

Architectural form and Dynamic Architecture technology

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Abstract:

The nature have lots of wonderful examples that God-given ability to move, all the organisms in a state of constant movement and this movement which causes the changing in the form of the organism has been a source of inspiration for a lot of architects. So the movement technology in buildings emerged in the recent decades as a result of the stunning progress in various fields of life, that architects desire to introduce many of the comforts and pleasure in buildings .there is no restrictions which control the architects thinking for example governing the building wall can move, the ceil can be folded and the building can spin on its axis a full cycle. All of these developments are sparking the desire inside the architects to find new moving architectural formations that were difficult to be achieved before

KEYWORDS:

DYNAMIC ARCHITECTURE - TRANSPORTABLE ARCHITECTURE - ARCHITECTURAL FORM – TECHNOLOGY - RESPONSIVE ARCHITECTURE

Introduction:

Nature is filled with many wonderful examples of God endowing us with the ability to change and move to meet our needs, including humans, animals, and plants. Since architecture is the science and art of constructing various facilities and creating the appropriate environment for humans to carry out their various activities, it had to keep pace with this change in human needs according to the development of their ideas with the technological revolution in various fields. Therefore, the need has emerged for architecture that changes to be compatible with the changing desire of the individual and society, which demonstrates that need is a catalyst for change and development in architectural work, and that it is compatible with the good exploitation of science and its applications in a way that achieves the satisfaction of diverse and multiple requirements.

Many architectural trends have emerged that aim to respond to them, especially the constantly changing needs or those that are expected to change later, the most prominent of which is DYNAMIC ARCHITECTURE, which includes the movement of the elements contained in the building.

Research methodology: The research is based on three axes:

The first theoretical axis: presenting the concepts of the theoretical base of the research, as it deals with the concepts of mobile architecture and the foundations of the architectural formation of buildings and their standards.

The second analytical axis: analyzing some analytical experiences of global and local projects and drawing results and indicators.

The third applied axis: Proposing a proposed approach in the form of recommendations extracted from the theoretical and analytical study of a case study in which specific standards are available and determining the extent of their application and moving from the theoretical framework to implementation.

Recommendations:

- Expanding the architectural background of architects, with the characteristics, shapes and capabilities of mobile buildings, through the creation of study curricula and the work of research groups such as (Kinetic Design Group) as at the MIT Institute - the United States of America, so that the architect becomes familiar with technological aspects that have become a major contributor to shaping the identity of buildings.
- It is recommended to emphasize taking advantage of solutions that are compatible with the local character so that the local identity does not fade away with only mobile and technological thinking taking over the buildings.
- A recommendation to emphasize architectural solutions that are distinguished aesthetically, economically and functionally (through versatility of use) in mobile buildings, which leads to visits to these buildings and thus increases the economic return and increases national income.
- It is recommended to use various environmental solutions, in order to save the energy used and achieve environmental comfort for humans inside the mobile architecture.
- It is recommended that when dealing with mobile systems by architects, they must look at the desired benefit of these systems, evaluate them, and compare them with the traditional solutions that can replace them.

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