Archive, Deutsche Archäologisches Institut, Istanbul. I thank the Institute, and Dr. Andreas Schachner in particular, for making the archive available for inspection.

[11] C. Mango, *The Brazen House: A Study of the Vestibule of the Imperial Palace of Constantinople* Aeraeol. Kunsthist. Medd. Dan. Vid. Selsk. 4, no. 4 (Copenhagen: Munksgaard, 1959) 182-88.

[12] A.-M. Talbot, 'The Posthumous Miracles of St. Photeine,' *Analecta Bollandiana* 112 (1994) 85-105, cited by M. Mundell Mango, 'The Porticoed Street in Constantinople,' in Nevra Necipoğlu (ed.), *Byzantine Constantinople: Monuments, Topography and Everyday Life* (Leiden: Brill, 2009) 48 and fn. 76; *De Cer*. 497; Berger 408; Guilland, Études, II, 56.

[13] Ernest Mamboury, 'Les fouilles Byzantines à Istanbul et dans sa banlieue immédiate aux XIX et XXe siècles,' *Byzantion* 11 (1936) 229-283 at 253.

[14] See footnote 1.

[15] The western face of a wall of the latter group is given as having an alignment of 15^0 east of north.

[16] Mamboury gives the coursing dimension of these walls crossing the north-west-aligned section of Alemdar thus: 6/ 4/ 6/ 3.5 / 6, bricks 34 x 35 cm., the mortar of which is noted as having large grains and of sable colour[?].Mamboury does not identify the dimensions as brick or joint. If the bricks were the dimensions of 3.5 to 4 cm, this would suggest a similar phase of construction to the walls around the corner in the E-W section of Alemdar Caddesi. The size of the bricks, although the evidence is slim, might indicate a date of manufacture, in accordance with Bardill's assessment of brick sizes, as of the period of Justin II (565-78) or later (Bardill notes the progressive diminution of brick sizes after Justinian I, however notes certain brick samples from the fourth or earliy fifth century of comparable size to those discussed by Mamboury. See J. Bardill, *Brickstamps of Constantinople* 2 vols. (Oxford Monographs on Classical Archaeology), here vol. 1 (Oxford: Oxford University Press, 2004) 106

[17] It is, however, plausible that these bricks may date to the reign of Justinian I. Emerson and Van Nice give the dimensions of bricks in the south-east buttress of Hagia Sophia as being in the range of 350-380 mm long, and 45-60 mm thick. See: W. Emerson and R.L. Van Nice, Hagia Sophia, Istanbul: Preliminary Report of a Recent Examination of the Structure, *American Journal of Archaelogy* **47** (1943) 416, 418, 420; Bardill, *Brickstamps* 105.

[18] Mamboury describes the dimension of the bricks and mortar beds of the wall feature at 1m. below street level thus: B 3.5/ J 6.5/ B 3.5/ J4.5/ B 3.5. These sizes might, with caution, be interpreted as indicative of a construction of the sixth century or later. A note describes the mortar as: 'cement à gros grains et peu de pierre… trace de charbon.' [cement with coarse grains and little stones… trace of carbon.] Further west along the street, further walls were found. at 2 m. below street level, Again, the brick sizes suggests a similar date to the walls to the east. Mamboury noted the presence of 'cement à briques [finement?] pilées et à' grains de chaux …coleur rouge–rose.' [cement with finely crushed bricks and with grains of lime, colour rouge-rose]. Further west again, at 1.4 m. below street level, he records a brick wall with the following course spacings: J 4.5/ B 3/ J 6/ B 3.5/ J 6. Mamboury noted the mortar to be greyish white with large grains of stone. On the stones of the western most wall in this area, he noted the presence of masonry: 'Face à revêtment de pierres regulièrement taillées.' [the face of the revetment of the stones is regularly carved].

[19] Mundell Mango, 'Porticoed Street at Constantinople,' 48: *Miracles of St. Photeine.* Interestingly, the passage refers to the fire having broken out in a glass-making workshop, and that the fire spread to the coppersmiths' district. Mundell Mango locates the glass workshops near the Strategion. The coppersmiths' district has been associated by Bardill and Berger with Çatalçeşme street, so would have been very close to the glassworkers' district. See also Metaxia

Papageorgiou, Afroditi Kamara, 'Glass-working in Constantinople,'*, Encyclopaedia of the Hellenic World, Constantinople*, (Athens: Foundations of the Hellenic World, 2008)
URL: <http://www.ehw.gr/l.aspx?id=12323> (accessed 08.04.12).

[20] A trench was dug to a depth of 3.10 m. Mamboury noted 'murs situés à 2 m. au-dessous de la rue batis au-dessous d'un mur plus ancien mortier à gros grains 2 / 4 / 2 / 3 / 2 / 5 Basse époque.' [walls situated 2 m. below street level… constructed beneath […] a very old wall…mortar with coarse grains 2 / 4 / 2 / 3 / 2 / 5… late period]. The running dimension of walls adjacent to Sublime Porte, beginning at 5.50 m. SW of the SE corner of the Sublime Porte building and noted along the trench in Tchengal Hamam Caddesi, is given as follows:

> 2m. wall – 4 m. gap – 1.4 m. wall – 5.2 m. combination of gap and wall – 4.9 m. gap – 1.75 m. wall – 5.3 m. gap – 2.45 m. wall – 2.0 m. gap – 2.4 m. wall

[21] If the remains were of substructures, then the level that sat above them would have been above the 1928 street level – therefore they must have been street level structures.

[22] There would appear to have been continuity of alignment in two places across the trench: at the SW end ('grosse pierre' recorded to the SE), and at 24.55 m., where a 0.8 m. wall was recorded to SE, NE of 24.55 m.

[23] The arch was 3.5 m. wide, suggesting a height of at least 5 m.– if the base of the archway were about 5 m. below the base of trench (the apex of the intrados of the arch was 0.5 m. above the base of trench), then it would be 9 m. below the 1928 street level. The trench ran on an angle 20^0 east of north. Walls built of stone and brick were recorded, including an arch of the following dimensions:

- Lowest recorded section: 4 m. below ground level.
- Highest recorded section: 1.1 m. below street level
- Distance from underside of arch apex to base of excavated trench: 0.5 m.
- Internal width of arch: 3.80 m. (estimated)
- Depth of extrados: 1.20 m.
- Estimated height of original arch opening from projected original ground floor to underside of arch: 5.5-6 m.

NE-SW distance between walls: 3.80 m.
Mamboury Archive, DAI Istanbul.

[24] The current contour level in this location is 18 m. above sea level, so the original ground level would be about 9 m. above sea level. On the discovery of a section of the quay-side, see Dark, 'New Post Office Site,' Dark, 'Eastern Harbours.' Dark notes that stone blocks of a harbour-front, recorded by Marling in 1906, lay at a level of 5.5 m. below the street level of around 8 m. at a location just north of the New Post Office site in 1906.[24] This would place the level of the quay, associated with the eastern harbours on the Golden Horn, at about 2.5 m. above sea level, and therefore 6.5 m. below the postulated floor level of the ruins below this north-western branch of Alemdar Caddesi, opposite the old Sublime Porte.

[25] The site is about 200 m. to the 8 m. contour line along the alignment of Çatalçeşme Sokağı, from the intersection of Alemdar Caddesi and Alay Köşkü Sokağı.
Müller-Wiener, *Bildlexikon*, 57:

> The port designated in antiquity as *kleistos limin* was secured by moles upon which walls stood (DioCass LXXIV 10), whereby a strong tower - the Eugenios tower - protected entry; the location of the port in regio V is clearly to be found in a sharply deviating run of the wall (see sea-wall) after the beginning at Yalıkapi in the eastern part of today's station area, i.e. south of the Sepetçiler Köskü. Still in the fifth century one of the important staple places of the city (in regio V, i.e. in its proximity lie four of the six Horrea specified in the Notitia), already around the turn of the century the gradually silted basin is no longer used as a port; however the *naustathmos* still serves in front of the Eugenios gate (also *pili basiliki*) in the Palaeologus period as a landing stage for the emperor during his trip from the Blachernae to the church of Hagia Sophia. After 1457 the area is included within the bounding wall of the newly established palace of the Sultans.
> [Translation from the German by author]

[26] The wall with the arch, described in Mamboury's sketch, measures about 8.5 m. south-west to north-east., while the spaces between walls further to the north-east are 3.80 m. Such dimensions might suggest the possible functions of storage, workshops or shops. Nevertheless, the bays do seem narrow for a mercantile function. By comparison, the agora shops at Corinth are about 4 m. wide, those at Sardis about 5.7, and at Scythopolis about 4.2 m. wide. Nor do the dimensions

appear to correlate with known examples of horreae or macella: those at Ostia have cells about 5 m. wide; the macellum at Perge has cells 4.65 m. wide, and that at Ostia, about 5 m. wide. In the absence of more extensive investigation, it is difficult to suggest a layout.

[27] On the 'shops' at Sardis, see J. S. Crawford, *The Byzantine Shops at Sardis* (Cambridge, Mass.: Harvard University Press,1990); C. H. Greenwalt, and M. L. Rautman, 'The Sardis Campaigns of 1996, 1997 and 1998 (Excavations),' *American Journal of Archaeology* 104 (2000) 643-81; C. Foss and J. A. Scott, 'Sardis', *The Economic History of Byzantium: From the Seventh through the Fifteenth Century*, A. Laiou (ed.) (Washington, D. C.: Dumbarton Oaks, 2001) 607-14; A. Harris, 'Shops, Retailing and the Local Economy in the Early Byzantine World,' *Secular Buildings and the Archaeology of Everyday Life in the Byzantine Empire*, K. R. Dark (ed.) (Oxford: Oxbow, 2004). For commercial institutions in Constantinople, see M. Mundell Mango, 'The Commercial Map of Constantinople,' *Dumbarton Oaks Papers* 54 (2000) 189-207 and figs. 1-34.

[28] The walls are massive: 1.6 m., 3 m., and 2.2 m., while the recorded brick size was 38 cm, with 6 cm thickness.

[29] Bardill has, with caution, associated bricks of this size with the fifth and sixth centuries, with a greater likelihood of the fifth. See J. Bardill, *Brickstamps of Constantinople*, 2 vols. (Oxford Monographs on Classical Archaeology), here Vol. 1 (Oxford: Oxford University Press, 2004) 102, 105:

> It may… be observed that a brick whose thickness exceeds 48 mm. is much more likely to belong to the fifth century than to the sixth. Similarly, a brick whose sides measure less than 361 mmm., and whose thickness is below 41 mm., is much more likely to have been made in the sixth century than in the fifth.

In Table 19, Bardill gives the mean average of fifth century bricks as: length 374, thickness 46, and standard deviation as: length 361-387, thickness 41-52. On this basis, the bricks recorded by Mamboury in Alemdar Caddesi north should be placed as probably made in the fifth century (although they may have been reused in a later structure).

[30] The massive walls in the north-west continuation of Alemdar Caddesi are closely spaced (3.80 m. wide) raising the question of whether they are basement structures, such as have been found in the Great Palace area, for example 'Der Bau mit den Langen Korridoren D' in the garden of Arif Vefik Pasha. or occupied a ground level. No surviving remnants of an upper floor level or traces of vaulting were observed, although the walls are sufficiently massive to support one or more upper levels. As noted above, the levels suggest that the structures constitutes part of the ground floor level. The structure depicted in Mamboury's elevation on sheet '3' is the face of a wall, which forms a room or court in relation to the walls to its south-west and north-east. It is described as having an orientation 40^0 east of north. On the structure in the garden of Arif Vefik Pasha, see E. Mamboury and Th. Wiegand, *Die Kaiserpaläste von Konstantinopel Zwischen Hippodrom und Marmara-Meer* (Berlin, Leipzig: Walter de Gruyter & Co., 1934) 32-3 & figs 79-84.

[31] The ruins recorded along the trench in the north-west-aligned run of Alemdar Caddesi measure 50.85 m., but if the ruins recorded in the west-running section of the street are part of the same structure, then this complex was substantially larger, with an unknown area to the north-west. On 'Sheet 4,' Mamboury records that the structure ran west for a distance of 17.50 m. from the eastern edge of the northernmost wall, and $10\text{-}15^0$ east of north. Mamboury noted: 'Les murs des deux côtes du contour sont de meme aline, sont à angles ... et leraient appartenir au meme monument…' [The walls of the two sides of the [trench] are of the same [alignment?], and angles… and [appear to?] belong to the same monument…]

[32] 'Gros blocs de grès ou de marbre servant de base à des murs de briques de mêmes caractéristiques que les suivants et de même inclinaison…' The use of a levelling course of limestone, and brick construction (bricks 34 square, 5 courses to 46 cm) above was used on the structure south of and on the alignment of the Mese at Beyazit of possible late fourth century date. Brickwork was predominantly used in the fabric of the Justinianic Hagia Sophia (bricks of 35-38 cm. length, 10 courses to 96-97 cm.). The large brick lengths in the structures at Alemdar street, if not re-used, suggest an early, perhaps sixth century date. See J. B. Ward-Perkins, 'Building Methods of Early Byzantine Architecture' in D. Talbot-Rice (ed.), *The Great Palace of the Byzantine Emperors* (Edinburgh: the University Press, 1958) 53-98.

[33] 'Sometime between the ninth and late eleventh centuries, the *Miracles of St. Photeine* describes the path of a fire which started in a glass workshop situated on the broad uphill street (*leophoros*)… travelled up that street that led from the Strategion to St. Sophia and the Milion.' M. Mundell Mango, 'The Porticoed Street at Constantinople' (2001) 48, citing A.-M. Talbot, and fig. 1.

[34] P. Magdalino, 'Maritime Neighborhoods,' cf. 219. Magdalino notes that up to the seventh century, the area between the Mese, the central street of the city, and the harbours on the Golden Horn contained the highest concentration both of population and of public infrastructur, notably granaries. Thus, in the *Notitia*, the highest concentration of dwellings occurs in the Regions VI, VII, and X, located mostly in the northern area facing the Golden Horn. Magdalino notes that up to the seventh century, the area between the Mese, the central street of the city, and the harbours on the Golden Horn contained the highest concentration both of population and of public infrastructure, with the greatest density west of the Neorian Harbour. From the mid sixth century, there was a gradual shift of maritime trade to the harbours on the Marmara: the Theodosian and Julian/Sophiae harbours. He speculates that thus process may have been accelerated by the outbreaks of plague in the sixth century in the dense housing district on the Golden Horn, west of the Neorian harbour (regions VI VII and X). There was a resultant gap in major construction in this area between the mid sixth century and the eleventh century, followed by a period when the establishment of Italian city-state colonies contributed to a resurgence of trade and development in this region.

[35] The Strategion may have had Hellenistic origins, and was possibly developed into a forum during the reign of Constantine I, along with his forum on the Mese. Malalas 192-193i, cited by Bauer, *Stadt,Platz und Denkmal*, 225-26. In the fifth century, it appears that part or all of the Strategion was named *Forum Theodosiacum*. Mauer considers that the name may derive from an obelisk, or obelisk fragment, erected there by Theodosius II before 425. *Op. cit.*, 227. The forum was probably located adjacent to the old city walls of Byzantion. Bauer concludes, on the basis of Byzantine references, that it was close to the sea-front, and locates it in the area now occupied by Sirkeci and Eminönü: ''Immediately after the Strategion is named in the region directory a Horrea, a nymphaeum and the Prosphorianos harbour, from which it is concluded that the strategion was not too far from the sea. This is also evident from the mention of the altars of Achilles and Ajax, which are both located by the sources both on the Strategion and on the Bosporus, which however probably concerns one and the same system (author's translation).' Bauer, *Op. cit.*, 225 and fn. 64. How the forum acquired the name Strategion (place of the generals-*strategoi*) is unknown, but may, as implied by Mango (Golden Gate) be associated with the military monuments in the area, and perhaps also the statue of Alexander mentioned by the *Patria.* Patria II, 59. Bauer notes that it may be identical to the Thrakion, a military parade ground, mentioned by Zenophon. *Op. cit.* 224 and fn. 69. On the monuments at the Strategion, see also B. Croke, 'Poetry and Propaganda: Anastasius I as Pompey,' *Greek, Roman and Byzantine Studies* 48/4 (2008) 447-466 at 461 ff.

[36] C. Mango, 'The Triumphal Way of Constantinople and the Golden Gate,' *Dumbarton Oaks Papers,* 54 (2000) 177-79.
Berger, however, argues that the entry from the Golden Horn to the Strategion referred to in the Book of Ceremonies (*De cer.* 497) was through a gate further east.

[37] C. Mango (2000), 174, 178; *De Cer.* 497. Mango does not suggest the orientation of the street connecting the Strategion to Hagia Sophia, only noting that it need not belong to a rectangular plan, but cites sources that associate it with the *adventus* ceremony.

[38] One of the two streets may be associated with the archway with statue of Fortune cited by Marcellinus for the year 510:

> A bronze image standing in the forum of Strategius above an arch and holding a horn of Fortune's plenty caught alight in a fire and was burnt. It lost an arm which, however, the sculptors refashioned immediately.

B. Croke, *The Chronicle of Marcellinus* (Sydney: AABS, 1995) 35.

[39] Ken Dark uses evidence contained in a letter written by a British diplomat in 1906 regarding finds at the site of the New Post Office (constructed 1905) to locate part of the harbour front just north of the New Post Office at Sirkeci. See K. R. Dark, 'The New Post Office Site in Istanbul and the North-Eastern Harbour of Byzantine Constantinople,' *The International Journal of Nautical Archaeology* (2004) 33.2: 315–319 at 315; K. R. Dark 'The Eastern Harbours of Early Byzantine Constantinople,' *Byzantion* 75 (2005) 152-161.

[40] The forum may have been divided into two areas, the larger of which contained the obelisk, and, according to Berger, the statues and gate, and was probably the area designated *Forum Theodosiacum*. Adjacent buildings included an ancient prison, a praetorium, and probably the Baths of Achilles, and, according to the *Patria, the house of the patrician Urbikios*. See Bauer, *op. cit.*, 227, citing Patria III, 22.

[41] For the location of the Strategion and harbour proposed here, see N. Westbrook, 'The Accounts of the Nika Riots as Evidence for Sixth-Century Constantinopolitan Topography,' *Journal of the Australian Early Medieval Association* 7, J. Dunn (ed.) (2011) 33-54 and fig. 2.
[42] M. Mundell Mango, 'The Commercial Map of Constantinople, (2000).
[43] These streets also included, to the west, the Portico of Domninos or Maurianos Embolos, later *makros Embolos*, that may have followed a similar alignment to the present-day Uzunçarşi street, that runs from the Grand Bazaar (Kapalıçarşı) north down to the Golden Horn. See Mundell Mango, 'Commercial Map' (2000) 206-07 and fig. 31.
[44] Albrecht Berger has proposed an hypothetical reconstruction of the street layout based upon early texts, and available archaeological evidence. See A. Berger, 'Regionen und Straßen im frühen Konstantinopel', *Istanbuler Mitteilungen* 47 (1997) 349-414; *idem*, 'Streets and Public Spaces in Constantinople', in *Dumbarton Oaks Papers* 54, (2000) 161–172. Other scholars, Cyril Mango, Paul Magdalino and Marlia Mundell Mango, have provided indicative reconstructions, without testing them against known topographical data. See C. Mango, 'The shoreline of Constantinople in the fourth century,' *Byzantine Constantinople. Monuments, topography and everyday life*, N. Necipoğlu (ed.) (Leiden: Brill, 2001) 17-28; P. Magdalino, 'The Maritime Neighborhoods of Constantinople: Commercial and Residential Functions, Sixth to Twelfth Centuries,' *Dumbarton Oaks Papers* 54 (2000) 209-226 & fig. 1; *idem*, 'Medieval Constantinople: Built Environment and Urban Development,' in A. Laiou (Editor-in-chief), *The Economic History of Byzantium: From the Seventh through the Fifteenth Century*, Dumbarton Oaks Studies 39 (2002) 529-37; Mundell Mango, 'The Commercial Map of Constantinople' (2000) figs. 20, 22; *idem*, 'The Porticoed Street at Constantinople,' (2001) fig. 1.
[45] Berger, 'Streets and Public Squares' (2000) 163 and fig. 1; J. Bardill, 'The Palace of Lausus and Nearby Monuments in Constantinople: A Topographical Study', in *American Journal of Archaeology*, 101 (1997) 67-95 at 83 and fn. 66:

> If, leaving the Copper Market, the street continued the same course downhill toward the Golden Horn, it would have passed close to the Strategion and would have reached the shore at the east end of the Neorion and Prosphorion harbors.

Dark, 'New Post Office Site' (2004) 33.2: 315–319 at 315; *idem*, 'Eastern Harbours' (2005) 152-161, at 152-4.
[46] See Ernest Mamboury, 'Les fouilles Byzantine à Istanbul et ses environs et les trouvailles archéologiques faites au cours de constructions au de travaux officials et privés depuis 1936,' *Byzantion* 21, 1951, 425-459, at 433-4, 445-6. R. Janin, *Constantinople Byzantine. Développement urbain et répertoire topographique* 2nd edition (Paris: Institut Français d'études byzantines, 1964) map VI (after Mamboury). Berger (2000) dismisses the Byzantine origin of the retaining walls, while Dark argues for the Byzantine origin of some, although not all, of the terraces. The Great Palace area has substantial traces of Byzantine retaining walls and vaults supporting terraces. Early Byzantine brickwork can similarly be seen in the western retaining wall under the garden of the School of Botany north-west of the Sülemaniye mosque (observation of the author). See A. Berger, 'Streets and Public Spaces in Constantinople,' *DOP* 54 (2000) 161–172, at 163; K. R. Dark, 'Houses, Streets and Shops in Byzantine Constantinople from the fifth to the twelfth centuries', *Journal of Medieval History* 30 (2004) 83-107, at 104-5.
[47] Mundell Mango, 'The Porticoed Street at Constantinople' (2001) 29-51, at 44-5.
[48] Bardill (1997) has corrected the location of the find-site of the façade, and relocated the implied street to the location of the present-day Çatalçeşme St., using Byzantine accounts to suggest that it ran obliquely from the Mese to the Copper Market. Bardill cautiously suggests that if, leaving the Copper Market, the street continued the same course downhill towards the Golden Horn, it would have passed close to the Strategion and would have reached the shore at the east end of the Neorian and Prosphorian harbours. See J. Bardill, 'Palace of Lausos,' (1997) 75 ff. Dark again on the basis of archaeological evidence found in Çatalçeşme St., proposes that a street on this alignment climbed up from the harbour to the Mese. The evidence for this street may, however, be supplemented by finds not cited by these authors. See K. R. Dark, 'The New Post Office Site' (2004) 315; *idem*, 'The Eastern Harbours (2005) 152-4.
[49] Mundell Mango, 'The Porticoed Street,' fig. 1.
[50] This latter orientation may have been that of the street north of the Column of the Goths, as it follows the contour lines in the area. Certainly, the NE orientation seems plausible, as it would accommodate the alignment of the street further south. The question of the location of the Forum of Leo, addressed by Dark and Harris, may be further defined. Accounts of the *Nika* Riots of 532 suggest that the *praetorium* of the Praetorian Prefect of the East, burnt in the Riots, was located

north of Hagia Eirine, the Hospice of Samson and the Baths of Alexander, and was sufficiently close to these structures for its embers to set fire to these structures.
See N. Westbrook, 'An Emperor cowering behind Protective Walls: the Destruction of Buildings in the Great Palace Precinct during the Nika Riots and their Subsequent Rebuilding,' in A. Moulis (ed.), 'Audience,' Proceedings of the 28th Annual Conference of the Society of Architectural Historians, Australia and New Zealand, Brisbane, July 7-10, 2011; *idem*, 'The Accounts of the Nika Riots as Evidence for Sixth-Century Constantinopolitan Topography,' *Journal of the Australian Early Medieval Association* 7 (2011) 33-54.

[51] Berger's Street 'E', proposed to pass west of Hagia Sophia through its later atrium, then to the west of the atrium of Hagia Eirene is incorrect, as the position of the latter church is shown too far west.
Here is proposed an alignment that ran from the archaeologically attested street on the western flank of the Late Antique substructures found east of the Archaeological Museum, (equivalent to the Berger street 'E'), continuing NE in approximate alignment with the western flank of the fifteenth century Topkapı Palace (aligning with the northern gate of the above substructures), then bending to the east through or beside the proposed location of the Forum of Leo, as far as the (possibly fifth or sixth century) structures beside the Column of the Goths, discussed above.

[52] There is a further problem with Berger's layout: his 'Street 3' does not accommodate the central plan structure (baptistery?) to the north-east of the Chalkoprateia church and, if it existed, would need to be moved further to the north-east. However, in this area one runs into the implications of the ruins noted by Mamboury beneath Alemdar Caddesi.

[53] K. R. Dark and A. L. Harris, 'The Last Roman Forum: the Forum of Leo in Fifth-century Constantinople,' *Greek, Roman, and Byzantine Studies*, 48/ 1 (2008) 57-69, at 66; Dark, 'Houses Streets and Shops.' In the latter article, Dark argues reasonably that the position of a gate cannot be used as the basis for a street alignment. This is more the case in the case of Berger's street 'E,' which is forced to descend a steep slope to arrive at the sea-gate of St. Barbara at the Seraglio Point. See Berger, 'Streets' 163 & fig. 1.

[54] Dark, 'Eastern Harbours' (2005) 157-59; A. Berger, 'Zur Topographie der Ufergegend am Goldenen Horn in der byzantinischen Zeit,' *Istanbuler Mitteilungen* 45 (1995) 162.

Building future citizens: Aspirations inherent in early twentieth century school design in Australia

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Abstract

The advent of universal primary education in Australia saw the rise of the local school to become an essential part of public infrastructure. Initially focused on the state or primary school, the rise of the infants school and then the secondary or high school formed a suite of educational buildings provided by the state. These schools, while ushering in a new era of social support and development also sought to build citizens of the future, beholden to civic authority, embedding the school as a key interface between individual and the state. This paper will examine the styles applied to schools in Australia, from the late nineteenth century to the 1930s, looking at the languages and connections used to convey the position and aspiration of the schools at both the primary and secondary levels, within a broader frame of contemporary ideas of the public building.

Arguably more than any other building type, the public building needs to communicate to its audience, through its design, ideas the might encompass power, prestige, solidity, stability, aspiration and/or progress and inspire confidence, ambition and belief in the institution or instrument of government. In Australia, the foundation of a functioning colonial society rested on the creation of a public infrastructure that both enabled and inscribed the limits of such a society. Early public buildings focused on establishing law and order (courthouses, gaols and police stations), facilitating communication (post offices) and managing trade (customs houses), as well as housing the functions of colonial government (governors' houses, government offices, parliament and treasury buildings). Public buildings that facilitated social support services, such as benevolent asylums, hospitals and schools followed, eventually growing to encompass libraries, infant welfare centres, kindergartens and recreational facilities.

Within this suite, the school represented a key element in the provision of community level infrastructure, as after the introduction of School Acts around the colonies (mostly in the late nineteenth century), the primary school was considered to be an essential part of

a town's public infrastructure, helping to usher in a new era of social support and development. The school quickly became a focus and locus of local community, heralding the aspirations of both government and families for shaping the citizens of the future.

Understanding school

This paper aims to consider what the Australian school looks like in the early decades of the twentieth century, and what does its expression say to and about the community in which it sits. We all have a localised understanding of what 'school' looks like: almost invariably we have attended at least one, if not many, at primary and secondary levels of education; most would be aware of the local school in the area in which they currently live; some would have regular interaction with the school at which their children attend. But that understanding is deeply conditioned by the image of the several schools with which we have or had extended contact. What is it to step back from the local or even state-based understanding of what 'school' looks like? It is comparatively rare in the study of Australian architecture, particularly in the realm of civic architecture, to study a common building type at a national level: more often, such studies concentrate on examples contained within state boundaries. The state-based approach allows for useful comparison within an appropriate frame, as well as gaining a degree of depth and detail to the study, but potentially misses out on understanding issues that are widely disseminated and broadly manifest. This paper, in drawing on some 200 identified examples of designs for new public schools, across Australia, designed between 1900 and 1950[1], attempts to look at architetural ideas evident across state boundaries in the design of schools.

It is not possible to easily generalise about the design of Australian schools in the first half of the twentieth century: there are differences between each state, fostered by various conditions, such as climate, the personnel and architectural culture of public works departments, the rate of urbanisation across the states, and relative forethought in schools provision, amongst other factors. Time, too, has an inevitable impact, as ideas and aesthetics change, reflecting contemporary architectural and pedagogical thought. But it is possible to understand distinct changes in the positioning of schools within their local environment and a changing position of the school as a civic building, as expressed through the architectural language used to design them.

In its very earliest incarnations in Australia, schools were usually simple buildings of little pretension, containing a single room in which multiple classes of students were housed.[2] If they occupied purpose-built spaces (and many did not; either occupying multi-use

spaces like halls, or reused existing buildings), their closest relative, in terms of their architectural form, was the domestic house. The use of the term 'school house', still in common use in the USA, refers to these origins. But schools as established after the various colonial acts, if they needed to service a large population such as in a suburban setting, were designed to be more consciously institutional and deliberately speak to and for the communities they served.

In some places, circumstances pushed changes relatively rapidly, such as the limited availability of land to house the required number of students, as is seen in schools designed for heavily urbanised areas. In New South Wales, as documented by Kirsten Orr[3] in a number of venues, many of the school designs of William Kemp from the 1880s and 1890s were imposing masonry structures on tight urban sites that referenced a broadly civic language of architecture in form, with styles including the Italianate, Tudor Gothic and Romanesque. In 1880s Victoria, they were more likely to be Gothic Revival, rendered in polychromatic brickwork, and of a similar imposing nature.

Reflecting domestic concerns

In contrast to these overtly institutional buildings, in the twentieth century there was a distinct push towards the use of domestic references in the styles of new schools. A series of schools designed in Victoria and Queensland in the 1900s and 1910s adopted a consciously domestic language of architecture, with gabled roofs, exposed eaves and often a single storey in height. Striking in their resemblance to upper-middle class villas of the day (albeit generally larger in footprint), the designs for schools in each state respectively reflected the local modes of domestic design.

In Victoria, this was an Arts & Crafts aesthetic of the English Domestic Revival (it could also be described as a domestic Federation style): gabled or hipped roofs, half-timbering, roughcast, exposed red brickwork, decorative barge boards, strapped stucco chimneys; with the occasional neo-Baroque inflection or Scotch gable end, within a picturesque composition, such as Brighton State School, VPWD, 1909-10 and Coburg Infants School, VPWD, 1910. The item that most set them apart from the houses which they referenced was the ubiquitous inclusion of a timber ventilator lantern or a bellcote placed high on the roof; and they tended to lack the verandah spaces by then common in houses of a similar mode. In Queensland, this was the aesthetic of the domestic Queenslander house: elevated timber buildings under a spreading corrugated iron roof that incorporated timber balustraded verandahs. They too featured timber ventilator lanterns in a plethora of hips

and gables. Closer interrogation of these buildings reveals a careful articulation of an educational and architectural progression.

Free, secular and compulsory: the development of elementary education in Australia

Before considering the design of schools in closer detail, it is worth discussing aspects of the history of education in Australia. The provision of school-based education to children Australia underwent a major period of reform in the period 1867-85. As Alan Barcan put it: '[it] was a complex amalgam of interlocking education, social and political forces, involving a variety of educational innovations.'[4] Up until that time, school education was provided through a number of means, including state-run National Schools, church schools and other independent schools, but there was as yet no centralised school provision and administration in any of the Australian colonies. Funding was provided from the state to various bodies for the provision of schooling, including religious organisations. The notion, reinforcing the separation of church and state, of providing a secular education was seen as important, with state funding to church schools ceasing by means of various parliamentary acts from 1852 (Tasmania) through to 1895 (Western Australia). Compulsory education, where students of a particular age group were required to attend a minimum amount of schooling in a set period (usually so many days within a half year, expectations that were very low by modern standards), was seen as the solution to poor attendance and social improvement. Tasmania again led the way in this, introducing compulsory attendance in 1868, followed by SA in 1871 and Victoria in 1872.[5]

The passing of the Education Act in Britain in 1870, commonly known as the Forster Act, helped to galvanize thinking in the Australian colonies. Although the Forster Act did not mandate compulsory education, it did create a centralised structure of state elementary (primary) schools.[6] In 1872, Victoria passed its Education Act, which set up four key planks in the state provision of elementary education in Australia: free, secular, compulsory and under centralised Ministerial control. The other colonies/states would variously achieve these four key elements over time: NSW, in the main part, in 1880 (although not free education until 1906); WA mostly c1895 (compulsory 1871, free 1901); Queensland in 1875 (free 1870, compulsory 1900); with SA and Tasmania gaining all four elements over several decades (SA between 1852-1892 and Tasmania 1854-1908, free education being the last element in each case).[7]

A number of important elements can be gleaned from these events. Firstly, the concern for, and then the compulsion of, school attendance by children aged 6 or 7, and 13 or 14

(depending on the colony/state), placed the school as an important instrument of the state within the realm of private domain, the family. The concern was not necessarily illiteracy as such – even the poorest parents mostly taught their children to read and write[8] – but for educating the citizens of the future, and having them beholden to a social and/or civic engagement and authority outside the home. Making such education free helped to remove obstacles to attendance (that is, there was no excuse for not sending children to school).

Secondly, the prevalence of church schools – and indeed the religious-based origins of educational institutions – had meant that many early schools, if they were large enough for architectural pretension, used the Gothic and Tudor Gothic for their representation, including early state schools. But the push towards enshrining the secularity of state schools saw the language used for them step away from the Gothic towards the more benign Romanesque, thence to the neo-Baroque, tracking fashions for civic architecture in Australia at the time. While it might not be particularly remarkable that there was a move away from the Gothic Revival for school designs after the early 1890s, it was rare that small public buildings, such as courthouses, used Gothic at all prior to that time, preferring instead in the most part Renaissance, Roman or Greek classicism. Centralised control under the auspices of the state often brought the task of designing and building school either into the relevant colonial architect's office or public works department, or indeed a specialist schools' designing unit within the education department itself.

It is important to understand that the focus of school education for children through the various acts for many decades was for elementary education, not advanced education. Because the ages between which this elementary education was aimed – that is 6-13 or 7-14 – it did not address secondary or high school. For all the rhetoric of free education, the advanced subjects offered in state (elementary) schools were offered on a fee basis and, consequently, rarely taken up., While efforts had been made to establish secondary education in the late nineteenth century and it was broadly established across the states by c1910, there was not significant expansion of that system until the 1920s.

The infant school

As has been noted, the architectural expression of early twentieth century schools in Victoria tended to incoporate Federation Arts & Crafts details and elements, giving a direct connection to domestic architecture. Given the prevalence of the type, it is perhaps unnecessary to note that these buildings were for primary education, but is important to indicate that a number of them were designated infant schools. Although the

phenomenon of state-based infant schools was not confined to Victoria, it was more common there than other parts of Australia, with many examples built. The infant school was a combination of kindergarten and the earliest primary school years (sometimes prep[9] to grade 2) and, as such, deliberately catered for the youngest school children. Although ostensibly a separate school and housed in a separate building, infants schools were usually built on the site of an elementary school, the state school.

Infant schools were generally single storey, often with the classrooms flanking a one-and-half storied hall at its heart. The building's entrances were modest – ordinary doors with no embellishment, porch or portico to denote them as the entrance to the school, that led to a narrow passage to cloakrooms on the one hand and the hall on the other. The scale of them, while clearly not that of an ordinary house, was consciously modest; the architectural style, with its dutch-gabled hall and its exposed half-timbered gable ends or jerkin-head roofs to the classrooms all of simple brick construction, also harks clearly to the domestic realm, as seen in the Williamstown Infant School, VPWD (George Watson), 1905. As the citation for Williamstown school on the Victorian Heritage Register states, 'The Federation Queen Anne style was adopted with the intention of imparting a domestic character for the young pupils.'[10]

Articulating difference: the state (primary) school and the infant school

This intention to the domestic becomes very evident when the infant school is compared to the state school to which it is immediately adjacent. What is now South Brunswick Primary School is a case in point. Although the two-storey main block – the state school – was completed in 1886 in a polychromatic Gothic, there was the addition of the infants school in 1914. It was a red brick Federation Arts & Crafts design with a central hall and surrounding classrooms with jerkin-head roofs. The difference in the size of the schools clearly denoted the 'big' school from the 'little' school.

State schools too emulated the infants' school scale and language, such as the Brighton State School, VPWD, c1910, and the Hawthorn State School, VPWD, 1907. The difference between these and the infants' schools designs was that they included more formal entrances, such as that at Hawthorn where a pyramidal-roofed tower, substantially taller than the surrounding roof-scape, became the formal front to the school. Even the tiny Glenthompson State School, VPWD (JH Marsden), 1902, carefully articulated its entrance with a tower.

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It was a similar story in Queensland. There, too, infants schools were added to existing state schools, such as Bulimba Infants' School, 1915. They too used an overtly domestic language, echoing the prevailing timber Queenslander houses. The state schools designed around the same time themselves took a step up from this base domestic language, still identifiably 'Queenslanders', but larger and with greater symmetry and formality, such as Woolowin State School, QPWD, 1913-14, extended 1918-19. Still larger schools, such as Windsor State School, QPWD, 1915-16, built on this morphology, to create something new.[11]

Articulating a healthy school environment

The connections to domestic architecture were overt, but the ventilators and comparatively larger windows of schools ensured that they could not be mistaken for houses. During this period 1900-1920, there was considerable concern for appropriate lighting and ventilation of schools. Victoria's influential Director of Education, Frank Tate, wrote a report in 1904 about New Zealand schools, which led to the establishment of a committee to consider the appropriate design of schools that looked at lighting, ventilaton, orientation, floor area and play area.[12] Probably influenced by Tate's European and US trip in 1907 (accompanied by his SA equivalent, Alfred Williams),[13] Departmental Building Regulations came into force in Victoria in 1911 that covered site sizes, playgrounds, fences, interiors, toilets, lighting, ventilation and sanitation. Around this time, Victoria also introduced an enlarged window policy to allow for better lighting, which saw some 35 schools remodelled by 1910. In 1914, Tasmania followed suit, formulating rules that dictated floor area, lighting and ventilation for new schools.[14] The incoporation of larger windows in schools across Australia is evident from this time, suitable levels of classrooom lighting evidently a national concern.

The secondary school: high aspiration

The expansion of secondary education in the 1920s added yet another layer to the understood progression of school education for children. For the bulk of students attending state schools, they anticipated their education would be complete at the end of that schooling and they would thus enter the workforce. Comparatively few could aspire to post-primary education for financial reasons. Nevertheless, over time it became more common for children to go onto post-primary education, particularly as those who were bright could overcome some of the financial hurdles through 'exhibition' or scholarships. Post-primary education was not simply high school, it also consisted of technical education, through technical schools and colleges. The technical stream was vocational training, sometimes combining both junior and adult classes within the same institution:

the proliferation of such technical schools in the 1920s and 1930s was an important part of the expansion of the education system in Australia.

Secondary education had been available in various forms in the nineteenth century, most commonly provided by church schools or other private providers. There was not the same impact on these secondary schools, compared to private and church-based primary schools, when universal primary education by the state was introduced, because they were not in direct competition with state schools. State-based provision of secondary education through high schools began its expansion around 1906 and by the 1920s was in full flight, with multiple new high schools built across Australia.

The high schools represented a step up not only educationally, but architecturally. Whereas state schools had been distinct from infants schools, high schools too were distinct from state schools. Representative of the aspirations of the students and their families who attended them, the architecture of high schools was formal with greater stylistic pretension: it was thus rare that they alluded to domestic architecture. It should be noted that general trends in architectural taste were changing rapidly after 1920. The influence of Federation and Arts & Crafts was fading, as was the grander Edwardian Baroque, in favour of the Georgian Revival. The difference between the designs of Box Hill State School, VPWD, 1919, with its Arts & Crafts inflections, and that of Box Hill High School, VPWD (E Evan Smith), 1930, is understandable in terms of that shift in architectural taste. But the grand portico attached to the front of Box Hill High demonstrated a stylistic sophistication and formality rarely seen in state schools. Similar levels of pretension, expressed differently, are seen in a series of NSW high schools of the same era, including Goulburn High School, NSW Govt Archt, 1926 and Bathurst High School, NSW Govt Archt, 1927. The shift to a new language for high schools was evident in Queensland as well, such as the grand formality of South Brisbane High School, 1923.

To demonstrate the differentiation between the levels of schools in the 1920s and early 1930s, it is instructive to again compare the design for the infants school, against that of the state and high schools. Early in 1931, a new Infants' School was opened at Crow's Nest, NSW, to the design of new Government Architect E Evan Smith (previously in Victoria).[15] It was a plain building, with little by way of architectural embellishment. In contrast, the design for Bondi North Public (Primary) School, NSW Govt Archt, 1924, the addition of a restrained Doric porch, places it a step above the infants' school in an architectural hierarchy.[16] Bathurst High School, with its ventilator towers on the roof and greater application of classical detail, strove for greater architectural pretension again.

This is borne out in the differentiations between the Ainslie Public School (later Ainslie Infants School), CDW, 1926-28, the Ainslie (Primary) School, CDW, 1936, and that of Canberra High School, CDW, 1932.

Its not surprising that high schools sought a degree of architectural pretension: they were institutions to which students and families were to aspire, catering to the intellectual elite, but they were also in competition with long established church schools – grammar schools – and, as such, needed to demonstrate their equivalence in architectural terms. It is interesting to understand that technical schools did not emulate this aspirational language, instead opting for a more pragmatic choice and were comparatively more likely to be rendered in a more modern language than their high school equivalents.

Articulating the school within the frame of public buildings

If the context for such school designs was widened to include other public buildings for children, such as infant welfare centres and kindergartens, this careful negotiation between the role of the state in education and welfare of children, as future citizens, and family would be even more evident in their appropriation of a domestic architecture, as though ingratiating themselves into the community they served.[17] Given the earliest associations are with the most overtly domestic language, it is as though there was an architectural continuum of gradual inculcation of children into the civic realm and thus independence.

Looking further afield to other public buildings, this engagement with domestic architecture evident in the schools and other buildings to do with children is rarely apparent. While buildings concerned with social welfare, such as hospitals, related architecturally to secondary schools, unless they were very small (such as in small country towns), they did not use a domestic language. Post offices and court houses, having developed typologies of their own in the nineteenth century, while distinct from each other, both used formal elements, even in the smallest towns, to mark them out as public buildings and exude a degree of authority.

Through most of the nineteenth century and well into the twentieth, architects perceived the need to differentiate the designs for, and by extension the styles applied to, domestic and civic buildings. Howard Robertson, in his seminal *The Principles of Architectural Composition* demonstrated why there might be a difference between domestic and civic architecture:

> The motives, details, proportions, and minor effects of design suited to domestic work may not be infinitely enlarged in the hope that by so doing a monumental effect will be obtained in their use on a large scale building. For large dimensions we must employ motives ampler and grander in conception, and qualities of grace and picturesqueness will give way to those of gravity and dignity.[18]

To thus appropriate a domestic language for the design of schools in the period 1900-1920 must have been a conscious choice, one that sought to position schools, particularly those for very young children, close to the domestic realm from which they'd come. But the development of an appreciable type was nevertheless important. As Robertson goes on to say:

> We see, therefore, the possibility of a definite tendency to produce design of a certain type in order that the canon of expression may be obviously fulfilled, and public appreciation gained through the appeal to the average level of understanding.[19]

The school type had to appeal and speak to its audience – the local community – and it was positioned, architecturally, to foster a growing respect for authority and embody the aspirations held for its students as future citizens.

Moulding future citizens

A major part of the gradual insertion of the hand of the state into the family through education, to help mould the future citizenry, was achieved through changing legislation and the provision of universal primary education. Architecturally, the school evolved from the early religious overtones of education, harking back to ancient seats of learning but also the prevalence of church-provision of schools within the Australian colonies through most of the nineteenth century, to a more secular basis, where connections to domestic architecture were overt, particularly for the youngest school children. Further into the twentieth century, changing architectural taste saw the Georgian Revival become the preferred language for schools, retaining in part the connections back to the domestic, but also allowing a restrained civic presence to emerge, one that could differentiate between different levels of schooling, depending on the elements used to embellish it. As public buildings, they formed an important interface between the domestic and civic realms in a carefully articulated hierarchy.

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Endnotes

[1] This research was supported under Australian Research Council's *Discovery Projects* funding scheme (DP110100505 and A10020533).
[2] The early history of schools can be see in Lawrence Burchell, *Victorian Schools: A Study in Colonial Government Architecture 1837-1900* (Carlton: Melbourne University Press, 1980).
[3] See, for instance, Kirsten Orr, 'WE Kemp's School Buildings, 1880-1896: "Seed-Germ of the Australian architecture of the future"?', *Fabrications*, 19, 1 (June 2009), 96-121; Kirsten Orr, 'Empire, Education and Nationalism: The School Architecture of William Edmund Kemp, 1880-1896', *Fabrications*, 20, 2 (2011), 60-85; and Kirsten Orr, 'The Public Face of Elementary Education in New South Wales', in Antony Moulis & Deborah van der Plaat, *AUDIENCE: Proceedings of the XXVIIIth International Conference of the Society of Architectural Historians, Australia and New Zealand* (Brisbane: SAHANZ, 2011), 1-16.
[4] Alan Barcan, *A History of Australian Education* (Melbourne: Oxford University Press, 1980), 131.
[5] Barcan, *A History of Australian Education*, 151.
[6] Barcan, *A History of Australian Education*, 132.
[7] Barcan, *A History of Australian Education*, 151.
[8] Malcolm Vick, '"Their Paramount Duty": Parents and Schooling in the Mid-Nineteenth Century', in Marjorie R Theobald & RJW Selleck, *Family, School and State in Australian History* (Sydney: Allen & Unwin, 1990), 178.
[9] 'Prep' is the abbreviation for 'preparatory year' in primary school education in Australia.
[10] 'Williamstown Primary School No. 1183', Statement of Signficance, http://vhd.heritage.vic.gov.au/#detail_places;1218, accessed 13 May 2012.
[11] These schools are documented in Paul Burmester, Margaret Pullar & Michael Kennedy, 'Queensland Schools: A Heritage Conservation Study', (Brisbane: xerox report to the Department of Education, November 1996).
[12] *Victorian Parliamentary Papers,* 1904, 296-312.
[13] 'Preliminary Report of the Director of Education upon Observations Made During an Official Visit to Europe and America, 1907', *South Australia: Proceedings of Parliament*, 1907; and 'Preliminary Report of the Director of Education upon Observations Made During an Official Visit to Europe and America, 1907', *Victorian Parliamentary Papers*, 1909, 88-90.
[14] 'Education Department Report for 1913', *Tasmania; Journals & Papers of Parliament 1914-15*, 9.
[15] See *Building*, (12 August 1931), 34.
[16] See *Building*, (12 November 1924), 66.
[17] J Willis, 'Celebrating the Everyday: Modernism, citizenry and civic identity in Australian architecture 1930-50', *Celebration*, Papers from the Twenty-second Annual Conference of the Society of Architectural Historians, Australia & New Zealand, Napier, NZ: SAHANZ 2005, 379-384.
[18] Howard Robertson, *The Principles of Architectural Composition* (London: The Architectural Press, 1948 (1924)), 98.
[19] Robertson, *The Principles of Architectural Composition*, 143.

Narrating Heritage's Living Stories: A Comparative Study of China's Suojia Ecomuseum and Australia's Melbourne Living Museum of the West

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Abstract

The Ecomusée, as emerged in France in the 1970s, is a form of open-air museum that aims to maintain collections in their original environments with local communities serving as curators and managing their own heritage. This approach and philosophy implies and is dependent upon democratic principles in the conservation and interpretation processes. Since the 1990s, China has adopted the ecomusée concept for the conservation of selected ethnic villages to relieve tensions between poverty and heritage conservation. However, does this concept really work in China? To answer this question, the Suojia Ecomuseum, the first such initiative - has been selected as a case study and assessed using the mixed methodologies of on-site observation, documentation and semi-structured interviews. This process has identified several issues and problems associated with this ecomuseum. It demonstrates that Suojia Ecomuseum has not achieved international benchmarks, neither philosophical nor practical expectations have been met. This conclusion challenges the internationally acknowledged notion that all ecomuseums develop and are operated using a bottom-up approach, that they were all community-based and democratic. These discrepancies lead to other questions about the differences between ecomuseums in China and elsewhere. In order to map and compare the differences between ecomuseums in China and in Western democracies, a detailed survey was undertaken using Melbourne's Living Museum of the West, Australia. Applying the same methodologies as in China, a comparable examination was undertaken as to its background, objectives, management structures, programs and activities, and project outcomes as well as problems. The differences between Suojia Ecomuseum and Melbourne's Living Museum are then explained and shown. They demonstrate quite diverse organisations with different objectives and management structures relating to different cultural and natural resources. However, the

unexpected finding was that the futures of both ecomuseums relied on the financial support and passion of younger generations and hence were vulnerable.

The ecomuseum concept

In general, the ecomuseum – as a new museology - is a tangible kind of open-air/outdoor museum that keeps buildings and people on their original site. Its theoretical and practical origins were first articulated in France through Georges-Henri Rivière[1] and Hugues de Varine.[2] The concept was coined by them in 1971, during a dinner with the French Ministry of Environment. Their intention was to link heritage protection with the environment.[3]

In 1986, Gjestrum demonstrated that the prefix 'eco' essentially meant human ecology—a place of man and society in communities within an ecological framework. Gjestrum believed that it should embrace the social, cultural and natural environments shared by a given community.[4] In 1992, he published a graphic representation that ecomuseum territory = sites + heritage + memory + population + elders.

In terms of the common characteristics, Heron suggested three principal features of ecomuseums as being a strong sense of local pride in traditions, customs, and vernacular architecture, a link with local economic regeneration, and local attempt to save threatened culture.[5] Boylan emphasised the importance of community involvement.[6] Joubert has subsequently summarised four principles of the French *ecomusée* as - the territory, its heritage, the population and education.[7] Davis has argued that the ecomuseum should work as a tool to enhance local perceptions of local cultural landscape by linking heritage elements to contemporary life and values, and for the long-term rebuilding, maintainance, restoration and conservation of landscapes.[8] Per explained that the difference between open-air museums and ecomuseums was that the former tended to be just collections and relocations of buildings whilst the latter kept collections and people in the original environment.[9]

In recent decades, the ecomuseum concept has been universally acknowledged as a new paradigm for the holistic interpretation of cultural heritage, in which communities conserve, interpret, and manage their heritage consistent with sustainable development objectives.[10] Evolving from Europe, the ecomuseum has developed in

several English-speaking countries (such as Australia) as well as in China. These ecomuseums are managed according to various backgrounds, policies and heritage contents. This paper examines two ecomuseums—one from China and one from Australia, to demonstrate differences in their management and conceptual expression.

Developing research methodologies

In the last fifteen years, Chinese ecomuseums have experienced significant development and there are now fifteen. However, each of these is a unique case and has raised different problems. The lack of local participation. and over-developed tourism, have resulted in controversy about their degree of success as ecomuseums.[11] There is now a necessity to examine how ecomuseums in China are managed and to challenge the original Western concept that all ecomuseums evolve from the bottom-up and are democratic and community-based. In this paper, the Liuzhi Suojia Ecomuseum for the Miao Ethnic Minority, Guizhou (梭嘎苗族生态博物馆; thereafter the Suojia Ecomuseum) was selected for detailed investigation and then compared with an Australian ecomuseum equivalent: Melbourne's Living Museum of the West.

Compared to China, Australia has a mature system of heritage conservation as demonstrated by its acknowledgement of the *Burra Charter* and development of National and State Heritage Councils. This is the main reason why Australia was selected by the author for this comparative study.[12] Melbourne's Living Museum of the West is the only formal ecomuseum in Australia, and was chosen as case study. According to Davis, this lone example in Australia is due to the lack of understandings about the ecomuseum concept within this country.[13]

This research will describe the characteristics of the two case studies, including their backgrounds, objectives, management structures, programs and activities, project outcomes and problems. Three methods were used – documentation review, on-site observation and semi-structured interviews with the senior management and local residents. With regard to interview questions, five major topics were determined in advance and for each topic there were several subordinate questions. These questions worked as a thread to guide the sequence of the other questions, and allowed the emergence of more questions, according to observations of the interviewees' responses.

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The Suojia Ecomuseum

The Background

The Suojia Ecomuseum was the first ecomuseum not only in China but also in Asia, and was opened to assist the Miao ethnic minority[14] in 1997. This community resides in twelve villages in Suojia Town, Liuzhi District, Guizhou Province, and is located in a remote area of Guizhou having little communication with the Province's urban areas. The Miao possess an ancient and distinctive culture in terms of their language, houses, weaving skills, unique music, marriage systems, sacrifice ceremony and dance traditions. They are well-known for the long oxen horns worn by the women at festivals, weddings and other special occasions, and their elaborate hair-pieces made of wool (Figure 1). However, up until the 1990s, these twelve villages had been isolated from mainstream Chinese culture for over 200 years.[15] This isolation guaranteed the authenticity and the integrity of their regional cultural heritage but also resulted in poverty. The communities lacked amenities like running water and electricity. How to provide these people with access to a less poverty-stricken life, without harming their culture, was a challenge for both the Central and provincial governments of China in the 1980s.

Also around the 1980s, Chinese museology was developing under the international influence of new museology. The promoter of the Chinese museological revolution, Donghai Su, introduced the concept of ecomuseum to China in 1986. Su was the consultant for cultural relic conservation in Guizhou Province, and advocated the ecomuseum idea in a governmental report -The 'Seventh Five (year)'[16] Planning of Museum Development in Guizhou.[17]

Figure 1. Young girl in Suojia wearing traditional costume and hairstyle

At the annual meeting of the International Committee for Museology (ICOFOM) in 1994, Su entertained extensive discussions with the two museological 'giants' – the Norwegians Andre Desvalles and John Gjestrum. In 1995, after discussions with Laishun An — a specialist from the Chinese Society of Museums, Su formally presented to the Provincial Government of Guizhou a plan for co-operation with the Norwegian government to establish an ecomuseum.[18]

This proposal was adopted by the Guizhou provincial government and, as a result, the Chinese and Norwegian Governments signed a Sino-Norwegian cultural co-operation agreement for the project the same year.[19] With academic and financial sponsorship from Norway, the first ecomuseum was opened in 1998 in Suojia Town, Liuzhi District, Guizhou Province; geographically covering twelve villages (Figure 2).

Figure 2. Map of the Suojia Ecomuseum (Adapted from Documentation Centre of Suojia Ecomuseum with copyright permission)

The Objectives

At its outset, this ecomuseum proposal addressed three themes for the twelve Miao villages—heritage, economy and education. While major aim of this Ecomuseum was to open up these areas for poverty alleviation,[20] a second aim sought to enhance local awareness of the value of their heritage. In 1998, Norwegian museologists were very excited to witness the rural culture when they visited Longga village, however, the villagers did not know which part of their property was a 'treasure'.[21] When the Norwegian museologists told the local people that their old loom was a 'treasure', the local people laughed and could not believe that their old artifact was so valuable.[22] Attempting to address these differing perceptions, Suojia Ecomuseum seeks to serve

as an ideal educational tool to raise local people's consciousness and confidence, and their pride in protecting their culture, in order to enhance their abilities to respect, utilise and develop their cultural and natural heritage. To conclude, there are three objectives of the Suojia ecomuseum:

- Conserving cultural heritage;
- Bringing the isolated minority communities access to modern ways of life;
- Keeping local villagers' sense of identity.[23]

To achieve these objectives, a guiding principle was issued during a workshop in Norway for ethnic minority peoples to be given some preliminary understanding of ecomuseums.[24] Called the *Liuzhi Principle*, it demonstrates a sympathetic manner with respect to local people, their customs and beliefs[25] and it remains the core ideology for the co-operation between Norway and China. The *Principle* illustrates the relationship between economic activities and heritage preservation - the latter should always be given priority. Since then, the *Liuzhi Principle* has been recognised as a 'compulsory' guideline for Chinese ecomuseums.[26] However, this guideline has been proved to be too idealistic for the Suojia Ecomuseum, as revealed by the discussions below.

Management Structure

The advisory committee for the establishment of Suojia Ecomuseum comprises John Gjestrum, Chaoxiang Hu[27] representing local government, Laishun An as project coordinator and Donghai Su as committee president.[28]

The initial step of ecomuseum establishment was a long-term and significant effort to make villagers understand and accept the ecomuseum idea, and then be willing to participate in the establishment process for the ecomuseum. This step included the construction of a road to offer a convenient traffic conduit for villagers, the provision of infrastructure such as tap water, electricity and the renovation of old houses. These efforts made villagers see the benefits of an ecomuseum and they finally accepted the idea and helped with the establishment of an ecomuseum. They contributed to the documentation of their culture by taking photos and making video recordings, etc. Su stated that 'the value of the ecomuseum gradually became clear as villagers' ownership of their culture became a reality'.[29] However, according to the author's field research, during the thirteen years since, there are still many problems related to local involvement and ownership.

The Suojia Ecomuseum is managed separately from the villages themselves. The museum deals with cultural tasks, whilst the village administration does not interfere at all and always respects the ecomuseum management decision.[30] Six staff work for the ecomuseum—two curators, three staff and one volunteer. All the full-time staff are from local governmental agencies, and the two curators possess cultural affairs backgrounds. This management structure deviates from the original (Western) ecomuseum idea of local people managing their own sites.

Su[31] believes that the first stage of ecomuseum localisation is cultural consignment. This step allows government officials and advisors to be the agents of the ecomuseum establishment because they are the only persons who know what an ecomuseum is, whilst the locals have no awareness of the significance of their culture. By this reckoning, ecomuseum establishment is not feasible without the initial coordination of government and advisors. Su also believes that until the villagers understand the concept of ecomuseums and the significance of their culture, indeed only when they become the real 'owners' of their culture, can an ecomuseum be firmly sustained.[32] For Su, the process from cultural consignment to cultural autonomy has to be part of the normal process of ecomuseum establishment and sustainability.

Activities and Programs

A Documentation Centre was constructed in Longga Village comprising an exhibition hall, a library, a staff office, a dining room, an accommodation building and a reception hall. This centre was co-designed and co-built by an architect and the local people to help ensure that its architectural style was compatible with the surrounding landscape and the vernacular architecture (Figure 3).[33]

Figure 3. Documentation centre of Suojia Ecomuseum

As mentioned earlier, in order to gain local people's acceptance of the ecomuseum ideas, the first step was to bring material benefits. Considerable changes have unfolded for the Miao people since, especially in Longga. An elementary school was built, medical facilities were established, and a cluster of forty new houses was constructed for hitherto extremely poor villagers (Figure 4). These activities received positive appraisal from local people.[34]

Figure 4. During winter night, local people establish fires for warmth in front of their new houses

Meanwhile, a workshop entitled *'The Memory of Miao'* was held during the early years of this ecomuseum, in both Liuzhi District and Norway, thereby providing an opportunity for Suojia Miao people to communicate with Norwegian and Chinese

museologists. The purpose of these workshops was to encapsulate the significance of local culture and to establish common understandings about the concept of an ecomuseum. This was the time when the *Liuzhi Principle* was born. Besides improvement of living conditions and raising of consciousness of their cultural value, tourism has also been facilitated. Local performances, such as singing and dancing are frequently scheduled for visitors. For example, grand dancing parties are held every year from January 4th to 14th in the Lunar Calendar. Further, local people are willing to provide walking-guide services to tourists and to interpret the culture to them. These tourism-related activities made more Miao culture accessible to the outside world, and also gave villagers opportunities to involve themselves in ecomuseum activities and to obtain additional income.

Last but not the least, the core program of the Suojia Ecomuseum is the 'Memory Project' - the recording and archiving of the tangible and the interpretation of the intangible culture of the twelve villages, including their costumes, dance, music, artifacts, stories and buildings. This Project helps to build a database for the past and the present of the Miao, and provides data for future research.[35] According to interviews with the deputy curator, the Memory Project has been regarded as a key and compulsory mission of all Chinese ecomuseums.[36]

The Outcome

After the ecomuseum was initiated, dramatic changes took place in Longga village: 1) living styles changed because of the availability of electricity, roads, piped water and access to the outside world; 2) traditional agricultural production was replaced by mechanical modes; 3) there were more exhibitions of cultural relics and more performances for visitors; 4) depopulation happened particularly as a result of outward migration by younger generations who chose to work in cities. Fang believes the ecomuseum itself brings changes to the villages.[37] Meanwhile, she stated that these changes were caused by the experts and government who exposed the villagers to the process of modernisation and mass tourism, and this process would result in villagers' alienation from their old traditions to modernised life.

Fang's perspective is a criticism of Chinese ecomuseums. Others take a more neutral perspective towards this change. Interviews with other ecomuseum activists revealed that they believed that ecomuseum itself did not bring any changes to these villages, but worked as the catalyst to accelerate these changes.[38] In other words, even without ecomuseums, such changes would have happened sooner or later—the

ecomuseum simply hastened the process. Suojia Ecomuseum's curator explained that this unique role of the Chinese ecomuseum in fact corresponded to the need to alleviate the poverty of ethnic minority villages. He believed that in Ethnic Minority Villages, cultural resources were the only resources that can be utilised to promote economy, and in return, only when the economy develops can they achieve a more effective conservation of culture.

In a nutshell, the Suojia Ecomuseum has worked as a catalyst enabling the development of Miao villages, and also has accelerated material changes.

Part of the living culture has passed to the next generation whilst some aspects have been archived and converted into documents and videos, all of which is somehow far removed from the *Liuzhi Principle* which advocated placing heritage conservation above economic development. This situation indicates that the original ecomuseum idea was perhaps too idealistic or advanced for Chinese conditions. However, all these changes gained positive comments from local people, at least two thirds of interviewees being satisfied with the current situation. They largely agreed that Suojia Ecomuseum improved their educational levels, provided job opportunities and raised their consciousness and willingness to cherish and protect their culture. Meanwhile, because of the establishment of the ecomuseum, some valuable cultural objects were kept and some valuable cultural traditions were passed from generation to generation. More effort is needed to raise villagers' consciousness of the significance of their culture, but this can only occur when their poverty is alleviated.

The Problems

As discussed above, the Suojia Ecomuseum has brought seemingly significant benefits to local communities and does somehow meet the ecomuseum criterion with regard to local involvement. Nevertheless, there are five significant problems:

1) The spatial territory of the ecomuseum is unclear to local villagers. Interviews revealed that the villagers external to Longga Village did not regard their villages as part of it. This is probably because, apart from Longga Village, there have been few changes in the other eleven villages.

2) Although ecomuseums in China have operated for several years, local people are still living in a poor conditions and don't gain much benefit from them. Apart from financial support from government, the main avenue through which local people can

improve their living conditions is tourism.[39] However, as observed by the author, several companies take tourists to the villages to see local performances and the scenery, but each time the local dancers receive little payment for their performances. It is unclear how the financial benefits from cultural tourism were distributed within the communities.

3) Local participation is minimal whilst local villagers do not really have any power in relevant decision-making processes. First of all, none of the six ecomuseum staff are Miao. Local people demonstrated that they were encouraged to participate in ecomuseum activities, but all ecomuseum programs are organised by local and provincial authorities. This should not be surprising because all such work is under the direct control of government and scientific advisors, and villagers are forced to accept it.[40] There are two main reasons for this special structure. On the one hand, it has much to do with the 'top-down' nature of Chinese politics and governmental structures. On the other hand, due to local villagers' low educational levels, impoverished living conditions and inadequate understanding about how to communicate the value of their culture, they do not have enough capacity to organise the cultural activities themselves. As Davis explained, in China, ecomuseums are not possible without external financial and expert help, whether this means Chinese and/or Western assistance.[41]

4) There is little continuing maintenance of village landscapes. For example, when Suojia Ecomuseum was established, ten wooden houses were consolidated (Figure 5). However, no maintenance has been undertaken since and the exteriors are now in a very poor condition.

Figure 5. The change of exteriors of the1,000 year-old house
(Left: 2005; Right: 2010)

5) Lastly, there is inadequate funding. Suojia Ecomuseum's curator stated that after the Norway-China co-operation agreement expired around 2005, the Ecomuseum had difficulty raising sufficient funds. This financial problem is directly linked to the issues mentioned previously. Moreover, neither does local government pay sufficient attention to organising ecomuseum programs.

The key question which remains - does local government really understand or sincerely appreciate the value of cultural heritage for ethnic minorities - is unanswered.

Melbourne's Living Museum of the West

As initially planned, the same methods of documentation, observation and semi-structured interview were used during two visits to the Living Museum. The findings are described as below.

The Background

This museum area is located along the Maribyrnong River valley and encompasses nine industrial suburbs in the western region of Melbourne with a population of about 450,000 and a territory of 1,950 hectares (see Figure 6). Before 1835, this land was occupied by two Aboriginal tribes: the Bunurong and the Woiworung (sometimes referred to as Wurundjeri within the Kulin nation).

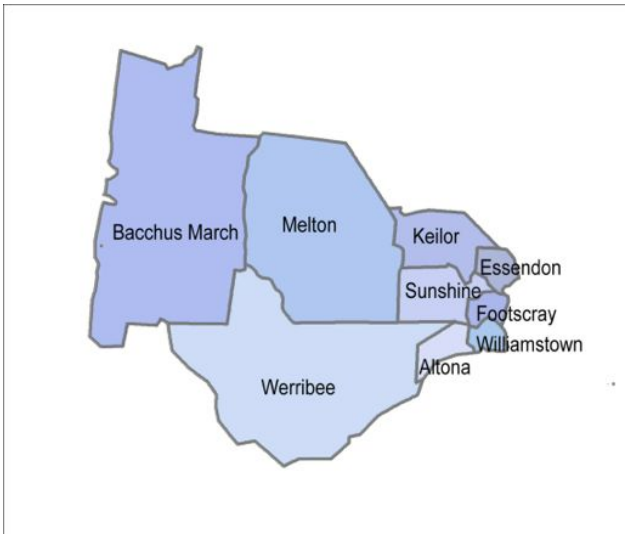

Figure. 6 The map of Melbourne's West Region

Since 1835, the population of the region has become one of the most diverse communities in Australia; primarily working-class, it includes some 36% born overseas, including from Vietnam and Latin America. Over the years, these people developed the first industries of Melbourne, including farming (dairying, orchards, haymaking, vineyards), fibre and fabric (woollen mills, textile industries), meat and by-products (slaughtering, boiling down and tallow, soap and candles, meat preserves, skins and hides, explosives, chemicals, fertiliser, glue), and quarry and stone (quarryman, stonemason, crushed stone).

In the 1910s, the major industry in the region was pipe making. Expansion of Melbourne's sewage and drainage systems in the early 20th century depended heavily on pipes.[42] In the late 1970s, the major industries were shutting down, leaving thousands of unemployed.[43] There was an urgent need to do something to save this area. Joan Kirner – a local Member of Parliament -- convened a meeting which brought together local people, state government representatives and others interested in history and museums. As recalled by Peter Haffenden who has been the Living Museum curator for 25 years, this ecomuseum was established with the financial support of government, advice from academics and the requests of local people who wanted a museum.[44]

In June 1984, drawing from an idea from academics, the passion of local people and funding from the Commonwealth Government and Commonwealth Employment Program, the Living Museum came into being.

The Objectives

As indicated on their official website,[45] this project seeks to express this disadvantaged region, which is geographically flat and rocky and one of the most heavily industrialised of all the regions of Melbourne. Although it did not adopt 'ecomuseum' as the project name, it has been claimed as the first ecomuseum in Australia.[46] This Living Museum sets ambitious objectives:

> To establish a permanent ecomuseum within the context of Melbourne's Western Region;
>
> To develop a greater understanding of the history and culture of Aboriginal and non-Aboriginal peoples and the environment of Melbourne's Western Region;

> To record and present the history of working people in Melbourne's Western Region, up to the present day;
> To involve the people of the region in the collection, research and presentation of this history;
> To use a wide range of presentation methods, including exhibitions, video, publications, theater, public events and other participatory activities;
> To be a multi-cultural museum;
> To create a mobile museum service for Melbourne's Western Region;
> To relate the historic sites and structures of the region to the story of the people of the region;
> To develop a Heritage Resources Centre of the region;
> To undertake linking and bridging activates with other groups, projects and institutions in the Western Region;
> To act as a catalyst for the development of ecomuseum activity in Australia;
> To develop and promote community museum activity which is interactive and innovative;
> To develop the techniques of presenting exhibitions and related activities as effective communication devices;
> To undertake pilot projects in a number of areas within the ecomuseum's context on an experimental basis. [47]

To conclude, there are three main missions of this museum—involving local communities in the recording, preserving, and interpreting the richness and depth of the region's social industrial and environmental history, as well as people's lives; providing a platform for this multi-cultural population to unite; and, offering services to this population. In addition, Haffenden expected this Museum to influence, and not just record, culture - something which would be achieved through education allowing people to participate and appreciate their culture.[48]

Management Structure

The original funding from the Commonwealth Government was only for one year and involved the establishment of a steering committee of twenty-two people. These were all unemployed, or representatives of different ethnic and working backgrounds. Five of the committee members had some research background. Parks Victoria, a statutory authority committed to delivering works on the ground

across Victoria's park network to protect and enhance park values,[49] leased Pipemakers Park for the committee to build the Visitor Centre as a project venue.

At the end of the 'experimental year', government funding ceased and the Museum successfully achieved private sponsorship from a Spanish-background philanthropist who was amazed by what the Living Museum was doing. Thereupon six people were selected to serve as the staff of the Living Museum, with one as the Head, one as Project Co-ordinator and four people representing different groups: an Aboriginal advisor, historian, industrial archaeologist, heritage consultant and artist.[50] In addition, the basic policy and direction of the Museum was guided by a Management Committee drawn largely from the western region. Some of these Committee members were elected as community representatives, some of them were drawn from history and education backgrounds, and some were appointed by local councils. The members were elected every year.

In the following two decades, the Management Committee and the staff together kept the Living Museum operating with sponsorship from the Maribyrnong City Council[51] and Arts Victoria – a State Government body which advises on, and implements policies making the arts available and accessible to all Victorians, and with supporting and developing Victoria's artists and creative industries.[52] Each of the nine incorporated suburbs has their own representatives responsible for communicating with Museum staff and linking local people with the Living Museum. There were annual meetings with Museum staff to address on-ground enquiries and to discuss strategies. They also took researchers to the Visitor Centre to find resources. This management structure kept the Living Museum a community-based organisation.

Activities and Programs

The Living Museum Visitor Centre was built in the Pipemakers Park, which was transformed into a park and wetlands from a historic pipe-making industrial site. Eight old buildings (dating from the 1840s to the 1940s) were well kept on this site, including the Chimney, tallow store, the main meeting building, etc. These buildings were restored with the co-operation of Living Museum and Parks Victoria.

The first step was building Museum facilities in the park. Apart from the Visitor Centre, there is a history garden called 'The History of The Land Discovery Trail'. It uses different types of plants, sculptures and ground treatments to represent how this

region has developed from pre-European age until now. It comprises a Wurundjeri Garden, Early Settlers Garden, Colonial Garden, Hume Pipe-workers Garden, and an Industrial Archaeology Garden. There is also an interesting flower rack made from pipes to symbolise Greek pipe-workers (Figure 7).

The pipe-making factory remains are located behind Living Museum Visitor Centre and include an enclosure of shafts, machines and house remains (Figure 8). Along the park trails, there are shelters constructed by local women as a memorial of their farming activities. This shelter is now used extensively as a place for family reunions.

In addition to the physical design of the park, the Museum has launched several projects focusing on three themes—people, environmental history and industry. These programs cover a large range of subjects: the role of women in the region; built heritage; the Aboriginal heritage; and the natural environment. Some of them are initiated by Museum staff, whilst others result from community enquiries. Further, the Living Museum provides talks, tours, seminars, festival celebrations and a consultancy service. It also co-operates with tertiary and secondary institutions to organise educational programs; for instance, the Annual Report of 1999 was written by local college students.

Figure 7. The flower rack made of pipes to symbolise Greek pipe-makers.
Figure 8. The remains of pipe-making factories, enclosed by steel fencing.

The Museum also constructed a resource centre for the western regions of Melbourne, including storing recordings of oral history, photos, maps and a variety of publications. Local communities co-operated with Museum staff in documenting,

preserving, recording and interpreting the richness and depth of the region's social industrial and environmental history.[53]

It also needs to be mentioned that there is no physical collection in the Museum in the traditional sense. As Haffenden explained, the Living Museum is about observing things and making a record, not collecting things—if people bring photos to the Visitor Centre, they make a copy but do not keep the original photos.[54] The reason is to keep a record of as many of the resources as possible to enable the development of other programs. Therefore, rather than a collection of artifacts, objects and information, this Centre has become a platform for research, education, communication, community liaison and preservation of ideas.

The Outcome

In the first two decades, the Living Museum made great advances in recording, preserving and interpreting history, and linking local communities together. It developed extensive resource material from local oral histories, publications and heritage studies; it established the history of the land and gardens at the site of industrial ruin; it co-operated with Parks Victoria in developing Pipemakers Park and the restoration of historic buildings and structures; it involved the community through interpretive exhibitions and festivals that affirmed the multi-cultural character of Melbourne's West; and it worked as an influential Museum to raise a common sense of identity for the people in Melbourne's West.

The Problems

As discussed above, the Living Museum has made positive outcomes to the western region of Melbourne. However, this Museum has become much less active since 2010, when Arts Victoria ceased financial support. As explained by Haffenden, this was due to a cultural policy change whereby the focus of Arts Victoria shifted from an emphasis on social history to tourism. At that time, there was only one full-time staff – the new curator and some associates – employed by the Living Museum. All the Committee Members were volunteers. The new curator leased the building of the Pipemakers Park to an art factory with the funding of the Living Museum reliant upon the rental revenue. This change resulted in the Living Museum deviating from its principal purpose which caused considerable angst among the Committee members.[55] Nevertheless, there has since been no full time staff.

Today the Maribynong City Council provides limited funding for the Living Museum and any other funding is obtained from project-linked grants. The opening hours were also changed to Sundays only with voluntary interpreters taking care of the Visitor Centre. The Living Museum does, however, open for special occasions such as when school children come for educational programs.

Despite the lack of funding for nearly two years, the Museum has continued to operate in a voluntary capacity and has continued to working with existing partnerships and ongoing projects. The major work includes providing a venue for activities such as the Healing Circles for the local Aboriginal Community, the Friends of the Maribyrnong Valley, school groups engaged in environmental studies and cultural heritage themes. Last year, 2011, the Living Museum launched an exhibition with a poster of all the existing animals, to tell the story of the environment. The Committee Members endeavored to get funding from different authorities, such as the National Library and Environmental Protection Authority to run exhibitions.

Haffenden believes that the reality was that few people thought it worthwhile to pay money to appreciate the industrial ruins. From his perspective, the Living Museum is unlikely to maintain volunteer enthusiasm, as they are not paid. It is hard to find any young people who are as passionate as the Committee Members twenty years ago. Business investment is needed to maintain the Living Museum. Great passion is needed, and that is a problem.

Discussion—a comparison of the two cases

The above discussion provides a detailed description of how these two ecomuseums are managed according to different backgrounds and circumstances. They both have declared themselves as ‘ecomuseums’ - a community-based approach to conserve and interpret local heritages. However, they present different characteristics as below.

1) The theme of heritage is different. The Suojia Ecomuseum is for a landscape that is still evolving whilst the Living Museum is about interpreting and recording past history. This difference is reinforced in their respective objectives. Suojia Ecomuseum seeks to implement the bilateral objectives of improving people’s living conditions and preserving the heritage while the Living Museum solely focuses upon heritage.

2) The management structures are different. Suojia Ecomuseum has been initiated by government, managed by museum staff and involves local participation; it is a top-down organisation. The management of the Living Museum is more democratic and bottom-up under the guidance of a Management Committee representing different communities. For example, for the Suojia Ecomuseum, the guidelines are made by the Chinese government without consultation with villagers. However, for the Living Museum transparency is compulsory.

3) Collection methods are different. Suojia Ecomuseum has a Documentation Centre with local objects for exhibition whilst the Living Museum does not have conventional collections but stores all resources, and places an effort on organising cultural programs.

4) Strategies towards tourism are different. Tourism development in Suojia is essential as it provides local people with more income and makes the Miao culture accessible. In contrast, the Living Museum perceives that tourism is not a consideration.

5) The ecomuseum's influences to local people are different. Suojia Ecomuseum influences the village and its inhabitants in a material way whilst the Living Museum pays attention to raising a sense of place among the local communities. For Suojia Ecomuseum it is a long term process for raising locals' consciousness of the value of their heritage.

6) The extents of local involvement are different. The program and activities of the Suojia Ecomuseum are organised by ecomuseum staff only while locals have the right to participate. Local involvement in the Living Museum is optimised, with local people involved in the decision-making process. This is because in each case local people have different levels of understanding of the value of local heritage.

All in all, the two ecomuseum have different cultural and economic backgrounds, thus having different objectives and management structures. Nevertheless, in terms of local empowerment and involvement, the Living Museum has been a greater achievement.

Unlike the Living Museum built in post-industrial areas, based on initiatives from local communities and operated in a democratic way, the Suojia Ecomuseum is created

for sustainable development in economically poor but ethnically rich rural areas, and is guided by the Chinese government and experts without local empowerment. Nevertheless, Chinese academics have generally accepted that this management structure is a valid Chinese version of the ecomuseum concept.[56]

According to Hu, Chinese ecomuseums should go through three stages—in the initial stage, when the ecomuseum gets established and is accepted by the local people; the transition stage is localisation which includes economic development and nurturing of the local people's understanding of the significance of their culture; the mature stage is when the local people have both their material and spiritual lives improved, and only then can they be the true curators.[57] However, de Varine has warned that this process could be a very long one because of the explosive growth of large-scale tourism.[58] The author's research indicates that the Suojia Ecomuseum is presently at the initial stage.

However, both ecomuseums are having funding problems, and the change of societal expectations is making it hard to attract passion and enthusiasm from the local people to wholeheartedly and voluntarily involve themselves in museum operations. It is important to use heritage as an untapped resource for income generation.

Conclusion

This author undertook interviews and field studies of the Suojia Ecomuseum and the Living Museum and described their backgrounds, objectives, management structures, programs and activities, outcomes and problems. The research identified organisational divergence between the two cases, each with its own specific objectives related to its place and local cultural and natural heritages. Suojia Ecomuseum is not a democratic or community-based ecomuseum in accordance with the original definition of the *ecomusée*. However, in both cases the sustainability and success of the ecomuseums requires outside financial assistance. In addition, as reflected by both cases, perhaps another and more urgent need is to pass the knowledge of the value of the museums and their ideals and develop a more heritage-passionate younger generation.

The ecomuseum, in its original concept, is a community-managed open-air museum, for the conservation and sustainability of heritage resources. It embraces the conservation of architecture, artifact, built environment as well as the intangible

culture within such territory. This concept has been widely adopted over the world. However, like Suojia, many ecomuseums gear themselves towards cultural tourism with a view to sustaining communities by providing real tangible and economic benefits for local communities to entice the local people to willingly participate in ecomuseum programs and to promote ecomuseum ideas. The reverse of this situation is reflected in the Living Museum which shows that is very difficult to sustain an ecomuseum without tourism as a financial resource. The futures of these two ecomuseums are uncertain—once again specialist curatorial and financial expertise are both necessary.

Note:

This project was subject to a successful Australian national ethics application.

Acknowledgement

Thanks for Peter Haffenden's long-term email correspondence and efforts in the interview process.

Endnotes

[1] Georges-Henri Rivière (1897–1985): a French museologist, and innovator of modern French ethnographic museology practices. He was working in the 1930s advocating the creation of open-air museums in France and was serving as the first acting director of the International Council of Museums (thereafter ICOM) between 1948 and 1965, to which he returned as Permanent Advisor in 1968.
[2] Hugues de Varine: Director of ICOM (1964-1974): consultant in local and community development, France.
[3] Hugues de Varine , 'Word and Beyond', *Museum*, XXXVII, 4 (1985),185.
[4] Rene Rivard, 'Ecomuseums in Quebec', *Museum International*, 53, 4 (2001), 19-22. Hugues de Varine, 'Ecomuseology and sustainable development', in *Communication and Exploration--International Ecomuseum Forum* (Guizhou, China, 2005), 85-87.
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[10] Instituto Ricerche Economiche E Sociali (IRES), *Declaration of Intent of the Long Net Workshop* (Trento, Italy, 2004).
[11] Peilin Liu, Abby Liu & Geoff Wall, 'Ecomuseum conception and Chinese application--a case study in Miao Villages, Suoga, Guizhou Pronvince （生态博物馆的理念及其在少数民族社区景

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Sabrina Hong Yi , 'Ecomuseum Evaluation: Experience in Guizhou and Guangxi, China', paper presented to World Planning School Congress (Perth, Australia, 2011).

[12] There is a supplementary reason that as the researcher was physically based in Australia, choosing Australian ecomuseums as case studies will make the case studies more convenient, quicker as well as to gain the first-hand data.

[13] Peter Davis, *Ecomuseums A Sense of Place (2nd Edition)*, (London: Continuum International Publishing Group, 2011).

[14] China has fifty-five ethnic minorities accounting for 8.41% of the population, the remainder being the majority Han. These minorities have their own villages which present great values of cultural heritage but were in poor physical conditions. Chinese ecomuseums were all opened in these ethnic minority villages to relieve the conflict between poverty alleviation and heritage conservation.

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Creative Conservation and Balinese Traditional Landscape: Scenarios for Eco City Concepts and Culturally Sensitive Tourism Development

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Abstract

Bali is internationally recognized as an island possessing a beautiful natural landscape as well as a unique culture. The natural qualities of its mountains, lakes, rivers, rice terrace fields with subak irrigation make Bali an important tourism destination. Cultural Tourism is integral in Bali's tourism industry providing the basic capital for development[1]. The social condition of this society that is strongly characterized by religious beliefs, and its nature and ecology also supports this. The conservation and maintenance of this traditional landscape is often forgotten because of government agendas to implement cultural city programs aimed at encouraging tourism development. Despite this, the government is now supporting the program of 'Bali toward Garden Island', which aims to sustain the physical and cultural environment of the island towards conservation of its landscape. The implementation of this program includes attention to universal, societal and cultural values as unity indicators, of which the landscape planning of the Balinese characteristics and traditions cannot be separated. Landscape planning is integral in this initiative of character defining the region.

Globalisation is increasingly becoming one of the most important discussions amongst the Balinese people. It has become a national concern about the changes implicating Bali's environment. Urbanisation, population growth, ribbon development, migration and consumption of energy are important imperatives and necessary evils for growing cities. These imperatives are creating the sprawl of building planning, development information, loss of open spaces, as well as the decline of the identity of cities. Places such as Denpasar City are struggling with increasing population at a rate of 1.94% per year that is causing increase in housing and public facilities demanded by both residents and ex-patriates. Thus land

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associated with the city has been lost to the rapid development of this cultural landscape.

This paper examines the Balinese traditional landscape and its role in encouraging tourism development that based on the Balinese culture and its ecology. The paper focuses on the planning of city landscape appearance characteristics and seeks to test and adopt the terms 'creative conservation' and 'eco city concept'. By conserving the most important philosophy of the Balinese Tri Hita Karana Concept will better inform all aspects of city development in Bali. This study seeks to offer guidance for the legitimate use of landscape planning especially for city development in Bali.

Background

Bali is one of Indonesia's 13,667 islands, and is located between the Java island in the west and Lombok island in the east. The mainland of Bali is surrounded by 5 smaller islands including. Nusa Dua, Nusa Ceningan, Nusa Lembongan, Serangan and Menjangan islands. Bali covers an area of 5,632.86 km² (around 140 km x 80 km) or about 0.29% of the Indonesian area (2,175 miles²). Bali consists of 9 administrative regions (8 regencies and 1 municipality), 51 districts, 579 villages, and 3,945 traditional *banjar* and these are populated by 3,522,375 inhabitants[2] with a population density of 625 inhabitants per km² focused in the southern part of Bali.

Denpasar City is the capital city of Bali Province and one of the fastest growing urban areas in Indonesia. Denpasar City has an important role to play as a centre of development, urban housing, industrial and tourism destination. Denpasar City's population currently stands at 637,701 people[3] with a growth rate 1.94%. This means the density of Denpasar City is 5.143,5 per km² with a total area of 123.98 km².

Based on the Agriculture Office, in 2010 Denpasar City includes 2.717 ha of rice fields (20% of the city's total area), compared to 5.343 ha or 41% of the city's area in 1992[4]. This demonstrates that Denpasar's land use has changed significantly from agriculture fields to commerce, housing, industry, etc., as well as the changes in the landscape that have happened in several green belt areas. This fact is supported by an Agriculture Office report that records that Denpasar City is losing rice fields on average of about 25 ha every year. In contrast, Denpasar City must provide at least 30% of land for open space[5]. Further, Denpasar City is

expected to fulfil its cultural obligations as a city based upon Balinese cultural and traditional values including *Tri Hita Karana* Concept, *Rwa Bhineda* Concept, *Desa Kala Patra* Concept, *Sekala Niskala* Concept, and *Karma Phala* Concept, etc.

In this regard, it is necessary to review and examine the traditional landscape in Bali especially in Denpasar City to better encourage tourism development and the conservation of this cultural landscape. For the purpose of cultural landscape conservation it will require empowering the *desa adat* (traditional village community) and the political will of local government[6].

The Landscape and Conservation Principles

The *Oxford English Dictionary* cites the pre-dominant modern definition of 'landscape' as a tract of land with distinguishing characteristics and features, and it considers as a product of shaping processes and agents. There are various definitions of 'landscape' according to various scientific disciplines and professions. Landscape architects view 'landscape' as human and natural world[7]. Landscape ecologists determine landscape as comprising a complex of relationship systems that together form of the earth's surface and are formed and maintained by mutual actions of biotic and biotic forces as well as human actions. Land painters sought to represent an ideal world on canvas. Geographers developed the meaning of landscape by coining the scientific definition as total character of a region of the earth; physically, biologically as well as socially[8].

In the urban landscape, we can know and can tell the city better by looking at its environment, architecture and landscape[9]. Landscape in the city can be developed by design and technical things, and also cultural values[10]. We have to concern ourselves with what the landscape will look like in the future. The important values of managing future landscape are the shape and health of the landscape[11]. They are needed to conserve environmental values. It is not only to construct, we need to think how to reinvest in the landscape, especially public landscape. A river, rocks, agriculture, forests are the entire potential environment as a public landscape for the city. In landscape architecture and urban design, topography is a significant issue for a cultural ecology which is close to the natural system. Topography plays an important role in sustaining that kind of culture[12].

The project of preservation and conservation of cultural landscapes can be considered in two major ways[13]. First is the actual direct preservation of the existing, physical and cultural

landscapes; and second, the conservation of certain principles which such cultural landscapes may have and have been created upon. Conservation provides us with a set of traditional environments which are containers of environmental knowledge, which must be maintained since they are the basis for valid generalisations about human/environmental design. Examples of this include the existence of *Desa Adat* (traditional village) in Bali, such as Penglipuran Village, which is one example that acts as a cultural resource from which we can learn in the future[14].

Two methodological approaches of conservation can be sought in learning from traditional environments; observing them as a process and as a product. The stress here is upon *process* that is, those principles which cultural landscapes possess which have lessons for us. In the Balinese case, we can observe that the traditional-religious conceptions of space provide a useful approach to initiating stages of 'non-physical' conservation of the Balinese cultural heritage.

The Philosophy of Balinese Cultural Development

Hindu religion has provided several concepts as the basis for for Balinese culture development, which has been formulated by the Local Government of Bali (1994:17-19), including: *Tri Hita Karana* Concept[15]; *Rwa Bhineda* Concept; *Desa Kala Patra* Concept; *Karma Phala* Concept; *Sekala Niskala* Concept; *Tri Masa* Concept; *Catur Parama Artha* Concept; *Taksu* and *Jengah* Concept; and the Spatio Balinese Culture Concept. These are discussed as follow:

1. *Tri Hita Karana* Concept

Balinese culture emphasises the need for balance and harmony. This balance can be seen from the *Tri Hita Karana* concept. This concept dictates that real happiness can only be achieved if humans live in balance and harmony. In this case *Tri Hita Karana* is the balanced relationship between man and supernatural being (*Parahyangan)*; between man and human activities/organisation *(Pawongan)*; between man and environment *(Palemahan).*

2. *Rwa Bhineda Concept*

This concept possesses binary oppositions[16] or dualism that reflect that life always has two constraint categories i.e.: life and death, male and female, good and bad, holy and profane, up and down, etc. The *Rwa Bhineda* concept demonstrates the relationship

between macrocosm and microcosm - two different substances that exist and influence each other.

3. Desa Kala Patra Concept

Hindu society in Bali is not static within its own culture, but is dynamic and creative, seeking to find a new form. This concept means that space (*desa*), time (*kala*) and condition (*patra*) have harmony and balance receiving differentials in unity.

4. Karma Phala Concept

The concept of *karmapahala* means result (*pahala*) from causes or activities (*karma*), and assumes that good activities will give good results, and *vice versa*. This concept also defines cause and effect, which is the foundation for Balinese life, its science, and its spirituality of supervision.

5. Sekala Niskala Concept

In reality in the world, bad and good is always in one thing. From this concept is born a Balinese characteristic in which they do not blame other people quickly and they always take wisdom from differences. For example, Balinese people have been selective and creative in receiving Chinese, Indian, Javanese, and Dutch cultures.

6. Tri Masa concept

The process implicit in time is called the *Tri Masa* concept (composed of time in the past, present and future). This concept influences the Balinese culture in terms of honouring ancestors and their inheritance.

7. Catur Parama Artha Concept

This concept contains four elements - wealth (*Artha*), cause and effect (*Kama*), witnesses (*dharma*), and heaven (*mokhsa*) - it functions to maintain the harmony of life and even the material and spiritual worlds in the heaven.

8. Taksu and Jengah Concept

Taksu means internal powers that give us the talent and beauty to produce a big creation. *Jengah* has connotations as the enthusiasm to produce a big creation. *Taksu* and *Jengah* will occur at and during the continuation of cultural transformations throughout the acts of maintenance, conservation, construction and development.

9. Spatio Balinese Cultural Concept

The concept of Spatio Balinese Culture is the expression of Balinese socio-cultural aspects. It is derived from the cultural conception and the life philosophy of Balinese society that is based on the Hindu religion, i.e. the *Tri Hita Karana* concept.

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Traditional Landscape in Bali

According to a study of landscape in the program of 'Bali toward Garden Island', structurally, the Balinese landscape can be divided into five types[17] as follows:

1. Regional Landscape

The maintenance aim of regional landscapes is to preserve the balance of natural ecosystems dynamically. The regional landscape possesses three characteristics i.e. beaches, lowlands and mountains. These divisions are linked to the values of Balinese society, *utama*/sacred, *madya*/middle, and *nista*/profane. The mountain has prior or sacred values; it implies a venue as a source of life, where the people can get the pure water, the food from forest, etc. Most lowland areas (the middle value) in Bali have been settled by society, where the people will interact with each other on their daily activities, while the beaches (the profane value) are a venue for the disposal of wastes and the hydrological cycle of life.

Figure 1. Mountain Landscape
(Source: author)

Figure 2. Sea view from the hotel
(Source: author)

2. Villages Landscape

Physically, a village means the area that comprises dwellings allied to agriculture areas (rice field, orchard, dry field, etc) including their *subak* irrigation system. Socially, most of village societies have relationships with the environment for both emotional and cultural sensibilities. The expression of this relationship is based upon the philosophy of Hindu religion. The landscape quality of agricultural areas has a visual sense. Terracing rice fields is not only ecologically beneficial, but it is also a special artistic creation.

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Figure 3 and 4. Balinese Village Landscape in Plaga Village, Badung.
(Source: author).

3. City Landscape

The city is the centre of many activities that host a high population level compared to other areas. The city landscape can be divided into two aspects; visual and physical. Visually, the city landscape can be seen from the special combination of structural and natural components. For this, it is named 'city-scape', 'town-scape', 'streetscape' etc. Physically city landscape is an open space for pedestrians or for playing children, and contains natural elements (hills, stones, trees, water and other components).


Figures 5 and 6. Perjuangan Rakyat Bali monument as an aesthetical and recreation for social function. (Source: author)

4. Highway Landscape

The highway is the artery of the city enabling connections between other cities. The highway landscape is composed of roads for both traffic safety and to enhance the comfort of traffic

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users. Other aims of the highway landscape are to reduce noise levels, to reduce erosion processes and for rest areas, especially for roads that connect between two places.

Figure 7. The Highway Landscape in north of Bali. (Source: author)

Figure 8. The Highway Landscape and its identity. (Source: author)

5. Historical Inheritance/ Archaeological Landscape

Historical inheritance in Bali has characteristics of ritual (temples, for example) and non-ritual (places for kingdom's rest). There are several different ritual historical inheritance places in Bali including the Besakih Temple, the Taman Ayun Temple, the Water Palace Ujung Karangasem, and several palaces.

Figure 9. Besakih Temple
(Source: author)

Figure 10. Taman Ayun Temple
(Source: author)



Figure 11, 12 and 13. Garden Palace, Ujung, Karangasem, Bali.
(Sources: author)

Changing of Landscape

Denpasar City is one of several cities in the Bali Province which face the problem of landscape change. Most land use is for rice fields, dry lands, crops, housing, graveyards, fish ponds, forests and other functions. Table 1 shows land use in Bali Province from 2001 to 2006. As depicted, rice fields have decreased significantly from 101.815 ha to 97.636 ha from 2001 to 2006, followed by dry lands, crops fields, fish ponds and forests. On the other hand, housing, graveyards and other functions have increased in the same period.

Table 1. Land Use in Bali Province, from 2002 to 2006

Year	Rice Field (Ha)	Dry Land (Ha)	Crops Field (Ha)	Housing (Ha)	Grave Yard (Ha)	Fish Ponds (Ha)	Forest (Ha)	Other (Ha)
2002	101,815.00	188,385.00	183,776.00	51,892.00	-	1,283.70	205,096.00	51,883.00
2003	100,230.00	189,240.00	175,031.00	52,353.00	-	1,298.00	205,075.00	52,019.00
2004	100,012.28	167,378.93	174,720.97	53,076.00	350.38	1,228.00	171,475.00	68,221.18
2005	99,098.00	194,300.60	183,572.00	53,857.00	-	1,205.50	196,676.00	53,383.35
2006	97,636.00	199,752.78	179,325.00	54,334.00	416.26	999.26	197,984.20	53,950.32

(Source: Statistic of Bali Province, Bali Dalam Angka Tahun 2005)

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Table 2. The Pattern of Land Use in each Region in Bali Province, Year 2006

	Year	Land	Jembrana		Tabanan		Badung		Denpasar		Gianyar		Klungkung		Bangli		Karangasem		Buleleng		Bali	
		Use Function	Tot. Area	%	Tot. Area	%	Tot. Area	%	Tot. Area	%	Tot. Area	%	Tot. Area	%	Tot. Area	%	Tot. Area	%	Tot. Area	%	Tot. Area	%
Built-Up Area and Green Open Space (Ha)	2002	Built-Up Area	5,722.00	6.80	5,484.00	6.53	9,076.00	21.69	7,651.00	**59.88**	5,029.00	13.67	1,258.00	3.99	3,282.00	6.30	2,405.00	2.86	4,790.00	3.51	44,697.00	7.93
		Green Open Space	78,458.00	93.20	78,449.00	93.47	32,776.00	78.31	5,136.73	40.20	31,771.00	86.33	30,242.00	96.01	48,799.00	93.70	81,549.00	97.14	131,797.66	96.49	518,978.39	92.07
	2003	Built-Up Area	5,891.00	7.00	5,597.00	6.67	9,139.00	21.84	7,656.00	59.92	5,036.00	13.68	1,268.00	4.03	3,282.00	6.30	2,424.00	2.89	4,818.00	3.53	45,111.00	8.00
		Green Open Space	78,289.00	93.00	78,336.00	93.33	32,713.00	78.16	5,131.73	40.16	31,764.00	86.32	30,232.00	95.97	48,799.00	93.70	81,530.00	97.11	131,769.66	96.47	518,564.39	92.00
	2004	Built-Up Area	5,993.00	7.12	5,950.00	7.09	9,171.00	21.91	7,679.00	60.10	5,068.00	13.77	1,273.00	4.04	3,282.00	6.30	2,434.00	2.90	4,896.00	3.58	45,746.00	8.12
		Green Open Space	78,187.00	92.88	77,983.00	92.91	32,681.00	78.09	5,108.73	39.98	31,732.00	86.23	30,227.00	95.96	48,799.00	93.70	81,520.00	97.10	131,891.66	96.42	517,929.39	91.89
	2005	Built-Up Area	6,089.00	7.23	5,967.00	7.11	9,341.00	22.32	7,714.00	60.37	5,078.00	13.80	1,279.00	4.06	3,309.00	6.35	2,439.00	2.91	5,101.00	3.73	46,317.00	8.22
		Green Open Space	78,091.00	92.77	77,966.00	92.89	32,511.00	77.68	5,073.73	39.71	31,722.00	86.20	30,221.00	95.94	48,772.00	93.65	81,515.00	97.09	131,486.66	96.27	517,358.39	91.78
	2006	Built-Up Area	6,067.00	7.21	6,020.00	7.17	9,383.00	22.42	7,832.00	61.29	5,079.00	13.80	1,297.00	4.12	3,322.00	6.38	2,447.00	2.91	5,220.00	3.82	46,667.00	8.28
		Green Open Space	78,113.00	92.79	77,913.00	92.83	32,469.00	77.58	4,955.73	**38.78**	31,721.00	86.20	30,203.00	95.88	48,759.00	93.62	81,507.00	97.09	131,367.66	96.18	517,008.39	91.72
		Luas Wilayah (Ha)	**84,180**		**83,933**		**41,852**		**12,778**		**36,800**		**31,500**		**52,081**		**83,954**		**136,588**		**563,665.66**	

(Source: Statistic of Bali Province, Bali Dalam Angka Tahun, 2007)

Table 2 illustrates the pattern of land use in each region in the Bali Province in 2006. The pattern of land use in most regions has increased in the built-up areas and decreased in the green open spaces. An example for this trend is that built-up areas in Denpasar City increased from 7.651 ha to 7.832 ha from 2002 to 2006, and non-built-up areas decreased from 5.136,73 ha (59.88%) to 4.955,73 ha (38.78%) in the same period.

Urban development affects Balinese traditional landscapes, which creates considerable change including loss of open space, sprawling development, changes of function from field to housing, etc. This condition is also shown by a study by the Regional Spatial Planning (RTRW) team of Denpasar City (2006) concluding that most problems of Denpasar City, such as increases in land housing demand, are caused by population growth and that this is influencing the change of rice fields to settlement land. The increase of incoming population also requires additional urban facilities and utilities. The more the dominance of commerce and service areas at main roads in Denpasar City, the more it conveys an image of a commercial city rather than an eco-city.

Although some effort has been made by local governments to solve city problems, such as the planning of traditional villages in some regions in Bali, planning and improving green open spaces in some cities for the coming years seems to be getting worse (see Table 2).

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Figure 14 and 15. The sprawling pattern of development in Denpasar City. (Source: author).

Creative Conservation and Eco-City Operational Guide

The guide for creative conservation can be referred to the potential and opportunity of Denpasar City, and also determined by its historic values. The landscape of Denpasar City can be improved to support the aims of a cultural city and to encourage the sustainability of tourism. Conservation through preserving *subak* irrigation as a buffer zone, aims to protect physical development, and to conserve and develop open space and the *subak* irrigation system as an appeal for tourism. Conservation and development includes *telajakan*, *natah* and other open spaces, whether at housing, village, or city levels. *Telajakan* should be returned to its function as an open space with diverse Balinese plants.

Denpasar City government seeks to maintain Denpasar through the eco-city concept. This concept adopts sustainable development as an approach to space planning; policies of development and environment are not only for environmental protection but also seek to improve the environment or development of spatial quality. The eco-city concept is also close to the *Tri Hita Karana* concept, which is the most important philosophy for all development in Bali. This concept implies a relationship between humans, God and environment, and it is the soul of Balinese people's lives.

Although the term 'eco-city' is relatively new, urban ecology is now more than 20 years old. It states that it's mission is to create ecological cities by following these 10 principles (Urban Ecology, 1996b)[18]:

1. Revise land-use priorities to create compact, diverse, green, safe, pleasant, and vital mixed-use communities near transit nodes and other transportation facilities.

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2. Revise transportation priorities to favor foot, bicycle, cart, and transit over autos, and to emphasize 'access by proximity.'
3. Restore damaged urban environments, especially creeks, shore lines, ridgelines, and wetlands.
4. Create decent, affordable, safe, convenient, and racially and economically mixed housing
5. Nurture social justice and create improved opportunities for women, people of color, and the disabled.
6. Support local agriculture, urban greening projects, and community gardening.
7. Promote recycling, innovative appropriate technology, and resource conservation while reducing pollution and hazardous wastes.
8. Work with businesses to support ecologically sound economic activity while discouraging pollution, waste, and the use and production of hazardous materials
9. Promote voluntary simplicity and discourage excessive consumption of material goods.
10. Increase awareness of the local environment and bioregion through activist and educational projects that increase public awareness of ecological sustainability issues.

The concept of eco-city clearly states that urban development is based on the use of local potential and values, environmental awareness, and human circumstances. This is implicit through *Tri Hita Karana* concept of balance and harmony with fellow creatures, and our environment. Based on 'eco-city' principles and a study of the contemporary Denpasar City landscape, the concept proposed that the management of the city landscape could be conducted according the following city appearances:

1. The establishment of the river landscape

Rivers and natural eco-zones are included in the linear element. '*Subak*' irrigation may also be included within this category, with its water flows relatively natural. Along the riverside in the inner city, which is adjacent to slum areas, the conclusion is to let the existing condition remain as an organic natural landscape. Preservation of green areas is a required measure, however it is difficult to achieve, and governments should think about the movement or living of people in slum areas, and where they have to be re-settled. On the other hand, the government idea is to use the river for city-tour programs. So it should be a scenic visual landscape which visitors can enjoy during their trips.

In the implementation of green landscapes along riversides, the formal or semi-formal landscape will probably also be interesting. Planting must be considered in creating spatial enclosure. Along riversides, it can be grassed with some trees to achieve shade and flowering. Linear roads and shaped parcels of land, held together by linear parks which follow rivers, offer social meeting places for communities, enabling pleasant seating and gathering places to enjoy sunsets. Local people's engagement is needed, where they can make green their own surrounding environment, whether for aesthetic, religious or food security purposes.

2. Scenic beaches landscape

Scenic beaches provide a very specialised form of recreational landscape. Beach areas are facilities used by hotels, retailers, commerce and communities in this area, so the expected environment is a place which has beauty, scenic values and low maintenance. The rise and the fall of tides, sunrises and sunsets should be prominent in the beach areas. Facilities are needed in beach areas such as roads, plazas, pedestrian walkways, plants with grass, fences and shade plants; also '*candi bentar,*' traditional gate, statues, ponds with their components, traffic lights, drainage, installation of street lights and gardens, installations for spreading of grass and plants, the use of electricity for traffic lights, and the use of water for lawns.

Beaches for most Hindu people in Bali have important values and roles that relate to religious activities. Every year they celebrate traditional New Year through religious '*Melasti*' several days before. The traditional New Year is called '*Nyepi*'. *Melasti* will take place along the beach fringes, as a symbol spiritual clean up of God's manifestation. Maintaining beach quality is not only the task of government, but is linked to the awareness of society about their use of the potential of the beach landscape implying that they have to be responsible to keep the area clean. Also they have to stop waste disposal directly onto beaches because of erosion.

3. Green Urban Patches

Returning to 'creative conservation', this term has been used to explain landscape planning and is particularly apt in the light of the need to reconcile and incorporate competing land uses in urban landscapes. The basic components of the urban pattern are buildings, streets, and open spaces. Good urban patterns involve a balanced relationship between buildings, circulation systems and open space for pedestrians and plantings. The preservation of open space, which means preservation of control, is a more extended problem. It is one thing to establish control, another to maintain it. Control is by community through its elected representatives. Preservation

is contrary to the pressures of expanding urbanisation, both horizontally and vertically. The act of preventing these development pressures, and the loss of freedom through action or inaction is the dichotomy of the aim to preserve open space against full development and, by maintaining it, enabling experience.

The study has found that green patches mostly exist within universities, and some institutional districts. New development, such as housing estates and other public buildings, especially in the inner city, are the biggest threat to the green landscape. Recently, the proportion of built and non-built areas has exceeded the government's standard of 40% of built area and 60% of non-built area. While it will be difficult to have green open space in the centre, it may be established in other ways, such as enhancing the green city program through the planting of trees along the sides of housing and public buildings.

It is important to note that the potential *telajakan* in Balinese traditional housing can include greening along corridors of housing. Open space along these housing corridors can be formed by repetitious patterns of *telajakan* gardens from each house, creating plazas along the main corridor that unite *telajakan*. They can flower *telajakan* according to spiritual and medicinal needs. Housing appearance can also enhance the visual aesthetics, also creating wider views and green atmosphere.

The term 'creative conservation', especially in the inner city of Denpasar City, obligates the government to increase human convenience through programs of pedestrian planning in Gajah Mada Street or *pecinan* area of shopping centre, in Kamboja Street and some parts of Denpasar City. This program has a function to conserve the area as a central business venue together with its cultural and education areas. This includes traditional markets, the Pura Desa/Village Temple, and the Puputan Badung Yard. Additional reasons for conservation include the Gajah Mada Street in the inner of Denpasar City which represent the historical area from the Dutch colonial era. Those areas that can be planned and designed as corridors with walkways for pedestrians, seating areas, and parks for recreation demand, can also be used for walking pleasure linked to convenience shopping in traditional markets or shops. Shade trees can be most important to support the visual qualities of the streetscape, due to tropical weather.

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Figures 16 and 17. Pedestrian planning and greenery program along the road in the inner city of Denpasar. (Source: author)

4. Roadside Landscape

Fast traffic roads are another of the new elements in the natural landscape which are out of scale with the old agricultural pattern. The landscape value of a road depends upon its basic relationship with the country. Nowhere is planning co-operation more necessary between different authorities and interests, such as engineers and landscape architects than in the treatment of roads,. In many cases roads are not only traffic routes but also routes for telephone cables, wires and underground services of electricity, gas and sewers. The effect of these on landscape treatment is considerable. This latter point depends partly on the nature of subsoil, necessitating a greater clearance on clay soils[19].

Roadside planting can result in some of the most incongruous plants seen in the countryside. The introduction of species obviously alien to the area effectively prevents the absorption of the road into landscape, and is only justified when it is decided that the road is an urban extension. Exotic flowering may nevertheless jar as being out of character in scale and colour with their surroundings and can also jar psychologically. It is one of the cases of civilizing a landscape out of its proper category.

Since the last landscape, for all practical purposes, the scene is what we see from the road. It would seem good that the government has been considering a multi-billion-dollar program for a vast new system of scenic roads and parkways. New freeways do not have to be dull. Some are very enjoyable, and it is significant that these also tend to be the safest of roads. Parkways were first conceived in the 1920s with the idea to provide city people with a pleasurable drive. Parkways were not intended for today's traffic; they were intended to give people a chance to

get away from city traffic. Parkways envisaged were to be essentially linear parks, and the act of driving through them was it to be a recreational experience[20].

5. Green Belt of Countryside

A green belt is a large swath of permanent open space surrounding a town or city. It contains publicly owned land but the bulk of the land may be private, on which the government has placed restrictions against further development. Green belts provide parkland and landscape, but these are its secondary purposes. The main purpose of the green belt is to contain the city and channel future growth. In 1955, the Minister of Housing and Local Government (England) declared that the purpose of a green belt was to check the further growth of urban areas, to prevent neighbouring towns from merging, and to preserve the special character of towns. Under this aim, green belt land would be much more closely tailored to topography, the primary emphasis would be put upon recreation and landscape values, and open space would penetrate into the pattern of development rather than be laid across it.

Figure 18 and 19. *Subak* irrigation system and its traditional ceremony. (Source: author).

The Denpasar countryside is formed from agricultural areas which are almost disappearing due to increased housing demand. Agriculture with the traditional '*subak*' irrigation system should be conserved to balance the ecological system. This is important in the south part of Denpasar where land is characterised by mangrove forests, and its ecology has to be maintained to prevent the intrusion of seawater into the land.

6. Recreation Area

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Parks are sections of green outdoor space large enough and very useful to counter exhaust fumes. The provision of parks aims for use as circulation and to provide a place for relaxation by the general public. The needs of recreation areas are difficult to calculate economically because recreation areas also have social and humanist values. Parks are positive humanising landscapes with a potential for saving communities from speculative construction and the impact of automobiles. Parks embody the greatest opportunity for free landscape design with elements derived largely from nature with a minimum of construction.

A good open space can work at several levels and though it is useful as a local space it does not prevent it from being important for people from a larger area as well. Thus, we are dealing with two kinds of reality. One is physical open space, and the other is open space for use and perception by people. The standards state that recreation areas should be 1 m^3 per person. For recreation areas that have objectives as city greenery, the standard would be 6 m^2 per person. Based on these standards, recreation areas should be developed in Denpasar City to provide places for sporting activity, playing areas for children, and the provision of rest areas to provide human relaxation.

Conclusion

The traditional Balinese landscape has an important role in the formation of its cities. Traditional landscapes can also enhance its green city program. ‘Creative conservation’ can be applied by conserving potential values in Denpasar City. There are many initiatives that can be undertaken to encourage tourism development whilst improving the city appearance. Denpasar City’s landscape is based on the traditional values of the *Tri Hita Karana* concept which is used for all developments in Bali. This concept involves a relationship between human and God, human and human, and human and environment. This concept shows how we can conserve the ecology and maintain the city environment.

Based on the potential character of traditional landscapes in Bali, especially in Denpasar City, a unique Balinese-informed eco-city management of landscape could be applied in Denpasar City to craft a green skeleton of river landscapes, scenic beaches and landscape, quality urban landscapes, stimulating roadside landscapes, green belts defining countryside, and the provision of recreation areas or open space.

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