

The Possibility of Teaching the Wooden Artifacts and Its Colour Aesthetic Value in Wooden Technical Education course

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Abstract: *Through the systematic study of several aspects, to enrich teaching and creativity processes in the field of Woodwork, the objectives of the present research is to manipulate the colour element through monitoring, classification and analysis of some of the conventional methods, as well as taking the advantage of the features and aesthetic values of these methods and techniques. Utilising these methods and coloring wood techniques and by studying the concept of the ancient civilizations and artistic heritage like ancient Egyptian art, Coptic Art and Islamic Art, It was found that Natural and environmental factors influencing the use of color and its concept on the Wooden materials. Moreover, the study then dealt with some of the experiments carried out by many professors and professionals of woodwork in Egypt and Kuwait through the implementation of methods of colouring, paint and dyeing crust method.*

Key words: *Woodwork, ancient Egyptian art, Coptic Art, Islamic Art.*

I. Introduction

Several studies and scientific research have contributed to shed light and give attention to the element of colour as the value of plastic and aesthetic of various aspects. Although it was adopted those scientific references on the colour analysis and its connotations psychological and social, but these studies expanded to a lot of other factors such as religious beliefs and tradition pose of a cultural impact communities. According to those cultural concepts which effects of how to address colour and art in our lives for the purpose of self-expression to explain our feelings on the past and present.

The effect of the Environmental and geographical factor were clear to reveal his surroundings on humans, the means and materials helps to achieve and implement the artwork. It was therefore be able to find a lot of raw materials and tools through the centuries which contributed to the implementation of artworks, where the colour plays the important part in materials reforming. Eventually, each geographic area and civilization held recognition as different areas in the globe parts.

Due to the social networking and the consequence of cultural vision with technological progress, The passage of time and the modern means of communication with ease of navigation especially in the field of dyes colour materials, it becomes easy to get different raw materials. Although the diverse artistic production is not subjected to special techniques and methods, but it has become a research and experimental factor with a great effect of technical and forming colour processing.

However industrial producer's artist artwork and public wooden artifacts with the private production work has accomplished new character as an artistic creativity which conducted traditional business differently. On the other hand, teaching at the education areas of diverse art in particularly the courses with varieties of colour materials and tools component conduct a very formative value, that play a key role in showing the aesthetics of artwork.

Although the wood colour is limited in Most of the wooden work to show the aesthetics of the natural colour of wood grain and because of their apparent diversity of the different types of wood, but the colour in general was used on wood surfaces.

The present Research Informed especially and is showing experimentally the key role to motivate those interested in the aesthetics of woodwork. It has contributed to work hard through the experiment for the production of wooden works by continuing with old traditional methods and techniques as well as the developed methods and techniques for the use of colour. This led to a specific transfer and distinct to those experimental attempts where eventually led to the emergence of new and distinct art forms in the woodwork.

II. Research problem

The research problem is dealing with colour wooden work. It has been used by two-way. The first is linked to innovative methods as a result of the technological progress with the newly experimentation materials, which played an important role in developing different artistic production far from the previous time.

The researcher believes that it is important to shed light on these technicalities, at the past and present attempts to use colour wooden work where it has not received the necessary attention to scientifically monitored, categorized and analysed, which helps education learning instruction and practical technical education, particularly the teaching of the Woodwork field.

III. Aim of the research:

- Monitoring, classification and analysing of some of the conventional methods, as well the updated one for the sake of colouring implementation of wooden work.
- To take advantage of the features and aesthetic values of these methods as well as the techniques in the teaching wood technical educational course.

- Enriching the artistic vision process and practicing the students educational art by one of the technical elements (colour) for a creative wooden craft items by the creativity materials often less frequently and interest where the natural colours of the wood prevail in the artwork production.
- Attention to the experimental side and the consequent data to address the intellectual age of colour and innovative materials which could be used in wooden artwork.

IV. Research hypotheses

- It can discover a new artistic perspectives contributes to enriching the artistic production of wooden craft items by using colour as a complement as important as in teaching wooden art work.
- Can be used as a gate to teaching of the possibility of colouring wood relies on traditional methods and innovative techniques with other techniques or a combination of them.

V. Research importance:

The importance of research:

- To show the impact of environmental and geographical factors of distinct data for the production of raw materials, tools particularly associated with colour and their methods and techniques for the producing art works for the tradition artistic heritage.
- To show the importance of communication for art educational instructors with the natural environment of modern technological and data in the field of industry where art implemented for the enrichment of visual and aesthetic experience.
- To gain new vision to employ traditional and novel materials in the artwork to the implementation of the wooden work.
- The get an Interest in research and studies that focused on colour, manufacture, and tries to disclose its mysteriousness on process analysis and technical classification as well as allows the new scientific experimental processes.
- This processes contribute to further scientific and technical research, including significantly benefits and successively to teach wooden artwork in the education process accomplish with a new artistic production.
- Develop the conception of forming wood art by a creative operations by implementing additional colour with its natural colours and colouring the wooden grain to produce new different look from what the nature of works of art is familiar traditionally and industrially heritage.
- Studying some new methods and technology for colouring wood by some interested artists and stakeholders in the field of studying the woodworks to determine innovative creativity methods and techniques to contribute to the decision of how to teach Wooden work as educational course.
- Understand the basic concepts of colour and Wooden work employed as associated cultural aspects of the religious beliefs as communication between the past and the present civilisation as added creative values for art educational course

VI. Research Methodology:

Researcher analytical methods followed by dealing with the employment of colour in the wooden work for the past and presentsome of the work to verify the objectives of the research and homework through the following procedures:

1. The hypothesis framework

Study of the concept of colour through the following times:

- The old civilisation artistic heritage
- The ancient Egyptian art
- The Coptic Art
- The Islamic Art

As far as the natural and environmental factors influencing the use of colour such as the concept of colour and its relation to wooden materials, there is more over as such the methods and techniques of wood colouring.

2. Applied framework

The present research deals with presentation of some practical applications for the use of colouring woodwork and its employment in the wooden work techniques through: The first experiment: the technique of using coloured wood veneer.

The second experiment: the technique of using painting wood.

The third experiment: the technique of using dying wood.

VII. Previous studies:

Because of the importance of colour and its value of aesthetic between the elements of artwork to clarify a lot of its concept, the researcher believes that there are two studies can draw attention to work in the field of colouring wood, and in the teaching educational course.

The first study carried out by Bizra [1], where he used a varieties of environmental materials (local), especially wood veneer to eliminating the problem of insufficient of the traditional raw materials as well as the detection of new environmental materials where could be used even in the field of photography. However the researcher revealed new dimensions of innovative plastic arts, achieving different added values.

According to the colours of different types of wood veneer, Bizra has used and according his technical experiences samples from the wasted wood veneer whether its natural or artificial, depending on the colour value as an important element in the field of photographing. However, the researcher in this study has conducted very precise details for many

kinds of wood veneer .On the other handhe showed understanding of the dimensions of plastic art, which helps to art education instructors capabilities in the field of photography and find new perspectives that can positively affect the educational process development.It could be considered that this study is important, not only in the field of photography, but also in the field of art wood works.

The second study carried out by Lucas [2], which dealt with materials and industries at the time of the ancient Egyptians, the study showed the materials used in the registering the history of ancient Egyptian civilization by colour and materials.

The study has addressed derivative colours and how its composition and places could be found in Egypt where thecolourshave been used as follow:

Black colour, blue and its grades, green and its constitutions,brown, red, red carmine, white and Yellow.

1. The conception ofcolour in civilizations and artistic heritage

The scenes of the colour aestheticvalue in wood artistic heritage works had remain without any damagethrough the ancient timethrough different civilisations. Itwas noticed influenced brown inside the artwork and many other with data is not a separate. Fisher [3] has postulated that if we want to understand the style of a time, it was found not permissible that each unit isolated from the others, surly, should study it as a in a series of historical development. Ancient Egyptian Art is produced works vary in their approach according to the beliefs with different way of the artists in Islamic art.However, Muslim artist always avoids drawing dimension and depth because it would signify the absolute and eternal soul [4].The colour in Islamic art as a value aesthetic reflect the " richness of colours and luxury high degree of artistic workmanship where it is obvious in the their works, where it's one of the most important reasons for the impact that art came after that of the Arts [5].Egyphthad a significant period of time during which many flourishing of the arts and civilizations colour play an important role in the artistic production of these civilizations .Itcould be explained the concept of colour and usage in each period of the arts through the following time.

1.1. TheAncient Egyptian art

Artist's have usedthe colourat the time of ancient Egyptian for the natural feature of daily life .The abundance and coloursverities were minimised, where an integral factor has a role in the artwork .On the other hand,strong bright colours sometimes Artist had used to clarify the inscriptions prominent. They also used it in picture mural on a layer of plaster covering the walls [6].

Ancient Egyptian Artist multiplicity of materials and methods of painted expression in inscriptions prominent, mural paintingand mosaics.Painting has been the uniqueness of Egyptian papyrus which showed richness use of colourabout the Pharaohs, and care of ideological topics associated with the formal aspects which were overlapping withexpressive aspects.The most beautiful wooden examples of this diversity, "chair Tutankhamoon where received golden colour, an important share in the associated religious ideological aspects of the artsas shown in Fig(1).This technique became as a golden colourpainting style of the most important technologies that have been addressed through the arts and the successive civilisationsup to now daysas shown in Fig(2).



Fig 1: chair of TutankhamoonVaccination **Fig (2)** wooden work coloured with golden method method and coloured with goldenmethod

1.2. TheCoptic Art

The materialism Topics were commonly interest before the appearance and clarity of Coptic art, where Coptic artist used these concerns to the Scriptures through the work of mosaic, mural paintings themes, icons and manuscripts.

Coptic art caredwith decorative aspects and the impact of colour marked by expressionist style rather than a perfect highlights faithful transferring of personal landmarks individuals as shown in Fig(3,4).

Coptic art cared with the use of strong colours Care [7] whilst also addressed the golden colourpainting as an extension of the old Egyptian art, where it became a sign of " Arts in Western Christianity .it was used as a symbol of Simon Martine'-as symbol of Heaven - in hispaintings background [8] andthe plate of special Annunciation .



Fig (3) Egypt: Coptic art Fig(4) Egypt, Coptic church of St. Rebecca Painting on wooddoor (7th century A.D)

1.3. The Islamic Art

Reflect the great diversity [9, 20] and range of the cultural traditions of Islam, with works from as far westward as Spain and Morocco and as far eastward as Central Asia and India. Comprising sacred and secular objects, the arts reveals the mutual influence of artistic practices such as calligraphy, and the exchange of motifs such as vegetal ornament (the arabesque) and geometric patterning in both realms as shown in Fig(5,6,7).



Fig (5) Pair of dyed doors Fig (6) a dyed teak Wood; Fig (7) dyed teak wood (pine); Wood (rosewood and woodworkers carved technique mastered mulberry); At Fatimic age

2. Natural and environmental factors influencing the use of colour:

The nature, including in respect of systems and laws governing living [9]. This is confirmed by many scientific explanations related to colour in nature [10], as well as the associated human and social aspects, which emphasises the importance on research and idiomatic language of colour. The diversity of [11] classes and its association with the relationship between the individual and the nature in which they live by. This assumption was that the difference in language content often corresponds to the difference in the content of civilization [12] which has been associated depending on the presence of that civilization and the environment. Characteristics that interact with the rest of the elements and the forces acting in the evolution of the life of society [13].

Man is the one who plays the first role in a play lasting relationships and document between himself and nature, it continues to use the nature of the purposes and interests [14] over time, this interaction is cultural heritage, translate our experiences advances in its interaction with nature, with the resulting colours, could be seen that effects in museums or cemeteries, installations, manuscripts and still impact until the present era [15].

3. The concept of colour and its association with wooden materials:

The specialist in the field of art is aware of the three primary colours (red - yellow - blue) and access to the rest of the colours of which [15] and can use those fluent colours and freedom. Eventually could gain the colour grades for each one at a time and could to know its characteristics and specifications through three key points as follows:

1. Colour Hue

The properties of light by which the color of an object is classified as red, blue and green, or yellow in reference to the spectrum.

2. Colour value

It comes as such makes us call it a bright colour or dark colour, and changing the degree of luminance colour gradually after it came far from the light sources, eventually, it couldn't see the dark colours [16].

3. The intensity of the colour Chroma

As far as the wood oriented to the warm colours which could reduce the hue, value, intensity and qualities characteristics when doesn't mix with different colours and reduces its brilliance and purity [17]. However, when an

artwork has been done by wooden materials, it's often consolidating the value of harmony chromatography in the works. It could be also demonstrating the colourcontrast through the light wood colourconnected withadjacentdark colourwood; forexample, differentcolours as Cikamoorwith Walnut Turk or ivory wood.

VIII. Methods and techniques of colouring wood

The style of timber veneer with different type of veneersisn't a colouring of wood, For example, natural raw materials such as seashells,copper,iron, leatheror artificial raw materials such as plastics, glass and Acrylicis such like adding other materials to the work wood.Analysis and classification of many of art works at the ancient times through artistic heritage of differentcivilizations, or at the recenttime, including those related technological data,could monitor the colouring timber through two methods which can be summarized as two styles:

1. The style of painting

This style adapted by painting orby coveringthe surfaceappearanceand the original colour with materials or texture. It's the most common method in the past where the luminance of colour is strong, so that leads to a required aesthetic role whether areas of colour above the wooden surfaces prevail, or show some degrees in parts of the area of the appearance of natural wood .This type of woodwork has prevailed in in Egypt and the western Arab countries as well as Andalus in Spain where it is known asbeautify.

One of these kinds of styles wood coating isgilding where the use of the golden colourwhere coating the wood surface with goldenliquidcolour with water intermediate or turpentine or thinner added to the varnish polisher to give the golden appearance. The other technique is by pasting chips called paper of gold which the most common style.

2. The dyeingstyle

It depends on the style of colouring wood whatever the mediator (water, vinegar, thinner, turpentine or alcohol) [18] where the transparency is the main control of this style by changing the colour of the timber surface while maintaining the natural appearance where the distilled white vinegar gave the wood sample a reddish/brownish huewhilst the apple cider vinegar stained the wood a grayish color.as shown in Fig (8).



Fig (8)Distilled white vinegar gave the wood sample a reddish/brownish hueWhilst the apple cider vinegar stained the wood a grayish color.

It is important to use this method (colouring natural wood) to the natural colour dark timber, such as the nut Turks and mahogany...etc. On the other hand, the hardwood types, isn't easy to change its colour by dyeing to preserve the natural appearance, otherwise to usedark brown or black colours. The use of colours such as to give different-looking like (Red - Blue - Yellow - Green) it must be used for very light natural wood types.

In some cases, using raw materials for reduction the natural colour of the wood before dyeing process by using such as liquid oxygen and ammonia , and exposethe wood to sunlight light to make it more white colour which would increase its luminance to be dyed .

The recent period has featured local and global timber markets colourful natural veneersand industrial as well.This style (dyeingtechnique)playing the main role in the colourappearance. However, this technique depends on advanced technology in the field of industrial materials allows interested in the wood work that offers more creative businesses without attemptingto an experiments ofcolouring timber.

IX. The experimental work

1. Firststone relies on the coloured veneer.

The researcher, Bezra [1] has usedcolourfulveneers, whilst explained his experiments with full area of clarification for the types of wood veneer with multiple forms. Throughhis experimental activity on the wood veneer employment and the natural, artificial and the colouredveneers in the field of photography. From a large number of works of art, it was selected 126 artwork according to a method thought privileged. His artwork concerning a painted wooden artwork to show the aesthetics of paintingfirstlyand also to show some traditional colour of raw materials used in the field of photography as supplements the values of colour, more or the lesson the ground of the artwork or on some types on veneers used in the overall composition.

2. The second, dependence on the paintingstyle

It wascarried out by Rifai, [19]in teaching woodwork Faculty of Basic Education - State of Kuwait. This experiment rely on one of the forms of the artistic heritage of Islamic art through line and geometric decoration elements. By

pasting the natural wood veneer, the artwork was carried out by the style and technique of discharge of calligraphy where adopted in the implementation of geometric decoration. After the completion of the implementation of the wood technique, colours were elect to be applied on the work. The artwork painted by colours of acrylic whilst the full decorative ground in full colour variant of Arabic calligraphy has been dimmed with completely different colours. After finishing, it was started using sandpaper for polishing some parts of the artwork and left the others. However, the unsanded acrylic painted parts sustain an appearance of transparency and opacity. Colouring and painting style that has spread in the Arab region (Egypt – Middle East- Morocco and Andalus (Spain)) in a manner which is known as decorative methods as shown in Fig (9, 10)



Fig (9)



Fig (10)

3. The third : by using of dyeing style.

The present researcher, in his experiment where inspired works of art ideas of design from one of the Folk Crafts of Bedouins by the hand loom weaving called " Sadu " at the Gulf area, where colour plays an important role in showing artwork based on the mesh triangular system .

The material of fabric dyeing has been used for colouring the timber to sustain the appearance of natural wood whilst add a colour clearly to show its aesthetic value within the geometric design. On the other hand, where the colour plays the main role, the technique turned the timber for artwork viewer by getting the flexible feeling whilst the wood was turned into a form of weaving shape.

Coloring and painting style that has spread in the Arab region (Egypt, Middle East countries - Morocco ,Andalus) in a manner which is known as savioras shown in Fig (11, 12,13).



Fig (11) Fig (12) Fig (13)

Wood dyeing style Colouring artificial and natural coloured veneer

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