

Chapter 16

Psychological (and Emotional) Architecture: The Values and Benefits of Nature– Based Architecture – Biophilia

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ABSTRACT

Wilson calls biophilia an “innate tendency to focus on life and lifelike processes” (Wilson, 1984, p. 1), an “innate emotional affiliation of human beings to other living organisms” (Wilson, 1993, p. 31), or an “inborn affinity human beings have for other forms of life, an affiliation evoked, according to circumstances, by pleasure, or a sense of security, or awe, or even fascination blended with revulsion” (Wilson, 1994, p. 360). The research in this area is indicating that bringing elements of nature into the workplace, whether real or artificial, is beneficial in terms of employee outcomes. Nevertheless, although investigation into the benefits of biophilia for individual well-being is relatively new, there is clearly mounting evidence that biophilic design can have a positive impact, from reducing stress and anxiety, to improving the quality and availability of respite from work and in increasing levels of self-reported well-being.

INTRODUCTION

Natural objects, shapes, and processes, according to Joye (2007a), have often acted as a source of inspiration throughout the history of architecture. Perhaps the most obvious example of this inspiration is ornament, which often contains representations that are closely similar to, or reminiscent of, the animal and plant world. Besides such literal imitations, some architects, notably Antoni Gaudí i Cornet, drew lessons from the structural forces governing natural structures, resulting in efficient and economically built architecture (Sweeney & Sert, 1960). Recently, there seems to be a renewed interest in the relationship between nature and architecture (Feuerstein, 2002). More specifically, such architecture makes use of digital design software which allows one to easily recreate the curvy shapes and geometry that are characteristic of natural entities (Lynn, 1999); namely, biophilia.

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Biophilia is the deep-seated need of humans to connect with nature. It helps explain why crackling fires and crashing waves captivate us, why a view of nature can enhance our creativity, why shadows and heights instill fascination and fear, and why gardening and strolling through a park have restorative healing effects (Ryan, Browning, Clancy, Andrews, & Kallianpurkar, 2014). Biophilia, as a hypothesis, may also help explain why some urban parks and buildings are preferred over others. Research scientists and design practitioners have been working for decades to define aspects of nature that most impact our satisfaction with the built environment. Furthermore, as new evidence emerges, the relationships between nature, science, and the built environment are becoming easier to understand traditional wisdom and new opportunities.

The design patterns have been developed from empirical evidence and interdisciplinary analysis of more than 500 peer-reviewed articles and books (Ryan et al., 2014). The patterns have a wide range of applications for both interior and exterior environments, and are meant to be flexible and adaptive, allowing for project-appropriate implementation. From a designer's perspective, biophilic design patterns have the potential to re-position the environmental conversation to give the individual's needs equal consideration alongside conventional parameters for building performance that have historically excluded health and well-being. Therefore, this chapter affirms the importance of natural form as a perennial source of inspiration for architecture. Hence, the purpose of this chapter is on the psychological (and emotional) architecture, with an emphasis on biophilia (or the nature-based) and the values and benefits of biophilia. In fact, the main conclusion of this article is that, nature-based forms and organizations in architecture are valuable for human emotional and cognitive functioning in the workplace.

This chapter serves several purposes. First, it is one of many other chapters in this book related and interrelated to topics of architecture, biophilia, and psychology. Second, this chapter challenges and encourages researchers and practitioners to critically question and analyze the situation at hand to prepare for and address the situation in the future from an interdisciplinary paradigm, balancing strengths and weaknesses among disciplines. Third, this chapter introduces the claim that the existence of a correlation and causation of biophilic architecture may have on the psychological and emotional functionality of the workplace, which in turn may be hard to understand by someone who is not familiar with this topic or interdisciplinary topics.

This claim, while it may not necessarily be innovative, is the same claim that architects have been hypothesizing, but often lacks and continues to lack empirical research data to support the claim (Green, 2012); hence, the development of the Leadership in Energy and Environmental Design, or LEED. Fourth, this chapter highlights the weaknesses inherited within the topic itself, there exist a lack of interdisciplinary partnership between the fields of architecture (lacks the strength in research and research methods to yield valid empirical data) and psychology [lacks the interest in researching the practice of biophilia and its correlation and causation in the workplace (often leaving the responsibility up to industrial and organizational psychology and environmental psychology)]. However, there exists a miscommunication, and sometime a lack of communication between, the fields of architecture and psychology (both industrial, organizational, and environmental psychology). This lack of interdisciplinary and communication partnership often resulted in the claim that:

1. There is no relationship between architecture and psychology.
2. The relationship is disjointed.
3. The relationship is confusing.

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