

The Third dimension Design of glass painting art between theory and application

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Abstract:

The problem of design is appeared in expression the third dimension of the glass painting art to show the shape ,the form and the perspective by using the basic forming elements, this is the biggest problem faced designers when they design glass painting art, Which requires formulate alternatives and solutions for design problem in order to activate the ability to design the third dimension that is compatible with the design requirement and the desire of the designers and artists, and Because of the ordinary techniques, . And because the oil colors drawing has ability and unique aesthetics in design like rich texture “Physical and sensory”, different techniques ,color forming, construction method and applications because of the variety of shaping tools and the nature and type of raw materials and intermediate with their individual characteristic, For this purpose, we choose oil painting method and its methodology to be a reference case study to develop the design integrated system of the (appearance of the glass surface, its application, selection of its materials, appropriate tools and techniques to confirm the third dimension by sense, or design and application a relief texture with special colors and tools to confirm the physical third dimension on the glass surface. Therefore, **the problem of research was identified by:** The need to activate the third dimension design ability of glass panting art, taking advantage of the aesthetics and techniques of painting in oil colors. **The objective of the research is:** Create a proposal of design and application system and its application for glass painting art, to simulate the aesthetics and techniques of oil colors application. **The importance of the research:** enrich the added value of the Artistic, architectural and industrial glass, with an innovative integrated design system and its application for glass painting art. **The study assumes:** Create an Innovative techniques to design the third dimension of the glass painting art by making a proposed for third dimension design system and its application, taking advantage of the aesthetics and techniques of painting in oil colors “With a sense of inspiration, or certainly physically .” **Through the analytical- experimental approach. Research is determined in:** Create an Innovative techniques to design the third dimension of the glass painting art by simulate aesthetics and its application of painting in oil colors. Through the development of the design system and its technique. **Key words:** *Design - Third dimension- painting art - glass* **introduction:** The problem of third dimension design is appeared as the biggest problem between design and application. Therefore, the study resorted to formulating design problem alternatives and solutions to activate the ability of third dimension design. The oil colors method has many unique aesthetics which can be utilized in the development of an integrated design system to design the appearance of the glass surface and its application, to confirm the third dimension by sense, or design and application a relief texture with special colors and tools to confirm the physical third dimension on the glass surface. Through the following axes:

1- The basics of formulating painting art design problem alternatives and solutions:

When we want to design The Third dimension Design of glass painting art, we depend on several saying for Davency as bases reference and specific requirements and fundamentals of The Third dimension Design of glass painting art, Da Vinci said: The point is the first principle of the painting art, the second principle is line, surface is the third, and the body is the fourth principle is what painting art seeks to inspire the presence of objects. **We summarize from his words** that the purpose of painting art is to suggest the embodiment, depending on the determinants of that embodiment and the confirmation of the third dimension (point, line, surface and the form), and that the elements of painting art are (Light parameters, shape elements, determinants, color, and movement).



Figure (1) the stages of artist Matisse's work to show the perspective form by using the basic drawing elements (1- point, 2-line, 3-color, 4- shadows, texture and color).

2-The artistic effect of the diversity of drawing material and its realition to confirm the content and design concept: One of the most frequently asked questions (is the artist influenced by the effects of his design to rephrase his ideas for basic design?) For example, when we design three wall drawing of the same design which we draw with different materials, technology, for "colors of oil, pastel colors, colors of thermal coloring on the surface of glass." You will see three different picture telling each painting reflections and different feelings of the same design

3-Create a proposal of design and application system for glass painting art, to simulate the aesthetics and techniques of oil colors application

The study depended on three main axes to develop a proposed design and application system for design third dimension of the glass painting art:

3.1: methods and styles for Appropriate design :

3.1.1: methods and styles for third dimension design based on the point as a basic element of the form: The point between multiple choices is as follows:



Figure (2) Design was painted by direct way to be points are brush strokes as colored dots to show and confirm the third dimension.

- The second choice: is the practice design by drawing direct points to build the shape and form for design third dimension.

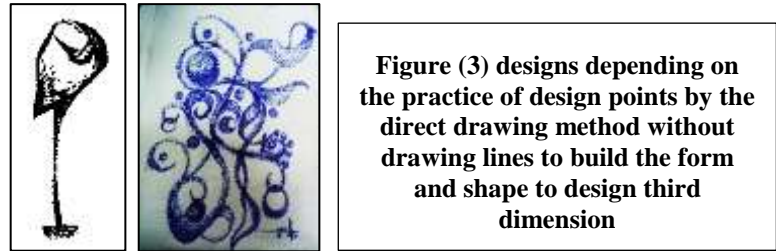


Figure (3) designs depending on the practice of design points by the direct drawing method without drawing lines to build the form and shape to design third dimension

-The third choic through the method of dripping brushing methods directly to varying degrees and similar to the same degree of color to confirm the depth .

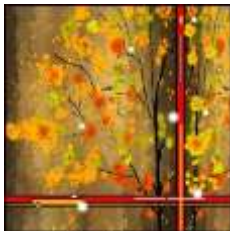


Figure (4) Design depends on the construction of degrees corresponding to the depth to confirm the third dimension of the elements

3.1.2: styles and methods for third dimension design based on the line as a basic element of the form: Linear practice is the origin as an outlet for the basic creativity for design and its including several methods and styles like:

-First choice: Consider linear design as structure to build a design that will be painted.

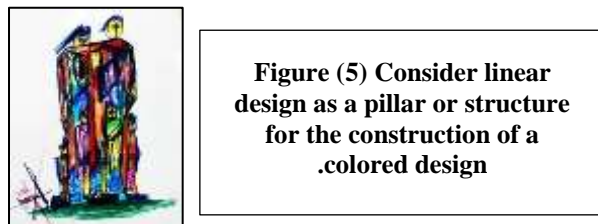


Figure (5) Consider linear design as a pillar or structure for the construction of a .colored design

-The second choice: The linear design is a finished stage that does not require increases of shading or coloring to give deepening to the third dimension as integrated final sketch.



Figure (6) Linear design as a finished stage to confirm third .dimension.

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The third choice: The linear design method is based on the use of Consecutive lines as a side shadow to confirm the third dimension design .



Figure (7) Models of the linear design method using the line as side shadows to confirm the third dimension design

-The fourth choice: used lines as removal style on dark areas of color so the design appears as a shadow

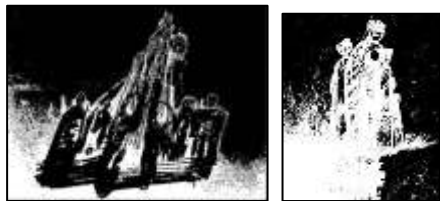


Figure (8) Models of the design in the style of removing the line on dark areas of color as a shadow and light.

3.1.3: style and methods for designing the third dimension based on color only as a basic element of the formation: Confirming of third dimension by making separators between the color.



Figure (9) Designs show the direction of dependence on one color only to confirm the third dimension by making separator to confirm design movement.

3.1.4: styles and methods for third dimension design based on the texture, shadows and colors:



Figure (10) some designs show design third dimension depending on the texture, shadows and colors.

3.2: Materials and forming tools : study is depending on simulating color methods and ways of oil color painting with its tools to express the aesthetics of glass painting art, to confirm the third dimension by sense, or design and application a relief texture with special colors and tools to confirm the physical third dimension on the glass surface..

3.2.1: glass coloring Tools:• Brush painting is very hard, Drawing with the forming knife


3.2.2: Colors on the glass surface which simulates oil colors painting:

The study work some experiments to measure the capabilities of the tools used in coloring oil colors and their ability to paint on the glass surface.







3.2.3: Application methods: with (point, line, shadows, texture and color), with each method every method form different shape, whether by brush or knife.

4-Creates some innovative methods to design third dimension of glass painting art for applying on glass surfaces: We find a lot of benefits from the application of typical oil colors to design and applying methods and aesthetics of painting techniques which are not used in coloring on the glass surface. Therefore, these methods have been used to develop a set of innovative methods for designing the third dimension of painting glass art. as the next table.

Table (2) creates innovative methods for third dimension design of glass painting art.

The result and the effect after firing painting	innovative styles glass painting simulated from oil painting style
	<ul style="list-style-type: none"> - (Wet on Wet) - (Wet on Dry) Sgraffito- - (Building up High relief Textures) - Glazing Shadow - (Under Painting) - (Under Painting on soft with two color)

5-Applied study: The applied study depending on several models to apply different directions of design with changing the implementation technology to change the artistic effect of The Third dimension Design of glass painting art , as follows :based on the point –line-” texture, shadow, color”- depends on the application with (mixing of tools and methods) to simulate the coloring of oil colors on the glass surface. Like the first application

Examples of some application of research			
Implementation Considerations	Stages of application	Design styles and trends	Design and final application
			
			

6 - Design and application considerations for design third dimension of glass painting art Using the methods and aesthetics of color oil application:

7- Results of the study:

-create some innovative methods to design third dimension of the glass painting art, taking advantage of the methods and aesthetics of the application of oil painting methods: Wet on Wet, Wet on Dry, graffito, Building up High relief Textures, Shadow Glazing, Under Painting ,Under Painting on soft with two color, Under Painting on rouge with two color.

- An applied study has been designed to implement some models of modern techniques for designing the third dimension of glass painting art.
- Design (23) design for the researcher to confirm the research hypotheses.
- put design and application considerations for glass painting art to design the third dimension.

8- Recommendations

- It should be used and analysis the basic science system for the various methods and trends, styles of art (photography and sculpture) as a reference for the creation of innovative methods applications of these sciences in the specialized sciences for each specialization.
- It should be to direct the system of scientific research of the applied arts field to complete the groups of analytical and experimental studies of the system of design and application of the glass painting art to build a scientific base to serve and develop the system of small glass industries in Egypt.

The most important references

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