The Discipline of Architecture and the Rights of Nature

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ABSTRACT: The *Universal Declaration of Human Rights*, proclaimed by the United Nations General Assembly in Paris in 1948, stands unmatched as a common standard for global human rights. As the impacts of industrialization reinforce the dependence of humans on functioning ecosystems, it is fitting for the United Nations to take the lead in advancing dialogue on shared principles for the rights of nature. In 2016, the United Nations General Assembly initiated a dialogue on "harmony with nature," a phrase chosen to describe ecological holism and described sometimes by "earth jurisprudence," to describe legal frameworks for the rights of nature. The *Expert's Summary Report* on that dialogue was presented to the General Assembly at its seventy-first session in September 2016 (United Nations, 2016). The *Expert's Summary Report* includes perspectives from earth-centered law, ecological economics, education, holistic science, humanities, philosophy/ethics, theology, and the arts, media, design and architecture. Representatives from each of these disciplines were asked: What would the practice of the selected discipline look like from an earth jurisprudence perspective? What are approaches, obstacles, recommendations, and priorities for achieving earth jurisprudence?

While harmony with nature is an ancient principle and while earth jurisprudence as a legal philosophy is gaining global traction, the inclusion of the discipline of architecture in such discussions is both new and significant. In this paper, I report on existing dialogues in the discipline of architecture that have bearing on this topic and then ask: What are ways that frameworks for the rights of nature or earth jurisprudence have the potential to shape the practice of architecture? In responding to this initial question, this paper offers a brief view on considering design processes that integrate fundamental rights of nature and offers speculation on the shape of a built environment that is rooted in these principles.

KEYWORDS: Architecture, Sustainability, Nature, Rights

INTRODUCTION

1.0 BACKGROUND

The idea of humans as one interdependent part of an ecological whole, the idea that the health and wellbeing of such a whole is dependent on relationships between its components, and the idea that natural systems have intrinsic value, are each fundamental to ancient and contemporary indigenous ontologies (Westra, 2014). In contrast, the ontologies that shape modern global capitalism are rooted in the idea that humans are separate from the living and nonliving world (nature) and in the idea of nature as a resource for human gain (Merchant, 1990).

At the same time, climate change and other effects of industrialization are bringing global attention to the consequences—including for humankind—of environmental degradation. While it is not clear that economic liberalism is compatible with an eco-centric world view or that there is a place for the intrinsic value of natural systems in market capitalism or in democratic judicial systems, a movement for the "rights of nature" is gaining some notable ground.

Some of the most significant gains are rooted in the Global South. In 2008, the government of Ecuador included the rights of nature in its constitution, explicitly stating that nature has the right to exist, the right to be cared for, and the right to restoration (Lake, 2017). In 2010, Bolivia hosted The *World People's Conference on Climate Change and the Rights of Mother Earth*. That conference concluded with the presentation of a *Universal Declaration of the Rights of Mother Earth* to the United Nations. That declaration describes the earth as an "indivisible community of diverse and interdependent beings with whom we share a common destiny and to whom we must relate in ways to benefit Mother Earth" (Burdon, 2011). This is parallel to work in North Amercia. In 2006, Tamaqua Borough, Pennsylvania passed an ordinance

recognizing nature as a rights-bearing entity. Since then, at least twenty-four communities in the US have done the same. In 2010, New Zealand and Maori people resolved a treaty with the Waikato Settlement Act that includes the description of the Waikato River is a "single, indivisible whole" (Lake, Westra).

The diversity of language used to describe ecological holism reflects fundamental differences in global cultures. In some indigenous languages, specific phrases embody the idea of integration with nature, such as *sumak kawsay* in Quichua. In South America, this is most often described in Spanish as *buen vivir*, a phrase that implies a kind of ecologically-connected wellbeing and is a phrase that has been adopted by proponents of ecologically-minded development in the Global South (Kauffman, 2017).

The intersection of eco-centric worldviews and western thought, mostly in the Global North, has yielded frameworks for talking about relationships with ecosystems in legal terms—in terms of the *rights of nature* or *earth jurisprudence*. But, the idea of natural rights or legal rights is a modern and western concept. In launching a knowledge network on the rights of nature in 2016, the United Nations General Assembly chose to refer to the project with the more globally-inclusive phrase *harmony with nature*.

The United Nations knowledge network's virtual dialogue Harmony with Nature generated an *Expert's Summary Report* that was presented to the General Assembly at its seventy-first session in September 2016 as part of assembly discussions on sustainable development (United Nations, 2016). That summary report included perspectives from earth-centered law, ecological economics, education, holistic science, humanities, philosophy/ethics, theology, and the arts, media, design and architecture. Representatives from each of these disciplines were asked: What would the practice of the selected discipline look like from an earth jurisprudence perspective? What are approaches, obstacles, recommendations, and priorities for achieving earth jurisprudence?

In this paper, I review the limitations and then the opportunities of a harmony with nature or earth jurisprudence perspective in existing dialogues in the practice of architecture. My comments are rooted in my own contributions to the United Nations knowledge network that generated the 2016 Expert's Summary Report.

2.0 EXPANDING ARCHITECTURAL FRAMEWORKS FOR HARMONY WITH NATURE

2.1 Frameworks

The design of the built environment within the context of market capitalism demonstrates extreme disharmony with nature. The most grave environmental crises of the era: climate change—melting ice sheets, sea level rise, ocean acidification, climate disruption and global warming—along with widespread species extinction, are direct consequences of the construction and operation of the built environment through unchecked combustion of fossil fuels and unchecked conversion of carbon-rich habitats to polluting landscapes. The practice of architecture and the nature of the built environment are physical manifestations of the legal, economic, and ideological frameworks that separate humans from the living and nonliving world (nature) and that position nature as a resource for human gain.

Despite architecture's complicity in these most serious environmental crises and despite the near inseparability of contemporary architectural practice from the legal, economic, and ideological frameworks that are at the root of these crises, contemporary architectural theory includes at least three anchoring points for beginning to explore architectural practices that are in harmony with nature.

2.2 Design with Nature

The discipline of architecture includes a body of 20th-century literature and case studies that guide the design of buildings that are integrated with nature at the scale of the architectural site. Site-responsive design in architecture, as described in a canon of North American guidebooks such as *Design With Nature* (McHarg, 1969), *Sun Wind and Light* (Brown, 1985), and *Design with Climate* (Olgyay, 1963) and as demonstrated by architects globally such as Glenn Murcutt and Behnisch Architekten, demands careful response to regional climate and natural phenomena. Like Sim van der Ryn's foundational book *Ecological Design* (van der Ryn, 20007), these and other texts acknowledge the connection between architecture and water, energy, and nutrient systems and propone design strategies that optimize gain from the environment (rain water catchment and solar energy) and that minimize harm (consumption of fossil fuels, on-site pollution). Each of these texts centers on the idea of knowing and responding to the architectural site.

These texts gained popularity concurrently with the discipline of ecology in science, the concept of permaculture in agricultural development, and with late 20th-century awareness of the finitude of fossil fuels. They are at the root of concepts of sustainable architecture and are related to voluntary metrics for greener building such as LEED (Leadership in Energy & Environmental Design) in North America. These texts and metrics represent enormous efforts to make new buildings less environmentally impactful. These same texts and metrics have helped building designers follow the path of car producers—who have made more fuel efficient cars—in making buildings that are proportionally less "gas guzzling."

While the focus on connecting to regional climates did redirect some attention to local ecosystems, the center of this movement for green architecture was its focus on slowing down resource consumption by making buildings that were "less bad." In the case of the original LEED metric, the explicit goal was to make buildings that used fractionally less operations energy. This design paradigm is in keeping with a view of nature as a finite resource and perhaps with idea of the wellbeing of nature as inseparable from that of other components in the ecosystem, but not necessarily in keeping with the idea of the intrinsic value of intact ecosystems.

The limitations of the term "sustainability" as a way of talking about green architecture is parallel to the limitations of this way of practicing architecture. While the term has come to represent the leading edge of green design practice, it is also defined in the often repeated but never cited anecdotal conversation about sustainability as "the ability to keep on taking from the earth without giving back" (Lockwood, 2017).

In order to achieve harmony with nature, the discipline of architecture will need to figure out how to make buildings that have value that is measured by their participation in functioning ecosystems rather than by limitations on their destruction of such. The original texts that anchor this way of thinking—design with nature—include important ideas about interconnection that may not be fully manifested in metrics and green building practices that focus on quantities of resource consumption.

2.3 Materialism

Architecture can be understood as a material practice. Buildings are arrangements of physical material that reacts to other physical material in dynamic, infinitely complicated ways. Architecture is a practice that is dependent on the nature of material, living and non-living, and on the way that those materials interrelate. As Aldo Rossi wrote in *A Scientific Autobiography*, architecture is "made possible by the confrontation of a precise form with time and the elements, a confrontation which lasted until the form is destroyed in the process of this combat" (Rossi 1981). Aldo Rossi's *tempo* (time and the elements) anticipates Diana Coole and Samantha Frost's foundational anthology *New Materialism: Ontology, Agency, and Politics.* They write: "Our existence depends from one moment to the next on myriad micro-organisms and diverse higher species, on our own hazily understood bodily and cellular reactions and on pitiless cosmic motions, on the material artifacts and natural stuff that populate our environment . . . ." (Coole, 2013).

In new materialist philosophy, the physical material of the world exists outside of imposed hierarchies and independent of perception-based ontologies. In this view, physical materials are not inert but are, in the words of Jane Bennett, "key actants" (Bennett, 2010). In this view of material as vibrant, vital, and primary, there can be no separation between humans and nature. Understanding and practicing architecture as a materialist practice is a step toward undermining the humans versus nature dualism.

New Materialism describes a world that is true to the reality of architectural practice. Steel rusts, sunlight warms, water creeps, concrete cracks, spiders weave. Architecture is, in fact, an inseparable part of nature. New Materialism may offer a framework for embracing and expanding this way of thinking about architectural practice. In an expanded materialism, design processes could include a full accounting of the physical context of its material actants. The design process could include an understanding of energy and material sources, an understanding of how energy and material transforms over time. New Materialism offers a way of thinking about design processes as the choreography of material and energy over time.

Compared to ecological holism or *buen vivir*, materialism in architectural practice depends on the idea of absolute interrelation, including between humans and nature. But, unlike ecological holism or *buen vivir*, it does not necessarily include a vision of wellbeing. To anchor a practice of architecture in harmony with nature, architectural materialism would need to be paired with an eco-centric environmental ethic.

2.4 Expanded Site

Architectural site documentation is part of the canon of architectural education and practice. The practice of making site drawings is based on the idea that, fundamentally, good design should improve a site. Even without defining improvement, it is important to consider the site boundaries in this kind of drawing. How do you define the boundaries of the site that is being judged? Is it just the building site itself? Or, does a good design need to be a net gain for an entire city, region, or watershed? Can the benefit be temporary or does it need to be lasting to be considered good design or at least an overall improvement?

Ecosystem thinking and global climate change break down the usual temporal and physical boundaries of site design. For example, emissions from converting forests to fuel in South America have global climate impacts. Even though global climate change will affect some parts of the world more acutely, it is impossible for just part of the atmosphere to be impacted. It is also impossible to separate present from future generations. Everything on the planet is connected and what we do now will impact the future. In these terms, buildings should be judged for their holistic, global, and permanent good.

The idea of interpreting and judging buildings in terms of an expanded site is described well by David Leatherbarrow in what he calls the building's "orientation." In *Architecture Oriented Otherwise* he explains the word in terms of a building's topographical, performative, and experiential context. In his way of thinking, the building is not an object but rather a place where things happen in relation to other things. A building's orientation is the influence it has on light, on an individual person or on a neighboring street (Leatherbarrow, 2009).

Leatherbarrow's perspective could be understood as an extension of Karsten Harries' or even David Harvey's perspective on the ethical functions or political ramifications of architecture in which buildings and cities operate in very broad spheres of influence. For Harries and Harvey, the built environment is inseparable from the social, economic, and politic realities that it embodies and reinforces (Harries, 1997; Harvey, 1990). For Leatherbarrow, this perspective may be more directed at the physical nature or experience of a place than at political, social, or economic realities.

Leatherbarrow writes that contemporary ecological theory may offer a parallel to his idea of orientation, to his idea of "thinking widely and acting locally." While he does not expand on his comparison to contemporary ecological theory, his descriptions of the orientations of buildings do seem to echo the fundamental principle of ecosystem thinking—the idea that everything is connected.

This expanded site of architectural impact challenges the media and methods of architectural site analysis. The next challenge is to find ways to draw the full site—because in architecture, to draw something is to account for it—that account for the extreme local and global natures of environmental impacts.

3. Conclusion: Architecture and Nature

These three frameworks from drawn from current architectural discourse—the idea of responding to nature in architecture, the idea of materialism in architectural practice, and the idea of the site in architectural design—each anchor a way of beginning to think about how architecture might fit into a practice that is in harmony with nature. At the same time, each of these frameworks are limited in their current practice, much because of the way that architecture necessarily manifests the legal systems, economic systems, and ideologies of global capitalism.

It is important to note that while these three frameworks are each in some way relatable to the idea of harmony with nature, or ecological holism, it is more difficult connect these frameworks with earth jurisprudence, or with the idea of rights of nature. This disconnect when it comes to legal philosophy is a result of the limitations of architecture as a practice that is framed by outside hierarchies. Within those structures, architecture does have agency to make connections with ecosystems (connect with nature), to choreograph physical relationships (materialism), and to account for a global site of impact (expanded site).

Meanwhile, while humans and the built environment remain separated from nature, and while the idea of nature itself is a human construction, it is worthwhile to note that every building reflects some cultural construction of the idea of nature in the way that it positions people in relation to the bigger environment. The most important contribution to be made by architects to dialogues about harmony with nature will be in buildings themselves that explore and reflect changing views on the idea of nature in the human world.

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