

IC - (20974) - VERNACULAR ARCHITECTURE AS SUSTAINABILITY MODEL FOR BIOMIMICRY ARCHITECTURE

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Background and objectives

Sustainability is one of the most important challenges of our time, but despite the efforts invested in its achievement, the approaches adopted do not seem to give satisfactory results in general and particularly in architecture. Among these approaches, biomimicry, which aims at innovation and sustainability by emulating proven models and strategies of nature, is also struggling to implement sustainability even though it introduces a recovering philosophy of the relationship between humans and nature.

Meanwhile, Inuit communities in Nunavik are seeking a sustainable production system of their built environment that would integrate human, technological, technical, economic, and ecological needs accordingly with Inuit aspirations. In this context, Biomimicry's relationship with nature that evokes the Inuit one is promising but its' lack of success in implementing sustainability leads us to request what the reasons for such malfunction are and if it could be remedied.

Process and methods (for empirical research)

To answer these questions, a literature review is led to explore the concept of sustainability in general, in architecture and in biomimicry. We aim to circumscribe this notion to better understand its relationship with biomimicry, as we investigate its' developments in terms of its' significance, its' implementation in general and specifically in architecture.

Main results (or main arguments in the case of critical reviews)

This investigation revealed the role of public participation in the definition of the notion itself and its' implementation tools which refers to a central role of humans in sustainability. Furthermore, vernacular architectures seem to embody models that can provide precious guidance for sustainability. Hence, reintegrating Inuit communities and Inuit vernacular architecture that succeeded to combine different needs and constraints of the built environment that becomes a potential path towards a sustainable Inuit built environment in Nunavik and could also benefit architectural biomimicry.

The presentation exposes the topics developments, critics, and findings that the literature review allowed and the methodology it suggests.

Palavras-chave : Sustainability, Biomimicry, Vernacular Architecture, Communities