

Improving Sustainability Concept in Developing Countries

Nature Influences on Architecture Interior Designs

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**Abstract**

Concept is on the most important and primary elements during the design process. Through the history, nature has been always a source of inspiration for the human begin in different aspects of their life. Architecture interiors as one of the remarkable features in every society cannot be separated from nature. Nowadays architects and interior designers are constructing buildings without having a specific target or goal which decreases the value of the buildings. Various designers have been using concepts inspired from nature but still there are some missing parts in one of their forms, function, or structure. Therefore, the best solution for the architects and designers to increase the optimization in their design works is looking at the nature in every aspect deeper and try to apply them in their conceptual design of their project which is the heart of the design process while other architects have neglected concepts of nature despite that the surrounding environment and nature always influences human perception. The aim of this research is to understand the relationship between nature and human perception and the role that nature plays in architectural interiors to achieve buildings integrated with the surrounding environment. Also it draws attention of architects to nature and inspiration from nature in different perspectives. This paper presents projects having different concepts in architectural and interior design to make guidelines for designing buildings integrated with nature through example analysis. This paper concludes the importance of making a complete integration between the building exterior, interior and the surrounding nature by using a clear natural concept from the surrounding environment to be solving the design problems.

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## 1. Introduction

Nature is an emotional element within the surrounding environment and is an important aspect to deal with everyday affecting everything around human. Human always communicates with nature; since starting to build shelters and using them, nature has been used as an important and basic part in the plans and designs. Human being noticed the advantages of communicating with nature as; health, less stress and sickness. Plants and green spaces can help in perfection and safety in the cities and improvement of social relationship and interaction in residential environments<sup>5</sup>.

Most of the sciences start to look back to nature and inspire from it and many research and studies are done through this, the idea started from 1998 by Janine Benyus. Nowadays many researchers are working on it because they feel that nature is a great source to inspire from it. Jirapong believes that nature has many great lessons for human to study and learn from it. The creativity use of material, resourcefulness structural systems act in response to dissimilar kind of climatic and environmental forces. Tomasz and Rafal in their Structural design inspired by nature are saying “Complicated design problems needs novel solution to solve and as most of the solution already done in nature”<sup>2</sup>.

The realization that individuals exist within enclosed structures for most of their live has become increasingly important. Designers need to understand how spaces affect individuals to design spaces balancing the stress of everyday life and create environments of personal well-being<sup>3</sup>. Therefore, there is a need for a theoretical and conceptual framework in obtaining guidelines for designing new natural buildings to be integrated with the surrounding environment.

## 2. Literature survey

Frank Lloyd wright one of the leading figures of the 20th century architecture says “nature and natural processes are the guiding principles or the main metaphors of the design approach”. Wright discovered the principle of order and unity in nature<sup>10</sup>. These principles include unity of site, structure, unity of form and function, natural materials and colors. The metaphors of Frank Lloyd Wright, is characterized by additive simple volumes interlocking with relative freedom to each other and putting inconsideration the functional needs. “Form follows function” was put into practice by Wright<sup>13</sup>.

Le Corbusier supported the Bauhaus program and his projects involved him to investigate domestic space. The most successful metaphoric process is Notre Dame du Haute Ron champ Chapel, by Le Corbusier built in France in 1955<sup>11</sup>. The building symbolizes spirituality in form and details. The architectural form of the chapel was influenced by the idea of a ship. Charles Jencks, have remarked on the building’s resemblance to everything from an ocean liner, the flying winged headdress of a French nun and even a big fat duck<sup>9</sup>.

Mies van der Rohe his memorable metaphor “less is more” gives the idea of reducing architectural design to its minimal and basic nature. The application of metaphor in his work was achieved by reducing spatial dimensions to the minimum, eliminating unnecessary materials and decoration, as well as designing with simple details<sup>13</sup>. Andrew Ortony has identified three characteristics of metaphors utility: vividness, compactness and expressibility, short metaphors carry a great deal of abstract and intangible information in a concise and memorable package. Lakoff says that “New metaphors create the entire conceptual system that human activities depend on”<sup>12</sup>.

Metaphors as literary and scientific structures are the reflections of a certain era, its culture and its environment. Tatlin used time as the fourth dimension. He created metaphor for interactive space reversing the interior and exterior space relationship incorporating the converted with each other. He used skeletal structure as a metaphor on the external surface it is beyond the interplay between exterior and interior<sup>10</sup>.

Architects apply verbal and conceptual metaphor on visual images as well as visual metaphors and by using different interpretations transform them into visual images. It is much more intelligent than using visual metaphors straightaway and it creates more developed architectural designs because the same abstract concept changes from one architect to another and varies according to different views of the same architect at different times.

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