

**VARIOUS ARCHITECTURAL ISSUES TO UNDERSTAND EARLY
MEDIEVAL BUDDHIST MONUMENTS OF BENGAL: STUDY BASED
ON EXCAVATED MONUMENTS OF LALMAI-MAINAMATI AREA**

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1. Monument decorations through decorative/ ornamental/ designed bricks and terracotta plaques (Plates 56.1- 56.4) :

In early medieval archaeological context of Bengal, decorative materials of structure are generally noticed in two positions, these are in situ position in unearthed extant walls and other is loose specimens in debris of cultural materials. The loose specimens of decorative materials indicate that once it was used in adjacent monuments to decorate the building walls. It is also noted that in archaeological excavation only lower parts of monuments i.e. dada and some parts of dada capping wall were unearthed i.e. basement wall and some upper part of basement wall. Decorative bricks were set in the wall in various settings like horizontal, vertical and pointed. Generally chamfered and curved shaped mouldings brick were used in the basement wall of the building. As we know other than permanent decorative materials, there is also impermanent materials like paint, wood, bamboo etc were used to decorate the monuments which we learnt from the different manuscript paintings of the then time. Architecture has both external and internal decorations. But, it is to be noted that early medieval Buddhist monuments of Bengal were generally decorated in external parts of the monuments and very little in internal part. The record of internal part decorations is very poor, because blank spaces of internal part of monuments are deeply packed with debris.

Early medieval Buddhist monument of Bengalis less decorated than the previous one like-Bharut, Sanchi etc. There was a tradition to narrate a story (generally jataka stories) in previous example and for that reason they fixed the plaques (terracotta, stone or stucco) sequential order in monument. In case of Bengal, not only Mainamati but also other early medieval Buddhist monuments of Bengal have no regular sequential arrangement in fixing terracotta plaques in frieze to portray any story in monuments. But one rare example that is plaque fix in regular sequential arrangement has been noticed in recently excavate minor temple at Shalbanvihara premises (located in adjacent of southwestern corner of central temple) (Uddin, 2015: 287-299) The degree of decoration among the two types of monuments i.e. vihara building and temple, the principal decoration thrust is on temple and very little in vihara structure. Therefore, in archaeological context most of the decorative bricks recovered from adjacent temple area.



Plate: 56.1: Newly excavated minor temple at Shalban Vihara courtyard, located in adjacent of southwestern side of central temple, portray Krishna legend, Photo: Author.

Curved bricks were laid horizontally to create projected cornice on the basement wall. Generally, projected cornice is formed by the setting of two horizontal lines of both decorative and non-decorative bricks. It is extended outwardly with an inset band. Between the two horizontal lines of bands, terracotta plaques are fixed in the boxes. The two lines (upper and lower lines) of projected cornices are not same extended outwardly. Generally, upper cornice is wider than the lower cornice. To minimize damage of the terracotta plaques from rainwater, the builder placed this sort of projected cornice in the top of the terracotta plaque. Projected cornice prevents to reach the rainwater directly to terracotta plaques.

Terracotta plaques are the major component amongst the decorative materials of early medieval Buddhist monuments of Bengal. The shapes of terracotta plaques are both rectangular and square. Among the shapes, majority are rectangular. Religious and secular themes are the subject of terracotta plaque. The plaques were made of backed clay and having various shades of ochre. The figures are moulded round in bas relief in incised panels. The relief is standing out on average 0.5 cm from the background. The average height of the plaque is 21.5 cm and with varying from 18 to 30 cm. actually the size of the plaque demanded by the figure modeled out it. In our general observation it is noticed that the figure and motif of terracotta plaque was out diced for mouldings, because it seems that every single piece plaque was made in different details.

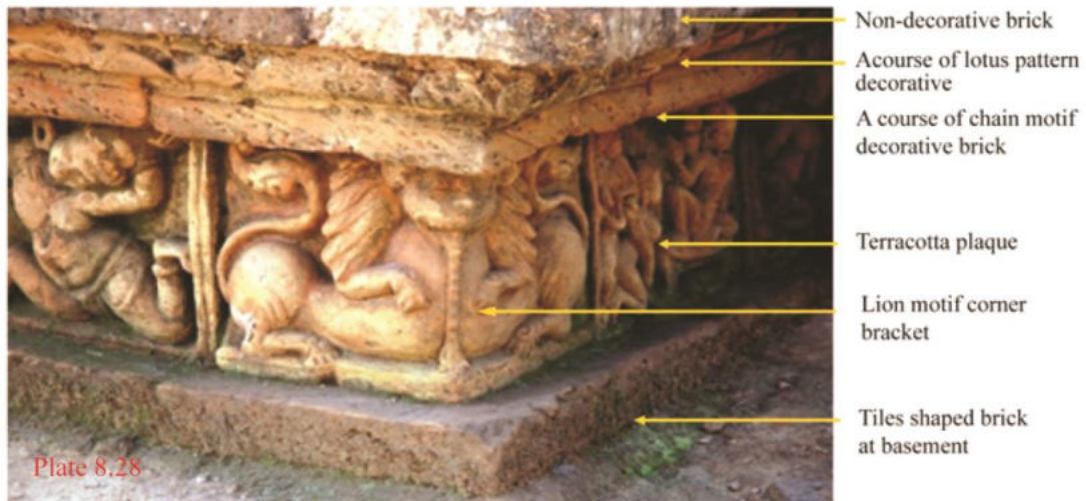


Plate 56.2: Composition of frieze, recently unearthed small cruciform temple at the Shalban vihara.

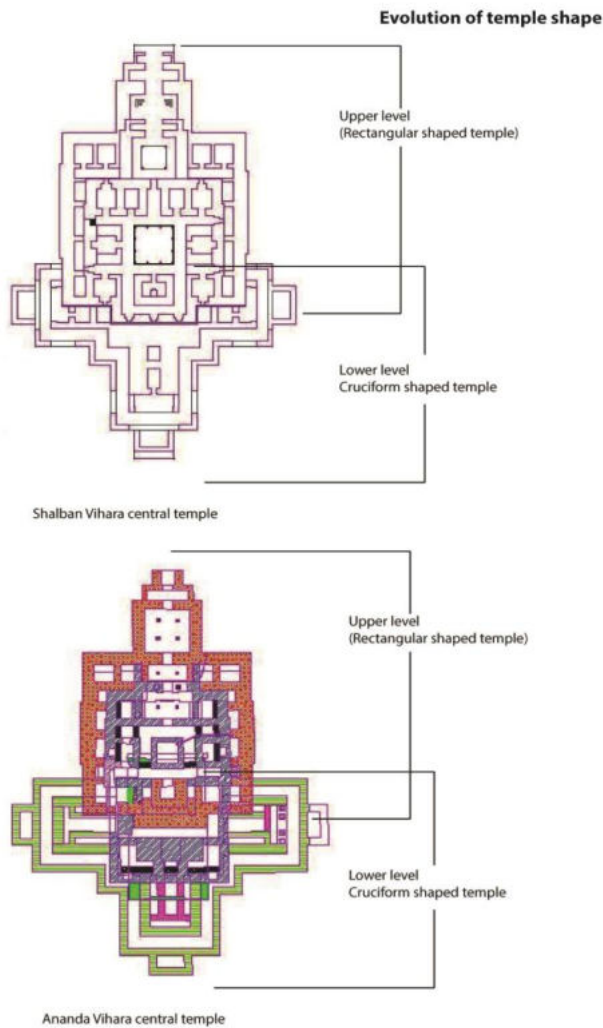


Plate 56.3: (a) Lotus petal decoration in Kotila Mura north stupa; (b) Lotus petal decoration in Kotila Mura middle stupa; Photo: Author



Plate 56.4: In situ decoration in the central cruciform temple of Shalban Vihara, southwest side. Photo: Author

Fig. 56.1



2. To understand facade decoration of Buddhist temple sanctum through manuscript paintings

Early medieval archaeological evidence of architecture has generally provided us the ground plan of the structures with successive phases of constructions and hardly the details of superstructures. The elevation or the full view of a few ancient structures has been made available to us by the contemporary manuscript paintings. A unique Buddhist manuscript of *Panchavimshatisahasrika Prajna paramita*, copied in the 8th regnal year (= c. 1090 CE) of king Harivarmanadeva of southeast Bengal contains a large number of temple illustrations. The manuscript now lies shared between the Baroda State Museum in India and an anonymous private collector in Europe (Picron 1999: 159-197). The illustrations show shrines sheltering

the deities. They offer different types of Buddhist temple architectures. The manuscript illustrated five temples are *bhadra* type, i.e., receding tiers surmounted by an *amalaka* on the top. One temple shows a stupa on the top of *amalaka*. Two temples are of *shikhara-shirsha-bhadra* type. Another two have square opening surmounted by a *shikhara*. Four temples show a flat triangular roof surmounted by a stupa and standing on two thin pillars on either side. It is reasonable to assume that these were not imaginary representations, but were actual reproductions of the architectural types existing at the then time. If it is actual representation then it might be created some sorts of perishable materials in front of deity chambers to beautify the sanctum. As they were created through impermanent materials there was no sign of such materials in excavation.

3. Bronze or stone made miniature replica of votive stupas to visualize superstructure of brick built stupas in different vihara complexes:

Miniature replica of votive stupas, made of both bronze and stone have helped us to visualize a four-dimensional view of contemporary stupa architectures. Such bronze stupas are found from Ashrafpur in Narsingdhi district, Jhewari in Chittagong district and Shalban Vihara excavations. Ashrafpur votive stupa consists of a cylindrical drum and hemispherical dome supported on a lotus over the square basement. The specimens of the Shalban Vihara show with four female deities on four sides, each seated under a shrine placed against the drum of the stupa. The Jhewari bronze specimen shows the sanctum over a cruciform plinth and the curvilinear *shikhara* is capped by an *amalaka* with a stupa finial on the top. The stone specimen from Dinajpur district which is now in the Bangladesh National Museum, shows the sanctum portion raised over a cruciform plinth of several moldings and surmounted by a curvilinear *shikhara*, which is gradually sloping inwards and capped by an *amalaka* over a narrow neck and each face of the cubical sanctum has a trefoil niches containing a Buddhist figure. Therefore these miniature replicas help us to visualize four-dimensional views of missing superstructures of the stupa.

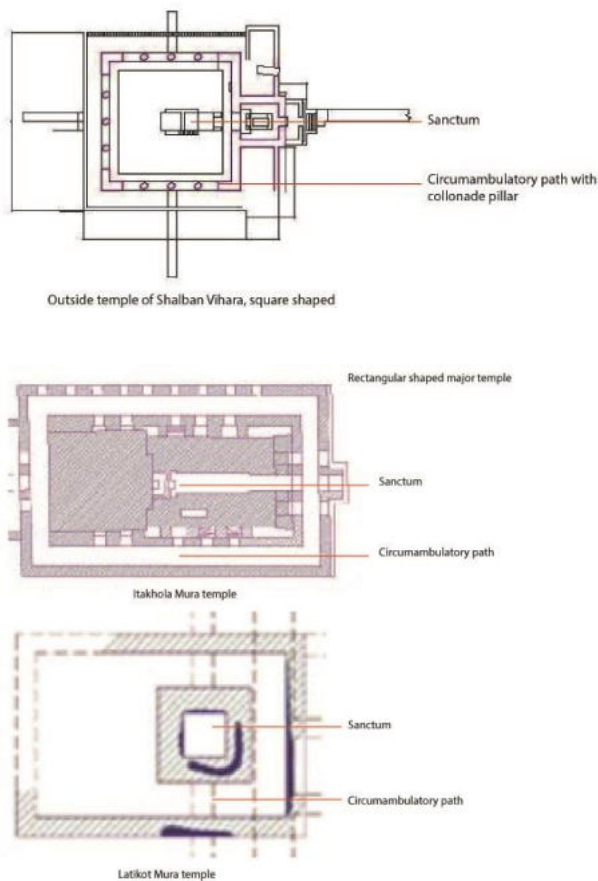
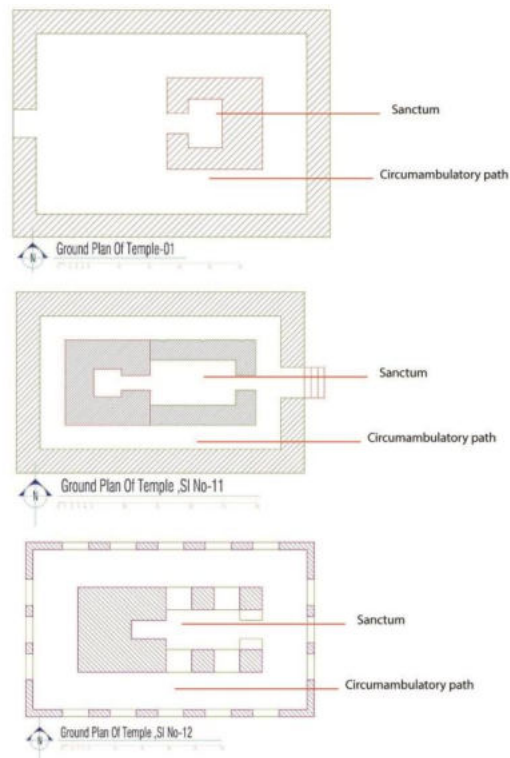


Fig. 56.2: Various type rectangular shaped minor temples.



4. Buddhist Vihara:

It is noticed that the basic composition of the vihara architecture remains unchanged. But the composition of temple architecture changed over the periods. A question is raised that whether the viharawa single or double storied. The extraordinary thickness of the walls and the surviving heights of the structures and sometimes large staircase in corner rooms (4 staircases in Shalban) suggest that the viharas were multistoried. In case of the Shalbanvihara, it is observed that in the 5th stage of rebuilding, four staircases have been erected in four corner rooms of the vihara. According to Abu Imam (2000), these staircases raise the questions whether the second floor was added in this period. Volume of roofing materials i. e. wooden beams and concrete, it seems that the Shalban Vihara had an upper floor. But in every case, the viharas were not in double storied. Analysis of the unearthed materials of roof (large lumps of concrete and charred pieces of roof beams) objects in the debris of various viharas suggested that all the viharas were not double storied. Now the question arises why the vihara walls were so commanding height and so thick? The answer is that the extraordinary height of walls was created by the contemporary builders to make the cells comfortable for living. Other than one entrance door, there was no arrangement for admitting light and air in vihara cell. So the commanding height of the wall made the cell comfortable and thick wall supported the heavy roof of the monastery.

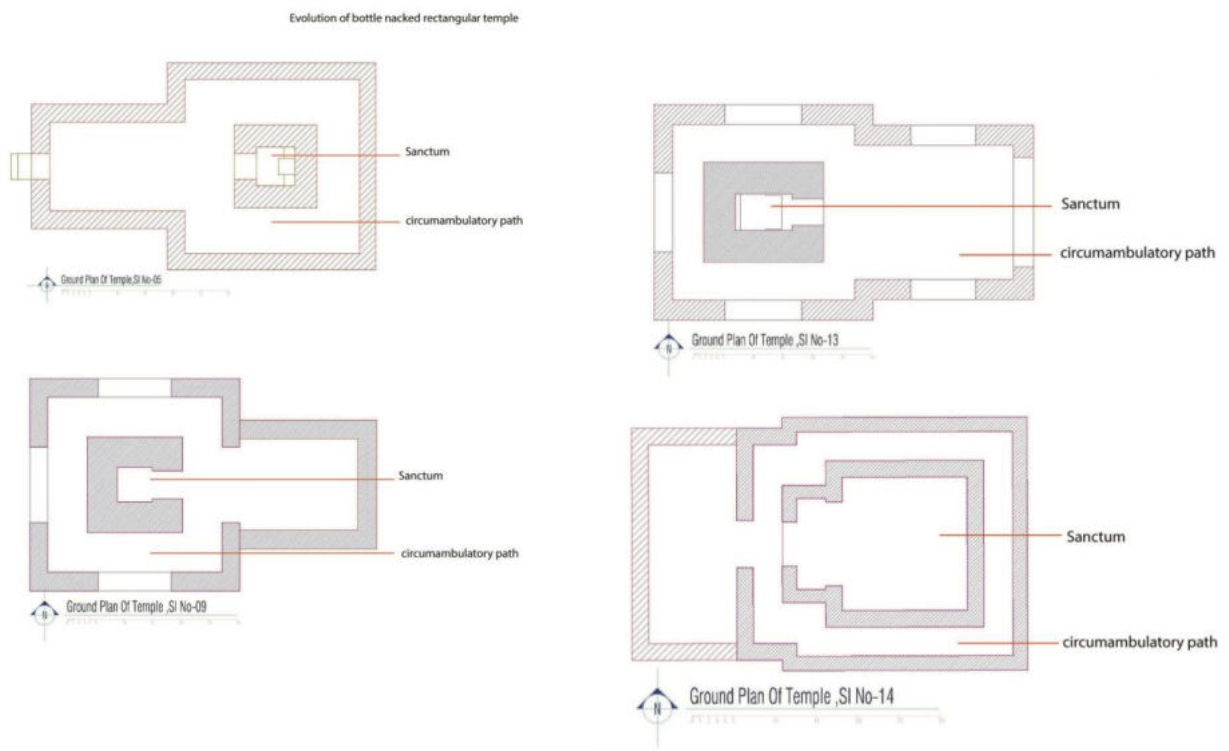


Fig. 56.3: Various type bottle necked shaped minor temples.

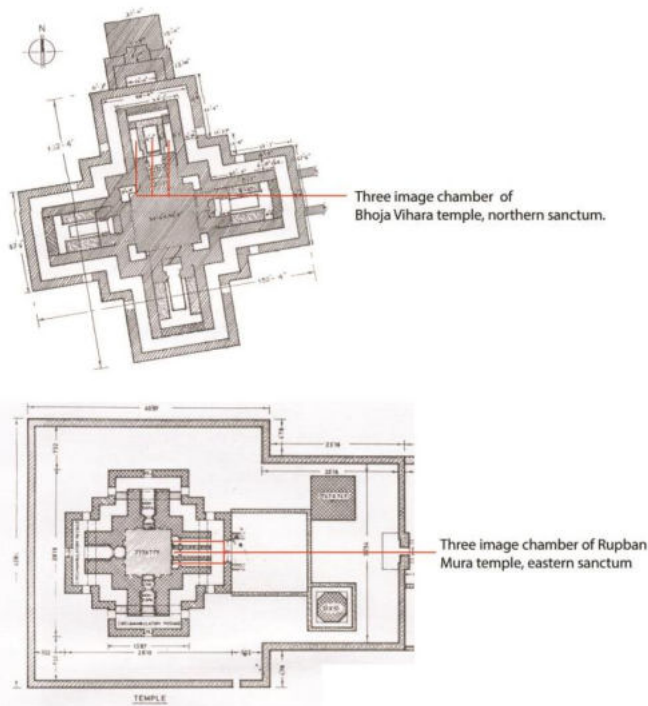


Fig. 56.4

5. Mainamati Buddhist temple type (basis of the shape of ground plan) (Figs. 56.1-56.3):

The shape of the Mainamati temple can be classified into three types, these are square, oblong and cruciform. Among these shapes, the square is an exception. The only square temple is located outside of ShalbanVihara in the northwestern side. The oblong are Itakhola temple and temple that were built on the top of the central temple of ShalbanVihara. Kutila Mura stupas with the caitya-grihas represent another distinctive type temple consisting three traditional type stupas with the middle one is wheel-like (*dharmacakra*) foundation. This type of architecture is also known in southern parts of India of Maharashtra in the 2nd

century CE stupa at Ter in Osmanabad, Maharashtra. The cruciform examples are: ShalbanVihara, Rupban Mura, BhojaVihara, AnandaVihara and RanirBunglow.

Perhaps S. K. Saraswati was the first author who applied cruciform term while he was writing the chapter on the then newly excavated Paharpur central shrine. Decades later when the Mainamati structures were excavated, it became easier to understand the forms and features of the cruciform shrines. Before the excavation started in Mainamati in 1955, Paharpur was the only site in Bengal where there was a cruciform temple in the centre of a quadrangle. The cruciform temple laid bare at Paharpur was often described as entirely unknown to Indian archaeology. Some of the Indian literature on architecture refers to a type of building known as *sarvatobhadra*. It refers to a square temple with four entrances in the four cardinal faces and with a chamber on each side (*chatuhsala*). It is said to have uninterrupted galleries all around, to have five storey and sixteen corners and to have many beautiful turrets and spires. There is no doubt that the *sarvatobhadra* type of shrine was in existence much before the Paharpur example. The excavations at Mainamati unearthed several such shrines and that also approximately a hundred years before Paharpur. Until the emergence of Mainamati monuments, it was held that the Paharpur temple might have influenced greatly the architectural activities of Southeast Asia. With new discoveries, it is now confirmed that the idea of the cruciform temple in the Myanmar and Javanese architecture was borrowed from Mainamati.



Plate 56.5: Round pillar, outside colonnade temple of ShalbanVihara. Photo: Author.



Plate 56.6: Blocked wall, Kutila Mura stupa, Photo : Author.



Plate 56.7: Mixed bond brick setting, temple wall of ShalbanVihara Photo : Author.

Providing *ayakaso* projection to the stupa at four cardinal directions, a feature of cruciform temples was an ancient practice as exemplified by the projections found in the stupa excavated at Vaishali, one of the earliest stupas supposed to have been raised by the Lichhavis over the remains of Buddha. The idea was further celebrated in the Southeast Indian stupas at Amaravati, Nagarjunakunda etc. (Mitra 1971: 202 ft.) The huge stupa at Lauria Nandangarh with a cruciform basement and it has been sometime after the 4th century CE (Mitra 1971: 85). *Ayaka* projections at the four cardinal points are the important architectural feature found in the south Indian stupa architecture. Such features noticed in stupas architecture at Amaravati, Ghantashal, Nagarjunakonda etc. A brick built stupa of early Gupta date of MirpurKhas of Sind standing on a square basement. The most remarkable feature of this brick built stupa is that its three small chapels built within the mass of the basement on the western side. This is the only known early instance of combining a stupa with the chapel in the same edifice outside Bengal.

6. Mainamati temple type (on the basis of number of image chamber) (Fig 56.4):

a. Three images chamber:

To accommodate three images in a chamber also noticed in the cruciform temple of Mainamati. In eastern image chamber of Rupbanmura was divided into three image chambers which were a new trend in the cruciform temple. The same image chamber was observed in the central shrine of AnandaVihara and BhojaVihara. This feature

is not unique only in Mainamati but also observed in Paharpur temple, at Naogaon district in Bangladesh and CandiPlasan in Java. Therefore the idea is first developed in Mainamati and later it influenced the other territories.

b. Twelve images chamber

After three chambers in one wing, next phase development was twelve shrine temples. The first and the second construction phase of Ananda cruciform temple, it is observed that twelve image chambers arranged in four wings of cruciform. In each wing, a mandapa was shared by three cells where the central cell was comparatively wider than the other two.

c. Rectangular shrine (The last and final evolution):

By the end of the 8th century, the trend changes rapidly towards a rectangular shrine instead of cruciform shaped. As we know, the rectangular shaped Brahmanical temple has two major parts-one is *garbhagriha* i.e. where the deity is housed and other is mandapa, one for performing rituals by the laities and other for placing offerings, i.e. spaces for the deity and spaces for the devotee. At the last stage of Buddhist theological development, when the rectangular temple built on cruciform temple similar spatial requirement are noticed. The last and final evolution of this temple plans are observed in ShalbanVihara, AnandaVihara, Itakholamura and a number of minor temples in and outside of ShalbanVihara premises.



Plate 56.8: Conceal wall of BhojaVihara central temple. Photo : Author

7. Impact of religious facts in Buddhist temples

In the Gupta period, when Buddhism was gradually losing its ground in Northern India, Bengal remained the only stronghold of this religion. With the decline of the Guptas as a political power, regional schools of art began to appear in different parts of Bengal. These local schools probably flourished first in southeast Bengal, as the area became independent much earlier than North and West Bengal. The regional art centers rise in Mainamati in Comilla and Jhewary in Chittagong areas. In the late 7th and early 8th centuries, Buddhist temples were converting into the house of worship under the strong influences of Mahayana and Vajrayana.

Buddhism incorporated *bhakti* that led to the rising of a new Buddhist sect called Vajrayana. In the ritual perspectives, this has many similarities with Hinduism. The increase of bodhisattvas is one of the notions of Vajrayana. The continuously increasing number of Bodhisattvas has been noticed in this period and that also mentioned in Chinese pilgrimage diaries. Fa-Hien (394-414 AD) mentions the names of Mañjuśrī; Avalokiteśvara, and the future Buddha Maitreya; while Hiuen-Tsung (629-645 AD) refers to the names of Mañjuśrī, Avalokiteśvara, Maitreya, Padmapāñī, Hariti, Ksitigarbha, Vaisravana, Sakya Buddha, akya Bodhisattva, and Yama together with such deified saints as Asvaghosa, Nagarjuna, Asahga, Sumedhas and others. I-Tsing (671-695 AD) mentions the names of Mañjuśrī, Avalokiteśvara, Maitreya, Amitayus, Hariti and Yama besides several others. Therefore, a large number of Bodhisattvas worshipped in Vajrayana School which influenced the temple architectures. The influence was accommodated all deities in temple. According to *MahasamghikaVinya*, accommodation of bodhisattvas' images was the prime goals to build any chaityas. From the 7th century onwards the Buddhist Vajrayana pantheon became elaborate and well classified with various gods and goddesses. These are DhyaniBuddhas and their families (*Kulus*), female counterparts and guardians of gates (Bhattacharyya 1958: 31-41).

Five Dhyani Buddha mandala concept of Vajroyana pantheon helps to raise mature cruciform temple. The five Buddha mandala concepts—the Buddhas are arranged Adibuddha in the centre, Aksobhya in the east, Amitabha in the west, Amoghasiddhi in the north and Ratnasambhava in the South. In this concept Adibuddha represented as central *sunya* space and four other Buddhas surrounded it with almost equal priority.

In the process of changing religious doctrine, the stupa (shrine) architecture changed the basic character of it and converted in to a cruciform shrine. The changing stupa shrine now includes hall, sanctums or antechambers in the extended long arms of the cross to accommodated images. It is also observed that in the later stage, sometimes the cruciform plan was replaced by an oblong plan with a mandapa in front which resembles a Brahmanical temple like ShalbanVihara central shrine. The exposed Buddhist architectures of the early medieval period of Mainamati were an outcome of Buddhist tantric philosophy namely Vajrayana and

Tantrayana i.e. syncretic Buddhism. The builders of these architectures were guided by the religious norms called mandala concept. A number of scholars like: (Gail 1999), (Samuel 2002), (Rashid 2006-07), (Kozics 2008-09) and (Hoque 2015) have identified this mandala concept connection with Buddhist monastery at Mainamati. Samuel suggests that rather than cruciform it is more appropriate to speak of the mandala from temples in South and Southeast Asia.

In particular, the Buddhist traditions (later known as Vajrayana) seems to have developed initially in a monastic context, which is an organic outgrowth of Mahayana ritual and meditation (Snell grove 1987, quotes cited from Samuel 2006). The first datable examples of the five Buddha systems in architecture was the great stupa at Borobudur in Central Java, Indonesia, which dates from c. 760-830 CE where four Buddhas of different *mudras* are set in four directions and the fifth one Vairocana set at a centre. This is the same time frame as the Mainamati and Paharpur temples and it seems reasonable to assume that the five Buddha-family schemes underlie the cruciform structures of these temples (Samuel 2006).

In a recent study of G. Kozics (2008-09) unfold the mandala concept of Mainamati Buddhist temples. He stated that the layout of Mainamati architecture is an expression of the development of Vajrayana Buddhism. He showed the Mainamati architecture particularly Rupban Mura temple from which has not been conceptualized as a shelter, instead, it appears as a solid object with high symbolic meaning into which spaces have been plugged in (Kozics 2008-09). He has shown that space organizations of Mainamati temples reflect the mandala concept.

Buddhist theological perspective changed gradually from Hinayana to Mahayana, Mahayana to Vajrayana, Vajrayana to Sahajiyayana. Based on available data it can be presumed that Hinayana theology not practiced in Bengal (Hoque 2014:15). Though there is no archaeological evidence that indicate Hinayana doctrine was in Bengal, but the settlement patterns and its other archaeological objects indicate the community of Buddhist belief was present in Bengal. The fragmentary Brahmi inscription indicates some sort of Buddhist community was in Pundranagar (Tinti, 2014). The Buddhist religious edifices which all are exposed suggested that the late phase of Buddhism i.e. Mahayana, Vajrayana and Shahayana has prevailed in the landscape. Three schools of Tantric Buddhism i.e. Vajrayana, Kalacaklayana and Shahayana might be developed in sometimes 10th century CE. Based on an illustrated manuscript of the 11th century of Mainamati region, where portrayed a sixteen armed goddess of Chundavan-Bhavan Chundi, indicate Shayayana Buddhism was practiced in Mainamati region (Hoque 2014:33). By observing the ground plan of monasteries, Hoque (2014) classified various viharas of early medieval Bengal particularly located in Bangladesh. According to his opinion these various type monuments were outcome of different doctrines. Hoque stated that there is evidence that Mahayana Vihara of Bengal slowly adopted Vajrayani style of architecture and practices Vajrayana Buddhism in the monasteries (Hoque 2014:32). In most of the Buddhist site of Bangladesh Akshobhya deityis predominant, which indicate Vajrayana Buddhism was

deeply rooted in the region (Hoque 2014: 32). The upper level of the central shrine of ShalbanVihara and AnandaVihara were changed into an oblong shaped temple. According to Hoque justifications, these happen due to the influence of late Sahayana Buddhism. Hoque categorized shaped of Buddhist vihara according to Buddhist doctrine. He suggested that Mahayana used square shaped cella of the vihara as a shrine. The various doctrines were in Bengal, but vihar as were not developed based on doctrine, because we do not yet notice any documents and literature that suggest us the plan of the monastery was followed by doctrine. But it is presumed that changing pattern of doctrine affects the design of the shrine not vihara.

8. Nature of brick and binding materials (Plate 56.7):

There are Pre-Mauryan references to use of bricks in Buddhist architectures. A pre-Mauryan stupa at Vaisali was constructed by using burnt bricks. The general core of great Sanchistupa (dated back Asoka time) was built in bricks. Early brick built vihara at Patalipatra was built by backed bricks set in lime mortar, which belonged to the first century BCE to 2nd century CE (Vishnu 1993: 178-180). However, highly sophisticated brick technology was already known to the builders of the Harappan civilization that had ushered in the first urbanization in India.

In the construction of Mainamati monastic structures burnt bricks were exclusively used, like other early medieval Buddhist monuments. Stone was sparingly used for minor architectural elements of decorative character and pillar bases. Wood and timber also used but being perishable materials very scanty remains were unearthed from the excavation. Beams and rafters of the roofs of Mainamati architectures were made of wood. Therefore, brick was the main building materials of Buddhist monuments and stone and wood were used supporting materials. Brick were set in mud and lime mortar. For normal and general construction, bricks of standard size were used. For special work, large size bricks were used like making steps, pavements, floor etc. The standard size bricks are good quality both in fabric and backing.

A number of the brick bond patterns are observed in early medieval Buddhist monuments of Mainamati. These are stretcher bond, English bond, header bond and mixed bond pattern. There was a tradition to reuse early brick in later constructions. In Rupban Mura, we noticed that the broken ornamental bricks and terracotta plaques of the first phase of the temple was reused in the core of the second phase temple walls and in the face of the pedestal.

Scanty remains of plaster were found in situ in ShalbanVihara excavation. Plaster was made of brick powder mixed with lime surki. Plaster generally used in the inner core of wall, because excavator traced plaster inside the floor of cells. Lime plaster also found sticking to the walls in a number of cells. In the later stage of ShalbanVihara cells, the inner *surkhi* plaster seems to have been replaced by the cheaper mud plaster (Rashid 2008:42).

One of the important ingredients of building material is mortar and plaster. The mortar used for bedding and joining the building materials (bricks and stones) and plaster used for coating

walls, ceilings floors etc. Sometimes the same material may be used as mortar as well as plaster but the mortar is generally coarser in texture than plaster (Bhardwaj. 2003: 72). Three types of mortar were used in Mainamati Buddhist monuments. These are lime mortar, surki mortar and mud mortar. This sort of mortar also commonly used throughout the early medieval period in Bengal. In lime- mortar, lime is used as binding material and sand is used as fine aggregates. Surki mortar also used lime as binding material where surki used as aggregates, whereas mud mortar--mud is used as binding material and rice husk or cow-dung is used for fine aggregates.

The present study suggests following architectural facts for early medieval Buddhist monuments of Bengal, especially southeast Bengal that mainly located in Mainamati. The facts are as follows:

1. Sanctums of the temple were decorated through impermanent materials like wood, paint, bamboo etc. Contemporary manuscript paintings clearly indicate it.
2. In early medieval Bengal, traditional stupa form is no more core architecture in the vihara complex. At that time, traditional stupa form became votive nature minor structure and built in various location sat vihara complex. Location of votive nature minor stupa atvihara or temple complex also indicate there was no certain rule to erect brick built votive stupas in complex. Therefore, we see very disorganize location of votive stupas in vihara premises, that did not suit the symmetry of vihara or temple complex. Moreover, the time of constructions of this sort of stupa also disturb regular activities of vihara.
3. To develop mature form of rectangular shaped Buddhist temple was the most outstanding achievement of Mainamati Buddhist monument builders.
4. Irrespective of temple type and shape, the early medieval Buddhist temple always has a circumambulatory path.
5. There is no specific pattern of vihara main gateway. A huge hall room is setup in BhojaVihara main gateway which indicates that there was also tradition to keep a spacious hall in the main gateway. It is not necessary to keep the temple entrance in the direction of the main vihara gateway. The central temple entrance of Bhoja Vihara is on the south side but vihara main gateway is on the north side.
6. The rectangular shaped temple introduced new pattern circumambulatory path. These are intersected the circumambulatory path by creating big window gape in the wall.
7. Among the Bengal Buddhist monuments, Mainamati was the first introducer to use the circular shaped column in architecture (**Plate 56.7**).
8. Blocking and capping of the earlier structure was practiced in Mainamati builders. Circumambulatory path blocking by the brick wall was noticed in Kotila Mura and outside columned temple at ShalbanVihara. The three main stupas at Kotila Mura

circumambulatory path was blocked by the brick wall when three rectangular shaped temples were built in front of stupas. Most of the authors treat these three halls in front of three main principal stupas Kotila Mura are chaitya hall. Actually these were not chaitya hall, these were the oblong shaped temples, which were developed in Mainamati area in their last and final development phase of temple architecture. The brick conceal circumambulatory path (**Plate 56.6**) of three main stupas clearly indicate they were not using main ritual purposes. Instead of three main stupas, the newly built oblong shaped temples used for the ritual purposes.

9. A gradual transformation from cruciform to oblong shape is considered by some author a transformation of Hindu temple. It is not related to any Hindu temple, rather it may be considered that this oblong shaped introduced to adopt god and goddess of Vajrayana pantheon on the temple.
10. It is marked that the different building periods of the structures gradually reduced as they used the earlier period wall as a base wall. In order to raise the platform of new temple, they used height of previous structures platforms.
11. Superimposed construction occurred in shrine establishments.
12. In views of decorative aspects between cruciform shaped temples to the oblong shaped, the oblong shaped temple was less decorated than cruciform.
13. The pillared hall temple in the central temple of ShalbanVihara indicates the pillar take the load of a roof. But, there are no records in the excavation reports of huge lumps of concrete. As we did not see sufficient roof lump in excavation record, it does not indicate the huge shaped of pillars means a robust superstructure. Huge pillars were natural phenomena of the then brick built structures.
14. There was also a tradition to build the temple before vihara. Analysis of the building period of the Itakhola temple, it is noticed that temple was earlier construction than vihara. There are five building periods noticed in the Itakholamura excavation. Among these buildings period, vihara erected in period III.
15. Reused of early building materials in later structure was a general practice in early medieval architectures. In Rupban Mura, the broken ornamental bricks and terracotta plaques of the first phase temple were reused in the core of the second phase temple.
16. Revetment technique used to consolidate the wall. A 3.5 m thick solidly built massive brick structure with strong revetment at lower level surrounds the establishment of the Ranir Bungalow site. Based on monastic layout and plan some scholars thoughts these structures also meet the defense purposes. But it is observed that making a wide wall is the general phenomena of the then building planner.

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