



Journal of Applied
Arts & Sciences



مجلة الفنون
والعلوم التطبيقية



The Aesthetics Of Pearls In Contemporary Jewelry Design

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Abstract

The research highlighted the importance of the aesthetic fundamentals that were adopted in employing pearls to decorate contemporary jewelry. The research consists of three chapters; the first chapter included the research problem, its importance and purpose as well as the key words. The research problem is embodied through the following question: What are the aesthetic fundamentals that have been adopted in the use of pearls in decorating contemporary jewelry and jewelry. Accordingly, the importance of this research stems from being a cognitive addition for those with specialization in the field of jewelry design, and the design fundamentals must be indicated, identified and described within the design process of aesthetic fundamentals, thus revealing their importance in the design system followed in their implementation.

As for **the objective of the research**: it is to reach the fundamentals and requirements of the aesthetics of pearls in the design of contemporary jewelry and ornaments.

Research limits: The research is limited by studying jewelry designs in Iraqi markets and manufactured from different materials, using tools, hand tools and modern and old machines.

The second chapter dealt with an introduction to aesthetics, and an explanation of what pearls are in contemporary jewelry design. The third chapter included the results, the most important of which were Pearl aesthetics contributed to the provision of industrial products (jewelry and ornaments) to various social groups in (2) out of a total of (3) with different economic costs.

The most **important conclusion** is the aesthetics of using pearls in jewelry design is a flexible creative process as it is not a description of a specific method for creating creative designs, but rather a direction towards its creation and this flexibility distinguishes it from the prevailing design approaches.

The most **important recommendation** is achieving aesthetics through ambiguity that encourages exploration and distancing from straightforward designs that are evident during movement.

Key words: Aesthetics – Pearl- Contemporary

Chapter 1

Research problem: There is no doubt that pearls carry a lot of meanings of innocence, elegance and femininity, and it adds elegant touches to the appearance of women with beauty, and people have always been fascinated by pearls since ancient times with their colors, shapes and softness . Since the discovery of pearls as beautiful beads, they are used in the manufacture of jewelry, as jewelry designers have been scrambling to present the most beautiful designs from necklaces to earrings, rings and other made of pearls in their wonderful colors.

Pearls today are not made naturally? In fact that pearls are of two types, natural and artificial, and natural are expensive, the high-end and ancient jewelry is resorted to by them to be involved in the designs of the most beautiful jewelry . As for the industrial, it is inexpensive and accessible to everyone with its different designs and colors, and some accessories companies have deliberately manufactured pearl granules that are very similar to the original ones..

But it is necessary to know how to distinguish between natural and artificial pearls, so it is necessary to focus on the aesthetics of pearls within the design and production process, and from here we come to the question of the research problem, namely :-

Q / What are the aesthetic principles adopted in the use of pearls in decorating contemporary jewelry?

The importance of the research: The use of pearls in the design of contemporary jewelry is one of the basic

and important concepts in the design process of jewelry and ornaments, in order to reach better aesthetics by using the elements of the design process. Therefore, the importance of the current research came in indicating the aesthetic principles that adopted the use of pearls in the design of contemporary jewelry.

The objective of the research: The main Objective of this research is to reach the fundamentals and requirements of the aesthetics of pearls in the design of contemporary jewelry and ornaments.

Research limits: The research is limited by studying jewelry designs in Iraqi markets..

Key words: Aesthetics – Pearl- Contemporary

Aestheticism: Is taken from the beauty of a thing that made it beautiful, “and the beautiful or the most beautiful of the beautiful, “the beauty” (1, p. 448) because it is an object of contemplation, whether through the senses or within the mind itself "(2, p.100).

Pearls: pearls: - plural -plural of pearls, singular pearl: (animal) is a pearl formed in shells from solid deposits of smooth shiny round in some aquatic animals of mollusks, multicolored, consisting mainly of calcium carbonate: - a unique necklace of pearls.(*where they shall be adorned with bracelets of gold and with pearls*) , (*Pearls and corals come from both*) .. *The pearl oyster is a bivalve mollusk that is the main commercial source of pearls* (3, p. 100).

Pearls: pearls: pearls; It forms in shells from solid, round, shiny solids of some mollusk lower aquatic animals. One of them: Pearl. And plural: pearls.

Collection: pearls. Knots of pearls: The pearl is spherical and is found in the shell of some seas. (4, p. 136)

Contemporary: The contemporary era is the time in which we live, and what I did is an afternoon and an era that is contemporary today, a time will come upon him that will come out of the circle of contemporaryity, being satisfied at that time As Technology (5, p9)

Chapter two

Theoretical Framework

The first topic is an introduction to aesthetics

One of the facts of beauty the first to differentiate between aesthetics and the rest of human knowledge is the thinker Baumgarten, who called the science of aesthetics the term aesthetic, but this term goes back to the era of Greece when it meant the science of sensations according to the term.

As for Esthiz and his field of research is the things described by beauty and the formation of standards and fundamentals that help in the aesthetic appreciation .There are many definitions, as Paul Valerie defined it that aesthetics is the science of sensitivity, as at the present time it has been known to be all philosophical thinking in art (6, p. 87), and the idea of aesthetics arises in and of itself that comes in the first place, not as a derivative idea, deduced from special topics, as Plato stressed their full significance, that we must start not with the special themes described as beautiful, but with beauty by beginning with an idea, since the infinitely great variety of things that are described as beautiful.

The existing contradictions between the things described as beautiful are no

longer anymore because these oppositions lead to the idea that the idea is one that must be distinguished from that it is specialized on the basis of itself in order to generate this diversity, the multitude of distinctions, the many different shapes and aspects of the design (7,23). Aesthetic pleasure is implied by perception itself, and since the beauty is the ease of seeing, hearing, and sometimes muscular touch, and the feeling that results in the senses is transmitted to the body. James says that what we can feel at the moment when beauty excites us is a flash and accuracy in pictures, tremors, deep breathing and pulses in the heart, a jolt in the back, tears that come to the eyes, and pain in the body. Brigson stated that sensory perception is a type of comfort and ease in external movements that result in a sense of harmony (8, 380).

The need is at the forefront of the priorities that bring about a major change in the pattern of human thinking, as well as a change in his pursuit of that need, which results from that research a new approach that is able to translate human ideas and their consistency towards the environment and the medium. The human need consists of three basic principles: utilitarianism, symbolism, and aesthetic, and they are intertwined and interacting, and each of them has its existential, life, and social function.

Therefore, the human need is by its nature complex, which has become the person must satisfy each of them as a stand-alone entity, with a balanced relationship between its functions to satisfy it, and then a composite entity necessarily.

1.Utilitarianism need: - Its function is to secure the user's survival with the industrial product through its maintenance and maintenance, as it includes securing the user's needs.

2.The symbolic need: its function is to satisfy the user's requirements through design relationships. These relationships are defined with the location and function of the industrial product and compose the function of these two needs: utilitarianism and symbolism with a term that is the function or the basic need.

3. Aesthetic need: Its function is to satisfy the user's requirements and enjoy the industrial product, so it gives it an enjoyable sensory value and meaning.

Second Topic, What pearls are in contemporary jewelry design?

Pearl is known among the precious jewels as an animal mineral as pearls are made of mollusks (oysters) by the natural secretion of pearl nacre in order to stimulate the animal with a seed of sand that entered its body and the oysters live in the seabed, and the pearl habitats of the Arabian Gulf, the Indian Ocean and

northern Australia. The large-sized pearl is called (pearl), and the finest type of spherical pearl is pure color, which is transparent and large in size, and its weight ranges between half the weight and the weight and half Pearls consist of 5% water, 5% organic matter, and the largest percentage of its components are calcium carbonate, which makes up 90% of it.

The finest types of pure pearls color , is round in shape, and the pearls are colored in what is next to it and adjacent to it, so when the pearl is adjacent to the moss, its color becomes red, and if it is near the gallbladder, it becomes marine green. And different shapes of pearls, including spherical and called eyes, if its rotation increases and its water becomes a star, and the great pearl in the Arabian Gulf is known as Dana .and there is the olive and peasant rectangle, which is round at the base, convex head as if it were a cone, and the astronomic flattened and there are the almond, vermilion and molar, which is smaller in shape and less in its specific weight (2.5-2.7). Figure (1) illustrates the definition of pearls.



Figure (1): The definition of pearls.

Most of the colors of pearls are white, slightly yellowish, or blue, and they may be pink, red, blue, tan or black, and they may be translucent and there are pearls that are colored in the colors of the rainbow as a result of light falling on them. Pearls do not need to be cut, file or polished, rather, they are a gem that can be used in its natural shape and size. Pearls are used in the manufacture of jewelry, so they are studded with rings or organized into groups to form necklaces and collars , or used to decorate bracelets and types of jewelry and since the pearls are soft to the touch .

Therefore, it is prone to scratching that loses its original luster, which is difficult to restore to its natural state except by scraping or peeling some of the outer layers of pearls, as acids and sweat affect pearls, and the Japanese (in 1912) were able to cultivate artificial pearls (9, p. 37,43)

Pearl cultivation has spread in different regions of the world, and it has been produced in different shapes and colors, and the difference is between agricultural, industrial and natural pearls, as pearls used in the manufacture of jewelry are classified into:-

- **Real pearl:** Natural or agricultural, then real pearls are formed inside the oyster animal that lives in the sea. For the natural person had no part in its formation. As for agriculture here, the human being has an important role in its formation, because the natural pearl is formed when a foreign body enters the inside of the sea shell, and because of its fear of this body and to protect itself from it, it secretes a pearl substance on it. With the passage of a

long period extending to 8 years, the pearl grain is formed. As for agricultural pearls, it is by placing a foreign body in the oysters from the man himself so that it causes the secretion of the pearly substance from the oyster and by making the oysters in man-made pools that he supervises himself.

- **Artificial pearls:** they are produced by factories. They mix and mingle chemicals with each other to gain some of the properties of natural pearls.

Fundamentals of the design process

The difficulty faced by the industrial designer in the aesthetics of jewelry design, since this difficulty stems from the selection of the subject and not to factors external to it, although these factors have their difficulties that are not repeated because the industrial designer wants to establish a special concept for the design beauty of these industrial products. That is, the importance of the type of design relationships between the design elements and the rules that control them and the impact of all these aspects with the psychological state of the user, negatively or positively, which thus calls for focusing on these indicators by the industrial designer to reach the optimal design.

The design process must be defined as a product of the arrangements of surfaces, lines and edges, as the shape consists of different lines and surfaces that are interconnected by formative relationships that begin with an abstract and then develop by a self-driving force to form a special relationship (10, p. 39).

Shapes in nature are characterized by many and varied patterns, differing in the pattern of organizing the formal elements such as lines, surfaces and edges, and the most important patterns are: -

1. **Basic geometric shapes:** - which are called regular shapes, whose basic shape elements are related to each other according to regular, fixed and symmetric geometric relationships, such as some shapes such as a pyramid, a cube and a ball.
2. **Free geometric shapes:** - They are sometimes called irregular natural shapes whose formal elements are linked to each other according to a specific system. They are not usually symmetrical and are more dynamic than the previous shapes, in a way that achieves a balance between the internal forces of growth and the external forces of nature.
3. **Mixed shapes:** - sometimes called multi-level shapes, as this pattern combines both of the previous two patterns (11, p 49-51)

The stages of creative design process

1. Preparation stage or readiness stage: - At this stage, the industrial designer seeks to obtain information and experience that will enable him to deal with the topic and study the problem in all its aspects. And reviewing the researches written about the problem, which is an important step, because it is important to understand the problem in its real context, to know its sources and insight into its corresponding location that it occupies in the ladder of existence.

2. The stage of emergence, hatching or fermentation: - This stage is characterized by the efforts made by the industrial designer to solve the problem and the quality of the difficulties that he faces and prevents him from progressing in his work.. The designer must solve and overcome the problem. At this stage, he is consciously and subconsciously preoccupied with studying the problem, and it takes fermentation and incubation, and it is completed until it reaches the brightening stage, and it may lengthen or shorten (12, p. 115).

3. Insight Intuition or the stage of inspiration: - It is called brightness, and this stage means reaching the climax in the creative design process, as the idea suddenly appears or the idea as if it had been organized automatically without planning, and thus everything that was ambiguous and ambiguous becomes clear (13, p. 40). The decisive effect of the mind on the creativity process is evident at this stage, as it is closely related to the idea of inspiration that many artists and scientists have talked about, as the moment in which the new idea is born, i.e. the flash of creativity that leads to solving the problem in the world or the crystallization of the important idea when working for an industrial designer emerges..

4. The fourth stage, investigation: It is the stage of evaluation, revision, correction, refinement and burnishing. The final stage of the creative design process is in which the idea is validated through experimentation in science, emptying the general idea and organizing it in jewelry design.. This

stage may be lengthened or shortened, as the industrial designer tries to get his product to the best possible condition, which depends on his personal characteristics and mental abilities (14, p. 76).

The philosophy of a number of artists was reflected in their artistic experiences quite clearly, as in the experiments of (Kandinsky), (Mondrian) or (Malevich), as the first worked on the investigation of the spiritual in art) (15, p. 131). While (Mondrian) was searching for modern formalism, and the last in his search for the method (superiority) in art and in this field, new artistic names appeared in art that have their philosophy in the field of concepts of beauty and the place of art in civilization .

As for the artist (George Rowe) ((He dealt with the relationship between Gothic drawings and church drawings with modernity, as an interfering relationship in which the spiritual field cannot be separated from the aesthetic features)) (16, p. 108). When the sensory, structural, and plastic perceptions grow with a sense of the nature of the material and the scale of the human being can deal with the design work directly and without an intermediary, so there is no remaining of the industrial product after that except the functional aspect of the product or the functional relations between its elements...

The functional aspect in industrial products is defined by the standard criterions for human requirements in every element of the industrial product, such as the standard standards for jewelry collections, being linked to the

human scale, after which the first investor of these industrial products. The meaning of saying this is that the design process at its beginning is limited to each component of the design of the industrial product first and then it is assembled, and that the structure of the design structure of the complete industrial product is according to the overall design principles, which is an extension of the design principles that are applied in a single component of the industrial product.

There are some theories that can be employed to describe the design process.

The theory of inspiration or genius: - The fragments of this theory we find in Homer and Heraclitus as in their use of the beginning of inspiration through Iliad, where the muses of poetry go deep into it with inspiration, the theory of inspiration or genius explains the birth of the design work or the process of design creation, by referring it to a kind of revelation or inspiration..

So the designer is inspired by his work, not from a conscious mind, an apparent feeling, a certain society, a previous art history, or even no hidden feeling. It is from a divine power above, or from a supernatural divine revelation, or from mystical magical concerns, or even from hidden demons..

The truth is that the Greek scrutiny, including Platonic, meditations on beauty and creativity are closely linked to metaphysics, so if art comes from inspiration from goddess of the arts, then these goddess of the arts are nothing but mythical symbolic references in Plato's dialogues..

And remains the source of inspiration from a metaphysical aspect, beauty remains in the self, and in this way the source of art in the end is an example of the sensible of beauty that transcendent unity of sense, which sits in a world beyond our world, which is the reasonable world (17, pp. 14, 15) ..

Accordingly, the design work must contain originality that is not similar to any other work in any way. Or it is an innovative event that we encounter, so we can only marvel and be amazed, for its originality attracts our attention and takes away our admiration. The truth is that the original design work is like a secret that the designer spreads to us for the first time, so we marvel at how we have been ignorant of it all this time, and it is not enough to say that the original work must seem to us new.

It is as if we see it for the first time, but it must be added to that that we ourselves are becoming new to the work of artistic design, as if we are walking the threshold of a new world that has been entrusted to us before (18, p.74) . Bergson confirmed that the unity of design work that makes it impossible to predict in advance what will be like. He also sees that the great artist is the one who releases in his work on a new and original emotion, as it generates in our souls new feelings or new emotions, or emotions that we did not have a time, or emotions that we had no account of (19, p. 37).

Mental theory

The mental theory confirms that the process of design creativity is the product of the mind and the fruit of thought and that it is an enlightened and conscious

action, achieved by a mature mind that possesses the reins of itself and a will illuminated by the light of thought, and represents a critic and insightful thinking. Even those who say by revelation and inspiration do not deny the lesson, pursuit and struggle of the artist-designer. Art critic Ernst Fischer confirms this meaning by saying, "We know that the artistic work for the artist is a conscious mental process and not just emotion and inspiration. It is a work that ends with creating a new image of reality, representing reality as understood by man and subjected to his control".

So emotion is not everything for the designer artist, but he must know his craft and find pleasure in it, and he should understand the rules, forms, tricks and methods by which the rebellious nature can be tamed and subjected to the principles of industrial design (20, p.10). Henri Poincare says: "The unconscious action does not form and in all cases is not fruitful unless it is preceded and followed by a period of conscious action, and sudden instances of inspiration cannot emerge into existence unless preceded by continuous self-efforts that the owner thinks are futile and has gone astray, and his talent failed to produce (1931-21, p. 595).

William Cannon says: "Long thinking about a topic and giving it the opportunity to mature in the mind in states of sleep and rest ends for the majority of researchers and students of knowledge with accusations and surprising solutions, as if in the mind a side works in secret or on the margins of thought and carries to the conscious mind

the result of its work at different times called cases of inspiration.

And mental theorists decide that the work of art is safe is an intellectual product, and that any design work cannot see the light unless it is touched by the stick of the human mind and is subjected to contemplation, deliberation, will and design, and that Leonardo Da Vinci does not know a barrier between science and art, so art has a broad science and science is for him an inseparable matter about the arts, that is, it gives priority to the mind and thought.

As for Kant, he referred the work of art to laws and conditions prior to human experience; rather it is derived from our collective cognitive powers, i.e. from the mind (22, p. 110). As for Hegel, his art is symbolic, classical, romantic and christian, thus art becomes a form of the absolute spirit as religion. philosophy (23, p. 11 p.1890).

The mental aspect of the artistic creativity of the design work includes the following: -

1. Sensitivity to problems (Glyford). There is no doubt that the creative person is more sensitive, inclined, and able to sense the existence of problems that require a solution.
2. Reorganization or the habit of delimitation (Thurston) It is meant that many of the inventions and innovations have resulted from the modification or reorganization of something that already exists or the reformulation of the problem itself and then the solution of the new problem for all kinds of creative thinking.
3. The fluency factor, meaning that whoever has the ability to produce a large number of ideas in a given unit of time

has a greater chance of finding creative ideas.

4. Flexibility, which means the degree of ease with which a person changes a certain mental point.

5. Originality, where the ability to produce original ideas is an essential element.

6. Analytical and syntactic capabilities, that is, the analysis of compounds into their media, then the combination of these media and their organization in a new, innovative way.

7. The ability of the individual to compose or complicate the pictorial construction.

8. Evaluation Every job involves a selection process and this includes an evaluation.

Social theory: - Louis Lovell says: "The self is more capable of being than it is existence (24, pp. 64,110.118), and another adds that the self is not an actual thing, but rather an activity that must be achieved. A third of these two sayings concludes the existence of the ego and says that the only goal of the self is self-realization, but the road connected from now must revolve around the world, and therefore it must pass by others..

Fischer adds in asserting that the merging of the ego (and the we) is done through art. He says, "Art is the necessary tool to complete this integration of the individual and the group, as it represents the unlimited ability of man to meet others, and to exchange opinion and experience with them" (25, P. 8, 9). Supporters of social theory see that they have relied on society and considered it the essential basis of art, not an individual production, but

rather a collective product, whether we decide that art is with primitive man, or a type of collective production, or it was a product of religion and they have a social phenomenon, or it was a product that descended from our old ancestors by way of ancestors and parents..

Rather, Young goes that if biological studies have shown us that there are bodily remnants of inheritance from the ancestors, then the same applies to psychological states, as we can speak of psychological inheritance, that is, the inheritance of the collective unconscious that descends from the previous to the next and is united by all individuals. Fisher added that every art is a product of its time and it represents humanity as much as it is compatible with the prevailing ideas in a specific historical situation, and with the aspirations of this situation and with its needs and money, but art goes beyond the long-term moments as it also makes from the specific historical moment a moment of human moments.

This means that the age in which art was born is not completely independent from previous eras, but rather from the oldest ages in which this art appeared, and then the task of the subsequent artistic generation is to add, develop or modify an artistic heritage that bears the characteristics of all previous eras. This theory has been concerned with the social proof of art since the early ages. It is Sydney Finkelstein who says: "Art appeared in the primitive communal life in two forms: The first form is the form of objects of material benefit. As for the other form, it is the form of rituals based on magical doctrines. Practical magical

customs in the communal community were an attempt to control the forces of nature (26, pp. 19-20)..

Supporters of social theory argue that design is a form of industry, work and collective production, and that this industry that spends work and then production requires at the same time the existence of matter and struggle in order to adapt and shape it into productions that this society needs, in addition to the social aspect that appears in every craft and in every industry and in all work.

In fact, societies, even in their current form, cannot be dispensed with the designer after him (the man-made man), and he is the one who puts the artifacts of man into an abstract character that makes them dear to members of society .As for Sawyer, he devotes an entire chapter of his book "The Future of Aesthetic" to the study of the relationship between art and industry, in order to show us that art is a collective function in supplying society with some special subjects, and there is a close relationship between art and industry in that each of them introduces us to some topics that he creates by doing Special humanitarian activity 'that is, art here in this theory is a social phenomenon and that it is a relative production that is subject to the conditions of time and space and is a work that has its own origins and schools and is not based on risks to the genius of the individual and is also social in the sense that it requires an audience that admires and appreciates (27, p. 112, 113) .

The design work requires the following: -

1. The cultural influences, which are the natural environment (which is what

the designer inherits from his people from certain artistic trends) and then the prevailing aesthetic trends.

2. Manufacturing methods, artistic traditions (i.e. design technology), and heritage throughout history.
3. Aesthetic awareness of society in the era of the designer.

The psychological theory: - The supporters of this theory do not agree that artistic creativity should be a spark of divine or a divine revelation, and they do not agree with considering consciousness or the mind as the basis of the process of artistic work, and they do not see that this process is subject to psychological influences, and then they are searching for a source Last continued, different. Freud found this origin in the personal unconscious, and surrealism followed in his footsteps while Jung called for the collective unconscious.

1. The School of Psychoanalysis (Freud): - Although Freud had argued that "the nature of artistic creativity is far from our reach by the means of psychoanalysis (28, p.91)," Freud specified that personality goes to three forces:

I, the Supreme I , and I and my God, and I suffer tensions as a result of constant pressure from the Supreme Ego and my God, because the function of the Supreme Ego is always pressure or suppression, but for my God his function is always the tendency to forbidden, and from here the conflict is permanent between these forces and the final outcome of this conflict is manifested in the person's behavior in any situation, so

conflict is the means by which it reaches the formation of the outcome.

Indicators resulting from the theoretical framework:-

1. There is a relationship between the age of the owner and the type of jewelry he owns. Some of them are intended for children, some are for girls, and some are for women.
2. The aesthetics of pearl design in jewelry differs in different occasions, especially those presented at marriage.
3. The shape of pearls in the design of jewelry and jewelry stems from the perceptual influence of the surrounding environment, which results in the difference in designs and their diversity.
4. In order for the product to be beautiful, it is necessary to follow all the design vocabulary to reach the degree of perfection in the design, as adding or deleting negatively affects the aesthetic fundamentals of the shape.
5. Pearls differ in their shapes and types, as well as an aesthetic addition to the piece of jewelry or jewelry (industrial product).

Chapter Three

Research Procedures

Research methodology: The researcher adopted the applied approach in analyzing the three selected models according to the research boundaries.

Second: The Research Community: The current research community includes selected models of different jewelry and ornament designs that are compatible with the research topic and its goal. The community has reached (12) models, of which (3) models have been selected, i.e. 25%.

Third: The research sample: Three models were intentionally selected bearing those features that were included in the concepts circulated in the research, available in the Iraqi market and manufactured or produced for the year 2016.

Fourth: The research tool: The researcher specified her research tool with a sample analysis form according to the scientific method in order to achieve the research objectives (Appendix / 1), (Appendix / 2).

Validation of the tool: In order to ensure that the analysis form is valid for analyzing what it was developed for, the questionnaire was presented to a group of experts to see its suitability to achieve the objectives of the research, and after the experts discussed its vocabulary, it was agreed that its paragraphs were valid for application at a rate of (90%).The

percentage of calculating the validity of the instrument based on Cooper's equation, which is: - Number of times agreed / number of times disagreed x 100..

Model analysis

Model (1): - The sample represents a gold earring with one ring, the place of manufacture in Iraq, 2017 AD, the sample is designed with a botanical composition in the form of a cluster of grapes, open and not defined in a shape or frame, as the design was used in a free way to distribute pearls, in addition to the fact that the use of pearls was in a way Smooth, the sample was carried out by manual technique and was the benefit of the final aesthetic output of the ornament using the pearl color by adding aesthetic aspects to the product.



Figure (2): The first model

Model (2) gold bracelet, place of manufacture, Iraq, year of manufacture 2017 AD, the model represents three gold wires with rings in the form of small circles made of gold installed inside them

with pearls distributed in a thoughtful way and the benefit was in the final aesthetic output of the ornament using pearls and adding aesthetic aspects to the product



Figure (3): The second model

Model (3): A yellow gold ring, the place of manufacture, Iraq, Made in 2017 AD, the model represents five gold wires in the form of circular rings of one size if they were welded from the bottom side to form a solid base, and the upper surface was decorated with white pearls fixed by

thin wires on the five rings and the distribution was Thoughtfully, the benefit was in the final aesthetic output of the jewelry using pearls and adding aesthetic aspects to the product.



Figure (4): The Third model

Results & Conclusions

Discussing the Results

1. Pearl aesthetics contributed to the provision of industrial products (jewelry and ornaments) to various social groups in (2) out of a total of (3), with different economic costs.
2. The aesthetic fundamentals were achieved, as it was effectively demonstrated in the investment of the theoretical framework, explaining the concept of aesthetics and a positive feeling for the acquirer.

3. Technical development had a clear effect on the emergence of pearl aesthetics in the design of contemporary jewelry products in a manner that satisfies the need and desire of the buyer.
4. Pearl aesthetics appeared in formulas of formal and substantive fit, forming formal formations (straight, wavy, curved) in all models (1,2,3) and appeared as a structural composition that works on linking the visual elements and using the condensation

technique in lines to show the features of the shape and the point element was absent in these models and there were matching vocabulary volumes and spaces.

5. It was found through the analysis that the models were implemented in multiple ways, so the abstract method was used in Model (1), while the engineering method was adopted in the two models (2,3). This led to the emergence of formal variables in the style adopted by the industrial designer in the production of these industrial products (Ornaments and jewelry).

Conclusions

1. The aesthetics of using pearls in the design of jewelry and ornaments is a flexible creative process as it is not a description of a specific method for creating creative designs, but rather a direction towards its creation, and this flexibility distinguishes it from the prevailing design approaches.

2. The importance of positive feeling was demonstrated through the feeling of attraction and suspense to the purchaser, as it effectively contributed to its employment in all levels of the design process, since the industrial designer was able to express his capabilities and ideas that formed a crucial and important element in the success of the design process for designing contemporary ornaments and jewelry.

3. The employment of pearl aesthetics plays a big role in the assimilation of the industrial product in a way that contributes to attracting the attention of the buyer.

4. The studied models are based effectively by highlighting the aesthetics of pearls as a successful design verifier in most steps of the design process, through plurality in showing design methods such as geometric and abstract style.

5. The formal organization of shapes and elements effectively and clearly contributed to its use in all levels of the design process, as the industrial designer was able to express his capabilities and ideas, which formed a crucial and important element in the success of the design process for contemporary jewelry.

Props

1. The aesthetics of pearls must be used above in order to achieve the goals of the industrial designer in highlighting techniques in contemporary jewelry designs.

2. The necessity of using the aesthetics of pearls in the design of contemporary jewelry, due to its ability to achieve the functional and aesthetic goal. If this goal succeeds, the design succeeds, and if the design fails, even if the other goals are achieved in the sense of aesthetic objectives.

Recommendations

1. Realizing aesthetics through ambiguity, which encourages exploration and distancing itself from clear direct designs during movement.

2. Observance of change, distinction and unpredictability: the continuous change in the scene itself and its characteristics or its sudden appearance and disappearance. The adoption of

distinction and exclusivity in relation to a neutral background.

3. Taking into account the principle of contradictions and discrepancies in the

design process, as it achieves contrast in the characteristics of attraction for the buyer.

The proposed and designed designs by the researcher

First Design



Second Design



Third Design



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Appendix // 1 sample analysis form

Honorable Professor,
the researcher puts in your hands the analysis form for the research marked (Aesthetics of pearls in designing Contemporary jewelry) which aims to reach the foundations and requirements of the aesthetics of pearls in the design of contemporary jewelry and ornaments, and since the researcher has known scientific knowledge in you, she hopes to state your opinion about its paragraphs by adding or modifying what you see fit by placing a sign (✓) under the paragraph that achieves the goals Research and a sign (×) under the paragraph that is inconsistent with its objectives. You are most grateful

The researcher

Appendix (2) Research Questionnaire Tool

Questionnaire axes	Axis elements	Effective	Quite touching	Ineffective
The first Axis: Achieve aesthetics Pearls for samples	Fit the lines used to show the aesthetic appearance of the design			
	Fit the general shape to the design			
	Fitting and color matching of the design to one another			
	Achieve the aesthetic purpose of the samples used in the research			
	Check the ratio and proportion between the elements of the units used in the implementation of the sample			
The second axis: Investigation Recruitment of pearls for samples used	Compatibility of the structural configuration of the units used			
	Appropriateness of pearl space for design spaces			
	The fit of the pearl to the material on which the sample is applied			
	The colors used in the implementation are compatible with pearl colors			
	Availability of integration and interconnection of pearl design units with each other within the product design			
The third axis: How well is achieved The aesthetic side of contemporary jewelry	Achieves tuning and harmony in contemporary jewelry design			
	The design embraces the aesthetic values of natural pearls			
	Innovation and renewal was achieved in the implemented designs			
	It achieves excellence and modernity in design			
	Fidelity is achieved in design			