

A Look at the History of Calligraphy in Decoration of Mosques in Iran: 630-1630 AD

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Abstract—Architecture in Iran has a continuous history from at least 5000 BC to the present, and numerous Iranian pre-Islamic elements have contributed significantly to the formation of Islamic art. At first, decoration was limited to small objects and containers and then progressed in the art of plaster and brickwork. They later applied in architecture as well. The art of gypsum and brickwork, which was prevalent in the form of motifs (animals and plants) in pre-Islam, was used in the aftermath of Islam with the art of calligraphy in decorations. The splendor and beauty of Iranian architecture, especially during the Islamic era, are related to decoration and design. After the invasion of Iran by the Arabs and the introduction of Islam to Iran, the arrival of the Iranian classical architecture significantly changed, and we saw the Arabic calligraphy decoration of the mosques in Iran. The principles of aesthetics in the art of calligraphy in Iran are based precisely on the principles of the beauty of ancient Iranian and Islamic art. On the other hand, after Islam, calligraphy was one of the most important sources of Islamic art in Islam and one of the important features of Islamic culture. First, the calligraphy had no cultural meaning and was only for decoration and beautification, it had the same meaning only in the inscriptions; however, over time, it became meaningful. This article provides a summary of the history of calligraphy in the mosques (from the entrance to Islam until the Safavid period), which cannot ignore the role of the calligraphy in their decorative ideas; and also, the important role that decorative elements play in creating a public space in terms of social and aesthetic performance. This study was conducted using library studies and field studies. The purpose of this study is to show the characteristics of architecture and art of decorations in Iran, especially in the mosque's architecture, which reaches the pinnacle of progress. We will see that religious beliefs and artistic practices are merging and trying to bring a single concept.

Keywords—Islamic art, Islamic architecture, decorations in Iranian mosques, calligraphy.

I. INTRODUCTION

ART'S life is as old as history and the architecture is the oldest art in Iran. Advancement of the art in ancient times is good evidence that this land was the first focus on engineering and planning. Numerous monuments and different villages are all examples of art in every part of this country. We find among the written works of archaeologists and Eastern anthropologists that art and architecture have been rooted in this land for some 5000 years. A glimpse of ancient Iranian architecture reveals this feature that Iranian architecture has been based on three primary principles such

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as strength, comfort and expansion. Throughout history, Iranian architecture had its own originality and simplicity. All parts of Iran, especially villages and ancient monuments are like a live but old book of art and architecture, history, which in a brief moment, each page of that opens the gates of several thousand years of history to the visitors [7].

Repeat motifs, symbolic role and decorations are one of the main subjects in Iranian art. In Iranian architecture, the symbolic elements generally embossed with carving and painting integrated with elements of construction and environmental, which makes it a new and inseparable combination. Also, natural elements such as plant, animal, nature and human beings have been beautifully shaped and displayed [2]. These two outstanding qualities of pre-Islamic Iranian architecture became an excellent platform for the development of abstract shapes of art and architecture in the Islamic period and maybe because of these historical and cultural opportunities, Iranian architecture became one of the most sophisticated and most complete manifestations of abstract art. Iranian artists and architects in the Islamic period with learning the abstract spirit of Islam, which originates from rejection of any analogy between God and humans, and fight for worshiping objects and idols and with using aspects of abstract art and culture of ancient Iran, managed to create unique geometric and abstract shapes in art and architecture [4].

In Islamic art, 'the avoidance of vanity' is one of the main principles which mean art negative and vain issues will be avoided. On the other hand, Islamic art what is required will be presented beautifully. In other words, in Islamic art both practical and decorative aspects of works of art will be considered. Therefore, for practical aspect, the work of art should not be meaningless and also answers well to the human's sense for beauty. In fact, a mosque is a collection of various arts that creates a sacred place. It should be a place to establish the relationship between God and the people. A place which has both glory and adornment to make it a sacred place; therefore, human only think about God rather than anything else. Since a mosque is the base of the Muslim community, particular attention has been paid to its decoration [3]. So it can be said that the mosque has been the first place of artistic expression of Islamic arts. Reviewing the architecture of the mosques without their adornments and decoration is not complete at all [3]. The purpose of such decorations is to express intangible realities. Geometric motifs and inscriptions are unique Islamic architecture. In fact, it has been replaced by icons, sculptures and paintings in the church. In all the lands that Islam was formed, Islamic architecture has been created.

Under the influence of this idea, Iranian architect has tried to create new works of the inscription of the names of God and the Quran on baked bricks and also glazed tiles. These kinds of decorations improve the quality of the spiritual sense of the place [7].

This article examines the various mosques and the impact and the importance of art in decorating with mosques.

II. RESEARCH METHOD

This article has been developed in descriptive, analysis method. The data on the analysis of the mosque architecture of historical periods have been collected based on documents from libraries and also observation and photography. Therefore, this article will review the mosques in separate historical periods, the architectural features and decorative art (especially Islamic Calligraphy arts) from the beginning of Islam until the present.

III. THE HISTORY OF CALLIGRAPHY IN DECORATIVE ART IN IRAN

So far, many stories and legends have been narrated about innovation or the start of calligraphy as stated in the source or innovation of languages. A version is available that the first calligraphy innovator was Phoenician princess and founder of Thebes, Cadmus, who introduced alphabets and then brought it to Greece. According to a Chinese version, the inventor was a four-eyed dragon goddess. There is another Chinese legend that alphabets have been introduced to human beings in the shape of lines and signs on tortoise shell [5].

According to an Irish legend, Odin was the inventor of 'Encrypted line' or 'Runic'. However, in the legends of Babylonian and Egyptian 'Nabu god' and 'South god' gifted the calligraphic skills to human beings. And finally, according to one of the scholars of the Talmud called 'Rabbi Akiva', alphabet existed before human beings' creation. And last but not least, Islamic tradition believes that the alphabet was given by God to man [1].

Since the invention of writing, it has become customary to leave memories or expressions and writing on buildings as a decoration for posterity [6]. In pre-Islamic Iran, different writings were common, such as Cuneiform, Avestan and Pahlavi. During the reign of Parthian and Sassanian, Iranian artists used Fine Art Plasterwork to decorate the Royal Palace. Examples of these Fine Art Plasterworks have been found in the ruins of Ctesiphon and transferred to Berlin museum. Some have been discovered in Assyrian ruins of the Parthians era, and also some of these arts which have been discovered from a Sasanian palace in Damghan are in the Ancient Iranian museum [2]. These Fine Art Plasterwork show that Iranian artists in the Parthian and Sassanian eras have enjoyed creating geometric and artificial works of art, which is called 'abstract' by modern artists. If we see after the fall of the Sassanid, calligraphic ornamentation took geometric design's place, it is not because Islam ordered something about that, it is only because regardless of political and religious changes, decorative art has been developed. As a result, after being

familiar with the Arabic script, artists decided to use Calligraphic ornamentation in their decoration or perhaps they were fed up with geometric patterns and abstract. They needed a new subject and maybe they found it in Arabic script. Calligraphy had always appeared in conjunction with geometric patterns and proportions. Calligraphy inscriptions are actually specified elements of monuments of the Islamic era [1].

During the reign of Parthian and Sasanian, decoration of the walls and doors was carved on the plasters. In the Islamic period, also Quranic verses and the mosques' founders' names were carved on plasters; therefore there was no change in style. Instead, it was just a matter of decoration. This is completely obvious from comparing Nain's scripture with Ctesiphon Palace decoration or Mashth. This style of calligraphy perfectly fits with cutting bricks and naturally they were like horizontal or vertical lines and there was no curved line. Such Calligraphy arts were found in the 3rd century in Neyshaboor, painted on some plates, which are kept in the Ancient Iranian museum. [7].

One of the characteristics of Islamic calligraphy is all its methods of different times were not old, and with a new calligraphy pattern other methods were never forgotten. Most types of calligraphy used in inscriptions and mosques include Kofi, Naskh, Nastaliq. Calligraphy like other Islamic decorations has a close connection with geometry and mathematics. Calligraphic inscriptions are the most important elements in the Islamic monuments. The first calligrapher called Khald Ibn Abu Sayyaj Bamer Valid Ibn Abdulmalak wrote the Zahi Surah from the first to the end of golden letters on the south wall of Al-Nabi's mosque. Later inscriptions could be seen in different parts of the mosques like dome, mihrab and patronage [19].

After Islam, our ancestors received the alphabets of Islam. The usual script of before Islam for almost two centuries was Kufic and Old Manuscript which was derived from two Coptic and Seraph scripts. At the beginning of the 4th century, the 310th Hejri-Qamari Ebn e Moghle Bizavi Shirazi created a new script which became known as Osool script follows as Mohaghegh-Reyhan-Sols-Naskh-Regha and Toghi. The difference between them is the difference in the form of letters and words. He set rules for these scripts and wrote 12 principles.

IV. THE EVOLUTION AND DEVELOPMENT OF CALLIGRAPHY IN MOSQUES OF IRAN

In the first centuries of Islam's entry to Iran, some mosques were built which some of them still exist. Central mosque in Fahraj-Yazd and also Tari-Kahneh in Damghan is from this category. The only remaining mosque from the first century AD in Iran is Fahraj central mosque. As we can see from historical sources, this mosque was built after the conquest of Yazd by Islamic troops. But there is no inscription confirming this claim. This mosque's map and the placement of the altar on the transverse axis and its decoration indicated that the building was built at the beginning of Islam [6].

The first Islamic century historical buildings have lots of

aspects of the Sassanian style of architecture. Fahraj central mosque is the oldest remaining mosque in Iran, which was built in Saeed ebn Osman reign about 45 Hejri-Qamari. This building is completely built in the Sassanian style and the main plan is very simple. In fact, it is an imitation of the design and pattern of the Prophet Mosque. Bricks of the size of $32 \times 32 \times 5$ as in the Sassanian era, the Fine Art Plasterwork, and arch decoration all confirm this fact. The interesting features of this mosque are gates 'figures with Sassanian design on the walls. Perhaps the architect wanted to leave behind luxurious gate figures when they were not customary. It is assumed that Golin minaret was added later in 4th or 5th century and also the main entrance of the mosque, which was facing north, had been moved to next to the minaret. In general, the architecture of the mosque was completely Sassanid. All decorations are pre-Islamic and there is no sign of calligraphy [4].

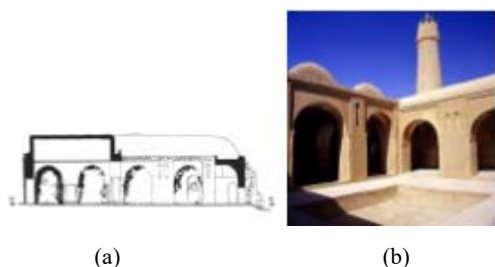


Fig. 1 (a) Facade of the mosque of Fahraj, (b) Fahraj mosque [18]

Tari-Khaneh in Damghan is one of the oldest and the most ancient mosques which are rich in Iranian Islamic architecture and there are beautiful paintings and inscriptions in Kufic script to be seen. Tari-Khaneh mosque was built during the Abbasid period in the 2nd century AD and it is one of the oldest mosques. According to some, this mosque was used as a Fire Temple in the old days, which changed into Muslim mosques after Islam. Therefore, Tari-Khaneh with the meaning of the house of God was replaced with Nari-Khaneh (House of Fire). This mosque is more important in terms of its minarets architecture which are built circularly on the ground and they are decorated with plots of bricks and Kufic scripts (there is an inscription in the Kufic script that can only be read at a height of 10 meters (Alamir Alseyyed Alajal) and its designer was Abu Harb Bakhtiar mamdooh Manoochehri [8].

The mosque minaret belongs to the Seljuk period. It is important not only because of its original style, but also it has the style of the Sassanian period buildings. The square shape of the bricks of this mosque shaped horizontally and vertically followed by the Parthian and Sassanid period style. The first signs of Islam at this time can be seen in the decoration of the holy places from outside, but the religious concept cannot be found from this design [18].



Fig. 2 (a) Tari-Khaneh mosque minaret, (b) Minaret brick of all kinds of anchors and the Kufic script of Tari-Khaneh in Damghan of the Seljuk period [18]

V. BUYID PERIOD

Buyid period (the interval between the 9th - 10th/3rd and 4th centuries) has played a significant role in the formation of Islamic art and indeed it was a cultural, artistic and scientific Renaissance in the history of Iranian Islamic art. The artwork of this period is generally unknown due to the lack of adequate research and sometimes attributed to other periods. One of the most important features of the art of the Buyid period is the existence of the concepts of religious elements and it is possible to preserve this period as a work of religious and Shia art. Buyid period has been considered as a transfer or of art in ancient Iran to Islamic art. The principles of aesthetics that exist on the art of Buyid period, it is precisely based on the principles of aesthetics of ancient Iran and Islamic art. In the studies, though, there are a handful of things, but comparing them with Sassanian period proves that the art form of this period was Sassanian and its meaning was Shia. The main decoration of the building during this period are Fine Art Plasterwork which has varied colors and the designs will remind us of the ancient Iranian tradition in the Sassanian period. But in this period, we are witnessing significant differences in the type of interior and exterior decorations and this difference is due to the conversion of the Iranians to the Shia religion (religion at the time of the Safavid is officially declared Shia) [9]. The teachings of this religion have been manifested in the religious of Iranians. Including the writing of the names of the "Chahardah Masoom" and the Shia proves that Iranians accepted this religion and tried to introduce this religion more and more. NeiRiz central mosque is one of the oldest mosques in Iran, which is believed was a Zoroastrian Fire House and later turned into a mosque. The remains of its Eyvan are built in the style of the Sassanian architecture.



Fig. 3 (a) NeiRiz Mosque, (b) The altar of the Grand Mosque of NeiRiz and its round inscriptions to the Kufic script [18]

All inscriptions have been placed on the bottom of the porch, inside and next to the altar. The oldest history, as it was said, is 363 Hejri Ghamari. In addition, there are other dates in it which shows the repair, reconstruction of new buildings in different periods. The history of the altar 363 Hejri Ghamari, 460 Hejri Ghamari and 560 Hejri Ghamari has been damaged and it is not readable as it was near the earth. This mosque has been repaired to various historical periods, including 460 and 560 Hejri Ghamari and during the Safavid period [10].

Inscription in Tholth calligraphy mounted on the altar, in which the names of the 12 Imams are beautifully decorated, written in 946 Hejri Ghamari which is during the Safavid era of Shah Tahmasb (930-984) Hejri Ghamari. At the head of the mosque's door are three inscriptions. The first inscription on the repair of this mosque was by a person called Mirza Nezam during the Shah Suleiman (I) Safavid era. Another inscription in 1259 Hejri Ghamari was written during the reign of Zen al-Abedin Khan Neirizi and is related to court taxation and the third inscription in 1300 Hejri Ghamari refer to the repair of the mosque during the Nasser period. Another inscription is also located on the north side of the mosque.



Fig. 4 The entrance to the Grand mosque of NeiRiz with three inscriptions to the Kufic script



Fig. 5 Part of the altar of the Great mosque of NeiRiz, decorated with Quranic verses in the Kufic script



Fig. 6 Part of the altar of the Grand mosque of NeiRiz (Outer Section)



Fig. 7 Part of the altar of NeiRiz's Great mosque (internal part)

At this time, we are faced with the concept of calligraphy in the mosques. The flourishing of calligraphy begins in this era. Any artists are working in this field. It is obvious that calligraphy is not only for reading, the designer makes the sense of the presence of the calligraphy more important to the audience. Calligraphy has blessed everywhere like mosque, school, palace, house, tomb or water storage.

The other important goals of the inscriptions are the creation of spiritual atmosphere by using Quranic verses as the same thing that Martin Lings has interpreted the Quranic perspective. According to him, it should not be forgotten that one of the important goals of the Quran's calligraphy is to create a sacred aura. On the other hand, the inscriptions contain important historical information. Inscriptions are considered to be the only documentary evidence for a single building. And they are always preferred to historical quotes [20]. Many of the changes in the community can be found in the inscriptions. Most inscriptions are taken from the Quran and from the point of view of the Muslims, The Quran is the source of all the beauty, the bliss and the word of God. Therefore, the reflection of the Word of God and its permanent representation is very important. Another mosque in this period is Naian mosque. This mosque is one of the oldest mosques in Iran and the exact time of its construction is not clear. Some have attributed it to the time of Omar Ibn Abdul Aziz's caliphate. Professor Pope attributes the building of the mosque to 350 Hejri Ghamari and Andrade Goddard, the Frenchman, to the rule of the Deylamians [9]. Nain mosque is simple but very beautiful. The shape of the mosque is square which has a small central courtyard. In the courtyard of the porch and shabestan there are short columns and crescent arches. The altar of this mosque is one of the most beautiful examples of the altar of Iranian mosques which is located on the southern side and decorated beautifully with Fine Art Plasterwork. Beside the altar, wooden marquetry menbar is engraved which is dated back to 711 Hejri Ghamari. It has a height of five meters and it has the verses of the Quran, the name of the artist and date of construction in Tholth calligraphy. Under the courtyard of the mosque, there is a shabestan with short ceilings which used mostly in the summer. The light of this part comes from the marble stonework in the courtyard which reflects sunlight throughout the basement. The main materials of this mosque are bricks and plaster. Each column and Mehrab are adorned with a

unique and intricate pattern of brickwork. A 28 m tall octagonal minaret of this mosque is different from Seljuk period minarets. One of the characteristic of this mosque is its small pillars which are attached to the building which has a great deal of value of art. It also has very beautiful calligraphy and geometry plasterwork (hash to char length) in the shabestan. In this period, the beautiful and principally designed Jame mosques in Isfahan were formed [18]. The altar is a special place in mosques. The figure of the altar with its arch is the symbol of the dome of the sky and its semi-circular surface looks like the world's cave. Whoever fills this space between the heights and the earth deserves the leadership of the people.

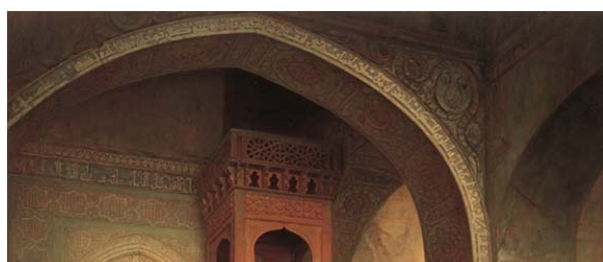


Fig. 8 The art of gypsum from knot geometric designs and line inscriptions from the art of Buyid period



Fig. 9 A Part of the Jourjir mosque in Isfahan is decorated with the name of Allah to the Kufic script

Whoever fills this space between the heights and the earth deserves the leadership of the people whose voice reflects on the altar and everyone could hear him. The altar is the architectural center of the entire mosque building and an independent artistic unit. Technically and in theory, the altar represents the heart of the mosque. The most important part in the architecture of the mosques is the altar. This term means the place of war and jihad from the viewpoint of Ragheb Esfahani in Al-Mofradat Since the altar is the battlefield with the devil and ego, being called the altar, but the altar is not only a place of jihad in the soul, but also is a shelter and a guardhouse for souls. It is about creating a balance between prayer and heart, for this reason it has the most decorations. Somehow, writing Quranic verses in the altar means enriching this place and the preacher. It is like there is no choice but to obey. As we go forward, this decoration and spiritual atmosphere will increase.

VI. SELJUK PERIOD

The growth of the calligraphy of the Iranian Kufic line proceeds vigorously, which during the Seljuk period reaches a certain point. The script that they wrote in Iran in the 1st century AD was Arabic, which was common to two ways and square Kufic was one of them. In the same era, we can see Tazhib (gilding) between alphabets and lines. Gilding was to draw beautiful patterns of plants or geometrical shapes in the margins of books. From the viewpoint of ornamentation, the Seljuk period is the period of ornamentation with materials, though we get color in the final samples. But the main parts of the design in this period are shadow and bright decorations. The vast majority of decorations on buildings in this era are serious, heavy and colorless. And the orientation of the decorations is from simple to complex. In the inscriptions that we have in this era, architects and calligraphers have used only one script and this is the Kufic [12].

In the Seljuk era, the art of architecture also reached to its perfection. Artists and architects created many works. During this period, from the combination of the four porches of the courtyard and the dome square, the great mosque of Iran was created, so that the central courtyard and four porches became the main part of religious architect. The buildings had brick walls and had various designs with bricks. The art of brick carving became common in Iran from 5th century Hejri and continued till the end of 6th century Hejri. The Seljuks tried for a dome with two shells. The reason for that was the internal and external space. The internal dome was a hemisphere and the outer dome was in the form of an oval, with fairly pointed tip. The best example of this dome is the dome of the central mosque of Isfahan [10].

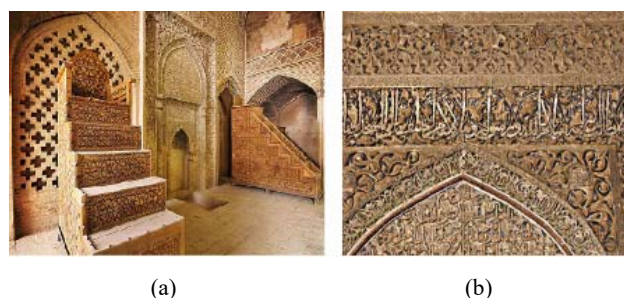


Fig. 10 (a) The Al-Jayto altar with a stunning layout of Kufic script, (b) Types of calligraphy in the Al-Jayto altar

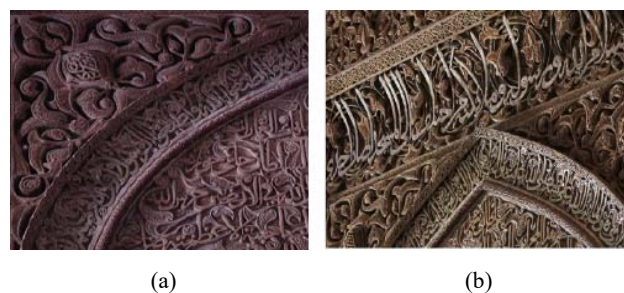


Fig. 11 (a) The part of the Al-Jayto altar and embellished with the Kufic script and Slim Design, (b) Religious Signs and symbols at Al-Jayto altar



Fig. 12 (a) The part of the Al-Jayto altar with types of Kufic script, (b) Types of Kufic script: Slim Design, Moalaghi and Tholth script

Al-Jayto's altar is one of the most important historical parts of this building which is located in the northwest corner of the western frontier known as the Shabestan Al-Jayto. According to the plasterwork inscription, was built in 710 Hejri-Ghamari in Al-Jayto's period and his minister Mohammad Savi and Azd Ibn Ali Masteri and the plasterer left his signature with the words of Amal Heidar. The shabestan itself is related to the period of Mozaffari. This altar is one of the masterpieces of the art of plastering and it has been decorated with beautiful inscriptions, various plant designs and the head of the pillars. The content of the damaged inscriptions is as follows: [This mihrab is one of the additions of buildings that have been agreed upon in the days of the changing of the Sultan, the protector of the religion of Islam and the faith of the religion, the shadow of God in the two lands.]

From the remains of the anger of the Mughal devastation, we can recall the style of the style of the dome of Khaje Nizam al-Mulk's Toosi in the central mosque of Isfahan. Extremely eye-catching structures, spectacular arching, cornering called Potkin and Potkaneh with the brick layering art style for the dome's foot, convert the background from four to eight and 16 and 32, 60 and four sides to the bottom of the circle to cover the dome are all part of this beautiful mosque's architecture [21]. We can mention the cover of the dome with decorative motifs and arched triangles which were created with the taste and creativity of this dome. Such a dome is seen in the least of Islamic art in the world.

Apart from this dome of the Isfahan Central mosque, the Taj-al-Malak's dome is in the same position as Khwaj Nizam al-Mulk's, but the bigger, with the inscription of the beautiful and the bold reciprocating Kufic script with great principles includes verses 54 from the Surah Mobarakeh Ayaph. The author's name has been mentioned as Abolghasem marzban Ibn khosro Firooz Shirazi known as Tajolmalak in 481 Hejri Ghamari. At the same time, it is possible to refer to the beautiful inscription with plasterwork art in Kufi Sharghi and Mazhar in both central mosque in Ardestan and Barsian. It is possible to refer to the art of stucco moulding with the various geometric features of this period. We can also refer to the geometric features and bricks' Moalaghi script in Masjid Ali at the bottom of Manjariéh mosque with magnificent motifs on bricks on checked background at the start of the stem of the minaret. It is also the most beautiful form of the Kufic script in the porch of Gonabad mosque in rounded and prominent

shape. In the meantime, during the Seljuk period, large clay tiles were created known as Soltan Sanjar and used in Imama Reza's mosques' altars. So far, the example of such artworks has not been seen in any of the mosques in the Muslim world, the magnificent art of tiling, which adorned the museums of the world.

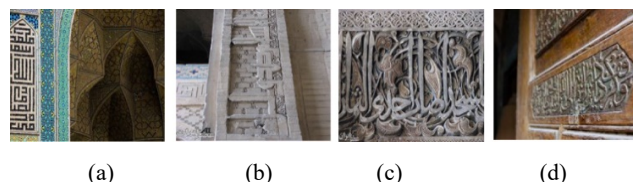


Fig. 13 Types of calligraphy (a) bannaee script, (b) Decorative script, (c) Tholth script, (d) Tholth script

VII. KHARAZMSHAHI PERIOD

In the Kharazmshahi period, the mosques, most of which were two porches, were built in Khorasan (Great Khorasan). In these mosques, the art of brickwork reached the desired level of perfection and new art was created from the creation of designs and brick carving of types of geometric nodes and Kufic script. Among them, we can mention the art of the beautiful brick work in Gonabad mosque in Khorasan Razavi. In this art period, Minakari with various materials such as brick, plaster and tile was created. They were beautiful pieces of art with combining geometric designs of prefabricated pieces [8].

VIII. ILKHANI PERIOD

The connection between the two Ilkhani and Seljuk styles is so close that in some cases ideas about the Seljuk or Ilkhanism of the style of a building is different, but in general, Ilkhani's architecture has its own special character and in many respects it was different from Seljuk's works. Development, alteration and privileges of Ilkhani architecture in comparison with Seljuk is: The porch of the Seljuk period is spacious and big, but in the period of Ilkhani there is a small difference, the porches became narrower and higher. The pillars of the corner are more and closely aligned and have narrower lines. Also thick walls of Seljuk period were replaced by walls that have a gap or window. The importance of vorticism and elegance is obvious in selected shapes. In comparison with Seljuk architecture, rooms were taller with their horizontal dimensions. In Ilkhani period, the details of the common building with Seljuk period became even more delicate. This elegance was the origin of new architecture style called Romanesque, the style of the Gottig. In the Ilkhani period, closed and heavy walls were replaced by more interior lights. In Ilkhani style, architecture's space looks brighter and more open and this completely opposite to the Seljuk dark style [17]. Ilkhani minarets are often thicker and shorter than Seljuk minarets. In calligraphy, the Mongol invasion initially caused an interruption in the process of growth. But after the Ilkhani rulers became Muslims and the art of bookkeeping has become very popular, calligraphy received a new life. In this

period, Islamic calligraphy, the first completely Iranian script was used which is known as Ta'ligh script. The feature of this calligraphy is that its letters range from right to left and a little from the bottom of the top. Tazhib (gilding), as in the past, included beautiful patterns between lines, and even sometimes were gold gilding. Gold gilding means gold patterns of lines and words as long as it was parallel with the lines. Then, the space of lines was filled with golden color. This method was particularly considered in the Ilkhani period.



Fig. 14 An example of simple Kufi and Banaee script with Iranian tile art in Ashtarjan Mosque of Isfahan



Fig. 15 The Quranic verses are engraved using the Kufic script and Iranian art "Acrography" in Bastam Mosque

In this period, particularly, need to be mentioned the kings of Ilkhani, who under the influence of their bright ministers, converted to Islam, which helped with the construction of mosques in all the cities of Iran with special magnificence and display in central mosques, especially the central mosque of Varamin. This mosque is made in Ravaghi style by designed pillars, vertical huge posts which have Phrase of: "There is no deity but God, Muhammad is the messenger of God, and Ali is friend of God".

The ceiling covering in this huge mosque is in a specific style called galoo dar ham. The entrance door of the mosque to the brick dome with beautiful design created a unique work. The structure of the shabestan and 10 small arches along with one large arch in the middle is one of the magnificent features of this mosque [13].

The walls of the shabestan are decorated and designed (eskanj sazi) with subtle brickwork. Long and wide inscriptions from the Thloth and stucco, give a special beauty to the shabestan. Dome covering, circular brick layering which is in its tiny squares used moalaghi script, like brilliant stars has given special beauty to the space. The brick dome of this mosque is in arched shape and has no decoration. The external view of the mosque has a long arched view. All arches have tiled background with geometric designs, plants and Kufic inscriptions. In the Ilkhani period, other mosques were created

with brick motifs, Fine art plasterwork mihrab, moalaghi script, Aslimi motifs, plants designs, different kinds of scripts like Ragha', Jalil, Naskh, Tholth, Reihan, Mohaghegh, Toghi, and Kufic scripts such as Kufic Piramooz, Kufic Mazhar, Kufic Shajari, Kufic Shamayel, and geometric Kufic which, like them, is not seen throughout the work of Islamic architecture. Among them, Ashtarjan central mosque in Isfahan, Aljativ mosque in Isfahan central mosque, Rezayeeeh (Oromiyeh) central mosque, Bastam central mosque, Natanz central mosque, Kerman Pamenar mosque can be mentioned that all have fine art plasterwork mihrabs full of motifs, scripts and beauty [12].

IX. TEIMOURI PERIOD

Art and architecture reached a new peak of perfection during the Teimouri period, which its center was Samarkand. Teymour called all skilled engineers and well-known architects from all over his vast territory and in Samarkand, and built so many worthy buildings, but in Iran, especially in current Khorasan, a number of beautiful buildings were built which today are considered to be the masterpieces of Iranian architecture. The children of Teymour, especially Shahrokh Mirza and his descendants in general were always fans of art and in some cases they themselves were artists. Mohaghegh inscription in the corner of Goharshad mosque's eyvan, maghsood, was created by the Bynsghar Teymour's grandson, which great attention was paid by calligraphers of the Islamic world. And they set up a pattern from that work. The art of the exquisite Tholth script in Kabood mosque in Tabriz related to this period. Moalaghi script in the Teimouri period was so much in the center of attention that Soltan Ali Mashhadi minister and Teymour's friend always wrote in this script. In this era, the invention of a three-axis script for mosques has been considered. Magnificent examples of this script can be reviewed for Bi Bi Khanoom mosque Teymour's wife in Samarghand [10]. Also in this period, painting on plasterwork using mineral and plant paint became common. An example of this art with flower and plant designs can be seen at the bottom of (Goharshad mosque) dome and the shrine of the tomb of Khaje Abdulah Ansari in Herat. It can be said one of the most significant phenomena of art in this period, is mosaic tile of geometric drawings in the Kashan mosque' mihrab. This artwork is unique in the Islamic world.

X. SAFAVID ERA

One of the important features of the architecture of this period, in addition to the strength and beauty, is the flourishing of expression. During this period, the radiation of color and light, the charm of their levels and their glory has an amazing beauty and has become a spiritual viewpoint. The buildings of this period also have four eyvan (porch) designed. However, porches were huge with large dimensions. In religious building, glazed tiles and seven colors were used in decorating the walls of the interior and exterior of the building, vaults, minarets, domes and mihrabs. White and bright Naskh and Tholth inscriptions, in the stem of the domes

it gives a clerical state of the atmosphere [14].



Fig. 16 The golden alter of the Mosque of Kashan Square (Berlin Museum) [16]



Fig. 17 Tabriz Kaboud Mosque and Geometric calligraphy

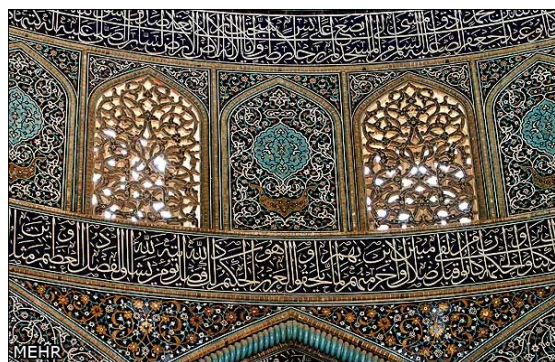


Fig. 18 decorations, effected of the Shiite religion reach its perfection in the Safavi period

In countryside buildings, wooden decorations played a major role and gilding and lacquer paintings were used. In this era, we are witnessing the development of progress of fine art plasterwork, such as motifs and scripts especially Tholth and Kufic. Building like Sheik Al-Tafaleh Mosque, Shah Mosque, Alighapoo Palace were built in this era. Islamic architecture has always had a special value throughout history and it includes all the creations of Muslim artists [11]. Open space of

Islamic architecture with coordination of designs, inscriptions and colors created a wonderful environment with such a spiritual purity which remembers Heaven as the Quran mentioned. In the Safavid period, the Kufic script is seen in the tile works. Banayee script which is the same as angular Kufic has been used in drawing geometric shapes of square, rhomboid, rectangular and parallel and cross-sectional designs. In fact, the type of script at the beginning of this period is Kufic and Tholth which was used to write sacred inscriptions. But the dominant script in this era was Ta'ligh that was national script in the Safavid era [15].

The Sheikh Lotfollah Mosque, Imam Mosque, Isfahan's Semi-Detached School, etc. is the examples of this era. During the Safavid period, the contents of the inscriptions change to Shia due to the official change of religion. These inscriptions either in prayer or in the form of hadiths and inscriptions that specify the date of construction, the name of the architect, etc. are also evident. The details of Islamic monuments are usually made of brick, tile, stone, plaster and wood (text phrases inscription often names the holy God, the verses and Surahs of the Quran, the names of the holy Prophet and imams, prayers, liturgy, religious slogans, the name of the Client, name the ruler or sultan time, the manufacturer's name, name scribe and calligrapher. Until the 7th century, most of the inscriptions were written on the Kufic script, and from the 8th century onwards, the Tholth script of the writing of inscriptions is most often used.



Fig. 19 Part of the Sheikh Lotfollah Mosque (Tholth script) in Isfahan



Fig. 20 Through the arabesque (tile work), the entire mosque is decorated with calligraphy

XI. CONCLUSION

Art and architecture of Iran during the history had magnificent persisted. This art expresses the way of thinking, beliefs, religious beliefs and traditions of the people of this land. A brief look at the development of Iranian art,

architecture shows that the architects of this land from making a simple shelter to the most magnificent architectural samples, they sought the physical and spiritual needs of the people. Iranian architects considering the geographical location of this vast land, progressed in the inventions and innovations. Undoubtedly, nothing like an architectural decorating can show the artist's taste because if the form is interesting for architects and archaeologists, perhaps general public cannot understand, and the decorations and ornaments attract the viewer's eyes. During the 14 centuries of the history of Islamic arts, various decorations were very important and throughout the Islamic era, artists have been working on developing it. Mihrabs, domes and various decorations and designs all were a magnificent piece of work. In general, the Islamic architecture, decoration has two major aspects of applied and conceptual. In applied aspect, type of materials, tools, implementation methods, dimensions and sizes, the location, place and the physical quantities are considered, and artists over the centuries using creativity and experience, we're able to make the architectural art more perfectly and beautifully. The most important part of designs and decorating is the conceptual aspect which attracts the minds of hundreds of Muslim and non-Muslim thinkers. However, there are various quotes from this regard. So far, there are different and sometimes conflicting views such as mystical and Sufi views. What is agreed upon by most researchers is the non-material and non-individual aspects, and therefore ornaments are symbolic forms of Islamic art, which in addition to various scientific aspects, has become an expression of Islamic architecture. To understand the beauty of these motifs, you must have known pictorial code and the symbols of Islamic culture. Anyway, the decoration in Islamic art is for the expression of a sacred space. Artists always try to give spiritual meaning to it. It is because essentially art in the Islamic insight is to give meaning to the materials.

The magnificence and beauty of Iranian architecture, especially during the Islamic era, depend on the decoration and design. Great Islamic arts for decorative and applied arts to build the most religious buildings, has a special significance and credibility. Decorations like brickwork, plasterwork, tiling, carving, mirror and painting have spread throughout all Islamic periods and have progressed with each course with the facilities of those days. The decorations of architecture were developed by the Iranians. These monuments are reviewed in time and in different ways in each era and each country. Inscriptions in mosques are a sign of these developments and have a functional value and carry a message. This quality is due to the Shia atmosphere in Iranian mosque decorations. Artists by using the verses, names and the divine symbols try to convey excellence and merit to their work. The calligraphy on the inscriptions of the Quran was the most appropriate art which has played a fundamental role in terms of content. They have a very deep impact on the environment and viewers. The point is, of course, with a deeper look at many decorations related to the architecture of the Islamic era is possible to see many examples as the continuation of the ancient Iranian architecture until the end of Safavid era.

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