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ASSESSING THE EFFECTIVENESS OF BIOPHILIC DESIGN APPROACH IN CONTRIBUTION TO SUSTAINABLE ARCHITECTURAL GOALS

Oluwagbemiga Paul Agboola[*1], Hourakhsh Ahmad Nia[2], Meryem Müzeyyen Findikgil[1], Semih Goksel Yildirim[1]

[1]Department of Architecture, Faculty of Architecture and Engineering, Istanbul Gelisim University, Istanbul, Turkiye
[2]Department of Architecture, Faculty of Engineering and Natural Sciences, Alanya University, Alanya, Turkiye

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 comprised 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 study 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.*

Corresponding Author: *Oluwagbemiga Paul Agboola, Department of Architecture, Faculty of Architecture and Engineering, Istanbul Gelisim University, Istanbul, Turkiye,*
e-mail: opagboola@gelisim.edu.tr

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1. Introduction

The environmental challenges within the human-built environment encompass a multifaceted array of issues stemming from human activities' profound impact on constructed surroundings (Purani & Kumar, 2018; Vuscan & Muntean, 2023; Ojobo *et. al.*, 2024). These challenges manifest across ecological, social and economic dimensions, reflecting the intricate interplay between human progress and environmental sustainability. Pollution is a primary concern, originating from urban areas, industrial zones and construction sites. Emissions from vehicles, industries and improper waste disposal contribute to pollution, posing threats to people's wellness and ecosystem balance (Kolawole & Iyiola, 2023; Al-Dulaimi & Al-Taai, 2021). Unsustainable resource use in construction and urban development depletes energy, water and raw materials,

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