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## CREATING MODERN DESIGNS FOR NARROW INTERIOR SPACES INSPIRED BY THE ART OF ORIGAMI

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### **Abstract**

*When it comes to designing our homes, which are of limited space, we focus on: The art of origami searches for all available home tools with success, though. The interior design is limited in space, so it is necessary to access the smartest solutions to furnish this house. . Versatile furniture and those solutions that will lead to get the most out of small spaces, and it is preferable to use furniture that can be converted from another function so that the furniture pieces perform more than one function, while taking a small space from the house. The multi-use furniture is the result of effective and innovative solutions in the field of interior design to the problem of small living space in light of the population growth and the financial crisis facing the world and the orientation of countries towards horizontal expansion.*

### **Keywords**

*Creating, Modern, Designs, Narrow, Interior Spaces, The Art Of Origami.*

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## **Introduction**

The art of origami is the acquisition of pieces of furniture that can be transformed from one shape to another or from another function that simulates the modern style using the art of origami. This investigation has several objectives, including: Solving the problem of small spaces and using them well in addition to adding an aesthetic touch to the internal space, and this is done using the art of origami. Origami is an ancient Japanese art that means forming paper to make three-dimensional models using the techniques of folding and carving, and combining these techniques with various paper shapes to create complex designs. From the standpoint of emphasizing the role of the interior designer in finding solutions for spaces with limited spaces, the research idea came to conclude: Versatile and convertible design ideas that serve narrow interior spaces using the art of origami.

Activating the role of modern trends in interior design The realization of jobs and the provision of comfort in spaces and convertible furniture to achieve all residential jobs with a small and limited space needs what is required in small spaces using the designer's art more innovation to reach smart solutions that enable origami Make the most of small spreads and research progress Shed light on the art of origami in how to use a scarf that enables the designer to use the art of origami, With its essence to solve interior design and furniture problems. And his simple techniques to create multiple interiors and furnishings.

## **Research importance:**

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Purposes and uses to solve the problem of small space

1- Drawing a strategy to activate the role of origami art in its setting for residential spaces, interior design and furniture.

**Research Problem:**

2-Definition of the most important artistic features that express an art The problem of research is summarized in the traditional and the shortcomings of origami in designs. Interior design and Egyptian furniture design as it is.

3- Finding out what the art of origami is, and what is more suitable for small spaces of internal residential spaces, new features in terms of function and not compatible with the changes of the times in terms of research methodology.

The art of origami has gone a tremendous way from being a mere hand and we'll take a look at this:

For the two towers, by means of a modern material, fibers in plant and animal forms, until glass scientists equipped with light sensors and the mathematical problem in the year 1960 began to develop new laws in the style of geometric origami, where they open and close the response to folding principles that can be applied to paper folding. Quantitative lighting in an attempt to interact between the outside and the inside.

Origami was used in the eighties in a work where the amount of lighting proportional to the spaces allowed the entry of three-dimensional architectural cards on the hand of the interiors of the two towers. Masahiro Chatani (One of the pioneers of the art of origami card design).

As a result of the introduction of computer science into design, what is known as Computational Origami emerged, which led to the development and enormous complexity of the shapes produced in applications.

Origami in modern architecture: The applications of using origami in architecture are unconventional and offer innovative solutions. Integration of origami art with smart technology: in the design of building facades that adapt to the external environment of the building in order to control the exterior of the building in terms of heat, ventilation, lighting and shades while preserving the value Aesthetic of the building. The merging of the ancient and the modern took place in the Twin Towers in Abu Dhabi, where part of the glass façade of the two towers was covered

And that is by means of a modern material, fiberglass equipped with light sensors, and the

problem is in the geometric origami method, as it opens and closes the response of the quantity of lighting in an attempt to interact between the outside and the inside as it allows the entry of the amount of lighting proportional to the internal spaces of the two towers for important problems that make their use increasing and spreading, as it has been linked to modern technologies. Such as smart, interactive and digital technology, an introduction to a modern concept of origami art that departs from the framework of being a Japanese art for play and entertainment, and among the most important applications of origami art in architecture:

Cladding part of the glass façade of the two towers in Abu Dhabi with light-responsive origami glass fibers, integrating origami art with smart technology: in quoting - the design of building facades that adapt to the external environment of the building in order to control the outer envelope of the building from the use of origami art in rapid folding: in terms of heat and ventilation And lighting and shades while preserving the mobile exhibitions and temporary installations of all kinds, and that on the aesthetic value of the building. By folding the fan and compressing into shapes and images, the ancient and modern were combined in the Twin Towers and in different directions. In Abu Dhabi, where part of the glass façade was clad Vitreous

Different from temporary structures, exhibitions and collapsible and can be compressed using origami Inspiration for fixed or mobile buildings from innovative forms that combine originality and contemporary There are many examples Origami (geometric and organic): Inspired by the art of origami provides amazing models. The application of origami techniques to building architecture with the use of modern materials leads to solutions

Thermal origami shapes: They are forms in the art of automatic origami to move from a position, bunch, or period, as it can be from the triangular building units of wood chips.

It extends from um to 1.5 m in width equipped with shape memory polymers and has common bonds.

#### **Animated origami dividers:**

It is a separator of two layers of origami wood manufactured between them, an automated electromagnetic kinematic system that is affected by infrared rays and reactions and is controlled digitally by a calculator. Applications from furniture and some interior design supplements in forms inspired by the art of origami The merging between origami, technologies and materials of the place that in turn affect the psychology People and the provision of modernity in interior design multiply the solutions provided to him comfort and become more intelligent, modern and fit with the times, the goal of multi-use furniture is to provide the possibility of real simulation.

## **Multifunctional Furniture**

Enjoying living in a small space and most pieces of furniture can be used with more than one function. (Reference number) The multi-use furniture and compact functions came to meet as the multi-use furniture shows the intelligence of the designer. On the speed and ease of storage, where the use of every square meter in the house to create a satisfying job that is generally used for the whole family or only for furniture prepared for the needs of its inhabitants, so that we do not face a crisis of crowding out the things for the guests in proportion to the available pleasures.

## **Recommendations**

The research recommends awareness and motivation for bodies and institutions . And factories producing interior design and furniture using FURNITURE, Faculty of Origami and the merging of modern materials with modern materials, development of design products to suit modern requirements and space constraints for residential spaces - The research recommends urging more scientific research on multi-use furniture and how it relates to modern trends such as origami art To make the most of the smart and different solutions offered by this art.

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