



# Employing Abstract Floral Motifs Using Thermal Transfer Technology as an Input for Constructing the Printed Plate

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## Abstract :

The research dealt with combining three axes: the axis of abstract plant decorations, the axis of thermal paper remnants, and the axis of the aesthetic aspect, and linking them together and clarifying how to implement the new printed artistic painting by employing abstract plant decorations through the use of thermal paper remnants. The research aims to present new approaches to the printed artistic painting by employing Remnants of thermal paper in innovative formulations based on abstract floral decorations, through several artistic paintings using various remnants of printed thermal paper, which have the beauty of form and unity of output. One of the most important results is that it is possible to benefit from the remains of printed thermal paper in order to obtain new plastic aesthetic values in the printed artistic painting. The experimental approach was used, represented by the design and implementation of a set of proposed designs for artistic hangings, which were implemented using the art of printing with thermal paper, an innovation that suits the requirements of the times, and the use of the descriptive and analytical approach in describing the remains of thermal paper, analyzing its aesthetics and technology, identifying the types of abstract plant decorations, and in describing and analyzing these works to achieve To the results, the most important results were the following: It is possible to benefit from thermal transfer paper in employing abstract plant motifs to create new designs suitable for enriching the painting.

## Keywords:

Employment-Floral motifs-Abstract-Heat transferl-Painting -Printed

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## the introduction:

Plant decoration differs in the way it is performed and the level of performance from one country to another and from one time to another as well. Despite all the apparent differences in plant decoration, they all take on an oriental Islamic character and never stray from the stereotypical image and Islamic concepts in forming decorations.

This type of decoration depends on transferring and changing nature, that is, stripping it of its natural characteristics while completely preserving its basic characteristics. Botanical decoration varies to include many

types, such as symmetry, which is either axial, complete, or semi-automatic, in addition to repetition, which depends on redrawing the decorative elements several times. Using each of these elements several times. Plant decoration differs in the way it is performed and the level of performance from one country to another and from one time to another as well. Despite all the apparent differences in plant decoration, they all take on an oriental Islamic character and never stray from the stereotypical image and Islamic concepts in forming decorations.

This type of decoration depends on transferring and changing nature, that is, stripping it of its natural characteristics while completely preserving its basic characteristics. Botanical decoration varies to include many types, such as symmetry, which is either axial, complete, or semi-automatic, in addition to repetition, which depends on redrawing the decorative elements several times. Using each of these elements several times.(1)

Alternation is also considered one of the most prominent types of plant decoration, which depends on the use of two or more elements that form a periodic and alternating pattern. Other types also include opposition and reversal. Some botanical decoration artists use several colors in their decorations to add joy, beauty, serenity, and comfort to them.

The shapes of branches that are drawn in floral decorations vary in terms of accuracy, composition, and method of presentation, and the artist can be creative in using his imagination to draw many floral decorations in an innovative way. It adds great beauty to the things it decorates and gives them more brilliance and appeal. The use of floral decorations is widespread in domes, doors, ceilings, carpets, handicrafts, fabrics, walls, and furniture. This decoration is three-dimensional. Plant decorations are also used to decorate the pages of books, ceramics, and glass.(2)

Some botanical decoration artists exaggerate in drawing the extensions of the stems and branches to be very long and often twisted, so that they appear as if they are growing continuously and permanently. Botanical decoration includes drawings of various flowers and roses in their various shapes, and artists and painters have been creative in the method of abstracting and drawing them, as artists draw many Flowers, but the most famous flowers that are drawn in botanical decoration are daffodils, tulips, ospreys, irises, tulips, mosses, violets, poppies, and carnations most of the plants that are used in floral decoration are acanthus leaves, grape clusters, and many shrubs and plants of different types. Therefore, current research is directed at arriving at modern designs by employing abstract floral decorations using different thermal paper.(3)

#### **Research problem:**

The research problem is determined by answering the following question

1- How can an artist use abstract plant motifs using thermal transfer technology as an input for constructing a printed painting?.

#### **research importance:**

The importance of the research lies in:

- 1- Taking advantage of the plastic capabilities of thermal paper remnants in developing the artistic vision to come up with contemporary designs in the printed plate through experimentation in using thermal paper remnants.
- 2- Revealing the aesthetic concepts of abstract botanical decorations and the extent of their connection to the field of hand printing.

#### **Research hypotheses :**

The researcher assumes that:

1- Abstract plant decorations can be used using thermal paper technology to achieve innovative designs that enrich the field of printing.

#### **Limits of research:**

- 2- Remnants of thermal paper
- 3- Vegetal decorations

4- Tools for the art of thermal paper printing.

### **Research Methodology :**

The researcher uses the experimental method in her artistic paintings, and the descriptive analytical method in describing and analyzing these works.

### **research aims**

The research aims to:

1- Providing opportunities for experimentation using thermal transfer paper with new plastic possibilities and visions for plant decorations through thermal paper.

### **Search terms:**

### **Definition of floral motifs**

Artists were creative in using plant forms, such as tree branches, leaves, fruits, and flowers, to form the decoration of artistic products such as buildings and antiques. The artists stripped and transformed all the elements used from their natural form, as the artist tended to occupy spaces and fill the voids.

### **First: The theoretical framework**

#### **1- Definition of decoration**

It is a decorative art that is a group of dots, lines, geometric shapes, letters, or drawings inspired by nature, such as animals, plants, etc., interwoven and coordinated with each other regularly, giving a beautiful shape to be used to decorate the Qur'an, buildings, utensils, clothes, mosques, churches, cemeteries, coins, coins, palaces, and some flags of countries. With various raw materials and materials: paper, glass, iron, gold, copper, etc.

Ornament is defined as a group of lines, dots, and geometric shapes, a number of drawings of plants and animals, and a number of overlapping and harmonious words, which ultimately give a distinctive shape used to decorate churches, mosques, buildings, cemeteries, and others. Ornament is considered one of the arts sciences that aims to research the philosophy of ratio, proportion, abstraction, mass, space, composition, line, and color. They can either be natural human, plant, or animal units, or geometric units transformed into abstract forms, leaving room for the imagination, creativity, and feeling of the artist. The principles and rules for it have been established. After a brief definition of decorations, I will discuss the types of decorations, specifically the types of Islamic decorations.(5)

Types of Islamic decorations Vegetal decorations Artists excelled in using plant shapes, such as tree branches, leaves, fruits, and flowers, in forming the decoration of artistic products such as buildings and antiques. The artists stripped and transformed all the elements used from their natural form, as the artist tended to occupy spaces and fill the voids, and the use of this type increased. Of decoration in the ninth century AD, and the peak of this use was in the period extending between the twelfth and thirteenth centuries AD.(6)

Written decoration: Artists used calligraphy as it was the decorative element in this type of decoration. After Arabic calligraphy was a means of learning and knowledge, this type of decoration became a manifestation of beauty that pulsates with life and magic. This type continues to grow, develop, and multiply to the point of exaggeration. Methods of modifying parts of letters.

Composite and single, this modification was considered a type of decoration, and the types of this decoration alone reached more than eighty types, as it reached its perfection in the Abbasid era, and it is considered a type of artistic luxury that no nation had previously achieved. Geometric decoration The trend to use geometric decoration began in the Umayyad era, and it was innovated in a way that is unparalleled and unparalleled in any other civilization, despite its simplicity in using the basic geometric shapes of squares, straight lines, circles and triangles, as these different shapes had a fundamental and important role in Arabic decoration, as they became mainly for Islamic decorative forms, It was distinguished by its strong character, which is clearly evident in the use of star plate formations with which it adorned artistic artifacts and the roofs of buildings. Pictorial decoration: Living creatures were a means used as a unit in decorative works. Artists took them in ancient times as one of the mythical forms. Because using living creatures as a means of depiction is considered a form of paganism, Muslim

artists wanted to move away from it in order to eliminate pagan manifestations. This type began to gradually disappear, and drawings were replaced. Mural is an alternative to this type of decoration.

### **Botanical motifs:**

Botanical decorations are considered one of the clearest manifestations that confirm the Muslim artist's move away from imitating and representing nature. They are often completely abstract decorative elements. We can barely distinguish from the branches and leave nothing but curved or twisted lines connected to each other. Because of their extreme distance from nature, they look like engineering drawings. Among its most important characteristics: its presence within large geometric areas that can be divided into geometric shapes or small polygons within which floral decorations are confined. It was also used independently, and its movement was limited only to the frames of the decorated spaces. Decorative ribbons containing floral motifs were also used. One of the characteristics of these decorations is their similar shapes and elements. Contrasting and interlocking formations used in flooring and other decorative forms. Such as geometric shapes, muqarnas, and writings, as we see them in the form of delicate interwoven branches spread between these decorations. These floral decorations, which lack natural characteristics and are built according to a geometric structure, are called "arabesques" by English, German and French scholars. The German researcher Herzfeld believes that the word "arabesque" refers to the decorations of art. Islam has a general meaning, and vegetarianism has a special meaning, because it is difficult to separate vegetarianism from the rest of the decorations, such as braided ribbons, written elements, and shapes of living creatures, and the meaning can be extended to include and like these elements and shapes, which is the common meaning at the present time. Arabs also call it by different names, such as (Arabic style). ) and (Arabic tawsah) and (Securitization). Securitization stands at the intersection of Arabic calligraphy and photography. Arabic calligraphy is an abstraction in drawing letters and words that carry specific meanings. As for photography, it is drawing shapes and faces that represent a real or imaginary event and scene. As for securitization, it is a drawing that does not carry a pictorial or verbal meaning, but rather conveys the structural form. Or the essence of things that were real. Securitization is an example of the line on the one hand and the image on the other hand. It is a type relationship of geometric digression built from overlapping and regularly symmetrical plant elements that are subject to the phenomenon of growth in Islamic decoration. In resorting to securitization, there is a move to the level of the transparent value of the artistic work, as it eliminates the between the visible thing and its ordinary meaning and common meaning.(11)

### **Principles of botanical decoration:**

#### **The art of securitization:**

The art of securitization depends on the shape of plant leaves. In addition to the branched and connected buds and leaves, the decorative basis is the circular branch

#### **The basic forms of the art of securitization:**

##### **First: the arc of the circle:**

The arc of the circle is the basic basis upon which the ornament drawing is built. Through the repetition of the arcs, the shape of the ornament is determined, and the repetition can be either sequential, overlapping, or opposite.

##### **Second: the snail:**

They are circular lines extending inside each other and have rules for drawing them manually. Through its repetition, the decoration is determined, and also through the repetition of succession, opposition, and overlap.

##### **Third: The modified upper half of the leaf (the blade):**

Through this shape, additions and modifications are made to it, forming securitization units decorated with overlapping buds and coils.

##### **Fourth: cup leaves:**

Cup units are produced from the intersection of the two halves of the leaf. They are also called vertical units if they come at the top of the decoration. A "crown" can be added to the decoration, and many forms of connections and forms of interconnections can be produced for them.(17)

**Fifth: Balconies:**

They are longitudinal finials that are placed above the vertical units and usually connect to the external definition of the decoration.

**Motifs:**

Ornament is defined as a group of lines, dots, geometric shapes, a number of drawings of plants and animals, and a number of overlapping and harmonious words, which ultimately give a distinctive shape used to decorate churches, mosques, buildings, cemeteries, etc. Ornament is considered one of the arts sciences that aims to research the philosophy of proportion, proportion, abstraction, mass, space, and composition. Line and color are either geometric units that are transformed into abstract shapes, leaving room for the imagination, creativity, and feeling of the artist. The principles and rules for them have been established after a brief definition of decoration.(4)

**Botanical decoration:**

Botanical decoration means decorations that consist of drawings derived from the elements of nature that are considered a source of inspiration for its artists.

Many types of plants are used in it, including roses and flowers (such as cloves, cherries, pomegranates, tulips, lavender, iris, and osprey).

It consists of branches, stems, leaves, etc. Floral decoration is considered part of Islamic decoration, which is divided into floral decoration and geometric decoration.(11)

**Types of botanical decoration:**

Botanical decoration is divided into two parts:

**Abstract botanical decoration:**

It is an ornament that is drawn from its branches and leaves only, without using flowers, so that it is given an abstract form.

**Floral botanical decoration:**

Where various types of flowers and roses are widely used, such as cloves, lavender, osprey, iris, etc.

**Rules and principles followed in botanical decoration:****Balance:**

It is a basic rule that must be present in every decorative composition

Symmetry or symmetry

It is one of the important rules upon which most decorations are based, half of which applies to the other half using a straight line called the bifurcating axis

**proportionality**

It is one of the most important rules of beauty, as the field of nature is represented by the proportionality of each part to the other, and it has no rule, but rather depends on artistic taste, accuracy of observation, and the power of distinction.

**Repetition:**

It is one of the most important rules of decoration and is found in abundance in nature, such as tree branches, and repetition is one of the simplest rules for creating decorations.

**Thermal transfer:**

It is a printing method used in the industrial field to print fabrics made of synthetic fibers and their mixtures of natural fibers. The possibility of this method is summarized in the use of a carrier surface for the dispersed dyes, which represent the design that is printed in the stage of preparing thermal paper through silk screens. In the

second stage, the printed designs are transferred onto Paper to fabric through pressure and heat. This method is characterized by the transparency of printed colors and various decorative elements, ranging from natural elements to geometric elements.

**Practical framework:**

- 1- This is done through the researcher's own experience to benefit from the results reached by the study within the theoretical framework, where
- 2- Conduct experimental work to produce works of art by using abstract plant motifs using thermal transfer technology as an input for constructing the printed plate. In the end, the researcher will analyze the works of art.
- 3- Presenting and discussing the results in light of the research hypotheses.
- 4- Presentation of research recommendations

**1- Raw materials used:**

- 1- Thermal paper decorated with floral designs - irons
- 2- Tools for the art of printing (stencil paper - printing templates - thermal screen - thermal paper - coloring brushes - pigment colors - stencil pestle)

**2- Techniques used:**

- Thermal transfer paper - stencil printing - direct drawing printing - block printing

**3- Group of implemented designs:**

A group of different designs were implemented. Thermal paper printing technology was used in implementing these designs, along with the use of various types of floral decorations. Some tools were used in implementing the designs, including (irons - ready-made thermal transfer paper - printing thermal transfer paper with floral decorations through various methods. Different types of printing - canvas. These designs were evaluated and analyzed artistically.

**Description of the executed artistic works:**



**Analysis of the first artistic work:**

The first artwork is executed using thermal paper printing

**Raw materials used:**

Remnants of thermal paper - a piece of cloth - compressed cork

Technology: thermal paper printing

**Variables:**

- Diversity in decorative units (from remnants of colored paper)

**- Constants:**

- Printing with leftover thermal paper - Decorative units used - Deletion and addition in units

**the description :**

The work consists of curved lines of different lengths, thicknesses, and directions, and shapes with color contrasts. The lines moved away from embodying reality and were limited to abstract lines that were connected in a partial abstract style.

**Analysis of the second artistic work:**

The second artwork is executed using thermal paper printing

**Raw materials used:**

Remnants of thermal paper - a piece of cloth - compressed cork

Technology: thermal paper printing

**Variables:**

- Diversity in decorative units (from remnants of colored paper)

**- Constants:**

- Printing with thermal paper scraps - Decorative units used

- Deletion and addition in units

**the description :**

The work consists of vertical lines of branches of plant units. These branches of different lengths are placed next to each other in a cohesive style. Plant units were used to complement the design.

**Analysis of the third artistic work:**



The third artwork is executed using thermal paper printing

**Raw materials used:**

Remnants of thermal paper - a piece of cloth - compressed cork

Technology: thermal paper printing

**Variables:**

- Diversity in decorative units (from remnants of colored paper)

**- Constants:**

- Printing with thermal paper scraps - Decorative units used

- Deletion and addition in units

**the description :**

The work consists of a large plant unit with a smaller plant unit, which was deleted and part of which was shown interconnected by rectangular units of different colors and lengths. Achieve a kind of cohesion in the artwork.

**Analysis of the fourth artistic work:**



The fourth artwork is executed using thermal paper printing

**Raw materials used:**

Remnants of thermal paper - a piece of cloth - compressed cork

Technology: thermal paper printing

**Variables:**

- Diversity in decorative units (from remnants of colored paper)

**- Constants:**

- Printing with thermal paper scraps - Decorative units used

- Deletion and addition in units

**the description :**

The work is a collection of plant and leaf units of different sizes with color contrasts. They are linked in an abstract style.

**Analysis of the fifth artistic work:**



The fifth artwork is executed using thermal paper printing

**Raw materials used:**

Remnants of thermal paper - a piece of cloth - compressed cork

Technology: thermal paper printing

**Variables:**

- Diversity in decorative units (from remnants of colored paper)

**- Constants:**

- Printing with thermal paper scraps - Decorative units used

- Deletion and addition in units

**the description :**

The work consists of parts of leaf units of different shapes and colors interconnected with small plant units

**Results :**

1- Abstract botanical decorations can be used using the thermal transfer paper printing technique to enrich the printed painting.

2- Floral decorations help create many contemporary designs in the field of printed pendants

3- Achieving diversity in the various plastic treatments of thermal paper printing technology to reach contemporary designs for Asiri art decorations.

4- Thermal paper printing technology helps in creating many new plastic possibilities in the field of printed pendants

**Recommendations:**

The researcher recommends the following

1- Achieving a connection between plant motifs and the various plastic possibilities of thermal paper to develop innovative plastic solutions suitable for contemporary designs of modern art.

2- Continuing research and revealing new intellectual axes in achieving aesthetic relationships between the elements of artistic work to produce contemporary printed paintings.

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**The Reviewer :**

- [1] Ali Al-Sayyid Ali Qutb: (2015) Taking advantage of the aesthetics of Arabic calligraphy to enrich artistic works
- [2] Printed using marbling and thermal transfer techniques. Mansoura University - Faculty of Specific Education
- [3] Hager Shawqi Khater Saleh -: (2007) Creating plastic formulations that combine raised pastes and thermal transfer in printing on mesh fabrics - Master's thesis - unpublished - Faculty of Art Education - Helwan University
- [4] Ahmed Mohamed Soliman: (2000) The plastic possibilities of printing fabrics with thermal transfer paper, unpublished doctoral thesis, Faculty of Art Education, Helwan University.
- [5] Ahmed Mohamed Mahmoud: (2000) The visual possibilities of printing fabrics with thermal transfer paper. Unedited doctoral thesis, Faculty of Art Education, Helwan University.
- [6] Naglaa Mohamed Farouk: 2016 AD, "Creating pendants printed with thermal paper based on straight-line variables for the art of optical illusions," Journal of the Faculty of Home Economics - Menoufia University, Volume Twenty-Six, October Issue.

- [7] Naglaa Muhammad Farouk, 2019 AD, "Utilizing the color values of thermal paper remnants by using environmental art to enrich the printed plate," *Journal of Social and Educational Sciences*, Issue (42), Volume (2)
- [8] Naglaa Muhammad Farouk, 2023 AD, "The symbolic and expressive values of the aesthetics of the human face influenced by abstract art as an introduction to plastic experimentation in the artistic publication," *Ramah Journal for Research and Studies - an international scientific journal*, Issue (77).
- [9] 8-Nashwa Mohamed Abd El Aziz , Naglaa Muhammad Farouk Qandil :” Creating Printed Designs Using Thermal Paper Printing and Direct Drawing Techniques, Inspired by the Shape of Horses in the Kingdom of Saudi Arabia, to Preserve Saudi Heritage” ,*Kurdish Studies*, Volume: 11, No: 2, Apr 2023.
- [10] 9 - L. M. Elwakeel, Naglaa Muhammad Farouk Qandil,,” Innovative Embroidery Designs Using the Method of Combining Animal and Plant Motifs for Children's Clothing” *Kurdish Studies*, Volume: 11, No: 2, pp. 4932-4960, Apr 2023.
- [11] 10- Amani Abu Hashem Ahmed Saleh: “The synthesis between raw materials and minerals as a basis for establishing small projects” Master’s thesis - Faculty of Art Education - Helwan University 2011 AD
- [12] 11- Shaima Abdel Rahman Muhammad Iraqi. “The art of patchwork is an innovative style in designing ready-to-wear clothing for Egyptian women,” unpublished doctoral thesis, Faculty of Applied Arts, Helwan University, 2011 AD.
- [13] 12- Salwa Ezzat Zaki (2010): Taking advantage of the Khayamiya method in implementing innovative designs for decorating women’s head coverings - Master’s thesis - Faculty of Specific Education - Mansoura University
- [14] 13- Tamer Al-Sayyid Ahmed Mohamed Sharaf: (2000 AD) “The effectiveness of a program based on hypermedia to develop the skills of implementing furniture and clothing for children from fabrics and leftover fabrics,” Master’s thesis - Faculty of Home Economics - Menoufia University.
- [15] 14- Zainab Ahmed Abdel Aziz: “Recycling of solid textile wastes in the ready-made clothing industry and its impact on the environmental and economic aspects.” Doctoral dissertation - Faculty of Home Economics - Menoufia University 2004 AD
- [16] 15- Muhammad Gamal Madi: Small industries and their role in solving the unemployment problem - Academy of Scientific Research - 1996 AD.
- [17] 16- Azza Abdel Halim Sarhan, “The economics of manufacturing clothing from factory exhaust and the extent to which university students accept this type of clothing” - Master’s thesis - Faculty of Specific Education - Damietta University - 2000 AD
- [18] 17- Hanan Hosni Yashar Ahmed: “An applied technical study to benefit from leftover fabrics to create decorations derived from the Pharaonic era for decorating clothes and furnishings” - Master’s thesis - Faculty of Home Economics - Menoufia University 1995.
- [19] 18- Jonnc Hamm and: takc up patch work- published by mere hurst limited- 1994
- [20] 19- webster new international dictionary < 1951 p(829)
- [21] 20-Enas Esmat Abdullah, 2003 AD: “Techniques of different methods for using added fabric,” unpublished doctoral thesis, Faculty of Home Economics, Helwan University.