Biophilic Urbanism: Integrating Nature-Based Design Strategies to Enhance Psychological Well-Being in Dense Cities

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***Abstract*—Rapid urbanization and increasing population density have intensified concerns regarding mental health, environmental stress, and reduced access to nature in contemporary cities. Biophilic urbanism has emerged as a nature-based design paradigm that seeks to reintegrate natural elements and processes into the built environment to enhance psychological well-being and urban livability. This paper examines biophilic urban design strategies within dense urban contexts, focusing on their capacity to mitigate stress, restore cognitive functioning, and foster emotional resilience among urban populations. Drawing on interdisciplinary research from environmental psychology, urban design, and public health, the study synthesizes evidence linking nature-integrated urban spaces to improved mental health outcomes. It further analyzes spatial, architectural, and infrastructural approaches—ranging from green corridors and vertical landscapes to sensory-rich public spaces—that operationalize biophilic principles at multiple urban scales. The paper argues that biophilic urbanism is not merely an aesthetic or ecological intervention but a critical framework for designing psychologically supportive cities in an era of intensifying urban density and environmental uncertainty.**

Over the past century, cities have become the dominant habitat for human life. While urbanization has generated economic opportunity, cultural exchange, and technological advancement, it has also introduced profound challenges to human well-being [4]. High population density, limited access to green space, noise pollution, and visual monotony contribute to chronic stress, cognitive fatigue, and rising rates of anxiety and depression among urban residents [3]. These challenges are particularly acute in dense cities, where spatial constraints often prioritize efficiency and infrastructure over environmental and psychological quality.

Emerging research across psychology, neuroscience, and urban studies suggests that the disconnection between humans and natural environments plays a significant role in these adverse outcomes [2]. Human perceptual and cognitive systems evolved in close interaction with natural settings, shaping innate preferences for organic forms, multisensory stimuli, and environmental variability. When urban environments lack these characteristics,

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