

EDITORIAL / SIMON TWOSE, JEANETTE BUDGETT,  
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## On water: The aqueous in architecture

INTERSTICES 24

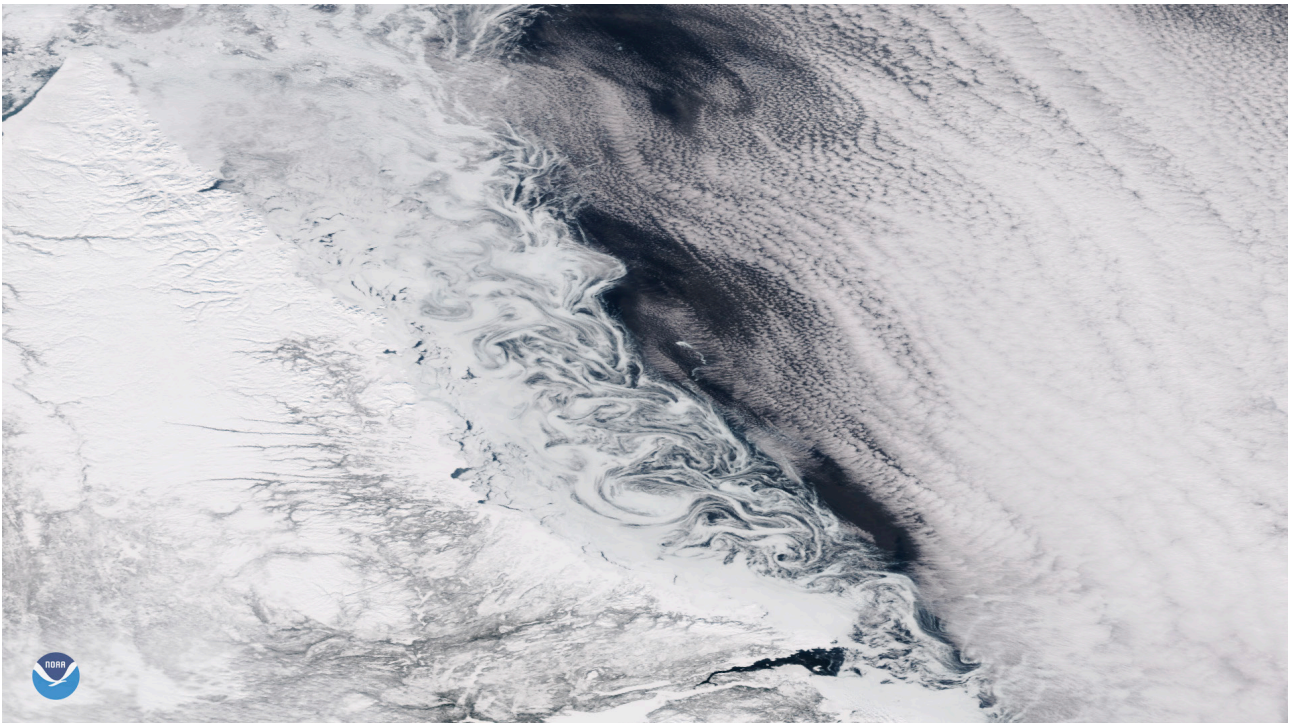


Fig. 1 Swirling ice eddies in the  
Labrador Sea, 12 March 2018  
[National Environmental Satellite,  
Data, and Information Service]

Water makes its presence felt, and increasingly so. It emerges from our mouths in vaporous clouds, bulges as the moon encircles the earth, inundates cities. Water's actions, and its intelligence, are the focus of this issue, which explores contemporary understandings of the aqueous in architecture. Water's influence crosses a broad range of scales, from infinitesimal waves shimmering in subatomic worlds to vast gravitational ripples in space-time, from the planet to circulating atmospheres, from bodies to their cellular fluid reservoirs. With such an aqueous superabundance underpinning existence, this issue collects thinking on water's imaginative, metaphorical, and material forces, its schlieren-like dynamics, its capacity to unsettle, or to connect culturally. So the issue explores multiple engagements with the aqueous as it surfaces within, about, and as architecture.

Water has had, and continues to hold, a sublime influence on built and inhabited contexts. It can literally sweep buildings from their foundations, threaten to inundate coastal settlements, or insinuate itself within walls through capillary action, and in doing so, bleed away architecture's fiscal worth. And such fluid dynamics are of much contemporary concern in the Anthropocene, where we are both subject to, and actant in, this unsettledness. As Susan Ballard writes, we are

“ecological agents, just like the wind, the tides, the rivers, and volcanoes.”<sup>1</sup> This co-authoring of our planetary fate, one imbricated with water’s turbulent restlessness, is also intimately tied to our very being, for our bodies are themselves aqueous vectors. As Astrida Neimanis notes, while we may have evolved from the ocean, we have partitioned that ocean off within ourselves: “blood, bile, intracellular fluid [are. . .] a small ocean swallowed, a wild wetland in our gut; rivulets forsaken making their way from our insides to out, from watery womb to watery world: we are bodies of water.”<sup>2</sup>

An aqueous interconnectedness within us, and around us, is shared within indigenous knowledge too, with kinship between humans and more-than-human entities and systems forming, as Amanda Monehu Yates writes in the context of te ao Māori, “a living-world-semblage, where sky, sea, mountains, trees, people are part of a relational *whakapapa*.”<sup>3</sup> At the level of the aqueous, one explicit example is the legal personhood of Whanganui awa, with the river itself holding legal status as a person with rights to its own (mediated) voice and personal care. Important in te ao Māori too, is the concept of reciprocity, or mutual care, in the dialogue between natural entities, a notion referred to as *utu*, in which, as Rob Barnett describes, “is the foundation for the valuation of lives; it accords all beings the same ontological status.”<sup>4</sup> Notions of interconnectedness within indigenous epistemologies span people, land, sea, flows of space, time, matter, and culture—in a continuous, dynamic web of relationships. Oceanic water is a particularly significant medium of cultural interconnection and intercourse within the Pacific, tying kinship to planetary scales via atolls, islands, and submerged continents like Zealandia. Water then places many of the distinctions and fixities we value into soluble relation; it permits us to think the transitory and the in-between. So does this issue seek to open architecture to such solubility.

### Invited paper

We commence this issue with an invited paper by Martin Schwartz, Associate Professor at Lawrence Technological University in Detroit. The author of numerous books and articles on the role of natural light in Scandinavian architecture, amongst other topics,<sup>5</sup> Schwartz turns his attention in a paper titled “Why Can’t Architecture Be More Like Water? Oceans, Lakes, Ponds, Fountains, Pools, Puddles, Droplets, Multiple-Meanings, Complements, Paradoxes, and Metaphors, 1957–1994,” to water as an element capable of mobilising sensory and transformative characteristics of architecture. The essay draws on Charles W. Moore’s ongoing interest in water and architecture, a focus Schwartz experienced first-hand with Moore, having supervised his Master of Architecture thesis in 1977, asking him to collaborate in the design and drawing of a series of ‘water emblems,’ intended to illustrate *Water and Architecture*, a book published posthumously after Moore’s death in 1993. Moore’s interest in water, as Schwartz notes, ran across his entire academic and professional careers with a first version of *Water and Architecture* titling a doctoral thesis completed at Princeton University in 1957 under the supervision of Jean Labatut. The thesis imagined through an engagement with water’s characteristics and their use historically in architecture, as Jorge Otero-Pailos has written, how its redeployment might then playfully “moisten” an “arid” modernism.<sup>6</sup> The gesture was one amongst a number of moves designed to bring architecture into creative contact with its historical and regional legacies, legacies otherwise tempered by prevailing

international modernist dictates. Backgrounding Schwartz's account of "Why Can't Architecture Be More Like Water?," then, is both an inauguration of the dissolve between history and architecture that came to inform American architectural postmodernism, but also, again as Otero-Pailos has written, a calling up of water as key to an experiential immediacy that fed into phenomenological approaches to analysis and design—a link made by Moore in his introduction into architecture of the work of Gaston Bachelard, specifically *Water and Dreams: An Essay on the Imagination of Matter*.<sup>7</sup> What Schwartz's elegant essay reminds us is the difficult to pin down, the at times paradoxical, attributes of water that compelled Moore to find in it defining "metaphors for architecture" itself.

### Peer-reviewed section

Following Scharzt's invited paper are seven peer-reviewed essays variously responding to architecture as the carrier of aqueous qualities. These range across cultural and historiographical domains and chart the diverse ways 'architecture' and its broader contexts are in relation with water, pragmatically, poetically, aesthetically, cosmogonically. The essays take us into detailed worlds of concern, collectively providing multiplex accounts of the elemental primacy of the aqueous for human and non-human existence.

The first of these essays, "*Fonua as Fakafelavai (Intersection) of 'Uta (Land) and Tahi (Sea): Material Arts of Tufunga Langafale (Land-Architecture or House-Building) and Fo'uvaka (Sea-Architecture or Boat-Building)*," by Sēmisi Potauaine and Hūfanga -He-Ako-Moe-Lotu, tells of the defining intersection of land and sea in Tongan life and the rich overlap of human habitation and voyaging. Key to defining this intersection for Potauaine and Hūfanga -He-Ako-Moe-Lotu are the philosophies of *fonua* (or nourishing ground), which asserts the holistic intertwining of land and sea, people and places of origin, and *Tāvāism*, which emphasises the indivisible synthesis of *tā* (time) and *vā* (space). Seen through these philosophies defining shared Tongan reality, the essay offers an account of a range of boat-house amalgams and their importance in customary social and spiritual life in this part of Oceania.

Living at Moreton Bay off the coast of Brisbane, Australia, landscape architect Kate Church explores, in the second of the peer-reviewed essays, the nature of "embayment," where saline conditions meet fresh water, the latter a carrier of terrestrial silt born seaward by topography and intense subtropical rainfall. Seeing the bay itself as a 'constructed' waterscape, one which is stressed both naturally and in terms of human modification, Church proposes that greater recognition is needed in this co-constituted ecosystem of dynamical change. Such recognition underpins, she suggests, the need for a specific design sensitivity to flux and uncertainty. Exploring themes of transition, convergence, and variability, Church traces the evolution of a socio-natural "scape" and calls for sensitive and experimental design logics as a means of maintaining a responsive reciprocity alongside, and within, the waters of Moreton Bay.

Where Kate Church might relish swimming in the silty waters of Moreton Bay, Autumn Dsouza, in the third of the peer-reviewed essays, is concerned with floating amongst the waves washing Hikkaduwa. Situated on the southern coast of Sri Lanka, the former village, now a booming surf and tourist destination, Hikkaduwa continues to manifest extractive traces and environmental

degradation arising from its previous colonial appropriation. Against this backdrop, Dsouza proposes a series of entrancing design interventions that employ the “inter-scalar objects” or what scholar of science and technology, Gabrielle Hecht, sees as tools for mediating between diverse scales such as evolutionary deep time and its more immediate human correlate, or between divergently scaled geological and political domains. For Dsouza, inter-scalar objects usefully focalise, and make analysable, the divide between colonial history and contemporary design approaches. Tracing, in one example, the extraction of lime from coral reefs at Hikkaduwa for use in colonial construction, she follows a contemporary redeployment of this material in the production of concrete “reef balls” manufactured by the Tokyo Cement Group. Referring to Anna Tsing’s notion of “feralities” (as those escalating entities falling between the wild and the domesticated), Dsouza sees in such material artefacts a reversal of extraction, one that leads to reef reforming. Explored through design projects engaging with eight inter-scalar objects, Dsouza offers a blueprint for regenerative design practices locally responsive to the shifting and patchy conditions of anthropogenic climate change.

While both Dsouza’s and Church’s essays gauge the ongoing health of marine and human ecosystems relative to shorelines, rich as they are in cultural worldviews, pre-colonial legacies, and colonial inequities, Dimitris Hartonas, in the essay “Flows to Bytes: Digitising Naval Space,” leaves specific shores behind in his attendance to the hydrodynamics of naval architecture. Considering flow patterns and aquatic performance of vessels historically via model ships and early digital simulations, he charts the evolving quest to master the protean dynamics of water and its traversing bodies. Looking to aquatic testing places like manoeuvring tanks and lakes, the essay focuses on the British Navy’s Admiralty Experiment Works specifically, where, in the 1950s, complex systems for recording and predicting flow patterns were developed. Of note for Hartonas was the superimposition in such testing places of Cartesian coordinate mapping by way of chronophotographic recording and then computation, with water in these spaces succumbing to “a positional system” seeking to master its “liquid intelligence.” In this way, “Flows to Bytes” tells the story of an intersecting of architecture, chronophotography, computers, and water, and the quest to capture and profit from aqueous cognition.

Moving inland, Hannah Strothmann, in “Changing Currents: Industrialising Water and Hydrosocial Experiences in Nineteenth-Century Berlin,” considers historical accounts of water courses in continental urban places. Attending to changing social relationships accruing with the river Spree in its passage through Berlin across the nineteenth century, she foregrounds how industrialisation brought to the fore the notion of “modern water,” an abstraction deployed in the management of, and profiting from, aqueous flows. As Strothmann notes, “modern water” is itself a complexly evolving ‘substance,’ one that also came to enact a “hydrosocial” demand reconfiguring the river and its edges as leisure zones. The latter, in turn became sites for contesting and reconfiguring class hierarchies, gender norms, and socio-spatial order more broadly. As Strothmann argues, an attendance on “water understandings” and their role in socialisation offers an important nuancing of historical accounts depicting urban development.

Gianluca Drigo, in the sixth peer-reviewed essay, titled “Taming the Leviathan: The Epic of the Domestication of the World and Peter Behrens’s Gibraltar Dam,”

explores humanity's will to dominate nature through monumental water infrastructure projects. For Drigo, radical infrastructural visions, such as Herman Sörgel's Atlantropa, in which the Mediterranean Sea was to be partially drained via hydroelectric dams, or Joseph Stalin's schemes to drain vast swamps in the Northern Soviet Union in pursuit of additional arable land, offer monumental expressions of humanity's ambition to master water. As he puts it, what is sought is a "new world" brought about by "the redesign of its hydrography." On the other hand for Drigo, beyond the hubris of such pursuits of world-aquatic-mastery, the challenge remains to reimagine water infrastructures such as dams differently, to see in them perhaps, evolving relationships between human and more-than-human actors. While the essay notes an ongoing perpetuation of modernist ideology in contemporary Anthropocene discourses, it is incumbent on us to ask: "Is the violent subjugation of the Leviathan the only possible destiny for infrastructural form and symbolic content, or can we imagine more nuanced relationships with water as an active agent?"

Turning inland again, though maintaining a convoluted link to the Mediterranean, Jack Wu and Andrew Douglas ask in "Aqueous Place in the Architecture of Luis Barragán: Dark Pink and surface-Other" what role water plays in the Pritzker Prize winner's architecture. Recounting a touristic encounter with two former residences of Barragán, now house museums, in *Ciudad de México*—the *Casa Ortega* (1940–42) and the *Casa-Estudio Luis Barragán* (1947–48)—they construct parallel chronicles seeking to gauge the presence and conditionality of the aqueous manifested there. Each writing from different generational orientations, and retelling tours of each house nominally to the other, the resulting experimental narratives seek to find wellsprings for the aqueous at home for Barragán via touristic and 'outsider' cultural windows, a process at once 'constructed,' yet, they suggest, valid in an elemental manner apposite to these encounters.

Across these essays then, the aqueous is found to be a perhaps unexpectedly useful critical lens for engaging with built and 'natural' environments, with water particularly—that most ubiquitous and mobile of planetary elements—persisting, not as a self-evident given, but as a substance richly reworked and constructed culturally, aesthetically, and imaginatively. How water shows up in diverse phenomena tells how the broader context of such phenomena may in fact be practised, lived, and, as a result, more deeply understood.

### Peer-reviewed postgraduate creative design research projects

In each issue, we call for recently completed creative research projects internationally and select projects for publication by anonymous peer review, with no requirement that they correspond with particular issue themes. In this issue we are delighted to showcase three thesis-year projects arising with the Master of Architecture (Professional) degree in Aotearoa New Zealand, two from Te Herenga Waka, Victoria University of Wellington, and one from Waipapa Taumata Rau, the University of Auckland.

In the first of the creative research papers, Hannah Brodie in a project titled *Spatial Momentums*, explores—with supervisory support by Simon Twose—a disruption to the typical trajectory of sketch to design proposal, asking: "What if architecture were to remain a sketch, with the vitality of an open drawing?" Pursued through a method she describes as "performative drawing," and

unfolded across three experimental “acts,” the research seeks to capture how thought may become action, and in turn be spatialised. Large-scale, floor-based drawn surfaces permit the experience of inhabiting drawings, themselves abstracted gestures rather than illustrative as routinely demanded of ‘architectural drawing.’ Reimagined as an urban street site, the drawings, analogous with plans, are in turn inhabited by small-scaled building models, themselves imagined as actors rather than fixed edifices. Through iterative cycles, Brodie seeks, not a ‘resolved’ architecture, but qualities of irresolution, incompleteness, and a bypassing of fixity, qualities critical to the openness of the sketch.

In project research similarly structured according to acts, Beth Williams, in a work titled *The Keeper of My Memories*, attends to the possibilities offered by narrative-based architectural approaches. With supervisory support by Jan Smitheram, and an appeal to the work of Perry Kulper and Andrew Bernheimer, amongst others, Williams offers a fairy tale-like architecture linking domestic inhabitation with the fantastical and densely reimagined. Spanning dollhouse, to house, to film set, the escalating scale of the settings provides the means for embodying each preceding narrative into what follows. As variable acts of remembering and imaginative remaking of such reveries, the result is a series of supersaturated and superabundant images overflowing the normative limits of inhabitation, all in pursuit, as Williams suggests, of “a magical home.”

The nature of home is also the subject of the last of the research projects offered in this issue. In a work titled *To the Lighthouse*, Leith Macfarlane gauges more disturbing dimensions of inhabitation—the all too prevalent occurrence of domestic violence. Asking how an architectural lens might give visibility to, and ultimately hope of reprieve from, such violence, Macfarlane—with supervisory support by Andrew Douglas—offers a twofold project, one that initially sought to give expressive form to the affective landscape attending abuse. Paralleling the production of what Macfarlane sees as “dark machines”—artefacts drawing on Elaine Scarry’s landmark text, *The Body in Pain: The Making and Unmaking of the World* (1987)—a turn away from “unmaking” towards hope as “world-making” takes the form of neighbourhood resocialisation via street-based communal facilities capable of diffusing the isolated at-home-ness—that condition giving cover to domestic violence. Anticipating a post-carbon, post peak-car vacancy within streets, but also ‘street’ as protest setting, four luminous edifices—the laundry/garden, the bus stop/waiting tower, the play room, and the caretaker’s cottage—take up residence in a fictive roadway compiled from Macfarlane’s previously remembered home locations. Foregrounding acts of collective care as antidotes to violence, the resulting lighthouse-like structures—themselves bearers of intricate care—offer one version (of which many variables are possible neighbourhood by neighbourhood) of hopeful world-making.

### Non-peer-reviewed articles

The issue culminates with three non-peer-reviewed contributions, each in their way tied to the aqueous. Mark Jackson offers a review of *The Architecture of the Bight of Biafra: Spatial Entanglements*, by Joseph Godlewski. The book offers a history of the coastal bight of Equatorial Guinea in West Africa, a variegated shoreline rich in river deltas, swamps, and creeks that sustained, across many centuries before colonial contact, the proto-democratic governance of the Igbo and Èfik peoples (amongst a range of ethnic groups within the Bight), who

resisted centralised rule, and who favoured instead the governance of village and town republics via counsels of elders. Yet the Bight became, through colonial contact, a key supplier of people within the Atlantic slave trade system, while itself resisting territorial colonisation. Jackson, in his review of Godlewski's incredible charting of these circumstances, offers less a chronicling of the book's content, than an unpacking of the positions from which we read cross-cultural circumstances, temporalities, and histories. Digressing via Jacques Derrida and Michel Foucault, amongst others, Jackson looks to the ontological diagrams at work in such encounters, diagrams that determine what can be seen and accounted for epistemologically. As he asks, what forces "produce our knowing selves," and what blindnesses accompany any form of knowing?

In "Experiencing Water as a Spectator: The Art Practices of Innovative Mid-Century Women from Southern New Zealand," Megan Rule turns to the practice of often overlooked women architects in Aotearoa New Zealand. Focusing on the watercolours of Monica (Ford) Barham (1920–1983), the first female architect in the Otago and Southland regions, she considers how such images tell the story of "water, weather, and/or climate," delving into the techniques Barham used and their broader linkages with artists practising in parallel at this time. Rule in her essay is concerned to see in Barham's attendance on weather and water-ness, a particular sympathy with climatic differences within Aotearoa, but also, via the art historical considerations of Francis Pound, the unique way landscape has been spectacularised and framed in the pursuit of differentiation, identity, and belonging here.

In the last of the non-peer-reviewed contributions Jack Wu reviews the travelling exhibition, *Derek Jarman: Delphinium Days*, which was installed at the Gus Fisher Gallery in Tāmaki Makaurau Auckland in September 2024. The exhibition, which showcases the drawing, painting, writing, and film works of Derek Jarman (1942–1994), and was curated by Lisa Beauchamp, Aaron Lister, and Michael Lett, appeared in the City Gallery Wellington after its run at the Gus Fisher Gallery. In his review, Wu reflects on the shifting circumstances that frame reception of Jarman's work—queer protest contexts of its production across the 1980s and 1990s in the UK, and its appearance here in Auckland and Wellington in less strident terms—noting how its arrival here completes a less known return to the country of his father's birth. For Wu, this somewhat covert interlacing is, in key ways, indicative of the diverse connections Jarman's work cultivated and continues to generate—the cross-generational uptake of his vision and challenge, at once tied to the HIV crisis and dire political homophobia present in the UK and here, but also the potential of his queer vision for newer generations who did not experience these circumstances in quite the same way. From amongst the justified anger and hurt that fuelled Jarman's work, Wu foregrounds a further political urgency—the need to find grounds for care—a quality beautifully evidenced in his Prospect Cottage, with its seaside garden a living protest against the nuclear power station at Dungeness on the Kent coast. As Wu asks at the conclusion of his review: "How do we sustain practices of care that are generative rather than merely reactive? What does it mean to make art, gardens, or communities in the face of loss?"



Fig. 2 Moon transits the Earth showing the Pacific Ocean below on 16 July 2015. Image taken by NASA's Earth Polychromatic Imaging Camera (EPIC) onboard the Deep Space Climate Observatory (DSCOVR), itself located at the gravitationally neutral, Lagrange point between the Earth and the Sun. [National Environmental Satellite, Data, and Information Service]

### And finally

In this issue of *Interstices*, we set out to consider how that most ubiquitous and abundant element on our planet and in our bodies—water (or some variant of it)—might shift thinking about architecture and its materialisation. More often than not, water in its various guises, when not thoroughly channelled or managed, catastrophically erodes built fixity. Still, we wondered how thinking in sympathy with the aqueous might carry thought into new territories. The idea of new territory is, of course, a very old trope, with the ocean long considered capable of drawing thought, beyond the immediacy of the shore, across great distances no less than into vast depths. Michel Foucault borrows this trope when seeking to imagine what might follow the centuries-long engagement of human-knowledge with itself as a subject of inquiry. He concluded *The Order of Things: An Archaeology of the Human Sciences* with an oft-cited image: “human-kind, as a figure of and within knowledge, being lost to another locus of inquiry, erased [much. . .] like a face drawn in sand at the edge of the sea.”<sup>8</sup> Water, particularly in its oceanic guise, is in that sense an eroder of fixities, of sure footing, of the solid things by which not just architecture and its related arts, but all human life grounds itself. Less a passive matter to be directed, channelled, dammed, evaporated, etc., it is what humbles human agency, but the aqueous is also what enlivens human belonging, what singularly nurtures, involves and evolves us as, ironically, Earthlings.



## NOTES

1. Susan Ballard, *Art and Nature in the Anthropocene: Planetary Aesthetics* (Routledge, 2021), 146.

2. Astrida Neimanis, *Bodies of Water: Posthuman Phenomenology* (Bloomsbury, 2017), 1.

3. Amanda Yates, "Mauri-Ora: Architecture, Indigeneity, and Immanence Ethics," *Architectural Theory Review* 21, no. 2 (2016): 261–275.

4. Rob Barnett, "Utu in the Anthropocene," *Places* (August 2021): 1–23, <https://placesjournal.org/article/redesigning-colonial-landscapes/>.

5. A selected sampling includes: "Light Organising Architecture: Jorn Utzon's Bagsvaerd Church" (2005); *Gunnar Birkerts: Metaphoric Modernist* (2009); "Light from All Around: Asplund's Stockholm Library" (2015); and *Architecture in the Light of Day* (forthcoming); and a book-length study of Charles W. Moore titled *Those Who Love the World Don't Mind Being Reminded of It* (forthcoming).

6. Jorge Otero-Pailos, *Architecture's Historical Turn: Phenomenology and the Rise of the Postmodern* (University of Minnesota Press, 2010), location 2126, Kindle.

7. Otero-Pailos, *Architecture's Historical Turn*, location 2126, Kindle.

8. Michel Foucault, *The Order of Things: An Archaeology of the Human Sciences*, trans. Alan Sheridan (Tavistock Publications, 1970), 387.