

An exploration into biomimicry and its application in digital & parametric [architectural] design.

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An Exploration into
Biomimicry and its
Application in Digital &
Parametric [Architectural]
Design

A thesis
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Abstract

Biomimicry is an applied science that derives inspiration for solutions to human problems through the study of natural designs, systems and processes. This thesis represents an investigation into biomimicry and includes the development of a design method based on biomimetic principles that is applied to the design of curved building surfaces whose derived integral structure lends itself to ease of manufacture and construction.

 Three design concepts are produced that utilize a selection of natural principles of design outlined in the initial biomimetic investigation. The first design visualizes the human genome as a template on which the process of architectural design and construction can be paralleled. This approach utilizes an organizational structure for design instructions, the adherence to an economy of means, and a holistic linking of all aspects of a design characteristic of the genetic parallel.

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