Surfaces

In attending to surfaces, as they wrap, layer and grow within sentient bodies, material formations and cosmological states, this volume presents a series of ten anthropological studies stretching across five continents and in observation of earthly practices of making, knowing, living and dying.

Through theoretically reflecting on time spent with Aymara and Mapuche Andean cultures; the Malagasy people of Madagascar; craftspeople and designers across Europe and Oceania; amongst the architectures of Australia and South Korea and within the folds of books, screens, landscape and the sea, the anthropologists in this volume communicate diverse ways of considering, working with and knowing surfaces. Together, these writings advance a knowledge of the world which resists any definitive settlement of existential categories and rather seeks to know the world in its emergence and transformation, as entities grow, cohere, shift, dissolve, decay and are reborn through the contact and exchange of surfaces, persisting with varying time, power and effect.

The book principally invites readers from anthropology, the creative arts and environmental studies but also across the wider humanities and social sciences as well as those in the neighbouring scientific fields of archaeology, biology, geography, geoscience, material science, neurology and psychology interested in the intersections of mind, body, materials and world.

Mike Anusas is Lecturer in Design & Screen Cultures, Edinburgh College of Art, University of Edinburgh. Originally having trained and worked as a designer and engineer, he retrained as a social anthropologist to teach and research at the intersection of design and anthropology, exploring relationships between skilled practices, form-making and environmental perception.

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Transformations of Body, Materials and Earth

Edited by Mike Anusas and Cristián Simonetti

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1 Introduction

Turning to surfaces

Mike Anusas and Cristián Simonetti

Introducing surfaces

This edited volume seeks to explore and influence ways of thinking about and studying the earth, its inhabitants and their material formations through *surfaces*. Life is conveyed by and carries on through surfaces of bodies, materials and environment. Yet modern thought and science teach us that knowledge lies occluded beyond or beneath surfaces. Traces of this thinking can be found in the fields of anthropology, archaeology, art, biology, design, geology, history, neuroscience, psychology and many others. For instance, the histories of the earth are understood as deeply hidden beneath the ground and seas and the workings of organisms beneath their living skin. Similarly, while social life is lived in the meeting and contact of bodily and material surfaces, these surfaces often divide an interior, micro-world of the mind from an exterior, macro-world of the environment. Accordingly, language and discourse are conceived to operate in a double register where on the one hand, everyday communication might seem superficial, but on the other, intellectual thought conveys profound insights. Mirroring this perspective, the surfaces of modern commodity objects are typically designed to cover up and hide the technological entanglements that sustain everyday life (Anusas and Ingold 2013).

These conflations of superficiality with 'surface understandings' and of meaningful knowledge with 'in-depth' insight have limited the development of a more encompassing and critical engagement with surfaces. This conflation of surface with superficiality, and depth with meaning, maps to another dichotomy, between sense and reason. According to this, our human intellect has the capacity to transcend immediate sensory experience and to access the essence of things deeply hidden beneath surfaces. Among humans, those with the power to transcend immediate sensory experience – particularly those in modern science and technology – have privileged access to profound truths – truths which are often regarded as timeless, in that they remain eternally in waiting, underneath a boundary of enclosure which can only be broken or opened with the appropriate intellectual expertise or scientific equipment.

In recent years, authors across many fields have critiqued the assumptions of the superficiality/depth dichotomy. For example, in archaeology, Julian Thomas

(2004) explores how such a dichotomy facilitates a perspective on time whereby the past is occluded in a depth beneath surfaces. However, Harrison (2011, 2013), in response to Thomas, questions this convention in archaeology to suggest that the past is in fact visible on the surface of the present, as otherwise how would we encounter knowledge of the past (see also Simonetti 2018)? In human geography, Forysth et al. (2013) have invited scholars – following a path opened by Tuan (1989) – to transcend the modern superficiality/depth dichotomy by attending to the intricate varieties of surfaces which compose human environments. Similar arguments exist in other fields, such as architecture (Chatterjee 2014; Bruno 2014; Leatherbarrow and Mostafavi 2002; Imperiale 2000), design (Adamson and Kelley 2013), history (Amato 2013), literary studies (Best and Marcus 2009) and anthropology (Miller 2010; Manderson 2011).

This scholarly turn to surfaces overlaps partially with recent attention to the *senses* in the humanities and social sciences, which questions the logocentric emphasis of the so-called linguistic turn since the 1950s. This renewed attention to the senses has been accompanied by studies that question the supremacy granted to vision in the western sensorium (Classen 1993; Hamilakis 2015; Howes 1991; Jay 1994; Stoller 1989). Occularcentrism in science, which favours a perspective that truth lies beyond immediate experience, leads to a domestication of the everyday senses, with the power of insight given to those equipped with technical optics and a stance of detached observation (Simonetti 2019). A critical engagement with western perception therefore involves a shift from the detached singularity of *optical vision* to the intimacy of *haptic perception*, where vision is inseparable from movement and touch is crucial in how we come to know the world (Ingold 2000; Bruno 2014). Kinaesthesia, a bodily sense lost in classical accounts of the senses in the west, is crucial in how we come to know the world, in that seeing – as well as any other form of sensing – is inseparable from moving (Sheets-Johnstone 1999). Considering surfaces, knowledge of the world is not that of an optical incision through superficiality to the matters of a fixed depth in waiting but rather that of a responsive sensorial encounter with entanglements of life that are ever moving and growing.

A turn to surfaces also overlaps with a willingness to incorporate materials and things into the social imagination and which counters ideas of sociality as that which is an abstract signification impressed onto a passive material world (Drazin and Küchler 2015; Ingold 2013; Latour 2005; Miller 2005). As for the senses, the turn to materials is an invitation to transcend the classical emphasis on text which has dominated the humanities and social sciences since the turn of the century, including in fields dedicated to the study of material things, such as archaeology (Knappett and Malafouris 2008; Malafouris 2013; Marshall and Alberti 2014; Olsen 2010; Olsen et al. 2012). Key to this invitation is also the need to address a dichotomy that parallels superficiality/depth and mind/matter, that is, of solidity/fluidity. Where superficiality supposes a homogeneous and settled layer, covering a deep heterogeneous complexity, so then it correlates with ideas of thought and mental life as fluid and in transition, against a world of matter that is more solid – a dichotomy traditionally mapped in the western imagination on

a separation between sky and earth. Our reach towards understanding the world through surfaces seeks to disrupt the notion that mind and matter can be regarded as two existential domains, held in the fixity of nouns, and rather to see *minding* and *mattering* as differing practices in a *solid-fluid* world that is in constant becoming (Simonetti and Ingold 2018; also Barad 2007).

Dialoguing with these complementary agendas on sensing and mattering, this volume seeks to overcome dichotomies of modern thought by attending to surfaces not as entities on one side of a division but rather as transformative thresholds which manifest different qualities in the meeting of minds, bodies, materials and earth. This volume folds together ten anthropological contributions on surfaces from five continents and seven countries in correspondence with the scientific practices of archaeology, neuroscience and psychology; the creative disciplines of architecture and design; the skilled crafts of basketry, bookbinding, knitting and taxidermy and the ritual practices of fertility and mortality with smoke and soil.

Perceiving surfaces

Although this volume is inevitably part of a scholarly turn to surfaces, a number of chapters in this book criticise existing ideas put forth by other writers on surfaces. Therefore, as editors, we are resistant to see our interest in surfaces becoming as a homogenous intellectual movement or part of yet another turn in the humanities and social sciences which – as is so often the case – ends up reproducing the existing categories of thinking it seeks to overcome, albeit with a proliferation of new and fashionable terminologies.

While there is a contemporary turn towards surfaces in the humanities and social sciences – also known as *surface studies* (Coleman and Oakley-Brown 2017) – our interest in surfaces starts farther back, from James J. Gibson's (1986) seminal work, *The Ecological Approach to Visual Perception*. Turning the mind of classic cognitivism inside out, Gibson constituted the act of perception as existing amidst the *relationship* between an organism and its surrounding environment. In doing so, surfaces became a plane of engagement by which cognition could be explored and explained (also Simonetti, this volume). For Gibson, perception did not result from the interiorisation of information, mediated by mental images and categories. Rather, perception occurred as part of an ongoing process – an 'education of attention' (Gibson 1986: 254) – whereby the growth of an organism concurs with its dynamic movement and interaction in a visual field of surfaces.

For Gibson, then, '[t]he surface is where most of the action is' (ibid: 23), and surfaces exist wherever a medium meets a substance in relation to the perspective of the organism. For example: for an aquatic organism, where the medium is water, a surface would be encountered at the seabed, but for a terrestrial organism, where the medium is air, the ground would be encountered as a surface. For Gibson, that the surface is 'where light is reflected or absorbed, not the interior of the substance' and that 'the surface is what touches the animal, not the interior' (ibid.) is thus the most important condition for understanding perception and behaviour, and thus, for 'terrestrial animals', the ground becomes 'the most important of all

surfaces' (ibid.: 16). It is thus the ongoing interactions with the texture, form and reflected luminescence of the ground that afford direct perception to a moving organism. Thus, qualities of perception, such as depth perception, have more to do with relational surface encounters than they have to do with the contained mental processing of 'the fallacy of the retinal picture' (ibid: 147).

Gibson's emphasis on surfaces provides a compelling perspective for how to think about the world relationally, and it highlights a necessary attention to be given to the thresholds that occur between different states of matter. However, his organisation of matter into *substance and medium* befalls the same dichotomic fate as that of *solidity and fluidity* – as we discussed previously – and it becomes apparent, as Ingold (2013, 2015) has recently highlighted, that Gibson's substance and medium require a marked settled coherency in order for a surface to exist.

When Gibson (1986: 66) states that 'the environment consists of the earth and the sky with objects on the earth and in the sky, of mountains and clouds, fires and sunsets, pebbles and stars' and 'the furniture of the earth, like the furnishings of a room, is what makes it [an environment] liveable' (ibid: 78), it seems that all worldly manifestations of substance and medium exist as if in a 'still life' painting and even the most ephemeral conditions of substance – e.g. clouds, fire – are retained as 'objects'. Thus, when Gibson set out to offer an alternative to a Newtonian world view, observing that 'the terrestrial world is mostly made of surfaces, not of bodies in space' (ibid: 148), he may have filled that space with the richness of a medium, but he left substantial objects intact, whether held *in* that medium, above a coherent ground or placed *on* such clear and certain grounds.

For Gibson, then, the surface is a relational threshold, but the *hold* of such a threshold is overemphasised 'in spite of reactions between substances and medium' (Ingold 2015: 43), and so surfaces are taken as 'proof of the separation and immiscibility of substances and medium' (ibid). Such a separation between substance (earth) and medium (sky) is fundamental to the western imagination and maps onto that between material (objectual) and immaterial (spiritual) properties of the world (Ingold 2011). Gibson's view of the ground – as a platform to furnish objects – also coincides with ideas of earth's history as a series of horizontally compiled layers, where life has been lived *on* at a particular time and place (Simonetti 2018). This view of earth history has an uncanny resemblance to the orthogonal forms that dominate contemporary built environments and which 'convert the ground into the kind of surface that theorists of modernity always thought it was – level, homogeneous, pre-existent and inert' (Ingold 2015: 45). 'Solid', 'smooth', 'opaque' and 'impermeable'; these surfaces afford a sense of the urban to be detached from the rural and of manufactured objects to be disassociated from their flows of environmental making (Anusas and Ingold 2013; Simonetti and Ingold 2018).

Surfaces becoming

As Ingold (2015) pursues in his account of the ground, so we aim to discover surfaces as phenomena of many *becomings*, occurring through continuous interstitial

knittings, rather than as strata *being* a fixed condition of matter. As the ground is for Ingold, so surfaces are for us a transformative zone, where substance and medium mingle to become categorically imperceptible and this mingling is necessary to make life possible. As the ground does not constitute a set of horizontally compiled and rested layers – which terrestrial organisms live *upon* – so, then, surfaces are like Ingold's constitution of the ground which is continuously *growing over* into itself in the process of its formation. Thus, life occurs not *on top of* surfaces but emanant and *stitched into* them, and surfaces are thus where 'substances are binding with the medium' (ibid: 43).

Ingold's notion of a surface as a ground *becoming* can also be considered with respect to the surfaces of organisms. Through inhaling breath and swallowing food and fluids, terrestrial organisms *gather* their surrounds into themselves and then, in exhaling and defecating, organisms expend part of themselves back into their environment. Thus, to consider surfaces as zones of *growing over* and *becoming* is not only a conceptual perspective but a metabolic condition. And this perspective on surfaces can also be considered with respect to the formation of material artefacts and structures. In considering the making of a basket, Ingold (2000, 2013) observes that a certainty of form does not exist in abstract and precede the movements of the weaver but that rather form – and occurrences of surface – grows and develops through a continuous sentient moving and sharing across mind, body and materials. This is an observation on the growth of form which Anusas also makes in this volume in attention to the surfaces of designers, materials, studios and workshops as they mingle in the making of contemporary product design.

The vitality of surfaces as becomings is particularly salient in Skewes and Guerra's contribution to this volume, which considers the transformative properties of *fire*, as observed in the lives of the Mapuche and Aymara people who flame the ground into smoke, creating clouds of particulate surfaces. Neither a solid object furnishing the ground, nor an entity positioned in the sky, fire transpires in-between the ongoing mingling of earth, sky, substance and medium. Such mingling is also apparent in the *famadihana* ritual of Madagascar, described in this volume by Mattheeuws. Highlighting a contrast with western mortuary practices – which lodge the dead underground, separate from life above the surface – in the *famadihana*, ancestors shift through surfaces, being lifted up through the matrix of the ground into the currency of the air. Through this practice, in a play of light and shadow and of breathing and singing, ancestry life evolves through the landscape in an ongoing participation with the current affairs of living beings. A mingling of earth and sky also occurs in Chatterjee's exploration of the wall – inspired by John Ruskin – where she shows how the façades of architecture stretch through the sky to weave into the ground, disrupting any clarity on where a wall might end and the ground might begin. This continuity can also be leafed through in the opening chapter by Ingold where he traces the history and future of reading and writing across the surfaces of books and into our present world proliferated by screens, where he would no doubt agree with media philosopher Vilém Flusser's (2002: 21) perspective that 'it was formerly not so urgent as it is today to try to understand the role surfaces play in human life'.

Simonetti also explores a mingling of matters, with respect to how time and space concepts in psychology and neuroscience intersect with understandings of earth history in the geosciences. Corresponding to what Bateson (1973: 429) suggested some time ago, that 'the mental world [of an organism] is not limited by the skin', Simonetti argues that despite the mind being modelled on a view of earth history as enclosed within surface, it has never been bound by the surface of the skin, and the very concepts that compose abstract scientific thinking are revealed to be gravitational in nature. Following the intricacies of mingled skins, Tjitske's work with taxidermists also challenges the idea of skin as a resolute container or definitive boundary (see also Manderson 2011). From the perspective of taxidermists, each skin is a biography of the animal, as bones, sinew and flesh retain a narrative of the growth and experience of the organism in its environment. And through bodies mingling with needles and yarn – in the process of hand-knitting an article of clothing – Arantes shows how experiments in making become entangled in our love for others.

Surface frictions and tensions

If surfaces are worked with as an ever-transformative zone of mingling, then it is possible to consider that the notion of surface might itself be unnecessary, if indeed any coherent sense of surface seems to dissolve into the fluxes and flows of everyday life. This is a direction which Ingold (2007: s32) actually pursues in considering the constitution of *weather-world*, where he states that '[i]n this weather-world there is no distinct surface separating earth and sky. Life is rather lived in a zone in which substance and medium are brought together in the constitution of beings which, in their activity, bind the weather world into the texture of the land' and also in his considerations of the *meshwork*: '[b]y the same token, beings that inhabit the world (or that are truly indigenous in this sense) are not objects that move, undergoing displacement from point to point across the world's surface. Indeed the inhabited world, as such, has no surface' (Ingold 2011: 71). In these statements, the notion of surface is invalidated, giving way to textures and tangles in a direction that is reminiscent of Heidegger's (1971: 167) critique of the solidity of objects as defined by their 'over-againstness' and working towards a consideration of *things* as gatherings of relations, materials and life.

However, while we too agree that the composition of the world is not that of a collection of utterly solid, hermetically bounded and statically positioned objects, it is critically important to acknowledge that life does require some persistent and enduring sense of matter in order for it to continue. Were this not the case, there would be no congealment of place for life to stitch itself into and grow outward from, and there would be no substance on which to trace past lives and give rise to memory. For as Bergson (1998: 16–17) states, 'wherever anything lives, there is, open somewhere, a register in which time is being inscribed' and 'the very basis of conscious existence is memory, that is to say, the prolongation of the past into the present, or that is to say duration acting and irreversible'. And this duration extends beyond the skin and clothes of humans, deep into their surrounds, which are shared with and influence the growth of other organisms.

It is thus our contention that the texturing, meshing and entangling that Ingold sees as constitutive to life do indeed give rise to a zone that is matted and dense enough for life to grasp onto and inscribe into, a zone which we view as *surface*. Thus, rather than conflating surfaces with a certain solidity, we approach them as coherences of a sort which acquire different properties, characteristics and textures through different zonal conditions and interferences. Surfaces are therefore highly variable, and they can have equally varied consequential effects for perception and imagination.

This manifold possibility of surface is what Ingold (2015: 42) pursues in more recent work where he discusses mountains and walls as folds of earthly surfaces and considers that 'the surface can be observed at different scales, from close up to far away, and each will reveal different patterns, textures and grains'. Here, Ingold discusses surface conditions both of the growing earth as well of engineered formations, with each having different perceptual qualities and possibilities for the generation of life. Thus, surfaces might, on one hand, be very *loose* in composition – and thus likely to be visually incoherent – or, on the other hand, very *tight* in composition – and thus likely to be more visually coherent. Therefore, life exists and persists not through completely open flows of matter but just as much because matter knots, congeals and meshes itself up into zones of coherence – surface – which takes on a form of its own and gives grounds for further possibilities of growth.

Thus, surfaces draw us to acknowledge that life furthers itself not only due to flows of matter but also due to *frictions* of matter. As there can be no growth of a plant without its interference with and entanglement into the ground, so there can be no movement of a vehicle without its wheels coursing into, rubbing into and mutually degrading with the asphalt of the road. For any condition of life, there is no traction without friction, and no movement or growth can occur without the meeting and meshing of surfaces. Indeed, the very evolution of the earth – and the life within it – can be considered the result of *surface friction*. At greater scales, the earth is formed by the rubbing and collision of tectonic plates, its lands eroded by the forces of weather and its atmospheres shifted and shaped by the activity of organisms, increasingly impactful by humans. Terrestrial movement occurs through the roughness of skins and clothing meshing with surfaces underfoot, offering a resistance with which to push ahead from. Aquatic movement, through the seemingly smoothest of watery mediums, is enhanced in speed by skins as rough as sandpaper, in the case of sharks (Dean and Bhushan 2010). Bergson's (1998) 'register' thus becomes apparent as a surface open and compliant enough for time to be scored into so that memory can endure and consciousness can live on.

Furthermore, as some of the chapters in this volume address, the forming of surface is intertwined with the frictions that involve – both implicitly and explicitly – power relations. Power can be considered as intrinsic to surfaces as a direct result of the emphasis on *becoming* proposed previously, for becoming in the world does not mean only to mutually relate and acquire form but to also undergo transformation – whether willingly or unwillingly – and perform acts of absorption, dissolution and domination, fostered by the operational effect of

surfaces and what they can *do*. Such a perspective requires viewing surfaces as performative as they express power and force in the entangling and shaping of sociality and matter. Matters of power are most evident in Were's ethnography of the design and making of leaf fibre baskets in Papua New Guinea, New Ireland, where political, economic and gender relations are weaved into the forming and effect of basket surfaces. Lucas also – in his written and illustrative observations of urban marketplaces in South Korea – evidences how local market sellers improvise, adapt and make a living through continuous informal designs and improvised architectures which attach onto larger existing urban structures and also interweave within and disrupt the imposition of grand modern architectures which attempt to formulate Seoul into an ultra-modern global city.

These contributions – along with those from Anusas, Arantes, Chatterjee – explore surfaces as they become manifest in the practices of architecture, design and craft, and they show that different types of skilled practices give rise to different conditions of material form: some of which are loose, open to exchange and improvisation, and others which tighten towards ideals of object form. Through these practices, surfaces hold and conduct power relations in that material coherence and density can influence whether a surface exists as a semi-transparent veil – giving access to knowledge beyond the surface – or as a hermetically sealed cover – concealing specific matters into a hidden interiority.

These latter effects of surface concur with Harkness, Simonetti and Winter's (2015) considerations on the modern city, where the power of *mass surfacing* – typically with concrete – is used to overwhelm pre-existing habitats and cement modernity's claim on the present. Such surfaces reformulate mottled ground into solid inert planes, through grand gestures of pouring and levelling and increasingly finer gestures of screeding and trowelling, to reinforce the illusion of a 'nature' which humans are correspondingly separated from. Thus, the potential for surfaces to acquire such an intensified coherence, overpower aspects of life and create the perception of a wholly distinct object or absolute boundary is something of notable concern. This manifestation of surface is what Ingold (2015: 45) terms 'hard-surfaced', and while we wholly concur that this 'is an extreme, however, that is never realised in practice' because such a surface always 'cracks and crumbles', we remain cognisant that such notions are powerful and pervasive in the shaping of social life.

As conceptual as the notion of an absolute surface might be, it manifests in academic writings and passes without critical interrogation when Amato (2013: 19) states that '[s]urfaces are the boundaries of both natural and human environments', reinforcing a perspective that 'the world can exist as nature only for a being that does not belong there' (Ingold 2000: 20). Whilst Amato offers a wide-ranging and often seductively written account of surfaces as they pervade through all aspects of the world, the extent to which surfaces seem to be in and of anything and everything – yet also reinforcing of conventional western perceptions – seems conceptually flawed. For example, where Amato (2013) sets out with an enthusiastic advocation of Gibson's approach to direct perception, he later goes on to state that 'when miniaturized – in the form of images, symbols

and ideas – surfaces become the currency of the conscious mind' (ibid.: 26) and that this miniaturisation explains – according to Amato's evolutionism – why *Homo sapiens sapiens*, unlike any other creature, 'lives in part submerged in the complex depths of its own subjectivity' (ibid.: 40), a view that is in opposition to Gibson's theory of perception.

These absolute and hard surfaces are ones by which cognitive science has modelled the mind, in correspondence with a Christian encapsulation of the soul within the body and beneath the surface of the skin (Taylor 1989). And then modelled on the encasement of artificial intelligence, such formulations of matter and life are further reinforced – in problematic splendour – in Hofstadter and Sander's (2013) recent book *Surfaces and Essences*, exploring the concept of analogy with a heavily reliance on modern narratives of occlusion and directed by Freud's writings on memory (also Simonetti, this volume).

And while it might seem that technological artefacts present the most enduring aspirations of hardened surfaces hiding and locking-in artificial intelligence and automations, Shapin (1996) has challenged the notion that technological mechanisms have always been housed in opaque enclosures. Indeed, early public clocks displayed in medieval cities from the late thirteenth century had their workings exposed; it was not until the early modern period, during the sixteenth century, that the workings of clocks became hidden behind solid surfaces. This 'logic of form' (Anusas and Ingold 2013: 61) has persisted through the design of the modern world, and it is only more recently that experimental technologies seem to be bringing the workings of things back to the surface, namely through developments in 'electronic textiles' (Orth 2009) and smart fabrics which, for Küchler (2008: 116), demonstrate that 'we are moving from a mechanical materialism to a kind of material vitalism' and which suggest the possibility of 'a new kind of surface ontology which replaces the opposition of inside and outside, invisible and visible, immaterial and material with a complementary relation that thrives on transformation rather than distinction' (ibid.).

Turning to surficiality

In this volume, we thus advocate a way of thinking about, observing and working with surfaces that acknowledges their variation, complexity, richness, effect and power in everyday social life. Approaching surfaces in this way means working against any notion that surfaces are *thin* in meaning, quality or presence, which often occurs when surface is conflated with of superficiality. Certainly, the etymological meaning of surface – from the Old French *sur-* 'above' + *face* – implies a condition at the periphery and so this could be assumed to be a thin condition, or, as historian Kelley (2013: 13) states, '[s]urface is the topmost or outermost layer of an object or substance'. Such a conception of surface coincides with theoretical conceptions of form in mathematics and geometry, synonymous with the 'étendu plane [extended plane]' (Robert, Rey and Morvan 2001: 873 cited in Lehmann 2013: 148), which has magnitudes of length and breadth, but no thickness (Best and Marcus 2009). Such mathematical conceptions of surface correspond with

Aristotelian hylomorphism where *form* (morphe) is a theoretical construct that imposes itself on and shapes matter (hyle).

However, even mathematical surfaces with a theoretical zero thickness have meaning, effect and a social history. And whereas hylomorphism may imply that the form of things is ultimately conceptual and insubstantial, this has been challenged by Flusser (2014), Ingold (2013) and Thomas (2012), who argue that formation cannot exist prior to or in abstract from the gestures of the body or an intimate knowledge of materials. As in the case of basketry mentioned previously and in many of the contributions within this volume, the practitioner's mind and body, in dialogue with the properties and possibilities of materials, is a generative matrix whereby form arises therein, and so form – like surface – can never be a detached immaterial theory but is rather always imbued with social histories and propensities. The formation of surface is therefore akin to what Pye (1968) terms a *workmanship of risk*, where form is implicit in the becoming of materials and always in transformation.

In pursuing a more careful, critical and meaningful attention to surfaces – regardless of whether they seem to be thin or thick – we thus resist the term superficial, which has become somewhat soured in its usage, and instead direct towards alternative terms of *surficial* and *surficiality*. Surficial(ity) as a term has a more direct indication of surface, and we use it to reinforce that surfaces are always rich and profound. Such a direction concurs with Adamson and Kelley (2013: 1) in their opening of *Surface Tensions*, where, inspired by a fold of a cloth creating a pocket, they find that '[t]he surface is not so much a barrier to content as a condition for its apprehension'. Thus, an encounter with surface can draw one into a close engagement with the intricacies of matter rather than being reflected away from this. Surfaces are therefore not confined to the outskirts of things, forming a definitive separation of interiority from exteriority, but rather we regard them as akin to knitted tapestries which mingle minds, matters, media, substances, atmospheres and grounds.

Furthermore, the term surficial(ity) is used to enliven an attention to the *becoming* of surfaces as zones of transformation, in contrast with surfaces *being* fixed to any particular structure of thought, perception, matter or life. This is important in that we see an attention to surfaces as a way to resist further scholarly attempts to theoretically define how the world really *is* – in some essential form – and rather to advocate an attention to surfaces as a way to think critically *with* the world in the course of its becoming – that is, to follow its occurrence. Thus, we are much less concerned with 'what *are* surfaces' (Forsyth et al. 2013: 1013, emphasis added) and more interested in what surfaces can *do* and *how* they come about in social life. We also wish to explore what a practice of *observing surficially* might have for anthropological technique and theory. Stated in Flusser's (2002: 22, original emphasis) terms, we are thus not only concerned with practical and theoretical questions of 'what do [these] surfaces mean?' but also with '*how* do they mean it? Are they adequate to the world, and if so, how? And do they mean the "same" world that is conveyed by written lines?' In this endeavour, we thus reach to work with and know social life through the *ontogenesis of surfaces*,

and we hereby invite you to turn the page of this chapter and continue into this book of many surfaces.

References

Adamson, G. and V. Kelley. 2013. *Surface Tensions: Surface, Finish and the Meaning of Objects*. Manchester: Manchester University Press.

Amato, J.A. 2013. *Surfaces: A History*. Berkeley, CA: University of California Press.

Anusas, M. and T. Ingold. 2013. Designing environmental relations: From opacity to textility. *Design Issues* 29(4): 58–69.

Barad, K. 2007. *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Durham, NC: Duke University Press.

Bateson, G. 1973. *Steps to an Ecology of Mind*. New York: Ballantine Books.

Bergson, H. 1998. *Creative Evolution*, trans. A. New York: Dover Mitchell [originally published in 1907].

Best, S. and S. Marcus. 2009. Surface reading: An introduction. *Representations* 108(1): 1–21.

Bruno, G. 2014. *Surface: Matters of Aesthetics, Materiality, and Media*. Chicago, IL: University of Chicago Press.

Chatterjee, A. 2014. *Surface and Deep Histories: Critiques and Practice in Art, Architecture and Design*. Newcastle: Cambridge Scholars Publishing.

Classen, C. 1993. *Worlds of Sense: Exploring the Senses in History and Across Cultures*. Abingdon: Routledge.

Coleman, R. and L. Oakley-Brown. 2017. Visualizing surfaces, surfacing vision: Introduction. *Theory, Culture & Society* 34(7–8): 5–27.

Dean, B. and B. Bhushan. 2010. Shark-skin surfaces for fluid-drag reduction in turbulent flow: A review. *Philosophical Transactions of the Royal Society of London A: Mathematical, Physical and Engineering Sciences* 368(1929): 4775–4806.

Drazin, A. and S. Küchler. 2015. *The Social Life of Materials*. London: Bloomsbury Press.

Flusser, V. 2002. *Writings*, trans. E. Eisel, ed. A. Ströhl. Minneapolis, MN: University of Minnesota Press.

Flusser, V. 2014. *Gestures*. Minneapolis, MN: University of Minnesota Press.

Forsyth, I., H. Lorimer, P. Merriman and J. Robinson. 2013. Guest editorial. *Environment and Planning A* 45: 1013–1020.

Gibson, J.J. 1986. *The Ecological Approach to Visual Perception*. Hove: Psychology Press.

Hamilakis, Y. 2015. *Archaeology and the Senses: Human Experience, Memory, and Affect*. New York, NY: Cambridge University Press.

Harkness, R., C. Simonetti and J. Winter. 2015. Fluid rock: Gathering, flattening, curing. *Parallax* 21(3): 309–326.

Harrison, R. 2011. Surfaces assemblages: Towards an archaeology in and of the present. *Archaeological Dialogues* 18(2): 141–161.

Harrison, R. 2013. Scratching the surface: Reassembling an archaeology in and of the present. In *Reclaiming Archaeology: Beyond the Tropes of Modernity*, ed. A. González-Ruibal. Abingdon: Routledge.

Heidegger, M. 1971. *Poetry, Language, Thought*, trans. A. Hofstadter. New York, NY: Harper and Row [originally published in 1952].

Hofstadter, C. and E. Sander. 2013. *Surfaces and Essences: Analogy as the Fuel and Fire of Thinking*. New York, NY: Basic Books.

Howes, D. (ed.) 1991. *The Varieties of Sensory Experience*. Toronto: University of Toronto Press.

Imperiale, A. 2000. *New Flatness: Surface Tension in Digital Architecture*. Basel: Birkhäuser.

Ingold, T. 2000. *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. Abingdon: Routledge.

Ingold, T. 2007. Earth-sky, wind and weather. *Journal of the Royal Anthropological Institute* 13: S19–S38.

Ingold, T. 2011. *Being Alive: Essays on Movement, Knowledge and Description*. Abingdon: Routledge.

Ingold, T. 2013. *Making: Anthropology, Archaeology, Art and Architecture*. Abingdon: Routledge.

Ingold, T. 2015. *The Life of Lines*. Abingdon: Routledge.

Jay, M. 1994. *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought*. Berkeley, CA: University of California Press.

Kelley, V. 2013. A superficial guide to the deeper meanings of surface. In *Surface Tensions: Surface, Finish and the Meaning of Objects*, eds. G. Adamson and V. Kelley. Manchester: Manchester University Press, pp. 13–25.

Knappett, C. and L. Malafouris (eds.) 2008. *Material Agency: Towards a Non-Anthropocentric Approach*. New York, NY: Springer.

Küchler, S. 2008. Technological materiality: Beyond the dualist paradigm. *Theory Culture and Society* 25(1): 101–120.

Latour, B. 2005. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.

Leatherbarrow, D. and M. Mostafavi. 2002. *Surface Architecture*. Cambridge, MA: MIT Press.

Lehmann, U. 2013. Surface as material, material into surface: dialectic in Carol Christian Poell. In *Surface Tensions: Surface, Finish and the Meaning of Objects*, eds. G. Adamson and V. Kelley. Manchester: Manchester University Press, pp. 147–163.

Malafouris, L. 2013. *How Things Shape the Mind: A Theory of Material Engagement*. Cambridge, MA: MIT Press.

Manderson, L. 2011. *Surface Tensions: Surgery, Bodily Boundaries, and the Social Self*. Walnut Creek, CA: Left Coast Press.

Marshall, Y. and B. Alberti. 2014. A matter of difference: Karen Barad, ontology and archaeological bodies. *Cambridge Archaeology Journal* 24(1): 19–36.

Miller, D. 2005. Materiality: An introduction. In *Materiality*, ed. D. Miller. Durham, NC: Duke University Press, pp. 1–50.

Miller, D. 2010. *Stuff*. Cambridge: Polity Press.

Olsen, B. 2010. *In Defense of Things: Archaeology and the Ontology of Objects*. Walnut Creek, CA: AltaMira Press.

Olsen, B., M. Shanks, T. Webmoor and C. Witmore. 2012. *Archaeology: The Discipline of Things*. Berkeley, CA: University of California Press.

Orth, M. 2009. *Maggie Orth: Art, Technology, Design*. URL: www.maggieorth.com [Accessed: 1 November 2018].

Pye, D. 1968. *The Nature and Art of Workmanship*. Cambridge: Cambridge University Press.

Robert, P., A. Rey and D. Morvan. 2001. *Le grand Robert de la langue française*. Paris: Dictionnaires Le Robert.

Shapin, S. 1996. *The Scientific Revolution*. Chicago, IL: University of Chicago Press.

Sheets-Johnstone, M. 1999. *The Primacy of Movement*. Philadelphia, PA: John Benjamins.

Simonetti, C. 2018. *Sentient Conceptualisations: Feeling for Time in the Sciences of the Past*. Abingdon: Routledge.

Simonetti, C. 2019. Scales and telescopes: Optics in the study of prehistory. In *Time and History in Prehistory*, eds. S. Souvatzi, A. Baysal and E.L. Baysal. Abingdon: Routledge.

Simonetti, C. and T. Ingold. 2018. Ice and concrete: Solid fluids of environmental change. *Journal of Contemporary Archaeology* 5(1): 21–33.

Stoller, P. 1989. *The Taste of Ethnographic Things: The Senses in Anthropology*. Philadelphia, PA: University of Pennsylvania Press.

Taylor, C. 1989. *Sources of the Self: The Making of the Modern Identity*. Cambridge, MA: Harvard University Press.

Thomas, J.S. 2004. Archaeology's place in modernity. *Modernism/Modernity* 11(1): 17–34.

Thomas, J.S. 2012. Archaeology, anthropology, and material things. In *Archaeology and Anthropology: Past, Present and Future*, ed. D. Shankland. London: Bloomsbury Press, pp. 219–232.

Tuan, Y. 1989. Surface phenomena and aesthetic experience. *Annals of the Association of American Geographers* 79(2): 233–241.

8 Vital surfaces and the making of urban architecture

Anuradha Chatterjee

Introduction

Surfaces, says Joseph A. Amato (2013: 1), 'evade easy definition'. In fact, the more they are defined, the more slippery and elusive they become. Surfaces may be defined as skin (Cheng 2009; Lupton 2002), textile (Anusas and Ingold 2013), image (Flusser 2000), screen (Bruno 2014), blur (Di Palma 2006), material (Ingold 2007), effect (Benjamin 2006) or the instrument of perception (Gibson 1986). In architecture, surfaces can be specifically identified as coexistent forms and effects – wall, plaster, paint, cladding, ornament, fenestrations (doors, windows and louvers), projections (balconies and loggias), transparencies/reflections/translucencies and image. Nevertheless, according to Glenn Adamson and Victoria Kelley (2013: 1), surfaces are the 'external appearance of things, easily manipulated, and within many traditions of thought, are held to be of lesser consequence than "deeper" or more "substantive" interiorities'; this fuels the tendency to 'rush past the surface to excavate more complex inner truth'. This rushing past the surface is partially true for architectural theory and practice, where surface has occupied, and sometimes continues to occupy, an ancillary status. Surface is seen as capable of being interpreted but not occupied, capable of being effected but not influencing the design of the enclosure in which people live. This chapter explores and argues for a greater agency of surface in architecture.[1] The writings of John Ruskin and the current field of surface studies are important in grounding these considerations. The inquiry is also aided by recent shifts in architectural discourse: David Leatherbarrow and Mohsen Mostafavi's (2002) discussion of the free façade and artifice in modernist buildings, Mark Taylor's (2003: 5) departure from the 'oppositional format of whether surface is depth or depth is surface', and Amanda Reeser Lawrence and Ashley Schafer's (2007) consideration of surface as the new locus of invention and occupation. The chapter aims to challenge the limits of the discipline of architecture and reveal the spatial potentialities of surface.

The first section, 'The impossibility of surface in architectural theory', opens with a discussion of the opposition(s) between surface and architecture. The nineteenth century marks a point of disjunction. In establishing the disciplinary definition of architecture, the constructive and the spatial took precedence over the visual, despite the fact that the nineteenth century was defined by burgeoning

visuality. The chapter considers the limitations of this premise in the context of the more recent surface turn, where surface is substance and the distinction between surface and depth diminished. The second section, entitled 'John Ruskin and architecture as pure surface', provides a precursor to this, through Ruskin's theory of the adorned wall veil, a nineteenth-century theory of surface architecture, as it were. Ruskin relied upon Thomas Carlyle's philosophy of clothes and the notion of spiritual life to argue that 'architectural clothing' would reveal the inner life or the moral health of the society that produced it. Architecture was thus theorised entirely through textile metaphors, defined as absolute surfaceness. The third section, entitled 'Urban surfaces and Australian buildings', considers the idea of looking beyond Ruskin, which alludes to the broadening of his theory of surface *as* architecture. This is supported by the identification of other typologies of surface, beyond that of representation, which have profound spatial agency. Through a physical study of recent buildings in Melbourne, Australia, the chapter explores the thickened surface of the urban threshold – the effect and occupation of surface, which in essence articulates a conversation between the building and the city.

The impossibility of surface in architectural theory

This section foregrounds the adversarial conceptualisations of surface (and visuality) and architecture. As said, the nineteenth century marks a point of incoherence. As an age, it is defined by burgeoning visuality, where surface is at the frontier of mediating these debates on seeing, illusion, truth, unity, subjectivity and so on (Burns 2004; Crary 1990). Yet its architectural theory adheres to constructive and spatial imperatives, over the visual and the surficial, in defining the discipline of architecture. The paradox is also that, despite the overexposed status of architectural surface, it is hardly ever looked at. As Beatriz Colomina (1994: 11) explains: 'Sometimes the best way to hide something is in full sight'. Anne Cheng (2009: 101) echoes this in a recent publication, where she states: 'Sometimes it is not a question of what the visible hides but how it is that we have failed to see certain things on its surface'. The surface is almost always looked past, or looked through, and thus remains inaccessible to analysis.

The modern era, according to Martin Jay (1988: 3), is 'ocularcentric', as it is 'dominated by sight in a way that sets it apart from its premodern predecessors'. Jay argues that modern western culture is marked by a 'ubiquity of vision' (ibid.: 3). This condition is exacerbated in the nineteenth century and evidenced in the proliferation of images; surges in technologies of seeing; settings that foster the production, exchange and consumption of these images; and the agency of the observer and subjective vision (Crary 1990; Flint 2000; Newey 2009; Burns 2004).[2] Kate Flint (2000: 1) argues that the (Victorian) fascination with the 'act of seeing' was about the 'question of the reliability – or otherwise – of the human eye, and with the problems of interpreting what they saw'. The subjective and social act of seeing, framing, and recording the world was complicated by the idea

of 'outward and inward seeing', or the 'mind's eye', which constituted an inner world of imagination. Above all, the concern was surrounding the 'slipperiness of the borderline between the visible and the invisible' (ibid.: 2). While society was afforded different forms of spectatorship, it was also concerned with the 'problematisation of that optical instrument, the human eye' (ibid.: 2). Jonathan Crary (1988: 9) argues that vision itself became the object of study, as inquiry shifted from 'physical optics (the study of light and the forms of its propagation)' to 'physiological optics (the study of the eye and its sensory capacities)'. Specifically, the investigation into the 'retinal afterimage' was the most significant discovery of a so called 'optical truth' (ibid.: 9).

The preoccupation with the visual was satisfied in a number of ways. Flint (2000: 3) argues that the 'dissemination of images, whether photographic or engraved' became possible due to the 'development of the press and the diminishing costs of newsprint and printing technologies'. Periodicals like *Illustrated London* and *Graphic* 'relied as much, if not more, on images as on words in their representation of the world' (ibid.: 3–4). Other forms of displays included exhibitions, panoramas, dioramas and the museums, all of which provided fleeting as well as permanent access to visual images. Flint (2000: 5) explains that Victorians indulged in visual excitement through the use of new optical inventions such as 'the magic lantern, the kaleidoscope, the pseudoscope, the zoetrope,' which provided a sensory experience without a tactile surface. The dominance of the visual had yet another implication, Flint argues – employing Foucault's theory of the panoptic society – that 'to make something visible is to gain not understanding of it, but control over it' (ibid.: 7). The 'drive to exposure' was driven by the need to make things 'available to the eye, and hence ready for interpretation' (ibid.: 8). This was particularly supported through the work of the scientific community – also published and becoming part of popular culture via the increasing number of illustrated science publications – whose work with the microscope brought the invisible world forward and exercised 'knowledge and control over the natural world' (ibid.: 8).[3]

The nineteenth-century relationship between vision and surface was thus a paradoxical one, as even though surface was the cause for vision's obscurity, uncertainty and opacity, it was also the precondition for the operation of vision. On one hand, as Stephen Best and Sharon Marcus (2009: 10) argue, surface is seen as capable of prompting 'symptomatic reading', revealing 'hidden meanings' and truths that are modelled on the idea of depth. From this perspective, surfaces are 'superficial and deceptive,' and 'would turn out to be false upon closer scrutiny' (ibid.: 4). On the other hand, explains Karen Burns (2004: 80), the image 'confounds our perceptual cues about depth of field, through the 'potent misinformation' it carries. To this end, surface is the 'site of deceit – simulation – and thus potential instability within the system of representation' (ibid.: 80). It is this scholarly fascination with depth, the conflation of depth with truth and the need to regulate depth that polarises surface and depth. These orientations no doubt complemented nineteenth-century architectural theory, because buildings too exhibit the duality palpable in nature and the human body in consisting of aspects that are

visible – exterior form, surface and ornament – *and* invisible – structural elements and forces and interior – to the eye.

Critical reception of Ruskin provides evidence of architectural theory's resistance to surface and its embeddedness in structural and spatial imperatives. Ruskin defined architecture as consisting of ornamental features, which were 'venerable or beautiful, but otherwise unnecessary' (Ruskin 1903–1912, vol. 8: 28). Ornament was 'above and beyond its common use', and it does not serve a use that is limited by 'inevitable necessities, its plan or details' (ibid.: 29). For Ruskin, ornament was valuable because it was useless. This also meant that he came across as uneducated in the discipline of architecture, insofar as this was defined as the knowledge of structural systems, perception of depth and interiority and three-dimensionality of form. In 1853, Samuel Higgins, a frequent commentator on Ruskin, argued that architecture is the 'art of the beautiful manifested in structure, of which, by its very nature, as a structural art, form must be the dominant principle' and a 'building in which construction is made subservient to, and whose chief glory is colour, whether obtained by painting the surface, or by incrustation with precious and coloured material, cannot be architecture at all, in the proper sense of the word' (Higgins 1853: 723). An anonymous reviewer supported this view, as Higgins argued that Ruskin's approach of discussing the ornament, instead of the structure, was like describing the 'coat instead of the man, sometimes not even the coat, but the buttons and braid, which cover it' (Anon 1853).

Twentieth-century views were not all that different. Charles H. Moore (1924: 117) claimed that Ruskin's 'apprehensions were not grounded in a proper sense of structure and he had no practical acquaintance with the art of building'. Moore added: 'He made, as we shall presently see, the distinguishing characteristics of Gothic to consist virtually in ornamental features – even structural members bring regarded by him as of primarily ornamental significance' (ibid.: 117). Moore argued that even though Ruskin seemed to discuss structure, he did not fully understand the logic of the structural system. This opinion was echoed by Paul Frankl (1960: 560–561), who argued that Ruskin's interest was always fixed on two-dimensional aspects, on the manner in which ornament contributed to the perception of the surface as an 'integral whole'. Ruskin did not really understand important advancements in architecture like ribbed vaults, because he could not adequately visualise or understand three-dimensional interiors. Alternative and more inclusive readings, such as those of Hatton (1992) or Unrau (1978), suggest that the previously stated views failed to consider that it was interest in surface, not lack of understanding of interiors and structural mechanics, which motivated Ruskin's architectural studies.

Ruskin's critics were no doubt in harmony with the somewhat later discovery and writings by August Schmarsow (1853–1936), who proposed the theory of architecture as a 'spatial creation, based on bodily movement through space rather than stationary perception of form'(in Schwarzer and Schmarsow 1991: 50). Schmarsow's theory was different from that of his predecessors, as it went against a static theory of space, and because it undermined the form-based understanding of architecture. The discovery of space permeated architectural thinking quickly.

Gustav Platz argued that space 'represents the highest cultivated form of our time', and architect RM Schindler argued in 1934 that to understand modern architecture, one had to understand '"space" and "space forms" as a new medium for human expression' (in Schwarzer and Schmarsow 1991: 57). Later, historians like Nikolaus Pevsner (1963: 15) also declared that the 'history of architecture is a history of man shaping space'. Similarly, Bruno Zevi (1974: 22), in *Architecture as Space*, 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 (1941) attempted to address this issue by offering the 'Three Space Conceptions,' in *Space, Time, and Architecture*. From here on, architectural invention was defined wholly spatially, where spatiality was also narrowly understood as interiority – Adolf Loos's theory of the *Raumplan*, Le Corbusier's theory of the *architectural promenade*, Theo Van Doesberg's theory of neoplastic space, Ludwig Mies van der Rohe's universal space, and Louis Kahn's plan as the society of rooms.

We are, nevertheless, surrounded by and our lives entangled with surfaces. Recent writings from an interdisciplinary field of literature, science, art, design, anthropology and ethnology have given rise to 'surface studies', theories of life and world based on the study of 'skin, screens, lines, interfaces, fabric, landscapes and the earth' (Coleman and Oakley Brown 2019). In a 2005 lecture, architectural theorist Kurt W. Forster (2005) argued that even though we 'have been taught to mistrust appearances' and are 'always asked to look for the substance of things and not be distracted by superficial matters', we cannot transcend them. Noting the potency and pervasiveness of surface, Forster stated: 'Surfaces are everywhere. It is tempting to think that we inhabit a world comprising only of surfaces.' In fact, the fundamentality of surface for visual perception was proposed by ecological psychologist James J. Gibson (1986: 23), who argued that:

> The surface is where most of the action is. The surface is where light is reflected or absorbed, not the interior of the substance. The surface is what touches the animal, not the interior. The surface is where chemical reaction mostly takes place. The surface is where vaporization or diffusion of substances into the medium occurs. And the surface is where vibrations of the substances are transmitted into the medium.

Even though Gibson's thesis enables us to think of surfaces as integral to sense and cognition, his theory is underpinned by the assumption that surface exists *because of* substance and that its own form is reliant on the integrity and the constitutive properties of the substance under consideration. Therefore, in his writings, there are many instances where he states 'surface of', such as the 'surface of a viscoelastic substance' or the 'surface of a rigid substance' (ibid.: 25). The Gibsonian polarisation of surface and substance has also been complexified and contested by more recent perspectives.

In particular, Tim Ingold (2011: 12) provides a rethinking of Gibson's 'sclerotisation' of the environment – the assumption that sentient bodies encounter an insentient world and the moving body interacts with a fully preformed

environment. Using Martin Heidegger's notion of dwelling and Maurice Merleau-Ponty's theory of becoming, Ingold (2011: 12) argues that another way to look at this would be to consider 'the sentient body, at once both perceiver and producer', such that the surfaces of the world that are traversed are continuously made and remade. In my view, Ingold's argument concerning the inextricability of the subject from the world is conversant with the entanglement of surface and substance, a point echoed by the architectural theorist, Gregor Eichinger (2011: 12), who states: 'Essentially we have nothing other than surface. The entire universe consists of it. If we wanted to know what lies behind it, we would have to break with our given perception of the world, which is neither physically nor intellectually possible'. Along similar lines, Forster (2005) claimed: 'As soon as we try to get beyond them [surfaces], we are called upon to make formidable epistemological efforts'. These assertions undermine the widely held belief that 'peeling back the layers' will lead to the substance of things, or the core of things: it will not. Truth is in/on the surface.

From a textual point of view, Best and Marcus (2009) recommend that we abandon a 'symptomatic reading' (ibid.: 1) of surfaces that attempt to 'plumb hidden depths' (ibid.: 18) in texts and regard it as that which is 'neither hidden nor hiding; what, in the geometrical sense, has length and breadth but no thickness, and therefore covers no depth' (ibid.: 9), and so 'A surface is what insists on being looked at rather than what we must train ourselves to see through' (ibid.: 9). This situates surface as content *and* meaning, reiterating the impossibility of separating surface from substance. Such a premise can be furthered through a Deleuze (1990) theory of sense, with sense as a 'surface effect' (ibid.: 82): not something to discover but to 'produce by a new machinery' (ibid.: 72) and also described as 'inseparable from surface which is its proper dimension' (ibid.: 83), not produced in/by depths of bodies, which are of 'undifferentiated depth and in their measureless pulsation' (ibid.: 141). Thus, surface is the 'locus of sense' (ibid.: 124), its organisational machinery and the 'living lives at the limit of itself, on its limit' (Simondon, cited in ibid.: 119). Matter is thus organised topologically, such that the categories of inner and the outer become non-existent. Everything is simultaneously inside and outside – at the limit – and always defined as/by the surface condition. Surface does not *belong to* substance, and substance does not *have* a surface. Rather, surface *is* substance: it cannot be transcended.

John Ruskin and architecture as pure surface

This section takes the debate further, contextualising it and locating it in a nineteenth-century precursor – Ruskin's theory of the adorned wall veil. Ruskin relied on Thomas Carlyle's (1983) writings, particularly *Sartor Resartus*. Carlyle's philosophy of clothes favoured the soul over the body, whereby the soul was located in the clothing, not the body. Along similar lines, Ruskin argued that the clothing of the building, the seamless veneer of polychromatic ornament covering the external wall, was what revealed the inner life or moral health of the society that produced it: this *is* architecture. The tectonic language of buildings was thus

transformed into one of textile fabrications.[4] The (building) materials were pliable and luxurious fabrics; the process of making involved cutting, gathering, stretching, stitching, draping and layering, and the outcome was dressing.

Ruskin's architectural theory was based on the wall, which was the key element in 'The Six Divisions of Architecture,' in *Stones of Venice I*, and one of the three elements (with roof and apertures) that constituted architecture. He also devoted four chapters to the wall: 'the wall base', 'the wall veil', 'the wall cornice' and 'the wall veil and shaft' (see Ruskin 1903–1912, vol. 8). The remaining chapters focused on surface details. The illustrations included wall decorations and profiles of architectural elements like bases, capitals, cornices, mouldings and brackets. Considered together, the textual and graphic documentation suggested that Ruskin was proposing a new language of architecture focused entirely on surface. This is evidenced in his argument in *Seven Lamps of Architecture* that the wall is the only element in architecture that is worth considering. Ruskin (ibid.: 108–9) argued: 'Of the many broad divisions under which architecture may be considered, none appear to me more significant than that into buildings whose interest is in their walls, and those whose interest is in the lines dividing their walls'. This showed that his interest was in buildings where the integrity of the wall (mass and solidity) was sustained. This is why he argued that in the 'Greek temple the wall is as nothing', whereas in 'Romanesque work and Egyptian, the wall is a confessed and honoured member' (ibid.: 108–9). Ruskin promoted a new way of looking at buildings, which was no longer tied to period and style. His classificatory system was based on the wall, and the terms 'Gothic' and 'Renaissance' were indicative of attitudes to surface. Furthermore, the wall was not merely an architectural element: it was the (new) architectural object.

The wall was ideally flat. In order to convey this point, Ruskin (ibid.: 109) compared two types of surfaces in nature: 'For, whatever infinity of fair form there may be in the maze of the forest, there is a fairer, as I think, in the surface of the quiet lake; and I hardly know that association of shaft or tracery, for which I would exchange the warm sleep of sunshine on some smooth, broad, human-like front of marble'. This was an implicit comparison between a three-dimensional and a flat surface, between the bristly exterior of the Northern Gothic cathedrals and the decorated surfaces of Byzantine and Italian Gothic buildings. Ruskin recognised that the flatness of the wall could be reinforced by increasing its extent. This is why he delineated '[b]readth of flat surface' (ibid.: 187) as the second item in the list of desirable architectural qualities. Furthermore, Ruskin (ibid.: 109–110) added that if the 'terminal lines' of the building were 'removed, in every direction, as far as possible,' it would make the 'face of a wall look infinite, and its edge against the sky like a horizon'. The flatness of the wall was further reinforced by Ruskin's definition of architecture, which according to him was the combination of the sister arts of painting and sculpture.

Ruskin (ibid.: 11) declared that the 'fact is, there are only two fine arts possible to the human race, sculpture and painting. What we call architecture is only the association of these in noble masses, or the placing them in fit places. All architecture other than this is, in fact, mere *building*'. He added that the 'perfect building'

was one that was 'composed of the highest sculpture . . . associated with pattern colours on the flat or broad surfaces' (ibid.: 186). The architectural element that was best placed to negotiate and incorporate these arts into a common third form of art was the wall. Hence, the wall became synonymous with or identifiable as architecture. Furthermore, the wall itself was reinvented. It was not merely the background for the application of sculpture and painting. It was *produced* through the amalgamation of the sister arts. The ideal wall had to balance the sister arts, such that it could have abundant polychromy but could only receive low-relief ornamentation. In other words, the wall was like a canvas that had abundant colour but barely any texture or relief. The comparison between the wall and the canvas was articulated in *Seven Lamps*, where Ruskin argued that the 'wall surface is to an architect simply what a white canvas is to a painter', adding also that the 'canvas and wall are supposed to be given, and it is our craft to divide' (ibid.: 115). The wall was seen as having expressive autonomy, not normally afforded to 'architectural' walls.

The wall (referred to as the wall veil by Ruskin) was to be split clearly into surface and depth. He found precedence for this in geological formations such as mountains, specifically the Matterhorn in the Alps. Ruskin (ibid., vol. 9: 87) detected remarkable similarities between the mountain and a wall, specifically in the coursed form of its strata and the verticality of its ascent, and he observed that, the rock face was composed of a 'mass of loose and slaty shale, of a dull brick-red colour, which yields beneath the foot like ashes', which covered hard rock beneath, 'disposed in thin courses of these cloven shales'. Ruskin (ibid: 88) noted that there were no cliffs, which did not 'display alternations between compact and friable conditions of their material' and, following the 'universal law of natural building', Ruskin suggested that the wall, like the mountain, ought to ideally consist of a delicate and decorative outer layer, which almost always conceals a solid inner core. This was a seemingly obvious tectonic condition – theorised for the first time in Italian Renaissance architect Leon Battista Alberti's writings – however, Ruskin's proposition was grounded in the relation between the fragile and cohesive, covering and masking a solid interior, mirroring the dressing of the human figure.

The disjunction between surface and depth in the adorned wall veil was not just physical: it was also symbolic. In other words, the ornamentation of the wall was disconnected from its construction. This is evidenced in the Baptistery of Florence, which according to Ruskin (ibid., vol. 23: 298) was the 'central building of European Christianity'. He compared the Baptistery's wall to a 'Harlequin's jacket', where the colourful and vivid diapered patterns make no reference to the disposition of musculature of the human body (ibid.: 217). This was seen in the Baptistery, where the pictorial tectonics of the arches, shafts, bays and floor levels, delineated through the use of coloured marble, neither explain nor indicate the actual disposition of space or structure inside the building. The pictorial nature of this surface was reinforced in Ruskin's characterisation of the building as 'one piece of large engraving. White substance, cut into, and filled with black and dark green' (ibid.: 344). This is evidenced in his drawing of a cropped view of one of

the bays, which indicates that the external wall may be appreciated as if it were an independently executed art object.

The adorned wall veil was also a pliable entity, both in form and ornament. Ruskin discussions around the drawing 'Pier base', *Stones I*, suggested that the wall was a pliable entity. The drawing showed five types of wall construction systems – the solid wall, two sets of pilastered walls, a row of piers and a row of shafts – arranged sequentially, as if suggesting constructive contiguity. He said: 'Now observe: the whole pier was the gathering of the whole wall, the base gathers into base, the veil into the shaft, and the string courses of the veil gather into these rings; and when this is clearly expressed, and the rings do indeed correspond with the string courses of the wall veil' (ibid., vol. 9: 128). Along these lines, the cornice would become the capital and the plinth of the wall transformed into a base for the shaft. That these are distinct constructional systems is suppressed by Ruskin's textile language, in which wall, shafts, piers, pilasters, capitals and cornices were seen as uninterrupted elements. It seemed as though the wall was to architecture what cloth was to tailoring and dressing, whereby the entire surface of the building was composed of a fabric-like material that could be cut, stretched or gathered.

The (literary and visual) transformation of stone into fabric was also undertaken at the level of the ornament. Ruskin (ibid., vol. 3: 151) argued that 'properties which, when inherent in a thing, make it drapery, are extension, non-elastic flexibility, unity and comparative thinness. Everything which has these properties, a waterfall, for instance, if united and extended, or a net of weeds over a wall, is drapery'. Ornament adhering to these principles would fuse and link to form a flat and a flexible membrane. It would be able to cover a substantial area without losing its form. It was these qualities that made that made the basket and lily capital in the Church of St. Mark's basilica, Venice; inlaid spandrels in the Church of San Michele de Or, Lucca; interlaced wall ornament in Ca Trevisan, Venice; and the uninterrupted traceries of Ca' d'Oro, Venice important to Ruskin.

As mentioned, Ruskin's interest in textile and dress was indebted to Thomas Carlyle (1833–1834) and his book *Sartor Resartus*, which, through the perspective of the German philosopher Diogenes Teufelsdröckh, asserts that 'Society is founded upon Cloth' (Carlyle 1983: 38). Carlyle (ibid.: 54) argued that 'all visible things are emblems' and 'all emblematic things are properly clothes, thought-woven, or hand-woven'. The very basis of culture was symbolic, and all symbols were clothes that expressed a hidden idea. Even language was called the 'garment of thought' (ibid.: 54), as it revealed imagination, the invisible spirit of the human mind. These arguments were extended to the human body. Carlyle (ibid.: 2) claimed that clothes were the 'grand tissue of all tissue', the 'vestural tissue', that 'man's soul wears as its outmost wrappage and overall; wherein his whole other . . . tissues are included and screened, his whole faculties work, his whole self lives, moves, and has its being'. Clothes were imparted with a corporeal quality and importance greater than the body and were capable of setting the soul free from its subjugation to the body.

Clothes were so important that Carlyle (ibid.: 25–26) compared them to architectural styles, 'Grecian, Gothic, later-Gothic, or altogether modern, and Parisian

or Anglo-Dandiacal'. He argued: 'In all his modes, and habilatory endeavours, an architectural idea will be found lurking; his body and the cloth are the site and materials whereon and whereby his beautified edifice of a person, is to be built'. The phrase 'architectural idea' suggested that the (unclothed) body did not possess innate truth but that it was constructed. The fabrication of the exterior surface of the body allowed it to come into being. That the cloth was the material, and the body the site for the construction, reinforced the importance of cloth over body. It also unhooked the soul from the body, allowing it a more direct (surface) and an autonomous (separate from the body) expression and presence.

Ruskin utilised this thinking to argue: 'Uniting the technical and imaginative elements as essentially as humanity does soul and body, it shows the same infirmly balanced liability to the prevalence of the lower part over the higher, to the interference of the constructive, with the purity and simplicity of the reflective element' (Ruskin 1903–1912, vol. 8: 20–21). This demonstrated Carlylean influence, as Ruskin privileged soul and associated it with the added layer of ornamentation that was added to the brute masonry structure of a building. The privileging of soul over body was a contextual response. Both thinkers were responding to the increasing materialism and focus on physical sciences in Victorian England that tended to overshadow and dominate spiritual and metaphysical domains of knowledge. Nevertheless, the profound consequence of this was that, for the first time, surface was positioned as substance, as capable of constituting substance, and as having a constructive agency or role.

Urban surfaces and Australian buildings

This section now considers the enormous potentiality of surface that has as yet remained undeveloped. Andrew Benjamin (2006: 30–31) defines potentiality as a 'yet-to be realised possibility' and a 'generative' field where 'generative can be located in a set of relationships rather than being reduced to an image of those relationships'. To this end, it is stimulating to think of the consequences of surface *as* substance, and surface *as* constructive (in thinking beyond the known terrain of the representational surface in architecture). The potentiality of Ruskin's theory of surface *as* architecture is in the excavation of surface typologies that have thus far been overlooked and that allow us to think of other ways of constituting (as well as enriching) spatiality and occupation, from 'outside in'. This is not to be confused with the depth orientation of symptomatic reading. This is a form of reading that deliberately reverses the process of architectural production that is often limited to proceeding from within to without. It seeks hidden spatialities *in* surface configurations that are not reducible to the excavation of depth.

This I have explored in a chapter in *Surface and Deep Histories* (Chatterjee 2014b), where four additional attitudes to surface are identified. First, surface as an urban threshold, consisting of fenestrations, entries, screens and other elements, is seen as having a key role in articulating the building's place in the city, as well as shaping public space and public life. Second, surface may be integrated with the structural system, and its articulation may inform the spatial experience

of the interior. Third, optically and physically transient surfaces refigure to the shifting climatic and occupational conditions, thereby challenging the identification of architectural surface as pictorial and static. And fourth, due to the figuration of surface as a topological condition in digital software, it becomes the method of generating form, structure and space (through manual and digital processes of layering, folding, pleating), offering an alternative to the classical orientations in architectural design theory. As these modalities coexist in architecture, surface becomes 'superficial and pervasive, symbol and space; meaningful and functional; static and transitory, object and envelope' (Chatterjee 2014a: 11). This chapter continues by exploring the urban agency of surface, first through historical case studies and then with a focus on three recent constructions in Melbourne, Australia.[5]

The significance of this exploration may be grasped by considering more recent critiques in architectural theory that have mounted a challenge to development imperatives that view architecture, landscape, infrastructure, geology and hydrology as separate areas of concern. Frampton (2010) was the first to articulate a critique of the twentieth-century city as consisting of 'megaforms'. He notes the '"ad-hoc" proliferation of ill-related, relatively isolated, free-standing objects, which invariably go to make up the 'non-place' agglomeration of the contemporary urban environment' (ibid.: 45). Here, Alex Wall's (1999: 233) thinking around the 'urban surface' is also productive. He suggests that we look at projects that 'signal a shift of emphasis from the design of enclosed objects to the design and manipulation of larger urban surfaces' and that act as the 'connective tissue that organizes not only objects and spaces but also the dynamic processes and events that move through them'. Wall asks that we consider the 'extensive and inclusive ground-plane of the city' that 'organizes and supports a broad range of fixed and changing activities in the city'. I argue that in order to achieve the desired contiguity between buildings and cities, it is important to think not just of the ground but also of the vertical surface of the building.

Specifically, it is the doors, windows and loggias (as well as niches and aediculae, or screens, projections and walls) that matter.[6] In 'The Decorum of Doors and Windows, from the Fifteenth to the Eighteenth Century', Kohane and Hill (2006) explain that these elements were historically conceived to attribute to buildings a sense of order, decorum and animation, which not only allowed buildings to fit into the order of the city, but it also encouraged citizens to sense correspondence between buildings and their own bodies. However, the surface elements listed previously exceed their social and corporeal consequences and they can be considered to articulate urban 'effects', of which I shall now explore three, as follows.

The first effect of urban surfaces is the construction of the theatrical urban experience. Observable in the National Library of St Mark's in Venice by Renaissance architect Jacopo Sansovino, the loggias not only create an experience of the urban realm as a drama to be witnessed, but they also produce a backdrop for the urbanity to unfold as a theatrical act (Johnson 2000). There is another facet to this. Architectural historian Karsten Harries (1990: 23) argues, through the writings of nineteenth-century French architect Charles Garnier, the architect of the Paris

Opera: 'Wherever two or three people gather, there is theater, at least in principle'. In fact, Garnier argued: 'To see and to make oneself be seen, to understand and to make oneself be understood, that is the fated circle of humanity; to be actor or spectator, that is the condition of human life' (Garnier, cited in Harries 1990: 23). This suggests a dynamic interchangeability between audience and spectator and a mode of theatricality that is relational and shifting, thereby making space for vitality in urban life.

The second effect of urban surfaces is the formation of shared territories, or the space of encounter between the public and the private. Giovanni Maciocco (2014: 2) uses the word 'territory' to diminish the dichotomy between city and architecture, calling it the 'intermediate space', a system of reciprocal relations which establishes an 'aperture, otherness, a third character, favourable towards mediation and transformation'. Maciocco (2014: 1) sees territory as the 'space in which the city of places re-emerges in the city of flows'. This means that the territory is where the locatedness of occupation begins to emerge. Maciocco also considers the territory as 'urban potential' (2008: 7), where 'new modalities of public space may be experimented, [which] are the counter-spaces of the metropolis' (ibid.: 15) beyond the imperatives of logic and commodification. This is evident in Andrea Palladio's Palazzo Chiericati, Vicenza (1551–54), where an extra four meters of public land was acquired for the building and, in return, the ground floor loggia was gifted back to the public. Because of this, the 'city gained a long covered walkway, running the length of the building, which to this day is a major meeting place for the citizens of Vicenza' and 'Chiericati gained a much larger first floor as he was able to build over the walkway on the upper level'; thus, Palladio created a 'wonderful synergy between public and private space' (Goodwin 2009: 12).

The third effect of surfaces is as 'event'. Fiona McLachlan (2006: 192) explains that for Robert Venturi, the 'contradictory demands of inside and outside, private and public, should be accommodated within the façade, not necessarily resolved, but expressive of any contradiction or discord'. Indeed, in *Complexity and Contradiction*, Venturi (1977: 86) states that the:

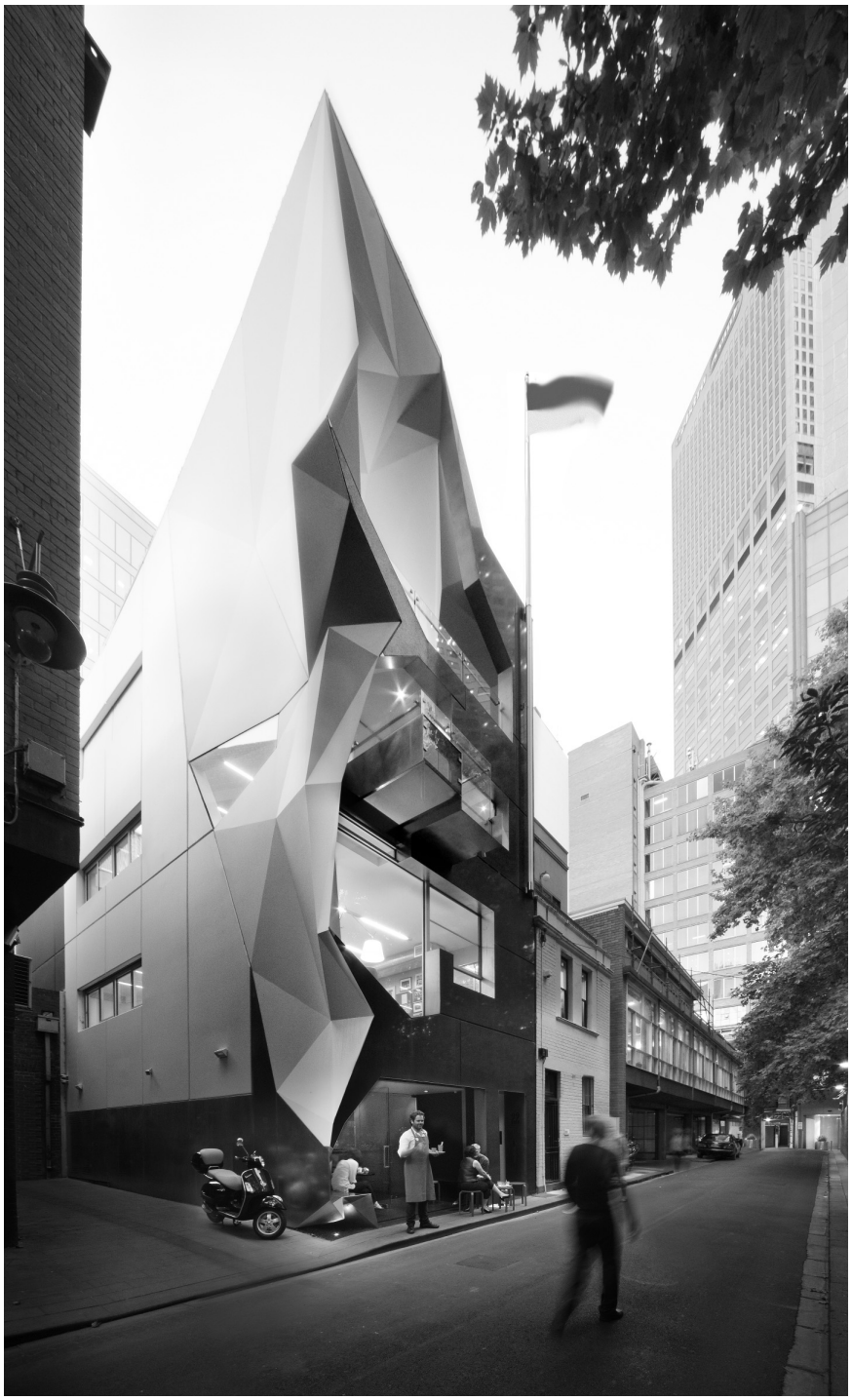
> wall – the point of change becomes an architectural event. Architecture occurs at the meeting of interior and exterior forces of use and space . . . Architecture as the wall between the inside and the outside becomes the spatial record of this resolution and drama. And by recognizing the difference between the inside and the outside, architecture opens the door once again to an urbanistic point of view.

Venturi uses the terms *event* and *eventual* in the book several times to express the unexpected or the exceptional but mostly to suggest that creating a sense of vitality and complexity in architecture is a theatrical event that needs us to bear witness. The emphasis on event highlights action over representation, performance over the stabilisation of meaning. Venturi repositions the object/ive of architecture as the production of this wall/event, and, in so doing, redefines architecture as *always* urban.

The Monaco House (2007) in Melbourne, by Robert McBride and Debbie-Lyn Ryan of McBride Charles Ryan Architects, is a perfect example of the use of surface to shape public life. This is a four-storey building on a pedestrian lane called Ridgway Place, at the east end of Melbourne's Central Business District. More specifically, it sits on a corner that is created by a small service lane that leads in from Ridgway Place (see Figure 8.1A). McBride Charles Ryan (2007) claim that the 'process of the aggregation of the Melbourne's allotments is now almost universally seen as a process which diminishes urban quality and diversity. There is now an earnest attempt, even in large block developments, to reintroduce fine grain urbanism that has been lost to the city'. The architects characterise the building as diminutive, and no bigger than a 'postage stamp', given that the site is just over 6 meters in width and 17 meters in depth, with a footprint of approximately 102 square meters (McBride Charles Ryan 2007).

Lacking real frontage, I find the building is not an easy find. It slowly materialises as I walk up to it. It has a narrow frontage and almost no foreground. The folded form of the corner is the first thing I see. The folding seems dynamic, as the faceted corner folds into and up into a buoyant folded form, which seems to rise up without much effort (see Figure 8.1B). The folded angular edges that catch the sun also hold the shadows that give the building a discernible identity. The folds also echo the fact that building is experienced as a series of discrete fragments. I experience the Monaco House by *looking up* and not by *looking at* it. I am encouraged to look up as the folded corner expands into the front. As I look up, I see projecting and receding balconies (and a window). As discussed by Kohane and Hill (2006), the theatricality of these elements is written into their conception. However, it is the soffit of the projecting balcony that really catches my eye: this is a theatrical element that is not obvious. My eyes are blinded by the metal-clad punctured soffit, which catches the light and reflects it back to my eye, deflecting my gaze, yet constantly drawing it up. Meanwhile, at the ground floor level, the folded corner shapes itself into a canopy, stretching deep into the building. This forms the ground floor café, a space that visibly supports public life. The urban surface is not just an external feature of the Monaco House. This is very much a Venturian event, wherein the rise and fall of the faceted surface is actually echoed in the interior spaces, maintaining a dialectical tension between inside and outside.

The BHP Billiton Headquarters (2004), by Lyons Architects, on Collins Street in Melbourne CBD, commands a greater street presence. It departs from the commercial architecture typology of the 80s and the 90s, which was characterised by the tower and podium or the tower and plaza model. Michael Ostwald (2004) explains that this building (along with other recent mid-rise buildings in Melbourne) is a 'horizontally attenuated' tower that meets the ground directly. In such context, asking where the wall stops and urban surfaces begin becomes meaningless. The building fights the representational limits of glass. Throughout modernity, glass has been either a cold and impenetrable membrane or a reflective refracting crystalline object. BHP Billiton Headquarters 'reframes' the limits of



(A)

Figure 8.1 A) Corner view, Monaco House (2007), Melbourne, by McBride Charles Ryan Architects, photo provided by McBride Charles Ryan Architects, photographer: John Gollings. B) View of balconies, Monaco House (2007), Melbourne, by McBride Charles Ryan Architects, photo provided by McBride Charles Ryan Architects, photographer: Trevor Mein.

(B)

Figure 8.1 (Continued)

glass. The curtain wall seems to be 'torn' and contoured, to evoke cuts, folds and lifts, akin to a stiffened textile (Figure 8.2).

The curtain wall also drops down into two layers of overlapping yet staggered canopies. This, combined with the ground plane that steps back and forth, articulates four different kinds of entries to the building. Above all, it creates recesses

Figure 8.2 BHP Billiton Headquarters (2004), Melbourne, Lyons Architects, photo provided by Lyons, photographer: John Gollings.

to recede into and dwell within (Figure 8.3). As I walk down the street on a rainy day, I am led into and out of these recesses and canopies, bumping into people carrying umbrellas. Nevertheless, my movement is guided by the fact that the canopies rise up to suggest slower movement at the entrances and dip down to articulate faster movement in between. This is a commercial building that lends itself to the people and the public realm that gifts to the city a shared territory of passage and encounter.

As I walk into the building, I notice that the entrances and canopies affect the contours of the lobby. The entrances protrude into the space of the lobby. One can in fact see and feel the layered canopies. The polished floor of the lobby augments this effect, as it collects and multiplies the reflections of the city. While I am somewhat disoriented, I realise that this effect is also applicable to the exterior. The reflections on the glass canopy, seen from the outside, produce reflections that make me feel as if I am in an 'interior' that is also populated by reflections of the exterior (cars and buses and people on the opposite side of the street). The interior and the exterior can no longer be pulled apart. These partial and fragmented reflections of the city are further interiorised in the mural made of die-cast aluminium tiles installed in the lobby. Ostwald (2004) suggests that in the mural, 'surfaces of the parallelogram-shaped tiles are highly polished while others are textured in such a way that from a distance the otherwise flat wall presents an illusion of spatial complexity', evoking axonometric views of a city. This, he

Figure 8.3 Looking up from under one of the canopies, BHP Billiton Headquarters (2004), Melbourne, Lyons Architects.

Source: Anuradha Chatterjee.

feels, echoes Lyons's City of Fiction installation for the Venice Architecture Biennale in 2000, which was composed of images of Lyons's projects on brick-sized postcards that were organised as an 'abstracted image of the contemporary city' (Lyons Architects 2000).

The Nigel Peck Centre for Learning and Leadership (2008) in Melbourne, by John Wardle Architects, features a façade as a long undulating three-part structure on Domain Road (Figure 8.4). I focus on the central part of the building, which can be read as the sum total of the top (the framed glazed bays), the middle (glass façade of the library) and the base (brick seating outside). The top catches my eye: it consists of multiple glazed frames that are juxtaposed in a Mondrianesque manner. As the frames are of different thicknesses, the whole composition dances in and out, off the vertical plane. The juxtaposition of the glazed frames means that I see the Domain Gardens across the road as simultaneously doubled and fragmented. The foliage is actually a very important part of the urban context, which is constantly broken, shifted and repositioned on the façade, creating a curated experience of the landscape. I witness the landscape twice. The façade is simultaneously transparent *and* opaque. The glass is frit-patterned, containing pixelated impressions of the fleur-de-lis of the School crest. However, as I walk towards it, the patterns appear *and* disappear. In fact, they frequently coalesce with the reflections of the landscape, optically 'thickening' the glass surface. The opacity of the façade varies with the changing angle of shadows cast by the varying depth of the frames. The building engages you: this is not normally the case for glass facades (and curtain walls) that are entrenched in the phenomenon of distraction and mass media.

Figure 8.4 Glass façade, Nigel Peck Centre for Learning and Leadership (2008), Melbourne, John Wardle Architects, photo provided by John Wardle Architects, photographer: Trevor Mein, meinphoto.

My experience of the interior is also mediated by these framed, glazed bays. As I head up to the first floor and walk toward the glass wall, I realise that the bays engender a sense of interior occupation. Here, the typology of the window is combined with that of a balcony to create an urban threshold that seems dynamic. The bays are quite purposefully disconnected from the interior, in the sense that their composition is not choreographed to the floor slabs. I am, therefore, able to stand pressed up against the glass and quite literally suspended between the floor slab and the street. Furthermore, the frames that are neither continuous nor choreographed create an abstract pictorial space of the landscape into which I am thrown, away from the building. The framed bays undulate vertically as well as horizontally. This makes the ground floor even more interesting: there are two adjacent but distinct thresholds. The interior is remarkable for its continuously folding study space that extends all the way up to the glass wall, but this does not end here. The interior is mirrored on the outside, in the continuous brick seating that roughly echoes the profile of the furniture inside. The interior and the exterior seating are sheltered, shaded and framed simultaneously by the soffit line of the projecting bay. The doubling and the folding of the experience of inhabiting the threshold makes a point about a learning culture that is as engaged with serious academic reflection as it is in the matters of the city. This is what makes possible the 'outward focused learning environment orienting its students toward the city' (John Wardle Architects 2008).

Conclusion

This chapter has considered the crisis of surface in architecture – the polarisation of surface and depth – through the negative reactions to Ruskin's writings, which almost exclusively referred to surface fragments from disparate buildings. Current scholarship in surface studies calls the previously stated dichotomy into question and argues that surface *is* substance and that there is no otherly substance that can be uncovered by peeling away the surface. These views echo Ruskin's writings, which suggest that architecture is the act of dressing an unadorned edifice. His ideas were grounded in a Carlylean philosophy of clothes that renewed the value of the soul as the substance of human existence, located and expressed autonomously through clothing. Ruskin's idea that architecture could be pure surface is full of potentiality that asks one to go beyond the literalness of Ruskin's theory and imagine other possible futures. Hence, it becomes possible to imagine buildings (past, present and future) as assemblages – of different typologies of surfaces. It becomes possible to imagine the building blocks of architecture as not limited to structural and spatial systems, but including surface modalities. To this end, this chapter refers to four surface modalities (Chatterjee 2014a), of which one is more closely examined – surface as having urban agency.

The urban agency of surface is identified as constituting: i) theatrical urbanity, ii) a shared urban territory, iii) an event that captures the tension between interiority and exteriority. This is explored through the study of three Melbourne buildings – Monaco House, BHP Billiton Headquarters and the Nigel Peck Centre for Learning and Leadership. The faceted and folded corner of the Monaco House

is choreographed to the projecting balconies to articulate a sharp vertical ascent, which creates a 'front' without a real frontage and space for a street side café. The BHP Billiton HQ curtain wall is manipulated to gift to the city a shared territory of passage and refuge. The building's reflective surfaces undermine the separateness of the building and the city, private and public. The Nigel Peck Centre for Learning and Leadership creates a threshold that can be inhabited simultaneously from within and without. This chapter shows that just as the conceptual categories of surface and substrate cannot be pulled apart, the inner life of the building may in fact be constituted by the public life of the city. This not only challenges the modernist distancing of the building from the city, but it also provokes a redefinition of the idea of occupation and the possibility of imagining architecture from outside in.

Notes

1 Isabelle Doucet and Kenny Cupers (2009: 1) define agency as that which defines 'how architecture enacts, how it performs, and consequently, how it might "act otherwise" or lead to other possible futures. This possibility underlies all questions regarding architecture's ability to be critical. Agency can be understood as the very vehicle of such drive or intention to create alternative worlds'. It is in this sense that the agency of surface is explored, as the creative capacity of surfaces in articulating alternative, but equally valuable, spatial experiences, relations, and systems. The word 'agency' indicates that surfaces are not just consequences waiting to be interpreted: they are designed, intended to have an effect and be inhabited.
2 This is notwithstanding the recent scholarship on nineteenth-century vision, which has been shown to be as invested in touch, texture, tactility, and hand as it is in seeing – see Tilley (2014).
3 See also Lightman (2000).
4 The term *tectonic* indicates that which has to do with building and construction as the mode of production. It refers to use of the term by Frampton (1996: 520), who argues that it indicates 'not only the structural component *in se* but also the formal amplification of its presence in relation to the assembly of which it is a part. From its conscious emergence in the middle of the nineteenth-century with the writings of Karl Bötticher and Gottfried Semper, the term not only indicates a structural and material probity but also a poetics of construction'. Frampton is inclined towards the tectonic over the scenographic. He therefore asks 'architects to reposition themselves given that the predominant tendency today is to reduce all architectural expression to the status of commodity culture' (ibid.).
5 The study of these buildings was funded by the Society of Architectural Historians Australia and New Zealand (SAHANZ) David Saunders Founder's Grant in 2008 for a project entitled *Touching the Surface, Looking for Substance – The Role of the Surface in Australian Architecture form 1990–2008*.
6 Kohane and Hill (2006) define: 'An aedicule was originally the architecture of the small shrine, a miniature temple that celebrated the statue of the deity within. At some point it was transferred to the opening in general, becoming the flattened "little portico"' (ibid.: 145) and niche 'as a type of opening, positioned and formed like doors and windows', which was 'meant to house a statue' (ibid.: 152).

References

Adamson, G. and V. Kelley. 2013. *Surface Tensions: Surface, Finish and the Meaning of Objects*. Manchester: Manchester University Press.
Amato, J.A. 2013. *Surfaces: A History*. Berkeley, CA: University of California Press.

Anon. 1853. Ruskin on architecture. *The Illustrated London News* 22, 3, 17 and 31(December): 467, 514–515, 602–604.

Anusas, M. and T. Ingold. 2013. Designing environmental relations: From opacity to textility. *Design Issues* 29(4): 58–69.

Benjamin, A. 2006. Surface effects: Borromini, Semper, Loos. *The Journal of Architectural Education* 11(1): 1–34.

Best, S. and S. Marcus. 2009. Surface reading: An introduction. *Representations* 108(1): 1–21.

Bruno, G. 2014. *Surface: Matters of Aesthetics, Materiality, and Media*. Chicago, IL: University of Chicago Press.

Burns, K. 2004. Optical surfaces: The limits and possibilities of illusionism at William Butterfield's All Saints' church (1849–59). In *Limits: Proceedings of the 21st Annual Conference of the Society of Architectural Historians Australia and New Zealand*, eds. H. Edquist and H. Frichot. Melbourne: Society of Architectural Historians, Australia and New Zealand, pp. 75–81.

Carlyle, T. 1983. *Sartor Resartus (Prophets of Sensibility: Precursors of Modern Cultural Thought)*, ed. H. Bloom. New York, NY: Chelsea House [originally published 1833–1834].

Chatterjee, A. 2014a. Surface potentialities. In *Surface and Deep Histories: Critiques and Practices in Art, Architecture, and Design*, ed. A. Chatterjee. Newcastle upon Tyne: Cambridge Scholarly Publishing, pp. 1–12.

Chatterjee, A. 2014b. Surface typologies, critical function, and glass walls in Australian architecture. In *Surface and Deep Histories: Critiques and Practices in Art, Architecture, and Design*, ed. A. Chatterjee. Newcastle upon Tyne: Cambridge Scholarly Publishing, pp. 151–168.

Cheng, A.A. 2009. Skins, tattoos, and susceptibility. *Representations* 108(1): 98–119.

Coleman, R. and L. Oakley Brown. 2019. *Surface Studies*. URL: www.surfacestudies.org [Accessed: 17 May 2019].

Colomina, B. 1994. *Privacy and Publicity: Modern Architecture as Mass Media*. Cambridge, MA: MIT Press.

Crary, J. 1988. Techniques of the observer. *October* 45: 3–35.

Crary, J. 1990. *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century*. Cambridge, MA: MIT Press.

Deleuze, G. 1990. *The Logic of Sense*. New York, NY: Columbia University Press.

Di Palma, V. 2006. Blurs, blots, and clouds: Architecture and the dissolution of the surface. *AA Files* 54: 24–35.

Doucet, I. and K. Cupers. 2009. Agency in architecture: Reframing criticality in theory and practice. *Footprint* 4: 1–6.

Eichinger, G. and E. Tröger. 2011. *Touch Me!: The Mystery of the Surface*. Zürich: Lars Müller Publishers.

Flint, K. 2000. *The Victorians and the Visual Imagination*. Cambridge: Cambridge University Press.

Flusser, V. 2000. *Towards a Philosophy of Photography*. Reaktion: London.

Forster, K.W. 2005. *Surface Tension in Modern Architecture*. Lecture: Yale School of Architecture, Yale University, 10 October.

Frampton, K. 1996. Rappel à l'ordre: The case for the tectonic. In *Theorizing a New Agenda for Architecture: An Anthology of Architectural Theory, 1965–1995*, ed. K. Nesbitt. New York, NY: Princeton Architectural Press, pp. 515–528.

Frampton, K. 2010. *Megaform as Urban Landscape*. Urbana Champaign, IL: University of Illinois.

Frankl, F. 1960. *The Gothic: Literary Sources and Interpretations Through Eight Centuries*. Princeton, NJ: Princeton University Press.

Gibson, J. 1986. *The Ecological Approach to Visual Perception*. New York, NY: Psychology Press.

Giedion, S. 1941. *Space, Time and Architecture: The Growth of a New Tradition*. Cambridge, MA: Harvard University Press.

Goodwin, K. 2009. *Andrea Palladio: His Life and Legacy*. London: Royal Academy of Arts.

Harries, K. 1990. Theatricality and re-presentation. *Perspecta* 26: 21–40.

Hatton, P. 1992. The argument of the text. In *The Lamp of Memory: Ruskin, Tradition, and Architecture*, eds. M. Wheeler and N. Whiteley. Manchester: Manchester University Press.

Higgins, S. 1853. Classical columnar architecture and the *Stones of Venice*. *The Builder* 11(3 and 10 December): 722–724, 743–744.

Ingold, T. 2007. Materials against materiality. *Archaeological Dialogues* 14(1): 1–16.

Ingold, T. 2011. *Being Alive: Essays on Movement, Knowledge and Description*. Abingdon: Routledge.

Jay, M. 1988. Scopic regimes of modernity. In *Vision and Visuality*, ed. H. Foster. Seattle, WA: Seattle Bay Press.

Johnson, E.J. 2000. Jacopo Sansovino, Giacomo Torelli, and the theatricality of the piazzetta in Venice. *The Journal of the Society of Architectural Historians* 59(4): 436–453.

John Wardle Architects. 2008. *Australian Institute of Architects: Nigel Peck Centre for Learning and Leadership by John Wardle Architects*. URL: http://dynamic.architecture.com.au/awards_search?option=showaward&entryno=2008037709 [Accessed: 1 January 2015].

Kohane, P. and M. Hill. 2006. The decorum of doors and windows, from the fifteenth to the eighteenth century. *Architectural Research Quarterly* 10(2): 141–155.

Lawrence, A.R. and A. Schafer. 2007. Expanding surface. *Praxis: Journal of Writing and Building* 9: 1.

Leatherbarrow, D. and M. Mostafavi. 2002. *Surface Architecture*. Cambridge, MA: MIT Press.

Lightman, B. 2000. The visual theology of Victorian popularizers of science: From reverent eye to chemical retina. *Isis* 91(4): 651–680.

Lupton, E. 2002. Skin: New design organics. In *Skin*, ed. E Lupton. New York, NY: Princeton Architectural Press, pp. 29–42.

Lyons. 2000. *Lyons: 'City of Fiction'*, 7th International Architecture Biennale, Venice. URL: www.lyonsarch.com.au/city-of-fiction-7th-international-architecture-biennale-venice/ [Accessed: 1 January 2015].

Maciocco, G. 2008. The territorial future of the city. In *The Territorial Future of the City*, ed. G. Maciocco. New York, NY: Springer, pp. 1–27.

Maciocco, G. 2014. Editorial. *City, Territory and Architecture* 1(1): 1.

McBride, C.R. 2007. *ArchDaily: Monaco House/McBride Charles Ryan*. URL: www.archdaily.com/8039/monaco-house-mcbride-charles-ryan [Accessed: 17 October 2016].

McLachlan, F. 2006. Dancing windows: The restless façade. *Architectural Research Quarterly* 10(3–4): 191–200.

Moore, C.H. 1924. Ruskin as a critic of architecture. *Architectural Record* 56(August): 117–122.

Newey, K.M. 2009. Speaking pictures: The Victorian stage and visual culture. In *Ruskin, the Theatre, and Victorian Visual Culture*, eds. A. Heinrich, K.M. Newey and J. Richards. Basingstoke: Palgrave Macmillan, pp. 1–15.

Ostwald, M. 2004. Towering transparency. *Architecture Australia* 93(5). URL: http://architectureau.com/articles/towering-transparency/ [Accessed: 1 January 2015].

Pevsner, N. 1963. *An Outline of European Architecture*. Hammondsworth: Pelican Books.

Ruskin, J. 1903–1912. *The Works of John Ruskin*, Library Edition, 39 vols., eds. E.T. Cook and A. Wedderburn. London: George Allen.

Schwarzer, M.W. and A. Schmarsow. 1991. The emergence of architectural space: August Schmarsow's theory of 'Raumgestaltung'. *Assemblage* 15: 48–61.

Taylor, M. (ed.) 2003. Surface consciousness. *Architectural Design* 73(2): 4–91.

Tilley, H. (ed.) 2014. The Victorian tactile imagination. *Interdisciplinary Studies in the Long Nineteenth Century* 19. URL: www.19.bbk.ac.uk/87/volume/0/issue/19/ [Accessed: 19 May 2019].

Unrau, J. 1978. *Looking at Architecture with Ruskin*. London: Thames & Hudson.

Venturi, R. 1977. *Complexity and Contradiction in Architecture*. New York, NY: Museum of Modern Art.

Wall, A. 1999. Programming the urban surface. In *Recovering Landscape: Essays in Contemporary Landscape Architecture*, ed. J. Corner. New York, NY: Princeton Architectural Press, pp. 232–249.

Zevi, B. 1974. *Architecture as Space: How to Look at Architecture*, trans. M. Gendel. New York, NY: Horizon Press.

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