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Paper: TOWARDS A MATERIAL ARCHITECTURE: THE AESTHETICS OF GENERATIVE MATERIALITY



Abstract:

The language of generative architecture inherently focuses on the typologies of processes which are non-material. Algorithmic language assumes virtual materiality and relies on computerized image. The generative processes therefore present unique aesthetics that carry in themselves traces of materiality, that architects such as Greg Lynn, Oosterhuis, Zaha Hadid, Tom Mayne, Neri Oxman etc. explore in the physical world.

This research looks into aesthetics of Parametric design, Cellular automata, Flocking of birds, Genetic algorithms, and Shape grammars to define framework for evaluating material applicability to generative processes.

In this paper, I intend to put Aesthetics of Generative Design in historical context. I will define aesthetic implications of algorithms with regard to shape generation, and systemize generative design according to essential and accidental aesthetic qualities. And finally, I will link Performance and Materiality to the aesthetic variations within Generative Design.

Topic: Architecture

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References:

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Image from Digital/Analogue Studio

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Keywords:

algorithmic aesthetics, material variability, performance, emergent materiality