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A Walk Through the History and Exploring the Conservation Project of Lalbagh Kella, an Incomplete Mughal Fort of Dhaka, Bangladesh

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ABSTRACT

Lalbagh Fort was possibly the most significant construction project performed by Dhaka's Mughal kings. Despite the fact that the complex was named "Lalbagh Fort" because of the huge defensive fortifications and gates, the masterplan and layouts of the structures that now survive bore little or no resemblance to other Mughal settlements in Bangla or elsewhere in India. The complex's development lasted just a decade before it became uninhabited for unknown reasons. The brief history of the fort had been buried since 1688, and it remains unfinished to this day. Many efforts have been made to bring this monument's legacy back to life after decades of oblivion. The main challenge appears to be the incomplete nature of the construction, as well as the scarcity of archaeological materials, literary evidence, and epigraphic texts available to architectural historians. Filling up this gap with these seemingly inconspicuous materials has undoubtedly confounded the existing conversation about this monument. This confusion characterizes Lalbagh's architecture today. It raises a slew of concerns about its initial master plan, function, and construction history, to which we have yet to offer definitive answers due to the telescopic distance. This research attempts to investigate and evaluate many competing hypotheses concerning its architecture and the continuing conservation process. The fundamental goal is to depict the architecture and examine the conservation process.

INTRODUCTION

The Lalbagh Fort (Coordinates: 23°43'7.88"N 90°23'16.70"E) is an important Mughal construction in Bangla, presently Bangladesh. A group of undergraduates from Primeasia University of Bangladesh's department of architecture, visited the fort early this year (2022) as part of their "Conservation in Architecture" course and the course was conducted by Architect Sazzadur Rasheed. Following the crew, the author made his own observations regarding the monument. Compared to Mughal structures in the Indian subcontinent and Southern Asia, this unfinished structure has several intriguing elements worth exploring. This paper makes an attempt to portray such characteristics as well as current conservation initiatives. Before we proceed, we must first comprehend the context.

The Land of Bengal-Delta

Bangladesh, a tiny South Asian seaside state, is bounded on the north, east and west by India and by the Bay of Bengal on the south. There is also a brief border on the south-eastern side with Myanmar. Dhaka is the largest city of Bangladesh and also the capital city, with a population of 15.311 million people. At the meeting of the Meghna, Brahmaputra and Ganges rivers and their secondary rivers, Bangladesh is the world's largest living delta. The area's geography is dominated by a flat alluvial plain crisscrossed by multiple rivers, the courses of which are continually changing.

Outside of its geographical unit, the cultural, sociological, and geopolitical legacy that influences the characteristics of Bangla delta architecture may be discerned. Bangladesh is a young country in an old land. In ancient literature,

the eastern rim of the Indian Subcontinent was known as Vanga or Bangla. This is an abbreviation for Vanga, which means "wetland" (Mubarak, 1907). Its contemporary name is said to have evolved gradually from the moniker given to it by Arab traders.

Periplus and Pliny's (1st century AD) reports, as well as the Ptolemy's map, indicate that the past territory of Bangla was known to the West from the start. The peculiar atmosphere of the delta elicited considerable apprehension, characterized by a combination of adoration and loathing. The Vedic Aryans considered this country to be beyond the Aryandome, and everyone who visited there, required ritual cleansing. The eastern edges of Hindustan were referred to even by Muslim Turks and Afghans as Dozakh-Pur-I-Niamat, or "Hell on earth full of blessings and the richest and most inexpensive region of the globe," in the words of Ibn Batuta (Aiterya Arnyaka, 500AD). The setting, which some people found disagreeable, attracted so many people that, in the words of Bernier, "it had a thousand gates wide-open for admittance but not a single one for going away". Pliny claims that the women of Roman Civilization were so seduced by Bangla's muslin and opulent goods that it caused a significant financial drain on the Regime. Due to its excellent location between the east and the west, Bangla flourished as a booming entry port and a commerce and trade intermediary.

An important turning point in Bangla's political and social history occurred with the Muslim Afghanistan-Turkic invasion in the thirteenth century. A new religious system and Turko-Persian civilization was built. Islam developed a solid connection with local culture over the

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300-year Sultani period, which was represented in all facets of social life as well as the language of architecture. The finest example is when a Banglai mosque was built after a traditional cottage. Bangla had been virtually conquered by the Mughals by 1596, when Subah-e-Bangla was established as the easternmost province of the empire. A new political reality emerged as a result of the 150-year Mughal occupation of Bangla: a constant conflict between Delhi, the imperial capital, and the area's provincial status.

Dhaka's Mughal Capital

Although Bangla's history may be traced back to antiquity, Dhaka as an urban center is a relatively new development. There are allusions to a location/urban center that may represent today's Dhaka in ancient literature and texts. However, when it was recognized as the province's capital under Mughal administration, it was granted full city status. According to some researchers, Shamudragupta's (4th Century AD) Allahabaad Prashaasti (encomium for the ruler) mentioned a town called Dabaka in Bangla as the first indication of settlement in Dhaka (Banglapedia, 2006). In the Buddhist State of Kamrup, Dhaka was a small urban hub in the seventh century AD. Since the ninth century, by the Sena rulers of Vikrampur it has been governed. Archeological evidences indicate that this area was formerly a village or hamlet. Dhaka was known as Bangla to Europeans at the time, and it was most likely a small town (with "fifty-two market places and fifty-three roads") situated along the Dulai River. For centuries before to the arrival of the Mughals, Dhaka was governed by Turks and Pathans (1299 to 1608). Dhaka was largely used as a military garrison and a commercial outpost during this time period. According to Mirza Nathan [5,] the ancient Afghan garrison was positioned in the contemporary Central Prison area and was one of the two greatest forts of the Mughal Empire. The Sonargaon rulers controlled Dhaka before the Mughals took control of the province.

Subahdar Islam Khan (1608-1613) was the first Mughal governor of Bangla, to subdue the insurgent landowners, in 1610, moved his capital from Rajmahal to Dhaka. He gave the new capital the name Jahangir Nagar in honor of the reigning king Jahangir.

Since the early 17th century, Dhaka has witnessed true urbanization and rapid expansion in terms of commerce and trade as the city of Subah-e-Bangla, among the Mughal Empire's most lucrative provinces. Dhaka developed in commercial significance under the reign of Ibrahim Khan (1616-1620), with trade activity focusing on Armenia, Malaya, Arabia, China, Persia, Sumatra and Java. As a result, beginning in 1616, European tradesmen, especially Portuguese, Dutch, English, French, and Armenians, began to come in the city. Despite Shah's decision in 1640 to return the governor's seat to Rajmahal, Shuja, Dhaka preserved its full trade centre status. It was re-established as the capital in 1660, with Mir Jumla as Viceroy.

The entire 17th century might be regarded a golden period

in Dhaka history. Dhaka, on the other hand, reached its pinnacle of growth under the leadership of Shaista Khan (1662-1677 and 1679-1689). The metropolis was once 12 miles long and 8 miles wide, with a population of about a million individuals. Tavernier provided the following account of his 1666 trip to Dhaka: "Dhaka is a wonderful city. It is about two leagues long in this community" (Gibb, 1929).

However, Dhaka's Mughal splendor started to wane once the capital was moved to Murshidabad (Rajmahal) from Dhaka in 1717. As a result, the city's urban identity deteriorated for many years.

The Construction of Lalbagh Fort and the Mughal Architectures in Bangla

Among Shaista Khan's two reigns, Prince Azam served as viceroy in Bangla for one and a half years. Despite his brief stay in Dhaka, he engaged in various construction undertakings that are still remembered. The most prominent of these was his enormous Palace Fortress of Lalbagh project.

The Bangla delta was never very enticing to the Mughals of Central Asia due to its type of weather and geography. They were lured to the area for a variety of whys and wherefores, including economics besides the area's exoticism. The Mughal empire of Agra was particularly fond of the architecture of two places, Bangla and Gujarat, according to Abul Fazal's Ain-I-Akbari. The use of a Bangla roof in place of the marble covering above the emperor's throne is arguably the greatest example. The Emperor's Public Hall and Emperor's Family Mosque in Agra and Lahore, as well as Delhi's Shah Burj kiosk, all made use of this roof style.

The Mughals concentrated their early efforts in Bangla on establishing a functional imperial administrative apparatus. It was considerably more vital to build practical structures like roads, caravanserais, mosques, and forts than it was to build grand or extravagant buildings. In Rajmahal and Murshidabad, there were still traces of tombs and palace complexes, but the majority of Mughal buildings were unremarkable. Dhaka was depicted by Tavernier as "a location encircled by high walls with a hideous palace made entirely of wood in its middle. He normally arranges for Tents to be set up in a sizable court of enclosure where he chooses to live." (Fredric Tinguely, 2008).

Whereas Sultan's architects strove to infuse local architectural language into mosques and other constructions over and done with a hybridization process, the style of Mughal architects was more rote. They were more captivated to images of Delhi's architecture. Constructions in Delhi and Agra that attempted to imitate red sandstone and marble instead produced a plain plastered appearance that disregarded the region's brick and terracotta traditions. The exquisite proportions and complex ordering system of Mughal architecture in the west are seen in this very simple Mughal building, which masks far higher geometric and spatial complexity.

The uniform space of the Sultani Mosque was replaced in the Mughal Type with discrete spatial cells of various geometric patterns, even though the volume is still monolithic.

The massive scale organization of Mughal architecture was taken into consideration when designing a few royal complexes in Bengal. Catherine Asher cites Burdwan's Khoja Anwar-I-Shahid complex from the late 17th century as the most exquisite example of this (Mirza, 1936). The unfinished Lalbagh fortification in Dhaka and Shah Shuja's Palace in Rajmahal are two other examples (1640).

Lalbagh Fort, the most recent of these three instances, is possibly the most wishful building done in Bangla by Mughal Prince Azam. In 1678, Prince Azam initiated construction of the fort. The edifice was still under construction when he was called to Delhi in 1679 and Shaishta Khan was reappointed viceroy. Shaishta Khan's cherished daughter Iran Dukht (Bibi Pari) died away in 1684. She was buried within the building, and an opulent mausoleum was constructed over her grave. For an unknown reason, the fort's construction was suspended in 1688. In response to a request to return to Delhi, Shaishta Khan departed the city in 1689. The megaproject's ten-year history was made public. With his leaving, the megaproject's decade-long history was placed on pause indefinitely, and the fort remains incomplete to this day. Despite the availability of many anecdotes and hypotheses, the architectural historian was unable to determine why such a project was abandoned. Popular belief, which is supported by certain historians, is that the Subahdar stopped building because he thought it was tragic that his daughter had died. Subahdar, on the other hand, was an Empire employee who reported to the Emperor, according to the Mughal administrative system. Although he had considerable autonomy, he had little capacity to meddle or disrupt a prince's initiative for his private gain. Then again, as the fortress in the empire's east was being erected, the south-western frontier was in revolt. For many years, the Marathas, Sikhs, and Rajputs were at odds with Emperor Aurangjeb. When Prince Azam was summoned and resources from every province were brought to Delhi to pay for the costs of the war, the resources needed to carry out such a huge operation in Bangla were blocked. This could explain why Shaishta Khan's successors didn't make any steps to restart the project.

The Complex's Architecture

The surviving parts of the fort now occupy an area of around 18 acres that was once situated along the Buriganga River. The arrangement of the complex's formal gardens, ponds, gates, fence, and other buildings—such as tombs, mosques, and pavilions—in an axial relationship revealed the standard Mughal architectural approach (Figure 1). Long believed to be a combination of the mosque, Bibi Pari's mausoleum, and the Diwan-i-Aam, which had two entrances and a portion of the defensive wall that was

partially destroyed.

The mosque was the first structure completed inside the complex in 1649. The existing structure, on the other hand, was most likely erected on the foundations of a previous location.

Within the walls, there is a lot of vacant space; there are no evident residential quarters. The axial plan and architecture of the Lalbagh Fort enclosure are in the conventional imperial Mughal style. The Sangi Dalan in Rajmahal and the observation pavilion in the Agra Fort share similarities in their designs with the audience hall's. Shah Nimat Allah in Gaur and Itimadud-tomb Daula's in Agra served as inspiration for the Bibi Pari Monument. On the other side, Aurangzeb broke from the previous regal Mughals, and it appears that the placement of the Bibi Pari Tomb close to the audience hall is another architectural change in Bangla. The bones of Bibi Pari, Shaista Khan's favorite daughter, are purported to be in the tomb, however this does not account for the tomb's odd position.

Recent research by Bangladesh's Department of Archaeology identified more structures—possibly 26 or 27—with intricate sewage, water supply, fountains installations and roof gardens.

The compound was known as "Lalbagh Fort" because of its enormous castle walls and gates. The master design and plan of the remaining structures, however, has little to no resemblance to other Mughal forts in Bangla or elsewhere in India. In comparison to the forts in Agra, Lahore, and Delhi, this building lacks the complex defense system, the intricate access, and the stacking of the fortification walls to guard the emperor's home. The Hajiganj, Idrakpur or Sonakanda, forts or any others in the area are not referenced in the design or the master plan. While the mosque, tomb, audience hall (Diwan-I-Aam), and tiered garden along the riverside closely resemble tomb complexes or Mughal gardens, the gardens and water features are set up in the typical Mughal Chaharbagh style. The complex is referred to as "Lal Bagh," which in Farsi means "tulip garden," suggesting that it is more of a royal garden or recreation area than a fortified structure. We may infer that it was not initially intended to be a tomb complex since Shaishta Khan later added the tomb as an improvisation of the design. There were no signs of any palatial residences or living quarters other than the hammam connected to the audience hall, indicating that the complex was never used for overnight stays throughout its existence. Housing for the prince and his families may have been planned, but it was never carried out, so we have no way of knowing for sure. The structure's flawed design, murky past, and deterioration over time offer little data from which to draw any conclusions. We must contrast the surviving ruins with analogous Mughal constructions in South Asia in order to understand the purpose of this structure and its likely design.

The most notable aspect of Lalbagh Fort is its water delivery system. The fort is not far from the Buriganga

River. According to an old Dhaka map, the Buriganga River was supposed to be closer to the defense wall of the Lalbagh Fort. A water wheel, often referred to as a water tower, was built adjacent to the bastion at the fort's southwest corner in order to pump river water into the fort. Most likely, it was transported by hand. The water wheel uses two primary channels to transport river water into the fort, one going toward the mosque and the other along the defensive wall on the roof top garden. There could be additional water towers along the wall, though, given how big Lalbagh Fort is as a complex. The Lalbagh fort garden used water pressure to move water around, just like other Mughal gardens did. This procedure transfers water to a lower level from a higher level. Water will be transferred from the rooftop garden to the ground level using a water sheet called a chador.

This chador is a special component of the water system that produces soothing sounds that elicit a range of feelings in listeners. Later, the water will flow through the fort, passing through the Diwan-i-Aam and the Bibi Pari Tomb. Terracotta pipes were utilized for this distribution. There is a big water reservoir used as a ballast tank to the east of the fort. In the end, here is where the river's water would be collected. The water would be pushed back with such force that all of the fort's water fountains would function once this reservoir was filled. A second water wheel that delivered water directly to the Water Reservoir may have existed at the South Gate in addition to the one mentioned above. This would hasten the pace of the reservoir's water filling. Then, presumably, it would go back to the river.

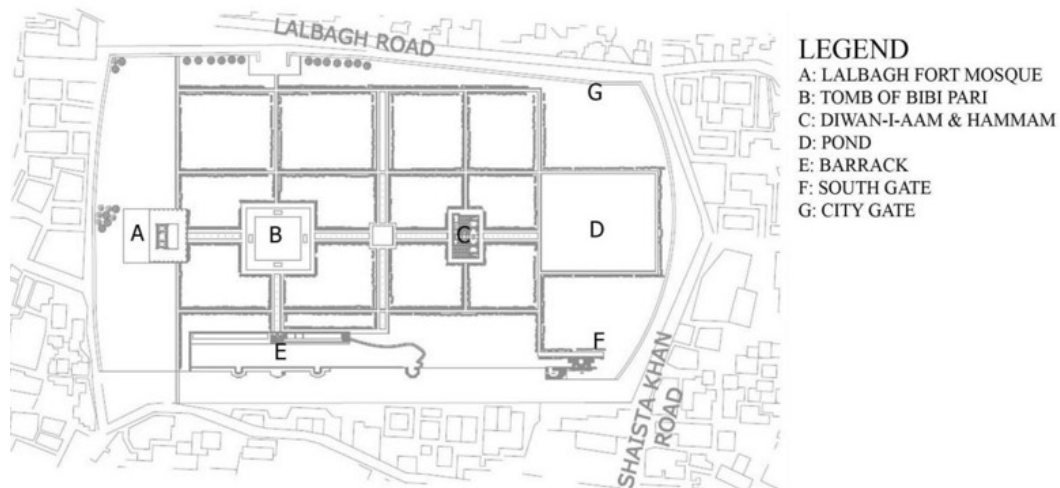


Figure 1: Lalbagh Fort in Dhaka, comprising its three main buildings— the Bibipari Tomb, the Mosque and the Diwan I Aam—is seen on a plan and in an aerial photograph. (Source: IIUM Students)

Gardens of The Mughal

The Persian idea of Chaharbagh had a big effect on Mughal gardens, which usually had ponds, waterfalls, and canals. India's landscape first confused the Mughals since it lacked Central Asia's swift-moving streams, lush grassland, and vibrant flowers and fruits. Hindustan is a

land with few pleasures to recommend it, said Babur, the first Mughal emperor. People lack design or architectural talent or expertise, as well as cleverness or mechanical originality in producing or executing their artisan items. There were no lovely fruits, no grapes or musk melons, no refreshing water or ice. Dust and dirt are flying all over

the place. However, one advantage of Hindustan is the profusion of workers in all industries and professions. (Tavernier, 2001)

As a result, they were keen to construct gardens as a pastime and a reminder of their homeland.

Babur, the creator of the Mughal Empire, expressed his admiration for it in his book "Baburnama," despite the fact that the Mughal ruler Humayun brought the concept of chaharbagh from Persia and it was extensively implemented across Mughal territory in India. This idea offers a symbolic rendering of heaven on Earth complete with magnificent gardens, trickling waterways, and strategically positioned pavilions. It is based on the paradise described in the Qur'an.

"Allah has promised to the believers' gardens with flowing rivers under them and beautiful castles in orchards of unending delight." (9:72)

Agra's Rambaagh Gardens is recognized as the earliest chaharbagh orchard in South Asia. South Asian Mughal gardens are distinguished from their Central Asian forebears by their emphasis on axiality and highly controlled geometry and symmetry in arrangement.

The Mughals were fascinated by the symbolism and mysticism of Sufism Islam, and they incorporated it into their gardens in a variety of ways. However, non-religious connections were frequently incorporated with the traditional Quranic analogies to paradise in the structure, layout, and plant life, such as numerological and zodiacal significances tied to family history or other cultural implications. Eight and nine were considered auspicious numbers by the Mughals, and you can see this in the proportion of terraces and in garden accents like octagonal ponds.

Mughal orchard style is predominantly influenced by the medieval Islamic garden, though there were itinerant elements from their Mongolian-Turkish ancestors. The greatest Mughal gardens in South Asia exhibit the traits of a classic Mughal garden, which may be described as a walled off and protected planted area with a rigidly formal design. The inner region possesses the innate qualities that a guy finds most enticing. A pool to reflect the beauty of the sky and garden, a variety of trees, some of which only provided shade and others which produced fruits, colorful and sweet-smelling flowers, grass that typically grew wild under the trees, running water (possibly the most important feature), birds to fill the garden with song, and a pleasant cool breeze were some of its essential elements.

In most cases, the most notable building, pavilion, or massive water features emphasize the center of the garden, where the two principal axes cross, most likely symbolizing a representation of the center of the world in astrophysical interpretations. The orchard is frequently separated into quadrants, a piece with its individual axis of symmetry and an appealing piece at the nodes of the axes. Their planning is rigorous, yet there is a clear sense of spatial hierarchy. Most likely inspired by nomadic Turkish-Mongolian tents, carpets, and canopies, the pavilions

in Mughal gardens. The hierarchy of the shapes, sizes, and locations of the pavilions in the Mughal Gardens is a depiction of this social order, since tents acted as a status symbol in older cultures and wealth and power were therefore exhibited by the quality of the textiles as well as by size and number.

Forts of The Mughal

Palace forts or boundary outposts are the two types of Mughal forts found in the Indian subcontinent. Outposts were regularly constructed with thick fencing, gates, barracks for the troops, which was typically a large field with many tents. However, the provincial or city's administrative core was located within the palace forts or city fortifications. They functioned as palaces as well. As a result, in addition to the castle, the land also includes other buildings like the mosque, the Diwan-I-Aam (Public Hall Room for Citizens), the Diwan-I-Khas (Hall Room for Elites), the king's palace, and housing for women. A typical palace fortress is designed with a number of courtyards with elaborate wall systems, each with its own function such as a public court, a court for kings, a court for women, and so on. The fort is commonly utilized as a citadel, with multiple purposes contained within it such as granaries, stables, prisons, and soldiers' barracks, allowing it to function independently for several months when under siege without being connected to the city. Because these fortresses were typically utilized as the last stripe of protection, the protective fortifications were frequently quite tall and sturdy, and the gates were carefully built to protect the aggressors. As at Agra, Lahore, and Fatehpur Sikri, cannons were used atop the castle walls and watch towers (Buri), and a network of water-filled moats encircled the entire complex for defensive purposes. Mughal garden layout is in stark contrast to Mughal fort planning. Although some forts include gardens inside their walls, the Mughal gardens' axial and symmetrical layout is typically substituted with a complex network of several axes and courtyards to bar the enemy from having direct access to the ruler. A Mughal fort's defense system included fortification and army strength within the architectural design, as well as circulation planning and details.

A few palace forts were also constructed in Bangla by the Mughals, although none of them were as substantial as the conventional palace forts in north India. It is challenging to compare the palace forts at Lalbagh (Dhaka) and Jinjira (Keraniganj) to the imperial capitals of the Mughals because they are both in such a ruined and incomplete state. However, fortification was not a novel practice in Bangla. There are several mud-forts in Bangla, according to literary sources. The fundamental cause for the creation of this type of structure is the delta's unique geographical and climatic conditions. Other types of forts were not or could not be built for the same reason. Because Bangla was accessible by waterways, the natural defenses of rivers and canals were more important than built walls in Bangla. As a result, "water forts" at river

bends or other strategic sites were particularly frequent in Bangla. The so-called “water fort” is actually a fortified area with straightforward geometry, typically rectangular, and a sizable watch tower along the river to monitor the river. Soldiers were normally housed in tents on the enclosed ground. As the primary defense, the watch tower was frequently armed with cannons, bows, and arrows. Because stone was scarce, Banglai forts were often constructed using mud or bricks. Mud-forts comprised nearly all of Bangla’s pre-Muslim forts. However, these have decayed into mounds over time. Reconstructing the history and architectural style of the forts in ancient and early medieval Bangla is particularly difficult due to the lack of structural evidence. According to excavations in Mahasthangarh in the Bogra region, Pundranagara, Bangladesh’s earliest fortified city, received natural defense from the river Karatoya in addition to other ancient obstacles like mud-walls. Mahasthangarh possesses every characteristic of a traditional Bangla city fort. The city’s rectangular form is typical and visible in Bangla. Medieval Muslim forts were significantly influenced by the devices created in Bangla throughout history. Numerous forts that came after were created by combining the two fundamental components of the region’s pre-Muslim history and the Muslim-invented fort-building method. A thorough examination of the origins, evolution, and history of Banglai medieval fort architecture shows that the Mughal era was when it reached its pinnacle. When the autonomous sultans were in power, the perfect sort of fortress was constructed. Gaur’s biggest citadel serves as a complete illustration of the prosperity in the area. Bangla’s medieval forts had three enduring features: walls, towers, and gates. Mughal forts’ architectural features usually borrow from more traditional designs. The Mughals developed river forts and made the requisite

defensive preparations in a geophysically unpredictable environment. The Mughals constructed these river forts to defend Dhaka against assaults by the Portuguese and the Magh. Examples of these forts are Hajiganj, Sonakanda, and Idrakpur. The river forts combined the physiographic characteristics of Bangla with the Mughals’ defensive needs. Unfortunately, neither the classic Mughal forts nor the river forts created in Bangla are compatible with the design and construction of Lalbagh.

Structures

The masjid, Bibi Pari’s tomb, and the Diwan-i-Aam were thought to be the fort’s three main buildings, together with two entrances and a portion of the defensive wall that had been partially demolished. The Department of Archaeology of Bangladesh has recently conducted excavations that have led to the discovery of more structures.

The southwestern side of the southern defense wall is where a massive bastion can be seen. North of the south defensive structure, which had a lovely roof-garden with waterfalls and a water tank on its western side, were the utilities services, stable, and administration block. The residential area was mostly at the south-western side of the mosque.

The west side wall featured two bastions, the largest of which is close to the southern main entrance, while the southern castle walls had five two-story-high bastions set at regular intervals. A tunnel was underneath the bastions. The Diwan-i-Aam and baths on its east, the Mosque on its west, and the Mausoleum of Pari Bibi in the centre make up the majority of the fort’s structures, which are not all situated equally apart. A waterway with waterfalls that run at regular intervals from north to south and from east to west connects the three structures. (In Figure 2)

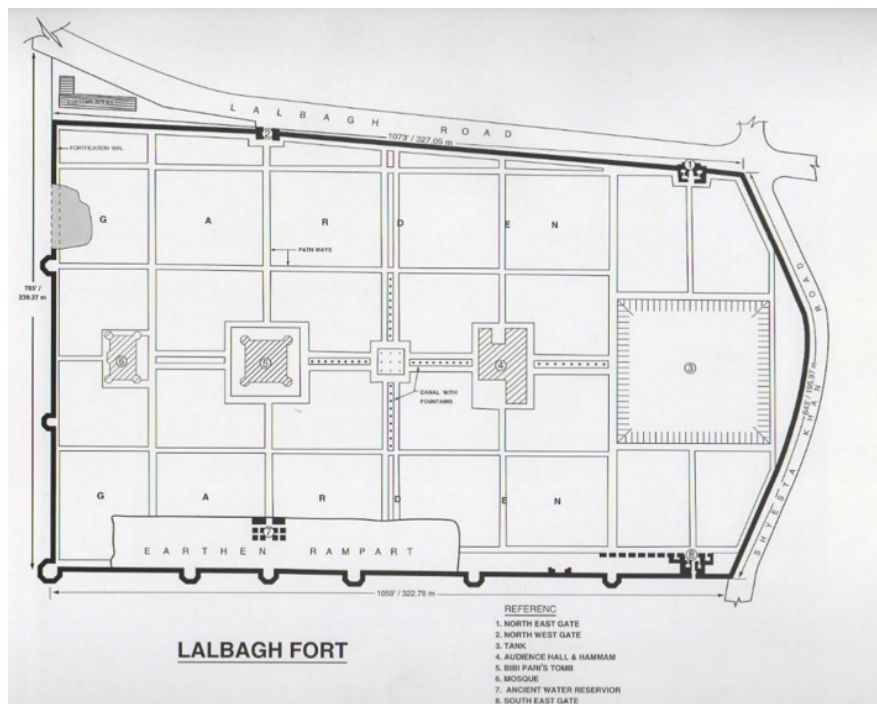


Figure 2: Possibly the Lalbagh Fort’s initial master plan (Source: Author)

Hammam Khana

Recent excavations (1994–2009) have revealed facilities for water heating and delivering hot and cold water to the Hammamkhana via clay pipes especially made for this purpose, demonstrating that there existed an unique region beneath the Hammamkhana. Dark stains discovered in the underground space are evidence that fire was used to warm the water for the Hammamkhana. Hammamkhana was also next to a bathroom. (Banglapedia, 2006)
The whole building and the Hammamkhana arrangements clearly show that Shaista Khan, the Subadar of Bangla, frequented it frequently. This room had housed Shaista Khan, according to the Governor of the English Factory, and other Europeans were held there.

Diwan-i-Aam

The two-story Diwan-i-Aam, which functioned as the house of the Mughal governor of Bengal, is located on the east side of the enclosure. On the west side, a one-story hammam is constructed. Water is heated in a

basement area in the hammam part. A sizable partition wall runs the length of the hammam's western façade. Going from north to south, the building is located about 39 meters (136') west of the tank. The structure measures 32.47m x 8.18m (107' x 29') on the outside. A spacious central hallway connects the apartment rooms on each floor of the two-story structure. One of the seven Hammamkhanas (Bathhouses) from Bangladesh's past that are still standing in ruins is located in the southern portion of the building.

Bibi Pari's Tomb

Bibi Pari, the daughter of Shaista Khan, is interred in the middle of the cemetery. A center square chamber is present. It holds Pori Bibi's ashes, which are protected by a fake octagonal dome and coated with metal plate. White marble is used to cover the whole interior wall. The core area is flanked by eight other chambers. A second little cemetery may be seen in the chamber's southern section. (In Figure 3)

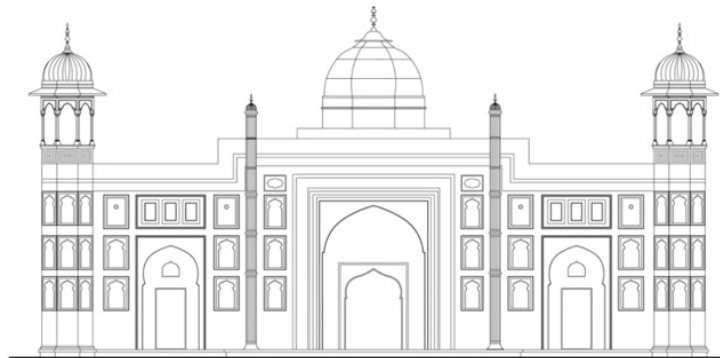


Figure 3: Front Elevation of Tomb of Bibi Pari (Source: Author)

A water tank

A square-shaped water tank is located at the eastern side of the Diwan-I-Aam (71.63m on each side). To enter the tank, take the four corner steps.

for washing. The mosque is oblong in shape, with an outside measurement of 66'9" x 33'6" and an interior measurement of 53'8" x 20'2".(See Figures 4 and 5)

Lalbagh Mosque

The mosque, which has three domes and is rather small for such a large area, has a water tank in front

The Rooftop Garden

The layout is at least 330 years old, built during 1680s during Shaista Khan's rule of Subah Bangla. A design on the roof garden mimics Islamic tiles. From east to west, a

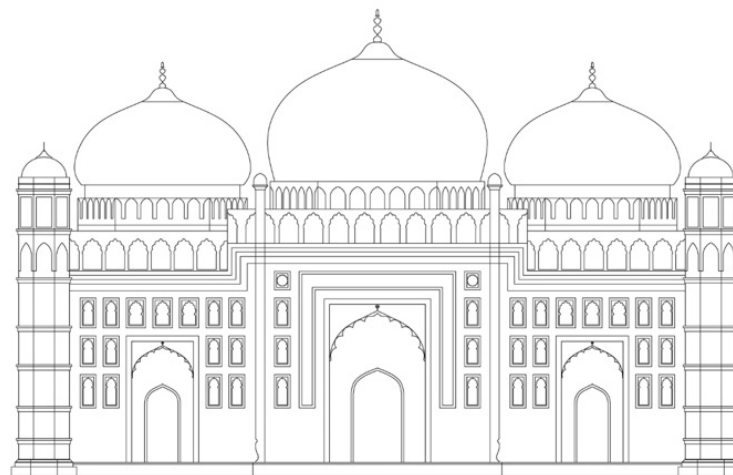


Figure 4: Main Façade of the Mosque (Source: Author)

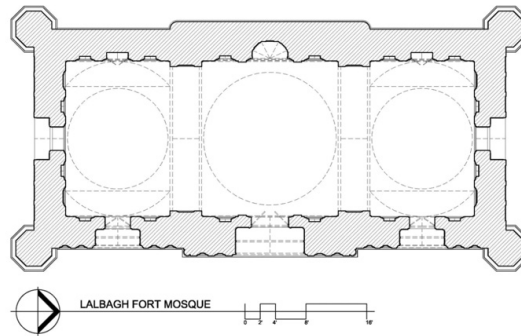


Figure 5: Lalbagh Fort Mosque Plan (Source: Author)

waterway dotted with fountains winds through the garden. There is an underground apartment with verandahs in one of the bastions on the wall. It is accessible from both its roof and the bank of the river.

The Mysterious Tunnel

There are numerous tunnels under the Lalbagh fort which were built during the Zamindar period. Among the tunnels is a tunnel into which no one can return.



Figure 6: The Rooftop Garden of Lalbagh Fort (Source: nl.m.wikipedia.org)

According to the architects, this path is connected to the Tongi river at a distance of about 18 km. Others think it is the mouth of a reservoir. There is a big cub inside. After the fall of the Mughals, when the Lalbagh Fort was opened to the public, the tunnel became the center of attraction for the people of Dhaka.

Rational opinion about tunnels. here are various folklores and beliefs about almost all the ancient forts of the subcontinent. There are also some impenetrable mysteries. To a modern-minded person, these folklores and beliefs may appear to be rumours, and ridiculous. Yet many people still believe these things today.

This secret tunnel of the fort is completely forbidden for visitors to enter. And we all know it is human nature to be attracted to forbidden things. Likewise, there is no end to people's curiosity about this tunnel. If one enters this popular tunnel, he never comes back. Therefore, the entrance to the tunnel was closed on the orders of the authorities.

South of the fort there were several tunnels earlier but the main tunnel is closed with an iron gate. Many people hear the story of this tunnel when tourists visit. It is said that through here or the tunnel could go to Delhi! But the reality was different. It was built as a safe escape route for

the Subedars during times of war or danger. All forts in India use such tunnels.

Usually in the design of riverside forts, the strategy was to build a tunnel to get from the fort to the waterway quickly. So it can be safely said that this tunnel of Lalbagh Fort does not end anywhere other than Buriganga.

However, if a person enters this mysterious tunnel, there is no return. This is because it was so dark inside the tunnel that even with the light, nothing could be seen ahead.

Let's find out about the mysterious legend of the secret tunnel on the eastern side of the Lalbagh fort. Recently, certain fort tunnels have been closed. According to legend, two tunnels connected on the other bank of the Buriganga River with the now-destroyed Zinzira Fort. The construction of a labyrinth-shaped route. Many defeated sepoy (soldiers) are said to have died while attempting to escape through the tunnel during the Sepoy Revolution of 1857. The British troops that pursued them and detained them disappeared after their detention. An elephant and dogs were dispatched by British experts to go up the story, but they were never heard from again. After that, the tunnels were shut. (Star Weekend, 2016)

Archaeologists found the fort walls continuing beneath



Figure 7: The Mysterious Tunnel of Lalbagh Fort (*Source: Binoy Amin Binoy*)

Shaishta Khan Road to the east. They believe that the Qilla kingdom as it is today only partially fulfilling Prince Azam Khan's ideal. The fort's Central Gate is the entrance on the southeast corner, next to Lalbagh Shahi Masjid. The remaining part to the east (Girde Qilla region), which was probably meant for administrative reasons, was either abandoned or extinct a very long time ago. (Asiatic Society, 2011)

Preserving and Protecting the Lalbagh Fort

Heritage preservation is an essential indicator of a country's pride in its history. That being the basic fact, there is no disputing that, over time, unauthorized buildings have appeared not just outside the fort, but also inside its near proximity. How that transpired is a question we anticipate the authorities will be unable to address satisfactorily. All we know is that if the authorities had been vigilant and carried out their duties, Lalbagh Fort would not be in the situation it is in today.

In October 2010, the High Court ordered the government to conduct a comprehensive survey to demarcate the Fort's territory. It also suggested that all unlicensed and hence unlawful constructions in the region be demolished within three months. Of fact,

the three-month time passed ten years ago, yet the authorities did not take action against people who were encroaching on the Lalbagh Fort grounds. Furthermore, quite a few residential sections have sprouted up inside the Fort's immediate vicinity (Figure 8). Such pictures only reflect a government that is either oblivious to its responsibilities or could care less about the cultural legacy that the country is heir to and must protect vigorously. Now, the predicament of Lalbagh Fort begs another question: in what state of neglect are other ancient sites currently? The whole terrain of Bangladesh is dotted with a huge number of historical houses and other structures of considerable archaeological importance, as well as old cemeteries spanning from prehistoric times until the War of Liberation. Many of these structures are frequently reported to be neglected and deteriorated. Such conditions must be investigated by the government, notably the Ministry of Culture.

Cultural activities on historical places are frequently organized by some groups. It is considered that such inclinations should be avoided, because festivities of any type within the fort will only increase the fort's perilous position. If the organizers' goal is to attract attention to the legacy, they may certainly do it in other ways.



Figure 8: Residential quarters have also sprung up in the fort area. (*Source: Author*)

Lalbagh Fort and all other historical landmarks should be maintained as proud reminders of the past. There cannot be no grounds for the government to treat the situation indifferently.

The Lalbagh Fort Cultural Preservation Project

The Hammam Khana, one of the three principal structures of the Lalbagh Fort complex from the 17th century, is being restored as part of a 12-month project funded by the renowned Ambassadors Fund for Cultural Preservation (AFCP) of the US government. During the Mughal Empire, it was constructed. In 2022, following completion, the Hammam Khana's two floors will

return to the public. The Ambassadors Fund for Cultural Preservation, or AFCP, is one of the most well-known cultural programs run by the American government abroad. The project, "3D Architectural Documentation, Restoring and Retrofitting of Historical Mughal-era Hammam Khana at Lalbagh Fort," is being overseen by the Department of Archaeology of the Ministry of Culture. It will use historically accurate materials to restore architectural elements and cutting-edge retrofitting technology to increase safety and structural stability. The project's historic impact analysis includes both conventional and cutting-edge drone-based three-dimensional architectural recording methods.(Figure 9)



Figure 9: Restoration, Retrofitting, and 3D Architectural Documentation (Source: Author)

The Lalbagh Fort Conservation Project

Abu Sayeed Mostaque Ahmed, a Bangladeshi architect and architectural restoration specialist, is in charge of the project. Workers and specialists from all parts of Bangladesh with experience in many fields are working on the project. Proper paperwork and surveys are essential components of any conservation effort, and these are being carried out correctly this time. There is no further decoration. Previously, restoration and maintenance work

was done without the use of specialists, and originality was not prioritized. This time, the conservation effort is being done in collaboration with the US Government's Fund, and everything is being closely watched. Masonry work is being done by North Bangla masonry professionals who are familiar with the sort of masonry work done at Lalbagh Fort. What adjustments were made before are gaining relevance, and the structure is returning to its former shape. (See Figure 10)





Figure 10: Ongoing Conservation Project (Source: Author)

CONCLUSION

Despite being called a fort, Lalbagh's true character did not support the fort's objectives. The elaborate layers of the Mughal military's defense system at Delhi or Agra, on one hand, and the complexity of the watch towers and walls, on the other, were no match for the tall defensive walls. It seems, the fort was constructed close to the Burignaga River not only for military considerations but also to use the river's water. The incomplete nature of the complex presents a number of fresh concerns regarding the original master plan. There are certain similarities between the masterplan and the other gardens, which helps to answer some of the questions. Lalbagh could have started out as an administrative complex, based on comparisons to other Mughal orchards and castles as well as historical data. However, they chose to construct this administrative center in an orchard setting to provide comfort for the king and queen due to Bangla's hot and muggy environment. Additionally, it supported the inclusion of the Hammam alongside the Diwan-I-Aam. One other expectation was that the living quarters were never finished due to the unanticipated interruption even though the entire complex was constructed as palaces inside an orchard setting. This claim is supported by the complex's design's resemblance to Chaharbagh, a classic Mughal garden. Typically, Chaharbagh Park's complex is centered around the main pavilion or the largest body of water. However, the Lalbagh's main tank's placement on the complex's eastern side, directly across from the major entrances, raises the potential that the eastern side's layout may mimic the western side, which is still being finished (Figure 11). At the eastern part of the master plan, this renovated design shows Diwan I Khas, a residential area, as well as a sumptuous river terrace.

Whatever the original masterplan was, the ambiguity is a distinctive characteristic of the building of this Mughal

structure. This is distinctive. It does not quite resemble Mughal forts or the typical Mughal garden. The rapid end to construction and abandonment of the fort buried the possibility of new kinds to sprout beneath its soil, despite the fact that it may be an unique sort and the first of its kind.



Figure 11: A potential first master design for the fort at Lalbagh might be based on the symmetry theory of Chaharbagh. (Source: students of IJUM)

Acknowledgment

In this study, there is little fieldwork and a thorough literature review. The author visited the case studies on the 2022 Field Trip and looked over them. The trip was successful despite its brief duration because of the students' and the course instructor's diligent efforts. In addition to the material, interviews with a number of local specialists were conducted to gain a deeper understanding of the society, location, culture, traditional architectural practices, and building methods of the specific area as well as the conservation process that was underway at the

time. The majority of the information in this report is derived from the resources on hand and the field trip data that the students collected.

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