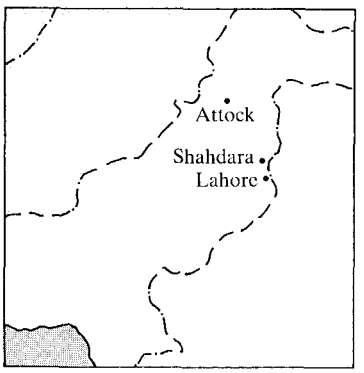
IMPERIAL MUGHALS



1539	ROHTAS FORT
	ATTOCK FORT
1556 — 1674 AD	LAHORE FORT
	SHAHDARA
1620 — 1634 AD	SHEIKHUPURA
1642 AD	SHALAMAR BAGH
1674 AD	BADSHAHI MASJID

Although the Mughals were but one of a succession of Central Asian clans which descended upon the Indian plains between the 10th and 16th centuries, they differed from the others in their choice of India as the focal point of their imperial ambitions. Their building activity was prodigious. And as well as housing the apparatus of the imperial administration, the buildings served to express the greatness of the imperial court through their grandeur and sophistication, and were an ever-present reminder of imperial might and power The real strength of the Mughals, however, lay in their self-reliance and confidence in themselves. They believed that they were the architects of a new world, and that theirs was a golden age of which they themselves were the fountainhead.

This faith enabled them to experiment with impunity and inventiveness. Even their eclecticism was not an awe-inspired submission to a glorified past, but rather a magnanimous acceptance of tributes and new ideas which could be exploited to advantage in the service of the court. As *Babar*, the founder of the dynasty, states in his memoirs, considerable building was undertaken during the five years he spent in India. These were mostly decorative gardens which, being of a secular nature, have long disappeared through neglect. Babar's son and successor, Humayun, built little, having spent fifteen years in exile, mostly in Persia, as a result of his conflict with Sher Shah Suri.

It was not until the reign of the third Mughal emperor, Akbar, that the building activity of the Mughals really began in earnest. Although Akbar built much, little of his work remains in Pakistan. The grand tradition of architecture initiated by him was continued and developed not by his son, Jahangir, who is known more for his patronage of painting, but by his grandson Shah Jahan. However, of the Mughal buildings in Pakistan, the most monumental — the Badshahi Masjid — was undertaken by the last of the great Mughals, Aurangzeb.

The buildings produced under the patronage of the Mughals belong to a single continuous tradition which can best be appreciated if seen in its entirety. The forts at Attock and Lahore are only two of the numerous fortresses established by Akbar. The fort at Lahore contains a number of smaller buildings whose red sandstone carvings are perhaps the finest and most imaginative example of the early period of transition from

the Hindu craft traditions to the formulation of a new conception. These have survived only in fragments conveying nothing of Akbar's considerable architectural accomplishments, the greatest of which is his capital city of Fatehpur Sikri, in India.

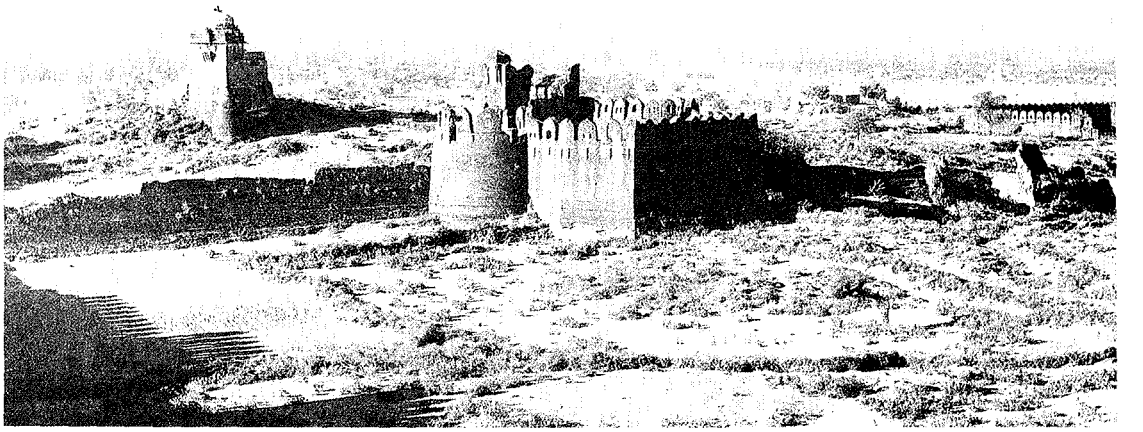
Similarly, Jahangir's tomb at Shahdara must be seen together with the tomb of I'timad-ud-Daula at Agra as a stage in the transition from the sculpturesque red sandstone architecture of Akbar to the delicate refinement of the white marble architecture of Shah Jahan. The crisp geometric patterns in white marble against the dark sandstone on both these tombs mark a move away from the monochromatic towards a polychromatic decorative treatment of external surfaces. The delicate *pietra dura* floral designs on white marble in the same buidings are a prelude to such exquisite and elegant treasures as the Bangala or Naulakha in the Lahore Fort and the Taj Mahal at Agra, and the arrangement of the tomb structure in the setting of a large walled formal garden must be seen as part of the Persian garden tradition first introduced in Humayun's Tomb In fact, the love of nature and a fondness for formal gardens was characteristic of this Timurid family, and the Shalamar Garden in Lahore was only one of the many resorts built on the Persian and Afghan pattern with running water, fountains and parterres, of which the most delightful were those in Kashmir.

Also borrowed from the Turko-Persian cultures to the west was the decorative system of design with floral and geometric patterns brought to India earlier by the Pathans But while the Persian and early Muslim designs maintained a taut formalism, the Mughal eye for detail and direct observation of nature brought to this system a degree of relaxed ease and naturalism which is both refreshing and unique. These flowers and leaves are not mere abstractions, but particularised representations of nature in frescoes, precious stones and coloured tiles.

Where the Mughals were incomparable was in the grand conception of their designs on a truly monumental scale. Nor was their monumentality dependant solely on sheer size. For even in their largest enterprises, as, for instance, in the Shalamar Gardens, the Badshahi Masjid, or in the tomb complex at Shahdara, it is never grandiosity of scale which impresses, but the sensitive cordination of every part making up the unified orchestration of a grand scheme. The technical skill employed in surface decoration and the Mughal builders' structural abilities were no doubt phenomenal, but these by themselves do not produce architecture. It is rather a complete integration of every detail of decoration, structure, mass and space in the service of a single paramount idea which produces the best examples of Mughal architecture.

ROHTAS FORT

The Persian-Afghan building traditions which formed the basic springboard of Mughal architecture were not new to Pakistan. But the attempts of the early Muslim rulers to incorporate



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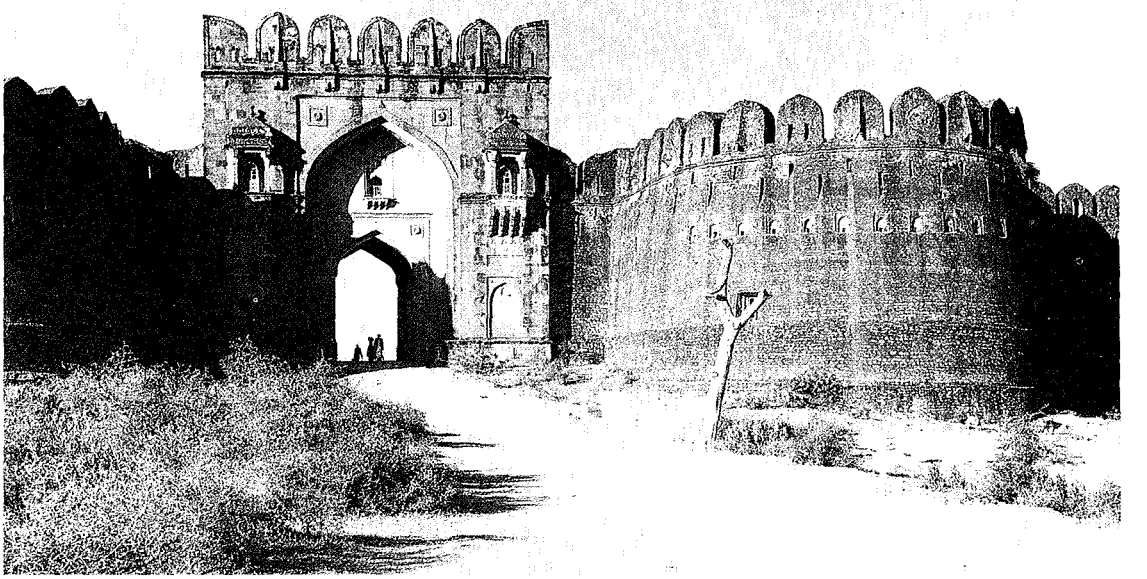


41 The northern ramparts, with Rajah Man Singh's Palace at Rohtas provide a commanding view of the route from Kabul into the Punjab plains

42 Sohaili Darwaza, Rohtas Built entirely of a grey ashlar masonry on a good square mile of land, the sprawling walls of Rohtas present a splendid example of Suri military architecture The Sohaili Gate guarding the south-west is the best preserved of its richly carved gateways

indigenous Indian forms and building crafts into their architectural vocabulary were either timid and weak or forced and contrived, never producing a harmonious unity of expression between the Persian and Indian forms. Only in the works of Sher Shah Suri do we see the early flowering of a genuinely new Indian expression which in its sureness of purpose, its fresh vigour and grand conception, held for a while the promise of greatness. His great fort at Rohtas, even in ruin, is among the few reminders in Pakistan of Sher Shah Suri's short interlude in India.

Built in 1539[1] entirely of a grey ashlar masonry on the rolling hills twelve miles northwest of Jhelum and enclosing a good square mile of land, the sprawling complex of Rohtas presents an example of military architecture comparable to Akbar's fort at Attock. The most impressive feature of the fort is its massive

wall which meanders and turns with the undulating contours of the hill. With a perimeter of about three miles, the wall is in places 30 to 40 feet thick[2] and 30 to 50 feet high. It is furnished with forty-eight heavy semi-circular bastions, twelve gates and the usual battlements, shooting galleries and loop-holes required for its defence. Its utilitarian military character is impressive, but the fort is not without a touch of delicacy and refinement in such details as the simple rounded moulding which runs along the top of the wall or the richly carved gateways. Of these gates the Sohaili Gate guarding the soutwest wall is in fair condition and is an exceptionally fine example of the architecture of this period. It is a two-storeyed structure with oriel windows and pavilions and several carved stone inscriptions adorning the facades. The other gates are known by the names of Kabuli, Badshahi, Langar Khani, Talaqi, Khawas Khani, Gatiali, Beriwala, Pipalwala and Shishi[3].

The fort divides into three main zones: the upper citadel in the high ground of the northwest quadrant; the central zone which now contains the village of Rohtas; and the lower zone with open fields, a *baoli* (step-well) and a water reservoir The citadel area includes the Shahi Darwaza, Rajah Man Singh's *haveli* and the Shahi Masjid, and appears to have been reserved for official residence. This sector is separated from the rest of the fort by a subsidiary inner fortification wall.

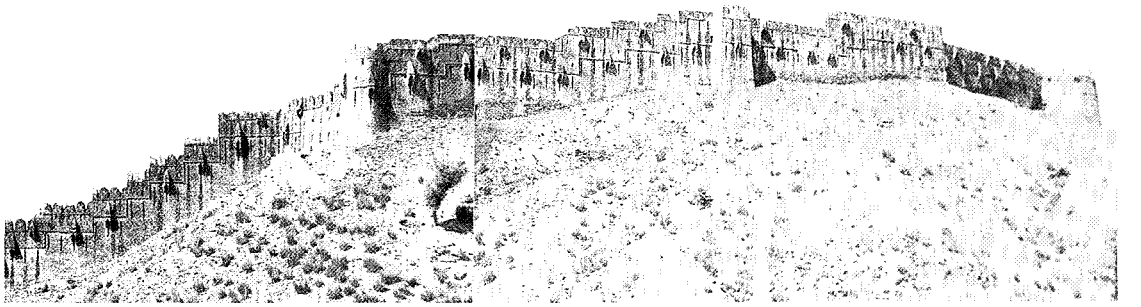
The *haveli* of Rajah Man Singh in the inner sanctuary or *andarkot* is believed to have been built by this Hindu Rajput prince of Akbar's court. The present double-storeyed building consists of a square room on the ground floor with another room on the first floor and is surmounted by a bulbous dome with lotus cresting. The gateways of the fort contain as many as 24 inscriptions carved in stone. Of these, sixteen are to be found on the Shishi Gate. Carved mostly in the *naksh* script, they are mainly verses from the Quran but some also give dates and other historical information about the fort

ATTOCK FORT

The magnificent fort on the Indus at Attock in the North West Frontier Province is a fine representation of the military architecture of Akbar. Its stone walls rhythmically dotted with battlements and machicolations march in step with the contours of the hill down to the river, ending in an elaborate gate on the river front. This fort is still in use by the army, and is therefore not easily open to inspection. The student of architecture must turn to the more accessible fort at Lahore.

43 Kacheri and Garden, Attock

Architecture under the Mughals, developing in the service of the emperors, produced its finest examples at the seat of imperial power. This seat fluctuated between Lahore and the Indian cities of Delhi, Agra and Fatehpur Sikri Thus Lahore alone in Pakistan falls truly within the mainstream of the grand tradition of Mughal architecture. Strategically placed at the conjunction of the roads to Kabul, Multan, Kashmir and Delhi, Lahore was convenient both as a station for the court on longer journeys



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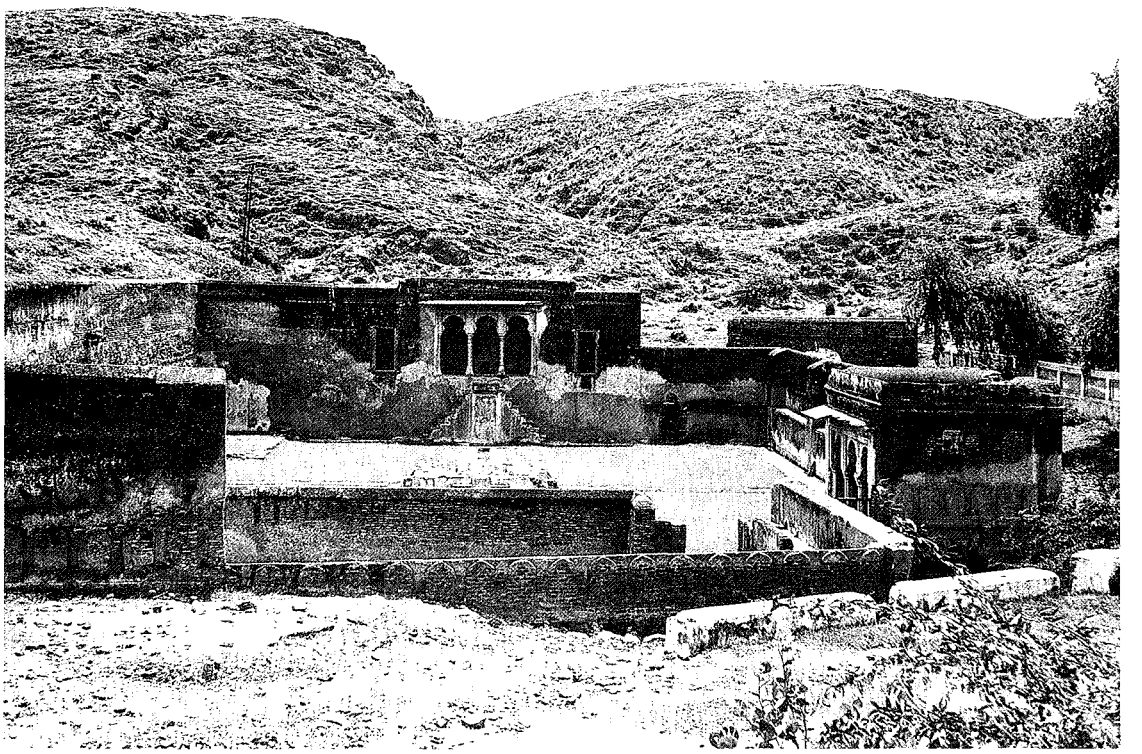


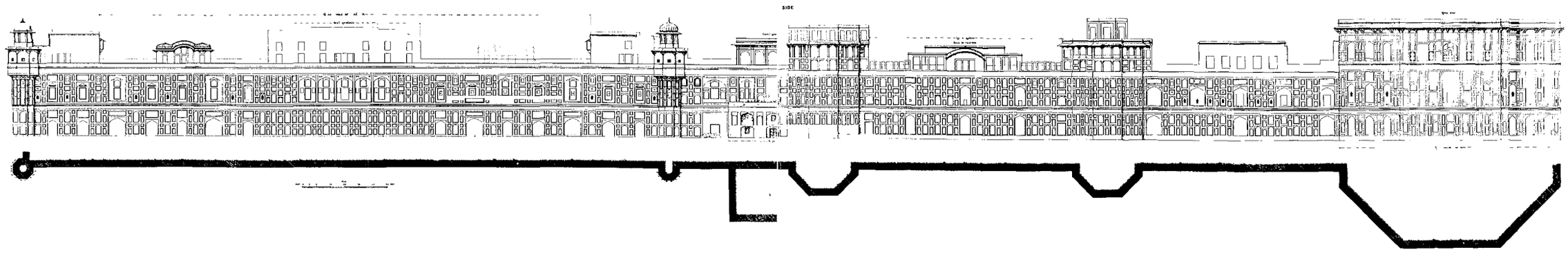
44 General view, Attock Fort

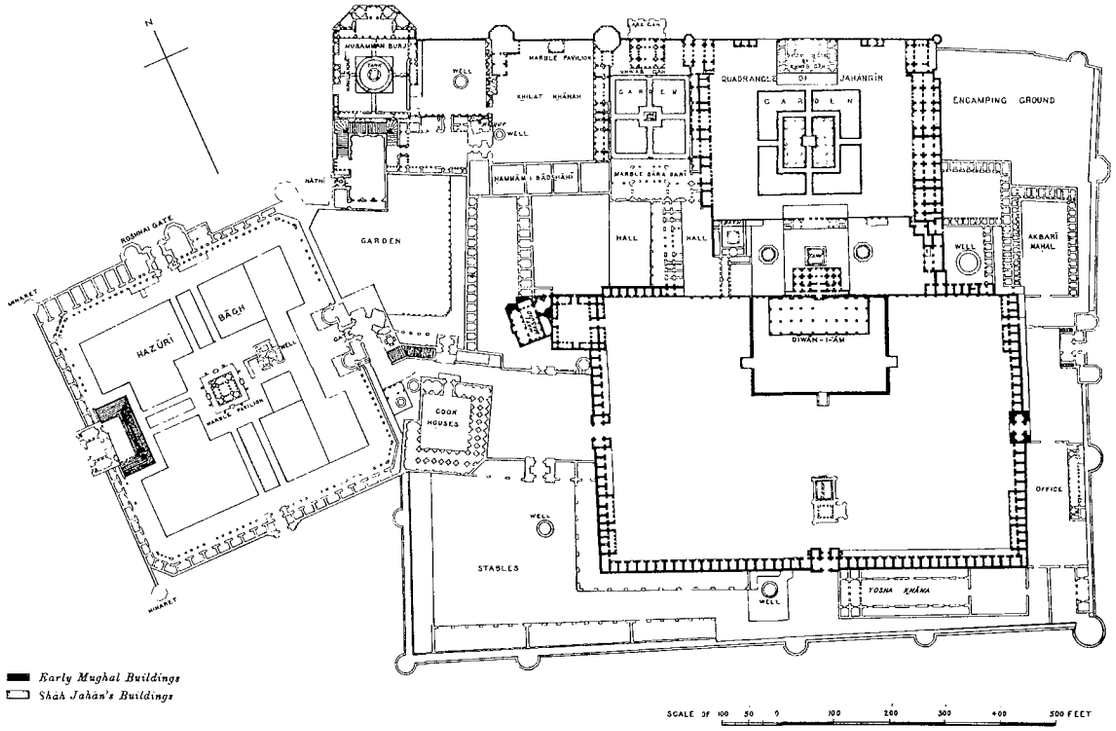
45 Among the few buildings of Akbar in Pakistan are the Kacheri and Garden at Attock Others in the same place are the Begum Serai and the magnificient Fort

and as a centre of government. The buildings erected at this provincial capital by Akbar, Jahangir, Shah Jahan and Aurangzeb as well as the numerous constructions by the governors and courtiers associatd with the Mughals, form a complete chronicle of the architectural activities of the Mughals. The largest collection of Mughal buildings in Lahore are located in the fort.

LAHORE FORT

The early history of the Lahore Fort is still obscure. However, five distinct periods, the British, Sikh, Mughal, Ghaznavid and Hindu, have been established by excavations on the site. Amongst the earliest structural remains encountered was a twelve-foot high mud brick wall, probably representing the mud





4 6 and 4 7 Elevation and plan, Lahore Fort

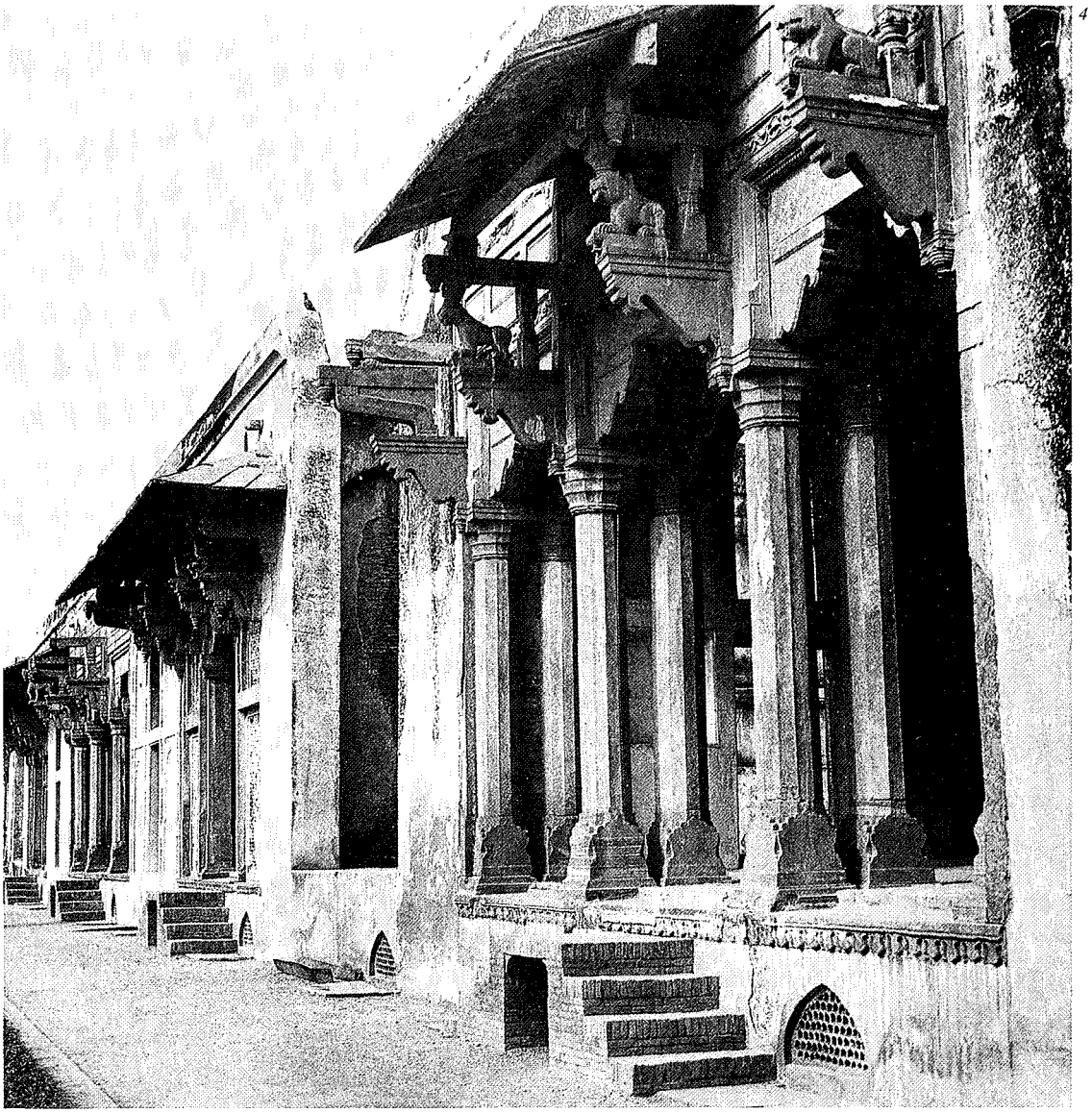
brick fort which was sacked by Sultan Mahmud Ghazni in 1021. Historical references indicate that in the course of the following five centuries the fort was successively destroyed and rebuilt or repaired four or five times over, until some time before 1556, the Mughal emperor Akbar finally demolished the mud fort and rebuilt it in burnt brick[4]. Before this reconstruction the mud fort and mound appears to have been a rectangle, twice as long as it was wide, lying south of the present Diwan-i-Am. Akbar extended this area northwards by building up the low-lying area on a system of basements and fortified the whole area with a massive brick wall and semi-circular bastions. But except for the eastern wall, the fortification wall of Akbar has been drastically transformed by successive modifications, extensions and demolitions by the Mughal princes themselves and the later Sikh and British rulers.

As the River Ravi shifted its course, a second fortification wall was added on the north by Ranjit Singh (1799). The Sikh ruler also added a number of minor structures such as the marble Athdara Pavilion outside the Shish Mahal and several upper storeys such as those over the Shish Mahal, Mai Jindan's *haveli* and Kharak Singh's Palace. Besides these constructions the Sikh rulers were responsible for much of the destruction of the Mughal edifices, stripping many of them of their marble and semi-precious stones. Even more catastrophic was the occupation of the fort by the British in 1846. In order to demilitarise the fort they demolished the south fortifications and replaced them with wide ceremonial steps and terraces. Modern buildings mushroomed all over the fort and older buildings were brutalised with alterations and additions to make them into barracks, hospitals, godowns and so forth. The lawns in front of the Diwan-i-Am were covered with barracks; the Diwan-i-Am itself was given a verandah on the south and converted into a hospital; similar verandahs were added to many of the buildings on Jahangir's Quadrangle, and its central court, including the tank, was filled up to make a tennis court The northeast tower of this quadrangle and the Diwan-i-Khas were converted into churches, the Royal Hammam became a kitchen, and the Lal Burj a liquor bar.

MASTI GATE The main entrance into the fort was through the Masti or Masjidi Gate. This gate derives its name from its location facing the Maryam Zamani Masjid or mosque. It is defended by a pair of semi-octagonal bastions equipped with battlements, loopholes and machicolations. There was probably a second gate on the west, later replaced by Aurangzeb's Alamgiri Gate.

JAHANGIR'S QUADRANGLE Begun by Akbar, this quadrangle was completed by Jahangir in 1617–18. Three sides are taken up by buildings in the typical Akbari style, whereas Jahangir's own contribution is represented by his *khwabgah* (literally, room of dreams) or sleeping room. Although its front is a British reconstruction, it probably conforms with the original and illustrates the simple and austere character of the buildings of Jahangir's period.

MAKTAB KHANA (CLERK'S ROOM) The same undiluted application of the Persian brick building tradition characterises the Maktab Khana in the Moti Masjid Courtyard. In plan too, the



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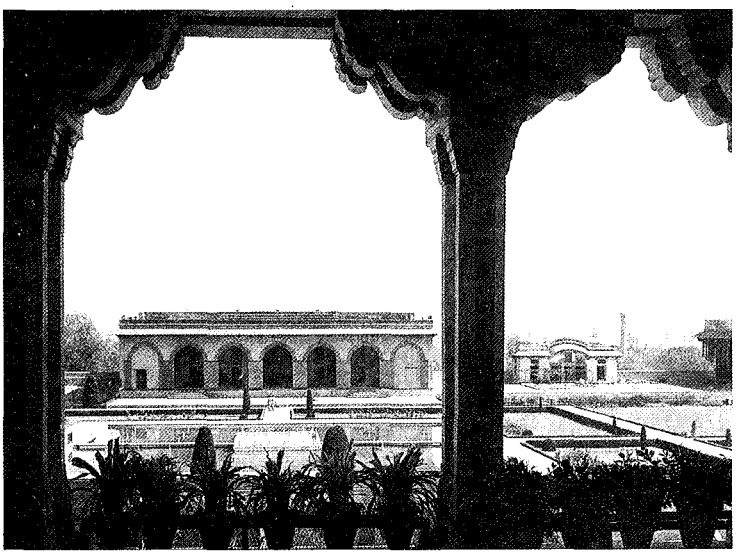

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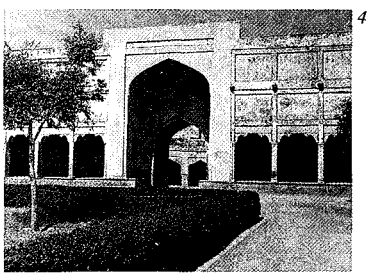

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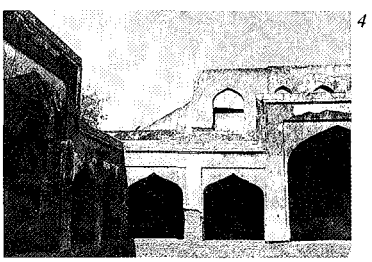

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4 8 Jahangir's Quadrangle, The Quadrangle has some of the best examples of the building style of Akbar, characterised by carved red sandstone with animal motifs and a trabeated form of construction

4 9 Khwabgah, Jahangir's Quadrangle Jahangir's own contribution to the quadrangle is represented by the Khwabgah or sleeping room

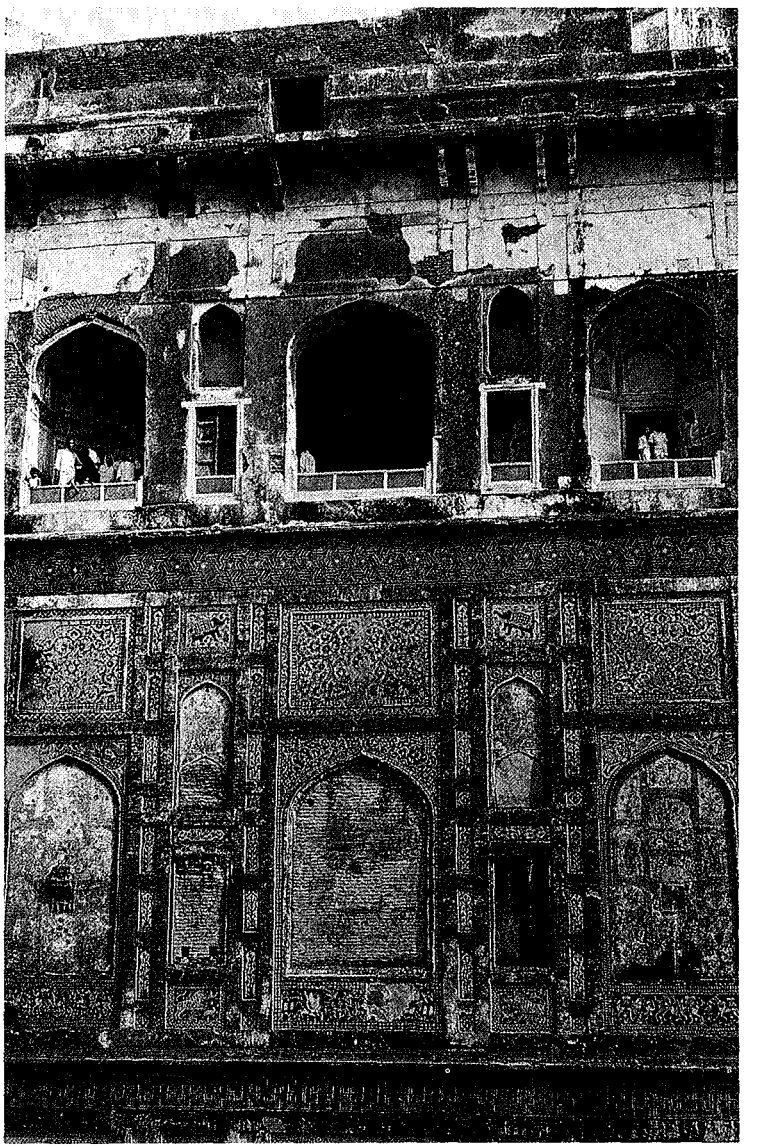
4 10 and 4 11 Maktab Khana and Maktab Khana Court These buildings of Jahangir in the Fort are in the austere Persian tradition of brick buildings based on a cloistered court, arcades and four ewans

4.12 Commenced by Jahangir in 1624, the Picture Wall below the Shah Burj was completed by Shah Jahan in 1632 It is more an exercise in the two dimensional art of illustration than the three dimensional art of building The motifs range from floral and geometric designs to animals, human and mythical figures

Maktab Khana follows faithfully the Persian models of cloistered courts, with simple-pointed arches forming an arcade on the four sides, each punctuated in the centre by a taller arch marking the *ewan* or entrance gateway.

The name and function ascribed to the Maktab Khana are controversial. The term *maktab khana* is a corruption of *maka-tib khana*, a "clerk's room", which would imply that it served as an entrance gate where the *muharirs* (clerks) sat recording entry into the palace. However, a Persian inscription above its principle entrance records the construction of this building under the supervision of Ma'mur Khan in 1717–18, and calls it the Daulat Khana-i-Jahangiri, the "residence of Jahangir"[5].

PICTURE WALL Jahangir's love for nature was matched by an equal interest in the arts of painting and illustration. Indeed, his most significant architectural undertaking in the Lahore Fort, the Picture Wall, is more an exercise in the two-dimensional art of illustration than the three dimensional art of building. Com-



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menced by Jahangir in the 19th year of his reign, 1624–25, the Picture Wall was completed by Shah Jahan in 1631–32. Starting from and including the Shah Burj Gate, this wall extends northward and, turning the corner below the Shah Burj, includes a good portion of the north wall of the fort, making a total decorated surface area of some 8000 square yards. This area is divided into rectangular and arched panels defined by subtly recessed planes, and filled in with vividly coloured glazed-tile mosaics. The motifs range from floral and geometric designs to animal, human and mythical figures. The human and animal figures usually depict sporting and other events at the Mughal court such as elephant, camel and bull fights and a game of *chaugan* (polo), often with an amazing realism in the treatment of such details as dress and casual gestures.

The period of transition from the monochromatic red sandstone of Akbar and the simple plastered brick structures of Jahangir to the white marble buildings of Shah Jahan is represented by Nur Jahan's buildings at Shahdera rather than any structures in the fort. At the fort itself, the period of Jahangir is followed by the full flowering of Mughal architecture as represented by the buildings of Shah Jahan. These include the Moti Masjid, the Khwabgah-i-Shahjahan, Diwan-i-Khas, Hammam-i-Shahi, Khilwat Khana, Shah Burj, Hathi Paer and the Shah Burj Gate.

MOTI MASJID (PEARL MOSQUE) An earlier mosque on the site of the Moti Masjid is said to have been built by Jahangir as a private chapel serving the emperior's own residence, the Daulat Khana-i-Jahangiri, also called the Maktab Khana. Be that as it may, the Moti Masjid as it now stands was built by Shah Jahan in about 1654 and is the earliest of three such mosques built during Mughal rule. These mosques are called *moti* or "pearl" mosques, because of their pearl-like marble veneer and small size. Of the other two, one lies at Agra, built by Shah Jahan in 1654, and the other at Delhi, built by Aurangzeb in 1662.

The Moti Masjid in the Lahore Fort is entered through a small chamber in the south-western corner of the Moti Masjid Courtyard. At the entrance a sharp turn to the right leads into the north-east corner of the diminutive court of the mosque, which has an atmosphere of striking calm and serenity. The effect of quiet seclusion is created by the mosque's compact size, unassuming proportions and purity of lines, as well as by the pearly whiteness of its surfaces. Its impact is made all the more powerful by the element of surprise created by the asymmetrical arrangement of its entrance.

The narrow rectangular courtyard is barely as wide and not much deeper than the main prayer chamber. There is a shallow rectangular niche in its northern wall and another curved niche in the eastern wall. Opposite this niche, the western side is closed by the prayer chamber itself. In elevation this chamber consists of a high, pointed central arch flanked on each side by two engrailed arches. Each of these five bays is delineated with rounded mouldings which frame the arches. Above them is a low parapet with delicately coloured *pietra dura* work. The roof

line is punctuated by three domes on high circular drums and constricted necks. Internally the space is divided by engrailed arches, and the alternate bays between the circular domes are roofed by rectangular *qalamdani* vaults

KHWABGAH-I-SHAHJAHANI (SHAH JAHAN'S SLEEPING ROOM) While proceeding from Lahore to Kashmir, Shah Jahan ordered the construction of this *khwabgah* in 1633 and entrusted the work to Ilmud-Din — titled Wazir Khan, Viceroy of the Punjab. Located opposite the Diwan-i-Khas, it occupies the southern end of Shah Jahan's quadrangle, and consists of a row of five rooms. Deprived of its decorative veneer it is of little architectural interest except for the white marble *jalis* (screens) in its openings on the south and traces of some fine stucco tracery work inlaid with pieces of mirror. The frescoes of Radha and Krishna in the central room and that of a Sikh Prince with his wife on a jamb of the western-most room are of the Sikh period.

DIWAN-I-KHAS (HALL OF SPECIAL AUDIENCE) The hall was built by Shah Jahan in 1645. It is a graceful pavilion, 53 feet by 51 feet, built entirely in white marble. Placed upon a raised terrace and open all round, this pavilion has a remarkable quality of lightness and airiness. Its roof and wide projecting eaves are raised on slender marble columns, and the openings are spanned by thin slabs of marble cut in the shape of engrailed arches. Its parapet is decorated with *pietra dura* work and the openings in its northern side are filled in with skillfully-cut marble screens. Its floor of marble intarsia of different colours laid in geometrical patterns with its centre occupied by a delightful small cup-shaped cistern inlaid with *pietra dura* work is a fine example of the refined architecture of Shah Jahan. The marble slabs of the ceiling are suspended by means of beams passing through their abutting ends. In 1904–5, the whole building, then used as a military church, was taken to pieces and reconstructed.

LAL BURJ (RED PAVILION) Octagonal in plan, this summer pavilion lies adjacent to Diwan-i-Khas and forms the northwest corner of Shah Jahan's Quadrangle. It is a part of the north wall

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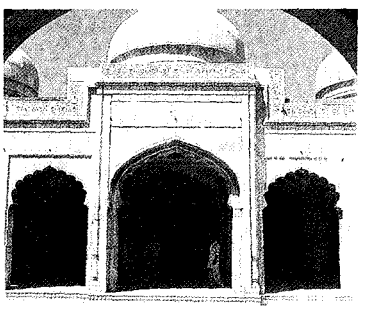

4 13 Moti Masjid, Lahore Fort The Moti Masjid in the Lahore Fort, built by Shah Jahan in 1654, is the earliest of three such mosques built by the Mughals

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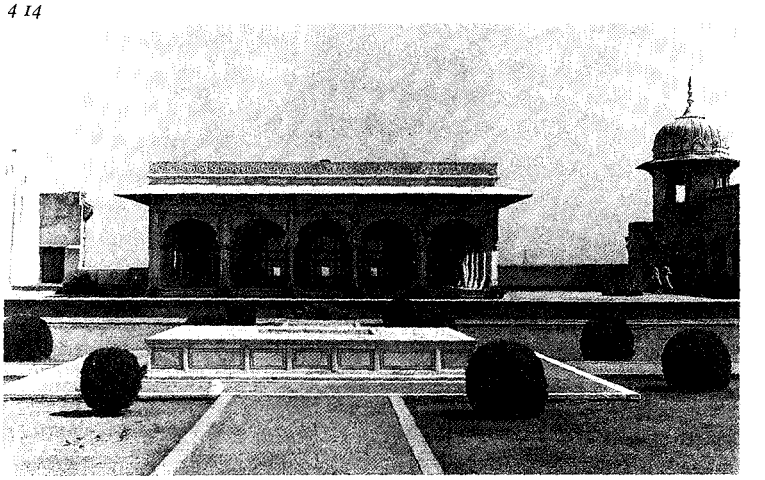


4 14 Diwan-i-Khas or the Hall of Special Audience, built by Shah Jahan in 1645, entirely in chaste white marble

of the Fort decorated with beautiful tile mosaic and filigree work. The pavilion was built between 1617–31. It is in three storeys, the top-most being a Sikh addition while the rest, together with the basement chamber, are the works of Jahangir and Shah Jahan. The present name of this building derives from the Sikh period. The interior frescoes are also mostly from the Sikh period. On the middle level a cement concrete floor from the British period has been recently removed to expose the central basin and the channels on the sides with their fountains. This building still retains, in its northeast staircase, a piece of original honey-combed cornice remarkably decorated in gilt and paint work which shows how richly and lavishly this whole pavilion was originally embellished.

HAMMAM-I-SHAH (ROYAL BATH) Built by Shah Jahan in about 1633, the Royal Bath lies immediately west of Shah Jahan's *khwabgah* and is now almost in ruins. It is in the Turkish bath style comprising three stages: *jama kan* (dressing room), *nim garm* (warm bath), and *garm* (hot bath). The centre of the first stage is occupied by a small water tank finished with variegated marble, and on its four corners there were originally single baths or private rooms out of which only the two on the south-west and northwest corners now exist. In the southwestern corner room, the original tessellated marble flooring is still intact, and here can also be seem the terracotta water supply pipes built in the wall. The heating arrangements are at the western end where the Baitul Khala (toilet) is also located. There are indications that the whole of this bath was originally paved with marble, removed during the Sikh period.

KHILWAT KHANA (ROOM OF SOLITUDE) Built by Shah Jahan in 1633, it was also called Ghusl Khana. Its court is divided into two parts: the front or southern portion and the private and personal residence of the Emperor. Mughal Emperors did not generally reside in the Harem proper, but in a separate court adjacent to it. The only surviving building of this court is a pavilion in the middle on the north side. Its plinth and door frames are of marble and it has a curvilinear roof. In front of the pavilion is a water tank, 29 feet square and 4 feet deep. The rest of the buildings of this entire court have disappeared, leaving only the foundations which indicate that both portions of this court were originally surrounded on all sides by a row of rooms intended for guards and other retainers. This part of the court is also connected on its east and west with a number of basements (*tąh khanas*) and at least one cold chamber (*sard khana*). Along with other uses, the basements were necessary for security. In the southwest corner is a ruined mosque originally built in red sandstone and marble, and specially meant for the ladies of the court. Thus, this court, the residence of the Emperor, was quite self sufficient.

PAIEN BAGH (LOWER GARDEN) The chief characteristic of such a garden, for the ladies of the Harem, was the provision of a number of paved paths or walks. Fragrant flowers, cypresses and dwarf fruit trees such as small oranges were planted. The middle of the garden is occupied by a spacious platform built in

fine cut brickwork with a water basin in the centre. On either side of this platform there are two squares, each divided into four small lawns with a water basin in the centre of each. Each of these side squares was originally surrounded by a red sandstone railing.

KALA BURJ (BLACK PAVILION) This *burj* or summer pavilion built between 1617–31, which is similar in many respects to the Lal Burj described above, occupies the northwest corner of Khilwat Khana. Little remains of its original form, particularly inside. Its present name appears to be from a later period. The top storey is an addition from Sikh times, while the floors and some of the roofs are from the British period. To this period also, when the Burj was used as a liquor bar, belongs the entire interior plaster, covering the paintings and other decorations from the Mughal and Sikh periods. The eaves (*chajja*) of this as well as other Burjs are constructed in interlocked brick-work supporting the projections without any reinforcement.

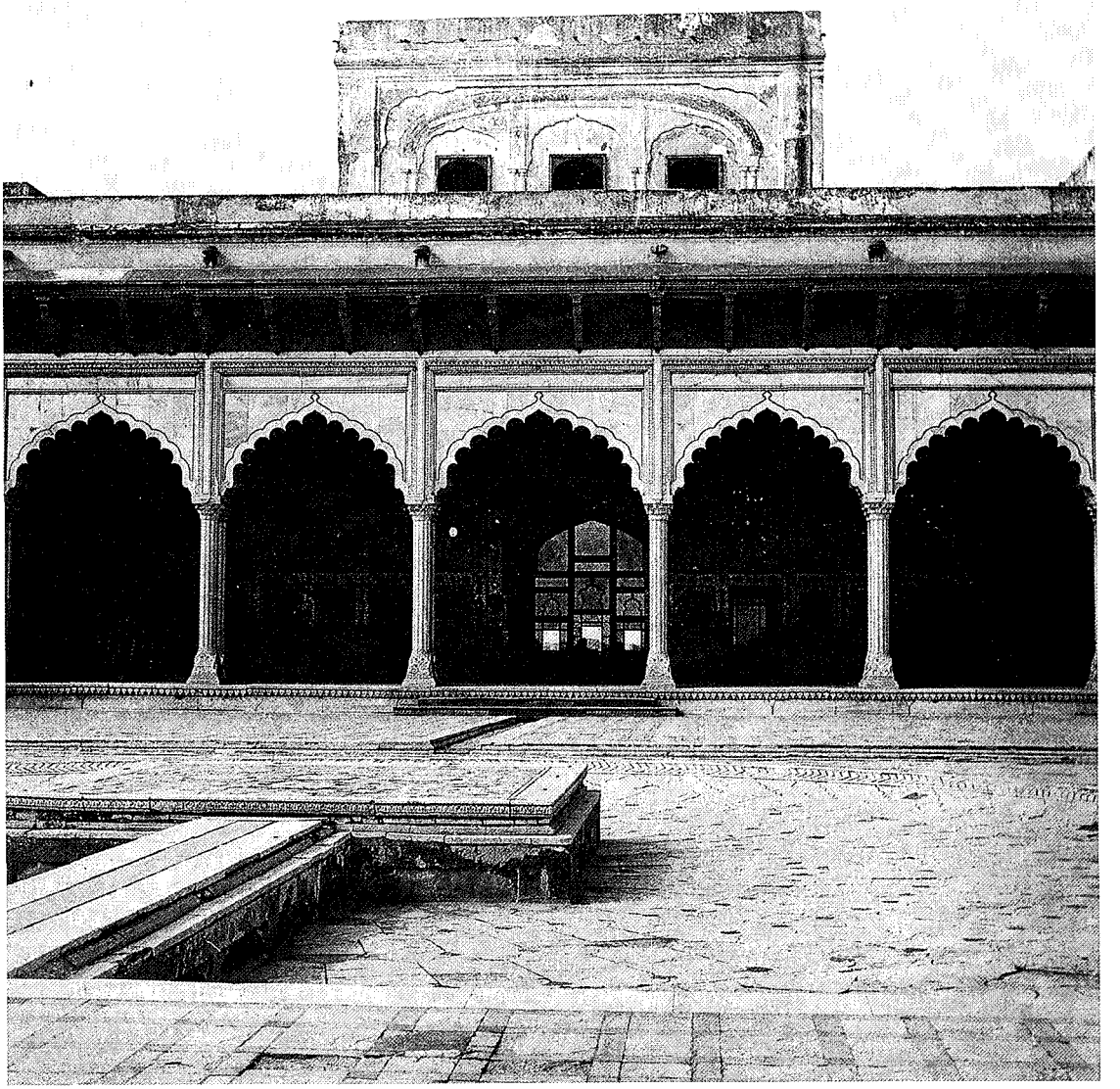
SHAH BURJ GATE (KING'S PAVILION GATE) Immediately behind the postern, in the northwest corner of the fort stands the magnificent Shah Burj Gate. The inscription over this gate records the completion of the Shah Burj in 1631–32 the 4th reignal year of Shah Jahan, under the supervision of Abdul Karim, who is mentioned as Ma'mur Khan in the inscription over Makatib Khana. This gate was the private entrance of the Mughals, used exclusively by royalty, and leads to Shah Burj (Shish Mahal), the Harem portion of the fort. Externally it is decorated with glazed tile mosaics in delicate floral designs and forms an important element of the Picture Wall.

HATHI PAER (ELEPHANT PATH) Entering the fort through the Shah Burj Gate and turning sharply to the left, one passes under a high arch to ascend by way of a flight of giant steps called *Hathi Paer* (literally, Elephant's Feet) or Elephant Path.

4 15 Hathi Pol, Lahore Fort The royal passage from Hathi Pol gate to the outer court of Shish Mahal was built by Shah Jahan in 1632 It includes a flight of giant steps called Hathi Paer or Elephant Path.

This passage, starting from Hathi Pol Gate and ending at the ruined entrance of the outer courtyard of Shish Mahal, was built by Shah Jahan in 1631–32. It is a staircase with fifty-eight low and broad steps, constructed of small country bricks covered with lime plaster, and meant for elephants carrying royalty to and from the palace. Flanking the staircase on either side are high panelled walls decorated with imitation brickwork in red, white and green. The western wall is provided with niches both in the lower and upper storeys wherein used to stand the *khwaja sara* (eunuch) and the *naqib* (announcer) to announce the goings an comings of royalty. The upper gallery was the *ghulam gardish* (servant's gallery), connected through a door with the Shish Mahal, and probably served as a passage to the royal kitchens to the south. The high panelled walls on the west and south collapsed in 1841 when Sher Singh besieged the fort (held by Rani Chand Kaur, wife of Kharak Singh), and bombarded it with light guns and matchlocks. The bullet marks can still be seen on the walls.

4 16 Courtyard, Shish Mahal, Lahore Fort Shah Burj, built by Shah Jahan in 1632, was the residence of the Empress The channels of flowing water along the two principal axes, intersecting at a central pool alludes to the theme of the Paradise garden The interior decoration of the main hall with mirrors gives it the popular name of Shish Mahal

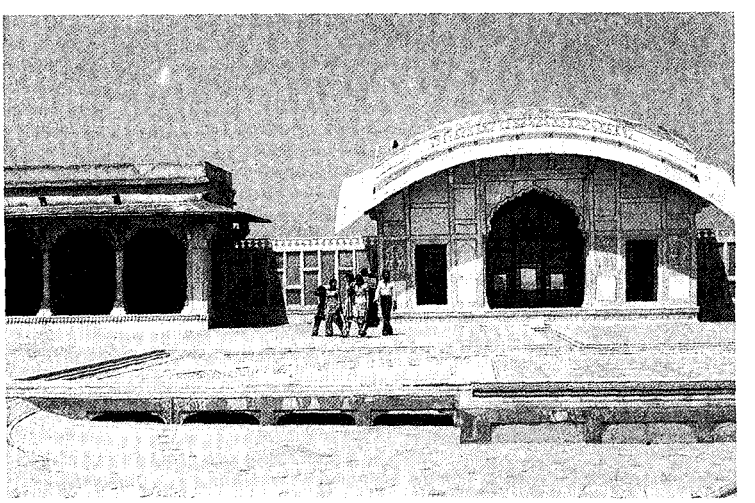


SHAH BURJ (KING'S PAVILION) Passing through a series of outer courts one climbs a ramp to enter the southeast corner of the Shah Burj or Shish Mahal Courtyard. Built by Shah Jahan in 1631–32, this was the residence of the Empress when she stayed at Lahore. This courtyard and the several buildings within it probably come closest to matching the popular image of the royal Mughal harem in all its glittering splendour.

The court itself is an elegantly proportioned square, with an intimacy and grace appropriate to the residential quarters of the Empress. The south and east walls of the court are formed by long narrow galleries or loggias running the length of these sides. In the centre of the southern gallery is a small *abshar* (cascade) with a tiny cistern, built in variegated shades of marble arranged in a pattern, causing gentle ripples as the water flowers over them. The water from this cascade flows through a channel in the floor of the courtyard to a large shallow pool. Three other channels, one from each side, cross the floor of the court, dividing it into four symmetrical quarters. The centre of the pool is occupied by a low square platform connected to the edge of the pool by a little causeway. The entire floor of the court and the pool is paved with a variety of marbles, making a curving floral pattern in the pool and a more rigid geometric design around the edges.

In the centre of the western side of the court is a quaint little marble pavilion with a double curved roof after the fashion of a Bengali bamboo hut, from which it derives its name *Bangla*. Popularly called *naulakha*, or the edifice which cost nine *lakhs* (900,000 rupees), it is best known for its extremely delicate *pietra dura* work, wrought in semi-precious stones such as agate, jade, gold stone and lapis-lazuli. The beehive-shaped capitals of the pilasters are made up of miniature niches *(muqarnas)*, measuring 2¼ inches by 1¾ inches. A single floral pattern in one of these niches is formed by as many as 102 minute inlaid pieces of semi-precious stone.

The main hall or Shish Mahal opens out on the northern side of the court, flanked on either side by double-storeyed galleries, and enclosed on its north by a row of smaller rooms. The main



4 17 Naulakha, Lahore Fort On the western side is a marble pavilion called Bangla because of the double curved roof after the fashion of the bamboo huts of Bengal This pavilion is also called Naulakha, and is best known for its extremely delicate pietra dura work

decorative feature of this hall and some of the smaller rooms is the convex glass mosaic workmanship (*aina kari*) with *munabbat kari* or stucco tracery, and gilt work. The spandrels of the arches and the bases of the double columns carrying multi-cusped arches are decorated with *pietra dura* work, while the openings overlooking the river are filled in with superbly cut marble *jalis* (screens).

DIWAN-I-AM (HALL OF PUBLIC AUDIENCE) In 1628, the first year of his reign, Shah Jahan ordered the construction of the Diwan-i-Am in the shape of a hall of forty pillars, to replace the awnings erected in front of the *jharoka* to shelter the nobles in the time of his father. The work was entrusted to Asaf Khan and was completed in three years.

On the death of Kharak Singh and his son Nau Nihal Singh on the same day in 1841, Chand Kaur, the widow of Kharak Singh, assumed power. Thereupon Sher Singh, a son of Ranjit Singh, besieged and bombarded the fort with light guns placed on the top of the high minarets of the Badshahi Masjid. As a result, it appears, the Diwan-i-Am collapsed and had to be reconstructed by the British immediately after their occupation of the fort in 1846.

Standing on a large rectangular platform, the hall measures about 187 feet by 60 feet with a height of 34 feet. It occupies the centre of the fort with a great open court on its south. Its pointed arches with tie-rods and roof are all of the British period, but the brick-on-edge pavement appears to be of the Sikh period. The hall in its present condition, therefore, is but a skeleton of what was in the Mughal period During its reconstruction the red sandstone pillars were erected at random so that in a number of cases the bases and their shafts do not correspond with each other.

ALAMGIRI GATE The only building by Aurangzeb in the fort was probably constructed along with the Badshahi Masjid in 1674. This impressive monumental gateway, facing the Badshahi Masjid, is flanked by two semi-circular bastions, boldly fluted and decorated with lotus petal designs at the base. The side bastions are surmounted by elegant domed towers or pavilions and the corners by *guldastas* (vases). The gateway is approached from the Huzuri Bagh by a ramp. It is robust and massive in construction and expressed the military character of its founder.

SHAHDARA

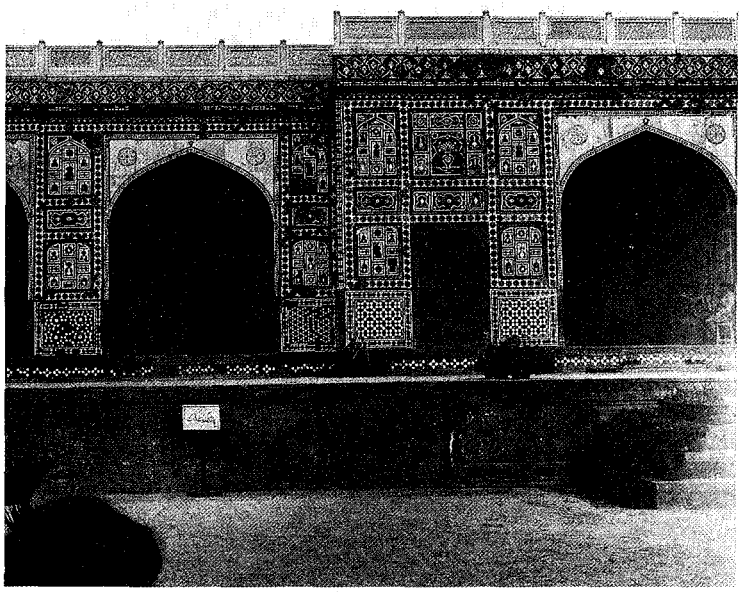
The Shahdara complex is based on three rectangular walled gardens adjacent to each other and aligned on a common axis. The Akbari Serai occupies the central court, while the two flanking gardens each contain a tomb — the Emperor Jahangir's on the east and his brother-in-law Asif Jah's on the west. A third tomb, that of Nur Jahan, lies outside the walls of the gardens and does not appear to form an integral part of the main garden complex.

4 18 The Alamgiri Gate was built by Aurangzeb as a ceremonial entrance to the fort from the Huzuri Bagh and Badshahi Mosque.

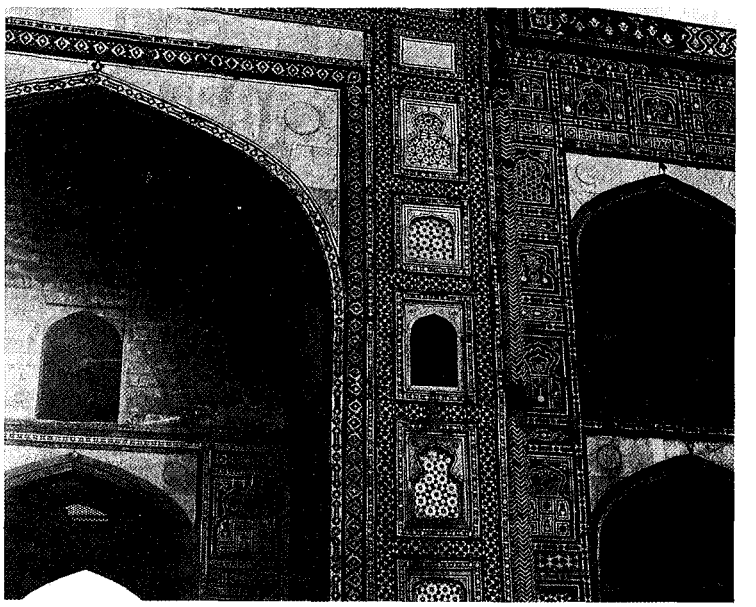
AKBARI SERAI Jahangir's Tomb is approached through a spacious *serai* (inn) which, contrary to its name, was not built by Akbar[6]. The open courtyard is flanked on all sides by a raised terrace, on which are built rows of small cells — 180 in all with a verandah and a common open passage running in front of them. The court and flanking rows of cells are enclosed within four high walls; the centre of each wall contains a stately *ewan* or gateway after the typical Persian model. The south portal serves as the main entrance. The east leads to the main garden court of Jahangir's Tomb, the west serves as a *mehrab* for a mosque, with Asif Jah's Tomb beyond, and the north portal completes the symmetry of the design. The *serai* served as an inn for travellers and also accommodated the establishment looking after the tomb[7].

MASJID SERAI The mosque within the *serai* at Shahdara belongs to the period of Islam Shah Suri (c.954 A.H.). The front facade is covered with red stone with marble design workmanship, while the niches generally have been decorated with marble calligraphic work. The domes above each of the three arched entrances have fairly long necks and are double internally[8].

JAHANGIR'S TOMB The Emperor Jahangir was buried according to his last wish at Lahore, in Nur Jahan's old pleasure garden known as Dilkusha Garden. Nur Jahan designed his tomb,



4.19 Jahangir's Tomb, Main Pavilion, Shahdara Jahangir's Tomb built by his wife Nur Jahan, is a stage in the transition from the sculpturesque red sandstone of Akbar to the delicate refinement of the white marble architecture of Shah Jahan



4 20 Jahangir's Tomb, Garden Entrance Crisp geometric patterns in white marble on dark sandstone mark the turning point away from mono-chromatic towards a polychromatic treatment of external surfaces

taking as her model the tomb of I'timad-ud-Daula, her parents' burial place at Agra[9].

The tomb is a single storey structure on a square plan. The pavilion itself is curiously modest in height compared with the grand scale of its setting and the dominating four corner minarets. Indeed, it is reported originally to have had a second cenotaph open to the sky and occupying the centre of the raised platform on the spacious roof of the tomb. Structural evidence shows that this platform was decorated with marble railings which, together with the cenotaph, have vanished[10].

The main pavilion itself is 267 feet long and built in red sandstone richly inlaid with white marble decorative motifs. It stands in a 55-acre garden divided into sixteen sub-quarters by pathways and water channels. The surfaces of the pavilion are decorated with fresco paintings, *pietra dura* and marble motifs

such as *aftaba* (ewer), *qab* (fruit dish) and *gulab pash* (rose water sprinkler) incised in red standstone. The four corner minarets are crowned with white marble cupolas and rise in five stages nearly 100 feet above the ground. These minarets, decorated with variegated marble zigzag patterns, are the forerunners of the refined Mughal octagonal minarets. The marble cenotaph is embelished with delicate and colourful *pietra dura* work and engraved with the ninety-nine attributes of God, the Emperor's name and the date of his death.

ASIF KHAN'S TOMB Mirza Abdul Hasan, entitled Asif Khan, was the brother of Empress Nur Jahan and father of Arjumand Banu Begum, the lady of the Taj at Agra. In the 8th year of Shah Jahan's reign he was made Khan-i-Khanan and Commander-in-Chief, and a year later, Governor of Lahore. Asif Khan died in 1641 and his tomb was erected by Shah Jahan, his son-in-law. It took four years to build and was completed at a cost of three lakh (300,000) rupees[11].

The tomb is an octagonal structure with a high bulbous dome. It stands on an eight-sided podium, originally of red standstone, in the midst of a spacious garden once set with reservoirs, fountains and walks. The entire area is enclosed by a brick wall finished with lime plaster and is approached through an imposing gate on the south.

Originally, the floor of the tomb was a mosaic of various stones. The inner dado was in white marble, and the outer in river-bed stones (*sang-e-abri*) and other variegated stones. It also contained some beautiful enamelled mosaic tilework, traces of which remain. During the reign of Ranjit Singh, the dome and the interior were stripped of all their marble facings.

TOMB OF NUR JAHAN Nur Jahan, whose real name was Meherun Nisa Begum, was the daughter of Mirza Ghias Baig entitled I'timad-ud-Daula, Jahangir's prime minister. She was first married to Ali Quli Khan, surnamed Sher Khan, a great landowner at Bourdwan in Bengal. In 1611 she married Jahangir, becoming his Empress and sharing all responsibilities in the administration of the Empire. Surviving Jahangir by eighteen years, she died in 1645 and was buried in this mausoleum which she herself built.

Standing on a square platform, the tomb measures 134 feet on each side and is just over 19 feet high. It is now a shattered brickwork core deprived of all its decorative veneer, which was of red sandstone inlaid with white marble. The interior was originally finished with glazed lime plaster bearing beautiful floral fresco paintings, traces of which still exist. The present rough brick floor belongs to the Sikh period; the original floor was presumably of marble.

SHEIKHUPURA

A notable building enterprise of Jahangir's is the hunting complex at Sheikhupura, some twenty-eight miles west of Lahore, with its huge fish tank, elaborate water pavilion and towering

minar, perpetuating the memory of a favourite deer. The architecture of these buildings is in the stark Jahangiri style and the drama of their spatial organisation is heightened by their setting in a natural park. The fort at Sheikhupura is also attributed to Jahangir but its history and original form are uncertain.

HIRAN MINAR (DEER TOWER) Four miles west of the present city of Sheikhupura, this complex was built under the order of the Emperor Jahangir in 1620, and alterations and renovations were carried out by Shah Jahan in 1634[12]. The tank itself is a rectangle of nearly 882 feet by 741 feet. In the middle of each side is a wide ramp, while in each corner there is a square pavilion with flights of steps down to the water on two sides. In the middle of the tank itself is an octagonal twelve-opening pavilion (*baradari*) known as the Daulat Khana. This is a three-storeyed structure built in local bricks and lime mortar. The lower storey is massive, with an octagonal chamber in the centre surrounded by eight smaller rooms linked by narrow passages. The second storey is more airy with the central chamber surrounded by an open verandah. The third storey consists of a simple octagonal pavilion over the central chamber, with a domed roof and projecting eaves.

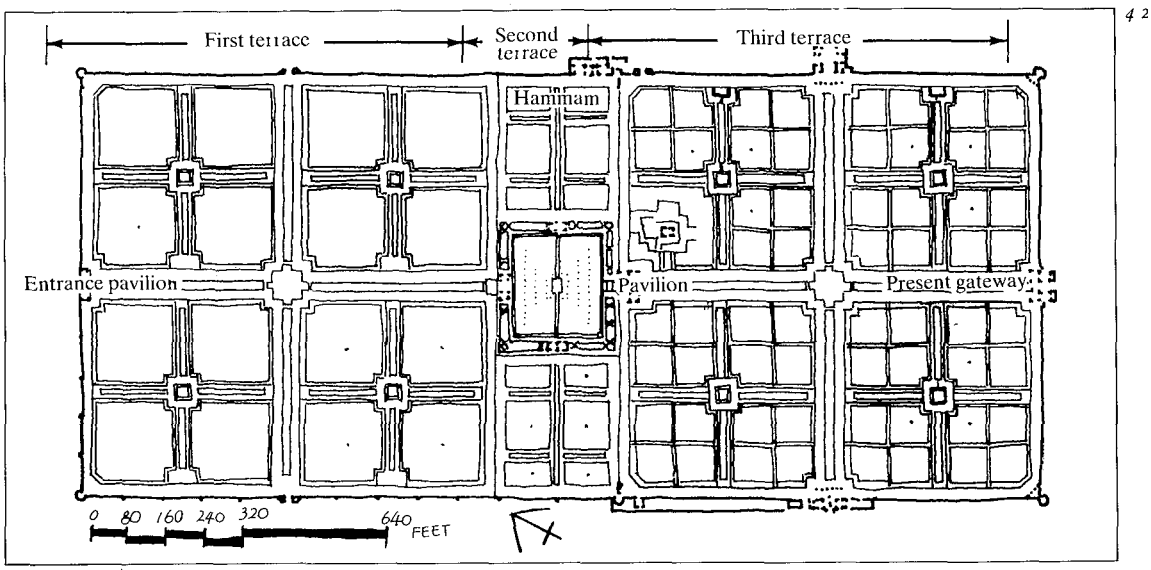
The Daulat Khana is approached by a narrow causeway and gate. On the west is the *minar* for which the resort is known. The *minar* is tapered towards the top as it rises in six stages. The lowest two are octagonal in plan, the stage above has twenty-four sides, and the upper three stages are circular or cylindrical. The third, fourth and fifth stages have small square holes, arranged in neat rows, whose purpose remains a mystery. Similarly unexplained is the absence of a crowning canopy, pavilion or cupola on top, giving the tower an unfinished appearance.

SHALAMAR BAGH

The Shalamar Bagh or Garden occupies about forty acres of land and was laid out in 1642, at the command of Emperor Shah

4 21 Plan Shalamar Bagh

4 22 and 4 23 Laid out in 1642 at the command of Shah Jahan, the Garden conforms to the conventional Paradise garden concept The three ascending terraces are divided by canals with pools and fountains The garden provided accommodation for the Emperor on visits to Lahore and was furnished with pavilions and summer houses.



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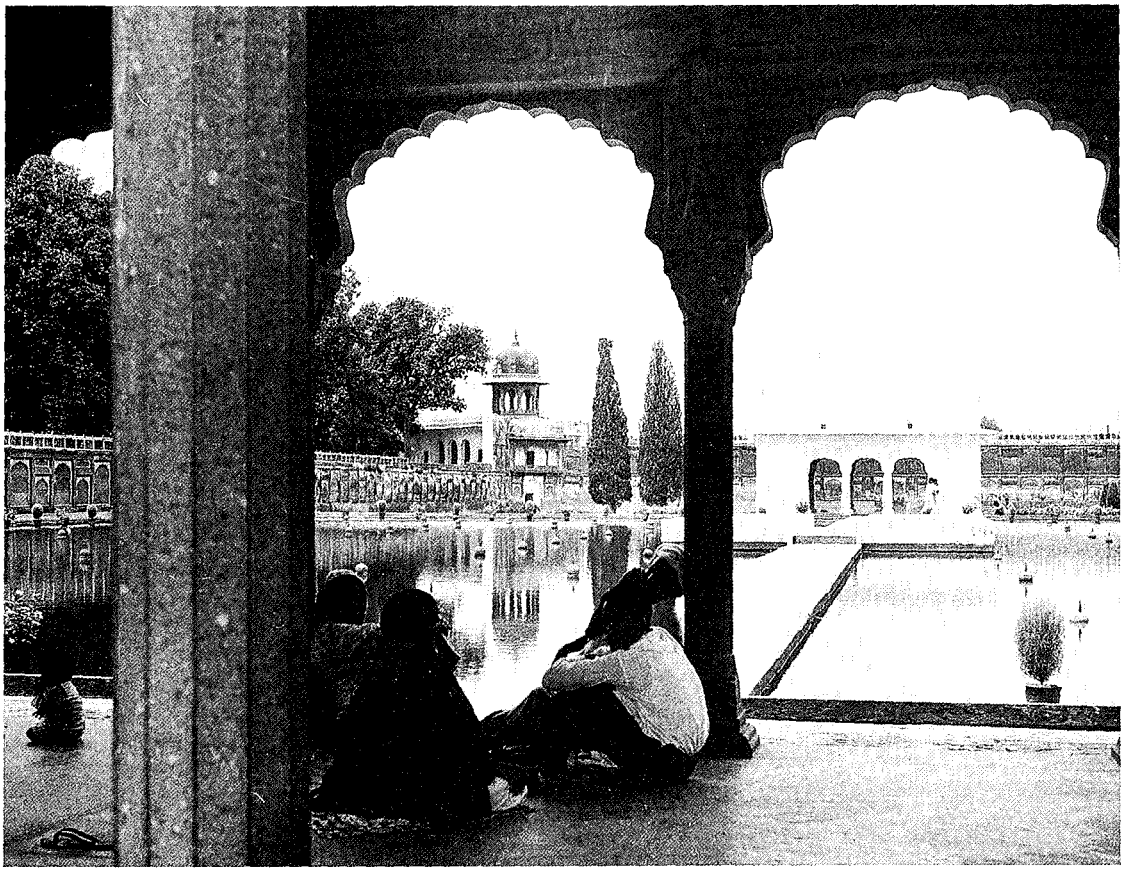

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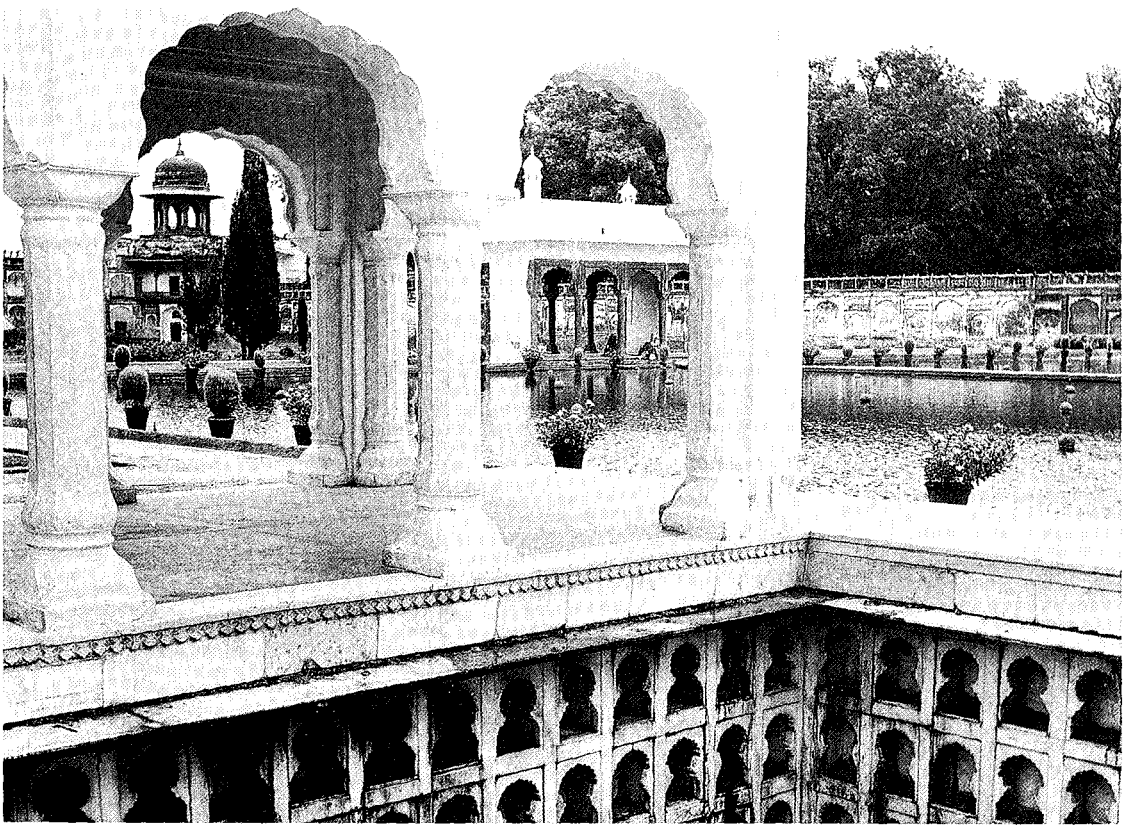
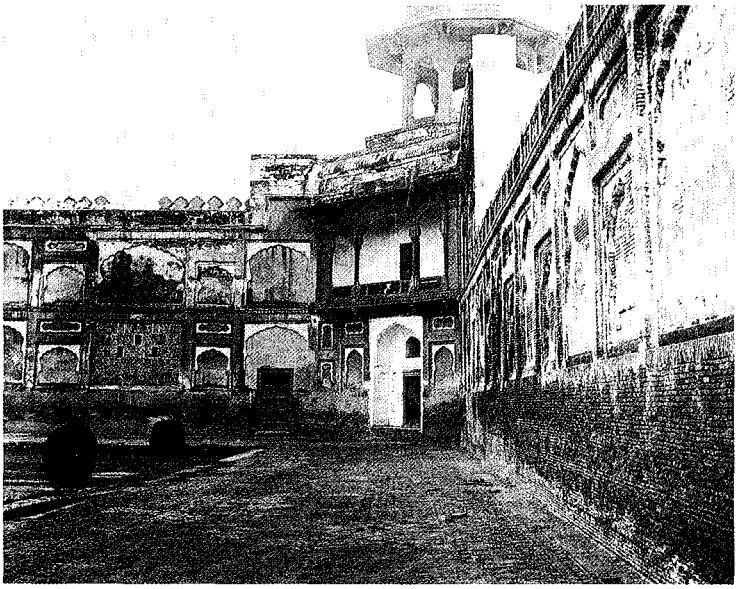




4 24 Corner of outer wall of Shalamar Bagh

Jahan after the plan of the Royal Gardens in Kashmir. A canal, Shah Nahar, later known as the Hansli Canal was constructed to bring the waters of the Ravi from Rajpur, the present Madhupur, at a distance of more than a hundred miles. This canal was the combined work of Ali Mardan Khan, the well-known canal engineer of Shah Jahan, and Mulla Alaulmulk Tuni.

The garden consists of three terraces, rising about fifteen feet at each level to the south. The original entrance was in the north at the lowest terrace, as is customary in Mughal gardens, so that the cascades faced the visitor in his upward progress, revealing new delights as each terrace was surmounted. The uppermost terrace of the garden is called *farah bakhsh* (pleasure giving) and the middle-and lower-most terraces combined are named *faiz bakhsh* (bountiful). The first and third terraces are *char-baghs* of similar proportion and design, with canals crossing at right angles. However, the most spectacular is the central terrace. Its great reservoir contains one hundred and fifty-two fountains, and in the centre is a marble platform reached by a narrow causeway. From the southern pavilion the water flows over a marble cascade or *chadar*, at the bottom of which, overhanging the water, is the Emperor's throne. A double-paved path, with a flower parterre, runs round the whole reservoir.

The multitude of *chini-khanas* or pigeon holes beneath the cascades are said to have been decked with golden vases of flowers by day and camphorated wax candles at night. Many of the garden's estimated four hundred and fifty fountains can still be seen spouting high jets of water in the canals and tanks.

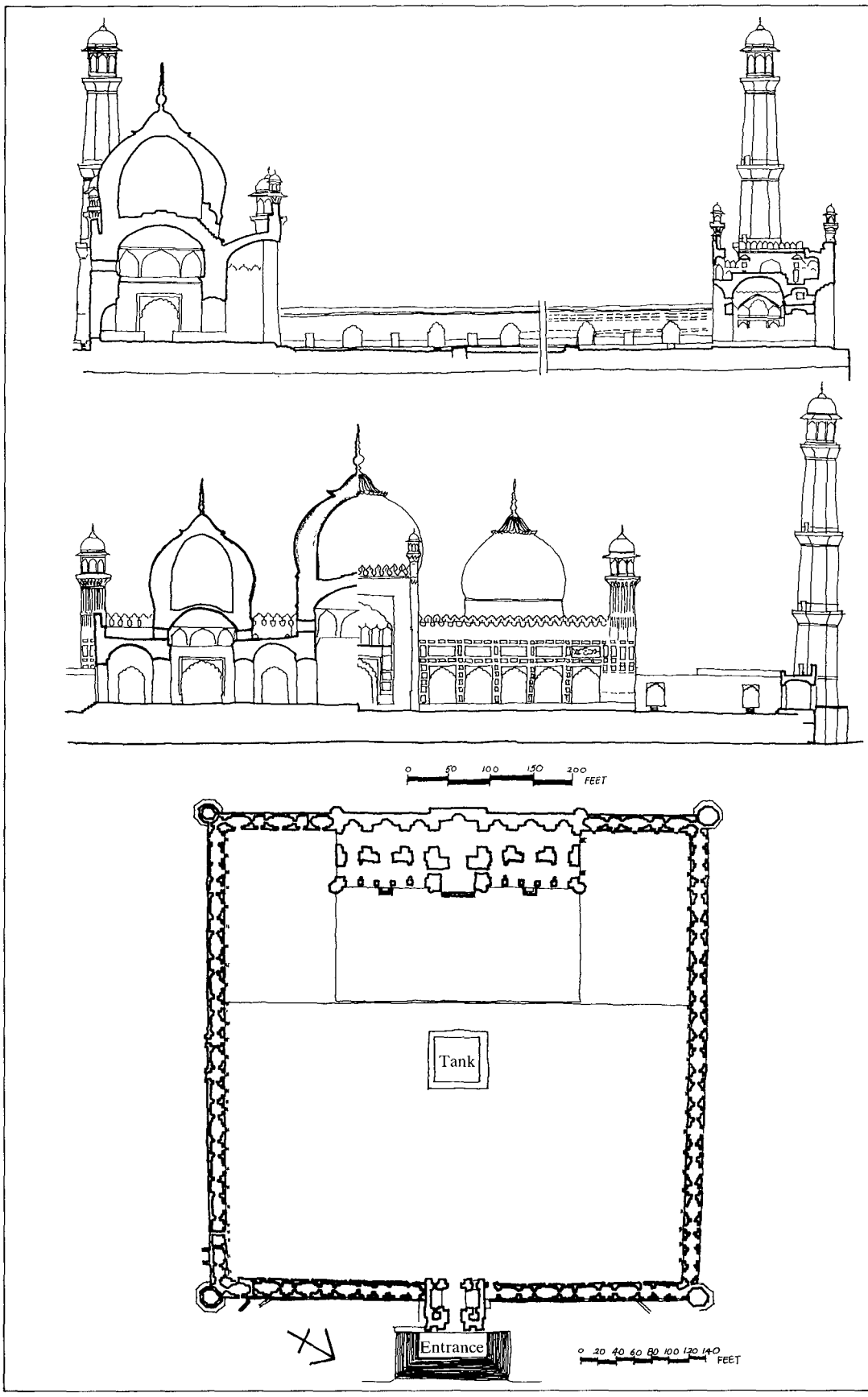
The original planting of the garden included fruit trees, ordered by Shah Jahan himself from Kabul and Kandhar and continuous flower beds with plane trees and aspens at intervals. Under the trees were grass platforms for reclining comfortably in the shade.

In addition to being a place for royal recreation, the garden provided accommodation for the Emperor on visits to Lahore. For this purpose it was furnished with a number of pavilions and summer houses. In the uppermost terrace, the present main entrance was originally the *aramgah* (rest room) of Shah Jahan. The building on the east in the same terrace, now known as the Naqqar Khana, was originally the *Jheroka-i-Daulat Khana-i-Khas-o-Am* (the Window of the Hall of Special and Common Audience)[13], and that on the west was the residence of the Empress. On the east, in the middle terrace, there is a *hammam* (bath) with hot and cold baths and a dressing room, originally decorated with *pietra dura* work. Besides, there are six corner towers surmounted by domes and four pavilions in the second terrace. In the third terrace, facing up the central axis of the garden, was the hall of private audience. The marble and agate work of these pavilions was stripped by the Sikhs to decorate the Ram Bagh and Golden Temple at Amritsar, and the present pavilions are mostly restorations in brick and plaster.

BADSHAHI MASJID

The great royal Badshahi Masjid built in 1674 adjacent to the Lahore Fort, is the largest in area of the subcontinent. In its general concept this mosque is based on the Jami Masjid outside the fort at Delhi. Unlike the Delhi mosque (which has three entrances) it has a single main entrance, and its four minarets on the corners of the court are tall and prominent while those marking the corners of the prayer chamber are relatively short. Like its predecessor at Delhi, the Badshahi Masjid is elevated on a high platform. It is approached from the east end by a flight of twenty-two steps which form three sides of a pyramid leading up to a platform in front of the main gateway. The gateway itself is relatively modest in comparison with those of the Jami Masjid. It is a two-storeyed structure with a high central arch. The flanking bays on either side have a pair of smaller arched niches placed vertically one above the other. At the corners of the square gateway are four minarets. The external surfaces are divided into panels and are sparingly carved in low relief. The material throughout is red standstone with white marble veins, embellished by an occasional rosette. A pair of slender shafts are attached to the sides of the slightly projecting central bay and terminate above the roof with white marble orbs placed in full-blown lotuses. Between these shafts and above the central arch is an elaborate array of twelve merlons which carry above them an open arcade topped by eleven white marble *gumbadis* (miniature solid domes). Between this balustrade and each corner minaret is an airy kiosk with projecting eaves and square white marble domes. The four corner minarets have projecting square platforms surmounted by similar square kiosks.

Inside the gateway is the vast courtyard of the mosque. It measures 530 feet square and is flanked all round by a wall of eighty cloisters. A change in level defines the two parts of the courtyard. The lower level is called the *fina*, where funeral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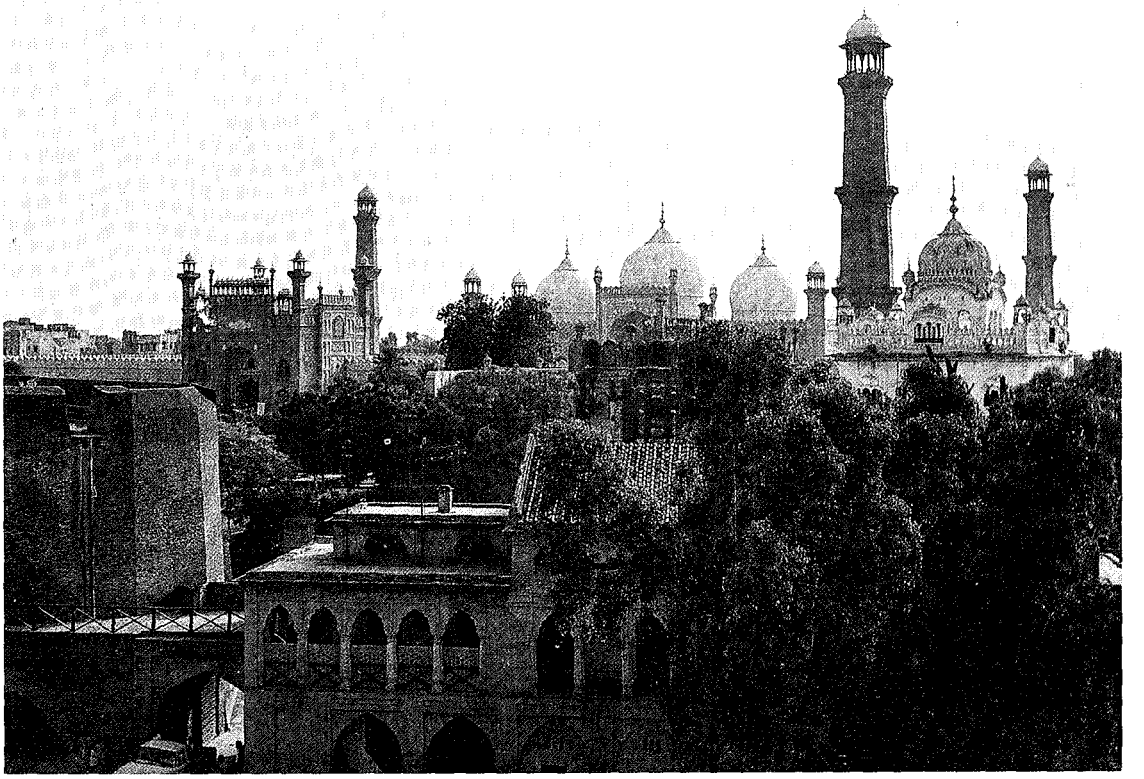


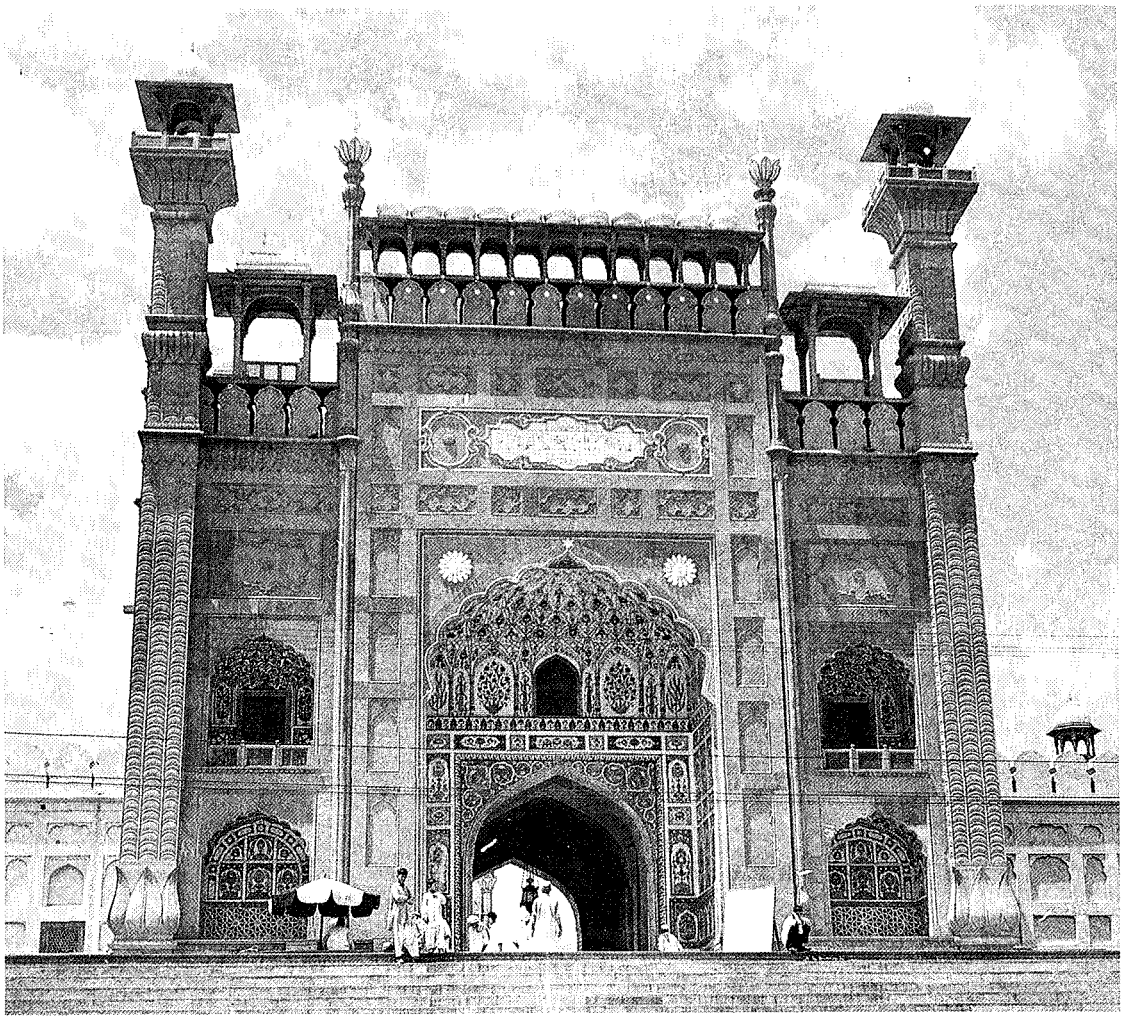
4 25 Plan and sections

4 26 Badshahi Mosque, Lahore Based on the Jami Masjid, Delhi, the Badshahi Mosque has a single main entrance instead of three, and its four minarets on the corners of the court are tall and prominent while those on the prayer chamber are relatively short

prayers may be offered, and this also contains the ablution tank. The upper part is further divided into three areas, with the central area a step higher than the areas on either side. The original floor of the courtyard as well as the main prayer chamber was paved in small bricks laid on edge, making a pattern of *musallahs* or prayer mats. The surface water was carried by an elaborate drainage system under the courtyard floor into the River which flowed along the northern enclosure wall.

Raised above the courtyard in the centre of the west side is the main prayer chamber, about 275 feet in length and 85 feet deep. The surface of the red sandstone facade is treated in a similar fashion to the entrance gateway but with a more liberal use of white marble. The tall central arch rises past the general roof line and is framed in a border with a chain-like geometric design in white marble; the spandrills are filled with a flowing white marble floral design in relief. This high vault is flanked by five smaller arched openings on each side. The corners of the building are marked by four sturdy minarets with projecting platforms, surmounted by domed kiosks with projecting eaves. The parapet is formed by a horizontal row of merlons shaped liked broad leaves resembling *naga* (serpent) hoods.

Behind the high central arch is a rectangular recessed forecourt with a half domed vault above. Directly beyond it lies the central square hall, while on either side stretch out long halls or



4 27 Badshahi Mosque, Lahore, Main entrance Elevated on a high platform, the mosque is approached from the east

loggias. Parallel with the loggias and on either side of the central hall are two wide wings. Over the middle bay of each wing and over the central hall are three high domes of white marble which tower above the roof of the prayer chamber. All three are double domes with the outer domes raised on cylindrical drums, constricted at the necks and crowned by inverted lotus-like finials with gilded pinnacles. The rectangular bays between the domes are roofed with domical vaults with concave margins called *qulamdani*, and with central ribs. The marble and stone floor and much of the fresco work in the ceiling is later repair work.

NOTES

[1] Rajput, A B *Architecture in Pakistan,* Pakistan Publications, Karachi, 1963, p 7

[2] Khan, Ahmad Nabi, "The Rohtas Fort", in *Perspective,* February 1968, Pakistan Publications, Karachi, pp 67, 68

[3] Khan, Waliullah, *Lahore and its Important Monuments,* Department of Archaeology, Second Edition, Karachi, 1964, p 12

[4] Chughtai, Dr M Abdullah, *Tarikhi Masajid Lahore,* Kitabkhana Nauras, Lahore, 1974, p 49

[5] Khan, Waliullah, Op Cit , p 48

[6] Ibid p 49

[7] Chughtai, Dr M Abdullah, Op Cit , pp 30, 31

[8] Crowe and Haywood, *The Gardens of Mughal India,* Thames and Hudson, 1972, p 131

[9] Khan, Waliullah, Op Cit , p 53

[10] Ibid, p 60

[11] Ibid, p 56

[12] Mahmood, Dr Shaukat, "Hiran Minar — History, Architecture and Conservation", in *Environment,* October 1983, Lahore

[13] Khan, Waliullah, Op. Cit , p 58