

RE-DEVELOPMENT OF A MUGHAL MOSQUE

Andarkilla Mosque & market complex

Andarkilla, Chittagong

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REDEVELOPMENT OF A MUGHAL MOSQUE

Andarkilla (inner fort) shahi mosque was a Mughal era mosque set up by umed khan (son of Shaesta khan). It remains as a victory monument against moghs and Portuguese pirates. It stands in the center of Chittagong city serving as a prominent jumma mosque even in present days. However, various shops and structures have surrounded the mosque hiding its old Mughal charm in present days. Yet, somehow its existence and ambience gives the essence of what it must have been in its dominant days. Today, Andarkilla shahi mosque stands as a complex mixed structure of inner mosque, outer extension mosque and shop-markets. For conservation, preservation or adaptive re-use, Andarkilla mosque is an ideal aspect. This site is important by all accounts; historically, culturally and architecturally. This paper discusses the opportunities with the justifications for the conservation and management of the old main mosque, construction of a bigger new extension mosque with city parking area and rethinking of the shops and market. The goal is that Andarkilla shahi mosque will continue to exist with its historic charm along with the modern facilities and lifestyle.

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1. INTRODUCTION

1.1 Background of the Project:

The name of the jame mosque Andarkilla which means “inner fort” is a 340 years old hilltop mosque of Mughal era in the port city Chittagong. The mosque was set up by Umed khan, son of nawab Shayesta khan in 1667 as a monument to commemorate the victory of Mughals against the Arkani-moghs and Portuguese pirates (Mahmud, 2008). The place where the mosque is situated, it was used to be the hideout of arkanians and Portuguese. After taking back the port from pirates, Umed khan and Hossain begh sieged the hideout and made a fort inside the mountain. As, Chittagong was conquered based on the attacks from this fort, king Aurangzeb named the Chittagong Islamabad and the fort as Andarkilla and also instructed to build a mosque in the fort. After this instruction Shayesta khan and his son had built the Andarkilla shahi mosque in Chittagong (karim, Islamic history of Chittagong)

Andarkilla fort mosque is a major place of interest in Chittagong (Iqbal, 2009). The main building of the mosque was built with stone and lime and stone chips without any cement. The supporting beams for dome was also joined by stone. The south extension was made over a graveyard and a ablution space was made during early renovation. The front and north side extension were made gradually afterwards (Azad, 2015). After the fall of Mughals, in 1761 east india company turned the mosque into storage of firepower, wepons and horses and the uses of mosque as a prayer space was at halt for 93 years. They destroyed different pillars and ornamentations and also modified the mosque their own way. At 1865 Khan bahadur Hamidullah made a will of the land of the mosque as

donation but it was also manipulated by his relatives. at last in 1949 the main will was retrieved and in 1985 D.C Omer Faruk started rebuilding and making extensions of the mosque removing almost all illegal ownership from the land. He also introduced a book market along with the mosque for its finance and welfare (Azad, 2015).

1.2 Project Brief:

As an Islamic country, Bangladesh is not very successful compared to other Islamic countries. Most of the people in Bangladesh and as well as in Chittagong are Muslim. The prime center for the Islamic religion, its activities and its preaching are based on Mosques. Great Allmighty ALLAH said “ without a doubt, the first house which was made for the human being is the house situated in Mecca which is holly and the center for blessing for the whole world” (Surah Al-Emran, 36). Mosque were established way before the Mughal period and started to flourish during the independent sultanate period (1338-1538) (Hasan, 2007). In the Mughal period mosques in Bengal started to get influenced of Turkish and Indian aesthetics. Mughal always used to build a mosque to commemorate the victory and as a signature of their territory. Prophet Muhammad (SWA) said “the person who will establish a mosque for ALLAH, ALLAH will make a house for him in Jannah” (Bukhari, Muslim). Following this tradition Andarkillah jame mosque were established but with flow of time it went through many changes. In present time the mosque co-exists with a book market, the roof of which is used as a overspill area during prayer. As, the mosque stands above 30’ high from road level the market runs under the two stories of mosque. Surrounding the book market temporary bazar has formed with the course of time. Prophet Muhamad (SWA) said “in this world the most favorite place is the mosque to ALLAH and the worst one is bazar” (Meshkat). As, religiously two

contradictory function co-exists together and both are important for the society, the challenge will be redesigning keeping both of them in a manner that both work individually without interrupting the other function while ensuring 200 car parking and maintaining the main mosque to its original form.

1.3 Project Rationale:

Andarkilla mosque is one of the surviving monument of the Mughal architecture. It not only survived as a lone structure or an idle heritage but also serving as one of the popular fruitfully working mosque in the city center of Chittagong. Through the passage of time the mosque wore structural changes of colonial time and have got extension mosque to cope up with the population and cultural need. For supporting and to become a hub a book market has also been built alongside with the extension mosque. So, as a combined architecture of Mughal era mosque, a modern extension mosque to accommodate huge amount of people and a book market, Andarkilla have become a landmark for the people for praying, visiting and doing business all at once. As a result, food shops, restaurants, temporary purchasing places for clothing, street hawkers and vendors gathered surrounding it making a socio-cultural hub for the people of Chittagong and also travelers. In present days, the Mughal mosque acts as an inner mosque inseparable or visually unidentifiable from the extension mosque and people are using it as every other mosque in the locality. There is no scope of knowing without going there inside the mosque and is very hard to identify. Also, the number of people exceeded from the provided space of the mosque and the market revenue is not supporting enough for its cost. According to the need of preservation and conservation of Mughal monuments in Chittagong Andarkilla Shahi Jumma mosque is one of the formidable candidate.

Mughal Monuments of Chittagong:

Anderkilla Shahi Jame Mosque Anderkilla

Hamza Khan Mosque And Tomb Panchlaish

Hazi Mosque Now In Ruins Pahartali Mauza (Beside The Railway Track West Of Dewanhat Over Bridge)

Mullah Miskin Mosque And Tomb Ward-2, On The Eastern Slope Of A Hill Known As Madrasa

Pahar Chandanpura Mahallah Wali Khan's Mosque: Built ByMughal Fauzdar Wali Beg Khan Chawkbazaar.

(Chisty, 2014)

1.4 Aims and Objectives:

This part of the paper talks about the aims and objectives of the government and Chittagong Development authority regarding the project of restoring and rethinking of the Andarkilla shahi Mosque. CDA has taken the 200 crore Tk project to reconstruct and restore 350 year old hill top mosque of the Mughal era in the port city. CDA wants to complete the project keeping the shape of the Mughal mosque unchanged and to expand the surrounding peripheral mosque to accommodate more people serve in the urban fabric. The project will consist of four steps. First step is the restoration of the Mughal mosque keeping its shape intact. Secondly, designing a larger outer mosque which can give place from 5000-7000 devotees where now it provides space for 3000 devotees. The third and fourth steps are reconstruction of the shop-market and a city parking area providing 500 car parking (Mahmud, 2008).

2. LITERATURE REVIEW:

2.1 About Islam:

The word Islam is derived from the root word “salaama” means peace, obedience, purity, and submissions. Islam means abiding peace and obedience to the will of God. While other religions derive their name from either a tribe, or a geographical area or a founder, and Islam derives its name from the central ideas of peace and submission to God. The followers of Islam call them as Muslims or Musalmans (Shyqeriu, 2009).

The message of Islam came to Muhammad for the first time through the angel Gabriel in 610 A.D., in a cave on Mount Hira. He kept on receiving the answers to his questions rest of his life and then he put all together in the book called Qur’an, which is the only holy book of Islam. Qur’an is the only book in the world which cannot be ever translated. Allah is known by 99 names and the person who learns them all by heart goes in the heaven. (Islamic studies, 2008)

Islam believes that good rewards for good deeds and punishment for bad deeds. And Qur’an states “Whoever does good deed, he shall be repaid ten-fold; and whoever does evil, and he shall be repaid with evil” (5.32). Islam does not recognize any other religions other than they are specifically mentioned in Qur’an. “We believe in that which has been revealed to us and re-revealed to you, and our God and your God is One, and to Him do we submit” (29.46).

2.2 About mosque:

The English word ‘mosque’ is derived from French ‘*mosque-e*’ which eventually derived from the Spanish word ‘mezquita’. This Spanish term is transcended from the Arabic word ‘mesjid’. The core of the Arabic word ‘mesjid’ is the word ‘sajd’ which means ‘to

prostrate'. The essence is to prostrate before the one and only God "ALLAH" to show the ultimate form of respect which a human being can offer. The place for doing this ritual is the mosque without a doubt (Shyqeriu, 2009). "Islam did not instruct the Muslims how to build mosques, but it did instruct them to build mosques and to make them function as places of collective worship and community development centres. The Prophet (SWA) built quite a number of mosques in Madinah, which was the prototype Islamic city and played the role firstly as the city-state and later as the capital of the ever-expanding Muslim state" (Omer, 2009). The mosques built by Prophet Muhammad (SWA), specially his mosque in Madinah, were so dominant in the functions performed that they flourished the multifaceted socio-cultural dimensions of Islam. To emulate the Prophet's example in this regard, was The primary aim of all the mosques built afterwards. Nevertheless, the form of the mosques built during the Prophet's era was very simple. For example, "his mosque in Madinah, when firstly built consisted of an enclosure with walls made of mud bricks and an arcade on the qiblah side (towards Makkah) made of palm-trunks used as columns to support a roof of palm-leaves and mud" (Omer, 2009). Initially there existed three entrances in the east, west and southern walls. The fourth, i.e., the northern wall, was the qiblah side facing the al-Masjid al-Aqsa, the first qiblah which lasted about one year and a few months. On the other hand, the southern entrance was subsequently bricked up and a new one on the northern side constructed, as, the qiblah was changed to face south towards Makkah. "Before the qiblah changed, there was, in all likelihood, no roofed area in the mosque, but after it, an arcade on the southern side facing Makkah was created" (Omer, 2009).

2.3 Relationship of mosque with islam:

Islam stands over the five Major pillars which are essential to establish the base of islam and the identity of Muslims.

The First Pillar: Iman

The first pillar is daily confession of the faith called shahada. A Muslim must say, "There is no god but God (Allah) and Muhammad is the messenger of God". This proclamation confirms to Muslims that there is only one God and to idolize others is an unforgivable sin. . This also can be referred to as Iman, which roughly means the loyalty towards the one god, Allah

The Second Pillar: Sallah

The second pillar is daily ritual prayer called Salah. They are performed five times a day. The prayers are recitations of the Quran in Arabic. The prayers are done with physical movements. These movements are: standing, bowing, kneeling, touching the ground with one's fore-head, and sitting. The recitation and movements demonstrate submission, humility, and the adoration of God. At the conclusion of the prayer, they recite the shahada and they repeat their "peace greeting" twice. This "peace greeting" says "Peace be upon all of you and the mercy and blessings of God".

The Third Pillar: Zakah

The third pillar is paying the alms tax called zakat. Muslims are required to pay an annual contribution of two and a half percent of their individual wealth and assets. This money is used to help the poor, orphans, and widows. Zakat is an obligation to respond to the needs of the less fortunate. It is an act of worship, or thanksgiving to God, and of service to the community.

The Fourth Pillar: Hajj

The fifth pillar is a pilgrimage to Mecca called hajj. At least once in their lifetime, a Muslim must make the sacrifice to make this pilgrimage which is done after Ramadan. The conditions to go are that they must pay for themselves without borrowing the money and be able to afford it. They are from different classes, colors, nationalities, and races and they are in the same dress performing the same rituals. About two million Muslims go every year. Pilgrim men must wear two seamless white sheets and the women must cover their whole body except for their hands and face. These coverings symbolize purity as well as the unity and equality of all believers.

The Fifth Pillar :Sawm

The fourth pillar is fasting during the month of Ramadan and is called sawm. It is done once a year on the ninth month of the Islamic calendar. During this month, Muslims that are healthy must abstain from dawn to sunset from food, drink, and sexual activity. Families eat before sun-rise to sustain them until sunset. Then they eat a light meal at dusk and eat a late evening meal. Fasting lasts for twenty-nine or thirty days. Ramadan is a time of spiritual discipline and of expressing gratitude towards God. "Total abstinence reminds the Muslim that each life is one of sacrifice, dependent on God". Muslims recite a special prayer that is only recited during Ramadan. The Eid ul-Fitr is the Feast of the Breaking of the Fast of Ramadan and is a celebration that lasts three days (Islamic studies, 2008)

Among these pillars and its activities, almost all the work are related to the mosque and especially the activities based on and related to Salah are bound to merge with the existence of Islam and its Beliefs.

2.4 Concept of Islamic architecture:

“In every action of his - including building-man tends to express consciously or otherwise his outlook on life and the whole of universe, Islamic architecture is then nothing but a medium of Islamic doctrine” (Spahic Omer, 2002). While talking about Islamic architecture, people generally mean the architecture of Arab, Turk and surrounding architectures of Muslim countries, whereas historians see the Islamic architecture as morphology and rhetoric. It can be described by its culture which varies or can be defined as a secular system which follows the rules by morphological manifestation. A muslim believes that Quran can give solution of problems in every era and also in contemporary time. So, mosque should be an architectural solution regarding contemporary style but often ignores its roots and history which guides the form to the old direct functions (Berque 1978). “What do people mean by Islamic Architecture? Does it mean the architecture produced for and by the Muslims to serve Islam as a religion, referring consequently, only to that architecture which did serve a religious function – the mosque, the tomb, the madrasa? Or, does it mean all the architecture produced in Muslim land? If “Muslim” is not an objective, it defines a special type of architecture that is different from the architecture in rest of the world” (Grube, 2002). To describe architecture, urbanism, and art, the use of the term “Islamic” is problematic. Moreover, discussions on Islamic influences on architecture and urbanization. Is it the style, culture and religion? Or something else? Moreover if there is some architecture that could be coined as Islamic’, there must be one that is “non-Islamic” (Rashid and Abdul Rahim, 2012). “To the Muslim the concept of “DIN”, or religion, consists of three major elements: “Iman”, “Ibadat” and “Ihsan” which can be combined as the word “belief”, “religious obligation” and “right

doing". These components mainly drives the notion of Islam and the Muslims practices it keeping the Mosque in the center of all the religious activity" (James Dickie [Yaquub Zaki], 2002). "One definition of a mosque could be a building erected over an invisible axis, an axis which is none the less the principal determinate of the design. The Muslim world spread out like a gigantic wheel with Mecca, with lines drawn from all the mosque in the world forming the spokes. These lines converge the city and within the city on a point" (James Dickie [Yaquub Zaki], 2002). The first house which was the center to spread Islam by Prophet Muhammad (SWA) was Mosque. Mosque stands for the singularity and the existence of ALLAH and the school of wellbeing for the Human being. Great Almighty ALLAH said "without a doubt, the first house which was made for the human being is the house situated in Mecca which is holly and the center for blessing for the whole world" (Surah Al-Emran, 36).

2.5 Islam in Indian Subcontinent

In 1204 Ikhtiyar al-Din Muhammad Bakhiyar (d.1206), originally of Garamsir in northern Afghanistan, A turkoman og the Khalji tribe and the soldier of fortune, defeated the hindu ruler Lakshmansena at Nadiya, a city that is now identified with the village of Naoda in western Rajshahi district.(Hasan,2007). Bengal is the anglicized form of Banga and Bangala, the name which first makes its appearance in the work of the dellhi historian Zia al-Din Barani (d. 1357) in his "Tarikah E Firuz Shahi" (history of the rule of Firuz Shah). Abul Fazal, the official historian at Akbar's court , described bangala the east corner province (Suba) of the Mughal empire, as bounded by hills in the north and south, by suba Bihar in the west and by the tract of land called Bhati (lowland) in the east (Hasan, 2007). To the north is the country of Kuch, a very large principality derives its name from

Koch, the caste to which the ruling family belonged. It can be identified with the area between the upper of the river Karatoya and the Brahamaoultara before it turns south, of which Kamrup is a subject state and next to it is Assam. In the southeast is Arakan with its port of Chittagong (Allami, Akbari and Jarret, 1993). Thus how the Bangla under The Mughal Empire is formed and Mughal style architecture and mosques started to get built in the Bengali region.

2.6 Islamic architecture in Bengal:

After the Turkish Conquest they ruled Bengal from 1206 to 1324. After that the independent sultanate started in 1338. In the sultanate period Islamic Architecture and Mosques started to bloom and flourish its own way. That time indigenous forms and techniques were used to build mosques. It started as thatched hut mosque which was almost like a house. Then they started to adapt Hindu and Buddhist architecture and placing dome over the structure to give significance and difference from temples. Then started to integrate covered extension, open courtyard and multiple domes to make the mosques more dominant and exceptional. This development progressed this way until the intervention of Mughal style in Bengal architecture (Hasan, 2007).

2.7 Cultural time-line Islamic world:

- 500** 570 – Birth of Muhammad (SWA)
- 600** 610 – Muhammad’s first revelation
- 622 – Muslims and Muhammad emigrate to Madinah
- 632 – Death of Muhammad (SWA)
- 632-661 – rule of the rightly guided Caliphs

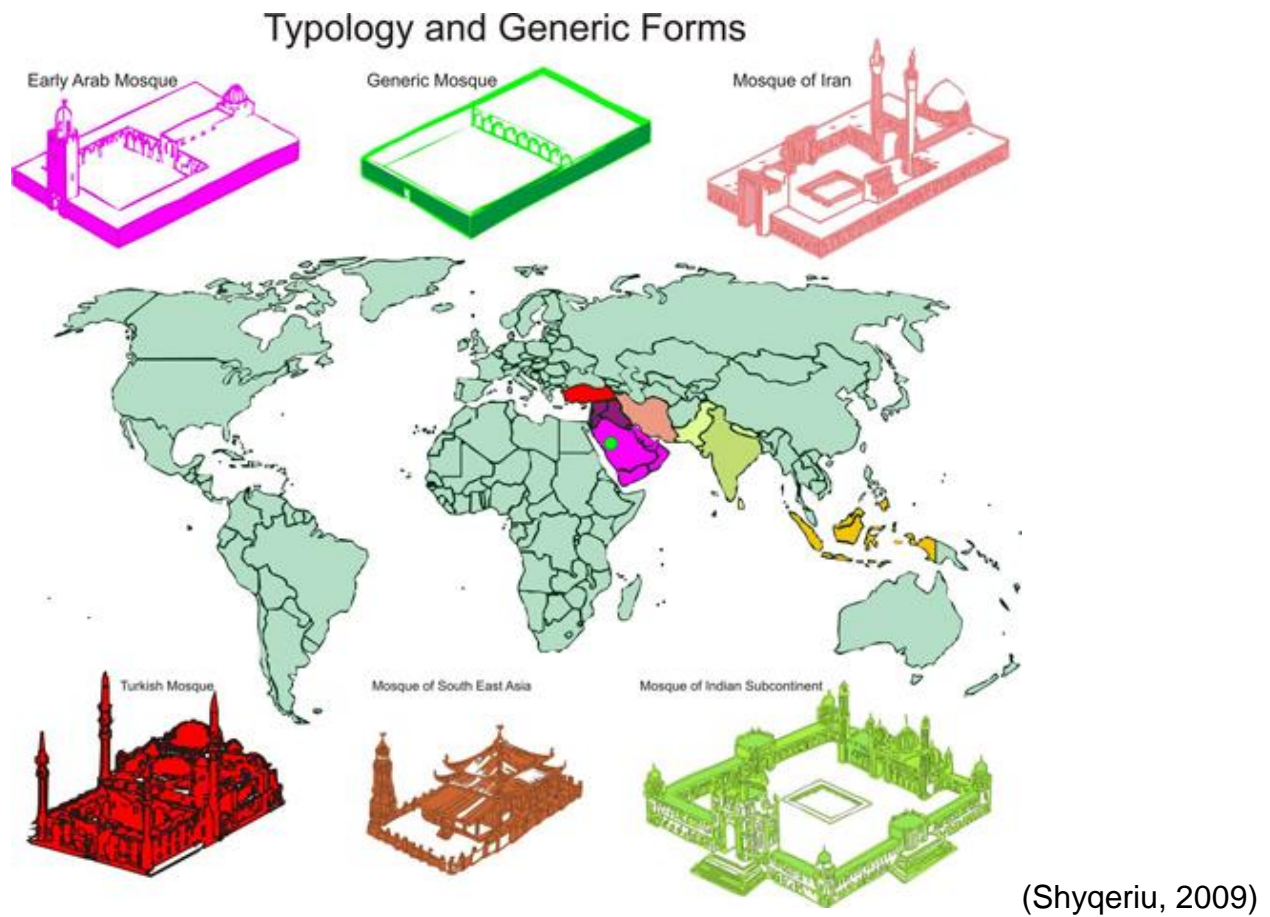
- 691 – Dome of the rock, Jerusalem
- 700** 706 – Great mosque of the Umayyad, Damascus
- 711 – Muslims enter Spain
- 715 – Al-Aqsa mosque, Jerusalem
- 750 – Abbasid caliphate founded, Iraq
- 785 – Mosque of Cordoba began
- 800** 825 – Al-Kwarizmi writes of ZERO in mathematics
- 848 – Mosque of Al-Mutawakkil begun, Iraq
- 862 – Qarawiyyin mosque founded, Fez
- 879 – Mosque of Ahmed Ibn Tulun, Cairo
- 900** 936 – Madinat al Zahra palace complex, Cordoba
- 972 – Al Azhar university found, Cairo
- 1000** 1001 – Ibn al Bawaab produces earliest Quran copy on paper, Baghdad
- 1099 – First crusade begins rule in Jerusalem
- 1100** 1187 – Salah al Din returns muslim rule in Jerusalem
- 1200** 1258 – Mongols sack Baghdad
- 1300** 1325 – Ibn Battuta leaves Tangier
- 1362 – Mosque of sultan Hassan, Cairo
- 1400** 1429 – Astronomical Observatory, Samarqand
- 1453 – Ottomans begin rule from Constantinople
- 1474 – Mosque of Qaitbay, Cairo
- 1492 – End of Muslim states in Spain
- 1498 – Vasco da Gamma sail to India from Portugal
- 1500** 1526 – Mughal dynasty established in India
- 1600** 1617 – Sultan Ahmed (blue) mosque, Istanbul
- 1638 – Shah mosque, Iran
- 1647 – Taj Mahal
- 1800** 1869 – Suez Canal opens
- 1900** 1908 – Hijaz railway from Damascus to Madinah
- 1967 – Aga khan foundation established

1970 – Hassan fathy's architecture for the poor

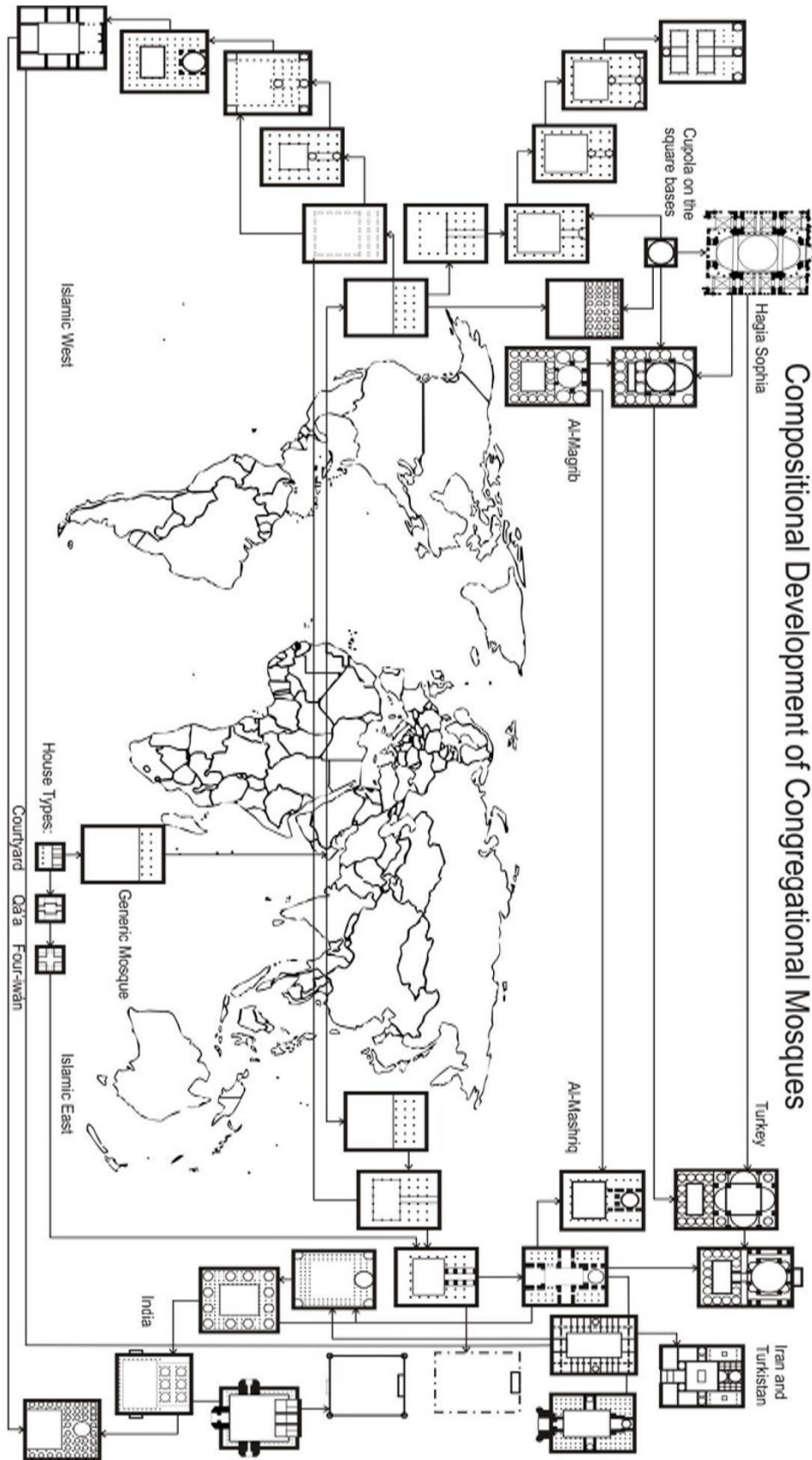
1983 – Muhammad Yunus founds grammen bank, Bangladesh

(World, 2002)

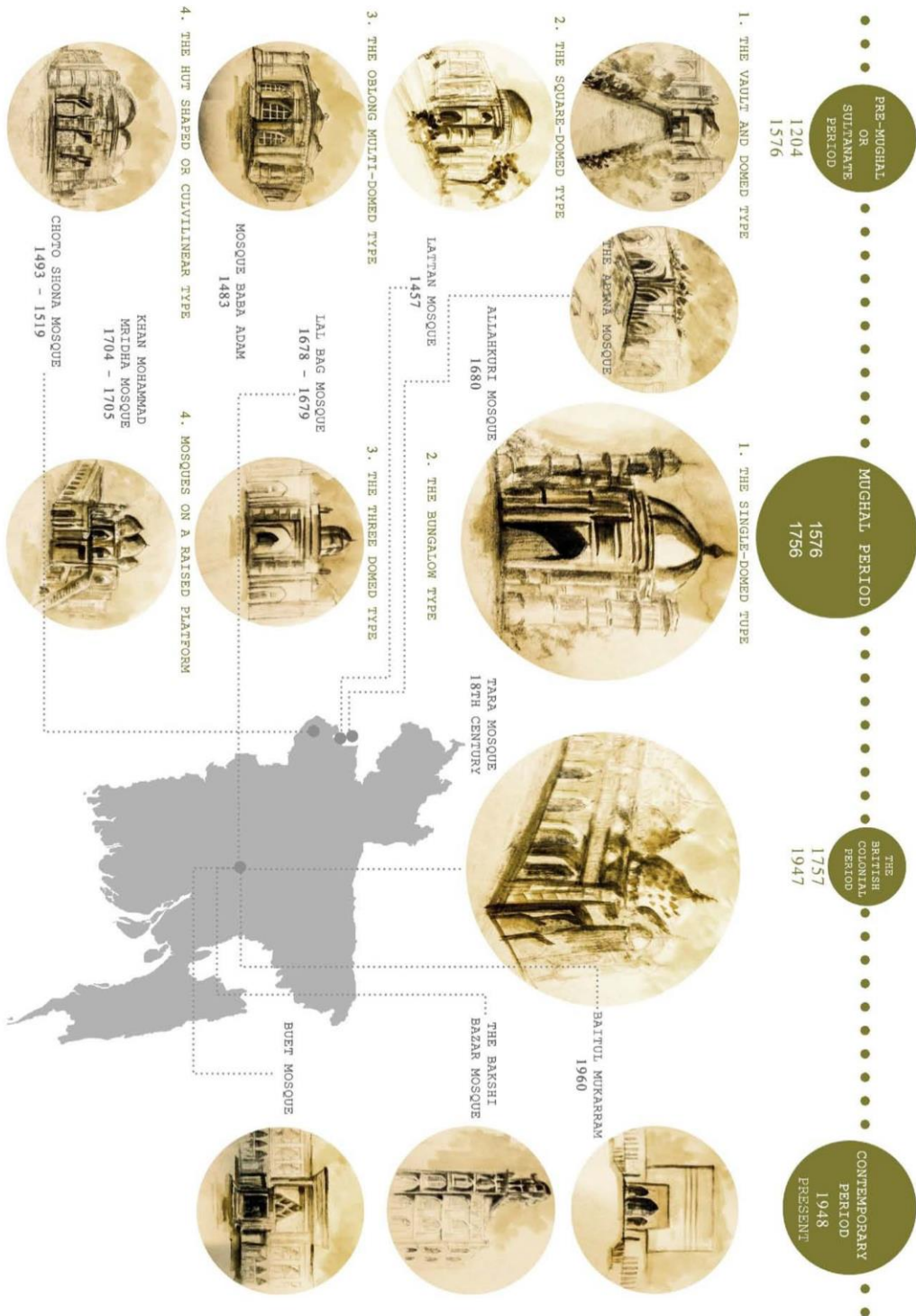
2.8 Development of mosque and its forms:



(Shyqeriu,
2009)



2.9 Development of mosque and form in Bengal:



(Hossain, 2014)

The mosque architecture of Bengal is based fundamentally upon the building tradition of western and central Asia (Muktadir, 1990). Yet, Muslims were receptive to local potentials and the outcome was the creation of the unique architecture combining local skills, craftsmanship, and material with already accepted traditions. Through the analysis and examination of architectural elements, forms, layout, and building material, the mosque architecture of Bangladesh can be analyzed under the following four phases:

1. The pre-Mughal or Sultanate period (1204-1576)
2. The Mughal period (156 - 1757)
3. The British colonial period (1757-1947)
4. The Contemporary period (1948 to present) (Islam, Noble, 2011)

The pre-Mughal mosques of Bengal are marked by ambitious planning, distinctive architectural features such as pointed arch, a curvilinear roof and cornice, carved brick designs and glazed tile decoration. (Hasan, 1979)

2.11 Mughal mosque characteristics in Bengal:

The Mughal Empire introduced Indo-Islamic architectural styles which flourished in the imperial capitals of Delhi, Agra and Fatehpur Sikri in the sixteenth century and appeared in the provinces. Although in every provincial context there were special features rooted in the vernacular tradition, the Mughal style in mosque architecture had a universally recognized throughout. Mughal mosques followed an imperial traditional concept, In contrast to the buildings of the Sultanate period which are characterized by regional identity. The principal elements introduced by the Mughal architects were dominant

central domes and tall axial entrances. Four centered arches were introduced instead of the earlier two arches and those arches became graceful. Traditional terra-cotta art was replaced by reiterated plaster panels. The curved cornices of the pre Mughal structures substituted straight, horizontal panels (Islam, Noble, 2011). The domes with characteristic arches decorated with nine cusps which became a significant feature of this style. The Persian dome, adopted changed as bulbous in profile and narrow at the base which resembles the hemispheric dome. (Alfieri, 2000)

Mughal mosques are classified in the following four categories according to the varying ground plans and roofing patterns:

- A. the single domed type
- B. the bungalow type
- C. the three domed type
- D. mosques on a raised platform

2.11.1 The Single Domed Type

The Allakuti Mosque (1680) might be the best example for this category which exists at Shaka. It has a square plan with projecting fronts at the middle of each side, which provided doorways for the east, north and south sides. “Four corner towers are each crowned by a plastered kiosk and parapet. The thickness of the wall keeps the interior cool. The dome is carried on squinches and is crowned by a finial. The dome comes into its own with the Mughal and the influence of Persian design is clearly seen. It also provides an easily recognizable symbol of empire.”

2.11.2 The Bungalow Type

Churihatta Mosque (1649) may be taken as a typical example. "It is characterized by a chauchala roof rather than domes, and has an oblong plan with four corner towers. Three door-ways, formed by two successive arches, provide entrance from the eastern side. The facades are decorated with panels and a straight parapet." (Islam, Noble, 2011)

2.11.3 The Three-Domed Type

The most common type of Mughal masjid in Bengal is the rectangular three domed mosque. Either all the domes were uniform or the central dome was larger than the other two like Persian mosques. One of the finest examples of this kind is the Lalbagh Fort Mosque (1678-79). "The structure is roofed over by three fluted, bulbous domes, resting on drums. Three arched entrance doorways are adorned by cuspid arches. "The façade is decorated with rectangular panels. The mosques is buttressed by four octagonal towers, capped by cupolas. Parapets are straight instead of the curvilinear cornice of pre-Mughal types." (Islam, Noble, 2011)

2.11.4 Mosques on a Raised Platform

Supported by a series of vaulted chambers, the Khan Muhammad Mirdha Mosque (1704-05) stands on a 16.5 ft raised platform. It is a three domed type with the prayer chamber in the upper floor level. The terrace is approached from the east by a flight of steps in front of the hall. "The corner minarets are terminated with ribbed cupolas. Three squat shouldered domes cover the roof. Facades are ornamented with paneling. The

interior of the hall is divided into three bays by two lateral arches, each containing a decorated mihrab”. (Islam, Noble, 2011)

2.12 Historical places in chittagong

“Period Name Location

Sultani :

Monuments

Badr Auliya Tomb: Known As

Bara Auliyar Desh

Boxirhat

Shah Qatal Tomb: A Square Tomb Katalganj, Sulokbahar

Mughal:

Monuments

Anderkilla Shahi Jame Mosque Anderkilla

Hamza Khan Mosque And Tomb Panchlaish

Hazi Mosque Now In Ruins Pahartali Mauza (Beside The
Railway Track West Of

Dewanhat Over Bridge)

Mullah Miskin Mosque And Tomb Ward-2, On The Eastern Slope
Of A Hill Known As Madrasa

Pahar Chandanpura Mahallah

Wali Khan’s Mosque: Built By

Mughal Fauzdar Wali Beg Khan

Chawkbazaar

Kadam Mubarak Mosque Jamal Khan Ward

Colonial Times:

Institutional/Government Use

Darul Adalat: Now In Ruins Madrasa Pahar (Mohsin
College Campus)

Court Building (1892-3) And Site Court Hill Anderkilla
General Hospital: (1840) Including
The Hill Site
Anderkilla
Nachghar 2 Storied Red Building
(Fire Brigade Station Chandanpura)
Enayet bazaar Opp.
Chandanpura Mosque
Central Railway Building: (1872) Enaye tbazaar
Wooden Bungalow No L/1: (1887) SegunBagan, Pahartali Enayet
bazaar
Dc's Bungalow Dc Hill Buddhist Temple Road
Mirzar Pool: Bridge On The
Hathazari Road
Muradpur, Sulokbahar
Preservation and Conservation of Historical Site of Chittagong
World Town Planning Day-2014 3
Battali Railway Station: (1896) Battali near new market
Karnaphuli Railway Bridge
(Known As Kalurghat
Bridge) (1931)
Kalurghat
Old Circuit House (Zia Sriti
Jadughar): 1913
Bag monirum
Pahartali Railway Workshop Pahartali
Chittagong Police Hospital Lalkhan Bazaar
Police Armory Bag monirum
The European Club Pahartali
J.M. Sen Hall (Town Hall) Dewan Bazaar
Water Works Bag monirum

Residential

Houses

(Private)

Malum Bari Wooden Bungalow Maddahya Haliashahar, Ward-38

K. Sen's House Seven Storied

Masonry Structure

Sadarghat Ward

J.M. Sen's House Rahmatganj

N.N. Paul Building With Banyan

Tree (Opposite Dc Hill)

Dc Hill

Ispahani Manzil Sarson Road

Religious

Buildings

Chandanpura Mosque Chandanpura, Anderkilla

K.S. Abdul Hakim Mosque Mansurabad

St. Mary's Church Jamal Khan Ward-21

Patharghata Church Patharghata Ward

Love Lane Church Jamal Khan Ward-21

Second World War Graveyard

Shadur Pahar North Of Ctg., Cantonment

Ward-01

Pakistan Period Jamuna Bhaban Sk. Mujib Road, Agrabad"

(Chisty, 2014)

Among those places Andarkilla shahi jame Mosque is one of the surviving Mughal period mosque architecture which endured british rule, survived 1971 war and still functioning as a major mosque in the city center of Chittagong.

2.13 Architectural Heritage and Conservation:

Architectural heritage indicates cultural heritage monuments, group of buildings and sites, outstanding universal value from the point of view of history, art or science. In the modern theory of restoration, the qualities of a cultural heritage are the historical and the aesthetic values. "An historical building is a complex system of spaces, volumes, materials, surfaces, constructive aspects, actual and past functions and configurations, degradation, etc. The whole is the result of a continuous historical process of modification and transformation. An architectural heritage can be interpreted as an "artifact", where its elements are witnesses of constructive cultures and of events occurred during the life of the building. In the study of architectural heritage is fundamental the surveying and archival analysis." (UNESCO, 1972)

Preservation or conservation in architecture is an interdependent term which implies the thought which may influence measures that would remain or protect significant structures. It may help to maintain current state, prevent further damage and deterioration or rebuilding the damaged portions to recall the previous state of that architecture. (Koshley, 2012). Historic Preservation strives to keep the remains of old buildings in its original state and keep the previous function in a frozen form for display. This is more appropriate for buildings that are in a critical structural state. Architectural conservation attempts to find a new use of an old building, prolonging its life through adaptive-reuse. These existent function can be improvised and re introduced by merging with the contemporary thinking and lifestyle. This approach can be named as redevelopment which might combine different approaches and seem to be fit for the situation and demand of the architectural aspect. (Imamuddin, 2009)

2.14 Conservation techniques and approaches:

The characteristics of the project determines the approach which is more suitable.

Various approaches dwells in the category of conservation. It should however be noted here that sometimes a project includes a combination of the several approaches.

2.14.1 Preservation

To maintain the fabric of a place in its existing state, preventing deterioration. This process requires continuous maintenance to keep its existing condition (Hong Kong Today, 2012). Conservation is not only to represent the past, but to preserve what exists and control changes. It attempts to halt changes that are inappropriate to the existing context. It encourages changes that are harmonious with the prevailing socio-physical urban fabric. The key perspective of conservation is to present the heritage in its harmonized state with the socio-cultural situation and to maintain its dominant state (Imamuddin, 2009).

2.14.2 Restoration

To return the existing fabric of a place to a known earlier state by removing accretions or by reassembling existing components without the introduction of new materials (Hong Kong Today, 2012). "It focuses on the retention of the materials from the most significant time of the history while permitting the removal of materials from other periods" (appropriate treatment, 2011). "This is considered as a more conservative approach to preservation. It involves returning a building to their original state, by replacing components destroyed and removing elements added later. Hence, through study and assessment is required to identify the time periods through which the building may have survived. An important consideration is how to accommodate modern

services like electricity, firefighting, security systems, water supply etc. as they are sometimes necessary for a successful restoration.” (Ahmed, 2014)

2.14.3 Reconstruction

To return a place to a known earlier state. Distinguished from restoration by the introduction of new material into the fabric. It establishes limited opportunities to re-create a non-surviving landscape, structure or object in all new materials (appropriate treatment, 2011).

2.14.4 Adaptation

“To modify a place to suit the existing use or proposed use. Adaptation, sometimes known as adaptive reuse, is a method of expanding or extending a building’s social functions by modifying the structure. It may involve changing parts of the building to meet the requirements of an existing or proposed use while keeping significant features” (Hong Kong Today, 2012). Adaptive re-use is a relatively less rigid type of preservation where building is put to an alternative and yet adaptable use different from its original function. However, the original form and character of the building is maintained. Like warehouses turned into shops or restaurants, factory buildings used as shopping centers or museums, markets converted into housing etc. (Immamuddin, 2009)

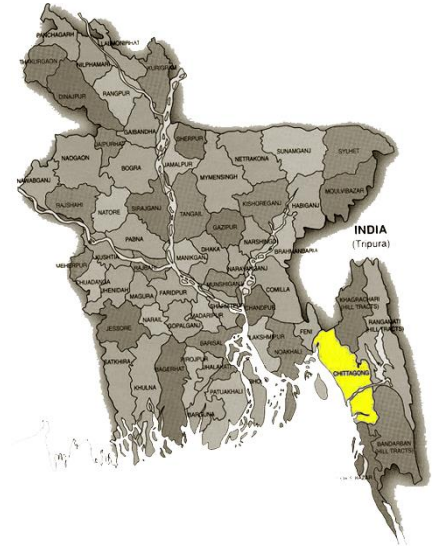
2.14.5 Rehabilitation

Emphasizes the retention and repair of historic materials, but the more focus is centered for replacement because of the deterioration of the structure prior to work. Both preservation and re-habilitation emphasizes on preservation of those spaces, materials, features and spatial relationship to provide the historic character but the buildings from the past must be adapted to its surroundings and society (appropriate treatment, 2011).

3. SITE AND CONTEXT ANALYSIS:

3.1 Site appraisal

The site is situated in the center of Chittagong city, Bangladesh. For pinpointing the location Chittagong rail station and Chittagong stadium have been marked, so that it can be identified and the distance can be ensured visually and graphically. Main route from the stadium and rail station is highlighted to track down easily. As, it is situated in Chittagong, the site is hilly and the main mosque is situated 30 feet above the ground.



Surrounding extension mosque was built after wards and to support finance of the mosque extended 2 storiedbook market was built using the roof as the terrace of the mosque inside the mosque land and stairway to enter the mosque through market.

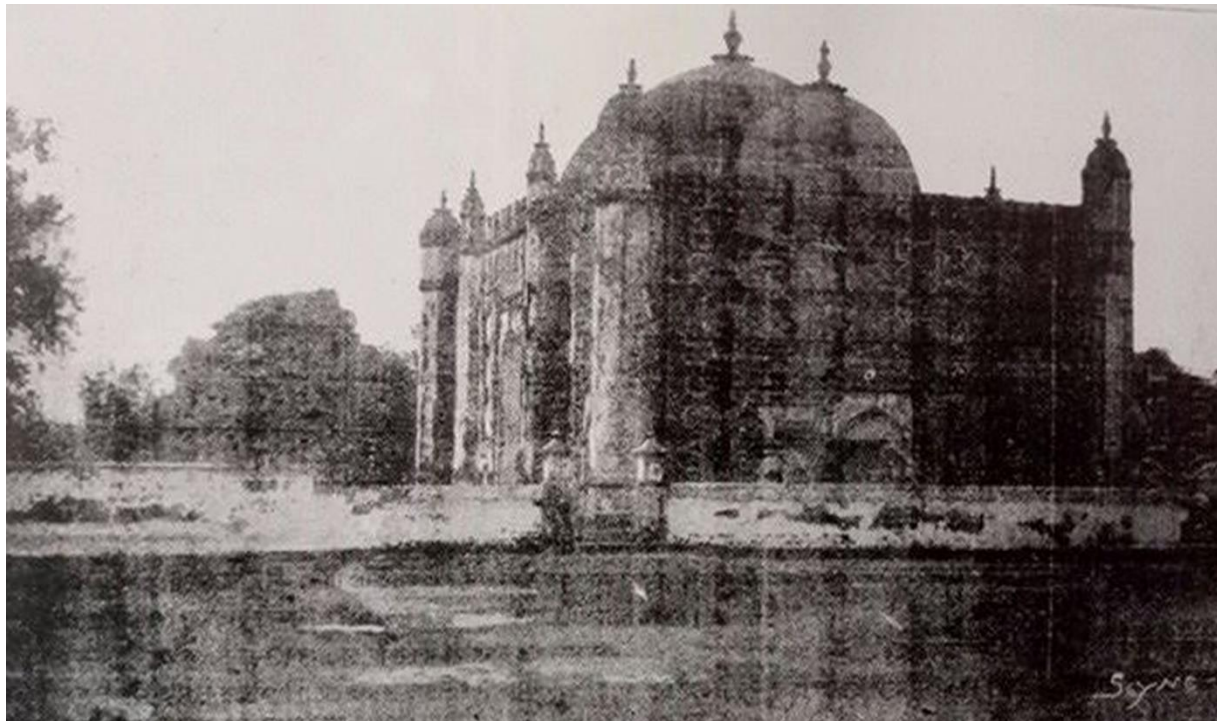


3.2 History and social background of Andarkilla

As the mosque is 350 year old established in the Mughal era it bears a long lasting history through the time of Mughals, British, Pakistan and state afterwards which continues to the present day.

3.2.1 Background as a heritage

Throughout the history this mosque experienced different change of functions and state which gone through the times of glory, in times of misuse and war. At first, this mosque acted as a fort which was used to occupy the Chittagong area from moghs and arakans. After that the mosque was established as a victory monument and administrating building of Mughal empire. Then this mosque went to the hands of british rule and it became a storage of guns and barrels and lost its glory. Different damage was done in that time. After british rule it went as an abandoned structure and regained its purpose in the last segment of Pakistan period. (Jahangir, 2008)



3.2.2 Background in socio-cultural context

From Pakistan period, Andarkilla became a city center and a socio cultural hub. For that reason shops and places of accessories started to gather here for commercial purposes. This inspired the authority of the mosque to construct a permanent market below the level of the mosque to fulfill this social need as well as to serve the economic purpose of the mosque

3.3 Present state of Andarkilla

3.3.1 Site images

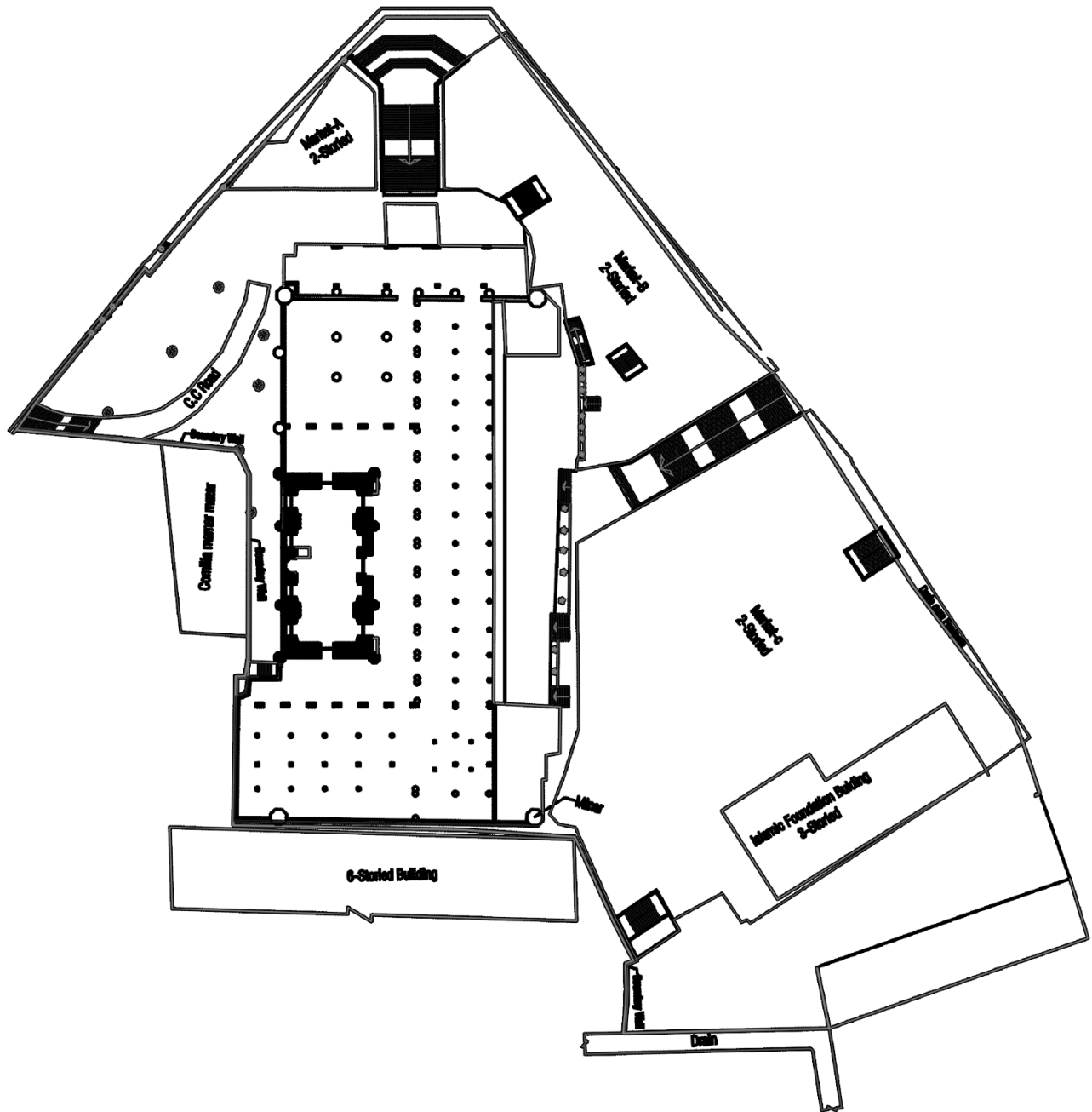


3.3.2 Existing layouts



Mughal mosque Panaroma



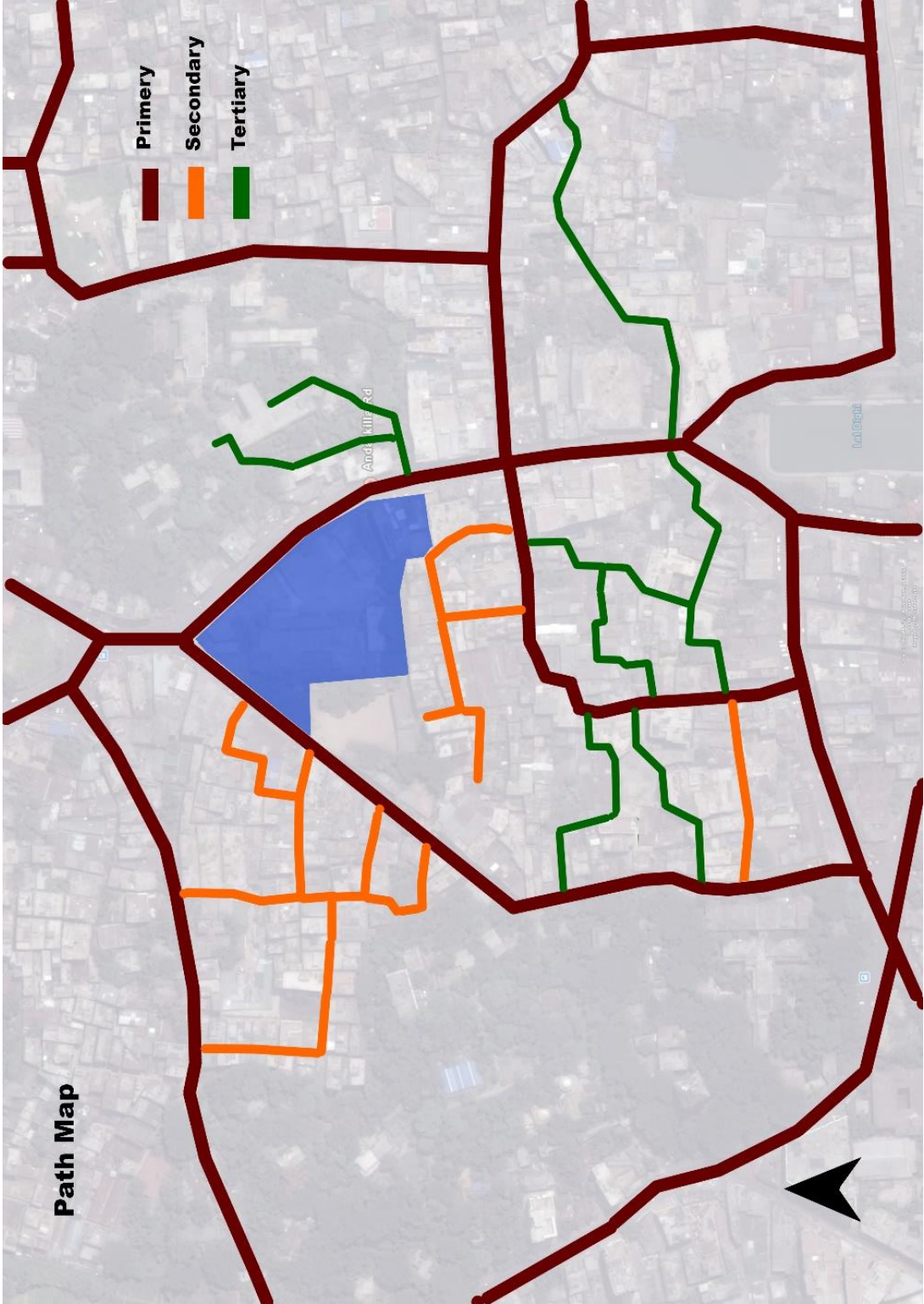


Mosque layout 2nd Floor

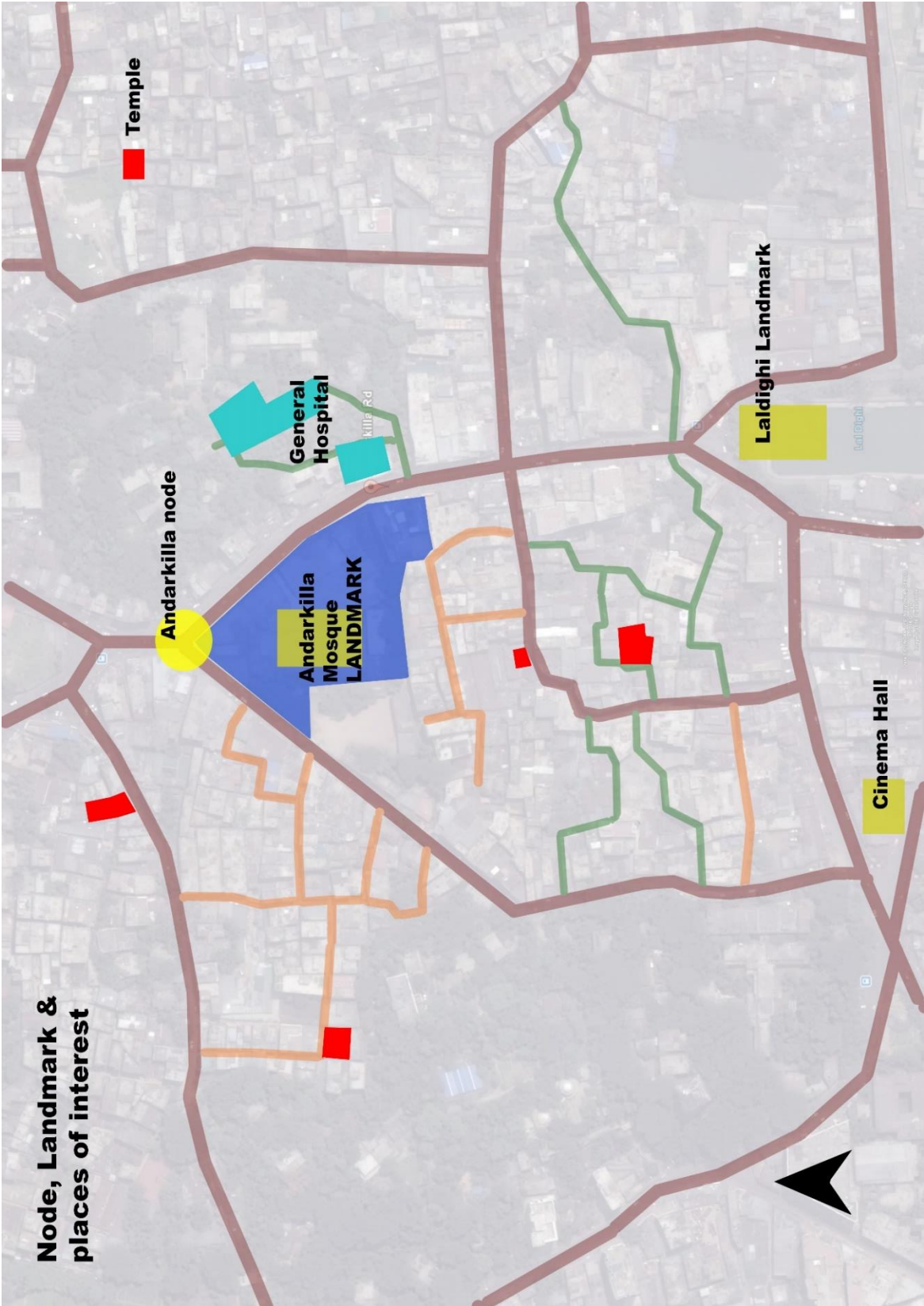
For the site surrounding and context analysis, mainly followed the kevin lynch process of urban fabric analysis to support and find out the forces of the side and its surrounding. The map path, node, landmark, important places, activity zones and other forces of the site which can act as dominant aspects for the project

3.4 Site context:

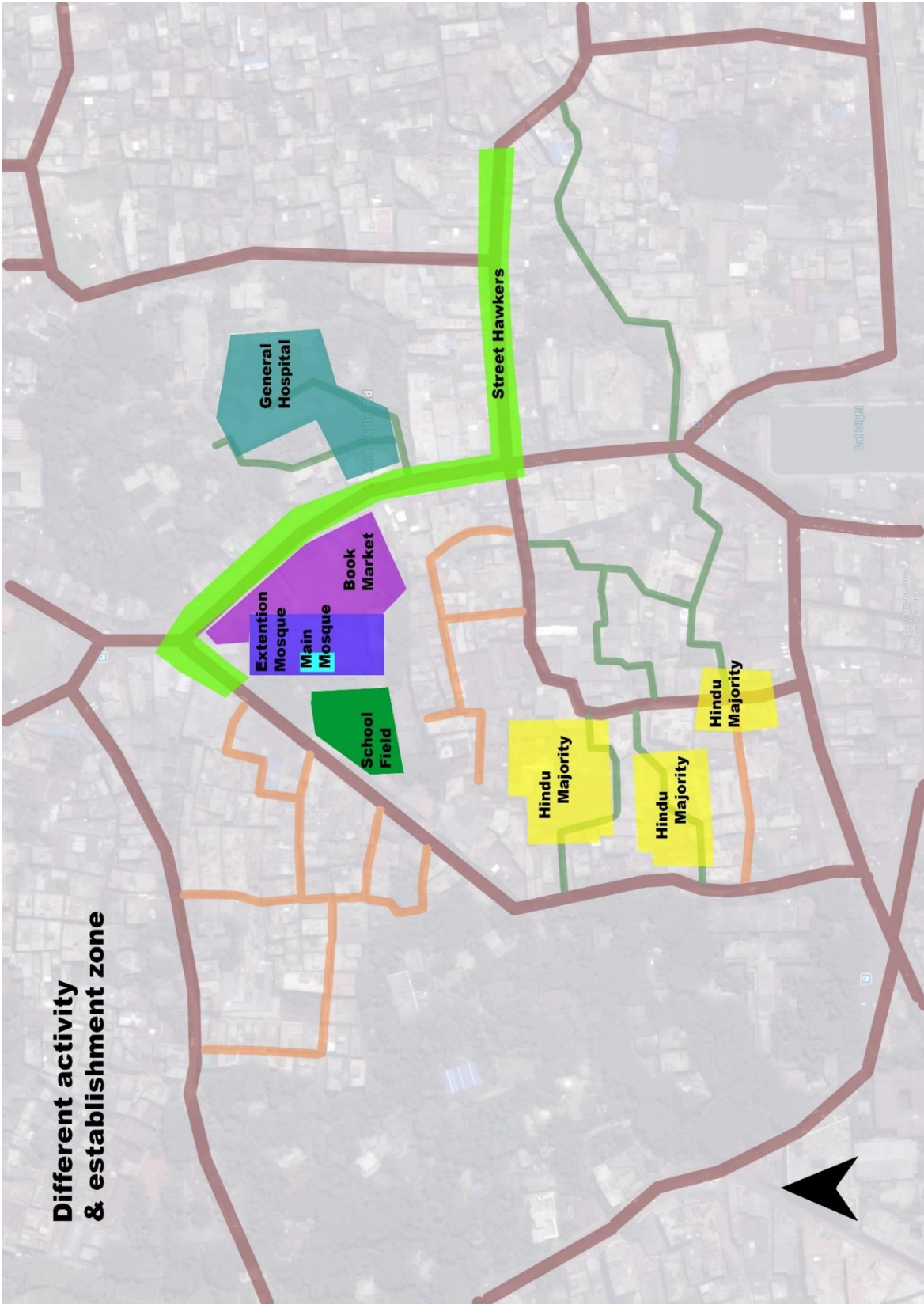
3.4.1 Path network



3.4.2 Node, Landmark and places of interest



3.4.3 Activity and establishment zone



3.4.4 Building height



4 CASE STUDIES

4.1 Baitul Mukarram mosque

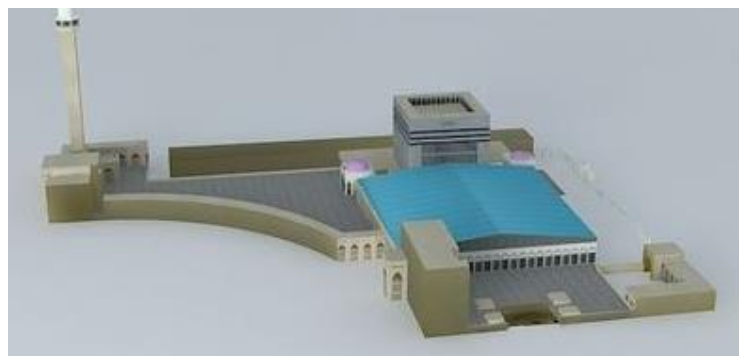
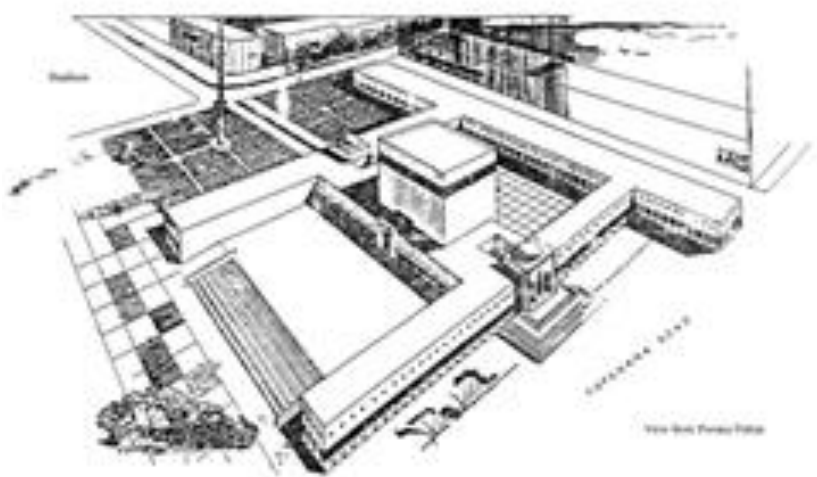


Baitul Mukarram (The Holy House) is the national mosque of Bangladesh. Located at the center of Dhaka, capital of Bangladesh, the mosque was completed in 1968. The mosque has a capacity of 30,000, giving it the respectable position of being the 10th biggest mosque in the world. However the mosque is constantly getting overcrowded. This especially occurs during the Islamic holy month of Ramadan, which has resulted in the Bangladeshi government having to add extensions to the mosque, thus increasing the capacity to at least 40,000.

Analysis:

Baitul Mukarram is national mosque of Bangladesh which is designed based on the holly Kaaba of Makkah. In 1959 while the land was under Pakistani jurisdiction, Abdul Lattif Bawani took the initiative to take the proposal for building a Grand mosque which can provide space for a lot of devotees in Dhaka to the Marshal major General Omrah Khan. Omrah khan gave his word to help the government for building the mosque. Baytul Mukarram mosque society was formed in 1959 which acquired 8.30 acre land in the junction point of old and new Dhaka. A huge pond existed in this land named 'Polton Pond' which was filled up and after in 1960 president of Pakistan Aiub khan opened the base of the mosque. The first prayer started in Friday 25 January, 2963.

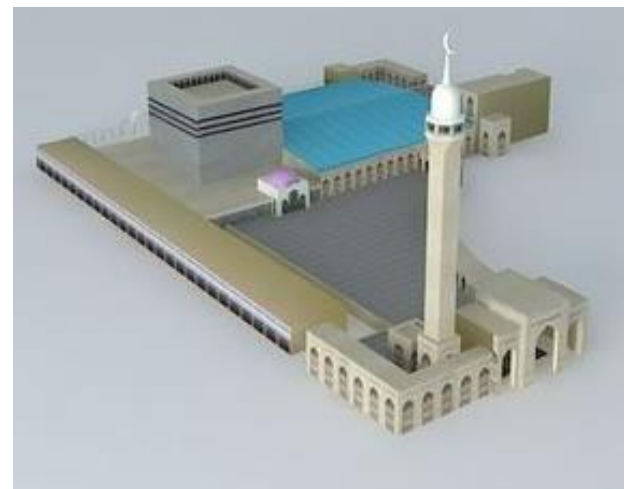
The mosque complex consists of shops, market, library and car parking. Mosque covers the area of 60000 sft. From looking outside it will give the essence or act like a model of Kaaba. Mosque is mainly Seven storied and have an mezanine floor. Fround floor has been occupied with shops and storage and the six remaining floors are used to say prayers.



The primary building of the mosque is white in color and almost a cubic shape which resembles Kaaba and there is no dome above the structure which adds a contemporary architectural value in the mosque. But to give the essence of Bengal and south-Indian cultural style 2 small domes were added over the entrance in northern and southern side.



Eastern Shan of the mosque is about 2700 sqm. 3 arched alleys were designed in both the southern and northern entries and 2 massive yards inside the mosque provides the light and air circulation in the prayer spaces.



The main prayer space is about 2464 sqm and three extended verandas surrounds it. To convey the and to keep pace with the contemporary architecture excessive ornamentation



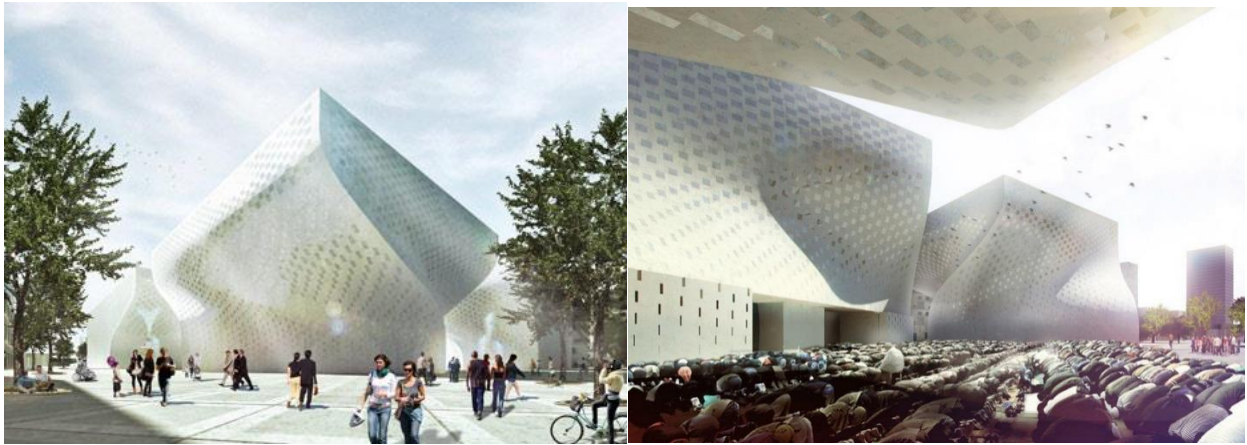
was excluded from the design and the mehrab was designed rectangular instead of half circular typical design. A minarate was added after the new design of the mosque



Though it was designed on the basis of modern and contemporary design concepts but the design also conveys the cultural heritage of mughal mosque style and architecture. Front garden and water body, in short, the landscape was done keeping the essence of the mughal style mosque landscape to merge the culture, tradition and technology under the same roof.

Considering these aspects, Baitul Mukarram mosque is an ideal spect of architecture which conveys religious, cultural, technological and economical combination and a fruitful mosque complex in the urban context

4.2 CULTURAL CENTER IN ALBANIA



Cultural complex in Albania, consisting of a Mosque, an Islamic Centre, and a Museum of Religious Harmony. This important square is the site of the new cultural complex that will consist of a Mosque, an Islamic Centre, and a Museum of Religious Harmony. The capital Tirana is undergoing an urban transformation which includes the restoration and refurbishment of existing buildings, the construction of a series of new public and private urban structures, and the complete reconceptualization of Scanderbeg Square.

Analysis:

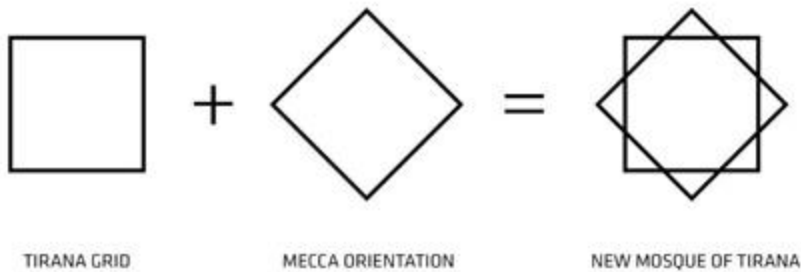
The complex will not only serve the Muslim community of the city and surrounding areas, but will educate the public about Islamic values and serve as a beacon for religious tolerance.

The project shines through its beautiful garden surrounding



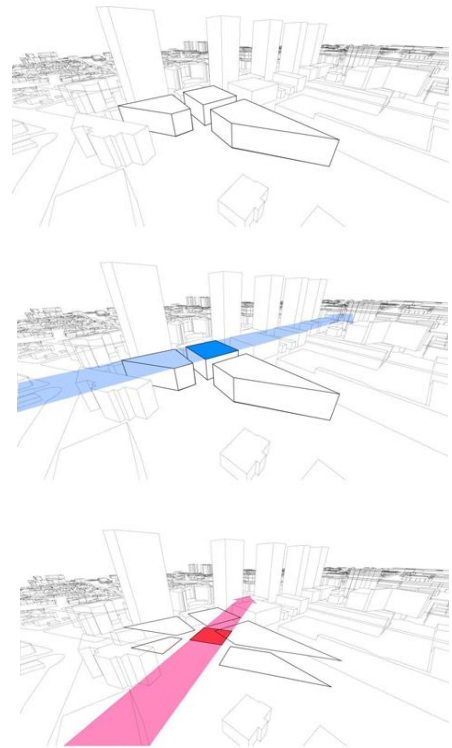
the new Mosque and Center of Islamic Culture which symbolically features the rich vegetation described in Islamic literature.

The buildings' forms emerge from two intersecting axes and formal requirements: the city grid of Tirana which calls for the proper framing of the square and a coherent urban identity, and orientation of the Mosque's main wall towards Mecca.



The design created an inviting public space flexible enough to accommodate daily users and large religious events, while harmonically connecting with the Scanderbeg square, the city of Tirana and its citizens across different religions. Additionally the project shines through its beautiful garden surrounding the new Mosque and Center of Islamic Culture which symbolically features the rich vegetation described in Islamic literature.

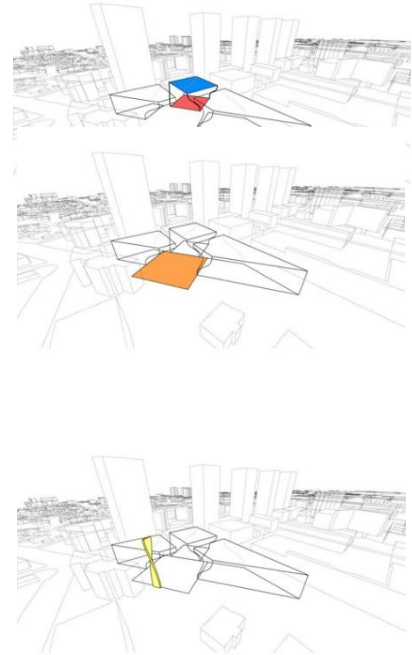
By turning the mosque inside out and bringing the program and qualities of the Mosque to a public arena,



the religion becomes inclu-sive and inviting, and the cool shaded urban space can be shared by all.

The facade with the multitude of rational, rec-tanglar windows finds its inspiration in Islamic mashrabiya screens, which provide shading and privacy while still allowing views out. The light qualities of the mosque will change dramatically throughout the day as the light washes across the curved facades

The design also includes The Quran Gardens containing all of the plants mentioned in the Quran in the same amount as the number of times they appear.



4.3 Mohammad Mridha Mosque



This mosque is located in Atish Khan area which was built close to the northwest corner of the Lalbagh fort. The mosque rises above its surroundings because the tahkhana or underground rooms of the mosque is double heighted. The roof of the tahkhana forms the platform on which the mosque is situated. According to an inscription found, the mosque was built during the rule of Deputy Governor of Dhaka, Farrukh Siyar, by a Khan Muhammad Mirza, who could have been the architect. The tahkhana consists of vaulted rooms for living purposes. The mosque is accessed from the east, up a flight of twenty-five steps. Area wise, the mosque occupies only a small portion of the platform.

The large platform is 38.10 m from north to south and 28.96 m from east to west. Its height is about 5.18 m from the ground level. Underneath the platform are vaulted rooms on all sides except the eastern side. There is a stairway which ends with a gateway aligning the central doorway of the mosque in the eastern side. It is through this gateway that one can reach the top of the platform. Mridha's Masjid was listed by ASI as a historic monument in 1913; by then it had undergone alterations and appropriations that had to be demolished to restore it to its original form. The earliest photograph available on the mosque shows a ruined structure at the turn of the nineteenth century just before this early restoration attempt.



To compensate for the damaged drains and stop further deterioration the authority provided new outlets to drain rainwater out from the upper terrace (shan); and improved water and sanitation services. The site experienced many encroachments that constricted the boundaries of the compound. This fact and the mosque drew serious attention of the architects and other conservation enthusiasts when it was included as a case study in an architectural conservation workshop in 1989 in Dhaka, sponsored by the AKTC and UNDP.

Chapter 5: PROGRAM DEVELOPMENT

5.1 Program rationale

Proposed program was to demolish the extensions of mosque and market to revive the old mosque and to rebuild them. Extended mosque will be built the same way by covering the old mosque to accommodate more people with regular column grid rather than previous irregular structure. For market complex 10 structure is been proposed. But this has to be analyzed regarding the importance of structure, need, social and urban aspect. Old mosque should be freed and restored by demolishing existing structure but the extension should act as a mosque without hampering the previous one. For the market complex a 4-5 storied building would suffice in that community as local markets exists nearby catchment area radius.

5.2 Rationale for the chosen approach

The approach should be a combination of different conservation techniques which will revive the Mughal mosque to emphasize on its historic value and the existing functions and cultural aspects should be adapted in a way which would suffice the need but not over power the old mosque. The approach should be “Redevelopment” through conservation, renovation and redesign of the elements depending on the study of urban context. This redevelopment will be a way flexible enough to change the requirement for the sake of design, need of the site and inhabitants and also considering the religious bindings and regulations but should allow public gathering and tourism for heritage and economic purpose as well.

5.3 Basic program development

The project of Andarkilla Shahi Jumma mosque mainly consists of three separate projects which will act and stay as a combined complex. These key aspects of the project are-

1. Revival of the 350 year old Mughal mosque
2. Re-design and further extension of the outer peripheral mosque
3. Re-thinking and re-construction of the market complex and underground car parking.

These functions need extension and re design based on the proposal, actual demand and ongoing amount of population and activities. According to that a macro programmatic distribution and changes from the existing function can be standardized.

the mosque now occupies 21777 sft which need to be designed and extended to almost 60000 sft (including Mughal mosque) to accommodate more than 5000 devotees.

Market complex need to cover a minimum area of 35000 sft ensuring shops for 240 allottees and the rest of the shops combined of remaining area will give financial support to the mosque

an underground car parking containing area for 200 cars should be designed to support the market, mosque and urban context.

5.4 Square-feet and area for programme

Base program	sub programs	SFT
*Mughal mosque revival		
*Extension mosque	Ablution	700*2
	Additional accommodation	2000
	Toilet	400*2
	Store	400
* Administration	Front office	300
	Accounts	400
	Management	400
	Maintenance	300
	Meeting room	500
* Islamic foundation	Offices	700
	Toilet	200
	Storage	250
Research facilities	Computer lab	500
	Discussion & Seminar	600
* Library	Books type	
	Quran & Hadidh	
	Islamic related	2000

	General category	
	Storage	500
	Reading space	500
	Toilet	300
* Market complex	Food,Books	35000
	Clothes, toilet	
*Car parking	Members, rented, General	200 (unit)

5.5 Functional flow chart

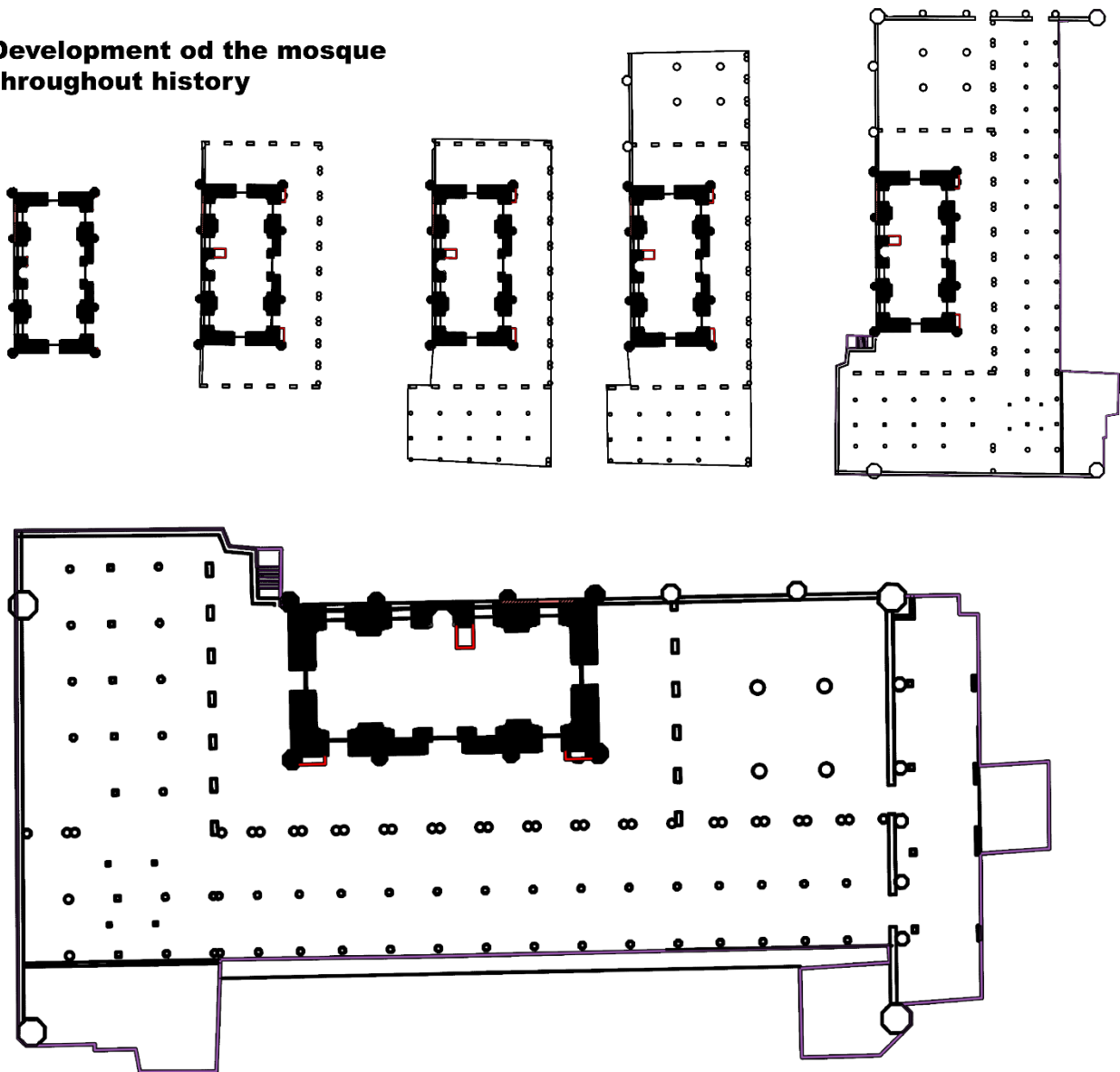


Chapter 6: Design decisions and conceptualization

6.1 Free the history

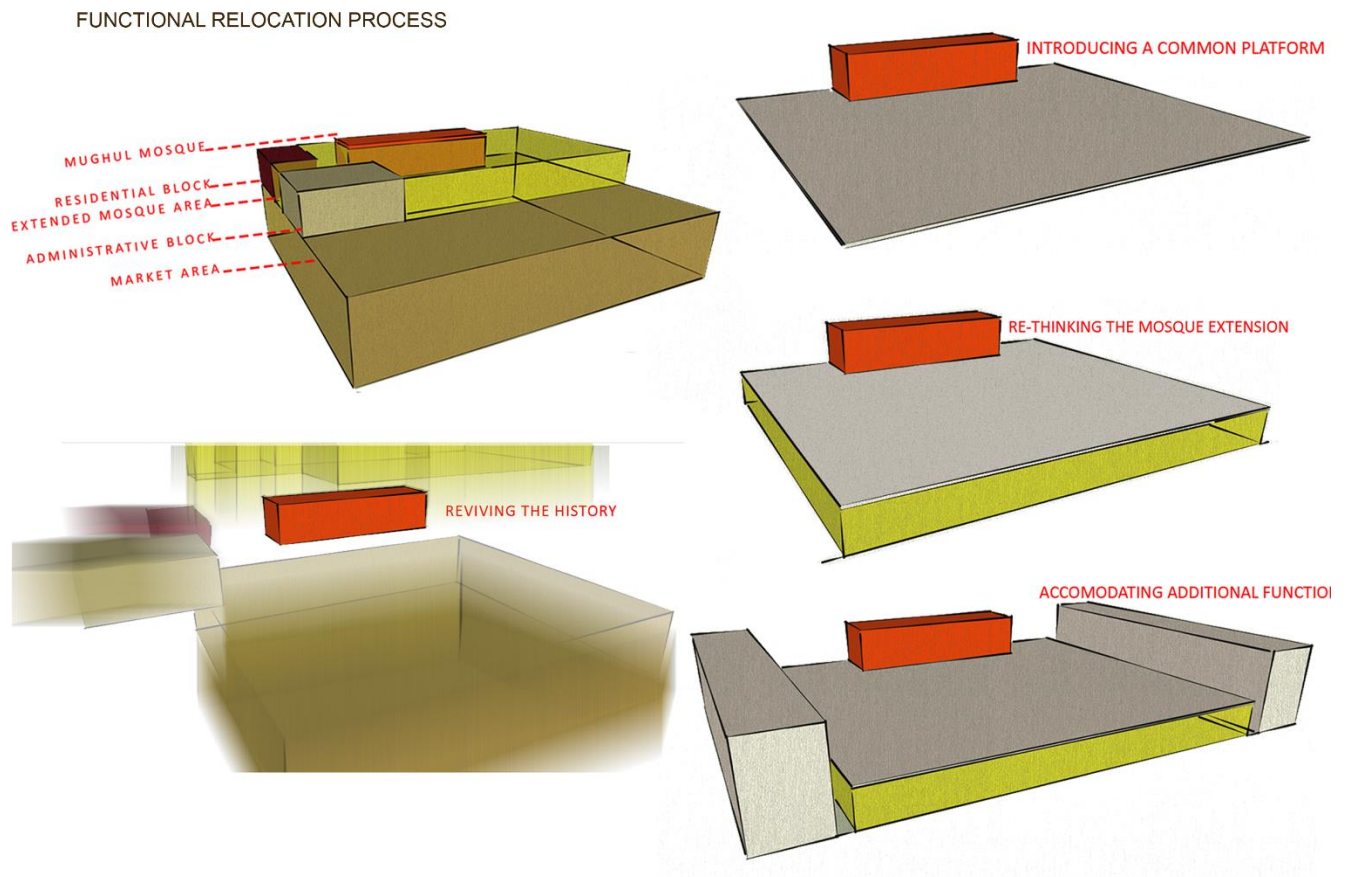
For the first step of design decision the challenge was to take proper measures regarding the Mughal mosque and existing structure and historical development. This study will help to take a decision to demolish, reconstruct or conserve the appropriate structure

Development of the mosque throughout history



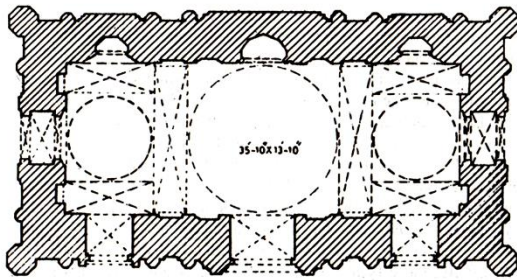
This progression and column layout of the existing extension shows the flaw of the structure that the Mughal mosque is trapped inside of the extension and it extended in improper way which lead it to damage itself. For the irregular column grid the second floor which was done later became damaged and was marked as risky to say prayers.

For that purpose and to give aperture to the old mosque the existing extension has been demolished and redesigned to free the history



6.2 Past form of the Mughal mosque

To revive the old Mughal mosque the previous form of the mosque should be determined. In accordance to that Khan Mohammad Mridha mosque, Lalbagh Fort mosque and Khawaja mosque has been studied collaborating with the existing plan of Andarkilla to determine its previous raw form and elevation from old times



Plan of Khwaja Ambar Mosque

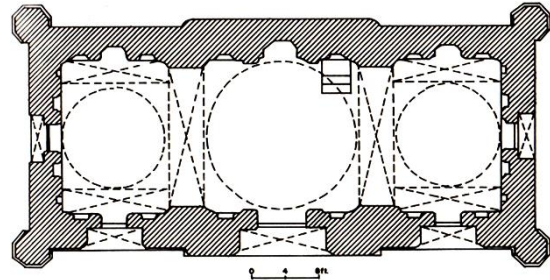


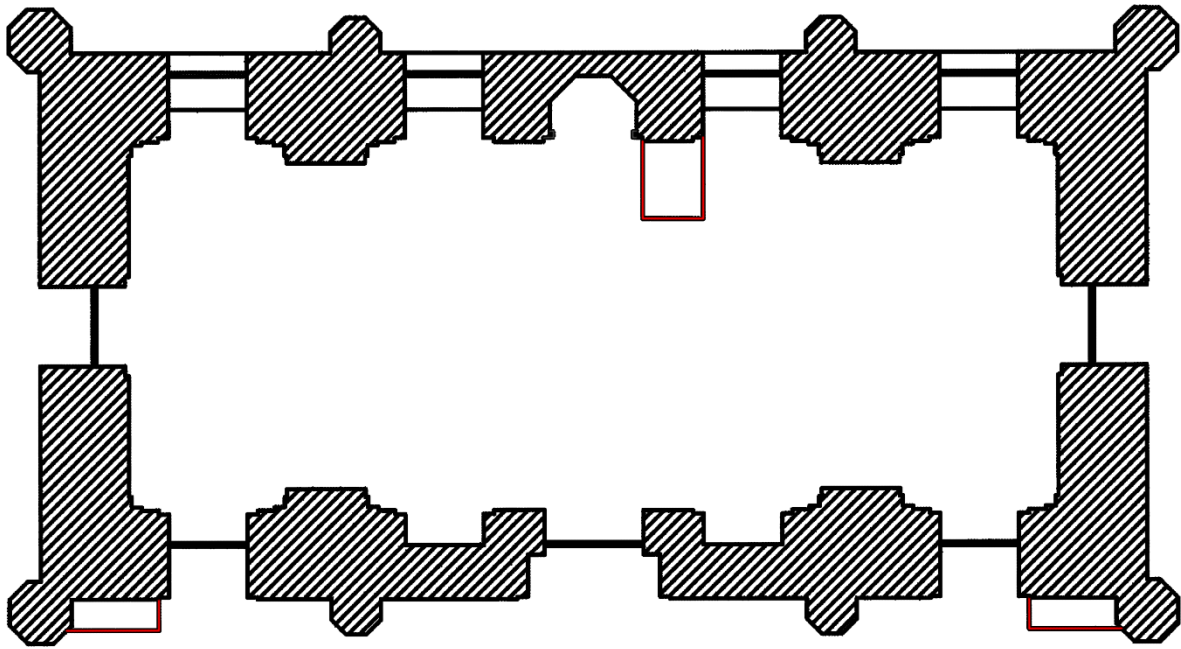
Fig. 5 : Plan of Lalbagh Fort Mosque



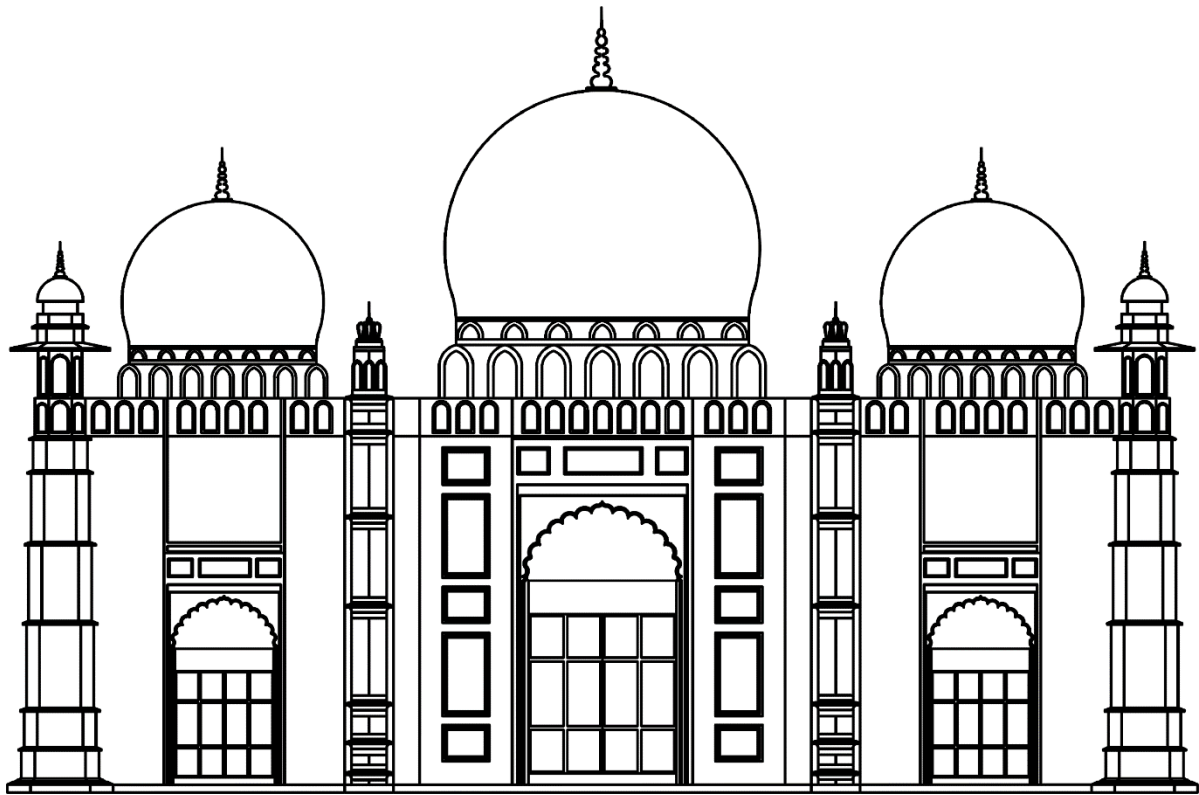
Khan mohammad mridha mosque

Existing Mughal mosque elevation





Probable Plan from Mughal period



Probable Elevation from Mughal period

6.3 Conservation through redevelopment

After conserving the Mughal mosque by restoring its previous self the question comes to the redesign of the existing functions. If the new design overpowers or puts a negative impact on the Mughal mosque the conservation will not be successful in this urban context. As the mosque is situated in the height of 24 feet in above ground and the height of the Mughal mosque is itself 35 feet, it already reached the level of a 5 storied building. This height has been used as an advantage to introduce the extension mosque in that 24 feet from the ground and 2 five storied building in both side to frame the Mughal mosque to give its importance

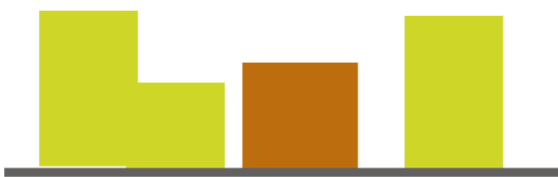
WAYS OF GIVING IMPORTANCE TO MUGHAL MOSQUE



BY PROVIDING OPEN PLATFORM



BY LOWERING THE HEIGHT OF PERIFERAL MASS



BY BRINGING CONTRAST WITH MOSQUE



BY CREATING A VISTA OR WINDOW



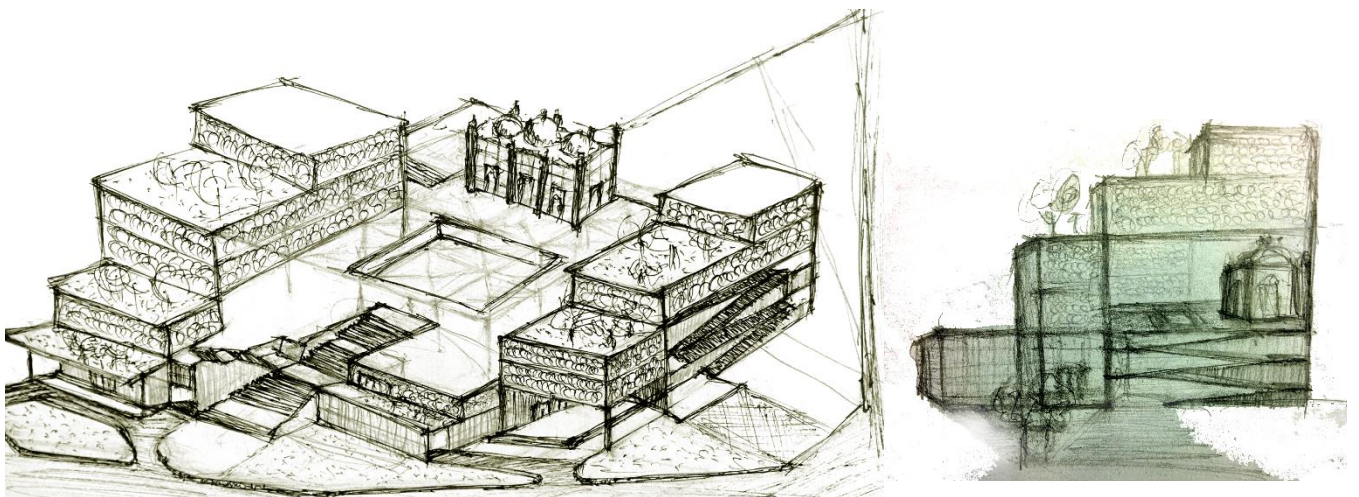
PROPOSED WAY OF GIVING IMPORTANCE

6.4 Engaging through concept

The concept was to ensure a platform which will act as a public ground for Muslims, non-Muslims, local people, tourists and every person who wants to breathe in a dense urban area and to enjoy the beauty of the Mughal mosque. It will be a **“platform for all”**. This platform will also serve the purpose of shaan and will provide the front ground of the Mughal mosque. The core concept is **“connections of souls”** which will connect all kind of people in different heights and levels while maintaining the individual functions in its distinct format.

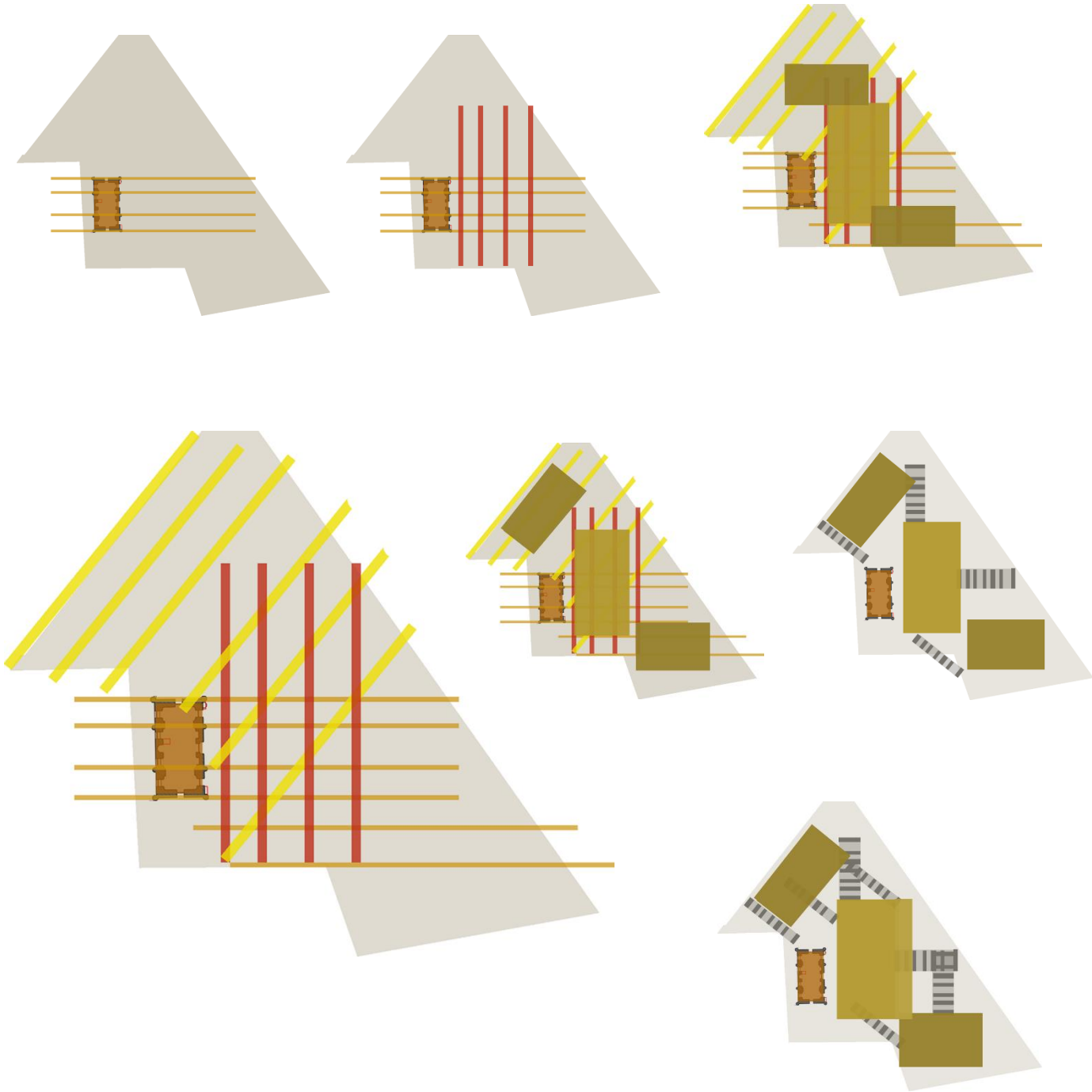
6.5 conceptual sketches and approaches

The multilayered functional approach with interconnection through a common ground is the key conceptual approach which is the second segment in the redevelopment after the conservation of the mosque. Focusing the mosque is the main priority with accommodating additional functions like library, accommodation and administration along with market complex and mosque extension.

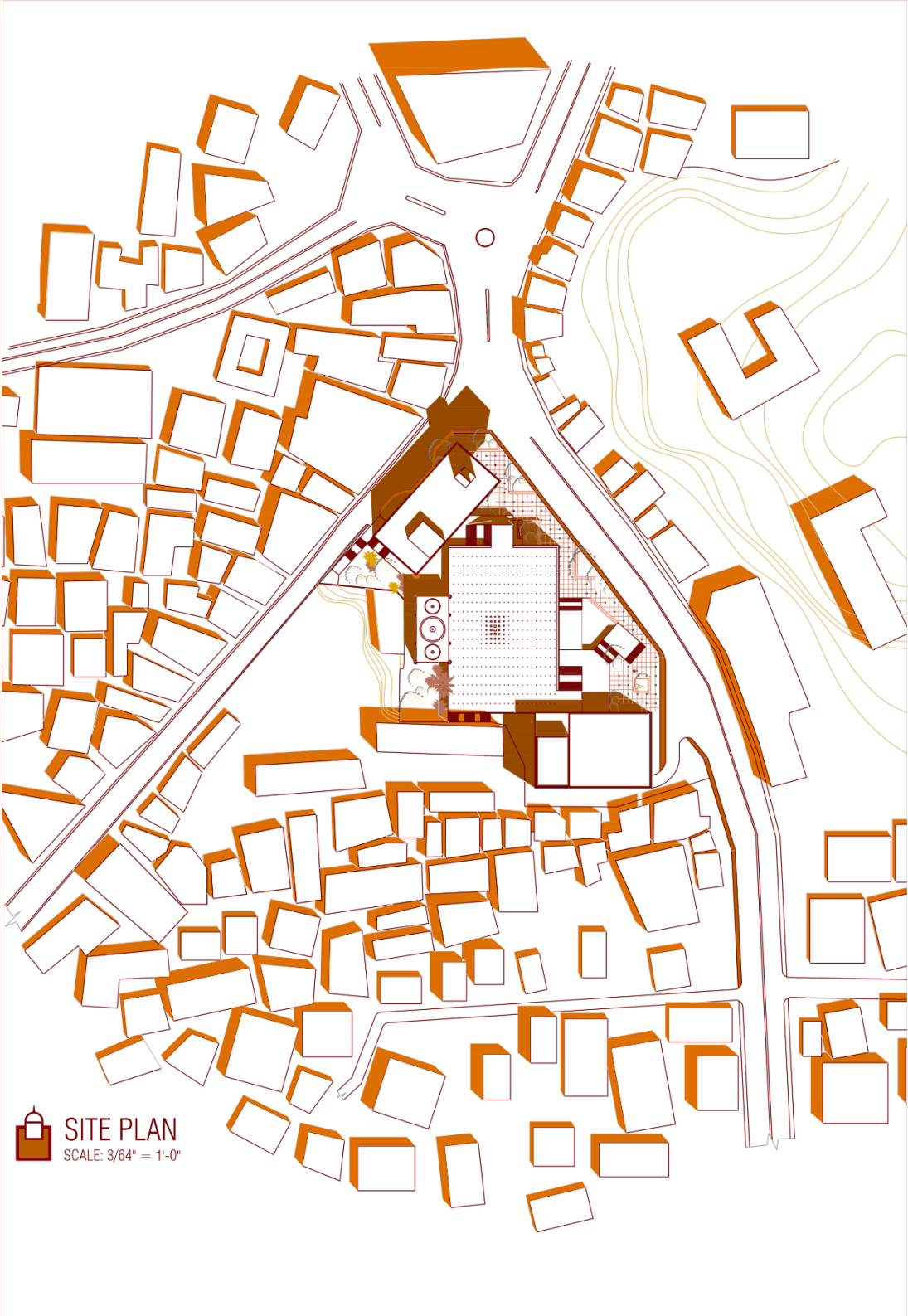


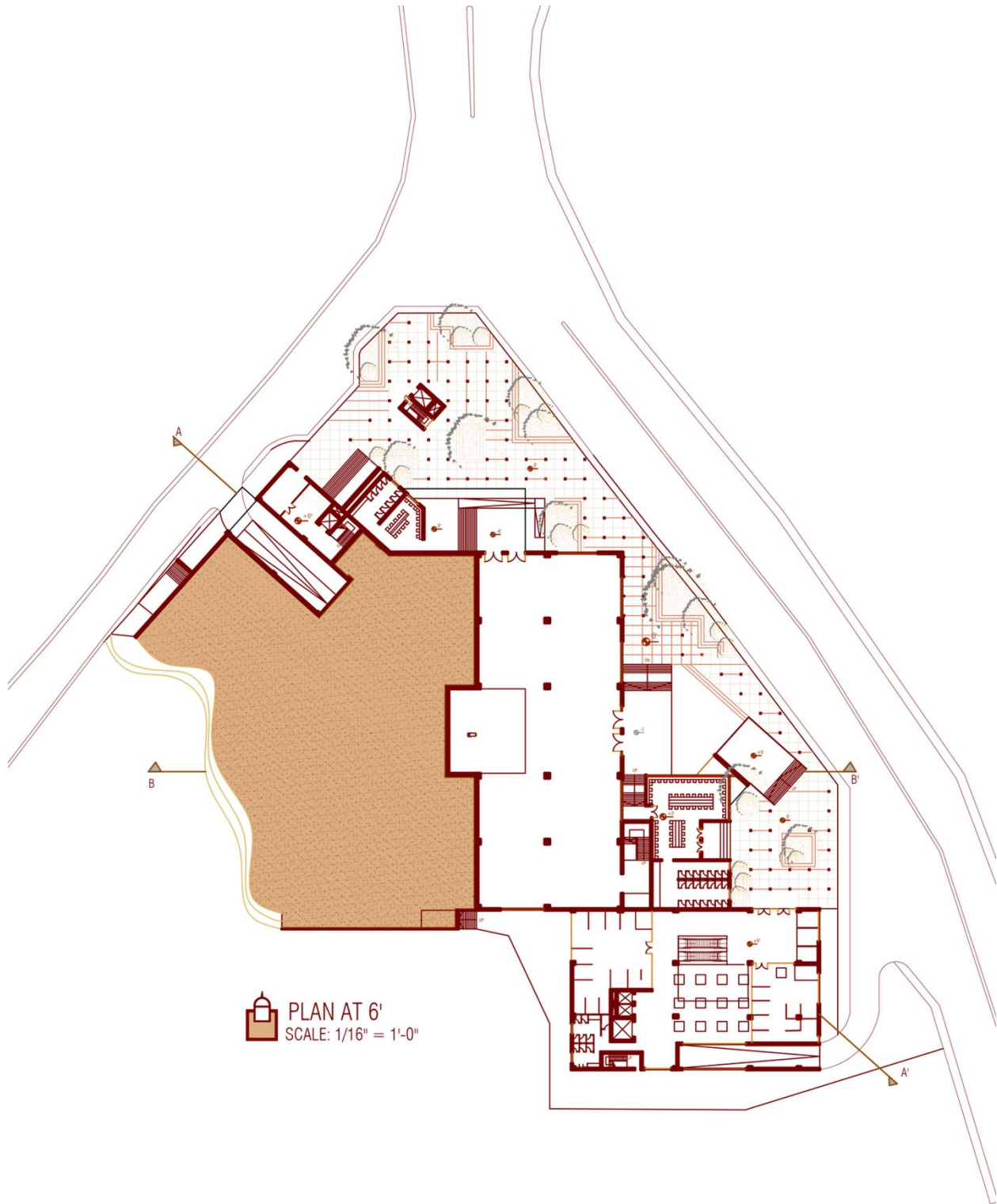
Chapter 7: Design development

7.1 design reference and form derivation:



7.3 Design drawings

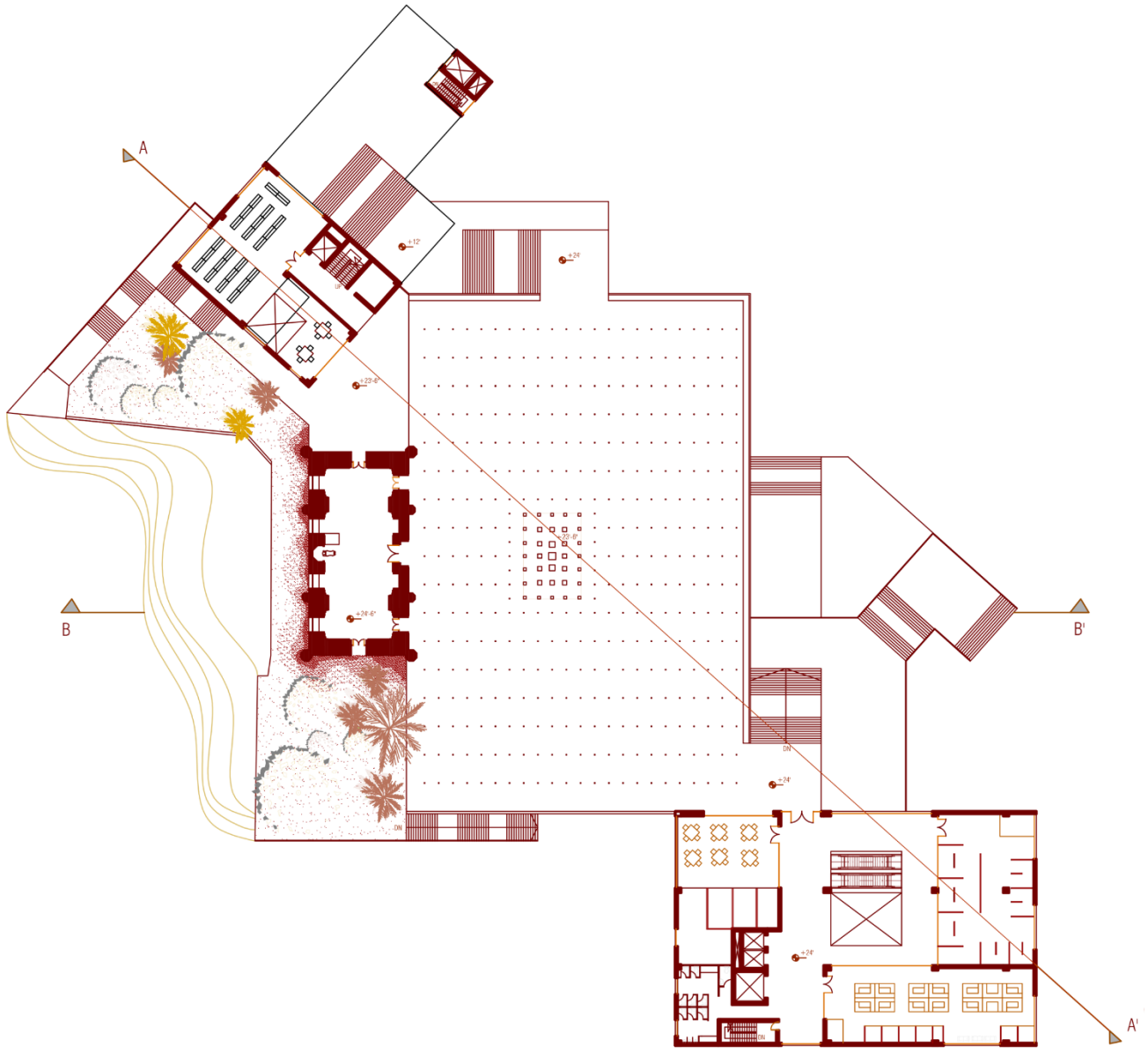




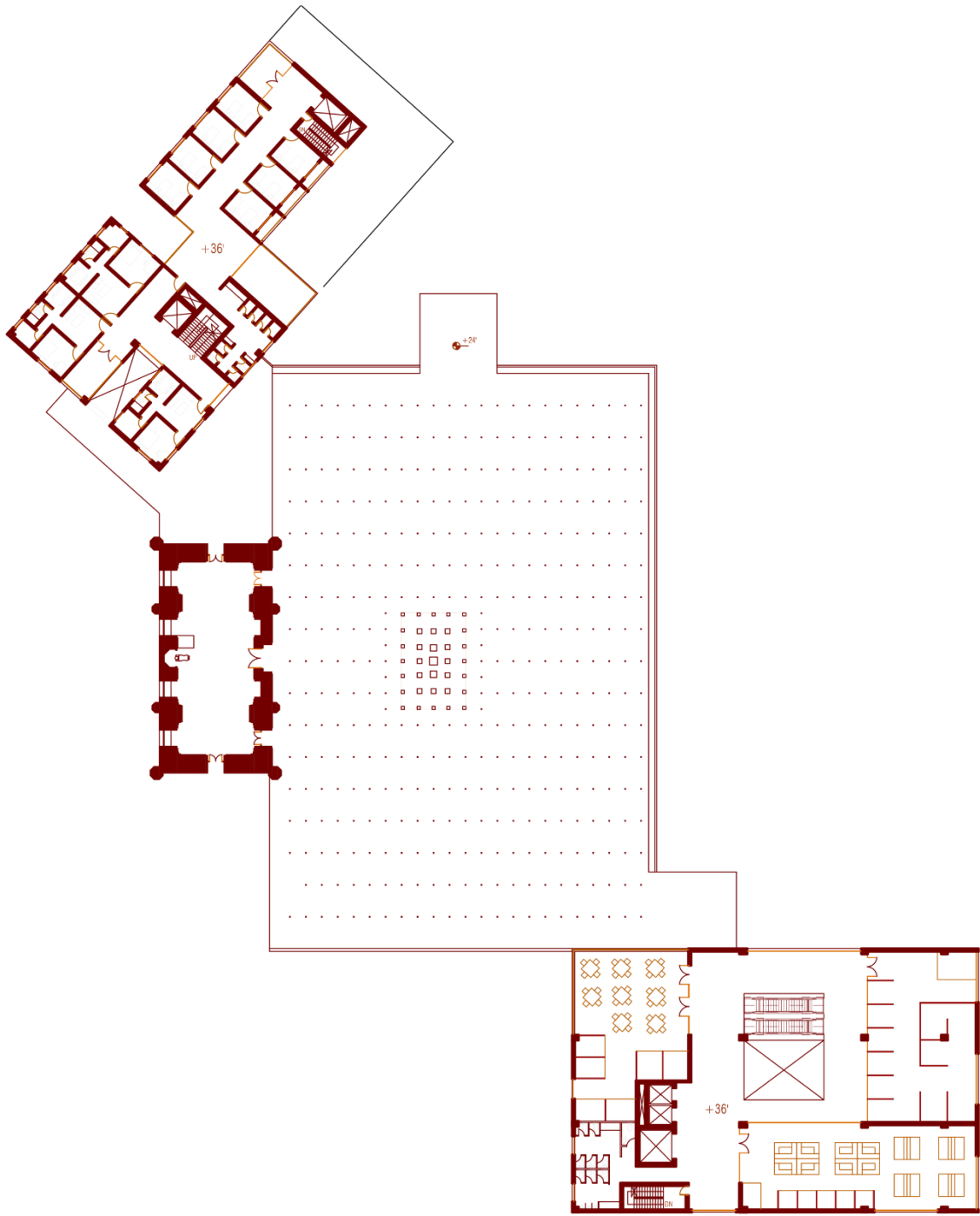
 PLAN AT 6'
SCALE: 1/16" = 1'-0"



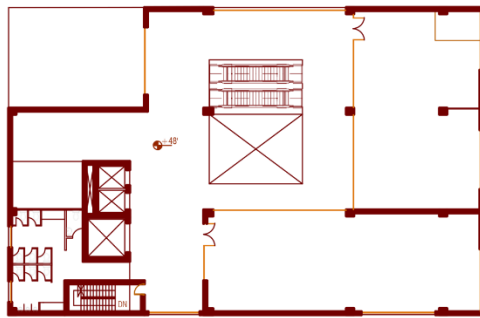
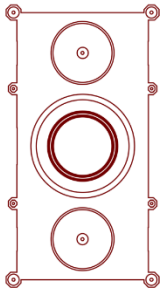
PLAN AT 18'
SCALE: 1/16" = 1'-0"



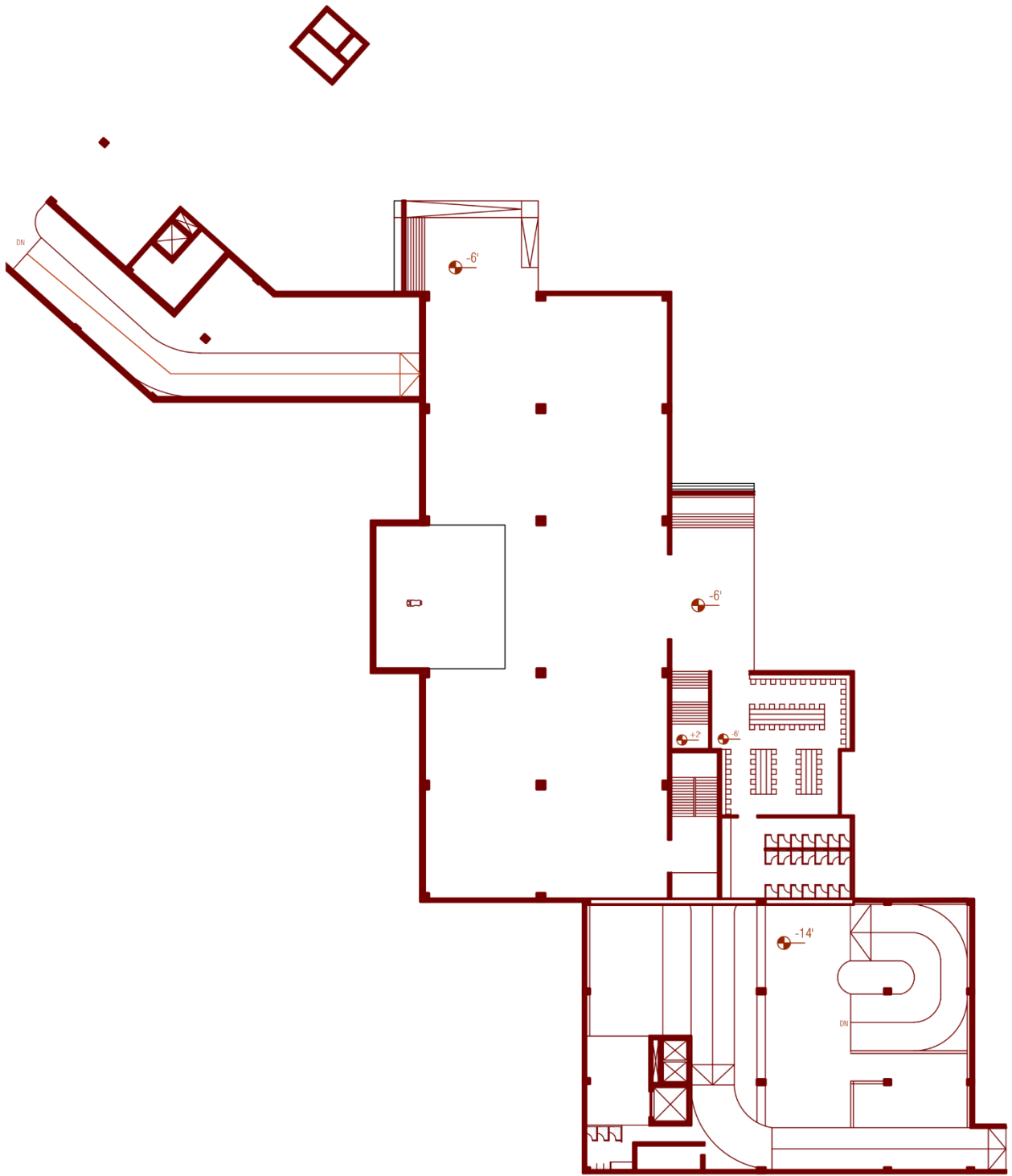
 **PLAN AT 30'**
SCALE: 1/16" = 1'-0"



PLAN AT 42'
SCALE: 1/16" = 1'-0"

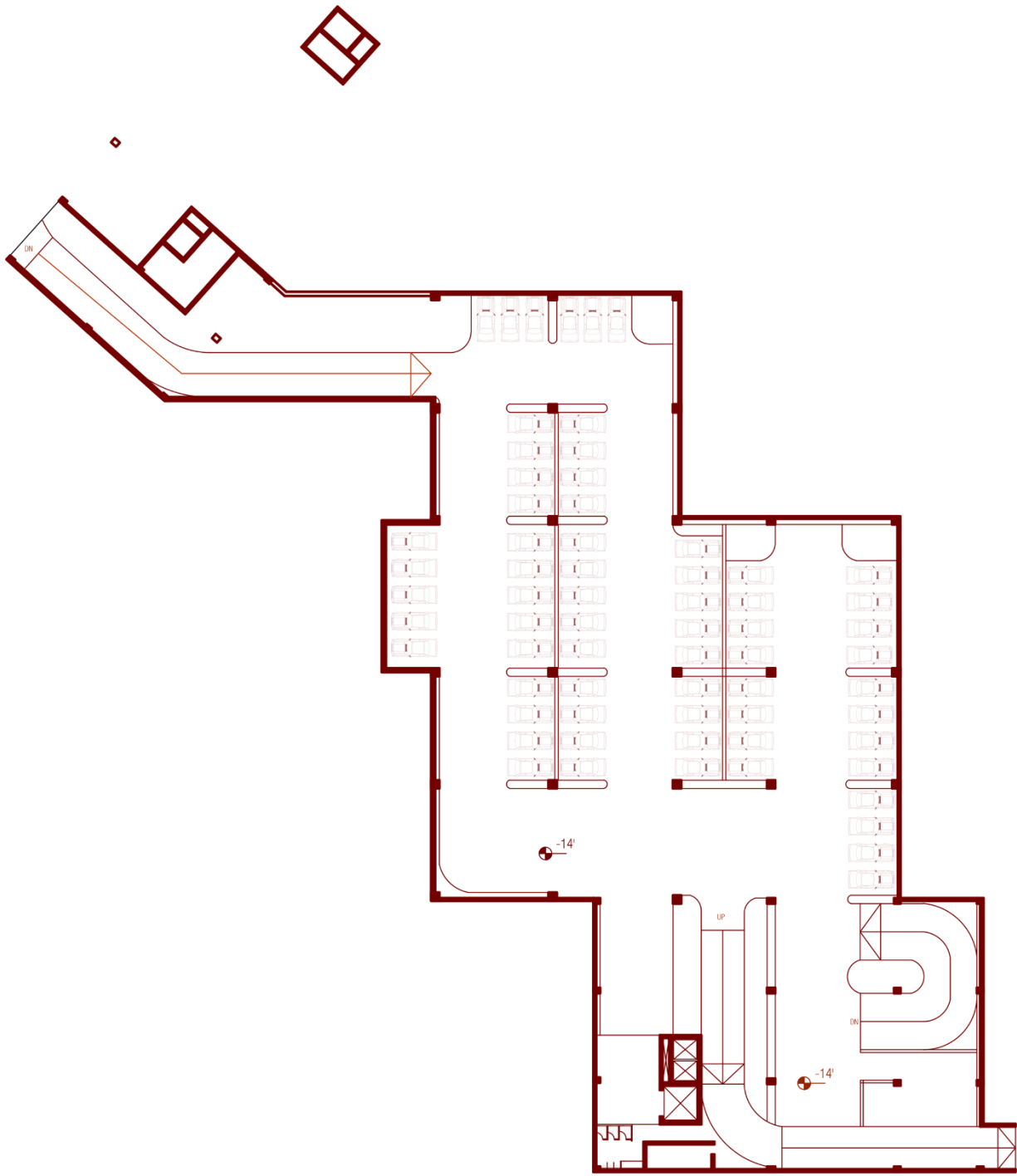


 PLAN AT 54'
SCALE: 1/16" = 1'-0"

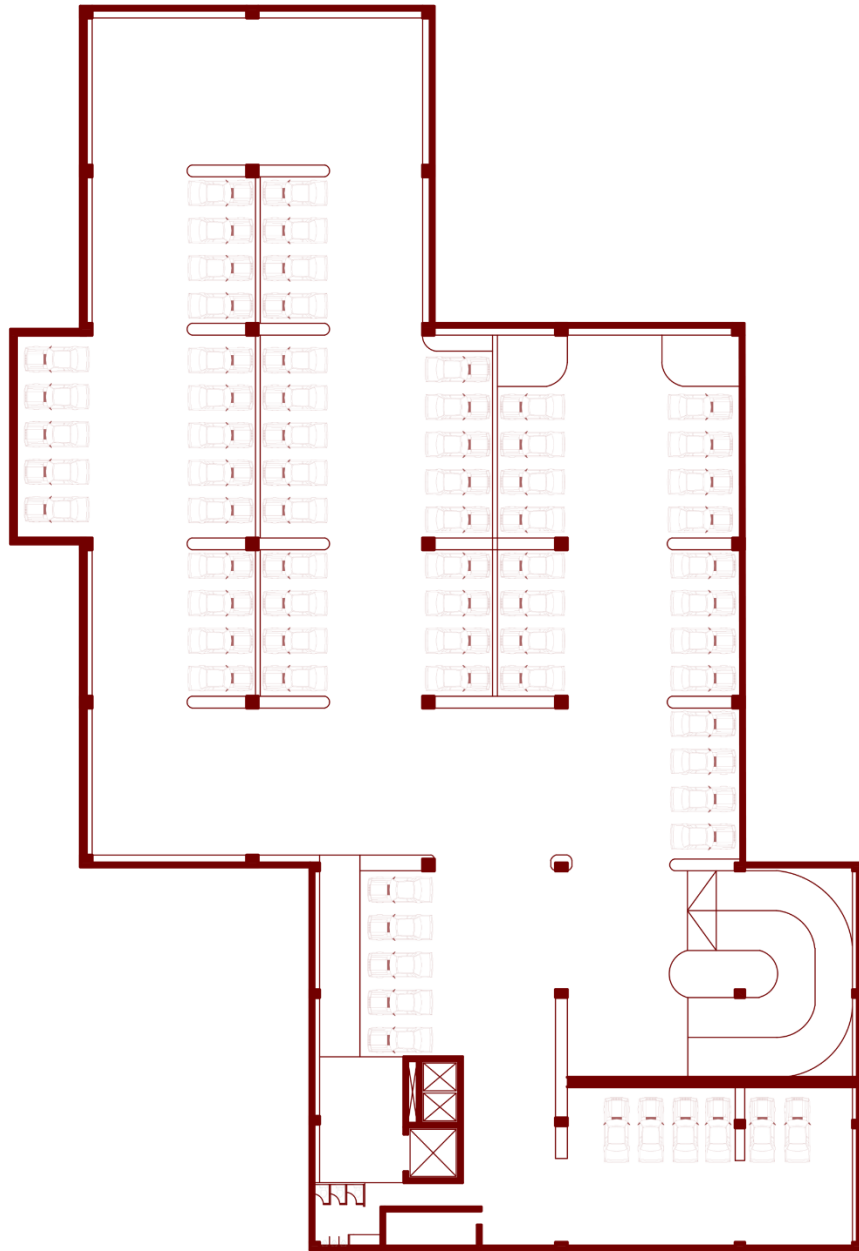


PLAN AT -2'

SCALE: 1/16" = 1'-0"

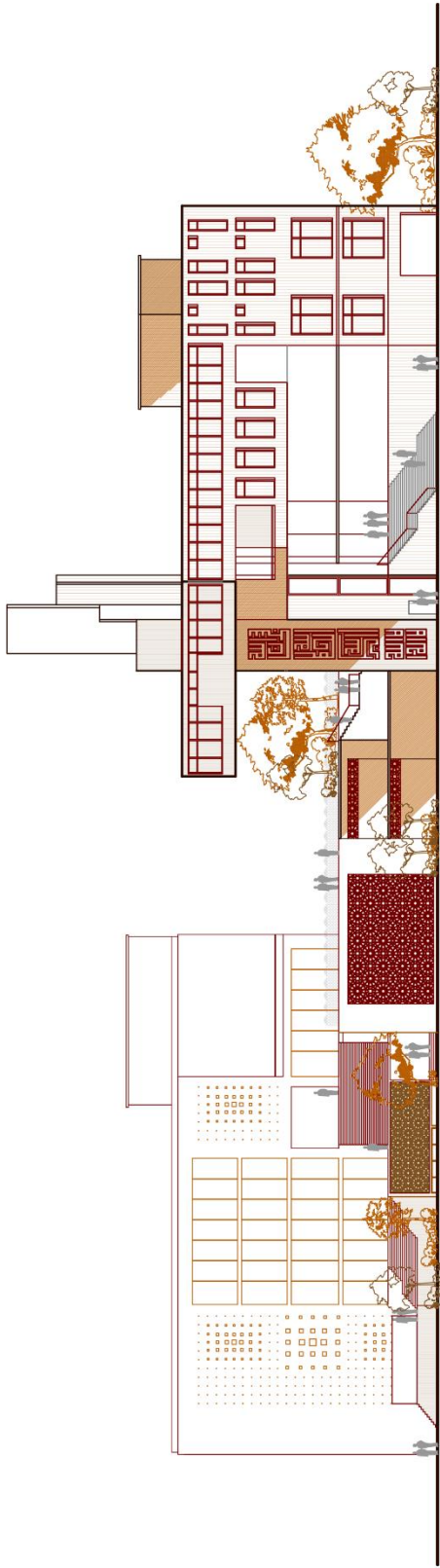


BASEMENT LEVEL 1 PLAN
SCALE: 1/16" = 1'-0"

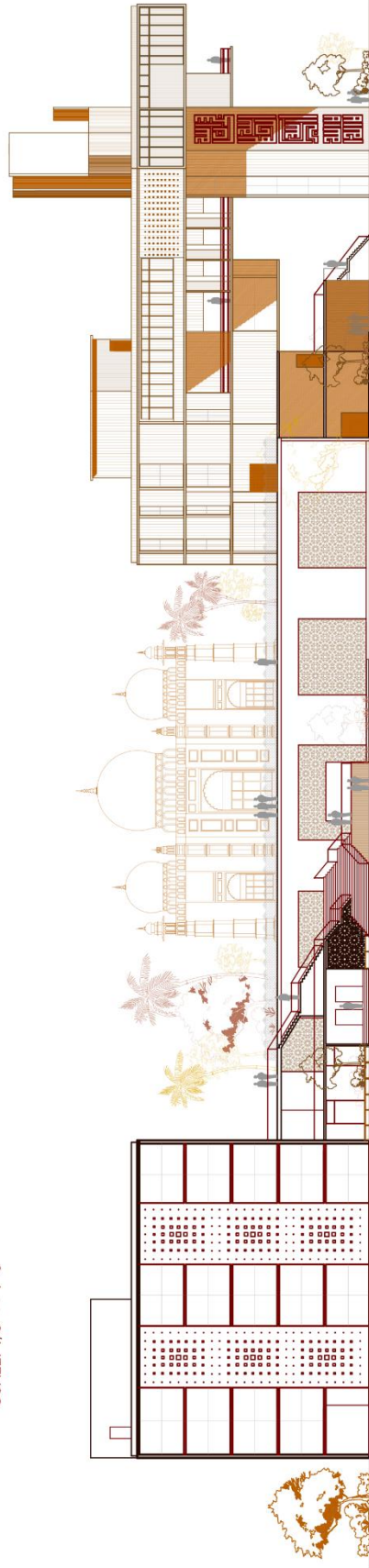


TYPICAL BASEMENT PLAN

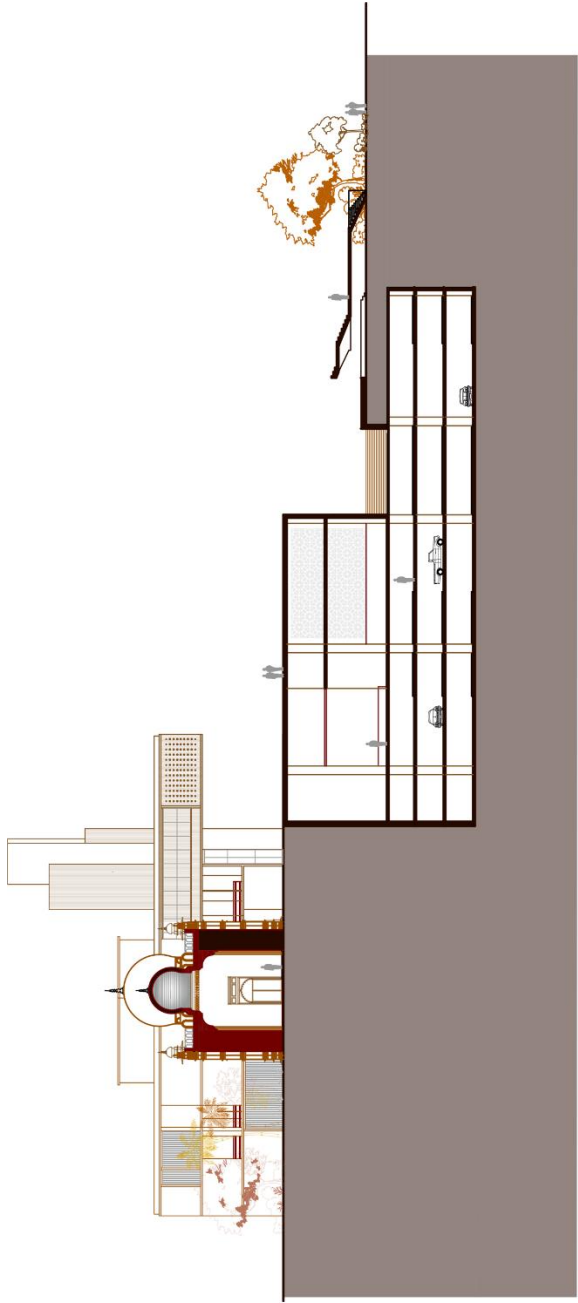
SCALE: 1/16" = 1'-0"



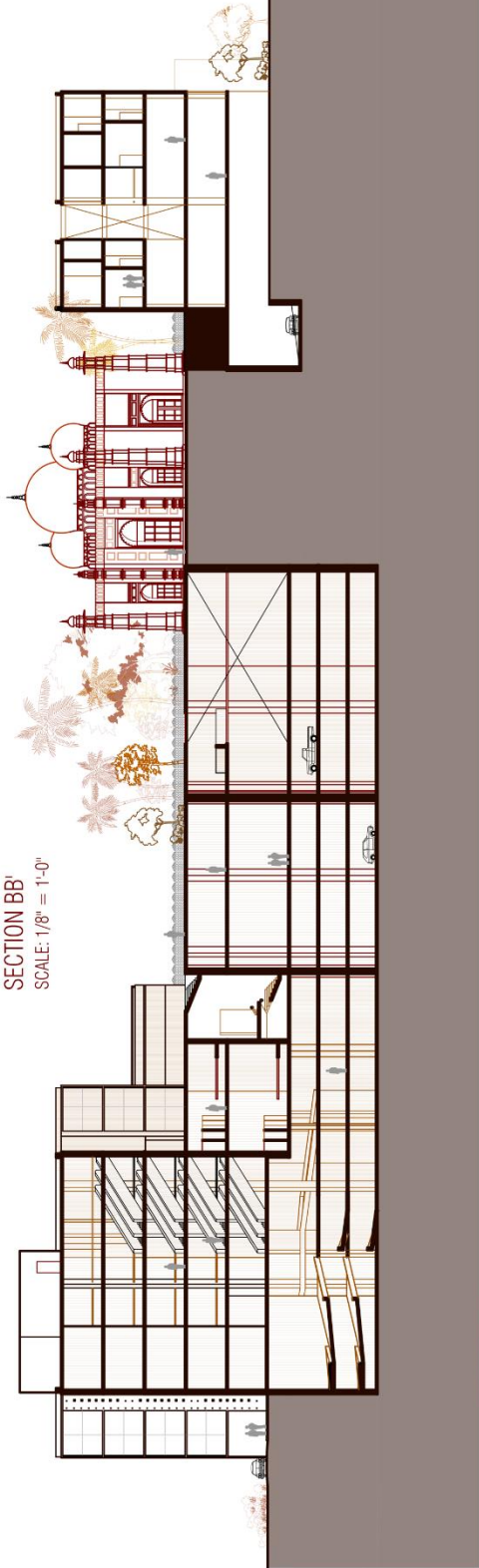
NORTH ELEVATION
SCALE: 1/8" = 1'-0"



EAST ELEVATION
SCALE: 1/8" = 1'-0"



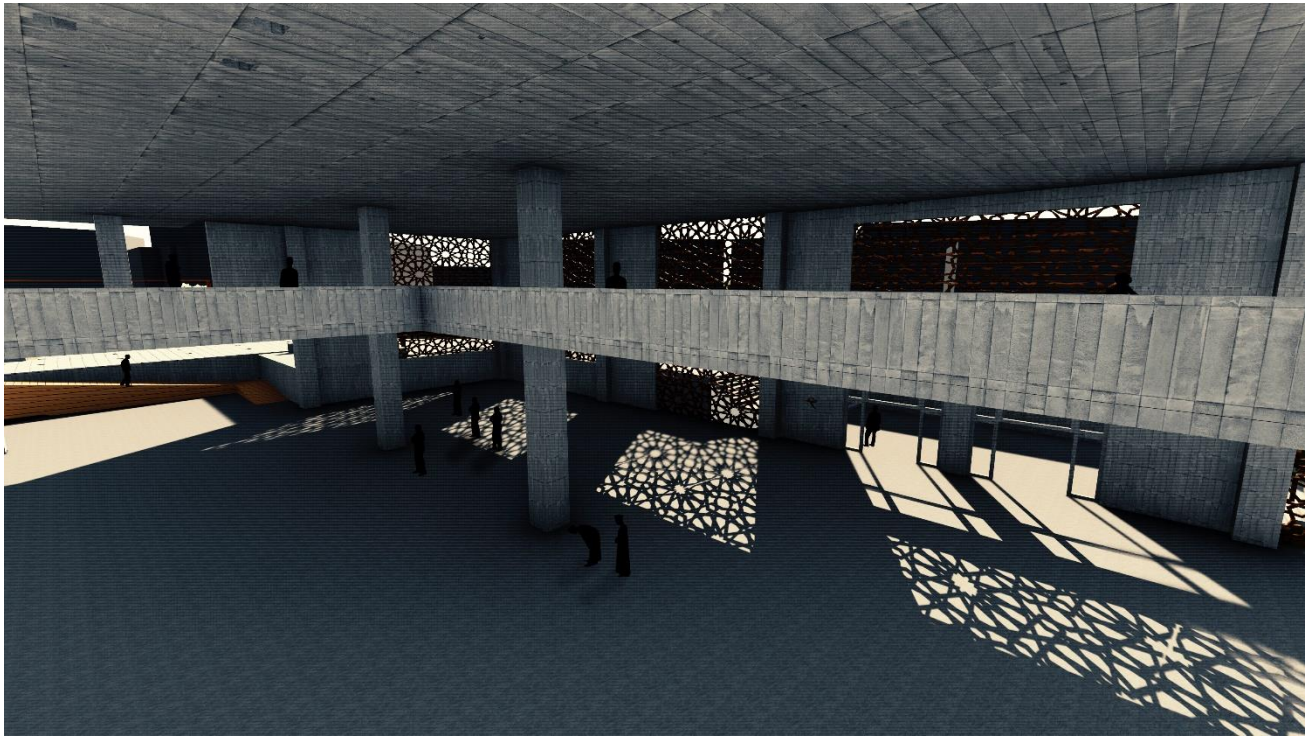
SECTION BB'
SCALE: 1/8" = 1'-0"



SECTION AA'
SCALE: 1/8" = 1'-0"

7.3 Rendered perspective





7.4 Model images





Conclusion:

This project required study and knowledge about religion, Islam, mosque, Islamic pattern and geometry, Mughal architecture, patterns of Mughal mosque in Bengal, culture of Bengal, socio-cultural aspect in Chittagong, contour, landscape, urban condition, commerce and trade, conservation, contemporary design and fenestration, human need and behavior. In short, human life and the connection of their soul reflects in the design of the project. I had to connect my own soul with the project to reach the end product.

In this different aspects and connections, if a person can find a little connection with his or her own soul and find some self-purification through experience that will be the most satisfying fact of this project more than any other thing. Because, no other thing is as great as serving human and their souls.

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