Retracing a Historical Waterway and its Impact on the Community Life of Tangail City, Bangladesh

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Abstract: Modern urbanism is consuming significant features of the land comprehensively to accommodate the massive population to accelerate economic growth. The navigation system of the Bengal Delta is one of the most affluent and beneficiary features in Bangladesh. Tangail is a city near the capital of Bangladesh (Dhaka) situated on the bank of the Louhojong River. In the colonial period, there was an essential canal through the town, which inspired and shaped the core layout of the city. Several historically important pieces of architecture were also built on both sides of the canal. This study traces the lost navigation and only historically important riparian landscape, architecture, and community spaces, which was spatially connected by the water source. The study emphasizes social and urban interaction with landscape and architecture. It takes the help of mapping and qualitative research to simulate the community activities of the colonial city. The research illustrates the impact of a water source on a community-responsive city. An analysis of how the city consumed the most important historical evidence can be visualized through illustrations based on the demonstrations of a local history-conserving organization and the evidences collected from local inhabitants.

Keywords: Urban-landscape, colonial city, history, urbanization, navigation, architecture, River side developments, Tangail.

INTRODUCTION

Bangladesh is suffering from land scarcity because of urban development and city expansion (Hossain and Monzur 2015). As a result, urban history is getting lower importance, and being disappeared from the township context of Bangladesh. Tangail is a small city with a lot of colonial architecture and landscape. Immense traditional products, architecture, and diverse landscapes enrich its history and make it one of the most influential cities in Bangladesh. The city’s oldest building was found in the colonial period, which refers to this city as a colonial city. There are infrastructures, including academic, educational, religious, traditional, and commercial buildings were established also during the colonial period. The research found the colonial urban layout, was developed, and shaped by a canal through the city. The canal was used for navigation and maritime transport like many other settlements in Bengal Delta (Rashid, 2022). The research deals with the contribution of the canal in the urban context. However, uncontrolled urban growth dispossessed the most important histories of this city. The rest of the historical artifacts are suffering from low maintenance and lack of conservation. The municipal government is constructing new infrastructures not following conservation legislation. The city is growing like a completely new layer of urban and superimposing on historic urban layers. This is because the people and municipal government are not concerned about history and its elements. The city has already lost one of the major historical and natural elements, the canal through the city. Several architectures are also demolished for building new infrastructures. But the initial communities and public places are playing significant role in the city. Therefore, the contributions of the canal are the basic idea of the research.

CONCEPTUAL BACKGROUND

Tangail Zila has a population of 3.8 million people and covers 3,414.28 square kilometers (1,318.26 sq mi). Tangail is the district’s principal city. The Tangail municipality, established in 1887 during the British era, has no waste management system (Mirza Shakil, 2022). The canal was the main drainage system for the city. Its natural landscape and colonial architecture are the hallmarks of Tangail. There is a nonprofit organization named Tangail Sangrahasala that has been working to preserve history and historical artifacts for a long time. They claim that the city was called “The city of Banyan and Bodhi trees”. The climate and soil quality are perfect for these trees. Most of the public places were created surrounding a big tree. However, after 1971 the urban environment started to change radically for fast urban growth. Due to the lack of proper urban planning and social awareness, the natural and urban environment is jeopardized by so-called urbanization. Most of the colonial buildings are being used in a vulnerable situation, maximum Banyan and Bodhi trees have been cut down and the main
natural drainage systems are filled up for new constructions.

**RESEARCH METHOD**

The basic information is collected from oral history demonstrated by local inhabitants. The research followed a very analog methodology and relay on field surveys. The research idea originated from the myths, popular among city dwellers. Primary observations found some evidences which accelerated the further studies. The research conducted more investigation to collect oral histories and existing evidences. Old citizens were given more importance in collecting information from a certain area of the city as part of the research. It considered different history tellers from different areas of the city to make the study more authentic. It also got an opportunity to compare the collected information for cross-checking the authenticity. Collecting information was the only quantitative part of the whole research and evaluating a map and sketches required a qualitative study. The main element (The Canal) of the study has been wiped out from the history for a long period. So, basically the maximum information had to collected from direct source, for instance, its use, community connection, landscape, city fabrics, urban infrastructures and so on. However, the architectonic features and functional diversity of the historical buildings were collected from the secondary sources. The map has been developed using the AutoCAD software according to the investigated information and existing elements. Some old citizens and organizations, which worked as information source endorsed the hypothetical map which. Watercolor painting has been used for visualizing the acquired oral history through sketches. Some old real sketches have been collected from a local organization named Tangail Songrohosala. These sketches show the actual city ambiance in the colonial period. Therefore, the chronological steps are:

a) Get the idea from local myth
b) Collect the oral histories
c) Field survey for collecting the real evidences
d) Developing the maps and sketches interpreting the history

**CURRENT SITUATION OF THE CITY**

Nowadays historic cities are facing identity problems because of the rapid growth of urbanization. The factors that shape spatial characteristics are being changed for different cultures, climates, and cities. But prototype development is really destroying the variety of our tangible and intangible culture. Not only from the perspective of culture but also urbanism, this type of development is harmful to the framework of any city. In the same way, Tangail City has been developed but not in a sustainable and environment-friendly way and lost its commercial specialty. Once upon a time, it was a great place for craft, the economy, and historic architecture. It is the largest district in Dhaka (capital of Bangladesh). The main challenge of this city is to accommodate other buildings while keeping the old historical vive of the city the same. The city has land scarcity and a huge lack of awareness. Also, people have become used to a very so-called modern pattern and are not ready for new ideas. Furthermore, it is also challenging to create a symbiosis with unplanned buildings (especially shops), roads, old historic architecture, landscapes, and so on. How will be the behavior of citizens in the newly planned city is also a big challenge. Overall the entire traffic network of the city is a significant problem in connecting individual historic hotspots for community people and user-friendly commercial areas. Most of the retail shops are adjacent to the main roads and the developer companies and the land owners are not following national building laws. So, the city is in a rigid situation to think of flexible arrangements for community people and historical buildings.

**Background**

There are many rumors and opinions about the naming of Tangail. ‘In 1778 AD, in the Rennell’s map of the entire region this area was shown named Atiya. No distinct place called Tangail has been identified before 17 AD. The name Tangail came to be known on 15 November 180 AD when the headquarters was shifted from Atia to Tangail’ (Shamsujjaman Khan 2014). According to Khandaker Abdur Rahim (the historian of Tangail) ‘during the British rule, the people of this country were more accustomed to using the word 'tan' instead of the word 'tan'. The word ‘isle’ refers to the ‘isle of cropland’ and that has been transformed into the word ‘Tangail’. Different people have expressed different views on the naming of Tangail at different times.’

Thus, a city grew here named Tangail. Bangladesh is a land of rivers, heritage, crafts, color, festivals, etc. Being a river-based country most settlements are located along river basins. Due to the easy connection
through the river, the local British Government established their master plan near the river named Louhojong in Tangail City. According to oral history, the land was fertile enough to cultivate Nill (a very rare blue color collected from a specific plant). They started to span their master plan as a city because the region was full of skilled workers and artisans started to come to the city to sell their goods. Their skills attracted the government they started to patronize them. The city started to become famous and the businessperson
from India, Assam started to come here for doing business. Therefore, the city became the center of business for famous sweets, handloom cottage industries, kasha Shilpa (bell metal industry), Noou Shilpa (boat industry), and so on. (Oral history) The canal through the city was used for carrying river water to croplands, transporting local goods, and for entertainment purposes by boat. However, the canal digging time is unknown.

Retracing the Waterway and Existing Situation of the Canal

Over half of the Earth’s population currently lives in urban areas and this number is projected to increase in the future (United Nations World Water Assessment Programme 2010). Water resources are one of the major components of nature to make our life sustainable because Water resources play a significant role by providing an adequate food supply and sustainable environment for all living organisms globally (Kötter 2019). Therefore, water conservation is very significant in the urban context. When it has a profound connection to history, it becomes an inseparable part of a city. In order to achieve a sustainable degree of water resource usage, new paradigms in urbanized basin planning must be adopted. Water bodies are most often severely hit and impaired by poorly planned urbanization (Capodaglio And Boguniewicz 2016). Since Tangail is growing fast and new buildings are being constructed by filling up the water sources, for instance, canals, ponds, and wetlands, it is very important to rethink the city and revive the canal through it (Figure 1). A few decades back, people used the Louhjojing River as their commercial routes. There was a big jetty in Porabari (the name of an area near the city) where ships anchored for commercial purposes. The businesspersons very often sail through the river and sometimes use the canal to enter the city for buying goods, for instance, the famous sweets (Cham cham) and the fabric (Handloom Saree) (Oral history). Local artisans also used the canal to come to the city very often for business purposes. (Oral history).

Several decades ago, the local government built a series of commercial buildings over the canal. It is currently used as a covered drain for channeling drain water. Therefore, it was difficult to trace the canal. Nevertheless, the oral history, other sources, and existing evidence made it possible to indicate the path of the lost canal especially the existing culvert in several places in the city, which was made for connecting the roads, helped to trace the exact direction of the stream (Figure 2). The canal was one of the major canals through the city to channel river water to the nearest wetlands for irrigation. The use of water system approach as a base for sustainable spatial planning and management of functions and for sustainable wetland management, agricultural landscape, and urban areas (Vos 1999). Because of this, it places such a high value on the city.

The Important Architectures and Landscapes

Tangail City is encircled by glorious history, tradition, and culture. Tangail was considered the commercial center of this region in the colonial period (S. Khan 2014). The city has lost its natural beauty and historical architecture in recent decades. The modern urban context is jeopardizing the cultural landscape, community engagement, biodiversity, natural resources, and so on, which are crucial elements of heritage. Heritage carries memories and significant information so people can get an instant synopsis of the place. ‘Heritage provides the intuition of identity that promotes plurality between different cultures’ (Kruse and Paulowitz 2020). In Tangail City, there is enormous diversity in terms of ethnicity, landscape, culture, and architecture, which has contributed to the formation of its cultural landscape and community engagement (Figure 3). Bodhi and Banyan trees dominated the cultural landscape and the natural landscape of this city. The city was called “The city of Bodhi and Banyan” (Oral history). A cultural landscape is defined as the ‘combined works of nature and man. It bears witness to a long and intimate relationship between people and their physical environment. Whether found in urban or rural settings, they are the results of diverse human-nature interactions and thus serve as a living testimony to the evolution of human societies (Rössler and Lin 2018). To analyze the spatial arrangement and morphological connection between the city and the architectural landscape, it is important to identify their location.

Analyzing the Urban Context

The initial settlement style and historical architectures is the earmark of this old colony. Analyzing the social and land use perspective is highly essential for documenting the influential elements of the city. Documentation is essential for future conservation processes. The features of place-making and the overall initial images are also important to the conservation process. ‘Heritage information- the activity and products of recording, documenting, and managing
the information of cultural heritage places—should be not only an integral part of every conservation project but also an activity that continues long after the intervention is completed. It is the basis for the monitoring, management, and routine maintenance of a site and provides a way to transmit knowledge about heritage places to future generations’ (Letellier and Eppich 2015).

**Developing the Maps**

A map is utterly indispensable for analyzing a city and its spatial connections. From the very beginning of this research, the initial thing that was done was to develop a map. Identifying historical architecture, landscape, water sources, and their interrelationships, the map served as an instruction manual to explore the most significant elements of the city (Figure 4).

Using narrations from native elders and existing resources, a 60-year of historical link between rivers, canals, ponds, and wetlands has been established (Figure 5). Essentially, the canal connected two different water sources, such as the Louhojong River (the only river outside of the city) and a wetland called Bill (Figure 5). This type of water setting is done by humans for draining river water with alluvium for irrigation. This canal also serves the same purpose for farmers around the city. Figure 6 shows the Google Earth view of the relationship between the canal and the wetland.

**Selecting Historical and Riparian Community Landscape and Their Information Sources**

In the 1990s, a series of new perspectives on conservation targets focused on landscapes, either as targets of conservation in themselves or as mechanisms by which to accomplish conservation
Different cultures and different types of activities created community landscapes in Tangail City. Each place germinated from a long-standing commercial or social history, which made a strong connection between the community people and the places. Community people’s contribution and their attachment to the city created a sense of place. A strong sense of place has been described as an umbrella term encompassing place attachment, place identity, and place dependence (Jorgensen and Stedman, 2001). Interaction with the same people in the same place strengthens a stronger bond between members of a community.

Figure 7: Important Riparian Community Spaces.

Sense of community is often defined as “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members need will be met through their commitment to be together (MCMillan and Chavis 1986). Community activities and the spontaneous participation of local people make a public place vivid and more meaningful. Public places can be treated as ‘locales’, settings in which social relations and a sense of place are constituted (Eyles and Litva, 1998). The chronological number and the sources of information are shown in the figure 7. Maximum information are collected from local aged citizens. However, there is a history conservation organization named Tangail Sangrahhasala, who has been conserving the authentic histories of the city for a long time. They have a collection of sketches simulating the real scenario of the colonial period directed by the chairperson of the organization. He worked in the municipal office during Pakistan Period (1947-1071). He hired a student of Fine Arts from Dhaka University to make sketches according to his demonstration. The sketches have used to narrate the specific places.

Figure 8: Aam Ghat (Mango Jetty) on Google map.

Figure 9: Sketch of Horse Cart Stand.
Source: Tangail Songrohosala.

Analyze the Selected Locations

Aam Ghat (Mango Jetty) (1, Oral History)

The name originated from the word mango (aam). There was a jetty in the location of Figure 8 a few decades ago. The jetty was used for loading-unloading local commodities, especially the famous fruit, mango (aam) of Rajshahi (Figure 10). That is why people called it Aam Ghat (Mango Jetty) and the road is also named Anm Ghat Road. There was also a horse cart stand near the Jetty to convey commodities to the city (Figure 9). The community place had a profound impact on the economy, which made the Jetty one of the most significant historical and societal elements in the commercial network of the city. There was a horsecart standing just beside the jetty to carry commodities to the city’s central market (Pach Ani and Choy Ani market). This kind of cart was called Tomtom. There is a proverb in Tangail City about the cart, which is considered the most ancient maxim in Tangail. Georg Simmel first emphasized about the sociological importance of taken for granted social routines and practices (Wolffe, 1950). According to Simmel, social relationships and forms of association were best
understood by referring to their spatial context. He was particularly concerned, for example, with minor, less obvious forms of social interaction taking place in everyday social settings (Lechner, 1991).

Five Anna and Six Anna markets are juxtaposed and this is the very first commercial market in the history of Tangail City. Pach Ani and Soy Ani Bazar (Five Anna and Six Anna Market) served as a place of community activity and a marketplace for traditional crafts and other products. This place became the city center and commercial development was driven by it. This is the densest area of the city and the fabric is very different from the whole city. A lot of shops are made of concrete and GI sheets (Figure 11) whenever, in the colonial period, most shops were made of GI sheets (Figure 12). The iconic character of this commercial area was that, there were many banyans and Bodhi trees. Under the canopies, community people hung out and shared their thoughts about the country, politics, economy, etc. This old marketplace turned into a powerful community space for its architectural traits, materials, landscape, and contextual settings. Most of the shops had an outdoor display system (Figure 12). However, nowadays the paths between the shops and the sideways are too narrow to display their commodities in outdoor space, which was an iconic traditional system in the Bengali market. The shops’ doors are also constructed according to native building strategies. Continuous numbers of narrow wooden doors make a big wide opening to create a welcoming approach to the shops. A majority of commercial infrastructures are located near water sources, such as rivers, canals, and wetlands, and if there is no source of water nearby, ponds are dug, for instance, there is a historical pond (Choy Ani Pukur) near the Six Anna market. The canal facilitates the commercial zone in different ways. It was used for transportation and communication with the city, and sometimes for business purposes (Figure 13).
The main Kalibari Temple is the oldest and most renowned temple in Tangail, established in 1912 AD (Figure 15). In spite of the canal being a great inspiration for its location, some religious laws require the temple to face the opposite direction from the canal. In Hinduism, a temple should face west or south, but the canal is located north. The space behind the temple was a popular community space to hang out for community people (Figure 16). There was a very small jetty and many Jewelry Boats (A medium size boats to carry passengers) (Zobaida Nasreen 2015) used to come to this certain location of the city for their business purpose. People utilized the location to travel by boat for entertainment purposes and sometimes for transportation purposes also. This community space was inspired by the temple and created an active community. However, in recent years, buildings and other infrastructures have occupied the open space (Figure 14). Community members use the internal space of the temple’s boundary for social meetings and spending leisure time with neighbors. As a result, the city has lost a significant socially engaging feature. The information is collected from one of the community members of the temple (Name: Ganga Boshak, Age: 79, Occupation: Business).
Coronation Park (4 and 5, Tangail Sangrahasala and Oral History)

A coronation is the formal investiture of a monarch with regal powers. It is a grand, celebratory event in which the monarch is presented with royal ceremonial objects, such as the Crown Jewels, and it is where the crown is physically placed on the sovereign’s head, in front of many thousands of very important guests (www.rct.uk). The local executive committee of the British East India Company established the Coronation Park to make the debutants of the king of England (fifth Jorge) in 1910 memorable (Figure 17). The space was treated as a park and cultural exhibition space all year round and was a great community space for entertainment purpose (Figure 19). There is a colonial building at the park corner. The building’s features acknowledge the Banglo colonial building style (Figure 18). There are two forms of Banglaw for a single family, for instance, the worker’s rural cottage and the rural villa. The worker’s cottage was small, single-story in height with one or two rooms (Desai and Lang 2012). The size and the architectonic traits of the building refer to it as a worker's cottage type banglaw, otherwise, there is another large and official banglaw in the city at the administrative zone of the British colonial master plan. According to local people, this building was a part of the Coronation Park and is being used by a family as their house. As a result, the building is losing its identity, structural strength, and importance due to a lack of maintenance, renovation, and conservation. On the other hand, there was a jetty on the canal just next to this structure for loading and unloading local commodities from the market, which was established after the colonial period (Figure 20). The market is also known as Parker Bazar (Market of Park). Right now, there is the second-largest market in the city and the historical building has been wiped out from memories. However, the canal was the reason for Coronation Park and this market for ease of communication and aesthetic purposes.

Figure 16: The Community Space Behind the Temple in the Colonial Period.

Figure 17: The location of the Banglaw and the market.

Figure 18: The Banglaw.
Ghager Dalan (Building of Goitre) (6, Tangail Sangrahasala)

The building is demolished which was established in 1937 (Figure 22). The name of this building was Keshob Manjil who was a rich businessman and constructed the building for residential purposes. Nevertheless, after that, it was used for different purposes at different times, most prominently as a medicine shop. Someone used to sell goiter treatment medicines. Goiter was a major physical problem in this area due to the lack of iodine in salt. However, this was the only shop in this area where people could find medicine for this disease and that is why the building morphed into the most iconic building in the city. After that, this building’s name became Ghager (Goiter) Dalan (Building). This was the most recognizable building and an iconic mind-mapping element of this city. The building served as a significant milestone for this city to create a social network and community station. There was a wooden culvert that connected the main road in front of the building (Figure 23). It proves that there were no heavy vehicles on the road and enough space to walk in the city. The bank of the canal was a popular hub for citizens for several reasons. The canal changes its direction and creates a turning, which made it the most prominent junction point of the city. Of late, the place is occupied by other constructions and considered the most important nope point of (Figure 21).

Brahmo Samaj (Brahmo Society) (7)

The community of Bengali intellectuals known as the Brahmo Samaj played a crucial role in the genesis and development of every major religious, social, and political movement in India from 1820 to 1930 (Kopf 2015). After spreading and expanding the community through the entire Bangladesh, the community formed in different places and built their own abodes. The Tangail Brahmo Society was established in 1894 AD and monitored by the Central Dhaka Brahmo Society of Bangladesh (Figure 25).
building’s front side, making the ambience of the place more spiritual and involving (Figure 26). This was a sacred place for a specific Hindu community. Over the past few years, several commercial infrastructures have concealed this building’s visual approach from the roadside (Figure 24). The building has been abandoned for several years and losing structural and aesthetic beauty for the lack of maintenance.

Figure 24: The Front Road of the Brahmo Samaj Abode.

Figure 25: The Existing Building of Brahmo Samaj.

Figure 26: The Brahmo Samaj Building in the Colonial Period.

Coronation Dramatic Club (8)

A movement of practicing cultural performance especially focused on theater raised several dramatic clubs in Bengal. “Herasim steppanovich lebedeff established the first Natyagosthi in Calcutta in 1795, which made zamindars (landlords) and connoisseurs of drama interested in the theatre so that they began establishing one dramatic club after another. However, the people of Dhaka did not respond to the theatre with much enthusiasm as the people of Calcutta. A number of dramatic groups namely Illisium Theatre (1888), Crown Theatre (1890-92), etc, were established in Dhaka during the pre-partition period” (Shamima Akhter 2021). A notable number of theatres were established outside of the capital of Bangladesh during 1900-1969 AD. The Tangail Dramatic Club (CDC) was one of the major active stage performing communities founded in 1911 AD and revived by Babu Omorendra Nath Goash a member of the Indian national congress. According to CDC, the very first building was founded another place of the city. However, the at-chala tin shaded two storied build-form founded here by the patronization of local Zamindar (Figure 28). Tangail is influenced by different cultural views and the region has its own unique art and traditional forms. The colonial period was also influenced by many cultures from this area. Following their legacy, they established many cultural organizations across the country. The Coronation Dramatic Club is a paradigm of this practice (Figure 27). The club was for performing arts. The canal was an excellent inspiration for selecting the site for this club. The club was used as a movie theater for a long time. Local people used to come to the cinema hall (Kali Chenema Hall founded by the club near the club building) by boat through the canal. After demolishing the building, a market was constructed known as the CDC (Coronation Dramatic Club) market. It has been a long time since the club was visible and now the modern city does not have a prominent place for practicing the traditional art forms.

Figure 27: The Existing Coronation.
RESULTS AND DISCUSSION

The infrastructure should be revised considering the canal is a major driving force of the city. The canal influenced a lot of cultural infrastructures and communities connecting by it. The evaluation of the map proves that maximum important urban elements emerged on the riparian sides of the canal. Therefore, it is very important to reconnect the water sources by this canal by conserving it. However, the term "cultural landscape conservation" is not so popular in Bangladesh. ‘Over the last thirty years or so there has emerged the idea of historic cultural landscapes being worthy of heritage conservation action’ (Taylor, K. 2012). However, the government should be sensitive enough to protect the historically important elements. Community activities make a city more interactive and sustainable. Water bodies motivate people to be engaged with the community for a better life, full of happiness, responsibility, and traditional practices. Maximum old cities, towns, and villages have a long and intimate relationship with water. In ancient times cities were usually created near a watercourse or a coastline and even today, water is often central to their identities. The relationship between place and water resources, however, is rarely prioritized in urban planning and design nowadays (Capodaglio, Ghilardi, and Boguniewicz 2016). A stream can create history, inspire community activities, direct landscape configurations, and even initiate a civilization. The canal through Tangail City is a paradigm of significant inspiration, which initiated or directed the shape of the city (Figure 29). The vast majority of historical and culturally relevant infrastructures were built on the canal’s riparian area. Since the Bengal Delta is surrounded by immense rivers, canals, and wetlands, most of the cities and settlements grew near major watercourses. This territorial basic style of Bengal settlements was reflected in Tangail City also.

Figure 28: The at-Chala CDC Building Dramatic Club.

Figure 29: Spatial Connection between the Canal and the Riparian Community Spaces.
CONCLUSION

Bangladesh is connected and surrounded by rivers. Different nations from various parts of the world came here by waterways for business purposes. Some major cities have grown in Bangladesh near the major rivers such as (Dhaka) Buriganga River, (Cumilla) Gomti River, (Mymensingh) Brahmaputra River, and (Tangail) Louhajang River. The connection between water, people, and settlements in Bangladesh is very mystic and connected philosophically. People in this part of the world were utterly dependent on water for their subsistence, for instance, irrigation, fishing, communication, etc. Their daily lives and settlements were heavily influenced by water. However, overpopulation in developing countries and unplanned settlements jeopardize the Green-Blue Infrastructure rapidly. Cities are losing their heritage and glorious history and community activities are decreasing, which creates consistent identification of a city. Tangail City is definitely an identical city in the history of Bangladesh. Nevertheless, due to the lack of urban planning knowledge, contextual sensitivity, and conservation, the city is turning into a combination of concrete buildings with nominal community activities, natural resources, landscape, and historical artifacts, which were deeply impelled by the canal. The canal should be reconstructed to revive the city.

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