

Taking Advantage of the Aesthetic Values of Asiri Art Decorations to Enrich and Sustain the Printing of Modern Women's Clothing Supplements to Preserve Saudi Heritage Using Artificial Intelligence Techniques

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Abstracts

Sustainability is the result of modern-day design philosophy as a result of major industrial developments and many conflicts and wars. This concept is what prompted this research to focus on the possibility of achieving the principles of sustainability practically - in field reality - through the use of artificial intelligence techniques to create contemporary designs derived from the Saudi Asiri heritage and employ them in printing sustainable clothing supplements. Heritage-inspired design has cultural meaning and importance, and its purpose is to transmit our heritage to our emerging generations, and therefore it is considered a type of sustainable thought. The Asir region in the Kingdom of Saudi Arabia has a rich heritage that is greatly influenced by the charming nature of the place. The Asir region is distinguished by the art of the "Asiri Cat," which consists of engravings, lines, and aesthetic formations engraved by women specialized in this field. They inherited this art from the women who preceded them. Asiri art is distinguished from other arts. The use of bright natural colors such as blue, green, orange, black and white, as the Asir region is considered one of the important heritage and tourist areas within the Kingdom of Saudi Arabia, has played a pivotal role in enriching the cultural and creative stock not only of the Saudi citizen, but also of the Arabian Gulf region. This is what prompted us in the current research to delve into the analysis of the creative and artistic aspects of Asiri art inscriptions and to benefit from the aesthetic values of Asiri art decorations in contemporary artistic designs that achieve sustainability for the purpose of exploiting them in the manufacture of plastic fittings for clothing supplements to serve small industries. Many diverse designs have been implemented using different printing techniques. From (direct drawing method - stencil printing - pictorial screen printing) the use of different types and colors to implement different products to produce clothing accessories that are closely related to the structure of form and content of Al-Qat Al-Asiri art, and depends on its aesthetic philosophy about the heritage and cultural references associated with the place and the artist's own vision. To revive Saudi heritage. The research aims to take advantage of the geometric and

floral decorative elements in Al-Qat Al-Asiri's artistic engravings as a source for enriching and sustaining printed designs for women's clothing supplements that are characterized by authenticity and contemporariness, and preserving popular motifs by reformulating them. In keeping with the times, and preserving its most prominent features, in a way that enhances belonging and preserves the community's heritage and values. From extinction, endless horizons of creativity and innovation have been achieved in the field of printing clothing supplements, and sustainable plastic repetition, which the designer or art practitioner resorts to in general, and the field of printing in particular, as a creative pluralistic plastic method. The research followed the descriptive and analytical approach in identifying the origins and characteristics of the Asir artistic inscriptions (the cat), analyzing their vocabulary, reformulating them, and drawing inspiration from them to enrich the printed designs of women's clothing supplements, in addition to the experimental approach in the applied study through the use of different techniques and materials. The results of the study concluded that there are various aesthetic values in the Asiri cat engraving that can be used to create contemporary designs on clothing accessories using different printing techniques, in order to preserve the Asiri heritage in the southern region of the country. The study recommended the need to pay attention to studying heritage and the arts it contains because of its great importance, as it stimulates appreciation of traditional art and preserves it.

Keywords:

Aesthetic values - Asiri art decorations - Enrichment and sustainability - Printing - Supplements to modern women's clothing - Preserving Saudi heritage - Artificial intelligence techniques.

Introduction

Heritage is one of the most important things that express a people's history, culture and identity. It is also an important source of design because of its great impact in highlighting the spirit and identity of nations. Heritage has historical, artistic and aesthetic dimensions that must be taken advantage of in designing complements to contemporary women's clothing. The Asiri heritage is considered one of the historical sources that has many lines, shapes, colors and decorations, which must be inspired to create modern designs in a heritage spirit that emphasizes national identity. The Asir region, known as Tihama Asir, is located in the southwestern part of the Kingdom of Saudi Arabia and is characterized by its mountains and majestic coasts. The sea and its flat plains located between the mountain and the sea have given it uniqueness, distinction, and tourist attraction. Therefore, reviving heritage intellectually and objectively through the arts is considered a goal with advanced future dimensions and not a return to the past or adherence to history. It is also considered an important, fertile and inexhaustible source when dealing with the field of plastic arts. By studying heritage and analyzing its decorative elements, works of art can be produced. It carries the characteristic of authenticity and contemporariness to enrich the field of arts, revive heritage, and protect it from extinction. Since clothing accessories are an important need for individuals, they are also an important language of communication to convey messages in a specific and clear way. It also plays a major role in satisfying individuals' psychological and physiological needs and adapting to the environment in which they live. One of the most

important reasons for wearing clothing accessories is adornment, because it meets the psychological needs of individuals. Clothing accessories are part of body image and self-image. Therefore, fashion designers tend to search for everything new in the world of fashion and new sources of inspiration in order to be a fertile source to enrich clothes. Contemporary Fashion Therefore, the current research relies on quoting from the Asiri heritage to inspire modern designs suitable for women, as quoting is considered an artistic process that requires reformulating the source into a utilitarian aesthetic formulation with more than one vision for many designs according to the requirements of the era in which the artist exists and the customs and traditions of society, and it does not come This process occurs only after the source stimulates the designer's feelings. Designing clothing accessories is one of the arts that has occupied an important place in the field of design because of its great influence in showing the beauty and elegance of clothing and always appearing with a new look. This was also reflected in the economic aspects, as nutritional supplements are considered a means of rationalization in the field of clothing. (Ministry of Interior, 2021).

Complementary clothing is considered one of the plastic arts, where the individual creates using materials and tools that satisfy him, eventually arriving at a utilitarian work of art in which the aesthetic relationships based on line, shape, space, values of mass, texture, color and surface are confirmed. It is also one of the areas in which attention must be paid to developing creativity and innovation because of its basic design and decorative design. This is due to the influence of clothing accessories on modern artistic trends in terms of form, style and technology. Beauty is the ideal mental idea resulting from harmony, while artistic beauty is highlighting the values of things that arouse a feeling of their artistic beauty, and this applies to the process of choosing and using clothing accessories. Intelligence, precision and economy must be taken into account when choosing clothing accessories. Adding a beautifully shaped one-piece can transform a boring exterior into a bright and exciting one. The economic value of clothing supplements lies in transforming last year's clothes into lively and elegant clothes, and by changing them, one outfit can be used on more than one occasion. Therefore, if accessories are chosen well, they serve to express individuality and distinction in a woman's clothing behavior. Therefore, accessories must play an important role in shaping and renewing the wardrobe, as they are not just an accompaniment to a piece of clothing, but rather they are in themselves a necessary part of the overall appearance (Mauger, Thierry (2009).

Research problem:

Is it possible to benefit from the aesthetic values of Asiri art decorations to enrich and sustain the printing of modern women's clothing supplements to preserve Saudi heritage using artificial intelligence techniques?

It includes the following questions:

- 1- What is the possibility of benefiting from the use of artificial intelligence techniques in creating printed designs?
- 2 -What is the possibility of creating printed designs inspired by the Saudi Asiri heritage?

3-What is the possibility of enriching the aesthetic value of designing women's clothing accessories through the proposed printed designs?

research importance :

1-Identifying the decorative units and elements of Al-Qatt Al-Asiri art, and the possibility of drawing inspiration from them in the field of designing women's clothing accessories.

2-Providing various artistic, aesthetic, design and artistic proposals as a source for renewing clothing accessories

Contemporary in the Kingdom of Saudi Arabia.

3-Achieving sustainability in the field of printing women's clothing accessories through the use of artificial intelligence techniques

Research Objectives

1-Identify the aesthetic values of Asiri art (cat) decorations, and study and analyze their elements and components.

2-Providing a new vision for the proposed designs of contemporary women's clothing accessories using artificial intelligence techniques.

3-The sustainability of the aesthetic values of traditional fashion decorations and accessories is achieved by designing various decorations from decorative units suitable for modern clothing fabrics.

4-Taking advantage of the aesthetic values of Asir artistic decorations as an entry point for creating contemporary designs that enrich women's clothing accessories and achieve sustainability through various hand-printing techniques to preserve Saudi heritage.

Literature Review:

1-A study by Hisham Ahmed Ahmed (2017): entitled (Applications of artificial intelligence in photography)

Which aimed to identify the enormous potential provided by artificial intelligence applications in photography, the extent of its rapid development, and how to make the most of it to obtain better photographs with the least time and effort, whether in the photography stage or in photography. platform. Image processing, enhancing and correcting defects as well as creating and creating photographs. To topics that do not exist in reality and draw conclusions from them Artificial intelligence algorithms are used in light measurement systems in digital cameras to analyze light data reflected from parts of a scene and compare it to a database containing tens of thousands of professional images to determine how similar this scene is to any of these images. The camera then selects settings that result in... Get the best exposure for that scene.

2- Study by Muhammad Madahi (2022 AD): entitled (Impacts of applications of the Fourth Industrial Revolution - Artificial Intelligence - on the economies of Arab countries): The study

aimed to present a deep learning model for automatically generating radiological reports on chest rays or mammograms, as it has been used in the field Marketing.

3- A study (Mona Ahmed Abdullah Al-Ghamdi, 2020 AD) entitled (An innovative abstract artistic vision of Saudi heritage in photolithography): The study aimed to enrich the artworks printed using the photolithography method through an innovative abstract artistic vision, and benefiting from the vocabulary of Saudi heritage in Implementation of artistic works. The study may be useful in the current research in identifying the features and vocabulary of popular heritage, its types, and the various plastic values associated with it, and in clarifying the role of plastic arts and their importance in stimulating domestic tourism.

4- Study (Ahmed Muhammad Al-Sanad, 2008 AD), entitled (The role of plastic arts in developing domestic tourism in the Kingdom of Saudi Arabia): The study aimed to identify the components and obstacles of plastic tourism, as well as to identify the role of plastic arts in developing tourism, and among the results of the study is the necessity Working to establish a permanent exhibition in the form of art clubs specializing in fine art. The study may benefit the current research in identifying the features and vocabulary of popular heritage, its types, and the various plastic values associated with it, and in clarifying the role of plastic arts and their importance in stimulating domestic tourism.

5- Mahmoud Abdel Rahman, (2003 AD): “Developing treatments for dispersed dyes in the fields of printing and dyeing.”Manual (“Doctoral dissertation, Faculty of Art Education, Helwan University”).

The researcher studied the industrial properties of synthetic and blended fabrics, and studied the properties Chemistry of dispersed dyes, their types, and method of preparation, with a presentation of their most important trade names. Dividing them into groups and displaying the characteristics of each group, the researcher used dispersed dyes from Through various hand printing techniques (such as fingerprinting, stenciling, and direct drawing...) in making hangings Distinctive typography.

search limits:

Spatial boundaries: This research was applied in the Asir region in the Kingdom of Saudi Arabia

Objectivity border:

- Study and analyze Asiri art decorations (cat) and learn about their different vocabulary.
- Presenting the artistic and aesthetic values of Al-Qat Al-Asiri's vocabulary.
- Creating designs inspired by Saudi Asiri art motifs and using them in printing contemporary women's clothing accessories.
- Benefiting from artificial intelligence techniques in implementing contemporary designs.
- Using clothing accessories and redesigning them into contemporary designs using printing techniques to achieve sustainability in art.

Research Methodology:

The research follows the descriptive and analytical approach: which is the analytical study of the various inscriptions, decorations and colors of Asiri art, and the study of artificial intelligence techniques that help in achieving the sustainability of Asiri heritage designs.

Experimental (applied artistic) approach: Through innovative designs inspired by the aesthetic values of Asiri engraving art, implemented using various printing techniques to enrich and sustain the designs of women's clothing accessories. Relying on artificial intelligence techniques

Inductive approach: through previous studies and sources of information

Functional approach: The role of Al-Qatt Al-Asiri art in creating contemporary designs to enrich women's clothing accessories to preserve Saudi heritage using artificial intelligence techniques.

Search terms:

Aesthetic values:

It is the judgment that an individual makes about everything that is beautiful through his appreciation of the beauty of the environment in which he lives, or through his cognitive activity and the social relationships that he undertakes to obtain comfort and pleasure.(Abdel Baqi, 2012).

Reid defined beauty as "the unity of formal relationships between objects perceived by the senses." From a procedural perspective, aesthetic values mean arrangements that reflect the individual's interest and inclination for everything that is beautiful in terms of coordination and compatibility between shapes, lines, colors, and decorative materials.

decor:

It is decorating things with engraving, embroidery, inlay, and the like. In the research, decoration means the art of decoration based on highlighting the beauty of the work using geometric or natural units, color combinations, or calligraphy.

legacy:

An authentic Arabic word derived in the language from the word heirs, which means collecting what the deceased left to his heir. Folklore is a set of concepts passed down through generations that define a specificity Place, time, and the identity of individuals, and turns events, images, and customs into laws that subsequent generations adhere to The practical definition of heritage in the current research: It is a group of decorations or inscriptions that were used by previous generations in a designated place, and their impact remains until the present era.

Asir Region:

The Asir region is located in the southwestern part of the Kingdom of Saudi Arabia, and its area is estimated by geographers at 81 thousand square kilometers. It extends from the north to the borders of the states of the Dukes, Al-Zahran, and Al-Layth, from the south the borders of the Taif Agreement with the Republic of Yemen, from the east the Bisha regions, and from the west

the Red Sea. . It was given this name due to the hardness of its land, where there are many high mountains, and interspersed with valleys and reefs (Al-Dajani, Noura, (2016).

Asiri cat art:

In Arabic dictionaries, the word cat means “calligraphy,” “carving,” or “cutting.” It is an art from the Asir region, its origin and identity, and it has no parallel in the known arts of the world. It has been included in the World Heritage List as intangible art. It is basically abstract wall art specialized in decorating homes from the inside and outside, where women draw straight vertical lines intersecting horizontally and vertically, and within them are secondary lines to form geometric spaces at different scales, but with a repetitive rhythm, and usually... these lines are black in color, and the lines formed are... Many of the intersections are colored in different colors, predominantly green, blue, red, and sandy yellow(Al-shehri, Khalid, (2014).

Asiri decorations:

Asir motifs, also known as Asir art, is a form of abstract art that originated in the Asir region of Saudi Arabia. Created by women and used to decorate their homes, different geometric patterns and proportional designs are chosen to create layers on top of each other in which many lines and drawings are formed, each with its own term and then colored in a number of colours. Such as black, blue, red and yellow(Marzoog, ali, (2010).

artificial intelligence :

Artificial intelligence, according to Wikipedia, is the behavior and certain characteristics of computer programs, which make them mimic human mental abilities and work patterns. The most important of these characteristics is the ability to learn, deduce, and interact with situations that have not been programmed into the machine. It is defined as the ability of a specific system to correctly analyze external data, learn from this data, extract new knowledge bases from it, adapt these rules and use them to achieve new goals and tasks through flexible adaptation.(5)

Sustainability concept:

It is a group of vital processes that provide the means of life for living organisms of all types, which helps them maintain the succession of their generations and develop their means of growth over time (Khader, 2016). The current research defines it as an environmental term that refers to the adaptation of human behavior to be compatible with the environment and its use in areas of life(Al-shehri, Khalid, (2014).

Clothing supplements:

(Huda Khudari Abdel Rahim - 2014) She defines it as the luxuries that are added to improve and beautify the appearance, that is, they are the additions or pieces, whether accessories or costs, that highlight the model with more elegance and beauty. It is affected by several factors when manufacturing it, the most important of which are: the raw materials used in producing the supplement, the function it will perform, and the general idea of the model. (<http://tech4eco.blogspot.com.eg/2014/11/blog-post.html>.)

A complement is anything that draws attention to a specific place and makes the eye stop in front of it rather than anywhere else, such as jewelry, fashion, headwear, ribbons, shoes, embroideries, bags, and gloves. And belts. <https://www.emaze.com/@AOFLLLLT>

Hand printing concept:

It is the method through which colorful patterns or drawings can be obtained in different ways on various known types of fabrics, such as cotton, wool, natural silk, linen, or various manufactured fabrics. This method is done using wooden, paper, or other templates, and the drawings and engravings vary greatly depending on the materials used and the printing method used.

Regarding the theoretical framework:

Asiri cat art:

Maghawi (2004) stated that the word “khat” in Arabic language dictionaries means “calligraphy,” “sculpture,” or “cutting.” Al-Asiri cat is an art called cat or zyan, which decorates the walls of houses with colors and geometric shapes(Al-Hababi, Haifa, (2012).

It is an abstract decoration characterized by an innate, spontaneous, and precise performance in accordance with inherited traditions and customs. It consists of lines, colors, and spaces, drawn in a traditional decorative style acquired through observation and practice. Research defines it as a set of lines, shapes, and colors integrated into a creative work of art(Abdul-Aziz, Mona,2012)

Its dimensions and meanings were derived from the culture surrounding Asiri society.

History of the art of the Asiri cat:

The Asiri Qat, or Naqsh or Zayan, is one of the abstract arts that originated in the Asir region in the Kingdom of Saudi Arabia, and is practiced by women to decorate their homes. Different proportional geometric patterns and designs are chosen to create layers on top of each other, where many lines and graphics are formed, each with its own term, and then colored with a number of colours. Such as black, blue, red and yellow, an art that has been included in the UNESCO Intangible Heritage List since December 9 - 2017

The Asiri cat art is considered an ancient heritage art in the Asir region in southern Saudi Arabia. It specializes in decorating homes from the inside and is performed by women. While the man is responsible for building and maintaining the house from the outside, the woman of the house is responsible for decorating it from the inside, as she draws harmonious shapes on the walls of the room in bright and attractive colors. This art was the reason for women to gather and help in drawing the decorations. The housewife would draw preliminary lines for the decorations and place colored dots representing the color of each part, so that her relatives and friends would come and help her in drawing and coloring the decorations and shapes. The history of Asiri decoration dates back to ancient times. The first known works of this type are found in tombs and temples, but it was only in the 17th century that works of art began to be made for decorative purposes. These days, Asir decorations are mostly made by men as a form of art. However, women continue to use them in their homes and are very proud of their ability to create such beautiful designs. The origin of Asiri decoration goes back to the Bedouin tribes living in the

desert. They would decorate their tents with intricate patterns made of goat hair, which were then sold to other tribesmen. Works of art began to take on a more personal meaning when they were used to decorate homes and other buildings. The decorations became an expression of unity between members of different tribes who would come together for celebrations such as weddings and funerals. They were not considered artists but were called “Asir” women who would decorate their homes with these decorations.

Asiri motifs can be found in the Saudi Arabia region. These patterns have been part of the culture and lifestyles of the people living in the area for centuries. Women played an integral role in creating these designs. The women are given specific instructions on how to draw each pattern and then color it in different colours. Asiri ornaments are a type of Islamic art developed by Saudi women over the past few decades. The motifs are inspired by nature and everyday life. Asiri decorations are usually made of clay and painted with acrylic. They can be seen on walls, ceilings, windows, doors, furniture and even clothing and contemporary artistic pendants(Ahmed abdulatif (2017).

Asiri decoration is believed to be one of the oldest art forms in Saudi Arabia, dating back to ancient times when people first created images representing themselves. These decorations were always geometric shapes with no color at all, but eventually artists began adding color to their works as well. There are several different types of Asiri motifs: flowers, animals, mandalas (a type of geometric pattern that represents a spiritual experience), human figures, geometric shapes and others(Abdul-Aziz, Mona,2012).

Characteristics of the Asiri cat art:

They are part of the artistic tradition of the region and can be seen in museums and galleries around the world today. This art form first appeared when women created these designs from glass or metal, using beads and gold thread as well as silk embroidery to create intricate designs resembling traditional tribal art from Yemen. The motifs were then passed down from generation to generation until they were finally recorded by historians. as in Figure (1,2).

	
<p>Cat art moves from Asir homes to beautiful paintings, as in Figure (1)</p>	<p>Cat art moves from Asir homes to beautiful paintings, as in Figure (2)</p>

This style has been passed down through generations, and remains very popular to this day. It can be seen on the walls and ceilings of buildings, as well as in hand-carved wooden furniture. Motifs are often made of geometric shapes such as squares, circles, or triangles. It may also contain animals representing fertility or good luck. The use of colors is very important for this style, as the colors used must be bright and vibrant so that everything appears colorful when viewed from a distance. It is also important that the colors chosen do not clash with each other too much because they will blend together when viewed from a distance.

The art of the Asiri cat appeared:

The Asiri are nomadic Bedouins who wandered across the Arabian Peninsula, eventually settling in the northern part of the country. They are also known as the Qahtanis, named after their grandfather Qahtan. Their numbers were small until they began to settle, and many of their customs remained unchanged for thousands of years. These decorations have been used for centuries to beautify the homes of the people of the Asiri region. It was also used as a way to express their love for nature and religion. Today, these decorations can be found on interior walls throughout the country, as in Figure (3,4).

	
Figure (3) shows the Asir units inside the buildings	Figure (4) shows the Asir units inside the buildings

“The Asiri Cat” is a popular art that has become a global icon:

Since the beginning of the plastic movement in the Asiri region, “The Cat” has been one of the most important sources of inspiration. Its distinctive colors and lines appeared in the artists’ paintings, which caught the attention of a number of world artists who were visiting the plastic arts celebrations in the “Al-Muftaha” village. Then the cat took off into the world after it was registered. The cat was included in the Representative List of Intangible Heritage in UNESCO in 2017.

Regarding the great spread of “cat” art at the internal and external levels, arts researcher Ali Maghawi asserts that “the arts die if they do not develop,” adding, “that the cat has become a widely spread international folk art, and that economic investment in it is important and even required.”

Maghawi continued: “There are different types of employment and investment, the largest aspect of which is what is called “art for art’s sake.” This is evident in the sale of beautiful paintings to art lovers, which are famous and known all over the world. We see antiques displayed in most international cities symbolizing the country’s artificial culture. There is no doubt that it is one of the most important components of tourism.

He added: “With regard to cat art, it is one of the arts that can be used in most consumer products and souvenirs. It has also become one of the very important symbols in the Asir region. You can hardly find a publication or cultural landmark in the region without the cat as an ornament, and it is undoubtedly something “beautiful and important because it represents a special identity for the place, and a kind of cultural heritage that spreads throughout the countries of the world.” the world.”

For his part, visual artist Muhammad Sharahili pointed out in his interview with SPA that some people “distort this ancient art” by assigning entities, factories, or people who do not know anything about “the cat,” but rather create distorted copies of it. Some consumer products. Such as gifts and household items, and it has even been used in some building materials.

Al-Sharahili believes that training and qualifying talented young men and women inside the Kingdom at the hands of specialists is necessary in order to maintain the quality of the product and benefit from it economically. It is noteworthy that “cat” is the art of decorating the walls of homes in the Asir region for hundreds of years, and it relies on wonderful geometric decorations whose dimensions and connotations are inspired by the surrounding culture, especially the colors of nature.

The word “cat” in Arabic language dictionaries means “calligraphy,” “carving,” or “cutting,” which is what the creative women of the Asir region did in their homes, especially the homes of the wealthy and prominent members of society in the past. This art was used to decorate the interiors of homes and public places, especially in the Asir region, by women, with men taking responsibility for building and maintaining the house from the outside. As in Figure (5,6)



As shown in Figure (5) the use of Asir units in vessels is shown



As shown in Figure (6) the use of Asir units in vessels is shown

The people of the region have been keen to preserve these traditions across generations for centuries, and have passed them on year after year until they reached us as we see them now, with the beauty of their attractive colours.

Engraving shapes:

Al-Banna: This shape symbolizes the female, and it often appears at the top of the cat, whether it is in the piece, the wall at the end, or the part. It is symbolized by what resembles a tree resting on a triangular base, with its chord horizontal and its top pointing upward, as if it also symbolizes compact mountains.

Feathers: They come in the form of plants among the builders.

Mihrab: symbolizes the mihrab. Its shape represents the religious aspect and its presence among the interests of the engravers. The mihrab in the engraving is in the shape of a waterfall of sea waves.

Raccoons: They are large adjacent triangular shapes that differ in shape and may contain different types of inscriptional designs.

Balloon: in the form of small dotted circles.

Combs: They are parallel lines pointing up or down at the end of the comb, similar in shape to the teeth of a comb.

Al-Tadhiz: At the end of the building, the apex of the triangle ends with three points resembling corn stalks.

Sankar Wali: It is a form of adjacent, parallel niches, but it often faces the right.

Triangles and pentagons: These are three or five parallel lines. They appear at the bottom of the inscription as an opening to it, and they may appear individually in stairwells or backfills.

Palm: Parallel lines of different colors at the bottom of the room wall and in the corridors of stairs.

Grid: These are overlapping geometric rhombuses or squares that take on a uniform color, and rarely have multiple colors.

Colors:



Four colors are used in engraving the Asiri cat, as shown in Figure (7,8).

Black color: a mixture of (stove charcoal) with black gum added

Red color: Hassan, Myrrh, and carefully crushed fried rice. The role of fried rice is to reduce the intensity of the color of Hassan and increase its quantity.

Blue color: white acacia and blue arsenic.

Green color: white acacia and green arsenic.

	
Figure (7) shows the set of four colors used in Asir buildings	Figure (8) shows the set of four colors used in Asir buildings

Among the plastic values present in the decorations of the Saudi Asiri cat art are the following:

First: the point:

The popular artist used the dot in a way that was compatible with the nature of the design, which was done naturally and spontaneously. Scattered dots were widely used in the decorative units, and this would increase the viewer's awareness of the directions extending between them.



Second: the line

Everything in nature is basically a line. A line can be defined as a very narrow shape. Line has many functions, including the sense of movement in or around space. This is because line has the ability to make the eye follow its movement wherever it goes, and lines have specific expressions. For example, smooth straight lines express calm and stability

Intersecting, conflicting, and opposite lines in their directions express movement, vitality, and interaction. There are many types of lines, including straight line, zigzag line, dashed line...etc. There is another classification of types of lines, including real lines, which are drawn clearly and sharply, and there are imaginary lines that are formed as a result of the meeting of two shapes in the design.

Calligraphy is considered an element of art. Lines and curves are marks that extend a distance between two points (or the path of a moving point), and a line has various uses, such as outlining

Implicit in artwork and design, lines have width, direction, and length; Line width is sometimes called thickness, and lines are considered one of the most important artistic and aesthetic elements of the decorations used in traditional Asir architecture because of their qualities that allow them the ability to express. Lines are considered one of the oldest means used in artistic expression. The caveman wrote with his fingers. He makes marks in wet clay or draws lines with a piece of burnt wood on hard surfaces to define spaces through which he can express the shapes he sees. In the Asir region, the popular artist used lines to define their shapes, areas, and decorative units as a first step, then colored them with different powders and colors. As in Figure (9,10).

	
As in Figure (9) it shows the morphological values in the Asir units	As in Figure (10) it shows the types of fonts used in the Asir units

Lines in their various forms: (horizontal, broken, curved, and slanted) are among the most commonly used geometric shapes in Qat al-Asiri decorations.

Plastic values of decorative elements in the art of Al-Qat Al-Asiri

A) Horizontal lines.

The popular artist, who created the Asiri cat shape in the Asir region, resorted to extensive use of horizontal lines in her designs on the walls. Perhaps the reason for its frequent use is due to its meanings of stillness, stability, and extension. It also “gives a sense of breadth and horizontal breadth, and this phenomenon is exploited in the design of wall decorations, because its placement in the design is a way to estimate how far away the shapes are or how close they are to the viewer’s eye, and the horizontal lines serve as the ground or base for everything that is above them.” Horizontal lines are the most common in Qat al-Asiri decorations; Almost any traditional house is not without this, as there are houses that simply draw lines.Parallel horizontal is only used to beautify their interior rooms without any other shapes. The popular artist in the Asir region, with her instinct and spontaneity, was keen to make lines a base upon which her shapes and decorative units were based. The number of these lines varies, ranging from one to five lines, and each line has an independent color that differs from the other. These lines extend to eventually form a belt surrounding the council or room from the inside. When these lines meet the door or windows, they change from horizontal to vertical. Then to horizontal and so on. The spontaneous choice of this type of font by the popular artist in the region is evidence and testimony to the extent of her fine artistic sense and innate design abilities.

(b) Dashed lines:

Broken lines suggest movement, and sometimes chaos, and we notice in these lines the sharpness of the formation, which requires the use of some decorations with them, in order to soften their effect. A dashed line made up of two straight lines can have a definite direction regardless of their location in space, provided that this direction is definite. By the sum of the two lines that form the refracted line; Dashed lines are also known as a group of lines that have changed from a fixed, stable and balanced position to a vertical, rising position or to a moving diagonal position. Broken lines were used in the decoration of the Asir region in more than one place, and this is what we see on both sides of the stairs, where the horizontal lines turn. To vertical, then to horizontal again, and so on. The popular artist naturally resorted to this type of linear exchange between the vertical and the horizontal, to emphasize with these broken lines the movement of the stairs that will go up or down. The popular artist was able, by nature, to move with our eyes between straight, horizontal lines, which convey to the lines meanings of stillness, balance, and stability. Vertical symbolizes ascension, rigor, durability and stability.

(c) Curved lines :

The curved strings suggest the softness and smoothness of the wave, and are sometimes mixed with the straight line to calm its excessive rigidity. A curved line is part of the circumference of a circle repeated in the form of a wave, which makes us feel energetic and flexible. The use of lines with wide curves in the composition evokes a feeling of calm in the soul, in contrast to the use of lines with sharp angles that give a feeling of strength. Curved lines have their strongest effect when drawn along a straight line, so that the eye can then estimate the extension and extent of the curve.

(d) Italic lines:

Italics are not widely used in design without accompanying other fonts. This is because it does not achieve the sense of balance and general stability of the design that the designer is always looking for. Slanted lines usually suggest falling, and one of the characteristics of slanted lines is that they are unstable and give a feeling of movement and instability. However, the artist in the Asir region made these lines balanced, moving up and down on the equilateral triangle.

Third: Color:

The popular artist in the Asir region uses multiple methods in applying colors according to the nature of the surface and the extent of their relationship to the materials of implementation. Despite the differences in these methods, the popular character in each of them has not changed. The popular artist deals with three types of colors: The first: are the natural colors extracted from powders. Stones, colored clays, or some herbs such as clover. These natural colors are prepared by the popular artist herself by adding fixatives and polishing materials. The second: ready-made colors in the form of powders that were brought from Yemen in the form of cardboard cubes, with the addition of water and fixatives. It is coloured ,As for the third type of colors used in coloring and decorating, they are modern oil colors, noting that this type of colors was not used until recently. The popular artist in the Asir region deals with the basic colors (red, yellow, blue) mainly in addition to the colors Binary colors (green, orange) and tri-colours are currently used,

as this coincides with their use of modern oil colours. As for the black (neutral) color, the popular artist used it in the process of drawing and initial planning for her decorative work, and then she fills the spaces with different colors. She also demonstrated her artistic ability in distributing colors beautifully. Although the popular artist is known for her frank and natural use of colors, they used white to obtain multiple shades of color.

Cultural Heritage:

It is everything that is transmitted from customs, traditions, sciences, literature, arts, and the like from one generation to another. It includes all folk arts, such as poetry, singing, music, popular beliefs, stories, anecdotes, and proverbs that pass on the tongues of the common people, and the customs of marriage and various occasions, and the inherited methods of performance and forms they contain. Colors of dance, games and skills.

Popular heritage reflects what the civilizations of countries have achieved. Any civilization is not an ancient civilization with historical roots except to the extent of the evidence it bears of its human advancement, and because man throughout his historical journey tries to advance himself, his advancement is reflected in the behaviors he leaves behind that are rooted in people's lives.

Types of cultural heritage:

This type of cultural heritage includes tangible items such as artefacts, which include paintings, drawings, prints, mosaics, sculptures, historical monuments, buildings and other archaeological sites. It also includes all human evidence and expressions, such as: photos, documents, books, manuscripts, and tools, whether individual or collective. Intangible cultural heritage: This type of cultural heritage includes intangible elements, which include traditions, oral history, social practices, traditional handicrafts, rituals, knowledge and skills transmitted from generation to generation within a given society, Intangible or intangible heritage includes an amazing array of traditions, music, and dance. All cultural heritage is protected around the world through national laws and international treaties. There are illicit trades in artifacts, cultural objects, and the looting of archaeological sites. And the destruction of historical buildings and monuments, which causes irreparable damage to the tangible cultural heritage of a country, as the United Nations Educational, Scientific and Cultural Organization (UNESCO) has adopted international agreements related to the protection of cultural heritage, to promote understanding between cultures while emphasizing the importance of international cooperation, Areas at risk must also be monitored in order to provide awareness about conflicts and prevent disasters that cause damage to heritage.

Heritage and cultural heritage:

This research also sheds light on the Asiri cat motifs by preparing modern print designs to complement women's clothing. The role of this in confirming the Saudi cultural heritage in this region and developing the individual and society, as this heritage gives the national identity its authenticity and identity. It also gives it historical depth against imitation and importation. There is a strong relationship between heritage and culture, and cultural heritage has a number of elements (intellectual - social - material). There are many popular legacies that carry within them many legacies that exist to this day. Linguistically, the word inherited comes from the word

inheritance or inheritance. Grammatically, it is an active participle of the verb inherited, but its definitions are multiple and complex among Arab specialists. Heritage or inherited is what the ancestors left behind in order to be a lesson from the past and an approach from which children draw lessons to pass from the present to the future.

Sustainability in fine arts:

Sustainability is a growing movement focused on the long-term health of our planet, and it's a movement that many artists have adopted in their work. Using sustainable materials and practices, these artists create art that will last for generations and help preserve the Earth for generations to come. Artists who practice sustainability use materials that do not harm the environment and do not require large amounts of energy or resources to produce. They also try to reduce their carbon footprint by reducing waste and reusing materials whenever possible.

With so many people working for sustainability every day, we're starting to see real change in our world and we believe art can play an important role in this movement! Art is one of the most powerful tools we have to create change. It can be used to spread awareness, educate people and inspire action. It is also an important part of our lives that we use to express ourselves and communicate with others.

The importance of using sustainable art:

Sustainability is the ability to maintain something over time. In the case of art, it means creating a better world with the help of art. This idea has been around since before we had the term "sustainability." For example, Leonardo da Vinci was known for his ability to create objects that would last for centuries. His paintings still exist today and are admired by many people around the world. The idea behind sustainability in art is that if we can create things that will last a long time, then we will have something that we can pass on from generation to generation without worrying about whether or not it will last through time. This is especially important when considering how much damage humans have done to our environment over time, we need something that will last longer than us.

Sustainability is the idea that we can live in harmony with our environment, and it is something artists have worked toward for centuries. Whether it is through the use of recycled materials, or through creating art that reflects the beauty of nature, Sustainability has always been an important part of art. Sustainability today is more important than ever and it's not just about using sustainable materials or creating beautiful works of art.

Characteristics of sustainable art:

Sustainability is about creating a better world for our future generations. It's about making sure we leave behind a healthy planet full of life and resources for everyone. It is not only about preserving the environment but also creating opportunities for everyone to live in harmony with nature.

Art has been used as a tool to raise awareness of sustainability issues and help people understand how they can contribute to protecting our planet. Artists use different media such as paintings,

sculptures or photography to convey their message to the public at large through their work which helps them connect closely with nature as well as other humans around them.

Artists are also known to use their creativity in order to come up with new ways to reduce waste in society so that less resources are wasted unnecessarily during production processes which leads us to be more responsible when it comes to managing our resources properly so that nothing goes to waste needlessly anymore. Sustainable art is made from recycled materials or materials that are easy for people to find and reuse again. This reduces waste and helps ensure that we don't use up all the resources on Earth before they're gone forever.

Applying sustainability in art:

When you create art, you are using natural resources such as paint or paper and when you look at someone else's artwork, you are also using natural resources by consuming them through your sight! So, as an artist who cares about sustainability, it's important for you to consider how much waste is produced during each stage of your process: from sourcing materials (and ensuring they're sustainable), through creating the work itself (using non-toxic materials), through... Display/sell/store them afterwards (keeping things clean)

Artists are able to create works that are not only beautiful, but also have a positive impact on the world around them. Artists can create works that will last for years or even centuries and will still be enjoyed by many generations of people. This is one way artists help make the world a better place.

Definition of artificial intelligence:

It is the ability of a computer or machine program to think like a human. God learning is part of artificial intelligence and is giving the machine the skills to learn from examples without explicit programming. Deep learning is a part of machine learning and enables a machine to train itself to perform a task. Artificial neural networks are an information processing system that has certain performance characteristics in a way that mimics biological neural networks. Neural networks were developed as mathematical examples based on how humans think and how neurons process information.

The most prominent aspects in which artificial intelligence has served the field of design:

Artificial intelligence helps enhance the creativity of designers by completing some of the work that requires the designer's time and effort, so his time is focused on important points such as building ideas and creative aspects. Thus, artificial intelligence becomes a virtual assistant for the designer, taking care of things here and there, so that the designer can focus on the important points, as we mentioned previously.

Perhaps the most prominent strengths of artificial intelligence center around its ability to improve and speed up implementation. Designers who rely on artificial intelligence are able to create designs faster and at a lower cost due to the increased speed and efficiency that artificial intelligence gives them. In addition, artificial intelligence has the ability to analyze huge amounts of data and then suggest modifications to the design. The designer chooses the appropriate

suggestions and approves the appropriate modifications based on the results of that data and its analysis.

Briefly, we can summarize the areas of artificial intelligence assistance in four points:

- Building the user interface
- Personalize the user experience
- Preparing assets and content
- graphic design

Due to the great interest in the field of artificial intelligence and machine learning during the past few years, artificial intelligence has been treated as one of the most important future technological tools that can be relied upon primarily in life transactions, as many people believe that artificial intelligence can provide an option for most issues. . And the challenges that exist now on this planet. The current research seeks to use one of the most important applications of artificial intelligence - Midjourney - with the aim of creating suitable designs for printing on clothing accessories inspired by some symbols of the Saudi Asiri heritage. Confirming identity in the Kingdom of Saudi Arabia, preserving Saudi heritage, achieving sustainability, and adding... value. The artistic and aesthetic design of the target.(10)

Digital printing technology:

Digital printing requires specialized tools including design software, a computer, monitor, custom colors, and printing materials. It also requires the artist familiar with digital design programs to create creative artistic compositions and various effects that express the artistic vision and imagination with the high technical capabilities of the computer. (Abdul Karim, 2018)

Digital printers dedicated to textiles first appeared in 1996 in conjunction with Canon Corporation and KANEBO Textile Company,

Widely spread in 2004, there are two types of digital printers: the first is printing using direct inkjet injection technology and is characterized by high productivity because it contains a piezoelectric print head for direct printing on textiles, and the second is printing using transfer technology, where the image is created through A series of rows of dots.on the computer and transferred directly to the printer Digital printers for textiles have contributed to reducing the time and stages of the textile printing process and correcting designs quickly and easily. The digital printing process on textiles is environmentally friendly as it reduces the amount of waste water that contributes to environmental pollution. It reduces water use by up to 90% and electricity use by up to 30%.Digital fabric printing is characterized by a distinguished level of print clarity, color and stability, in addition to wide options for colors and designs. It is ideal for distinguishing designs and uniqueness, and its ability to produce a very large quantity of copies very quickly and with high accuracy. It saves time, achieves safety and quality of implementation, and reduces manpower.

Artificial intelligence and design:

Artificial Intelligence is one of the prevailing technologies in many fields and industries these days. Many scientists and thinkers place their hopes in it while others see it as a dangerous technology that could pose great harm to humans in the future. Regarding these two contradictory perspectives, artificial intelligence has been presented in many science fiction films and works of art, as well as the opinions of prominent scientists and discussions of those interested in the future, as an image that gives us hope for transforming the world into a better place to live by making human lives much easier, or as an image that terrifies us and in which artificial intelligence represents a threat to humanity

However, both images have one point in common which is accepting the fact that AI has a lot of potential. Indeed, it has a lot of potential. Artificial intelligence has begun to show that it can not only perform tasks more quickly than humans, but that it can also think creatively. Thus, artificial intelligence has a strong impact on the design industry. If we talk about the design industry we will know that it also has the same two contradictory perspectives on artificial intelligence. For some, AI represents the future of the design industry, which will allow human designers to design better and easier

While for people, artificial intelligence represents the new designer and would rather replace human designers. No one liked it. What hides more than others is that artificial intelligence shows some creative talents that are similar to human ability, so it has become a pioneer who tends to think and learn like humans. For example, an AI can receive visual, sensory, and auditory inputs and can also store them in its memory. That is, artificial intelligence systems can see, hear and feel everything that happens in their surroundings. These innovations support the Internet of Things, the most important of which are artificial intelligence systems (Ahmed Mohammed Al Sanad (2008).

On the other hand, these AI capabilities become very useful if they help in designing a particular website or product logo. That's because these capabilities allow AI systems to check the suitability of different objects and sounds for a given task and perform more accurately. Below are some of the tasks that artificial intelligence systems can perform using their artificial cognitive ability:

- 1- Identify shapes, colors, text symbols, design patterns, and other features of objects.
- 2- Classify the different input data and use a specific part of the data when needed.
- 3- Their memory is better than human memory and they can remember data for a longer period.

Clothing supplements:

They are accessories that are added to improve and beautify the appearance, that is, they are additions or pieces, whether they are costs or accessories, that make the model appear more elegant and beautiful. They are affected by several factors when designing it, the most important of which are the materials used in producing the supplement, the function it will perform, and the general idea of the supplement model. Since clothing accessories have become an essential role in completing the clothing appearance of a woman, especially a working woman who seeks elegance, as it gives her more elegance and highlights the beauty of her clothing, no matter how

simple, and keeps her away from the boredom resulting from using the same clothing repeatedly, fashion experts have excelled. Inventing many strange things Different shapes and types of supplement pieces that suit women of all ages.(Ahmed Mohammed Al Sanad (2008).

Therefore, paying attention to the proper and appropriate use of clothing accessories has a psychological impact

Social and economic are what deserves attention.

We must not forget that there is an important factor, which is that it is not by acquiring a large number of accessories that one can achieve elegance and good appearance, but rather by choosing pieces that are fewer in number but have a beautiful taste and good material. It may be somewhat more expensive, but at the same time it is much better than many other cheap cuts that do not have the required taste. A piece of worthless accessory may destroy the appearance of clothing and have the opposite effect, causing the accessory to lose its vital function, which is to add beauty and elegance, as well as its economic function. (Nadia Mahmoud Khalil - 1999 - p. 9: 14)

Clothing supplements can be divided into two main parts:

1-Related Supplements “Kalf” :

It is usually attached to the clothing and is not separated from it. That is, it is every ornament that is added to the piece of clothing, whether during its sewing or after the completion of its sewing, such as decorative ribbons, lace, embroidery, fur, buttons, etc.

2-Separate supplements:

Added accessories and adornments made of different materials are called “Accessories” as they can be added or removed from clothing. They are additions or pieces that accompany the main clothing and work to increase its effect, even though they in themselves are secondary and not essential, except for shoes, as accessories to separate clothing have multiplied since ancient times. And so far, such as “handbags, belts, shoes, socks, scarves, head covers, robes, gloves, shawls, jewelry, and artificial flowers.”

Handbags:

An important part of an individual's external appearance, and it is one of the essential accessories that no girl or woman can do without, as it helps her complete her elegance and attractiveness, not only because it adds charm and attraction to the personality of the person who wears it, but because the handbag also has its useful uses in carrying things that Women use it in their daily lives.

Belts:

Belts have functional and aesthetic value. They are used to define the midline or change the original location of the midline, as well as to hide the midline sutures. Belts are made of different materials, including leather, fabric, metal rings, braided ropes, or plastic, and sometimes they have colored lobes or gold and silver chains, but the most common and used are belts made of leather, as they provide durability in addition to the beautiful shape, so they become more elegant

for the morning period. Wide belts are classier than thin belts as they add horizontal lines and draw attention to the small, delicate waist.

printing :

The term textile printing refers to the processes that are carried out on textile materials with the intention of giving them one or more colors in specific places for the purpose of giving them a more beautiful appearance. The printing process is the process of objective dyeing in different shapes and designs using different methods, special effects and textures with the dyes and pastes used that allow the color to be transferred to the surface of the textile. While preserving the boundaries of the drawing or design and preventing colors from leaking or spreading outside the boundaries of the drawing. (Ghada Shaker Afifi, 2001).

The different methods of hand printing are as follows:

Manual printing methods are summarized as follows:

- 1- Stencil printing
- 2- Silkscreen printing
- 3- Woodblock printing
- 4- Printing using wax (batik).

Stencil printing:

It is one of the methods of direct manual printing that relies on transferring color onto the printing surface through empty spaces on a thin insulating material to print the parts desired to be printed in the design that has been transferred and unloaded, and it can be transferred For the design in one or more colors on various surfaces through the empty spaces in the mold made of Insulating foil, so that the unsealed areas hide colored materials from the printing surface.

Silkscreen printing:

Screen printing is a printing technique in which a silk, polyester, or other woven mesh is used to support a stencil in blocking ink to produce the desired image. The attached stencil forms open and closed areas, and the silk mesh transfers the ink or other printable materials with it by pressing the filling blade or what is called the “squeegee”, which helps in pumping the ink into the holes of the mesh to transfer it to the polished surface that is placed under the mesh, whether that surface These are t-shirts, stickers, vinyl, wood or any material that can keep the image on its surface

Experimentation controls:

The testing controls are determined as follows:

First - printing materials:

Transparent and opaque textile printing colours, pigments, brushes, plastic tubes, pestles for stencil printing - silk screen previously photographed in the required units.

Second: Printing surfaces used in experiments:


Cotton - silk

Third: Printing methods:

- 1- Stencil printing (basic technique).
- 2- Direct drawing printing - silk screen printing (sub-technology added to the design).
- 3- The application aspect of researching and employing designs on women’s clothing accessories.

Several designs have been created and implemented on clothing accessories such as (bags - boots - shawls - dresses).

Inspired by the motifs of the Saudi Asiri cat art, different types of fabric were used, such as (cotton - silk - burlap). The popular decorative elements were liberated from their traditional lengths and shapes through the Photoshop program, and they were rearranged in a modern, modern way suitable for use, and they were implemented into shapes that complement the clothes using techniques. And printing methods such as (stencil printing - silkscreen - direct drawing).

	
The first design is for the Asiri units, executed using printing technology	
	
Employing the design in women's shoes using printing technology	Employing the design in a women's bag executed using printing technology



The second design is derived from the Saudi Asiri units, executed using silk-screen printing technology



The second design is implemented using silkscreen printing technology on a women's dress



The third design is executed using silkscreen printing and thermal paper printing



The second design is executed using silkscreen printing and thermal paper printing on the shawl



The second design is implemented using silkscreen printing technology and thermal paper on the belt



Employing the design in a women's bag using silk screen technology and thermal paper



Employing the design in women's shoes using silk screen technology and thermal paper



The fourth design is implemented using silkscreen printing and thermal paper printing technology and expresses the Saudi Asiri units



Employing the design in a bag using silkscreen printing and thermal paper technology



Employing the design in a bag using silkscreen printing and thermal paper technology

Results and recommendations:

First: search results:

1- The researcher concluded that it is possible to benefit from the decorative units of the Asiri cat art by reformulating them in a contemporary way in making contemporary designs. The designs are used in printing women's clothing supplements in a contemporary way.

The study showed that the Asir region contains various popular decorations represented by cat art2

Al-Asiri has aesthetic values that contribute to creating distinctive printing designs

3- The innate folk decorations created by the artist Al-Asiri have elements that qualify them to be shaped into different images with varied functions to revive the Saudi heritage using artificial intelligence techniques.

4- It was possible to design several women's clothing accessories printed by silkscreen, direct drawing, and stencil printing that match the colors of the Asiri cat, and are characterized by diversity, innovation, and contemporarity, and achieve sustainability while preserving the characteristics of this popular art.

5- Achieving sustainability is the world's goal and the trend is to benefit from clean energy in various aspects of life.

Recommendations:

1- It is necessary for every culture palace or heritage village to have an art center and a mobile exhibition that displays the works of artists and craftsmen in the region, so that it becomes a source of tourist attraction, and also helps to learn about local arts through trips between governorates and cities.

2- Deepening the study of the aesthetic and artistic values that abound in Saudi traditional arts of all kinds and benefiting from them as a source of inspiration that helps open new horizons for creative thinking to find design solutions in the field of printing that are characterized by authenticity and contemporaneity; Therefore, it must be studied academically and analyzed to benefit from it using scientific methods.

3- Directing the attention of universities and institutes specialized in the field of clothing and textiles to developing courses by focusing on digital programs to achieve sustainability through beauty, originality, and quality of design and implementation, in addition to speed of performance.

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WORKS CITED

-
- Ministry of Interior, "Emirate of Asir Region - Overview of the Region," (March 13, 2021) Retrieved from Mauger, Thierry (2009):" Color of Arabia the Painters Garden the Architecture and Murals of Asir", Asbar center for studies, research communications
- Abdul Qadir, A., S. (1994). Monotype As An Artwork During The Twentieth Century, Master, Thesis, Faculty Of Fine Arts, Helwan University, Egypt
- Al-Amari, M., M., (2009). A Program In Silkscreen Printing For The Productive Families, Project, Phd Thesis, College Of Home Economics And Art Education: Riyadh
- Al-daajani, norah, (2016). public art aesthetic decoration (alQatt and engraving) on textile by using automatic employing, PhD thesis, umm alqura university.(in Arabic)
- Abdul-Aziz, Mona; nour-aldeen, Amira, (2012). analytical study of old decorative

- walls in asir region and deploying it in contemporary female designs. home economics magazine, Monofiah university, volume 22, issue no. 4. (in Arabic)
- Grace, G., A. (1412). Bani Shahr And Bani Amr During The Thirteenth And Fourteenth,Centuries AH. 1st Floor, Kingdom Of Saudi Arabia,: Mazen Printing
- The General Authority For Tourism And Antiquities. (1431 AH). Is One Of The Landmarks, of Urban Heritage In The Kingdom Of Saudi Arabia. I (1), Jeddah: Al-Sarawat Press
- Al-Hababi, Haifa, (2012). The art of women in Asir (Saudi Arabia), Austrian Academy of Sciences, Aas working papers in social anthropology. (in English)
- Al-shehri, Khalid, (2014). deploying decorative aesthetic in asir region to enhabce contemporary design, master thesis, umm alqura university. (in Arabic)
- Asiri, hanan faye and Ibrahim, Abeer Ibrahim Mahmoud and Suleiman, omaima
- Ahmed abdulatif (2017): "creating designs inspired from Asian wall art (alqatt) to enhance aesthetic of female costume", international design magazine, October, issue 4.(in Arabic)
- Marzooq, ali, (2010). the decorative art of conventional architecture in asiraesethical art study, Saudi commission for tourism & national heritage, Riyadh. (in arabic)
- Thaqafan, asma.(2008). asirian public art aesthetic and its role in tourism revitalization, master thesis, education collage, king Saud university. (in Arabic)
- Zakria,fadiah Mohammed hashim, (2019). Asirian Alkat philosophy and woman role in transferring the cultural craft heritage to enhance textile walls and revitalize Saudi tourist shopping. Art and Architecture Journal, issue no. 15. (in Arabic)
- Al-Jawahra, Hani Muhammad (2005) The unity of elements and shapes in the wall inscriptions in the Asir region and its relationship to clothing," Damascus University Journal of Engineering Sciences, Volume 21, Issue 2
- Al-Qahtani, Yusra Saeed Muhammad (2019) "The Aesthetics of the Asiri Cat and its Role in Enriching Contemporary Artistic Production," Journal of Humanities and Social Sciences, Volume 3, Issue 4.
- Al-Shahrani, Ali Abdullah (2008) The Art of Traditional Architecture Decoration in Asir," Master's Thesis, Umm Al-Qura University
- Arif, Iman Ahmed (2016) 6An analytical study of the compatibility of the art of wall engraving with the natural and architectural environment in the Asir region in the late Ottoman Empire, International Design Journal, Volume 6, Issue
- Al-Almai, Ali (2014) Fatima Al-Almai, undertaker of cat art in Asir," Al-Qafila Magazine, Issue 3, Volume 63.
- Al-Asiri, Hanan Faei Hassan, Ibrahim, Abeer Ibrahim Abdel Hamid and Suleiman, Omaima Ahmed Abdel Latif (2017:) "Creating designs inspired by the 12-Al-Asiri wall art (cat) to enrich the aesthetics of women's clothing," International Design Journal, Volume 7, Issue 4 .
- El-Shorbagy, Mustafa Mohamed (2006) "A modern vision of popular symbols as a plastic value and their use in designing supplements for printed furnishing fabrics," Faculty of Applied Arts, Helwan University.
- Hajji, Mona Muhammad (2020) Art Murals (Al-Qat Al-Asiri) as a Source for Enriching Textile Works," Jordanian Journal of Arts, Volume 13, Issue 3.
- Abdel Azim, Hanan (2005) "A contemporary formulation of Arab popular symbols in the field of electronic drawing," Journal of Applied Arts and Sciences, Volume 3, Issue 2.
- Abdul-Aziz, Mona; nour-aldeen, Amira, (2012). analytical study of old decorative walls in asir region and deploying it in contemporary female designs. home economics magazine, Monofiah university, volume 22, issue no. 4. (in Arabic)
- Al-daaajani, norah, (2016). public art aesthetic decoration (alQatt and engraving) on textile by using automatic employing, PhD thesis, umm alqura university.(in Arabic).
- Asiri, hanan faye and Ibrahim, Abeer Ibrahim Mahmoud and Suleiman, omaima ahmed abdulatif (2017): "creating designs inspired from Asian wall art (alqatt) to enhance aesthetic of female costume", international design magazine, October, issue 4. (in Arabic)
- Al Saeed, Shaker Hassan, The Art of Arab-Islamic Photography, Al-Rawaq Magazine, Special Issue 15, Dar Al Funun
- Fine Arts, Ministry of Information, Baghdad, 1984, p. 51.
- Bahnasi, Afifi, Aesthetics according to Abu Hayyan al-Tawhidi and Means of Art, Ministry of Information, Baghdad: 1972, p. 29.
- Al-Zahi, Farid, The Body, the Image, and the Sacred in Islam, Dar Africa East, Beirut: 1999, p. 50.

- Ibid., p. 57.
- Connel, Ernest, *Islamic Art*, previous source, p. 43.
- Mahmoud, Zaki Najib, Al-Sharq Al-Fanni, House of General Cultural Affairs, Baghdad, b, t.
- Musa, Salama, *The History of Arts and the Most Famous Pictures*, a summary of (The Abstract of Art) by Sir William Oren, Dar Al-Hilal, Cairo: 1950.
- Heikal, Muhammad Hussein, *The Life of Muhammad*, 7th edition, Dar Al-Ilm Press, Cairo: 1935.-Marzoog, ali, (2010). the decorative art of conventional architecture in asiraesethical art study, Saudi commission for tourism & national heritage, Riyadh. (in Arabic)
- Samaha,wafa, (2014). Utilization of asirian public herbage to enhance decorative design of upholstery, quality education college magazine, Al-Mansoura university, issue no.(36). (in Arabic)
- Zakria,fadiah Mohammed hashim, (2019). Asirian Alkat philosophy and woman role in transferring the cultural craft heritage to enhance textile walls and revitalize Saudi tourist shopping. *Art and Architecture Journal*, issue no. 15. (in Arabic)
- Hassanin, Amay Motafo A. (July 2017). *Sustainability in the readymade garments industry*.published by Scientific Society for Designers
- Henninger, C. E., Alevizou, P. J., Goworek, H., & Ryding D. (2017). *Sustainability in fashion*. Springer International Publishing AG.
- Joy, A., & Pena, C. (2017). *Sustainability and Fashion industry: Conceptualizing nature and traceability*. University of British Columbia. Canda.
- Kozlowski, A., Searcy, C., & Bardecki, M. (2018). The redesign canvas: Fashion design as a tool for sustainability. *Journal of cleaner production*. Elsevier.
- Kristy A. J. (2011). *Collaborative Redesign of Used Clothes as a Sustainable Fashion Solution: Exploring Consumer Interest and Experience*. Master of science thesis. Faculty of the graduate school. University of Minnesota
- Zakaria, F. M. (2017). *Employing the aesthetics of the decorative Arab heritage in the production of contemporary typographic designs that fit the fashion of Arab women and confirm their identity in the south of the Kingdom of Saudi Arabia (Jazan region)*.The first conference for the development of innovation and creativity in the traditional,heritage and tourism industries. Jazan.
- Abdul Baqi, R. A. (2012). *Reviving folklore in the field of computerized textile designer*. The Fourth Annual Arab Scientific Conference: Knowledge Management and Intellectual Capital Management in Higher Education Institutions in Egypt and theArab World. 1, pp. 311-321. Egypt,Mansoura: Mansoura University - Faculty of Specific Education. Retrieved from <http://search.mandumah.com/Record/259406>
- Al-Amari, M., M., (2004). *Using Popular Decorative Units in The Kingdom of Saudi Arabia To Create Printed Pendants by Different Immune Methods*, Master Thesis, College of Home Economics And Art Education: Riyadh
- The General Authority for Tourism and Antiquities. (1431 AH). *Is One of The Landmarks of Urban Heritage in The Kingdom of Saudi Arabia*. I (1), Jeddah: Al-Sarawak Press
- Nashwa Mohamed Abd El Aziz , Naglaa Muhammad Farouk Qandil, ,L. M. Elwakeel: "Inspiration of Typographic Designs for Gift Boxes from the Creative Features of Islamic Art and Al-qat Al-asiri Art Using Artificial Intelligence Programs", *Kurdish Studies*, Volume: 11, No: 2,, Apr 2023.
- Nashwa Mohamed Abd El Aziz , Naglaa Muhammad Farouk Qandil : " The Role of Artificial Intelligence and 3d Printing in the Fashion Industry", *Kurdish Studies*, Volume: 11, No: 2, Apr 2023
- Naglaa Muhammad Farouk Qandil,L. M. Elwakeel, Nashwa Mohamed Abd El Aziz: " Using Collage Techniques with Printing Techniques to Enrich the Printed Painting", *Kurdish Studies*, Volume: 11, No: 3, Apr 2023
- 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.
- Nashwa Mohamed Abd El Aziz , Naglaa Muhammad Farouk Qandil ,L. M. Elwakeel : " Inspired by Geometric Formations From the Asiri Cat and Islamic Art Using Digital Art to Produce Artistic Artifacts to Encourage Tourism", *Kurdish Studies*, Volume: 11, No: 2 , Apr 2023.
- Naglaa Muhammad Farouk Qandil ,L. M. Elwakeel: "Printed Artistic Paintings Based on Structural Trends Derived from Some Elements and Foundations of Design", *Kurdish Studies*, Volume: 11, No: 3, pp. 90-107, Apr 2023.

- 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.
- L. M. Elwakeel, Naglaa Muhammad Farouk Qandil,:" Recycling Household Waste to Increase Family Financial Income and Achieve Sustainable Development Goals" *Kurdish Studies*, Volume: 11, No: 2, pp. 4961-4983, Apr 2023
- L. M. Elwakeel, Naglaa Muhammad Farouk Qandil,:" Designing a Virtual Furniture Exhibition Using Artificial Intelligence Applications to Transfer Asiri Art" *Kurdish Studies*, Volume: 11, No: 2, pp. 4984-5022, Apr 2023.
- L. M. Elwakeel, Naglaa Muhammad Farouk Qandil,:" Designing A Virtual Fashion Show Using Artificial Intelligence Applications to Convey the Saudi Clothing Heritage" *Kurdish Studies*, Volume: 11, No: 2, pp. 4900-4931, Apr 2023

Arabic references:

- Othman Mohammed Ghoneim and Majida Abu Zant: *Sustainable Development - Philosophy, Planning Methods and Measurement Tools*, 1st Edition, Dar Al-Safa for Publishing and Distribution, Amman 2007, United Nations Publications, Report of the World Summit on Sustainable Development, New York, September 4, 2002.
- Hassanein, Majdolin Al-Sayed (2020) *The Industrial Design Process in Artificial Intelligence*, Journal of Architecture, Arts and Human Sciences, Special Issue, p. 628
- Ziyadi, Muhammad Ali Ahmed, and Al-Ghamdi, Ali Abdaj Ali (2021) *Artificial Intelligence and Teaching Arabic between Reality and Mall*, Studies in Higher Education, p.19.114-75 pp.
- Mahmoud, Mustafa Mahmoud Shahat (2022) *A Framework for Leveraging Artificial Intelligence to Improve Industrial Design Practices*, International Design Journal, 269-257, p. 6, p. 12 AD
- Hashem, Iman Mohamed Ahmed (2022) *The Role of Artificial Intelligence Technology in Developing and Improving Product Properties and Achieving Comfort and Safety Factors*, Journal of Arts and Applied Sciences, Volume 9, Volume 1, 79, pp. 101. -
- Mahmoud Abdel Rahman (2003) *Development of treatments for dispersed dyes in the fields of printing and manual dyeing* (PhD thesis, Faculty of Art Education, Helwan University.
- Muhammad Maddahi, (2022), "Implications of the Applications of the Fourth Industrial Revolution - Artificial Intelligence - on the Economies of the Arab Countries", p. (57), vol. (18), Takeet Journal for Administrative Sciences and Economics, College of Administration and Economics, Tikrit University, Kuwait.
- Ahmed Mohammed Al Sanad (2008): "The Role of Fine Arts in the Development of Domestic Tourism in the Kingdom of Saudi Arabia", Master Thesis, King Saud University, Riyadh.
- Mu'ais bin Ayedh Al-Qahtani (2003): "The effectiveness of the activities and contributions of Al-Muftaha village on fine art" Master's Thesis, College of Education, um Al-Qura University, Makkah Al-Mukarramah
- Mona Ahmed Abdullah Al-Ghamdi, (2020), "An Innovative Abstract Art Vision for the Saudi Heritage in Photoprinting", MA, University of Jeddah, College of Design and Arts,
- Amal Al-Fayoumi and Ola Abdullah (2008): "Benefiting from the remnants of fabrics and scarves that are not in line with fashion in enriching the aesthetics of offering using different techniques to serve small projects", the twelfth conference of home economics, Faculty of Home Economics, Menoufia University.
- Najla Mohammed, Iman Thabet: 2022 AD, "The symbolic and expressive aesthetic values of the decorations of the Saudi Asiri art and the decorations of illustrated paintings in Japanese art as an entrance to enrich the printing painting of female students of the Faculty of Economics - King Khalid University - Saudi Arabia", Journal of the Faculty of Home Economics - Menoufia University, Volume Thirty-Two, April Issue.
- Najla Mohammed Farouk: 2019 "Benefiting from the technique of printing by direct drawing for the sustainable development of the decorations of the Asir region in the Kingdom of Saudi Arabia", Issue (38), Volume (3).
- Naglaa Mohamed Farouk, Iman Thabet: 2010 "New designs using the method of printing direct drawing on wood", research published in the ninth international scientific conference of the Faculty of Art Education and Arts.

- Naglaa Mohamed Farouk: 2017 "The development of printing pendants with manual printing techniques and techniques of origami art inspired by the experimental school" Journal of Home Economics - Menoufia University, Volume Twenty-seven, Issue January.
- Naglaa Mohamed Farouk: 2016, "The development of thermal paper printed pendants based on straight line variables for the art of optical illusion", Journal of the Faculty of Home Economics _ Menoufia University, Volume Twenty-six, October Issue.
- Naglaa Mohamed Farouk, 2019, "Utilizing the color values of thermal paper residues using environmental art to enrich the printed painting", Journal of Social and Educational Sciences, Issue (42), Volume (2).
- Najla Mohamed Farouk, Iman Thabet: 2020 "Benefiting from the aesthetics of Maghreb rock art in the implementation of new designs using the method of printing by direct drawing on wood", published in the Ninth International Scientific Conference of the Faculty of Art Education,
- Naglaa Mohamed Farouk: 2020, "Taking advantage of the aesthetics of human body cells and mandala art motifs in making proposed printed clothing designs to improve the psychological state and mood of girls", published in the Ninth International Scientific Conference of the Faculty of Art Education.
- Naglaa Mohamed Farouk, 2018: "The effectiveness of renewing used clothes using some printing techniques and their impact on the family economy", Arab Journal of Social Sciences, July issue.
- Naglaa Mohamed Farouk, 2023, "The symbolic and expressive values of the aesthetics of the human face influenced by abstract art as an introduction to plastic experimentation in the art publication", Ramah Journal for Research and Studies - International Scientific Journal, Issue (77).
- Najla Mohamed Farouk, 2024: "Adapting the plastic capabilities of different fingerprints to achieve tangible values that enrich the printing work of students of home economics", Arab Society for Islamic Civilization and Arts.
- websites:
- https://www.moi.gov.sa/wps/portal/Home/emirates/aseer!/ut/p/z1/04_iULDg4tKPAFJABjKBwtGPYkssy0xPLMnMz0vM0Y_Qj4wyizfwNDHxMDQx8vb3MTU0cAz0NvMx8_EwMjAw0PfSj8KvIDixS/!L8gO1ARAJZVnQl
- http://alwan-j.blogspot.com.eg/01_/2015/blogpost_19.html
- <http://aseertourism.sa/ar-sa/About/History/Pages/Flokrol.aspx>
- <http://www.al-jazirah.com/20121104/2012/wo3.htm>
- <http://www.art.gov.sa/t18917.html>