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**INVESTIGATING AND STUDYING DECORATIVE ELEMENTS AND ARRAYS IN KABOOD AND GHAFARIEH DOME**

**ABSTRACT**

Construction of tombs in the era of Islamic architecture was began as a manifestation of beliefs and rituals related to the honoring of the dead, along with other religious buildings including mosques, and almost proceed parallel to it. The various structural methods of the tombs have been structurally influenced by various cultural and material factors and passed a way along with the religious beliefs of the society. However, different opinions and votes have been allocated to the issue of tombs laws in Islamic jurisprudence, but the presence of many these buildings in many Islamic countries shows the special position of this structure in the Islamic society. Various types of Islamic decorative arts can be studied about Kabood and Ghafarieh domes which are one of the most beautiful historical domes of Iran. In this research, we tried to study some applied elements such as tiling (Kashi Kari) and brickwork. Also, some of the architectural elements in the domes of Maragheh such as polo that have not been observed in other Iranian buildings are not Iranian.

**Keywords:** Ghafarieh Dome, Kabood Dome, Mosaic Tile, Glaze Tile, Seljuk, Ilkhani

**1. INTRODUCTION**

Grave, cemetery, tombs. Plural noun. 1-Burial place. 2. The building built on the tomb. plural: tombs (Moeen dictionary, below the name of the tomb). In the Turkish language, 'sin' term is used equivalent to the word tomb. The construction of the tombs in the era of Islamic architecture was began as a manifestation of beliefs and rituals related to the honoring of the dead, along with other religious buildings including mosques, and almost proceed parallel to it. The various structural methods of the tombs have been structurally influenced by various cultural and material factors and passed a way along with the religious beliefs of the society. However, different opinions and votes have been allocated to the issue of tombs laws in Islamic jurisprudence, but the presence of many these buildings in many Islamic countries shows the special position of this structure in the Islamic society. One of the most important periods of the making of these tombs is the seventh and eighth centuries AH, the period of the rule of the Mughal Ilkhan. During this period, considering the centrality of the Ilkhanate in Maragheh, we witness the formation of several tomb towers in the city. The mosques are

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completely decorated in Maragheh which covers almost the entire real wall. About 1185 AD, Hassan Bin Pirooz Maraghe was one of the Iranian Industrialist stonecutters worked in the Asian Minor. Some of the tile worker, architect, and stonecutter artists who had fled Iran in coincidence with the Mongol invasion or earlier, had been working in Asia Minor (Shahriari, 1999:27). During the Ilkhan period, the magnificence and beauty of these tombs were enhanced by Kufi lines using one-color tiles and glazed bricks. Considering that the Seljuk period is approximately in accordance with the Romanesque style and the Ilkhan period with Gothic style in term of time and year, it may surprise the resemblance of the evolution of Romanesque to Gothic in Europe with these two periods in Iran. Some of the characteristics that will be mentioned later will reinforce such an analogy, but in general, such a revolution in work and form leading Romanticism style to Gothic style does not occur in Iran's architecture (Wilber, 1964:35).

## **2. RESEARCH SIGNIFICANCE**

This article describes the architecture and decorations in detail. The two are based on the important works of the Ilkhani era, which are highly regarded as tile decoration. By comparing these two works, the indices of the architecture of the Ilkhan era are determined.

## **3. ILKHANID ARCHITECTURE**

In terms of aesthetics, Ilkhanid architecture had not created a new style in the history of Iranian architecture; this architecture can be largely considered as the sequence of Seljuk architecture inherited its plans and techniques. Its features emphasize the vertical and not too heavy elements through the use of windows and the construction of surfaces with niches, moldings, as well as concentrated masses on a few relatively jumping points. But this technique is not considered as the true elements of a style, because they are lost under a decorative cover that is the main purpose of the architect. These techniques such as narrow pillars in the angles emphasize the vertical orientation of the building, especially from the inside. The dome and its stem have been longer; the old forms have been continued, but a kind of structural profile has been used to affect the onion shape of the Timurid period. The double-layer dome, which first appeared in Seljuk architecture, became widespread in the architecture of the Ilkhan period. A series of crossed arches with small vaults attached to them (it is either a building profile succession or possibly a staircase building profile, and their peak has been crossed by a hollow decorative arcade) has shaped a considerable arcade. The emphasis has been placed on the iwan (an arcade or a rectangular hall with one end entirely open) which is somewhat high here, and it is often has two minarets from both sides. Muqarnas has been frequently used and has found complex and complicated shapes (Sharatou, 2005:86). The clay was used to build walls and baked bricks for encrusting. The arcades and domes were completely built with baked bricks. The application of stone in building was specific to the Azerbaijan region used in the lower part of the walls; sometimes stone decorations were used, like some caravansaries influenced by the Syrian architecture. Stone had been used for encrusting in one of the later buildings of Ilkhani inside the courtyard of Shiraz Jame' Mosque (Sharatou, 2005:95).

#### 4. KABOOD DOME

This building is located in Maragheh province, 37°23'24.39"N, 46°14'20.86"E, next to the Maragheh cylindrical tower. It is a ten-sided prism like in shape. It is said to be the tomb of the mother of Hollakoo or Goey tower (Karang, 1972:13) (Image 1). Its entrance door has different decorations (Image 2). The assignment of this building to the tomb of the mother of Hollakoo, despite its reputation, has not been confirmed (Mashkoti, 1971:10). According to the Quranic inscriptions available in the tomb, Andre Godard denied the tomb's assignment to the mother of Hollakoo who was a Christian and says that the tomb is the grave of an unknown person of Muslim elders. Godard believes that the building of this tomb does not belong to the Mogul period; since the construction of such a tomb in the Maragheh, the capital of Holoku, which was the center of opposition to Islam, seems unlikely unless it was built in the era of the Seventh Mongol Ilkhan, Ghazan Khan. Then, referring to the architectural style of the Ghazan era, he added that the building cannot be from the works of this period and its construction dates back before the time of Hollakoo. He estimated this date from 582 to 656 AH and constructed his hypothesis by rebuilding the inscription (Godard, 1987:300).



Image 1. General view of Kabood dome (Writers)

Like other domes of Northwest of Iran, Kabood dome is a two-story building (Morvarid, 1982:296). The first story is a stone crypt rising to a height of two-forty meters. The second story is a brick room built on a crypt rising to a height of fourteen-forty meters (Image 2). The body of this dome is ten-sided, and a hemisphere dome has been created on this story (Sepehrvand, 2002:73). The end of its dome has collapsed, and major part of its plastering, decoration, and writing have been lost. The inscription which is located inside the building under the dome and twisted around the tomb with the lines of the manuscript on the wide border is the part of the first verse of Sura 67 of the Quran (Morvarid, 1982:298).

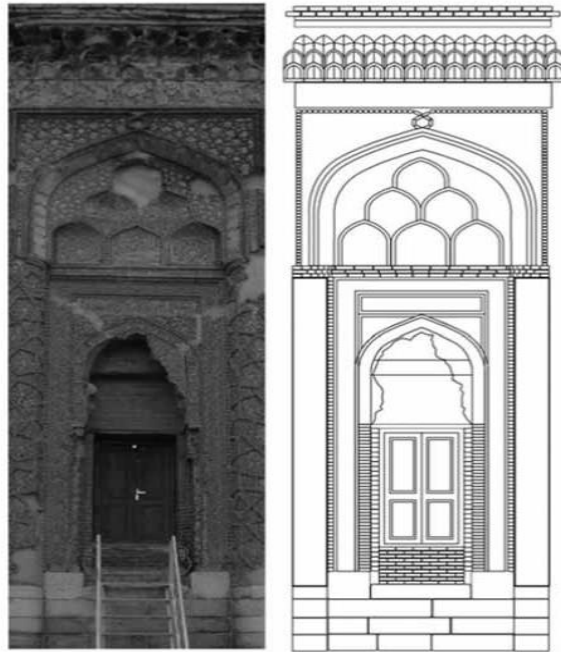
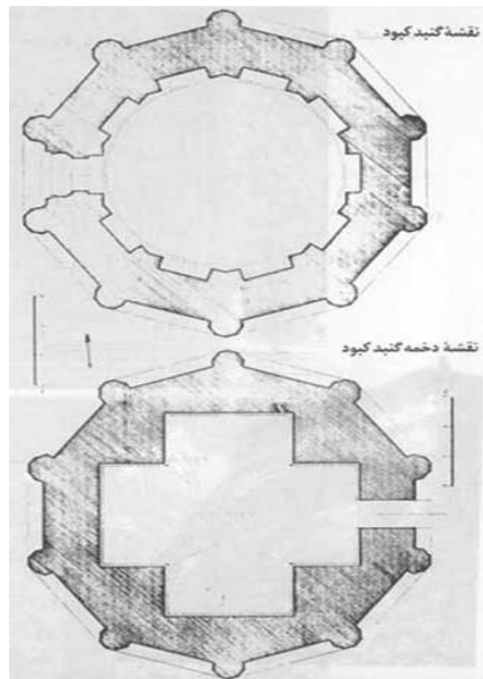


Image 2. The entrance door of the Kabood dome (Sharifian, Khodaparast, 2014:73)



Picture 3. The Plan of the Kabood dome (Hatam, 2000:231)

What is expected from the molded inscription in the crypt is that the dome was made as a tomb tower (Image 4). This building has two stories including the main space and the crypt (Beyg Babapour, 2009:46).



Image 4. View of the crypt (Writers)

Wilson writes that the ornamentation of this building is evidence of the ability and skill of Iranian workers. The exterior body of the dome was decorated in the form of trains, geometric shapes, and the three simple rows of Muqarnas. Its interior walls had painting decorations disappeared over time and only a small part of them remained (Dibaj, 1968:90). The tomb is ten-sided tower which its exterior view had been beautifully decorated with the composite of turquoise-colored unfinished and glazed brick and pottery with geometric designs. Experts consider this building as similar to the Mausoleum of Momine Khatun located in Nakhchivan City. The mausoleum of Momine Khatun (dates back to 582 AH) is an ornamented and attractive building, which, some years after its construction, has been a model for the construction of Kabood dome. The Kabood dome has also a delicate and elegant decorations of unfinished and glazed pottery, which is a good example of the decorations of this period. The decoration of the dome is excessive and the importance of decorating here is preferable to the style of the building, but it can be said that the tower, in fact, is an industrial work. It is a memorial that is evidence of the skill and proficiency of Iranian workers (Hatam, 2008:226).

#### **4.1. Decoration of Kabood Dome**

The decoration of the building can be classified into two general categories: interior decoration and exterior decoration, crypt room and main room, and four groups as below:

- Brickwork
- Inscription (Inscriptions and decorative lines of carved bricks)
- Tiling (Turquoise glazed tiles)
- Muqarnas kari

#### **4.2. Brickwork**

Brick (or Agur) is a Babylonian word, and the name of the written clay on which order, charter, law, and so on was written. The Sumerians and Babylonians made a dough mud from the rivers to make the clay after the flood's downturn (Hami, 1998:142). Bricks are the most important element in Middle East architecture due to its high strength, sustainability, high stability, and lack of resisting and suitable materials. Until the invention of the brick, stucco was the most important architectural module (unit), but after discovering the brick

and its properties, it was gradually replaced by stucco, and its importance has not been diminished until now (Mousavi Haji and Nickbar, 2015). Gradually, the use of bricks as decorative elements was further expanded. In addition to decorating building with the common brick module (the same rectangular and common brick form), architects and artists were making and molding various bricks in the form of glazed brick (bas-relief or embellished motifs), molded brick (in geometric and non-geometric shapes), extruded brick and so on. By expanding these methods, the possibility of creating motifs in various geometric and non-geometric shapes were provided for various architectures and then various decorative forms were implemented (Mousavi Haji and Nikbar, 2015:32). The bricks were the most important material available to the architect. In order to remove the bricks from dry and dusty form, he attempted to engrave among them during building facade, arrange them in the form of diamond, put some of them lower, calling others forward, and help from others to create shadows. Using bricks in building and decorative uses is far more than stone in the Islamic world; this may be because of the visual aspects of stone that can never give the building visual elegance to the extent of brick (Image 5).

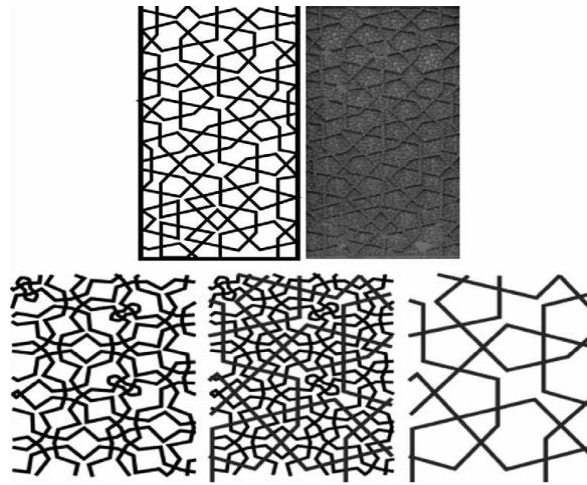


Image 5. brickwork motifs in Kabood dome (Sharifian, 2014: 4)

After the Mongol invasion of Iran, the use of bricks as arrays was reduced. The main reason was the migration of many artists from Iran. After a period of interruption and stagnation in Iranian architecture, when the Ilkhans wanted or needed to rebuild their ancestors' destruction, or at least because of their need for the palace, house, bath, etc. in their capital, they called architects (previously fled to the southern regions of Iran due to insecurity and Mongol invasion) from the southern lands to their land (Pirnia, 2001:64). One of the important elements in Kabood dome is the use of red brick. In the Seljuk era, brick decoration reached perfection, and the brick was used as building material and decoration of the building. Shapes such as square, triangle, diamond, lancet, right, and dormant, etc. can be seen in the exterior view of this building (Sharifian and Khodadost, 2014:74). In this case, girih tiles of brick can also be used with tile which is also seen in Ghafarieh dome.





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### **4.3. Inscription**

Inscriptions are the only visual elements that directly carry the meaning of the word and these two aspects, the image (appearance) and the content and text, have great importance in the buildings of the Islamic period of Iran. Inscriptions build up great excitement in the complexity of lines and they should be really investigated in their context. They are the most praiseworthy things in the status of the pure design, but at the same time, Muslims consider them to be intrinsic (Pope, 2007:15). Inside the building, under the springing of the dome, a part of the first verse of sura 68 of the Quran had been molded with the Naskh script on a wide margin and a stone had been placed in the inner wall of the western arch on which 26 and 27 verses of the sura 55 of the Quran (Verse 26. Whatsoever is on the earth is transient. Verse 27. And only the Essence of your Lord full of Majesty and Honor shall remain forever) had been carved with beautiful motifs (Salmasizadeh, 1974:650).

### **4.4. Tiling (Kashi Kari)**

The tile consists of two parts in terms of the nature and composition of the material: the body part which is like the brick and pottery in terms of material, and the glaze part which is like the glass in terms of material. So, in fact, the tile is a kind of artificial stone made by man from the beginning. It is an artificial stone having a motif and color with a glaze or enamel on it. Mosaic was used before the invention of the tile in various civilizations. Mosaic is a natural stone with different colors. Of course, today artificial mosaics are made which are very similar to the tile in their nature, but in a more compact and harder form, it should not be ignored that the main use of the mosaic was generally in the floor of the building and its placement on the floor of the building requires a considerable compressive resistance. While the main application of the tile is on the body and the facade of buildings, not on their floor, in most sources, tiles and mosaics are often classified as a group, whether tile or mosaic. Thus, what is referred to them as primary tiles in some sources, in fact, it consisted of a piece of distinct colored stones putting them together to achieve a kind of painting (Mousavi Haji and Nikbar, 2015:120).

In the Islamic period, Seljuk period can be considered as the beginning of the art of the tile. This period included the use of a kind of work of the square kufic script and a geometric knot of turquoise tile pieces in the field of brick. It can be seen under the corbel without Muqarnas and training of the Isfahan mosque. Later, the art of tiling in the Ilkhani period was followed based on principle (Zamar Rashidi, 2006:5). The art of tiling is one of the decorative elements used in this building. A beautiful composite of tiling and brickwork arts can be seen in the entrance and the exterior blind arcade (Image 6). Also, the exterior blind arcades were decorated with turquoise tiles and the appellation of the dome was also due to the presence of turquoise tiles and watercolor (Morvarid, 136:299).

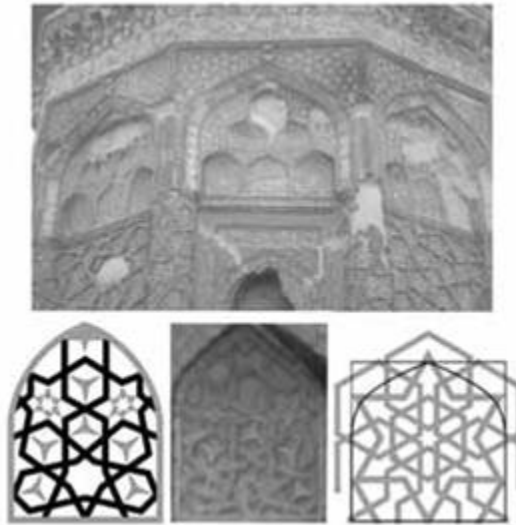


Image 6. The composite of tiling and brickwork arts (Sharifian, 2014:75)

#### 4.5. Muqarnas

Muqarnas or stalactite work is one of the most beautiful decorative elements of architectural arrays. It may be carried out with plaster, brick, tile or even wood. However, the most common types are plaster and tile. In Old Persian, it was also called Ahoopa. This term was referred to a six-sided building or hexagonal house (Mousavi Haji and Nikbar, 2015:97). Muqarnas plays an important role in capturing the beauty of Iranian buildings, especially mosques and mausoleums. They are used in the form of layers built on together to design buildings or to change gradually one geometric form into another geometric form. Muqarnas can be considered as one of the effective elements in constructing domes for transferring and dividing exerted forces on the underlying walls properly, which later lost its initial application and was used more for decorating. The Muqarnas are usually used in dropped surfaces of the corners under the ceiling. But the location of this decorative element is above the walls, ceilings, entrance corner and the like. Therefore, some consider the origin of Muqarnas as a reason in decorating the squinches under the ceiling (Kiani, 1997:45). Some architects have also used Muqarnas on the front of buildings. They have constructed the building in such a way that it (Muqarnas) does not cause the building to be heavy and does not put pressures on the foundation. Muqarnas' decorations are used in front of building and narrow section of it. The Muqarnas used in this mausoleum can be divided into two categories: the first category consists of several arcades with broken arches or vaulting, each of which is located on the top of a charter side and has three rows of Muqarnas. The second category, which is located right at the base of the dome, consists of a few small arcades and several circular surfaces above them seen like hanging Muqarnas (Hatam, 2008:226).

#### 4.6. Ghafarieh Dome

The historical dome of Ghafariyeh is located in the northwestern part of Maragheh, alongside the Sufi Chai River, on the coordinates of 37°23'40.83"N, 46°13'52.37"E. This building is one of the beautiful buildings of the eighth century AD built at the time of Sultan Abu Sa'id



Bahadur Khan, the king of Ilkhani. The plan of this building is square-shaped and it is placed on the rocky platform like the rest of Azerbaijan tombs (Dibaj, 1968:91) (Image 7).



Image 7. Ghafarieh dome of Maragheh (Writers)

According to what is derived from the historical texts, during the reign of Sultan Ya'qub ibn Hassan Beq Aq Qoyunlu, when a mystic called Nizamuddin Ahmed bin Hussein Ghaffari returned from the pilgrimage, he built a mansion near the building and dedicated a property and garden for its use; For this reason, this mansion and related buildings, as well as the tower, became known as Ghafarieh based on his name. Of course, in the appellation of Ghafarieh, the reference to the nearby school was borrowed (Godard, Siroux, 1993:304). Ghaffarieh dome is inspired by a red dome and is in the form of a square brick which is located on a platform and above a cellar, and its four corners had been decorated by pillars having brick decoration. The entrance is located in the north. It has a large, two narrow, and long arcades (Image 8).

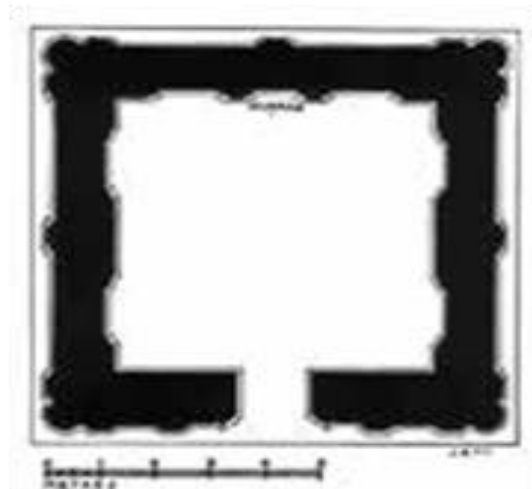


Image 8. The plan of Ghafarieh dome (Morvarid, 1982:305)

At the top of the vaults of each arcade, except the inscription, is a margin having three circular shapes containing two symmetrical patterns

of polo. This building was the mausoleum of Amir Shams al-Din Qara-sen-Qur, the regent of Egypt who died in Maragheh (Pope, 2009:1300). The main view is located in the north, and the cellar entrance of the tomb is located in the east. The portal (doorway) has a central arcade or a pre-arc of Muqarnas and the inscriptions around it are Noqul and Sper. Each side of the east, west, and south has two rectangular or blind window frames. This building has a two-sided dome that had completely collapsed. The interior part was plastered like other towers in the area. The signs of colors and designs are seen above the altar (Pope, 2009:1300). Ghafarieh dome is different from other tower of Maragheh tombs and other tombs in the past centuries in Iran. The reason for this difference is the use of two techniques of mosaic tile and glazed tile which originate from the period of the Ilkhani. In terms of the architectural form, there are also differences with other tomb towers in Iran. As the tower of the tombs in Iran is mostly tower-shaped, there is a sign called polo (Image 9) (Farahmand-Boroujeni and Soleimani, 2012:139).



Image 9. The pattern of polo in Ghafarieh dome (Farahmand Boroujeni and Soleimani, 2012:139)

According to the techniques of implementation, the decorations of the Ghafarieh dome can be divided into three general categories: first group, girih tiles (or *girih chīnī*) with the incorporation of bricks and tiles or knitting together, the second, mosaic tiles, and the third group, glazed tiles (Image 10 and Image 11) .



Image 10. Girih tiles with the incorporation of brick and tile in Ghafarieh dome (writers)



Image 11. brick working of glazed tiles in Ghafarieh dome (writers)

In Ghophari dome, besides mosaic tiles and girih tiles with bricks and tile techniques, another technique had also been used whose origin is the Ilkhanite era, and it had been less used in comparison to other techniques. In the implementation of the glaze technique, after the installation of tiles, in the middle of the rocks, an enamel is placed between patterns in order to appear the color of the pottery itself and to show its appearance among the tiles (Pirnia, 2005:386).



## 5. CONCLUSION

Over the centuries, Iranian architecture has undergone various changes in terms of structure and beauty, and it was gradually and continuously evolved from its traditional and initial form. Without the innovations and despite the losses caused by the invasions and cultural impacts, it achieved a personality apart from other Muslim countries. The main advantages of the Iranian architecture are: considerable attention to the shape and scale, structural innovations, especially in the construction of the dome, and beautiful decorations that are unique in comparison with other architectures. Such techniques had been used in Kabood and Ghafarieh domes: girih tiles with brick, mosaic and glaze tiling, and molding. The girih tile technique followed by brick and tile had been used in structural elements such as Nogul, central arcade, and blind windows. The mosaic technique was initially started with the composition of brick and tile from the 5th century AH. This technique was used during the Ilkhani period with the composition of tile having two colors of turquoise and cerulean in the buildings, until the Timurid and Safavid periods, it flourished in color variation. It can be assumed that the decorations implemented by combining brick and tile (as geometric knots) gradually opened their way to the mosaic tile technique, and the brick gradually replaced by the tile. The initial application of the glazed tile was in the Ilkhan period, and this technique has not been implemented in any other tomb before the implementation in the Tomb of Sheikh Abd al-Samad Natanz, Ghaffarieh of Maragheh and the Pir Bakran mausoleum. Maybe it can be said that Ghaffarieh of Maragheh is the first tomb in which the glaze technique had been used. The domes of Maragheh show the complementary series of decorative elements from the Seljuk period to the Ilkhani and later Safavid period.

## REFERENCES

- Arthur, U., (2007). *Persian Architecture*, Translated by Golam Hossein Sadri Afshar, Tehran: Naqshe Jahan publication.
- Arthur, A., (2008), *Survey of Persian Art*, Tehran: Scientific Cultural Publication.
- Beyg Bapapour, Y., (2009). *Tombs, Epitaphs and Documents of Maraghe, Qom* :Islamic Reserve Consortium Publication.
- Dibaj, I., (1968). *Ancient Monuments or Antiquities and Historic Buildings of Azerbaijan*, Tehran: The Society of National Monuments Publication.
- Farahmand, B., Hamid, P., and Soleimani, P., (2012). The Typology of the Decorations of the Ghaffarieh dome of Maragheh Based on the Comparative Model, *Journal of Islamic Art Studies*, issue 16.
- Godard, A. and Siroux, M., (1992). *Iranian Works*, Translated by Abolhassan Sarv Ghadam, Vol:3, Tehran: Islamic Research Foundation.
- Hami, A., (1998). *Building Materials Science*, Vol:3, Tehran: Tehran University.
- Hatam, G., (2008). *Islamic Architecture of Iran during the Seljuk Period*, Tehran: Jahad Daneshgahi.
- Karang, A.A., (1995). *Antiques of Azerbaijan*, Tehran: Society for National Heritage.
- Kiani, M., (1997). *Iranian Architectural Decoration in the Islamic Period*, volume 1, Tehran: Cultural Heritage Organization.



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- Mashkoti, N., (1970). List of Historical Monuments and Ancient Places of Iran, The First Publication of the National Organization for the Protection of Iranian Antiquities, Tehran: National Organization for the Protection of Iranian Antiquities.
  - Moeen, M., (1350). Moeen Dictionary, Tehran: Amir Kabir.
  - Morvarid, Y., (1981). Afraze Rood, Tehran: Ouhadi.
  - Mousavi, H., Rasoul, M., and Nikbar, M., (2014). Applied Arts in Islamic Period, Tehran: Samt.
  - Pirnia, M.K., (2002). Stylistics of Iranian Architecture, Vol:1, Tehran: Soroush Danesh.
  - Pirnia, M.K., (2005). Introduction to the Islamic Architecture of Iran, Gholam Hossein Memarian, Tehran: Soroush Danesh Publication.
  - Salmasi Zadeh, J., (1974). Red Dome or Redness of the Dome of Maragheh, Vahid Literature and Languages Magazine, 117.
  - Sepehrvand, M., (2002). Maragheh in the course of Iranian History, Tabriz: Ahrar.
  - Shahmiri, P., (2009). Turkish-Persian Shahmars Dictionary, Tabriz: Akhtar.
  - Sharatou, U. and Grobe, E., (2005). Ilkhani and Timurid Art, Translation by Dr. Yaghoub Ajand, Tehran: Mola Publications.
  - Sharifian, S. and Khodaparast, S., (2014). A Look at the Kabood dome, The Magazine of Moon and Art Book, September, issue 180.
  - Wilber, D., (1967). Islamic Architecture of Iran during the Ilkhanis, Translated by Abdollah Faryar, Tehran: Publishing Firm and Publishing Book.
  - Zomorshidi, H., (1987). Girih tile in Islamic Architecture and Handicrafts, Tehran: Center for Academic Publishing.