

# The Socio-Temporary in Architecture: Territories of Second-Order Cybernetics

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## ABSTRACT

*The temporary in architecture is a state of territorial instability that emerges out of interactions between transdisciplinary narratives and architectural theory and its practice. This article extends this notion to the socio-temporary, which is a state arising from constant synergies between the social context and worldmaking. Such narratives were originally influenced by the field of cybernetics and later on by second-order cybernetics reflected in the emergent participatory art practice of the mid-twentieth century through transdisciplinary research. Derived from the theoretical underpinning of this article a simulation is exhibited, which illustrates theoretically elements of Varela and Maturana's autopoietic system behaviour and its close relation to temporality in the worldmaking of architecture. This is a theoretical article – with an element of practice – that seeks to highlight the temporality of the process of worldmaking in architecture.*

*Keywords: Architectural Theory, Becoming, Second-Order Cybernetics, Situations, Socio-Conscious, Socio-Temporary, Worldmaking*

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## WORLDMAKING AND THE EXPERIMENTAL IN ARCHITECTURE

In architecture's recent history, experimentations witnessing the involvement of current transdisciplinary praxis of cybernetics and biotechnology have contributed a great deal to the worldmaking of new design imperatives of semi-natural systems and theoretical discourse in the field. The article explores interim stages of such experimentations theoretically and practically derived from biology and cybernetics, based on the writings of philosophers, scientists

and architectural critics such as Nelson Goodman, Francisco Varela and Sanford Kwinter.

The change and development in the media of representation in architecture under the influence of transdisciplinarity accounts for the emergence of various forms of past, present and future design tools, presentation techniques and drawings as well as the experience of architecture as a whole, and this has also been the motivation of this article. Both representation and individual as well as collective experiences of the emerging architectures have a direct impact on the development of the tools of design, generation, and generativity of worldmaking in the field. This is due to the influence of the technological/digital and biological advancements of the current age (Cook, 2008, pp. 177-178). In

DOI: 10.4018/ijacdt.2012010105

response this has had a great impact on the way we perceive and conceive architecture and as a consequence our experience of architecture as well as our consciousness is constantly changing to adapt itself to new trajectories of perception and cognition (Rattenbury, 2002, p. 1). The main two strands that shaped this article are: the experimentation of worldmaking in architecture under the influence of the biotechnological age and the territorial relevance of cybernetics on the field. Both strands are at the core of transdisciplinary debates concerning complex systems and technological generation that have contributed a great deal to the dynamism of the architectural system of generation, representation and experience (Kwinter, 2002, p. 11).

The relevance between the ideologies of worldmaking in nature and architecture is immeasurable. Nature like architecture builds entities composed of trillions of interacting components where the number of their interactions increases exponentially with the number of the components themselves and therefore these entities are inevitably complex. However, in architecture this complexity confounds conventional design methods. Thus, superficial attempts to copy nature in which rigid modularity is enforced - for example by claiming a correspondence between cells and bricks - will be certain to fail. Hence architectural design methods must have some kind of basis in natural systems in order to model natural survival, but the outcome of such methods does not necessarily have to be the same as that of nature. In fact, this article focuses on obtaining relevant knowledge from natural systems, analysing it, reconstructing it, and using it to build a new hypothesis, a hypothesis for worldmaking in architecture evoked by experimentation. Nelson Goodman emphasises the necessity of the ideology of worldmaking as a remaking process where making always starts from an existing world (Goodman, 1978, p. 6).

Attempts at reaching some levels of investigation in this field of worldmaking of semi-natural systems in the art world can be seen stretching from the work of artists such as Oron Catts and Ionatt Zurr in their Tissue

Culture & Art Project (initiated in 1996), the work of architects such as Marcus Cruz and Steve Pike in their prosthetic architecture, and furthermore to Philip Beesley's immersive and interactive environment created for Venice Biennale 2010 Hylozoic Ground. Cruz and Pike's praxis deliver a degree of integration between biological entities and design practices on a conceptual and experimental level. This is evident in their publication *Neoplastic Design*, which is full of vivid examples of experimentation and explorations of the field of biology in relation to design and representation practices in architecture. This collection features their own work such as *Contaminant* and that of invited guests from *Comfo-Veg Club* (1970s) by Peter Cook to *Density Fields* in *Viscous Bodies* (2008) by Tobias Klein (Cruz & Pike, 2008, pp. 6-15). By covering an array of practical and conceptual examples throughout the history of experimental architecture, Cruz and Pike have emphasised Goodman's rule of worldmaking in that it is a process of making that always starts from an existing world. In their own words, Cruz and Pike describe such new bio-architectures as composites that sometimes appear as constructed entities and other times as living beings, explaining "The line between natural and artificial is progressively blurred" (Cruz & Pike, 2008, p. 6).

In their work, Cruz and Pike strive to connect design processes to current biological phenomena such as genetic engineering, cloning, and transgenics. Such attempts to model biological principles in architecture are not unprecedented. They extend historically back to Le Corbusier's suggestion of buildings that function as an organism, passing by designs by Buckminster Fuller and Frei Otto (inspired by D'Arcy Thompson's key work *On Growth and Form*), reaching the Neoplastic designs of Cruz and Pike. In fact, this historical background of the use of different techniques in design and representation in relation to the current tools and media of representation has played a great part in shifting the purpose of technology from the use of mechanical and clinical machines into the involvement of prosthetic technoscientific

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