



**Relating Systems Thinking and Design
2022 Symposium
University of Brighton, Brighton, UK,
October 13-16, 2022**

Architectural Roots of Ecological Crisis

Ben Sweeting

School of Architecture, Technology and Engineering, University of Brighton

In architectural design, sustainability is primarily thought of as a technical discourse concerned with mitigating the harm that the construction and use of buildings cause to their environment—minimising the energy that buildings consume, the waste they produce, and the habitats they destroy. While there is an urgent need to reduce (and, when possible, reverse) the harm caused by the built environment, these types of response are not the full extent of the possibilities and responsibilities to address environmental concerns that come with designing architecture. In this paper, I draw on the work of anthropologist and cybernetician Gregory Bateson to explore ways in which architectural design might contribute to addressing the underlying causes of present and future ecological crises, in addition to responding to the immediate symptomatic challenges that these crises give rise to. Writing in the context of the emerging environmental consciousness of the 1960s and 1970s, Bateson understood one of the root causes of ecological crisis as the “epistemological error” or “hubris” of Western culture’s tendency to see humans as separate to, above, and in competition with their environment and each other. This hubris is, I argue, implicitly reinforced by the conventional built environment, which (literally) constructs a sharp distinction between human and ecological worlds. Connecting ecological thinking to architectural theory through Bateson’s characterisation of the former as an inversion of traditional Western cosmology, I sketch out an enriched role for architectural design in relation to ecological crisis, including but going beyond mitigating the ecological harm caused by the built environment.

KEYWORDS: architecture, ecology, cybernetics, sustainable design

RSD TOPIC(S): Architecture & Planning

Summary

In architectural design, sustainability is primarily thought of as a technical discourse concerned with mitigating the harm that the construction and use of buildings cause to their environment—minimising the energy that buildings consume, the waste they produce, and the habitats they destroy. Some design approaches go further by giving back to the environment in some way, for instance by creating new habitats that replace those lost elsewhere. There is an urgent need to reduce (and, when possible, reverse) the harm caused by the built environment as there can be no adequate response to the climate and biodiversity crises without making these changes. These types of response are not the full extent of the possibilities and responsibilities to address environmental concerns that come with designing architecture, however. In this paper, I explore ways in which architectural design might contribute to addressing the underlying causes of present and future ecological crises, in addition to responding to the immediate symptomatic challenges that these crises give rise to. In so doing, I follow anthropologist and cybernetician Gregory Bateson in arguing for the importance of aesthetic (not just technical) engagements with ecological systems in responding to ecological crisis, building on some of the ways in which Bateson's ideas have entered design discourse (Boehnert, 2018; Goodbun, 2011; Goodbun & Sweeting, 2021; Perera, 2020; Rawes, 2013; Sadler, 2008).

Writing in the context of the emerging environmental consciousness of the 1960s and 1970s, Bateson (1972/2000) understood one of the root causes of ecological crisis as the "epistemological error" (p. 487) or "hubris" (p. 498) of Western culture's tendency to see humans as separate to, above, and in competition with their environment and each other. This hubris has supported and been propagated by processes of marginalisation and colonialism, which have dominated many ways of knowing and doing. In this paper, I identify this hubris as implicitly reinforced by the conventional built environment, which (literally) constructs a sharp distinction between human and

ecological worlds, excluding the latter from the former. I go on to explore Bateson's characterisation of modern ecological thinking as an inversion of the traditional Western cosmological idea of the "Great Chain of Being" (Lovejoy, 1936), and connect Bateson's idea to architectural design through the ways in which cosmological thinking has traditionally been embodied in built form. I locate this discussion in relation to various contemporary architectural concerns, such as the circular economy and urban biodiversity (e.g. Baker-Brown, 2017; Davidová 2020), and conclude by sketching out an enriched role for architectural design in addressing both the underlying causes and immediate symptoms of ecological crisis, including but recentring the technical discourse of mitigating ecological harm.

References

- Baker-Brown, D. (2017). *The re-use atlas: a designer's guide towards a circular economy*. RIBA Publishing.
- Bateson, G. (2000). *Steps to an ecology of mind*. University of Chicago Press. (Original work published 1972)
- Boehnert, J. (2018). *Design, ecology, politics: Towards the ecocene*. Bloomsbury.
- Davidová, M. (2020). Synergy in the systemic approach to architectural performance: The integral multi- and cross-layered agencies in eco-systemic generative design processes of the post-anthropocene. *FormAkademisk - Research Journal of Design and Design Education*, 13(2).
- Goodbun, J. (2011). Gregory Bateson's ecological aesthetics: An addendum to urban political ecology. *Field*, 4(1), 35-46. http://www.field-journal.org/uploads/file/2011%20Volume%204/field-journal_Ecology.pdf
- Goodbun, J., & Sweeting, B. (2021). The dialogical, the ecological and beyond. *Footprint: Delft Architectural Theory Journal*, 15(1). <https://doi.org/10.7480/footprint.15.1.5668>
- Lovejoy, A. O. (1936). *The great chain of being: A study of the history of an idea*. Harvard University Press.
- Perera, D. (2020). Wicked problems, wicked play: Fun machines as strategy. *FormAkademisk - Research Journal of Design and Design Education*, 13(2). <https://doi.org/10.7577/formakademisk.3378>
- Rawes, P. (Ed.). (2013). *Relational architectural ecologies: Architecture, nature and subjectivity*. Routledge.
- Sadler, S. (2008). An architecture of the whole. *Journal of Architectural Education*, 61(4), 108-129. <https://doi.org/10.1111/j.1531-314X.2008.00194.x>