

Investigating the architecture of Iranian mosques according to climate

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ABSTRACT

Mosques take place as the most prominent symbol of Islam in architectural history. From ancient times to tailored to each community's culture and arts present the unique characteristics of the construction of mosques changes were seen but its foundation until today is preserved and its main components remains. The mosques have the greatest impact on the architecture of Islamic and also they are most influenced by the culture of their period. Due to their fine architecture, study of some mosques can clear many unbeknownst subjects in the field of history geography culture and civilization of the people in that era. The number of ancient mosques in Iran is not low and fortunately, to date, A large part of that is preserved and survived against natural and unnatural disasters and this can make satisfy the people who wants to explore more about this subject. Mosque of Dezful as the historical mosque has so far not been investigated and It seems that additional exploration is needed. In this paper an attempt has been made by the extent possible of the authors, arrangements necessary information for future research of this historical mosque. Key words: mosque, Dezful, culture, architecture, history

Introduction

Culture reveals itself utmost in architecture. The rituals, religion, morals, thoughts and beliefs of generations are revealed in the architecture of each society. Not only in huge buildings, but also in smaller ones this is true. Since Iranian civilization was mixed with Islamic teachings, the Islamic civilization was about to be emerged and its reflection was echoed in ancient buildings. Old buildings such as mosques are considered the storage of the secrets of culture and Islamic architecture of Iran. As in other religions there were places for worship, in Iran also mosques were the splendid places for worshipping of Muslims. With the difference that mosques besides having a religious standing, were the place of people's interaction and were mostly built in main parts of cities and were the place of gathering for religious, social and political events. On the other hand it's the language of the people and authorities of its time and can reveal their extent of belief in Islamic subjects. We may find the composition of the mundane world and religion in the mosques. All of them are built toward the Kabe, and the goal is to create an integrated identity. Mosque is a place in which hearts relief and people can settle their personal and social problems with each other. Prophet Mohamed says: Muslim in mosque is like fish in the water. So mosque is revitalizing for spirit. Since one of the symbols of culture and civilization of a society are the religious buildings and monuments, this paper tries to examine the effect of culture on architecture of mosques and their cultural use, and the Dezful mosque is selected as the case study.

Mosque and culture

Mosque means place of bowing (ebne manzur, 3/204/1984). And is the peak of worshipping and a spiritual place. Mosques, whether local or big, should convey the cultural and moral values. The word big mosque in Islam means the completeness of the social and spiritual standing. Complete means composing of parts together. (Khalil ebne ahmad, ebne darid, 1/483/1987, johary).

Big mosques in triumphant lands were first built for consolidation of Muslims. No other institute could reveal the newly formed unity of Muslims. Also mosques showed the continuity of regimes too., and as a political media, they were not only a place for adoption of state policies, but also a place for people's objections, political events, and personal and group complaints (ebne jozi, 9/35/1412). In Islam's history, mosques were the most beautiful, tallest and biggest buildings from the civil, local and political points of view. In first of Islam mosques were located near the regime centers. In many cities bazars were also near them (bamat, 2005). Thus the proximity of bazar and mosque shows the interaction of world and religion. (bamat, 2005). Prophet Mohamed says: mosques are the bazars of the other world. And their only merchandise is heaven. In some cities like Esfahan and Hamedan the mosques are inside bazars and in others they are beside them (moghadasi, 261). The architecture of mosques has always been splendid. Different parts of mosques like minaret, porch, and bedchamber are built by known architects. Mosques have been known besides their spiritual role, as the oldest centers of education of Islamic sciences like sharia, jurisprudence and verses. In mosques of Koofe, Baghdad, Damascus and Fastat important scientific circles were formed that their results are available in old Islamic texts. (ebne jabir, 220-214, ebne jozi, 1412, 119-118/14). In Iran also the mosques of Neishabour and Esfahan have been the centers for scientific gatherings. Also public teachings have been prevalent in mosques. Thus considering the main cultural and artistic elements in a building diverts its spirit from an ordinary one into a certain and prominent architecture that may reflect the ideals, thoughts and art of a society. Also attention to facts and requirements of a building and function also indicates the elevation in the architect and its message will be revealed in this phase. (diba, 1999, 97-106). Mosque is one of the most outstanding elements of city and society that both from cultural and architectural point of view has an effective influence.

Mosque and architecture

Historians believe that Islamic architecture begins with mosques. (bamat, najmodin). Since mosque merely had all the architectural functions. Although passing of time made some changes on other buildings in schools, monuments and palaces, but mosques kept their religious origins and main foundations and were stable so far. Ebne khaldoun believes that the architecture of mosques shows the extent of the power of the government that affects the prominence of the construct. Experts in arts and architecture believe that elements like geometry, light, symbol and secret and nature elements are the reflection of the purity message and tools that the architect have to be able to convey the message of mosque to people. (kazemi, 44-45, 2011).

In our history, mosques have a especial standing. They represent the symbol of peoples' religion. A building that people always honor and try to keep it at its best and do their best for its renovation and maintenance. Thus in our history mosques have always been lively and dynamic and one should regard them as valid ids of the culture and arts of this nation that we can explain the ups and downs of the architecture's history by examining the complete cultural evolutions of the society.

Characteristics of Iranian mosques

Architecture in Iran before Islam belonged to Sasanian era and after that was mixed with Islamic teachings and was revealed in mosques. (balkhari, 75, 2006). It can be said that no especial architectural style was entered from Arabs. But Iranian culture affected it. The style consists of a central yard and bedchamber toward kiblah and a bedchamber in other three sides with brick columns and semilunar arches. What is noteworthy is that the physical features of all mosques everywhere consist of certain items like being toward kiblah, symmetry in plan and the separateness of the interior space from the outside. Sanctuary is the main part of mosques. It is known that sanctuary is for fighting the devil. (ragheb esfahani, 1994, 112). From the oldest mosques of Iran like Fhray in Yazd to later centuries' mosques all had these features. (balkhari, 2005).

It seems some parts such as arches, and terrace and cradle like arches were affected from the Sasanian era and were not abandoned after Islam. (pirnia, 2005, balkhari, 76, 2005).

Dezful mosque

The history of Dezful as historians say that its capital was Ilamian (2600 years before Christ) goes back to 5000 years ago. In ancient texts, after the Noah thunder, the city named Evan is mentioned. This was the capital of Ilam and the prominent center of all eastern cities. Western discoverers including Walter Hients, in his book named "lost world of Ilam" that has been translated into Farsi, says that: it is possible that Evan was somewhere that today is Dezful. Dezipol or Dejpil in local accent is called Dezfily and its Arabic is Dezfily. Dezfily was founded at Sasanian ear when building a bridge beside it for creating a connection between the new capital (jondi shapur) and Shushtar. Dezfily is located in Khuzestan province in western south of Iran near Dez River. It's placed in central Zagros skirts and as mentioned goes back to Sasanian era and has been regarded as part of the Ilam emperors' lands. The culture of Dezfily's people can be considered a mixture of Khozestan and Lor tribes. (etelaat, 2009).



The connection between the ancient Dezful Bridge and mosque
Google earths

The Dezfily mosque which we try to examine here is the first mosque built there in the method of Arabic mosques of Medina. Primary mosques were built considering the hot weather of Arabia and the temperature in south shores of Iran is same as there. Thus these mosques were proper for those area and regarding the fact that no building was attached to the mosque, there must have been openings in other sides of the building too so that local conditions could be bearable. Since in south shores other than Shiites, sonnies also live, mosques have differences that indicate the cultural and religious differences. For example mosques of sonnies don't have more than one minaret, and that is independent from the mosque. The oldest part of Dezfily mosque is its eastern bedchamber and in it the impact of Sasanian era is evident. Its southern bedchamber goes back to 6th century and the eastern terraces relate to the Badredin Ata era in Safavie and 1110. The opening and finials are made in 12th century. Thus its architectural type has no relation with Arabic style of mosque. (zamarshidi, 1995, masaheb, 2765/2).

The place of the Dezful mosque in the square



This building that at the moment is located in the central square of Dezful is from 3th or 4th century that has been in the center of attention from the beginning and has been renovated in different eras for its importance. It has been renovated and decorated in Safavie and Ghajar. Last renovations date back to Safavie and Ghajar era considering the texts on the stones of the mosque, for example the date of repair on one stone indicates king Sultan Hossein of Safavie, and for this blue colors that were characteristic of those times were used in the stone, or on one tile the date of 1253 indicating the time of King Mohammad Shah of Ghajar is written. One of the other reasons of old age of the mosque is its architectural style that is styled from palace terrace of Karkhe and the architecture of Sasani era. (haji ghasemi, 120, 1996).

The renovation of mosques started from Teimori era and continued in Safavie (hilen brand, 2006, 104) that indicates the extension of the culture of maintenance of heritage by people at that time. The current building consists of the opening gate, yard and southern and eastern bedchambers. The main opening is in the western north side. But until 12th century the mosque had only 4 small openings that one opened to the bathroom and the others to southern bedchamber. Later on except one in southern east, the others were blocked. The western north opening that was built in first of 12th century has tile works. Under the aches of the opening there is an epigraph related to 1157. Also signs relating to the 14th century regarding repairs and decorations are seen on it. (haji ghasemi, 120, 1996).

The main yard of every mosque is one of the important parts. That is a void and vast area that attracts any viewer of passing from the everyday life. The yard is like a parlor with a sky above.

The yard is vast and around 27/60*26 meters. Among the southern side and the gates of terraces there are openings. The main par is the bedchamber with columns in the south that has a wide mouth on its back. The covering of the arch is beautiful and is built on huge brick stones and has also covered the walls of the sides of the bedchamber. In the middle of the bedchamber there are 20 pillars with two side ones that on the two main ones later on two small finials were built about 15 meters from the ground. Along the eastern side of the yard, there are mouths and a terrace that is built at the time of Kingdome of Sultan Hossein in 1110. Here is an epigraph that goes back to 1299 with a religious context. In the backside of the eastern terrace, a bedchamber with 14*6.55 dimensions is known as the oldest part of the mosque by Seyed Mohammad Ali Imam. The main map of the bedchamber, considering the changes is not too much certain.



But it seems that this part was first a separate building and its architect had the design of the remaining of Sasanian palace in the western south of Dezful in mind.

Below the northern side of the mosque there is a basement around 16.5*7 with 3 meters height. In all northern and western sides there are dates relating to the 13th and 14th century, that are about tile works and embellishments. (molazadeh, 143, 2000).

Under the arch of the main terrace there is a beautiful work of painted bricks that is placed at two sides of the minaret, and from the yard's level to the up is decorated with colorful tiles in blue, black and white. The sanctuary is located at the end of the courtyard in the southern side with 1.30 meter length and 1.1 depth, and besides it there is a stone seat with 1.15 width and 10 steps. The western view that is symmetric with the eastern has 5 arcades, 4 of them are placed two by two around the middle one that has a larger mouth. Above the middle arcade there are beautiful geometric forms with colorful tiles and under them there are four small arcades that by the below texts of tiles from the right to the left on the top of the tower down arcades are *lailaha ilallah*, *mohamad rasollallah* and *ali valiollah* respectively. On the top of the upper arcade the time of the repair is written on an epigraph with colored tiles: renovation of the western building by Seyed Mohamad Ali Imam Jome Amal Hasan Ebne Mohamad Javad, 1326. (haji ghasemi, 123, 1996).

Minarets: the main meaning of the word minaret means the place of light or fire. This meant high places that were used for a signal for smoke or fire in pre-Islamic Arabia. Thus it equals the light of house as well. (hilen brand, 132, 1996).

This word with the connection that has with light, has been used as a symbol of minaret as light or form of spiritual lights. The value of minaret as the main element of the Islamic society is evident. (hamo, 133, 1996). The minarets go back to the first century. There were also mosques that didn't have this part like the Faryab mosque. (adrisi, 478/1). But conventionally most of them have (hilen brand, 1996). It was prevalent from Teimori era that minarets keep their view up to the dome. But Safavi architects used this thought with less audacity. With use of decorations the focusing on separation of minaret was possible since the type of decorations of the cylindrical body of the minaret are different from the decorations required for flat surfaces. (hamo, 158, 1996).

At the sides of the main terrace of Dezful mosque we see two minarets that are possible to be built at the time of Mohamad Ali mirza Shah and are decorated with particular tile works. Other than the decorative margins used there are 5 different parts in the decorations of the minarets. The first part placed upper than the main terrace is decorated with *Ali*. The second part between the main terrace and the ceiling of the bedchamber is decorated with *Allh*, *Mohamad*, *Ali* and in the third part the *Ekhlas* surah is written in three lines and the 4th and 5th parts are decorated with pretty designs. The overall height of the minarets from the yard level to the bedchamber are 6.5, to the big terrace, 11 meters and up to the end of the minaret, 15 meters respectively. (haji ghasemi, 123, 1996).



The typology of the columns

In the main bedchamber there are 20 columns consisting of 3 types. Along the southern bedchamber, there are 4 rows and along the western-eastern side there are 5 rows of columns. It is noteworthy that besides the east, west and south sides there are columns along the mentioned columns that are protruded from the wall. At the eastern bedchamber, there is a type of column with a square rectangular type. 3 other types of columns are used in the main bedchamber of the mosque. (haji ghasemi, 124, 1996)



The typology of the ceiling

The ceiling of the bedchambers and terraces from both the covering and design points of view are worked with brick and have a vast variety. The talented architect has made beautiful geometric designs with bricks on the ceiling and has used herbal colors to give a prominent beauty to them. The covering of the ceilings regarding their bricking is four types and so is the type of bricking.

Materials

Regarding the age of the mosque that dates back to the first century the materials used other than bricks, mortar and mud that are also used in other old buildings of Dezful, we see sedimentary stones in northern mountains of Dezful in the foundations of the columns. Also tiles in black, azure and white have been used for tile works and for the roof thatch and in other spaces chuck has been used. The floor has been covered with bricks and after renovation was superseded with mosaic. The main renovations began in 1956. Including minarets, columns, ceilings and the tile works in different parts of the mosque. The stone minaret has a width of 1.15 meters with 15 steps and the sanctuary has decorated it in a wood with a Chinese knot. (haji ghasemi, 124, 1996).

Decorations of the construct

In the religious atmosphere, the undoubted fight of Muslims with images that were accompanied with idolatry persuaded the architect to focus on abstract decorations. This as a value helped in the way of thinking and for this, all that time was devoted to decorative screens that were ended up in the floor of the mosque and were viewed at the view of the seated people. The decorations of Islamic buildings are either colors or carvings that anyway cover all parts of the construct and give it a general entity that is independent from the building itself. Removing the material, denying unwieldy masses and substituting them with a fact

less tangible. A fact that when even looked at, changes its form and with this the repetition of individual units eternally can take place.: columns, arches, particularly decorative designs in plants and flowers and geometric forms and lines. All of these three classes have a deeper dimension. The unlimited variety that artists can magically create and in European language is known as Erisk (eslimi) indicates the unending richness of god's creation and often in the symbol of religion refers to heaven and god. Geometric designs have a multiple level that a kind of game flows around them that goes beyond the framework of the view. Ultimately, line as seen in mosques consists of verses of Quran accompanied with cases of history and often has a steadfast religious context. (hilen brand, 123, 2006).

Generally in decorations of mosque especially around the yard, often bricks and tiles are used. Most of the decorations are in the southern and eastern side. The type is mostly simple. In eastern and southern, there are arches that lead to the southern and eastern bedchambers. The type of arches there, are 5 and 7. The decorations are tile works and show themselves in the forehead of the arches. The arcades of the terraces are symmetrical two by two. Tiles are diaphoretic with blue, white and black colors with various geometric designs. Sometimes the name jalalalah with tiles is seen in arcade with black in foreground of white on the tile. As mentioned the volume of the external decorations are in the southern side. The minaret from top to down is worked with beautiful geometric designs and in the middle part of it, there are verses of Quran in arcade like the name Ali with black tile on the white tile with arcade design. Other parts of the minaret are also worked with geometric designs. As mentioned, tile works are done on the forehead of arcades and terraces. The rest are covered with simple brick works.

Interior decorations of the construct:

As mentioned before, the design of most buildings of Dezful is done with bricks. The interior design of the Dezful mosque is too not an exclusion. These are done by brick, tiles, and chunks. The use of chunk is only limited to covering of arches and only has a covering application and is not used for decoration. Also the use of tiles have been limited too and have been used in some places as a tiny tape on the margin of the brick works of the arcades. However, brick works do the main decorations. Some arches are done with simple style. However, most of the prevalent designs in the interior decorations are straight, zigzag and sometimes simple. The works under the arches of the terrace in the southern and eastern part are also brick works and tile works with straight, zigzag and sometimes the combination of tile and brick in a geometric way. Overall, the decorations used in the Dezful mosque don't have much variety regarding he type of the designs and materials and are limited to bricks and tiles. (haji ghasemi, 126, 1996).

Conclusion

Mosque as the most important social standing of Muslims has had a main role in major historical events so far. Mosque is effective in convergence of culture and relation between cultures. The cultural concepts in mosque with a common language that is used in their structure cause unity. In addition, the methods of the construction of mosques and their architecture have been the connecting loop of various Islamic phases. Through this, religious concepts have been conveyed from one generation to the other. During consecutive centuries mosque has been the center for culture and cultural relations between Islam disciples and even uniform interactions between divine religions, in a way that religious constructive units in Europe and Asian countries have been under the influence of architecture of mosques in Iran. From the time that prophet Mohamed gathered the idol worshipers in mosque and invited them to worship god to the time of conquering of Europe by Muslims and setting splendid mosques in all over the world mosques have been the symbol of science, culture, unity and splendor. The methods of constructing of mosques in all over the world has been the inspiration of artists and architects in different eras in creating cultural monuments and works. Dezful mosque as an aged construct at the present time with characteristics that are already mentioned, has shed light on many ambiguities on the era of Islamic and Iranian culture. We hope the characteristics that were mentioned in this article could smooth out the way for future deeper and more precise researches.

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