

Origami art and its effect on the creative process enriching the design of glass sculpture for architecture

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Abstract:

Origami: It is (the art of folding paper), and the word is derived from the Japanese culture, where this art uses many techniques of paper folding, resulting in different shapes and designs, starting from flat shapes through to stereoscopic vacuum shapes and ending with complex shapes.

Paper is a fragile material, but when its parts are cut and folded, it gives us a new product with different qualities in terms of durability of construction, shape and form, and because of these qualities we used cutting and folding paper to teach important lessons about the nature of construction in design education since 1925, which made that topic an important focus in enrichment of the creative process of designing artwork. Therefore, the research was interested in shedding light on this method of art to find modern and fast methods of forming and placing design ideas within a methodology of thinking that the student adheres to in forming glass sculptural works for the architectural space, through: the use of paper slides (folding, bending and twisting), hollowing out in geometric shapes and shaping with the application of processes of repetition and contrast...etc... The study was applied to a group of students, for one group using those methods of forming to demonstrate the effect of origami art in enriching the creative process of designing glass sculpture for architecture.

The research problem appeared in:

- The need to enrich the students' creative process system in developing design ideas for designing glass sculpture works for the architectural space with modern and fast methods of modeling and forming prototypes.

The research aimed at:

Developing a proposed methodology for designing glass sculpture works for interior architecture by making use of the rules of origami art so that it can be used and applied to enrich the students' creative process system.

The importance of the research:

- Discovering modern and fast methods of building and forming educational models for designing glass sculpture for architecture.
- Enriching students' creative process in developing design ideas within the proposed scientific thinking methodology for designing glass sculpture for interior architecture by making use of the origami art rules.

Hypothesis:

- By analyzing the methodology of building and forming origami art, we can benefit from it and apply it in designing prototypes to enrich the creative process of students in developing design ideas for some of the sculptural works of the architectural space.

Search limits:

- The research determines the study of ways to benefit from the rules of origami art to develop a proposed methodology for designing (two-dimensional) glass sculpture works for interior architecture and its application to enrich the students' creative process system.

Research philosophy and methodology: The research follows the approach (analytical - applied) by studying the following basic axes:

First - an analytical study: It was based on a study:

Origami art (concept - historical development)

Origami design basics and methods.

- A proposed methodology for designing glass sculpture for architecture in light of the origami rules.

Second - An Applied Study: Applied to the students of the third year glass department, and it relied on (enriching the students' creative process in developing design ideas within the proposed scientific thinking methodology for designing glass sculpture for interior architecture by making use of the origami art rules).

Key words:

Origami Art, Glass sculpture, creative, principals