



Light as a Formative Medium in Vaccant Forms of Cotemporary Sculpture

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Research summary

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Scientific and technological progress had a great impact on changing and developing the concepts of visual arts and the thinking of artists, and with this change in artistic concepts, it was necessary to take advantage of this scientific and technological development plastically and artistically in dealing with various visual arts in general and sculpture in particular, and from this standpoint the sculptor became a beneficiary of the capabilities Made possible by science and technology, it facilitated for the artist the methods of formation and the imagining of his artistic works with modern techniques. The aim of the research was to deal with the space in a different way. The space still occupies many sculptors as a sculptural element that expresses his concepts and his new artistic vision, which achieves new creative formulas towards the sculptural spatial installations. Technology is an important element of the creative process, and technology affects the thought and philosophy of the sculptor, as well as the development of the experimental side in his works, as it led to a great development in the forms of drawing, sculpture and photography, due to the emergence of new materials for building artwork and manufactured alternatives to media, whether they are two-dimensional or three-dimensional. Light is one of the basic plastic elements, the subject of the current research in influencing the recipient in the fields of visual arts. It has received a lot of studies and experiments in this field, and with the development of lighting techniques, it has become necessary to take advantage of this element in increasing the ability of stereoscopic sculpture to influence and persuade.

The study aimed to achieve the interrelationship between the actual sculptural mass and the light as a plastic medium in the spatial formations, to show the effect of the reciprocal relationship between the spatial installations and the reflection of the

industrial light, which achieves the sculptural illusion depth in the spatial formations. Sculptural works of light as a plastic medium.

The importance of the research is summarized as follows:

- 1- Highlighting the importance of the potential of light represented in its properties to enhance the plastic values of contemporary sculptural work.
- 2- Reaching new aesthetic solutions for sculptural works that invest the existing relationship between actual mass and light as a plastic medium.
- 3- Presenting new visions to realize the void in contemporary sculpture by taking advantage of the plastic relationship between the actual mass and the imaginary void occupied by the possibilities of light as a plastic medium.
- 4- Confirming the mutual relationship between science and art by identifying the innovations of the era in terms of modern lighting methods and exploiting them in confirming the aesthetics of the spatial installations of contemporary sculpture.
- 5- Examining the plastic relationship between light as a plastic medium in spatial formations and the actual mass of artistic sculptural works and benefiting from them in enriching these works.
- 6- Develop new visions to realize the actual mass under the influence of the variable artificial light.

The research is divided into five chapters divided as follows:

Chapter One: -

It deals with the introduction of the research and the problem of the research, in addition to the objectives of the study, which mainly aimed at dealing with light as a plastic mediator in the spatial formations of contemporary sculpture and the multiplicity of its forms. The most important studies related to the research.

Chapter II: -

Entitled "The Characteristics of Light and its Relationship to Scientific Theories", in which the researcher presents the role of scientists in interpreting light and discovering its nature. Then comes the talk about the great role of Al-Hasan bin Al-Haytham in understanding the nature of light and how to see. Next comes scientific theories dealing with the interpretation of the nature of light and the ability of each theory to interpret the properties of light. Also, so that we can, after that, know the definitions of light physically and its being a plastic art element, then deal with the process of vision, know the sources of light, distinguish between the two types of natural and industrial, and the multiplicity of types of industrial sources, so we move to the distinguished type that is dedicated to the research axis, which is the industrial LED light sources, and we single out from its many types strips Colored and white, and how to benefit from it visually. The chapter deals with the directional properties of the light beam (path), the general properties of light, the sections of the properties of light and its aesthetic values, describing light as a plastic element, explaining the speed of light propagation through different media, and mentioning the types of surfaces as an essential auxiliary factor for plastic light.

Chapter III: -

Entitled "Light spatial formations and their relationship to the sculptural mass", in which the researcher presents the concept of emptiness in plastic art in general and emptiness in sculpture in particular, the role of emptiness as an aesthetic value and its relationship to the external form and types of emptiness, and an artistic example (sculptural) on each type that illustrates the concept of the type itself, studying the elements that help On realizing the void and clarifying the type assigned to the subject of the current research, which is the optical illusionary void. It also dealt with the concept of mass and its types, and the study of the relationship between mass and void in three-dimensional works.

the fourth chapter: -

Entitled "Light as a Plastic Medium in the Works of Contemporary Sculptors", in which the researcher presents light technology, modern artistic trends, and light as a plastic medium in spatial formations, by presenting a group of sculptors' works

and analyzing some of the works of light sculpture artistically, and how each sculptor deals with light in his distinctive style and the role of light. In artistically appreciating the sculptural work and the extent of the artistic influence of light in dealing with sculptures.

Chapter V: -

The applied framework of the research (the research experience) through the formal shapes that were extracted from the light as a formative mediator in the spatial formations and it may be divided into two axes:

The first axis: three-dimensional sculptural works based on a flat base that contain illusory luminous void formations, and there is a relationship between them and the actual mass on which they are based.

The second axis: works of art based on the perception of illusory luminous spatial formations from the four directions and the extent of their impact on the perception of the overall structure of the sculptural model.

Summary of the research

The title of the research: " Light as a Formative Medium in Vaccant Forms of Cotemporary Sculpture."

The research problem lies in the following question:

How can contemporary sculpture be enriched through Light as a Formative Medium in Vaccant Forms?

The research is divided into five chapters distributed as follows:

Chapter One: "Definition of Research".

The second chapter: "The properties of light and its relationship to scientific theories".

Chapter Three: "Light Spatial Formations and Their Relationship to the Sculptural Mass".

Chapter Four: "Light as a Plastic Medium in the Works of Contemporary Sculptors".

Chapter Five: "The Student's Self Applications"