

Climates: Architecture and the Planetary Imaginary

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Climatic Imaginaries

THE EDITORS

1

The term “ecological footprint” was coined in the early 1990s and made its official debut in Mathis Wackernagel and William E. Rees, *Our Ecological Footprint: Reducing Human Impact on the Earth* (Philadelphia: New Society Publishers, 1996). Interestingly, the metaphor stemmed in part from considering another footprint metaphor—the “footprint” of their new desktop computers on their desks. The footprint concept would soon percolate into architecture, perhaps most famously in the writing of William McDonough, who proposed that we might “create ecological footprints to delight in, not lament.” See William McDonough, *Cradle to Cradle: Remaking the Way We Make Things* (New York: North Point Press, 2002).

2

On this, see Timothy Mitchell, *Carbon Democracy: Political Power in the Age of Oil* (New York: Verso Books, 2011).

3

Jason W. Moore, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* (New York: Verso Books, 2015), 6.

Consider the footprint—a metaphor that has long described the interface between architecture and the earth on which it sits. If the poetics of the footprint began with the idea of humans leaving their marks on the “sands of history,” for architecture it took on the literal meaning of a foundation’s outline or a demarcation of property. Only far more recently has the metaphor begun to refer to architecture’s relationship to the *Earth* on which it sits—the way an individual or a building or a city occupies a share of finite planetary resources. The 1960s and ’70s ushered in a broader sense of environmental awareness for the discipline, though it took until the 1990s for “ecological footprint” to become a commonly used term (aligning, not coincidentally, with the rise of “sustainability” as an architectural imperative).¹ In this understanding of its footprint, the outline of a building is redrawn to include economies of material extraction and the vast amounts of energy—embodied and operational—that give it physical form and allow it to be occupied in comfort. The now ubiquitous “carbon footprint” is an almost exclusively twenty-first-century concept, aligning with a general public acceptance of the realities of global warming and an accompanying acknowledgment of our individual participation (as citizens of the planet and as designers or builders) in the expenditure of the carbon-based energy so central to our lives and patterns of habitation.²

But as Jason Moore’s recent *Capitalism in the Web of Life* asks—is this image the best we can conjure? The footprint metaphor relies on an “image of nature as passive mud and dirt” upon which we step; it upholds a dualism of “nature” and “society” as discrete spheres of action.³ Moore asks us instead to consider what he calls the *co-production* of nature and society, to replace the footprint with a web of mutual imbrication.

The expiration of this division of the human from the natural (originating in antiquity and continually affirmed in Romantic and Modernist thought) speaks to the geological epoch of the Anthropocene, in which humankind has assumed an ecological agency of planetary scale through our transformation of the Earth’s environment. Distributing thin but persistent layers of carbon and plastic across

atmospheres, oceans, and landscapes on which we have only seldom, if ever, left literal footprints, the notion that humankind's ecological effects are confined to our immediate environs is now acknowledged as untenable. Moreover, Moore's line of thought reminds us that "nature" is, in a very real sense, what we see in it. It is historical, epistemic. Our *conception* of things like air, ocean, rock, ice, and weather condition our engagement with them. This could mean many things for the field of architecture; perhaps most central, for this book, is the recognition that our environment is not just a resource to be managed or an externality to which we must adapt but one of the chief figurations of shared or contested cultural values.

This book arises from a conviction that there is more to say about climate than the discourses of green or clean energy, eco-friendliness, resilience, or adaptation allow us to consider. These are vital fields of research and should be fundamental to the contemporary practice of architecture and urbanism (not to mention politics, government, and daily life), but climate registers on many levels within our lived realities. The essays contained here expand an inherited view of the encounter between humans, buildings, and the planet that has become so naturalized—so *environmental*—that it takes some effort to dislodge it from the (nonetheless highly urgent) realms of governmental negotiation, dire calculation, and pragmatic problem solving. Loosening up, undermining, and otherwise challenging any singular or inherent notion of climate, these authors begin to show how climate change discourse can actually begin to rearticulate our definitions of environment, and, moreover, how it can open up our willingness to see and shape the historical and cultural frames that set those definitions in the first place. In other words, by recognizing the plural "climates" that humans have constructed and instrumentalized for various ends, they show us that the relationships between people and the built and natural environments are limited only by our imaginations.

Talk of "climatic imaginaries" might seem problematic to some readers—global warming is very real, nothing imaginary about it. As Bruno Latour wrote in his canonical essay "Has Critique Run Out of Steam?" the language of social construction in science—meant to help uncover the implicit biases of the apparatuses of scientific knowledge, to help reveal ideological assumptions—has come to be harnessed by "dangerous extremists ... to destroy hard-won evidence that could save our lives."⁴ Seen in this light, the notion of climate as cultural construct might undermine the more urgent work of galvanizing action, right now, and positing solutions. Furthermore, as one earth scientist who declined to contribute to this volume put it, such talk can simply seem *impractical*, an academic exercise that evades more elemental responsibilities for design.

Our view is that these seemingly separate modes of operation in fact rely on one another to produce the most meaningful results. Design, and architecture in particular, always functions well beyond its most traditionally and narrowly construed role as a social or corrective technology. In many cases, architecture redefines the problems themselves. It educates. It calls to action and gathers publics. It does so messily, always burdened by its complicity in the expenditure of energy and material. But it asks questions of those with whom it engages that might not otherwise be asked. And in doing so, architecture fills a critical void in times of crisis. Architecture, seen from a certain vantage point, has always addressed the imaginary, the abstract, and attempted to concretize social, cultural, and historical aspirations into solid forms. In this sense, the discipline and its material traces are

4

Bruno Latour, "Why Has Critique Run Out of Steam? From Matters of Fact to Matters of Concern," *Critical Inquiry*, vol. 30, no. 2 (Winter 2004): 227.

uniquely positioned to propose new and novel means for asking and answering questions pertaining to the imaginary and the real, where our climate is concerned.

The past decades of architectural historiography have been marked by a turn toward “the global,” whether as a means of questioning the globalizing tendencies of multinational corporatism or questioning the forms of violence that undergird familiar hegemonic narratives of European and American modernism. This much needed decentering of our field’s self-understanding is now being joined by a turn toward “the planetary”—the notion that architecture needs to think about the Earth not only as a host to cultural diversity but as a host to life itself. One could think of Martin Heidegger’s notion that the “fundamental event of modernity is the conquest of the world as picture”—that is, that humankind had become a *subject* of study (among others), with the globe itself enframed by the calculating nature of modern science.⁵ This view encompasses literal world pictures, the desire for the representation of some kind of whole, as well as conceptual ones, in that they attempt to freeze the world and its population at a certain moment in time and within certain mediating forms of knowledge and understanding. The globe, like climate, is historical.

Inescapable in all of this is the question of capitalism—or, rather, how architecture participates in multivalent and transnational systems of labor, resource extraction, and wealth accumulation. Moore argues that “Capitalism is not an economic system; it is not a social system; it is a *way of organizing nature*.” It is a “world-ecology, joining the accumulation of capital, the pursuit of power, and the co-production of nature in dialectical unity.”⁶ Architecture has long been implicated as a vehicle for capitalist expansion and the ills it produces. Yet Moore’s definition could easily be used to describe the discipline, and even purpose, of architecture as both a profession and a means of ordering the material world, and this helps us perceive our entwinement in this “co-production” in subtler and more potentially political ways. Working from this notion allows for refocusing the agency of architecture to make more direct interventions into capitalism’s more negative effects.

After all, architecture’s planetary imaginary has long been political. The nineteenth century saw the flourishing of Saint-Simonian thought, which envisioned a new form of political economy that redefined the globe itself as an integrated and *organized* entity. The rise of glass architecture, most notably the Crystal Palace of the 1851 Great Exhibition in London—since diagnosed by Peter Sloterdijk as a harbinger of the “world interior of capital”—was, importantly, a climatic architecture, drawing on Joseph Paxton’s knowledge of horticulture and positing something of a planet-in-miniature. In the early decades of the twentieth century, “the planetary” was a central concern of radical social movements, notably the Russian avant-gardes. Kazimir Malevich’s “planets” combined the overthrow of global capitalism with the conquest of gravity itself, imagining floating Suprematist compositions—occupied by a new socialist society—that revealed the world-making of capitalism by contradistinction. This outlook on the planetary was frequently climatic. In Nikolai Fedorov’s posthumously printed *Philosophy of the Common Task* of 1906, the newly collectivized utopia he envisioned grew literally out of attempts to control the weather by seeding clouds with magnesium as well as surrounding the planet with a network of “electric rings,” strategically altering its milieu rather than containing it: “Regulation, the control of the blind force of nature, can and must become the great task common to us

5

Martin Heidegger, “The Age of the World Picture” [1938], in *Off the Beaten Track*, ed. and trans. Julian Young and Kenneth Haynes (Cambridge: Cambridge University Press, 2002), 71.

6

Moore, *Capitalism in the Web of Life*, 2–3.



Plate from *Pro dva kvadrata* [About Two Squares], El Lissitzky, published 1922.

all”—revolution as the redefinition of climate.⁷ When Konstantin Melnikov proposed in his entry for the Green City competition of 1929 to “rationalize the sun,” he was alluding to just this mix of managerial utopia and planetary politics, not (as has commonly been assumed) making a glibly Futurist gesture toward the science-fiction.⁸

As we blithely engineer, and urgently attempt to reverse-engineer, our own global climate—to “rationalize the atmosphere” on the terms of global capitalism—are these imaginaries so preposterous? Might this longer history of planetary imaginaries help us to see and critique the managerialisms latent in our own ideas of sustainability? Without trafficking in nostalgia for failed political experiments and outmoded avant-gardes, can we continue to think about planetary commoning, if not communality, within the multiple registers (aesthetic, technical, social) that architecture has at its disposal? Within today’s cultural milieu, the utopian world picture of something like El Lissitzky’s *About Two Squares*—which shows a perfectly red, perfectly round Earth approached by the titular squares, representing the dueling world-producing systems of capitalism and communism—has long since been replaced by the technoscientific world picture of the Blue Marble, taken by the astronauts of Apollo 17.⁹ But to divorce the scientific facticity of climate change from its aesthetic, cultural, and political bearings is also a reduction of the ground on which architecture can operate.

7

N. F. Fedorov, *What Was Man Created For? The Philosophy of the Common Task: Selected Works*, trans. Elisabeth Koutiassov and Marilyn Minto (Lausanne: Honeyglen/L’Age d’Homme, 1990), 35–37. For an English-language summary of Fedorov’s thought, see Stephen Lukashovich, *N. F. Fedorov (1828–1905): A Study in Russian Eupsychian and Utopian Thought* (Cranbury, NJ: Associated University Presses, 1977), esp. 267–272.

8

S. Frederick Starr, *Melnikov: Solo Architect in a Mass Society* (Princeton, NJ: Princeton University Press, 1978), 179.

9

On the material production of this and other “blue marbles,” see Laura Kurgan, *Close Up at a Distance: Mapping, Technology, and Politics* (New York: Zone Books, 2013), esp. 9–14.



The “Blue Marble” photograph of the Earth, taken during the Apollo 17 mission on December 7, 1972. Courtesy of NASA Johnson Space Center.

In the spring of 2015, we issued an open call for essays that explored the stakes of climatic thinking within architecture and its allied fields. In keeping with the central idea of the *Avery Review*—to engage the work of others using the genre of the critical essay—we asked for reviews of “climates in architecture.” The specific questions we posed included: How does climate inflect our understanding of things like human settlement, global migration, spatial violence, and resource extraction? How does climate figure, historically and at present, in our conception of what architecture is and does? What are the material and conceptual infrastructures that render climate legible, knowable, and actionable, and what are the spatial implications of these infrastructures? How do these interrelated questions offer new vantage points on the architectural ramifications of climate change, extending and amplifying our understanding of ideas like resiliency, sustainability, and ecotechnology?

The following December, Columbia University’s Graduate School of Architecture, Planning and Preservation (GSAPP) hosted a conference titled “Scales of Environment,” which drew together historians, scientists, architects, designers, and scholars on the occasion of the “COP21” United Nations Paris Climate Conference, to collectively investigate how a changing climate is reframing and redefining architecture and urbanism, particularly in the scales

it addresses. The conference and this publication are motivated by shared concerns and a shared desire to enrich the conversation at the intersections of architecture and climate change—a desire that is palpable in the essays of the conference participants included in this volume. Their essays, and those we received through our open call, are joined by two conversations (page 21 and page 163), one short story (page 212), and one experimental history (page 372), as well as a dossier of some thirty precedents for thinking about climate change (pages 261–291), which were nominated and described by a group of invited architects. Together they constitute a wide-ranging and often wildly creative dialogue operating in the real, the imaginary, and that messy hybrid of the two we call thinking.

The contents that follow have been loosely grouped according to four preoccupations that we saw emerge across this project—“loosely” in the sense that most pieces included here weave together all four. The section titled “Earths” illuminates the multiple worlds that coexist on our planet (and beyond) as well as the scales at which they are constructed. “Political Ecologies” questions the regimes of knowledge implicit in ecological thought and its attendant subjectivities. “Corporealities,” meanwhile, takes the body as a site of investigation, marking its many interfaces with issues of environment. And concluding the book, “Enclosures” addresses what we might traditionally call “architecture,” bound up as it is in social and scientific systems.

So, what do we talk about when we talk about climate? A great deal, it turns out. Architecture is, of course, implicated in the enormous expenditure of resources exacerbating climate change, just as it props up the power structures that distribute the planet’s precarity so unequally; and yet, design can respond with ingenuity, creativity, and even, dare we say, a little levity toward the situation at hand. It is architectural thinking, though, that this volume celebrates—the many ways of spatially, historically, and speculatively understanding the worlds we find and make.

—James Graham, Caitlin Blanchfield, Alissa Anderson,
Jordan H. Carver, and Jacob Moore



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