

# Mental Health And Green Architecture

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**Abstract:** *Today, technology and science turned architecture into an environmentally-friendly way to prevent the destruction of nature as well as restoring nature in urban environments, green architectural approach. In this study, the positive physical and psychological effects of this architecture on human are examined.*

*The environment is a general concept that encompasses the entire planet with all its features and elements, and any manipulation of it causes changes that will affect the environment and the planet.*

**Keyword:** *Green Architecture, human lifestyle, psychological comfort, Air pollution*

## I. INTRODUCTION

Human and nature have always been interacting throughout history. The pristine nature was the first human haven and the caves were a safe for humans. But the relationship and impact of man and nature has changed over time and throughout history. It can be said that the whole process of human evolution has been the result of human interaction with nature. The environment is a general concept that encompasses the entire planet with all its features and elements, and any manipulation of it causes changes that will affect the environment and the planet [Paul and Taylor, 2008].

Psychological effects, the lack of a natural environment, and the human's inability to stay away from nature is an important issue in his life. In other words, architecture and its environment significantly affect the behavior of individuals. Therefore, the type of human relationship with nature in the living environment affects its states and spirits and shapes his behavior [Thatcher and Milner, 2014].

## II. MAN, AND RETURN TO NATURE

Urban man's states and attitudes are certainly different from that of rural people. The urban man finds himself in a busy and tense environment everywhere in the midst of harsh and deadly buildings, which forms his daily perspective

without the slightest satisfaction of the aesthetic sense (Danesh, 2018). This is a major challenge in today's human life. In order to achieve such a peace of mind, man has to interact with nature.

Nature means comfort and tranquility. If we design a building which is nature-friendly and relaxing, we can say that we have come to interact between architecture and nature. Nature, despite its beauty and attractiveness, provides two limitations for humans:

✓ **Material constraints:** Man cannot withstand all the conditions of nature, and he has to separate from nature and refer to a different environment.

**Theoretical limitations:** Human insights and thoughts on the definition of the status of nature.

Both of these factors create the architecture of different environments in the heart of nature (Pariafsai, 2016).

## III. GREEN ARCHITECTURE

Combining architecture with nature and plants is not a new idea. Green space design began from the time human attention to architecture (Mehdizadeh et al, 2014). The place of life includes the use of areas with the design of the hanging garden of Babylon is a long-standing art of human interest. The suspended gardens of Babylon contained pillars of gardens, over which the plants and green trees were appealing

and beautiful. But the whole story of the presence of nature in ancient architecture did not end in the suspended gardens of Babylon. The use of natural plant designs and stones in ancient architecture such as Persepolis and later in the Islamic era and in the architecture of the mosques are another presence of nature in ancient architecture. Green architecture is the result of an interactive relationship between man and nature that views the building as a living entity (Danesh et al, 2019). This attitude to architecture as a living entity is one of the long-term implications [U.S. Green Building Council]. Green architecture is the basis of sustainable architecture and it is absolutely essential for the preservation of the natural resources of the world and the physical and mental health of the future of mankind [Heerwagen, 2000].

**GREEN ARCHITECTURE AND PSYCHOLOGICAL COMFORT** In order to understand the relationship between the building and the environment, it should first be perceived by the human viewpoint about the environment. The basis of building is the pursuit of nature. Grouter said, "The basis of building is intervention in nature". The type of this intervention is closely related to the way humans think about nature. One of the main ways of communication and interaction of green architecture with nature can be divided in two parts:

✓ **USE OF PLANTS' CONCEPTS IN ARCHITECTURAL STRUCTURES**

The use of tree form and the split and distribution of power in branches in the architecture has been a historical motive and inspired many of the great architects and engineers of the twentieth century, such as Frank Lloyd Wright, Milart and Fry Otto.

✓ **PEACEFUL COEXISTENCE WITH NATURE IN BUILDINGS**

Humanity has turned from the distant past to reconciliation with nature and changing the urban landscape to create green roofs or roof gardens. Green roofs are designed to transform the dead spaces of the roof into a dynamic environment.

The use of these methods in green buildings is aimed at harmonizing, understanding and revitalizing the natural environment in green architecture. But aspects of its psychological and emotional impact on users are of particular importance and are the main concerns of green building designers [Barton and Rogerson, 2017].

**IV. THE ROLE OF PLANTS IN ABSORBING AIR POLLUTION IN BUILDINGS**

The ventilation of the living and workplace, and the smell of sweat. The well-balanced smell is one of the factors that not only improves the performance of the oxygen transfer to various organs of the body, but also helps to increase the productivity of individuals and increase their concentration during work and morale. The indoor air pollution level can be three times higher than city centers or high-traffic roads. The

World Health Organization has said that one million and five hundred thousand people die each year from house contamination [Fisk and Rosenfeld, 1997].

The positive and varied effects of plants on humans and improvement of their environment indicates the importance of using plants as part of the design process in architecture, and the need to pay attention to the combination of architecture with nature during design and making it as a useful and responsive solution to today's human and physical dilemmas.

**V. DISCUSSION AND CONCLUSION**

Attention to nature and life alongside nature improves the level of human mental life and exerts a profound effect on his feelings and spirits. So placing a wall and a green roof in an architectural design is an ideal thing in the life of a machine and far from the present-day nature of man.

The result of attention to green architecture, preventing degradation of nature, reducing the consumption of fossil fuels, polluting the environment, air purification and, most importantly, psychological effects on humans such as increasing calm, sense of happiness and excitement, positive attitude towards life, creating intimacy, reducing stress and increasing energy.

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