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# The fourth dimension (time) as a basic driver for using the transformed interior architecture in interior spaces

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## Abstract:

The impact of the fourth dimension (time) on the development of globalization, technology, and sustainability in interior spaces and architectural buildings can be profound and complex. By looking at the transformed interior architecture as a solution to this effect, we can analyze the relationship between these elements. Time has an impact on globalization through rapid change in market requirements. Globalization forces companies and institutions to quickly adapt to changes in the global market. Time here plays a crucial role in achieving flexibility and rapid adaptation, as demographic changes over time change the demographic composition of societies, which requires continuous changes in how interior spaces are designed and used. Time also has an impact on technology as it develops rapidly, which means that architectural solutions It must be able to adapt to these changes, such as integrating smart technology into indoor environments. As time progresses, new technologies are developed that contribute to improving sustainability, requiring interior designs that can be updated and adapted to new technology. It also has an impact on sustainability as it imposes new challenges in the field of climate change, which requires sustainable solutions that respond to these challenges on an ongoing basis, and over time the management of natural resources becomes more important, which requires architectural solutions that contribute to the preservation of these resources. The solution to these challenges lies in the use of transformative interior architecture, as it provides flexibility and adaptation to changes in the market, technology, and environment. It can also integrate modern technology in innovative ways, such as the use of smart lighting systems, climate control technology, and furniture that is adaptable to new technologies. As the designer was able to manage resources by designing spaces to be multi-use and reconfigurable, more efficient use of resources and reduced waste could be achieved. We see the process of transformation only when contemplating nature, where everything transforms, as all living organisms transform and change over time, as they change their shape and behavior to adapt to the surrounding changes in order to survive, and we see these changes in shape under certain conditions either to obtain food or to defend themselves and hide, and our bodies change from birth to death, and these changes are reflected in our bodies over a long time period, in evolutionary time periods, so the idea lies in the purpose and what we want to create, the transformation here does not represent the transfer of something from one point to another, but the process of transition is the subject of design to make the structure and the transformation in shape, size, color and some other design changes, and here the design depends on the idea based on transformation and how to design a structure within a structure.

**Research Problem**: The widespread use of information and communication technology and the adoption of globalization, such that the world has become a small village, has had a rapid impact on human perception of time, and its requirements and needs have changed accordingly, including the impact of this on the reshaping of internal spaces. However, the space has remained static and frozen, unable to adapt to changing factors to meet human requirements within the space.

**Research Objectives:** • Achieving the maximum flexibility for users of architectural spaces. • Creating an adaptive space that interacts with the variables of human needs and develops rapidly, thus enabling these spaces to adapt and adapt to changing requirements. This requires that the space be transformable and capable of change and replacement.

**Research Importance:** The ability of the interior architecture designer to deal with internal spaces and make them adaptable and variable according to developments and changing needs according to the fourth dimension (time) in a way that meets the physical and moral needs of the user of the space and responds to the space and achieves the human requirements and needs of the user.

**Research Methodology:** 1. Descriptive analytical method: an analytical study of the concepts of the fourth dimension and its reflection on interior architecture using transformative interior architecture and an analytical study of the models of transformative interior architecture that adopted time as a fourth dimension in their design philosophy. 2. Inductive deductive method through extrapolation of the meanings of time and deriving the characteristics of each meaning.

**Results:** When introducing the fourth dimension (time) into the design process, due to its impact on globalisation, technology, and sustainability, which requires flexible and adaptable architectural solutions. Transformative interior architecture provides these solutions through flexible designs, integration with modern technology, and effective management of resources. This approach can help meet future challenges and adapt to the continuous changes in the market, technology, and environment through:

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1. Increasing functional efficiency: • Transformative interior architecture that takes the fourth dimension (time) into account enables spaces to quickly adapt to different activities. This increases the efficiency of space use and provides greater flexibility in meeting the needs of users. • Facilitating quick transitions between different activities such as meetings, individual work, and group activities, which enhances the productivity of users. 2. Improving the user experience: • Spaces that can be easily adapted based on different schedules and needs provide a comfortable and convenient experience for users. • Enabling users to modify spaces themselves enhances their sense of control and comfort. 3. Reduce costs in the long term: • Reduce the need for major and expensive renovations thanks to flexible and adaptable designs. • Improve the use of resources and reduce energy consumption through smart and sustainable designs. 4. Stimulate innovation and creativity • Flexible environments that adapt to changing activities and needs encourage innovation and creativity among users. • The ability to adapt spaces to new technologies and tools that contribute to improving different processes.

## Keywords:

Fourth imension, The concept of transformation, Globalization, Technology development

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