

BENEFIT FROM VISUAL DECEPTION PHILOSOPHY TO FORMULATE PENDANT HANDICRAFTS BY USING THE DIGITAL ART TECHNIQUES

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Abstract

This research is an Applied one through the researcher exhibition " the digital handicraft" Which was held at the Great Hall of Conferences, Faculty of Pharmacy, Ain Shams University, Egypt, February 13-22/2017, it included thirteen pendant handicraft pieces based on the researcher personal experiment that depended on the visual deception philosophy to formulate pendant handicrafts by using the digital art techniques.

Where The materials and technical methods that used in the handicrafts vary, and require a lot of time for implementation, as well as the time that is necessary to design the handicraft and prepare it to be proceeded , so the researcher tried to develop a way to formulate a set of handicrafts without the need to drain time and effort, through the philosophy of visual deception using the digital technology of digital photography, digital printing and photo processing program (Photoshop) ,so this research is depending on having benefit of the technical methods through digital photographing of some material technical methods, which can be used in the field of handicrafts, and applying it on the handicraft design by using the Photoshop program, then printing them digitally and applying a set of plastic treatments, which are appropriate to the design nature , thus reducing the time , effort and saving the use of raw materials to carry out pendant handicrafts, so the problem of this research is summarized in the following questions:

- Is it possible to benefit from the visual deception philosophy to formulate pendant handicrafts?
- Can the time, effort and materials be saved through using digital techniques of photography and Photoshop program to formulate pendant handicrafts?

The research aim is about having benefit from the visual deception philosophy to formulate pendant handicrafts by using the digital art techniques, the research importance appears in being one of the researches that contributes to the handicraft development, and it includes a lot of special technical methods which can be applied on handicraft materials, this research also cares about introducing a set of Photoshop techniques that can be used in the field of handicrafts .Using a variety of technical methods that can be applied to different materials, Digital photographing for a variety of handicraft technical methods which are applied to a range of different materials , Using the Photoshop to formulate pendant handicrafts based on the philosophy of visual deception ,Using a variety of materials to develop pendant handicrafts.

This study includes theoretical framework which deals with three main themes, and experimental framework, as the following:

1. The visual Deception and visual perception, 2 .The photo processing program (Photoshop) , digital printing and digital photography, 3. technical methods for various materials, and the personal experiment which had been applied by the researcher ,and was presented through the exhibition " the digital handicraft " , It Based on the researcher self-experiment through formulating a group of 13 pendant handicraft, which had different sizes, by using the techniques of (Photoshop) ,digital printing, digital photography of the raw materials technical methods, the researcher chose canvas to print the pendant handicraft designs and its

photographed technical methods on it , then the raw materials were added and a set of technical methods were implemented on the canvas according to the prepared design, which were very similar to the printed ones on the canvas , such as (unloading, embroidery, pasting) through the following steps :

1. Digital photographing for a variety of technical methods for various materials .2 Using the digital photos of the technical methods according to the nature of the raw material which had been used in each pendant handicraft by using the Photoshop techniques to prepare it for printing and implementation of the pendant handicraft.3 using canvas as it is suitable for digital printing, and allows to make materials combination, it also gives possibility of making a set of plastic and technical treatments on it .4 Adding suitable materials and technical methods for each printed material in the design, to develop pendant handicrafts based on the philosophy of visual deception through what was printed of the technical methods and what was actually implemented and added, then the results and recommendations are presented followed by references.

Keywords: visual deception philosophy - design - digital handicraft — personal experiment- digital art techniques.

1 INTRODUCTION

The style of visual art is unique to all other modern artistic trends thanks to the scientific development that allowed artists to escape from the natural forms of the specific subjects, where The collective value of visual deception in contemporary art indicates the artistic values which are related to the concepts of painting and The development of the Plastic contents which agree with the contemporary man's needs. " (Sharabash, 1992, p. 52) The researcher tried to benefit from visual deception in the field of handicrafts to provide the materials, time and effort which are used in producing the handicrafts, through the multiplication of modern artistic trends that can be used in the development of contemporary handicrafts, where "The art of visual deception is considered one of the arts that represents these trends, its features appeared in the middle of the twentieth century by the French artist "Victor Vasarely", which based on a scientific theory related to the visual perception of shapes and backgrounds, which are similar in their formal properties, it relies on lines and abstract shapes which inspire feeling of movement in the viewer's eye, Visual art investigates visual illusion of the eye which is resulting from dialectical relations between objective and subjective visions , and between physiological and psychological phenomena. " (Farahat, 2013, p. 4) Since the late 1920s and early 1930s," the deep roots of the Bauhaus school have emerged, when some members of this school made researches in the visual phenomenon, then in the 1940s some of scattered art of visual deception models appeared, and in the early fifties of the twentieth century, the artists of this approach were interested in motion, optics science and the results of the Gestalt theory " (Abdel-Hafeez, 2011, p. 1269)

1.1 Visual Deception

"The use of the word Visual in art reflects vision, whether the works is two-dimensional or three-dimensional, it depends on visual deception, and considered one of the painting modes that depends on the interaction between the painting design , illusion, and perception", with the technological development that " the art function is no longer as it was since ancient times a simulation of reality or re-discovery only, we live in the era of science and high-speed technology that beyond the speed of time, almost to make art follow them, the art should go beyond the stage of sensual and aesthetic pleasure, That the limits of artistic taste and the development of emotional sentiment must also be extended to include the generation of knowledge as art and science sharing the task of cognitive integration. " (Abdel-Wadood, 2015, p. 11) ,that "reflects the nature and contemporary art philosophy as well as its structure and, many changes in the arts are clear, which were imposed by changing in the nature of time, that We live in the digital revolution age, that controlled by image so the universe became a Display Screen that its structure and nature was shaped by a systems of transformation and symbolic in the philosophical entity of the image, and with the technical revolution the image has magical Power in human relationships and aesthetic awareness, also the structure of reason, and the issues of humanity in general" (al-Bayasi, 2013, p. 2) ,So through progressing in the digital arts, there were other materials and methods beside the traditional methods of combining between the different materials in the handicrafts, that the computer contributes greatly in the formation of multiple formulations, through using cameras, digital printers, and image processing programs which allow to deal with digital images and adding the formality and coloring effects ,so this is the aspect that the researcher will try to use

in this research to create handicrafts using the digital art techniques through the philosophy of visual deception.

2 RESEARCH PROBLEM

Creating contemporary handicraft requires using variety of technical methods that requires a lot of time and effort in designing and preparing the handicraft, so the handicraft production requires a forming method without wasting time and effort in designing and implementing it , so the researcher tried to create handicrafts through the philosophy of visual deception using the digital technology of digital photography and digital printing and photo processing program (Photoshop), where this research biased on benefit from Digital images which were taken for the technical methods of each material that will be used in the handicrafts, and applied to its design by the Photoshop program, then getting it printed digitally on canvas that is used in digital printing , before adding a group of complementary materials and a set of plastic treatments that are suitable for the nature of the design and the used material, thus reduce the time, effort and save the materials, to carry out handicrafts based on the philosophy of visual deception through what was printed of the technical methods and what was actually implemented and added, so The problem of research can be summarized in the following questions:

- Is it possible to benefit from the visual deception philosophy to formulate pendant handicrafts?
- Can the time, effort and materials be saved through using digital techniques of photography and Photoshop program to formulate pendant handicrafts?

3 RESEARCH HYPOTHESES

The researcher assumed that:

- Pendant handicrafts can be created by relying on the philosophy of visual deception.
- There could be a benefit from Digital technology through digital photography, digital printing and photo processing program (Photoshop) to formulate pendant handicrafts based on the philosophy of visual deception.

4 RESEARCH AIMS

The research aims to formulate a range of pendant handicrafts using digital photography, digital printing and photo processing program (Photoshop) through:

- Using a variety of materials and technical methods for each material.
- Using the digital technology through digital photographing, digital printing and photo processing program (Photoshop) by formulating handicrafts based on the philosophy of visual deception.
- Saving time, effort, and materials that can be used in handicrafts.
- Digital photographing for a variety of technical methods for deferent materials.
- Creating a set of handicrafts using the techniques of the photo processing program (Photoshop), in designing the handicrafts and employing the technical methods to them ,in proportion to the used materials nature, then using digital printing in printing handicrafts which had digital photographs of the applied techniques on it , and merging it with the real materials that were added to the surface of the handicrafts to create a state of visual deception between what is printed and what has actually been applied to the handicraft surface.

5. RESEARCH IMPORTANCE

The research importance appears in being one of the researches that contributes to the handicraft development, and it includes a lot of special technical methods in using the materials of handicrafts, this research also cares about introducing a set of Photoshop techniques that can be used in the field of handicrafts .Using a variety of technical methods that can be applied to different materials, Digital photographing for a variety of handicraft technical methods which are applied to a range of different materials, Using the Photoshop program to formulate pendant handicrafts based on the philosophy of visual deception ,Using a variety of materials.

6 METHODOLOGY

This study includes theoretical framework which depends on the theoretical descriptive approach and deals

with three main themes, while the experimental framework depends on the experimental approach through the practical framework as follows:

6.1 Theoretical Framework

It is based on the analytical descriptive aspect through the following:

- Presentation of visual perception and its relation to visual deception.
- Introducing the photo processing program for (Photoshop), digital photography and digital printing.
- Presenting of a range of technical methods for various materials.

6.1.1 The Concept of Visual Perception

It is defined as "the process by which the person is aware of the objects and emotional responses through the sense of sight," and thus is the sense that is responsible for the transfer of the image to the mind, which analyzes and realizes what it is, that is in the natural cases where the mind is not subject to deception through visual deception. (Ibrahim, 2011, p. 233)

6.1.2 The Concept of Visual Deception

"This is the act that always depicts the visual image as unreal, where the vision is deceitful or misleading, and this means that the force of the vision may see something unlike what it is in fact for some causes , and the scientific explanation that the information which were collected by the naked eye and after processing them by the mind gives a result that does not match the source or the visual element, Traditional tricks are based on the assumption that there are physiological illusions that occur naturally and cognitively, as well as illusions that can be demonstrated by special visual tricks, These are images and scenes that are already made in a studied way to appear in a certain way to the viewer, and it is not that way because it is being a camouflage and trickery" (Farahat, 2013, p. 5) ,The definitions of visual deception have been varied. "It is defined as an optical art that can only be felt by the eye through introducing more than one image at the time, that excites the eye and perceives it in a system that suggests movement as a result of vibrations in seeing shapes, and not focusing on one focus of artwork, That there are physiological illusions that happen naturally, as well as cognitive illusions that can be represented in certain visual tricks related to how human sensory systems works, so the human mind builds a world based on samples from the surrounding environment, yet sometimes the mind tries to organize this information that it sees well while using it in filling gaps at other times, it is also known as an art based on some sensory tricks in the process of visual perception, and the resulting vibrations in the vision, which in turn make a kind of movement", (Abdel-Hafeez, 2011, p. 1268), it is also defined as "dynamic visual art, which relies on the sense of movement through the visual tricks and deception of the visual sense, not the visual drawings recorded by the sensory perceptions of what the eye sees, and can be felt only by the eye, so it is called the art of the responder eye because it attacks the retina by introducing it to more than one mental image in a quick way that makes the mind confused, and produces vibrations which in turn produce a kind of movement that can be called the art of visual deception", It is also known as " an art that relies on making illusion by motion or depth or both by mixing the closest lines and colors to geometric design " (Hajjaj, 2010, p. 527)

6.1.3 Types of Optical Deception

"There are many types of visual deception, while the geometric visual deception represents a large range of cognitive side, and the most famous types are deception of : Shape, distance estimation, enlargement ,mysterious shapes ,distortion of angles , reflection, estimating size which based on apparent distance , impossible, contrast colors," (Ibrahim, 2011, p. 235)and Illusion of movement deception. (Abdel-Hafeez, 2011, p. 1272)

So the researcher will try to benefit from several types of visual deception, such as the deception of shape and enlargement relying on the shapes sizes and their distribution in the design, by photographing the technical methods digitally to apply it on the handicraft design through the Photoshop program, then print it digitally on the digital printing canvas, before implementing a set of technical methods on the printed handicraft surface, to create a state of visual deception that made the separation between what was printed on the handicraft surface and what was actually made is difficult.

6.1.4 The Philosophy of Visual Deception Art

- Creating movement deception that makes the separation between shape and background difficult.

- Using the concept of contrast between shapes and colors inside moving rhythms such as: Dynamic overlays – Ripples. (Ibrahim, 2011, p. 236)
- Stabilization of the shape does not mean that the perception is constant, that is the visual objects are moving despite it is being constant.
- It is dynamic visual art that relies on sensory tricks and visual tricks in the process of human perception, for the sensation as a result of vibrations in the eye vision, which leads to the movement sense of visual forms, despite it is constant.
- The possibility of controlling the shape, color, light and texture completely, and expressing the sense of movement through the lines , spaces , sizes and flat geometric shapes such as squares, triangles and circles through some unusual formations.
- Talking to the mind not the conscience through the eye, which is a mean of communication between the mind and visual shape, it does not leave a lasting impact in the self because it is a direct art that its impact ends by the end of its vision.
- relying on abstract shapes and mathematics science because its lines is submitted by mathematical calculation not random, with keeping the aesthetic and innovative aspects.
- Dependence on the color element with the shape unity to obtain a unit as a result from the interaction of colors and different tones for one color.
- Depending on the thoughts of the Gestalt School, which studied the visual perception in the early twentieth century in Germany and reached the relationship between the part and the whole in visual perception, where the whole is recognized before the recognition of the parts. (Darwish, 2009, p. 75).

6.1.5 Digital Art

Digital arts play an important role in emphasizing the visual deception through its diverse techniques, which the researcher chose some of them like digital photography, digital printing, and photo-processing program (Photoshop), Where "digital art has the same aesthetics of plastic arts and follows the same schools that are known, but there are schools appeared with the spread of this art , they vary in the names, but similar in the concept and the composition of its subject elements with schools of plastic arts, but digital art has a feature that made it exceed the traditional art because using it is easy, its colors do not end, and its tools do not need many drawers to arrange and collect, in addition to the ease of using these few tools and controlling it. (<http://www.mahagfx.com/archives/336>, n.d.), Therefore the researcher chose to use the photo processing program (Photoshop), because of its special capabilities in dealing with digital images , that are represented in this research in the digital photos of the various technical methods ,which were applied to a variety of materials such as (natural leather, fabrics, colored p.v.c, and jeans),and preparing it to be printed digitally with high quality, where digital technologies have become the language of the age, through the digital images that is loaded to the computer to be processed and converted to designs which produce handicrafts.

a. Digital Photography

In this research its meant to be the using of digital camera to photograph the technical methods of various materials, to be applied on the design of the handicraft through the photo processing program (Photoshop), to prepare it for the digital printing on the surface of the digital printing canvas , thus become the basic material for handicraft, "The digital image is called the bitmap, which in turn depends on the technique of organizing and controlling the information, it is the technique of controlling it and keeping all the data which are related to the location and the color of each pixel (the smallest building unit in the digital image), arranged in geometric order to express a color or a certain degree of shade, which leads to the construction of a special digital image, which can be controlled in its basic and structural units. " (Hilal, 2008, p. 74)

b. Photoshop Program:

It is a program for processing and correcting images colors and producing designs which are suitable for printing and displaying it on the computer screen, or using it at websites " (Nazih, 2009, p. 6) ,So the researcher is going to use the Photoshop techniques such as enlargement, minimizing , copying, pasting, changing color tones, and reflection through this research by applying it on the digital photos of the various materials technical methods, which were applied on the design of the handicraft, to prepare it for digital printing on the canvas surface, then adding a set of materials that have its applied techniques, that are similar to those which were digitally printed on the handicraft surface, to create a state of visual deception

between what is digitally printed and what was actually made on the handicraft surface.

c. Digital Printing:

It is a multidisciplinary art combining visual sensitivity with skills in the areas of technological communication, it is drawing that deals with the formation of certain coordinates and often in specific colors and has the ability to maintain its nature of design accuracy ("Ayman Ramzi Habash r, 2017, p. 593)

6.2 THE EXPERIMENTAL FRAMEWORK

It is based on the self-experiment of the researcher , through developing a collection of 13 pendant handicrafts , in different sizes , they were implemented using the digital photography techniques , digital printing and photo processing program Photoshop, through a collection of digital photos of the materials technical methods such as burlap , leather , colored p.v.c , deferent fabrics, which were used through the Photoshop program and applied digitally to the pendant handicraft design, which depended on geometric shapes , then researcher chose the canvas material to print the handicraft design digitally on it , because dealing with it is easy and the possibility of applying a variety of technical methods (such as hollowing , embroidery, adding) and combining complementary materials with it ,which are very similar to those that were digitally photographed and printed on its surface, through the following steps:

- Digital photographing of a variety of technical methods for the various materials of the researcher's choice, such as (natural leather fig. (15 ,17,19), burlap fig. (1) , colored foam (p.v.c) fig. (5,7,9,11), fabrics fig(23,25). ,and jeans fig.(1,3).
- Downloading the digital photos of a various technical methods on the computer
- Using the techniques of photo processing program (Photoshop) in Applying the digital photos of the technical methods to the handicraft design according to the nature of the material that will be used in each handicraft, to prepare it for the digital printing.
- Printing the handicraft digitally on canvas material which is special for digital printing, as it allows the addition of complementary materials, and makes the application of plastic and technical treatments that are similar to the technical methods which had been printed on the handicrafts surface possible,.
- Adding a set of raw materials and technical methods that match and fit each material and technical method that was photographed , and was printed digitally on the surface of the handicraft, where a state of visual deception is achieved between what was printed on the surface of the handicrafts and what was actually implemented and added to them.
- using of a variety of complementary raw materials to suit the nature of the basic material and the technical methods which were applied to it, such as (plastic buttons, colored beads, cotton thread, burlap, red copper wire)

6.2.1 The Handicrafts Aesthetic Plastic Values :

The handicrafts design depended on using a set of geometric shapes such as triangles, circles and rectangles, on which the philosophy of visual deception represent, the handicrafts characterized by bright colors fig. no.(2,4,6,8,10,12,14,20,22) while in other handicrafts a certain color dominate over them fig. no.(16,24,26) ,the used materials were also varied between (industrial cloth fig. no.(4,2,14), industrial foam p.v.c fig.no.(6,8,10,12), natural leather fig.no.(16,18,20), burlap fig.no.(22), and jeans fig.no.(24,26), as a result of that verity the researcher had benefit from the digital arts which represented in using digital photography for photographing the technical methods of the materials which had been used in the handicrafts, digital printing also was used to print the handicrafts which were prepared by using the techniques of digital photo processing program (Photoshop), such as cutting and pasting fig. no.(1,3,5,7,9,11), Repetition fig.no.(1,3,5,7,9,11,15,17,19,21,23,25),enlargement and Minimizing fig. no.(3,5,7,9,11,15,21,23,25), reversing fig. no.(5,7,11,19,), changing colors fig. no.(5,9), all this contributed to add reality to the handicraft ,which had been digitally printed on the canvas surface , that had an applied technical methods according to the material nature which had its technical methods printed digitally , this was at all the handicrafts to make a state of visual deception between what was printed digitally from the digital photos of the technical methods on the surface of the handicraft, and what was actually implemented on it , which were also varied according to the nature of the used material, such as hollowing and adding fig. no.(4), adding fig. no.(2,4,6,8,10,12,14,20,22,24), braiding fig. no.(6), using beads and buttons as a complementary materials fig. no.(2,6,8,26), all this contributed to have diversity of handicrafts, which characterized by achieving the design principles such as unity, harmony, balance ,and integration.



fig 2

the digital printed design



fig 3

handcraft no.(1)



fig 4

the digital printed design



fig 5

handcraft no.(2)



fig 6

the digital printed design



fig 7

handcraft no.(3)



fig 8

the digital printed design



fig 9

handcraft no.(4)



fig 10

the digital printed design



fig 11

handcraft no.(5)



fig 12

the digital printed design



fig 13

handcraft no.(6)

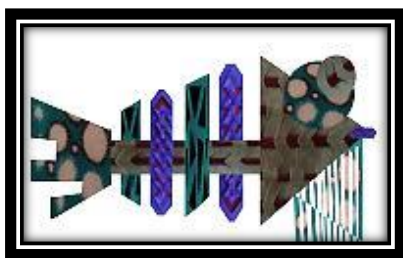


fig 14

the digital printed design

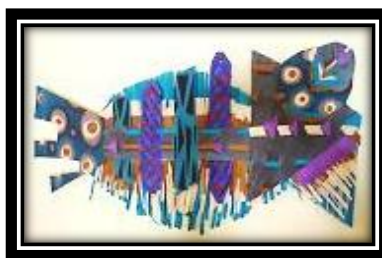


fig 15

handcraft no.(7)



fig 16

the digital printed design



fig 17

handcraft no.(8)

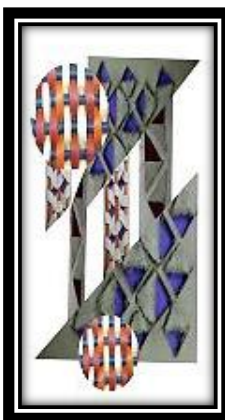


fig 18

the digital printed design



fig 19

handcraft no.(9)



fig 20

the digital printed design



fig 21

handcraft no.(10)



fig 22

the digital printed design



fig 23

handicraft no.(11)



fig 24

the digital printed design



fig 25

handicraft no.(12)

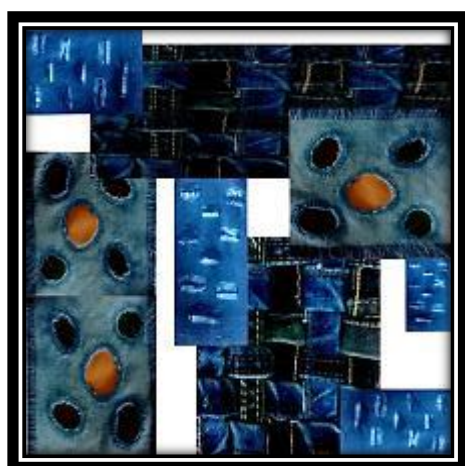


fig 26

the digital printed design



fig 27

handicraft no.(13)

7 THE RESULTS

- I. The techniques of digital art, such as digital photography, digital printing and the Photoshop program can be used to develop pendant handicrafts.
- II. Using digital art techniques has contributed in saving time, effort, and raw materials that had been used in the handicrafts.
- III. Using the techniques of digital arts helped in applying the technical methods photos of the used materials in various areas inside the handicrafts.
- IV. A group of visual deception principles had appeared in the handicrafts by relying on abstract shapes, color elements, and controlling the shape, color and texture.
- V. The separation between the printed technical methods on the handicraft surface and the raw materials and technical methods which were added to it was difficult, which made a state of visual deception between what was printed on the handicraft surface , and what was actually applied to it, that ensure the appearance of the visual deception in the handicraft.

8 RECOMMENDATIONS:

- I. Take advantage of various image processing programs such as 3D MAX, Adobe Illustrator, ... etc to create handicrafts.

- II. Researching in the digital arts, and trying to take advantage of its diverse techniques in the development of handicrafts.
- III. Benefit from digital printing on a variety of printing surfaces , which a variety of different plastic and technical treatments can be applied on it according to the nature of the used materials, to enrich the handicraft.
- IV. Experimenting different materials by applying a group of plastic and technical treatments that are suitable to the nature of each material.

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