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Evaluating the Efficacy of Biophilic Design in Achieving Sustainable Architectural Objectives: Insights from Experts

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Abstract

This study investigates the role of biophilic design in addressing environmental issues within the built environment and its contribution to the goals of sustainable architecture. A mixed-method approach was employed, comprising a literature review to identify key elements of biophilic design, an online survey with 378 participants from academia and professional fields, and focus group interviews with 13 experts. The Relative Importance Index (RII) and thematic analysis were utilized to evaluate the significance of the identified biophilic factors. The analysis revealed six principal objectives of sustainable architecture and elucidated how biophilic design contributes to these goals through five direct and three indirect benefits. The findings underscore the potential of biophilic design to enhance sustainability in the built environment, particularly in Nigeria. Biophilic design emerges as a valuable strategy in sustainable architecture, promoting human-nature connections and offering tangible benefits. The study highlights the importance of integrating biophilic principles into architectural planning to address environmental challenges effectively.

Keywords: Biophilic Design; Sustainable Architecture; Environmental Challenges; Relative Importance Index; Human-Nature Interactions.