

# Aesthetic Representation Levels in Mosques: Insights from the Great State Mosque Competition in Baghdad, Iraq

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## Abstract

Mosques represent the most distinctive type in terms of functional and semantic aspects. State mosques are among the most specific which derive the characteristics of them from the various places and times in which they exist. The process of designing a contemporary state mosque is often an important opportunity for a dialogue between different cultures, especially when the designers belong to any one of those cultures.

This has been the case in the competition of the Great State Mosque in Baghdad. Some studies examining Islamic thought, art, and architecture have shown that there are four gradual levels of aesthetic representations there. There is the level of simple formal tasting perceived by the senses, the level of beauty meeting a psychological need, the level of beauty generating positive moral values, and the higher spiritual level perceived by reasons and metaphysical thoughts. However, there is a lack of a proper understanding of these. In this context, this research examines the variations in the levels and nature of the aesthetic representation adopted by the designers of the competition.

It employs a descriptive analytical approach and the methodology of text analysis. The proposals were explained by the designers participating in the competition. The research analyzed those texts using indicators derived from previous theoretical studies. The designers were treated as one group and later classified into two, local and foreign. The results were analyzed by simple statistical formulas, the ratios, and averages. Mathematical correlation factors were extracted between the different categories and among designers.

The findings show an absence of the third aesthetic level as a clear intention in the proposals of all the designers, despite the closeness of the results. The remarkable finding is that the foreign designers were focusing on the higher metaphysical and spiritual level, while the locals were focusing on the level of simple formal visual taste.

**Keywords:** Islamic architecture, Aesthetic levels, State Mosque, Architectural competitions, Iraq.

## Introduction

Perhaps the biggest issue facing every researcher in Islamic art and architecture is that spirit and comprehensive unity of the various art of Islam, which arose in different places and times and by different groups of people, and if they retained a local dialect here or there. This is what strengthens that spirit and unity. It does not weaken it. This issue is the product of Islam and its teachings and ideas, and that perception is the subject of general agreement among most historians and theorists of Islamic art and architecture (Ettinghausen, 1985). Indeed, it is understood by many people who are not specialists in art and architecture. (Burckhardt, 2009)

Islamic art and architecture are usually a place for global meeting and dialogue between people. There is a continuous meeting, dialogue and cooperation between the East and the West in producing contemporary Islamic architecture, that is continuous with its roots and its own identity in Islamic countries and in non-Islamic countries.

On the other hand, the subject of aesthetics does not lose its importance, despite its relativity and ambiguity resulting from its novelty and the multiplicity and divergence of propositions in it. A number of theorists have been interested in the aesthetics of Islamic art and architecture, and have put forward their perceptions and knowledge. According to them, there are four main levels of aesthetic representations, located between the level of simple direct aesthetic taste and the deep metaphysical spiritual level and other levels between them.

It is argued that the type of a mosque is the supreme representative of Islamic art and architecture and the trustworthy bearer of its aesthetic characteristics. Since the state mosques are the most prominent among the mosques, this research proposes that they be distinguished as a sub-type with clear boundaries and characteristics among other mosques.

For scientific and methodological reasons, that requires the neutralization of other influencing factors in the design process (and in the trends and ideas of designers) such as financing, the size of the project, the nature of its functional program, the determinants of the site, etc. It is thus necessary to resort to serious architectural competition projects of high standards, especially in determining the quality of the participants. This will give the research the most objective opportunity for study. This study examines the projects submitted to the International design competition for the Great State Mosque in Baghdad, the capital of the Republic of Iraq.

The competition was established in 1983 by Amanat Al Asima (Capital administration headquarters). The competition commenced on July 21, 1982. Twenty-two consultant firms – Iraqi, Arab, and Foreign – were invited to submit pre-qualification documents (closed and limited invitation) for the competition not later than September 16, 1982. Later, the competition committee chose seven designers for the final participation. where a group of prominent architects in the world met, who were from different cultural backgrounds. They were:

Minoru Takeyama / Rasem Badran (first winner of the competition) / Kahtan al Madfaii / Ricardo Bofill / Venturi, Rauch and Scott Brown / Mohamed S. Makiya and Maath Al-Alousi.

Most of their previous architectural works and theoretical theses were of interest to architecture theorists. The projects of this competition and the ideas presented in it are very important and exceeded the limits of the competition. Indeed, many cultural dialogue seminars were held, in which the participating designers, professors, architectural theorists and artists from different countries of the world participated. The proposals, ideas and vision of the designers as they expressed themselves (according to which the projects they submitted for the competition were designed) were formally recorded in an official blog that was considered a document of the competition and was later published as a limited edition. All the projects were subjected to significant financial and moral support throughout the duration of the competition with the real opportunity to implement at the end of the competition for the winning project (Blog, 1983) (Khan, 1984, p.44-63). The competition with these specifications provided the materials to conduct the current research.

This research is based on the fact that there is insufficient knowledge about the variations in the levels and nature of the aesthetic representation adopted by the various designers participating in the competition of designing the Great State Mosque in Baghdad. This cognitive problem may be a contemporary model in the higher cognitive levels than the limits of the competition, which can be considered as an addition to knowledge.

In this context, the aim of the research is to find and clarify knowledge on this issue. The research hypothesis suggests the existence of such a discrepancy, and that the increase in the approach of the designer's thought and culture to the Islamic aesthetic vision enables him to evoke the potentials and stimuli of the aesthetic feeling in the architectural production at its various levels, up to the most profound and the highest spiritual levels.

Its objectives are as follows.

1. In general, to study the nature of variation in the aesthetic representation levels intended by the design process.
2. To verify the possibility of finding any difference between foreign and local designers.

### **Theoretical Framework**

#### **Levels of aesthetic representation in Islamic art and architecture**

In the Philosophical Lexicon of Dr. Jamil Saliba,

“Divine beauty is of two types: intangible, which is indicated by the names and attributes, and figurative, which is this absolute world expressed by creatures in all its branches, types, and wonders.”

Saliba, 1982:408

Beauty, according to the vision of Imam Al-Ghazali in the text transmitted by the scholar Richard Ettinghausen, is determined, starting with the outward, formal images.

“Everything's beauty and goodness lie in the presence of a perfection worthy of it that is possible for it, so if all of its possible perfections are present, then it is of the utmost beauty... A good handwriting is everything that combines what befits a handwriting in terms of the proportionality of the letters, their parallelism, the straightness of their arrangement, and their good regularity, and everything has perfection. It is appropriate for him, .... He does not improve calligraphy in a way that improves his voice, .... He does not improve utensils in a way that improves clothes, and likewise all things.”

Ettinghausen, 1985:333

Beauty, as the Arabs say, is found in the attributes that make up a thing so that it becomes the thing that it ought to be.” Islam's theory of aesthetics is constituted by its three aspects: - the intellectual aesthetic, the faith aesthetic, and the artistic aesthetic. (Al-Maliki, 1996)

Among those who have researched the beauty of the outward and inward among the Muslim scholars, Ibn Qayyim al-Jawziyyah in his book (Rawdat al-Muhibbeen) stands out. He believes that inward beauty is beloved for its own sake, and it is the beauty of knowledge, reason, generosity, chastity, and courage. The original image is decorated. Inner beauty modifies and directs positively the proportions and status of apparent beauty for the recipient. As for the apparent beauty, it is an increase in creation and body.

In the aspect of tasting and receiving beauty, Miskawayh confirms that tasting beauty is subject to two main factors. The first factor is the moderation of the connoisseur's mood so that he does not alienate himself to the extreme stranger and the deviant, and the second factor is the proportionality of the members of a thing to each other in shape, color and other forms, meaning that the beauty of a thing is linked to the same thing.

By nature, it is related to the same connoisseur, and here Miskawayh combines the subjective and objective views in tasting beauty. (Al-Maliki, 1996)

According to the German scholar and orientalist Richard Ettinghausen, there are four levels of aesthetic feeling and contemplation among the Muslims, starting with the simplest and then heading towards the deeper or the higher, (Ettinghausen, 1985).

These are:

**The first level:** Aesthetic appeal is the sensory dimension that represents the lowest levels. In this regard, Jalal al-Din al-Rumi says, "Everything that is beautiful and elegant has been made for the sake of the right feeling that he perceives and tastes."

**The second level:** Meeting the psychological need, including increasing the beauty of assets by enriching them with colors. This is a panacea for boredom and the overall monotony emanating from the expanse of sand or rock everywhere in most Islamic geographical environments. There is a great need for color vision.

These two levels are felt and sensed by everyone and all the ordinary people

**The third level:** The moral view of art, which is aware of that feeling of inner pleasure by looking at art in a deeper way, and it sees art as an image of virtue. Seeing art as a picture of virtue, Judge Ahmad used to say (who is the Iranian author on calligraphers and painters) "The purity of writing stems from the purity of hearts." The Muslim ideal of the artist or maker has nothing at all to do with the bohemian artist we know from the Romantic era.

**The fourth level:** The in-depth metaphysical view, (especially among Sufis). This view goes far beyond the superficial appearances of things, and this is exemplified by Imam Al-Ghazali's saying, "Beauty is divided into the beauty of the outward form perceived with the eye of the head, and into the beauty of the inner form perceived with the eye of the heart and the light of insight. The first type Boys and animals perceive it, (this is how it was mentioned in the quoted text) and the second is perceived by the masters of hearts, and no one who does not know except outward from the life of this world, and every beauty is loved by the one who perceives beauty. If it is perceived by the heart, then it is loved by the heart. In this view, art turns into a key or entrance to the realization of higher truths. The outward image is only worked in order to comprehend the inner image, and the last image is formed in order to comprehend another internal image and according to the permeability of insight.

The third and fourth levels are perceived and felt by people of contemplative and religious natures and are not accessible to people with a normal outlook.

### **Beauty and Aesthetic Levels in Architecture**

If Islamic art and architecture has a special protective vision (and one of its implications is to stay away from making form and material the target, since their demise is inevitable and they are originally a means of the intention of the designer aiming to reach the imagined paradise), then it is necessary to try to identify the general aesthetic vision and aesthetic levels of other cultures. These contain inevitably, commonalities with the Islamic aesthetic. However, objectivity requires the establishment of commonalities, not differences.

This is logical in the Vitruvius trilogy, by which he defined architecture through utility, permanence, and beauty, and what Leon Batisa Alberti, the architect of the Italian Renaissance in the fifteenth century, wrote to define beauty. This is a topic with a degree and a relationship of accuracy so that there is no room for adding something else, changing it, or removing it, except if we want it to be bad.

Interpretation of the aesthetic judgment is one of the matters agreed upon, as it is generally either a subjective judgment based on the opinion of the recipient, or an objective judgment based on real components and relationships in the beautiful form.

Jon Lang divided the sources of beauty in architecture into three types (Al-Bazzaz, 2023). They are as follows.

**Sensory Aesthetics:** It is not permissible to confuse the aesthetic emotion with the feeling, for the feeling is related, for example, to hearing the spoken word in speech or seeing the color in the painting and so on, and it is the first common experience among all those who heard or saw, while the aesthetic emotion is related to associations, imagination and what it is generated within the soul and it will be different among the recipients.

**Formal Aesthetics:** interest in the objective aspect of beauty is illustrated by the interest in studying aesthetics (shapes / measures and proportions / rhythms / degree of complexity / colors / lighting and the effect of shadows / basic elements in artistic formation such as point, line, plane, size and the forms generated from them such as cube, pyramid and ball) and what they generate from Aesthetic pleasure in architecture.

**Symbolic Aesthetics:** Paying attention to the association of meanings with the different structural types in the urban environment, which give joy and beauty to people, and thus meet their need for identity and distinction after having originally contributed to finding it. Symbolic beauty is based on the science of semiology (the science of signs) and what the linguist Ferdinand de Saussure proposed that the linguistic signification is achieved by the presence of a signifier, a signified, and a reference, and the linguistic signification was later transferred to the signification in all fields that are based on the idea of communication.

The types of beauty in architecture are divided depending on the fact that the aesthetic sense, which means influence and access to the human interior, is made from emotions, reason, sense, feeling and understanding. According to Mohsen, (2004), then the types of beauty can be divided into the following.

- Emotional beauty: Things are beautiful because of their association with stories or memories.
- Sensational beauty: what is beautiful about it is that it directly affects one or more of the senses, and there is no explanation for it except that it is hidden in the innate formation of Man and in the system of his body composition.
- Intellectual beauty: Beauty addresses the mind and is divided into two types: First, Abstract beauty, which is far from practical purpose and is concerned with form, formations, and elemental relationships. Second: Functional beauty Understanding the functions of the thing and recognizing the appropriateness of the resulting shape and its suitability to perform the function.
- Spiritual beauty includes all aspects of Man and his inner being, absolutely and ideally.
- Compositive beauty (Vitruvius) identified basic criteria as requirements for beauty, namely: Order / Disposition / Eurythmy / Symmetry / Proportion ...
- Symbolic beauty, which is concerned with the meanings and mental images that the work evokes in the recipient.

## Islamic Mosque Architecture

### 1- Mosque concepts and determinants

Mosques are the interdependence centers of the Islamic society and its tangible material structure. The community is not complete without a mosque in which its members gather together. Mosques in Islam are a religious, educational, social and political necessity (Moonis, 1981; Supriyadi, 2023). The Noble Prophet's Mosque is the second after the Qibaa Mosque, and it is the highest in influence, prestige, and the starting point of Islamic architecture. It represents the prototype for all the mosques and subsequent mosques (Al-Qahtani, 2009; Dickie, 1978). Its design was characterized by extreme simplicity and was similar to the Arab houses surrounding it in that period (Kuran, 1968), which paved the way

for what is known as the style of Arab mosques with hypostyle / pillared chapels (Graber, 1985).

The naming of mosques, masjid, is derived from the Arabic word for prostration, from which the English word mosque was derived (Kuran, 1968). The place of prayer in Islam was called the mosque, in relation to prostration, which is the corner of prayer in which, according to Islamic belief, Man is the closest thing to God Almighty (Akasha, 1994). The mosque, mosques, and the Sacred Mosque have been mentioned in the Noble Qur'an 28 times. The Sacred Mosque has been mentioned by the word "bayt" 17 times. It has been referred to as the shrine of Abraham and the chapel once, and the mosque was referred to by the word "houses" once (Moonis, 1981)

A Muslim's religious obligations are fulfilled through three elements: belief or dogma, religious obligations or rituals, ethics.

There are four urban structures in which Muslims perform religious rites (Dickie, 1978). They are as follows.

- Al-masjid is used to perform the five daily prayers for small groups of worshipers.
- The Al-Jama Mosque is the mosque of the crowds of worshipers or the Friday Mosque. The weekly Friday prayers are held in it, and although the Noble Qur'an has emphasized the necessity of Friday prayers, the word mosque did not appear in it.
- Al-Musalla is the place for the prayer of the residents of the city or members of the community. It is usually located outside the city, and it is used for the prayers of the two Eids among Muslims.
- Al-Hajj which are the holy places in Mecca, Medina, and Jerusalem. Muslims from all over the world perform pilgrimages to them with certain controls (Dickie, 1978)

In most cases, small mosques are called masjid and large ones are called Jami. There are large Jawami (plural of Jami word) "big mosques" that remained called mosques by all Muslims because they were named as mosques in the Noble Qur'an, such as the Grand Mosque, the largest in the entire Islamic world in Makkah Al-Mukaromah, where the pilgrimage is held (the greatest pillar of Islam). There is the Prophet's Mosque and Al-Aqsa Mosque, the second kiblah and the third of the two holy mosques.

These three sacred mosques have a special place for Islam and Muslims, and the Prophet Muhammad, may God's prayers and peace be upon him, says: "Do not travel except to three mosques, this mosque of mine (meaning the Messenger of God, may God bless him and grant him peace, the Prophet's Mosque), the Grand Mosque and the Al-Aqsa Mosque." Al-Hadith Al-Aqsa Mosque was not built yet, but its place and position are basically sacred to Muslims, as there is the sacred rock from which the Prophet Muhammad, may God's prayers and peace be upon him, ascended to heaven in the Islamic faith, and on the other hand, Muslims used to take Al-Aqsa Mosque as a direction of prayer for nearly 16 months before the kiblah changed to the Holy Kaaba in Mecca.

## **2- The appearance of the great state mosque type as a state symbol**

The concept of type is linguistically called on a group of distinctive and common characteristics of a class of things, and it is said at the time, that these things are of one type. In the field of architecture, Christopher Alexander (1977) mentioned in his book "A Pattern Language" that understanding architecture requires visualizing it containing the least number of elements with the possibility of having the largest number of the relations between these elements. It is what he calls pattern language, and there are those which define it as a general perception of a basic form that includes a set of formal relations. This general perception can be embodied in a large number of diverse architectural examples depending on the architect's vision, but in the end, they are united by one formal laws.

The pattern / type carries renewable and flexible properties of concepts, and it has an apparent lack of commitment to a specific form, with its ability to give a renewed spirit to previous types. These new forms or bodies carry and express their outward image first, and

their hidden essential type second. The birth of the type depends on a series of reduction and abstraction processes for a number of apparent differences, leading to the (common root), which represents the vital part that helps in building the shape, and which contains unlimited possibilities for modifications and differences from the type itself (Hussein, 2019)

The Prophet's Mosque, as the prototype for all the subsequent mosques, was also a mosque for the emerging Muslim state in Medina, where the Prophet, may God's prayers and peace be upon him, was receiving revelation from heaven to complete and build the religion and organize the affairs of society and the state. When Damascus became the capital of the Islamic Umayyad state, the political power found itself in front of the architectural necessities imposed by the prestige of the Sultan. The buildings of the Dome of the Rock Mosque in Jerusalem and the Umayyad Mosque in Damascus were then erected (Bahnasi, 1979). A Sultan is building a distinguished mosque in the capital of his kingdom. (Akasha, 1994; Supriyadi, 2023)

In a quick survey of the most important historical mosques of the state, which were mentioned in the historical geographical glossary at the end of the book "Architecture of the Islamic World", we find the following mosques of the state: - (Michell, 1978)

The Grand Mosque and the Noble Prophet's Mosque in the Arabian Peninsula / The Great Mosque of Cordoba and the Great Mosque of Seville in Spain / The Mosque of Kairouan and the Mansour Mosque in Tlemcen in North Africa / The Mosque of Amr ibn al-Aas, the Mosque of Ahmad ibn Tulun, the Mosque of al-Zahir Baybars and the Mosque of Muhammad Ali in Egypt / The Great Mosque of Aleppo, the Umayyad Mosque and the Mosque The Dome of the Rock and the Al-Aqsa Mosque in the Levant / The Great Mosque in Bursa, the Shahzadeh Muhammad Mosque, the Sulaymaniyah Mosque, the Ahmadiyya Mosque and the Salmiya Mosque in Turkey / The Great Mosque in Samarra, Iraq / The Great Mosque in Isfahan, Iran

With a quick survey of the most important state mosques in contemporary Islamic countries, where almost no country is devoid of the presence of a state mosque or a state mosque in its capital. For example, we find them in:

The Grand State Mosque in Kuwait / Sultan Qaboos Mosque in the Sultanate of Oman / Sheikh Zayed Mosque in Abu Dhabi (designed with an international architectural competition) / Algeria's Greatest Mosque in Algeria / Hassan II Mosque in Casablanca / King Faisal Mosque in Islamabad (designed with a competition international architecture) / Istiqlal Mosque in Jakarta / Great Mosque in Lahore / Sarajevo Mosque in Bosnia.

### **Impact of the designer's thoughts and culture on the production**

Architecture is a comprehensive and multidimensional system, and it is that complex phenomenon that covers practically all the fields of human activities (Antoniades, 1990). Architecture is always affected and influenced by the ideas and things around it and it is more attached to people's lives than the rest of the arts. It is linked to all areas of human knowledge and practice, from philosophy to water pipes, from law to light, and from technology to furniture dimensions. (Hellman, 2001)

The creativity required in architecture in its true sense presents products that are characterized by originality, which is on the one hand an expression of the architect as a designer and a subject with a personality and creative thought and on the other hand, the designer's belonging to his community with his own cultural and social identity. In what he achieves on two levels: - The level of thought and the level of physical production that is perceived by direct human senses. (Al-Slik, 2005)

Creative thinking must include experience and thought in both its imaginary and realistic aspects together, with a high flexibility of interaction between them. This was confirmed by Antoniades in Architecture, where he talked about the mental stages in the creative process and stressed the need to understand the relationship between the concepts of unreal and real or the concepts of fantasy (wild imagination) and fantasy and imagination in order to understand the creative process more clearly.

Fantasia is the ability of a person to create wild images that are not easily verifiable, and which the person continues to produce in sleep or wakefulness, at work or at rest, in consciousness or subconsciousness. Without these extreme images in the imagination, the person will not reach anything special. Imagination is the mind's ability to see how those images resulting from the previous fantasy process are embodied in a real, tangible thing. It occurs through the creator's possession of the program that leads to the practical realization of these images, such as having the ability to guide a stranger to the path leading to a specific place that he knows well.

Fantasia is the creative vision that is liberated from all restrictions, and imagination is the realistic filter that gives the truth to that vision, which must pass through it to become a tangible reality. Whoever is limited to his wild fantasies without fulfilling their practical and realistic dimension has no real opportunity to see those fantasies as a creative result on the ground (Antoniades, 1990).

One of the most prominent features of the creative production is that it carries a positive qualitative value, and one of the characteristics of this qualitative value is that it does not result from what the designer says or from his judgment on his work or his own ideas, no matter how profound his propositions and ideas are. Rather, it is a value that the creative work acquires from the outside after it appears in reality obtaining the evaluative judgment which is also not devoid of multiple other forms (Al-Slik, 2005). The designer is subject to his own thought as an influencer in the design process and in the production as well, and he must also take a certain position on the thought of the society for which he works.

Revealing this topic is not easy, as the remarkable fact is that creative architects do not like much to talk about their creative processes and do not reveal the secret behind them. (Antoniades, 1990). If the ideas of an intangible nature in the expressions of the linguistic world (de Saussure) are representative of the signified or the meaning, then it is assumed that the architectural forms are the signifier (Al-Ani, 2023). Then the search for the nature of the general ideas generating the form or specific to the process of producing the form in the design Architects can be done by searching for the nature of forms. This dialectical relationship can be seen in the five theories that explain the sources of form in architecture.

An architectural form is shaped by its intended function

Architectural form is generated within the creative imagination

Architectural form is shaped by the prevailing Spirit of the age

Architectural form is determined by prevailing social and economic conditions

Architectural form derives from timeless principles of form (Gelernter, 1995)

There is an assertion that these theories appear mixed together and spoken in the same way if they belong to the same set of interrelated ideas. It is necessary to avoid dogmatism or unilateralism by focusing on one of these theories, or on one part of it without the other.

## Review of Literature

The levels of aesthetic representation will be searched for in some important previous studies, in two steps. First, there are perceptions and knowledge review and in the second there is analysis. The studies will be in three groups as follows:

### 1- General studies on Islamic architecture

According to **Al-Qahtani study 2009**: The beginning of Islamic architecture was represented by the construction of the Prophet's Mosque in Medina, and its controversy continued since that time between the stability of history (or Islamic ideas) and the diversity of geography (and time and Muslims themselves). Therefore, there is an inappropriateness of the methodology defined by the direct analytical descriptive frameworks in a study of the products of Islamic architecture. The scientific necessity calls for the search for a paradigm model that accommodates the original cultural and civilizational dimensions of Islamic thought, according to which a comprehensive methodology is developed that explains the



products of the past and paves the way for the production of Islamic architecture, present and future. (Al-Qahtani, 2009)

According to **Burckhardt Study 2009**: Islamic art is the result of mental meditation. The original and spiritual vision of the world and the reality that lies beyond this world, which can be sensed by going out from the world of matter and sensory testimony to the world of symbols and the intuitive unseen.

There is the principle of diversity in unity and unity in diversity, and in this unity, there is proof that the principle of divine monotheism and the spirit of Islam are the basis for Islamic art, regardless of the barriers and distances of space and time. On this basis, Burckhardt bases his perceptions of the sanctity and spirituality of Islamic art forms and landmarks, and links them to mystical and mystical interpretations with great exaggeration, relying on symbolic interpretation. And domes are a symbol of the dome of the sky. (Burckhardt, 2009)

According to **Hillenbrand Study 1994**: that was directly studied the main functional types of Islamic architecture vertically over time, with the aim of identifying the formal and stylistic changes in a single functional context.

The fact that Hillenbrand reached is that there is no clear stylistic change in Islamic monuments in the Middle Ages, as is the case in the artistic types in medieval Europe, although the geographical and ethnic range in Islamic architecture is greater. This confirms the unity in Islamic architecture stemming from the common denominator between all those different places and times, which is the Islamic religion. Among the aesthetic topics that Hillenbrand focused on are:

The subject of measures and proportions based on mathematical calculations and the human being here is the measure that has been observed in everything. And the subject of progression or hierarchy, there is a progression and escalation from the entrance of the building until reaching the space or the most important place in those buildings.

The subject of symbolism, which in Islamic architecture is restricted by the prohibition of the use of sculpture or photography. Nevertheless, there were other treatments that strengthened the symbolic aspect. In mosques, for example, the axis of the mihrab towards the kiblah was wider and higher, and the dome of the mosque may have been placed above it in reference to the sky or the ruler. The qibla wall is a gateway to Mecca and to heaven. And there is often the great symbolism of the presence of the lamp in the middle niche with the writing of Quranic verses from Surat Al-Nur. (Hillenbrand, 1994)

According to **Grube study 1978**: it is necessary to define the characteristics that distinguish Islamic architecture from other non-Islamic architectures in order to determine its specificity. Grube discusses this through three main characteristics that he believes in: - The first is the focus of Islamic architecture on the inside and the absence of a relationship between the inside and the outside, as Islamic buildings appear externally with relatively deaf walls, and thus they are hidden behind these walls, to be a hidden architecture.

The second is the multiplicity of functions in one form, and form in Islamic architecture is not related to function, and the function does not have a major role in formulating and defining the form, and it can be put in several forms or put different functions successively in one form. Accordingly, we find in Islamic architecture a few forms, which in general do not disclose their functions. The third is the interest in the internal space and the absence of a clear direction of the building from the outside. And writings, which have multiple functions, including concealing the tectonic structural elements, so that the building appears as if it is free from weight.

The spirit of Islam is manifested in Islamic architecture through its association with religious, cultural, and political phenomena and practices, with their direct, tangible dimensions, or with their intangible, metaphysical dimensions. Grube also stressed the importance of the Arab element as an individual, and the Arabic language or the language of the Noble Qur'an, stressing that writing in it is one of the most important features of Islamic art, which often merges with abstract decoration to give endless meanings and forms. (Grube, 1978)

According to **Papadopoulo study 1979**: There is a special and unique impact of the Islamic worldview on Islamic artistic creativity, which crystallized into a deep aesthetic concept that constitutes the unifying essence of Islamic artistic works and defines it as (the aesthetic ideal), and therefore there is no point in studying the elements The constituent and influential in shaping the works of Islamic art through its single vision, because it will fail to reach the meaning of the final artistic product.

Papadopoulo believes that the arts of writing, such as calligraphy and decoration, are the major arts in Islam, because Islam is a book religion, which is the Noble Qur'an, and from these arts emerged the Islamic aesthetic. The independent world, the autonomous world, transcends the depicted subject in its immediate and realistic state, which the representative world calls the represented world, to the absolute Islamic idea.

Papadopoulo believes that architecture, in the eyes of Muslims, is a very rough art that does not rise to the rank of art, except thanks to its engraved crust with the writing of Quranic verses, abstract motifs, and others. He stresses that the birth of Islamic art was the moment when photography and anthropomorphism were forbidden, with a great paradox. There were also special points of view on the symbolism of some elements of Islamic architecture, so the empty mihrab in the mosque is a reference to the place where the Messenger, may God's prayers and peace be upon him, stood, and the pulpit in the mosque is the throne of the Messenger, may God's prayers and peace be upon him, and other interpretations of it. (Papadopoulo, 1979)

## 2- Aesthetic studies in Islamic architecture

According to **Al-Lawati study 1994**: The sense of unity of Islamic art represents the first realization of the existence of an Islamic aesthetic that dominates the overall achievements of the Islamic mentality, and this is due to the centrality of the concept of the Creator and the idea of absolute monotheism that explains all spiritual, intellectual and material manifestations, and the distinction between religious and secular art is dropped in the life of a Muslim who Duality does not live between them. There is the great role of the Noble Qur'an and the Arabic language in highlighting this unity and its aesthetics, which Al-Lawati invites to study it realistically without entering into the ambiguity of Sufi interpretations and metaphysical analyzes of what is absolutely beautiful.

The Islamic aesthetic does not mean a description of antiquities and artistic and architectural works, or delving into the details and methods of their achievement, or mentioning their origins and development. All of this is related to the applied concept of aesthetics, and the search for the aesthetics of the Arabic inscription, in which opinions are unanimous that it is the most original Islamic creation, which is evident through its reference to three meanings: Distracting attention from the material as a fleeting display / blindness of sight in front of the perfection of God's creation / and the endless rhythm of dhikr (mentioning Allah; Al-Lawati, 1994)

According to **Okasha study 1994**: Islamic architecture has a clear overall identity, with the inevitable influences of the local environments in which it is located. The characteristics and aesthetics of Islamic architecture are on two levels: The first is the level of direct sensory tasting, and the second is the level of deep spiritual aesthetic tasting. Among the characteristics and aesthetics of Islamic architecture is that its formations are characterized by unity with diversity and magnitude while preserving the human scale, and there is a desire to fill the spaces with decorations and inscriptions, which alternate dynamically and in a way that suggests infinity.

The criterion adopted in this case is extreme care to avoid the repetition of these decorative formulas. There is an abstraction that transcends the formal appearance and penetrates to the spiritual essence in artistic and architectural works, opening the door to a multiplicity of interpretations. (Okasha, 1994)

According to **Al-Sayegh study 1988**: The different genres in Islamic art are only manifestations of one artistic vision that revolves around monotheism as the most prominent characteristic and the basis for the rest of the characteristics in Islamic art and architecture

such as abstraction, the absence of photography, functionalism, perfection, etc., and Islamic art overlooks time, history, and place and does not describe It does not narrate or express private topics and daily events, and it is very far from emotions, personal emotions and individual suffering, and all this is to reach the absolute and to establish Islamic art by itself around its central idea, where there is nothing but the testimony of the apparent present over the hidden absent and referring the visible to the invisible. (Al-Sayegh, 1988)

According to **Farzat Study 1982**: Beauty is a basic condition of life for a Muslim, because beauty in the Islamic mentality is one of the attributes of God Almighty, and it must be studied within the perspective of this mentality. There are continuous attempts in Islamic art and architecture to help the Muslim transcend the limits of the tangible, tangible, sensual, to the abstract, mental, by giving the architectural and artistic forms symbolic meanings associated with the higher spiritual cultural levels in order to elevate the soul higher.

There are two main pillars in Islamic art and architecture, according to Farzat, and they are: Abstraction governed by sublime mathematical laws, and symbols that are often more general and comprehensive and linked to cosmic symbols, in an attempt to represent and study the secret of the Noble Qur'an, its magic and miraculousness, and this issue does not negate the functional character in art and architecture Islam, which is one of its biggest characteristics (Farzat, 1982).

According to **Bahnasi study 1979**: Aesthetic goals in Islamic art and architecture are achieved through: First, the use of the Arabic language, Arabic calligraphy, and Arab inscriptions as much as possible in different places to fill the void in them, because there is a great fear of emptiness among the Arabs, according to Bahnasi's description, and secondly, liberation The apparent function and independence of the artwork itself away from reality, and thirdly, the replacement of the linear perspective in the artworks with what is known as the spiritual diagram, in order to depict things in terms of their existence by themselves and their relationship to the eternal divine existence,

Fourthly, modification, abstraction, and distancing from reality, and this was not due to the inability to simulate reality, but rather it is due to the feeling of the impermanence of this earthly existence in exchange for the existence of the eternal divine existence, and on the other hand, it indicates that God's creation is not compared to direct simulation, and fifthly, interest in the human scale and man here is not Only Euclidean dimensions, but it is a spirit, culture, history and society. (Bahnasi, 1979)

### 3- Studies on mosques and their aesthetics in Islamic architecture

According to **Al-Obeidi Study 2016**: There is continuity and dynamism in the type of Islamic mosques due to its connection with the continuity and dynamism of Islamic thought, and this is the most prominent aesthetic feature in mosque architecture. Mosques are sometimes a symbol of a specific event, such as the Dome of the Rock or Al-Aqsa Mosque, and sometimes they are a symbol related in some way to the decision makers. Contemporary design trends for mosques are later based on some of these indicators, which are four:

The doctrinal index was investigated in the direction of informal mosques, the environmental indicator was investigated in the direction of sustainable mosques, the technological indicator was investigated in the direction of movable, hybrid and unfamiliar mosques, and the aesthetic indicator was investigated in the direction of staged mosques (which is a contemporary trend that belongs to a larger trend that is the staged architecture platform, one of its ideas is keenness Consistency in appearance, compatibility in composition, and simplicity in treatments that enhance visual association with the spatial context and increase support for the drama and spirituality of the event and the sense of place). (Al-Obeidi, 2016)

According to **Al-Omari study 2000**: Aesthetic sources in Islamic art and architecture are three, namely: - (Nature, the universe and creation / the Islamic religion is a belief and legal rulings / models and landmarks of Islamic civilization) and in the forefront of these landmarks are the Holy Kaaba and the Noble Prophet's Mosque.

The other main aesthetics are the Noble Quran and the Arabic language, and there are a number of aesthetic characteristics of mosques, including. Direction towards the kiblah as a religious duty, as it works to link the building with the perceived physical level towards Makkah Al-Mukaromah, and is also linked to the metaphysical level that includes turning to God Almighty with submission, servitude and obedience. Perceptual and sensory (visual and dynamic) in mosques. (Al-Omari, 2000)

According to **Taher study 1994**: The centrality and orientation of mosques towards the kiblah is one of the most important common phenomena in the art of mosque architecture. Broadbent's proposals on the methods of creating the architectural form adopted a theoretical framework and background for the study and diagnosis of common phenomena, and they came as follows:

First, the practical design (or the literal design based on trial and error). One of the common phenomena is the reliance on brick in the Islamic East and stone in the Islamic Maghreb (because Islamic architecture is an environmental architecture). Secondly, the stereotyped design, and the Prophet's Mosque is the archetype for all subsequent mosques. Thirdly, the comparative design, in which there is an open possibility for all mosques to have a visual metaphor or analogy with others, after reshaping them according to the determinants of Islamic thought and identity, which bear the minimum level of the basic intellectual determinants on the architectural output.

Fourth, the engineering design, sometimes called the legal design, and here the ideal square or rectangular geometric plan is adopted in the construction of mosques and the associated rational mathematical systems. (Taher, 1994)

According to **Abraham study 1986**: Islamic art in its various manifestations is a sacred art that results from religious inspiration, and stems from a cosmic theory that transcends forms and images to confirm that existence and permanence are for God alone. And Islamic architecture is the product of three factors: The religious factor and the environmental factor (the natural, social and cultural environment) and the third is the human being translated and interacting with the previous factors, and the aesthetics of Islamic art and architecture begin and become clear with the comprehensive unity of the arts of Islam with that special touch of the spatial or environmental space present in it,

There is observance of Islamic rules, principles and aesthetic principles such as simplicity, equality, abstraction, respect for nature, the use of decorative art and Arabic calligraphy that includes the verses of the Noble Qur'an, which performs in the imagination of the Muslim man the function of continuous praise to Allah Almighty, which is with infinite repetition denying the existence of forms and works themselves in exchange for the survival of the idea of slavery permanent to Allah Almighty. The previous aesthetic concepts are realized in the mosques as they perform their function of performing the prayer and perform their role throughout the Islamic city. (Abraham, 1986)

According to **Moonis study 1981**: Mosques are among the most prominent features of Islamic urban environments and the Islamic aesthetic characteristics (tangible material / spiritual and perceptible) are concentrated in them. Mosques are described as guardians of the world of Islam and one of the elements of its identity.

The function of the mosque is not only for prayer, but rather for calmness, meditation, and tasting of beauty, and these are psychological educational needs for Islamic societies. Such as cleanliness, self-transcendence, sincerity, transcendence of sins, perseverance, and other virtues and moral traits, so that society progresses in the end and develops. It is a fact that the peoples interested in beauty are the great living peoples who made history. (Moonis, 1981)

#### 4. Analysis and discussion of previous studies

The levels of aesthetic representation mentioned in previous studies will be classified based on the classification of the scientist Richard Ettinghausen, which includes the existence of four graded levels of aesthetic representation in the Islamic mentality, and other levels will be added that are mentioned with greater concentration in previous studies and are not

included in the four main ones that will be adopted by the research, and Table-1 shows Discussion and conclusion of previous studies.

**Table 1:** Summary of these of previous studies

No	Levels of aesthetic representations	Studies of mosques and their aesthetics					Aesthetic studies in Islamic architecture					General studies on Islamic architecture					total
		Moonis 1981	Abraham 1986	Taher 1994	Al-Omari 2000	Al-Obeidi 2016	Bahnasi 1979	Farzat 1982	Al-Sayegh 1988	Okasha' 1994	Al-Lawati 1994	Papadopoulo 1976	Grube 1978	Hillenbrand 1994	Burckhardt 2009	Al-Qahtani 2009	
1	The level of simple formal taste perceived by the senses	*	*	*	*	*	*			*			*	*	*		10
2	The level of beauty meeting a psychological need				*		*		*			*		*			5
3	The level of beauty generating positive moral values	*															1
4	The deeper spiritual level perceived by the mind (metaphysical ideas)	*	*		*	*	*	*	*	*	*	*	*	*	*	*	13
5	Aesthetic level of functionality		*		*		*					*	*				5
6	The level of aesthetics of human action		*				*					*	*				4
7	The level of technical aesthetics and meeting contemporary requirements (sustainability)				*												1

### Research problem, its objectives, and its hypothesis

There is a sense of the emergence of the state mosque type in many Islamic countries, and there is a clear keenness on the part of these countries to find it in their capitals in the best way possible. Civilized, political, Islamic and patriotic, and depends on it a lot in affirming the identity of Islamic countries, The state mosques, like other mosques, is also a statement of tolerance and deep human love for the other.

The mosques of the modern state are mostly beacons of technical progress, where the use of the latest technologies and modern construction materials is taken into account and the use of building methods with the highest technology available, and most of them are in continuous keeping up with emerging requirements in buildings such as sustainability and others. There is often non-support Limited to these projects by governments and great enthusiasm by communities to set up and create. Within this approach there is a design competition for the Great Mosque of the State in Baghdad (held in 1983), it is a very important qualitative competition, and important architects participated in it, and they are the seven participants in the last round of the competition, as stated in the introduction in this research.

There is a particularity in the aesthetic vision in Islamic art and architecture, which requires tasting and evaluating the Islamic artistic and architectural production through it. This point raises the question about the possibility of producing Islamic architecture by designers from other cultural backgrounds than Islamic and vice versa. The current research is based on the hypothesis of the scientist Richard Ettinghausen, which includes the existence of

four main levels of aesthetic representation in the Islamic taste, due to its reliance on the Islamic intellectual background, its comprehensiveness, and its objective progression.

Returning to the summary table of previous studies (Table-1), it was revealed that the knowledge available for the aesthetic representations levels in Mosques was insufficient and unclear. Based on all of the foregoing, the problem of the current research was identified by the insufficiency and clarity of knowledge about the variation in the levels and nature of aesthetic representation approved by the various designers of the competition projects of the Great State Mosque in Baghdad, and this knowledge problem, according to the current research perception, could be a contemporary model in the higher cognitive levels. From the limits of the competition and in the form that could represent an addition to knowledge. The aim of the research was determined by trying to find and clarify knowledge on this issue, and the research hypothesis suggested the existence of such a discrepancy, and that the increase in the approach of the designer's thought and culture to the Islamic aesthetic vision enables him more and more steadily to evoke the potentials and stimuli of the aesthetic feeling in the architectural production at its various levels, up to the most profound and the highest spiritual levels.

### **Research Methodology**

To achieve the objective of the research, the following research method is followed.

First, it addresses the theoretical background of the topic represented by beauty and the levels of aesthetic representation in Islamic architecture on the one hand, and the characteristics and determinants of mosques, and focusing on the appearance of the type of the Great Mosque of the State on the other hand.

Secondly, a review of some previous studies and an indication of the insufficient knowledge related to the subject of the current research, in order for the research problem to be identified.

Thirdly, it addresses the theoretical framework for the subject of aesthetic levels in architecture in general, designing the research and conducting the case study which adopts a descriptive analytical approach and analyzes texts to reach the findings.

The texts were selected in the following basis. these texts were written by the designers participating in the state Mosque competition in Baghdad, and they themselves were describe and explain their proposed projects, there are an explanation by them of the intellectual and aesthetic contents and architectural solutions in their design proposals, this is reinforced by the complete plans and drawings of the proposed projects. All of this was officially confirmed in the competition blog which was later published. (Blog, 1983; Khan, 1984). These texts written by the architects themselves, carries a high degree of credibility without any possibility of inaccurate interpretation resulting from a misreading by other critics.

They are as follows. a sample of it is shown in (Table 2).

### **1- Research design and preparation of case study requirements**

The following methodological steps are followed for preparing the case study requirements:

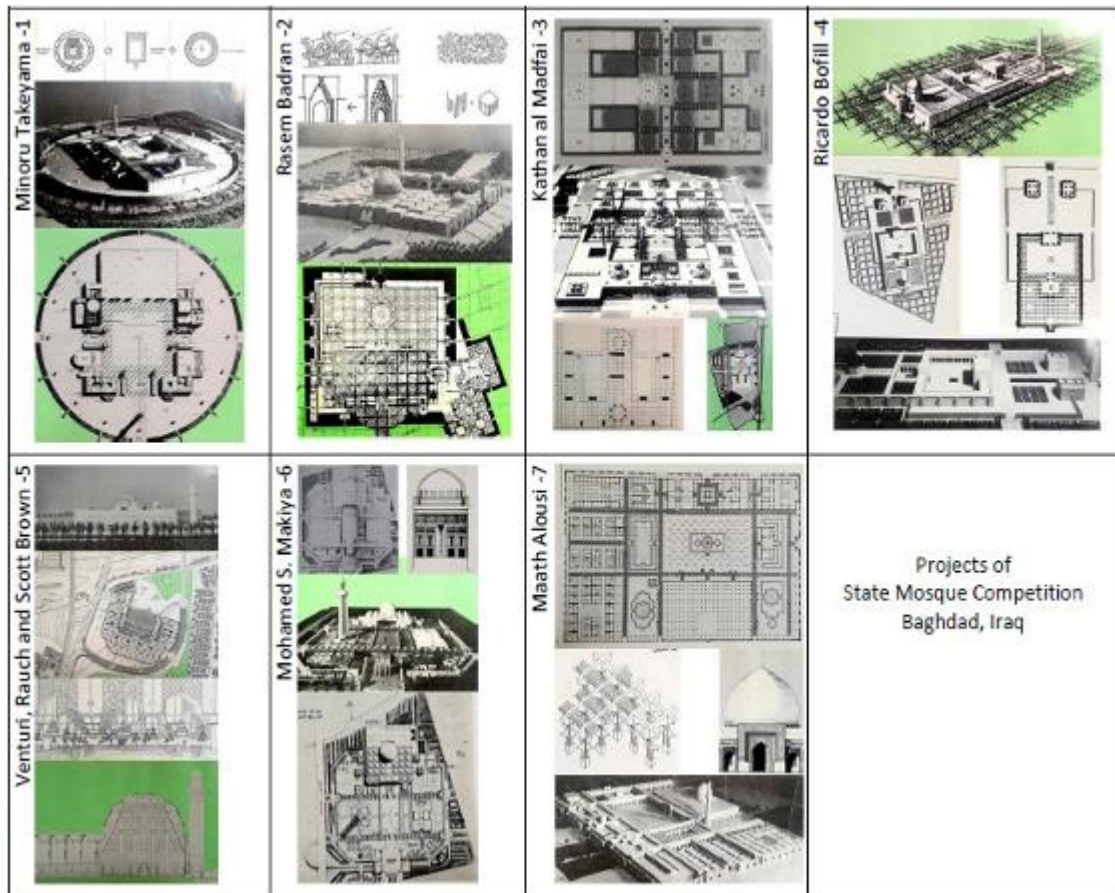
Preparing the resources (mainly competition blog) for the projects participating in the competition of the State Mosque in Baghdad, which includes plans, shapes, pictures, theses and explanations of the designers for the seven projects participating in the final stage of the competition (Fig. 1)

Extracting indicators related to the problem, objective and research hypothesis from the previous theoretical framework, and it will have three main categories:

\* The first category / graded levels of aesthetic representation as mentioned by Richard Ettinghausen, which are four: The level of simple formal taste perceived by the senses, the level of beauty meeting a psychological need for the recipient, the level of beauty generating

positive moral values for the recipient as well, and the deeper spiritual level perceived by the mind where metaphysical ideas.

- The second category / external aesthetic characteristics perceived by the senses, which are four: aesthetic characteristics in the sources of form, aesthetic characteristics in design elements, aesthetic characteristics in details and treatments, and other external aesthetic characteristics.
- The third category / the deep, hidden aesthetic properties perceived by the mind and the light of insight, which are four: The aesthetic properties in the functional type, the aesthetic properties in the spatial organization, the aesthetic properties in the relationship between the elements, and the other deep aesthetic properties.



**Fig. 1:** The seven projects participating in the design competition for the State Mosque in Baghdad, in the official order of the competition

Source: Blog, 1983

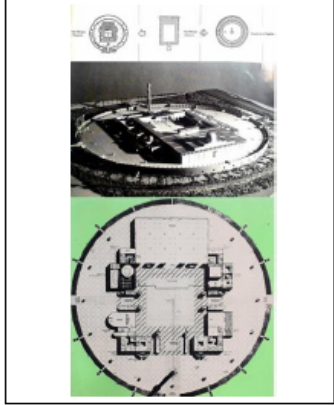
The above form of indicators and research vocabulary are prepared for the purpose of activating its vocabulary or not by the designers of the seven projects participating in the competition, through analyzing the proposals and explanations of the designers (Table-2) shows a sample of the first project.

Briefly, the comparative analysis process (simple) will have four gradual steps. In the first, the analysis is individual for each designer and for the categories of the three research indicators mentioned above. the second step, the analysis is based on collecting the results of the second indicator category with the third indicator category. the third step the analysis is based on dividing the designers into two groups (a group of local designers and a group of foreign designers) and they will be compared and the similarity or difference is indicated, and this is the subject of the main hypothesis in the current research. the fourth step the analysis is

based on the correlation coefficient, between the designer and all other designers. The following is a re-explanation of these points in greater detail.

The current research proposes a method for comparative analysis between designers, depending on the percentage of the number with which the research indicator is repeated in the proposals and explanations of the designer for his work (text analysis methodology) relative to the total number of the four indicators in that category, meaning relying on the designer as a point of reference for himself, The number by which the indicator is activated is affected by the verbosity or brevity that characterizes the designer's method of subtraction or explanation, and therefore those numbers will not be of objective significance compared to the numbers of other designers.

**Table 2:** Theoretical framework indicators form + a sample of verification form for the first project. (text analysis methodology for designers' explanation)

Project No. :- 1		Architect :- Minoru Takeyama				Nationality :- Japanese							
no.	Architect descriptions 	Aesthetics Attendance Levels				Aesthetic characteristics in project							
						Superficiality & apparent (perceptual aware)				Deep & hidden (mentality aware)			
		1- aesthetic appeal of forms	2- fulfill a psychological needs	3- generate positive moral values	4- metaphysical ideas & intangible thoughts	1- in shape resources	2- in the main design elements	3- in details & treatments	4- elsewhere	1- in functional type	2- in spatial organization	3- in relationships between elements	4- elsewhere
1	Our basic approach towards this historic event is the creation of a religious and national entity of the highest expression and newest dimensions that will serve as a continuing link between the great past and contemporary Iraq	*	*	*	*	*	*	*	-	*	*	*	-
2	The incorporation of metaphysical properties in space-time orientation as related to human creativity to reaffirm his existence in this universe	-	*	*	*	-	-	-	-	*	*	*	-
3	The creation of a microcosm of the universe is one of the essential needs for man to confirm his existence	-	*	-	*	*	-	-	-	*	*	*	-
4	In the holy space created by the Mosque we have to establish the clearest keys beyond the physical restrictions to get out of Chaos into Cosmos	-	-	-	*	*	-	-	-	-	*	*	-
5	Islam design is determined to a large extent by the geometric patterning whose meaning it is to provide an ordered understanding of the relationship between man and his environment	*	*	-	*	*	*	-	-	*	*	*	-
6	cleans the inner consciousness from a self- center to cosmic-centered attitude as one enters the Mosque	-	*	*	*	-	-	-	*	-	-	-	*
<b>Total</b>		<b>2</b>	<b>5</b>	<b>3</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>1</b>
<b>Total of axis component</b>		<b>16</b>				<b>8</b>				<b>15</b>			
<b>Percentage of axis components</b>		<b>12.5 %</b>	<b>31.25 %</b>	<b>18.75 %</b>	<b>37.5 %</b>	<b>34.78 %</b>				<b>65.21 %</b>			
						<b>50.0 %</b>	<b>25.0 %</b>	<b>12.5 %</b>	<b>12.5 %</b>	<b>26.66 %</b>	<b>33.33 %</b>	<b>33.33 %</b>	<b>6.66 %</b>



The essential goal is clear, which is the questioning process about the weight that the designer himself gives to the indicators in each of the categories, which is achieved by extracting the percentage of that weight so that it can be compared with the percentage of weight that the other designer gives to the same indicator, even if the first designer was brief in his description and proposition and the designer. The second is to elaborate on it. Therefore, the analysis and comparison will depend on the percentage figures and for all cases

In the second step, the percentages of the indicators of the second category that include the apparent aesthetic characteristics will be collected, along with the percentages of the indicators of the third category that includes the deep aesthetic characteristics, and consider them as one whole and extract the percentage for each category as a whole, to reveal the percentage of the designer's use in his work of the tangible, apparent aesthetic characteristics, and the percentage Its use of deep hidden aesthetic properties.

In the third analytical step (which will provide an answer to the main research question), the designers participating in the competition will be divided, based on their identities and cultural backgrounds, into two groups:

The first is for local designers, which are intended to belong mainly to the Islamic culture, and it will include: Kathan Al-Madfai / Rasem Badran / Mohamed S. Makiya / Maath Al-Alousi.

The second is for foreign designers, who are mainly from non-Islamic cultures and will include: Minoru Takeyama / Ricardo Bofill / Venturi, Rauch and Scott Brown

In the fourth analytical step, the focus will be on the correlation coefficient between each designer with the rest of the participating designers and with the two groups of local designers and foreign designers, where the group will prepare a moral figure representing the arithmetic averages of the members of that group of designers. This step of the analysis seeks to reveal foci of aesthetic stylistic convergence between different designers, or stylistic opposition and contrast between designers who thought they had something in common.

## 2- Case study

The research indicators forms (Table-2) will be completed for the seven projects participating in the competition, and all the numbers of the frequency of activation of the framework indicators will be converted into percentages so that they can be compared and the arithmetic averages of the seven projects extracted separately for the levels of aesthetic representation and for the apparent or deep aesthetic characteristics (reviewed in the research attachments) and by following All the methodological and practical steps that were raised in the previous topic, we reach:

- (Table-3), in which there is a compilation of a summary of the questionnaires for the research indicators for all the seven projects and designers combined together, so that they can be compared with each other.

- (Table-3) will be divided into two tables (Table-4) for the local designers' group, and (Table-5) for the foreign designers' group, and previous analyzes and comparisons will be made to show the specificity of each group of designers or not, the sum of the arithmetic averages for each group You will form a persona representing the group for the purpose of comparing it with the rest in the next step.

-Testing the research hypothesis and trying to achieve the aim of the research and reach the rest of its results.

- (Table-6), in which there is a preliminary compilation of the numerical series that represent the percentages of the list of indicators (12 regular indicators in 3 categories, and in each category four indicators with two additional numbers representing the final arithmetic average for the second category, the apparent characteristics, and the third category, the deep characteristics)

- (Table-7) Using the correlation coefficient function, the correlation coefficient is calculated for each designer with the rest of the designers. It is known that the result of the correlation coefficient if it is (between zero to positive one) means that the correlation is direct and its value increases by increasing the number from zero to positive one, and if it is

(between zero and negative one) it means that the correlation is inverse and its opposite value increases by decreasing the number towards the negative from Zero to negative one, and if the result of the correlation coefficient is (equal to zero), this means that there is no correlation and the two series of numbers do not affect one another, either positively or negatively.

**Table 3:** Results of indicator values and percentages for the seven projects participating in the Great State Mosque competition (source: researchers)

No.	Architect / Project	Aesthetics Attendance Levels				Aesthetic characteristics in project																Total Aesthetic characteristics in project							
						Superficiality & apparent (perceptual aware)								Deep & hidden (mentality aware)								Total of Superficiality & apparent		Total of Deep & hidden					
		1-aesthetic appeal of forms	2- fulfill a psychological needs	3-generate positive moral values	4-metaphysical ideas & intangible thoughts	1-in shape resources	2-in the main design elements	3-in details & treatments	4-elsewhere	1-in functional type	2-in spatial organization	3-in relationships between elements	4-elsewhere	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%				
1	Minoru Takeyama	2	12.5	5	31.25	3	18.75	6	37.5	4	50	2	25	1	12.5	1	12.5	4	26.6667	5	33.3333	5	33.3333	1	6.6667	8	34.78261	15	65.21739
2	Rasem Badran	18	40.909	10	22.727	0	0	16	36.363636	17	37.778	13	28.88889	13	28.8889	2	4.4444	15	39.4737	7	18.4211	9	23.68421	7	18.421	45	54.21687	38	45.78313
3	Kathran al Medfai	5	29.412	3	17.647	0	0	9	52.941176	5	31.25	4	25	3	18.75	4	25	4	30.7692	1	7.69231	3	23.07692	5	38.462	16	55.17241	13	44.82759
4	Ricardo Bofill	2	22.222	3	33.333	0	0	4	44.444444	3	75	0	0	0	0	1	25	3	75	0	0	0	0	1	25	4	50	4	50
5	Venturo Rauch	11	44	7	28	0	0	7	28	6	25	7	29.16667	9	37.5	2	8.3333	5	23.8095	5	23.8095	7	33.3333	4	19.048	24	53.3333	21	46.6667
6	Mohamed S. Makiya	4	28.571	3	21.429	0	0	7	50	0	0	2	20	3	30	5	50	1	8.33333	2	16.6667	3	25	6	50	10	45.4545	12	54.5454
7	Wazih Alousi	6	22.222	9	33.333	1	3.7037	11	40.740741	3	15.789	0	0	5	26.3158	11	57.895	2	11.1111	0	0	5	27.7778	11	61.111	19	51.35135	18	48.64865
Total / Average or Mean		48	31.579	40	26.316	4	2.6316	60	39.473684	38	30.159	28	22.2222	34	26.9841	26	20.635	34	28.0992	20	16.5289	32	26.44628	35	28.926	126	51.01215	121	48.98785

**Table 4:** Results of indicator values and percentages for local designers participating in the Great State Mosque competition (source: researchers)

No.	Architect / Project	Aesthetics Attendance Levels				Aesthetic characteristics in project																Total Aesthetic characteristics in project							
						Superficiality & apparent (perceptual aware)								Deep & hidden (mentality aware)								Total of Superficiality & apparent		Total of Deep & hidden					
		1-aesthetic appeal of forms	2- fulfill a psychological needs	3-generate positive moral values	4-metaphysical ideas & intangible thoughts	1-in shape resources	2-in the main design elements	3-in details & treatments	4-elsewhere	1-in functional type	2-in spatial organization	3-in relationships between elements	4-elsewhere	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%
1	Rasem Badran	18	40.909	10	22.727	0	0	16	36.363636	17	37.778	13	28.88889	13	28.8889	2	4.4444	15	39.4737	7	18.4211	9	23.68421	7	18.421	45	54.21687	38	45.78313
2	Kathran al Medfai	5	29.412	3	17.647	0	0	9	52.941176	5	31.25	4	25	3	18.75	4	25	4	30.7692	1	7.69231	3	23.07692	5	38.462	16	55.17241	13	44.82759
3	Mohamed S. Makiya	4	28.571	3	21.429	0	0	7	50	0	0	2	20	3	30	5	50	1	8.33333	2	16.6667	3	25	6	50	10	45.4545	12	54.5454
4	Wazih Alousi	6	22.222	9	33.333	1	3.7037	11	40.740741	3	15.789	0	0	5	26.3158	11	57.895	2	11.1111	0	0	5	27.7778	11	61.111	19	51.35135	18	48.64865
Total / Average or Mean		33	32.353	25	24.51	1	0.9804	43	42.156863	25	27.778	19	21.1111	24	26.6667	22	24.444	22	27.1605	10	12.3457	20	24.69136	29	35.802	90	52.63158	81	47.36842

**Table 5:** Results of indicator values and percentages for foreign designers participating in the Great State Mosque competition (source: researchers)

No.	Architect / Project	Aesthetics Attendance Levels								Aesthetic characteristics in project												Total Aesthetic characteristics in project							
		1-aesthetic appeal of forms		2- fulfill psychological needs		3-generate positive moral values		4-metaphysical ideas & intangible thoughts		Superficiality & apparent (perceptual aware)				Deep & hidden (mentality aware)				Total of Superficiality & apparent		Total of Deep & hidden									
		no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%	no.	%
1	Minoru Takeyama	2	12.5	5	31.25	3	18.75	6	37.5	4	50	2	25	1	12.5	1	12.5	4	26.6667	5	33.3333	5	33.3333	1	6.6667	8	34.78261	15	65.21739
2	Ricardo Bofill	2	22.222	3	33.333	0	0	4	44.4444	3	75	0	0	0	0	1	25	3	75	0	0	0	0	1	25	4	50	4	50
3	Venturi Rauch	11	44	7	28	0	0	7	28	6	25	7	29.16667	9	37.5	2	8.3333	5	23.8095	5	23.8095	7	33.3333	4	19.048	24	53.3333	21	46.66667
Total / Average or Mean		15	30	15	30	3	6	17	34	13	36.111	9	25	10	27.7778	4	11.111	12	30	10	25	12	30	6	15	36	47.96842	40	52.63158

**Table 6:** Indicators for all local and foreign designers - introductory table for calculating the correlation source: researchers

No.	Architect / Project	Aesthetics Attendance Levels				Aesthetic characteristics in project							
		1- aesthetic appeal of forms	2- fulfill a psychological needs	3- generate positive moral values	4- metaphysical ideas & intangible thoughts	1- in shape resources	2- in the main design elements	3- in details & treatments	4- elsewhere	1- in functional type	2- in spatial organization	3- in relationships between elements	4- elsewhere
		%	%	%	%	%	%	%	%	%	%	%	%
1	Minoru Takeyama	12.5	31.25	18.75	37.5	50	25	12.5	12.5	26.6667	33.3333	33.3333	6.6667
2	Rasem Badran	40.909	22.727	0	36.3636	37.778	28.88889	28.8889	4.4444	39.4737	18.4211	23.68421	18.421
3	Kathan al Madfai	29.412	17.647	0	52.9411	31.25	25	18.75	25	30.7692	7.69231	23.07692	38.462
4	Ricardo Bofill	22.222	33.333	0	44.4444	75	0	0	25	75	0	25	25
5	Venturi, Rauch	44	28	0	28	25	29.16667	37.5	8.3333	23.8095	23.8095	33.3333	19.048
6	Mohamed S. Makiya	28.571	21.429	0	50	0	20	30	50	8.33333	16.6667	25	50
7	Maath Alousi	22.222	33.333	3.7037	40.7407	15.789	0	26.3158	57.895	11.1111	0	27.77778	61.111
8	Average of Local Architects	32.353	24.51	0.9804	42.1568	27.778	21.1111	26.6667	24.444	27.1605	12.3457	24.69136	35.802
9	Average of Foreign Architects	30	30	6	34	36.111	25	27.7778	11.111	30	25	30	15

**Table 7:** Correlation coefficient between series of percentages of indicators between each designer and all other designers (source: researchers)

No.	Architect / Project	Minoru Takeyama	Rasem Badran	Kathan al Madfai	Ricardo Bofill	Venturi, Rauch	Mohamed S. Makiya	Maath Alousi	Average of Local Architects	Average of Foreign Architects
1	Minoru Takeyama									
2	Rasem Badran	0.3710042								
3	Kathan al Madfai	0.1246691	0.598362516							
4	Ricardo Bofill	0.435751	0.528440991	0.552835						
5	Venturi, Rauch	0.1153151	0.795731331	0.338729	0.000215089					
6	Mohamed S. Makiya	-0.45582	-0.080409247	0.575929	-0.145645836	0.1117247				
7	Maath Alousi	-0.381484	-0.171334277	0.533443	0.143004391	-0.0846976	0.8356811			
8	Average of Local Architects	0.0152213	0.646054849	0.937929	0.472258208	0.5400158	0.6413023	0.6180532		
9	Average of Foreign Architects	0.6435253	0.890894202	0.457988	0.447669215	0.792157	-0.1320382	-0.1868207	0.540156	

## Findings and conclusions

The findings of the case study are shown in tables 3, 4, 5, 6 and 7 and the main results are discussed consecutively. It then follows the associated conclusions, to avoid repetition and confusion (Tables 3)

1. In the category of the levels of aesthetic representation, What the research found in general is the absence of a real effect for the third aesthetic level (beauty generating positive moral values). (Table 3) The levels of aesthetic representation among local architects (Table 4) were graded as follows, from the most used to the least used level of spiritual aesthetics 42.15% Then the level of tangible aesthetics 32.35%. The level of beauty fulfilling a psychological need was 24.51%, and the value of the level of beauty generating positive moral values was very low, 0.98%, and was negligible.

While the levels of aesthetic representation among foreign architects were graded as follows, from the most used to the least: - The level of spiritual aesthetics is 34%, then with one equal value, the level of tangible aesthetics is 30%, the level of beauty meeting a psychological need is 30%, and the value of the level of beauty generating positive moral values was very little, 6% And does not depend on it.

The possible explanation for this case in its generality is that architecture is ethically characterized by abstract neutrality, and its main role is to create the appropriate, beautiful, positive environment in which people are respected, meaning that architecture function is not to be indicative and preaching directly, and it deals with higher and more abstract human levels.

The second issue is the absence of a real or effective discrepancy between local and foreign architects in their aesthetic choices, and this can be explained by communication, participation and dissolving the differences between cultures in the field of abstract, non-diagnostic architecture that deals with colleges and architecture by its nature is positive and human and works to bring points of view closer. It is a real field for human participation and dialogue.

2. In the category of the external, sensory, aesthetic characteristics, These characteristics were achieved by the local architects in the following progression from the most used to the least: - Sources of form 27.77%, then details, processors 26.6%, then other sensory aesthetics 22.24%, then the main design elements 21.11%, and in very close proportions among themselves, and the explanation for this may be that the local architects, by virtue of their knowledge Which they own, aesthetically use the entire space and all the options available to them in their projects.

The external, tactile aesthetic characteristics were achieved by the foreign architects, (Table 5) with a slight relative difference from the local architects, with the following progression from the most used to the least. Sources of form 36.11%, then details and treatments 27.77%, then design elements 25%, then other physical aesthetics 11.11%, with close and relatively high proportions for the first three while the latter had a small percentage.

Perhaps this detailed point is explained by the commitment of foreign architects to the official language of Islamic architecture that they know by reading and studying, and not to delve into other details that are absent from them, and to clarify that when a person learns a foreign language, he learns the official language first, away from what may be in it of local dialects.

3. In the category of deep mental aesthetic characteristics,

These characteristics were achieved by the local architects (Table 4) with the following progression from the most used to the least: The other deep aesthetics 35.8%, then the functional type 27.16%, then the relationship between the elements 24.69%, then the spatial organization 12.34%, with close and relatively high proportions for the first three, in addition to the relatively few fourth. The deep aesthetic characteristics of the foreign

architects (Table 5) were achieved, with a clear difference from the local architects, with the following progression from the most used to the least:

With one equal value, the functional type 30%, the relationship between the elements 30%, then the spatial organization 25%, then the other deep aesthetics 15%, with close and relatively high proportions for the first three and other than the relatively few fourth.

The possible explanation for the first case is that the knowledge possessed by local architects enables them to use many other detailed options, and the relatively little value of space organization for them may be explained by the nature of the project's function (mosque) in which a space organization is binding on the designer, which is inevitably achieved by using the functional type of the mosque. And it seems that the mosques and other places of worship in it correspond between the functional type and the spatial organization. The possible explanation for the second case is that the foreign architects cared a lot about achieving the essential relationships required in the mosques so that they would not stray from the official language that they know from viewing and studying the mosques, because they did not deal with it in a local dialect resulting from direct contact and coexistence with it.

4. In dealing with and combining both the second and third categories (the category of the sensory-apparent aesthetic characteristics and the category of the deep-mental aesthetic properties, respectively), there is a very large convergence in the use of local architects (table – 4) both of the sensory-apparent aesthetic characteristics 52.63% and the deep mental aesthetic properties 47.36% with little relative progress for the physical, sensory, aesthetic properties over the deep mental properties. There is a very large convergence in the use of foreign architects (table – 5) both of the deep mental aesthetic characteristics 52.63% and the sensory external aesthetic characteristics 47.36%, with a completely opposite difference from the local architects. There is also a relatively small progression of the deep mental aesthetic properties over the sensory outward aesthetic properties.

The possible explanation for this is that the local architects are more realistic and integrated with the actual public life, so they turned first to the physical, sensual, aesthetic characteristics, unlike the foreign architects, who first turned to the deep, metaphysical, mental aesthetic characteristics, as they were more formal and dealt with the design problem in the competition as they read about it in the literature which seems to have talked a lot about the importance of the spirit world for Muslims and their great belief in the unseen.

5. In (Table 7) related to the correlation coefficient between each architect and the rest of the architects, this is done by finding the value of the correlation coefficient between the value chains of indicators for each architect, consisting of 12 values (there are three categories and in each category four indicators)

The value of the direct correlation coefficient was graded as follows, from the highest and most correlated to the lowest.

1- Mohamed S. Makiya and Maath Alousi +0.83/ 2- Venturi and Rasem Badran +0.79/ 3- Rasem Badran and kathan Al-Madfai +0.59/ 4- kathan Al-Madfai and Mohamed S. Makiya +0.57/ 5- kathan Al-Madfai and Ricardo Bofill +0.55/ 6- kathan Al-Madfai and Maath Alousi +0.53 / 7- Rasem Badran and Ricardo Bofill +0.52 / 8- Minoru Takeyama and Ricardo Bofill +0.43 / 9- Minoru Takeyama and Rasem Badran +0.37 / 10- kathan Al Madfai and Venturi +0.33

In general, it can be concluded that the types of local architects are more connected and closer than those of foreign architects, who seem to be relatively dispersed. The possible explanation for this is that the local architects are from relatively close places and have great cultural and stylistic commonalities. And reviving it with modern formulas, while foreign architects are far apart and they are from different countries and cultures (Japan / Spain / America), and the other important note is the uniqueness of Robert Venturi from foreign architects and his presence within what can be described as the general direct correlation with local architects, and the interpretation of this may be related With Venturi's realistic orientations, which make him close to the local popular circles that he works for, and even make him immersed in them.

Cases of lack of coherence between architects were diagnosed as follows:

1- Ricardo Bofill and Venturi +0.00021 / 2- Rasem Badran and Mohamed S. Makiya -0.08 / 3- Venturi and Maath Alousi -0.084

The value of the inverse correlation coefficient was graded as follows, from the most inversely correlated to the least:

1- Mohamed S. Makiya and Minoru Takeyama -0.455 / 2- Maath Alousi and Minoru Takeyama -0.381

This can be explained by the great stylistic difference between Mohamed S. Makiya and Maath Alousi (who are stylistically more closely related to each other) on the one hand, and Minoru Takeyama on the other hand. It is well known that Mohamed S. Makiya and Maath Alousi pay great attention to details in their works.

6. In (Table 7) the correlation coefficient of the local moral personality that represents the average values of the indicators for local architects with the rest of the architects, as follows, from the most directly related to the least:

1- kathan Al-Madfai +0.93 / 2- Rasem Badran +0.646 / 3- Mohamed S. Makiya +0.641 / 4- Maath Alousi +0.61 / 5- Venturi +0.54 / 6- Ricardo Bofill +0.47 / 7- Minoru Takeyama +0.015 (little value and not there is correlation)

The correlation coefficient of the foreign moral personality, which represents the rates of indicator values for foreign architects, is graded with the rest of the architects, as follows from the most directly related to the lowest:

1- Rasem Badran +0.89 / 2- Venturi +0.79 / 3- Minoru Takeyama +0.64 / 4- kathan Al-Madfai +0.45 / 5- Ricardo Bofill +0.44 / 6- Mohamed S. Makiya -0.132 / 7- Maath Alousi -0.186.

In general, the numbers that the research reached are relatively close, and the reason for this may be the relative convergence between the capabilities and capabilities of the designers, as they were chosen to participate in the competition from among a large number of architects. The other possible reason is the large number of seminars and dialogue sessions on the sidelines of the competition between the designers and the beneficiary, which mobilized large numbers of thinkers, artists and specialists to participate in these discussions, which apparently worked to dissolve the differences between the designers, and this case is not considered positive in terms of creativity. The instructions and directives of any competition should not be many and should not reach the point of discussing the details because it will not contribute to the creative diversity of the works participating in any competition.

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### References

- Akasha, T. (1994) *Aesthetic Values in Islamic Architecture*, Dar Al Shorouk: Beirut. PP. 25,106
- Al-Ani, A. S. A. & Al-Slik, G. (2023) Relations Between Intangible Heritage and Place: Insights from the Celebration of Zakariyya, in Iraq. *Journal of the International Society for the Study of Vernacular Settlements*, ISVS e-journal 10(5), p.137. Available at: <http://www.isvshome.com/e-journal.html>
- Antoniades, A. C. (1990) *Poetics of Architecture*, New York: Van Nostrand Rienhold Company Inc. pp.9-15
- Bahnasi, A. (1979) *The Aesthetics of Arab Art*. World of Knowledge book series 14, National Council for Culture, Arts and Letters, Kuwait p.127
- Al-Bazzaz, I. A., Jasim F. A. & Hameed, A. M. (2023) Reconstruction of the Destroyed Leaning Minaret of Al-Hadba Utilizing Aesthetic Characteristics. *International Review*

- of Civil Engineering*, (I.R.E.C.E.) 14(2), p. 124. Available at:  
<https://doi.org/10.15866/irece.v14i2.22481>
- Blog, (1983) The Blog of the Great State Mosque Competition. The Capital Secretariat for Baghdad, Baghdad - Iraq.
- Burckhardt, T. (2009) *Art of Islam – language and meaning*, World Wisddom, Inc. Indiana, p.125
- Dickie, J. (1978) Allah and Eternity: Mosques, Madrasas and Tombs. in *Architecture of the Islamic world*, Thames and Hudson Ltd. London, pp. 15-35
- Ettinghausen, R. (1985) *Decorative Arts and Painting - Its Character and Scope*, in the book *The Heritage of Islam, 2*, The World of Knowledge Books Series 8, 2, The National Council for Culture, Arts and Letters, Kuwait, pp.321-337
- Farzat, S. (1982) *An Introduction to Aesthetics in Islamic Architecture*, in *Arabic Arts Magazine*, Issue 5, Dar Wasit for Publishing and Distribution, United Kingdom.
- Gelernter, M. (1995) *Sources of Architecture Form: a critical history of western design theory*, University Press, Manchester, pp.3-18
- Grabar, O. (1985) *Art and Architecture*, in the book *Heritage of Islam, The World of Knowledge Books Series 8, 2*, The National Council for Culture, Arts and Letters, Kuwait, pp. 290-314
- Grube, E. J. (1978) *What is Islamic Architecture?* in *Architecture of the Islamic world*, Thames and Hudson Ltd. London, pp. 10-14
- Hellman, L. (2001) *Architecture A-Z: a rough guide*”, Wiley – Academy, London, UK, pp.1-7
- Hillenbrand, R. (1994) *Islamic Architecture – Form, Function and Meaning*, Columbia University Press, New York.
- Hussein, F. A. & Al-Slik, G. M. (2019) *Using the Historic Style in Designing Contemporary Iraqi Architecture*, *Journal of the Union of Arab Universities for Engineering Studies and Research*, College of Engineering - University of Baghdad, 26 (4), Baghdad, pp.159- 172
- Ibrahim, M. A. (1986) *The Mosque*, *Journal of the Faculty of Architectural Engineering*, Beirut Arab University, Issue 2, Beirut. pp.10-27.
- Khan, H. U. (Editor) (1984) *Regenerative Approaches to Mosque Design: Competition for State Mosque, Baghdad*, *MIMAR Architecture in Development*, NO. 11, the Aga Khan Award for Architecture, Singapore, pp.44-63, Available at:  
<https://www.archnet.org/collections/56> .
- Kuran, A. (1968) *The Mosque in early Ottoman Architecture*, University Chicago Press, Chicago and London, p.24.
- Al-Lawati, A. (1994) *Towards a Theory of Islamic Aestheticism*, Arab Islamic Art, Organization for Education, Culture and Science - Department of Culture, Tunis.
- Al-Maliki, F. T. (1996) *Proportionality and proportional systems in Arab-Islamic architecture - an analytical study of Abbasid architecture in Iraq in the middle of the eighth century AD to the middle of the thirteenth century*, Unpublished Ph.D. thesis, Architectural Department, College of Engineering, University of Baghdad, pp.52-53.
- Michell, G. (1978) *Architecture of the Islamic World*, Thames and Hudson Ltd. London, pp.209-280.
- Mohsen, A. H. (2004) *The Aesthetic Dimension in Architecture*, *Al-Omran magazine*, 3, Faculty of Engineering - The Islamic University, Gaza, pp. 20-22.
- Moonis, H. (1981) *The Mosques*, World of Knowledge book series 37, National Council for Culture, Arts and Letters, Kuwait, P.13- 34.
- Al-Obeidi, Z. H. R. (2016) *Dynamism of Style in Contemporary Mosque Architecture*, Unpublished Ph. D. thesis, Department of Architecture - College of Engineering - University of Baghdad, Baghdad.
- Al-Omari, H. R. (2000) *The Impact of the Islamic Religion on the Formation of Patterns of Urban Buildings - An Analytical Study of the Pattern of Mosques from the Second to*

- the Seventh Century Hijri, Unpublished Ph.D. thesis, Department of Architecture - College of Engineering - University of Baghdad, Baghdad.
- Papadopoulo, A. (1979) *Islam and Muslim Art*, Harry N. Abrams, Incorporated New York.
- Al-Qahtani, H. M. (2009) *The Principles of Islamic Architecture and Its Contemporary Transformations - An Analytical Reading in Form*, 1, Center for Arab Unity Studies, Beirut, pp. 34-
- Saliba, J. (1982) *The philosophical Lexicon*, Dar Al- Kitab, Beirut, p. 408
- Al-Slik, G. M. (2005) *The Nature of the Relationship between Identity and Creativity in Architecture - An Analytical Look in Light of the Demand to Achieve Identity in Contemporary Iraqi Architecture*, *Engineering Journal*, College of Engineering - University of Baghdad, 11(1), Baghdad, pp.11-12
- Al-Sayegh, S. (1988) *Islamic Art - A Contemplative Reading in Its Philosophy and Aesthetic Characteristics*, 1, Dar Al-Ma'rifah, Beirut.
- Supriyadi, S., Widiyastuti, E., Prameswari, N. S. & Swasty, W. (2023) *Pragmatic-Semantic Analysis of the Demak Great Mosque and Acculturation of the Surrounding Communities*. *Journal of the International Society for the Study of Vernacular Settlements ISVS e-journal*, 10 (5), pp. 262- 263, Available at: <http://www.isvshome.com/e-journal.html>
- Taher, A. N. (1994) *Common Phenomena in the Art of Mosque Architecture - An Inductive and Comparative Study of the Axis in Religious Buildings*, Unpublished Master's Thesis, Department of Architecture - College of Engineering - University of Baghdad, Baghdad.