

Hologram Applications in Architecture and Interior design

Dr. / Rania Mosaad Saad

Lecturer of Interior Design and Furniture, Faculty of Applied Arts-Helwan University

Abstract:

The great technological development is one of the Features that distinguish this age in the field of science and modern technology, but this development requires the consolidation of a sense of creativity, innovation and willingness to make a balance with the global culture. The real creativity of a nation is the free creativity of the artist who works to raise his mind always, innovation is the energy inherent in the consciousness of the artist to achieve his desires , and the emphasis on cultural responsibility carried by the artist himself.

Holography is one of the most prominent achievements in science and technology applications using lasers, which have become the means widespread in the world in various fields, particularly in the field of visual arts. In spite of the discovery since the early twentieth century, despite the characteristic of this technique from the technical and artistic characteristics which provide fascination factors, which can contribute significantly to the achievement of an artistic creation, but it still represents one of the most techniques mysterious and least exploited in the field of art in general, and in architecture and interior design especially in the Arab world and the Middle East.

So the researcher find it is important to study this three-dimensional technique “Holographic Technology”: its principle and techniques used in its development, holographic storage, holographic display and future prospects and she will discuss some applications of this technology, in the field of architecture and interior design and furniture; In order to aware the designer of their importance and use to develop the design process , and to treat the architectural and interior spaces in matching with this technique.

Research problem is related to the question of how we can benefit from hologram applications in architecture and interior design is to ensure excellence in design.

The objective of the current study is to establish the benefits from hologram applications in architecture and interior design in ensuring excellence in design.

The major results of the study have been:

1. We can do a three-dimensional video Hologram by using computer as a futural dynamic vision of the proposed design to display and study of its components before implementation.
2. Specific types of holograms allow individual colors of various objects within the scene .And other types allow of partial mixing of colors in the corners of the specific view. In the case of a color display we need to drop the three laser beams red, green and blue on holograms.
3. Holographic images are characterized by a perspective similar with the truth, so the architect and interior designer resort to use this technique as a means to display the proposed design as a(Default model) with embodied image can move in all directions ,and display design data accuracy .
4. The designer uses technical hologram applications to attract the viewer, and enrich and excellence the design, using technology more ambiguous and impressive.
5. Using hologram technology in architecture and interior design treatments contribute to the development of visual and sensory perception of the third and fourth dimension.

It can be recommended that:

- Researcher recommends the need for attention to this technology, and creates many of the laboratories and studios, which has the potential for holographic imaging.

- Researcher recommends the need to develop specialized software, equipment and materials used to produce holographic images and holograms.