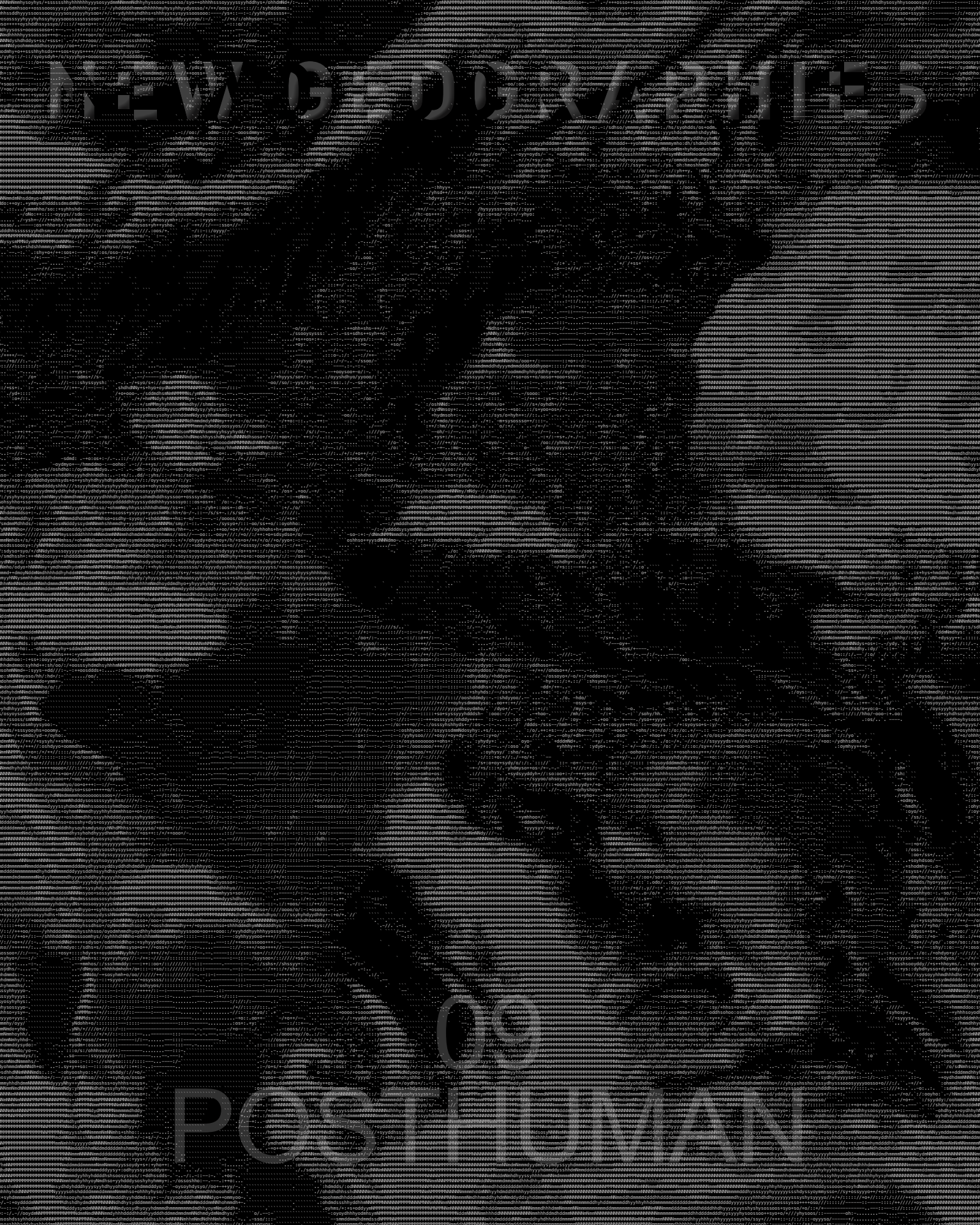
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09
POSTHUMAN

Edited by
Mariano Gomez-Luque
& Ghazal Jafari

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POSTHUMAN

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Posthuman

Mariano Gomez-Luque
& Ghazal Jafari

I

At the turn of the second millennium, media theorist Katherine Hayles argued that the "historically specific construction" we know as the "human" was then giving way to another, called "the posthuman." She located the initial coordinates of this transition in mid-20th-century cybernetics, a "breathtaking enterprise . . . nothing less than a new way of looking at human beings." For Hayles, the emergent posthuman subject differed radically from the liberal subject that had been the presumptive model of the human ever since the Enlightenment.[1]

The unremarked transition from human to posthuman nevertheless prefigured the foundational critique of different strands of humanism in the late 1960s, leading to a variety of new fields of study that challenged humanist interpretations of human existence.[2] These developments cumulatively triggered what many scholars have since described as a "posthuman turn"—characterized by the concern for, first of all, upsetting the normative conventions that position Western "man" as the universal bearer of the human; and second, countering the hegemony of *anthropos* relative to other forms of (nonhuman) life. "Posthumanism" thus appeared as a new critical epistemology that not only combined a variety of anti-humanist and post-anthropocentric positions, but also attempted to exceed the terms of this binary scheme.[3]

Today, the process of decentering of the human unleashed by this posthuman turn is further exacerbated by an omnipresent sense of crisis that has transpired in close conjunction with a series of radical scientific, technological, and spatial transformations. Indeed, a cascade of intensifying crises—environmental, ecological, geopolitical, economic, humanitarian—together with increasingly sophisticated socioeconomic modalities of violence, brutally imposed on larger and larger segments of the global population, pose unprecedented challenges to human life on the planet.[4] In parallel, scientific advancement and rapid technological change are modifying the very parameters through which long-standing definitions of the human were constructed, as much as ubiquitous urbanization is altering the environments in which social life historically unfolded.[5] These circumstances define the contours of a posthuman condition; a historical formation which, far from being the *n*th variation in a long sequence of prefixes, instead underlines the urgency of critically rethinking the ways of *being* in the world that are currently emerging.[6]

Despite perplexing anxiety regarding the place of the posthuman subject within a rapidly changing global context, it is important to remember that the human—as Foucault in particular argued—was never a neutral or universal category.[7] Rather, it is a historically constructed concept that indexes access to power, entitlement, and privilege. Certainly, as philosopher Rosi Braidotti affirms, the same applies to the category of the posthuman.[8]

Put differently, the posthuman condition does not take place in a vacuum, but crystallizes within the political economy, and in relation to the post-anthropocentric technologies of, contemporary biogenetic capitalism.[9] Armed with a robust technoscientific apparatus spanning the core fields of biotechnology, nanotechnology, information technology, and cognitive neuroscience, biogenetic capitalism invests in the control of the informational power contained in the genetic code of all living matter: human, animal, bacterial, even the mineral world. Biogenetic capitalism thus reduces both human and nonhuman life to mere material for technoscientific manipulation, potentially subjecting it to hitherto unthinkable forms of control, domination, and instrumentalization.[10]

In this context, it is clear that to be posthuman—that is, to be a subject of our time—does not necessarily imply that one is "post-power, post-class, post-gender, post-imperial, or post-violence."[11] Quite the opposite: the posthuman signals a type of subjectivity deeply embedded in the neoliberal governance and corporate-managerial practices of the contemporary world order.

While addressing the complex dimensions underpinning the current historical milieu, posthuman thought is nevertheless driven by an ethico-political project. "Becoming posthuman," Braidotti argues, involves the possibility to not only "decide together what and who we are capable of becoming" but also "for humanity to re-invent itself affirmatively, through creativity and empowering ethical relations, and not only negatively, through vulnerability and fear." What is more, embracing the posthuman condition and its historical and theoretical dimensions offers "a chance to identify opportunities for resistance and empowerment on a planetary scale."[12]

At the same time, as theorist Cary Wolfe suggests, posthuman*ism*, as a philosophical framework, goes beyond the chronological succession implied by the prefix "post-." Posthumanism is not only concerned with the present historical subject, in the present historical situation, but more fundamentally, with "what thought has to become" in order to confront the daunting challenges of our era.[13]

II

This ninth issue of the journal *New Geographies*, titled *Posthuman*, surveys the urban environments shaping the more-than-human geographies of the early 21st century. Seeing design as a geographical agent deeply involved in the territorial engravings of contemporary urbanization, *New Geographies 09* embraces the "planetary" as the ultimate spatiotemporal stage of the posthuman condition.[14]

This interpretation is fueled by awareness of the historical instrumentality of both geography and design (as disciplinary fields and spatial worldviews) in the delineation and pursuit of new "frontiers" serving the ambition for endless expansion of the *human empire*.[15] That is, geographic knowledge and design strategies, methods, and metrics applied in the organization of global space have been crucial for the "territorial acquisition, economic exploitation, militarism, and . . . practice of class and race domination"[16] which characterize imperialist power.[17]

With this in mind, geographic and design thinking are here mobilized in a different direction: namely, as an interpretive lens through which to trace how those crises and historical circumstances that have destabilized the inherited schema of the human manifest themselves spatially—how they are indexed by the complex geographical formations of the contemporary built environment.[18]

This issue of *New Geographies* gathers together contributions that critically evaluate a wide array of manufactured territories that now cover the surface of the planet, and extend even further beyond its geophysical boundaries into outer space. These include the technological environments, operational landscapes, underground facilities, outlying airfields, infrastructural networks, and other "third natures" which, embodying the manifold entanglements between humans and nonhumans, define the hybrid geographies of the urban world.

Far from exhaustive or conclusive, the present volume has as its main objective to propose a more accurate depiction of the intricate cultural, biopolitical, economic, and territorial grounds from which a genuinely posthuman spatial condition is materializing. The spectrum of positions assembled in *Posthuman* reflect—sometimes from divergent standpoints—the fervent debate surrounding the conceptual, epistemological, and historical dimensions of such emergent spatial configuration.

III

The diverse contributions to this volume are loosely organized, constellating a mosaic of critique, speculation, dialogue, and narrative. Complementing this structure, **Krystelle Denis**'s cover design conveys the depth of those intertwined organic and machinic ecologies that constitute today's planetary geographies.

The first set of textual contributions explores two key themes: the role of design in the contemporary world, and the problem of "design intelligence" in the age of artificial intelligence (AI).[19] **Rosalind Williams** begins the discussion with a critical assessment of the role of (and frontiers opened by) design in the profound spatial transformations across the built environment during the last two centuries. **Erik Swyngedouw** mobilizes the concept of the "Urbicene"—a coinage that implicates the primary site of impact in the Anthropocene—in relation to more-than-human ontologies, and considers their ramifications for current discourses on the urban. **Benjamin Bratton** speculates on the implications of AI at a geographical scale, while **Luciana Parisi** contends that through advanced computation techniques, architectural design engenders its own mode of (inhuman) thought, or "technological consciousness."

As speculative passages between the first and second sections of the journal, **Barbara Adam** reflects on the changing rhythms of contemporary life inflected by the increasing commodification and colonization of time, while the **GIDEST Collective** envisions a fictional scenario in which an alternate past is recovered in a near future and plied to the disorienting coordinates of the present.

The second series of articles traces the influence of contemporary urban systems, within which new spaces, subjectivities, technological agents, and cultural identities take form. **Shannon Mattern** investigates the shifting usage of the underground in our "age of anthropogenic geoengineering and posthuman intelligence"; **Antoine Picon and Carlo Ratti** review emergent forms of subjectivity engendered in the novel technologies of urban cartographic systems; and **Alejandro Zaera-Polo** reconceptualizes a 21st-century urban cosmology in the "Posthuman City."

A conversation with **Eyal Weizman** concentrating on his recent work in Forensic Architecture sets the terms of another important topic linked to the posthuman condition: the many forms that the *inhuman(e)* adopts in the context of global and technologically mediated societies.[20] **Stephen Graham** writes on the political geography of inner and outer space, using the satellite as a case study to vividly portray a new sense of "vertical free fall"; **Martín Arboleda** links financial extraction and its "monstrous" territories to the schism between money's *bad infinity* and the embodied realities of human and ecological existence; and **Mimi Sheller** describes the environmental risks posed by large-scale aluminum industries in the drive toward planetary urbanization.

A visual essay on the "new domestic frontier" of animal environments, by **Jose Ahedo**, precedes the texts of the third section, which engage with the problematic of the *other*.[21] **Eli Nelson**, focusing on the recent history of the Haudenosaunee Confederacy, describes how Western culture misconstrues or dismisses the practices of "racialized others," such as indigenous traditional ecological knowledge (TEK), which models alternate concepts of sovereignty and futurity; **Rosetta Elkin** traces the way in which the "naturalized other"—that is, plant life—has been exploited as both o*bject* (fixed, static, non-sentient) and *objectified* knowledge; **Charles Waldheim** tours the techno-managerial systems that mediate occasional encounters between humans and wildlife within the engineered space of the contemporary airport; **John Davis** gives a critical reading of the cyborg, or "technological other," as it has been (mis)appropriated in the landscape design imaginary; and **Namic Mackic and Pedro Aparicio Llorente** propose that the earth itself is a geologically and materially complex "perpetual machine" that both produces and supports life by means of geotechnicity.

The journal's final interlude features a conversation with philosopher **Cary Wolfe**, in which various theoretical dimensions of posthumanism are taken up in connection with the social, political, and ecological challenges facing us today.

Finally, the closing essay cluster addresses another foundational proposition of the posthumanist approach: the nature-culture continuum, seen against the backdrop of the relentlessly ongoing (planetary-scale) production of nature.[22] **McKenzie Wark** ruminates on "third nature," the vast, abstract computational veil that wraps the planet in information and defines the material and infrastructural strata that today organize human and nonhuman life; and **Jason Moore** challenges the Cartesian divide still conceptually ingrained in the "popular Anthropocene," instead proposing "new ecologies of hope" through which to think about *nature* in terms of "an ethics of care, for humans, for the web of life, and for the multispecies interdependencies that make the good life possible."

IV

Drawing on a variety of scholarly expertise, from the fields of architecture to urban theory, from landscape to ecological thought, from philosophy to infrastructure to media studies, *New Geographies 09—Posthuman* stimulates wide-ranging debate on the potential for design to engage with the complex spatiality, more-than-human ecology, and diverse life-forms that define a different kind of planetary environment: one in which the human, per Cary Wolfe, finally acknowledges never having been "master in its own house." Consequently, *Posthuman* advocates that the challenge to build a more socially and ecologically just urban world—inhabited by human and nonhuman subjects—be brought to the surface of the political imagination. In this regard, the posthuman turn must be considered an open-ended project, one suitable for considering not only "what and who we are capable of becoming," but also what kind of worlds we dare to envision, and may collectively create.

1 N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999).

2 Critiques of humanism stemmed from new academic disciplines including, among others, gender studies; feminism; cultural studies; postcolonial studies; ethnicity, race, and migration studies; media and new media studies; and human rights studies. See Rosi Braidotti, *The Posthuman* (Oxford: Wiley, 2013), 13–54.

3 See Braidotti, *The Posthuman*, 13–54 and 143–85; and Cary Wolfe, *What Is Posthumanism?* (Minneapolis: University of Minnesota Press, 2009), xi–xxxiv.

4 See Jonathan Crary, *24/7: Late Capitalism and the Ends of Sleep* (London: Verso, 2013). On new forms of brutality, see Saskia Sassen, *Expulsions: Brutality and Complexity in the Global Economy* (Cambridge, MA: Harvard University Press, 2014).

5 Some examples include: recent progress in the fields of artificial intelligence (AI) and brain-computer interface (BCI) technology that have caused experts to suggest an "intelligence explosion" may occur relatively soon; the profound impact that digital technologies and increasing automation have on almost every aspect of contemporary social life; and the global socio-spatial transformations introduced by intensifying urbanization. See, respectively: Nick Bostrom, *Superintelligence: Paths, Dangers, Strategies* (Oxford: Oxford University Press, 2016); Adam Greenfield, *Radical Technologies: The Design of Everyday Life* (London: Verso, 2017); Neil Brenner, ed., *Implosions/Explosions: Towards a Study of Planetary Urbanization* (Berlin: Jovis, 2014).

6 "[T]he posthuman condition introduces a qualitative shift in our thinking about what exactly is the basic unit of common reference for our species, our polity, and our relationship to the other inhabitants of this planet." Braidotti, *The Posthuman*, 1.

7 See Michel Foucault, *The Order of Things: an Archaeology of the Human Sciences* (London and New York: Routledge, 1989).

8 Rosi Braidotti, Keynote Lecture, Posthumanism and Society Conference, New York University, New York, May 9, 2015, www.youtube.com/watch?v=3S3CulNbQ1M.

9 See Braidotti, *The Posthuman*, 55–104. On contemporary capitalism, Braidotti draws on Moulier-Boutang's notion of "cognitive capitalism." See Yann Moulier-Boutang, *Cognitive Capitalism*, trans. Ed Emery (Cambridge: Polity Press, 2012).

10 Braidotti, *The Posthuman*, 55–104. [Ch. 2]

11 Braidotti, Keynote Lecture, Posthumanism and Society Conference, New York University, New York, May 9, 2015, www.youtube.com/watch?v=3S3CulNbQ1M.

12 Braidotti, *The Posthuman*, 195.

13 Cary Wolfe, *What Is Posthumanism?*, xvi. While Hayles and Braidotti each provide a historical and theoretical account of the emergent posthuman subject, Wolfe instead emphasizes the posthumanist mode of thought, hence the title of his book.

14 "Planetary," as mobilized here, is not meant to imply a 'fix scale' but rather a signifier for the 'scaleless,' or the 'trans-scalar.' See Ross Exo Adams, "On Scaleless Urbanization: Cybernetic Infrastructures, Resilient Design and the Becoming of Planetary Space," in *Infrastructure Space*, eds. Ilka & Andreas Ruby (Berlin: Ruby Press, 2016), 229–37.

15 See Rosalind Williams's essay in the present volume, "Redesigning Design," 10–15.

16 Brian Hudson, "The New Geography and the New Imperialism." *Antipode* 9, no. 2 (1977):12.

17 On the role of geography and design in imperialist and colonialist practices, see Felix Driver, "Geography's Empire: Histories of Geographical Knowledge," *Environment and Planning D*, 10 (1992): 23–40; William Cronon, "The Trouble with Wilderness: Or, Getting Back to the Wrong Nature" in *Uncommon Ground: Rethinking the Human Place in Nature*, ed. William Cronon (New York: Norton, 1995): 69–90; Patrick Wolfe, "Settler Colonialism and the Elimination of the Natives," *Research Network in Genocide Studies* 8, no. 4 (2006): 387–409; W. J. T. Mitchell, *Landscape and Power* (Chicago: University of Chicago Press, 1994); Eyal Weizman, "Are They Human?" *E-Flux Architecture: Superhumanity* 51 (October 2016), www.e-flux.com/architecture/superhumanity/68645/are-they-human; Pierre Bélanger, ed., *Extraction Empire: Sourcing the Scales, Systems, and States of Canada's Global Resource Empire* (Cambridge, MA: MIT Press, forthcoming).

18 This geographical complexity has been exacerbated by an arsenal of novel spatial technologies that aim to operationalize space at all scales, from the organic composition of matter to the atmospheric realm. See Beatriz Colomina and Mark Wigley, *Are We Human?: Notes on an Archaeology of Design* (Zurich: Lars Müller Publishers, 2016).

19 Posthuman theory conceives of intelligence, "thinking," and more generally, the capacity to produce knowledge not as the exclusive, unique prerogative of humans, but as a distributed form of cognition that encompasses all living and self-organizing matter, as well as all kinds of technological networks. Thinking, thus theorized, is what "being alive feels like." Braidotti, Keynote Lecture, Posthumanism and Society Conference, New York University; see also Hayles, *How We Became Posthuman*, 50–83, 131–59, 222–46; Wolfe, *What Is Posthumanism?*, 1–142.

20 See Braidotti, *The Posthuman*, 105–42; Achile Mbembe, "Necropolitics," *Public Culture* 15, no. 1 (Winter 2003): 11–40.

21 See Wolfe, *What Is Posthumanism?*, 99–126; Braidotti, *The Posthuman*, 13–54. Braidotti gives several useful categories for the human's others, which we have adapted in this volume: the racialized other (native and indigenous peoples), the sexualized other (women), the naturalized other (animals, the environment, earth), and the technological other (machines). See Braidotti, *The Posthuman*, 27, 94, 109.

22 "Matter is not dialectically opposed to culture, nor to technological mediation, but continuous with them." Braidotti, *The Posthuman*, 35. Importantly, this approach should not be confused with that of a "flat ontology," as political theorist Jane Bennet also argues in *Vibrant Matter: A Political Ecology of Things* (Durham, NC: Duke University Press, 2010), 110–22. For a discussion of the philosophical framework of flat ontology as it differs from posthuman theory, see Ian Bogost, *Alien Phenomenology, or What It's Like to Be a Thing* (Minneapolis: University of Minnesota Press, 2012).