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Geometry of the form and designs of Ilkhani tombs' tower of Azerbaijan (Case study: Qarabagh Bardaeh tomb' tower)

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Abstract

The seventh and eighth centuries of the Hijri calendar were the era when Azerbaijan's architecture flourished. During this period, a special style of funerary architecture was developed in the form of a tower-shaped tomb, the scope of its effects extending from Azerbaijan and reaching Khorasan and Turkestan in the east, and Asia Minor and Mamluk Egypt. Considering the centrality of Azerbaijan during the period of the Ilkhanite of this region, the architectural styles flourished in this temporal and spatial period, which later became known as Azeri-style architecture. Parallel to other religious monuments, the tower-shaped tombs found a privileged position in Islamic architecture. Its best examples are the

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mausoleum tower of Bardaeh in Qarabagh, Sheikh Safi, and Sheikh Heydar, Soltanieh, Ghaffarieh and Qara Baghlar. The purpose of the present study is to recognize the architectural and decorative structure, and to analyze the geometric patterns used in the Azerbaijan tombs, with emphasis on the Qarabagh Bardaeh tomb tower, as a persistent pattern. In order to achieve these goals, the tombs were studied with an interpretive and qualitative strategy, through historical and library studies and field analysis. The designs and decorations were documented, recognized and analyzed.

Keywords: Ilkhani architecture, Azarbayjan tombs, Bardaeh tomb tower, designs, geometry.

**Geometría de las formas y diseños de las tumbas
Ilkhani en Azerbaiyán
Estudio de caso: tumbas Qarabagh Bardaeh**

Resumen

Los siglos siete y ocho del calendario Hijri fueron una era en la cual la arquitectura de Azerbaiyán floreció. Durante este período, un estilo especial de arquitectura funeraria fue desarrollado: las tumbas con forma de torre. El alcance de su efecto se extendió desde Azerbaiyán llegando hasta Khorasan y Tukestan en el este, y Asia Menor y Mamluk, Egipto. Teniendo en cuenta el papel central de Azerbaiyán durante el período de Ilkhanite en esa región, los estilos arquitectónicos florecieron en este período espacio-temporal, que luego se conocieron como arquitectura Azeri. En paralelo a otros monumentos religiosos, las tumbas con forma de torre encontraron una posición privilegiada dentro de la arquitectura islámica. Sus mayores exponentes son el mausoleo de Bardaeh en Qarabagh, Sheikh Safi, y Sheikh Heydar, Soltanieh, Ghaffarieh y Qara Baghlar. El propósito de este estudio es reconocer la estructura arquitectónica y decorativa, y analizar los patrones geométricos utilizados en las tumbas de Azerbaiyán, haciendo énfasis en Qarabagh Bardaeh, como un patrón que prevalece. Para cumplir con el objetivo de este estudio, las tumbas fueron estudiadas a partir

de una estrategia interpretativa y cualitativa, utilizando un análisis histórico, bibliográfico y de campo. Los diseños y decoraciones fueron documentados, reconocidos y analizados.

Palabras clave: arquitectura Ilkhani, Azerbaiyán, tumba Bardaeh, diseños, geometría.

Géométrie des formes et plan des tombes ilkhanides en Azerbaïdjan. Étude de cas: des tombeaux Quarabag Bardaeh

Résumé

Les VIIe et VIIIe siècles du calendrier Hiriji furent l'ère de l'apogée de l'architecture en Azerbaïdjan. Pendant cette période un style propre d'architecture funéraire fut développé : les tombeaux-tours. Son influence fut très étendue : depuis l'Azerbaïdjan jusqu'à Khorasan et le Turkestan à l'est, et jusqu'en en Asie Mineur et Mamluk, en Egypte. Vu la place centrale de l'Azerbaïdjan pendant la période ilkhanide dans la région, le style architectural connu après-coup sous le nom d'azéri fleurit dans cette période. De même que d'autres monuments religieux, les tombeaux-tours eurent une place de choix au sein de l'architecture islamique. Les exemples les plus remarquables sont le mausolée de Bardaeh à Qarabag, Sheikh Sai et Sheikh Heydar, Soltanieh, Ghaffarieh et Qara Baghlar. Le but de cet article est de reconnaître la structure architecturale et décorative, ainsi qu'analyser les patrons géométriques utilisés dans les tombeaux d'Azerbaïdjan, en insistant sur le cas paradigmatique de Qarabag Bardaeh. Pour atteindre notre objectif, nous avons étudié les tombeaux à partir d'une stratégie interprétative et qualitative, en utilisant une analyse historique, bibliographique et de terrain. Les plans et les décors furent documenté, reconnus et analysés.

Mots-clés: architecture ilkhanide, Azerbaïdjan, tombeau Bardaeh, plans, géométrie.

1. Introduction

The artists and architects of the Ilkhani period began to create and invent artistic works based on their artistic elements and previous architectural practices. One of the elements and phenomena which has played a major role in various aspects of historical, artistic, religious and social in Islamic architecture is the tombstones. It can be said that the tomb, or mausoleum, after the mosque, was more famous than any other building in the architecture of the Ilkhani period. The tomb is rooted in the community and the Islamic culture, and in approximately all cities in different Islamic periods, which have any share of such buildings. These buildings were subject to changes during the different periods in terms of architectural and decoration style, due to the economic conditions of the time as well as the social and political atmosphere. At the same time, as the Seljuk rule began, tomb buildings began to grow immensely; the number of mosques that previously had the highest volume of architecture was reduced and the number of tombs and minarets associated with them increased. During the Ilkhani period, there was no fundamental change in the style of the tombs' construction. In fact, the funerary building of the Ilkhani period was largely lent to the Seljuk tombs' architecture. The funerary buildings were also created in the same way as the Seljukites in the two major groups: dome tombstones and tomb towers.

In the Ilkhani period, tiling similar to Stucco grew and was an integral part of the Ilkhani architecture. Ilkhani tile workers developed innovations in both the design and the construction style over time. In addition, tiles with human, animal and non-religious poems on religious buildings also became widespread³. As Ettinghausen (1959) points out: «During the Ilkhans period, due to the Mughal religious policies, we encounter a kind of practical freedom of Shi'a»⁴. The tombs of this period cover the largest group, the reasons

3 Robert Hillenbrand, *Islamic Architecture*, trad. Iraj Etesam (Tehran: Urban Process and Planning of Tehran Municipality Publication, 2004), 126.

4 Richard Ettinghausen y Oleg Grabber, *Islamic Architecture*, trad. Yaghoub Azhand (Tehran: Moli, 2007), 37.

for this were the people's attention to the mystics, pro-people righteous and the freedom of Shiites because of the desire of some Ilkhani Muslims to convert to the Shi'a religion, including Oljayto⁵. Considering the centrality of Azerbaijan in the Ilkhani period and the special attention of the Ilkhani Sultans to the area, the architectural styles in this temporal-spatial period was formed in the tombs construction along with other religious buildings, the best examples of which are Qarabagh Bardaeh tombs' tower, Sheikh Safi in Ardebil, Zaynal Bay in Hassan Kiyev of Turkey, Al-Jayto's Tomb in Soltanieh, Ghaffarieh, and Sheikh Haydar Meshkinshahr.

The present paper aims to identify the architectural and decorative structure, and analyze the geometric designs used in the Azerbaijani tombs, making special emphasis on the Qarabagh Bardaeh tomb' tower, as a persistent pattern. Therefore, interpretive research has been used as the main research strategy, which has a more descriptive and analytical aspect. In order to recognize the decorations and geometry of designs, the first step will be to examine the architecture of the Ilkhani period using a qualitative approach and based on library studies. In the second step of the research, the architectural design of the Azerbaijan Bardaeh tomb and its decorations have been analyzed. This part of the research has been conducted through library and field studies in addition to a descriptive and analytical method. Through the documentation of the designs, the pattern of decoration and geometry of Bardaeh tomb designs has been studied.

An overview of the Ilkhani architecture

The architecture of the Ilkhani period is a stage in the continuous history of Islamic architecture and, in fact, the harmonious development of earlier architecture techniques, especially the architecture of the Seljuk. The Mongols, like the Seljuks, came to support literature and art when their own government was established. Though the Mongol

⁵ Mehdi Gharavi, «Tomb in Iranian culture...» *Cultural Works Association* (Tehran: The organization of print and publication of Ministry of Culture and Islamic Guidance, 1997), 143.

invaders had experienced artistic and architectural activity for some time, gradually, the Mongol rulers were impressed by the profound Islamic culture and civilization, and the artistic expressions in their texts, which were at their peak before they were attacked. And with the acceptance of the religion of Islam, the construction of new buildings began, both religious and non-religious⁶. The era of Helluq rule, the founder of the Iranian Ilkhanis, should be thought of. as the beginning of the revival of Iranian architecture in the Mongol era⁷. After the Ghazan came to rule and Islam was accepted, the construction of buildings was intensified. Under the supervision of his ministers and scholars, especially Khaje Rashid al-Din Fazlullah and the laws of Islam, he was considered one of the greatest modern rulers and a pioneer of this era in the history of Iranian art and architecture⁸.

The origin of the influence and inspiration of Ilkhani architecture is undoubtedly the architecture of the Seljuk period. This continuity of style is such that it can be said that the Seljuk architecture was a primitive style of the Ilkhani style, and during the three hundred years of architecture in Iran, it has undergone a regular course of evolution⁹. During the Seljuk period and also during the period of the Ilkhans, religious buildings such as mosques, schools, places of pilgrimage and tombs were preferred to non-religious buildings¹⁰. This is a sign of the success of the economy of that time. During the Seljuk period, architecture and design were in an experimental stage. In the case of the Ilkhan period, the main problem was the integration and composition of existing architectural and decorative forms. The construction of religious buildings in the same style as the Seljuk buildings was pursued during this period, which was used to construct

6 Mohammad Youssef Kiani, *History of Iranian Art and Architecture in the Islamic Period* (Tehran: The Organization for Researching and Composing University Textbooks in the Humanities, 2004), 55-56.

7 Donald Willber, *Islamic Architecture of Iran during Ilkhani Period*, trad. Abdollah Farriar (Tehran: Book Translation and Publishing House, 1967), 11.

8 Mohammad Youssef Kiani, *Cities in Iran* (Tehran: Ministry of Culture and Islamic Guidance publications, 1992), 470-476.

9 Wilber, *Islamic Architecture*, 30-45.

10 Kiani, *Cities in Iran*, 34

mosques with porches, as well as polygonal and circular buildings for tombs. On the other hand, the porches of the Ilkhian period, like those of the Khwarizmakhi period, are more stretched and of a lower width than those of the Seljuk period. Perspective in porches was strengthened by including long and narrow arc vaults with facet-shaped arcuates¹¹. Also, the use of the «DoPoosh» dome, which appears for the first time in the architecture of the Seljuk period, is more prevalent in Ilkhani architecture. The differences are that its dome and stem are taller and that the double brick dome was preferred¹². In some cases, clay was used to make the walls, and bricks to cover them. The vaults and domes were built entirely with brick. The use of stone in the building, which was specific to the Azeri area, is seen in the bottom of the walls. Even though it was used in larger buildings in the Ilkhani era, buildings were much lighter by dividing some of the building elements, such as gazes and vaults, and windows¹³.

The use of brick tiles, gradually lost the central position it had in the previous period. However, in the works of this era, the foundation of the building and the walls are mostly brick. The brickwork of this period, like gypsum, has been used in three general geometric, vegetative and written forms, and has been implemented in different ways but, in general, the designs and brickwork of this period are less varied than in the Seljuk period. Perhaps the most prominent feature of the Ilkhani architecture is the abundant use of tiles in the decoration of buildings. The first stages of the use of tile that began in the Seljuk period extended during the Kharazmashahi period and ultimately reached the peak of its evolution in the Ilkhani period. In addition to the variety of tiling designs, colors also became more diverse and different ways of implementing decorations were applied. The increasing use of tile led to a lesser use of other decorative materials, such as gypsum and brick, which was the factor that allowed Ilkhans

11 Arthur Upham Pope, *Iranian Architecture Volume I*, trad. Gholam Hossein Sadri Afshar (Urmia: sin lugar de edición, 1987), 205.

12 Wilber, *Islamic Architecture*, 35-61.

13 Pope, *Iranian Architecture*, 229.

architecture to break away from Seljuk architecture¹⁴. It is also necessary to point out that the Ilkhans expressed their desire to plan and construct an important historical building which led to general unity regarding the architectural style of the whole of the Ilkhans, and building plans of those times were used in the construction of these monumental buildings. However, they were used on a wider scale than all previous efforts. Thus, even after the collapse of the Ilkhanites, the great style of architecture of this era did not end. In many states and beyond the country, it continued and expanded and provided the ground for the vast construction activities of the Teymouri period.

2. Tomb buildings and their place in Ilkhani architecture

Tombs, after mosques, occupy the largest volume of surviving buildings in Islamic architecture. Most of them, according to their appearance, are «Cupola» or «Dome», and they have been named «Torbat» by their most popular function or named «Imam Zadeh», referring to their religious meaning. Even names such as «Qasr» have been used. The variety of these names, whose history and precise use are still being studied, illustrate the many effects that these memorial buildings have in the minds of Muslims¹⁵. Given that there is a clear correlation between the early architecture of Islam and the legacy of pre-Islamic architecture, it is worth emphasizing that there are no significant signs that tomb signs are freely settled. Scholars of Islamic art and civilization have expressed various ideas about the motive of construction and the existential philosophy of the tomb towers. Some believe that the dissemination of Islam is partly related to jihad, and most of the tomb buildings are found in the centers that have the most active border with non-Muslims. These buildings can be tombstones for the glory of the martyrs who have sacrificed their lives in the path of

14 Robert Hillenbrand, *Iran Arts, under the direction of R. W., Frieh*, trad. Parviz Marzban (Tehran: Forouzan, 1995), 260.

15 Oleg Grabar, «The Earliest Islamic commemorative structures, Notes and Documents,» *Ars Orientalis* Vol. 6, (1966): 7-46.

faith and belief¹⁶. On the other hand, some scholars, believe them to be a sign of the growth of Shi'ism and the increasing competition for the burial of the deads near the graves of the Imams (as) for the acquisition of Feyz and Torbat, have led to the growth of tomb building¹⁷. Another hypothesis that relied on external influence claims that the architectural forms of Christian buildings, such as the Al-Sakhreh Cupola, taken from Palmir tombs' tower, have the privilege of Islamic works, and it is likely that those who built the mosque, also built the church, as there is a considerable resemblance between the tombs' tower and the lighthouse towers of the church¹⁸. Another hypothesis has a major impact in the world of plains in the north and east of Central Asia. With this in mind, the Turkish people have brought the thought of a tomb to the land of Iran¹⁹.

Their geographic proximity to the area where the first Islamic tombs were found, as well as the close similarities of the Turkish tents with tomb towers is a powerful reason that supports this idea²⁰. Finally, a group believe that perhaps all of these towers were masses of rocks or pillars that the old tribes of Central Asia raised for their victories, and its ultimate origin is in the strong tradition of a «high place». This tradition that has a history of several thousand years in the ancient East. The result is that Oghuzan took this type of tomb architecture from his traditions and propagated it in the Seljuk and Ilkhan lands. In the field of Islamic art and architecture, and from a practical point of view, the tombs are divided into two «religious» and «non-religious» groups and from a morphological aspect they are divided into two basic types «tombs of square and dome map» and «tower- shaped tombs». The tombstones in this study are of the second style. The first type, which was built in the 4th century of the **Hijri** calendar in Transoxiana and presented a special style

16 Hillenbrand, *Iran Arts*, 323.

17 Karim Pirnia, *Stylistics of Iranian Architecture* (Tehran: Soroush Danesh, 2008), 61.

18 Willber, *Islamic Architecture*, 98.

19 Ernest Conel, *Islamic Art*, trad. Hooshang Taheri (Tehran: Tous, 1976), 73.

20 Pope, *Iranian Architecture*, 86.

of tomb construction, consists of a four-vault dome, the best examples of which include the Tomb of Amir Esmael Samani in Bokhara. It was built about 331 AH. But the tower-shaped tombs, in terms of architecture and their type of performance, have a special feature that makes them different from other Islamic buildings. Common parts in most of the tower-shaped tombstones are the presence of an outside dome, on the one hand, and the emphasis in the building's height, in relation to its width, on the other²¹. In the Seljuk period, we are faced with the same form of structure (tower shaped). Preference for the quadrangle was so strong that, in fact, all of the important types of tomb towers could be found about 300 to 700 years of Hijri calendar²². In this era, polygonal designs were universally accepted with respect to the creation of maximum space for Tawaf and a greater field for other architectural works. During the Ilkhani period, the achievements of the previous period were still used and added only to the height of the tower tombs. Most of the tombs of this period have gypsum altars. In these tombs, the bodies were buried under the designed tombstone in the center of the room or in arched cellars²³. In the era of the Ilkhanis, due to the various religious policies of the Mongols, we face a kind of freedom of action for Shi'ites²⁴. In this way, in addition to creating political tombs such as the Ghaffarieh dome in Maragheh and the holy tombs, including the Bayazid Bastami tomb, can be mentioned. The tombstones of the Ilkhan period have been separated from the preceding traditions and have been manifested in all respects. The remaining evidence shows that the graves of the Sultans were placed in special places and the graves of the most important people were sometimes placed in the district near the mosque or shrine. But the usual place to build a tower tomb or shrine was in local cemeteries. These cemeteries were located outside the gates of the city²⁵.

21 Hillenbrand, *Iran Arts*, 81-108.

22 Robert Hillenbrand, «Tombs,» en *Iranian Architecture of Islamic Period, Vol. I*, by Mohammad Youssef Kiani (Tehran: Academic Center for Education, Culture and Research, 1987), 32.

23 Wilber, *Islamic Architecture*, 38.

24 Ya'qub Azhand, *Marashian, Ghiam* (Tehran: Amirkabir publisher, 1986), 37.

25 Hillenbrand, «Toms,» 31.

With regard to the above, it can be concluded that the tower tombs of the Ilkhani (and late Saljuk) era have two features that distinguish them from the earlier periods:

1. The tendency toward a multi-faceted plan that expanded throughout this period and became prevalent.
2. The importance of the inner space of the tower-shaped tombs, which often considered external perspective.

3. Bardaeh City

The historic city of Bardaeh or Barda is in the central part of the Qarabagh plain, near to where Tartar River flows to Kor River. Pre-Islamic history is not clear very clear in this respect. Due to archeological excavations, it seems that Bardaeh was established in an older residential area of commercial and industrial centers, and had a commercial link with Rome and Greece before Christ. In its ruins, there are foundations of houses made of pebbles, clay and bricks and glazed floral artifacts, as well as coins of the time of Alexander the Macedonian; the Seleucids and the Parthians; Augustus, the Roman Emperor; the Sasanian kings; and the Islamic period. Apparently, at the time of Ghobad Sasani, Bardaeh was restored and the castle was created inside it.

Hamdullah Mostofi confirms this in the following writing: «The building of Bardaeh was created by Alexander the Macedonian, and Ghobad Firouz's son rebuilt it». According to Bakikhanov, Bardaeh is one of the buildings of Fereydoon Pishdadi. Apparently, it is from the era of Ghobad that Bardaeh has become the capital of the province of Aran, in Azerbaijan. The city of Bardaeh was restored in the 41 Hijri by the governor of Abdulaziz ben Hatam ben Naman. He dug the city's water supply system and strengthened it. After him, governor of Azerbaijan, Mohammad ben Marwan, during the caliphate of Abdul Malik Marwan (65-86), restored the fortifications of the city of Bardaeh. In 681 Hijri, Turkan Khatun settled in Bardaeh in winter and went to Tabriz in the

summer, where he died²⁶. At Teimur's attack on Azerbaijan, Bardaeh also fell in his hands. In 804 Hijri, Teimur passed by Ganjeh and Bardaeh and wintered in Qarabagh²⁷. Today, the city of Bardaeh in the Qarabagh plain is a new city built near the old Bardaeh and there is no connection with the city of Bardaeh.

4. Bardaeh Tomb

Studies on the Bardaeh's Tomb are limited to a few articles on its decorations, which have been carried out mainly by Russian, Azerbaijani, or Turkish scholars, and unfortunately, apart from the references made by the respected scholar Dr. Hosseini (2010) in the article «Introducing the style of the Sufis tomb construction of Azerbaijan»²⁸ have been introduced the building, it has not written articles or writings which only investigates this building, is not written in Persian. The tomb building has two entrances in the northern and southern entrances, the northern inscription is based on the construction history of building and the inscription on the southern part introducing creator of it (image 1). According to the existing information in the inscription on the top of the south entrance of this tomb in 722 Hijri, it was built by Ahmad ben Ayoub ben Hafiz Nakhjavani²⁹. Probably because of the same name on the top of the inscription, the building is also known as «Ahmad Zachi Bana»³⁰.

26 Mohammad Ben Khavand Shah Mirkhand, *The date of rozat al-Safa* (Tehran: sin lugar de edición, 1958), 441.

27 Sharaf al-Din Ali Yazdi, *Zafarnameh, Mohammad Abbasi Printing* (Tehran Tehran: Library, Museum and Document Center of Iran Parliament, 1957), 273.

28 Seyed Hashem Hosseini, «The introduction of the style of Azerbaijani sufis tomb construction,» *Honar-Ha-Ye-Ziba Memari-Va-Shahrsazi*, n° 43 (2010): 57.

29 Gharavi, «Tomb in Iranian,» 248.

30 Oktay Aslanapa, *Kirim ve Azerbaycan'da türk Eserlei* (Istanbiul: Baha Matbaasi. 1979), 95-97.

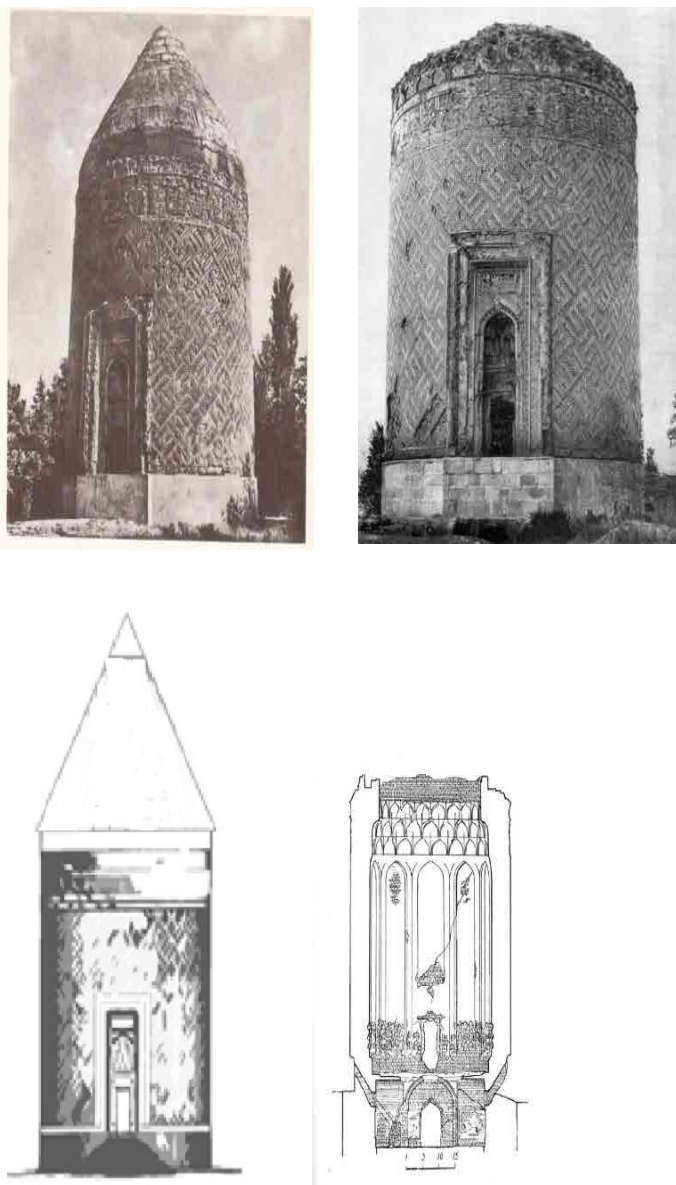


Image 1: The Bardaeh tower before and after the destruction of the dome (left) and the profile and perspective of the tomb before and after the destruction of the dome (right)

Seyed Hashem Hosseini, «The introduction of the style of Azerbaijani sufis tomb construction,» *Honar-Ha-Ye-Ziba Memari-Va-Shahrsazi*, n° 43 (2010): 57.

The tower-shaped tomb created as a brick-shaped cavity with a height of 14 meters and a diameter of 10 meters on an octagonal stone base. The stone base is made of four rows of clean rocks that are made in a completely elaborate manner and in the current state without any special decorations. The main body of the tower is made of turquoise glazed bricks and forms a double-sided dome in its cover. The interior dome or daisies with bricks 20 to 20 are of a creeper type and placed on top of the Mogharnas that are built on the octagon. A cone-shaped dome with materials of igneous rock and lime mortar was constructed in the usual manner of tombs of that era, which was later destroyed (image1). Unfortunately, in the sixties of the twentieth century, instead of the original dome that was destroyed, a dome was made using concrete materials and covered with limestone, which, in addition to the apparent disparity and unpleasant perspective, created dangers on the brick body. Given the potential dangers of this unreasonable restoration, the tomb has been restored in principle during the last decade. The octagonal interior of the tower is decorated with Mogharnas and geometric designs, (image3) and Moarragh tiled inscriptions that can be accessed from both the northern and southern entrances.

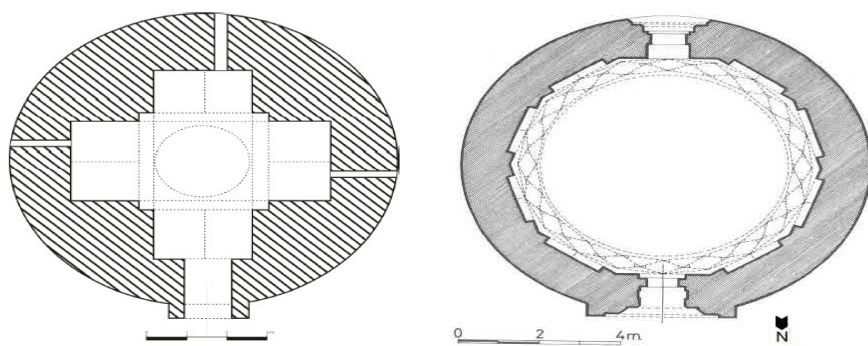


Image 3: The plan of the crypt and the first floor of the tomb tower of Bardaeh
 ÇAĞLITÜTÜNCİGİL, E. (2008). BERDE TÜRBESİ'NİN SIRLI TUĞLA VE ÇİNI
 MOZAİK SÜSLEMELERİ. Türk Dünyası İncelemeleri Dergisi, 8 (2), 35-63.

The exterior is decorated with a design of Kofi inscription embroidered with the word «Allah» and the turquoise glazed brick. A similar sample of these decorations can be found in

the Sheikh Safi's tomb in Ardabil, the Tomb of Sheikh Heydar in Meshkinshahr, the Tomb of Hassan Kif in Turkey, the Tomb of Qarabaghlar in Nakhjavan and other buildings, The difference is that Qarabaghlar, Hasan Kif and Bardaeh placed with 45 degree rotation of four-letter inscriptions. Exterior decorations have been greatly damaged due to passing of time and moisture penetration after the roof is damaged in the upper parts and by human factors in accessible parts. At the end of the upper part of cylindrical section and on the basis of the inscription dome, tile had been constructed all over the building, which unfortunately, only a few parts of it remain today. One of the most important features of the building is the presence of two pre-vaults in the form of entrance and exit doors that the one in the Qibla side is more prominent, with more detailed decorations including inscriptions and geometric frames. According to the construction year of the Bardaeh tomb (722 AH) and the Sheikh Safi tomb (735 AH), built with a little distance from each other and which are very similar in terms of body and decorations, It can be concluded that the Bardaeh tomb was the inspiration of the tombs after itself, especially the Sheikh Safi's tomb. The bottom of the building is the cellar where was the burial place of the dead. It was built in the usual manner of same time tombs in the form of a crucifix. The central rectangular space is covered with a low rise dome, which straight sleeping brick decoration follows the instruments system. On the four sides of the sides of central space, the cruciate arms are covered with a vault, and one of the sides of the crypt entrance. Three other spaces, each with a small hole lighting hooker, provide lighting and ventilation for the crypt (image3).

5. Decorations used in the building

There are two interesting studies in Bardaeh tomb decoration that have been published in Turkish. First on behalf of M. Ildeiram (2002), entitled The Language of sources role, was trnslatwd and in which discussed the meaning of the word «Allah» used on the external front. The second paper is written

«h. Najaf-oghlu» (1944)³¹ is more related to the form and shape of the decoration and its rhythmic repetition. In both of these major works, the topics surrounding the term «Allah» have been formed and, to a lesser extent, other decorations of the building have been addressed³² (table1).

The most important part of Bardaeh tomb decoration is Koufi lines of a building on the outer body, which is blessed with the turquoise glazed tile and the sacred word «Allah», and because of the frequent repetition of the word among the public, Sometimes the tomb is also called «Allah Allah» dome. Since no other word has been used in these inscriptions, except the sacred text of «Allah», it is certain that the artist in his design has considered more than a merely decorative role, and talks about it in relation to transcendence and connectivity to Allah. It was right and the achievement of the right and the attachment was the most important goal of the artist and the magnanimity that lay within the building. Most likely, the designer has considered the third verse of the Hadid sura as «Hova al-Awal Va al-Akhar Va al-Zaher Va al-Baten» to apply such a visual paraphrastic imprint (table 2).

On the other hand, the use of this inscription can be related to the great name of god, which, in some mystical terms, is the greatest name of the god. There is a difference in the name of the Majesty and which of the names of God is greatest, and the most prominent idea is the word «Allah» as the great name. On the other hand, the use of the word «Allah» throughout the tower body can be referred to one of the most important issues in the mystical worldview, that's mean the concept of the unity of existence. In this case, the mystic, with the rejection of the world, is witnessing only one single truth, and the rest at the context of the only truth will exist, in terms of everything that exists, and the

31 Hacali Necefoğlu, «Selçuklu Mimarisinde Kristallografik Nakışların Yeri.» en *III. Selçuklu Kültür ve Medeniyeti Semineri Bildirileri 20-22 Mayıs 1993* (Turkey: Konya, 1994), s. 87-88.

32 H.S. Memmedoğlu, İ.R., Emiraslanoglu, H.A. Necefoğlu y A.A. Mürseloğlu. *Motiflerin Dili* (Turkey: Konya- Selçuk Üniversitesi İlahiyat Fakültesi Dergisi. 14, 2002), 227-269.

rest is part of him, not separate from him³³. Finally, the use of the Allah Inscription as Foursome that four symmetric squares are formed the combination of the last word of the four «Allah» of the four symmetrical squares, can be a symbol of God's unlimited environs on all directions, places and times, as well as reference to the life of the mystics, and the comprehensive presence of the almighty God in it. Observing the proportions and precise geometry of the building reflects the precise geometric and mathematical knowledge of Nakhjavani architect. An architect with a special skill considered the diameter of the building about 10 meters and the resulting environment was calculated and created 3140 centimeters. If you want an example of this precision to be added to this diameter during construction, the resulting environment would increase by 8-10 cm, and the continuous plan implemented with the word «blessed» Allah in part was incomplete, which is not the case (table2).

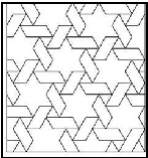


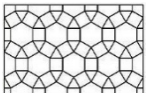
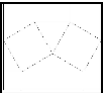

Conclusions

During the Ilkhani era, a special style of funerary architecture was developed in the form of a tomb tower, extending its reach from Azerbaijan and reaching Khorasan and Turkestan in the east, and the Asia Minor and the Egyptian Mummels in the west. Considering the centrality of Azerbaijan during Ilkhan period, and the special attention of Ilkhani Sultans to this region, the tomb architecture styles flourished in this temporal-spatial period that the best examples of which are the tombs tower of Maragheh, Bardaeh, Nakhjavan, Urmia and Ardebil that the foundations for its formation can be found in religious beliefs and Islamic Sufism. Based on the above content and decorations used in Bardaeh tomb and similar species such as Sheikh Safi and Sheikh Heydar's tombs, it is more likely that the Bardaeh's tomb belongs to one of the sufis and mystics of the Era. But according to the usual custom of the Ilkhans in Azerbaijan, according to the order of the construction of a tomb and a memorial for the deceased kings of the kings such as the Momeneh Khatoon Tomb and Ghareh

33 Hosseini, «The introduction of the style of Azerbaijani sufis tomb construction,» 57.

Baghlar in Nakhjavan, this possibility is not far from the mind that the tomb was built to commemorate such people. It is also worth mentioning that this building has become popular among the public named «Nooshabeh tower» (The woman who was the ruler of Bardaeh according to Nezami Text in Eskandarnameh).

In summary, it can be said that the architects and tile worker artists of Azerbaijan during Ilkhani period, according to the demands of the tomb masters, in the decoration of the buildings have considered religious and belief principles, which led to the emergence of a special way of decorating in the tower-shaped tombs of the region. In this type of decorating combined with the Islamic mysticism, the artist, instead of direct use of the main concepts from the symbol and the mystery in the heart of the artwork, he uses mystical and spiritual concepts with the help of shapes, volumes and numbers. In fact, choosing a circular shape for planning and repeating the word Jalalahollah and the latent unity between the architectural form and the decoration will eventually provide us with a pattern of evolved funerary architecture that is repeated in the next buildings.

General geometry of patterns	Small design of patterns	Image
		
		

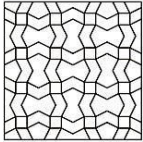


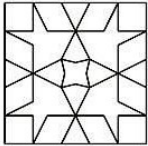








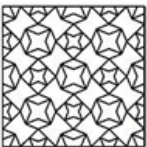







		
		
		
		
		
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Table 1: Knotting and decoration plan used in the pre-vault of the double entrances of Bardaeh tower

Source: the authors


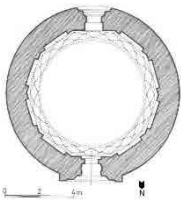

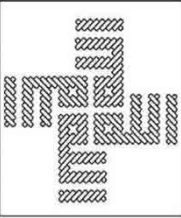


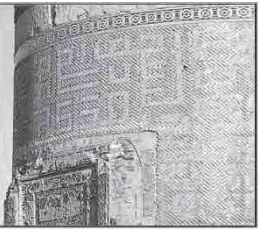
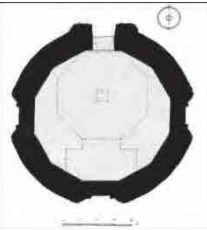

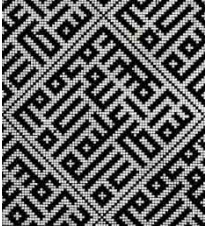

Jalalahollah Word	Plan	Image	Tomb Name
			Bardaeh
			Sheikh Safi
			Sheikh Heydar
	-		Ghareh Baghlar

Table 2: Comparison of the role of the word “Allah” in the tombs of Ilkhani period

Source: the authors

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