

## **Biophilia in interior design and its impact on achieving sustainability**

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### **Abstract:**

Nature was and still is the first human teacher that influences and drives an interior designer's imagination to use nature's models and systems in the interior design process.

Recently, the interior designer turned to design that is compatible with nature in order to enhance the positive relationship with the environment in the interior spaces, and new trends have appeared in the field of design, such as nature-loving design (Biophilia), which promotes positive communication between humans and the environment in the internal spaces. The technological and industrial advances that have occurred in our society and culture have led to the isolation of man from nature and as a result some designers in the field of interior design are trying to create a safe interior space to be more integrated with the environment and compatible with human nature. The research problem talks about the loss of the link between man and nature in the internal spaces, despite the possibility of integration and a return to nature through the philosophy of Biophilia as a direction of sustainability in interior design.

### **Key words:**

Biophilia - interior design – sustainability

### **Introduction:**

Interior design trends have become revolving around the overlap of design ideas with the environment, with the emergence of concepts and terminology of environmental and sustainable design, which is one of the most important directions of Biophilia that reflects the successful relationship between man and nature. The connection between man and nature is an instinctive need inherent in it as a result of the tremendous deterioration that has occurred in environmental systems. And the overlap of modern design issues with the environment, where modern design issues have become a motivation to move away from the environment for many reasons, including: speeding up the design process, setting standards for designing spaces with the greatest possible degree of flexibility in use, or as a kind of modernity, so many users are looking to have healthy and environmentally friendly spaces, which is precisely what is

reflected in the concept of Biophilia, which seeks to reconnect the human being and his/her surrounding environment to achieve harmony and compatibility with it.

Accordingly, the research adopts the application of the concept of biophilia in interior design, to raise the health and psychological level of the human being inside the spaces, improve his productivity and reduce the negative effects on the environment. Where biophilia aims to achieve this difficult equation to preserve the environment and human health without negatively disturbing the relationship between them.

**The research problem:**

The loss of the link between man and nature in the internal spaces, despite the possibility of integration and a return to nature through the philosophy of Biophilia as a direction of sustainability in interior design.

**Research aims:**

- Analyzing trends to strengthen the relationship between man and nature, through Biophilia, to create an interior space for the human that enhances his health and achieves his well-being.
- The participation of nature in the design process for the benefit of nature and people

**Research importance:**

- Increase the connection between humans and the environment inside buildings by integrating the interior space with nature.
- Simulating the relationship between man and nature, and the psychological connection with it, to positively communicate with nature in the interior spaces.

**Research limits:****Objective limits:**

Mixing modern technological methods with simulating nature to transfer the positive impact of the external environment on humans through interior design elements.

Studying environmental influences related to human health and the practice of various activities and his performance in the spaces through Biophilia.

**Place limits:**

A study of interior spaces through the positive effect of the environment on humans.

**Research methodology:**

The research is based on several search methods, including:

**The Descriptive and Explanatory method:**

- Analyzing the trends of sustainability and its rise towards new human values that are called biophilia.
- The study of the interaction between the characteristics of nature, humans and interior space through Biophilia and its effect on his health and well-being.

**Analytical method:**

- It consists in testing the study hypotheses, with the aim of achieving the research objectives, and leaving the theoretical framework to the applied framework.

**Research axes:**

- 1- Sustainability and the emergence of biophilia
- 2- The concept of biophilia
- 3- Aspects of biophilia
- 4- The biophilia design aspect
- 5- Steps of biophilic design
- 6- Ecological aspect of biophilia
- 7- Analytical project

**Sustainability and the emergence of the Biophilia :**

The sustainable design was directed at its beginning to reduce the negative impact on the environment by paying attention to energy and resources, but it failed to study the factors affecting human health and the basic needs for contact with nature, and then he was directed after that to reduce the negative impact on human health by paying attention to health values and health of the occupants of the place, but these trends did not strengthen the relationship between man and nature, and this is the missing piece in the puzzle of sustainable development, so that biophilia has appeared, which aims to simulate the innate relationship between man and nature, and the psychological and physiological link to positively communicate with it in the internal spaces, it is a form of sustainable design that provides an opportunity to realize the benefits of environmental, social and economic sustainability aspects in the interior spaces.

**Aspects of biophilia:**

The aspects of biophilia are multiple attempts that depend on the human being attracted to natural systems and processes and translate this to restore the interior design processes to their correct environmental path, which reflects positively on the environment as well as the health and well-being of a man.

**Stages of biophilic design:**

- 1- A good understanding of the processes and characteristics of nature, the systems of nature, the fundamentals of aesthetics, taking into account the design and environmental considerations of the Biophilia trend, which include the formal aspects imposed by naturalism on the design that satisfy the functional need for the desire to achieve a specific goal or achieve the purpose of the design, taking into account the technical aspects that arise from the properties of materials and items used and methods of forming them.
- 2- Reliance on inspiration resulting from biological models found in nature, and man's deep understanding of his biology, history and culture in an era in which black technology dominated.
- 3- Man's understanding of himself as a historical and cultural being in a way that is not independent of nature, to emphasize his individual and group identity in the void in which he lives.
- 4- Dependence on human ideas that work in combination with the principles of nature to achieve the principle of biophilia, which is through the positive impact of the environment on human health through the combination of nature with the theoretical life of man to design a vital space for housing that respects man and nature together.

5- Addressing the idea of sustainability in spaces by paying attention to human emotion as an important element of the sustainable design structure and simplicity in implementation to achieve social benefits to the occupants of the place through biophilia, as its first goal is to achieve the idea of total sustainability of internal spaces.

### **Applied Project results:**

- 1- Various sustainable design trends, including Biophilia, contribute to giving a systematic approach and an environmentally friendly design that achieves a positive impact of the environment on human health and well-being.
- 2- It is possible for the Biophilia trend to be fully or partially applied in the design of interior spaces. It is not a conditioned that the design completely conforms to the Biophilia, but it may partially combine more than one direction.
- 3- Biophilia is a trend that is compatible with the environment and positively affects human health and well-being. It does not contradict modern design trends, but rather is one of the ways to access them.

### **Research results:**

- 1- Biophilia is one of the most important sustainability trends that aim to explore design patterns that merge and interact with the external nature in a dynamic and balanced manner that seeks to preserve human health, both physically and psychologically.
- 2- Biophilia simulates the innate relationship between nature and people, which supports the psychological and physical well-being of the human being by simulating the forms and systems of nature.
- 3- The application of the concept of Biophilia in interior design is to be able to realize the concept of naturalness as a source of life through its participation in the design process directly or by looking behind it.

### **Recommendations:**

- 1- The necessity to strengthen the relationship between man and nature through Biophilia to create an interior space for a person that enhances his health and achieves his well-being.
- 2- The necessity to pay attention to the trend towards the participation of nature in the design process for the benefit of both nature and man.
- 3- The necessity to develop design visions for the elements of Biophilia that provide man with his requirements from nature and make him in complete with it.
- 4- The tendency to design interior spaces that give rise to life compatible with nature and support human health and well-being.
- 5- The need for the state to adopt the idea of returning to nature through the Biophilia trend as one of the directions of sustainability in design, by setting standards for buildings and projects that measure the extent to which the Biophilia trend has been achieved as a modern trend of design that supports the idea of human integration with nature in its internal spaces.

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