

# Biomimetic for Building Skin Living

## ENVELOPE FOR CONTEMPORARY ARCHITECTURE



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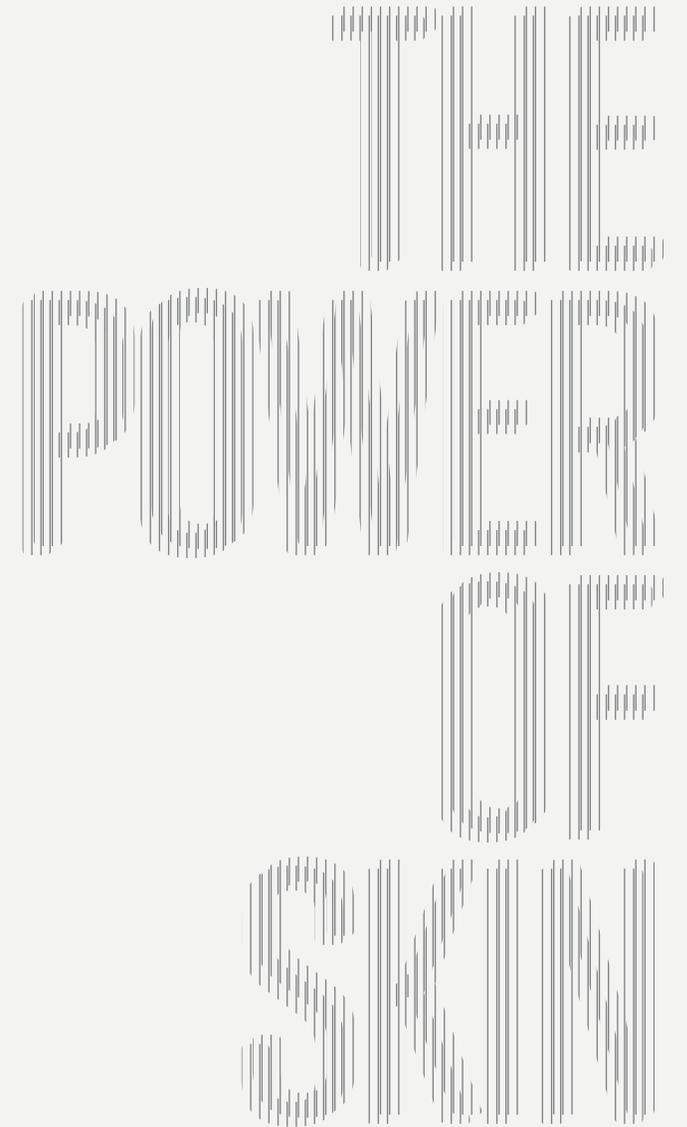
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As a highly interdisciplinary field, architecture is being influenced by many subjects of natural and social sciences. While many subjects hold an indisputable effect on architecture, biological sciences are currently dominating the current era. It is totally comprehensible for architects to observe and imitate the natural phenomena on behalf of a better living. This article will present how to translate the lessons learned from the analysis and observation of the animal world to design experience. Skin is a complex and incredibly sophisticated organ that performs various functions, including protection, sensation, insulation, temperature and water regulation. The skin interfaces with the environment and is the first line of defense from external factors. Similarly, building envelopes serve multiple roles and they are the interface between the building inhabitants and environmental elements.

In architecture, the boundaries between materials and structures are blurred the same way as in nature. The study of biological systems might be useful for our purposes on how new materials can be designed. The new material is inspired by the study of how animal skins perform and respond according to their different properties; they take into consideration various dynamic local environmental conditions, creating a more sustainable way of building hence living. The projects will be focused on specific functions that were unique to the selected animal's skin. The biology of an animal and the environment it lives in determine these functions. The processes by which each animal analysis will be carried out, will innovate in the design and conception of new materials. Which will, in turn, inform new synthetic designs based on biological systems that will describe new aspects and performance of the building envelope.



NEW MATERIALITY IN CONTEMPORARY  
ARCHITECTURAL DESIGN