

The Aesthetic of Decorative Composition in the Baghdad Mashrabiya

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Abstract. This paper will dwell on the aesthetical structure of the decorative elements of mashrabiya (shanashel), a common architectural design of an Iraqi urban tradition. The study emphasizes the mashrabiya as a form of cultural identity that incorporates functional, environmental, and aesthetic values that lie within the context of history and civilisation. The study attempts to determine the visual, structural and decorative features that make the mashrabiya a unique artistic composition in Baghdad through the examination of selected samples of heritage neighborhoods on either sides of Baghdad (Karkh and Rusafa). The study takes the descriptive-analytical approach that is backed by field observation and record keeping, and it involves the correlation between the motives of geometry, vegetable, animal and abstract during the construction of decorative units. The results show that these units possess aesthetic values relating to harmony and balance, rhythm and unity as they replicate the intellectual and cultural aspects of the community creating such units. Moreover, the research concludes that Baghdad mashrabiya is a crucial part of maintaining the heritage identity and the urban memory, as well as providing the possibilities of the modern artistic and architectural innovation. It is suggested in the study that to maintain the aesthetic and cultural value of the mashrabiya art in modern architectural settings, more awareness, documentation, restoration and revival of mashrabiya art should be done.

Introduction:

Art has been one of the most critical channels with use of which human societies express their cultural identity, awareness of their intellectuality, and their aesthetic abilities. The decorative art is one of the arts of expression that have played a big role in the evolution of the building architecture in the Arab and Islamic world. The mashrabiya (or Shanashel) is one of the most significant architectural components in Iraq that reflect the connection between aesthetic expression, social demands and adaptation to the environment.

The Baghdad mashrabiya became a separate architectural element that the culture of local artisans and strong sense of beauty expressed themselves in the community. Its ornamental elements be they geometric, floral, vegetal, or abstract are not just ornamental elements, but systems of signs of visuals that have symbolic and cultural connotations and which are shaped by historical events and artistic influences stretching back to the ancient Mesopotamian civilizations through the Islamic artistic traditions.

The mashrabiya served purposes of controlling light, ventilation and privacy especially in crowded urban areas. Simultaneously, the decorations helped create the outer appearance of the house, providing the old areas of Baghdad with a specific visual profile that may be traced in its streets and the rhythm of architectural designs. Nevertheless, the contemporary architectural development, lack of preservation activities, and the lack of interest among the population is a significant danger to the persistence of this heritage aspect.

This paper thus attempts to explore the aesthetic value incorporated in the decorative work in

mashrabiya of Baghdad. It compares the chosen samples of the heritage in different neighborhoods and evaluates the artistic principles which ruled the design of these sample such as balance, harmony, proportion, rhythm, and unity. Through this, the study showcases the mashrabiya as a cultural artifact, and in a manner that ties the heritage to the current self.

This research is significant in that it will be helpful in documenting, preserving and reviving a fading visual tradition and also in encouraging modern artists, architects and cultural organizations to use the old decorative styles as guidelines in the creation of new architectural styles that will still be locally based.

Chapter One

Research Methodology

First: Research Problem and Its Significance

Art has always been, and continues to be, a means of enriching human civilization with various types of knowledge and sciences. It is an expression of the natural capabilities of humans, distinguishing them from other creatures through a developed intellect that enables them to express their own emotions and feelings, as well as to understand and represent the emotions of others. In its essence, art provides a vivid reflection of the life of peoples, their traditions, beliefs, and customs.

Art has been used to capture significant elements of the human life, their developmental level, and the living conditions that they are in, and even in response to their practical needs. The human species evolved and started to introduce aesthetics and architectural attributes to their artistic expression where the decorative units are the means of the sophisticated art that was accomplished by early mankind.

The aesthetic values of decorations were associated with authenticity and also had social, intellectual, and even religious meaning. They showed diversity in their forms because of numerous evolutions made by ancient architects, including the depiction of animals, plants, and other geometrical forms like straight and balanced lines. They were carried out in abstract style with ornamental implications that showed the artistic talents that the human mind created during this period.

There are other forms of arts that were developed by the mesopotamian region with the influence of natural decorative arts. Nature influenced its visual aspects to the human awareness, imagination and contemplation where the early human beings were influenced to think about and admire the beauty around them. It was normal that human beings needed to draw inspiration out of the environment, incorporating the aspects of their environment into decorative units that used primitive lines and geometric shapes, plant life, animal life, as well as human shapes, either in relief shape, recessed shape, or flat shape to beautify their structures.

The search of new concepts and new models was in line with the creation and evolution of the current era and their use on the decorative compositions in a way that would fit the Iraqi environment and could be viewed as a communicative tool that would intertwine the past and the present. These designs as well get along with the religious, cultural and social connotations, with the inbuilt aesthetic value, which helps in the heritage of the culture.

Since this heritage style has not been preserved in old houses, there are no organizations to promote it and people are not very aware of the beauty of decoration in such buildings. The lack of artists to work on these decorations exposes this art to the threat of extinction. Also, the lack of scientific, artistic, and architectural researches on the subject are negative factors that do not allow setting technical and academic standards of decorative and architectural art (mashrabiya), house architecture, and traditions of popular heritage.

Significance of the Study:

The research in hand is a serious study aiming at exploring the aesthetic composition of the decorative elements used in Baghdad mashrabiya. The research question is as follows:

Do Iraqi mashrabiya possess aesthetic values in their compositional design?

Significance of the Study:

1. The importance of the study lies in the preservation of heritage, as it represents a cultural dimension and reinforces the artistic identity of Muslims.
2. Training, preparing, and recommending artistic personnel to work in this field, making it one of the effective arts that leave psychological and historical impacts on urban architecture.
3. Proposing specialized studies in this field to increase knowledge and awareness of the aesthetic value of decorative arts in **mashrabiya**.

Research Objectives:

1. To analyze beauty and its subjective goals at the personal level, including inclination, desire, and self-realization aesthetically in a particular art form.
2. Objective goals include:
 - a. Beautifying cities with heritage elements and preserving the importance of heritage.
 - b. Establishing a unique character for cities with historical identity.
 - c. Inspiring artists and creatives working in this field.

Research Boundaries:

1. **Objective:** The aesthetic composition of decorative elements in Baghdad's **mashrabiya**.
2. **Temporal:** The study focuses on the historical decades between 1920–1950, during which decorative aesthetic styles emerged.
3. **Spatial:** Iraq / Baghdad / both sides of Karkh and Rusafa.

Definition of Terms:

The following terms are relevant to the study and require clarification:

1. Aesthetic (Aesthetic):

- a. **Beauty:** Ibn Manzur defined it as the source of what is beautiful. Al-Razi stated: “A man is adorned with values (beauty), so he is beautiful; a woman is beautiful; and also the plural ‘جملاً’ denotes beauty.” Al-Bustani defined it as “the beautiful or the most beautiful of the beautiful.”
- b. Al-Badawi interpreted beauty as:

1. Meaning – beautiful.
2. A quality of goodness in ethics and forms.
- c. Al-Madkour defined it as a quality appearing in things that generates pleasure and satisfaction in the soul. Specifically, beauty is one of the three supreme values. According to idealists, it is an inherent attribute in things, fixed and unchanging, making an object beautiful or valuable in itself regardless of the evaluator's circumstances. In contrast, naturalists argue that beauty is a social construct influenced by context, and judgments of beauty vary according to the observer.
- d. Johnson defined it broadly as the love of beauty, particularly in the arts and in everything that captivates us in the surrounding world.

Al-Badawi's Definition of Aesthetic:

1. That which relates specifically to aesthetic aspects.
2. **Aesthetic study:** Concerned with the values and elements that impart artistic beauty to a work.

In the **Oxford Dictionary**, aesthetics is defined as a theory of taste or the process of perceiving beauty in nature and art.

Terminological Definition of Aesthetic:

- According to idealists, beauty relates to pleasure and refinement.
- In the **Arab Lexicon**, beauty is a quality observable in things that brings delight and a sense of harmony and order to the soul.
- Aesthetics can also be considered an artificial source. The concept of aesthetics varies across different eras.

Historically, the notion of aesthetics has existed throughout civilization, but the term “aesthetics” first appeared in the 19th century, indicating not just a love for beauty but a new awareness of its importance.

Linguistic Definition of Beauty:

- As mentioned in the Quran (Surah Al-Muzzammil, 73:20): “*...and for you in it is beauty when you rest and when you roam*”, referring to goodness or attractiveness.
- Beauty is also associated with goodness in intellect and character.
- The term **al-jummāl** (plural of beautiful) implies something surpassing the merely beautiful, encompassing ornamentation and refinement.

Operational Definition of Beauty:

It is the aesthetic value with historical or structural references applied in the architectural design of traditional Baghdad **mashrabiya** buildings.

2. Definition of the Term “Composition”

Linguistic Definition:

The term *composition* is derived from the Arabic root related to the imperfect verb, referring to existence or the coming into being of something. *Kiyan* denotes the inherent nature or essence of a thing. The plural *takaawin* refers to forms and structures. *Composition* can also be understood as creation, derived from the verb (to create), meaning to bring something into being.

Terminological Definition:

Composition refers to the process of arranging and organizing artistic elements in a specific and structured way, where the final composition is the outcome of combining these elements. The elements of composition are divided into four groups:

- **Conceptual elements:** Abstract elements that cannot be precisely defined but are fundamental, including point, line, surface, and volume (mass).
- **Visual elements:** Elements that emerge when conceptual elements are visually expressed, such as shape, proportion, color, and texture.
- **Practical elements:** Elements that determine the content and functionality of the composition, including representation, meaning, and purpose.

Principles of Composition:

The elements of composition are organized according to principles such as harmony, coherence, gradation, repetition, precision, rhythm, dominance, symmetry, balance, proportion, unity and variety, contrast, and equilibrium.

3. Definition of the Term “Ornamentation” (Decoration)

Linguistic Definition:

Ornamentation refers to adornment or decoration. The Qur'an mentions it in:

- “*...and for their houses doors and couches upon which they recline, and ornamentation*” (Quran 34)

➤ “...until the earth takes on its adornment”

The verb *zakhrafa* also refers to beautifying speech or personal adornment.

Types of Ornamentation:

➤ Engraved or incised decorations, thin lines, strips, intertwined lines, or patterns beneath paint or glass.

Operational Definition:

Ornamentation means various decorative features that are geometric, floral, animals and composite in form, which constitute architectural parts in the traditional designs of Iraq in the attainment of aesthetic functions.

4. Definition of “Mashrabiya” (Shanasheel)

Mashrabiya can be named as one of the most important architectural elements in the buildings of Iraqi old or heritage building. They show how the Iraqi architect was able to incorporate the features of the environment and the functions of the building and the materials available to construct the structures that maximize the human utilization even in the case of single-family home.

Key features of traditional Iraqi houses include:

1. Emphasis has been laid on the main open courtyard that is the heart of the house.
2. Being a distribution point of various functional spaces.
3. A key component in ventilation, light, and comforting various activities of the family.

Chapter Two

Theoretical Framework

Section One: The Concept of Beauty Philosophically

Beauty has taken a significant place in the history of human thought since ancient times and has spawned many aesthetic and philosophical theories that are still present to this day. Philosophers and thinkers have helped in elucidating what beauty and the beautiful is, and further their interpretations to the nature of beauty itself. Others came up with the conclusion that beauty is found in nature and in human nature and it comes out in the way people connect with the environment or liaise with works of arts, thus awakening the aesthetic sense in them.

Some other form of theory holds the view that beauty is a result of the balanced structural association of components of composition that induce a feeling of the beautiful based on values that can be personal, communal, social or even religious. The understanding of beauty has been one of the crucial attributes that make people human beings as it is a divine gift that God bestowed on humans as the only creature that can value and experience beauty. This is a human ability to perceive aesthetically and can be traced back to the early stages of civilization and is manifested in works of art which were the building blocks of culture. Such early aesthetic perceptions led to the subsequent intellectual life and it cannot be disputed that the perception of beauty was a highly source and an inspiring power to civilizations, and it took different artistic manifestations, which reflected the consciousness and spiritual life of people.

This is one of the ideas that Hegel stressed on, claiming that art is one of the most important aspects of human life, which cannot be imagined without either a person or a society and which is essential at the most primitive periods of human evolution. Humanity and art cannot exist apart: there is no art and no human beings. Art is a reaction to the surrounding world, and an expression of spiritual breathing, like a natural breathing that is critical to the body and the person. Civilizations or societies that lack art face the threat of intellectual suffocation and immorality.

Beauty as a human value can never be placed under any set standards or strict measurements on the basis of a uniform mechanism. Instead, the notion of beauty, its standards, and verdicts are not static

but active and developing, they depend on multiple factors such as the situation and changes of the peoples and civilizations, time, and space. Moreover, there is the individual and cultural heritage that has a great impact on aesthetic perception.

Therefore, the evaluation of beauty has been varied with aestheticians having differing opinions in giving a specific definition about beauty. Others find it in the world of art, some in nature, and yet others in the world of ideal forms. This deviation is caused by two main reasons, the first one being that there exists no fixed, scientific standard of beauty that can provide a unifying factor in all the Tastes, and the second one is that the intellectual perceptions and imagination of different people vary. It is possible that a single viewer can have much more insight into the richness of a piece of art, and another viewer can have a different opinion. Every person is likely to value beauty in a manner that is consistent with their beliefs and perceptions which is highlighted by Hegel who adopted aesthetic judgment in his attempt to explain the unending difference of taste.

Going back to the historical point of view, in the Greek thought and art forms, the terms beautiful, wonderful and harmonious were used to express beauty. The thinkers of the period of the tenth-seventh centuries BCE, called the sages, had a variety of ideas, such as the irrationalist approach and direct contemplation, all of which belonged to the paradigm of aesthetic philosophy.

Socrates symbolizes the pivot between the aesthetical philosophy and basing knowledge on reasoning instead of personal preferences, and separating between intellectual and sensual issues. The intellect pursues the nature of things, their inner nature independent of appearances to the senses, and realizes it in a way that is able to be expressed in definitions.

Al-Farabi develops a likability towards Aristotle and Thales yet believes artistic productions to be better than nature and states that images have the ability to rise above materiality. He stressed the use of imagination as a divine gift to keep the impressions of the senses and the shapes of the world around in the mind.

Al-Tawhidi emphasized the use of intuition and contribution in the production of the artistic work, which is a combination of form and content in art. The expression of the latent emotions is a way through which art expresses them beautifully that is not only a reflection of the outside world but also the inside experience of the human being and a representation of time.

The scholar also refers to the opinion of Henri Bergson (1859-1941) who underlined intuition as an opportunity to find aesthetic truth in art without referring to logical or sequential arguments. Bergson believed that intuition was a type of pure or higher knowledge, and he used it to understand the entirety in a way of continuity sense that embraced all the life forms of existence, reason, matter, time and motion. Direct knowledge that is gained through intuition, similar to mystical cognition, has nothing to do with analytical thinking. This idea of Bergson brings out the drawback of rationality in understanding beauty and introduces intuition as the best way of perceiving aesthetic and existential truths.

Rather, one must transcend the intellect, perceiving beauty through being or attraction. Bergson replaced the notion of attraction with intuition, asserting that the apprehension of beauty occurs solely through intuition. Intuition, in essence, is the immediate engagement with the subject and penetration into its inner reality, that is, the direct perception of creative continuity. Through intuition, it is as if we live the beauty itself and feel its presence entering our souls.

Section Two:

Beauty in Islamic Thought

Undoubtedly, Islamic philosophers benefited from the philosophical and aesthetic theories developed by the pioneers of Greek philosophy, particularly Plato and Aristotle. Given the scope of this research, it is not possible to cover all aesthetic views of Muslim philosophers; therefore, the researcher will focus on the aesthetic perspectives of two philosophers: Al-Farabi and Al-Tawhidi.

Scholars of Islamic philosophy agree that Al-Farabi (born around 260 AH) stands at the forefront of

Muslim philosophers who emphasized interpretation, the efficacy of the senses, and perception, holding that “*one who lacks a sense lacks knowledge*”. For Al-Farabi, art is a sensory quality fundamentally grounded in experience.

Through his effort to reconcile religion and philosophy, Al-Farabi considered beauty as the realization of virtuous values within beautiful things through their construction and arrangement. He argued that God’s beauty precedes the beauty of all created things and that the experience and immersion in beauty constitute a shared interaction between humans and God. Beauty, according to Al-Farabi, is a manifestation of God (the Active Intellect), and what is deemed beautiful becomes “*that which the rational mind finds pleasing*.”

The first Arab who organized the Arab aesthetics systematically was Abu Hayyan Al-Tawhidi (414 AH, 4th century AH), who also relied on the concepts of his contemporaries in the world of philosophers, literary characters and artists. The points of his Arab aesthetic theory included similar challenges to the contemporary aesthetics, such as creativity, taste, the importance of knowledge and technique, and the hierarchy of arts.

Al-Tawhidi says that the perception of beauty is conditioned by the two aspects: the balance of the temperaments of the person who perceives the things, and the second one is the proportional harmony of the elements of an object (form, color, etc.). He pointed out that imagination cannot fulfill these conditions single-handedly as nature can not always meet them. Thus, it is hard to perceive beauty in totality. Illusion, the senses, and temperament are contingent on each other, with the senses being subordinate to illusion, and the natural effects being subordinate to temperament.

Al-Tawhidi claimed that the beauty of the forms of God is not perceived by sight but through insight; intellectual perception is better than sensory one. The forms of divinity are the most visible perfection, but at the same time the hardest to understand without the help of a god.

According to Al-Tawhidi, beauty acts in various channels one of which is religion and ethics that brings to faith in the Creator. The beauty of art just as the beauty of nature leads people to the Creator, so the beauty of the work should also awaken the idea of divine unity. Any art that does not portray this unity is not worth it.

Al-Farabi placed much emphasis on the importance of imagination as a divine gift which maintains the sensory impressions and the picture of the outside world as relayed to the mind by the senses. In addition, imagination is also creative power (or creative imagination, according to modern psychology), it can manifest itself in dreams and visions and at the same time appeal to the senses. According to him, imagination is what holds sensual information and inner faculties sustain it. The active intellect is used to provide the artist with images, which the imaginative faculty constructs according to the input of the senses, leading to the visible representation of art that shows the power of imagination of the artist.

Section Three:

Form from an Aesthetic Perspective

It is through interaction that a work of art acquires its identity and form makes it to be reliable as a witness to the human environment. The artist, either consciously or unconsciously starts to push to new forms, which, though innovative, reinstate a distinction between themselves and what has preceded them. Such people who follow tradition strictly turn out to be artisans but not artists.

It is based on this that the artist is able to give the relationship between the past and the present with the help of form and the interaction between the new shapes that, in their content, carries the experiences of past generations, civilization, and heritage and then offers them a new form.

Form has studied aesthetic discourse in diverse ways. Plato, in his theory of Forms, believed that the divine made the perfect example of everything in life and that he termed it as being absolute in such a way that nothing in the physical world could be compared to it. Plato was doubtful about the material example, which he believed to be incomplete and perishable, and ideal Form, which is eternal

existence, is perfect. Therefore, Plato linked form to geometry such as triangles, circles, squares, and others and form acquired a mathematical aspect.

Plato meant by beauty such as the rest of the populace understand the term to mean, but instead the straight lines, circles, planes, and volumes constructed with rulers and angles. These forms are not comparatively beautiful as other forms; they have absolute beauty, which is in itself.

In this way, to Plato, the square, as well as other geometric figures, are simply the material expression of their higher and absolute archetype. The conceptualization of what the physical form looks like enables the pieces of art to identify with the content of things, and not with their surface forms, making content the important representative of the artwork a concept that became a hallmark of modern art.

Decorative Arts:

Decorative nature is one of the most eminent aspects of Islamic art. The shape of Islamic arts has been mostly correlated with ornamentation as a result of the active and unending use of decorative motives in the Arab architectural compositions.

Besides being used to be beautiful, the Arabic decorations hold their philosophy as well. The Arabic ornamentation is not identical to say, the Greek ornamentation, and the purposes of its use in architecture are not similar to the Roman architecture (see Figure 1).

Decoration is, in other words, a human art, which aims at pleasing the soul of the human being, awakening aesthetic and creative feelings and emotions. It is also a visual art, just like painting, sculpture, and architecture, having a spatial structure, which may be visualized either by eye or a touch. Nonetheless, it has a unique intellectual aspect to this art since it speaks to the inner human consciousness, not just to sensation and emotion but through abstract forms as a medium of expression.

The abstract manner in Arab arts was strengthened by the emergence of the media and the urge, to the maximum, to not depict living creatures in their literal form or seek to emulate the works of the Creator. Abstraction and non-conformity to nature, consequently, was the manifestation of the human struggle to the Absolute Creator. Also, this style indicates a poetic self, which has its own independent and absolute existence, which deals with a harsh and hostile world, in which imitation or reproduction was neither needed nor wanted.



Figure 1: Islamic Decorative Arts

Formal Values in Islamic Art:

The formal criterion applied in this research is a means of enabling the researcher to determine the evidences of beauty that identify any form of art, without giving attention to the content. It is necessary to revisit some fundamental aesthetic values and strive to assess Islamic art according to these values. Each visual work of art possesses some form of artistic tools in the form of line, space, color, light and shadow, texture, surface and volume. It is the connection between these components and rhythm which they produce that give the artwork beauty since nature is made up of these components.

Line:

The fact that line is capable of conveying movement and mass makes it one of the most significant formal elements. It not conveys movement only as far as moving objects are concerned, but in its aesthetic meaning, in generating a movement self-caused, spontaneous movement and thus causing the line to dance without any utilitarian intention.

Section Three: Heritage Elements of Architecture

First: Arab Architecture

The given art form in particular can be identified as the numerous artistic elements and forms which are continuously employed in the various contexts throughout the Arab architecture. Among these elements are:

1. Domes:

The Islamic call did not start with the use of domes but the domes were present in the ancient Mesopotamian and Egyptian societies. They first of all were displayed in the palace of the governor in Kufa, and later in the Green Dome, in Wasit (84 AH). One of the first Islamic domes is the Dome of the Rock which was constructed by Abd al-Malik ibn Marwan (72 AH). During the Abbasid period, the most notable ones are the Green Dome of the palace of Al-Mansur, the Bab al-Dhahab. The Qasr al-Akhidhar dome (hemispherical) in Samarra and the cruciform (elliptical) dome are the oldest domes that still stand in Iraq.

Domes also created glory and holiness to the Arabic architecture, portraying magnificence and pride. The dome shape brings out the intense human feelings and contemplation. First, Muslims employed domes of shrines. The dome is highly related to the vision of the sky held by the Arabs, a dome of the sky and this is what motivated its heavy usage in Islamic architecture. There were diverse shapes of domes hemispherical, conical, onion, pointed, polygonal, muqarnas, etc.

These domes are painted in either gold or blue color, or both, at times, green. The abstract and non-material color of gold represents the brilliance of the sun that breaks down all borders and shadows and suggests the dreaminess and transcendence. Blue is a symbol of depth and distance. Moreover, plant patterns and geometrical patterns were used to decorate the exterior of certain domes, which made them look more beautiful and attractive as shown in Figure 2.



Figure 2: Dome and Minaret of Al-Khulafa Mosque in Baghdad

2. Arches:

Also referred to as "Qaws" in Arabic, arches serve a functional architectural purpose by roofing openings in walls and arcades. Their shapes vary according to time, place, and functional requirements.

Types of arches include:

- **Parabolic (Semi-Elliptical) Arches:** Known since ancient times in Assyrian and Neo-Babylonian entrances, such as the Ishtar Gate, and also in the cities of Hatra and Ashur.
- **Semi-Circular Arches:** Their origins trace back to Mesopotamian civilizations. The Assyrians used them in their architecture, often mistakenly referred to as Roman arches.
- **Horseshoe Arches:** Especially common in Islamic North Africa, considered by some as Andalusian style due to their first appearance in the Great Mosque of Córdoba.
- **Pointed Arches:** Among the most widespread in Islamic architecture, appearing in many forms, such as pointed arches formed by two arcs or four arcs, etc.

Arches often compete aesthetically with the elegance and decoration of muqarnas, panels, and frames. According to Qaja, the origins of arches trace back to Mesopotamia, where timber was scarce and stone rare, making clay and brick the primary materials.

Arches are among the most prominent features of Arab-Islamic architecture. They were widely used across Islamic lands, eventually becoming an integral part of Islamic architectural art, as illustrated in **Figure 3**.

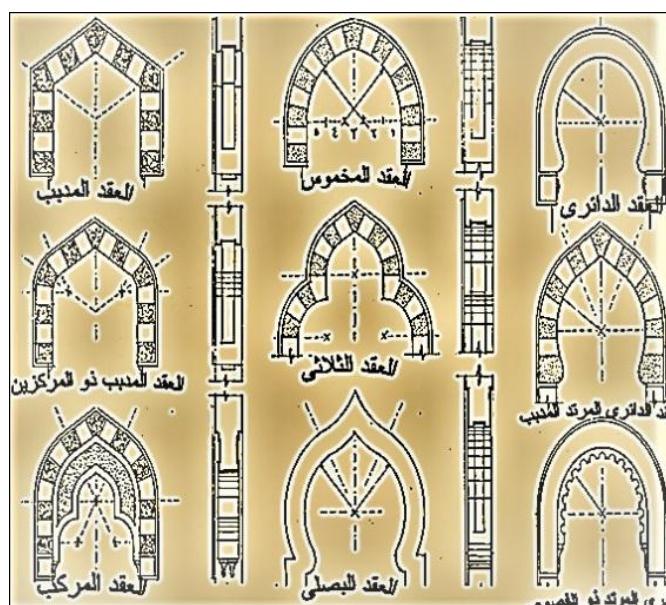


Figure 3: Arches in Islamic Architectural Art

3. Columns and Capitals:

A column is an architectural structure that supports a wall or a roof. It used to be a heavy wooden rod on which a tent was supported, in ancient times. Muslim artists were able to create great creativity in designing columns and capitals with experiments of different forms: cylindrical shaft, polygonal shaft and octagonal shaft. Such types of columns became common in Islamic architecture.

Capitals also evolved into artistic forms, including bulbous (onion-shaped) capitals and capitals decorated with muqarnas or plant-like motifs that extend from the base, spreading outward like a blooming flower. The earliest examples of the cubical or bell-shaped capitals can be observed in the Jawsaq al-Khaqani Palace in Samarra, as illustrated in **Figure 4**.

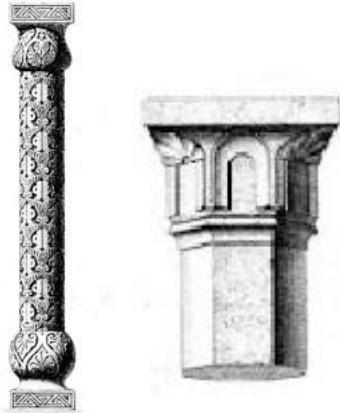


Figure 4: Column and Capital

4. Muqarnas (Squinches):

Muqarnas are the corner niches placed at each corner of a square chamber. When the four niches are used in succession, they allow a transition from a square plan to a circular or octagonal form.

Muqarnas clearly demonstrate the ingenuity and sophistication achieved by Islamic architectural art and have become a symbol of Arab-Islamic civilization, as illustrated in **Figure 5**.

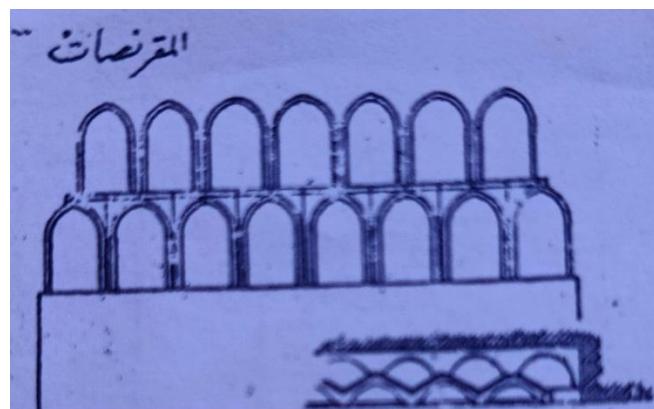


Figure 5: Muqarnas

Second Section:

Decorative Designs in Residential Houses

Decoration and ornamentation in heritage houses are considered among the main features of house design. Although the level and type of decorative work vary from one house to another depending on the homeowner's financial means, in some houses, mirrors are incorporated into geometric patterns, while other houses may limit decoration to arranging bricks on façades or arches to create simple decorative shapes.

Regardless of the method, when Iraqi architects have the opportunity to execute ornamentation, it becomes a key design element in heritage houses. Decorative forms are diverse, but geometric and structural shapes, or variations thereof, are most commonly used. This preference reflects the avoidance of human and animal forms, which were generally discouraged in Islamic art. **Figure 6** illustrates this.



Figure 6: Decorative Designs in Residential Houses

Historical Roots of the Baghdad Mashrabiya (Shanasheel):

The heritage of Iraq and its location becomes more and more important as one of the oldest centres of the human civilization. The first human experiments and efforts in different spheres of knowledge, science, philosophy, literature and arts were witnessed on its land. Iraqis had made great achievements in the context of construction, architecture, arts, and industry and these achievements were not stopped in any way but instead inspired by the spatial and temporal features and harmonizing the changing human needs to achieve the levels of quality and sophistication.

Building has always been an identifying feature of Iraqi actions in the course of history. Although the number of types of buildings, as well as their purposes, is various, the residential house can be singled out by its age and its commonness. Its principles of planning, architectural designs and materials of construction formed the basis of other government buildings like places of worship, government structures and palaces.

The remarkable quality of the Iraqi architects to bring together the natural terrain, the environment conditions and the functional needs of the structure with the material to be used is one of the most essential features of ancient buildings, or heritage buildings in Iraq. The result of this integration was structures that were both in form and substance optimized to human use, be it on single-family structures or community housing units in villages and historic cities a concept today called urban planning.

The development of the modern era started with the gradual introduction of the foreign prefabricated building materials leading to modifications in the design and architecture as well as ornamentation. Though all these factors contributed to these architectural changes, the use of iron beams did not do away with the old Iraqi modes of construction like the use of arch (al-'aqadah). The decorative motifs and embellishments also continued to be created in the bricklaying which was used to fill in the gaps between the beams of iron. The spaces between the beams were rectangular making them potential known fertile grounds to the formation of decorative forms formed by the use of various patterns in the bricks in the arches of the ceilings.

It is worthy of mentioning that every section of the houses such as entrances, doors, windows, ceilings, courtyards, awnings, wooden columns, and beams were carefully decorated and ornamented with the help of all possible means. Although there is architectural ornamentation that was profuse, there are no bare walls; there is always an application of decorative features and architectural themes, most of them geometric in nature, to define the spaces and make them attractive to the eye.



Figure 7: Shanasheel in Al-Shawaka Area, Baghdad

Chapter Three: Research Procedures

First – Research Population:

The researcher also went to the field to visit different areas, as well as reviewing available and accessible photographic documentation of different sources. The original research population was large enough and could not be enlisted statistically. Thus, the population of the research as defined by the researcher included the Shanasheel recorded in Baghdad in the Karkh and Rusafa districts according to the sources available and heritage centers. The geographic distribution of Shanasheel in the boundaries of Baghdad was considered in the study, considering the unique features of every territory and the particular circumstances that could not be ignored because these are a research phenomenon which may be studied in a systematic way.

Second – Research Sample:

Having analyzed the geographic areas that constitute the research population and taking into account the peculiarities of each of them, the researcher segmented the population into two major geographic sectors:

- **Rusafa Side:** Al-Fadl and Al-Khalawand.
- **Karkh Side:** Al-Rahmaniya, Al-Shawaka, and Al-Midan.

The researcher also visited the local cultural and heritage centers after the identification of the main sample regions and field visits to such areas. As part of this study, the researcher could examine the nature of the Shanasheel in these regions and choose those arrangements which were most appropriate in the study of heritage Shanasheel.

Research Methodology:

Purposive sampling approach has been used by the researcher to make sure that the sample selected is appropriate to achieve the objectives of the ongoing study considering the operationalisation, the theoretical framework all of which combine to achieve the research objectives.

Third – Research Instrument:

The research instrument was developed through the following steps:

a. Exploratory Study:

The researcher conducted preliminary procedures to build the research instrument, including reviewing literature related to the current study and benefiting from the theoretical framework presented in **Chapter Two**.

First: General Description of Shanasheel:

Shanasheel are building facades composed of wood and some iron rods. They are characterized by hexagonal forms with decorative units, carefully composed ornaments, and predominantly brown coloring, sometimes in dark brown or other shades. These Shanasheel are the part of ancient cities,

and they existed in the civilizations of Iraqi history, especially, in the Rusafa side of Baghdad (Al-Fadl and local markets) and in Karkh.

General Description of the Sample:

The study sample is the exterior facade of a conventional Baghdad house (from Karkh), which represents the true Iraqi and Baghdadi spirit. The door is made of old metalwork inlaid in bronze with Islamic Arabic designs, and has a square or other forms of windows. The door is surrounded by an arch with semi-circular shape adorned by plant, animal, linear, human or geometric designs.

Sample Analysis:

The sample is diverse in terms of the decorative units and surrounding space and creates relations among form, color, and space arrangement. The color and shape balance is created through the spatial arrangement of the decorative units and harmony is created among the elements of visuality. The researcher observes that this piece of work contains the Arab roots and the spirit of ancient Iraqi culture, as it was based on the artistic creation of Mesopotamian societies.

The position of the decorative units makes the image balanced and moving with a smooth flow of the eyes of the observer through the motifs. This gives the compositional form openness, and also expands the decorative integrity on larger surfaces as well as attaining an aesthetic value on the Shanasheel facade. In addition, the shape and volume proportions also help in the aesthetic enjoyment by the viewer.

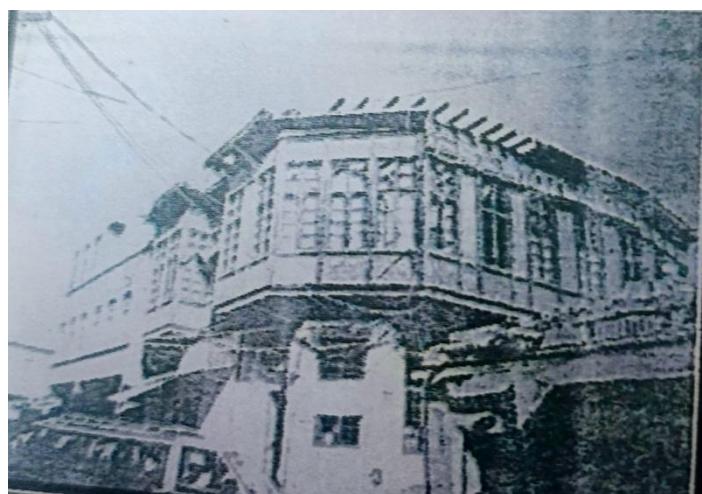
The research sample consists of four units, as it is represented in Appendix 1, which is evenly divided into Karkh and Rusafa sides and of different types to meet the research objectives.

Sample No.: 1

Sample Name: Shanasheel with Hexagonal Design

Location: Baghdad, Rusafa

Date of Construction: 1921



Sample No.: 2

Sample Name: Shanasheel – Exterior Facade with Hexagonal Decorative Design

Location: Rusafa, Al-Khalawand, Baghdad

Date of Construction: 1924

General Description:

This sample is a facade of the building in Baghdad, Rusafa district which was built with a predominant use of wood and only a few columns made of iron. It is designed as hexagonal units that compose the decorative piece, mostly in brown colors, including the dark brown and other colors

some of which are common in historic Shanasheel in the old sections of the city. These facades can be located in the typical marketplaces and highly populated ancient quarters. The decorative composition is geometric, which is square and rectangular, penetrating each other, producing aesthetic value, which is supplemented by the brown coloration and the general composition.

Sample Analysis:

The sample consists of a collection of active elements in the shape of horizontal and vertical geometric lines, as the structure that can be seen. It displays old and spiritual roots in its art form, using earthy colors that are encouraged by the Iraqi Eastern view, which is symbolic of authenticity. The materials and techniques used are wood, iron, cement, bricks and glass, largely based on the native sources in Iraq. The textures deliver the sense of touch of wood, the surfaces are smooth and the relief carving is strong, revealing the abstract Islamic artistic influence.



Sample No.: 3

Sample Name: Shanasheel – Residential House (Front and Side Views)

Location: Baghdad, Karkh – Haifa Street, Al-Shawaka “Al-Kabshkan”

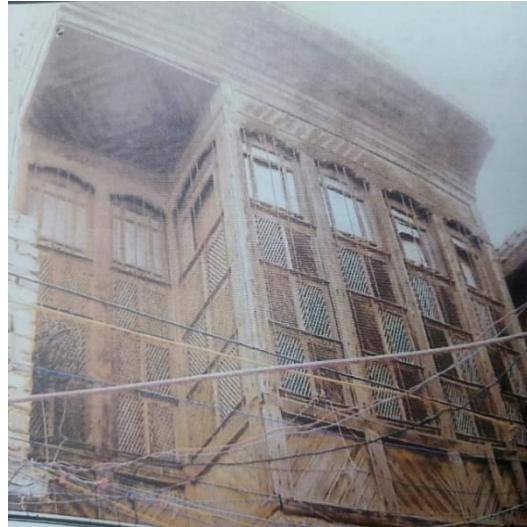
Date of Construction: 1932

General Description:

This sample is the facade and projection of a residential construction which had supporting iron columns on the base which was connected to plaster and bricks as well as slender iron columns on the window. This projection was mainly done using wood as the raw material. The designs include geometric designs, squares, and arches which add aesthetic value to the projection of Shanasheel. These features communicate the truthfulness of Eastern legacy of old districts to the viewer, as they have the symbolic sources of Islam, such as the upper wooden arch of the projection.

Sample Analysis:

The carvings on the facade are geometrical with arches built in the windows, and thinner columns that were built by using iron. The mix of wood and ornamentation is what makes the appearance in harmony. The geometric designs have recessed and raised figures such as squares and triangles well designed. The use of brick structure and color contributes to the traditional heritage appearance. The top projection with the wooden arch adds to the visualization to show how the materials used were durable and strong such as the wooden-supported ceilings and this combination adds up to the final of the beauty viewed by the audience.



General Description:

The sample of the researched object is the exterior facade of an old Baghdad house (Karkh area), which has genuine Eastern features and the spiritual inheritance of Baghdad. The central door is composed of antique sheet metal carved with bronze and cut at deep and raised Islamic Arabic patterns. They have either square or arched windows with a semi-circular arch of plant, animal, linear and some human motives.

Sample Analysis:

The peculiarities of this sample are the opposition of the decorative units versus the surrounding space and the establishment of the relations between the form and the content and between form, color, and space. The decorative units are distributed spatially to bring about a balance of colors, shapes, composition, and spatial organization to achieve the visual harmony in the Shanashel design. The facade, made of wood and some iron columns, is very organized, the decorative units are highly structured, which enables visual movement of every unit to another. This, in its turn, offers an aesthetic structure, prolonging the decorative units over vast expanses of the Shanashel facade, thereby creating an aesthetic value on the surface. Besides, proportionality and consistency of the shape and volume are also added benefit to the overall appearance of the observer.

Sample No.: 4

Sample Name: Arched Shanashel Facade Door

Location: Baghdad, Al-Rusafa – Al-Alawadiya, Al-Atibba Street (formerly Mari Yassin)

Date of Construction: 1935



Arched Shanasheel of an Old House Facade

General Description:

This sample includes an arch that is of a unique design which is typical of the Islamic arches. It is also characterized by a number of arched layers and made of well-laid bricks. The arch is carved with ornamental patterns, such as the animal and plant patterns, which depict pure Islamic stylistic features in the ancient Islamic religious architecture.

Sample Analysis:

The sample consists entirely of Islamic arches, which are made of brick in an orderly proportion. Every arch is slightly varied, and the central spaces are carved in great relief in terms of using Islamic motifs of animals and plants, which make a great visual impression on the audience. The building materials (Brick and plaster) are easy to use, although in the long term they are durable. The engravings are created in both raised and recessed types, and the aesthetic elements are based on the local traditional symbols and patterns, and it all belongs to the heritage aspect of the Shanasheel. The decorative and functional features are also augmented with the use of fired stone elements, which will satisfy both the aesthetic and practical requirements. The layout of decorative units indicates the aesthetic intent in the line with local environment, historical background, and Eastern traditional architecture.

Chapter Four

First: Research Results:

The researcher reached the following results:

1. The decorative shapes and their luminous visual elements helped to create broad aesthetic pathways, making it possible to enter the fine aesthetic realms of the decorative compositions of the heritage buildings (Shanasheel).
2. The decorative units reinforced the aesthetic effect of the Baghdad Shanasheel and developed a considerable aesthetic value on the completion of these heritage facades.
3. The aesthetic worth of the decoration units was well used in constructing the traditional decoration Shinasheel in Baghdad.
4. The expressive units included the elements and pillars of the composition, which took part in the attainment of aesthetic balance in the design of Baghdad Shanasheel, which caused a good reception among the viewers, as evidenced in their constant interaction and constant presence.
5. The piece was able to find a singular aesthetic in the decorative scheme of the Baghdad Shanasheel, particularly when applied in units of historical, civilizational, and Islamic allusions.
6. The decorative units have both the aesthetic values based on the ancient heritage which are taken by the early civilizations of Iraq.
7. The aesthetic worth of the decorative units was different, the motifs of plants, geometric, animal and human forms were performed in various ways, through composition, harmony, proportion and repetition.

Second: Conclusions:

1. The ornamental units that are applied in the composition of Baghdad Shanasheel established a significant connection between the human and the house, which satisfies the aesthetic need.
2. The decorative units that constitute the aesthetic structure of the Shinasheel are a constituent of the effectiveness and activity of the architect, the aspiration to make an impression on the majority of Shinasheel compositions around Baghdad.

3. The variety of the decorative units used in Shinasheel works met the aesthetic goals, which were the abilities related to heritage issues that were associated with the local surrounding, the history of Iraq and Islam civilization.
4. The Shanasheel, which existed in different varieties, provided Baghdad with the feeling of belonging to the total structure; the lines and directions of the composition were interrelated to each other, creating visual continuity to the viewer and creating harmony in the exterior form of Shanasheel, thereby achieving aesthetic value.
5. The organization of Baghdad Shanasheel was a mixture of the complicated distribution of the decorative elements with the method of accomplishment, and the simplicity of the type of structure was accented to an equalization of the civilizational and heritage axis which added to the beauty and heritage worth of the building.

Third: Recommendations:

In light of the results and conclusions, the researcher recommends the following:

1. Underline the local particularity according to which Iraq is the homeland of an ancient and multi-faced civilization.
2. Attain aesthetic designs to Shanasheel compositions that bear national, heritage, and aesthetic meaning, which satisfy the aspired aesthetic purposes.
3. Folk heritage is authentic and therefore they pay attention to it by cultivating both referential and methodological awareness in a manner that helps in preserving local specificity in cultural heritage.
4. To keep the spirit of the Iraqi popular, civilizational, and Islamic heritage, preserve and restore old heritage buildings in accordance with their original style.

Fourth: Suggestions:

1. Carry out some research on the Iraqi Shanasheel with a focus on the question of authenticity versus modernization.
2. Research on meaning and symbols that are inherent in the Iraqi legacy Shanasheel.
3. Discuss how the Shanasheel, being a decoration, was influenced by social and political aspects of historical Iraq.
4. Research the impact of religious and doctrinal issues on the design work of Shanasheel and decorations in the traditional Iraqi buildings.
5. It is recommended to revive traditional Shanasheel designs and to incorporate them into modern architectural designs preserving all the peculiarities of Baghdad Shanasheel, in accordance with the modern construction techniques adopted in Baghdad.

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