CHAPTER VII
GLAZED TILE DECORATION

The beginning of the Islamic period was also the beginning of a new chapter in the history of architectural ornament. Islamic art "is essentially one of decoration, for an empty surface is intolerable to the Muhammadan eye." As the Islamic architecture was produced by a world of movement and turmoil, in which artisans or objects from the whole Parthian mass were available almost everywhere, their decoration embraced an unbelievable range of themes as well as techniques.

The decorative themes were principally vegetal, geometrical, arabesque, calligraphic and, of course, zoomorphic which was popular in areas under Turkish dominance. The techniques include decorative patterned brickwork, painting, carved and moulded stucco, coloured glass and marble mosaic, carved stone, marble and glazed tile work. All the above themes and techniques appear in Indo-Islamic architecture, too. But one technique which dominated the decorative scheme of Muslim monuments and specifically Mughal monuments in the northwestern India (which included the region under study, the west Punjab and Sind) was the glazed tile work. Sir George Birdwood thus extols the mosques embellished with glazed tiles:

"But the sight of wonder is, when travelling over the plains... suddenly to come upon an encaustic tiled mosque. It is coloured all over in yellow, green, blue, and other hues, and as a distant view of it is caught at sunrise, its stately domes and
glittering minarets seem made of purest gold, like glass, 
ensmelled in azure and green, a fairy-like apparition of 
incressible grace and the most enchanting splendor."

In India, this mode of decoration was popularly known as 
Kashikari and its craftsmen were called Kashigara. Both the terms 
owe their origin to the name of a town in Persia - Kashan, a 
major centre of glazed tile production in medieval times. Some 
scholars trace the root of the above terms in the Persian word 
Kash i.e., glass. Both the views appear equally acceptable and 
establish the Persian origin of the tile work in India. A tradition 
regarding the Chinese origin of the decorative tile work was 
also carried to India which accounts for such names as Chiniwali, 
Majid and Chini-ka-Rauza.

Kashan rulers were the first to introduce this art in India. Excavations near Peshawar in Afghanistan and Del Lake in Kashmir 
have revealed fragments of glazed tiles dating from the beginning 
of the Christian era. Slowly, the art seems to have gone out of 
fashion.

The credit for reintroducing this art in India goes to the 
Muslims who themselves learnt it from Persia. The region of Sind 
and Multan was the first to come under the influence of Persians 
and Arabs. So the earliest specimens of tiled buildings were 
ereected there. The earliest example of this art is to be found 
in the tomb of Shah Yusuf Gardizi (1152 A.D.) at Multan. But 
the most magnificent tile work of the period was executed on 
the tomb of Rukn-i-Alam in the same town, constructed in the 
first half of the fourteenth century.
The next land to imbibe the Iranian influence was that of the Punjab. Besides the proximity of the region to Persia, another reason was its geological confirmation. Stone architecture easily lends itself to sculptural decoration. But building stone is rare in the Punjab. However, its alluvial soil could be easily moulded into fine brick. But brick structures were not suitable for carved decoration. So other modes of decoration were sought. Plastered brick walls could take painted decoration. But such decoration did not last in good condition for long due to the detrimental effect of sun and rain. When the use of glazed tiles was introduced, the builders of the land found it most suitable as it could withstand the elements and retain its colour indefinitely. Sometimes, glazed tiles were used on stone buildings also. Gradually, the Punjab became as great a centre of this craft as Sind and Malwa.

Before the advent of Mughals, Sultans of Delhi made use of tiles on their buildings. Monuments erected during the Lodi period (1451-1526 A.D.) were almost invariably adorned with square blue tiles. Some notable specimens of the period are—the tomb of Bibi Subhana (Dera Mir Mires) at Sirhind (1496 A.D.), the Lodi mosque at Nashhiwara (1517 A.D.), the tomb of Khwaza Khizar at Sonapet (1524 A.D.) and the Sheesh Gumbed in Delhi. Of these the first two are grey sandstone structures. But the most prominent example of the period is the Madrasa of Mahmud Gawan at Bidar (1472 A.D.). Tile work on this edifice is in pure Iranian fashion. Mahmud was a minister of Muhammad Shah III of the Bahmani dynasty and a Persian scholar. Not only did he bring the workmen but also the material from Iran.
The fifteenth century buildings of Mandu also bear blue and yellow tiles. 15

It is interesting to note that the best pre-Mughal building adorned with encaustic tiles is not a Muslim edifice but a Hindu temple. It is the Mandir at Gwalior, built by Raja Man Singh (1486-1516 A.D.). Forms of elephants, ducks and makara executed in glazed tiles appear on this shrine. Babur who visited it on September 27th, 1528, extolled the decoration. 16

The use of square tiles continued during the early Mughal period. The tomb of Maulana Jamali at Mehrauli (1529 A.D.), the Talat Darwaza of the Old Fort in Delhi (c. 1534 A.D.) and the tombs of the martyrs of Humayun's Gujarat campaign at Hissar (1537-38 A.D.) are significant examples of the period.

Tiles of deep and light blue, green, yellow and white colours have been used on the monuments of Akbar's reign. 17

Upto this period, tiles were used merely to add a contrasting note to the otherwise monochromatic walls.

A clear departure from this tradition is perceptible in the buildings erected during the reign of Jahangir. The chief among these are - the tomb of Ustad at Nakoda (1612 A.D.) (Plate 53) and the portals of the serais at Fatehabad (Plate 9) and Daulatabad (Plate 16). In the new style, first a geometrical design was formed by projected bricks or by thin plaster ridges. Then the spaces in between were inlaid with tiles of royal blue turquoise, green and yellow hues. Though the technique must have been troublesome, but the enhanced effect due to the play of light and shade is undeniable.

The tile-mosaics of Lahore Fort form a class apart.
For theological reasons, Muslims are forbidden to depict living beings either human or animal. Therefore, geometrical or floral designs predominate their decorative schemes. But the tiled panels in the Lahore Fort, covering an area of about 72,000 square feet, depict "court officials, a goat and monkey-man, a cup-bearer, a footman carrying candle-sticks and flowers, richly caparisoned horses, a standard-bearer on an elephant, a dragon pursuing a goat, birds, camel-fights, elephant-fights, a game of polo", beribboned winged figures and many other subjects. This work executed in the third decade of the seventeenth century is unique in Asia in so far as there is no other instance of glazed tiles on a Muslim building in which the designs include animate motifs. V.A. Smith acclaims these as "The most remarkable series of tile pictures in the world." Technically, this work is true mosaic. The following was the method of constructing a tile-mosaic:

According to W.J. Furnival, the design was first drawn on paper and was then traced on the plastered surface while in a plastic state. The tiles were sewn according to the design and then embedded with the help of fine mortar.

A.U. Pope, R.A. Jairamshoy and D.N. Wilber describe quite a different method. In the words of Pope, "The design pattern is drawn to exact scale on heavy paper or on a smooth plaster of Paris bed, and the designer indicates the different colours needed for each element. A collection of all the tile colours, each at its most perfect tone, is then cut by chisel, rasped and fitted into small units that are placed colour downward on the pattern, cut so that there are interstices between
the units. The whole can then be covered with stiff plaster. Sections can be removed as needed and are thus quite manageable. Using such a process, the elements of faience mosaic do not constitute an absolutely mechanically even surface. The slightest divergence in the bed or the setting (and these divergences always occur) changes the planes of each piece so that all reflect at almost microscopically different angles, giving the whole a lively play of reflections. This is always true of mosaic faience unless a craftsman's mistaken ambition for expensive mechanical accuracy eliminates the distinct advantage of such variations. 26

Ronald Lewcock mentions both the techniques. 27

The era of the finest glazed tile decoration dawns with the accession of Shah Jahan. Some scholars attribute the change to Shah Jahan's stay at Thatta when, having quarrelled with his father Jahangir, he was exiled from the court for some time. 28 But Vogel gives the credit to two powerful nobles - Asaf Khan and Ali Mardan Khan, both of whom were governors of the Punjab at different times. 29

The decoration of the period is characterised by fine workmanship, brilliancy and intricacy of design. The entire facades of buildings were divided into square or rectangular sunken panels, filled with tile mosaics. The remaining surface was usually covered with plaster painted with simulated brick pattern in red and white.

To quote J.B. Page, "The designs are for the most part floral. Some are naturalistic flowering trees and herbs - irises are a favourite subject - almost filling the panel; others are more formal - vases of flowers -
while some areas such as the drainpipes of the arches are filled with a more conventionalised floral arabesque. Geometrical designs are favoured for borders and for some panels based on the square, octagon and hexagon. In each design, petals, leaves, flower-centres and shapes of background were formed by a separate single tile. Each fragment is of one colour only. The mosaics of the period exhibit a scheme of seven colours - cobalt and turquoise blue, green, orange, mustard yellow, purple and white. The lighter colours are not pure hues but tints. The effect of variegated tiles against the soft blue sky of the Punjab is enchanting and jewel-like.

The mosque of Wazir Khan at Lahore (1634 A.D.) has been described by Smith as "the most beautiful example of Kashi work on a large scale." The tomb of Shagird at Nekodar (1656 A.D.) is the best preserved edifice of the style within the present boundaries of the Punjab (Plate 64). This tomb has preserved on its walls and bastions the full glory of its gorgeous tile decoration. Outside the Punjab, the masterpiece of the style is the mausoleum of Mulla Shukrulla Shirazi of Agra (1627-39 A.D.). The glazed tile work on the tomb gave it its popular name - Chini-ka-Rauza or the tomb bearing glazed tiles.

The art retained its vigour during the reign of Aurangzeb. Graceful lettering of the sacred texts, executed in lustrous glass, began to frame arches. Portals of Sarai Amarat Khan and its mosque are captivating specimens of the period (Plate 23). Traces of variegated tiling survive on the gateways of the Dakhini Sarai (Plate 28). The tile work here was, according to Sir John Marshall, in no way inferior to that of Lahore.
The mosque of Abdul Wahab at Sadhora (1669-70 A.D.) also bore glazed tiles. But now all lies hidden under thick coats of whitewash.

As the mosaic style was too complicated and hence costly and time-consuming, gradually there was a reversion to the easier technique of painted square tiles of standard size.

Preparation of Glazed Tiles

About the beginning of our century, Dr. Center, the Chemical Examiner to the Punjab Government, made a careful analysis of the specimens of glazed tiles and the results of his analysis are presented in his own words as follows:

"It consists essentially of a layer of glass spread on hard kind of plaster - sometimes on a material porcelaneous in structure. On analysis, the glass was found to be an ordinary silicate colored by metallic oxides. The plaster was found to be composed of a mixture of lime and siliceous sand, the hardness being due to silicates, which accounts for its bearing the heat required to fuse glass...."

"The work consists of three parts - 1st, the plaster called kashir; 2nd, the glass called keste; and, 3rd, a material called aster, put between them. The first operation is to make an easily fusible glass by melting powdered siliceous sandstone with carbonate of soda. Portions of the glass are pounded, mixed and fused with metallic oxides to produce glasses of various colours. Considerable skill was shown in producing the oxides from the metals or from the raw materials of the baser. In particular, a species of black sand got from Ajmer is used to furnish three colors - black, green and blue. It contains
sulphuret of copper and magnetic iron sand. These were separated by washing according to their specific gravities, and were reduced to oxides in the furnace.

"The khemix is made by mixing siliceous sand, lime and a quantity of the pounded glass first prepared, and according to the quantity of glass used it turns out a hard kind of mortar, or has a porcelaneous structure. It is made into a paste with rice water, and cut into pieces suitable for the pattern. It is then dried at a gentle heat, and afterwards covered with the asher, which consists of lime or pounded glass containing a large quantity of lead. This is suspended in a viscid fluid and painted on the plaster, and its use is to cover small inequalities and to act as a medium to unite the glass and the plaster.

"The colored glasses are then pounded, suspended in a viscid fluid, made from mucilaginous plants, and painted over the asher, and the whole is placed in the furnace till all the glass on the surface is fused. The pieces of the pattern are then put in their places and fixed by cement."

J. Burton Page also given a similar account of this process. 36

Henry Couzens opines that the Punjab tiles were made up "of a composition of siliceous sand with lime and other ingredients, held together with some cementing material." 37 But Percy Brown claims that "the substance of the tile was not clay but its basis appears to have been composed of disintegrated sandstone ground to a powder which when fused under certain conditions forms a kind of crude porcelain of a whitish colour thus giving a transparent quality to the glass." 38 But Dr. R. Nath refutes
the theory in view of the overwhelming records of the preparation of tiles and glass with the help of clay, metallic oxides, chemicals and sands.39

According to Furnival, the oxides of copper, manganese and cobalt were used for turquoise and cobalt blue colours.40 But Birdwood writes that "four sikka, or oxides of lead, are known, namely, sikka safed, white oxide, the basis of most of the blues, greens, and grays used; sikka sard, the basis of the yellows; sikka sharbat, litharge; and sikka lar, red oxide."41

Though the glazed tiles did not form architectural elements of the structures they embellished, they were essentially 'Objects d' art' in themselves.42 To quote Vogel again "certainly no decorative art could be devised more truely oriental in the dazzling brilliance of its colors, more bright and glowing in the splendor of an eastern sun."43
FOOTNOTES


8. Ibid.


11. Two such monuments exist in the Punjab, namely, Mir Mirza-ka-Daxa at Sirhind and the Lodi Mosque at Sheikhwara.


14. Ibid.

15. Ibid., pp. 51, 62 & 64.


According to R.A. Jairamshoy, There are represented dragons with 'long horns, staring eyes, and shaggy hair' in the act of pursuing goats, pelicans in full flight, bulls engaged in mortal
combat, elephants with trunks interlocked urged by relentless mahouts, travellers leading their drowsy, equestrians shooting lions or playing polo, guards sounding the reveille, angels lassoing demons, and so on...." ( _An Outline of Islamic Architecture_, Bombay, 1972, p. 324.)

19. Vogel, _op. cit._, p. 34.


26. Pope, _loc. cit._


31. Smith, _op. cit._, p. 446.

R.E.M. Wheeler thus describes the tile work on the mosque: "It is a riot of mosaic tilework of purely Persian type, set in a framework of unrelenting severity. The facade of the tomb-chamber, with its high square-framed central arch and the two flanking arches on each side of it, are a superb example of Persian floral decoration in which whites and blues predominate. Elsewhere, on the towers and gateway and flanking arcades, yellow, green and other colours are equally emphatic and the variety of the pattern in detail, including a range of cypress trees round an upper stage of the towers, offers unending discovery to the eye." (_op. cit._, p. 86.)

For a list of the buildings at Lahore, adorned with glazed tiles, see Sajjad Haider, _Tile Work in Pakistan_, Islamabad, n.d., pp. 68-69 and for a list of the monuments at Lahore and Delhi decorated with tile work, see, Vogel, _op. cit._, pp. 56-59.

33. Charles J. Rodgers mentions two gateways of courtyards of private dwellings at Saddora which were erected during the reign of Jahangir (one being dated 1029 A.H.). Both of these were also covered with blue, yellow and green tiles laid in geometrical patterns. (Report of the Punjub Circle of the Archaeological Survey for the year 1899-90, Calcutta, 1891, p. 26).

34. H.R. Goulding & T.H. Thornton, Old Lahore, Lahore, 1924, pp. 86-87. This account forms the Appendix B of Vogel’s Tile-Posses of the Lahore Fort (op. cit., pp. 59-60.). But the source Vogel quotes is T.H. Terston and J.L. Kipling’s Lahore (pp. 149-150). Again, Dr. R. Nath in his Colour Decoration in Mughal Architecture repeats the full account on the basis of Vogel’s Appendix. (Op. cit., p. 12.)

35. Black and dark green coloured tiles are absent in India. (Vogel, op. cit., p. 13.)


41. Birdwood, op. cit., p. 307. The author also gives a detailed account of the chemical ingredients and the technique used for making tiles. (Ibid., pp. 307-09)

42. R. Nath, op. cit., p. 9.