

UNPLANNED MODERNIZATION MAY LEAD TO THREAT TO ARCHITECTURAL HERITAGE-A CASE OF HISTORIC MOSQUES OF DHAKA CITY

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Abstract

*Dhaka, the capital city of Bangladesh, comprises of many mosques of Pre-Mughal (1204-1576 AD) and Mughal (1576-1751 AD) periods with great historical values and significance. Some of these historic mosques are now in the possession of the local people and the community of old Dhaka. These mosques are transforming due to the uncontrolled development by the community people in the name of modernization to accommodate their unlimited needs. The paper has termed these mosques as **historic community mosques**. These mosques represent a definite style of that period which is different from other mosque typologies in Bangladesh. The paper has discussed the historical significance of these mosques which possessed important architectural heritage.*

The paper has illustrated the gradual transformation of these historic mosques by the intervention of the community people through some case studies. It has also highlighted on how most of those historic testimonies of the past are losing the original architectural style and pattern, partially, and to some extent completely due to unplanned and uncontrolled development by the local people. These unplanned developments raise questions of authenticity of the historic past. Therefore, the authenticity of these structures will be verified through the comparison of the intrinsic pattern of mosque architecture built in Bengal during the Mughal and Pre-Mughal period and also from the information of researches done by the historians. .

The paper focused on the aspect of participatory design process- as an approach to attain more responsive design solutions and these transformed mosques are the vivid examples of such an approach. Those are viable examples of an interactive design process deeply rooted in local culture expressed through a live and endless process of design. Later, recommendations on conservation were given to protect these historic mosques from diminishing, so if they can be retained through the art of conservation, the past history and heritage may be cherished by the present and future generations.

Keywords: *Pre-Mughal and Mughal period ; Modernization; Historic Community Mosque; Architectural Heritage; authenticity; conservation; participatory design process*

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1. INTRODUCTION

Architecture, the symbol and image of any society, represents high points of human achievements. It is a media which can explain the history, heritage and art as well as the socio-cultural and economic condition of a civilization. At the same time Mosques always served a significant socio-cultural purpose in any Islamic society besides its essential religious intent. Mosque architecture symbolically carried the message of Muslim unity and brotherhood at the same time reflected the uniqueness of each Islamic society [1].

Dhaka is the capital city of Bangladesh ^[1], once known as *Jahangir Nagar* after the Emperor Jahangir. In his reign it became the capital of Bengal and the chain of the building activity found expression through the establishment of numerous mosques that changed the skyline of Dhaka.

ruling the subcontinent for two hundred years. At the end of the British rule India was divided into two states, India and Pakistan on the basis of religion. Pakistan was established as a Muslim state comprising two major regions a thousand miles apart: West and East Pakistan. Bangladesh emerged as an independent nation after the liberation war of 1971.

At present, the old part of Dhaka city (known as old Dhaka), is under pressure for growth of new and unplanned development which poses a tremendous threat, destroying the visual continuity and architectural integrity of the historic city. This part of city has a large number of mosques of historic importance which need to be protected for large socio-cultural and historical interests with the art of conservation-as they are the documents and silent testimony of the past. Some measures have to be taken to upgrade and readjust the present encroachment to exhibit the past heritage and to ensure the future of the past.

^[1] Bangladesh is a part of Bengal region dominated by Muslim population, where 85% people follow the religion of Islam. Britain invaded Bengal in 1757 and gradually occupied the rest of India

The mosques under consideration of this paper belongs to Pre-Mughal (1204-1576 AD) and Mughal period (1576-1751 AD) of Old Dhaka. Now, most of the historic testimony of our past came under the possession of different people of communities and since there are no control to protect those structures they went through several levels of transformations, extensions, renovations in the name of modernization and at present they are losing the original architectural style and pattern, partially, and to some extent completely. The paper has termed these mosques as historic community mosques.

2. COMMUNITY MOSQUES-A SYMBOL OF PRIDE

In general the community mosque is responsive to the changing need of the community. It stipulates piecemeal growth pattern adjusted to the availability of the resources. They convey the legacy of the traditional building craftsmanship in modernization. At the same time encouraging use of local and modern technology for construction and beautification in an innovative way. Most of the time, the development process or the extension on the present structure is initiated from the involvement and participation by the people of the community. Therefore, a community mosque is not an end in itself but a means to represent an identity of the self-both in the product and the process.[2]

When these mosques reach their completion level they expresses the popular building art emerging out of local craftsmanship of famous craftsmen representing family tradition and personal choices of people who have donated large sum of money for the beautification. The importance of the community mosque however, is not confined to architecture, but encompasses the whole realm of activities associated with its design, construction, management and maintenance. [3] Sometimes adding floors, domes, minarets, gates, fountains etc to the mosques can be the request of some well-off person to publicize his contribution for the community and his generosity would be known to all which would help him to be elected by the people of the community for some political position. In a sort the historic community mosques represents the following aspects;

- Responsive to changing need of the community.
- Carry the legacy of traditional building craft.
- Prescribe piecemeal growth pattern adjusted to resource availability.
- Innovative in admixing local and modern technology.
- Respectfully preserve different stages of physical development.
- Follow a democratic process in design.
- Inspire community participation in its growth and maintenance.
- Encourage voluntary contribution in terms of ideas and resources.
- Enhance community pride as the custodian of the mosque.
- Serve as a symbol of the community. [4]

Now, when these processes of personal advertisement and beautification become a status symbol of the community to the historic mosque then it is a serious issue to be considered, as these superficial additions of physical elements are threatening the authenticity of the architectural heritage.

3. AN OVERVIEW OF HISTORIC COMMUNITY MOSQUES - ARCHITECTURAL HERITAGE, SIGNIFICANCE AND INTRINSIC PATTERN

Historical evidence of the mosque architecture in Bengal appears from the fifteenth century onwards. The period of refinement of mosque architecture begins with the Sultanate period in thirteenth century and continued till the end of Mughal era in the mid eighteenth century [5].

During the Pre-Mughal/ Sultanate period (1204-1576 AD), mosque architecture got a new expression in Bengal. This architecture went through extensive elaboration and perfection, which form the primary image of a complete mosque in the overall regional context of the subcontinent. The buildings expressed the architectural features through adoption of regional forms and use of local materials. Thus the metamorphosis of Middle Eastern and Central Asian architectural schemes, techniques and decorative pattern evolved the regional Bengali style of Islamic architecture – which became apparent by the fifteenth century. The regional Bengali style is expressed through adaptation of pre-Islamic monumental traditions (Buddhist and Hindu temples) and contemporary vernacular models (the mud and thatch huts). Thus these monuments are both truly Islamic and of Bengal—demonstrating the dynamic ability of Islamic architecture to transform itself by adoption and adaptation [6].

During this time the Muslims came to Bengal with the enriched method of construction of Mosque architecture. But gradually they were influenced by the local method of construction and developed a unique indigenous style. The architecture easily adopted the Bengali culture, tradition and climate. The period can be marked as one of great creative activity where the rulers were sympathetic towards the local context and culture. The architecture can be portrayed as a complete synthesis of the strong regional elements with the external ideas and concepts. The specific features of the period included the form of roof derived from the rural huts, the curvilinear cornice in the form of hanging eaves of the thatch roof, the rich surface decoration with terracotta and extensive use of brick as the construction material.[7].

Here the advantages of the elasticity of bamboo, used in the dwellings of the Bengali huts are taken. With the replica of that they evolved the curvilinear form of roof and established a permanent and prominent feature of Mosque architecture in Bengal. This curvilinear form of roof was used by the Imperial Mughals in the monuments of Agra, Fatehpur Sikri, Delhi and Lahore. They were experimenting and perfecting with the artistic ingenuity and prolific

architectural contrivances of the masons and craftsmen, various forms of building and decorative art, such as *chau-chala* vault, hemispherical dome, perforated brick jali, glazed brick etc. undoubtedly make it an independent as well as the most distinctive school [8]. Therefore, the *do-chala* (double roof) and *chau-chala* (quadruple roof) forms of roof which is made of bamboo and thatch were converted into brick or stone enriching the architectural character and tradition of Bengal as well as the sub-continent. (Fig. 1 & 2)



Fig: 1. Do- chala (double roof) structure of Pre-Mughal tomb

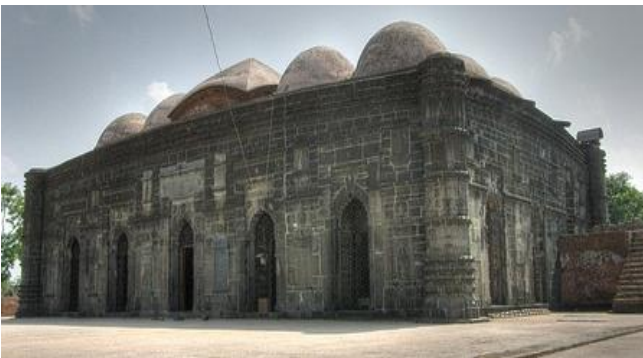


Fig:2. *Chau-chala* (quadruple roof) structure of Pre-Mughal mosque.

The mosque architecture that developed in the early Islamic period of Bengal during the Sultanate reign is unique in style and character compared to those in rest of Indian subcontinent. Two remarkable differences are found; one is the application of brick as the major construction material and the other is the use of terracotta decoration as surface ornamentation. Distinct formal features are the hemispherical dome directly mounted over the roof without any drum and the gently curved cornice or parapet (Fig. 2). Mosques were built with massive walls supported with octagonal corner turrets and composed with pointed arched openings within a single free-standing building [9].

Historians have classified the Sultanate mosques according to their ground plan into two broad categories as square type (Fig.4) and rectangular type. The square type may be roofed with a single dome or multiple domes depending on the volume of the building. The rectangular type is further classified according to the number of aisles parallel to the *mihrab* wall inside the mosque. The higher the number of aisles, the larger the size of the mosque. Single, double and triple aisles are commonly found [10,11]

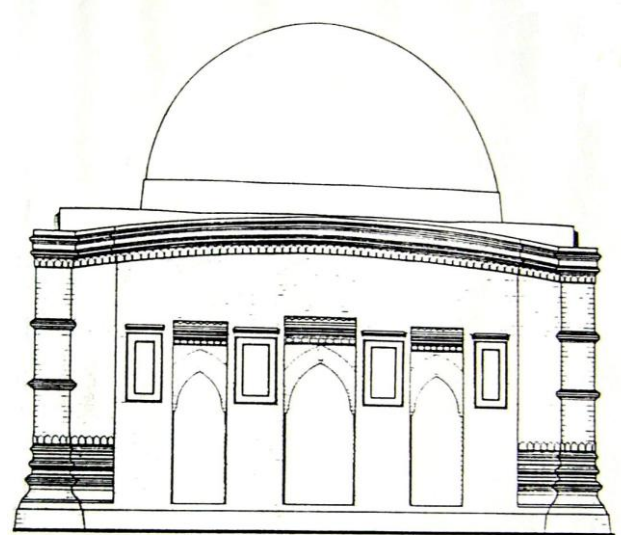


Fig: 3. Typical façade detail and curved cornice of Pre-Mughal Mosque

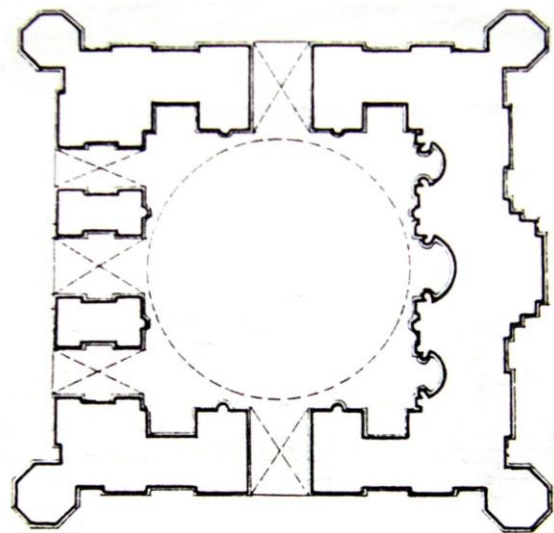


Fig:4. Plan of single domed square type Pre-Mughal Mosque

During the reign of Emperor Jahangir, the Mughal capital was shifted from Rajmahal to Dhaka in 1610, by Islam Khan -- a Mughal Governor. As a result a new era in the history of Mughal architecture of Dhaka started. The chain of their building activity found expression through the numerous

mosques that changed the skyline of Dhaka. Perhaps, the name of Dhaka as-‘the city of mosques’ initiated from the mosque building activity of the Mughals. During this period the building style underwent drastic change compared to the Pre-Mughal brick and terracotta architecture. The Mughal mosques in Dhaka indeed have a distinct pattern that identifies them from the rest. Yet they were not copy of the North Indian model that the Mughals have developed with so much care and dedication. They evolved a style unique to Bengal, introduced a new architectural order with the sense of sophistication and refinement and discarded some of the established architectural elements. Mughals even changed the building materials from the stone of North India to elaborate brick structures.(Fig.5 and 6)



Fig.5. Islam Khan Ki Mosque and example of Mughal mosque in old Dhaka



Fig.6. Example of Mughal mosque in old Dhaka

4. PATTERN OF TRANSFORMATION OF COMMUNITY MOSQUES

Usually, the transformation pattern of any community mosque follows several stages of physical development with distinct architectural expression at the end. It is developed through the stages of identifying site, designing, financing, management, construction, maintenance and finally entering to the phase of progressive and never ending beatification

stage. The selected mosques which were already built by the Mughals and Pre-Mughals also went through most of the stages except the site selection stage. Those mosques came in the hand of the community after the Mughals left this region and they consider those old mosques in their trust for subsequent development. Since those mosques become the socio-cultural status symbol for community, the people of that respective community are involved directly for the mosque development according to the need and knowledge of the community people.

The transformation pattern of any community mosques usually follows the stages mentioned below;

- a. The west is the *qiblah*^[2] direction all over Bangladesh; therefore, the first obvious extension is the addition of veranda on the eastern side. The need of this veranda has many implications. Physically, it acts as a transition space between the sacred and profane spaces as well as outdoor and indoor spaces and creates a sense of entrance to the Mosque structure. Climatically it protects the entrance doorway from the heavy rain and also it is a place of social gathering before and after the prayer.
- b. When the need of more prayer space arises the first veranda which was on the eastern side of the mosque transforms into a prayer space and a new veranda added after that- along the central axis.
- c. When there is a need of more prayer spaces, the extension of the main prayer hall happens in the lateral direction. This situation occurs only when the space on the eastern side is completely exhausted. In this extension the *mihrab*^[3] of the main prayer hall shifts from the central axis and the original central axis rarely coincides with the central entry to the mosque premise.
- d. The secondary structures grow as a part of the mosque like a *Muazzin*^[4]'s living accommodation, a place for religious teaching known as *Maktab* as well as toilets and shower spaces. Tanks are made for the ablution and some shops to support the regular maintenance are also added to the site.
- e. The type of structures which are growing as an added requirement might be a permanent or semi-permanent type and they are built in a random location without considering the originality of the basic structure.
- f. When the ground floor level occupies all the vacant spaces then the growth pattern follows the vertical direction like addition of floors, domes, minarets etc.
- g. Beside the addition of prayer space, the mosques enter a phase of progressive and never ending beatification stage-like extensive ornamentation of façades and interior spaces, decorative gates and addition of multiple minarets.

When the historic community mosque goes through all these stages of physical development it is hard to trace the original structure and it becomes more difficult to prove the authenticity of the architecture carrying the historic legacy.

The following table is the summary of the distinguishing features of the mosque architecture during Pre- Mughal and Mughal period. This will also help to justify the authenticity of the remains of the selected mosques to be protected.

Table-1: Distinguishing features of mosque architecture of Pre-Mughal and Mughal period in Bengal [12]

Building Elements	Pre- Mughal Period	Mughal Period
Walls	Brick surface having relief work on them, often mixed with glazed brick.	Mosques are made of brick. The carved brick ornamentation of the Pre-Mughal period was replaced by flat surface decoration of plastering.
	Not plastered but they are decorated with terracotta design and brick relief.	Plastered and decorated with plaster pattern.
Parapet and cornice	Curvature in form	Horizontal and straight.
Arch	Two centered and pointed, raised from heavy piers or pillars	Mainly four centered.
Dome	Usually semi-circular without any shoulder drum. Results in lack of height and grandeur. Sometimes pillars supported the roof which divides the interior central prayer hall into aisles and bays.	The domes rest either on shored or on transverse arches, as a result they attain height, beauty and grandeur. While the dome is crowned by a tall beautiful finial.
	Six, nine, ten, twenty one or seventy seven domes structure with a very few exception of single or five domed structure.	Mainly three domed structure.
Corner Turret	Octagonal turret at the corner.	The corner minarets generally short height above the parapets is topped by the plastered kiosks.
Minarets	Absence of minarets. There is only one example of a mosque with minarets, the <i>Saitgumbad</i> mosque in Bagerhat.	Absence of minarets.

^[2] Qiblah is the direction of the Kaaba toward which Muslims turn for their daily prayers

^[3] Mihrab is a niche or chamber in a mosque indicating the direction of Kaaba

^[4] Muazzin is the Muslim official of a mosque who summons the faithful to prayer from a minaret five times a day

5. CASE STUDIES

The case studies will be comprises of two mosques of Pre-Mughal and Mughal period in old city of Dhaka. The authenticity of the remains of these mosques will be evaluated in terms of the following aspects

- Historical context and significance –from literature survey.
- Comparison of the remains of built form with the existing mosque typology of that specific period.
 1. Binat Bibi Mosque (1456 AD) from Pre-Mughal period (Semi-transformed)
 2. Churihatta Mosque(1649AD) from Mughal period (Transformed)

5.1. Mosque of Binat Bibi (1457 AD)

Location: The mosque is located at *Narinda* of old Dhaka. It is situated by the side of *Heyat Beopari*'s bridge, one of the oldest bridge of the locality, over the canal called *Dulai Khal*.

Historical Background: At present, Dhaka city has only three mosques of the Pre Mughal period. Binat Bibi's mosque is the oldest and the earliest surviving Muslim religious building in Dhaka [13]. The historical significance of Binat Bibi's mosque is unlimited. A glimpse of Pre-Mughal period, the trend of art and architecture of the past, can be obtained from the details and decoration from the original built form. According to the stone inscription slab, the mosque was built by *Musammad Bakht Binat*, daughter of *Marhamat* in 1457 AD [14] during the reign of *Sultan Nasiruddin Mahmood Shah* (1442-1459 AD) [15].

Original Built Form: Originally it was a square chamber crowned by a simple hemispherical dome [16] (Fig: 5.1.1). The prominent features of the Pre-Mughal days are represented in its curved cornice and battlements visible in the *qibla* side, absence of any drum for holding the dome [17] (Fig: 5.1.2). It was an un-plastered structure with octagonal corner towers. The *mihrab* had a projection at the back of the west wall [18].
Measurement: 3.65 m x 3.65 m (approx.)
Wall thickness: 1.82 m (approx.) [19].
Entrance: There were three doorways from the east and single doorway from the north and south side [20] through simple arched openings.

Transformations: The mosque has been thoroughly altered and renovated several times.

At the first stage, the square shape of mosque was transformed into a rectangular shape by breaking down the southern wall and extending towards the south. A new dome over the extended portion was constructed in 1932. As a result the single domed square mosque was transformed into a double domed rectangular one (Fig: 5.1.3 and Fig: 5.1.4). The walls were plastered and earlier parapet was straightened and a new veranda was constructed on the east and south side [21] (Fig: 5.1.5).

The second stage of renovation or extension was done after 1962 [22]. This time the mosque was extended towards the western side by breaking down the western wall including the mihrab. A new mihrab on the extended portion was constructed (Fig: 5.1.6). A star shaped water body was incorporated in the backyard of the western portion (fig: 5.1.7). The extended portion of the eastern wall did not maintain the original thickness. Also all the entry doors were constructed with horizontal flat lintel.

During the third stage of transformation, 1985-86, two floors had been added over the mosque [23] (Fig: 5.1.8). The original and the added dome were retained and the extension was made with the help of beams (Fig: 5.1.9 and 5.1.10). The original mosque was very simple type, but when the mosque was renovated and extended, most of the Pre-Mughal features were altered. The outer facade of the eastern veranda, the northern wall, the dome and the side walls of the water body were decorated with traditional *chini tukri* i.e. broken glasses (Fig: 5.1.11). This *chini tukri* decoration was not in the original built form.

The fourth stage of transformation has been done recently. The community received a piece of land at the back side of the mosque and they are building multi-storey prayer spaces for the community people. (Fig: 5.1.12). They are breaking down additions that were built during the second and third stages and part of the first stage of transformation. They are also planning to extend and connect the new structure with the old part.

At present the mosque has nothing but its age to remind of the architectural style. Only the inscription, the eastern wall, northern wall, the original dome, the curved cornice, the upper portion of the southern and the western wall reflect the original character which are still surviving today [24].

When these changes are analyzed it is seen that, at the time when those changes were taking place there was no control over the community nor any imposition against breaking the old historic mosque to make more space for prayer. Yet the people of the community have realized the value, and with whatever knowledge and effort they had they tried to retain some parts of the original structure. That is why, today we can still see the original dome which could have been easily cleared off for making more prayer space instead they have gone up another floor to add spaces (third stage of transformation). Motivation was there but there was an absence of technical or intellectual assistance to do anything better than what had been done. Therefore, the surviving portions are the valuable asset which needs to be protected on priority basis and thus effort should be taken to conserve the mosque before it is too late.

Recommendation: The following proposals are recommended to conserve the mosque

1. Since the mosque committee is breaking down all the additional extensions of different stages they must do it carefully and without destroying the original remaining parts.
2. To convince the mosque committee to rebuild the original single dome mosque structure. A proposal is given here by the author (Fig 5.1.13 and 5.1.14).
3. Improve the ornamentation pattern and the arched opening of the outer surface of the eastern wall.
4. Place the inscription in a position where it is easily visible.

All these actions are time consuming and a long process. Motivating and involving the community people for its ultimate success is also a lengthy and a slow task.

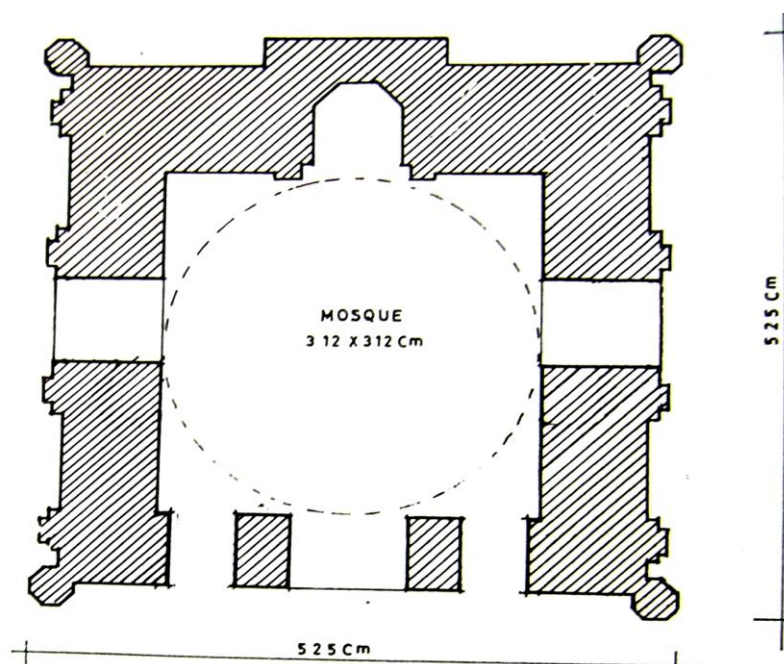


Fig:5.1.1: Original built form

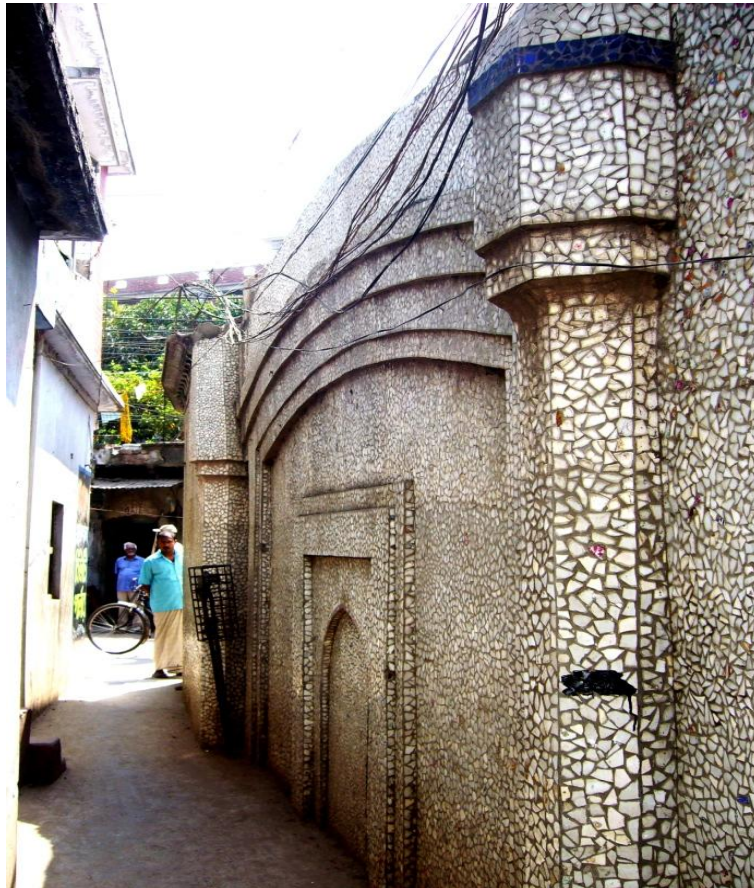


Fig:5.1.2: Curved cornice at *qibla* side



Fig:5.1.3: New dome added in 1932 beside the old one



Fig:5.1.4: View of double dome from interior

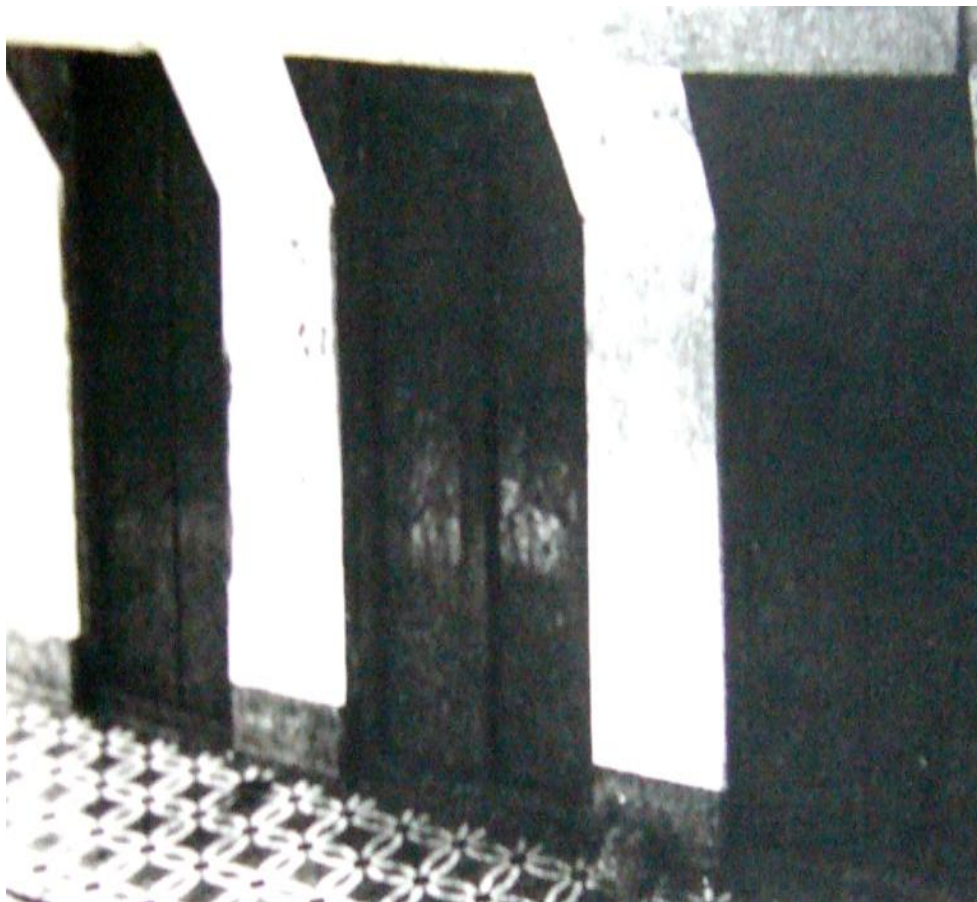


Fig: 5.1.5: Veranda on eastern side, flat lintel

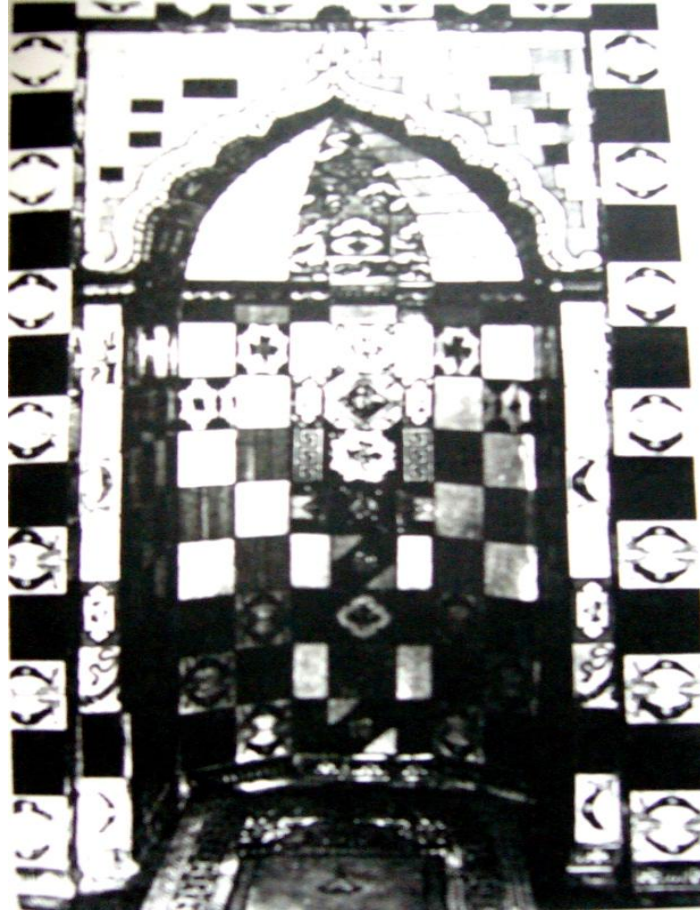


Fig:5.1.6: New *mihrab* on extended portion



Fig 5.1.7: Star shaped water body

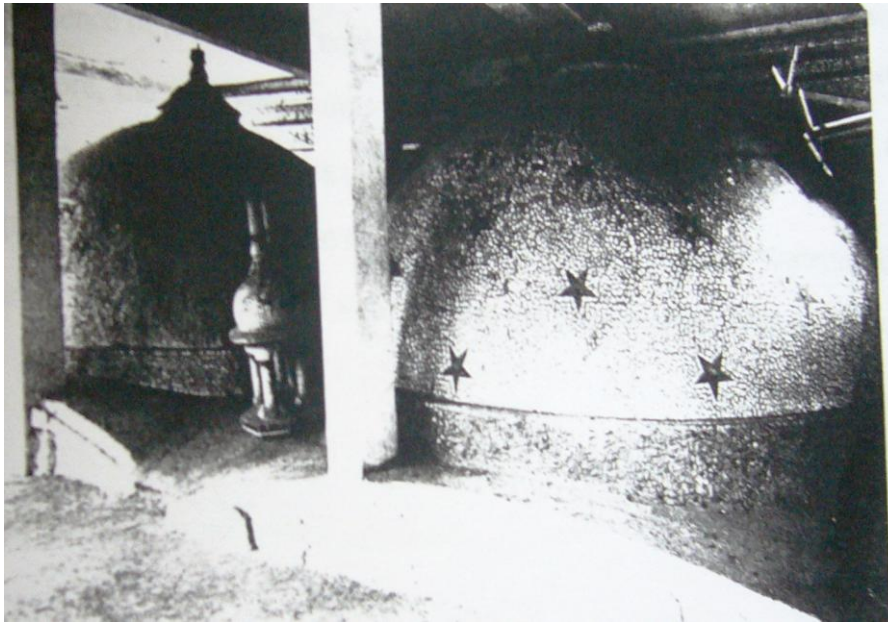


Fig: 5.1.9: Extension of new floor over original dome

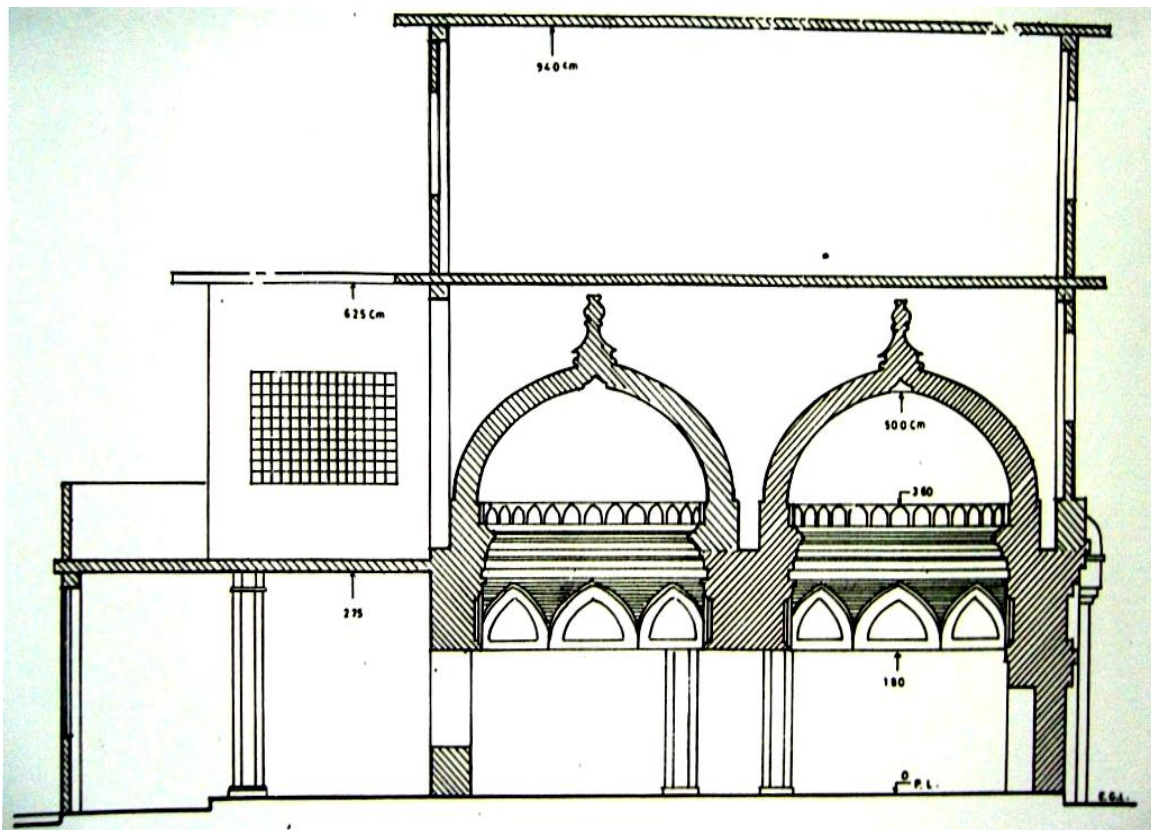


Fig: 5.1.10: Section through the mosque showing the dome and the new construction (first floor)



Fig: 5.1.11: *chini tukri* decoration



Fig: 5.1.12. New development of mosque

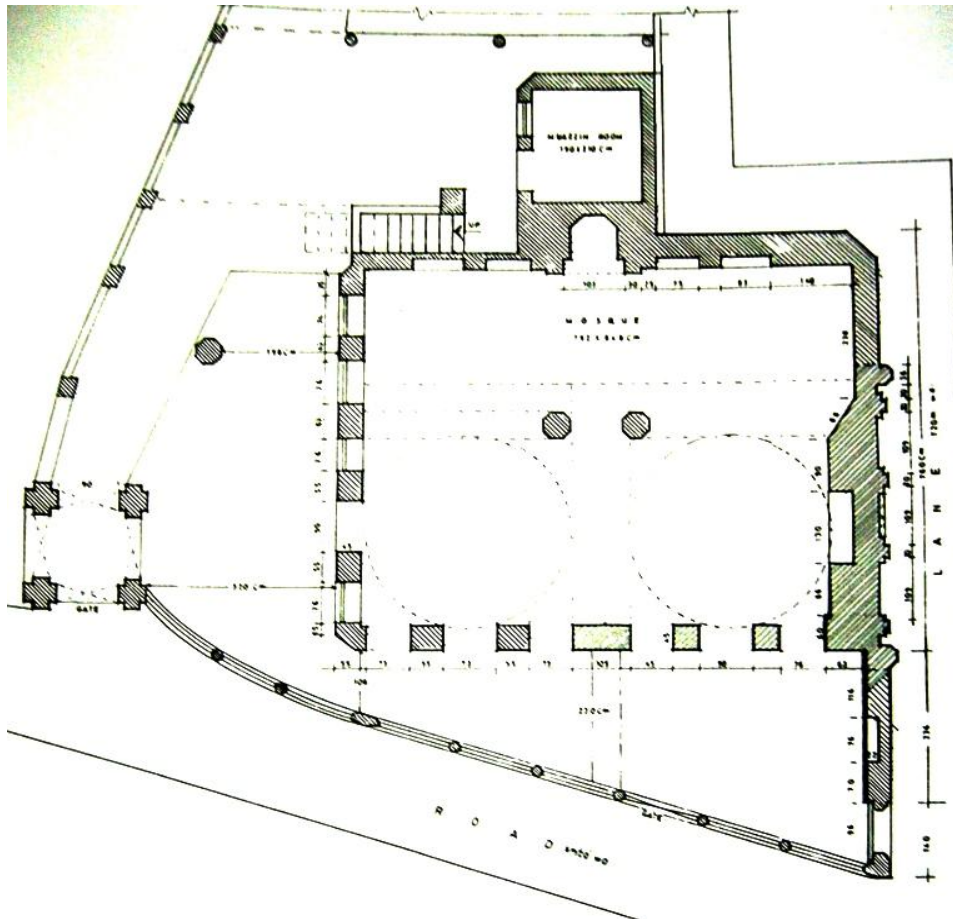


Fig: 5.1.13: Existing plan

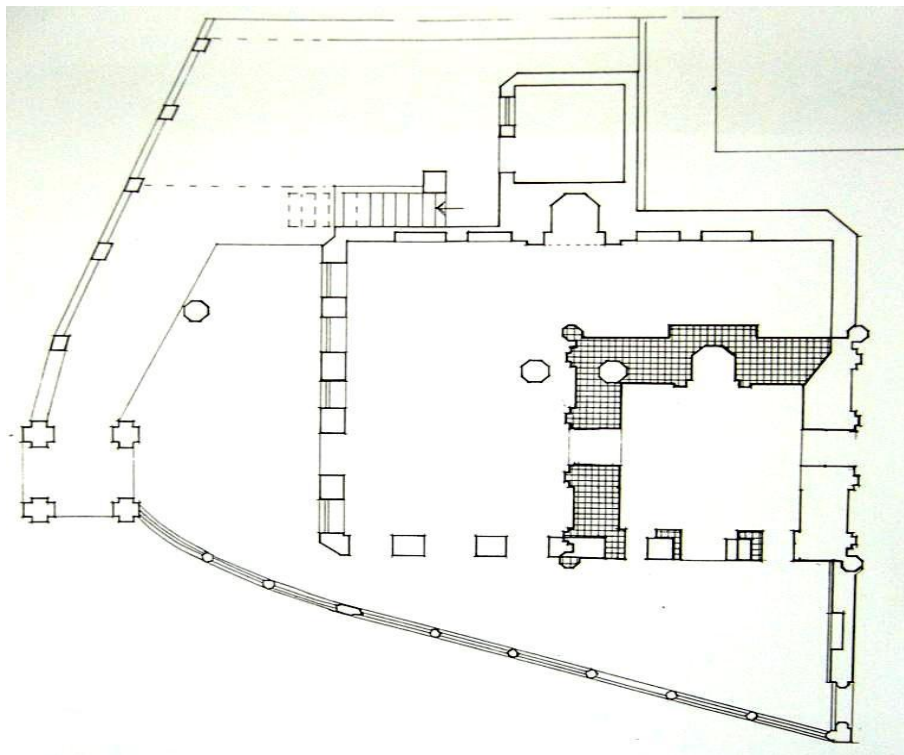


Fig: 5.1.14: Proposed plan by keeping original single dome structure

5.2 Islam Khan Ki Mosque (1610-1613)

Location: The mosque is located at 38, *Aulad Husain* lane of old Dhaka. Previously the place was known as *Ashiq Jamadar Lane*.

Historical Background: The mosque is considered as the oldest surviving Mughal monument in the city [25]. It was built by *Islam Khan*, the first Mughal Governor of Dhaka [26].

Original Built Form: Originally the mosque was a three dome structure with the central dome being much bigger than the other two (Fig: 5.2.1).

Measurement: 10.4 m x 4.3 m (approx.) [27].

Entrances: There were three doorways from the eastern side and single doorway from the northern and the southern side to the original part, without any attempt for embellishment.

Decoration: Facade and corner minarets were not decorated. The simplicity of the mosque speaks of *Pre-Shaista Khani* style [28].

Transformations: The mosque has been renovated and repaired several times by the local people. As a result it has lost most of its original features. The inscription of the mosque was lost several years back [29]. The main prayer hall is divided into three bays with two lateral arches. The *mihrab* is on the western wall and the outer facade is unplastered. Unpainted domes on the octagonal drums speak of the past origin. The interior of the mosque has been decorated with different colorful paints and tiles having mosaic floor.

The first phase of extension was from the eastern side, which is used as veranda (Fig: 5.2.2). The next phase was the extension of the mosque towards the eastern and the southern sides. The extension on the eastern part accommodated a hall room in front of the veranda (Fig: 5.2.3) and a water body on the southern side for ablution

with a water fountain in the middle. The veranda is again ornamented with broken glasses. Later on, there was addition of a floor over the extended portion. In this process of extension, a wall was constructed hiding the domes completely at the first floor level. The outer facade of this extended portion was ornamented with broken glass (*chini tukri*) (Fig:5.2.4). A minor was also added subsequently.

Thus the original features of the mosque are over shadowed for unplanned extensions and renovations. Though, the original structure can be found intact when one enters in the main prayer hall. Sometimes it is very difficult to identify the mosque from a distance since the surroundings are densely populated with high rise commercial developments. Therefore it is very unfortunate that the fate of the oldest and the first testimony of mosque architecture of the Mughal reign are diminishing.

Recommendation: The following proposals are recommended to conserve the mosque

- To convince the mosque committee to stop any further addition or extension of structure.
- To prepare the detailed measured drawings of ground floor plan (fig:5.2.5), first floor plan (Fig:5.2.6), section along the original dome of the original mosque.(Fig:5.2.7)
- Shifting the existing main entry of the mosque and locating it along the central axis of the original structure.(Fig:5.2.8)

By doing this the original structure would get more importance and the hierarchy of mosque function will be established. The existing main entry may be retained as secondary entry for ablution and for other purposes.

- Putting a transparent screen instead of the solid wall at the first floor level which is now hiding the historic dome of the first Mughal mosque in Dhaka city.
- Introducing the traditional arched opening and ornamentation pattern at the outer facade of the mosque.

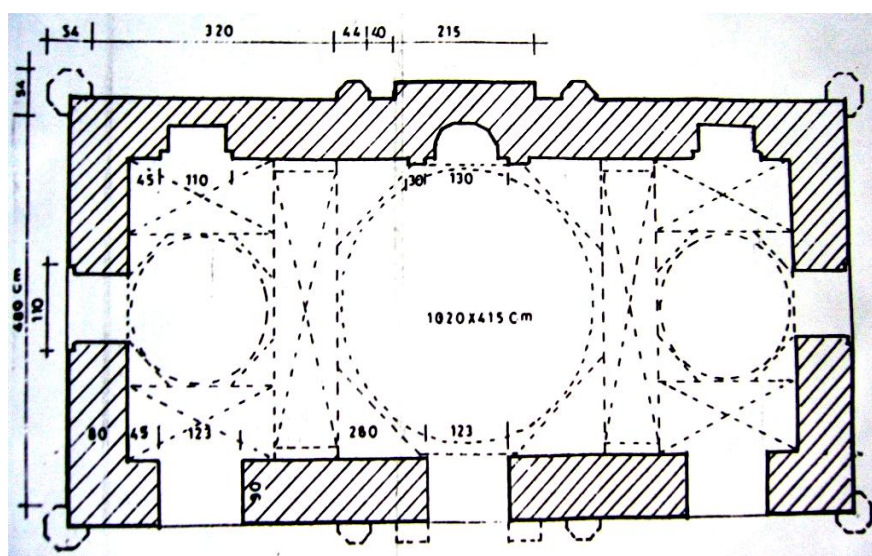


Fig: 5.2.1: Original Plan



Fig: 5.2.2: 1st stage of development

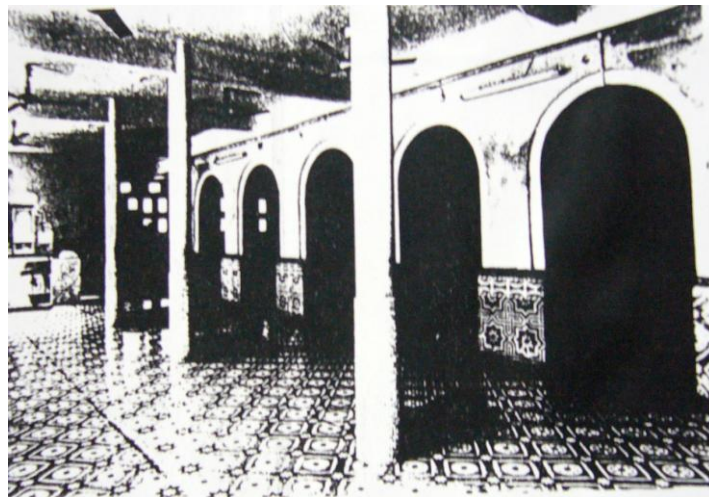


Fig:5.2.3: 2nd stage of development



Fig: 5.2.4. : External *chini-tukri* decoration

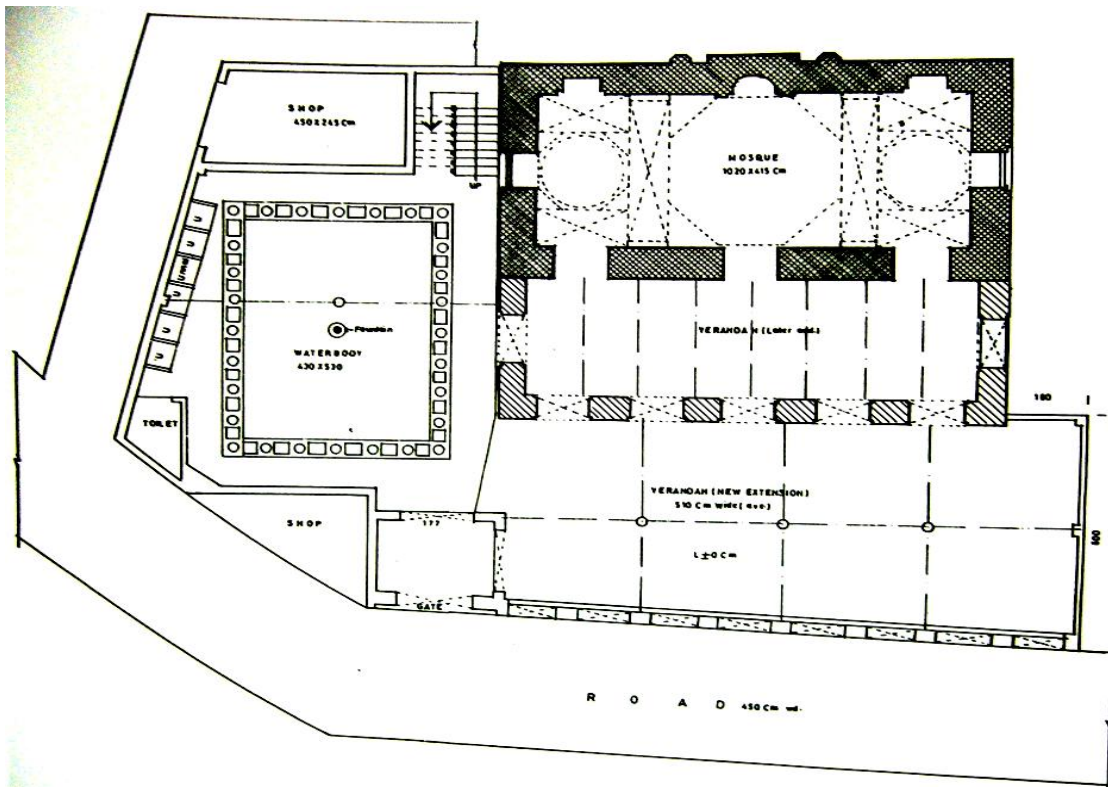
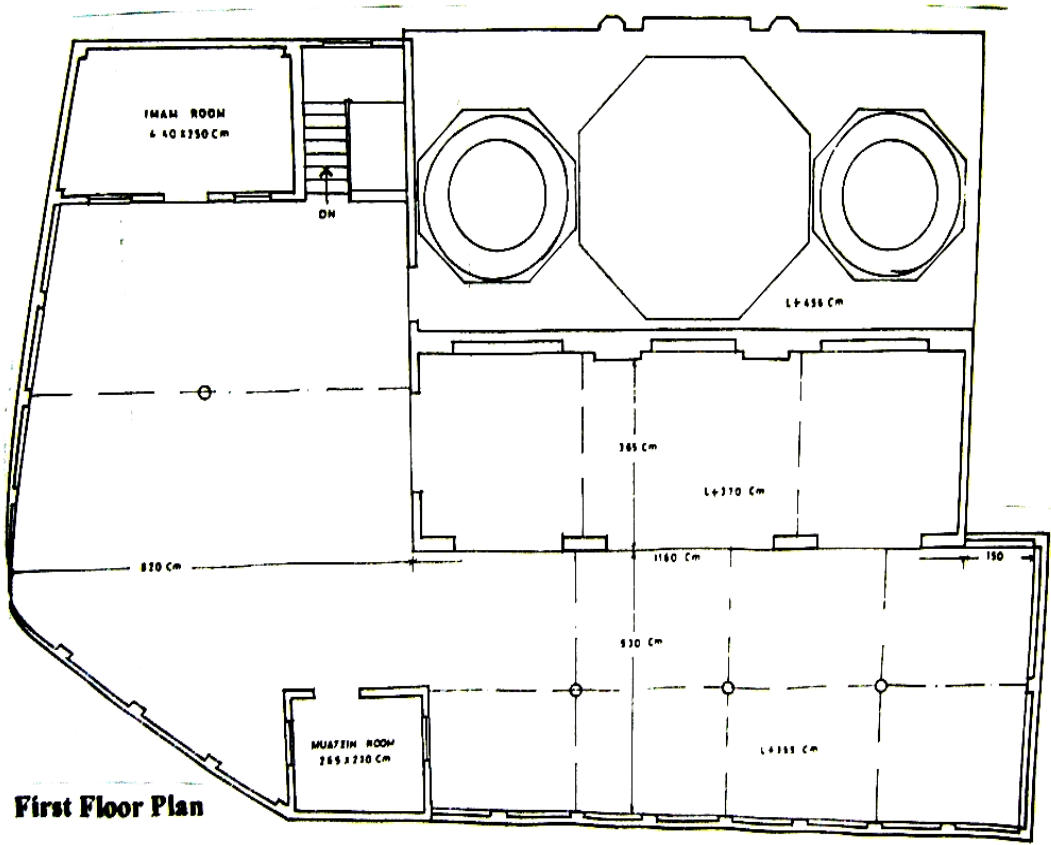


Fig:5.2.5: Ground floor plan (measured drawings)



First Floor Plan

Fig:5.2.6: First floor plan (measured drawings)

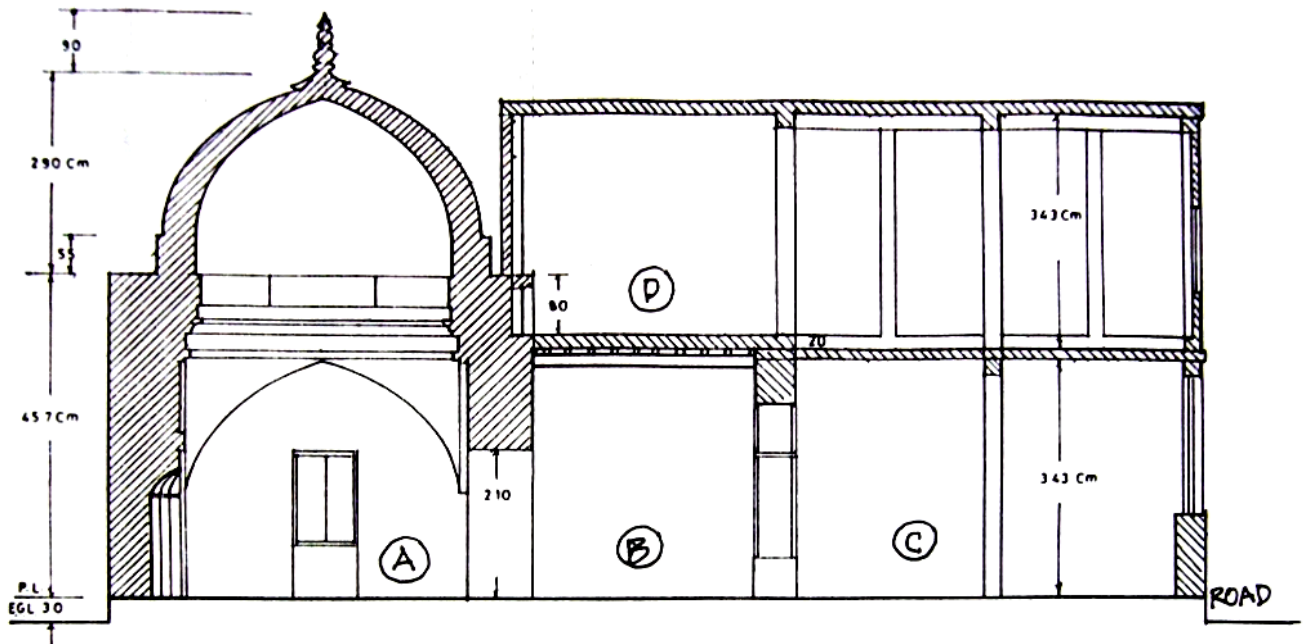


Fig. 5.2.7: section showing hidden dome (measured drawings)

- A. Original Structure
- B. First extension- Veranda
- C. Enlargement up to the Road
- D. Addition of upper floor

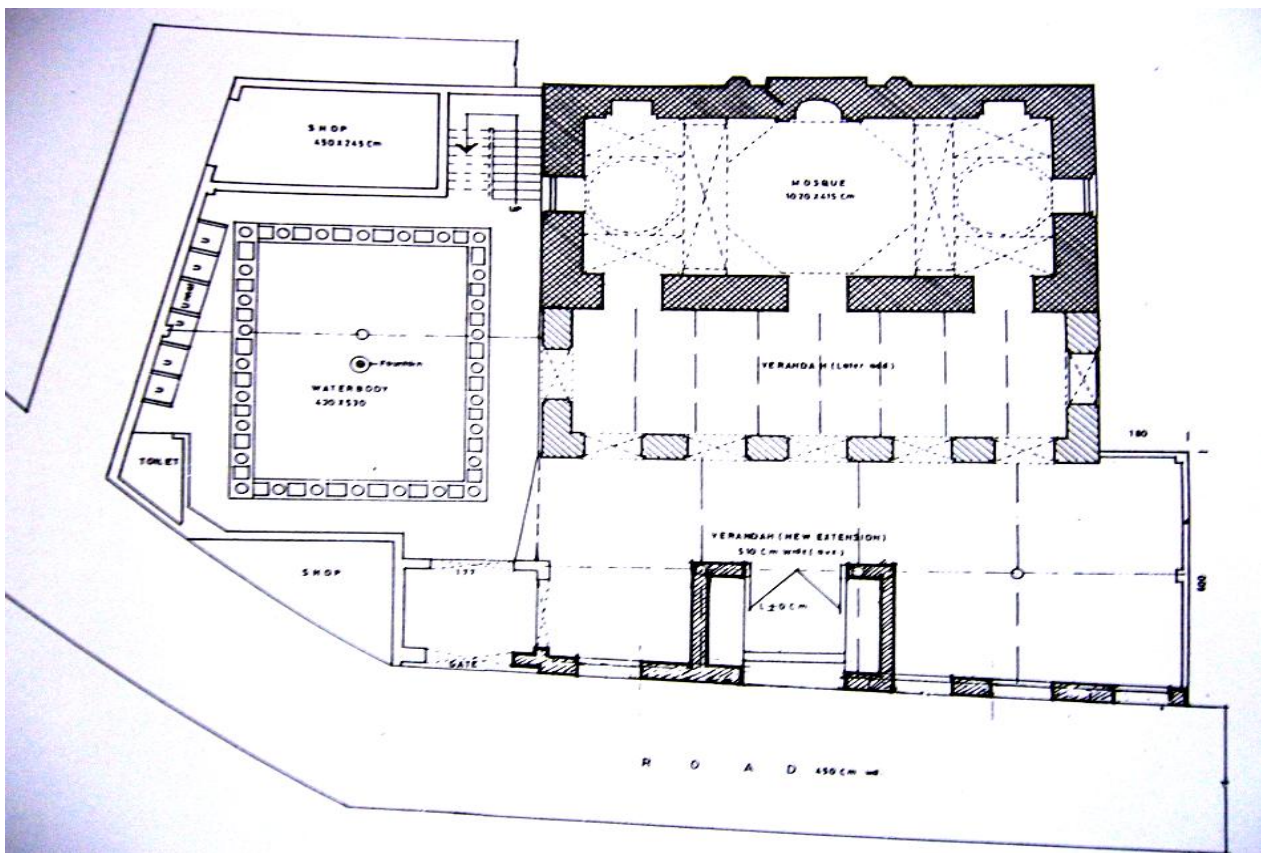


Fig. 5.2.7: Proposed recommended plan (measured drawings)

6. RECOMMENDATIONS ON CONSERVATION ISSUES

Usually, the Conservation did not get much attention either in practice or as a discipline in Bangladesh. According to Sir Bernard Feilden (1986), a work of conservation is a work of art unto itself, but it is art working under strict controls. You've got to absorb the historical and archaeological and cultural values, and understand them. And then through the building, which speaks to you, produce something that will speak to the man in the street, as a work of art [30]. This statement expresses that conservation is the process which does not freeze the history, it allows continuity with change without altering the traditional impact, values and basic environmental characteristics and it is the only means to preserve a living heritage and a thread of continuity in the process of inevitable change. The recommendation on conservation to protect the mosque architecture of Pre-Mughal and Mughal periods of Dhaka city as well as of the whole country should incorporate the identification, protection, restoration, renovation, maintenance and revitalization.

6.1. Development a Comprehensive Process of Conservation

In this process primary action should be the listing of all the historic monuments and produce drawings to complete analytical inventories incorporating the architectural, archaeological, historical, cultural, economic and socio-religious data which are needed for implementation of a conservation project.

6.2. Policy for Conservation

The policy of conservation should take into account the historical, architectural, socio-cultural, spiritual and aesthetic needs of the contemporary society. It should also reflect the resource constraints of the country.

Conservation of historic mosques should incorporate the surrounding environment as a coherent whole i.e. the adjacent areas- natural or manmade. Therefore, there must be a policy for area conservation. The policy should include that,

- a. There should be a legislation incorporating control on the adjacent building heights, setback rules, building bulk and floor area ratio. Effective and efficient mechanism should also be developed to enforce them.
- b. The open space around the historic structure should be determined according to the size and importance of the monument.
- c. Design guidelines for the appropriate physical development of the adjacent areas should be incorporated in the policy.

6.3. Development the Concept of Multidisciplinary Team Work

Conservation is a multidisciplinary activity. Therefore, a team of multidisciplinary professionals towards a common reference is necessary. The team should be composed of the professionals like specialists in conservation and restoration; scholars of Islamic art, history and culture; archaeologists; relevant historians; architects, landscape architects, town planners and engineers; socialists, economists and environmentalists.

6.4. Formulation of a Planning or Advisory Authority

On the basis of districts / locality / community, a planning authority should be formulated comprising of an administrative body and representatives of those districts / locality / community. The authority is essential for the planning and implementation of conservation work at community level. The following are the responsibilities and the functions recommended.

- The local authority should be entitled to formulate and enforce different conservation bylaws as necessary.
- They should be responsible to ensure the co-ordination among different groups.
- The local authority must be answerable for their performance at local level.
- They should encourage the local people to participate in the activities of the authority.
- They should also be responsible to deliver the repair and maintenance notice to the respective committees of the listed structures.

6.5. Development of Design Guidelines for Conservation

A specific design guideline should be prepared for conservation. A conservation manual for methods of conservation and restoration, including materials and technologies used in the ancient days should be prepared and made available with the design guidelines. The intrinsic pattern of the historic mosques should be considered as an essential document in preparing the manual and formulating the guidelines.

6.6. Creation of Public Awareness

Measures should be taken to familiarize the concept of conservation of the heritage and to bring the same into attention of the institutions, administrative bodies, and different professionals at local, regional and national level. Especially to aware the general people about the importance of the historic mosques is of urgent need. In this case special education programs should be conducted for the religious community as they are the main custodians of the mosque structures. Thus the responsibility to protect them from deterioration or deliberate destruction may be gained.

6.7. Formal Education on Conservation

Different courses can be offered to the teachers of different institutions and give training to different professionals / personnel on conservation.

7. CONCLUSION

The Muslim heritage can be traced down in Bangladesh as well as in Dhaka city through the existence of many mosques and tombs of Pre-Mughal and Mughal periods. But it is very unfortunate that the heritage is torn down by abrupt changes and transformation of the historic remains in the name of extension, renovation and so called modernity.

Most of these glorious heritage has disappeared with the ravages of time and whatever remains are scattered all over the country, mostly unnoticed, unidentified and unattended, rapidly progressing towards final destruction and disappearance. Therefore, protection of heritage through the art of conservation is essential. The conservation objectives are not a linear activity but multi-dimensional parallel activities. Experience says that money may be more harmful as it may work against conservation. So money is not the primary issue over here. More important is the application of the financial resources in a justified, judicial and planned way.

Any conservation proposal to retrieve the original mosque without involving the community will be a futile effort as years of contribution in terms of labor, material and financial effort has been put out by the community to bring the mosque to its present level. The people of the community value all these changes as their contribution to modernization and improvement. Therefore, the conservation of the historic mosques is definitely not only a physical issue, rather a socio-cultural issue. It involves a long term program through which the original structure may be revived in part or whole. This can only be done by motivating users and relevant personnel. The idea is not to reconstruct or rebuilt what has been changed or destroyed in the course of time but to retain and preserve whatever is available now. It is a long term plan to proceed to shape built forms and accordingly to re-establish its original characteristics

The conservation should never be hurried in its manifestation. It is usually a very slow and painstaking process, demanding a whole hearted involvement of the society. It is a sustained activity of caring and maintenance by the users who share the value of conservation as their own identity. Therefore, it is natural that conservation is a never ending process---the children learn from their elders and they continue the same and transcend the knowledge perpetually to the future generation.

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