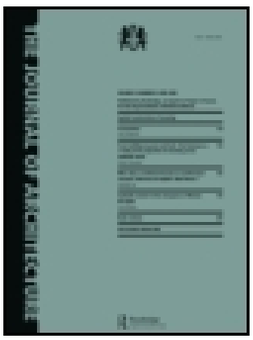

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Architectural History in the Anthropocene

Introduction

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This special issue of *The Journal of Architecture* is focussed on how methods and narratives of architectural history are being reconsidered in the face of increasing knowledge regarding the entanglement of the built environment and anthropogenic climate collapse. We have all, by now, encountered this term 'the Anthropocene'. As with many neologisms, it simultaneously opens up new directions for scholarly inquiry and solicits circumspect analysis. In the case of architectural history, such tendencies are intensified. The central notion that humans have become not only biological agents but 'a force of telluric amplitude', impacting the ecological complexities of the earth's system for centuries if not millennia to come, has obvious relevance to historical understanding of the built environment.[1] At the same time, generalisations and assumptions built into the term, especially around the enforced consistency of the notion of the human, are cause for caution.

In the few years that these essays have been in development, the Anthropocene Working Group of the Sub-commission on Quaternary Stratigraphy of the International Commission on Stratigraphy has affirmed the transition into a new epoch—as of 29th August, 2016, we are in the Anthropocene Epoch of the Quaternary Period of the Cenozoic Era of the Phanerozoic Eon.[2] In an important sense, this epochal transition signals that natural scientists, as well as the policy makers and other public actors who rely on scientific knowledge, have now recognised the porosity of the socially constructed terms *nature* and *culture*. Science has caught up to the humanities, and to the nuanced approach to history, environment and agency which scholars have been elaborating upon for a few decades: from Actor-Network Theory to a burgeoning interest in the non-human.[3] Given the extensivity of this scholarly trajectory, the importance of the anthropocene for historians is not only in analyzing the precise conditions by which the age has transformed, but also in the potential for expanded public engagement with the conceptual and narratological proposals that elaborate on the possible effects of these transformations.

At the same time, the received premise of the Anthropocene as an event—as a sudden shift in perspective in which professionals and publics are caught unaware of the consequences of the past—itself needs to be a subject of sustained historical and critical inquiry. The opportunity here is to engage a new perspective by which the world-system of capital and the Earth system understood by the natural sciences can be seen according to their mutual intractable entanglements. This perspective, engaging new evidence and methods, opens up compelling frameworks for describing human activities, social behaviours and technologies. They indicate that awareness of environmental conditions has been persistent across recorded history, albeit often expressed in unfamiliar forms. The Anthropocene is, in this sense, less a crisis, a shock followed by new forms of awareness and activism, and more an accumulation of evidence of destructive practices, newly seen for their cumu-

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lative effects. New questions emerge about the knowledge embedded in architectural ideas, relative to material metabolisms, to relationships between buildings and the polluted atmosphere, and to principles of urban growth.

The period of much intense interest in the field of architectural history, the modern loosely described, with roots in the middle of the eighteenth century, is also the period when fossil-fuel-driven industrial expansion has occurred in an uneven fashion around the globe. As Dipesh Chakrabarty points out with a potent architectural metaphor: 'the mansion of modern freedom stands on an ever-expanding base of fossil fuel use'; a foundation that is now understood to be fatally compromised.[4] Put differently, how does the history of architecture since the industrial revolution look, now that it is increasingly apparent that the intensive use of energy resources that fuelled it has been but a brief episode, an intense but glaringly finite elaboration of a way of life that is now receding? Insisting, again, on the *longue durée* of the epistemological and material conditions that have led to the Anthropocene, architectural histories have much to contribute. Attention to the design intentions informing the built environment can expand, for example, the far-reaching historical threads of consumption and economic growth that reached a dizzying apex in the post-war period: a period that was also that of the so-called Great Acceleration, which saw dramatic increases in the use of materials and energy resources, and the pollutants this use entailed.[5]

As the sub-discipline of environmental histories of architecture has expanded in the last decade or so, it has become increasingly apparent that the historiographic effect of this perspective is not simply to add more objects to the architectural-historical canon but, rather, to offer new terms and context for analysis. The same could be said, of course, for post-colonial and gendered discourses that have productively disrupted and reconfigured historical knowledge. In the wake of the Anthropocene, as evident in the essays included here and more generally in this burgeoning sub-field, a few general patterns have begun to emerge. In each instance, the case could be made for these frameworks having continuity with existing scholarly interests, or as disrupting familiar patterns and methods.

One of the most potent is a new perspective on the role of media as both method and evidence for historical analysis. This is a potent site of interdisciplinary connection. For example, although we can experience weather, we can only conceive of climate through media. Architecture has been an important realm for the investigation and translation of scientific knowledge, and the graphs, charts and simulations of climatologists in particular have been transformed into cultural artefacts in design schools and offices. Architecture has also itself been an important site for the production of environmental media—the images, diagrams and speculations of architects are potent evidence of broader approaches to climatic management, and the complications of race, region and development that these strategies have entailed. The importance of simulation, visualisation and of assessing complex dynamics through parametric modelling all present compelling corollaries between architectural and climatic knowledge as cultural techniques.

Risk is another essential category in thinking about the architectural and environmental future. Concerns around risk assessment point to a convergence between the projective tendencies of architecture and calculational rationality as a form of social knowledge. It is not inconsequential that the calculus of probabilities central to so many forms of near-future projection—from weather forecasting, to insurance premia, to structural analysis—though derived from Pascal's 'geometry of hazard' in the seventeenth century, take on a functional resonance in the late nineteenth century, in rough parallel with the innovations of architectural modernity.[6] Rather than risk as the enlightened phase of 'reflexive modernity', following Ulrich Beck—a narrative that assumes a continuation of the same historical march yet on different material terms—of interest here is the role of calculation in emergent forms of government, and architecture as both evidence for and reflection of these environmental-managerial approaches.

Another compelling theme has to do with the relationship of history to practice. An encounter with the spectre of instrumentality is an inevitable aspect of re-focussing historical methods to better account for a genealogy of the Anthropocene. Here again, the issues are not straightforward. Environmentally informed histories of the architectural past are not methodological manuals for contemporary practice: even though, in a limited number of cases, the design techniques and methods involved are subject to renewed interest. Rather, the narration of histories sensitive to environmental pressures helps to reconsider and re-configure the cultural and professional positioning of architecture, usually as an aggressively interdisciplinary site. In this sense, despite calls for 'green capitalism' or 'eco-modernisation', the environment continues to be a discursive and material site for resistance.

Perhaps most significantly, the Anthropocene presents productive challenges for how to encounter changing conceptions of the human. Given the significance of a range of anti- and a-humanisms to critical historical practices over the past few decades, the apparent imperative in Anthropocene discourse to return to a uniform species-being threatens, at best, to temper the potential of the concepts discussed above. As Chakrabarty, again, has written 'The discipline of history exists on the assumption that our past, present, and future are connected by a certain continuity of human experience.'[7] The Anthropocene, and the planetary cautions it brings to the fore, disrupts this sense of continuity. How to confront this new sense of humanity, after decades of destabilizing the hegemonic epistemologies of 'man'? Humans are simultaneously being placed at the nexus of a causal diagram, in the invocation of 'geological agency', and also recognised as relatively impotent in collectively expressing that agency with any clear intentionality. In considering the Anthropocene as a framework for historical scholarship, the imposition of species-being is, rather than an imperative, an opening up of diverse ways to life to renewed and reinvigorated scholarly encounters.

In the critical discourse on the Anthropocene, in other words, careful attention to precisely which humans, which 'anthros', are being discussed is of great importance. That we are confronted, in this new age, with the consequences of a very

specific set of capitalist and imperial developments cannot be over-emphasised. Insofar as the Anthropocene indicates a material condition—of more carbon in the atmosphere, of fewer trees in the ground or less fish in the sea—these conditions are the result of a wildly uneven process of economic growth across the planetary surface. The British and other imperial powers of Western Europe, and then the United States in its manifest push for a paradigm of endless growth, are largely to blame for atmospheric instability. Questions of scientific knowledge, political responsibility and economic compensation are embedded in this uneven-ness. The situation is further complicated through the complex means by which so-called developing countries are poised to 'catch-up' to levels of industrialisation and consumer saturation, but with a changing set of ethical and material ideals. This is manifest in the debates around climate change as they play out at the geopolitical and NGO level, as at the talks in Paris in 2015, and further solicits a need for carefully understanding the history of modernisation on these terms. Maintaining a precise, varied and above all historically and geographically specific understanding of the role of actual humans engaged in these diverse processes is an important task for historians.

Thus another risk: for many advocates of the term, the Anthropocene stands as an opportunity to celebrate the role of human ingenuity and technology in its potential for planetary transformation. This so-called 'good Anthropocene', perhaps most clearly represented by the Eco-Modernist Manifesto published online in 2015, envisions a bright future in which human dominion over the earth is rendered sustainable through a combination of geo- and social engineering.[8] The city is a primary site for these optimistic speculations: in the manifesto and elsewhere, this is argued relative to the importance of increased density and enlightened urbanity as a means for rendering more efficient the relationship between social and biotic processes. This premise is also reflective of the prevalent premise in architectural practice that technological innovation can resolve the socio-political challenges seeded by environmental pressures.

The techno-optimisms that have consumed the professional field beg for a critical-historical apparatus that will temper and at times refute them. The Anthropocene challenges scholars to hone our perspective, and to critically address the relationship between changes in the built environment and the myriad potential futures they contain—to insist that, in addition to technological solutions, political debate and the willed desire of collective subjects are avenues towards environmental transformation.[9] Historical artefacts and processes help to shed light on design, amongst other collective ventures, as a realm rich with discursive and mediatic speculation on these terms.

These comments are not intended as a call for disciplinary exceptionalism, but rather are intended to focus on the specific contributions that the field of architectural history is poised to make to wider cultural understandings of the Anthropocene: to the slow and accumulative condition of its development; to the profoundly ambivalent prospects it outlines relative to human futures; to a sceptical though engaged approach to technological innovation. And to the role of these new kinds of cultural

inquiry in the development of subjectivity. One could also discuss at length the promise of alternative framings of the Anthropocene epoch: Jason Moore's 'Capitolocene', Donna Haraway's 'Chthulucene', Jussi Parikka's 'Anthro-obscene' and many others, help to clarify both the significance of language in these debates, and also how these interventions solicit simultaneous social, political and material questions.

As the essays collected here demonstrate, the cultural techniques and objects that are the subjects of architectural histories serve as mediating devices between collective desire and ecological systems. Though not conceived strictly according to the issues outlined above, these essays pursue a number of the methodological and evidentiary opportunities that this epochal framework provides. Attention to a wider spectrum and a longer history of architectural forms of inquiry into socio-biotic relationships is evident, and is carefully parsed according to the temporal and geographical condition of each particular case. As they demonstrate, environmental histories of architecture maintain a potent critical perspective on issues relevant to the discipline, whilst also expanding its field of evidence and scope of resonance.

Acknowledgements

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Notes and references

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5. There is extensive debate over the starting point of the Anthropocene, with arguments ranging from the dawn of agriculture to the 1970s oil crises. Some consensus has emerged around the functional identification of 1945 as an effective beginning of the Era —both for the dramatic increase in fossil fuels, and also as the dawn of the nuclear age, as nuclear isotopes are an important trace of human activity in the geological strata. See, for example, Will Steffen, Wendy Broadgate, *et al*., 'The Trajectory of the Anthropocene: The Great Acceleration', *The Anthro-*

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6. See Mitchell Dean on of the role of risk and insurance in Foucault's analytic of governmentality: M. Dean, 'Risk, Calculable and Incalculable', *Soziale Welt*, vol. 49, no. 1 (1998), pp. 25–42.
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