

Ecological Thought in Contemporary Architecture:  
The Impact of an Ecological Conception of Nature

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## Certificate of Authorship / Originality

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I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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## Abstract

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The use of the word *ecology* in architecture has up until recently failed to effect a profound impact on the practice of architecture. The development of the concept and word ecology in the sciences was the result of a radical change in the conception of nature. Within the sciences the word ecology is strongly associated with a conception of nature that is enmeshed and dynamically changing. The science of ecology constitutes a radical overhaul of conceptual frameworks and methods for understanding this idea of nature.

Architecture, like science, is a discipline that historically has been profoundly influenced by its engagement with concepts of nature. This is why it is interesting to note that the link between the word ecology and a conception of nature is often unacknowledged in architectural literature. As a consequence the effect of ecological ideas within architecture has often been peripheral to the principal concerns of architectural theory, design and construction. In the 1960's when the word ecological was first used in architectural discourse, the use of the word is associated with a sense that architectural concerns of form and aesthetics should be put aside in order to deal with environmental concerns; that architectural concerns should be sacrificed for the sake of the environment. What is striking about this early discourse is that discussion of design methods and aesthetic concerns were often eschewed in favour of environmental concerns. Historically when we see the word ecological in front of architecture it signifies an overlay of additional concerns and design parameters, but not usually an overhaul of architectural thinking or design and construction methods.

An ecological understanding of nature is important because architecture has so often situated and understood itself through its relationship with nature. Ecology, rather than being equal to nature, is a specific conception of nature. It constitutes a dramatically different conceptualization of nature from that which existed before ecology emerged as a scientific discipline. This radical change in the conceptualization of nature demands a serious level of engagement from the discipline of architecture.

Few architects interrogate the assumptions about nature in architecture. It is possible to identify a trend towards an ecological concept of nature within those disparate practices which use ecological ideas in a way that infiltrates territory that is distinctly architectural. The aim of this thesis is to examine ecological thought and concepts of nature in recent architectural discourse and the work that results from that discourse. The purpose is to identify an ecological understanding of nature in recent architectural discourse and to identify the characteristics of architectural practice associated with this understanding. Because no significant discourse exists which identifies an ecological conception of nature in recent architecture three case studies are selected, which this thesis suggests

display such a conception. The written work of Greg Lynn is examined as an exemplary case in which the assumed character of nature within architecture is challenged. The R&Sie(n) and the Emergence and Design Group case studies involve examining written work, current/recent design and also built forms. The aim of these two case studies is firstly to identify an ecological conception of nature, and secondly to draw some conclusions about the impact of this understanding on their authors' architectural work