

INTEGRATION OF BIOPHILIC DESIGN AS AN INNOVATIVE ARCHITECTURAL TECHNIQUE IN THE CONSTRUCTION OF PUBLIC BUILDINGS; A PANACEA FOR ECONOMIC DEVELOPMENT

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Abstract

Biophilic Architecture is based on the assertion that humans have an innate connection with nature that should be expressed in their daily lives, especially in urban built environments. This has not been a strong feature of architectural principles, yet potentially offers great rewards if the assertion is true. This paper reviews the psychological and physiological evidence that explains the human-nature connection. If the innate connection is real, then there should be evidence whenever biophilic architecture is practiced in construction industries for significant social, environmental, and economic benefits. The paper also emphasized how the new biophilic architecture as an innovative technique is associated with landscaping buildings using biophilic principles, and features such as fractal patterns in creating new human-nature connections. The paper concluded that the integration of biophilia in the design and construction of public buildings, leads to positive economic development in terms of human performances, health and emotional states.

Keywords: integration, biophilic design, public buildings, economic development.

Introduction

Man's affinity for nature has been as can be observed from the earliest human structures where various naturally induced styles were used ranging from animals' characteristic of the Neolithic GöbekliTepe; the Egyptian sphinx, or the acanthus, to leaves adorning Greek temples and their Vitruvian origin story. Generally, from the primitive hut to the delicate leafy filigrees of Rococo designs are example of how far man has come in his revolution. Proceeding to and after the Industrial revolution man has preferred to live among nature. Various cultures and traditions around the world have in one way or the other incooperated nature into homes and public spaces. Some examples are the garden courtyards of the Alhambra in Spain, Dorcelain fish bowls in

ancient China, Donsai in Japanese homes, Papyrus ponds in the homes of Egyptian nobles, the courtyard in the traditional Yoruba setting. The consistency of man trying to bring in nature into the building insinuates that biophilic design is not enormously a new happening but relatively a field of applied science, that preserves history, human intuition and neural sciences showing that connections with nature are vital to maintaining a healthful and vibrant existence.

Biophilia as an inherent human inclination to affiliate with nature could be summarized as "love of life" (Browning, Ryan, and Clancy, 2014). Biophilia evokes the idea of reciprocity and how friendships are beneficial to both parties in more than just one way, but especially in the way of happiness. The relationship between humans and nature can be one of respect and love rather than domination. The outcome can be rich, satisfying, and lastingly successful, but only if both partners are modified by their association so as to become better adapted to each other. With knowledge, understanding and sense of responsibility, one can create environments that are ecologically sound, aesthetically satisfying, and economically rewarding. This process of reciprocal adaptation occurs through minor changes in the people and their environment, but a more conscious process of design can also take place (Kellert, 2008, Kellert, 2012, Kellert and Finnegan, 2011). The proposal of a biophilic integrated design is a great, yet natural answer and a sound of relief as this design focuses on achieving all the four cardinal needs of man, the attainment of which invariably will provide enabling environment for higher productivity viz –a-viz economic development.

Concept of Biophilia

The term "biophilia" means "love of life or living systems." It was first used by Erich Fromm (1976) to describe a psychological orientation of being attracted to all that is alive and vital. Ryan (2014) used the term in the same sense when he suggested that biophilia describes "the connections that human beings subconsciously seek with the rest of life." He proposed the possibility that the deep affiliations humans have with other life forms and nature as a whole are rooted in human biology. Unlike phobias, which are the aversions and fears that people have of things in the natural world. Phobias are the attractions and positive feelings that people have toward organisms, species, habitats, processes and objects in their natural surroundings.