
Artistic and aesthetic features of Seljuk metal artifacts as a means of affirming identity in the design of three-dimensional models.

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1. Abstract

The research is a continuation of the deepening of the researcher's tendency to study and analyze in confirming identity for the design of three-dimensional models, where the researcher is exposed to industrial design Seljuk Metallic Artifacts with unique design patterns in their models and design formulations, puzzles, formulations that took legendary natural animal forms with private abstraction, Or the inclusion of these pieces with some animal and human parts in specific design topics, and the decoration of their surfaces with some royal scenes "such as hunting scenes, embodying the life of palaces and luxury, the presence of inscriptions for the name of the merchant, designer and collector, titles of nobles supporting the payment and support of these artistic metallic arts.

In this way, the artistic metallic pieces of the Seljuk age, starting from the sixth century AH, were distinguished by a variety of materials, techniques, models, and design formulations, as well as decorative elements, calligraphic inscriptions, engineering drawings, vegetal papers, and anthropomorphic structures.

This calls for the study and analysis of these metal art pieces in the Seljuk era as a source for creating real three-dimensional models through different materials and colors that contribute to emphasizing the Arab identity in general and Saudi Arabia for the design of three-dimensional models.

Consistent with the increasing importance of the development of the times and the introduction of modern technology, materials, and new media, so that three-dimensional models become an effective means of communication based on (design, material, color) in dynamic formations that keep pace with the user audience and the development of the current era to communicate information visually. The designer's inspiration for the artistic and aesthetic values of Seljuk metalwork aims to underline a language full of excitement, suspense, and light and color dazzle, and it performs the task of influencing the audience through its anthropomorphic forms, and then interacting with it.

This necessitates the export of solutions (the shape and structure of these Seljuk Metallic Artifacts, their manufacturing materials, their colors, and their external lines) in harmony with the era, in which visual rhythm plays a pivotal and essential role in expression.

"الخصائص الفنية والجمالية للمنتجات المعدنية في العصر السلجوقي كوسيلة تعكس الهوية في تصميم المنتجات ثلاثية الأبعاد".

المستخلص :

القيم الفنية والجمالية في القطع المعدنية السلجوقية لتأكيد الهوية في تصميم النماذج ثلاثية الأبعاد تمثل البحث استمرارًا للانغماس الباحث في دراسة وتحليل تأكيد الهوية لتصميم النماذج ثلاثية الأبعاد، حيث يتعرض الباحث لقطع المعدن السلجوقية ذات الأنماط التصميمية الفريدة في نماذجها وصياغاتها، ألغازًا، صيغ تأخذ أشكال حيوانية طبيعية أسطورية بتجريد خاص، أو إدراج هذه القطع مع بعض أجزاء الحيوان والإنسان في مواضيع تصميمية محددة، وتزيين سطوحها ببعض المشاهد الملكية "مثل مشاهد الصيد، تجسيد حياة القصور والفخامة، ووجود نقوش لاسم التاجر والمصمم والجامع، عناوين النبلاء داعمة للدفع والدعم لهذه الفنون المعدنية الفنية.

بهذه الطريقة، تميزت القطع المعدنية الفنية في عصر السلجوقيين، بدءًا من القرن السادس الهجري، بمجموعة متنوعة من المواد والتقنيات والنماذج والصيغ التصميمية، بالإضافة إلى العناصر الزخرفية، والنقوش الخطية، والرسوم الهندسية، والأوراق النباتية، والهياكل الإنسانية.

يستدعي ذلك الدراسة والتحليل لهذه القطع الفنية المعدنية في عصر السلجوقيين كمصدر لإنشاء نماذج ثلاثية الأبعاد حقيقية من خلال مواد مختلفة وألوان تساهم في التأكيد على الهوية العربية بشكل عام والسعودية خاصة لتصميم النماذج ثلاثية الأبعاد.

يتماشى ذلك مع الأهمية المتزايدة لتطوير العصر وإدخال التكنولوجيا الحديثة والمواد ووسائط جديدة، بحيث تصبح النماذج ثلاثية الأبعاد وسيلة فعالة للتواصل استنادًا إلى (التصميم، المادة، اللون) في تكوينات ديناميكية تواكب جمهور المستخدمين وتطور العصر الحالي لتوصيل المعلومات بصورة بصرية. إلهام المصمم للقيم الفنية والجمالية لأعمال الحدادة السلجوقية يهدف إلى تسليط الضوء على لغة مليئة بالإثارة والتشويق وإشراق الضوء والألوان، وتقوم بمهمة التأثير على الجمهور من خلال أشكالها الإنسانية، ثم تفاعله معها.

هذا يستلزم تصدير حلول (شكل وهيكل هذه القطع الفنية المعدنية السلجوقية، مواد تصنيعها، ألوانها، وخطوطها الخارجية) بانسجام مع العصر، حيث يلعب الإيقاع البصري دورًا أساسيًا وضروريًا في التعبير.

الكلمات المفتاحية: العصر السلجوقي - التصميم ثلاثي الأبعاد - تصميم المنتجات - التصميم الصناعي.

2. INTRODUCTION

The research is a continuation of the deepening of the researcher's tendency to study and analyze in confirming identity for the design of three-dimensional models, where the researcher is exposed to an analysis of the role of effective industrial design in Metallic Artifacts in Seljuk Age With unique design patterns in their models and design formulations, puzzles, and formulations that have taken animal shapes with unique designs. a mythical nature of a special abstraction, Or include these pieces with some animal and human parts in specific design themes, and decorate their surfaces with some royal scenes, such as hunting scenes, embodying the life of palaces and luxury, and including inscriptions of the name of the merchant, designer, and collector, and the titles of nobles supporting those metal arts. These Artistic Metallic pieces in the Seljuk age, starting from the sixth century AH, were owned with a variety of materials, techniques, models, and design formulations, as well as decorative elements, calligraphic and inscriptions, engineering drawings, plant papers and anthropomorphic structures (Bilici, Z. K., 2006).

This calls for the study and analysis of these Artistic Metallic pieces in the Seljuk age as a source for creating real three-dimensional models through different materials and colors that contribute to emphasizing the Arab identity in general and Especially in Saudi Arabia to design three-dimensional models.

Consistent with the increasing importance of the development of the Evolution of this era and the introduction of modern technology, materials, and new media, to become that three-dimensional models become an effective means of communication based on (design, material, color) in dynamic formations that keep pace with the individual user and the development of the current era to communicate information and messages visually.

The designer's inspiration for the artistic and aesthetic values of Seljuk Metallic Airfacts aims to write a language full of excitement and the thrill luminous and chromatic dazzling, which It performs the task of influencing the audience through its anthropomorphic forms, and then interacting with it.

This necessitates the export of solutions (the shape and structure of these Seljuk Metallic Artifacts, their manufacturing materials, their colors, and their external lines) in a manner that is in harmony with the era, in which visual rhythm plays a pivotal and essential role in artistic expression

3. STATEMENT OF THE PROBLEM

It studies and analyzes the artistic and aesthetic values of these Seljuk Metallic Artifacts, to provide a visualization of real three-dimensional, With different colors of materials that individuals can use it in specific age stages to clarify the idea and objectives of the research, such as:

- Children's games at specific age stages to clarify the idea and objectives of research through multiple materials and colors.

- Aesthetic decorative units used by the individual inside the house, such as lighting and decoration units.
- Aesthetic artistic models which has medium sizes through materials and tones that suit shape, function, and location.
- Functional units (such as perfume bottles, incense burners, alarm clocks, book stands, gift boxes, jewelry boxes) and other functional units. To distinguish these three-dimensional models with authenticity and contemporary, which belong to them in their relationship with the site and history
- To determine the problem of the study in the following main question: Is it possible through the study and analysis of the artistic and aesthetic Seljuk Metallic Artifacts, to design three-dimensional models that contribute to the affirmation of the Saudi identity?

4. STUDY ASSIGNMENT

The study of Artistic and aesthetic values in Seljuk Metallic is an entry point to confirm identity in the design of three-dimensional models.

5. OBJECTIVES OF THE STUDY

- 1- Designing real contemporary three-dimensional models in the space characterized by Saudi privacy, and mixes between tradition and modernity.
- 2- Studying the artistic and aesthetic values of the Seljuk Metallic Artifacts and their features and characteristics to employ them in designing real three-dimensional models in the space.
- 3- Benefiting from the cultural heritage in confirming the Saudi identity.

6. SIGNIFICANCE OF STUDY

- 1- Creativity of artistic designs that emphasize the communication between the values and originality of the past and contemporary features and technologies.
- 2- Preserving identity and privacy in artistic works.
- 3- Confirming the role of visual arts in preserving heritage and studying its artistic and aesthetic value.

7. THE LIMITS OF THE STUDY

Designing a group of artifacts based on a study of the characteristics and characteristics of the Seljuk art era and the decorative pattern.

- 1- Objective limits: Metal artefacts in the Seljuk period, three-dimensional design.
- 2- Temporal limits: The temporal limits of the current research are represented in the metal works of the Seljuk age.
- 3- Spatial boundaries: Metal artifacts in the Seljuk period in many countries and cultures.

8. Terminology of study

1. Artistic values

Artistic values are known as abstract morals, but in the artist's culture, which he brings them out through his expression in artistic work, If the perception is correct,

this sentiment emerges through psychological factors, and the artist's own feeling To the feeling of the tasters and viewers.by the way which Know the aesthetics of artwork and Artistic values. (Al-Lihyani, Aktan Abdullah. 2019)

2. Aesthetic values

Santina sees in his book "The Sense of Beauty" that what is meant by aesthetic value is not a realization of a reality or a fleeting relationship, but rather an emotion of the recipient's tasteful nature. There is no aesthetic value for a thing if it is not pleasure in the soul. Stallins asserts that the aesthetic value is related to the relationship between the artistic subject and the individual's own enjoyment experience, and the latter cannot be observed or judged by the individual himself (Al-Imam, Alaa Al-Din Kazem. 2015 CE). While "Porteouse" goes as the study of the formal physical effects on the human feeling, and "Said Tawfiq" sees that the aesthetic values of the recipient are the values on which the individual bases the type of judgment related to design production. (Porteouse:LD, 1996). The researcher believes that the procedural definition of the aesthetic values is meant the sum of the design relations that evoke in the recipient sensory impressions that are associated with contemplation, study, analysis, and sound awareness of the implicit meanings in the Metallic Artifacts in the Seljuk age to design three-dimensional models in the space.

3. Identity

Identity represents a distinctive feature of human societies, which crystallizes future aspirations in them and highlights the developmental milestones of individuals' behavior and achievements in various fields. Identity is defined as the overall framework that embraces the set of concepts and values that organize the nation's achievements in distinct historical experiences in which human awareness and culture are formed. The civilizational identity of a society must be based on assets from which it derives its strength, and on value standards, moral principles, and social controls that express the civilized behavior within its framework. Which the nation has accepted for itself in all fields, and which is based on ideological and cultural assets that characterize this nation (Al-Damiati, Abdullah. 2011 AD).

Preserving identity does not include stagnation in the framework of the old heritage, but rather it is a process that allows society to change and grow without losing its original identity, and to accept change without processes of alienation. (El-Sayed, Mahmoud Ahmed. 1999 AD).

4. Three Diminution Design

The term three-dimensional given to the image that shows the third dimension in terms of distance, perspective, shadow, light, rendering and shortening, which makes the flat image appear and appear in true stereoscopic dimensions in the void. (Awad, Heba Abdel-Al. 2016 AD).

9. CONCEPTUAL FRAMEWORK OF THE STUDY

1. Iranian models

The Seljuks descended from the “kinik” tribe in Turkey, and inaugurated the Seljuk state in the “Khorasan” region after their control of it in 1040 AD, and as of the eleventh century AD, the Seljuks moved towards the west and controlled Iran, secretly, Iraq, forming a vast empire. Then they achieved political and intellectual unity in the Islamic world, and the influence of the Seljuks continued until 1157 AD, when the Seljuk lands were divided into states after that date (Hassan, Zaki Muhammad. 1982 AD). Technically, the makers of art pieces, especially metal, lived in the care of commercial families to design these pieces for them. Iranian styles in Islamic art were differentiated into (Abbasid style, Seljuk style, Iranian Mughal, or Tatar style, and Safavid style) through various artistic fields such as architecture, calligraphy, photography, binding, carpets, ceramics, textiles, metal artifacts, glass, and wood.

A. Abbasi style

The Abbasi style was distinguished in industrial design using Sassanian decorative themes, with simple refinement that sometimes strips them of violence and force, and this is most evident in the metallic artifacts and in the textiles that were made in Iraq and Iran in the second and third centuries AH, and this style was famous for its lustrous ceramics Which was manufactured in Iran, Iraq, Egypt, and Africa.

B. Seljuk style

This style is attributed to the Seljuks, who are nomadic tribes of Turkmen, who settled in the Iranian plateau. The Seljuk princes included arts in their patronage in Asia Minor, Iraq, and Iran, and under their patronage a stand-alone style emerged that was characterized by the immensity of the buildings, their vastness, and their strong appearance, as well as the use of drawings of objects. The live is transformed from nature, in the way that characterized Islamic arts in general. Among the distinguishing features of the Seljuk style is the frequent use of three-dimensional decoration, especially in the facades of buildings (Folsach, K. V, 2001). The construction of schools had a great impact on the design of mosques after that. Iran was able to combine the design of schools with a rectangular courtyard, and the use of domes in mosques, and this new system in the construction of mosques was transferred to many Islamic countries. The Seljuk era in Iran witnessed great progress in building buildings with domes and vaults, as well as a renewal in the field of writing, as circular cursive writing was used, as well as kufi writing that was beautified with plant branches and connecting its letters to each other, reaching a large extent of beauty and decorative wealth. The date of the use of the Naskh script varies in different Islamic countries.

C. Iranian-Tatar style

The Iranian-Tatar style was distinguished by being imbued with Chinese artistic styles. In architecture, building shrines built in the form of towers remained common in the Mughal era as it was in the Seljuk era. As for mosques in the

Iranian-Mughal style, it increased elegance and poise, as it appears in the Faramin Mosque. The influence of the Far East is evident in the decorative elements used in the Iranian Mughal style, such as mythical animals and human figures with a Chinese face. Baghdad retained its fame in writing and gilding the Qur'an, and they used to mark the letters in gold and decorate the floor with beautiful plant branches. At the end of the eighth century AH (the fourteenth century AD), the leadership in this art moved to the cities of Tabriz and Samarkand (Beril Tugrul, A., 1996).

D. Safavid style

The artistic style is characterized by an increase in the tendency to the stories of the ancient Iranian heroes, and the demand for depicting these stories in manuscripts and other artifacts. The artists were interested in studying some aspects of nature and daily life, and this was evident in their pictures and the decorations they used.

10.SELJUK DECORATIVE ELEMENTS:

1. Geometric decoration

The geometric motifs are an important element of the Seljuk decoration created by the designer. The geometric formations of these decorations, as defined by a number of critics, "are an abstraction of nature through a deep understanding, and a translation of philosophical ideas, after stripping them of their natural connection, and distance from the outer shell and the marginal outer cover, to represent these decorative formations an intellectual proposal based on proportions and precise mathematical laws (Solomon, Marwa Abdul Rashid Musa. 2018 AD) to consist of formations that grow and multiply (individually and collectively) and depend on basic geometric shapes such as (square, rectangle, triangle, circle).

The geometric decorations on the surfaces of metal works came because of the influence of the arts of Eastern Rome, which was transferred to the island arts from the early Byzantine era. Just as Indian designs and compositions can be formulated from the intersection of independent forms, It can also be formulated by lengthening the crooked, circular or straight lines or by changing their directions, to formulate scattered or grouped forms that fill the spaces.

5. Plant decorations

It is known as securitization or arabesque, through the abstraction and modification of the various plant elements (flowers, trees, leaves, twigs, palm fans, pomegranate trees, and acanthus leaves) after they were modified and summarized in an abstract image according to a precise calculated geometry that corresponds to (the general idea of design, space, and purpose career of industrial design).

In the beginning, the backgrounds were left blank and then filled with circles or small dots after that, and in the Seljuk period, plant foliations replaced the dots, and the vegetative branches were often formulated between the epidermal structures or the inscription lines to give the leafy branches flowing with

movement and vitality the components of the decoration a dynamic rhythm characterized by movement. At the end of the sixth century AH, the formulation of plant branches with animal heads and human heads ended as a substitute for leaves.

6. Fonts and Arabic calligraphy

The designer created design formulation that deliberately employ strips of calligraphy, letters, and words on all artistic surfaces, through various sizes and formats, to export formulation and variations calligraphy. Kufi script was used at the beginning of the early Islamic eras, then this calligraphy developed and flowered kufi replaced flat kufi. Then several design patterns were formulated from the bird kufi script, the kufi script with human heads, the braided kufi script. In the following stages, the Naskh line appeared, to which the designer added the leafy and flowering types, so that the flowering Kufic script and flowering copies were frequently used on various surfaces. Then the designer later developed a linear format whose letters were made of animal and human shapes, which he called "Rice" (the skeletal line, or the anthropomorphic script), "Anthropomorphic script", It was classified into three design patterns. Where the first pattern is a stereoscopic line, horizontal letters consisting of human figures in poses and movements with hands and arms, and the letters from their lower parts are connected to each other with moving animals such as "dragon, rabbit, bird", and the line that was formulated from the letters was called Verticals are human skeletons holding swords, shields and spears in their hands. "The name of the living script" is "Animated Script" (Soy, Ulker Argin; Al-Fouri, Al-Safsafi Ahmed. 2005).

The second type of holographic calligraphy is decorated with the ends of its letters and their vertical stems with the dermal heads, "so it is called the font with the dermal head." As for the third type, the animal structures appear interspersed with the letters, and these animal structures were employed to secure a decorative floor for the inscription fonts, and "Rice" called it the "inhabited script" Figures No (1, 2, 3).

A jug dated 1200 AD in Khorasan in the British Museum bears a model in which the braided Kufic script was mixed with the human-headed Kufic. The designer also sometimes paired inscriptions in Arabic with others in Persian in some pieces (Konya et le règne des Seldjoukides, 1999).



Figure No. (1) Kufi script, the letters of which end with human heads



Figure No. (2) is a sample of the live font

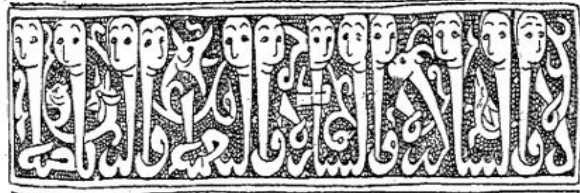


Figure No. (3) Naskh line, whose vertical extensions end with dermal heads.

About: Soy, Ulker Argen; Al-Foori, Al-Safsafi Ahmed. (2005 AD) The development of Islamic metallurgy from the beginning until the end of the Seljuk age

7. Animal skeletons

Animal elements are cast on the surfaces of artistic metallic pieces, natural or axis, adjacent to each other to form bands and frames, or formulated as main central elements at the heart of the work. He employed (the one-headed or two-headed lion, leopard, deer, deer, bull, peacock, rabbit) in movements characterized by vitality, coordination, and radical movement, in addition to several animals and mythical creatures such as (Sphinx, winged dragon, birds that represent the spirits of shamans). In formations behind symbolic meanings and concepts that characterized the characteristics of that era (Ramadan, Zainab Sayed. 1999 AD). The conceptual and symbolic dimensions of the Seljuk animal elements are related to the shamanic beliefs in Central Asia, where the concepts of animal elements and their symbolic connotations varied according to the age, formulation, and neighboring elements. The lion was a symbol of protection and a symbol of the power of judgment, and sometimes as an astrological symbol for the Leo, and it referred to the sun (Hoffman, Eva R. 2007). And when the lad appears with other animals such as the scorpion to pamper the eternal light of the sun and life after death. While the fish symbolizes goodness, blessing and growth

of livelihood. The designer combined animal drawings, botanical patterns, and calligraphic motifs in a dynamism and undying vitality in a coherent, lively whole.

8. Human images

The designer in the Seljuk age decorated his artistic pieces with human drawings through abstraction and summarization to reach the pure form that enriches the surfaces of these metal pieces. Where he formulated the human elements individually in the center of the design, or in combination with other elements, or through special repetitions that form decorative bands and frames, Or within several geometric shapes such as the square and rectangle within the overall scene of the piece of art. The topics in which the human elements were formulated varied, such as (hunting scenes, throne scenes, the prince during hunting trips, musicians, and musicians) (Allan, James. 2004).

The human elements were formulated through purely decorative solutions, or as signs and symbols loaded with symbolic connotations, as well as for several various astronomical concepts according to the formulation and subject in which they are located. The symbol of the person sitting cross-legged with the crescent in his hands as a symbol of strength, and the person holding a dragon symbolizes the desire to control evil and the darkness of the universe (Grabar, Oleg et Ettingshausen, Richard, 2001), while the knight indicates the ability and strength of the ruler.

11. INDUSTRIAL AND TECHNICAL METHODS OF SELJUK METALLIC ARTIFACTS

Hammering Style: It is an old method that was known by the first Muslim manufacturer, as well as the peoples who preceded them in the metal industry. This method is done by placing the metal plate on a stand with hammering, and the hammering is from inside the plate to form a cavity and continues to grow and develop the shape required to be formulated.

Method of Casting in Moulds: It depends on the preparation of a specific metal mold that takes the same shape as the pot to be made, and then the metal is poured into a moulds , and after the metal freezes, the decoration process begins on its surface. This method was used with the "bronze, copper" metals. This method was used with small models, and metal works that were inspired by animal and bird shapes. (Abd, Riam Hussein. 2019 AD).

Emptying or Cutting Method: It is one of the most important technical methods of the Seljuk designer, and is done through the use of a sharp instrument and a hammer By which the decoration was emptied or by pouring pots into the mould, this method was used in metal incense burners, and in lighting units, especially lamps that took the form of lanterns made of glass.

Sufficiency: It means accuracy, a word of Persian origin, and this technique became famous in the era of the Seljuks, despite its beginnings, Sassanid in Iran, and This technique was known through several names such as "dressing, application, installation, inlay".

The takfet is based on etching fees on the surface of the metal. And then fill these engraved decorative drawings with another material of higher value such as silver and gold (Keene, Manuel., 2006).

The drawings shall be engraved using a sharp pointed instrument to define the drawings and remove the internal parts, while keeping its middle on the original level of the metal. The silver and gold were then hammered through precision with a wood mallet known as the ileum.

12.CHARACTERISTICS OF THE SELJUK STYLE

The decorations in Seljuk architecture varied, a diversity that was increased by the decorative revolution and the building gained a new character. The Seljuk age witnessed remarkable progress in the construction of buildings with domes and vaults. Decorating the walls with ornaments and mosaics is considered the greatest work that took place in the sixth and seventh centuries AH, and writing was completely renewed in the Seljuk age.

The circular cursive writing was used, in addition to the kufic writing, which beautifies plant branches and connects its letters to each other. It reached a large extent of beauty and decorative wealth, and the history of the use of calligraphy varies in different Islamic countries. The first school of photography in Islam dates to the Seljuk period (Bernus Taylor, Martha, 1996).

In most cases, it is called the Baghdad School, and the art works of these schools are no less than the contemporary Western pictures of them in terms of accuracy of colors, spectacles, strength, and balance of drawing. The ceramics industry spread in the Seljuk age, and the skill that the Iranians inherited from antiquity came out in the accuracy of craftsmanship and creativity, and the use of tiles to decorate the walls, and ceramics to make beautiful pots. Metallic handicrafts have emerged as one of the most important areas of artistic creativity of the Seljuk School of Art. These art works demonstrate his ability, and the designers were able to translate his ideas, employ appropriate techniques, adapt different metals, and transform them into plastic bodies with a functional and aesthetic dimension. , birds, animals, plant elements, and human figures centered through summarizing in a combination of artistic richness reinforced by the diversity of elements formulated on the surfaces of artistic works , to reach design formulations implemented with several metallic materials that enhance the purpose of design and functional aspects.

13.APPLIED ARTS IN THE SELJUK AGE “PHILOSOPHY OF DESIGN AND FUNCTIONAL ASPECTS”

The Seljuks encouraged applied art to create and design ceramic, glass, metal, wood, and textile artworks, calligraphy, and beautiful miniatures, and the use of enamel to decorate the surfaces Metallic Artifacts. The potter created his various masterpieces, especially the lustrous metallic porcelain, which was famous for Raqqa, Ray, Qashan and others. He used architectural ceramics to clad the walls of buildings, and the ceramic tiles with their beautiful formations looked like a

porcelain carpet. Glass artists created their various masterpieces and decorated them with glass threads, discs, or gilded inscriptions.

They also created glass weights to ensure the safety of the weight of the dinars, and the coppersmiths created their crafts and decorated them with inscriptions, and downloaded silver or gold in the empty places, forming attractive formations. Mosul was famous for the technique of sulfating copper and bronze and downloading gold and silver with artistic taste, and these masterpieces were considered beautiful gifts, Figure No (4).

The Seljuks developed the manufacture of folk rugs and carpets, and the Persian cities were famous for their masterpieces by the knot method, and the cities of Shiraz, Tabriz and others owed their fame to their masterpieces of carpets, and Mosul, Damascus and Aleppo were famous for their textile products that were known by their names.

The designer decorated the shrines of Al-Hariri, Kalila and Dimna, and various scientific manuscripts with masterpieces of photography, which represent human and animal beings, and are intended for adornment, decoration, and illustration. The Baghdad School of Painting was one of the oldest schools of miniature painting in the twelfth century (Bernus Taylor, Marthe., 2001). The Seljuk Metallic Artifacts had a great diversity in pot sizes, shapes and techniques compared to the models of the early Islamic age, such as dishes, bowls, jugs, lamps, and bowls that were modeled in the form of animals. In the Seljuk period, modern utensils were designed, such as mirrors, hobbies, vases, cans, boxes, incense burners, candlesticks, and other pieces of diverse functional aspects in daily use. In the treasuries of palaces. The calligraphic decoration and inscriptions took their design positions on the surfaces of the metal art pieces, and these writings represented good prayers, and good wishes, with the formulation of the designer's name, the name of the person who requested the piece of art, and the year of manufacture, (to indicate the information about the relationships and social life in this. era, and become a significant historical document. Some metal pieces were associated with the standards and standards prevailing in the Sassanid era in pots that inspired the shapes of animals, and their shapes were inspired by the bodies of lions, owls, birds and mythical creatures. In addition to these animal-inspired pieces, the designer was keen to add small parts of animal shapes to them, especially in the handles and feet. Several decorative techniques were used on the bodies of these metal pieces, such as the technique of "punching, inlay, drilling, inlaying, hammering, welding, and casting." Among the Seljuk pieces: a pencil case dated 543 AH in the Hermitage Museum, and it includes writings explaining that some nobles were among them who worked with these Metallic Artifacts, and that the pieces that were designed sometimes bore the name of the family and were presented as gifts to close ones.



Figure No (4) A model of glass in the Seljuk period

14.SELJUK METAL WORKS "PLURALISM OF MATERIALS AND TECHNIQUES"

The arts of the Seljuk period (5-8 AH/11-14 AD) distinguished themselves and retained an active influence in the history of art, despite their influence on many subsequent and contemporary civilizations, and this was reflected in their artistic fields, to propose new plastic and artistic solutions, through various materials and media. As it is reflected in these art works the mastery, and the design partnership between the maker, the artist, the decorator, and the designer in shaping its corners, adapting different metals and transforming them into plastic bodies that have a functional and aesthetic dimension.

Both the artist and the craftsman unleashed their fertile imagination and their accurate observation of the surrounding environment to diversify the artistic inheritance. (Sulaiman, Marwa Abdul Rashid Musa. 2018 AD) The metalwork industry emerged to take its place as one of the most important areas of artistic creativity for the Seljuk art school in the Khorasan Province for designing antiques and pots of bronze and decorating them with ancient Iranian decorations. And (its sufficiency) in silver in the sixth century AH. These artifacts were decorated with horizontal bands of decorations containing cursive inscriptions. Some lists of letters ended with drawings of human heads, and depicted dancers, knights, and scenes of musicians.

The Metallic Artifacts of the Seljuk age witnessed a diversity of tools, ores and techniques, and the reliance on precious metals such as gold, faience, bronze, and copper as main raw materials for the formation of artistic metallic pieces. He employed gold in ornamental tools, making jewelry and gilding, and was used in engraving and ornamentation on metals since the second quarter of the seventh century AH. He also notes a renewal in the use of silver in the manufacture of Seljuk metallic pieces, to represent the first raw silver in the manufacture of ornamental crafts and women's jewelry. Most pots were made of cast bronze, and pots forged from copper alloys, red copper for its ease of hammering. And the designer type of decoration techniques, some of which included engraving, and some were hollowed out, as well as the Niello style, which is based on engraving the drawings on the piece with silver or silver mixed with gold, then pouring into its hollowed hollow lines a high-temperature compound of copper, lead, sulfur,

and ammonia salt, then Polishing operations followed by the technique of veneers and black grafting on light floors.

This is in addition to the formulation of prominent decorations in some artistic metallic pieces gilded with enamel, and suffixing is one of the metal forming techniques that etch drawings on the surface of the metal and then fill and inlay those cracks with pieces of more valuable metal (Bernus Taylor, Marthe., 2001). The designer also employed the "hollowing or perforation" method in specific design topics on the body of metal pieces, or in the decoration of metal pieces made by casting method such as jugs, stoves, candlesticks, and incense burners. Also, decorated metal pieces were designed in the style of inlaying and its techniques as models specially formulated for nobles and notables. And rises to the highest pieces in terms of awareness and social status, Figure No. (5).

To be sure, the development of the technique of decorating metals with multiple colors, has broken paths in front of the development of calligraphic inscriptions, the diversity of their subjects and the renewal of their formations, Figure No. (6).



Figure No. (5) Seljuk silver bowls from the 10th and 11th centuries. (Perfume bottles, incense burners, jewelry boxes, drinking equipment and bridles for horses) were designed in several workshops, and these tools were decorated with the technique of engraving, embossing, enameling, and gilding.



Figure No. (6) A group of metal artifacts in the form of animals such as lions and birds, belonging to the Seljuk era, Khorasan, the sixth century AH, cast bronze. engraved decorations and hollowed-out decorations.

The "censers" was taken Its place is distinguished among Islamic Metallic Artifacts in general and Metallic Seljuk in particular, as the incense burner aroused the artist's interest in that period for the importance of the Metallic Artifacts piece from the life, applied, and religious aspect.

The plastic bodies in which Islamic metal incense burners were executed varied. Its surfaces were rich in decorative designs, as their surfaces were decorated with elements and vocabulary derived from the surrounding nature between decorative elements "geometric, epigraphic, vegetal, human forms, birds, animals" with mythical elements and creatures. In a marriage supported by the multiplicity of techniques and raw materials used (Soy, Ulker Argen; Al-Foori, Al-Safafi Ahmed. 2005).

Among the most important design formulations of incense burners are the "animal-shaped incense burners" which were created in the Seljuk period in the province of Khorasan. Among them, a group of "censers of the animals and birds"

15. ANALYSIS OF THE ARTISTIC AND AESTHETIC VALUES IN AN ANTHOLOGY OF SELJUK METALLIC ARTIFACTS:

In the following, the researcher reviews an analysis and presentation of the artistic and aesthetic values in a selection of Seljuk metal artifacts, with the aim of touching those values and employing them in contemporary three-dimensional models distinguished by their exclusivity.

Copper door knocker in the shape of a dragon		
the place	Southeast Turkey, the island	
History Metallic Artifacts	Beginning of the thirteenth century	
supplies Technology	Bronze cast in a mold, engraved decoration, and the designer used the method of hammering in the formation of the hammer in the form of dragons, as well as the method and technique of grooving to highlight the details of the faces	
descent standard	Height: 27.5 cm, Width: 24.5 cm	
Collectibles and Preservation	Copenhagen City	
Artistic and Aesthetic values in Metallic Artifacts	The designer's interest in the decoration of the art piece is due to his association with the idea of asking permission before entering the house. The knuckle was crafted from two	

intertwined dragons facing each other, their scaly bodies wrapped in a perfect knot. In it, the hands are intertwined in a relationship that emphasizes the interspace space, then a rotation and wrapping in the center of the body has been decoratively formulated to diversify the outer line of the metalwork, Their intertwined tails end with the head of an animal with a hooked beak, and their touching feet are provided with wings in a decorative design pose. The rhythm and the repetition of the elements emphasize the overall unity of the work. The Seljuks professionalized metalworking since ancient times, especially by employing the technique of casting bronze in the mold in many utilitarian, decorative and functional tools.

The Seljuk period witnessed the extensive use of bronze and the more flexible copper alloy, through inlaid or inlaid pieces, and the casting technique that was also used in pieces such as door knockers. Compared to other knobs from the same source, we note here the absence of the lion's head, which was originally placed above the small front posts to enable the piece to be fixed to the door with a nail.

The presence of this animal above many doors, which indicates the idea of crossing from the outside to the inside, is due to its exorcism qualities. And the animal also carries astronomical connotations Associated with the lunar cycle and the eclipse and the eclipse and that's since ancient times.

mini figure	
the place	Iran
History Metallic Artifacts	twelfth century AD
supplies Technology	Bronze sculpture, casting technique, grooving, embossed and recessed
descent standard	17cm x 4cm
Collectibles and Preservation	Iran
Artistic and Aesthetic values in Metallic Artifacts	Cat with His tongue is hanging down and his head is tilted to the right. It seems to have been used in the decoration of a door or a leg of a piece of furniture or an instrument. This sculpture is from the Seljuk period, which is the artistic period that was designed She created several metal figures, which were made in various colors and decorations. It was formulated with a mixture of techniques and materials, as these sculptures were silenced and formulated as tools for daily use (jars, vases, lamps, incense burners). Which took it out of the framework of artistic and aesthetic models, to three-dimensional designs linked to functional purposes. The designer paid attention to the indicative details, especially the facial features and the details of the hands and feet, in an accuracy that reflects the skill of the designer. It emphasizes proportion, proportion, unity of artwork, and linear harmony. Fonts are formulated in many sizes It

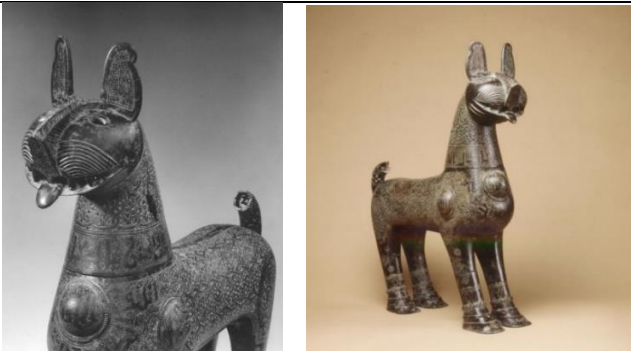
	confines and emphasizes several types of space Such as "interspace, confined space, and surrounding space". The artistic metal tools of the Seljuks were also distinguished by adding silver or copper, It was decorated with written phrases that included “texts about blessings and contentment, formulations of hunting scenes, feasts and spells for close ones and weddings.
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A jug from the Seljuk Ottoman period	
the place	Iran
History Metallic Artifacts	12th century, early 13th century AD
supplies Technology	Employing the forging technique in shaping the workpiece, and the casting method in shaping the handle.
descent standard	
Collectibles and Preservation	Iran, Gorgan.
Artistic and Aesthetic values in Metallic Artifacts	red copper jug, pear-shaped body shapes, and its end was formulated in the form of a rooster's head. The jug was decorated with a free drawing with branches and leaves in black and covered with a layer of turquoise enamel. Where these jugs were widespread among the middle and upper classes of society. The manufacture of jugs in the form of animal or bird heads became popular in Iran at the end of the 12th century and the beginning of the 13th century AD.

	The designer used the technique of methods to form the handicraft, and the method of casting to form the handle of the jug. and employ style hollow hole In the formation of hollow round dots around the mouth, lid and base of the jug. The handle of the jug was formulated in the form of a plant branch and a branch extension in a design formulation that is consistent with the functional and aesthetic aspects of the handicraft. Vertical longitudinal strips extend over the jug's body through "Arabesque" plant leaves and branches in a vertical extension that emphasizes the flexibility and elongation of the jug. Then writings in a horizontal strip where the vertical strips end. And the top of the jug has extensions and a linear rhythm that paves the way for the bird's head that was drafted at the end of the handicraft. It fuses with the handle in a design formulation that pays attention to proportion, emphasizing details and the unity and integrity of the artwork.
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Bronze jug	
the place	eastern Iran
History Metallic Artifacts	twelfth century AD
supplies Technology	Employing the technique of casting in the handle of the pot, and the methods of the body, and the use of the slitting and unloading technique

descent standard	
Collectibles and Preservation	Iran
Artistic and Aesthetic values in Metallic Artifacts	Bronze jug composed of several parts, It is of a circular shape in a large size and bears inscriptions in Kufic script in a strip in the middle area through the technique of knocking and through a harmonious interweaving, And from the bottom of the circular part is a small circular base that fits with the circular body and has a functional aspect related to the idea of carrying the thing, and at the top is a cylindrical body It ends with a long spout to pour the inner liquid. The designer employed a geometric decoration in the style of roads and formulated a number of prominent circular shapes. Over all that area through the "bunch" The casting technique was employed in the handle of the jug, which fused with the vertical hull and the circular part through a proportion and proportion distinguished by dynamism It added a vital dimension to the metallic shape. The designer proceeded to a regular rhythm in the vertical extensions of the kufic writings in a pattern that achieves grace and distinction, and employing a number of plant motifs and securitization on the floors of the jug above And the bottom to harmonize with the writings and add design depth and added value to the metallic shape. I made traces of silver in the crevices of the linear ripples of this jug One of the earliest examples of the development of metalwork inlay in the 12th century Which happened in eastern Iran and Afghanistan. The inscriptions and inscriptions also convey the good wishes of the owner in Arabic.

Censer of Prince Saif al-Dunya, and Al-Din bin Muhammad Al-Mawardi		
the place	Iran	
History Metallic Artifacts	The history of the manufacture and possession of these incense burners dates to the year 577 AH, or 1182 AD	
supplies Technology	Metal sculpture "bronze" based on the technique of hammering, grooving, unloading, and drilling	
descent standard	Dimensions: Height 33 1/2 inches (85.1 cm) L. 32 1/2" (82.6 cm) Length 9 inches (22.9 cm) Back heel to front toe: 22 inches (55.9 cm) Front toe to tip of nose: 4 in (10.2 cm) From the heel of the back foot to the tip of the hill. 7 inches (17.8 cm)	
Collectibles and Preservation	Iran, Tibad	
Artistic and Aesthetic values in Metallic Artifacts	luxury incense burner From Bronze to Prince Al-Mawardi, the name of the manufacturer was written on it: Jaafar bin Muhammad bin Ali. As these incense burners were widely used during the Seljuk period, The designer was inspired by the shape of the metalwork from the shapes of animals and birds Its kinetic diversity and plastic articulation are unique, which is what distinguished the design of these pieces in the Seljuk style of Islamic history. This metal incense burner designed in the shape of a lion is an exception due to its huge size. The delicate decoration, and the wealth of information provided by strips of Arabic script inscribed on it, which included the names of the owner and the designer, the manufacturer, as well as the date of manufacture. The	

	designer paid attention to the features of the lion's face through its accuracy and ability, as it highlights the details of the eyes, nose, mouth, teeth, tongue and ears, and nose hair streaked through a linear rhythm symmetrical with deep grooving technique, and decorative and tactile details above the ear area. The body is decorated with several inscriptions in specific bands on the neck and body area, and on the floors are vegetal motifs and foliation in harmony with those inscriptions. Which interact with prominent circles of large size, and distributed on the occupied body, as distributed through the plant leaflets. In the floors there are several holes and circular openings to be responsible for the distribution of incense. The head was designed to be movable so that charcoal and incense could be placed inside, and the body and neck were perforated to allow scented fumes to escape.
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Incense burner in the shape of a bird	
the place	attributed to Central Asia or eastern Iran
History Metallic Artifacts	Twelfth and thirteenth centuries
supplies Technology	Category: metal Bronze, perforated, engraved Dimensions: Height 9 13/16 inches (25 cm) W 3 9/16 inch (9 cm) 7 3/8" (18.8 cm) in diameter
descent standard	Iran, on display at The Met Fifth Avenue
Collectibles and Preservation	
Artistic and Aesthetic values in Metallic Artifacts	censer in the form of a bird, the designer took care of it in proportion And the formulation of the bird in a

	graceful movement carried by three feet with a decorative solution capable of carrying the body of the bird and the stability of the metallic handicraft. The body of the handicraft is decorated with a number of geometric motifs through the technique of deep grooving and emptying the floors of these decorations to link the shape with functional aspects to let the incense out from its openings. Where incense was widely used in the Islamic world in the Middle Ages in receptions and special occasions. The user places the scented incense for the guests, which is emitted from the opening of the incense burner, and sprinkles drops of scented water on them. The designer was interested in drafting the details of the bird's head, emptying the eyes, and placing decorative signs to solve the area of the top of the bird's head. A large opening was designed in the bird's chest to allow the user to place incense inside the metal piece. The designer intended to highlight the multiple levels in the bird's body Emphasis on the prominent and the recessed to achieve diversity and harmony within the premises. A decorative solution was placed at the end of the wings to harmonize with the decorative unit above the bird's head.
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a lock shaped like a fairy animal
looks like a lion



the place	Khorasan, Iran
History Metallic Artifacts	Sixth century AH
supplies Technology	Cast bronze, engraved, and hollowed out motifs.
descent standard	
Collectibles and Preservation	
Artistic and Aesthetic values in Metallic Artifacts	metallic handicraft in the form of a mythical animal resembling a lion, The block was divided into a set of geometric surfaces and the distribution of the plant decorations with foliage on these geometric surfaces and the distribution of the plant decorations with foliage on these surfaces through rectangular strips using the deep grooving technique and emptying the floors to be consistent with the functional purpose and the incense out through it. And he made holes in the details of the face in the eyes, nose, and mouth to echo those discharges in the body of the metallic handicraft. The tail was small, in a harmonious lively rhythm and an organic movement that interacts with the body of the metallic handicraft, with the formulation of legs and feet through folds and kinetic diversity. Emphasizes vitality and pays attention to detail through the anatomy of the foot and the detailing of the toes. The shapes of the lion's head upward in movement emphasize and support the fluidity of the mass and its upward extension and the soft optical movement of the eye in the metallic handicraft.

censer of bronze on lion shaped	
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the place	Khorasan - eastern Iran
History Metallic Artifacts	The fifth-sixth centuries AH / eleventh - twelfth centuries AD
supplies Technology	Cast bronze, engraved, and hollowed motifs
descent standard	
Collectibles and Preservation	This model is on display at the top floor, Sharjah Museum of Islamic Civilization
Artistic and Aesthetic values in Metallic Artifacts	Incense enjoys importance in Islamic culture on the religious and secular levels. It was and still is used in palaces, public buildings, and even private homes, and is an expression of hospitality, a refreshing and pleasant atmosphere, and an expression of spaciousness. The design represents a metal workshop in the form of a lion. The body was modeled as a regular cylinder decorated with plant motifs, the floors of which were emptied through various openings for the incense to exit. The body was fixed on semi-straight, vertical feet occupied by some anatomical details of the foot. Some areas are decorated with floral motifs as well. The tail was shaped upwards in a semi-regular movement, with adjacent strips attached to it with ornaments, which also emptied its floors. The head area was movable, rotatable, and unstable. It could be moved to place incense inside the metallic handicraft. Parts of the neck are decorated with vegetal motifs that end with the delicate details of the lion's face, whose mouth opens with a roar, and above the cheeks, the flowing hair is engraved with precision and liveliness.

cat from bronze	
the place	Iran
History Metallic Artifacts	nineteenth century AD
supplies Technology	Cast bronze, engraved decorations, with takfet
descent standard	
Collectibles and Preservation	Louvre Museum
Artistic and Aesthetic values in Metallic Artifacts	the metallic handicraft carried out in a way casting in the mold with the use of grooving techniques and deep digging of the burrow and the use of the technique of suffixing with precious metals such as gold, The front feet were set straight and spread out in an inclined position, as if the animal was about to be alert and ready. While the hind legs are bent to keep the animal in a reclined position, The tail was formulated straight as an extension of the body and on its straight line. While the head is held high looking up without eyes, With the protrusion of the nose, the definition of the mouth, the decoration of the flowing hair, and the anatomical accuracy in the ears. The plant motifs covered the whole body of the lion without evacuation, With the formulation of neck hair smoothness, softness, accuracy, and skill.

bronze metallic handicraft in the shape of a fish	
the place	
History Metallic Artifacts	
supplies Technology	Cast bronze, engraved motifs
descent standard	
Collectibles and Preservation	the metallic handicraft designed by a method mold casting, and employ some techniques roads and slit and digging emptied
Artistic and Aesthetic values in Metallic Artifacts	bronze metallic handicraft In the form of a fish, made of bronze by him and mold casting style, and employ some techniques slitting and digging discharger. The designer employed fish fins as elements to settle on the wrought metal and ensure its stability and stability. And distributed over the occupied body, a view of a group of fish at the bottom of the sea moving in various directions Within their environments where coral reefs, plants and aquatic weeds and arc analyzes of sea waves and bottom, At the top of the design is a set of oval bodies of various sizes and shapes As tactile effects, we treat the upper surfaces the metallic handicraft. In his busy introduction, the designer formulated the mouth of the fish through academic accuracy and anatomical skill. On top of the wrought metal body, there are three circles with three holes that allow the incense to go out.

the metallic handicraft in bird shape	
the place	Iran
History Metallic Artifacts	Sixth century AH
supplies Technology	Cast bronze, engraved motifs
descent standard	
Collectibles and Preservation	
Artistic and Aesthetic values in Metallic Artifacts	the metallic handicraft was carried out with technology Casting in a mold by bronze, For a bird whose body extended in softness, grace and back extension and on it through a prominent plane, And two semi-triangular wings, covered with vegetal motifs in the form of a circle And a semi-triangular frame through technology deep grooving for those decorations and plant foliations. On the body of the bird, vegetal motifs were drawn inside the circle as a geometric shape, which varies in size from one design position to another. Then after the body comes a long neck pulled upwards, ending with a head with a long beak with an open mouth and blue eyes. As a kind of application of the functional aspect of the design, the designer added a semi-circle connecting the neck and the body of the bird So that the user can hold the metallic handicraft with it, It is decorated with adjacent strips of planet motifs. The

	designer sought proportion, proportion, and unity of the artwork. And poise in the design of the handicraft.
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metallic handicraft on lion shaped		
the place	Iran	
History Metallic Artifacts	The fifth-sixth centuries AH / eleventh - twelfth centuries AD	
supplies Technology	cast bronze, and decorations engraved and empty	
descent standard		
Collectibles and Preservation	Louvre Museum, Paris	
Artistic and Aesthetic values in Metallic Artifacts	Seljuk metallic handicraft includes a variety of materials and techniques used. Copper and bronze were common materials in this field, as was the variety of products such as the creativity and design of vessels, incense burners, and jugs. So censer designed on Shaped by birds and animals. the motifs of the pieces range from arabesque patterns to reliefs and graphic arts. Many Seljuk metallic handicraft bear the names or signed dates, and the names of the recipients. The designer used the method of casting in a mold to form the metal model, He also used the grooving method and the unloading method to form the plant motifs on the body of the metallic handicraft. The designer also paid attention to highlighting the details of the lion's face in a delicate and lively brilliance on the model. Interstitial, and reinforce kinetic action with metalwork, which is	

	emphasized by the movement and flexibility of the tail above the body. The designer was interested in dividing the space of the metallic handicraft into geometrical parts, during which the intertwined “Arabesque” plant foliations are distributed. They contain two- and three-lobed plant leaves, With the emptying of its floors to be consistent with the utilitarian and functional aspect for the censer. The lion's legs were analyzed in this way of design, to make the metal model more realistic and livelier, With the enlargement of the space of the fingers to carry out the task of carrying the stereo and ensuring its stability. The designer also paid attention to highlighting the multiple levels Emphasis on the prominent and sublime diversity and emphasis on mass.
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Silver candlestick for Sultan Abdul Majid Khan	
the place	Mosul, Iraq
History Metallic Artifacts	1263 H
supplies Technology	Candlestick models by the method of hammering on the mold, and the method of deep grooving
descent standard	Height: 1,49 centimeters. Body circumference: 30 centimeters. Hull height: 85 centimeters. Neck circumference: 35 centimeters. "

Collectibles and Preservation	It is preserved in the treasuries of the al-Abbas's (p) shrine "Al-Kafeel Museum
Artistic and Aesthetic values in Metallic Artifacts	Two methods of decoration are used in the candlestick: The first is deep grooving It is what has been employed in the written texts in addition to the plant branches. And the tughra that belongs to Sultan Abdul Majid Khan. The second method is the methods that were used in the rest of the decorative units that adorn the candlestick. The candlestick consists of three parts (It starts with the base with the shape of an inverted cup, then the long vertical body, which is a lotus flower, from which a row of leaves emerge, then the crown decorated with leaves and flowers) The floral motifs and inscriptions and their combination together form the decorative elements of the candlestick. The designer deliberately connected the three parts of the candlestick through Scattered visual elements to group the elements into a single Metallic Artifacts Including "the continuity of the elements across those and all the parts, the similarity between the elements, the closure characteristic, the common destiny", And the harmonious rhythm supporting technique and material. The candlestick also shows one of the most important examples of being influenced by the European style and mixing it with the Seljuk character and characteristics.

censer on lion shaped	 
the place	Kuala Lumpur, Malaysia
History Metallic Artifacts	Approximately 600-700 AH / approximately 1200-1300 AD Seljuk age
supplies Technology	Copper Alloy/Alloy Die-Casting
descent standard	29×30 cm
Collectibles and Preservation	Museum of Islamic Arts Malaysia, Kuala Lumpur
Artistic and Aesthetic values in Metallic Artifacts	This bronze incense burner was cast in the shape of a standing lion. The lion has a small head that resembles a cat and a body rich in pits. And the body is made hollow and perforated to let out incense. The lion is molded to bend slightly back while all four of its legs are on the ground. This posture gives a strong shape to the body, which indicates strength and glory. The casting technique was used in the tail area, which was designed to flow the top of the lion's body in a lively and harmonious rhythm that supports the design mass of the body of the Metallic Artifacts. The use of animal shapes as incense burners was one of the common designs applied in the art of Metallic Artifacts. These coins were forged in the workshops of northeastern Iran, which radically transformed this type of art in the twelfth century AD. A large opening was designed in the bird's chest to allow the user to place incense inside. With emptying the floors of the plant motifs that decorated the whole body of the lion's body to allow incense to escape

	through it to the outside and perfume the place. The designer highlighted the multiple levels in the bird's body Emphasis on the prominent and the recessed to achieve diversity and harmony within the premises. Attention to detail, especially the face of the lion.
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16.INTERACTION INSPIRATION IN CREATIVE DESIGN

Contemporary creative discourse Master the process of inspiring heritage as a knowledge material and human achievement Not as rubble carrying the static of the past, He refused to deal with it, and on this basis the contemporary designer extracted the influence of heritage into the self, to be the creative self in a conscious exploration of its heritage within the heritage stacks (Charritat, M., 2001). and returning to heritage does not mean adherence to it, but rather an understanding of the past to formulate the present, and an anticipation of the future.

Inherited inspiration gives the designer and his emotional experience Mathematical structuring system, inspiration, it leads to a new aesthetic product charged with many visual messages.

17.AUTHENTICITY IN INSPIRING FOLKLORE

The English poet "John Dryden" says in an introduction to one of his poems: "It is the beginning of the brightening of the imagination of the creator It is the innovation or coming up of an innovative idea. To be accompanied by inspiration, a conscious effort towards the restoration and contemplation of the heritage asset Let the creative imagination unfold in its production through literary forms that reinforce the unique folklore patterns" (Koropnikov, Dmitriy 2015). To put the axis of paraphrasing the designer "who relies on inspiration as an entrance to present his design proposals" in front of two parts. The first is the heritage origin and the second is the innovative creative work." To represent the reformulation of the folklore within its design, then the inspiration and design proposal.

18.METHODS OF DRAWING INSPIRATION FROM HERITAGE ELEMENTS AND FORMULATING THE THREE-DIMENSIONAL MODEL

Take a 3D hologram design Its importance is rising with the development of the times Modern technology provided raw materials and new media. Three-dimensional models become a means of communication that depends on (design, material, color) In dynamic formations that keep pace with the user audience and the development of the current era to communicate information visually.

There are features of the pigmentation of the three-dimensional solids, including clarity of content, vividness of colors, and creative design thinking in formulating the shape of these three-dimensional models, And their compatibility with the needs and tendencies of the public (Hussein, Mustafa Hussein. 1987 AD). The designer was inspired by the artistic and aesthetic values of Seljuk Metallic Artifacts to underline a language full of excitement, suspense, light and color dazzle, It performs the task of influencing the audience through its anthropomorphic forms, and then interacting with it. Which necessitates the export of solutions in (the shape and structure of these Seljuk Metallic Artifacts, their manufacturing materials, their colors, and their external lines). In harmony with the era, in which visual rhythm plays a pivotal and essential role in expression.

19. PRACTICAL SUGGESTIONS

In this part, the researcher is exposed to a set of models and proposals that the researcher designed as real three-dimensional sensors through the study and analysis the Artistic and Aesthetic values in Seljuk Metallic Artifacts as a product of a self-experience, implemented by the researcher through the programs "photoshop" and "3d max" as a visualization of real three-dimensional sensors with color materials. Different people can use such as:

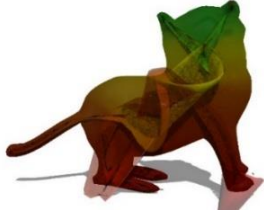
- As games for children in specific age stages to clarify the idea and objectives of the research through various materials and colors.
- As aesthetic "decoration" units used by the individual inside the house, such as lighting and decoration units.
- As Aesthetic artistic models of medium sizes Through materials and tones that suit shape, function, and location.
- As functional units (such as perfume bottles, incense burners, alarm clocks, book stands, gift boxes, jewelry boxes) and other functional units. Where these three-dimensional models combine originality and contemporary, which distinguish them in their relationship with the site and history,

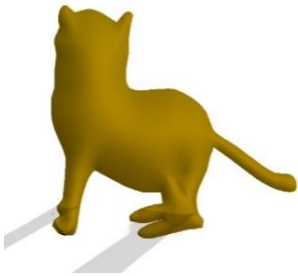
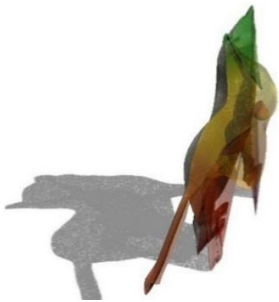
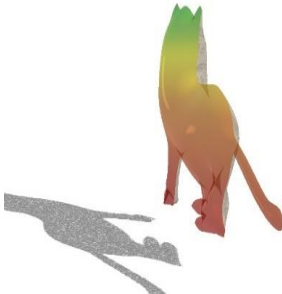
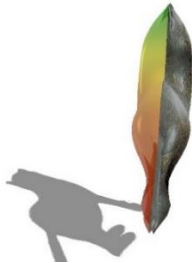
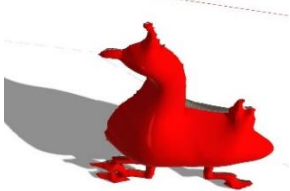
Therefore, it is important that these designs be art works in themselves, far from traditional and stereotypical, and keep pace with the new technical language of the age, bringing pleasure to the user.

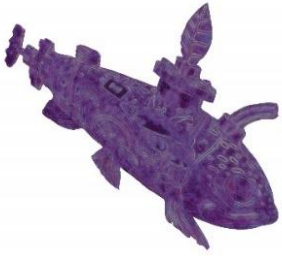
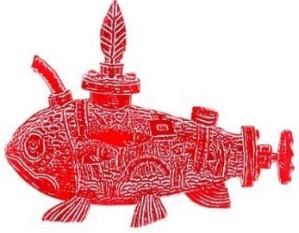
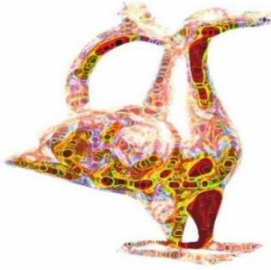
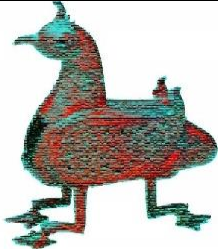
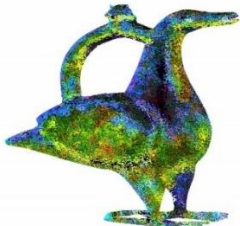
In the following, the researcher presents a number of these proposals that can be implemented as real three-dimensional sensors as a product of studying and analyzing the Artistic and Aesthetic values in Seljuk Metallic Artifacts, to clarify the idea of the research and its objectives.

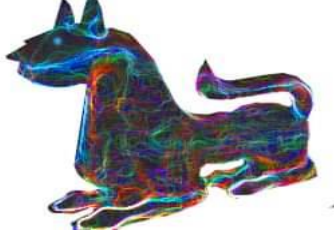
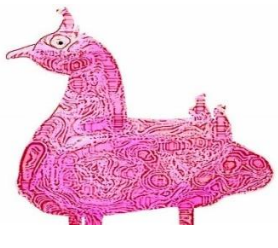
(Visualizations of real three-dimensional models of different materials and colors)

A set of models and proposals presented that the researcher designed as three-dimensional models 'self-experience'

design formulation for 3D models	the Artistic and Aesthetic values in 3d formulations	Suggested models Three-dimensional			
New children's toys	Designing a children's toy inspired by the artifacts of Seljuk art. In a contemporary framework through the "3D Max" program. Through the colored plastic material that matches the child's dental nature				
					
	A design for a group of various children's games inspired by the artifacts of Seljuk art, in a contemporary framework through the "Adobe Photoshop" program. For black shapes, in various positions, different colors, and materials such as plastic, rubber, silicone and polyester				
					

			
			
			
the Artistic and Aesthetic new models	Design for a group of modern aesthetic art , and inspired of the artistic artifacts of Seljuk art, In a contemporary framework through the program "Adobe Photoshop" For the shapes of lions, and birds, in various poses and different colors, Made of materials suitable for the job Such as metal ores, bronze, polyester, stainless steel, copper, And the use varaiety		
			

censers	A design for a group of modern and varied censers burners inspired by the artifacts of Seljuk art, in a contemporary framework through the program "Adobe Photoshop" For the shapes of fish, lions, and birds, in various positions and different colors, and from materials that suit the job, such as ores of metal, bronze, iron, copper, and the use of the supporting color for those models		
			
			
			
New lighting units	A design for a group of modern and varied lighting units inspired by the artifacts of Seljuk art, in a contemporary framework through the program "Adobe Photoshop" For the shapes of lions and birds, in a variety of positions, and ores that suit the job, such as		
			

	ores of metal, bronze, iron, copper		
Gift boxes	Design of a group of gift boxes inspired by the artifacts of Seljuk art, in a contemporary framework through the program "Adobe Photoshop" For bird shapes, and the use of ores such as metal, iron, copper, and the use of the supporting color for those models		

20.RESULTS AND RECOMMENDATIONS

1. First, the results of the study

- Artistic and Aesthetic values in Seljuk Metallic Artifacts provided the visual arts with a new condition that affected the methods of performance and plastic formulation. In a way that matches and embodies the designer's ideas when creating 3D models.
- The designer benefited from the elements of the artistic and aesthetic values of the Seljuk Metallic Artifacts from its capabilities in completing his visual statements and designing a holistic three-dimensional image.
- The designer was inspired by the Artistic and Aesthetic values in Seljuk Metallic Artifacts in the design of three-dimensional models It contributes to underlining a language full of excitement, suspense, and dazzling, and it performs the task of influencing the viewer through its anthropomorphic forms, and then interacting with it.
- The Artistic and Aesthetic values in Seljuk Metallic Artifacts can be employed in an aesthetic and functional way, in works of art in themselves far from traditional and stereotypical, it keeps pace with the new technical language of the period.

2. Second, Study recommendations

- Conducting further studies on the use of the Artistic and Aesthetic values in Seljuk Metallic Artifacts.
- The researcher recommends studying the effect of inspiration the Seljuk Metallic Artifacts as elements that have the active ability to create innovative artistic forms and forms Away from the usual and achieving

the designer's vision towards activating his ideas and conceptual orientations.

- The researcher recommends more analytical and applied study on those heritage forms due to the special artistic language they have written.

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