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THE IMPACT OF IRANIAN-ISLAMIC ARCHITECTURAL STYLE ON INDIA'S TAJ MAHAL

Abstract:

The Islamic architecture as a stout tree has rooted in the peninsula of Arabia and its branches and leaves in neighboring countries like Iran, and its flowering in the continent of India and the Far East are visible. The study of impact of Persian- Islamic architecture and results of its growth and maturity in the Subcontinent of India can be used as a feedback in the process of architecture.

With regard to the beginning of the Moslems' entrance to the Indus valley, in the eighth century, no traces of this period has been left except the cramped quarters of a small mosque, but in the twelfth century, the Moslems started creating some valuable works again. After various periods and in the age known as Mongol (Mughals of India) architecture of the Subcontinent influenced greatly by the art of Iran, flourished considerably. The Taj Mahal is one of the famous works of Islamic architecture in the world which was build in this period by the strong hands of Muslim architects- some of them were Persian.

Keywords:

architecture, Iranian style, Islam, India, Taj Mahal.

Introduction

Taj Mahal is a famous complex of tomb - Tourism structure in the world that most of the people in the world have at least heard its name and some are familiar with its certain places through pictures. The fame and credit can be indicative of the art value hidden in this set of architecture.

This complex is important for Iranians because its design is based on the Persian architectural design and acts as a reflection of the culture of Iranian architecture in the land of India which was formed and developed in Mughal period in continuation of Timurid architecture. Taj Mahal is the tomb of Arjomand Banoo, Shah Jahan's wife and the daughter of Asif Khan and granddaughter of Mirzá Shirazi Ghiyasuddin (Qaravi, 2005: 34). The complex is a garden tomb that is a tomb built and designed in combination with a garden. Such tombs can be considered as the symbolic tomb structures in the world of Islam, since garden is one of the signs or symbols of world hereafter- that is, heaven, which is a space for the righteous and the believers.

The Impact of Iranian culture on the court of India's Mughals

Babur, the founder of Mongol Dynasty in India, was of the Mongol tribes in Iran (maternal lineage of Genghiz and paternal lineage of Timor). (Koch, 1991: 10). Having much familiarity with Iranian culture and art of architecture, He was the first person who made up the government in the Subcontinent of India. Homayoun who became a king after his royal coach, due to defeat in war took refugees for a few years in Iran in the time of Shah Tamasp Safavi and got completely familiar with the Iranian culture. With winning in the next war and deployment in India, he took a number of Iranian artists with him there. The design of Homayoun's tomb that many believe it is taken from the design of the Taj Mahal, is influenced by the Soltanieh dome that Homayoun had visited. This design was made based on four- garden and eight -paradise plans. In this period in Iran and India almost the same pattern was followed. (Sultan, 1999. p. 64)

The influence and the role of Iran in the formation of Mughal art and culture were so important that panegyric poets in praise of a senior person –who was a significant advocator of architecture, said that he had converted India to Iran. (the same year, 63)

In the time of King Akbar (son of Homayoun), Mirza Shirazi Ghiyasuddin moved from Iran to India and began to work at his court. He was father of Asif Khan, known as Etemad-al-Dawlawas who worked in Jahangir Shah's court and at the time of Shah Jahan was assigned to work as the chancellor of the court.

Etemad-al- Dawla was father of Arjomand Banoo (known as Taj Mahal). Taj Mahal was Shah Jahan's wife. Noor Jahan, Jahangir Shah's wife also was the Iranian Ghiyasuddin's daughter. It is noted that the real power of the government was in the hand of this Iranian lady (Halayd, 1997,11). In the age of Shah Jahan, his new capital city, the city of Shah Jahan Abad (old Delhi) was designed and run according to the design of Isfahan in the period of Shah Abbas (Irving, 1984, 76).

Therefore one can find out that Iranians were among the high- ranking people in the periods of Akbar Shah, Jahangir, and Shah Jahan and the Iranian culture in those periods was completely popular.

Location of Taj Mahal

In the eleventh century,. Shah Jahan,the fifth Mughal king of India, ordered to build a tomb for his wife Arjomnd Banoo(Momtam Mahal) in the city of Agreh/Agra (Hak, 1037-1067). Momtam Mahal was the granddaughter of Ghyas Beg Etemad- al- Dawla Tehrani. Etemad-al-Dawla left Qazvin for India in 1605 and after a while became the bureaucrat of Akbar shah's court (Hack, 963-1014) (Nezam-al-maleki, 1869, vol 1, 263, Orang Abadi, 1888, vol 1, p. 128- 129). Momtam Mahal married prince Khorram(shah Jahan) in 1021.

Because of his intense interest to Momtam Mahak, Shah Jahan gave her the royal seal and delegated huge financial power to her (Lahoori, 1867, vol 1, part 1, p. 96-97, 148, 180).Even in his war travels, he let her accompany him. In one of the trips to Borhanpoor, Momtam Mahal passed away in lunar year1040 month Dhu Al Qaeda, after giving birth to the 14th child and her body was temporarily buried there(Lahoori, 1867, vol 1, part 1, p. 385-386, 393). Six months later, after transferring her body to Akbar Abad, on fifth of Jomadi Al Akher 1041, they buried her in a place south of Agreh on the banks of Yamuna river and started building Taj Mahal(Lahoori, 8767, vol 1, part 1, p. 402-403). Shah Jahan, due to his admire to his wife and her own will as well, decided to make the most beautiful tomb for her(see the same as above, vol 1, part 1, 388, Qaravi, 1962, 36).

Description of the complex Taj Mahal

Taj Mahal is located near the city Agra along the Yamuna river. It is on a rectangular ground, sizes 111.5 by 373 Gazes, approximately equals 801 by 320 meters (Koch, 2006, 103) whose longitudinal axis is perpendicular to the river. The complex is composed of four areas. The first area which is a rectangular shape is located by the river and its buildings are on a elevated platform. The main platform of this area is made of red stone. In the middle of the platform, there is another platform made of white marble on which the structure of the tomb is standing. At the two ends of the area, there are two identical buildings, one of which is aimed to be a mosque and the other a guest house. The only difference between these two is that the stone pavement of the mosque has been emblazoned with prayer rug design and there is a sanctuary on the Qibla wall. (Mullah Abdul Hameed Lahoori, 176/, 383). Later on, they called the guest house 'response', because they found it as a response or mirror reflection to the building of the mosque (Dhama 1992, 25). On the four corners of this area, four towers has been placed.

The second area is a garden in shape of a square with four- garden design and each of the four parts of the garden again are divided into to four parts. Four streams in the middle of this area and a pool in the center are observed. There are three gateways at the end of the three parts of main pivots perpendicular to one another and the forth part has been kept open to the building of the tomb (Koch, 1373, 99).

The third area is in the shape of a rectangle and is called ' house front'. There are four spaces on the four corners of this area intended for staff and janitors of the complex. Four gates along the two main axes of this space have been designed. The main, important gateway, through which people can enter the garden and then the tomb, is located in the middle of north face of house front. The entrance gate is three times as deep as that face. For this reason, the entrance gate has been made in protruding shape on both sides (toward the garden and toward the house front).Later two tombs were added in two sides to this space. (Koch, 2006, 16)

The fourth area (rectangular almost the square shape) is in the southernmost part of the complex and it is possible to enter it through three gateways. This space that is called four

sides- market was composed of a two-way crossover having four sides and there were four inns on four sides of this area that have been destroyed (Sultanzade, 1378, 97).

History of Taj Mahal and its features

Two historians of Shah Jahan's court, Mohammad Saleh Kanbar(died in 11th century AH) in the book *Amal-e-Saleh* or 'Shah Jahan Name' and Molla Abdolhamid Lahoori(died in 11th century AH) in the book ' *Padeshah Name*' have reported the history of Taj Mahal in details, but mentioned nothing about the architects of Taj Mahal and have merely said the names of the building custodians, Makramat Khan and Mir Abdolkarim(Lahoori, 1868, vol 2, p. 330). In a manuscript preserved in the museum of the Great Britain, dating back not more than the first quarter of the 14th century AH/ 20th century, there is a man's name called Isa(jesus) as the architect of the Taj Mahal. It is claimed that he was the apprentice of Senanpasha, the great Turkish architect who went to India at the invitation of Babur the founder of Timurid dynasty in India(Hack, p. 899-937), Taj Mahal was built one hundred years after Isa's trip to India, however(Chagatai, 1973, p. 50).

In another manuscript, names of individuals like Master Isa Shirazi as a designer, Amanat Khan Shirazi as an inscription writer, Mohammad Hanif Kandahari as a supervisor have been mentioned(Chagatai, the same as above, Qaravi, 1962, p. 38, footnote 16). Nath has also mentioned names of the builder of the dome, Ismail Khan, and some Indian fence workers. Kanboo in one of his books(probably *Bahar-E- sokhan*, manuscript in Britain museum) has pointed out two architects, Master Hamid and Master Ahmad Lahoori who built Lal fort and central mosque of Delhi on the Shah's order(see Chagatai, 1973, p. 50-51 and footnote 87, Kanboo, 1967, vol 1, p. 6). On the other hand, an architect from Lahoor called Lotf Allah ibn Ahmad , seemingly son of the Master Ahmad, attributed the construction of these two buildings and also Taj Mahal to his father. If we consider his claim to be true, we can accept that Ahmad Lahoori was the builder of Taj Mahal(Chagatai, 1973, 50, Guets, 1957, 196, Soltanzade, 1999, 120-121). Some also argued that Shah Jahan in youth had designed several large buildings. He has been considered the architect of Taj Mahal(Chagatai, 1973, 51). If it were true, the writers of ' *Shah Jahan Name*' and ' *Padeshah Name*' who have mentioned some less important building designs by Shah Jahan in details, might not have ignored to mention the name of such a masterpiece's designer. According to the inscription on the mansion inside the tomb and the inscription on the entrance of western façade, the tomb has been completed in 1048 AH(D. Islam, second edition) but the completion of its affiliated sites, according to Lahoori(the same as above) lasted until 1052 AH. According to the inscription on the main gate, decorations of the building continued until at least 1057 AH(D. Islam, the same as above). Since 1041 AH for fourteen years, Shah Jahan performed the ceremony called Ors every year (Lahoori, 1867, vol 1, part 1, 429, 487) including custom for forgiveness of people passed away. On the twelfth ceremony of Ors held on 17th of lunar month Ziqade, 1052 AH, the end of the construction was officially declared (D. Islam, the same as above). After Shah Jahan's death in 1067AH, his body was buried beside the grave of his wife (Qaravi, 1963, 37).

Analysis of Taj Mahal

Taj Mahal is located at the end zone of a rectangular area walled on the banks of the river Yamuna(Papadopolo, 1989, 93) in the middle of a Jabutare(platform or podium), a seven meters- high square, and its façade and surface are made of white marble. Each side of the

platform are 16 and 95 meters. It is decorated with a row of arcades (Kanboo, 1967, vol 2, 316, Papadopolo, 1989, 95, Peterson, see references). The platform is in the middle of another rectangular platform. The rectangular platform whose northern side is along river Yamuna is paved with the red stones carved and riveted (Kanboo, the same as above). On every corner of the square platform, there is a minaret with a height of 42 meters on a octagonal base which are divided onto three fairly equal parts by three congresses. Top of these minarets have been covered with arches (Peterson, the same, see figure 1). The square shape design of the tomb, due to beveled edges, looks like an irregular octagon and is known as Mosman Baghdadi (Peterson, p.274, Koch, 19994, p. 100, also see Masman). On each of the main directions of the construction, a big porch or roof 24.32 meters high is seen (Papadopolo, the same). The back sides of each porch's arch are decorated with the elements of flowers and plants on a marble background. On the forehead and both sides of the arches, some verses of Sura Yasin are written in Arabic script called Sols and formatted. Repetition of this kind of decoration around the entrance head which is embedded in bottom half of each arch, has increased the beauty and fitness of the construction (Yorkhart, 1983, figure 167).

Marble Mogharnas of arches, are the most eye-catching decorations (the same as above, 184-185). The distance between each arch and the arches on other facades is filled with six smaller arches in two rows which their total number is 24. The decorations around these arches are similar to those of four big arches. On both sides of the main porch and at all angles of the building, there are totally 16 slim and solid minaret-like things whose tips look like lotus bud (Soltanzade, 1999, 91, Nath, 1972, 52). On top of the center part of the building, there is a large onion shaped dome which its height from the ground is 10.74m and from the surface of the square platform is 10.67. This double-shell dome has a stem which is 15 m high (Papadopolo, the same as above, Peterson, 276), Being in onion shape and having double shells are indicative of Iranian and Indian architecture combination, but crescent-shaped tip of the dome and other domes of the construction remind us of the Ottoman-style domes (Chagatai, 1973, 55, Peterson, 275). In four sides of the dome, on the roof, there are small arches with pergola domes that make us remember the four small domes around the tomb of Amir Ismail Samani (died in 295 AH) in Bukhara (Soltanzade, 1999, 90, also see Bukhara).

Interior design of the building consists of five regular octagonal spaces, one in the centre and the others on four corners. Each of four corner spaces, built on two floors lead to the two square living rooms on their both sides and also the central octagonal space through some corridors. The central space is surrounded by eight vaulted sitting places in two floors, totally sixteen ones (Kanboo, 1967, Yorkhart, 1986, the same). The cellar located under the central space and at the same level as the garden ground, is the place Momtaz Mahal and Shah Jahan are buried in (Peterson, 276). In the middle of the central space, there are two big inlaid marble stones put there as tombstones which are surrounded by an octagonal wall with two meters height and stunning marble lattice work. This area has two entrances with arched vaults. In the early years of building the structure, instead of the marble wall, they had built a wall of gold enameled. Then Shah Jahan ordered to change it into the current form (Lahoori, 1898, vol 2, 326). All the floors and walls inside the building were built of marble and the plinths were made of beautiful marbles and decorated with the reliefs of flowers and plants (Qaravi, 1963, 40). Artists of Taj Mahal carefully made the margins between plinths, central spaces, Mosman rooms, corners, areas around the building, and the main entrances studded (Nath, 1972, 70).

According to some researchers, the impact of European architecture on Taj Mahal is limited to some decorations like exquisite inlaid marbles and reliefs of flowers and vases of the building's plinths (Kock, 1994, 101). On both sides of the tomb's mansion, on western and eastern sides of the rectangular platform, two completely identical and symmetrical buildings, one of them a mosque and the other a guest house has been made of red stone. Each one has three domes covered with white marble. The central dome located between two smaller domes, is much smaller than the central dome of the tomb's mansion. The mosque which is located in the west of the dome, unlike the guest house has a sanctuary and on its floor, the spaces for praying have been determined by revetting red stones (Lahoori, 1867, vol 2, 326-327). On four corners of both buildings, four towers with pergolas are seen. Each of the buildings through low walls has been connected from both sides to the short towers located on the corners of the rectangular platform. South façade of the tomb overlooks the garden space (580.11 by 305.61) (Papadopolo, 1989, the same as above), which is influenced by Iranian-style gardens (Soltanzade, 1999, 92), in which two main cross streets divide the garden into four square parts and each of the four parts are divided into four smaller parts and this continues for three more times. At the intersection of the two main streets, there is a square pool with five fountains on a podium. The length of two main streets of the garden is divided into seven sections. Right in the middle of each street, a fountain has been built and on both sides of the street, there are narrow paved sidewalks. There exist on both sides of the sidewalks two long gardens with lawn. The width of each one is the same size as that of the fountain and a row of pine has been planted in them. On both sides of these two streets also there are two wider paved passages (Yorkhart, 1986, figure 66). On two corners of the southern front of the garden, there are two octagonal towers, symmetrical with the two towers of northern corners. Presence of two other symmetrical towers with pergolas in the middle of the garden's wall, located on both sides of the east-west main street, not only causes symmetry but also makes the garden's wall firmer. Along the south side of the garden, there is a rectangular area called house front that reaches the garden through a magnificent gate. In each of the both north and south fronts of the gate, there is a big arch and above the forehead of each one from two sides, two narrow minaret-like things have been built. In these arches, besides beautiful Mogharnases, there is also a two-story arch including three arches on the first floor and seven smaller arches above them. Decorations of backsides and the inscriptions around them are similar to decorations of arches on Taj Mahal's tomb. On foreheads of these arches a row of arched vaults with eleven 'Chokand' (little marble dome-like things) is seen. Arches of eastern and western sides of the gate lacked these decorations. On both sides of the main arches, there are two small two-story porches (Lahoori, 1868, vol 2, p. 328).

Today, the vast majority of the buildings on the area of house front has gone. Kanboo has written that the size of house front space was 204*150 cubits and the size of Chabutreh located in the midst of it, was 80*34 cubits. On four sides of the house front 128 rooms have been built. On two sides of the house front and connected to the garden wall, two "khavas poure" (residence of the servants) have been constructed which included 32 rooms (vol 2, 319) and in east and west fronts of the house front space, there were two markets whose rooms were made of clay and limestone and porches were made of red stones (Lahoori, 1868, vol 2, 329). On the south side of the house front, a rectangular space has been built which its length is slightly more than the length of the garden. This part is also almost gone. Its remaining parts has been preserved and repaired.

Conclusion

Regarding design and construction this building is famous in the world. Its perfect building has been enchanting people more than three centuries. This beauty is composed of proper combination of garden's entering space and the main elevated element of the tomb that exhibits variety of visual experience around the main axis, out of the complex in six sides. The beautiful coordination, stylish way of decoration, creating invisible spaces with the help of pinnacles, symmetry, rhythm of work tone, on one hand and the manner of doing jobs using expensive materials on the other hand have added the beauty of the complex. Generally the building of the Taj for is set for presenting the stylish combination – both from the distance between the entry to the main section, and from near position engages the visitors attention. In the following its some special features are pointed out:

1. To build the complex, twenty thousand workers, architects, painters from different parts of Asia especially Iran, India were gathered to work for twenty two years.
2. Shah Jahan Intended to build a tomb for himself in other bank of "the river Jumna" and connect the two banks by bridge as a sign of linking him and his wife. Unlike the view of Taj Mahal which is made of white marbles, is the tomb of the king is made of the black marbles. But the second tomb was never be raised and the king rested by his wife.
3. The building at different time of the day gets different colors, that is, in the morning it is pink, in the evening white milk and at night products, and in the night when the light of the moon shines it turns gold. It is said that the use of such an idea shows the changing nature of human being. It was observed in the moral codes of the king's wife.
4. Design and implementation of this structure lasted 17 years.
5. According to Shah Johan's historians, he wore white following his beloved's death and mourned for one year. The king who killed many people to expand his territory changed into a anchorite and his daughter, Jahan Ara, was in charge of government affairs. Some have said that the king's black hair turned white after one or two months mourning.
6. There are two smaller symmetric buildings in two sides of the main building. In the west there is a mosque with three domes made of reddish brown sandstone and in the east there is a building used as a guesthouse in the past.
7. All four sides have been built symmetrically.
8. Taj Mahal is a tomb 58 meters long, 56 meters wide on a giant marble board of 100 meters. It is located inside a 18 -hectare garden on the center of which a stream flows. It was build according to Iranian style.
9. More than a thousand elephants were used for moving the materials required.
10. During the rebellions in the year 1857 in India, many valuable stones were detached from the walls by the British.

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