

PERWEEN HASAN

## SULTANATE MOSQUES AND CONTINUITY IN BENGAL ARCHITECTURE

The large number of mosques built in Bengal during the independent Sultanate (1338-1538)<sup>1</sup> indicates the rapidity with which the local population converted to Islam, and within this period, the years 1450-1550 can be identified as the time of most intensive mosque-building. Of the total number of dated mosques constructed in Bengal during the entire Muslim period (1203-ca.1800) almost three-quarters were built between the mid fifteenth and the mid sixteenth century.<sup>2</sup> The mosques that dotted the countryside ranged from small to medium size, and were used for daily devotion.

This intensive mosque-building during a critical one-hundred-year period indicates that profound changes were taking place in Bengali society and much of it was due to rapid conversion. Richard Eaton has described how the local Muslim culture flowered during the years when the Ilyas Shahi and Husain Shahi dynasties ruled the country. In the flourishing Bengali Islamic literature of the time, Islam is presented in idioms familiar to the common folk. Similarly, the architecture for mosques—the new building type—was not imported; it combined and adapted elements found in the tradition.

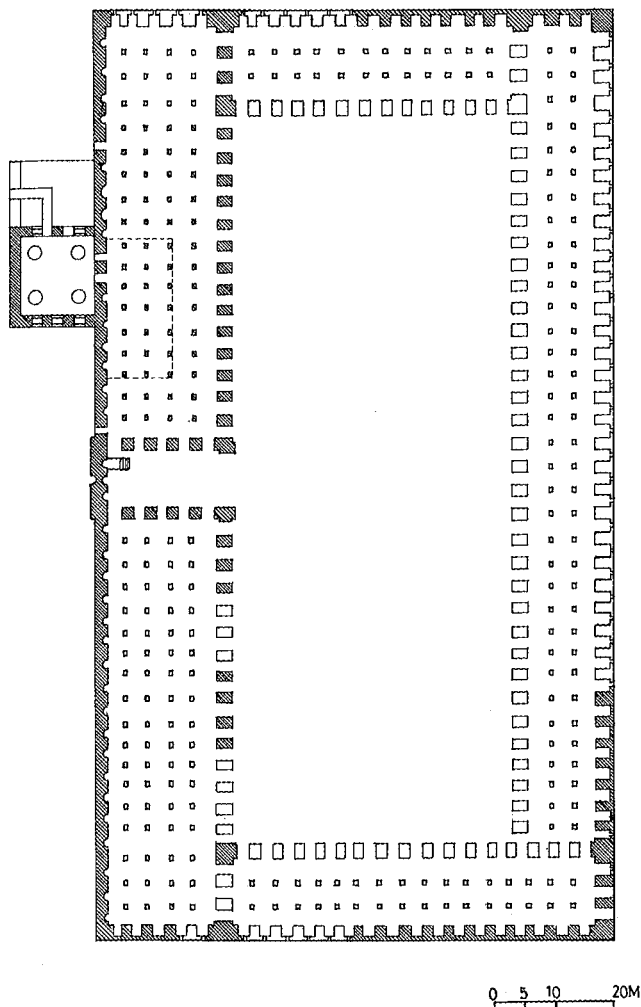
Before launching into a description of the major mosque types of Bengal, the Adina Mosque of Hazrat Pandua in West (Indian) Bengal must be mentioned.<sup>3</sup> This mosque, built in 1375, predates the intensive mosque-building period and has the distinction of being the only mosque modeled after the traditional hypostyle of early Islam (fig. 1). The monumental size of the mosque and its plan can be understood in the light of its inscription. In it the title assumed by the Sultan, who is also the patron, shows Sikander Shah's determination to assert himself as a great king in the context of the whole of the Muslim world. Not content with being a sultan of Bengal or India, he calls himself the "most perfect of the sultans of Arabia and Persia."

The traditional hypostyle is generally associated with the introduction of Islam into new areas.<sup>4</sup> Other

examples of the symbolic usage of the hypostyle can be found among early Iranian (Damghan), Anatolian (Diyarbakr), and Indian (Quwwatul Islam) mosques.<sup>5</sup> The Adina mosque, with its huge barrel-vaulted central nave, is close to these early mosques, especially the Persian mosques and the Ulucami of Diyarbakr, which were modeled on the mosque of Damascus, rather than on the more straightforward hypostyles of Iraq and Egypt. Although various elements in the Adina mosque—the corner towers, pointed arches, and terracotta decoration—become part of the Bengali mosque tradition, the hypostyle itself did not, perhaps because it was unsuited to the requirements and the climate of a Bengal community. Certainly local craftsmen would not have been experienced in building vaults of such monumental proportions.

With the single exception of the Adina Mosque, mosques built in Bengal in the early Islamic period all fall into two types: one rectangular or oblong; the other square. The rectangular building without enclosed courtyard became a popular type for both large and medium-sized mosques. The earliest extant mosque of this type is the mosque of Zafar Khan Ghazi (fig. 2), in Tribeni, West Bengal.<sup>6</sup> On the basis of its style and an inscription found over the mihrab, which commemorates the building of a madrasa in 696 (1298), it is presumed to have been built in the closing years of the thirteenth century. Its plan, which became typical for later mosques, consists of a rectangular covered prayer chamber, where each aisle terminates on the west wall with a mihrab (west is the qibla direction for Bangladesh and the whole of North India) and on the east with an entrance. The building is covered with several small domes. Their number is determined by multiplying the number of front entrances by the number of entrances on the north and south sides.

Not only the courtyard, but the surrounding liwans, ablution fountain, and the minarets of Middle Eastern mosques are absent here. In external elevation this mosque also lacks the Bengali look developed between



1. Hazrat Pandua, West Bengal. Adina Mosque. Plan. (After Catherine Asher, "Inventory of Key Monuments," *Islamic Heritage of Bengal* [Paris, 1984], p. 110.)

the fourteenth and sixteenth century. Its veneer of stone, straight cornice, row of piers in front, instead of a screen of arches, and lack of corner towers set it apart from mosques built in the typical Bengal architectural style.

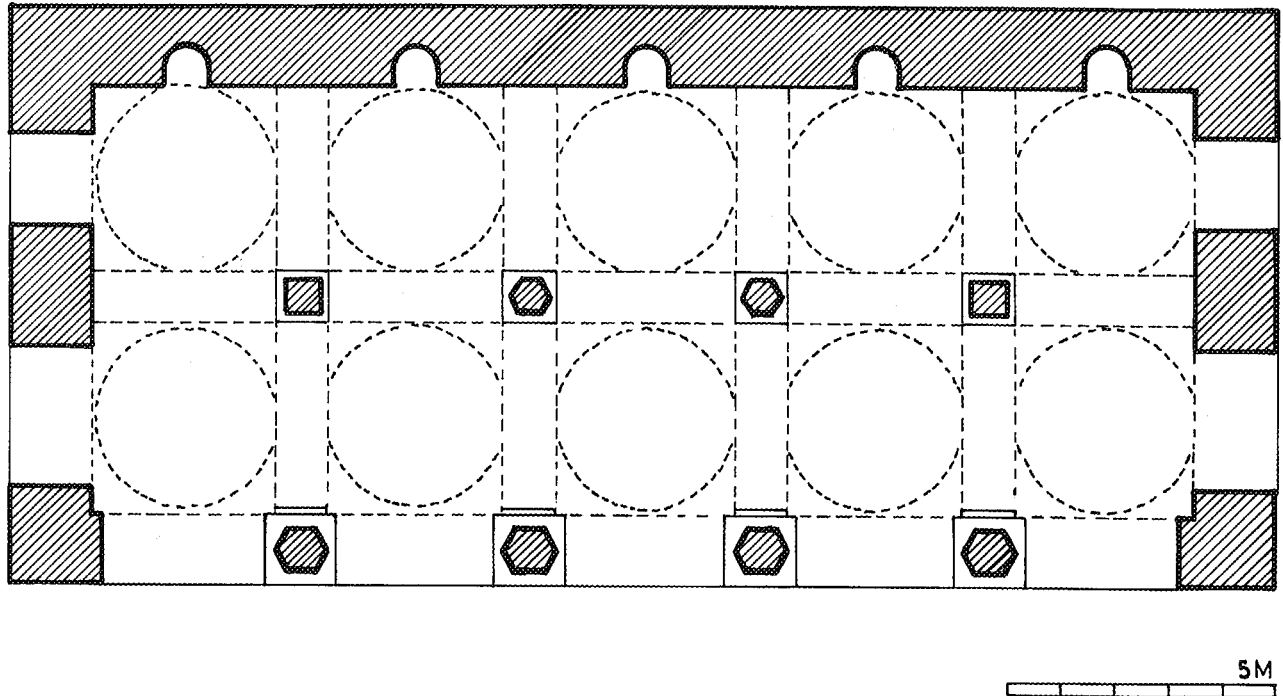
As the early Muslim conquerors of Bengal were of Turkish origin, Turkey is often automatically considered to be the source of several art and architectural themes. The material presented here will show that any resemblance is more obviously the result of coincidence than of influence. To begin with the mosque lacking an enclosed courtyard, the Seljuqs of Anatolia did create

something similar to the type, but it was really an adaptation of the traditional hypostyle mosque with enclosed courtyard.<sup>7</sup> Changes were made to suit the climate, and the resulting building type was known as Ulucami. They began by enclosing the open side of the zulla facing the court, and eventually dispensed with the courtyard element altogether. However, the memory of the courtyard survived in places where a part of the roof along the central row of columns was left open to the sky and a fountain (*sadirvan*) was placed under it. The buildings had flat wooden roofs supported on wooden columns. Rectangular mosques were also found in Ottoman times, but they never had the same popularity they enjoyed in Bengal.

The Ulucami of Bursa (1369-99) and the Zin-cirlikuyu in Istanbul (fifteenth century) bear a superficial resemblance to the Bengali rectangular mosques, but the differences between them are striking. In the Turkish mosques, the building material is stone and the internal supports are piers; in Bengal, brick is the more likely building material and columns the more likely support. The Turkish mosques have only a single entrance in front, and one or two side entrances. The Bengali mosques have multiple front and side entrances. Finally in the Ulucami of Bursa a cross-axial design is established by the intersection of a longitudinal axis formed by the main portal and the mihrab and the transverse axis formed by the two side entrances. The square bay at the intersection is different from the rest of the bays. It has a pool in the center with a fountain, is lower by two steps, and resembles an inner court. In Bengal each entrance is aligned to a mihrab on the west wall, and there are as many side entrances, real or blind, as there are bays on each side. Generally all the units are the same.

By its rarity it is apparent that the Ottoman architects did not favor the rectangular, multidomed type of mosque. They seem to have preferred building bigger and bigger single domes instead. Sometimes the large central dome was accompanied by smaller satellites. As structural techniques improved, they strove to achieve articulated spatial expressions instead of tying themselves to dull, repetitive interiors. In spite of its general similarity in form and shape, the Ulucami reveals attempts at variety that are lacking in the repetitive units so characteristic of the multidomed square and rectangular mosques of Bangladesh.

In Bengal heavy monsoon rains dictate an entirely covered building, but how it was covered may owe something to the western riwaq of the Quwwatul Islam



2. Tribeni, West Bengal. Mosque of Zafar Khan Ghazi. Plan. (After Catherine Asher, "Inventory," p. 135.)

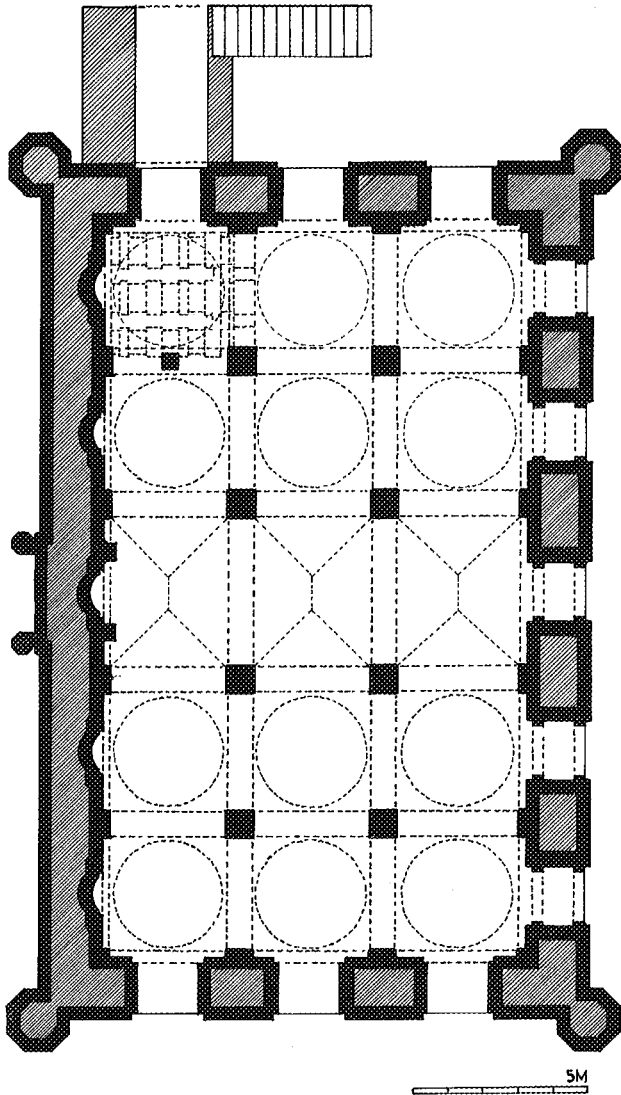
Mosque at Delhi, which the Bengalis transformed into an independent building. The rectangular multidomed mosques range from the very large—for example the Shaitgumbaj Mosque in Bagerhat,<sup>8</sup> which has eleven aisles, seven bays, and seventy-seven domes, and an internal measurement of 42.77 meters by 24.59 meters—to medium-sized mosques like the one at Rampal, Dhaka,<sup>9</sup> which has three aisles, two bays, and six domes, and an internal measurement of 10.96 by 6.93 meters. In elevation and decoration these mosques are also in the Bengal architectural style.

Three large mosques in this group—the Shaitgumbaj in Bagerhat (mid-fifteenth century), the Darasbari in Rajshahi (1479), and the Choto Shona in Rajshahi (1493-1519)—are mosques with emphasized central aisles.<sup>10</sup> They are reminiscent of the central nave of the Adina Mosque, but the method of vaulting differs. Instead of a long, barrel-vaulted nave, the central aisle is broken up into smaller rectangular units, each one covered by a *chau-chala* vault (fig. 3). These *chau-chalas* are miniature forms of the roof found on village huts in Bengal. These roofs are composed of four segments which slope down in four directions. Over a rec-

tangular room the longer slopes form a ridge at the top, and the end slopes are triangular in shape. The lower edges of the slope are generally curved.

To pursue the Turkish connection it is possible to argue that the longitudinal axis in the Ulucami of Bursa is also emphasized by making the central row of domes between the main portal and the mihrab slightly higher than the others. In the Turkish example, however, the difference is only in height; the ground plan is the same. The popularity of the rectangular multidome type of mosque is proved by the fairly large number—sixteen—built between 1400 and 1558 that have survived the ravages of time, albeit often in ruins. Except for the three large mosques just mentioned, all are buildings with uniform bays.<sup>11</sup>

The square mosques of Bangladesh are either nine-domed or single-domed. The nine-domed ones are larger. There are four of them in Bangladesh dating from the fifteenth century.<sup>12</sup> None has so far been found in West Bengal or Delhi. The only other known buildings that use the square nine-bayed plan are the maqsura chamber projecting off the northwest wall of



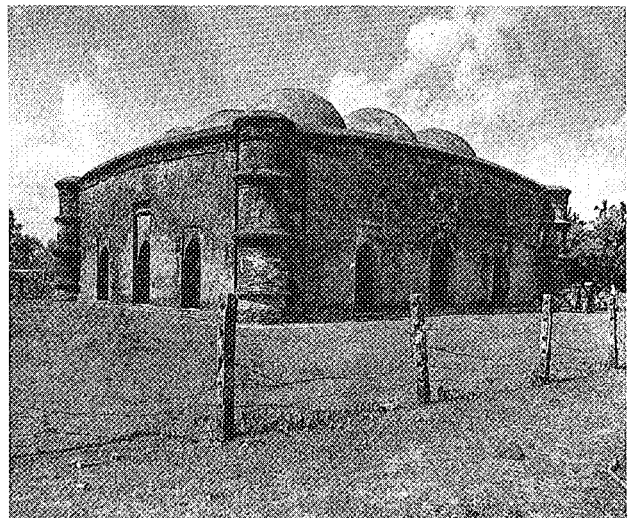
3. Rajshahi, Bangladesh. Chchoto Shona Mosque. Plan.

the mosque of Jahanpanahin Delhi built ca. 1343 and the chamber attached to the outside west wall of the maqsura of the Adina Mosque, and popularly believed to be the tomb of the mosque's patron Sikander Shah.<sup>13</sup> Considering its location, the position of the four pillars inside the chamber, and the absence of a sarcophagus, it is more likely that the latter served as a royal entryway or chamber for the king and his entourage. The nine-bayed mosque was a known architectural type in the west that was imported into the east from

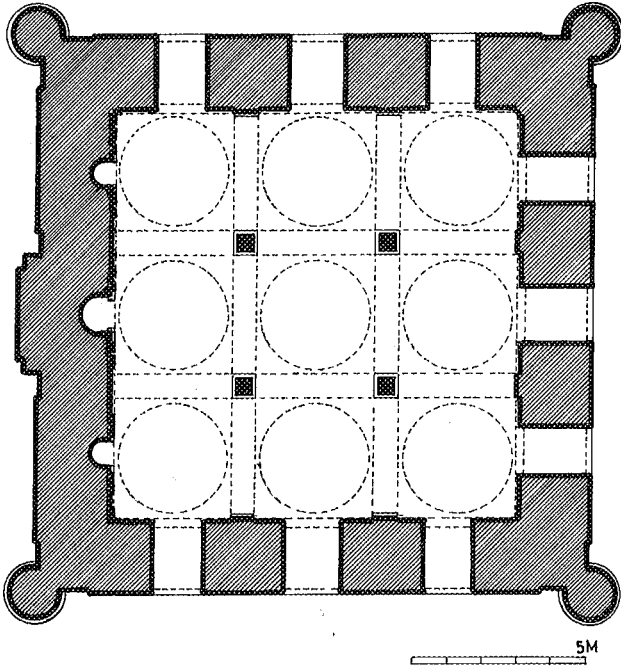
the central Islamic lands.<sup>14</sup> The type became popular in Bengal, probably because it was an entirely covered building (figs. 4-5). Considering the average size of Bengal mosques, the nine-bayed ones are large and were certainly designed as congregational mosques. Over time it became a thoroughly Bengalized type of large square building made of single-domed square units that are multiplied.

From the large number of extant examples in Bangladesh, the single-unit square mosque seems to have remained most popular during the Sultanate. It is a popularity readily understandable to those familiar with the climate and vegetation in the Bengali countryside and the difficulties involved in overland travel. It is more practical to build small mosques to accommodate the people living in the small clusters of huts that make up the Bengal village than it is to build a large one and expect people to travel to it. These neighborhood mosques vary in size from very small indeed—Binat Bibi's mosque in Dhaka (1457) is only 3.20 meters square—to a few quite large ones—the Ranbijoypur Mosque at Bagerhat has an interior space of 11.80 square meters. Seventeen mosques of this type still exist; all were built between 1457 and the middle of the sixteenth century.<sup>15</sup>

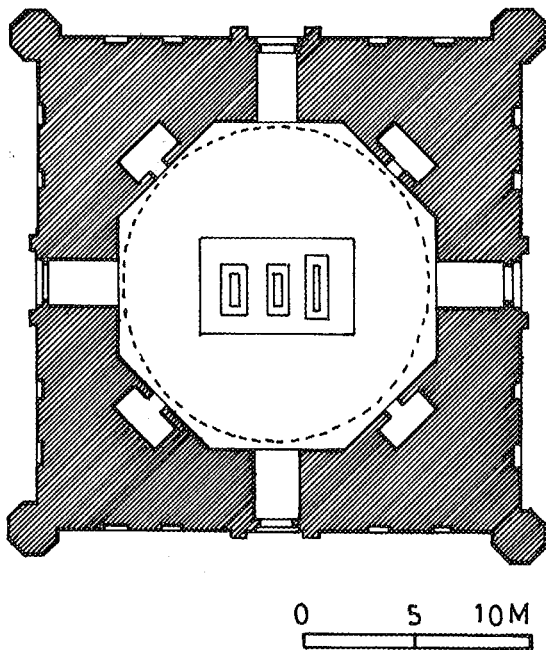
In Muslim India outside Bengal the square single-domed unit was used for gateways and tombs but never for mosques. In Iran, the presence of a kiosk mosque derived from the single-domed fire temple of Sassanian



4. Khulna, Bangladesh. Moshjidkur Mosque. Southeast exterior.



5. Khulna, Bangladesh. Moshjidkur Mosque. Plan.



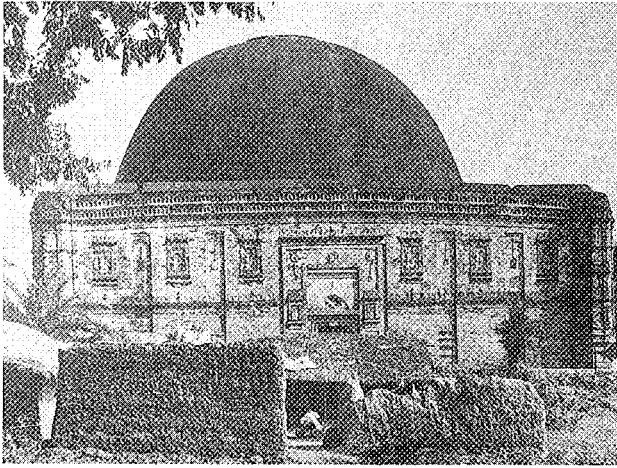
6. Hazrat Pandua, West Bengal. Eklakhi Mausoleum. Plan.  
(After Asher, "Inventory," p. 113.)

tradition was the basis for a hypothesis introduced by André Godard to explain the Iranian mosque generally. The kiosk mosque was accepted as the prototype for square, single-domed mosques almost everywhere in the Muslim world until recent excavations and epigraphic analysis destroyed the kiosk mosque theory. It is no longer accepted.<sup>16</sup>

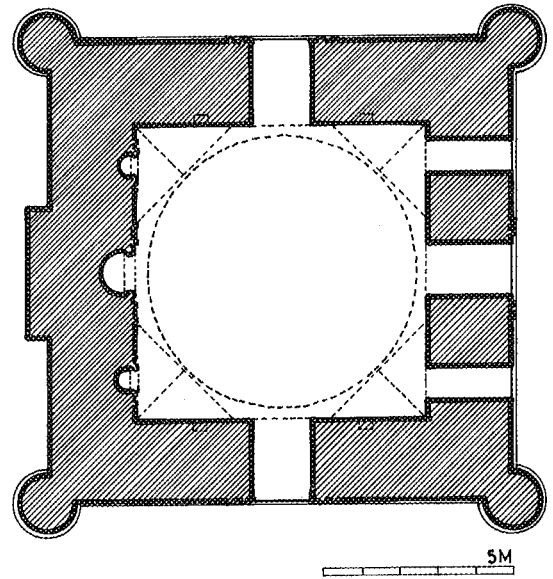
In the Turkish tradition, mosques with a single dome date from the beginning of the fourteenth century. Generally they had minarets and porches. Even ignoring the minarets, however, these mosques, which are built of coarse rubble masonry and have high drums, fenestrated walls, and indications of squinched areas on the outside, bear only the superficial resemblance to their Bengali counterparts that any square chamber topped by a dome would have.<sup>17</sup> This is true as well of the square mausoleums of Central Asia—the Samanid mausoleum at Bukhara, for example.<sup>18</sup>

The earliest known example of a square single-domed building in Bengal is the Eklakhi Mausoleum in Hazrat Pandua, West Bengal; it provides a model for all subsequent structures of the type.<sup>19</sup> The tomb is not dated by inscription, but the early fifteenth century is the likely date ascribed to it because of its primitive solution in the transition zone—its plan, an octagon within a square, attempts to solve the problem with a thirteen-foot brick-filled core (fig. 6). The tomb is built entirely of brick, the wall surfaces are unplastered, but the building is decorated with brick and terracotta, corner towers, and a curved cornice, and is generally accepted as the first building in the true Bengal style (fig. 7). It belongs to the period of Sultan Jalaluddin, the converted son of Raja Ganesh, and the first Muslim king of Bengali origin. The consensus among scholars is that the Eklakhi Mausoleum actually entombs Sultan Jalaluddin and his family. If that is the case, it would have been more likely for Jalaluddin to have his family's tomb modeled after sacred and residential buildings that he was familiar with rather than imitating buildings from the Middle East that he had never seen.

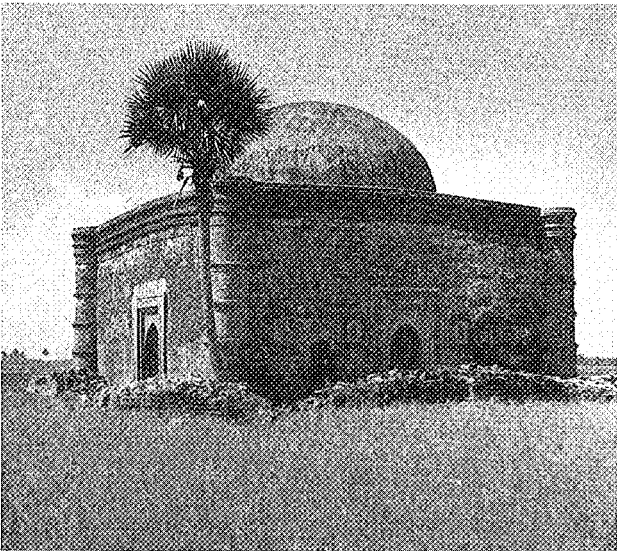
The Eklakhi Mausoleum is an obvious model for the Chuna Khola Mosque in Bagerhat datable to the mid-fifteenth century (fig. 8). It has the same building material—brick—the same decorative elements—curved cornice and terracotta decoration—and the same circular corner towers characteristic of the Khan Jahan style of monument in the area.<sup>20</sup> Although it is small, the building has three doorways and a corresponding number of mihrabs (fig. 9), a pattern already



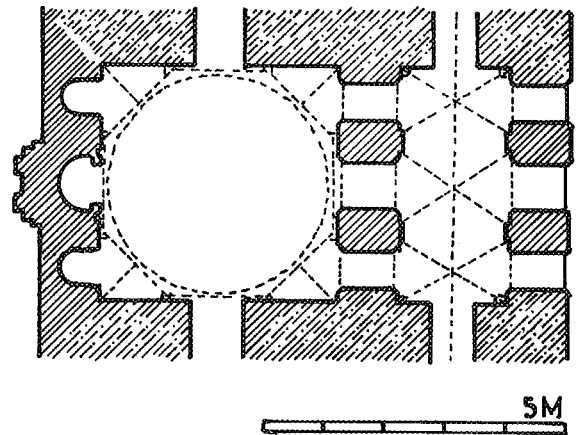
7. Hazrat Pandua, West Bengal. Eklakhi Mausoleum. (Photo: Catherine Asher.)



9. Bagerhat, Bangladesh. Chuna Khola Mosque. Plan.



8. Bagerhat, Bangladesh. Chuna Khola Mosque. Southeast exterior.

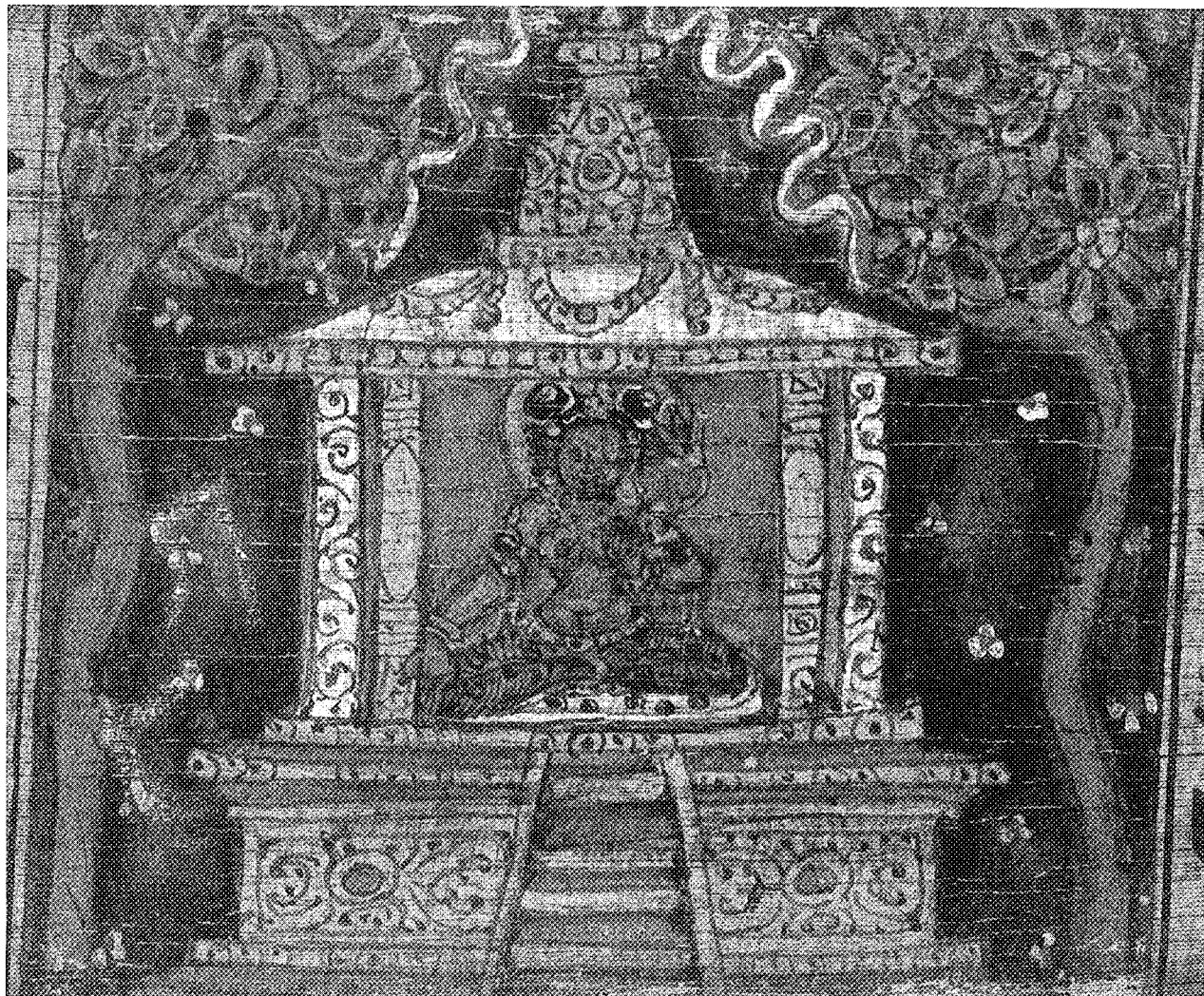


10. Dinajpur, Bangladesh. Gopalganj Mosque. Plan.

established in the mosque of Zafar Khan Ghazi. To this basic square plan a veranda was sometimes added on the east side.<sup>21</sup>

The Gopalganj Mosque (fig. 10) in Dinajpur is dated 1460, that is, to the reign of Barbak Shah. The ceiling of its veranda has groin vaulting, and it becomes evident that whenever a veranda was added, it would have

three entrances corresponding to the number of front entrances to the sanctuary, which in turn would be regulated by the number of mihrabs in the qibla wall. In eastern India the earliest square brick mausoleum is the tomb of Ibrahim Bayyu in Bihar Sharif (Nalanda District, Bihar; 1353); it is very much in the Tughluq tradition. To find a prototype for the square, single-domed Bengali building, the likeliest places to begin are the buildings of the indigenous Bengali architectural tradition.



11. Shikhara Shirsha Bhadra. Temple from an illustration in the Cambridge University Library, ms. add. 1643, fol. 59. Reproduced by permission of the Syndics of the Cambridge University Library.

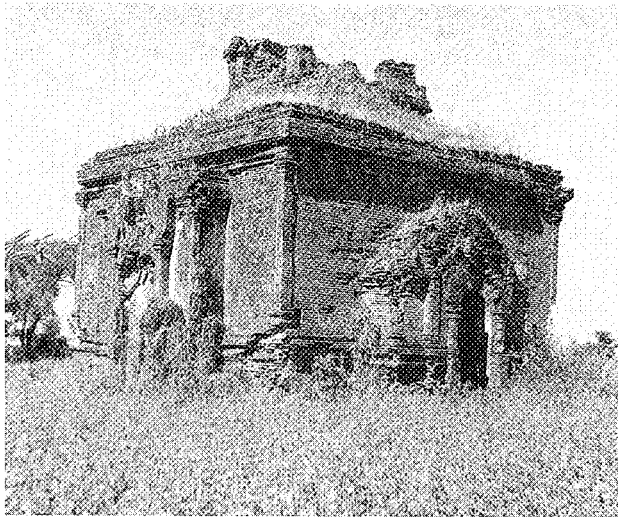
*Temples.* The two temple types of pre-Islamic Bengal are called *shikhara* and *bhadra*.<sup>22</sup> The *shikhara* temple is modeled after the Orissan *nagara* or *rekha* type, and is characterized by a lofty, curvilinear tower over a square sanctum, where the graduated projections in the exterior of the sanctum are continued upwards into the body of the tower. The *bhadra* temple has a tiered roof in receding stages over the square sanctum, and is surmounted by finials. This form is apparently derived from rural hut construction, and therefore we must look at examples to consider probable sources of

mosque architecture. Bhadra temples built in stone can still be seen in the district of Bankura in West Bengal. Among the Buddhist shrines represented in the Cambridge University manuscript of the *Ashta Sahasrika Prajnaparamita* copied in Nepal in 1015,<sup>23</sup> at least fourteen are of the *bhadra* type, and of those six, including three in Bengal, are known to have been situated in eastern India. Representations of them have been found in a number of reliefs of the Pala era, mostly from areas now in Bangladesh.

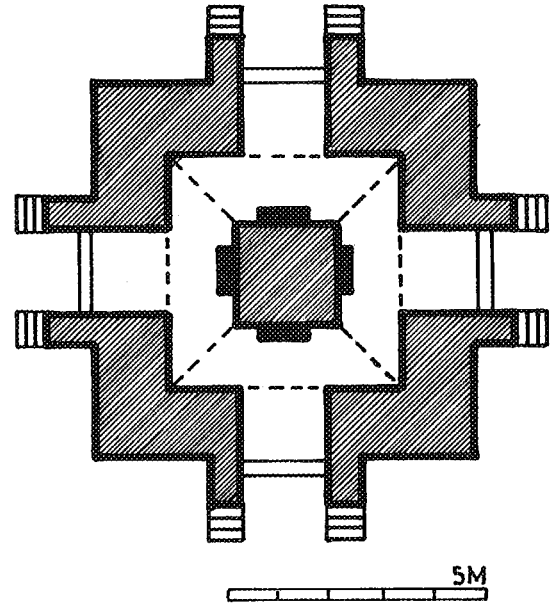
When the superstructure of the *bhadra* temple was

crowned by a *shikhara* (tower), it was known as a *shikhara shirsha bhadra* (i.e., *bhadra* temple surmounted by a curvilinear tower). The monumental brick temples in the monastic complexes at Paharpur and Mainamati seem to have belonged to this group, but they were on cruciform plans with a central square core.<sup>24</sup> No small *shikhara shirsha bhadra* temples have survived in Bengal, but manuscript illustrations and sculptures prove their popularity. The Cambridge University manuscript has ten illustrations of this type of temple, of which seven were in northern and western Bengal. The simplest one is said to be in Varendra, in northern Bengal (fig. 11). The illustration depicts a shrine on a high plinth approached by a staircase with a single-tiered sloping roof surmounted by a *shikhara* with *amalaka* (a spherical, ribbed element resembling a fruit of the same name). Up to the tiered roof, it is clear that the prototype was the village construction in bamboo, wood, and straw. Several sculptures of pre-Islamic times prove its popularity in eastern India, especially Bengal.<sup>25</sup>

In the early medieval period, eastern India was the most active center of Buddhism, and Buddhist thought traveled from there to centers outside India. Extant examples of monuments that have disappeared from Bengal can still be found in Burma in several eleventh- and twelfth-century temples of Pagan (fig. 12), where climate and history have been kinder to ancient monuments. Early prototypes of these temples at



12. Pagan, Burma. Ruined temple, 11th-12th century. General view.



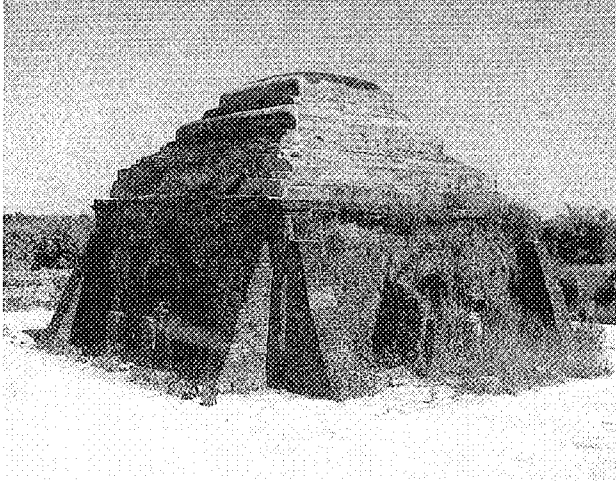
13. Hmawza, Burma. Lemyethna Temple. Plan.

Pagan in Burma can be found in the village of Hmawza (near the old city of Prome), the site of Srikshetra (Thayekhittaya in Burmese), the capital of the Pyus. Although we do not know why this prosperous city died, archaeological excavations reveal that Srikshetra had already begun to decline by the ninth century, when the Pyus gradually merged with the Burmans. Pagan emerged as the capital of unified Burma in the eleventh century.<sup>26</sup>

The Lemyethna Temple at Hmawza is a simple square building of brick with an entrance on each of its four sides (fig. 13). In the center of the chamber is a square solid masonry obelisk. A sculptured Buddha sits on an axial line with the entrance doorway on each side. Between the obelisk and the walls is a barrel-vaulted space. The roof is composed of three sloping tiers placed one above the other in diminishing scale. The topmost one, corresponding to the top of the obelisk, is flat—the final *shikhara* is missing (fig. 14).

Another example at Hmawza is the Bebe Paya Temple. Also of brick, it consists of a groin-vaulted cella with an altar at the far end (figs. 15-16). The sanctuary has a single entrance; the three blind sides have false doorways. Outside three stepped tiers on a diminishing scale are surmounted by a *shikhara*. Both temples have corner towers, but they are not prominently featured.





14. Hmawza, Burma. Lemyethna Temple. General view.

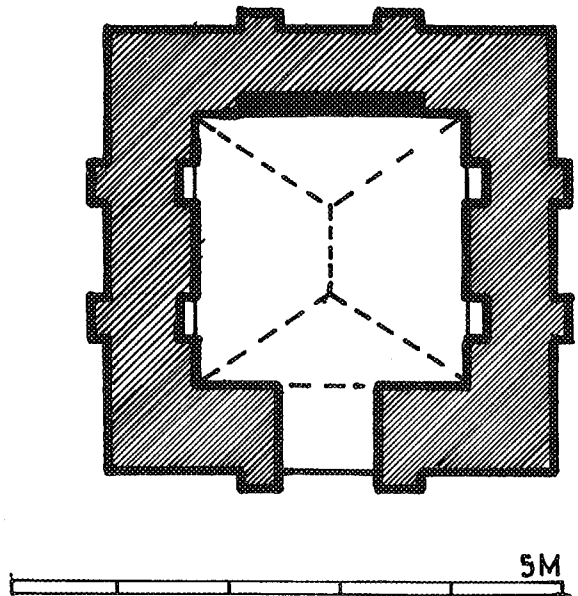
More elaborate versions of these temples at Hmawza were built in Pagan in the eleventh century, and some are still in use today. It is likely that similar temples existed in Bengal because in plan the eleventh-century Ananda Temple at Pagan resembles the earlier Paharpur Temple of Bengal to a remarkable degree. The excavations at Hmawza have also produced terra-cotta votive tablets with representations of temples which are similar to those represented in relief in the stone sculptures of Bengal and in manuscript paintings of Bengali sites.<sup>27</sup>

Once it is established that temples similar to those at Hmawza existed in Bengal in pre-Islamic times, it is not difficult to find the link between them and the square brick mosques of the Sultanate period. Because no early brick temples of the *bhadra* type exist in Bengal today, the Sultanate mosques also allow us to document a period of building in Hindu/Buddhist architecture for which we have no extant examples.

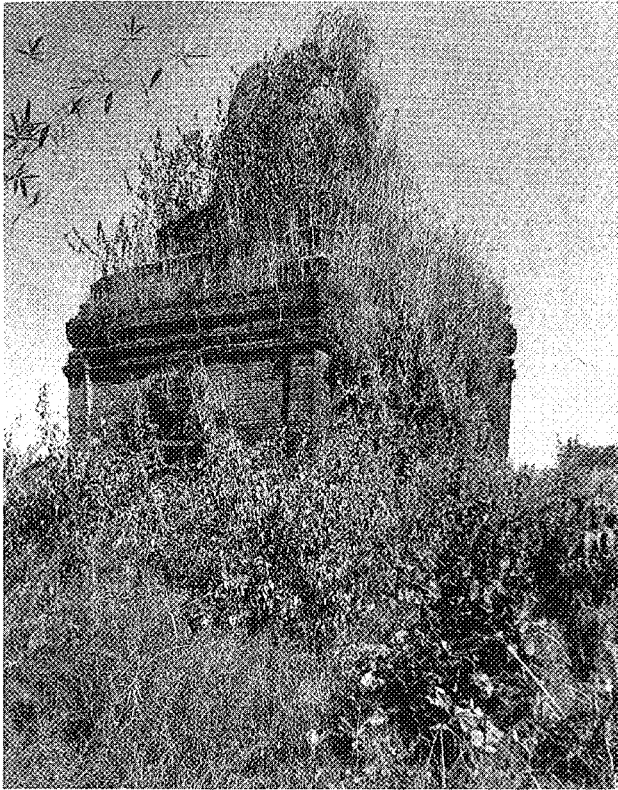
*The chala hut.* In a Bengali village a homestead is composed of a group of huts usually clustered around a courtyard. Each hut is a single-roomed rectangular or square structure with walls of woven bamboo, reed matting, or mud on a framework of bamboo or wooden posts. The roof is most often made of thatch over a bamboo frame and comes basically in two forms. The *do-chala* (roof in two segments; fig. 17) slopes away from the central curved ridge formed by the meeting of the two slopes. A *chau-chala* (roof in four segments) slopes down in four directions. Occasionally there may be an

*at-chala* (roof in eight segments) when a *chau-chala* is duplicated vertically in a receding scale. This happens when the living chamber of a hut is surrounded by a veranda. The roof of the veranda is placed at a lower level than the roof of the chamber and from the front gives the impression of one *chau-chala* superimposed upon another, or a roof in two tiers. The tiered roof of the *bhadra* temple seems clearly to be derived from this. Although no domestic buildings survive from the Sultanate period, it is safe to assume that their basic design has not changed very much through the centuries.

A glimpse of Sultanate houses can be found in the *Iskander Nama* of Nusrat Shah of Bengal.<sup>28</sup> In a miniature painting of "Alexander Receiving Dara's Daughter Roshanak" (fig. 18), the setting is a house, and what must have been a most luxurious one. The king is seated in a square chamber of the house, which has a triangular roofed pavilion (*chala*) on the upper level. The unusual curved eave supported by brackets on the left must be the roof over the veranda which in the traditional house leads to the entrance. Although the curvature of an actual thatched roof is retained, the element is probably made of wood. Reproducing familiar forms in a new material was common; Muslims also reproduced many features of the hut in brick.



15. Hmawza, Burma. Bebe Paya Temple. Plan.



16. Hmawza, Burma. Bebe Paya Temple. General view.

The brick mosque with terracotta decoration represented a grand structure in Sultanate Bengal, the gift of a wealthy patron and the fruit of an extraordinary effort, and not at all the everyday utilitarian structure required in any Muslim neighborhood. That function was probably performed by huts assigned for the purpose. In the Bengali village, each hut was given a special function—bedroom, storehouse, kitchen, cattle-pen, or whatever—and one would surely also have been built to provide space for worship, as it is to this day in the countryside, where a simple mihrab projection in the west is the only external sign of the hut's special function.

The brick mosque faithfully followed this unpretentious model, reproducing many forms that are inherent to bamboo-and-thatch construction. The addition of a dome and the change to the square floor plan needed for dome construction were the main formal deviations. The importation of new technologies by the Muslims made it expedient to use the dome, and its symbolic

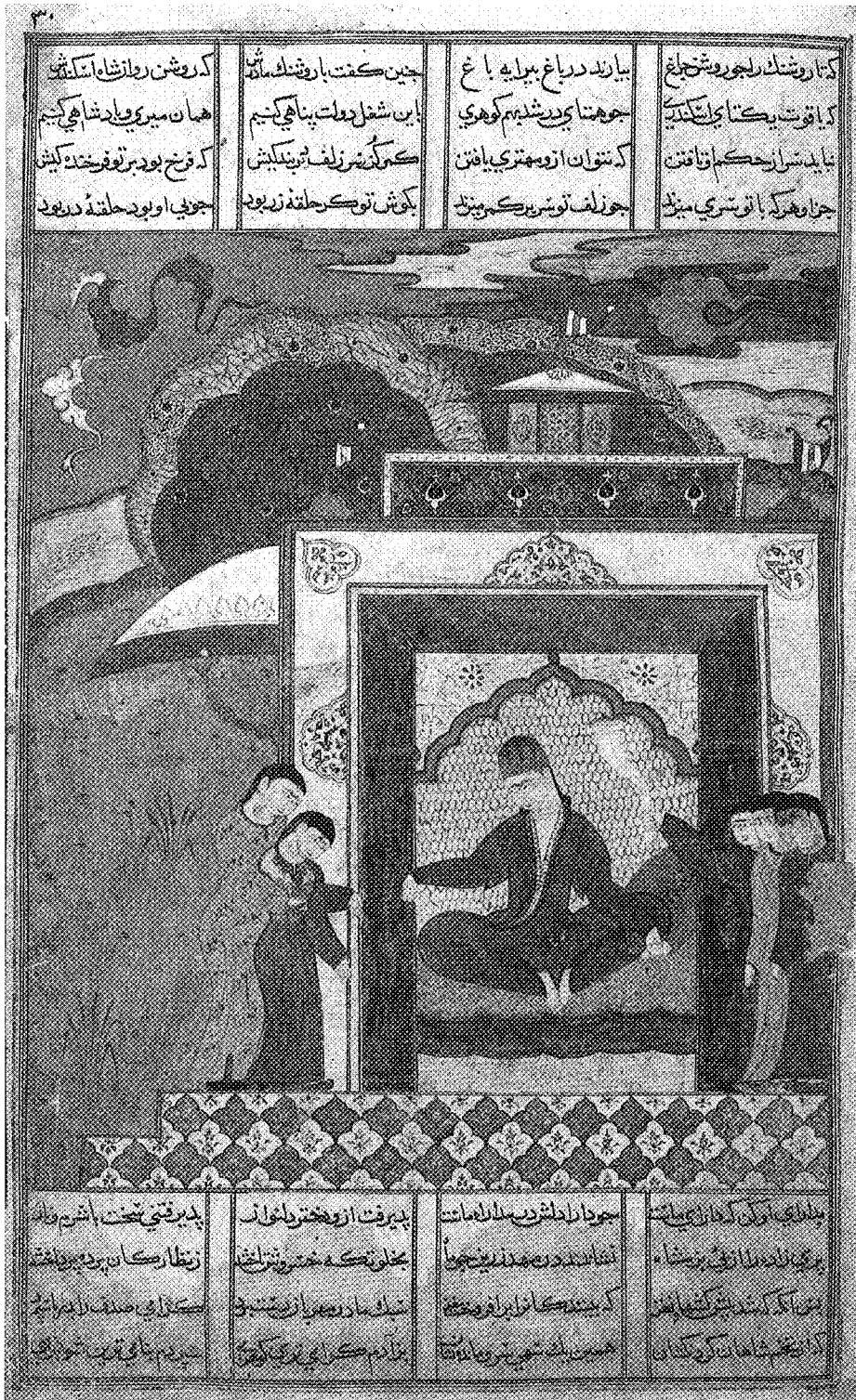


17. Hut mosque with a *do-chala* roof in a Bengali village.

value, clearly distinguishing the mosques from the temples of other religions, must have been an added incentive for its use.

*Brick construction.* Another feature identifying Bengali architecture between the fourteenth and sixteenth century is the use of brick. In a deltaic land like Bengal, where clay is readily available, brick was the predominant building material from Hindu/Buddhist times. The Paharpur and Mainamati monasteries, for example, are both brick buildings. Stone was unavailable in the country, and therefore rarely used. It had to be transported from the Rajmahal Hills of Bihar or quarried from older buildings. Lime was used for mortar, and the parapet, roof, and domes were plastered to resist water. Only the two outer sides of the brick walls were of dressed masonry with lime mortar; the core was made of less careful brickwork with mud mortar.

*Square domed unit.* The square domed unit became the basic module for all Sultanate mosques, regardless of whether they were single- or nine-domed squares, or multi-domed rectangles, as opposed to the hypostyle mosque of early Islam whose columns were arranged in rows to form aisles and bays, but did not as a rule form the square bays necessary to support domes. Multidomed mosques were also popular in Delhi during the Tughluq period, but they always had internal courtyards and the multidomed mosques of Bengal



18. Alexander Receiving Dara's Daughter Roshanak. British Library ms. 13836, fol. 32. Reproduced by permission of the British Library.

are earlier. Since Bengal was attacked twice during the reign of Firoz Shah Tughluq, the multidomed building might even have traveled from east to west.

In the Bengali mosque, at any spot in any of the square units, an entrance is always in the east opposite the mihrab in the west, and other doors and windows are on the north and south. In plan and, except for the dome, in external elevation, these buildings, particularly the smaller single-unit mosques, probably resembled the temples, or even secular buildings, of the Hindu/Buddhist tradition. In the temples the *bhadra* or *shikhara* roof signaled the faithful; in mosques, gateways, and tombs, domes indicated the presence of Islam.

*Pointed arch.* The first pointed arch in the Muslim architecture of India occurs in the screens of the Quwwatul Islam Mosque in Delhi (1199) and the Arhai-din-ka-Jhompra Mosque at Ajmer (ca. 1205).<sup>29</sup> Outside India it was first used in the Umayyad buildings of Syria, then in Persia in the Tarik Khana at Damghan (second half of the eighth century). The Samanids, Karakhanids, Seljuqs, and later dynasties also adopted it.<sup>30</sup>

There are no surviving pre-Islamic specimens of the pointed arch in Bengal, but they do appear in the Buddhist temple at Bodhgaya in nearby Bihar, India,<sup>31</sup> and pointed brick arches and vaults with radiating vousoirs are found in the eleventh-century Nagayon Temple at Pagan.<sup>32</sup> It is possible, therefore, that the form and technology of the true arch were known in Bengal in pre-Islamic times, but only after the Muslim conquest were they widely used.

*Multiple mihrabs.* The presence along the qibla wall of more than one mihrab is a feature appearing regularly in mosques in Bengal, and sometimes in mosques in North India, but almost never elsewhere in the Muslim world. They do occasionally turn up in the early Muslim monuments of Delhi—for example, at the tomb of Iltutmish and at the Jamatkhana Mosque, but their number is not dictated by the number of entrance doorways as it is in Bengal. The tomb of Iltutmish has three mihrabs opposite a single entrance, and the central chamber of the Jamatkhana Mosque is perfectly symmetrical in its arrangement of niches. Each of its four walls has a large central arched niche, flanked by narrower ones on either side. On the side opposite the qibla, these arches become entrance doorways.

Multiple mihrabs are more consistently found on the inside of the qibla wall, first in the monumental Tughluq mosques of Delhi and later in the mosques of Jaunpur, Gujarat, and Mandu.<sup>33</sup> All these mosques are built around an enclosed central courtyard, and the mihrabs against the interior wall of the qibla liwan correspond to the number of bays on the courtyard. The multiple mihrabs and domes of the Tughluq mosques may well be the result of architectural influences traveling westward as a consequence of the Tughluq campaigns in Bengal. It is possible that these features then spread from Delhi to other regions of India. In Bengal, from the earliest times, regardless of how small the mosque is, the qibla wall has been given as many mihrabs as there are entrances on the east side. They are in axial alignment, as if the mihrab niches were generated by the entrances.

In the Hmawza temples of Burma, the images of the deities were on axis with the entrances, or, where there is only a single entrance, as is more common, the altar is on the opposite wall (fig. 15). Where there are entrances on all four sides (fig. 13), four corresponding images will be found on the sides of the central obelisk. This convention of a door corresponding to a niche holding a sacred image probably existed in Bengali temples as well.

Because a congregational mosque requires more than one doorway, the convention of a niche corresponding to a doorway was taken over in mosque architecture, but with a difference. In the newly converted Muslim community the niches would have been associated with the worship of deities they had left behind and a single mihrab in the west wall would have appeared to resemble too closely the sacred position of the image in the temple. Multiple mihrabs would have diluted that resemblance by diffusing the importance of a single niche. In temples the most important place is the image niche; everything else centers upon it. In Islam the whole qibla wall, and not just the single niche in it, requires emphasis. In most cases, however, the center mihrab was always treated in size and decoration as the most important. Anointing the central mihrab and lighting votive candles in it are still today common practices in the village.

A ritual requirement of congregational prayer in Islam is the formation of straight lines. Only when one row is completed can the next be formed. A row of mihrabs aligned to a row of entrances, together with the real and blind doorways on the sides, served to give a horizontal emphasis to the space, especially in a cen-

trally planned building like a single- or nine-domed square mosque.

*Curved cornice.* Temples were the houses of the gods, built of stone, brick, wood, and even thatch and mud. Their prototypes were the houses of man which were generally built of mud with a thatched roof. Therefore, the thatch-and-mud temple would be indistinguishable from a residential hut. The stone, brick, and wood temples are constructions of a superior order, the endowments of wealthy patrons. Although modeled after a hut, their cornices are straight because they have dispensed with the use of bamboo. This can be seen in the brick temples of Hmawza and in the temples illustrated in manuscripts and in relief in stone sculptures. The illustrated temples must be representations of better known ones built of durable materials like stone, brick, and wood.

The curvature of the thatched roof is due to the bamboo, which is extremely strong but is very flexible and is used universally for framing the thatched roofs of *chala* huts. To prevent the roof from sagging, a slight upward curvature is given to all bamboo roofing. This is normally done by increasing the height of the bamboo or wooden posts toward the center. The source of the curvature in the thatched roof lies in the structural behavior of bamboo and not in drainage requirements—the slopes of the *chala* are amply suited to that purpose. The curved cornice of the thatched roof was used by the Muslims because it reproduced a familiar building form in an unfamiliar material; thus even when the roof was a brick dome, forms and details were incorporated which were totally unnecessary when building with brick. In the mosques, in keeping with the curvature of the cornice, the entire roof is also curved. These curves are again not necessary because in a domed mosque a slight variation in the levels of the roof would ensure proper drainage of rainwater.

*Engaged corner towers.* In the Hmawza temples, the engaged corner towers are probably derived from the corner posts of rural huts, which are not visible from the outside, but are an essential part of the framework on which the fabric of the hut is attached. In North India, corner towers appear first in the Arhai-din-ka-Jhompra Mosque (ca. 1205) in Ajmer and in the Sultan Ghari tomb in Delhi (1231).<sup>34</sup> They reappear later in the Tughluq mosques of Delhi and in the regional styles of Jaunpur, Gujarat, and the Deccan. In Bengal, rudimentary versions were seen in the Adina Mosque,

where they were confined within the rectangular plan. They are prominently featured for the first time in the Eklakhi Mausoleum of Hazrat Pandua. The source of this particular feature could therefore be either Muslim or pre-Muslim. They are not integral parts of the mosque in the rest of the Muslim world. In the Great Mosque of Damascus, where they appear for the first time, they were taken over from a pre-Islamic past and used for Islamic ritual.

*Minarets.* The minaret is an architectural feature traditionally associated with a mosque, but it is conspicuously absent from Bengal. The Shaitgumbaj Mosque in Bagerhat is the only mosque with minarets, and it is generally agreed that their presence was attributable to the Tughluq influence on Khan Jahan-style monuments. In West Bengal, the monumental minarets of the Adina Mosque at Hazrat Pandua, the Bari Masjid at Chhoto Pandua, and the Firuz Minar in Gaur are detached from the mosques, indicating that the call to prayer was not their primary function.<sup>35</sup> They were symbols of the presence of Islam and used to mark the few large cities in an otherwise rural country. The call to prayer was generally given from the forecourt or from inside the prayer chamber. Since the majority of the mosques served small rural communities that lived together in clusters of huts, no tower was needed. The countryside is so flat and the vegetation so thick that a minaret would not even be easily visible from any distance.

Grabar has interpreted the minaret as “a symbolic expression of the presence of Islam directed primarily to the non-Muslims in that city.”<sup>36</sup> There are indications that local pirs were responsible for the successful conversion of the vast majority of the rural population of Bengal; sometimes it meant the conversion of entire rural communities.<sup>37</sup> If such is the case then these monumental symbols of Islam aimed at impressing non-Muslims would not have been necessary. Monumental structures in pre-Islamic Bengal are few, and include no examples of monumental pillars (*lat*) like the Asokan or Gupta ones found in North India. The *shikhara* temples derived from Orissa were built high, but it seems that Muslim architecture chose to ignore them.

*Terra-cotta decoration.* In contrast to the plastered and otherwise plain surfaces of Sultanate buildings in North India, the walls of the Sultanate buildings of Bengal were unplastered but filled with fancy brickwork and

terra-cotta decoration. The richly decorated terra-cotta plaques of the monasteries of Paharpur and Mainamati (one dating from the ninth and the other from the tenth century) testify that this was a tradition reaching back to ancient times. Because no monuments remain from the Muslim conquest to the end of the thirteenth century, when the mosque of Zafar Khan Ghazi was built, no terra-cotta exists from that period either. Scholars agree that parts of the Tribeni Mosque have been rebuilt; though its rectangular plan remains unaltered, it is questionable how much of the terra-cotta plaque decoration is original. The first firmly dated Muslim monument whose terra-cotta decoration is unquestionably authentic is the Adina Mosque of Hazrat Pandua.

The few surviving temples of the pre-Muslim period, all in West Bengal, postdate Mainamati, and are in stone or brick in the Orissan *nagara* or *rekha* style that has little space for plaque ornamentation, though it does use ornamental brickwork. Historical accounts mention that the Muslims started to build mosques, madrasas, and khanqahs as soon as they arrived, but nothing is extant that dates earlier than ninety years after the conquest and very little is left that can be dated earlier than the fifteenth century.

Since non-Muslims continued to live in Bengal after the Muslim conquest, they must have continued to build their places of worship and to use terra-cotta art for their decoration. The Muslims used vegetal or geometric forms; the non-Muslims combined these with figures. It is unlikely that the terra-cotta art seen in the Adina mihrabs sprang suddenly to life after remaining dormant for nearly four hundred years, nor do the profuse figural representations seen on late medieval brick temples show signs of inexperience. Both the vegetal and geometric patterns of the Adina Mosque and the human forms of the late medieval temples speak for a continuous tradition.

In Hindu/Buddhist religious art, stone, which had to be imported, was reserved for the image of the deity itself; the decoration of the temple was secondary. Consequently the sculptor enjoyed a status higher than that of the terra-cotta maker whose work belonged to the folk tradition. The coming of the Muslims, who had no use for stone images, but commissioned lavishly decorated mosques, reversed that judgment. When a twelfth-century sculpture is compared to a ninth- or tenth-century one, the naturalism of the earlier style is replaced by stiffness, linearity, and over-ornamentation, an overall nervousness associated with art that

had lost its vitality; the plastic form is suffocated in overwrought details.<sup>38</sup>

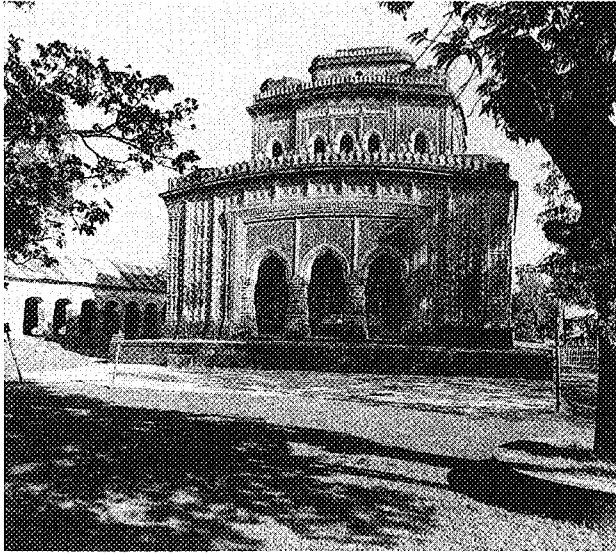
The Muslims arrived at the opportune moment. They rejuvenated the Bengali artistic tradition by substituting clay for stone. This flexible medium injected new life into an art that had become as hard and sharp as the stone itself. The extensive use of geometric and vegetal designs by the Muslims was responsible for a flowering of decorative art in terra-cotta. By making terra-cotta decoration a medium in which excellence was sought, they gave it a status that it had hitherto not enjoyed.

*Ponds.* Almost every mosque in Bengal has a pond or a large tank beside it, as do all rural dwellings. Villages are dotted with ponds to this day because land is so low that earth has to be built up under each dwelling to keep it above flood level, and the earth needed to do this is obtained by excavating a pond. The villager thereby simultaneously raises the foundation of his home and supplies drinking water to a group of dwellings. The pond next to a mosque replaces the ablution fountain found in other Muslim countries.

When large mosques were built, the mosque and the pond also affected the planning of other settlements in the area. Very often the house of the ruler, governor, or administrator was—depending on the entrances to the platform or maqsura area—either behind or to one side of the mosque. Housing for other dignitaries was laid out in relation to these.

*Inscriptions.* The most commonly used Quranic text in Bengal is surah 72 (Jinn), verse 18:<sup>39</sup> “And the places of worship are only for God, so pray not unto anyone along with God.” It is commonly found over doorways in the Islamic world, though not so commonly in India.<sup>40</sup> The words mark the separation between believers and nonbelievers at the entrance to the building, a message that had particular relevance to the newly converted Muslims. Dissemination of Islamic learning and culture must have been very slow among the converts; in the meantime new Muslims, except for the ritual of prayer, would have differed little from the rest of the population.

The most commonly quoted hadith here is, “He who builds a mosque for God will have a house built like it for him in Paradise.”<sup>41</sup> Sometimes “house” is replaced by “castle” or even “seventy castles.” The mosques built in the Sultanate period with their low domes and façades reflect the absence of the need for monumental



19. Dinajpur, Bangladesh. Kantaji's Temple, 18th century. The ratnas (pinnacles) have fallen off the roof corners.

symbols. They fit in very well with the local culture, which even in the pre-Islamic past lacked buildings on a monumental scale, the Paharpur and Mainamati monasteries were the rare exceptions. The sultans no longer have the air of foreign rulers whose buildings must symbolize power or the majesty of religion.<sup>42</sup> These modest mosques suggest that the Muslims had begun to feel comfortable and accepted in Bengal. Instead of trying to impress people with imposing architecture, they concentrated on meeting their ritual needs by building small, practical buildings which fitted in very well with the local building tradition.

The Bengali Muslims developed a distinctly regional style of architecture that had popular appeal. By infusing their own methods and techniques of construction, new life was given to forms that already existed and were well known in Bengal and in neighboring areas. The Sultanate mosques resemble extant sixteenth-, seventeenth-, and eighteenth-century *bangla* (*do-chala*) and *ratna* (pinnacled) temples (fig. 19). These later medieval temples belong to a post-Muslim tradition, for their superstructures are supported by arches and vaults. Although there are no extant examples of the *chala* type of temple before the sixteenth and seventeenth centuries, the late medieval forms are so well developed that it is difficult to believe that some equivalent did not exist earlier. In pre-Islamic times, a

type of temple existed in Bengal that was very close to the Hmawza and Pagan temples of Burma. Throughout the Islamic period this tradition continued, assimilating the changes brought about by Muslim rulers in their construction. The Muslims took an existing form, adapted it to their needs, enriched it, and shared it with the culture whence it came.

When the Mughals took over, they imposed the imperial style of Delhi, and the local Bengal style disappeared from the capital, though it survived for a while in areas away from the administrative centers, and lived on in the Hindu temple architecture of Bengal until British colonial architecture overwhelmed it. Elements of the Bengali style, particularly the curved *chala* roof, were imposed on ancillary buildings and exported to other parts of India, where they became prominent features of the seventeenth-century architecture of North India, both Muslim and non-Muslim.

Mosque architecture of the Sultanate period played with the idea of using mundane forms and ideas of building implemented in a way that could not overwhelm the ordinary Bengali by their foreignness. To this day the rural Muslim, though limited in his knowledge of the finer points of religion, is emphatic about his identity as a Muslim. The Sultanate period, when Bengali culture both flourished and absorbed Islamic influences from the west, helped mold the psyche of the Bengali Muslim for all time to come.

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#### NOTES

1. The data for this article are drawn from the author's survey of several mosques in Bangladesh belonging to the Sultanate period (1338-1538) and the years to 1576 when the Mughals finally took over Bengal. All the mosques of Bangladesh mentioned here have been catalogued in my "Sultanate Mosque Types in Bangladesh, Origins and Development," Ph.D. diss., Harvard University, 1984. For the history of the Sultanate period, see *Banglar Itihas, Sultani Amol* [in Bangla] (Dhaka, 1977); and Jadunath Sarkar, ed., *History of Bengal*, vol. 2 (Dhaka, 1948).
2. Richard M. Eaton, "Islam in Bengal," *The Islamic Heritage of Bengal* (hereafter cited as *Islamic Heritage*), ed. George Michell (Paris, 1984), pp. 28 ff.
3. Yolande Crowe, "Reflections on the Adina Mosque at Hazrat Pandua," *Islamic Heritage*, pp. 155-64; Ahmad Hasan Dani, *Muslim Architecture in Bengal* [hereafter cited as *Muslim Architecture*], (Dhaka, 1961), pp. 53-73; and Shamsuddin Ahmed, *Inscriptions of Bengal*, vol. 4 [hereafter cited as *Inscriptions*] (Rajshahi, 1960), p. 38.

4. Oleg Grabar, "Symbols and Signs in Islamic Architecture," *Architecture as Symbol and Self-Identity*, Proceedings of Seminar 4 (1979), Aga Khan Award for Architecture (Philadelphia, 1980), p. 8.
5. John D. Hoag, *Islamic Architecture* (New York, 1975), p. 42; Oktay Aslanappa, *Turkish Art and Architecture* (New York, 1971), pp. 16-17; Percy Brown, *Indian Architecture (Islamic Period)*, 5th ed. (Bombay, 1968), pp. 10-12.
6. Catherine B. Asher, "Inventory of Key Monuments" [hereafter cited as "Inventory"], *Islamic Heritage*, p. 135; and Ahmed, *Inscriptions*, pp. 19-20. Many of the mosques mentioned here are found in Asher's article as well as in Dani's *Muslim Architecture*.
7. Behcet Unsal, *Turkish Islamic Architecture* (London, 1973), pp. 16-18; Aptullah Kuran, *The Mosque in Early Ottoman Architecture* (Chicago, 1968), pp. 150-59.
8. Dani, *Muslim Architecture*, pp. 141-42 and 144-47.
9. Asher, "Inventory," p. 128; and Perween Hasan, "Eight Sultanate Mosques in Dhaka District," *Islamic Heritage*, p. 190.
10. Asher, "Inventory," pp. 69 and 71; Dani, *Muslim Architecture*, pp. 108-12 and 136-40.
11. They include the mosque at Mankalir Bhita, Mahasthan (14th century) (Asher, "Inventory," p. 85); the mosque at Muazzampur, Dhaka (1415-35) (Hasan, "Eight Sultanate Mosques," p. 188-89); the mosque at Shatgachchia, Jessore (M. A. Bari, "Khalifatabad and Its Monuments," M. Phil. diss., Rajshahi University, 1980); Makhdum Shah's Mosque, Shahzadpur (Asher, "Inventory," p. 130, Dani, *Muslim Architecture* pp. 160-61); and the mosque at Shailkupa, Jessore (ibid., pp. 150-52), all datable to the mid-fifteenth century; Faqir's Mosque, Chittagong (1474-81) (Abdul Karim, "Two Hitherto Unnoticed Mosques of Chittagong," *Journal of the Asiatic Society of Pakistan* 12, no. 3 [December 1967], pp. 321-25); the mosque at Rampal, Dhaka (1483); the mosque at Dhan-chawk [also known as Rajbibi], Gaur [late 15th century]; the mosque at Bagha, Rajshahi (1523-24); Mojlish Awlia's Mosque, Faridpur (see Asher, "Inventory," pp. 81, 44, and 115, and Dani, *Muslim Architecture*, pp. 112, 158-60); the mosque of Reza Khan, Bagerhat, and the Ten-Domed Mosque, Bagerhat (all early 16th century) (Bari, "Khalifatabad," pp. 141-48; the rest of the mosques of Bagerhat are also studied in this dissertation); and the mosque at Kushumba, Rajshahi (1558) (Asher, "Inventory," p. 85; Dani, *Muslim Architecture*, pp. 162-64).
12. The four nine-domed mosques in Bangladesh are the Nine-Domed Mosque at Bagerhat; the Moshjidkur Mosque at Khulna, the Kawshba Mosque at Barisal (Dani, *Muslim Architecture*, pp. 147-48), all datable to the fifteenth century, and the mosque at Shatoir, late fifteenth century (catalogued for the first time in my "Sultanate Mosque Types," pp. 238-41).
13. Anthony Welch and Howard Crane, "The Tughluqs: Master Builders of the Delhi Sultanate," *Muqarnas* 1 (1983): 130; Asher, "Inventory," p. 111.
14. For a discussion of the nine-bayed mosque type, see Lisa Golombek, "The Abbasid Mosque at Balkh," *Oriental Art* 15, 3 (Autumn 1969): 173-89.
15. They are Binat Bibi's Mosque, Dhaka (1457); mosque adjoining Khan Jahan's tomb, Fakirbari or Ranbijoypur mosque, Bibi Begni's mosque, Shingra mosque, and Chuna Khola mosque of Bagerhat (all late 15th century); mosque at Khondkartala, Dhaka (1481-82); mosque of Mograpara, Dhaka (1484); mosque at Yusufganj, Dhaka (late 15th century); mosque at Aroshnagar, Khulna (1502); mosque of Baba Saleh, Dhaka (1505); mosque at Galdai, Dhaka (1519); Hammad's mosque, Chittagong (1533-38); mosque at Bibi Chini, Patuakhali (late 15th century); mosque of Zinda Pir, Bagerhat; mosque at Osmanpur, Sylhet (mid 15th to mid 16th century); mosque at Shubhorara, Jessore (early 16th century). For the mosques of Dhaka, see Hasan, "Eight Sultanate Mosques," pp. 179-92; for Bagerhat, see Johanna E. Van Lohuizen de Leeuw, "The Early Muslim Monuments at Bagerhat," in *Islamic Heritage*, pp. 165-78; for the mosque at Aroshnagar, see Bari, "Khalifatabad," pp. 325-31; for Hammad's mosque, see Karim, "Mosques of Chittagong," *Journal of the Asiatic Society of Pakistan* 12, 3 (December, 1967): 325-31; for the mosques at Bibi Chini, Patuakhali; and Osmanpur, Sylhet, see Hasan, "Sultanate Mosque Types," pp. 148-49 and 178-80; for the mosque at Shubhorara, S. C. Mitra, *Jawshohore Khulnar Itihash* (in Bangla) 2 vols. (Calcutta, 1963), 1:344.
16. Sheila S. Blair, "The Octagonal Pavilion at Natanz: A Re-examination of Early Islamic Architecture in Iran," *Muqarnas* 1 (1983): 83.
17. Kuran, *Mosque in Early Ottoman Architecture*, pp. 30-46.
18. Hoag, *Islamic Architecture*, p. 184.
19. Asher, "Inventory," p. 113; Dani, *Muslim Architecture*, pp. 74-83.
20. For the Khan Jahan style, see ibid., pp. 141-51.
21. Examples of the square plan plus veranda are the Gopalganj Mosque, Dinajpur (1460); Masjidbari Mosque, Patuakhali (1465); Khania Dighi or Rajbibi Mosque, Gaur (15th century); mosque at Shankarpasha, Sylhet; Shura Mosque, Dinajpur; Gorar Mosque, Jessore; and mosque at Probajpur, Khulna (all 16th century); and the mosque at Nabagram, Pabna (1526). For the Gorar Mosque and the mosque at Probajpur, see Sohrabuddin Ahmed, "Antiquities of Barabazar," *Journal of the Varendra Research Museum* 4 (1975-76): 71-80; and S. M. Hasan, *Muslim Monuments of Bangladesh* (Dhaka, 1980), p. 84. For the rest of the monuments in this group, see Dani, *Muslim Architecture*, pp. 112, 148-50, 154, 157, 160-62.
22. For types of temples found in Bengal, see S. K. Saraswati, *Architecture of Bengal*, vol. 1 (Calcutta, 1976), pp. 47-93.
23. Ms. add. 1643, fol. 59, University Library, Cambridge, England.
24. Debala Mitra, *Buddhist Monuments of India* (Calcutta, 1971), pp. 240-46; Saraswati, *Architecture of Bengal*, 1:85.
25. Saraswati, *Architecture of Bengal* vol. 1, p. 77.
26. Aung Thaw, *Historical Sites in Burma* (Rangoon, 1978), p. 33; Louis-Frederic, pseud., *The Temples and Sculptures of Southeast Asia* (London, 1965), p. 22.
27. Saraswati, *Architecture of Bengal*, 1:23-59.
28. Robert Skelton, "The Iskandar Nama of Nusrat Shah," *Indian Painting*, Colnaghi catalogue (London, 1978), p. 141; Ms 13836, fol. 32, The British Library, London.
29. Brown, *Indian Architecture*, pl. 3, fig. 1; pl. 6, fig. 1.
30. K. A. C. Creswell, *A Short Account of Early Muslim Architecture* (London, 1958), pp. 102-4; Hoag, *Islamic Architecture*, pl. 42; Arthur Upham Pope, *Persian Architecture* (New York, 1965), pp. 80, 99, 106 and 107; Aslanappa, *Turkish Art and Architecture*, pp. 46-54.
31. Benjamin Rowland, Jr., *Art and Architecture of India* (London, 1977), pl. 109.
32. Gordon H. Luce, *Old Burma—Early Pagan* (New York, 1969),



- vol. 1, p., 62; vol. 2, pl. 190 b-c. Luce claims that the true pointed arch as it appears in Bodhgaya is part of the Burmese reconstruction of the late eleventh century because it resembles the arch of the Nagayon Temple of Pagan.
33. R. Nath, *History of Sultanate Architecture* (New Delhi, 1978), figs. 17, 20, and 24; Welch and Crane, "The Tughluqs: Master Builders," figs. 1, 4, and 5; S. Grover, *The Architecture of India: Islamic* (New Delhi, 1981), figs. 3.05, 3.07, 3.17, 4.04, 4.13, and 4.18.
  34. Brown, *Indian Architecture*, pp. 12 and 13; Nath, *Sultanate Architecture*, pp. 15-18; see also the chapters on regional styles.
  35. A. B. M. Husain, *The Manara in Indo-Muslim Architecture* (Dhaka, 1970), pp. 59-66; Asher, "Inventory," pp. 53 and 73.
  36. Oleg Grabar, *The Formation of Islamic Art* (New Haven, 1973), p. 120.
  37. Eaton, "Islam in Bengal," pp. 25-27.
  38. S. K. Saraswati, *A Survey of Indian Sculpture* (Delhi, 1975), pp. 189-90; for sculpture of the Pala-Sena period, see illustrations in N. K. Bhattasali, *Iconography of the Hindu and Buddhist Sculptures in the Dacca Museum* (Dhaka, 1929).
  39. Based on data in Ahmed, *Inscriptions*. Fifteen of the mosques surveyed had inscriptions which could be clearly read. Out of the eight that had Quranic verses, six (mosque at Khondkartala, Baba Saleh's Mosque, mosque at Goaldi, mosque at Mograpara, and mosque at Rampal, all in Dhaka district, and the Darasbari Mosque at Gaur, Rajshahi) used this verse.
  40. Erica C. Dodd and Shereen Khairallah, *The Image of the Word*, vol. 2 (Beirut, 1981), pp. 139-40.
  41. Found inscribed in eleven mosques: Darasbari, Khondkartala, Rampal, Goaldi, Mograpara, Chchoto Shona, Moshjidbari, Nabagram, Aroshnagar, Bagha, and Kushumba.
  42. Eaton, "Islam in Bengal," p. 28.