

Relearning to Learn: Approaching Sustainability by Incorporating Inuit Vernacular and Biomimicry Architecture Principles

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Abstract : Efforts to achieve sustainability in architecture must prove their effectiveness despite various methods attempted. Biomimicry, which looks to successful natural models to promote sustainability and innovation, faces obstacles in implementing sustainability despite its restorative approach to the relationship between humans and nature. In Nunavik, Inuit communities are exploring a sustainable production system that aligns with their aspirations and meets their demands of human, technological, technical, economic, and ecological factors. Biomimicry holds promise in line with Inuit philosophy, but its failure to implement sustainability requires further investigations to remedy its deficiencies. Our literature review underscores the importance of involving the community in defining sustainability and determining the best methods for its implementation. Additionally, vernacular architecture shows valuable orientations for achieving sustainability. Moreover, reintegrating Inuit communities and their traditional architectural practices, which have successfully balanced their built environment's diverse needs and constraints, could pave the way for a sustainable Inuit-built environment in Nunavik and advance architectural biomimicry principles simultaneously. This research aims at establishing a sustainability monitoring tool for Nordic architectural process by analyzing Inuit vernacular and biomimetic architecture, in addition to the input of stakeholders involved in Inuit architecture production in Nunavik, especially Inuit. The goal is to create a practical tool (an index) to aid in designing sustainable architecture, taking into account environmental, social, and economic perspectives. Furthermore, the study seeks to authenticate strong, sustainable design principles of vernacular and biomimetic architectures. The literature review uncovered challenges and identified new opportunities. The forthcoming discourse will focus on the careful and considerate incorporation of Inuit communities' perceptions and indigenous building practices into our methodology and the latest findings of our research.

Keywords : sustainability, biomimicry, vernacular architecture, community involvement

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