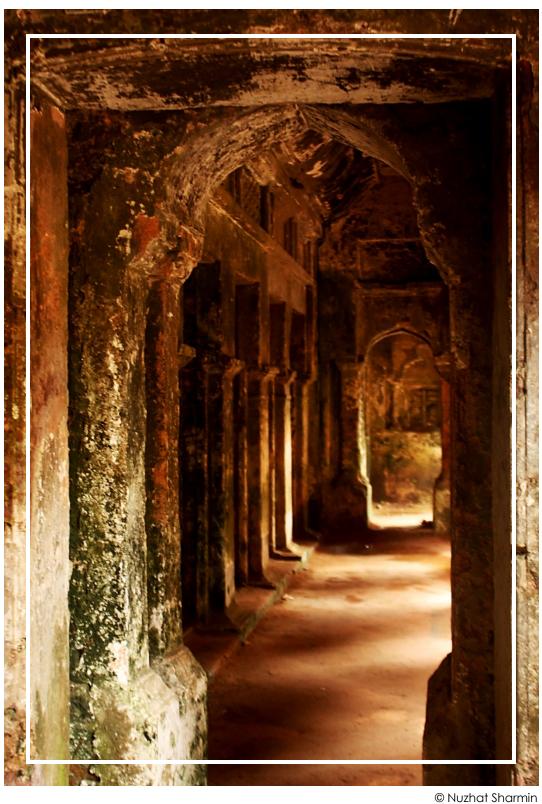
CULTURAL SIGNIFICANCE ASSESSMENT PANAMNAGAR: A TESTIMONY OF HISTORIC BENGAL



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BEWERTUNG DER KULTURELLEN BEDEUTUNG

PANAMNAGAR: EIN ZEUGNIS DES HISTORISCHEN BENGALEN

The Master's thesis

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Ву

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Faculty of Tourism and Hotel Management Helwan University To my family

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Thank you!

Abstract

Conservation of heritage sites is an integral part of history and culture through which new generations can learn about their forefathers' education, professionalism, cultural characteristics as well as their civilization. Almost all countries of the world tend to conserve their historical sites for their own generations and travellers from abroad. Despite Bangladesh economy is becoming stronger, it is not paying enough attention to the development of archaeology to conserve its heritage sites. Unlike many other developing countries, Bangladesh tends to conserve its heritage sites as a luxury. It is mainly because of the scarcity of land. The tiny country has a huge population (about 180 million), the density of which is perhaps the most in the world. Apart from some very significant heritage sites, most others are awfully neglected. Lack of education and awareness among the respective local people and other stakeholders are also responsible for most of the heritage sites facing threats of demolition, vandalism, losing authenticity and integrity.

Panamnagar, the case study for this thesis paper, is not apart from the above scenario. It is the last surviving intake city of lost Bengal. The place witnessed Mughal emperor, British rule, the partition of Bengal, Liberation war of Bangladesh, Hindu-Muslim riot, illegal habitation of people, forced eviction and abundance. The historic city went through lots of historical events and still standing as a testimony to the golden era of Bengal.

Currently, this heritage site is facing multiple threats to its existence and authenticity. The city is vacated by the authority -- Department of Archaeology. But as the local people are not aware of the historic value of the site, they are not at all cooperating with the authority. Meanwhile, the authority is trying to incorporate adaptive reuse of the site to give life to it again and collect revenue for the maintenance. But they are doing it without assessing the cultural significance of the site properly, which could be a potential threat for the authenticity of the heritage site.

Thus, this paper has focused on assessing the cultural significance of the heritage site, with a hope that it will help the authority make policy decisions for the conservation of the site more cautiously. To assess the cultural significance properly, history and architectural significance are being described briefly. Later, site analysis has taken place to understand the current site condition properly. Finally, the paper concludes with statements in support of the cultural significance of Panamnagar site and recommends appropriate conservation tools to sustain its significance.

Table of Contents

Acknowled	gement	iv
Abstract		V
Chapter 1:	Introduction	
1.1 1.2 1.3 1.4 1.5	Aim and objectives	2 3 5 6 9
Chapter 2:	History and Architecture	
2.1 2.2 2.3 2.4	Current site condition Sonargaon's location in Bengal History of Sonargaon History of Panamnagar 2.4.1 Sonargaon – Panamnagar's contribution in commerce of Bengal	12 14 15 16
2.5 2.6	2.4.2 Social Structure of Panamnagar2.4.3 Settlement pattern of PanamnagarUrban context of PanamnagarArchitectural significance of Panamnagar	19 21 23 25
2.7	2.6.1 Central courtyard type 2.6.2 Central Hall type 2.6.3 Consolidated type 2.6.4 Compartment type 2.6.5 Materials and ornamentation Architectural description of Panamnagar 2.7.1 Mughal style building 2.7.2 Colonial style building 2.7.3 Mixed architectural building	25 27 29 30 31 33 33 37 43
Chapter 3: 3	Site Analysis	
3.2 S 3.3 S 3.4 E	he chronological ownership of the heritage site 3.1.1 The vested Property Act ocio-economic condition of Panamnagar trategies for the historic site's protection xisting condition of the heritage site and policy mplementation	47 49 51 52

3.5 Current stakeholders3.6 SWOT Analysis	55 56
Chapter 4: Cultural significance assessment	
4.1 Cultural Significance in Burra Charter4.2 Cultural Significance of Panamnagar4.3 Statement of Cultural Significance of Panamnagar4.4 Heritage Value assessment of Panamnagar	59 60 65 66
Chapter 5: Sustaining Cultural Significance	
 5.1 Sustaining cultural significance 5.1.1 Define proper buffer zone 5.1.2 Identification and Documentation 5.1.3 Reasons and probable solution of Building deterioration 5.2 Educating local people 5.3 Tools for conservation 5.3.1 Preservation and restoration 	70 70 70 71 73 73
5.3.2 Adaptive reuse	75
Chapter 6: Conclusion	
Bibliography	

The city, however, does not tell its past, but contains it like the lines of a hand.
ITALO CALVINO, Invisible cities

Introduction

1.1 Introduction

Bangladesh, an emerging tiger of the economy in South Asia, has already been upgraded from a least developed country to a developing country. However, its rapid unplanned urbanization in the name of development and progress pose treat to its sustainable development.

Dhaka is the capital city of Bangladesh, which is the most densely populated area of the country. The whole country is divided into eight divisions (Anon., 2018). The major development and urban growth are taking place in the Dhaka division and by its surroundings. Over the last four decades, Dhaka became the hub of urban growth of Bangladesh due to the vibrant expansion of the public and private sector, introducing new opening of international and national businesses, fast development of housing, increased trade, infrastructure, etc. The population of the Dhaka division is currently 18.2 million which leads to the density of 23,234 people per square kilometer (Anon., 2018). To accommodate this huge number of population and to create the jobs and other facilities for them, Dhaka faced the highest build up session in 1989-2014. Around 81.54 percent of this urban growth took place in the agricultural and wetland areas surrounding the main city. In this process of Urban growth, many historical sites have also been demolished or lost their identities (Niaz Morshed, 2017). A huge gap has been created between the Government body and the Academics. According to the archaeologist, architects, currently, the number of cultural heritage sites in Dhaka is about 3000 where the number listed by the archaeology department of Bangladesh is one hundred (Staff, 2017). Between this conflict, many cultural heritage sites are facing the threat of destruction in Dhaka as well as the other parts of the country.

The case study Panamnagar is around 26 kilometers far from the core Dhaka. The main reason to choose Panamnagar as the case study for this thesis topic is, the site is very much significant as a cultural heritage site because of its richness in the historical and architectural background, at the same time the site is situated in Dhaka division. The current trend of development and expansion of Dhaka city has put the tremendous risk for Panamnagar to be encroached in the near future. Despite its historic value, the city faced lots of ignorance and had been neglected for a long time.

The heritage site has already been encroached by illegal inhabitants for decades. Most of the buildings are forcefully vacated by the Government as currently, they are the owner of the site, though still, a controversy is prevailing between the government and the previous owners on the ownership of some plots of the site (Das, 2017).

The thesis paper will discuss the current condition of the site, the cultural significance of the site according to Burra charter to establish the importance of the historic city, what are the threats the site is currently facing and why. Finally, the thesis has a proposal for suitable adaptive reuse or rehabilitation, preservation or conservation after assessing the current condition as well as in accordance with the need of the site.

Panamcity or Panamnagar ('Nagar' is the Bengali word for 'City') is one of the most significant cultural heritage sites of Bengal as well as Bangladesh. It carries enormous historical, cultural, architectural and religious values. Panamnagar is a vibrant part of the ancient capital of Bengal which is known as Sonargaon. In the early 12th century when the previous capital Vikrampur was losing its importance, Sonargaon emerged as the most prominent administrative center of the Bengal. (Ahmed, 2009)

Panamnagar is situated in the south-east corner of Dhaka metropolitan city and about 26km away from the heart of the city. Today it is difficult to find the relics of Sonargaon. There are some religious structures scattered in the Panamnagar villages and the most intact and highest number of remains are there with beautiful architectural designs.

1.2 Overview of the Panamnagar

Panamnagar is the only ruined historic city existing in Bangladesh currently. There are lots of surviving heritage sites can be found in Bangladesh in a very scattered way, but Panamnagar has the highest number of structures intact in the same place. At present 49 buildings are standing in the site carrying all the glorified past. All other heritage cities of Bengal had been encroached or collapsed and eventually the essence of a city got ruined. None of the cities can be found as a whole, apart from Panamnagar. It looks like an artificial island, as there are waterbodies surrounding the city

with lush greeneries and varieties of fruit and other trees by the bank of the waterbodies and also within the city. A large number of people from all walks of life visit the city every day to view the glimpse of the beauty of architectural heritage as well as of nature.



Figure 1: Perspective of Panamnagar Source: Department of Archaeology

Panamnagar carries the architectural, historical, social values of Mediaeval Bengal. The buildings were constructed and owned by the Hindu merchants at the end of the 19th century. The owners left the place and relocated elsewhere in two phases, one took place during the partition of Bengal by the British ruler in 1947, and the second one took place in 1965 during the Indo-Pak war. After the second eviction Government passed a law, declaring the properties of Panamnagar as 'Enemy Property' (Khan, 2009). The history of the site and acts will be discussed in the following chapter. Under the Antiquities Ordinance 1968, in March 2003 the Department of Archaeology (DoA), Government of the People's Republic

of Bangladesh declared Panamnagar a national heritage for its protection and conservation (The National Gazette, 1968).

1.3 Problem statement

Although Bangladesh has switched to be a developing country and its economic growth is fast and steady, it is still facing lots of problems. The uncontrollable massive population is one of the biggest threats that Bangladesh is facing right now. Losing heritage sites to accommodate this huge number of people is one of the gigantic tolls the country is paying nowadays. The scenario is more dangerous in an urban context. The land price is getting higher every day, which is leading people to break down their century-old buildings to build a high rise. Even when the heritage site is listed in the national heritage list, they are still facing the demolition in some places. Negligence in the recognition, absence of proper management plan, lack of law enforcement, inadequate education, all are the key reasons for the demolition of cultural heritage sites of Bangladesh (Staff, 2017).

Panamnagar is a magnificent example of the lost urban formation of old capital in Bengal. It is listed in the list of National heritage and also in the list of archaeology department for protection and conservation. But due to the reasons mentioned on the top, it is also facing illegal habitation, a collision between local people and authority, trespassing, etc. it is becoming difficult for the authority to protect the heritage site without the cooperation of local people. Environmental degradation and erosion are also reasons for decaying of the historic buildings. After analyzing the current condition of the site, the Department of archaeology is considering introducing adaptive re-use for the buildings for the protection of the ancient city, without analyzing the cultural significance of the site according to international standards. They have already taken a failed attempt which is a threat to the heritage site to lose its authenticity.

This thesis paper focuses on the assessment of the cultural significance of Panamnagar, which can help the authority to take sustaining decision for the conservation of the site and propose possible conservation tool.

1.4 Aim and Objectives

This is undeniable that the issue of population density and accommodation of the huge number of people causing the dilapidation of lots of historic sites and buildings. The absence of an integrated development plan and the lack of local people's knowledge of heritage protection playing a significant role in this continued loss of heritage properties.

The historic city of Panamnagar is no different from this. It is facing a severe invasion of illegal inhabitants posing a serious threat to its conservation. The Archaeology department is trying to get a grip on the situation by evacuating habitats, but the conservation policy is so poor that it can't protect the vulnerability of the buildings, rather its shapes and constructions are going to be collapsed if immediate correcting measures are not adopted.

As stated earlier, the site is still facing the problem of ownership. The Government is the owner of the majority of the land, but there are some privately owned plots and the government is going through court to acquire the whole historic city for maintenance. As a result, the preservation, conservation, maintenance, renovation of the site is being pending or ignored. Simultaneously the local people are building shops and restaurants in the buffer zone of the historic city and also trying to intrude the buildings by violating existing rules and regulations (Jahangir, 2017).

Taking the history, culture, and importance of the Panamnagar into accounts, this thesis has envisioned the following aim and objectives:

1.4.1 Aim:

Panamnagar is a very significant cultural heritage site of Bengal as it was the part of the old capital Sonargaon, and also is the only remaining city of ancient Bengal. The aim of the thesis is to assess the cultural significance of the site according to the *Burra Charter* and to safeguard the buildings and surroundings of this important area. After assessing the cultural significance, the paper has discussed the potential development policy for the site.

1.4.2 Objectives:

The objective of this thesis includes the need of stakeholders, revising the urban extension plan of the government, proposing a potential policy for the site, proper education and building awareness among the local people as well as the authorities and cooperation among them.

- Understanding the significance of the site
- Assessing the current situation:
- Education and awareness buildup:
- Proposing potential development policy:

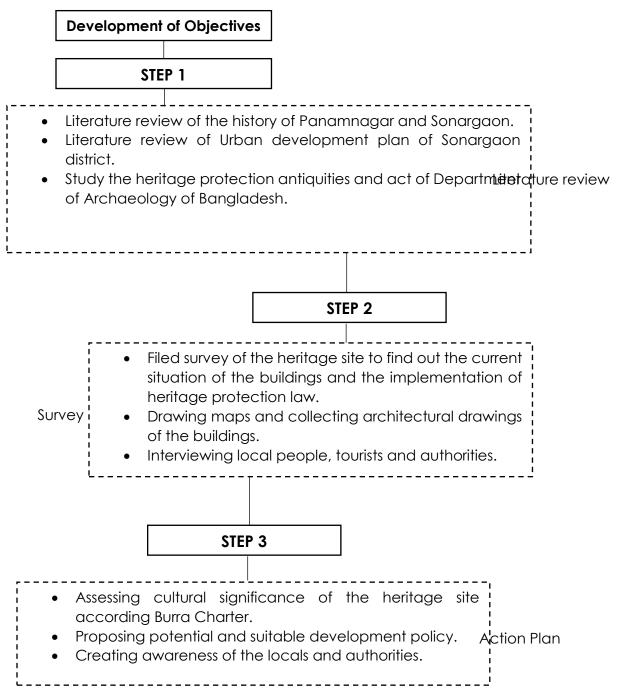


Figure 2: Steps of objectives Source: Nuzhat Sharmin

1.5 Limitations

Panamnagar is carrying the testimony of the lost history of Bengal. It still has a lot of scope for archaeological and conservation work. The research of this thesis will try to contain useful information for its conservation.

The research has some limitations as well. Through the literature review, it was difficult to find out the exact functions of each of the buildings. Moreover, within the area of Panamnagar, no one was found who has any connection with the original owners of the place. So, most of the historical information is gathered from the literature review, interview of the current authorities and local people.

Many buildings are in a vulnerable condition now. The climate of Bangladesh made the buildings suffer from heavy rainfall, flood as the buildings are mostly made of brick and wood. The Department of Archaeology sealed every building of the site for the protection as well as for the protection of visitor. It was not physically possible to enter every building to measure the condition and produce architectural drawings.

Most importantly the limitation I have faced is the lack of public participation. The local people are not well educated about the significance of the heritage site, they can rarely be helpful for gathering information. The authorities, academics were not available and sometimes not willing to participate in the research.

1.6 Methodology

The research methodology for this thesis paper conducted in the following steps:

- Intense literature review to know the proper history and understand the significance of the site to understand the cultural significance.
- Site survey to analyze the current physical condition of the buildings,
- An interview with the local habitats to know about the socioeconomic background of the people and their awareness regarding the heritage site of Panamnagar.

- Interview with the authorities to get information about the development and conservation management plan of the site.
- Study the recent structural plan of Sonargaon district to be updated about the government policy for the protection of Panamnagar as well the urban development plan for the district.

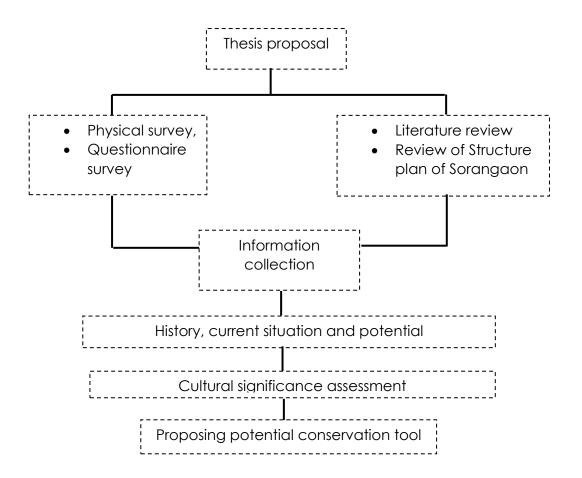


Figure 3: Process of research Source: Nuzhat Sharmin

History and Architecture

2.1 Current Site Condition

When it was discovered by some archaeologists, the Panam street had 60 buildings (Ahmed, 2009). Currently, the site has 49 buildings standing in the site. The plinth level of two buildings can still be found apart from the buildings. The surviving structures of Panam from the Colonial time of the first Mughal and Muslim periods demonstrate a huge move in the idea of design, character and building typology.

The Panamnagar is constructed along with Panam Street. The street is 60 miles in length and 5 miles in width. All the existing forty-nine buildings are standing on both sides of the road. There is a mixture of single, two and three stories buildings in the area.

The site is surrounded by waterbodies. The Pankhiraj river is running on the north side of the city, Southside is protected by an artificial water body, east and west side have ponds.

After the liberation war of Bangladesh, the Sonargaon Folk museum was established in Panamnagar in 1973. Building no. 5 and 13 were reused as a museum to exhibit the collections from the Mughal period of Sonargaon. Later in 1980, the museum was relocated in Bara Shardarbari, which is a major structure of Sonargaon. The building was renovated and conserved nicely to host a museum. The buildings of Panamnagar again are being occupied by the illegal habitats. Panamnagar became enlisted as a protected heritage site by the Department of Archaeology of the Bangladesh government in 2004. In 2006, the army-backed government took the control of the area by evicting all the illegal habitats, who did not have any kind of ownership to the site. Again, after a while, the area was taken over by people. They used the buildings of Panamnagar in various purposes of their own benefits. The basic function took place was residential. People also had nursery, library, daycare center in the buildings. People started living in those vulnerable, risky buildings without anyone's permission. They created a society on the Panam street with their necessary functions, such as-shops, general stores, laundry, markets for various other essentials. Finally, in 2015 the Department of Archaeology took control of the entire place and locked down the buildings (Ahmed, 2015).

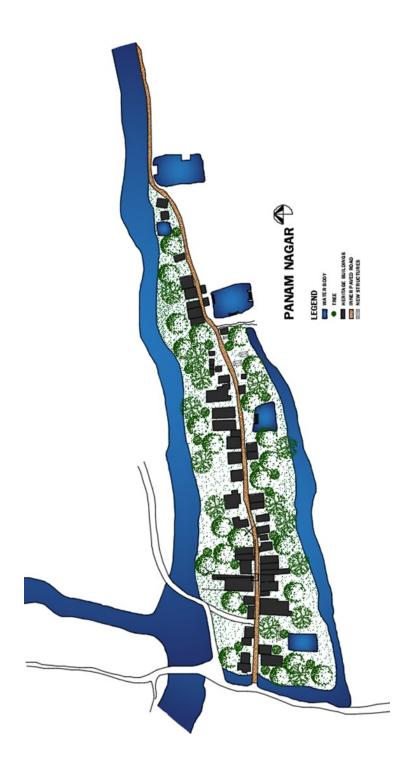


Figure 4: Master plan of Panamnagar Source: Nuzhat Sharmin

There is still an unsolved controversy remaining about the ownership of the plot of building number 20. The archaeology department does not have access to it. Building number 19 is used for the worship of the Hindu Goddess. People from different places come here to say their prayers and listen to the priest. These people also deny paying the entrance fee of the site determined by the authority and they create a lot of chaos in the heritage site particularly during the times of major festival; the security people are not able to resist them. The front part of building number 3 is used as a temporary restaurant for the visitors and the back is used as office and residence of the staffs of the Archaeology Department who are in charge of the protection and maintenance of the site. Building number 33 is used for the accommodation of the security guards while building 38, 45 and 48 are used as residential purposes at present. The identities of inhabitants are unknown. Building 49 is used as a shop on the site (Jahangir, 2017). Apart from the use of buildings, there are street vendors on the site and outside the main gate occupying illegally, there are lots of unauthorized restaurants in the buffer zone of the site.

2.2 Sonargaon's Location in Bengal

Historically and geographically Bengal always had its significant identity. Its geographical location added great value to the development of its trade, commerce, diversified lifestyle, unique architecture, and so on. As the capital of Bengal, Sonargaon had its vibrant identity and played a very important role in the rich history. Because of its geographical location, Sonargaon was a port city of Bengal. It can be found in the world map of 'Theatrum Orbis Terrarum' from Amsterdam in 1650 AD. The famous traveler lbn Battuta also said that Sonargaon was a very important port city where the merchants from China and Java used to gather for their trade.

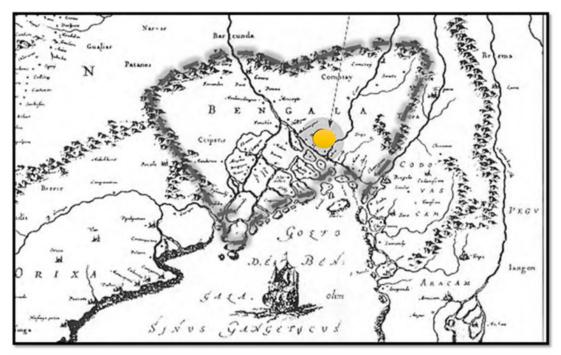


Figure 5: Location of Sonargaon

Source: (Eshika, 2010)

2.3 History of Sonargaon

Before Sonargaon was established, Vikrampur was the ancient capital of Bengal. At the end of 13th century the capital was shifted to Sonargaon and since then it became the administrative center. Muslim rule had been established back at that time in Bengal. Since then Sonargaon took place as one of the most significant parts of the history and an internationally recognized trade hub. Many travelers had described Sonargaon in their writings. Especially the writing of Ibn Battuta, Ma Huan, Niccolo de' Conti, Ralph Fitch give us a glorious picture of Sonargaon. They mentioned the former capital as a prosperous trade center on the silk route. Sonargaon became a port city in the 14th century. The travelers mentioned that trading ships used to sail between Sonargaon and southeast, southwest Asian countries.

Sonargaon was also very famous for the production of the finest cotton 'Muslin'. During the reign of Muslim ruler Isa khan in 1856, Muslin was used to produce in Sonargaon and exported internationally with other goods.

Ralph Fitch mentioned in his writing about 'Muslin' along with rice, with which entire India could be served. This glory of Sonargaon continued till the Colonial period. For the better understanding of the archaeological aspects, Sonargaon can be divided into three groups according to their locations -- 'Northern Group', 'Southern Group' and 'Bandar group'. Panamnagar is located in the Northern group. A very large pond Khashnagar Dighi can be found in the proximity of Panamnagar, which also shows the evidence of Muslin industry in the historic city. Because the pond is known to be very desired to the muslin weavers as its water made their cloth exceptionally white. Earlier the Khashnagar area was known as Keorsundar. It was the same as *Katare Sundar* of Sonargaon, which was mentioned in Ain-i-Akbari. It was famous for the special water to make the cloths inquisitively white. It proves that a group of muslin workers of Sonargaon inhabited in the Panamnagar.

After the Muslim rule, the Mughal empire begins its ruling in Bengal at the beginning of the 17th century and shifted the capital to Dhaka. The glory of Sonargaon has slowly faded away. But the major thrust Sonargaon faced in the middle of the 19th century during the colonial period of British invaders. The East India Company established cotton mills and forced people of Bengal to work in mills and stop producing muslins. (Akhter, 2004)

2.4 History of Panamnagar

In the middle of the 19thCentury, English administrators were attracted to Sonargaon (Hussain, 1997). At that time Panamnagar also emerged as a part of a dying capital which happened to be a glorious one. Hussain mentioned in his book about a historian named Dr. B. Hamilton who had visited Bengal and described it in the following:

"This is reputed to have been once a large city, the provincial capital of the eastern division of Bengal, before Dacca was in existence, but it now dwindles to a village situated on one of the branches of Brahmaputra, about 13 miles Southeast from Dacca, latitude 23° 39' N, longitude 90° 43 E" (Hussain, 1997).

There is not enough text found about Panamnagar in the writings of the historians. Only a few travelers came to this area in different time periods

and wrote about Panamnagar, those are the most authentic evidence of the history of Panamnagar. According to their write-up, Panamnagar was a very affluent village of Sonargaon. It was an important place for the trade and economy. In 1840, James tailor wrote about Panamnagar, mentioning that the city was inaccessible without small boats. The area was protected by waterbodies all around and covered with tropical trees.

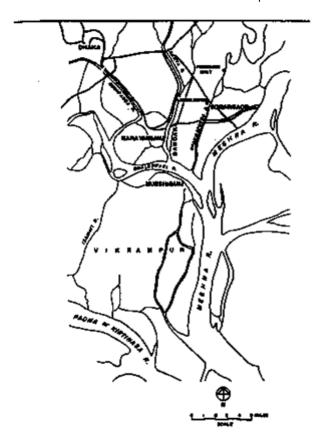


Figure 6: Sonargaon and the surrounding area.

Source: Hussain, A. B. M. Sonargaon - Panam: A Survey of Historical Monuments and Sites in Bangladesh. Ed. M. Harunur Rashid and Abdul Momin Chowdhury. Dhaka, Bangladesh: Asiatic Society of Bangladesh, 1997.

James Tailor gave a description of Panamnagar in his book entitled, 'A sketch of the Topography and Statistics of Dacca'. He wrote that Sonargaon was a purganah in the northern division of Dhaka in between Luckia and Meghna. It was situated on the stream of the Brahmaputra river. The area was covered with thick layer of tropical trees including mango, tamarind, jackfruit trees, and bamboos. The city was almost invisible from

outside until within a few yards of it. In the dry season, the place could be reached by narrow pathways. But in the rainy reason, only small boats were used to enter the place. We can still see in the map that the area is still surrounded by water bodies both natural and man-made which gives the place an island shape and also used to be moat for the protection of the site. There was a bridge across the moat for the people to access in Panamnagar, but at night no person was allowed to enter in the area. Rice, Ginger, Turmeric, Cotton, were the agricultural products of Panamnagar (Tailor, 1880).

2.4.1 Sonargaon-Panamnagar's contribution in Commerce of Bengal

Since the ancient time, Bengal had strong trade and cultural interaction with other parts of the subcontinent, most importantly with central Asia and China. Different historians mentioned the connection of trade routes of Bengal with different parts in their writings.

In the time of Muslim rule in Bengal, its external trade thrived extremely. Merchants from different parts of the world came to this port to purchase cotton and silk fabrics, other agricultural goods including rice, sugar, spices, oil, etc. (Mohsin, Ahmed, 2007). Soon after the arrival of British invaders and their establishment of East India company, the glorious trading, and commerce of Bengal was falling apart. The British ruler established their cotton factories and other business and seized businesses from Bengal merchants gradually. The main export goods for Bengal merchants were fabrics, indigo, safflower oil, soap, ornaments, copper utensils, and cheese. The most famous product was the finest fabric Muslin. The muslin was exclusive to be exported to the Middle East, Egypt and Turkey. Dhaka, Narayanganj and its surrounding districts were the hubs of trade. It may be mentioned that Bangladesh has recently obtained the international property rights of Muslin.

Bengal was very rich in the cotton textile and its manufacturing goods. The number of productions was so high, that it could serve to other parts of India after fulfilling their own need. Sonargaon was especially prosperous for the production of Muslin. In the middle of the 19th century, the production of Muslin came to end by the establishment of East India Company.

Before the relocation of the Capital to Dhaka from Sonargaon, it played a vital role in the trade and commerce of Bengal. It was losing its position as

an administrative center of Bengal and also the role of trade was shifted to East India Company as they built lots of cotton mills and forced people to work there instead of producing their own fabrics. As a result, the muslin industry came to an end eventually. But still, there were some other business remaining, especially in the northern group where Panamnagar is situated. Beside the Pankhiraj Khal, 'Kuthi-Bari' can still be found, which holds the remarks of the business hub in this area.

According to the statement of historians, it was strongly assumed that the settlement of Panamnagar was built by a group of Hindu merchants. The commercial activities of that area influenced the wealthy merchants to build up a township, which helped flourish the trade. Currently, forty-seven buildings are standing in Panamnagar, but the historical references mentioned that altogether there were ninety buildings initially. The buildings were single to three storied high and all of them had huge openings to the street. To ensure the communication among a large number of businessmen, this human settlement is commonly found in the trading towns. Dr. J. Wise mentioned about Panamnagar's trade in his writing as

"A great trade in cotton, chiefly English piece goods is carried out. The majority of the residents are prosperous merchants who make extensive purchases in Calcutta & Dhaka, which are disposed of in the villages around. At Panam, they made extensive trade in cotton fabrics and English piece goods."

Basically, Panamnagar emerged as a sub-product of British trading activities. The Indian archaeological survey mentioned that Panamnagar was a hub of trade for the East India Company to export cotton fabrics. The geographical location of Panamnagar was always a perfect place for trade. So, it was discovered by the European businessmen and again the place was flourished by Hindu merchants. The Zamindars from Calcutta, Dhaka and other places came here to build a community and a trade center (Hossain, 2007).

2.4.2 Social Structure of Panamnagar:

From the description of travelers and historians, it is known that Panamnagar was dominated by Hindu merchants. The architectural style of the settlement also proves the statement. Temples can still be found in the area. Two buildings have temples on its roof, which proves that people

had private worship spaces. One is still used by the Hindu people of the surroundings and it is a popular one. In the past, the Hindu community usually maintained a socio-religious border with the Muslims and also within themselves based on caste system. The eastern part of a northern group of Sonargaon was mostly Hindu dominated and Panam was situated in that area. The position of the ponds also holds the proof of Hindu settlement there. The ponds are facing North-South orientations which is a common feature of Hindu settlement.

There were no people from other religious living in Panamnagar. In his book, Dr. James Wise gave a description of the inhabitants of Panam in 1872. He mentioned that there was not a single *Muhammadan* found in the area. The buildings were mostly owned by Hindu Taluqdars, who were the wealthy merchants back at that time. They used to pay direct taxes to the government by Dhaka treasury. The other inhabitants of Panam were a businessman, money-changers, and traders.

It has already mentioned that initially there were more than ninety buildings on the street of Panam. According to the Hindu caste system, Brahmans are the superior. The existed number of different casts in Panamnagar are as follows: Thirty buildings belonged to Brahmans, Sahas owned sixty-five buildings, Bhuimalis owned five buildings and rest of the people were at their service.

In 1874, James Wise published his writing named 'Notes on Sonargaon'. In his writing, he gave an impression of Panamnagar and its socio-economic condition. He called the place, 'jungle of Sunargaon', as he found the place covered with vegetation and there were alligators in the waterbodies. He also mentioned that the people were poor and had diseases. On the other hand, Tailor said the people of Panamnagar were very wealthy and they lived on rice, milk, and fruits in his visit during 1840 (Hussain, 1997).

Ralph Flitch described Panamnagar in his writing in the 16th century. He said that Panam was a very affluent area of Sonargaon and people were mostly rich. The differences of the description of different travelers show that the glory of Panam was decreasing after the arrival of British invaders in Bengal. But after they found out the potential of Panamnagar as a trading hub, merchants invested there and built up their own city in the early 19th century. It means the East India Company established business with

Sonargaon that resulted in the reincarnation of the Panamnagar (Akhter, 2004).

2.4.3 The settlement pattern of Panamnagar

Pankhiraj river on one side and other artificial water bodies on other three sides, Panamnagar was very well protected area. The Pankhiraj river was the main source of water supply. The surrounded water bodies were used for both security and sanitation of the village. It can be assumed that the well-organized water system was planned by an efficient government. The current surviving buildings are mostly from the colonial period, from the late 18th century and the beginning of the 19th century.

The architectural style of the buildings of Panamnagar is diversified. The style, character, typology is significantly different from one another. The buildings are mostly secular, apart from the ones which have a temple on the roof of it, but mostly promote the pre-colonial style of Bengal. All the buildings have different volumes and complexity. Buildings formation, material use, and structural system gradually built up a harmonious pattern. The treatment of decoration was transported from European architectural style and mixed with local murals and motifs (Hussain, 1997).

Sonargaon was a Muslim dominated part of Bengal in the ruling period of Muslim empires between 1296 and 1608. It was developed as the cultural center of Muslims since the latter part of 13th Century. But at the end of 18th-century Muslim dominance had gradually declined. Later, the place was occupied by Hindu merchants. So, the secular buildings of Panamnagar were not influenced by the religions. Rather the buildings of Panamnagar developed a unique architectural style by itself, which makes the place more prominent in the history of Sonargaon. The ornamentation of the buildings carried the value and prestige of the owners. It also reveals the economic influence of the colonial period between 19th and 20th century. Till the end of the Second World War, the development of Panamnagar continued to flourish.

After the Second World War and the partition of Bengal, the settlement of Panamnagar started to decay. Finally, all the inhabitants of the place relocated during the liberation war of Bangladesh in 1971. For the first time in history, Panam became completely abandoned. Very little information can be gathered about the social life of the resident of Panam through

literature review, and the filed survey does not give any particular information either. But the number of buildings and their ornamentation still carries the essence of the vibrant life of former inhabitants. The openings and main entrance of every building are facing the road, which reveals the importance of the street to the city and its people. It also proves the commercial activities of that place.

In Hindu religion, the people from different casts and religion were not allowed to use water form same pond, or use the same backyard. But it could be assumed by the shared backyard, ponds and other social facilities that the inhabitants of Panam shared the same religion and cast. Most of the buildings were built in very close proximity of each other and also have balconies facing the road which demonstrates an intimate relationship to the street life as well as among themselves.

In his writing Tailor mentioned a 'Pancha Ratna' Shiva temple during his visit, built in the middle of Panam street. But later the temple was completely demolished, but the base of the temple still can be found in the historic place. A few single storied and single room buildings were built surrounding the base of the temple. It indicates that the temple was a very important part of the historic city and those people who were at the service to maintainin the temple used to live in the single storied buildings. The temple played a vital role in the division of Panamnagar into two parts. The larger and decorative buildings with two or three storied high were built in the eastern side of the temple and comparatively smaller and single storied buildings were built in the western side of the temple. It shows the social division of the inhabitants of Panamnagar and also the variation of land value. From the built-up pattern of Panamnagar, it can be easily guessed that the temple complex served as a buffer zone between the classes of inhabitants. The eastern part of Panam was occupied by the rich and upper class and the comparatively poor families lived in the western part. The temple was built almost in the middle of the city with lots of open space and facilities around it. So, the temple complex was used for public aatherina and activities.

The sharing neighborhood of Panam can be assumed by the field survey and literature review. Adjacent buildings used to share the same backyards and waterbodies. For the field survey, it can be seen that all the four ponds in the boundary of Panamnagar are open for all, instead of being enclosed

for private use for any particular building. The adjacent pond of Shiva temple was linked with a mote. Except for the southern part, all the other three parts of the pond still have ghat with stairs and it also has a connection with Pankhiraj river. The connection projects the transportation purpose of the ghats (Hossain, 2007).

Panamnagar is an exclusive example of urban settlement in the rural area of Bengal. Its unique settlement makes the place a research laboratory for the archaeologists, architects, historians and for all.

2.5 Urban context of Panamnagar

Sonargaon was the capital of Bengal during Mughal rule. The city was situated at the meeting of Dhaleshwari, Brahmaputra, Shitalakhya and Meghna rivers. It was the best possible location for the capital city back at the time, because of the communication. All the trades used to take place by rivers and the ocean. So, having four rives nearby, the capital city became the hub of trade in Bengal.

Panamnagar is a small part of Sonargaon. But with time it became one of the most important heritage sites as this is the last surviving large scale intact township of the lost capital. There are some other historic monuments can be found in the current premises of Sonargaon Paurashava beside Panamnagar, which are also widely known. Boro Sardar Bari is the most known heritage of Sonargaon, currently known as Folk art museum, located 460 m south of Panamnagar. The building was built in 1901. The building was abundant like many other historic buildings of Bangladesh. Later it was renovated and announced as Folk-art museum, which currently showcases the different folk culture of Bengal.

Another important structure of Sonargaon is Ananda Mohan Poddar's house. The house is located at the north corner of Panamnagar around 30m away. It is also a known heritage site. Visitors tend to visit Ananda Mohan Poddar's house during the visit to Sonargaon. Other important structures of Sonargaon are Choto Shordarbari, Neel Kuthi, Takshal house, etc. Two bridges can also be found near Panamnagar, which were built during the Mughal period. All these scattered heritage sites make Sonargaon one of the major historic hub of Bengal. The connection of all these structures is not visible anymore, but still, they have their uniqueness separately.

The current urban context of Sonargaon-Panamnagar is different from past. But the city is still located in a remote area. The historic city of Panam is surrounded by water bodies in all four sides. The surrounding land of the heritage city is mostly wetland and agricultural. Urban encroachment is still not very acute, but getting closer every day.



Figure 7: Google earth image of Panamnagar

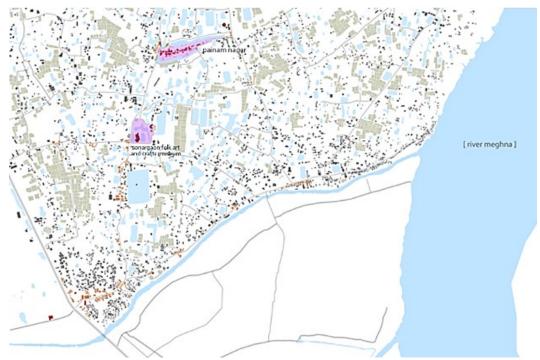


Figure 8: Most significant heritage sites of Sonargaon

Source: (Ahmed, 2015)

2.6 Architectural significance of Panamnagar

Panamnagar is a 60m long street with 49 unique buildings from 18th century. All the surviving buildings of Panamnagar still carry the magnificent style of architecture. Every building has its own unique and different style of architecture even though they were constructed in very close proximity. Most of the buildings side facades are glued with each other insides. But still, they managed to hold their own architectural identity.

Altogether four types of buildings can be found in Panamnagar. They are Central hall type, Central courtyard type, consolidated type, and compartment type.

2.6.1 Central Courtyard type

Some of the influential buildings of Panamnagar has a courtyard in the middle of spatial orientation. This is a very common form of rural Bengal architecture. The courtyard gives a visual connection to every corner of the household and all the common household activities take place in this place. Most of the buildings are two-storied which has a courtyard on the ground floor, accept buildings no. 40. (Jamal, UNESCO). The courtyards were usually brick paved. Some of the buildings also have courtyards on the uppers floors but they are not in the center. By the courtyard rectangular walkway was created on the ground floor of the building as well as on the upper floors. Columns and semi-circular arches were used for the structures of the buildings. Inspiration from Mughal architecture can be found in the enclosing of the colonnades, extensive ornamentation on the cusps, centered pointed arches, etc. Building no. 25 and 42 are the most significant buildings with the courtyard as they have temples on the roof. Buildings 5, 25, 32, 36, 38, 40, 42 and 48 are the buildings with a central courtyard. Building 36 and 38 have comparatively smaller courtyards on the ground floor, which mostly work as light wells and visually connects the entire building. The buildings who has courtyard on upper floors are 25, 32, 42 and 48.

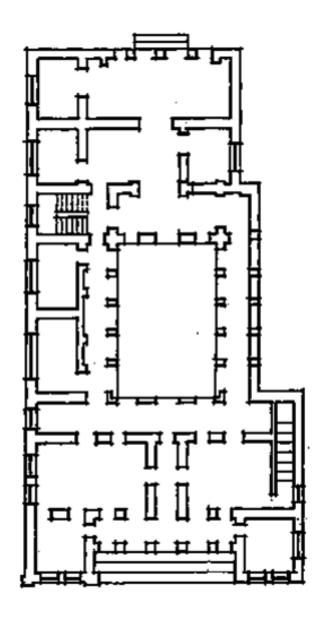


Figure 9: Central courtyard type Source: Department of Archaeology

2.6.2 Central Hall Type:

The central hall type is mostly larger in size than the other buildings. This type of buildings is mostly two storied. The hall room is the most decorative and important part of the building. The central hall is a covered double height space in a building, which does not always represent the center of the building physically in the plan. But theoretically, the center of the building, as all the main activities tend to take place in the hall and its surroundings. But there is no thumb rule for the size, the purpose of the hall. The size, orientation, and purposes of the hall differ in different buildings apart from the rectangular shape of every hall room. The placement of the hall room took place either on the ground floor or on the first floor. Circulated veranda forms surrounding the hall and other functions of the building are connected with the veranda by aisles.

The hall room is the most prominent part of this type of building and different types of activities took place there. The place was used for social gathering or worshiping. But mostly as assumed it was used for 'JalshaGhar' (the place where dancing and singing took place).

The hall room is decorated with high openings with exclusive ornamentation. Also, with colorful stain glasses in the windows to bring mysteries light inside. This part used to be the most expensive part of the house to reveal the wealth and taste of the owner. Building 1, 5, 16, 17 and 26 falls into this category.

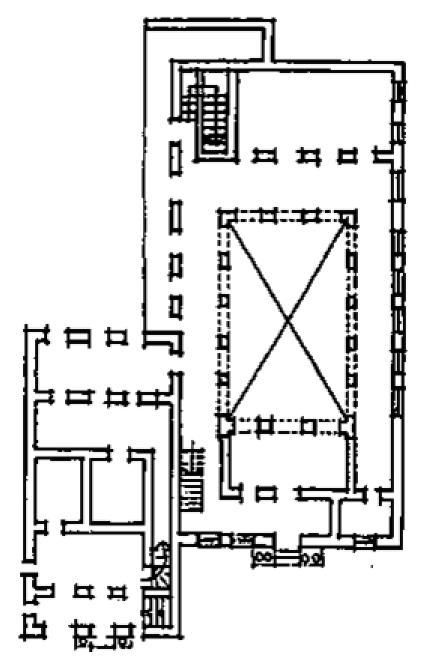


Figure 10: Central Hall type building Source: Department od Archaeology

2.6.3 Consolidated Type:

The majority of buildings of Panamnagar falls into this criterion. This type of buildings does not have courtyards or central hall. The entrance of these buildings has a veranda or portal as a buffer zone from the Panam street. Sometimes the base of the building is merged with the street, sometimes a plinth had raised with two or three steps to distinguish the entrance differently. Most of the buildings which belong to this type are single storied. There is no standardization can be found in the spatial organization inside the buildings. Shapes of the rooms and cells did not maintain a regular size. But balance can be witnessed in all the front facades of those buildings. every building maintained the uniform size of openings and ornamentations. But surprisingly the treatment of the front façade does not match with the function inside.

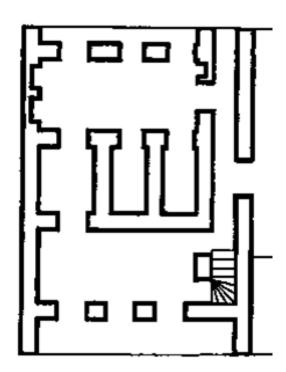


Figure 11: Consolidated type building

2.6.4 Compartment Type

A very few numbers of buildings exist of this type. Either they have multiple compartments or single compartment. A single compartment building has only one room in it. The multiple compartment buildings have same shaped rooms placed side by side. In both cases, the connecting stair from the ground to the roofis placed outside of the building. The compartment type buildings mostly found beside the water bodies. Which gives a sense that these buildings might not be used as residential buildings. They could be used as dressing or changing room for bathing, as people used to take a bath outside in the ponds or lake back at that time.



Figure 12: Compartment type building Source: Author

2.6.5 Materials and ornamentation

All the buildings of Panamnagar are mostly built by brick. Based on the articulation pattern of the building, different shapes of brick had been used. They were rectangular, curvilinear, arched, rounded, angular, pointed semi-circular and so on. The outer surface of the buildings was mostly plastered to cover the brick. The plasters of most of the buildings fell down with the time. The angular brick masonry had been used in the arches as a structural element. Patterned brick had been used in the bases of domes and in some other structures. All the buildings construction was mostly brick masonry wall and the thickness of those walls differs from 50 cm to 70 cm. For the bonding and joining of the bricks, lime mortar had been used.

All the buildings have a flat roof made of lime concrete. Wooden rafters and purlins had been used to support the concrete slab. This is the regular construction system of most of the buildings. But some of the buildings had I-beam and brick vaulted building for the supporting system, especially for the smaller rooms. The buildings with the temple on the roof have a different roof construction for the temple roof. The roof of the temples is thatched roof made of lime concrete, locally the roof is known as 'Dochala'.

For the ornamentation of the buildings, extensive plaster decoration had been used on the front façade of most of the buildings. In some of the buildings, they used local terracotta on the façade for the ornamentation. Attractive decoration with brick pattern can be seen in some of the buildings. Decorative wooden doors and windows had been used to make the buildings look more elegant. Plaster has also been used for the ornamentation of the interior of the buildings.

The wealthy merchants of Panamnagar tried to use different materials for the decoration purpose to showcase their wealth and power. Broken china tiles, locally known as 'chinitikri' can be seen on the front façade of some buildings. extensive iron decoration on the windows, balcony railing, ventilation, stair railings, also had been used for the decoration of some buildings to showcase the wealth of the residence. Especially in building no. 16, the exclusive ironwork can be seen, which is different from other buildings. The most distinguished part of Panamnagar is, even though most of the buildings share walls, each and every building is different from each other. They have managed to give different outlooks and pattern for every building (Zamal Uddin Shaikh, 2009).



Figure 13: Brick construction of the buildings Source: Author



Figure 14: Ornamentation of Iron

Source: Author

2.7 Architectural description of Panamnagar

2.7.1 Mughal style buildings:

The Mughal empire in subcontinent began in 1526 and Bengal was under the Mughal rule during 1576-1765. The Mughal dynasty started their realm from the northern part of former India and gradually spread all over the existing Indian subcontinent. During the sixteenth and seventeenth centuries, the Mughal empire was one of the wealthiest and powerful realms in the world.

The Mughal architecture was very unique and amusing in style, combining Turkey, Iran, Tazakistan, Afghanistan and many more Islamic architectural styles. The style contained Islamic landscape design, the geometrical shape of spaces. To date, lots of great Mughal architecture (Mostly Fort, Places, Mosques) can be found all over India.

The Mughal buildings of Bengal were mostly built of brick. The thick wall and ceiling were mainly made of brick using lime mortar for joint. By lying brick diagonally on the dome, the roofs were constructed and the loads were distributed to the thick brick walls. After the construction of the buildings, floral decoration was done by plaster in the corners, corniche, walls, columns, also can be found on the ceiling. An assigned entrance was missing in these buildings. There were different numbers of decoratively arched opening on the main façade. On the interior and exterior, walls pointed niches are found commonly. In the arches, having multiple points in proper scale and proportion represents the classical phase of Mughal architecture during Shahjahan's rule (1628-58). These sorts of features can be found in some buildings of Panamnagar.

At the time of Mughal reign, many bridges were built and reconstructed. The main bridge on the Pankhiraj river in Panamnagar is also built by the Mughal. It carries the signature of Mughal architecture, which is three-pointed arched openings with the bigger one in the middle.

One of the most important Mughal architectural styles is the perfectly square shaped building layout plan, which has also been found in Panamnagar. There are not many pieces of evidence available currently on the site to determine the exact time period of the construction of the

buildings, but from the architectural style, it could be established that some buildings are built during the rule of Isa Khan and Mughal in Bengal.

Some studies showed that a couple of buildings were built on the decay of Mughal period buildings. There are scattered examples of ruins of Mughal buildings. During the British rule, some buildings were reconstructed and restored which can also be found in the existing Panamnagar. Building 32, 42, 48 could be taken as the example of Mughal architecture in the ancient Panamnagar.

Building 36

Building number 36 is an example of a Mughal structure in Panamnagar. The building is a perfectly square shaped building with the dimension of 41'x 41', This building contains three layers of spatial planning. The front part works as semi-private functions, the middle layers connect the front and back parts with private use, such as bedrooms and the back part also contains semi-private functions, mostly services. In the first floor, like most



Blind Door Niche Court in first floor Figure 15: Building 36, example of Mughal Architecture

Multiple cusps molding
Source: Author

of the Mughal buildings, there is a court. The ornamentation and details on façade, arch openings, columns surrounding the court on the first floor also prove the vibrant life of the dwellers and the construction period.

Building 31

Building 31 is also a two-storied building. It also contains the signature of Mughal architecture including multiple cusps, ornamentation on the openings, court on the first floor etc. But the most important feature of the building is the hut shaped room on the roof. It is a major feature of the Mughal style. The hut shaped structure had been used as a temple for the worship of God/ Goddess. The court on the first had been used as the part of the temple. The other features of the building are short columns and different sculptural details made by plaster. It represents late eighteenth century Mughal architecture.

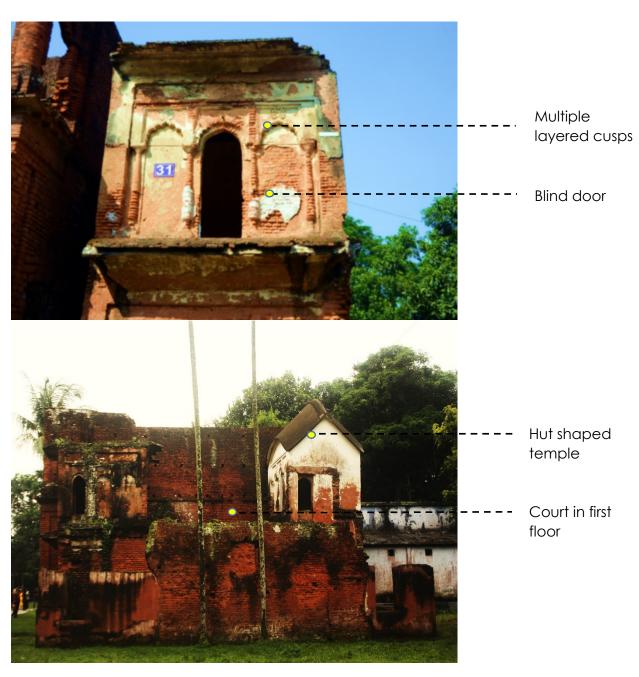


Figure 16 & 17: Building 31, an example of Mughal architecture

Source: Author

2.7.2 Colonial style building

Neoclassical architecture was one of the most leading architectural styles in the British colonial phase. Semicircular arches on doors and windows with decoration, ornamentation with multicolor tiles, façade decoration, large hall rooms inside the buildings, courtyards in the middle of the ground floor, spatial planning in the building layout, decoration with 'Chinitikri' on the exterior, these are the main signatures of Colonial architecture.

One of the most significant elements of colonial architecture is Corinthian columns. Sometimes they act as load-bearing columns for semicircular arches of the balconies, sometimes are used as decorative elements on the façade. Lots of difference can be seen in the column decoration. The capital of columns, keystones, sculptures, all these carry floral decorations and projecting cornice. To add more elegance, floral decoration with cast iron can also be found in the railings and windows. Colored glasses in the windows is also an addition of the colonial architecture.

In Panamnagar, two kinds of colonial style buildings are found. One does not contain any articulate decoration. Only the semi-circular arches, Corinthian columns, capital without ornamentations, etc. And other colonial buildings show extensive ornamentation of neoclassical architecture (Zamal Uddin Shaikh, 2009).

In general, the plinth of Panam buildings are moderately raised from the road level, and the plinths are also decorated extensively. Unlike Mughal architecture, in colonial architecture, the entrance of the building is distinctively prominent. Sometimes the entry is defined with a series of colonnade arches, sometimes with relief works with colorful glasses. One of the significant elements of colonial architecture is the extensive ornamental floral designed keystone.

Panamnagar has a number of examples of colonial architectural buildings, which proves its embellishments during the British rule period of Bengal. A couple of colonial buildings were made on the base of previous Mughal building. That evidence can still be found in Panam. Building no 1, 3, 5, 11, 16, 17, 21, 23, 31, 36, 38, 40, 41, are some prominent example of colonial style architecture of Panam.

Building No. 2:

Extensively detailed sculptures are one of the most attractive parts of some of the buildings of Panamnagar which are considered as colonial architectural buildings of the city. The Italian renaissance architectural adornment can vividly be found in building number 3. Although numerous classical elements were used in this building and the exterior is decorated with many sculptural reliefs. The building is a two-storied building and two different kinds of Corinthian columns were used on these levels. The ground floor contains Greek Corinthian columns and the upper floor has Roman Corinthian columns. The Greek Corinthian columns were used to support the entrance portico, which was extended towards the street of the façade line. This kind of porticos are very common in

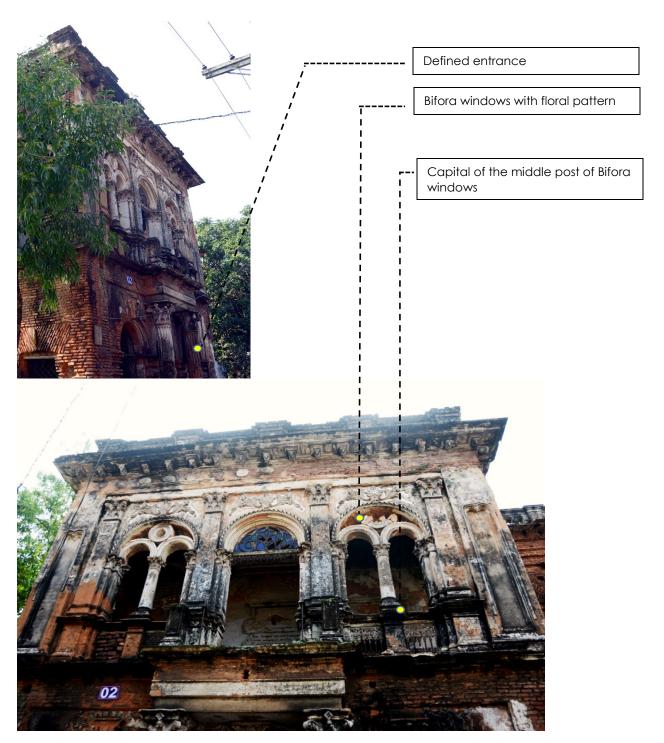


Figure 18 & 19: Building no. 2, an example of colonial architecture

Source: Author

many buildings of Panamnagar to emphasize the entrance. On the other hand, the Roman Corinthian columns on the upper floor are much slenderer. These decorative columns are highlighting the windows and balconies of the external façade. Other elements which are used in this building are Bifora windows, cast iron floral pattern window openings, sculptural details on plaster on the windows. The Bifora windows are only been used in the building of Panamnagar, it showcases the pride and wealth of Zamindars and elite of Bengal.

Building 3:

The architectural specifics of this two-storied building reflect the prestige, power and wealth of the former owner. This building holds the excellent signature of the neo-classical architecture of the British period in Bengal. Building number 5 has the widest elevation of all the Panam buildings which is 50' in width and currently it is used a site of Department of Archaeology and also has a small shop for visitors. Extensive ornamental details in the railings, different kinds of decorative columns and pilasters make the street elevation artistically beautiful. Alike many other colonial buildings, the entrance of the building is supported by four Corinthian columns and pilasters, railings made by cast iron and prominent Renaissance arch. The plinth of the building is made by a single molding and distinct base and capitals can also be found in every column. The windows and semi-circular arches of the building are the most dominating signature of colonial architecture in Bengal (Zamal Uddin Shaikh, 2009).

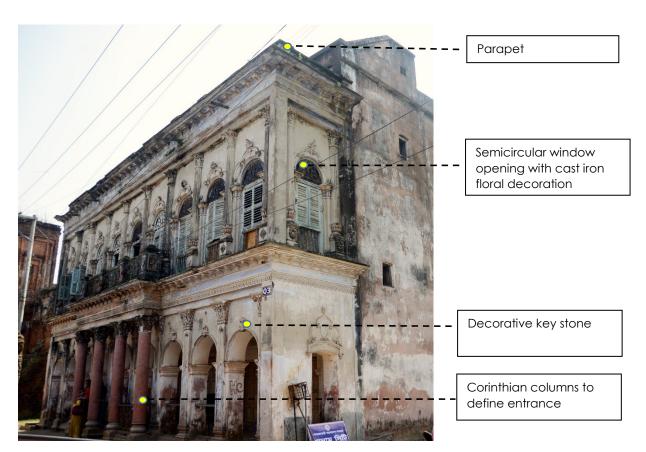


Figure 20: Building No. 3, an example for Colonial Architecture Source: Department of Archaeology

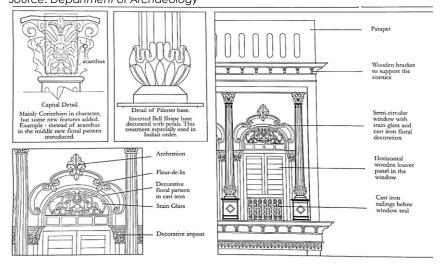


Figure 21: Building 3 Source: (Zamal Uddin Shaikh, 2009)

Building 16:

It has been assumed by the historians that building 31 might be the last building built in Panamnagar. This building was built in 1928. The extensive detail of cast iron decoration makes it different from other buildings of the city. The see-through balconies of the building show respect to the tropical climate of Bengal. Other buildings of Panamnagar are less exposed. Instead of using brick columns, cast iron columns were used in this building from the entrance to the upper level. The decorations of this building are very much undamaged in comparison with other buildings of Panam.



Figure 22: Building no. 16. The latest building of Panamnagar Source: Author

Building 33:

This building is one of the most important and intact buildings of Panamnagar. Currently, it is used as a residence by security guards of the place. Ground Corinthian columns are used on both floors of this building and also both floors have five openings on the street elevation. For the decoration purpose, the columns of the upper floor are highlighted with chinitikri ornamentation. The Rococo architectural style is very much present in this building. According to the neoclassical style the building contains cast iron decorations, floral decoration with plaster, decorative keystone, pilaster capitals, etc.

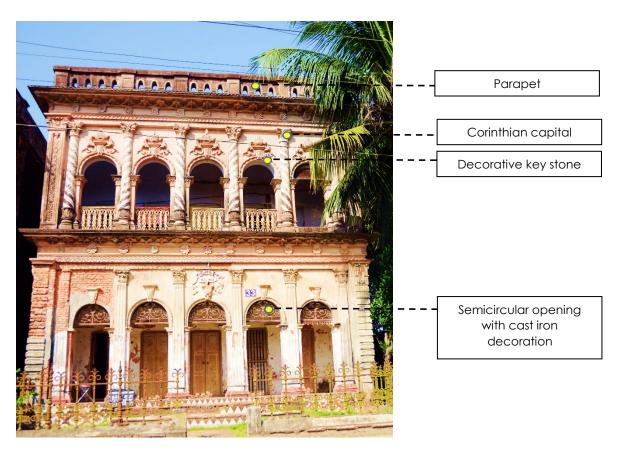


Figure 23: Building no. 33, the most intact example of Colonial architecture in Panamnagar Source: Department of Archaeology

2.7.3 Mixed Architectural Buildings (Mughal and Colonial):

These mixed architectural buildings are the example of a bridge between two very distinguished and bold architecture in Bengal, which is Mughal and Colonial architecture. This style maintained the on-going architectural style of Bengal and also tried to adopt some European styles. This style merged the elements of Mughal and Islamic architecture, such as two/four-centered arch or multiple layers of cusps, with European styles, such as Doric columns, defined entrance, cast iron, and floral decoration, etc. Some Mughal style buildings of Panam later adopted a few colonial styles to meet the expected functions. For example, entrance portico had been added to few buildings which can be understood by the different brick size. Some buildings have Mughal decoration and patterns on the ground floor and the second floor contain neo-classical characteristics. It has been assumed by the historians that the lower part of these buildings could be built earlier, later the upper part had added to serve functions and followed neo-classical style (Zamal Uddin Shaikh, 2009).

A very strong connection between these two types of architecture builds up during the early twentieth century. At that time, Mughal elements were flawless. Projected balconies, kiosks, added new height to the colonial architecture, but the floral design on façade was not so prominent. The buildings became larger in scale, followed spatial planning according to European style and external ornamentation according to Mughal style. Building 7, 9, 13, 15, 19, 25, 33 are some important example of mixed architecture in Panamnagar.

Building 7 & 8:

These two neighboring buildings are totally architecturally identical. The ground floor openings are reflecting Islamic Mughal style and the façade of the upper floor followed the neo-classical style of openings. Rococo style floral pattern of cast iron is used in the upper-level windows. The neoclassical style part of these buildings is less vivid than the classical part.

The openings of the ground floor contain multiple cups molding, Massive columns. The columns are not built to carry the load, rather for the decorative purpose. There might be a veranda on the upper floor which was stretched on the porch, but it fell down. The other windows contain the same design of railings.

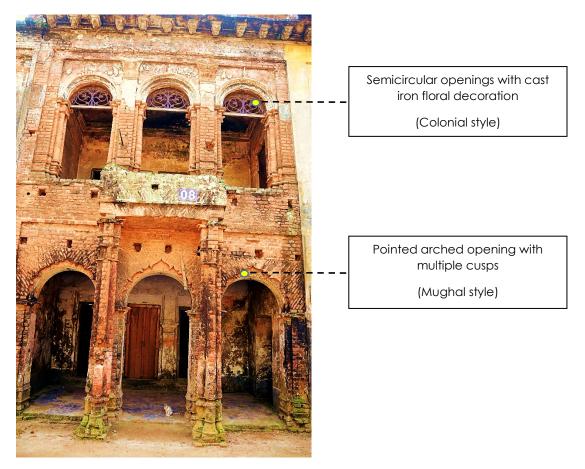


Figure 24: Building 8, An example of a mixed architectural style of Panam Source: Department of Archaeology

Building 10:

Building number 10 is a three-storied building with a wide façade. The whole building showcases Mughal and Islamic architecture apart from the entrance of the building. The ground floor and the upper floor have seven openings and the middle floor has three. All the openings are arch with multiple cusps.

Only the entrance portico represents the colonial style. Two different kinds of bricks had been used for the main building and for the entrance portico, which proves that the portico was a new addition to the building. The entrance portico of this building is bigger than many other buildings of Panamnagar and the round arches followed Roman style (Zamal Uddin Shaikh, 2009).

Site Analysis

3.1 The chronological ownership of the heritage site

Panamnagar was one of the most important cities of the ancient capital of Sonargaon particularly for trade and commerce. Sonargaon was the capital of Bengal in the 13th century. It was a very prominent and important city of Bengal at its glorious time. In the late 19th and early 20th-century Panamnagar became the most important center for trading of cloths under the powerful merchants and landowners. The Hindu merchants came to Panam from various places including Kolkata, Patna, Mumbai and other parts of India at that time to ease their trading system. Back at the flourishing time of Panamnagar, the entire place was totally occupied by the Hindu dominating people. The visitors and travelers from different countries who came to Panamnagar stated that they never found any Muslim in the area. But this continues until 1947, when the partition of Bengal as well as India came into force. British occupied and ruled India for around 200 years since 1757. After the World War II, in the face of the tremendous movement staged by the people of this sub-continent led by MC Gandhi, Mohammad Ali Zinnah and other prominent leaders, the British ruler left India by giving independence to the people creating two different countries – India and Pakistan. The Indian subcontinent had two major religious people -- Hindu and Muslim. Based on these major religions, the British Government divided the huge country into two new nations that appeared on the world map named as India and Pakistan in 1947.

Pakistan was constituted with two parts of the land, East Pakistan (the then East Bengal) and West Pakistan. Today's Bangladesh was former East Pakistan. Because of this religious-based division, in 1947 a huge migration happened in the history. The Muslim people who were living in the Indian part were forced or feared to be forced and opted to be migrated to Pakistan, leaving behind all of their houses, land and other belongings. The same thing happened to Hindus too, who had their homes in Pakistan territory. This forced or feared to be forced migration also took place in Panamnagar and the Shahas, Poddars, known as renowned Hindu merchants, left their houses in Panam and migrated to different places in

India for security. That was the first-time first forced eviction took place in Panamnagar. The majority of the people of Panamnagar abandoned their house. The historic city started losing its glory and vibrant life it beholds for years. But still, some people decided not to leave behind their homeland and wanted to carry their legacy of their forefathers.

The second displacement took place in 1964-1965. The ethnic cleansing against the Hindu population took place in 1964, which is also known as Hindu-Muslim riot happened in the then East Pakistan. It took place for several religious reasons – most importantly by hearing rumors or facts of riots in India between Hindu and Muslims. The houses of Hindus were looted, burned and occupied by Muslims all over East Pakistan. After a while, again in 1965 the Indo-Pak war happened and Hindus were again suppressed by Muslins in this area and forced to migrate to India, as India was a Hindu dominated country. The remaining inhabitants of Panamnagar migrated to India by force and fear of losing their lives. For the first time, the whole area was abandoned. In 1965, the Government of Pakistan declared the entire Panamnagar as 'Enemy Property'. (Khan, 2009)

For quite some time, the city was completely empty, there was no tenant leaving there after 1965. But later some of the buildings got illegally occupied by local dominant Muslims. At that time, there were around 52 building existed in the historic site. Some of the buildings were leased by the government for 99 years. Meanwhile, some of the inhabitants claimed that the previous Hindu owners sold the property to them before migrating to India during the riot. The liberation war of Bangladesh took place in 1971. Still, the illegal tenants were living there. After more than 30 years of the liberation war in 2003, there were almost two hundred and fifty people were living in different buildings of Panamnagar.

The buildings were facing threat to collapse due to lack of maintenance, rainfall, water logging, flood, other force of weather, unplanned modification etc. The archaeologist, architects, civil society were continuously trying to grab the government's attention to the preservation of the historic city. At the verge of continuous demand to save the site,

under the Antiquities Act 1968, the government declared the 10 acres land of property as a protected site in March 2003. This announcement made the inhabitants furious. They arranged campaign and r movement not to evacuate the buildings. They refused to migrate anywhere for the sake of heritage because they were living in those buildings for more than 40 years. They have grown their sense of ownership to the heritage site in terms of time. Still, some graffiti can be found on the walls of the buildings as a sign of their protest. Then the army-backed government took control of the situation and evacuated the entire place in 2006. Finally, in 2015, the Department of Archaeology locked all the buildings of the site and introduced two controls for the entrance and exit of the historic street(Khan, 2009). They also imposed a ticket to enter the site to collect some revenue for the maintenance of the buildings.

3.1.1 The Vested Property Act/ Enemy Property

The Vested Property Act is a debatable law practiced in Bangladesh since the Pakistan period. This law had been criticized all over the world as it violates major human rights. This law especially impacts the minorities of Bangladesh. It allows the Government to seize property from a person who considered as an enemy of the state. It reflects insecurity and a major violation of human rights against the Hindu and other minority communities. In the time of Pakistan period in Bangladesh, the vested property was known as 'Enemy property'. Pakistan declared a state of emergency after the Indo-Pak war on 6th September 1965 at the outburst of war with India. On that day Pakistan government broadcasted the Defense of Pakistan Rules. The Government of East Pakistan passed an order under the defense rule concerning the enemy property. The property of minorities had been declared as enemy property by this order. It affected the Hindu community most, especially to those who flew to India during the Indo-Pak war to save their life. The Hindus who flew to India were accused of supporting India and marked as the enemy of Pakistan, and so their properties marked by the government as 'enemy property'. The government had the right to seize all their properties in accordance with this law.

In 1971, after the nine months war of liberation, Bangladesh gained their independence from Pakistan. But the 'Enemy Property Law' existed by virtue of the Laws Continuance Enforcement Order. After independence, the issue of this law had been continuing with ordinances, amendments, circulars, etc. The name of the law was changed in 1974 and the new name had given as Vested Property Act. According to this law, the Government of Bangladesh has the power to seize property of a Bangladeshi citizen if he/she is accused as an enemy of the land. During the Indo-Pak war in 1965, Most of the Hindu families of Panamnagar migrated to India for their safety and the area was taken over by Government under the law of 'Enemy Property.' (Khan, 2009)

The 'Enemy Property Law' was the conclusion of several minority discriminatory laws against non-Muslims of former Pakistan. The major acts are cited below:

- The East Bengal (Emergency) Requisition of Property Act (XIII of 1948)
- The Defense of Pakistan Ordinance (XXIII of 1965)
- The Defense of Pakistan Rules, 1965
- The Enemy Property (Custody and Registration) Order of 1965
- The East Pakistan Enemy Property

(Lands and Buildings Administration and Disposal) Order of 1966

Bangladesh (Vesting of Property and Assets) President's

Order no. 29 of 1972

 The Vested and Non-Resident Property (Administration) Act (XLVI of 1974)

The declaration of 'Enemy Property Law' had a huge impact on the religious minorities of Bangladesh (former East Pakistan). The land grabbers and locally dominating people grabbed lots of land of the Hindu minorities abusing this law. The government lost control of those properties and around two third of the properties were taken over by people. According

to Prof. Barkat's paper on 'Vested Property Act: Political and Economic Consequences', about 53% of family displacement and 74% of land grabbing took place after the Indo-Pak war and before the independence of Bangladesh. There were several attempts took place after the independence for the correction of the law, but a very little had been done so far. In 2001, Government of Bangladesh introduced The Vested Properties Return Act, although very little progress had yet been made in returning the properties to the previous owners. (Khan, 2009)

Ironically Panamnagar is still kept under the 'Enemy Property Law'. The Department of Archaeology is solely responsible for its protection and maintenance at the time when a case is running between the Government and the alleged owner of one building of the historic site.

3.2 Socio-economic condition of Panamnagar:

Panamnagar is located in Sonargaon Paurashava in the greater Dhaka division. The Paurashava has altogether nine wards (the lowest tier of the local administration with a small area of land) and twenty-two mauza (an area of land marked by the department of land) in it. Panamnagar is spotted in ward number 5. This ward is holding a major portion of the entire Paurashava with buildings and establishments. According to the BBS (Bangladesh Bureau of Statistics) census 2011, the population of the ward is 3289 people. The total area of ward number 5 is 231.27 acres. The residential area covers 115.05 acres, agricultural land covers 48.98 acres and 2.32 acres are used for commercial use currently (Paurashava, 2015).

According to the report of Sonargaon Paurashava, the major development of the area has taken place in Ward 7, 8, 9 and 5. The major occupation of the people of ward number five is a small business. About 13.3% population is involved with the small business based on the tourism of the historical site of Panamnagar. The area is connected with the Dhaka-Chittagong National highway -- this connectivity plays a major role in the development of the area.

Along with the historic city of Panamnagar, the area also holds the famous Folk-art museum of Bangladesh. The region is also renowned for its

handicraft materials, such as muslin weaving, wooden toys, etc. (Paurashava, 2015).

3.3 Strategies for the historic site's protection

In the Master plan of Sonargaon Paurashava 2011-2031, under the policy section, the conservation of the historic site has been mentioned.

"Protect heritage structures and archaeological and cultural sites through appropriate schemes, projects, and regulations."

In the urban expansion section, it has mentioned to protect, preserve and enhance the historical and cultural heritage of the city. For the future protection of the historic area, it has been mentioned in the areas of protection.

Type of land	Means of Implementation	Implementing agencies
The historic areas: As this is a historic area, the Panam city area, Museum area and another historic area within the Paurashava should be preserved.	As per existing rules and regulations of Department of Archaeology of Bangladesh.	 Department of Archaeology of Bangladesh Bangladesh Parjatan Corporation Sonargaon Paurashava

Table 1: Area of Conservation and protection Source: Final Master Plan of Sonargaon Paurashava

Recreational facilities of ward number 5 covered 2.43 acres land including 43.39-acre heritage site. The standard for the recreational facility includes cinema/theatre and covered stadium/sports complex. Up to the year 2031, about 5 acres land (1 acre per 20000 population) will be needed for

cinema/theatre and 5 to 10 acres for the stadium. Total 19.82 acres of land is needed for this category. But the stadium and park have included within the open space zone. As this is a tourism-based area as per the demand of pourashava and considering the real scenario, a new area of 4.39 acres for popular tourist complex has proposed for this area.

In terms of land development regulations, for the conservation of archeological monuments or structures or historical development of the Ancient Monuments Preservation Act, 1904 (Act No. VII of 1904) may be enforced. Archeological Department of Bangladesh and Paurashava authority through a public-private partnership process may preserve such type of development (Paurashava, 2015).

3.4 Existing condition of the historic site and policy implementation

Although the master plan of Sonargaon 2011-2031 has been submitted in March 2015, a very little implementation of the policies has taken place for the conservation of this historic city. After the second forced evacuation of the illegal habitants, the Archaeology Department of the government of Bangladesh took the full responsibility to conserve, protect and manage the site. Except for building number 2, 33 and 14, all other buildings had been locked down by the authority. Unfortunately, the lack of local people's cooperation, it has been always difficult for the authority to maintain the site properly. As there is no defined buffer zone at the site, there are lots of illegal vendors encroached the adjacent land and always tend to spread their business inside the territory. People trying to break into the historic building, illegal drug abuse, tourists littering are some regular phenomenon of the historic city (Das, 2017).

One of the most important issues needs to be taken care of is, without assessing the cultural significance of the Panamnagar, the authority tried to rebuild the city. From the interview with the director of Panamnagar, it was known that after starting the process of rebuilding the building number 14, they understood that it was a wrong step to take and they hampered

the authenticity of the heritage building. Then the rebuilding process of the heritage site was stopped immediately.

There are still a couple of cases going on between the previous inhabitants and government in terms of the ownership of some buildings. Those buildings are also locked down and no visitors are allowed to enter. Building 18 is a former temple and it has been renovated by the local Hindu people to have a place to worship during the period of illegal inhabitation. It is still being used as a worshiping place. But it becomes hazardous during the main religious events. There are lots of people come into the territory and they are more than the capacity of the site and it gets difficult to ensure proper security for people as well as the structures. Three buildings are occupied by the security people. They live in these buildings. One of them also has a small café and souvenir shop. Two buildings are illegally occupied as shops by the local people. The surrounding waterbodies of the historic city are still in use by local people for their daily household activities.

All the forty-nine buildings are in different condition right now. Some are really dangerous for visitors to step in, some are completely intact while some others require repairing for the visitors to ensure safe tourism.

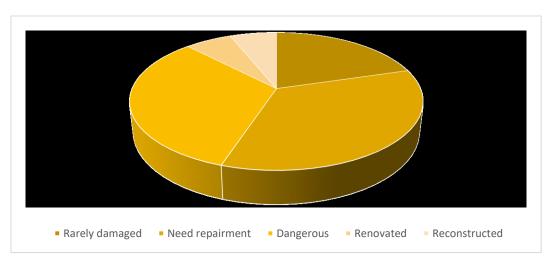


Figure 25: Physical condition of heritage buildings Source: Nuzhat Sharmin

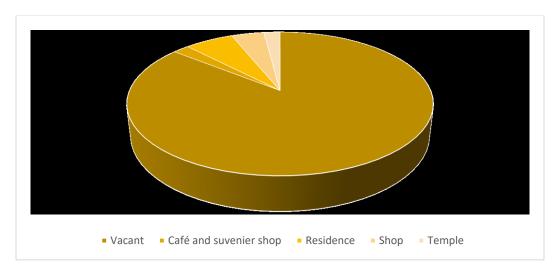


Figure 26: Current function of the historic buildings

Source: Nuzhat Sharmin

3.5 Current Stakeholders

Panamnagar is an underrated heritage site of Bangladesh. Because of the long-term illegal habitation, it took a lot of effort for the academics to make the government consider the city as a heritage site and safeguard it. Currently, the site is under the protection of the Archaeology department of Bangladesh and there are various stakeholders from a different background.

Stakeholders		Description
	Ministry of Culture	Be responsible for maintaining and promoting the culture of Bangladesh
National Authorities	Ministry of Tourism	Support financing aid for construction of several structures

	Stakeholders	Description	
	Ministry of Antiquities	Conservation and Preservation of site components	
	Department of Archaeology	Ensure security and maintenance	
Tourists		Must be involved in terms of accessibility and promotion	
Local Community	Travel Agencies	- Dravida accordifation of action to the	
	Accommodation	 Provide several forms of service to the tourists/visitors 	
	Restaurants	•Be in charge of the preservation of the historic site in a way to respect and consider them as the important asset for their country and revenue.	
	Retailer& Shops		
	Transportation Operators		
	Residents	Be in charge of taking care of the historic city with respect.	
Research Institutions		Unearth more historical and cultural aspects of Panamnagar	

Table 2: Stakeholders of Panamnagar

Source: Nuzhat Sharmin

3.6 SWOT Analysis

A SWOT (Strength, Weakness, Opportunity, Threat) analysis is an internationally accepted tool to understand the possibilities and current threats of a site. It helps get a vision of the past and potential of the future importance and tries to provide a solution for current problems that the site is facing. It is the first step to build strategic planning of a site (Ommani, 2011).

It is important to understand the strength, weakness, opportunities, and threats of the site to develop a conservation policy. As a historic site, Panamnagar has gone through a lot of events and currently it is facing the

threat of vandalism, illegal encroachment, and damage of its unique buildings.

In order to analyze the strength, weakness, opportunities, and threats of Panamnagar, there is much to be analyzed from the current condition and future prospects of the site. In order to have a cohesive SWOT analysis information must be derived from various stakeholders. To accomplish this holistic approach, the first step was to create a short survey to the visitors about their experience in the historic city. The survey played a big role in the completion of the SWOT Analysis. Based upon the field surveys and research, the following SWOT analysis is created.

Strength	Weakness
 National recognition as heritage site Immense heritage value Unique architecture Exceptional experience Potentiality of earning enormous revenue 	 Poor conservation management Lack of facilities Safety issues of the buildings No interpretation signage The absence of a buffer zone No website
Opportunities	Threats
 Increased stakeholders' awareness Improved conservation management of nearby heritage sites Tourism promotion Educational events to increase local awareness 	 Site deterioration Visitor behavior littering Non-cooperative local people Illegal encroachment of vendors

Table 3: SWOT Analysis Source: Nuzhat Sharmin

Cultural significance assessment

4.1 Cultural significance in Burra Charter

The first step to develop a policy to protect a heritage site is to understand the cultural significance of the place. It helps understand the values of the site and necessary steps need to be undertaken for planning and managing the site.

The Burra Charter is the most efficient guideline to understand the cultural significance of a heritage site. In 1979 Burra Charter was first adopted by Australian ICOMOS (International Council on Monuments and Sites) to assess cultural significance of different historic places. The revisions had been made in 1981, 1988, 1999 and 2013. The Charter is applicable for all kinds of sites with cultural significance. It could be cultural, natural, historic or indigenous places (ICOMOS, 2013).

The Burra Charter process works in three steps.

- 1. Understand the Significance of the site
- 2. Develop a policy accordingly
- 3. Manage the site complying with the Policy

To protect a place of cultural significance, the first step is to identify the values of the place, which will help determine the cultural significance of that specific place. According to Burra Charter,

"Cultural significance means aesthetic, historic, scientific, social or spiritual values for past, present or future generations.

Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meaning, records, related places, and related objects.

Places may have a range of values for different individuals or groups." (ICOMOS, 2013)

To protect or safeguard Panamnagar, or to develop a conservation or management policy to protect it, the first and foremost step would be to assess the cultural significance of this ancient city. Unfortunately, the assessment has not yet been done by the scholars or authorities who are responsible to give advice or make policy decisions. It's a matter of pity that no literature reviews were found based on the cultural significance of this historic city. So, before formulation of any conservation policies and taking necessary steps for its implementation, it is very much essential to assess the cultural significance of the city. Thus, in this paper, the author has opted to assess the cultural significance of this heritage site as the main objective according to the Burra Charter guidelines.

4.2 Cultural Significance of Panamnagar

As said above, it is, in fact, mandatory to identify the cultural significance of Panamnagar to understand the value and importance of the place for conservation. The 49 buildings of this city carry important and impacted evidence of our glorious past. They connect us with the memories left behind by our forefather. Buildings are not the only shelter for people, but they are also a combination of complex and multilayered perception. To understand a building or its multiple significance, it demands its evaluation from several dimensions (Leo Schmidt, 1999). Panamnagar is a very important historical evidence of the lost civilization of Bengal. The historical background of the city which is mentioned in chapter two helps understand its value and significance.

The Burra Charter by ICOMOS has been adopted to explain the cultural significance of a place in a systematic way. To develop the potentially best policy for a place, establishing cultural significance is the vital step (ICOMOS, 2013). As the Burra Charter is designed to assess the cultural significance of different places, its guidelines have been followed in this thesis paper to understand the cultural significance of Panamnagar.

According to the Burra Charter, a 'Place' means "A geographically defined area. It may include elements, objects, spaces, and views. The place may have tangible and intangible dimensions" (ICOMOS, 2013). The meaning of the place is very vast. A place could be of any size of a natural or cultural significance. And it has to have a tangible or intangible value or both at the same time. Panamnagar clearly falls into this category. This cultural place holds a lot of tangible and intangible values. In the Burra Charter complementary publication: Practice Note 1, 2013, understanding and assessing cultural significance, valuation criteria have been systematically explained. There is a set of questions for each criterion:

aesthetic, historic, scientific, social and spiritual, which need to be answered to establish the values of the heritage site. Each of the questions helps identify the significance of the place. In the following, it has been tried to answer all the questions to establish the cultural significance of Panamnagar. The five values of Panamnagar are defined below according to Burra Charter:

Aesthetic value:

According to the Illustrated Burra Charter, "aesthetic value refers to the sensory and perceptual experience of a place—that is, how we respond to visual and non-visual aspects such as sounds, smells and other factors having a strong impact on human thoughts, feelings, and attitudes. Aesthetic qualities may include the concept of beauty and formal aesthetic ideals. Expressions of aesthetics are culturally influenced." (ICOMOS, 2013)

Panamnagar holds a rich amount of aesthetic qualities of the lost civilization of Bengal. To determine the aesthetic value of the historic city, the necessary questions are tried to be answered below:

- Panamnagar has a very special settlement from the 18th century. It's geographical and architectural combination makes it one of the important housing settlements in the history of Bengal
- The architectural and aesthetic practice of Panam city was so unique that in later period this specific architectural trail can be witnessed in different parts of Bengal
- Panamnagar has a very strong inspiration for the artistic and cultural response. In Bengal literature, stories, photograph, movies the place has been used as a beautiful symbol
- There are currently forty-seven buildings remaining in the Panamnagar, and each building has different unique façade treatment which makes the place very vibrant

Historic value:

"Historic value is intended to encompass all aspects of history—for example, the history of aesthetics, art, and architecture, science, spirituality, and society. It therefore often underlies other values. A place may have historic value because it has influenced, or has been influenced by, a historic event, phase, movement or activity, person or group of people. It may be the site of an important event. For any place, the significance will be greater where the evidence of the association or event survives at the place, or where the setting is substantially intact than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of such change or absence of evidence." (ICOMOS, 2013)

The following points support the historic significance of Panamnagar:

- The city is the only remaining example of the housing settlement of Bengal merchants from the 18th Century, which adds huge historic value to its significance
- The city carries an important example of the city pattern of Bengal housing settlement
- The geographical position of the ruined city explains the security system of the former cities. The place is surrounded by artificial water bodies to protect itself from invaders. It was also completely covered with greenery and almost became an invisible city
- The city is directly associated with the lifestyle of the richest merchants of Bengal in the 18th century. It carries the day to day life and the history of people who used to live there

Scientific value:

"Scientific value refers to the information content of a place and its ability to reveal more about an aspect of the past through examination or investigation of the place, including the use of archaeological techniques. The relative scientific value of a place is likely to depend on the importance of the information or data involved, on its rarity, quality or representativeness, and its potential to contribute further important

information about the place itself or a type or class of place or to address important research questions. To establish potential, it may be necessary to carry out some form of testing or sampling. For example, in the case of an archaeological site, this could be established by a test excavation." (ICOMOS, 2013)

 As Panamnagar is the last remaining city of Bengal settlement, extensive research and study on the pattern can help us understand how to input the techniques introduced in the city to our current urban settlement to achieve more climate and environmentally friendly sustainable cities.

Social value

"Social value refers to the associations that a place has for a particular community or cultural group and the social or cultural meanings that it holds for them." (ICOMOS, 2013)

The following points can help determine the social value of Panam city:

- The ancient city is very important to the local people as they believe
 it carries their identity. They believe people from all over the country
 know about this place because of the heritage city
- The place is also associated with the folk group of the country. The folk museum is also located in the near territory of the ancient historic city

Spiritual value:

"Spiritual value refers to the intangible values and meanings embodied in or evoked by a place which give it importance in the spiritual identity, or the traditional knowledge, art and practices of a cultural group. The spiritual value may also be reflected in the intensity of aesthetic and emotional responses or community associations and be expressed through cultural practices and related places." (ICOMOS, 2013)

- The temples situated in the boundary of the ancient city is still used regularly for the prayer of local Hindu people
- At the time of most important Hindu religious events, the city has to be kept open for public for their celebration without any admission.

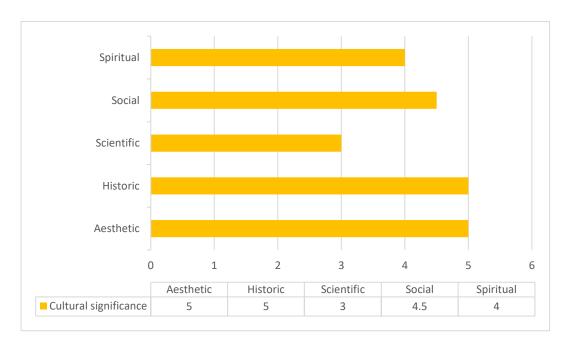


Table 4: Expression of the cultural significance of Panamnagar in the chart Source: Nuzhat Sharmin

In the chart displayed above, the cultural significance of Panamnagar has been shown at a glance. By answering all the questions from the practice note of the Burra Charter, it is possible to draw a line about the cultural significance of the heritage site of Bengal. The historic city contains a huge value both aesthetically and historically. The enriched history of the site compliments the historic value. The beautiful architectural details from Mughal and Colonial period gives the place a different dimension. It showcases the architectural evolution in Bengal according to the climate and social need. There are still a lot of opportunities and scope to conduct research on the historic site and discover interesting facts of our glorious past. The social value of the historic site is undeniable. Many local people are creating a different small-scale business on the territory of the site and

earning their living through tourism. And finally, the spiritual value of the site also needs to be evaluated purposefully. Because, the rituals of Hindu population are still practice in the century-old temples in a Muslim dominating area, which indicates a remarkable coexistence of the two different but rivalry group of population (Hindu and Muslim). The historic city has been successful to bring people from these two different religions in one place which is much appreciated by all concerned.

4.3 Statement of Cultural significance of Panamnagar

A statement of significance gives a brief and refined summary of a place of cultural significance. The statement of significance mostly analyzes the significance against the values or criterion and combine the result of all values and most important aspects. The protection and conservation actions and policies are supported by the statement of significance (ICOMOS, 2013).

Panamnagar is a historic place of cultural significance as has been mentioned already. It carries all the five values of importance in national level. The values are not equal in respect of importance, but all of them can be taken under consideration in terms of stating cultural significance.

Since the late 18th century, the historic city of Panam has been influenced by the consecutive political, social and economic transformation. It comprehends the layers of historical and social change of Bengal on all of its structures. The buildings of the historic city contain the architectural details of Mughal and British period in Bengal. The street and building patterns show the gradual growth of urbanization and how the architecture evolved respecting climate and environment of tropical atmosphere and also adopting foreign elements.

The build environment of Panamnagar survived a significant number of historical events. The place witnessed the partition of Bengal in 1947 under British regime. It observed the brutality of Hindu-Muslim riot in 1964. The historic city also witnessed the liberation war in 1971 against Pakistan and the birth of a new country named Bangladesh. In the entire time of its existence, Panamnagar had gone through several owners, and each of them left their mark on its surface.

Panamnagar reflects the phases of architectural adoption and changes of time. It carries the evidence of magnificent history of Bengal and the lifestyle of the powerful merchants. As a result, it has been captured in literature, images, novels, film, etc. Aesthetic qualities of the historic city's-built environment also offer an extraordinary visual and perceptual experience within the city's urban and architectural context. Whenever people tried to understand the essence of the history of Bengal, they went back to Panam to recollect the pieces.

The Hindu population of Sonargaon has been practicing their rituals in the temple of the site for a hundred years despite ethnic violence occurred many times at different places of the then Bengal which became East Pakistan in 1947 and later got complete independence as Bangladesh in 1971. The historic city has gone through so many changes that there is yet a lot to discover. Researchers, archaeologists, architects, historians, academics and others are still working to find out more information about Panamnagar.

4.4 Heritage value assessment of Panamnagar

The significance of Panamnagar is very high in the context of Bengal history. It is the last and only surviving entire historic city of the previous capital Sonargaon. The place creates a bridge between the present and the glorious history of Bengal. It holds the aesthetic, historical, cultural, social and spiritual values. It also has economic value to the local people. The historic city holds both the tangible and intangible values. The intangible value holds the spiritual value and connection of local people with the historic site. It also adds great worth to the place. People still come to the temples regularly, and especially during the Hindu festival, people like to gather there and celebrate with holy and joyful spirit and bring life to this abandoned city. The tangible values contain built form, beautiful buildings with unique architectural designs and natural landscape surrounding the site and the intangible value holds the spiritual value and connection of local people with the historic site. The value assessment of tangible and intangible heritage of Panamnagar is given below:

Attributes		Value (Social, Cultural, Economic, Historic, Spiritual, Esthetic)		Score
Tangible	Built Form	Residential Buildings	Represents elaborate architectural skills (Esthetic) Illustrate remnants of the Capital city of Sonargaon. (Historic and Cultural) Reflect the religious and political scenario of the 18th century (Historic and Religious) The historic settlement attracts tourists (Economic)	Very High
		Temples	The temples carry its unique architectural details. The temples are still used for worship (Historic and religious)	Very High

		Bridges	Architectural elements dating back to the Mughal period shows the unique structure of bridges (Historic and Cultural)	Very High
	Natural	Pankhiraj river and	Creating very fertile land for vegetation (Economic)	
	Environment	other man- made waterbodies	Used to protect the city back at the time and currently work as a buffer zone (Ecology)	High
Intangible	Traditional Practices	Religious Festival	Activities such as festivals, temple rituals, results increasing of economic revenue from social and religious (Economic)	Medium
			Help local people harmonized together (Religious, Cultural, Social)	

Table 5: Heritage Value assessment of Panamnagar:

Source: Nuzhat Sharmin

Sustaining cultural significance

5.1 Sustaining cultural significance

Changes in designs of buildings, landscape and periphery of township is a continuous process. The architectural design of the buildings of Panamnagar, the mapping of the city, its landscape and surroundings are unique in nature that indicates that Bengal civilization starts many years ago. Given that a historic city is a door to the past of a nation, it must be protected to know the past of the concerned nation. Panamnagar is the last surviving historic city of the lost glorious Bengal province. Currently, it is suffering from the fright of being decayed. Continuous illegal encroachment for decades, lack of maintenance, wrong way of conservation, lack of local people's knowledge about it pushed it at the verge of losing its cultural significance forever. To protect the city's cultural significance, the following step can be taken:

5.1.1 Define proper buffer zone:

Panamnagar does not have an assigned buffer zone. The city is surrounded by water bodies which technically work as a buffer zone, but to protect the place from illegal encroachment of vendors, a buffer zone needs to be demarcated. It has two controls found both at the end of the street runs through the city. The main entrance is used to sell tickets to visitors. But unfortunately, beyond these two controls, there are many illegal vendors occupying places inside the historic city. There can be found restaurants and cafes adjacent with the boundary of the heritage site, without any gap, which hamper the visual integrity. To keep the heritage site safe and sound, defining a proper buffer zone is the first and major step.

5.1.2. Identification and Documentation

The settlement of Panamnagar is a rich collection of Bengal architecture and urban planning from the various periods of times. As a result, all the buildings of the heritage site are not in the same conditions. Also, the entire

historic city had been occupied illegally for decades, which resulted in decays and destructions and hampers to the structures. Almost ten buildings are totally destroyed overtime and many others remaining in a dilapidated condition. To protect and conserve the heritage site it is very important to identify and document every building properly and precisely. After documentation, it would be easier for the authority to take the decision how to conserve the structures. Each and every single building needs different attention. Some of them only have the skeletons, some of them are intact to be used again, while some are very fragile and standing at the verge of being collapsed at any time. So, proper documentation is very much essential to take the proper decision on which building needs what kind of attention, renovation and maintenance.

The Archaeology department, department of antiquities, academics, different heritage organizations tried to document the state of some of the buildings of Panamnagar, but the whole documentation of all the buildings has not done yet. As a result, some wrong steps had been taken. Building number 17 had been reconstructed in the name of conservation, which hampered the integrity of the building. So, for the protection of the historic site, precise documentation and preparation of detail drawings of the plan, section, elevation of each building are the most important steps.

5.1.3 Reasons and probable solution of building deterioration

The current condition of the buildings in Panamnagar needs immediate attention to be renovated and/or maintained. Time, climate, usage, all of these left their trace on the surface of the buildings. It is imperative to find out the actual causes of deterioration of different building materials and then recommend accurate remedial actions for different problems.

It is the basic requirement to understand the age of the building, its materials, construction techniques, design quality, and workmanship before considering any recommendation for protection, conservation, preservation, reconstruction, reuse, repair, and maintenance. Without having the proper knowledge any physical conservation policy may cause irreversible damage.

Other than human-caused problems, weather is another factor that causes to the buildings. As Bangladesh is a tropical country, the most regular

problems for legendary buildings are moisture-related problem and other problems with building materials.

Moisture problem

Almost every building of Panamnagar is affected by moisture. This is somewhat unavoidable as the climate is very humid in Bangladesh. But there must be solutions to find out. The heavy rainfall, condensation, etc. are other reasons for dampness of the buildings. However, it is important to find out the exact reason of dampness for a different building. Poor construction detail, internal or external crack to channel rain-water, could also be the reasons to create moisture problems for the buildings. (Akhter, 2004)

Problem-related to building materials

The main construction material of the buildings of Panamnagar is brick. Timber had been used as the load-bearing structure, iron and glasses had been used for decoration purpose.

Brickwork: As the buildings are made of brick, all the structures were easily affected by rainwater and flood, cracking and fractures, crystallization of soluble salt, etc. (Peter Marquis-Kyle, 2004) The accurate reason needs to be identified to provide remedial actions for decaying of the buildings. Repairing of brickwork is very complicated during the conservation, as the new bricks need to match with the existing sound bricks in size, color, and texture. However, special attention needs to be taken to replace the bricks, if necessary. The special types of bricks of the building could be made by establishing a unique project.

Timber: In the buildings of Panamnagar timber had been used widely on the purlin and rafter of the roof, like load-bearing structure, wooden frame, decorative purpose, etc. As all other regular timber structure, Panamnagar buildings also bear with different other problems, including salt migration, insect attack, fungal growth and so on. The high moisture content is one of the major causes of these problems. There are several precautions can be taken to get rid of this timber problems and save the buildings. The moisture content needs to be regulated within the limited range, protection against rain water, destruction of fungal and insect attack can help reduce the decaying rate.

Iron: For the decorative purpose, wrought iron had been used in many buildings of Panamnagar. Especially in the railing and window frames the

vast use can be seen. Also, cast iron had been used in the columns. With the passage of time, rain, humid climate, and moisture caused rust on the iron. It is important to take good care of this material to avoid collapse. Reducing load, providing reinforcement could be a solution to that. (Akhter, 2004)

5.2 Educating Local people

The local people are one of the major stakeholders of Panamnagar. They are a very important key factor for the conservation of the historic city. During the interview with the Department of Archaeology, the relation of local people with the historic city drags the attention of the author. Also, during the visit in the site and interview, it was very clear and seemed heartbreaking to see the ignorance of local people to the heritage site. Unfortunately, they have almost no idea about the historic city. To them, they are just some collapsed buildings with no cultural values. They don't see any point to preserve/conserve these buildings, rather it would be more useful to them if they could live in those abundant buildings. As a result, the local people do not cooperate with the authorities in terms of protecting the site. Instead, they create a nuisance, forcefully enter the territory without buying a ticket, break locks and enter the buildings without permission. Drug abuse and threatening the authorities are some other regular phenomenon of Panamnagar. In this situation educating local people about the cultural value of Panamnagar is a major step for the conservation of the place. Without the local peoples' participation, it is nearly impossible to conserve and safeguard a heritage site. The aims of educating local people need to include an understanding of heritage cultural value, the importance of the place's cultural, social and most importantly the economic value. A suitable plan to conserve the site that includes jobs and businesses for the local people is very much essential. When people will find their own profit, they will obviously realize their importance in terms of safeguarding, preservation, and conservation of the historic city. Once they understand their importance and responsibilities towards conservation, they will be encouraged to participate, and it could be an efficient initiative of the authority to preserve and maintain the heritage site.

5.3 Tools for conservation

"Conservation means all the processes of looking after a place so as to retain its cultural significance" (ICOMOS, 2013). Preservation, maintenance,

restoration, reconstruction, adaptive re-use, all of these are different tools of conservation of a heritage site. For the conservation of Panamnagar, we will need to use different tools of conservation according to its need.

The unique settlement of Panamnagar did not build up overnight at a particular time. The buildings of Panamnagar have been built in the different time period, following different architectural style. That is why all the buildings have different age, and each of them needs different attention. Some of them only need to be preserved, while some needs to be restored and some can obtain adaptive reuse or compatible use. All these decisions require extensive knowledge and attention to the details of the structures. To use the conservation tools, one must have proper knowledge about the place, use, fabric, and other relevant subjects about the historic city. But as a whole, the entire heritage site needs to be maintained to sustain its cultural significance.

Currently, the heritage site is being treated as a showpiece, where the local people are not attached to. They barely have any idea about why people from different places are coming to this place to see some damaged and collapsed old buildings. They don't feel integrated with this place. So, to inject life to this vibrant former city, adaptive reuse or compatible use can be introduced in some buildings. All these buildings were already been used as residential buildings by illegal habitants till 2013, which has already been discussed in this paper. A couple of buildings are still being used as residential buildings by the site manager and security guards of the heritage site. At the time of the survey, it came to the author's attention that some buildings are very dangerous for the visitors, they can collapse at any moment and some can still be used as a properly functional building. Based on the site survey some ideas are given below for the conservation of Panamnagar.

5.3.1 Preservation and restoration

With the passage of time, in several decades, some building of Panamnagar have lost their glory of past. The structures have lost their detailed ornamentation, colored glass, and wrought iron railings -- only the skeletons are bearing the evidence of their existence during its exciting lives. These buildings are very dangerous for visitors, and for their safety, they are locked up by the authority. But people tend to trespass and cause harm

to themselves as well as the site. If these buildings can be preserved properly and restored as little as possible by not threatening integrity, then it could be safe for the visitors and also increase the longevity of the structure.



Figure 27: Building number 42 Source: Department of Archaeology

The picture above is of building number 42. It shows the current physical condition of this historical building. It still holds the beauty of its lost glory, but at the same time, the structure is dangerous for visitors to enter, for which the authority locked it up. It is unfortunate for people only to witness this beautiful heritage only from outside, whereas it is very much possible to restore the building for visitors to witness the inner details and interior space of heritage building.

5.3.2 Adaptive reuse

Adaptive reuse is the conservation tool to inject life in an abundant place. It may require some changes to adopt new functions, but the most

important thing is the change needs to be as little as possible without hampering the authenticity and integrity of the site or structures. The building could also hold the previous function from the past, depending on which is suitable in terms of current physical condition.

Couple of buildings in Panamnagar are still in a very good condition. Two of them are currently being used as residences by the management people living in the heritage site to ensure security.



Figure 28: Building number. 33 Source: Department of Archaeology

Building number 33 is also known as 'Kashinath Bhaban', currently is being used as a residence for people who ensure the security of the historic site. This building is from the colonial period. Its previous use was also residential. This beautiful structure still has the full potential to be used as a residential building. It can be turned into a motel for visitors.

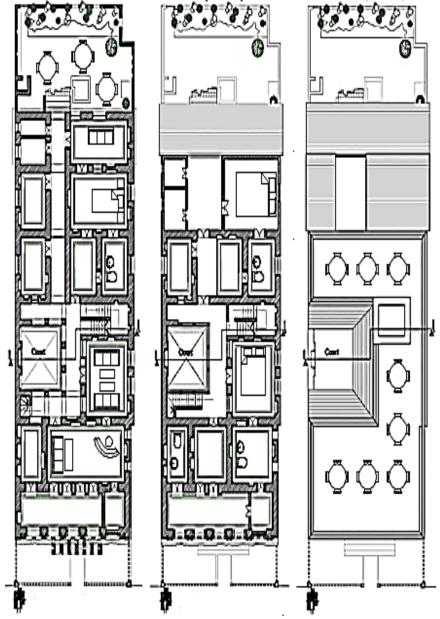


Figure 29: Ground floor plan, first-floor plan, roof plan (from left to right) Building drawing Source: (Sirajom Monira Khondker, 2013) Function layout: Author

People from different places come to visit Panamnagar every day. Sometimes a whole day is needed to visit the heritage site. If a couple of potential buildings can be turned into hotel/motels, visitors can stay overnight in the heritage site far from the crowd. The introduction of this function can also increase revenue for the maintenance of the heritage site.

To turn Kashinath Bhaban into a motel, only a couple of functions need to be introduced properly. It's a two-story building including access to the roof. It has its private port in the waterbody in front. There is also a courtyard that can be seen inside the building. The back side of the building also has greenery which connects with Pankhiraj river. To introduce a motel, the ground floor is suggested to have reception, café, restrooms, indoor games, outdoor sitting, services, and one private room. The first floor will contain all the private rooms for visitors with private restrooms and the roof will have a restaurant. People can also sit and roam around beside waterbodies.

Panamnagar becomes a ghost city at night. Visitors are only allowed till five in the evening. If adaptive reuse can be introduced in some buildings, the historic city could gain its life again. Alike Kashinath Bhaban, there are other buildings which are still in a very good physical condition. Some of them were former dancing halls. Those structures can again be introduced as an auditorium. Some can turn into galleries for exhibitions and revenues could be earned. In respect to using all these conservation tools, proper knowledge about the site need to be obtained that can help make the possible best decision for the protection of this heritage site.

Conclusion

"The village of Painam, Doolalpur, Aminpur, Adampur, and Sollarpur constitute what was formerly known as Sonargaon, that seat at the provincial administration during the rule of the Mughals in Bengal."

____ 1859-60 Revenue map (Directorate of land record)

Today's world is moving forward faster than before. A shameless competition for development is evident between countries all over the world for the sake of protectionism. The development seldom cares its natures, beauty and environment. Thus, the façade of the cities is changing everyday all over the world. A city does not only behold at the structures in it, but it also contains the behavior of its citizens, their lifestyles, cultures, religions, socio-economic characteristics and events. With the passage of time, people's characteristics change, new generations emerge with new ideas, technologies and life styles, but the city becomes a testimony to the past. Panamnagar about the conservation of which this paper has proposed also became a testimony to our lost heritage. The streets of this historic city, all of its buildings, the surrounding greeneries, trees and waterbodies have become a frozen museum over time. To achieve a better understanding of this human heritage, it will require effort of goodwill, cooperation of all stakeholders. (Tung, 2001)

Conservation of heritage sites is an essential task to know the history and culture of a nation through which new generations can learn about their forefathers' education, professionalism, culture and civilization. Apart from any book written by any historian, we cannot get enough information about the heritage sites, but the sites themselves that hold the story of our past. It is obvious that seeing is believing and seeing is always more authentic and informative than knowing about it from elsewhere. A heritage site is the only physical evidence to witness and understand about what our forefather had left for us and how we have reached and where we are standing now today.

Panamnagar is the last surviving heritage site in the rapidly developed urban surface of Bangladesh. The industrial movement all over the country put the heritage sites in a vulnerable and ignorant position. Panamnagar is also in a vulnerable situation facing lots of threats for its survival. The city has come across lots of events of the Bengal history over time. It witnessed the Mughal rule in Bengal and played a significant part in it. The city also witnessed British rule in Bengal, the partition of Bengal, heinous riot, liberation war of Bangladesh, and finally the birth of a new nation on the map of the world. Panamnagar also observed cultural, religious, and socio-economic characteristics of people from different cast and creed since it was established. It also witnessed people from different times, their laughter, bloodshed, love, and hate. The city itself became a museum of lost time of Bengal. From the very beginning of its existence, the city was a habitat for lots of people in the different time periods. From the luxury and lavishness of Mughal to the local illegal habitants of Dhaka, all these people called the city as their home. With the memory of all these people and events around them, the historic city is still standing with its past glory.

After the second forced eviction of the illegal habitants of Panamnagar by the authority, for the first time in history, the heritage city became almost lifeless. Only the security personnel and some other staff of the concerned department live there for its protection and maintenance. For the safety of visitors, the Department of Archaeology locked down almost all the buildings. They took a failed attempt to reconstruct building number 38. Local people of Sonargaon does not have any clue about the cultural significance of the place, for which they show utmost non-cooperation with the authority and trespassing by them into the place is a regular phenomenon.

To educate local people with proper knowledge, for accurate conservation of the heritage site, assessing cultural significance of the site is a must. This is the first step to determine an accurate conservation policy for a cultural heritage site. Though the heritage site is protected by the Antiquity Act, the site is extremely vulnerable of losing its authenticity and durability for lack of proper knowledge and non-cooperation of people.

This paper focused on assessing the cultural values of the heritage site, which has not done yet. Hoping that the assessment will help the authority to look at the site differently and handle it more cautiously. The paper might be helpful for further assessment which is highly needed and recommended for Panamnagar, before creating any irreversible damage.

Recommendations for conserving the Panamnagar city

- Feasibility study
- Policy formulation based on the analysis
- Address the needs on priority basis as suggested by this paper

Finally, given the historical as well as social and economic importance, the government of Bangladesh must take all necessary measures to conserve Panamnagar heritage site for its new generations. As the country has obtained the property rights with geographical identification (GI) code for the legendary cloth Muslin, the government can take an initiative to establish some factories nearby where the local people could be absorbed through which they could be financially benefitted and at the same time they could refrain from encroaching the site.

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