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# Designing a Virtual Furniture Exhibition Using Artificial Intelligence Applications to Transfer Asiri Art

Laila M Elwakeel<sup>1</sup>, Naglaa Muhammad Farouk Ahmed<sup>2</sup>, G. A. Alamry<sup>3</sup>

#### Abstract

The research aimed to reveal the aesthetics of representative Asiri folk art In the heritage and culture of the south of the Kingdom of Saudi Arabia, as it is possible to quote from the decorative designs of the Asiri folk heritage to enrich both the design and aesthetic aspects of modern furnishings by means of technology and artificial intelligence, as a number of designs have been proposed that can be used in furnishings, whether (living rooms - mattresses - pillows - curtains). - Paintings) It was shown that it is possible to benefit from Asiri folk heritage to enrich the decorative design of furnishings, and to reach new aesthetic and utilitarian values for furnishings characterized by innovation and modernity

key words: Assumption Exhibition - Furniture - Artificial Intelligence Applications - Asiri Art.

#### The Introduction

Each people has its own originality, history, and folk arts that distinguish it and indicate its environment and culture. Folk arts have their own charm stemming from their sincerity and originality. Folk art is nothing but a combination of a visible reality that is mixed and fused with the pure subjective vision in which one artist differs from another artist, and it is a mirror in which it is reflected. An image emanating from the lives of peoples. Folk arts are considered the artistic outcome between human life and work and nature. They are completely linked to the life of the community and the peoples, history and myth, and are full of symbols and expression. By nature, they are an artistic production that has multi-faceted, innovative originality, diverse in its materials and methods, and linked to life and its needs. Therefore, attention must be paid to this art as a national expression that expresses the thought and conscience of the human community in its distinct environment, and as a creativity that expresses the living cultural experience that has been automatically inherited by the people of society with a distinct character in human culture. The Asir region is known as Tihama Asir. The Asir region is located in the southwestern part of the Kingdom of Saudi Arabia, with its majestic mountains, sea coasts, and flat plains between the mountains. The plastic symbols of the Asiri cat stem from the spirit of the popular community, so the art of the Asiri cat has been known for hundreds of years

<sup>&</sup>lt;sup>1</sup> Department of Home Economics, Faculty of Science and Arts in Tihama, King Khalid University, Muhayil Asir 61913, Saudi Arabia Email: <a href="mailto:lalwakel@kku.edu.sa">lalwakel@kku.edu.sa</a>

<sup>&</sup>lt;sup>2</sup> Associate Professor at the College of Culture and Arts, Department of Home Economics - College of Culture and Arts- Abha - King Khalid University, P.O. Box 3236. Abha Email: nalsaied@kku.edu.sa

<sup>&</sup>lt;sup>3</sup> Department of Home economics, Faculty of Art and Science, king Khalid University, Abha 62529, Saudi Arabia Email: <a href="mailto:galamri@kku.edu.sa">galamri@kku.edu.sa</a>

The years in the country of Tihama, which appeared at the hand of the Asir woman, and it is considered one of the important arts in the south of the Kingdom Saudi Arab . Asiri heritage is considered one of the most important artistic elements due to its artistic richness and aesthetic values that make it an important source of creativity and innovation. We have created contemporary designs for home furnishings inspired by the aesthetics of Asiri cat decorations, taking advantage of them to beautify the home and employing them using artificial intelligence to transfer the heritage and features of this art... to enrich home furnishings. Structurally and decoratively, to carry the characteristic of authenticity and contemporaneity in order to enrich the field of plastic arts, revive heritage, and protect it from extinction. Therefore, reviving heritage intellectually and objectively through the arts is a goal with advanced future dimensions in employing the Asiri cat on home furnishings and making it an icon of heritage to transmit to future generations in a contemporary manner and with a prestigious artistic language. The aim of this research is to employ the art of the Asiri cat in designing furniture with plastic and aesthetic standards and values. The importance of the research is due to shedding light on folk arts in contemporary designs that preserve the cultural heritage and carry the meaning of authenticity.

#### Research Problem

Saudi folklore is characterized by a special character with deep meanings in which authenticity and modernity are mixed and exudes the scent of the past and the magic of this art to enrich home furnishings structurally and decoratively to carry the characteristic of authenticity and contemporaneity to enrich the field. Fine arts and heritage revival

The research problem is formulated in questions:

- 1-What are the applications of artificial intelligence used in designing a virtual exhibition?
- 2- What is the possibility of designing a 3D virtual furniture exhibition using applications?

Artificial intelligence to transfer Asiri heritage?

3- What is the effectiveness of a virtual furniture exhibition using artificial intelligence applications in transmitting Asiri heritage?

#### **Research Aims**

- 1-Creating furniture designs using the aesthetics of Saudi folk heritage.
- 2-Employing the aesthetics of Saudi heritage for furniture combining the aesthetic and functional aspects.
- 3-Developing the values of belonging and citizenship through innovative designs for furniture using the aesthetics of Saudi folklore. The current research also aims to identify the extent of the influence of the decorations and colors of the Asiri art cat in highlighting the identity of the social culture of the southern region, and to identify the decorative artistic features of the Asiri folklore.

# Research Importance

The importance of the research is summarized as follows:

1- Getting to know Asiri art by employing some Asiri decorations

- 2-Participation in reviving the Asiri heritage in a contemporary manner.
- 3-Highlighting the role of Asiri decorations as a factor for developing and revitalizing tourism.
- 4-Giving contemporary furniture a heritage character inspired by the traditional heritage of the Asir region .

# Assumptions

- 1-There are artificial intelligence applications used to design a virtual exhibition
- 2-A three-dimensional virtual exhibition can be designed using artificial intelligence applications, such as the Room Planner application, to convey the Asiri heritage
- 3-There are statistically significant differences for the virtual furniture exhibition using artificial intelligence applications to transfer Asiri heritage .

#### Search Terms

# Artificial Intelligence

It is the field of computer science that looks at the logic behind human intelligence. This field looks for ways to understand how we think and recreate this intelligence in machines. Due to its nature, artificial intelligence extends across human activities, making it relevant in different ways to every industry .

# Asiri Folk Heritage

It is the cultural material of the people, mental, social, and material culture. It is the common social beliefs and customs, as well as the popular identity. It is the heritage that tells the story, translates heroism and thought, and confirms creativity. It is the heritage of fathers and grandfathers, something priceless. It is dear to all of their souls and has a place in their hearts that rises to... Sublime soaring worlds .

# Virtual Reality

Or imagined, virtual, or semi-real all apply as a term that means "computer simulation of environments that can be physically simulated in some places in the real world, in imaginary worlds and illusionary environments by means of advanced technologies and programs. The term is often used to describe a wide range of programs and applications." Technology typically associated with manipulating highly visible 3D environments and shapes .

#### **Search Limits**

Time limits: Third semester 1444 AH

**Spatial boundaries:** College of Sciences and Arts

In Mahayil Asir, King Khalid University

**Human limits:** A random sample of 50 female students

# Research Methodology

Descriptive methodology: The research follows the descriptive analytical method with the application of employing the aesthetics of Saudi heritage for home furnishings.

#### **Search Procedures**

- 1- Preparing a research plan
- 2- Preparing the theoretical framework

#### It includes:

- Virtual Reality
- -artificial intelligence
- -The art of the Asiri cat
- Preparing previous studies
- Creating home furnishing designs inspired by the Asiri cat
- Application of the questionnaire
- Drawing and discussing results
- Reaching recommendations and proposals

#### Theoretical Framework

#### Virtual Gallery

Archaeological sites in the countries of the world are considered among the systems that have an important role in human life, since ancient times up to our present era, due to their important and major role in cultural life, as they work to transfer cultures between peoples and nations and preserve them from demolition, change and extinction. They also play a role It is important in revitalizing the role of tourism, by displaying what distinguishes these archaeological sites from the elements present in them, which work to attract tourists to them from various parts of the world, thus working to preserve their collectibles and antiquities that are inherited by peoples from their previous civilization. The concept of archaeological sites extended throughout the ages until it reached In our current era, it must be preserved and its internal biases from disappearing and being demolished. The archaeological heritage is considered one of the treasures that the country possesses, as it is one of the basic elements that express the country's history, culture, renaissance, and thought. Documenting the archaeological internal spaces documents the history of the arts in ancient times, by combining the past and the present with the aim of communicating generations. Given the importance of archaeological sites and tourist sites, it is not It is necessary to pay attention and delve deeply into what can distinguish the beauty of displaying these places using different modern methods of presentation in order to serve the purpose of preserving the place from extinction and change, in addition to providing a sound vision of its internal biases. It is worth noting that this modern technology (virtual environment technology) had a major role in achieving advanced design and presenting it as a modern concept that resulted from rapid developments in the vocabulary of science that includes all types of industries in the world and affected all areas of life and the way people think. The use of environmental technology Virtuality in the internal spaces of archaeological places was based in its symbolism on the content in terms of interest in the archaeological environment, displaying it, and preserving the elements of the archaeological place. The process of documenting the internal spaces of the archaeological place is considered one of the important processes, in addition to the fact that it has become required in itself for documenting archaeological and heritage buildings and documenting transformations and changes. What has changed in these buildings over various eras and represents one of the important procedures required restoration for the preservation of such buildings https://mbse.journals.ekb.eg/article 140563.html



# **Virtual Reality Concept**

The term "virtual reality" first appeared in the Oxford Dictionary and has become used to describe applications that can interact with virtual environments in real time.

#### **Definition of what Virtual Reality is**

The term virtual reality refers to those environments manufactured by computers, which viewers can see, view and interact with. These environments can simulate actual real environments or simulate part of them, or these environments are completely imaginary and do not exist in reality. They vary in their degree of complexity, and they range from those used in the computer (for example) Second Life , which can be displayed and seen on the computer screen, to those environments where the user is more immersed in them, and this last type may require special devices that will be discussed later. About it later.. The terms "Virtual Reality" (symbolized by "VR") and virtual environments (symbolized by "VE") are used interchangeably in the computer field. These two terms are considered the most common and used, but there are many other terms including A few are important like composite experiences, virtual worlds, artificial worlds or artificial reality and all, these labels mean the same thing.



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# The Most Important Advantages of Using Virtual Reality Technologies

Identifying things and places that humans cannot enter or reach. Going to real places without changing their size or size or being connected to a specific time. The formation and formation of places or things with multiple changeable properties such as the Earth in an ice age. Conducting experiments that would be dangerous to actually carry out, such as diving or flying experiments. Interacting with historical places, characters, and imaginary creatures. Creating an atmosphere different from reality to achieve a specific atmosphere suitable for creating innovative and new museum display environments to serve content in the design process and interacting with several people remotely.

# Advantages of Virtual Exhibitions

Virtual exhibitions have many advantages. They are considered a new ground for providing information and knowledge, characterized by many characteristics that gave them great weight, success, and wide spread, and distinguished them from real exhibitions. These advantages can be limited to:

The following points: Preserving exhibits from tampering and maintaining security. It also gave solutions to some problems in the exhibitions

Realism https://jslmf.journals.ekb.eg/article\_271220\_

- 1-Documents are exposed to damage due to weather factors (humidity, dust).
- 2-Documents are damaged due to poor storage conditions..
- 3-Documents are damaged due to accidents...
- 4-Documents are exposed to damage during the daily trading process.

How to host a virtual exhibition:



Before hosting any electronic exhibition, you must have a background on what will be presented in this exhibition and how to take into account participants from all over the world by providing the best quality at competitive and appropriate prices. Also, your production must be unique in order to obtain more profit and interest from subscribers. Plan a few advances. At least months. Start by researching the topic and inviting speakers. Having a clear roadmap will help you organize a more successful exhibition. Break down your budget before you start

spending on your exhibition to stay on top of your expenses and keep costs low in the long run so you don't run into losses.

#### The Goal of Virtual Reality

The importance of virtual reality is that it is like real reality, as it is considered an effective way to simulate reality, regardless of its circumstances and difficulty. Through it, different environments can be created that tell reality that an individual cannot access or coexist with, for example.

#### **Virtual Reality Components**

The VR experience consists of entering a computer-generated simulator with equipment playing a key role. A virtual reality headset provides audio and visual information about the world the participant is exploring, while numerous sensors and technologies transform the person's movements into the virtual world.



#### Design and Virtual Reality Technology

There is no doubt that there are tremendous technological developments, especially those related to computer technology In the field of software, it brought about a scientific revolution that affected the development of interior design, and it played an active role in changing the intellectual and design concepts of interior space in various fields. With the technical development in the field of virtual reality and simulation, it has become possible to create a virtual environment in internal spaces by deluding the recipient's eye into the presence of three-dimensional objects or surfaces that do not actually exist and are physically intangible, which are created in space using advanced technologies. Here the problem lies in researching how to create virtual spaces. P What are the components of the process?

https://maut.journals.ekb.eg/article\_106525.html

#### **Design in Virtual Reality**

Therefore, the research aims to shed light on the technology of three-dimensional holographic images using laser beams, which are known as holograms, and study the possibility Investing and applying it in the field of interior design by reformulating the interior space according to the requirements of the virtual environment that surrounds the user, interacts with his senses,

and enters him into an imaginary world that appears as if it were real. It has become easy to implement a three-dimensional holographic digital image that gives us a kinetic artistic sense that changes with the factor of time. Thus, the interior designer can change his design ideas from time to time and display them in the space as one of the modern technological treatments for the limitations of the interior space. Here the designer can create a state of continuous renewal and creativity in the interior space that does not get bored by the recipient according to his functional need for it.

The research provides a future vision for virtual reality applications in museums, libraries, and commercial centers..

# Advantages of the Virtual Exhibition

**Saving Money:** Many companies want the virtual world because it saves them a lot of money. An example of this is the exhibitions that are held during the year that require the costs of travel, transportation, decoration, etc. As for the virtual exhibition, its costs are low, which leads to an increase in quality.

**Gaining Subscribers:** Because many people from all over the world deal with the virtual exhibition due to ease of access and ease of dealing with it (learning about the products, their quality, and their shelf life), and this leads to a reduction in time for consumers.

**Unlimited Time Period:** In real exhibitions, they have a specific period of time (short period), but in virtual exhibitions they do not have a short period (long period) because they are displayed via the Internet, which will help a lot in promoting your brand and attracting more subscribers.

**Company Promotion:** Exhibitions are promoted via email and text messages, so promoting services becomes easier and more widespread. For this reason, virtual exhibitions have become more common for promoting industrial services and other things.

Ease of dealing between the buyer and the company: In actual exhibitions, the buyer cannot ask many questions due to the company's pressure and the buyer's restrictions. However, in virtual exhibitions, it becomes easier to exchange questions without any restrictions and do not miss important events .

# Artificial Intelligence

We have become in the current information age by investing the human mind in the field of information, using computers to collect and process it, and using the Internet and artificial intelligence as a means of transferring and exchanging it. The use of information systems affects the performance of economic institutions, and perhaps these organizations' use of information systems efficiently and effectively will achieve their goals. Interest in these systems has increased because of the crucial role they play in the development of organizations, as they provide all the appropriate information at the most appropriate times for the various administrative levels, in order to support all administrative tasks and functions in addition to improving and developing the movement of communications and the flow of information between those levels, all of which would reflect positively. on its overall performance.

#### The Concept of Artificial Intelligence

AI has become an umbrella term for applications that perform complex tasks that in the past required human input, such as communicating with customers online or playing a game of chess. This term is often used interchangeably with its subfields, which include machine learning ML and deep learning .



## History of Artificial Intelligence

Artificial intelligence has gone through many stages from its beginnings to the present day, so it is important to have a general idea about the stages of development of artificial intelligence over the years. The following is a summary of the most important of these events:

The first time the word "robot" was mentioned dates back to 1921 when the Czech writer Karl Čapek used it in his play "Rossum's International Robots." The word is derived from "robota," which means work.

Turing was one of the most important influences on the development of artificial intelligence. He published an article in 1951 entitled "Computing Machinery and Intelligence" in which he proposed the simulation game that later became known as the Turing Test.

The birth of artificial intelligence as a true science was in 1956 during a summer workshop called the Dartmouth Research Project on Artificial Intelligence, in which John McCarthy, inventor of the LISP programming language, used the term " artificial intelligence " for the first time. The main goal of this workshop was to search for ways that enable machines to mimic aspects of human intelligence.

During the 1960s and 1970s, researchers in the field of artificial intelligence began using computers to recognize images, translate languages, and understand instructions and instructions in human language. Sub-fields of artificial intelligence are beginning to appear in various aspects of life.

The major achievement was in 2016 when Google developed an artificial intelligence program called AlphaGo, which was able to defeat the world champion in the complex board game Go. This achievement was a really big step in the field of machine learning because AlphaGo learned the rules of the game and was able to play at an expert level on its own without any previous programming.

#### The Importance of Artificial Intelligence

Artificial Intelligence is an essential quick solution for handling time-consuming, everyday repetitive tasks. For example, in the job posting process, there are a lot of AI-driven tools and www.KurdishStudies.net

they are divided between review tools that review the words in the job advertisement and check whether they are suitable for the automated recruiter who in turn provides you with the targeted talent pool automatically for the position. Digital assistants or intelligent bots can help handle repetitive requests and answer common and frequently asked questions from employees. This can be a time saver, especially in larger organizations.

#### How Can Artificial Intelligence be Applied

To start using AI, developers should have a background in mathematics and feel comfortable with algorithms when starting out Using AI to create an app helps to start on a small scale. By building a relatively simple project, like tic-tact for example, you will learn the basics of artificial intelligence.

# Artificial Intelligence Helps Some Groups

Artificial intelligence can help people with disabilities or special needs in multiple ways. Artificial intelligence is better used in translating from text to audio and from audio to text, and thus can help people with visual or hearing impairment in using ICT.



#### Factors Driving the Adoption of Artificial Intelligence

There are three factors driving the development of AI across industries.

- Provides high-performance computing capabilities easily and affordably. The abundance of business computing power in the cloud has enabled easy access to affordable, high-performance computing power. Before this development, the only computing environments available for AI were non-cloud-based and expensive.
- The presence of large amounts of data available for learning. AI needs to learn from a lot of data to make correct predictions. The emergence of different tools for collecting labeled data, as well as the ability for organizations to easily and affordably store and process this data, whether structured or unstructured, has led to more organizations being able to create and train AI algorithms.
- Applied artificial intelligence technology provides a competitive advantage. Companies are
  increasingly realizing the competitive advantage of applying AI insights to business goals
  and making it a business-wide priority. For example, targeted recommendations provided
  by AI technology can help you make better decisions faster. Many AI features and
  capabilities can reduce costs, reduce risks, and speed up time to access

# Jobs that Fall Under Artificial Intelligence

- -Areas of work in artificial intelligence
- -Specialization in programming
- -Systems analysis and design.
- Supervising computer and robotics work.
- Specialization in databases.
- Working in the field of education. Computer engineering.
- Specialization in the field of machine learning of artificial intelligence :

# - Advantages of Artificial Intelligence

- Less space for mistakes
- Make correct decisions

Application of artificial intelligence in dangerous situations

-You can work continuously

# Disadvantages of Artificial Intelligence:

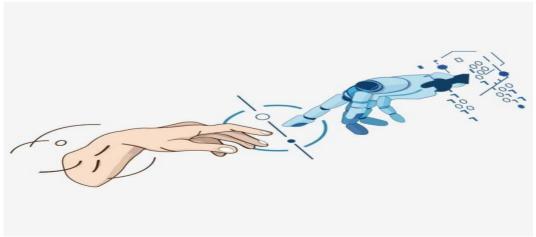
- Reliance on machines
- Replace low-skilled jobs

# Artificial Intelligence in the Future

Today, artificial intelligence is changing the software development space even more, and it is also making it easier for companies of different sizes to build their strategies and plan well. Thus, AI opens up more opportunities for both small businesses and enterprises to develop software more quickly and efficiently, and ultimately grow and participate in the economic landscape efficiently.

#### The Impact of Artificial Intelligence on us Today

Artificial intelligence allows us to process large amounts of data quickly. These calculations help understand market trends, public opinion and weather changes. The application of artificial intelligence to robots has seen major advances in medicine and telecommunications



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#### **Smart Materials**

With the beginning of the new century, the world is experiencing a major revolution in the field of science and technology, as most countries seek to link new scientific theories and their application on the ground by rebuilding industrial institutions and establishing new foundations and standards for design and production and paying attention to research and development to raise the level of production to the desired level for those. Industrial institutions as well as consumers. The criteria for selecting the appropriate technology and materials to benefit from must be taken into account, in a way that suits the functional, aesthetic, economic and environmental needs of the product. And not to be subject to technological dependency, as is the case in Egypt and most developing countries, as it weakens the development of the local industry and negatively affects the local product, and with the technological interest towards benefiting from new raw materials and using them greatly in many fields because of their structural, functional, environmental and economic advantages. Raw materials play an important role in the design process as a tool for embodying ideas and applying them on the ground and finding many design solutions that achieve the functional, aesthetic, economic and environmental values of the product. The process of selecting materials depends on the designer's awareness of the characteristics of those materials from a physical and structural standpoint. The increasing progress in materials technology has contributed to the emergence of new concepts such as smart materials, composite materials, and nanomaterials that can be used in the design of metal furnishing systems. The designer of display systems in general, and metal systems in particular, is interested in harmonizing the various design inputs and outputs so that the design system is integrated in its functional performance as well as in its characteristics and achieves the desires of the users. The designer is also keen to achieve 201 Architecture, Arts and Humanities Journal - Volume Eight - Issue Thirty-Eight, March 2023 the best efficiency. The metal display system is functional so that it can compete with similar systems in terms of quality and efficiency of performance, thereby fulfilling the functional requirement, which is one of the most important requirements of the user that determines the extent to which the metal display system achieves his desires and needs. In addition, the designer studied the anthropometric dimensions of the human being and his various body measurements to arrive at the best and safest use of the metal display system, taking into account the usage, psychological and physiological aspects during the stages of use. The designer also achieves compatibility between the expected production technology and the economic cost of the metal display system, seeking to achieve the best profit to benefit the user and the company producing that system economically. In addition to all of the above functional, usage and economic requirements, the designer must achieve the aesthetic requirement based on the various design elements to achieve the greatest amount of aesthetic values, which leads to good popularity and spread of the metal display system, and achieving success with similar metal display systems, especially in the presence of huge competition for similar systems in the markets. When the functional and usage values are achieved along with the economic values and all engineering considerations are achieved, the metal display system is geometrically balanced and appropriate to the function it is designed to achieve, thus facilitating its use and operation without any impact on the safety of the user.

#### First: The Theoretical Framework

The field of smart materials has developed significantly from the late 1990s to the present. We find many products in various fields based primarily on smart materials. This is due to the

ability of smart materials to act like human organs in human systems. They also possess sensory properties of environmental stimuli and their ability to feel and remember, so they are considered smart systems that mimic human intelligence. Smart materials have a number of characteristics that make them different and distinct from other traditional materials, which add weight and value to their applications that consequently make them different from other similar products, and capable of building a positive user experience and thus achieving emotional design.

#### **Definition of Smart Materials**

Smart materials are subject to continuous development in their properties to benefit from them as much as possible; Also, a wide range of terms have been used in an attempt to describe it in many researches, such as smart, adaptive, active, sensory, and transformative. All of these terms refer to the response of smart materials to external stimuli or influences. Below we know some of these terms .

# The Types of Smart Materials Used in Interior Architecture Include

- Smart materials that change color or flow: They are used in pieces of furniture and wallpaper, and their color changes with an external influence of light or heat to give different shapes, or they are used in lighting units that change their shape with heat.
- Smart energy-converting materials: The most famous of which is the solar cell used on the roofs of houses, which provides a lot of electrical energy.
- Piezoelectric materials: such as the design of tiles that react when walked on, used in exhibition halls.
- Phosphorescent light-emitting materials: such as using luminous adhesive to illuminate stairs in emergency situations or during a power outage.

#### **Smart Home Design**

Building smart homes has become one of the common things in the world, as some people have come to believe in the saying that a smart home means an easier and happier life at the same time, unlike old traditional homes that need a lot in order to provide comfort to their residents, so people have begun to build smart homes or convert their traditional homes to others. Modern, of course, with the help of one of the expert companies.

#### The Asiri Cat

Folk decorations are considered one of the oldest plastic arts known to man, and he excelled in producing them, driven by his innate instincts and desires and satisfying his psychological need to feel all the phenomena surrounding him and his love for beautification and decorating everything he uses, such as housing, clothing, utensils, and other utilitarian things. The art of wall decoration is one of the popular plastic arts. Which reflects the culture, belief and civilization of society. The murals that paint the walls of traditional buildings from inside and outside have spread in most villages of the ancient world, especially among the tribes, since the beginning of primitive times. Cave art to this day, and Islam entered some of these areas. These arts were mixed with Islamic values and teachings, which resulted. It has distinct units and elements. The wall coverings of the houses of the Tihama Asir region in the southwest of the Kingdom of Saudi Arabia were unique with floral and geometric decorations that relied on the principle of contrast in primary colors, and were devoid of spirit shapes. It was known as cat art, as it covered all wall surfaces, whether interior or exterior, including ceilings and floors. And walls and other architectural accessories, and were influenced by its geographical

environment rich in plants and trees and the difference in its geographical topography, which resulted in structural architectural patterns that proved that the art of the Asiri cat is not only an abstract decorative art, but rather a flexible constructive art that is affected by the surrounding environment, and women worked with this art, as the popular artist created Al-Qatata uses decorations and colors by nature and her aesthetic view, which is compatible with the view of her society and reflects their customs, traditions and ideas, and thus her art is accepted by all members of her society. Some studies have dealt with Asiri folk art through study and analysis, including a study that aimed to identify Asiri folk art, its aesthetics and forms, and interest in plastic art. Al-Shaabi Al-Asiri found that the collection painting created by the artist Al-Asiri has elements that qualify it to be shaped and varied in its functions to serve tourism activities. A study that aimed to identify the methods used in cat art also confirmed that the Asiri woman was the one who was doing this wonderful mural artwork that reflected the geographical area in which She lived there. He also studied the complementary elements of traditional architecture in the Asir region, in addition to identifying the materials and tools used in construction in the past, and studying the popular decorative elements used in traditional architecture in the Asir region in different forms, from the inside and outside, and their connotations. The researcher followed the patterns of traditional architecture in the Asir region and discussed the methods used in it. In construction, while highlighting the environmental and natural characteristics of the region, some analytical studies of the Asiri folk heritage have taken folk decorations as an inspirational source for design, such as those that aimed to find printed linear formulations, as in a study that used the computer to create decorative designs for units.

From Asiri art to suit furniture designs and a study that produced a number of clothing designs executed with machine embroidery and a study that aimed to reformulate the vocabulary of the Asiri wall cat art and draw inspiration from it to enrich women's clothing in designs characterized by authenticity and contemporaryity in terms of plastic fields limited to themselves. Rather, there has become a connection. Between all the fields of arts, raw materials and technologies, modernity no longer links the fields and the latest pairing of materials and technologies.



#### Learn About the Asiri Cat

The Asiri cat, or engraving, or zayan, is one of the abstract arts that originated in the Asir region in Saudi Arabia. It is done by women to decorate their homes, where they choose geometric

patterns and different designs that are proportional to create layers on top of each other, in which many lines and drawings are formed, each of which has its own term, and then they are colored in a number of colors, such as black and blue. And red and yellow, and it is an art that has been included in the UNESCO Intangible Heritage List since December 9, 2017. The art of the Asiri cat is considered an ancient heritage art in the Asir region in southern Saudi Arabia, and it specializes in decorating homes from the inside and is performed by women. While the man assumes responsibility 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 Historical Origins of the Asiri Cat Art

Asiri cat art is the art of decorating the walls of homes from the inside in the Asir region in the south of the Kingdom of Saudi Arabia. Its history goes back hundreds of years, as the sources state; It is based on unique geometric decorations ranging from triangles, circles, squares and lines. The art of the Asiri cat is characterized by colors inspired by nature. The art of the Asiri cat was included in the Representative List of Intangible World Heritage by UNESCO on January 3, 2018. The decorations of the Asiri cat art stem from environmental data derived from plants and abstract geometric units, and are always performed by women. Where women invite their relatives and acquaintances from different age groups to help them beautify their homes from the inside, as the housewife was keen to decorate her home from the inside with various types of drawings and decorations and renew them on occasions and holidays. Thus this knowledge was passed down from generation to generation; Art is not limited to walls only, but can also be seen on pottery. This art enhances social cohesion and solidarity among members of one community, and has a good and effective therapeutic effect on its practitioners. Communities, non-governmental organizations and individuals also play a major role in preserving, enhancing and transferring relevant knowledge and skills. The inclusion of the art of "cat" on the list of intangible cultural heritage in UNESCO is a great and global victory for this art and its creations, and will make it an art that speaks all the languages of the world to join the above. Recording it from tangible and intangible heritage in recent years; It will also contribute to increasing interest and follow-up by relevant authorities and conducting scientific studies and research by interested people and researchers, which confirms that the Kingdom of Saudi Arabia is rich in its creators, heritage and antiquities.

# Among the Features and Characteristics of Folk Arts

colors used to produce folk art pieces are bright. Folk arts reflect the culture of a particular people. For the rest of the members of his community, folk art is not a translation of a special experience that the artist went through, but rather it is - folk arts are characterized by simplicity. Simple local materials are used in all forms of folk art - according to what is available. Folk art is a collective art that does not know individuality. The artist reflects the legacies of his society, in which they share the experiences and expertise of an entire society. Its culture reflects folk arts as one of the popular legacies. Among its features also is that it teaches and achieves a sense of belonging to the group and a sense of harmony with it, which makes members of one community feel familiar and safe .

# Characteristics of Popular Art

Folk art is characterized by characteristics that distinguish it from other arts and make it separate from them. These characteristics are represented in the following: Folk art is always linked to artistic value and complements it.

On the practical side, it is an intermediate art produced for a specific purpose and function. However, it is a true mirror of the society's culture and philosophy. It is an art attributed to the culture of a people and not to the culture of an individual. Symbolism, not formalism, where the dominance of symbolism rather than the dominance of forms within artistic structural formulas. The simplicity of expressive and symbolic language, its distance from the formative dominance of symbols and shapes, and its stability through transmission across generations. The tendency toward abstraction is due to its connection to the applied aspect and its submission to the possibility of the material and method of manufacture. Clarity, transparency, and purity away from artificiality and affectation. It is characterized as a creative art with a specific form and a unified symbol and belief. Mixing symbols of life, tales and legends, truth and fiction.

Clarity, transparency, and purity without courtesy or favoritism, and the linear definition of elements and symbols, avoiding laws such as perspective, shadow, light, and others. Using local raw materials and units derived from the environment.



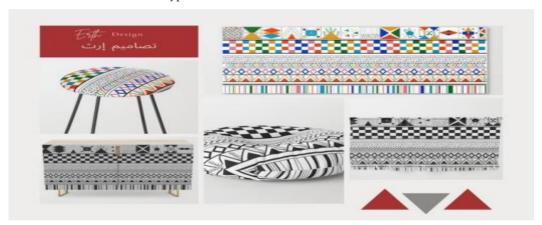
# Saudi Folk Heritage

It is the cultural, mental, social, and material material of the people. It is the common social beliefs and customs, as well as the popular identity. It is the heritage that tells the story, translates heroism and thought, and confirms creativity. It is the heritage of fathers and grandfathers, something priceless. It is dear to all of their souls and has a place in their hearts that ascends. To lofty soaring worlds .

#### Upholstery

They are all types of fabrics for home furnishings and other public places, which are used in making curtains, seat coverings, etc., such as damask, zardakhan, and most jacquard fabrics in general, and the fabrics vary.

differ from other types, and this difference is due to a group of specific main factors related to the nature of the use of this type.



First: Virtual Reality Studies

#### Study / Zayed. Farid Mahmoud Farid Mahmoud (2021)

This study summarizes the importance of constantly searching for ways of continuous development and presenting modern alternatives:

#### The Study Aimed to

- 1-Providing a new expressive, plastic and aesthetic language for practicing the creative experience of the art of sculpture using contemporary technological methods.
- 2- Finding technological educational approaches to present the art of sculpture using advanced computer programs
- 3- With the aim of providing and transferring the most important technological experiences and skills necessary for the learner or practitioner, on how to deal with some technological media and their advanced techniques, as contemporary educational and creative approaches to producing sculptural works,

The results of the study reached:

1- Developing some technological programs and educational approaches to Kankara. It can help in overcoming the most important challenges and obstacles that stand in the way of the success of the educational process and achieving its desired goals

2-Development plans to keep pace with the most important issues and various and successive variables. Computer technology and its various programs have become important tools. Comprehensive development and development plans depend on it Most education and training systems around the world because of the educational effectiveness that this technology provides to the individual.

The honorable. Ahmed Reda Muhammad (2021): A study of embodying the spaces of vanished archaeological interior architecture using virtual reality technology /

#### The Study Aimed to

- 1-The importance of this research is in achieving the benefit of virtual reality techniques to document the spaces of archaeological interior architecture, in addition to achieving the best documentation result.
- 2- The successive development of digital technologies has enabled specialists to document the spaces of archaeological interior architecture more accurately, beyond the field of documentation, and to expand the field of digital models.

# The Results of the Study Reached

1-The need for modern display means to display the spaces of archaeological interior architecture that works to enhance the special cultural heritage in it to compete globally in light of technological development and to reach the best result to enhance tourism and intellectual communication among the peoples of the world.

# Study / Yunus. Islam Muhammad Adel Ali (2023) The Added Values of Employing New Smart Materials in the Design of Metal Furnishing Systems for Exhibitions

## The Study Aimed to

The research aims to study the new smart materials and how to benefit from them in designing metal furnishing systems for exhibitions, and to monitor the functional, usable, engineering, communication, economic, aesthetic and environmental added values of using the new smart materials for those systems.

#### The Study Concluded

The research concluded that each type of innovative smart material has its own distinct qualities and characteristics that distinguish it from other materials and that have a role in designing the metal display system. The innovative smart materials also have the ability to adapt to the environment surrounding the metal display system and have a distinctive reaction to the stimuli surrounding them.

# Study / Qutb, Maysoon Muhammad Al-Qutb and Others; Virtual Simulation as an Interactive Learning Environment and its Role in Creative Thinking:

#### The Study Aimed to

The importance of the research is demonstrated by shedding light on the role of virtual simulation as an interactive educational environment in developing creative thinking among students of the College of Applied Arts, as virtual simulation provides the student of the Advertising Department the opportunity to expand his awareness and then train and control the educational situation to different degrees, and allows a degree of freedom that allows modification Design to achieve the largest possible number of design solutions that contribute to increasing students' understanding of information.

#### The Results of the Study Reached

Creative thinking seeks to solve problems and discover new relationships between elements in order to arrive at new, distinct and applicable ideas. Virtual simulation as an interactive educational environment has responded to this, as it develops students' creative thinking to solve problems

You meet them while studying design.

# Study / Al-Shaqran Qasim / Al-Ruwaili, Awad (2021) The Reality of Digital Fine Art in the Kingdom of Saudi Arabia

#### The Study Aimed to

- 1-Identify the concept, methods and trends of digital art, and the digital media that are compatible with fine painting.
- 2-Study and analyze the digital artworks of Saudi visual artists by presenting examples of their works, and revealing the role of the Saudi visual artist in dealing with digital technologies in fine art in a way that suits the twenty-first century. 3- Explaining the extent of the presence of digital fine art in the art scene in Saudi Arabia

#### The Results of the Study Reached

It reveals the extent of the development of plastic art in Saudi Arabia, and explains the ways and methods of linking it to contemporary technology. It sheds light on the methods and techniques used by Saudi visual artists in producing digital artwork, and introduces us to the impact of modern digital art technologies on Saudi fine art. The study contributes to shedding light on modern trends and contemporary experiences in Saudi digital visual art. It leads to learning about the importance of digital art in Saudi Arabia and its place among other arts.

# Study / Awad, Amal Abdel Khaleq (2022) Interior Design of Interactive Exhibitions According to the Concept of Folding Architecture

#### The Study Aimed to

Analyzing folded architecture methods, identifying their mechanisms, and trying to derive some methodological standards from them that can be applied to the interior design and furniture of interactive exhibition pavilions.

#### The Results of the Study Concluded

The mechanisms used in the design process for interactive exhibition pavilions varied

Which depends on folding technology, whether these elements are used directly or indirectly.

Study and analysis of the study samples showed that the most common materials used in the folding process are aluminum strips, followed by reinforced cardboard. The most common technique used is corrugated folding. The most common folding pattern is the moving pattern. The most common structures used in folding systems are thin crusty structures.

# Study / Saber, Iman Saber Muhammad (2018): The Impact of Using Modern Technologies in the Interior Design of Furniture Display Stands

#### The Study Aimed to

The research aims to shed light on some of these modern technologies that have been used in interior design and the results of their application in furniture showrooms, which are

represented in achieving dazzling factors that attract the public and contributing to displaying the largest possible number of products in an attractive and interactive way and with different finishing methods, and thus will benefit the side. The state's economy.

# The Results of the Study Reached

The use of modern technologies in the interior design of furniture showrooms helps to display the largest number of products in the least space, and also helps to attract the attention of visitors.

# Study / Al-Gham S, Hanan Saleh Abdullah (2022): A New Vision for Saudi Heritage Houses Between Expressiveness and Functionality Through Artistic Printing

# The Study Aimed to

- 1- The research aims to study the characteristics and decorations of the four Saudi traditional house styles (Najdi style Arabian Gulf style Red Sea Basin style Sarat style).
- 2- Providing a new vision for Saudi heritage houses that combines expressiveness and functionality through artistic printing.

# The Study Found

One of the most prominent findings of the current research is that artistic printing is one of the effective artistic methods in presenting a new vision for heritage houses that combines functionality and expressiveness at the same time. The researcher recommends benefiting from the current study in emphasizing continued interest in Saudi heritage fields and benefiting from its multiple data while working to revive Saudi heritage through studying it and employing it in the arts in general and printing in particular.

# Study / Thabet, Dalia Sami (2022) Designing Temporary and Virtual Exhibitions

#### The Study Aimed to

- 1-The research aims to clarify and explain the general characteristics and basic criteria for holding temporary exhibitions or virtual exhibitions, especially interactive exhibitions, in order to achieve competitiveness and development.
- 2-Applying the study to ideas for designing pavilions in temporary exhibitions
- 3- Conduct an applied study to present virtual ideas for virtual exhibitions

#### The Study Concluded

Through research procedures that were concerned with revealing the extent of benefit from the advanced technological role of specialized computer programs in virtual reality formulations, and highlighting the effectiveness of using its various techniques as a contemporary technological input for teaching and practicing the art of sculpture, the researcher reached a set of the following results:

- 1- Computer programs specialized in virtual reality technologies have a clear role in enriching the techniques and plastic skills for practicing the art of sculpture in a new virtual space and a contemporary technological space.
- 2-Addressing the issues and problems of the interconnected relationship between the arts, science and technology with research contributes to opening new horizons of creative and artistic visions for practicing or teaching the art of sculpture. Using the Sketchup program and relying on it in practicing or teaching the art of sculpture is an appropriate non-traditional technological means that keeps up with the requirements of the times.

# **Artificial Intelligence Studies**

Study by Abu Al-Assad, Marwa Al-Sayyid Ibrahim (2022) (titled) Benefiting from the PicsArt application in designing and printing furnishing fabrics with decorations inspired by Saudi plastic art.

#### The Study Aimed to

To reach innovative design solutions suitable for printing furnishing fabrics with decorations inspired by Saudi plastic art, by using the PicsArt application and smart devices, and proposing new teaching approaches that help in developing creative thinking through creating new designs and plastic solutions using the PicsArt application on devices. Smart, and also finding new entrances to create innovative designs for furnishing fabrics inspired by Saudi plastic art through shape and color variables in the PicsArt application.

#### The Results of the Study Reached

- 1-The research concluded that it is possible to benefit from the PicsArt application to reach new design solutions in the field of designing and printing furnishing fabrics with decorations inspired by Saudi plastic art.
- 2- The possibility of using mobile phones as a tool and technology for designing textile printing using the PicsArt application. Practical experiments were also conducted, where a number of (17) paintings from the works of Saudi visual artists were dealt with and worked on,
- 3- It is also possible to benefit from the PicsArt application in the design subject to make it easier for students, save time and effort, and to find diverse and highly accurate design solutions with ease and comfort compared to manual work.
- 4-It is possible to benefit from the elements of Saudi plastic art as one of the sources through which new horizons of innovative visions can be opened in the production of modern designs that are compatible with the local and international market and contribute to enriching Arab culture.
- 5- Modernizing and developing the thought of the textile printing designer and keeping pace with modern innovations would open up areas of local and global competition and increase purchasing power.

#### Study by Prof. Dr. Booker Wadi'ah Bint Abdullah (2022)

(Entitled) Technological progress in the third millennium and its impact on artistic transformations in the field of painting

#### The Study Aimed to

Obtaining modern technological advancement tools and knowing their impact on artistic transformations in the field of drawing and photography for benefit and development.

#### The Results of the Study Reached

- 1- Technology has had a direct impact on the artistic fields in a noticeable and noticeable way, especially in the field of drawing and photography. Where artistic visions varied.
- 2-Drawing and photography tools and materials have evolved into tools, materials, and surfaces completely different from what was known in the second millennium, into modern technological tools. There were many ways to formulate artistic work, and the new treatments were varied.

- 3-Many turned to photography using these tools in order to keep pace with the technological development as a result of the interaction between the artist and the era of digitalization. The effects include moving images and adding sounds and lighting until the image became three-dimensional, and from here the image developed. The artist is the owner of the idea and the rest of the effects complement the artistic work, and here the image appeared. Default
- 4- There are many tools, such as light panels, neon bulbs, and colored bulbs, and their colors and sizes vary according to the design. Accordingly, support was provided with artistic influences and several means, electronic devices and specific programs, resulting in several methods such as computer design and independent art such as hologram art.

# Study By Suwaidan, Abeer Ahmed Ali Hamad (Entitled) The Concept of Streamlined Architecture and its Impact on Interior Design and Furniture in Light of Technology Advanced Digital

#### The Study Aimed to

Identifying the developments witnessed in the field of architecture in general and interior design in particular as a result of the huge boom in the use of advanced electronic technology and modern technologies and how to activate them to create new trends such as the concept of flow and its use as a design method that inspires the designer to depart from traditional patterns and reach a group of different designs.

#### The Results of the Study Reached

- 1-There was a tremendous transformation in the field of software as a result of the digital revolution and the use of technology, which contributed to enriching architectural thought. New design trends emerged as a result of the integration of architecture with technology, including the concept of streamlined architecture.
- 2-The technological revolution has brought about a great development in creative design thought in the field of architecture and interior design as a result of not being limited to the capabilities and tools, which has created an explosion of ideas and designs outside the framework that is characterized by dynamism and vitality.
- 3-Fluidity is a principle added to the basic principles of design, as it has a real effect on both form and function. It also has an impact on the recipient by suggesting movement, dynamism and liveliness to him, which gives an additional dimension to the design. It gives the spirit of movement and life and a state of continuity and flow within the void.
- 4-Computers contributed to the precise control of designs, which allowed the interior designer to create spatial solutions and different ideas, as well as reach very complex designs that were not available before.
- 5- Digital technology, through the concept of streamlined architecture, has contributed to the production of innovative designs that link architecture, interior design, and furniture together, freed from traditional restrictions, with spatial solutions characterized by vitality and connection between interior and exterior design, achieving the principle of dynamic interaction, through the use of advanced design programs that have contributed to the work A revolutionary breakthrough in the field of creative thought in the design process, which helped in achieving unique and distinctive designs that saved time and effort, and that were difficult to implement using traditional methods.

Suwaidan, Abeer Hamed Ali Ahmed and others Al-Salma Ghada Mohamed Fathi. Imam Amina Abdel-Gawad Abdel-Baqi. Yahya Sarah Hussein Hosni (2021) (titled) The concept of bionic and its impact on interior design and furniture.

#### The Study Aimed to

Reaching a clear methodology that achieves integration of the pillars of the design process based on studying the behavior of living organisms and integrating them with advanced technology through understanding the study of electronics and sensors that can be studied from living organisms and the possibility of transferring these characteristics found in living organisms, whether an animal, plant, insect....) To benefit from it in achieving a vital electronic design product.

#### The Results of the Study Concluded

- 1- The bionic method can be used to solve a specific design problem in order to increase the efficiency of function and comfort for the user in the field of interior design and furniture, as bionic design is one of the most important pillars of the design process by simulating nature electronically, which is the basis of the idea that depends on solving a specific problem.
- 2- The interior designer can employ his creative abilities in a sophisticated manner, drawing his ideas from the functions of living organisms and integrating them with electronics, which was reflected in their application to interior design and bio-electronic design in the field of furniture.
- 3- Nature can be used as a model for new sensing technology, as the biomimetic approach deals with sensing concepts based on existing mechanisms in biological systems.
- 4- The natural systems of living organisms can be used to contribute to solving a design problem and benefit from them in interior design and furniture, through the use of modern technologies, artificial intelligence, and sensors.

# Marai's study "Hashim Ahmed Ahmed (2020)" Entitled (Applications of Artificial Intelligence in Photography)

#### The Study Aimed to

The research aims to identify the enormous potential granted by artificial intelligence applications in photography and the extent of their rapid development, and how to maximize their use to obtain better photographs with the least time and effort, whether in the photography phase, or in the phase of processing and improving images and fixing their defects, as well as in generating and creating photographic images. For topics that do not exist in reality.

#### The Results of the Study Reached

- 1-Artificial intelligence algorithms are used in light measurement systems in digital cameras, to analyze light data reflected from parts of the scene, and compare it with a database containing tens of thousands
- 2-Artificial intelligence is used in automatic clarity adjustment systems in digital cameras, where the camera senses the extent of acceleration or deceleration of the body's movement near or far from it, and accordingly it adjusts the image clarity to the position where the moving target will be located at the moment. Actual exposure speed and accuracy that older automatic sharpening systems cannot provide
- 3- The intelligent AI camera assistant analyzes information about the scene being photographed and the surrounding environment. It compares them with thousands of high-quality professional images stored in its database, to determine and adjust the optimal camera settings, which leads to obtaining the best image for the scene being photographed.

- 4-Smart cameras, such as Google Clips, can capture important moments automatically through algorithms that can distinguish familiar faces and exciting activities that occur in front of them, so the camera begins filming immediately. This camera is considered a major step towards the development of what is known as the automated photographer.
- 5-Smartphone cameras such as the iPhone 11 Pro can, through advanced algorithms, preserve details in both high-light areas and shadow areas of smart HR scenes, as well as distinguish and recognize faces, control depth of field and create a bokeh blur effect when photographing people, as well as Get adequate exposure of people's faces while maintaining diversity and color richness in the background
- 6- Artificial intelligence has become an important player in processing photographic images, as it helps to reach easy and quick results to obtain the image as a final product without any effort, or it can be relied upon as a starting point from which the photographer can begin his modifications and additions to the image. There are currently many applications. Artificial intelligence-based photo processing, such as Adobe Lightroom Photolemur Luminar, which allows for automatic adjustments to the image by analyzing the image and comparing it to thousands of professionally processed photographs, so that the program automatically determines the procedures required to obtain an attractive, flawless image.
- 7- Artificial intelligence has also been exploited in the field of storing and classifying photographs, and searching between them with the utmost ease, speed, and accuracy. By analyzing image data, faces, landmarks, texts written manually or automatically, and other important details can be distinguished in identifying images that need to be accessed quickly. Among the huge collections of photos.
- 8- Through artificial intelligence, it has become possible to generate and create images of subjects that do not exist in reality, such as images of people's faces, through advanced algorithms .

# Study by Yamna Hamdi (2022) (entitled) Application of Artificial Intelligence in Developing Interior Design Operations Management

#### The Study Aimed to

Familiarity with the importance of keeping up with technology and modern trends such as artificial intelligence, and studying the benefit of its applications and employing them in the field of operations management. Keywords: artificial intelligence.

#### The Results of the Study Concluded

- 1- Artificial intelligence helps designers collect and process a huge amount of data, create designs with accuracy, reduce the margin of error, and eliminate repetitive work, allowing them to work freely and create designs with unlimited creativity more quickly.
- 2-Artificial intelligence algorithms contribute to interpreting customer behavior patterns, preferences and movements through the data stored in them to produce them in the form of unique and non-duplicate designs in order to create a customized experience for each user.
- 3-Using artificial intelligence applications helps the user control building systems, such as sound systems, lighting systems in all, security systems, surveillance systems, heating and air conditioning units, and controlling all devices via voice commands or gestures.
- 4-One of the most important benefits of using artificial intelligence systems is that they greatly facilitate, control, and follow up all work, schedules, human and material resources, and risk management in the course of design processes.
- 5-Artificial intelligence applications can automatically produce interior designs in systems by integrating deep learning, image processing, and advanced algorithms.

# Study By Dr. Abdo Alaa Muhammad Al-Sayed (2023) (Titled) Artificial Intelligence Between Both Artificial Marketing and Smart Advertising

#### The Study Aimed to

The research aims to emphasize the importance of using artificial intelligence in advertising and marketing and attempt to define its concept and identify the advantages that artificial intelligence technologies provide for each of them.

#### The Results of the Study Concluded

provides ease and effectiveness in communicating with the target group, ensuring that the organization makes the right marketing decisions.

is considered one of the mechanisms that help use technological development to facilitate the marketing relations of the economic institution, and investing in this mechanism in the fields of advertising and marketing is the future.

- Machine learning enables advertisers to collect data from many sources imperceptibly, combine them, and analyze them to deduce and quantify the visions and desires of the recipients, allowing these desires to be used to create an effective advertising message that facilitates communication between the recipient and the organization later.
- It is possible that in the future, artificial intelligence will be woven so imperceptibly into the fabric of traditional advertising that it is indistinguishable from it.
- . One of the biggest obstacles facing artificial intelligence is its application framework, which suffers from the difficulty of technological follow-up on the one hand, and huge and distant funding on the other hand, in addition to the fears of public opinion and academic circles about its unclear future.
- . The legal risks of using AI in advertising create opportunities for advertisers to be more effective in understanding recipients and continually trying to reach them, but it is necessary to modify the AI systems that are used to comply with new privacy standards.
- . Increasing competition and the increase in the number of advertising and electronic media work to increase competition and make the market more complex, which has led to the necessity of taking into account advertising content to suit the different nature of the new electronic media compared to traditional advertising media

# Study By Dr. Al-Haqqan Nada Muhammad (2023) Entitled: Artificial Intelligence and Its Effectiveness in Developing Interior Design Skills

#### The Study Aimed to

- -Introducing the importance of artificial intelligence and its effectiveness in developing interior design skills.
- -Arouse the interest of designers in using new artificial intelligence technologies .

#### The Results of the Study Concluded

- 1- Artificial intelligence helps the interior designer make various designs and analyze problems with accuracy and high speed, which allows achieving creativity and developing interior design skills.
- 2-The three-dimensional dimension of designs is crucial to achieving visualization of interior design within the real context.
- 3- Artificial intelligence can process a huge amount of data and ...
- 4- Artificial intelligence enables the interior designer to find solutions to the unfamiliar problems he faces using cognitive capabilities.

#### Third Axis

#### Studies of the Asiri Cat

# A Study by Abeer Sobhi Al-Najjar (2002) Entitled: - (Combining Different Methods And Techniques for Decorating Upholstery Fabrics with Islamic Designs)

#### The Study Aimed to

Combining different methods and styles of textile decoration to obtain upholstery fabrics with contemporary designs that carry within their decorations the authentic Egyptian character and keep pace with international taste.

#### The Results of the Study Reached

The two researchers succeeded in combining well-known printing methods with other decorative methods, such as embroidery, in one work of art, which gave this work many advantages. When printing is added, we obtain a rich work of art of high artistic value. The two researchers also implemented this in a coordinated group executed with decorative methods in One place.

# A Study by Abdullah Marzouk (2001) Entitled: Artistic and Aesthetic Values in Popular Decorations in the Asir Region)

The study aimed to: - Identify the artistic and aesthetic values in popular decorations in the Asir region, where the research included identifying the artist's use of point - line - shape - color - surface features - shadow and light)

The results of the study concluded: - The popular artist in the Asir region used dots in his decorative units in proportion to the nature of the design, as well as the use of lines, whether horizontal, broken, curved, or diagonal lines, where he used the lines in a balanced way. As for the shape, it was used in a style characterized by simplicity on the walls and with regard to the colors. The popular artist used colors in different ways, and three types of colors were also used, including natural colors extracted from limestone and colored clays, ready-made colors in the form of manufactured powders, and modern oil colors, which were recently used on walls.

# Study / Al-Qahtani, Yusra Saeed Muhammad (2019) The Aesthetics of the Asiri Cat and its Role in Enriching Contemporary Artistic Production

#### The Study Aimed to

Clarifying the aesthetics of the Asiri cat, highlighting its role in enriching contemporary artistic production, and highlighting the artistic and aesthetic values that characterize the Asiri cat's vocabulary. The researcher used the descriptive analytical method to describe the vocabulary of the Asir cat and analyze some of the artistic works of some male and female artists in the Asir region.

#### The Study Found

This study sought to confirm the concept of authenticity and heritage by drawing inspiration from Al-Qat Al-Asiri and employing it in a contemporary manner. The study recommended that an academy be established under the umbrella of the Culture Authority specialized in teaching the Asiri cat at the hands of popular artists in order to preserve it and spread it among society.

Study: Zakaria, Fadia Muhammad Hashem (2019): The Philosophy of the Asiri Cat and the Role of Women in Transmitting Craft Cultural Heritage to Enrich Textile Hangings and Stimulate Saudi Tourism Marketing/

#### The Study Aimed to

In shedding light on the importance of "Asiri cat art" as it is one of the popular arts known in the Kingdom of Saudi Arabia, which is the art of traditional engraving and decoration on the walls of homes in which the women of the Asir region excelled.

- 2- As well as highlighting the role of Asiri women in developing and transmitting the craft cultural heritage of the Asiri cat, and its goals in terms of clarifying the philosophy of its construction, its distinctive colors, and the most famous female artists of the Asiri cat,
- 3- Empowering women in society, through making special designs and producing workshops, courses, museums, and tourist villages to develop and preserve this tourist heritage, and learn about its characteristics,
- 4- As well as creating designs that contribute to revitalizing tourism marketing, improving public taste, and revealing its heritage identity and the archaeological treasures it carries, which made it the top heritage tourist destination in the Kingdom.

#### The Results of the Study Concluded

This is crystallized in the research results of showing the aesthetics of the Asiri cat through innovative designs inspired by the Asir cat by applying it to the beautification of tourist hotels in the Asir region with the output of printed textile hangings and the impact of this on the Saudi tourism marketing process.

His Eminence, Wafaa Muhammad Muhammad (2014): Benefiting from Asiri folk heritage to enrich the decorative design of furnishings/

#### The Study Aimed to

The research aimed to reveal the aesthetics of Asiri folk art that represents the heritage and culture of the south of the Kingdom of Saudi Arabia, as it is possible to quote from the decorative designs of Asiri folk heritage to enrich both the design and aesthetic aspects of modern furnishings, as a number (1 to 4) designs were proposed that can be used in furnishings whether (A living room - sheets - pillows - curtains - paintings - shawls) and the designs were presented to the specialized faculty members to evaluate these proposed designs.

#### The Study Found

An appropriate statistical analysis method was used

To discuss the hypotheses and results and show that it is possible to benefit from Asiri folk heritage to enrich the decorative design of furnishings and reach new aesthetic and utilitarian values for furnishings characterized by innovation and modernity.

# Hajji, Mona Muhammad Abdullah (2020): Al-Qat Al-Asiri Art Murals as a Source of Enriching Textile Works

#### The Study Aimed to

1- The research aims to take advantage of the geometric and floral decorative elements in the Al-Qatt Al-Asiri art murals as a source of enriching textile works characterized by authenticity and contemporaryity.

2- And employing various textile capabilities and methods, to achieve a contemporary vision of textile crafts in fashion lines, and to preserve popular motifs by reformulating them in a way that is in line with the times, and preserves their most prominent features, thereby enhancing belonging and preserving the heritage and ..

# The Study Found

- 1- The results of the study found a significant correlation between the independent variables (decorative design plastic values employment in fashion lines) and the final evaluation, according to the opinions of specialists, confirming the possibility of achieving a contemporary vision of textile work inspired by the decorations of the Asiri wall art (the cat) by integrating techniques Different materials and textile styles, and marketed in various fashion lines.
- 2-The study recommended the need to pay attention to studying heritage and the arts it contains because of its great importance, as it stimulates the appreciation of traditional art and preserves it.

# Dr Al-Anazi, Jozaa Bint Falah Bin Madloul - (2019 AD) The Plastic Values of Decorative Elements in the Art Of Al-Qat Al-Asiri

And the extent of its benefit in confirming cultural heritage through the preparation of modern printing designs for textiles/

#### The Study Aimed to

- 1-The researcher aimed to study the plastic values of the decorative elements in Al-Qat Al-Asiri decorations. To clarify something of the historical, artistic and cultural aspect of these decorations and their role in confirming the Saudi cultural heritage in order to enhance national identity, as the material heritage is considered one of the most important cultural legacies that distinguish any society from another, and the cultural heritage of any country is a clear expression of its national and human identity at stages of time. And different histories
- 2- The utmost importance of this research study is to identify the plastic values of the types and forms of Asiri cat decorations in traditional architecture in Asir and to try to benefit from them in confirming the Saudi cultural heritage by preparing modern and innovative printing designs for textiles using one of the electronic design programs.

### The Study Concluded

The researcher reached a number of results, the most important of which are:

- 1-The rhythm and harmony of form and color in the decorations of Al-Qatt Al-Asiri art express the delicate and luxurious sensitivity of the popular artists who executed these decorations in this region.
- 2- It is possible to benefit from the diverse values of Al-Qatt Al-Asiri art decorations in confirming the Saudi cultural heritage by preparing print designs for daily-use textiles such as (bags T-shirts pants, dresses, scarves) using one of the electronic design programs.
- 3-For the researcher, the Al-Qat Al-Asiri decorations are considered one of the first schools of plastic art in the south of the Kingdom of Saudi Arabia. Therefore, the researcher recommended trying to revive this beautiful folk art because of the aesthetic values it carries related to history, the present, and the future by preparing modern printing designs for textiles and benefiting from them in tourism fields. The researcher also recommended establishing a permanent museum that deals with the lives of female Asir women artists in all their daily life details, because they were the ones who helped in producing this art. Beautiful distinctive art.

#### Study By Al-Saidi Hana Kamel Hassan and Others

# Al-Hashel Monta Saleh Abdullah (2020) (Entitled) Textile Hangings for Contemporary Homes Inspired by the Asiri Heritage to Preserve Identity Saudi Arab

#### The Study Aimed to

- 1- Emphasis on creating new plastic solutions to design contemporary textile hangings, while preserving the Saudi identity and self-realization in the presence of cultural conflicts in the era of globalization.
- 2-Drawing attention to the importance of popular heritage and preserving it from extinction.
- 3- Studying the aesthetics of the Saudi Asiri heritage and how to benefit from it in creating designs for textile hangings due to its artistic richness and benefiting from it in the design aspect of contemporary housing, and thus the process of communication between heritage and contemporary can be enriched in preserving identity and heritage features.
- 4-Improving public taste and aesthetic sense and confirming the cultural identity of Saudi heritage

## The Results of the Study Reached

- 1- The research community unanimously agreed on the diversity of designs inspired by the features and elements of the Saudi Asiri heritage, which are largely consistent with the functional purpose as textile hangings.
- 2- Studying the features and characteristics of the decorative elements of the Saudi Asiri heritage helped reveal many ideas and plastic values in enriching the designs of textile hangings for contemporary homes to achieve an aesthetic vision that suits the cultural and artistic climate in which we live.
- 3-The process of communication between heritage and modernity was achieved in preserving identity and heritage characteristics, contributing to the return of Arab civilization and highlighting the aesthetic and plastic value of heritage.
- 4- Heritage is a source of creativity and an endless source of ideas for plastic designers, as the designer derives his innovative design ideas according to the inspiration given to him by the source.
- 5- The use of textile hangings in contemporary homes increases the aesthetic value of the place

# Study of the preparation of the pole by Dr. his Eminence Wafaa Muhammad D. Al-Mahdi, Amira Abdullah Nour El-Din (2018)

(Entitled) A contemporary vision of Al-Asiri decoration in the design and implementation of hotel furnishings to stimulate tourism

### The Study Aimed to

Employing some Asiri decorations in the design of some hotel furnishings, creating contemporary designs for furnishings that preserve the authenticity of Asiri decorations, highlighting the role of Asiri decorations as a major influence in the development and revitalization of tourism, educating tourists about some of the Asiri decorations and heritage.

#### The Results of the Study Reached

- 1-Some Al-Asiri decorations were used in the design of some hotel furnishings.
- 2- Contemporary furniture designs were created and adapted to preserve the authenticity of the Asiri decorations.

- 3-Highlighting the role of Asiri decorations as a major influence in developing and revitalizing
- 4-Tourist satisfaction with the proposed designs inspired by Asiri decorations and heritage.

# Electrode Preparation Study. Amira Bint Ahmed Bin Salem in Al Khair A. Jawhara Bint Salem Al-Turki Al-Turki Al-Khaliwi

# (Entitled) Contemporary Furniture Design Inspired by the Traditional Heritage of the Asir Region

#### The Study Aimed to

This research aims to preserve the heritage identity of the Kingdom of Saudi Arabia in general, and of the Asir region in particular, through studying the documentation of traditional furniture and furnishings of the Asir region, where pieces of traditional furniture and furnishings and some of the ornamental accessories of the Asir region are identified and described.

# The Results of the Study Reached

1-The inventory and description of traditional furniture and furnishings led to benefiting from the aesthetic values present in them, which helped the researcher in designing contemporary furniture.

2-The researcher came up with modern designs for contemporary furniture inspired by the traditional heritage of the Asir region in a contemporary style that keeps pace with the times.

# **Benefiting From Previous Studies**

We can design innovative and modern home furnishings using the PicsArt application and Photoshop technology to work on innovative designs for furnishings inspired by Saudi folklore, add aesthetic value, and work to revive the heritage.

From these studies, we developed the design and implementation of a number of furnishings using virtual reality to convey the Asiri heritage .

#### Research Methods and Procedures

The researchers prepared some innovative designs using artificial intelligence applications, such as:

- Room Planner
- Picsart

#### The Procedures were as Follows

1-Special designs were made for the bedroom, and the following figure shows this:





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2- Special and innovative designs were made for the kitchen, and the following figure shows this:



3-Special designs were made for the dining table and it was taken into account that the designs should be in light of the art of Al-Qat Al-Asiri:



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4- Some designs were made using artificial intelligence applications in special and innovative animated and static designs for the living room:

# Fixed Design





# **Motion Design**

5-Special and innovative designs have been made for the children's bedroom, both fixed and mobile, and the following figure shows this:



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#### Fixed Design

# Movable Design

6-Special designs were made for the bathroom, and the following figure shows this:







Survey of innovative designs in Asiri heritage using artificial intelligence applications for furniture

#### Objective of the Questionnaire

The researchers designed the questionnaire with the aim of identifying the community's opinions on the aesthetics of Asiri folk heritage as a source of innovation and design of fine home furnishings.

#### **Building the Questionnaire**

The questionnaire included basic information, a set of questions related to society's opinions on the design of home furnishings and the use of the aesthetics of Saudi folklore as a source of innovation for the design of many elegant and attractive home furnishings. The

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questionnaire information was sequenced, its language was clear, and a tripartite rating scale (yes-no-maybe) was used.

# Correcting the Questionnaire

The number of questionnaire statements reached (14), which were formulated in the form of questions and pictures, to be answered with (yes, no, maybe).

Correction is done by converting the answers provided by community members into statistics and percentages.

#### The Answer to the First Question

Applications of artificial intelligence in designing a virtual display give realistic effectiveness to displaying furniture

What do you think of designing a dining table using Photoshop?

What do you think about designing this kitchen using this program?

# Verifying the First Hypothesis:

There are artificial intelligence applications used in designing a virtual gallery



#### **Answer to Questions**

Did the virtual furniture display help transmit the southern Saudi heritage?

The innovative design of home furnishings inspired by aesthetics gives a sophisticated and attractive look

#### Verifying the Second Hypothesis

A 3D virtual exhibition can be designed using artificial intelligence applications



#### **Answer to Questions**

?What do you think of the design? Does the display help convey the Saudi Asiri heritage

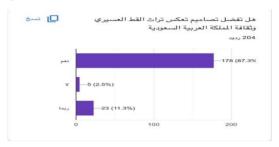
# Verifying the Third Hypothesis

There are statistically significant differences for displaying virtual furnishings using artificial intelligence applications in conveying Asiri heritage .

# The Answer to the Third Question



#### Answer to the Third Question



#### Results, Discussion, Recommendations and Proposals

#### Research Results

- 1-It became clear through the research that it is possible to come up with sophisticated and attractive designs for home furnishings inspired by the aesthetics of folk heritage.
- 22- It became clear from this research that it is possible to design a number of furnishings using Al-Qat Al-Asiri art decorations, and implement them using printing technology using Photoshop applications.
- 3- The aesthetics of Saudi folk heritage were taken advantage of to create distinctive and innovative furnishing designs to raise the aesthetic and functional value of conveying Saudi folk heritage.
- 4-The effect of designs on developing the value of belonging and citizenship among female students at King Khalid University.

#### Recommendations

In light of the results reached, the researchers concluded:

The researchers recommend adding innovative designs to the art of Saudi folk heritage in the manufacture and design of home furnishings.

# Suggestions

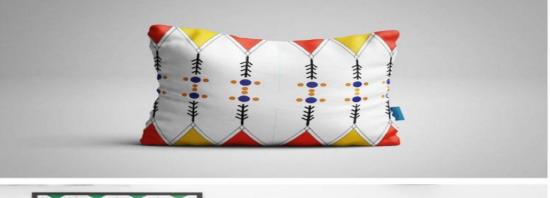
In light of the results reached, the researchers concluded:

1-The researchers recommend adding innovative designs to the art of Saudi folk heritage in the manufacture and design of home furnishings.

#### Accessories









Designs inspired by southern folk motifs (Al-Qatt Al-Asiri)

# Acknowledgments

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