

সোনালী আশা

**BANGABANDHU JUTE AND TEXTILE MUSEUM,
TARABO, RUPGANJ,
NARAYANGANJ**

By
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A thesis submitted to the Department of Architecture in partial fulfillment of the requirements for the degree of Bachelor of Architecture

Department of Architecture
BRAC University
Spring 2022

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Declaration

It is hereby declared that

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Abstract

Bangladesh's socioeconomic and cultural existence has been influenced by the deltaic terrain that the country's major rivers and their tributaries have formed. Through the years, it has also had an impact on jute and textile industries. A varied community is formed by the traditional/native jute and textile industries. Bangladesh's jute and textile tradition dates back many years, but due to improper maintenance, inadequate exposure, and our own irresponsibility, it is rapidly disappearing. Jute and textile artisans received aristocratic support and possessed more advanced talents, which they often passed down from generations. However, because of its lower economic return and the fact that most of the individuals involved with it come from rural areas of our nation, its identity has substantially diminished over the past several years. The necessity for this endeavor was created by the aforementioned reasons. The goal of this project is to provide a setting where jute, the Golden fiber from earlier ages, may be conserved, represent national tradition, and inspire the next generation to value for the culture and those who have lost their connection to it.

Keyword:

Jute, decorative, preservation, exposure, negligence, reflect

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List Of Acronyms

BHB	Bangladesh Handloom Board
PWD	Narayanganj Public Works Department Division
CBC	Carpet backing cloth
BJMC	Bangladesh Jute Mills Corporation
GDP	Gross Domestic product
UNESCO	United Nations Educational, Scientific and Cultural Organization
BSCIC	Bangladesh Small and Cottage Industries Corporation
SDG	Sustainable Development Goal

Chapter 1: Introduction

1.1 Introduction to the Project

Jute is called the Golden Fiber of Bangladesh. Over three million small farm households rely on it as a primary cash crop. Not to mention that 70% of raw jute is exported from Bangladesh, the largest exporter in the world. As a renewable natural fiber, it is also bio-degradable and environmentally friendly. It is one of the few crops, which can be grown in the monsoon season. Adamjee Jute Mill was famous as the largest jute mill in the world founded in 1951 on 295 acres. The jute mill was situated in the Shitalakshya river of Narayanganj district, established by three brothers of a wealthy and aristocratic family. “সোনালী আশা, **Bangabandhu Jute and Textile Museum**” is a project about the features of Narayanganj Jute and Textile industry and giving them a platform. It is equally important to promote and bring out the culture, history, and development of jute and textile products through proper civic facilities. In addition, efforts to save Bangladesh's jute and textile industries from extinction and preserve their history can help to revitalize the country's long-forgotten culture and tradition.

1.2 Problem Statements

Narayanganj is famous for Jute and textile industry. Apart from this Bangladesh has had a number of issues over the years: as the cost is increasing and production is less that being the case the amount of export got small in scale. The old machinery is diminishing for which there is a labor shortage and more widespread corruption. Furthermore, the ineffective management, which led to the accumulation of significant operating losses lead towards failure. On the contrary, the industry used to provide direct employment to about 150 lakh people of its production capacity benefiting millions of jute cultivators. In other words, a once-vibrant industry is now said to be in the process of "sunsetting," and the golden fiber has significantly diminished in luster. The main problem is people have less knowledge about Jute and Textile and how it is beneficial culturally and economically in our country. As a result, the heritage of the industry is getting lost because of less knowledge and proper preservation. Therefore, the government is making a platform for both the

public and the cultivators by providing them a space for interaction where they can learn about the culture and heritage. Additionally, the employees for the jute and textile industry can also profit from the project as well.

1.3 Project Rationale

Narayanganj district as a heritage site refers to a place where cultural, political, economic, communal history has been conserved for its significance towards jute and textile industry. The area has a brand value for the jute cultivation near Demraghat road, having two large mills of jute as Karim Jute Mill and Bawani Jute Mill production. About 41% of all workers in Bangladesh's major industrial sector are employed in the country's jute industry. Nevertheless, the area is losing its traditional symbol as the largest jute and textile production industry, therefore the government is choosing Tarabo Demraghat for this project. The project focuses on the civic spaces and functions as well as Jute Museum and research center, Jamdani research center, Fashion design institution, Textile industry research and institution. This will help the youth, local and the foreign people to know about the major cash crops and cultural heritage of Bangladesh.

1.4 Aim and objectives of the Project

The aim is to give Jute a worldwide exposure as a cash crop of Bangladesh. To bring back the lost glory of jute as golden fiber and textile by enriching the base of the knowledge to the new generation. This project will also be facilitated with exhibition spaces, design institution and clothing process, rentable community spaces to uphold the cultural heritage and its contribution towards our country.

1.4.1 Objectives of the Project

- To introduce the present situation of Bangladesh's jute and textile industries
- To perceive the importance to conserve and restore the cultural heritage
- Creating opportunities for the cultivators and weavers by providing them an exposure to the audience of consumers
- Providing a platform for communication, developing Jute and Textile research center and institution

1.5 Project Summary

Name of the Project: BANGABANDHU JUTE AND TEXTILE MUSEUM

Implementer of the project: Bangladesh Handloom Board (BHB)

Client: Narayanganj PWD Division

Ministry: Textile and Jute Ministry

Site Location: Tarabo, Rupganj, Narayanganj District.

Site Area: 8.5 Acres (Approx.)

The proposed programs for this project are as follows:

Proposed Programs of the Project

- **Administration**
 - Entry, Lobby and Waiting Area
 - Director's Room
 - Account in Charge
 - Manager in Charge

- **Research Institution**
 - Textile, Jamdani, Fashion Design
 - Research Lab
 - Research Workplace
 - Digital Archive
 - Workshop
- **Museum**
- **Cultivation Land**
- **Open Platforms for Jute Display**
- **Multipurpose Hall**
- **Cafeteria**
- **Conference Room**
- **Accommodation for Visitors and Researchers**
- **Library**

Chapter 2: Literature Review

2.1 Significance of Jute

Jute has been farmed in the Bengal region of India (and modern-day Bangladesh) since ancient times, jute and jute products have a long and illustrious history in Bangladesh. Jute has traditionally played a significant role in economy in our country. Bangladesh gained a lot of money in the 1970s by exporting raw jute, jute items, and jute-based arts and crafts (Islam, Ali, 2017). That's why it's known as Bangladesh's "Golden Fiber." The jute and textile revolution has demonstrated its exceptional performance in terms of incentivizing and facilitating investment and jute product exports. It has since evolved into a raw resource for industry for the creation of packaging products. Bangladesh's 'Golden fiber,' jute, has long been regarded as the country's primary source of foreign exchange. As a result, millions of farmers and factory employees rely on it for their livelihood. [1]

Jute is long natural fiber made from lignin and cellulose of plants of the *Corchorus* genus. The plant elements cellulose (the primary component of plant fiber) and lignin make up the majority of jute fibers (major components major of wood fiber). As a result, it is ligno-cellulosic fiber, which combines partly wood and textile fibers. It, like kenaf, industrial hemp, flax (linen), ramie, and other bast fibers (fiber harvested from the plant's bast or skin), belongs to the bast fiber group. The fibers range in color from off-white to brown and are 1–4 meters (3–12 feet) length (Salahuddin, 2014). Correspondingly, it has a wide range of applications, including the production of biodegradable packaging materials like gunny bags. Jute is recognized as the second most significant vegetable fiber in the world, behind cotton, in terms of usage and production on a global scale. [2]

Bangladesh is the second-largest producer of jute after India, and the world's annual production of jute is estimated to be more than 3.3 million tons (Sawe, 2017). The following is a list of the world's top jute-producing countries:

2.2 Top Jute Producing Countries in the World



Figure 1: Top ten largest Jute producing Countries.

Source: Author

Top ten largest Jute producing countries in the world (Jegede, 2019). (Source: Author) According to statistics, the Ganges Delta in Southern Asia is where more than 85% of the world's jute is produced. The principal sites for jute farming in this region are the low, almost level, alluvial and deltaic plains of the Ganges and Brahmaputra rivers, with their friable soil whose fertility is replenished by yearly flooding. India alone is in possession of over 50% of the world's jute-growing area, followed by Bangladesh (nearly 42%), China, Thailand, and other nations like Sudan, Egypt, Western African countries, etc. As these places are densely inhabited, low-cost, skilled laborers are readily accessible. The cost of labor accounts for around a fifth of the total cost of manufacturing. Instead of the specified unit salaries, this is high since the cultivation and preparation methods call for a big number of employees. [4]

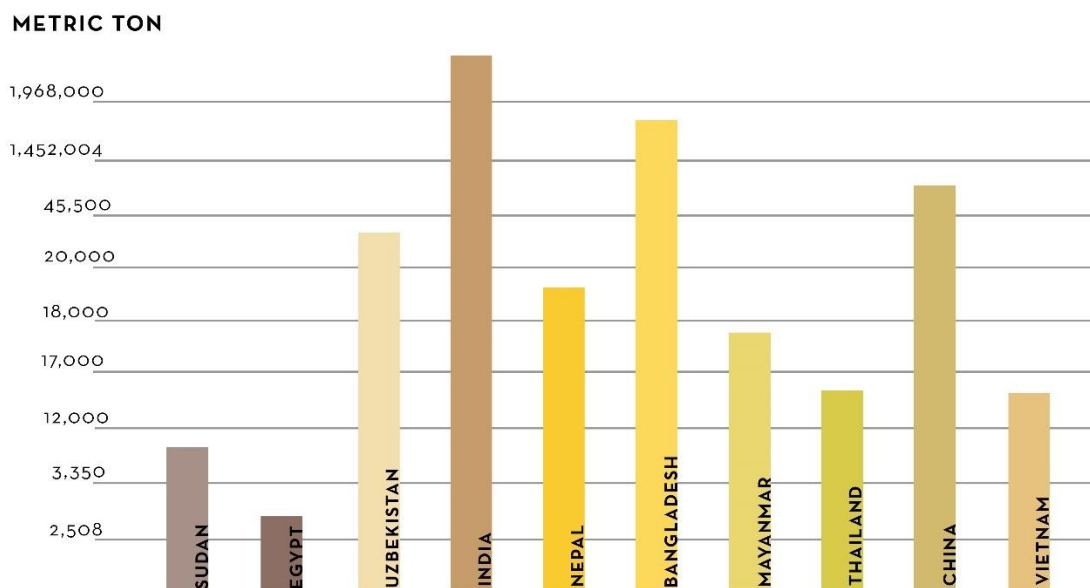


Figure 2: Yearly jute production in top ten countries.

The yearly jute production in the top ten major jute producing countries estimated in metric ton 2019. (Source: Modified by author)

2.2.1 India

India is the world's biggest jute producer, accounting for roughly 55% of global production. (Jegade, 2019). For several years, the country has used modern agricultural techniques and tactics to increase output, and as a result, it has become a major participant in the market. In addition, India is the world's largest exporter of jute products such as carpets and packing bags. The Ganges-Brahmaputra delta in India's West Bengal, Assam, Bihar, and Odisha states has extremely high production. These states account for more than half of the country's overall production. Jute output in India is predicted to reach 1,968,000 metric tons per year.

2.2.2 Bangladesh

Bangladesh is the world's second-largest producer of jute fiber. The Jat region is well-known for producing the highest-quality jute in the world. Rangpur, Mymensingh, Pabna, Bogra, and Dhaka are the main production centers. Despite rising productivity over time, the country continues to fall behind in adopting current technical improvements in farming operations. The nation exports over 70% of its cultivated jute, making it one of the major exporters of the good worldwide. Bangladesh's yearly jute output is expected to be 1,452,044 metric tons, accounting for 42 percent of global production. (Jegade, 2019). The sub divided regions in Bangladesh are well known for the followings:

- This region, known as the Jat Area (Brahmaputra Alluvium), includes sections of the Bangladeshi districts of Dhaka, Mymensingh, Tangail, and Comilla. The area gets a fresh layer of silt deposited by floodwaters each year. Sandal loam and clay loam are both types of acidic soil. According to commercial standards, the Jat kind of jute, the highest grade, thrives here.
- District Area (Ganges Alluvium): This area encompasses a significant portion of West Bengal in India as well as the Bangladeshi districts of Kushtia, Jessore, Khulna, Rajshahi, Pabna, and Dhaka. Gray to dark gray alkaline clay loam to light loam makes up the soil in this location. This region produces District Jute, which is the highest-quality kind of jute after Jat Jute. Jute fiber is grown in this area in two important varieties: Hard District Jute and Soft District Jute.
- Parts of Bangladesh's Dinajpur and Rangpur districts, East Bogra, and Sirajganj, as well as portions of India's North Bihar Purnea and West Bengal, are included in the Northern Area (Teesta Silt). This region's sandy soil can only retain a little amount of rainfall. The soil still has a little acidity. Of the three commercial kinds, northern jute is of the lowest quality.

Bangladesh has a total area under jute cultivation of roughly 559,838 hectares. A government-owned company called the Bangladeshi Jute Research Institute provides superior seeds to Bangladeshi jute growers. China is one of the few other nations that produces substantial amounts of jute, with yearly jute output estimated to be over 45,000 tons. China is also one of the major importers and users of natural fibers in the world. Uzbekistan (20,000 tons), Nepal (18,000 tons),

Myanmar (17,000 tons), Thailand and Vietnam (12,000 tons), South Sudan (3,350 tons), and Egypt are among the other jute producers (2,508 tons). [4]

2.3 Jute Cultivation

2.3.1 Climate

Jute grows best on simple alluvial soil with plenty of standing water. During the monsoon season, the monsoon environment provides a good condition for growing jute (warm and moist). Temperatures of 20°C to 40°C, with a relative humidity of 70%–80%, are ideal for good growing. Jute needs 5–8 cm of rain each week, with more during the planting season.

2.3.2 Soil

There are three types of soil that are suitable for growing jute: loamy soil, clayey soil, and sandy soil. The best fiber comes from loamy soil. A short harvest is produced because to the clayey soil. Plants growing in clayey soil also do not ret in the same way. Coarse fiber is produced from sandy soil.

2.3.3 Area of Jute production in Bangladesh

Jute production and area by year Jute has recently faced severe competition at the farm level as well. This is because jute land is also suitable for producing rice, and rice is currently fetching a unprecedented cost on the domestic market. Furthermore, the development of high-yielding cultivars, as well as contemporary inputs and methods, has boosted the potential for rice to outperform jute in terms of profitability. Farmers are immediately altering their production plans to take advantage of the current high price of rice. When compared to other competitive crops, the price of jute was not particularly appealing.

Years	Area (000 acres)	Decade average (000 acres)	Production (000 tones)	Decade average (000 tones)
70s Decade 1972-73	2214.70		1181.00	
1973-74	2196.40		1088.00	
1974-75	1416.55		630.00	
1975-76	1277.34		714.00	
1976-77	1603.45		873.00	
1977-78	1805.27		973.00	
1978-79	2051.58		1150.00	
1979-80	1874.31		1065.00	
1980-81	1568.77	1778.71	897.00	952.33
80s Decade 1981-82	1411.85		842.00	
1982-83	1425.44		886.00	
1983-84	1435.12		946.00	
1984-85	1484.20		928.00	
1985-86	2614.00		1571.00	
1986-87	1908.00		1221.00	
1987-88	1244.88		780.80	
1988-89	1269.58		799.40	
1989-90	1338.49		835.00	
1990-91	1461.50	1559.31	914.10	972.33
90s Decade 1991-92	1449.39		945.10	
1992-93	1235.49		885.60	
1993-94	1287.61		782.30	
1994-95	1402.47		929.50	
1995-96	1355.55		910.35	
1996-97	1253.00		883.00	
1997-98	1427.00		1057.00	
1998-99	1181.00		821.00	
1999-00	1008.00		711.00	
2000-01	1107.00	1270.65	821.00	874.59
2000s Decade 2001-02	1128.00		859.00	
2002-03	1079.00		800.00	
2003-04	1008.00		794.00	
2004-05	965.00		1035.00	
2005-06	500.00		990.00	
2006-07	500.00	863.33	990.00	911.33

Figure 3: Bangladesh's jute production area

Source: Bangladesh's overall jute output and production area. (Islam, Ali, 2017).

Bangladesh produces the world's highest-quality jute fiber. Bangladesh's terrain is ideal for jute cultivation. It should be emphasized that, in terms of soil conditions, Bangladesh ranked top among the countries producing jute in the globe. Farmers are hesitant to plant jute because of hurdles encountered throughout various stages of the process. According to data, the area under jute farming has steadily decreased from 84 hectares in 2011 to 74.36 hectares in 2014. Jute output, on the other hand, has decreased over the previous four years, from 7.09 metric tons to 6.66 metric tons. [1]

2.4 Types of Jute and major jute Products

2.4.1 Types of Jute

Jute is a long, supple, lustrous fiber that may be broken down into rough, strong threads. Despite the fact that there are only two variants of the more than 40 species of jute, *Corchorus capsularis* L. and *Corchorus olitorius* L., are commercially grown. White jute and Tossa or traditional jute are the common names for these two varieties. Between these two jute species, the timing of seeding differs by a short time gap. In Bangladesh, traditional jute, or Tossa, is grown in the lowlands between March and April, whereas white jute is cultivated in April and May (Akter, Sadekin, Islam, 2020).

White jute (*Corchorus capsularis*): Poor Indian villagers wore jute clothing, according to historical texts (notably Abul Fazal's *Ain-e-Akbari*, written in 1590). Cotton yarns were spun on primitive handlooms and hand spinning wheels by weavers. Indians, particularly Bengalis, have utilized white jute ropes and twines for domestic and other purposes from ancient times, according to history.

Tossa jute (*Corchorus olitorius*): Tossa jute (*Corchorus olitorius*) is the world's most popular kind and is assumed to be native to India. It's grown for both its fiber and its culinary value. The leaves are a key ingredient in the mucilaginous herb known as "molokhiya" in Middle Eastern and African regions, where it is utilized as an herb. It's a popular soup-based cuisine in several Arab nations, such as Egypt, Jordan, and Syria, and it's frequently served with meat over rice or lentils. This vegetable potherb is referred to as "Jew's mallow" in the King James translation of the Hebrew Bible's Book of Job. Protein, vitamin C, beta-carotene, calcium, and iron are all abundant.

In India, several Southeast Asian nations, and the South Pacific, however, it is mostly utilized for its fiber. White jute is softer, silkier, and stronger than Tossa jute fiber. This diversity astonishes with its capacity to thrive in the Ganges Delta's environment.

Tossa jute has been grown in Bengal soil, where it is known as paat, since the beginning of the nineteenth century, alongside white jute. The Bengal area (India's West Bengal and Bangladesh's Bangladesh) is currently the largest tossa jute producer in the world. [2]

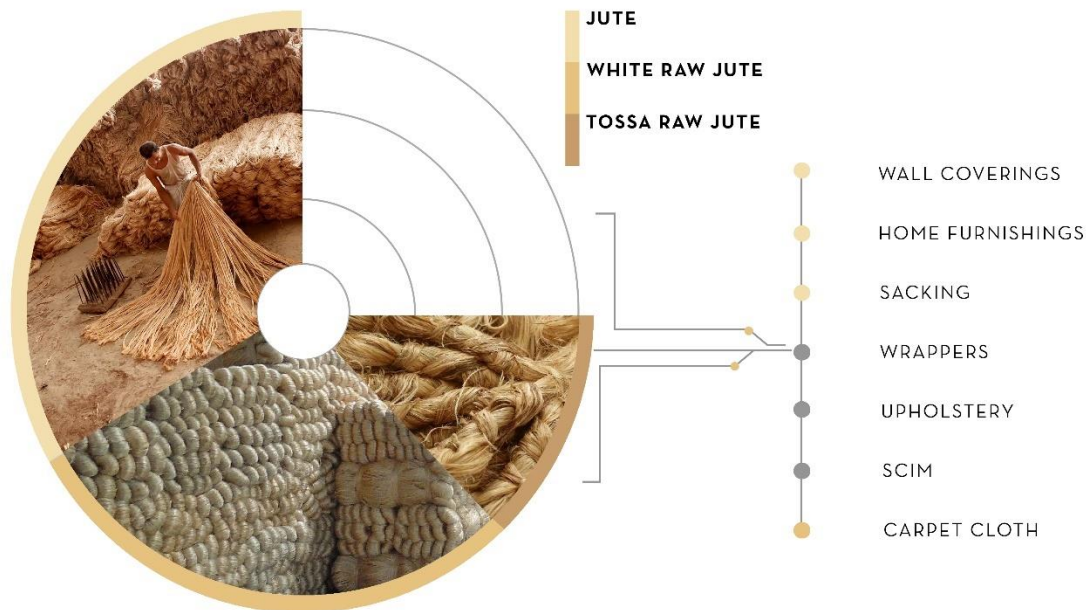


Figure 4: Major products of Jute. (Source: author)

Jute goods are used for work, arts and crafts, quilting, and design reasons, since the demand for jute goods is continually expanding. Jute has the advantage of not being related with health hazards or environmental damage. Jute products have no viable alternatives if the earth is to be kept clean and healthy. Jute is a fabric that is preferred over synthetic fibers because it is adaptable, durable, reusable, and inexpensive. Jute also benefits from being agro-based, produced yearly, infinite, and biodegradable or environmentally safe. Jute is frequently recognized as nature's best alternative to nylon and polypropylene. [5]

2.4.2 Major Jute Products

Jute is becoming a very significant commercial textile material. Jute was likely a "pot herb" or garden plant in ancient times, and the leaves were utilized for both food and medicine. Farmers

learned how to separate the fiber and manually spin it into yarn as jute eventually became a field crop. Some of the major jute products that are mostly produced are the followings:

Jute-based wall decor: Jute products are extensively and often used for design and aesthetic objectives. Various jute objects are used, particularly for wall decorating. Examples include key holders, wall hangings, tapestries, framed goods, framed portraits, framed mirrors, wall decals, and embroidered artwork.

Jute bags: Jute handbags, shopping bags, beach bags, Christmas bags, sling bags, promotional bags, sacking bags, bottle bags, hessian cloth bags, hydrocarbon-free bags, food-grade bags, etc.

Jute for craftworks: The following items are made of jute: wall hangings, slip pad holders, coasters, table mats, hammocks, lampshades, greeting cards, frames for pictures, folders for holding documents, gift containers, tissue boxes.

Jute textile: Jute hessian cloth or burlap, jute geotextiles, jute yarn, jute carpet cloth (CBC), jute hydrocarbon free cloth, jute canvas.

Jute apparel: Jute clothing items include a jacket, shoes, and accessories.

Jute furnishings: Jute flooring, including mats and durries, cushion coverings, textiles, blinds, rugs, and carpets.

Ghillie suits, which are camouflage costumes that resemble grass or shrubs, are frequently made from jute. Jute has become more well-liked in the agricultural sector thanks to a variety of products, including geo textiles. It is a natural fiber light-weave fabric used in a range of agricultural and landscaping applications, including weed control, seed protection, and soil erosion management. (Salahuddin, 2014).

The geotextiles may be used for up to a year, and the biodegradable jute Geotextile keeps the land cool and fertile as it breaks down on the ground. Methods like these may be used to transfer the Ganges Delta's fertility to the Saharan or Australian deserts. [2]

2.5 History of Jute industry

In prehistoric era Poor people in India used to wear jute clothing during the reign of the great Mughal emperor Akbar. The British East India Company, the first jute trader, exercised control over British imperial rule from the 17th through the 18th centuries to the middle of the 20th century. This company traded in raw jute. At the beginning of the 20th century, Margaret Donnelly I, who had founded the first jute mill in India, owned a jute mill in Dundee (Muttaki,2018). The first consignment of jute was sent by the East India Company in 1793. Flax spinners in Scotland were attempting to determine whether jute could be mechanically treated. Beginning in the year 1830, Dundee spinners modified their power-driven flax machinery to create the first jute yarn. As a result, raw jute exports and manufacturing from the Indian subcontinent, which was once the exclusive source of jute, have increased. [6]

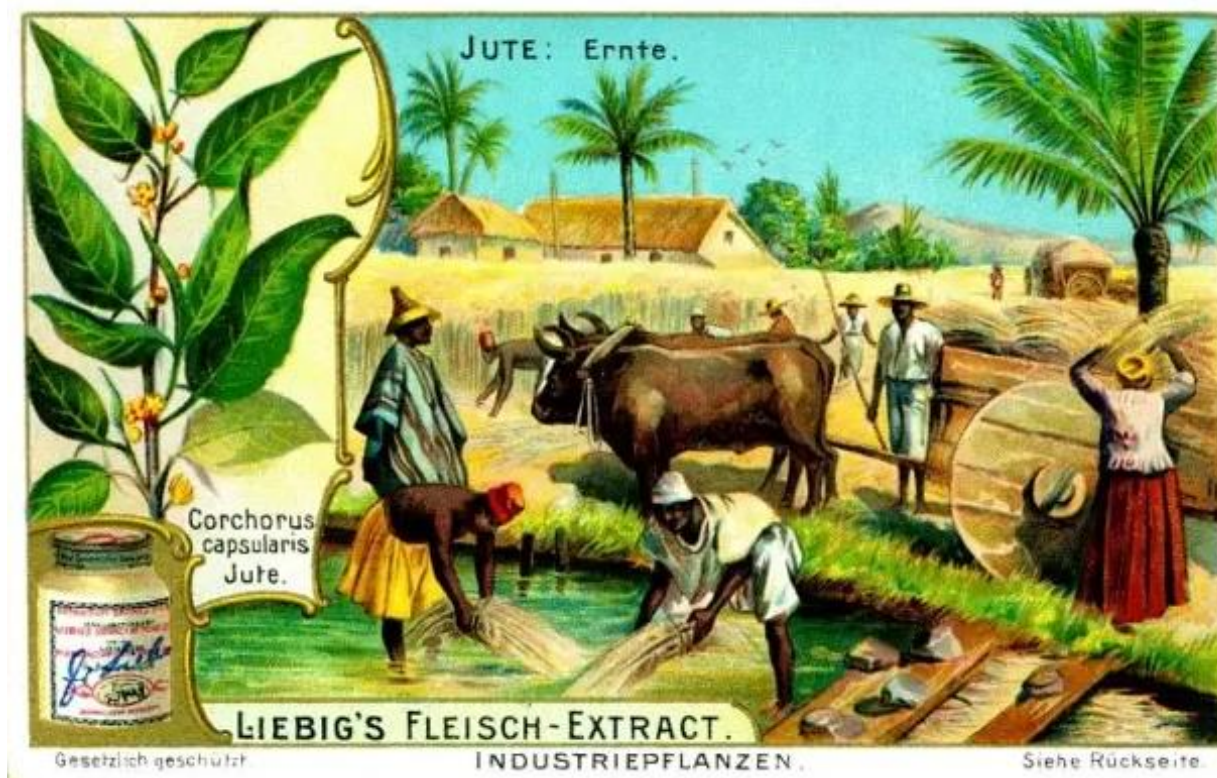


Figure 5: History of Jute

Source: Asia jute superior of the jute products 2018.

The main jute-growing areas from 1855 until the present were largely in Bengal, notably on the Kolkata side. When Mr. George Acland was transporting jute spinning equipment from Dundee to India in the year 1855, the first power-driven weaving mill was established at Rishra, on the River Hooghly, close to Calcutta. By 1869, five mills had been erected, with around 950 looms. By 1910, 38 businesses were running roughly 30,685 looms, generating more than 450 million bags and over a billion yards of fabric. The jute industry had almost completely taken over Dundee and Calcutta by the middle of 1880. Jute production began in other nations later in the 19th century, including France, America, Italy, Austria, Russia, Belgium, and Germany.

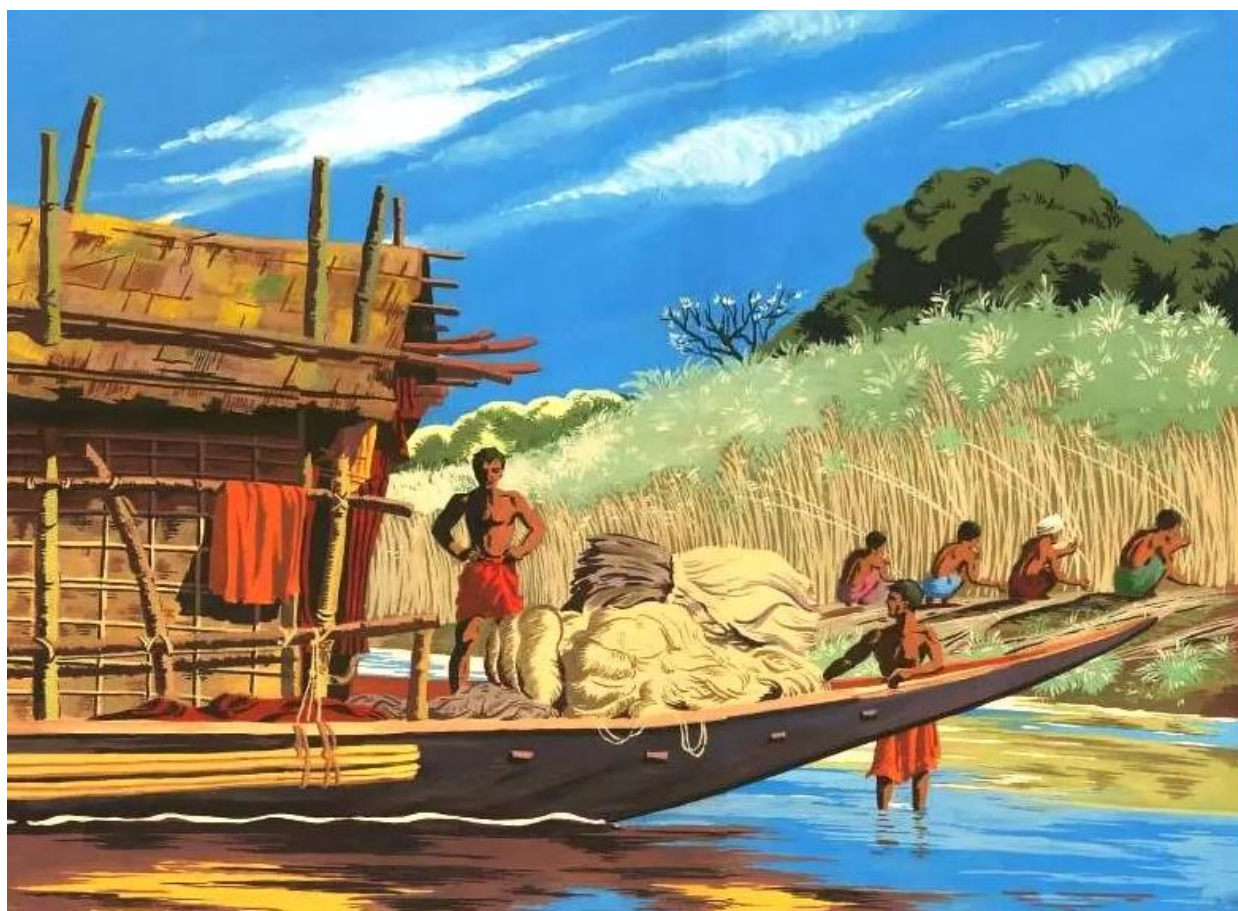


Figure 6: History of Jute

Source: Asia jute superior of the jute products 2018.

From the mid-nineteenth century till 1947, In the nineteenth century, the jute industry saw significant growth. On the River Hooghly near Calcutta, some 68,377 looms were built in 1939. Jute's main products are coarse bagging materials, which are made from finer textiles such as

hessian or burlap. The city of Calcutta has become a global leader in burlap and other bagging materials because to its handlooms.

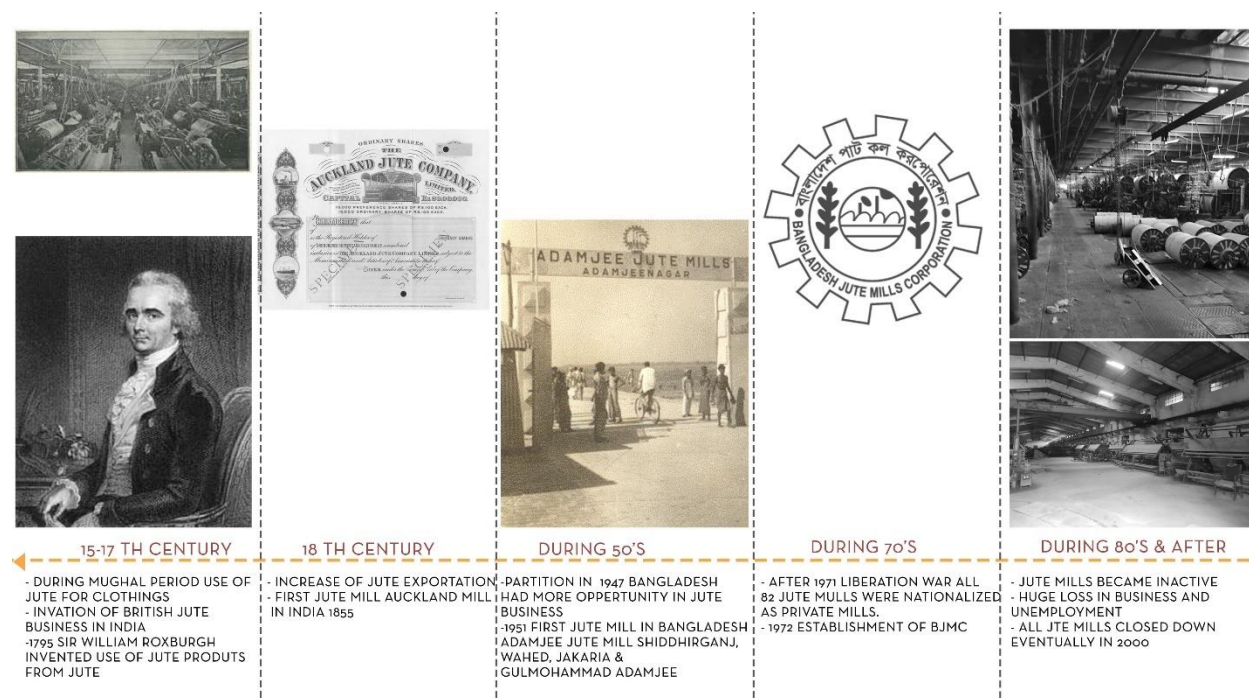


Figure 7: Jute history Timeline

(Source: Author)

The years following 1947

The majority of the jute barons abandoned their jute mills and started to leave India when India attained freedom. Most of them went to Marwari traders. East Pakistan had the best jute supply when Pakistan was divided in 1947. Now that India and Pakistan were at war, the jute industry was seen as essential by the people of Pakistan. Since then, other Pakistani families have built multiple mills in Narayanganj to enter the jute industry. The majority of Pakistanis were Dauds, Bawanis, Adamjees, and Ispahanis. The bulk of the jute mills came under the administration of the Bangladeshi government when Bangladesh was freed from Pakistan in 1971. Later, to administer and regulate Bangladesh's jute mills, the government created BJMC (Bangladesh Jute Mills Corporation). [6]

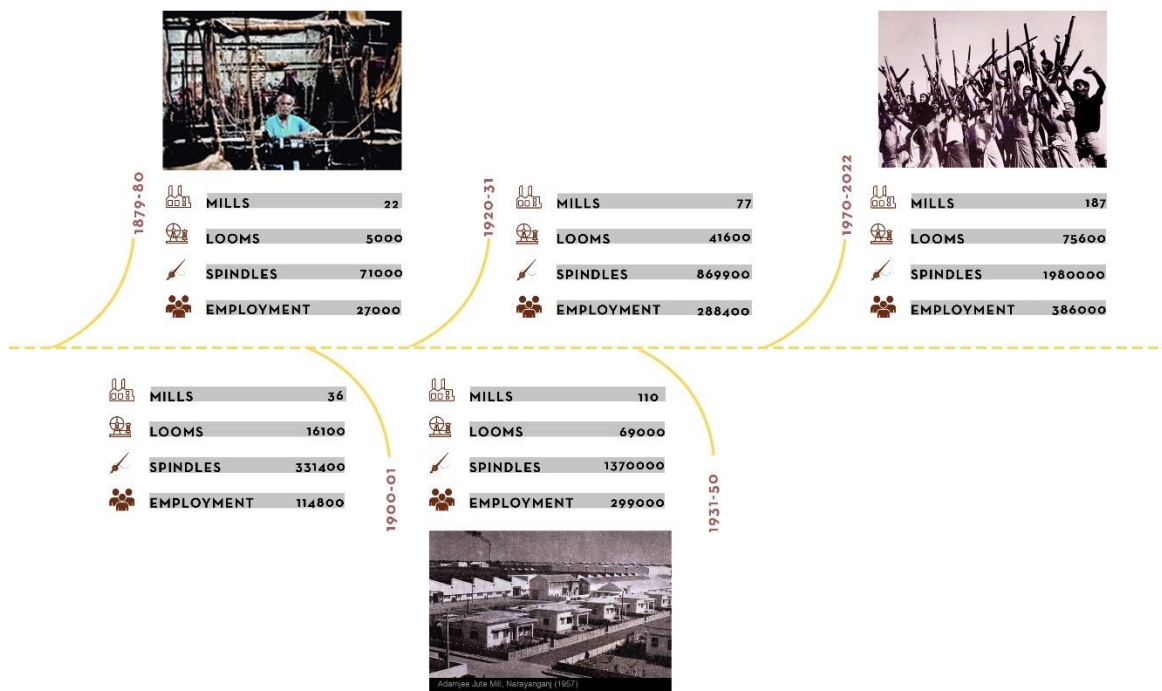


Figure 8: Timeline of Jute industries in Bangladesh

Source: Bangladesh Pat Corporation. (Drawing by author)

2.6 Economy of Jute industry

2.6.1 Growth

The jute industry played a significant part in Bengal's economic growth. Bengal has only one industrial industry at the beginning of the twentieth century: jute. It employed almost half of Bengal's total industrial workers. In 1900–1901 almost one-third of Bengal's overall export trade was comprised of the export value of jute manufacture. Throughout much of its existence, non-Bengalis made up three-quarters of the workforce in jute mills. Bengalis were mostly found in middle management positions in the business. Eastern Bengal used to provide the industry with raw jute. These mills made a lot of money between 1868 and 1873. In 1874, five new firms were founded, followed by eight more in 1875. As a result, towards the end of the nineteenth century, Bengal's jute sector witnessed a true boom.



Figure 9: Twenty Taka Note

Being one of the largest cash crops of Bangladesh, Jute held a major place and was printed in 20-taka notes.

Thus, towards the end of the nineteenth century, Bengal saw a tremendous growth in the jute sector.

Jute mills were established, and Bengal soon became a significant exporter of sacking bags. Because Calcutta could produce jute products at a lower cost than Dundee, it was able to effectively enter Dundee's hessian market in numerous countries throughout the world, including America.

The global market for raw jute fell after the First World War ended in 1918. This has a detrimental effect on the region that grows jute. The condition for jute farmers deteriorated during the Great Depression of 1929–1933. As prices fell, jute cultivation became unprofitable. As a result, farmers of jute dramatically decreased their area. The economy had improved by 1939. Due to the rise in demand for jute following the start of World War II, peasants expanded their jute planting in their fields between 1939 and 1945. [1]

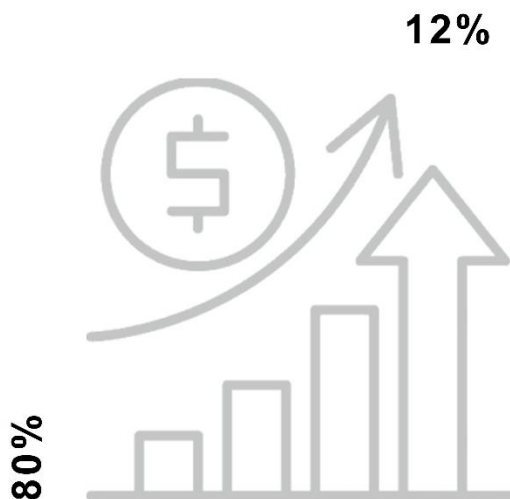


Figure 10: GDP of Jute in Bangladesh

Source: After Bangladesh gained independence from the British, jute contributed 12% of GDP and generated nearly 80% of all foreign money obtained in Bangladesh. (Source: Illustrated by Author)

2.6.2 Deserting Jute Industry

Following Bangladesh's independence in 1971, East Pakistan's public-sector jute industry became Bangladesh's property. Pakistani mill owners, who made up around 68 percent of all looms, have left the nation, leaving the industry in ruins. Looting was rife at jute factories that were closed down. Bangladesh's new government had to shoulder the burden of reconstructing the sector. The number of jute mills under BJMC's authority grew to 78 at one point. BJMC had to bring the industry back from the brink of extinction. Because financial institutions were not functioning properly immediately after freedom, resolving the jute industry's financial suffering proved extremely difficult. The industry was badly shaken by a lack of spare parts, worker unrest, manufacturing waste, and other factors.

Chapter 3: Site Appraisal

3.1 Introduction

To comprehend local environment characteristics, it is necessary to evaluate the location and climate. The site's and its surroundings' characteristics have a significant influence on the design process and the decisions made as a result of it. On the other side, it aids in the concentration of attention on the local community as well as the natural environment. In this chapter, the present site surroundings of the Bangabandhu Jute and textile museum will be discussed briefly.



Figure 11: Potentials to electing of the site

(Source: goggle illustrations, author)

3.2 Site Location

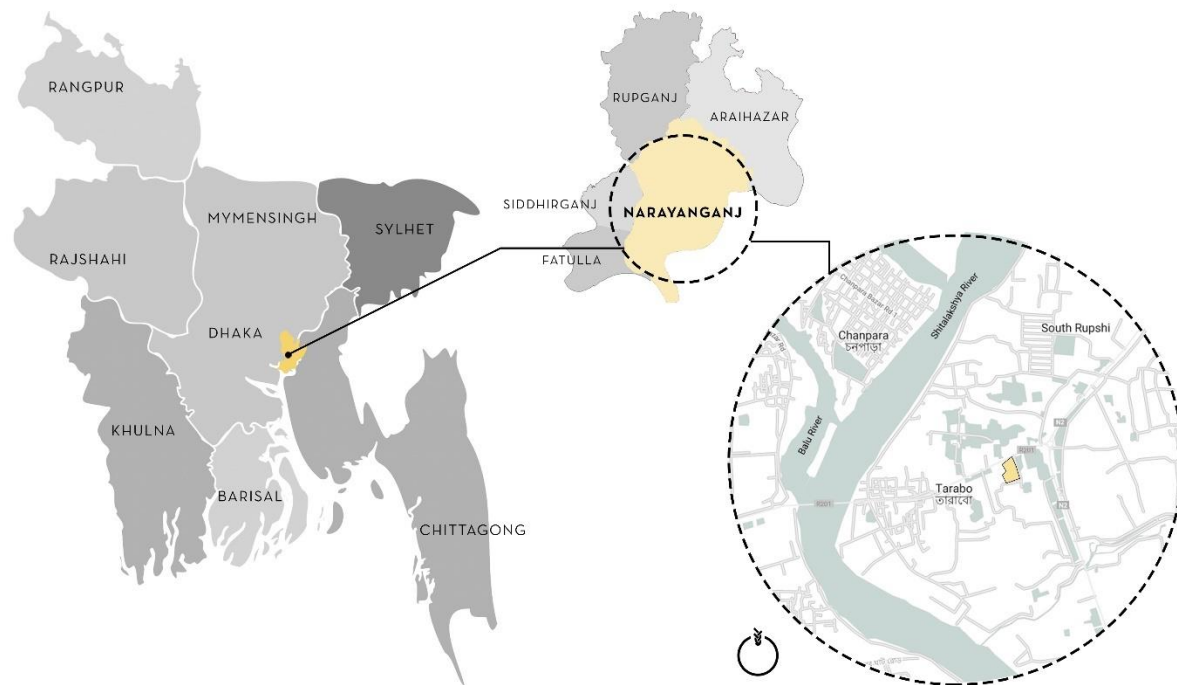


Figure 12: Location of the Site

Tarabo- Demraghat road, Rupganj, in Narayanganj from Bangladesh map. (Source: Author)

The site is located in the Narayanganj district of Tarabo. It's located on Demraghat Road near Rupganj. It takes about 2 hours via route from Dhaka's major metropolis to the location. The site can be accessed from the Trabo Chowrasta bus stand on the side of the Dhaka-Sylhet Highway. Surrounding the land is the Shitalakshya River near Demraghat Bazar. This site was chosen by the government with a site area of 8.5 acres (3,70,260 SQFT) to revive the heritage of jute and its history. Latitude: 23°43'18.7"N Longitude: 90°30'08.2"E.

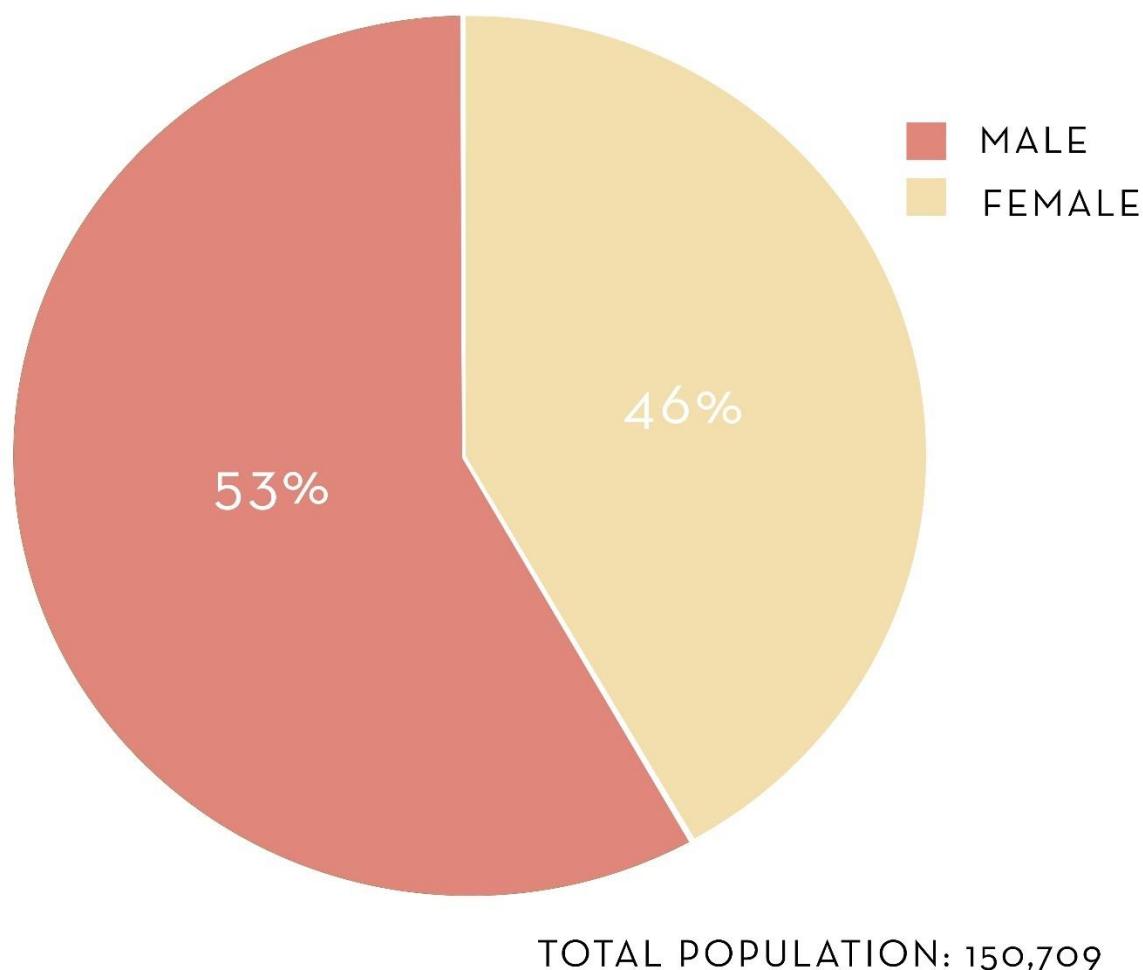


Figure 13: Population of Tarabo sub-district

(Source: City population, 2011, Illustrated by Author)

The population of Tarabo sub-district is 150,709 with 53% of male and 46% female. In Bangladesh, the rate of population increase in urban areas is 3.5% annually. The literacy rate is 49.4%, with 54.2% of men and 43.9% of women. Agriculture cultivation, which accounts for 22.72% of total income, arts and crafts, which account for 9.19%, business, which accounts for 21%, etc. Dhaka is 14 kilometers away from the Tarabo Pourashava. UNESCO has designated this settlement in the subdistrict as part of the "Intangible Cultural Heritage of Humanity." This village in the subdistrict was transformed into an industrial area with more than 300 medium- to large-scale firms in a matter of decades.

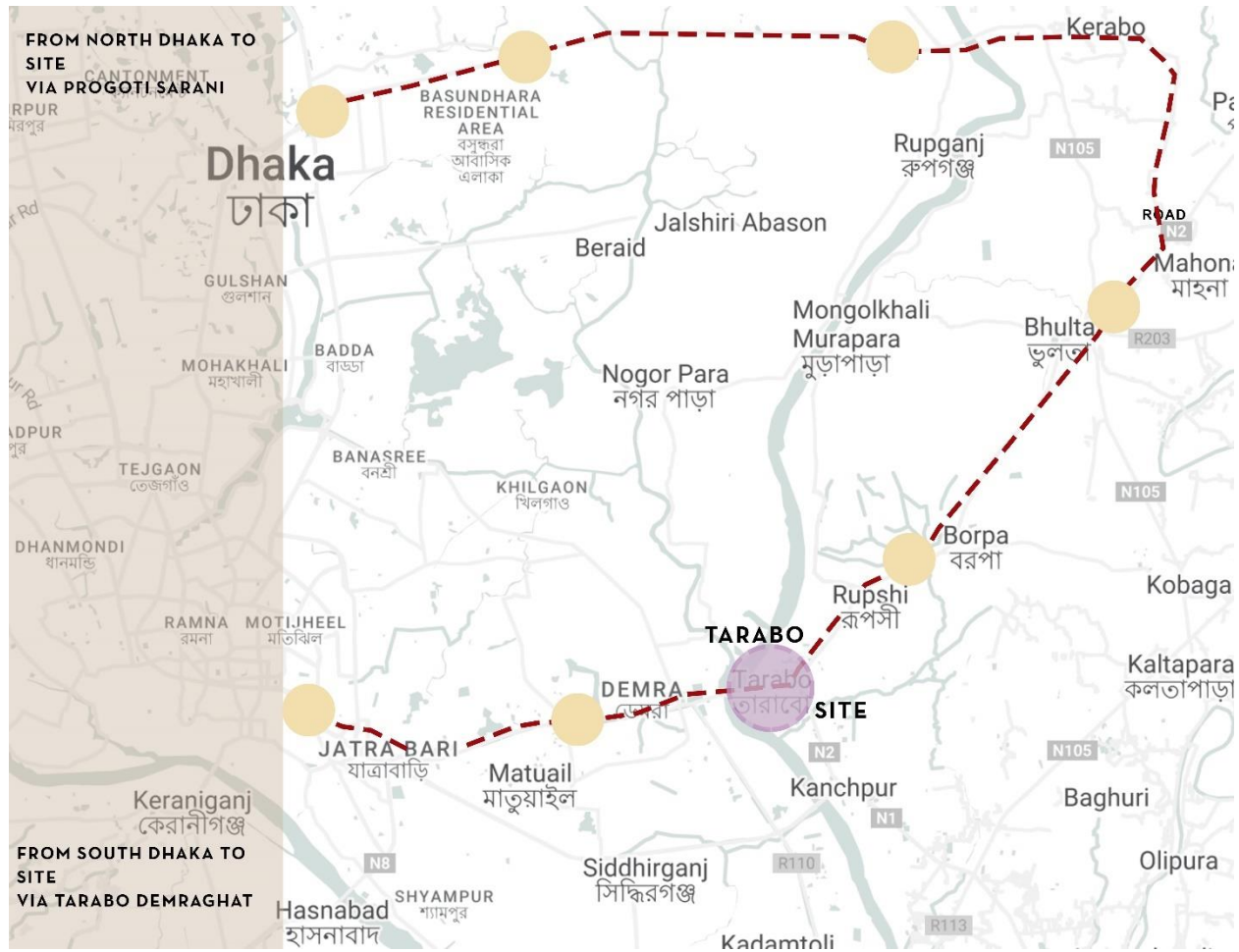


Figure 14: Route map from Dhaka to site

(Source: Snazzy map modified by Author).

3.3 Site Surroundings

In this reflection of the site surroundings, if the site is looked up closely, the functions can be identified along with the industrial areas, religious buildings, local neighborhood, educational institutions, mills, etc.

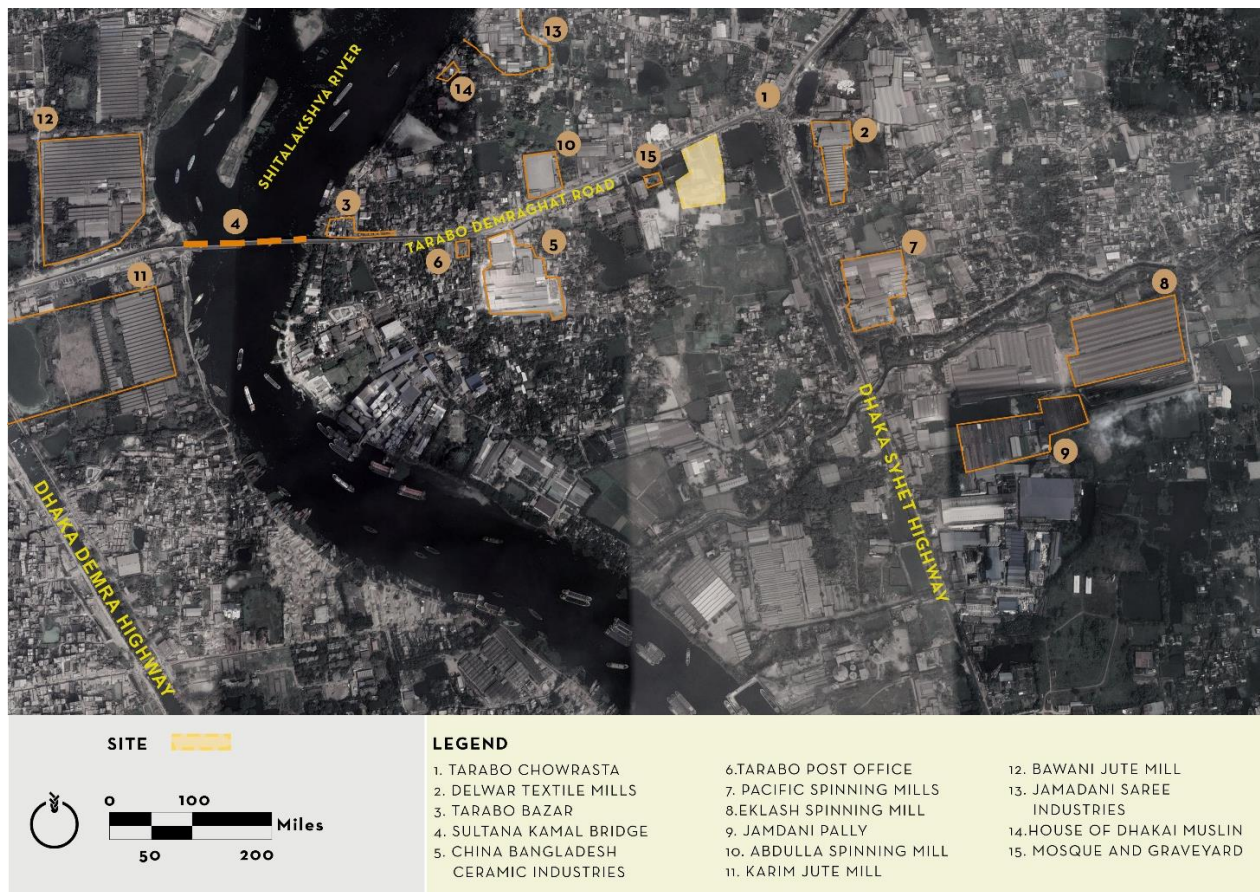


Figure 15: Detailed site Surrounding

(Source: Goggle earth, modified by author)

- The north side of the site consists of Chanpara, which consists of Demra to Rupganj bridge along with Chanpara bazar and graveyard. The South Rupshi mainly consists of BSCIC Jamdani Industrial State, Jamdani Pally, and Tarabo Tat Board. It is one of the core places for the clothing industry.
- The south consists of China Bangla Ceramic Industries Ltd., which is right next to the site. Besides Demra ghat and Trabo Bazar, Tarabo post office, and spinning mills, they play a significant role in the site.
- Most of the textile industries are situated on the east side of Boarabo. such as Delowar textile mills, Sayed textile mills, Ashrafi textile mills, etc. Tarabo chowrasta is dominant near the site, for which it gets crowded by people coming from different areas.

- The west side includes one of the two largest jute mills in Demra, which are Karim jute mill and Bawani Jute mill. The jute is imported and exported from the mills. As a result, the area is beneficial to uphold the jute significance and history. The Sultana Kamal bridge connects Tarabo from Demra and Hajinagar with mostly residential areas.

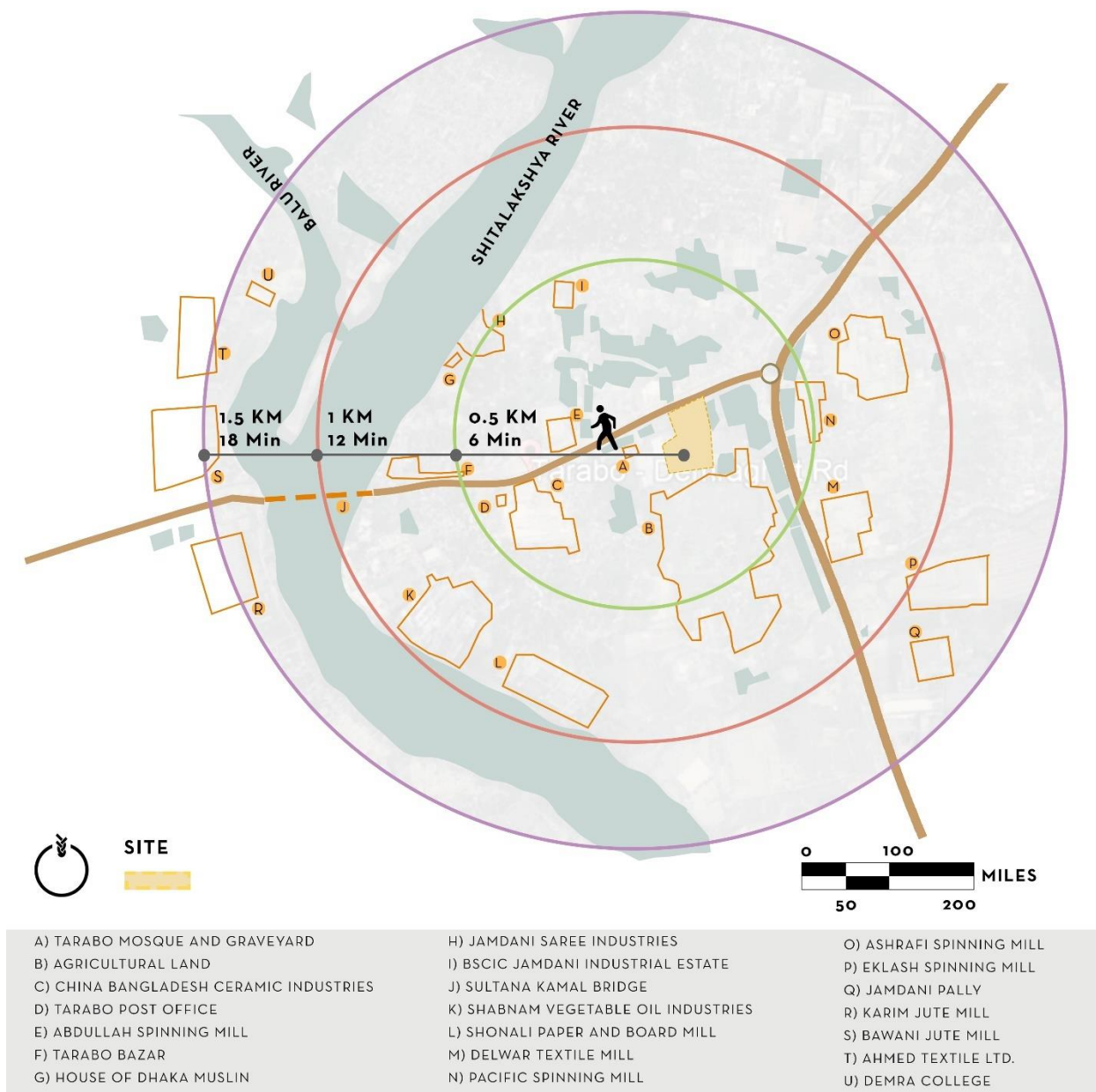


Figure 16: Site Landmarks

Site landmarks along with walking distance of 0.5 km, 1 km and 1.5 km. (Source: author).

Within a 1.5 km radius, the peripheral land contains commercial zones, mosques, educational institutions, agricultural lands, and residential areas, but mostly it is dominated by industrial buildings. The land around the site is still under development and mostly surrounded by mills and factories. Most of the weavers and the laborers have housing complexes surrounded by the site. The highway has an onslaught of heavy traffic every day on the Tarabo-Chowrasta mor. As there are secondary and tertiary roads that link to the property, accessibility is not an issue due to the highway being close by.

- The Sultana Kamal bridge connects the site with Demra and Hajinagar side.
- The site sits on the edge of the Dhaka- Sylhet highway and has potential water basin surroundings.
- The site is surrounded by multifunctional industrial mills and factories.

3.4 Historical Development of the Site

Tarabo Pourashava is located in the Rupganj Upazila in the north of Narayanganj district under Dhaka division. It was initially founded as a "C" class municipality in 2002, and then it was progressively upgraded to an "A" class municipality on July 3, 2013. Tarabo is well-known for its traditional Jamdani saree manufacturing. Jamdani sarees have a long history dating back to the Mughal era. This is where the Jamdani producers' village is located. It is spread out across 20 acres and consists of 418 sections. The Jamdani Industry and Research Center is located in Noapara and South Rupshi Moujas. In the early 20th century, the site had strong connections to jute and textiles, along with jamdani products. The bank of the Shitalakshya River, which was a part of Dhaka in the past, still remains as a popular location for jute, textile, and jamdani craftsmen. Tarabo Bazaar is one of the historical places of Narayanganj with the biggest wholesale market for weaving industries and the biggest importer and exporter of jute. The famous Adamjee Jute Mill was about 9 kilometers south of Tarabo. It had large river, road, and rail communication facilities. In 1950, the mill was a symbol of pride on the bank of the Shitalakshya river, with 295 acres of land as the largest jute mill in the world. The mill was managed by Bangladesh Jute Mill Corporation until

1971, when it was declared an abandoned building. The current administration has taken action to restore jute's former prominence both domestically and internationally.

The Sultana Kamal bridge, which is also known as the Demra bridge, was inaugurated by Prime Minister Sheikh Hasina in 2010. It plays a vital role in connecting the Dhaka-Sylhet highway with Demra and Rupganj (Narayanganj). However, the bridge did not exist in 1971 as it's situated on the Shitalakshya river. Under the bridge, there was one ferry berth on Demraghat Road. Back in 1971, during the Liberation War, it was the only waterway station to import and export weapons for the Pakistanis. But it got demolished during the war by the freedom fighters of 10 No. sector of the Naval Commando Group. It could be said that the famous muslin industry, Adamjee jute mills, of the country flourished on the bank of the Shitalakshya river. The river was formerly known for its crystal clear, refreshing water. For roughly five months of the year, the river is tidal, though it never overflows its banks.

Meanwhile, the people moved near the land area as it developed gradually, for agricultural cultivation, sand collection, and labor on the brick kilns that lined the new river side. The progression of rising land area and the resultant growth in residential buildings, commercial and industrial construction have been shown in the diagram below.

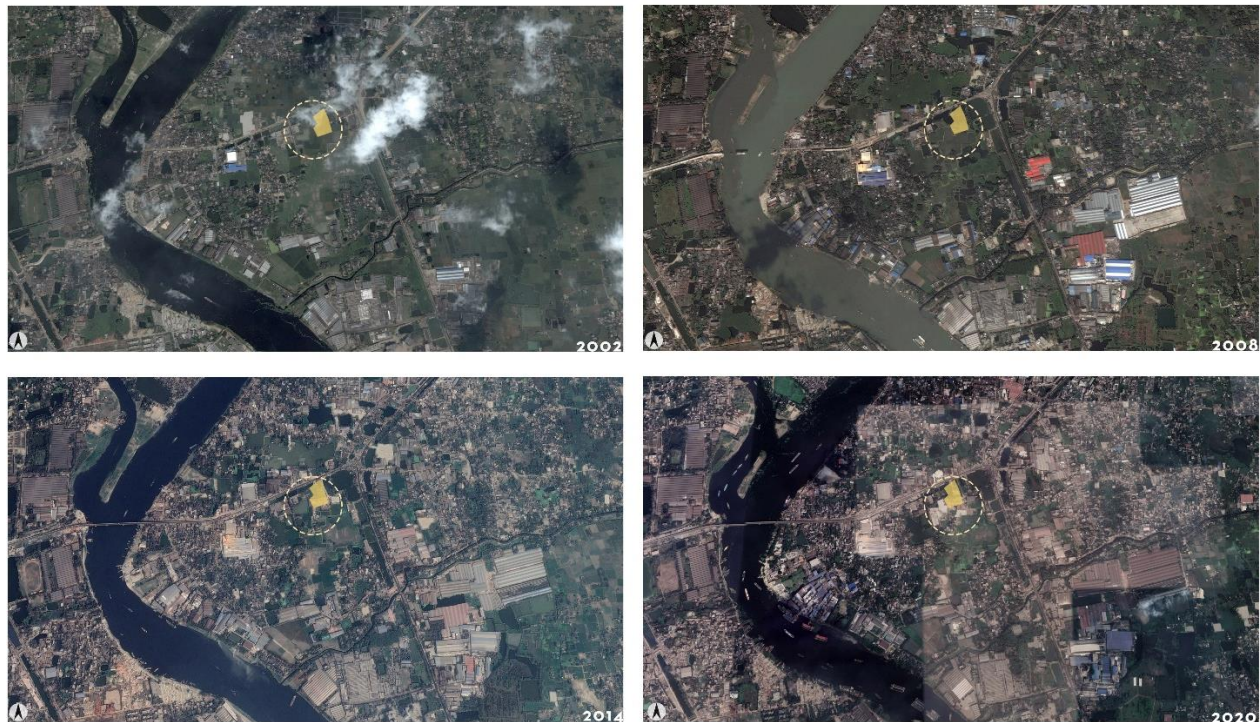


Figure 17: Site surrounding History

(Source: Google Earth, Author).

3.5 Geographical Characteristics of the Site

The site is located in a moderately agricultural and industrial area with large numbers of planted trees, which have grown to a significant size, with an area of 8.5 acres. It can be approached directly from the main Dhaka-Sylhet highway through the 80-foot-wide road of Tarabo Chowrasta mor. The site has an overall rectangular shape, being elongated along an east-west axis. Most of the land is used for cultivation, giving an open field with a soothing environment. The area lies near the east side of the Shitlakshya river. The area is slightly elevated compared to the surrounding river basin areas. The site receives a constant breeze as there is not much building on the southern side. Furthermore, it receives enough light from all angles.

3.5.1 Macro Climate Condition

Topography

The topography of Tarabo belongs to mainly Tropical savanna, wet climate with a latitude of 23°43'18.7"N and longitude: 90°30'08.2"E. The outcome is that less than 60 mm (2.4 in) of precipitation falls during the driest month. Within two miles of Tarabo Narayanganj, the geography is mainly flat, with an average elevation above sea level of 26 feet and a maximum elevation change of 89 feet. Nearby terrain is basically flat (125 feet). Additionally, there are only minor height fluctuations within 50 miles (364 feet). In the vicinity of Narayanganj, there is grassland (39%), farmland (39%), artificial surfaces (12%), and water (10%). Within 10 miles and 50 miles, there is cropland (40%) and grassland (40%) respectively. In essence, rather of dense jungle, tropical savanna climates frequently have tree-lined meadows.

Average weather in Narayanganj

The best time to visit Tarabo, Narayanganj is from January until March and October until December, when it will have a warm or hot temperature and limited till mediocre rainfall. The district's yearly temperature is 28.65°C (83.57°F) and it is 0.91% higher than Bangladesh's averages. Narayanganj typically receives about 70.51 millimeters (2.78 inches) of precipitation and has 114.29 rainy days (31.31% of the time) annually.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Nov	Oct	Dec	Year
Record high °C (°F)	34.75 (94.55)	37.82 (100.08)	40.89 (105.6)	44.98 (112.96)	46.0 (114.8)	40.89 (105.6)	38.84 (101.91)	38.84 (101.91)	38.84 (101.91)	36.8 (98.24)	36.8 (98.24)	34.75 (94.55)	46.0 (114.8)
Average high °C (°F)	26.53 (79.75)	30.43 (86.77)	34.8 (94.64)	37.09 (98.76)	36.31 (97.36)	34.6 (94.28)	33.33 (91.99)	33.54 (92.37)	33.23 (91.81)	32.1 (89.78)	29.9 (85.82)	27.01 (80.62)	32.4 (90.32)
Daily mean °C (°F)	21.67 (71.01)	25.01 (77.02)	29.53 (85.15)	32.59 (90.66)	32.79 (91.02)	31.94 (89.49)	30.91 (87.64)	30.92 (87.66)	30.55 (86.99)	28.98 (84.16)	26.08 (78.94)	22.88 (73.18)	28.65 (83.57)
Average low °C (°F)	15.57 (60.03)	17.92 (64.26)	21.96 (71.53)	26.03 (78.85)	27.54 (81.57)	27.8 (82.04)	27.25 (81.05)	27.16 (80.89)	26.73 (80.11)	24.56 (76.21)	20.82 (69.48)	17.52 (63.54)	23.41 (74.14)
Record low °C (°F)	8.18 (46.72)	12.27 (54.09)	14.31 (57.76)	21.47 (70.65)	17.38 (63.28)	18.4 (65.12)	20.44 (68.79)	17.38 (63.28)	20.44 (68.79)	19.42 (66.96)	14.31 (57.76)	11.24 (52.23)	8.18 (46.72)
Average precipitation mm (inches)	1.33 (0.05)	11.55 (0.45)	23.39 (0.92)	106.47 (4.19)	133.99 (5.28)	132.49 (5.22)	128.73 (5.07)	97.66 (3.84)	114.28 (4.5)	73.77 (2.9)	17.26 (0.68)	5.23 (0.21)	70.51 (2.78)
Average precipitation days (≥ 1.0 mm)	0.46	1.39	5.2	14.13	17.01	17.29	16.45	15.99	15.42	8.55	1.48	0.93	9.53
Average relative humidity (%)	53.42	46.35	49.16	60.76	70.29	77.92	81.74	80.91	80.32	76.57	66.46	60.15	67.01
Mean monthly sunshine hours	8.81	8.99	11.86	12.73	12.97	12.35	11.8	11.95	11.2	10.25	8.69	8.71	10.86

Figure 18: Average weather of Narayanganj

(Source: <https://tcktcktck.org/bangladesh/dhaka/narayanganj>)

Rainfall

To display the total amount of rainfall gathered over a sliding 31-day window centered on each day of the year in order to highlight variance within the months as well as the monthly totals. Extreme seasonal variations in monthly rainfall may be found in Narayanganj. From February 12 to December 2, which is 9.7 months, are the rainiest months of the year, with a typical 31-day rainfall of at least 0.5 inches. In Narayanganj, July has an average rainfall of 10.1 inches, making it the wettest month.

From December 2 to February 12, the year's 2.4-month rainless spell begins. With an average rainfall of 0.2 inches, January is the month that rains the least in Narayanganj.

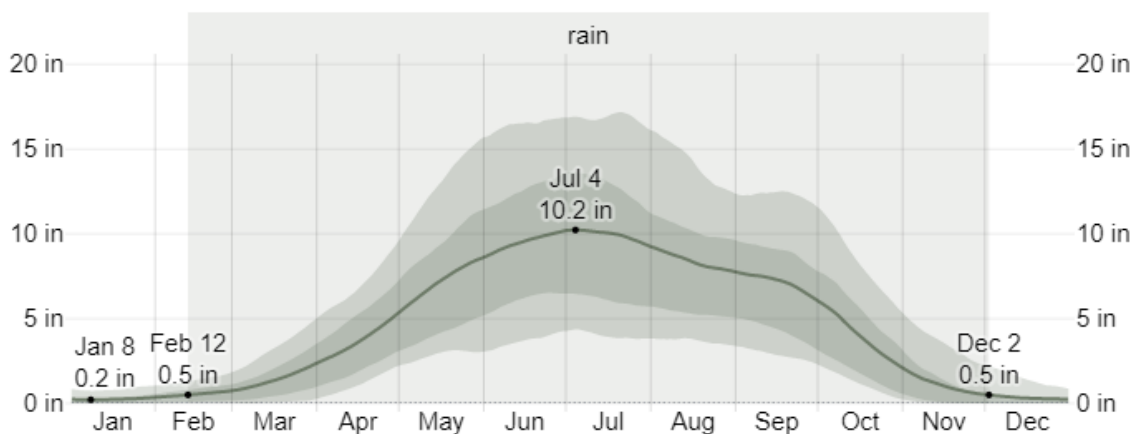


Figure 19: Average rainfall of Narayanganj

The average rainfall (solid line) was gathered during a sliding 31-day window centered on the relevant day, with bands from the 25th to the 75th and from the 10th to the 90th percentiles. The associated average snowfall is represented by the thin dotted line. (Source: <https://weatherspark.com/y/111856/Average-Weather-in-N%C4%81r%C4%81yanganj-Bangladesh-Year-Round>)

Precipitation

A wet day that has at least 0.04 inches of liquid or liquid-equivalent precipitation is considered to be wet. In Narayanganj, the likelihood of rainy days fluctuates wildly throughout the year. The 5.8-month wetter season, which runs from April 19 to October 11, has a more than 38% chance of precipitation on any one day. The month of July has an average of 22.1 days with at least 0.04 inches of precipitation, making it the wettest month in Narayanganj.

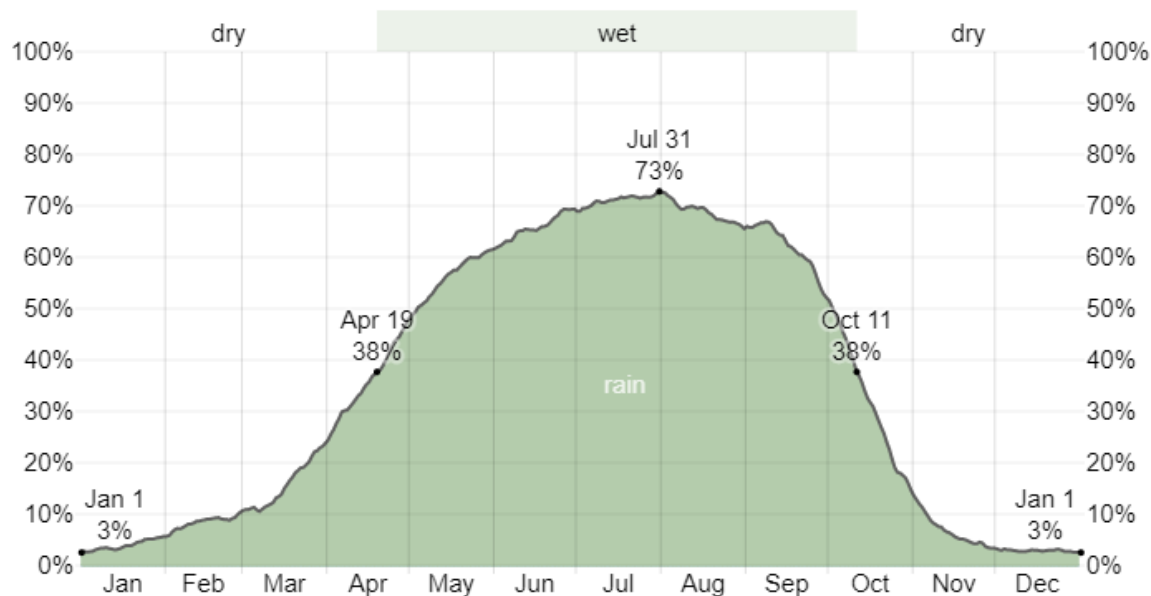


Figure 20: Precipitation of Narayanganj

The proportion of days with various precipitation types, eliminating very small amounts of rain.

(Source: <https://weatherspark.com/y/111856/Average-Weather-in-N%C4%81r%C4%81yanganj-Bangladesh-Year-Round>)

Flood Map

The majority of the Dhaka region, including Narayanganj, sits in the area's natural floodplain, which once served as a significant breeding habitat for numerous aquatic species. The yearly floods that severely damages a huge portion of the city is a reminder of its role. The construction of embankments to protect the city from floods, and notably from infilling to reclaim land, which diminishes the water retention capacity of these places and increases flooding both upstream and downstream, has further compromised the function of the floodplain.

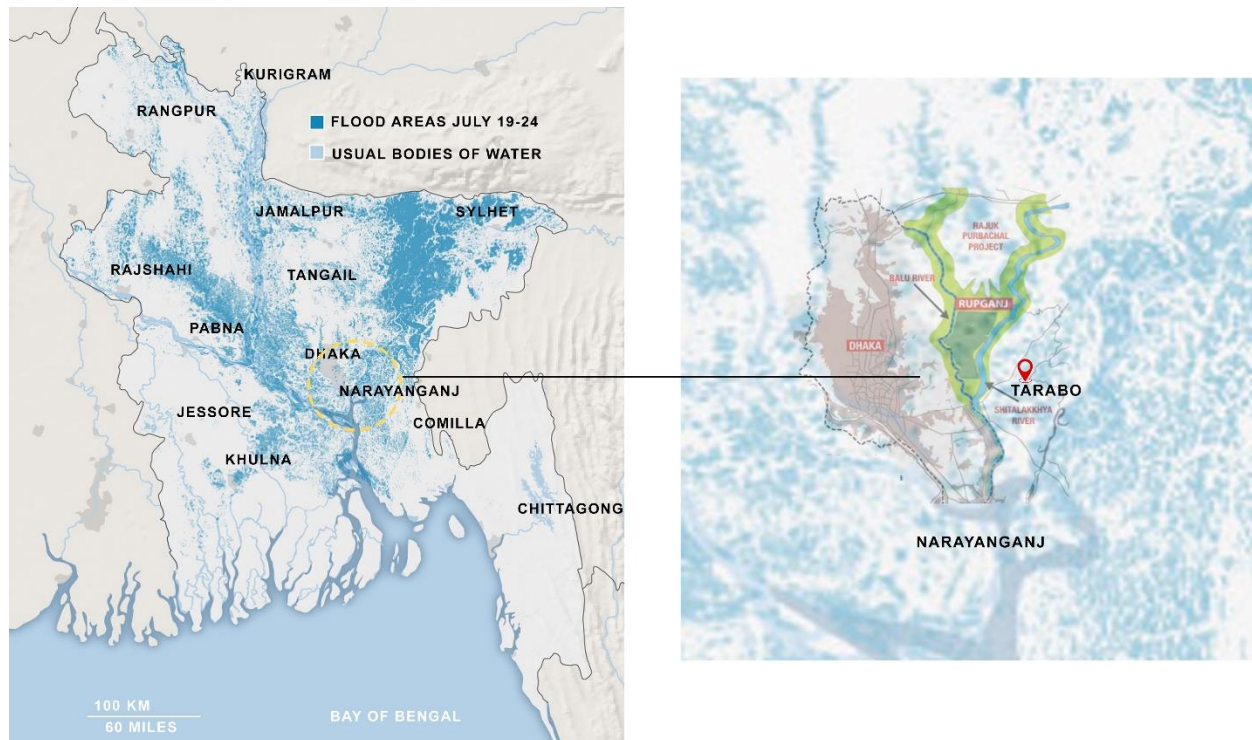


Figure 21: Flood map of Narayanganj

(Source: <https://www.nytimes.com/2020/07/30/climate/bangladesh-floods.html>)

Humidity

The dew point's comfort level for humidity controls whether sweat will evaporate from the skin, which cools the body. Higher dew points seem more humid, whereas lower dew points feel dryer. While the temperature may decrease at night, a humid day is generally followed by a muggy night because dew point changes more slowly than temperature, which frequently fluctuates dramatically between night and day. Extreme seasonal change in perceived humidity is observed in Narayanganj. The nine months from February 28 to November 28 that make up the muggier season are when the comfort level is at least 26% of the time humid, oppressive, or uncomfortable. With just one day being humid or worse, January has the fewest days of this kind in Narayanganj.



Figure 22: Humidity of Narayanganj

The proportion of time spent at each comfortable humidity level, broken out by dew point. (Source: <https://weatherspark.com/y/111856/Average-Weather-in-N%C4%81r%C4%81yanganj-Bangladesh-Year-Round>)

Wind Speed

The wide-area hourly average wind vector (speed and direction) at 10 meters above the ground is covered in this section. Instantaneous wind speed and direction vary more considerably than hourly averages due to local terrain and other variables, which greatly influence the wind experienced at any particular site. Over the course of the year, Narayanganj's average hourly wind speed shows substantial seasonal fluctuation. The 5.3-month period from March 27 to September 7 is the windiest time of the year, with typical wind gusts exceeding 7.5 miles per hour. In Narayanganj, July is the windiest month of the year, with average hourly wind speeds of 9.9 miles per hour. From September 7 to March 27, which is 6.6 months, is when things are most tranquil. In Narayanganj, November is the calmest month of the year, with an average hourly wind speed of 4.6 miles per hour.

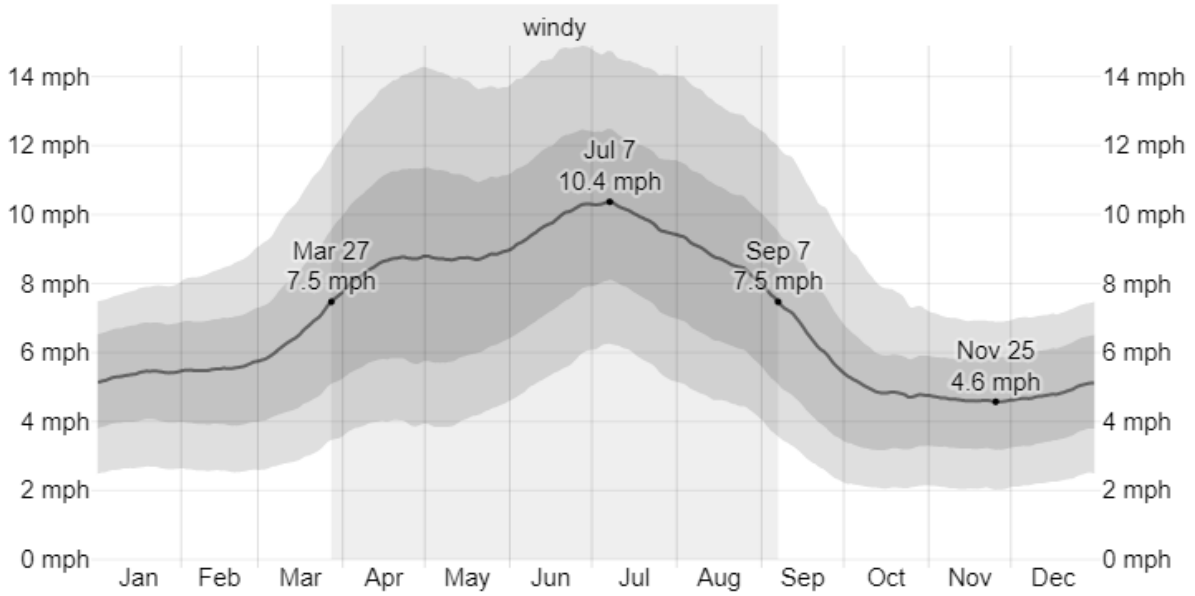


Figure 23: Wind speed of Narayanganj

(Source: <https://weatherspark.com/y/111856/Average-Weather-in-N%C4%81r%C4%81yanganj-Bangladesh-Year-Round>)

3.6 Land-use Pattern of the Surroundings

The location of the site is in the middle of a developing area with mostly industrial and mixed-used and commercial buildings such as government and non-governmental institutes, bazars, police stations, schools, transportation hubs, mosques, and schools.

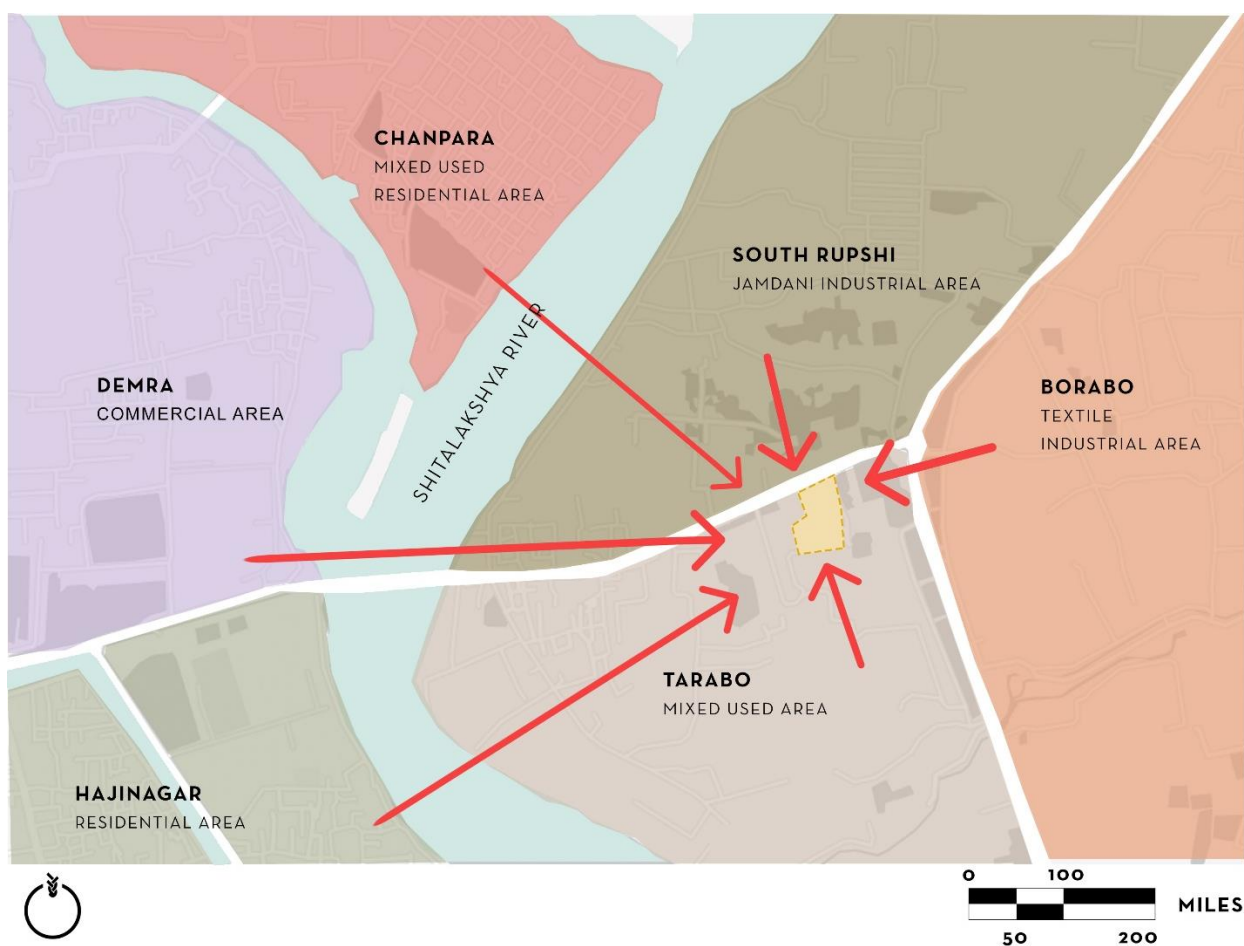


Figure 24: Land use pattern

Land use according to area surrounding the site within 1.5 kilometers. (Source: Author)

The surrounding fabric demonstrates a wide range of interconnected and linked industrial, commercial, and residential zones. The built environment, locale, and community all have a particular character in each zone. The zones also facilitate the formation of highly fascinating relationships with additional public and private areas. The majority of the nearby projects are textile industry factories, commercial, and residential zones with a diversity of uses. Gas, water, and electricity are all readily available. A fragmentation of solid and void surrounding the site has been shown below.

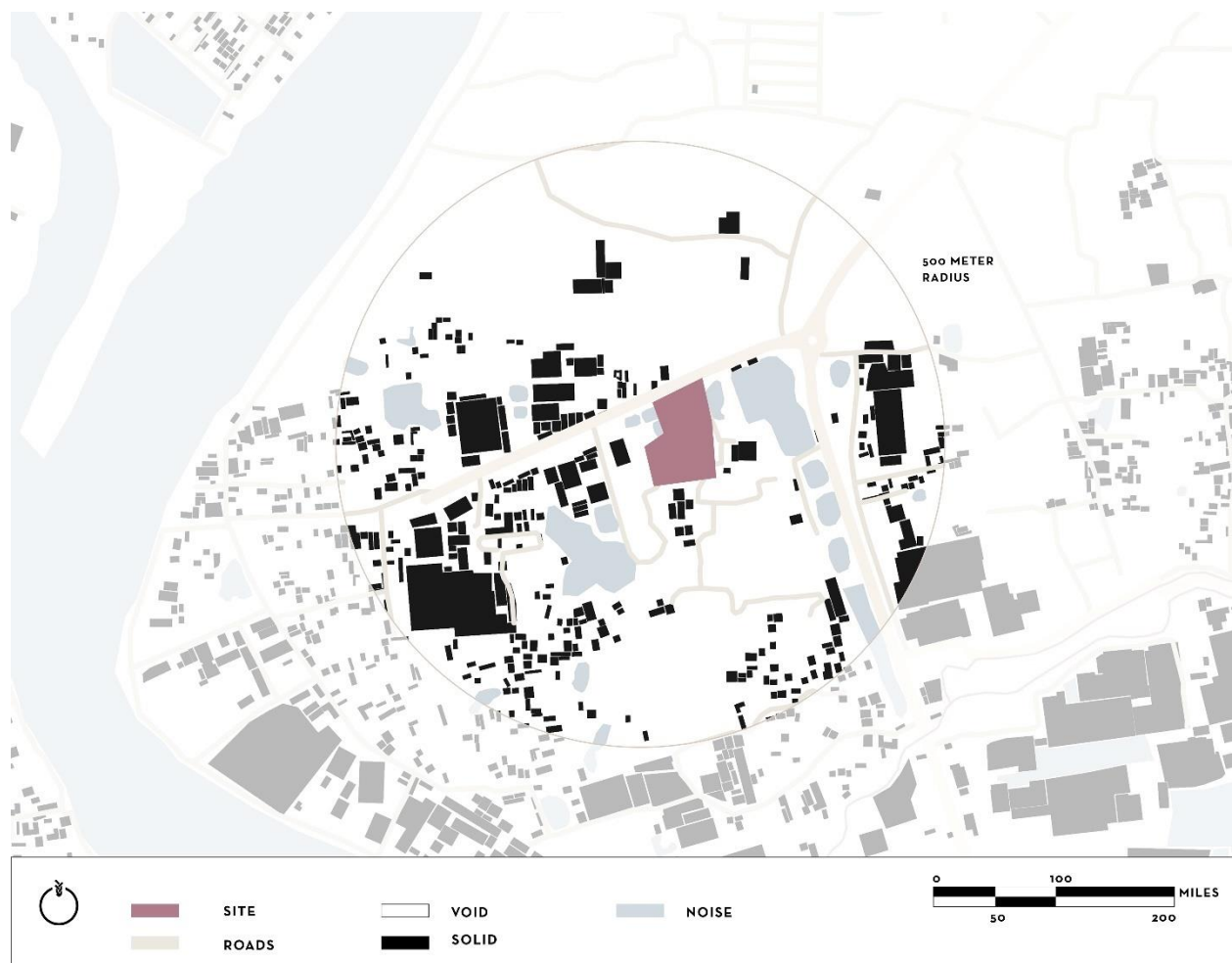


Figure 25: Ground Figure Map

Ground figure map ratio of the land area in a 500m radius. (Source: Author)

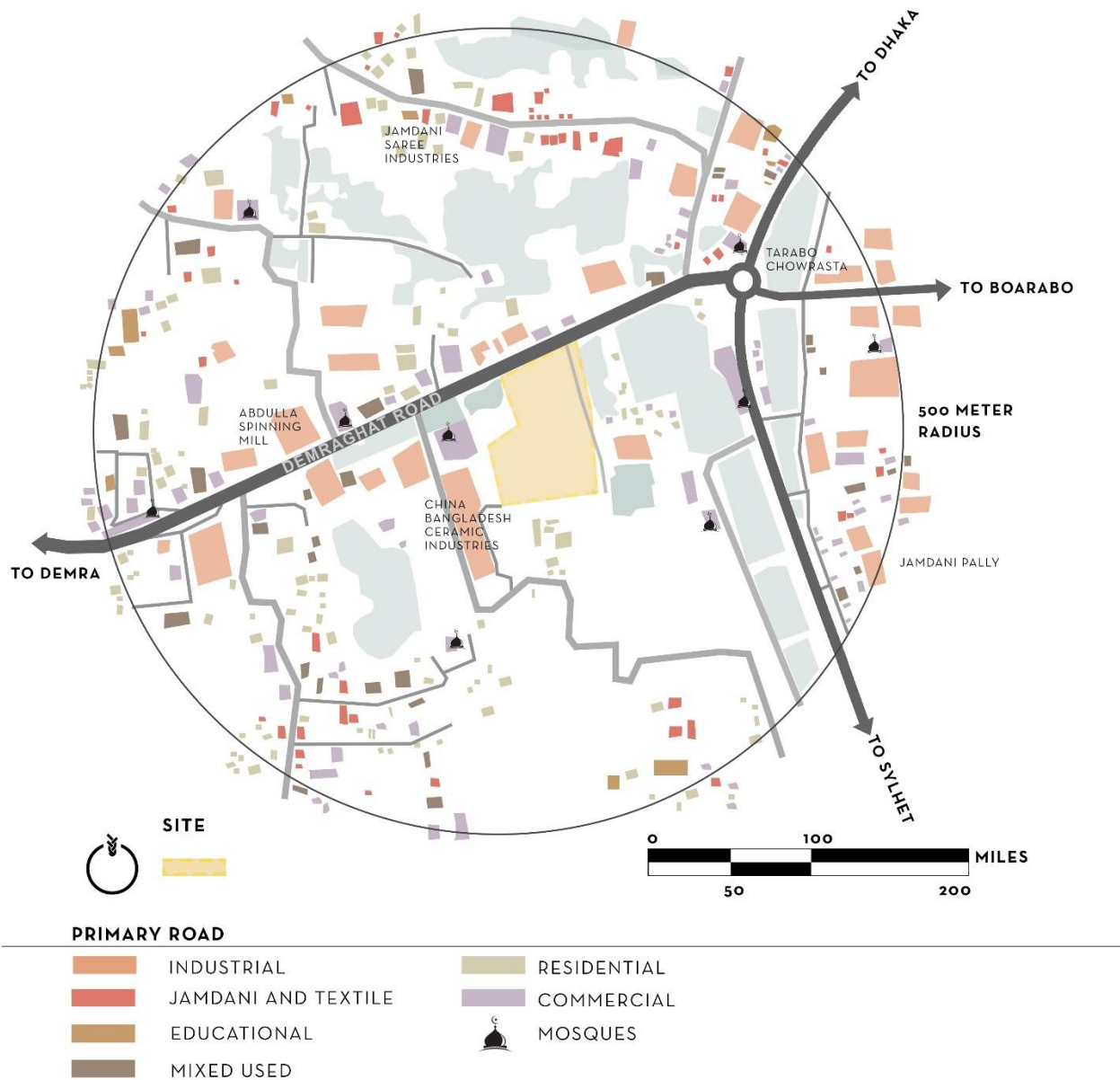


Figure 26: Land use Pattern

Land use pattern in site within 500-meter radius. (Source: Author)

The land use pattern shows that 60% of the buildings are industrial, with 15% commercial, 10% of residential, 11 % of mixed-use and textile industries, and 4% educational.

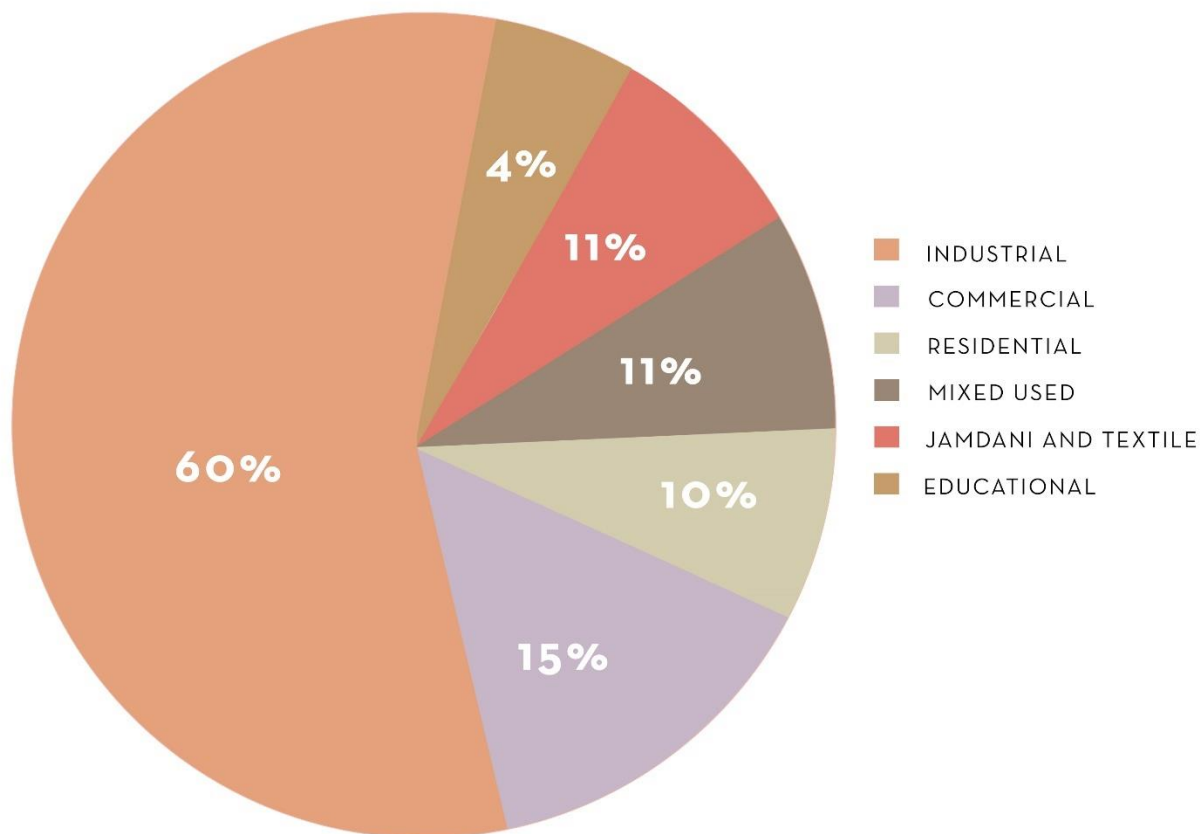


Figure 27: Pie chart

Land- use pattern pie chart. (Source: Author)

3.7 Accessibility and Connectivity

The site is located along the Dhaka-Sylhet highway and the Dhaka-Demra highway, which are about 24 meters (80 feet) wide. Both the highways make an important node, Bishwaroad. The secondary road, which is about 18 m (60 feet) wide, flows through the edge of the west side of the site. The internal road conditions are average, with an average width of 10m (30 feet). Anyone can visit the site from Dhaka, Demra, Sylhet, and Tarabo. The Biswaroad, which is Tarabo-Chowrasta, is the interaction point of these main routes.

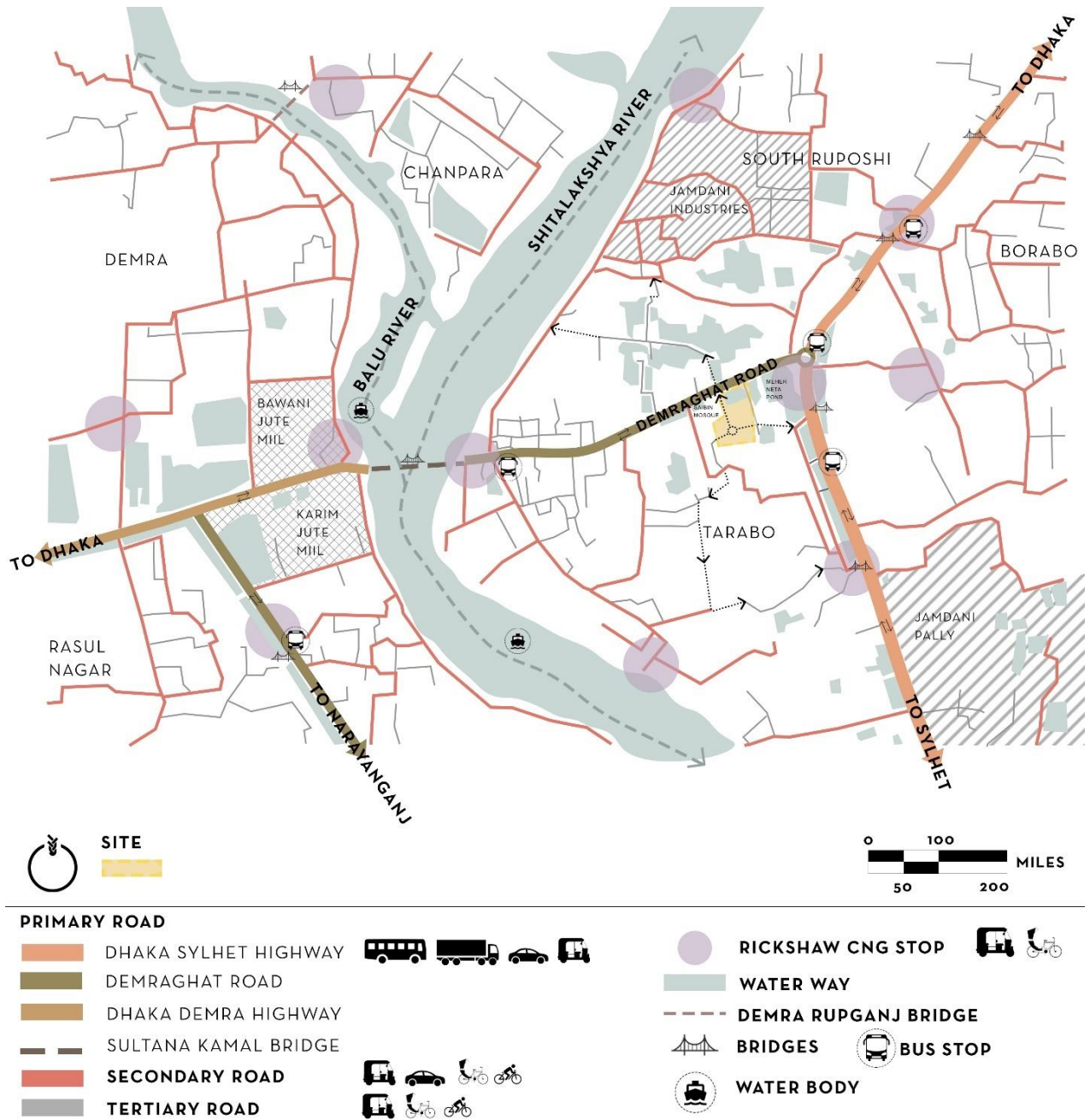


Figure 28: Accessibility & Connectivity

(Source: Author).

For the local people, one of the nearest accessible ways to visit the site is through Demraghat road. Another accessible road is from Dhaka to Sylhet highway through Jamia Kawmia road, which leads to Rupganj Thana towards the site.

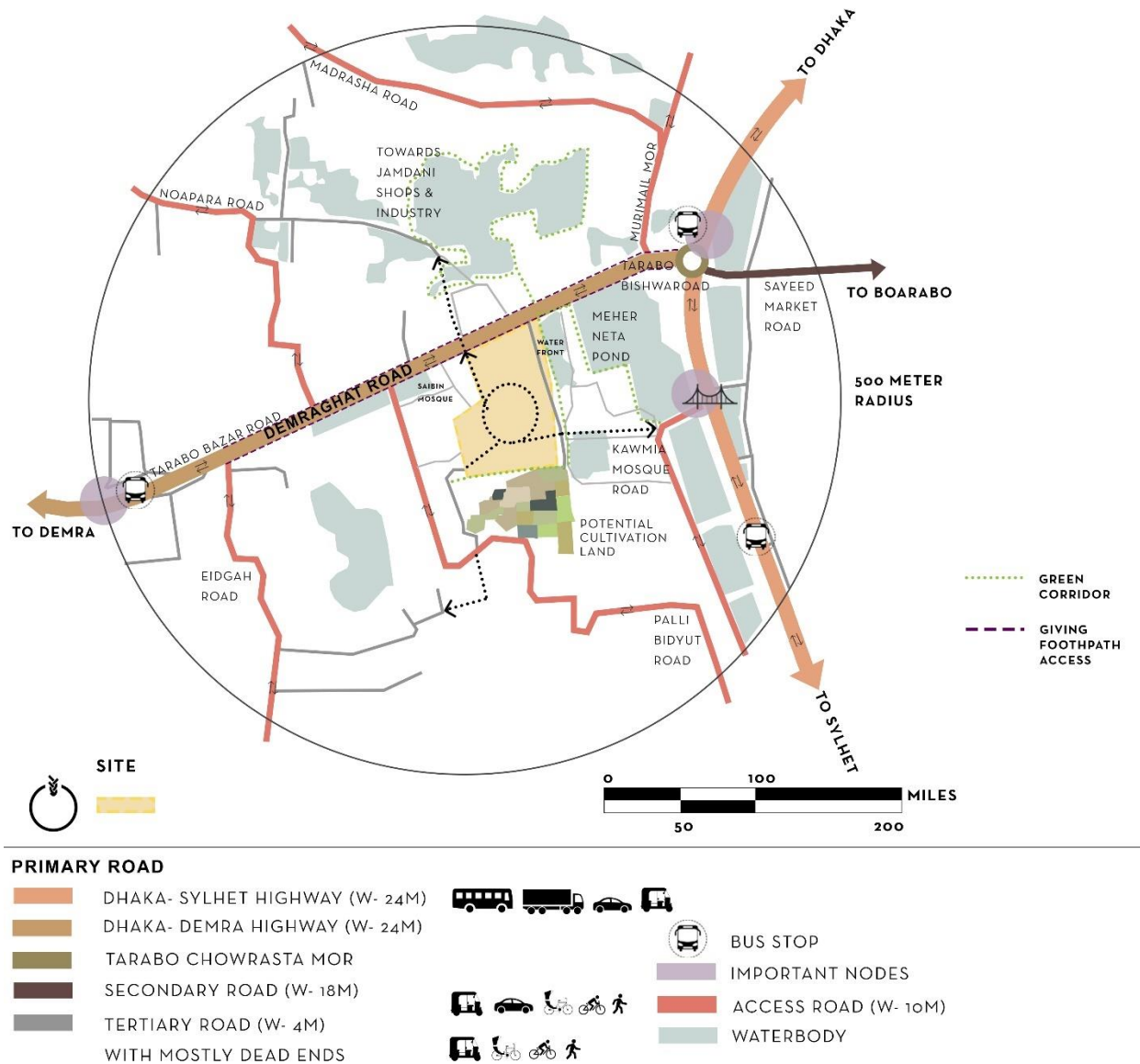


Figure 29: Road Networks

Road networks and important nodes within 500- meter radius. (Source: author).

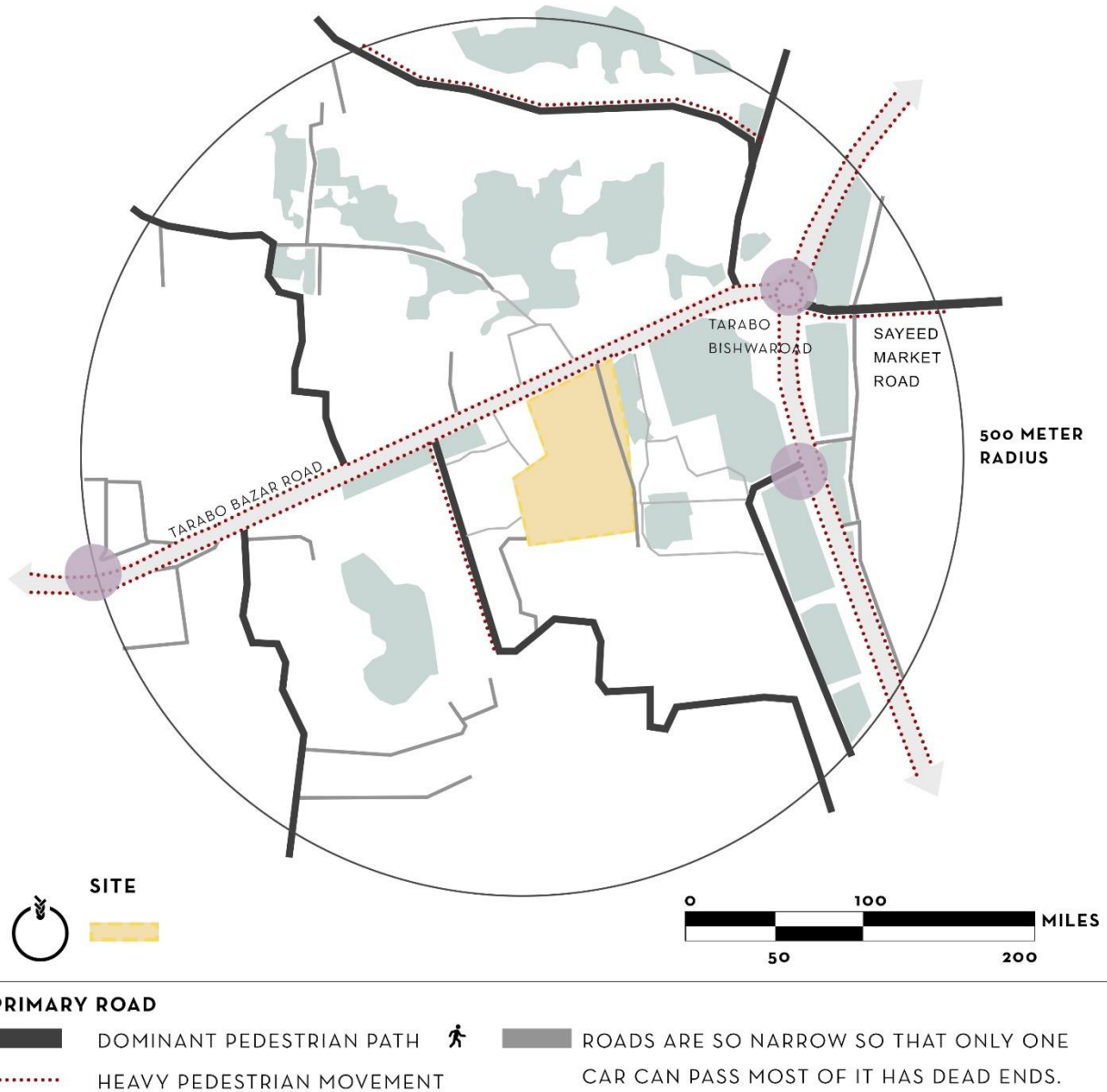


Figure 30: Pedestrian Movement

(Source: Author).

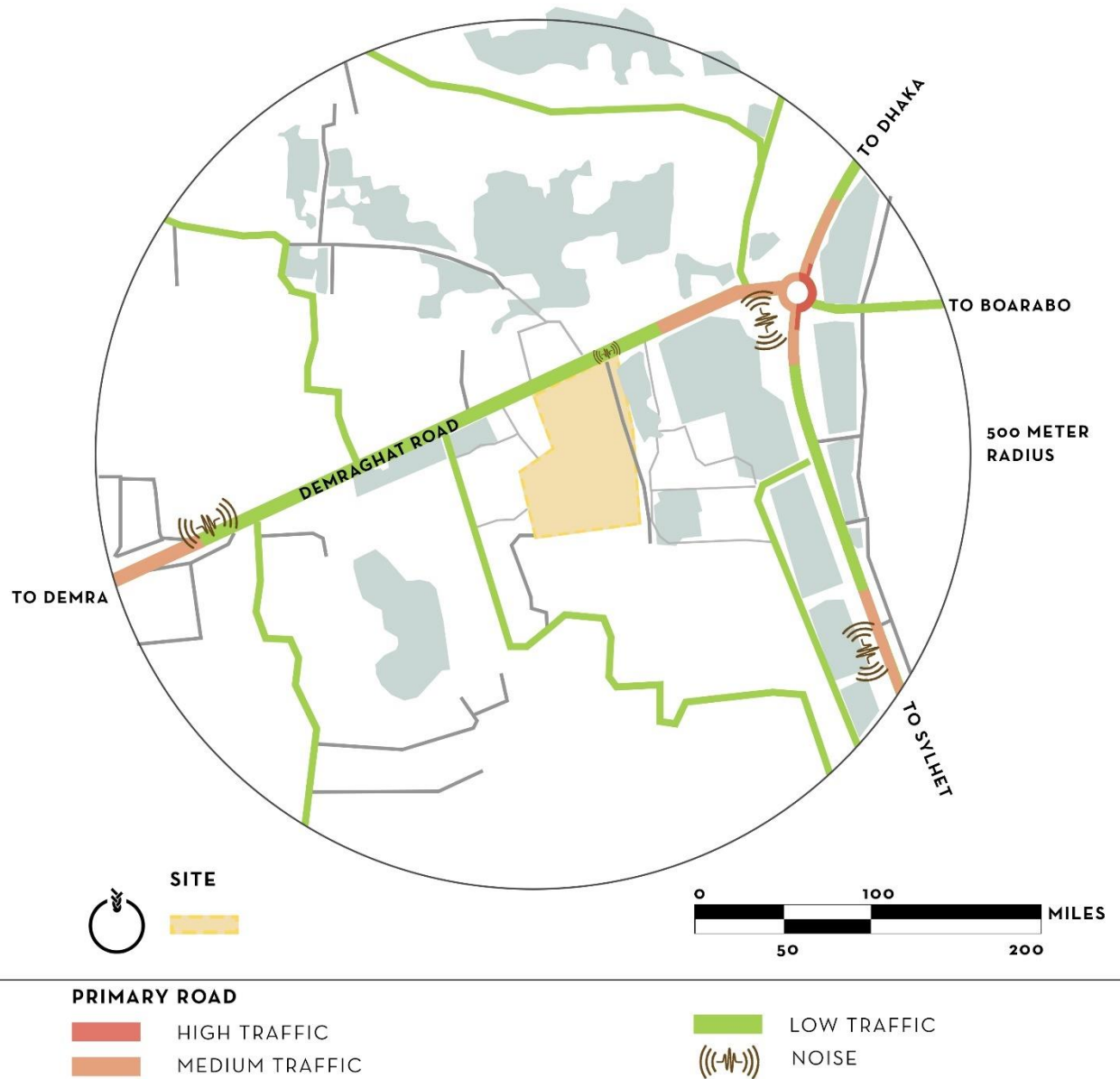


Figure 31: Traffic and Noise map

(Source: Author).

As the highway is a busy road with high-moving traffic, it gets congested in the Tarabo Basin mostly. As a result, the noise level is highest along the highway.

3.8 Vegetation and Waterbody

The site is mainly surrounded by small ponds, grassland, and agricultural land. In this area, there is 25% agricultural land and less building form. A very interesting characteristic of the site is that there is a lowland on the south and north sides of the site that is 10 feet below the road level and is flooded by the monsoon. The number of trees is not much, according to the site. The Shitalakshya river plays a vital role near the west side of the site, which upholds the history of water transport systems and connectivity.

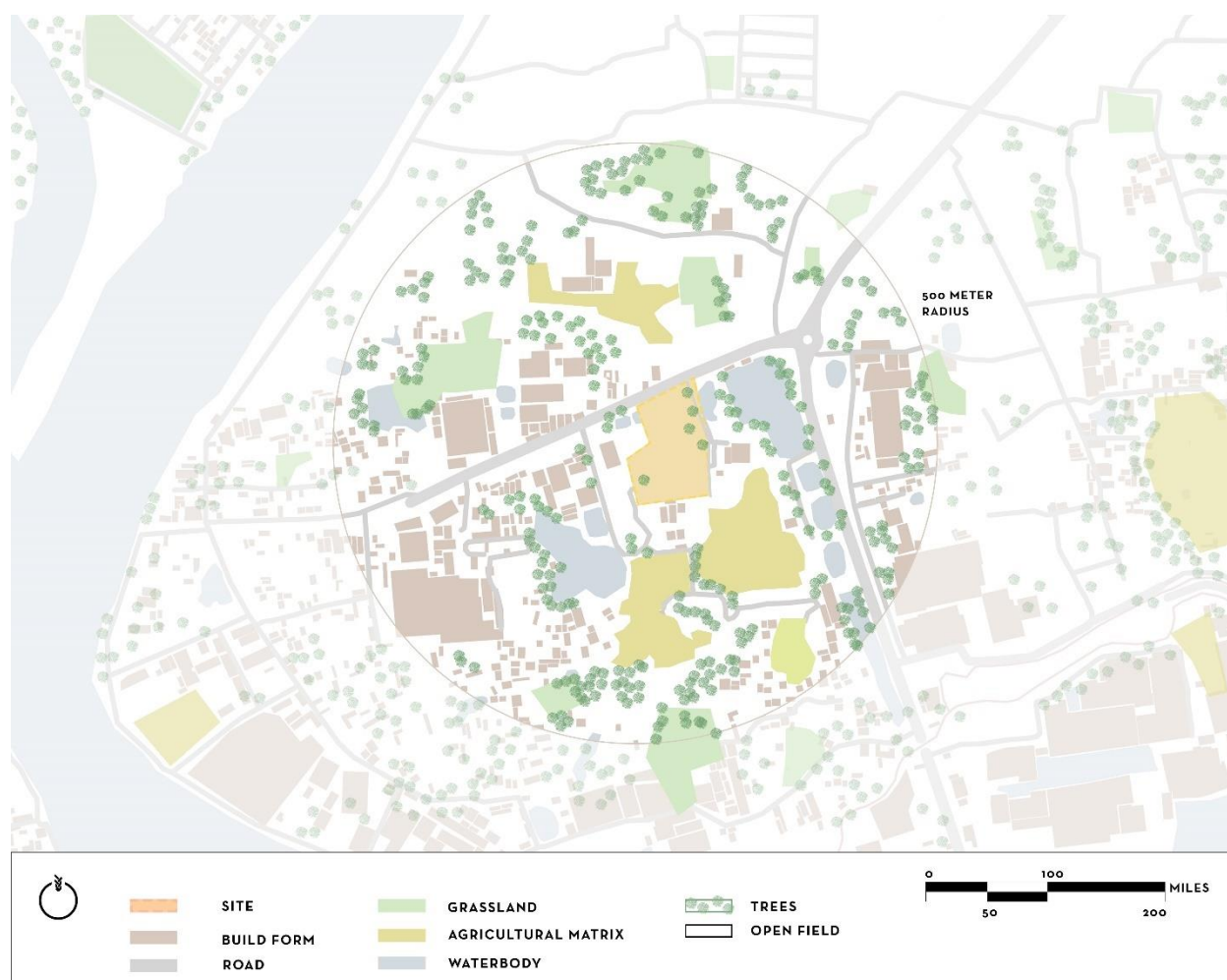


Figure 32: Vegetation

Existing vegetation and waterbodies surrounding the site within 500-meter radius. (Source: Author).

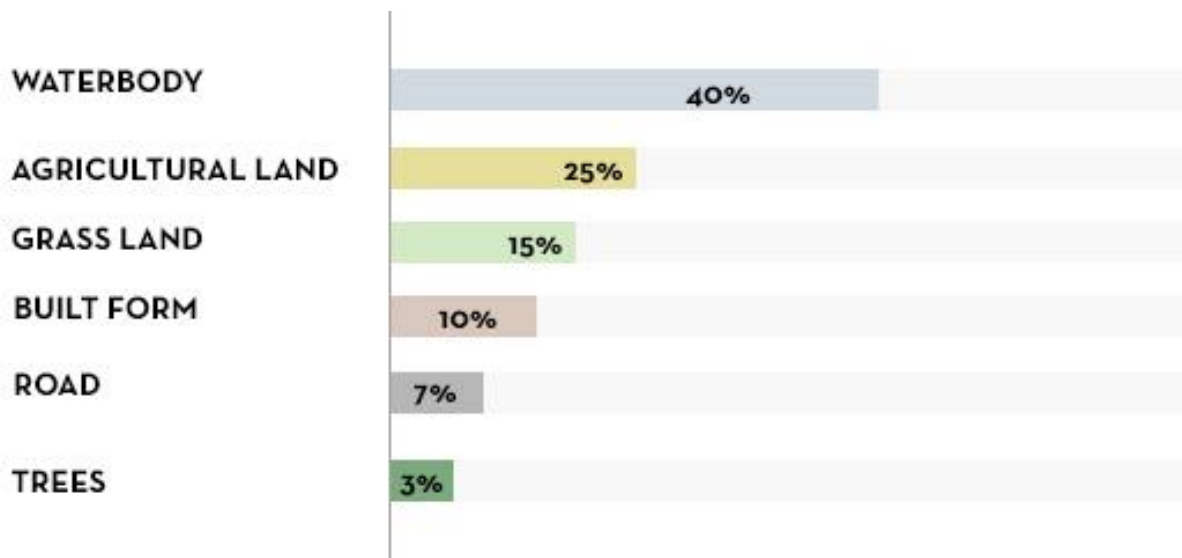


Figure 33: Percentage Chart

(Source: Author)

3.9 Micro Climate Condition

There are several open fields and agricultural grounds in the area. In Tarabo, the summers are significantly rainier than the winters. The location has a very rich microecosystem since it is bordered by many types of plants, animals, and water bodies. Due to the adjacent river and the fact that all the nearby structures are low-rise and do not block the wind, wind speed is somewhat greater.

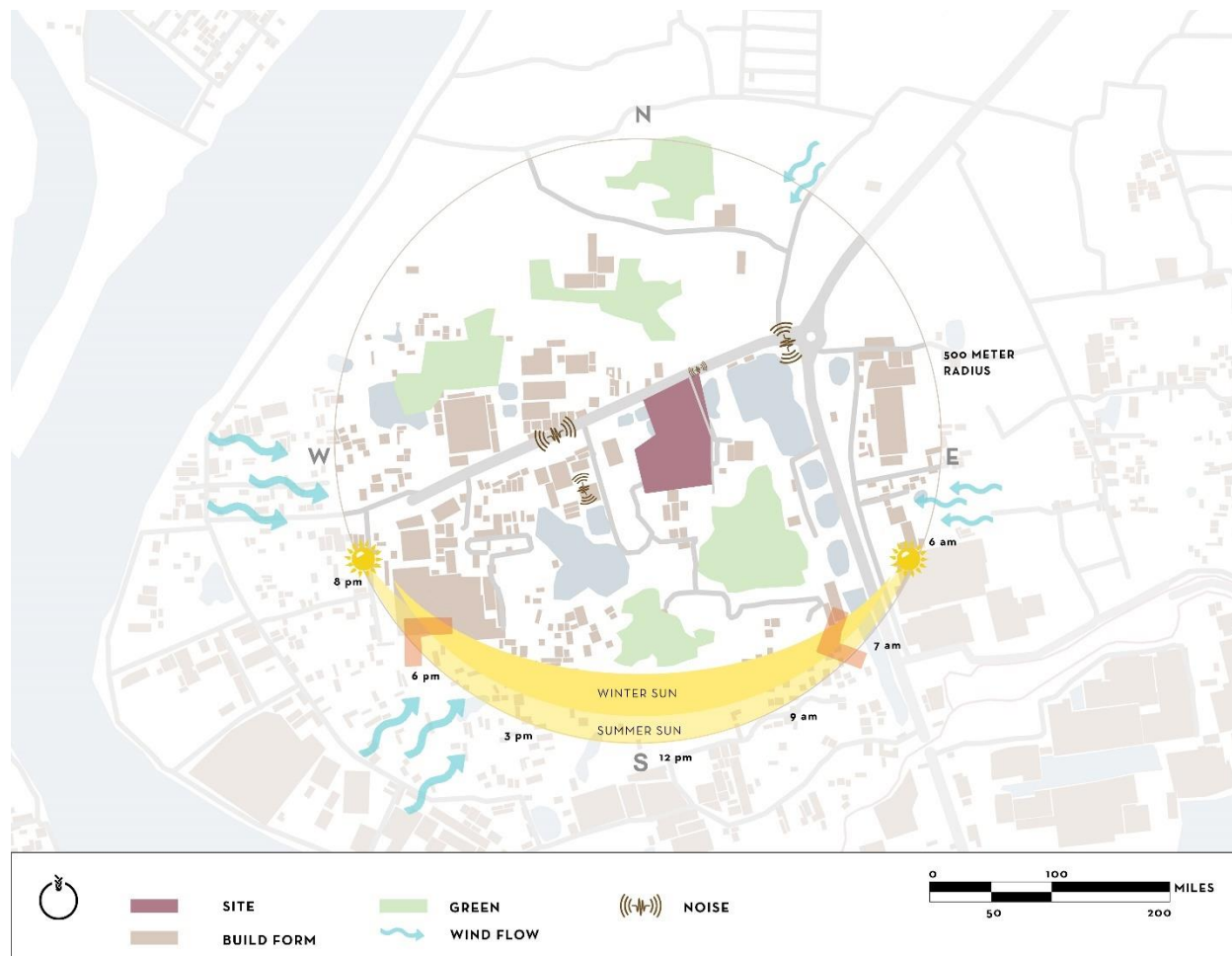


Figure 34: Micro Climate analysis

(Source: Author).

3.10 Socio-Cultural and Economic Contexts

As Tarabo is mostly an industrial area with various factories and industries, the spaces around them grew in an unplanned manner to provide the workers with cheap housing and commercial facilities. Most people living in this area are in lower-to-lower middle-income groups.

The residents of Tarabo are mostly weavers, factory workers, or farmers. There is a large Jamdani industrial zone, textile mills, the Tarabo bazar, Pacific spinning mills, the house of Dhakai muslin, etc. Agriculture farmers earn 35%, non-agriculture labor 25%, weavers 20%, transportation and communication 15%, and others 5%.

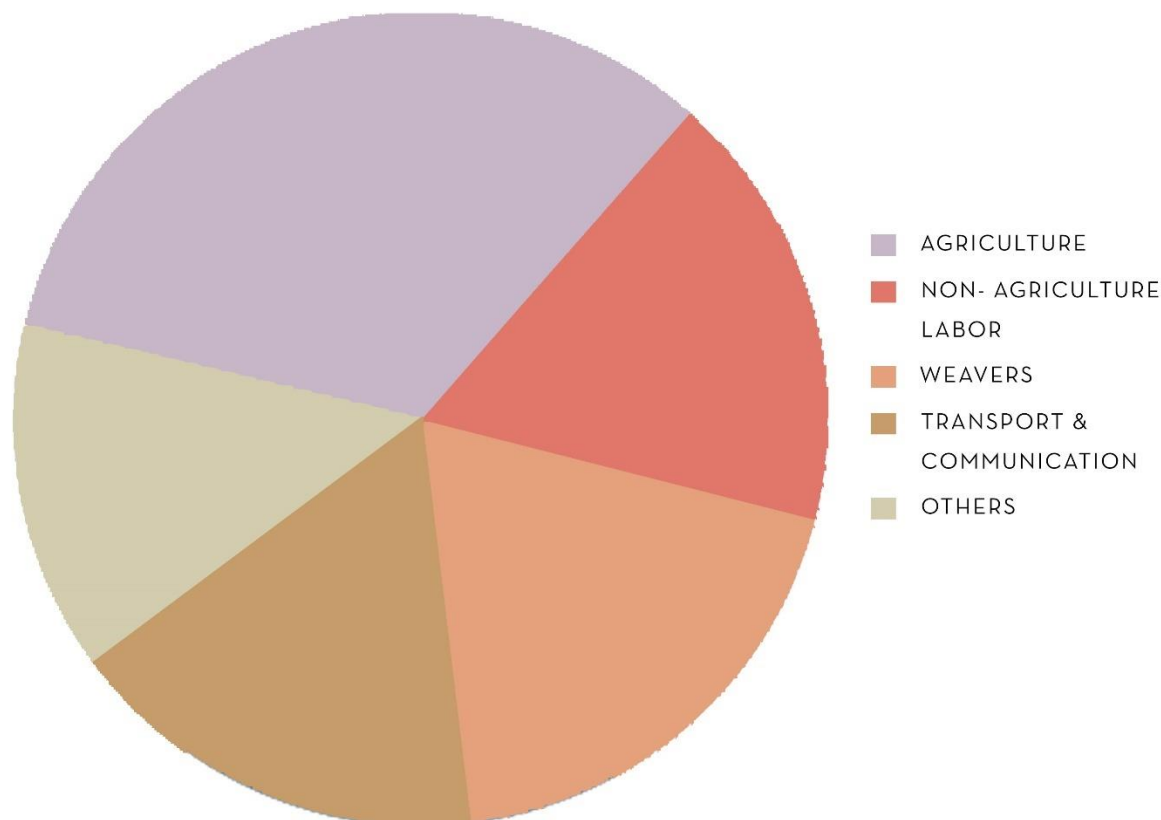


Figure 35: Economic Activity chart

(Source: Author)

In the context of jute culture, it has the potential to be a sustainable and very economical infrastructure. If the importance of jute culture is rediscovered, it can be very helpful for the weavers around the site. Besides that, the weavers can also use the platform to demonstrate their weaving skills and sell them to the customers.

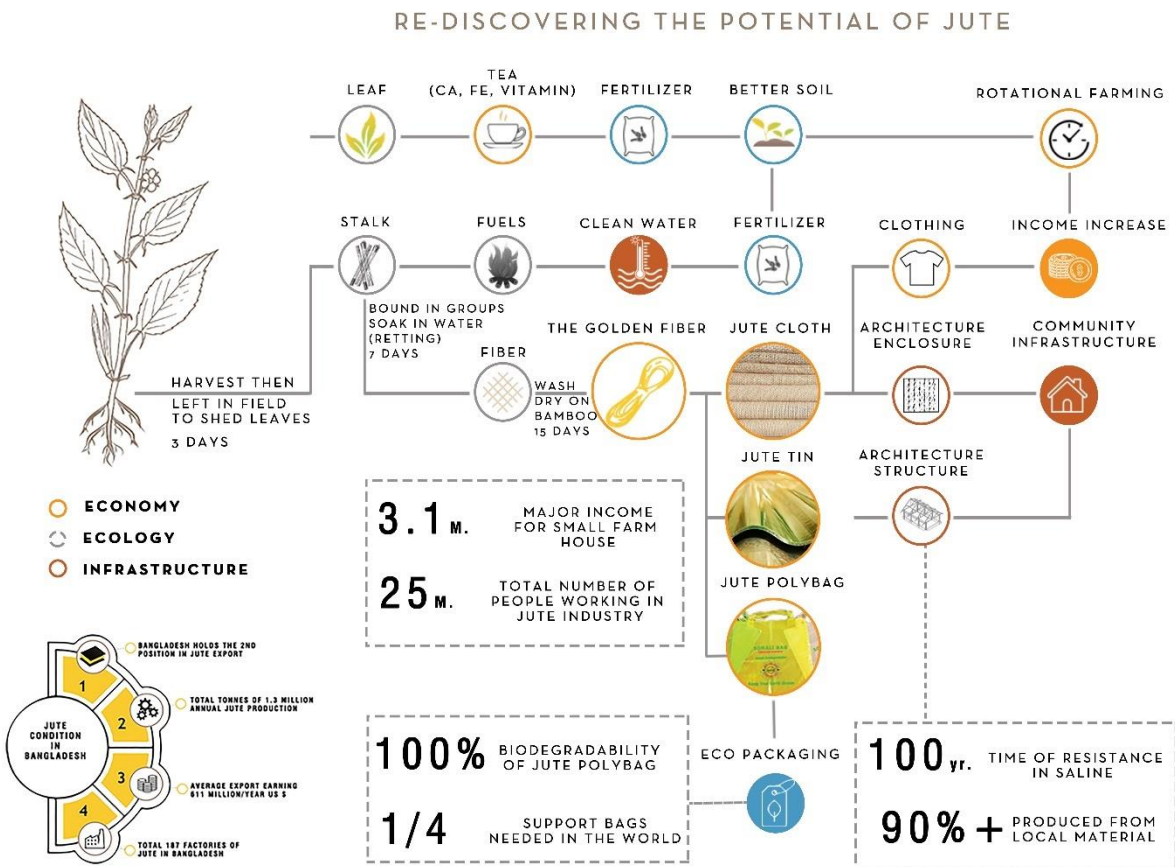


Figure 36: Economic potential of Jute

Re-discovering the potential of jute which will be beneficial economically and uphold the jute culture. (Source: Author).

3.10 Existing Site Condition

Site Images

The existing condition of the site will be understood by the following photographs of the site and its surroundings.



Figure 37: Site images

In the figure, the 1 no. is located on the east side of a very narrow road. The road is so narrow that only one car can pass at a time. In Figure, no. 2, which is located on the south side of the site, is mostly an agricultural matrix with mostly open space. (Source: Author).



Figure 38: Site images

In the figure, the 1 is located in the middle. In Figure, no. 2 which is located on the west side, has the Tarabo mosque, and next to it there is a small graveyard. (Source: Author).

Site surrounding



Figure 39: Site surrounding images

In the figure, no. 1, Demraghat Road, is situated. In Figure, no. 2 the toad mill is situated. (Source: Autor).

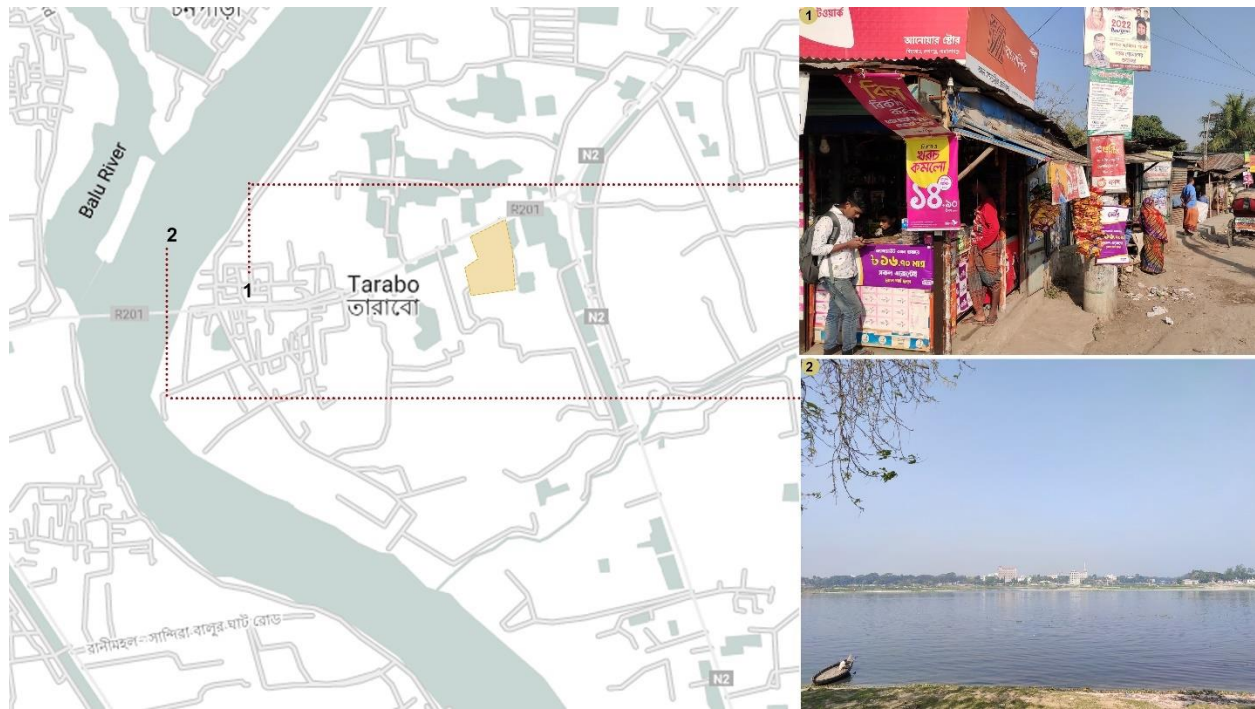


Figure 40: Site surrounding images

Fig: 3.30 In Figure, no. 1, Tarabo bazar is situated in that location, and in the Shitlakshya river side road is situated in no 2. (Source: Author).

3.11 SWOT Analysis

Strengths

- Cultural-historical background
- Major Roads connects from both side with Dhaka
- Site Diversity
- Site Accessibility
- Rural Character
- No high-rise infrastructures
- Large water basin

Weakness

- Near industrial development, resulting to slightly hotter average temperature and polluted air
- No distinction between industrial and residential zone
- Dispersed functions
- Low maintenance
- No proper pedestal movements

Opportunities

- Pedestrian condition can be developed
- Pedestrian can be connected to riverfront and locality and greens
- Land Availability
- Craftsman communities resembling villages
- Remnants of a former heritage
- Representation of contemporary jute and textile heritage

Threats

- Unplanned commercial establishment and under developed can create environmental impacts which might hamper the waterfront public experience while visiting the place
- No preservation of the artwork or buildings
- Landfilling without a plan
- Loss of an international tourist attraction

Chapter 4: Case Study Appraisal

Case studies are a type of exploratory study that aids in the generation of new ideas. They are crucial for a method of explaining ideas and methods that entails close-up, in-depth, and exhaustive research. Following a form of research, I chose 3 projects to utilize it in order to grasp a difficult problem or issue or object. A small but sufficient yet large number of functions, locations, or situations serve as the focus of the contextual analysis. It has been described as an empirical investigation that looks at a current phenomenon in the context of its actual existence. Some of them, however, have objected to this research methodology, claiming that the examination of a limited number of instances does not provide sufficient support for the reliability, applicability, and profound generality of conclusions, which is untrue. But it really benefits us to learn more and obtain more in-depth functions, form derivations, and user interface and behavioral case studies. These 3 projects are:

Local:

- Bangladesh Folk Art & Crafts Foundation Museum

Asian:

- National crafts Museum, Delhi

International:

- Verdant works Jute Mill Museum, Scotland

It is described as an empirical investigation that looks at a current phenomenon in the context of its actual occurrence. However, studying these projects in detail will teach us to consider programs, functions, and spaces. and also, to bring out the problems and find a solution for them as well.

4.1 Bangladesh Folk Art & Crafts Foundation Museum

Project Brief

Project Location: Sonargaon, Narayanganj

Site Area: 55.04 acres

Client: Ministry of Cultural Affairs

Established: Bangladesh Folk Art & Crafts Foundation was established on 12th March, 1975.

Law of the Foundation: Bangladesh Folk Art & Crafts Foundation Law -1998

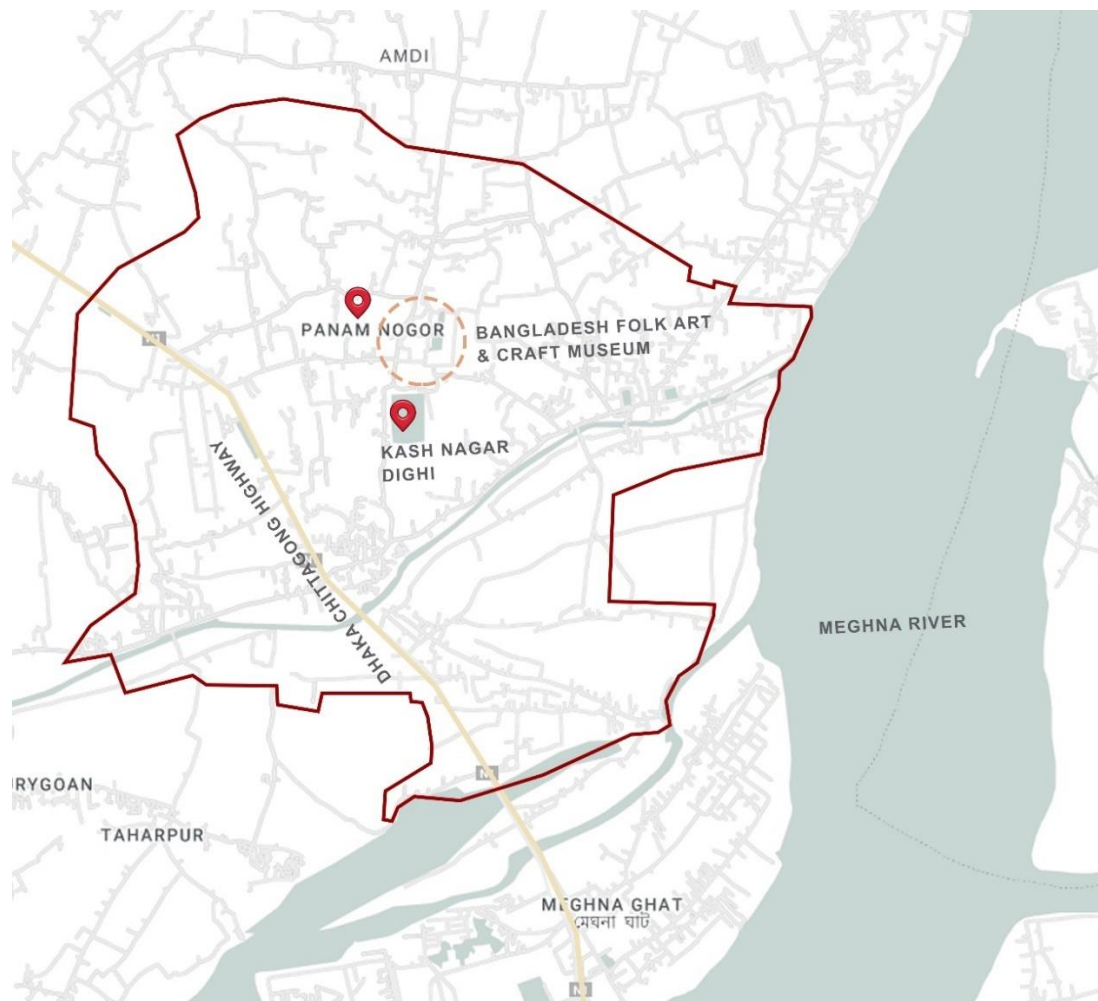


Figure 41: Bangladesh Folk Art and Craft Foundation Museum map

Site and Surrounding of the museum. (Source: Snazzy map modified by author)

Background of the Project

The major goal of this museum is to showcase the folk art and crafts of Bangladesh. The organization's singular goal is to conserve and present regional traditional art and cultural heritage. In March 1975, this museum started its journey at Sonargaon under the initiative of Shilpacharya Zainul Abedin, one of this nation's greatest painters.

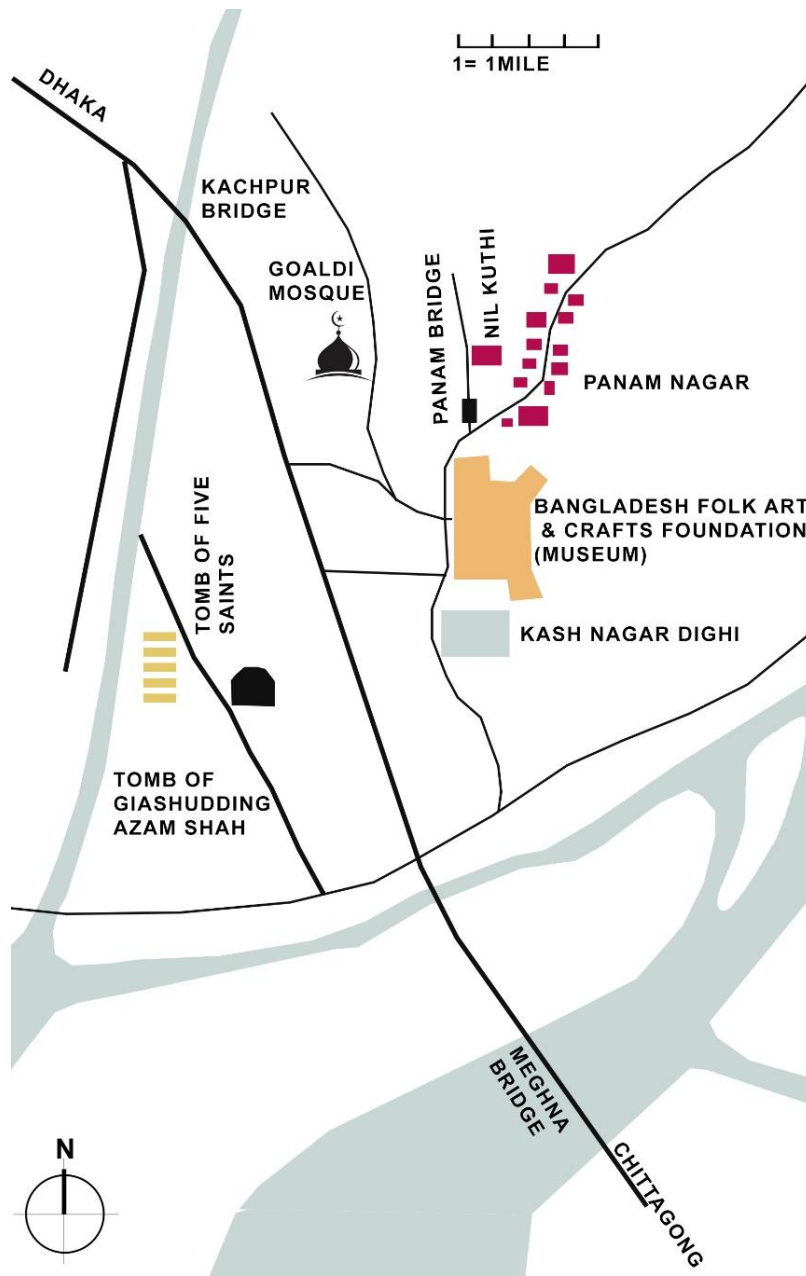


Figure 42: Location map of Bangladesh folk art Museum & crafts foundation museum

(Source: Author)



Figure 43: Shipacharya Zainul Folk Arts & Crafts Museum

(Source: Hasan, 2021)

Planning and Design Considerations

The Folk Arts and Crafts Museum of Bangladesh occupies a sizable compound that covers 150 bighas of land. On a 55.04-acre plot of land, it has a sizable artificial lake, six ponds, a library, a center for craft documentation and sales, a folk stage, two restaurants, a rest area, a go-down, three bridges, a craft village, a grove of local fruit trees, a forestry area, medicinal trees, and a charming fruit and flower garden.

Bangladesh is a country rich in folk art and culture. Folk art is created when a community comes together. Many people make traditional articles to fulfill their religious, social, and aesthetic needs. The art Folk artists inherit the art of folk craftsmanship from their ancestors, generation after generation. The artist, who usually resides in rural areas and is not very affluent, uses local

materials to create articles that have both functional and aesthetic value. Large populations of Bangladeshi people live in rural areas and follow their own rural traditions and have an intrinsic connection with their culture and heritage. A museum that holds the culture of the local people of a country is more important and valuable than a museum of royal and aristocratic culture as the majority of the population will be able to relate to it. A museum for folk arts and crafts will also create a platform for discussions about our country's heritage and culture and for sharing the ideas of artists and viewers with the rest of the folk world.

The Shilpacharya Zainul Folk Art and Crafts Museum was inaugurated on October 19, 1997. The three-story building has three galleries. Downstairs, there are ancient and modern patterns made of wood. The overall process of making and selling different wood crafts is shown here.

On the second floor, there is an exhibition of Jamdani saris and Nakshikantha made in Sonargaon. On the third floor, there are instructions made of copper and brass. The total number of specimens collected in the museum is 5478.

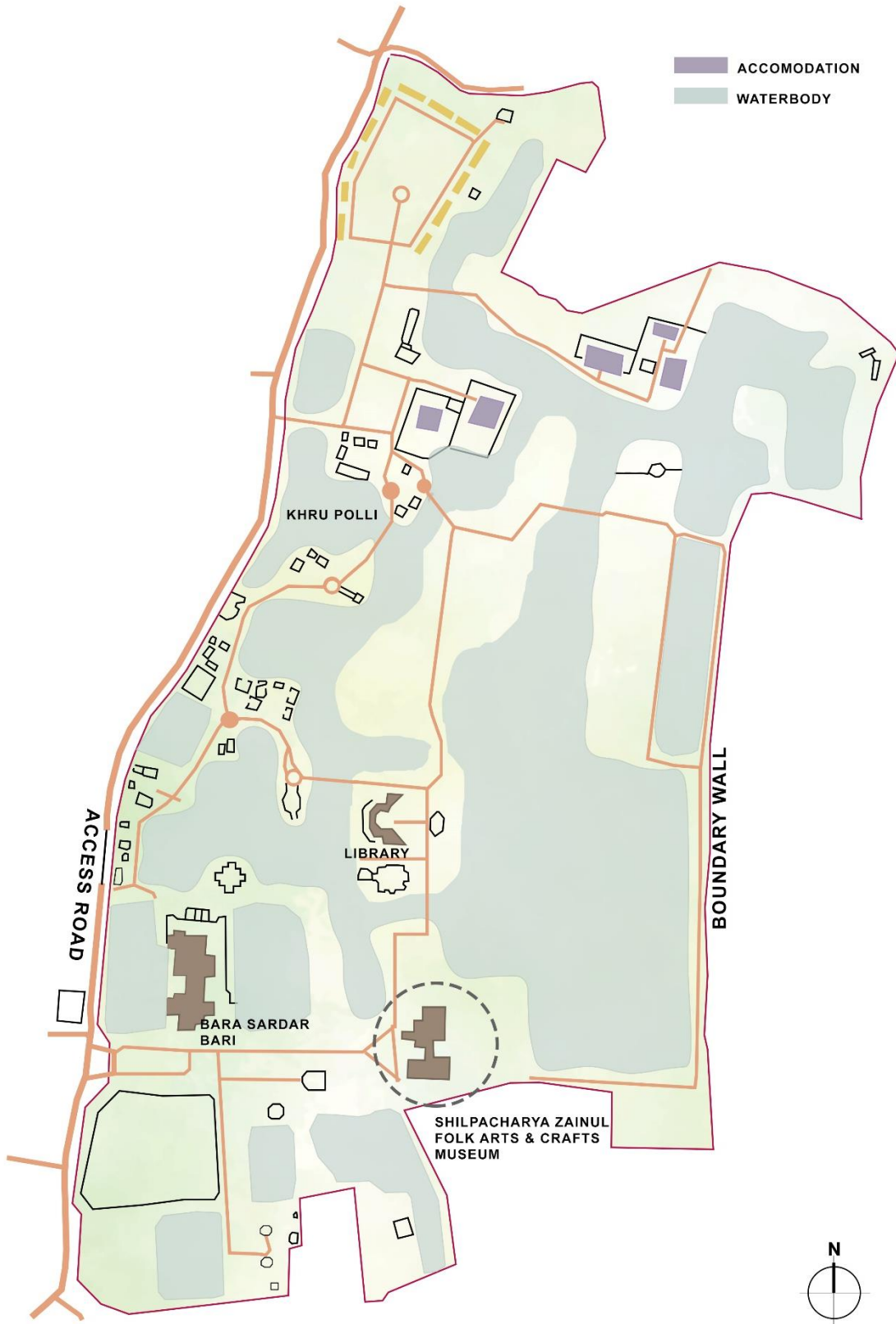


Figure 44: Digital plan of museum complex. (Source: Author)

Galleries:

There are 10 galleries in folk art & crafts museum:

- Exhibition space for wooden crafts
- Village like environment for exhibition
- Scroll painting and mask demonstration space
- Exhibition for different kinds of boats in Bangladesh
- Gallery for ethnic life
- Terracotta Doll, Tile, and gallery for folk art and pottery
- Agricultural equipment and other iron goods gallery
- Brass and bell metal gallery
- A collection of folk decorations
- Bamboo and cane crafts gallery

The Shilpacharja Zainul Abedin Folk Art & Crafts Museum has two galleries:

- a) Exhibition space for wooden crafts
- b) Exhibition space for Jamdani sare and Nakshikantha

Statistics of the Museum antics:

Total antics 4300 nos

Display (in the gallery) 938

The initiative will use programs at three different levels to carry out the Foundation's primary goal.

I The foundation of a museum of folk art for the collection, preservation, and restoration of folk arts and crafts.

ii) Creation of training facilities for folk arts and crafts operated by a crafts village.

iii) Folk art and craft creation, exhibition, and distribution.

The trainees at the workshops for folk arts and crafts will get instruction from skilled but unnoticed and underappreciated artists and craftsmen of diverse parts of the nation. Three to six months will be the range for the training period. The minimum number of trainees in each batch will be twenty. The training schedule will be designed so that participants may take advantage of it between shifts at their regular agricultural jobs. Programs can be launched at this early level with a functional element in mind using expert mental bases.

These are: 1. Textile (weaving, printing, batik etc.) 2. Ceramic. 3. Wood carving. 4. Cane, bamboo works. 5. Jute works. 6. Metal (brass, silver) 7. Conch shell. bone works. B. Handmade Paper etc.



Figure 46: Mat chuni

Source: (Hasan, 2021)

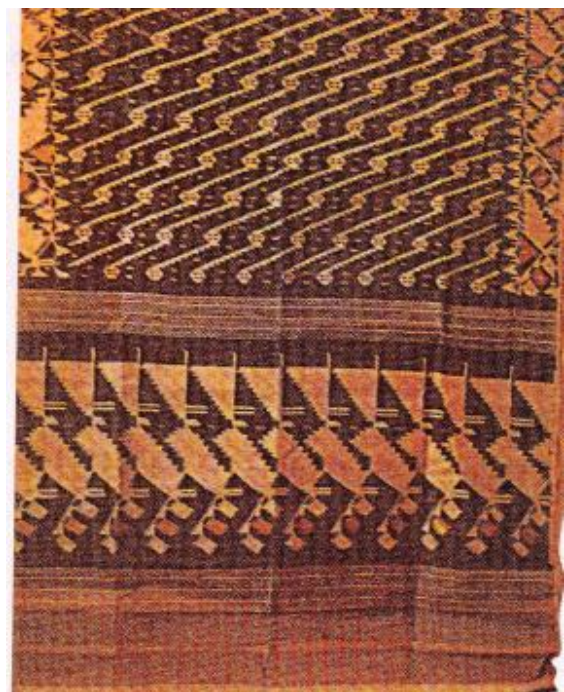


Figure 45: Jamdani sari

Functions:

Bangladesh Folk Art & Crafts Foundation's duties include the functions-

- Collecting and preserving traditional monuments
- Exhibiting Bangladesh folk arts and crafts elements
- Providing a platform for communicating and distributing creative and viewer ideas to the wider people community
- Creating training facilities on traditional folk are & crafts
- Establishing an Artisan village where the indigenous artisans and craftsmen from all the regions of the country will get a congenial environment training and practice for full flowering of their latent talent
- Creating studies on traditional arts and crafts, then publishing the research results



Figure 47: Gallery space of the museum

Source: Gallery space of Bangladesh folk art and craft foundation. (Hasan, 2021)

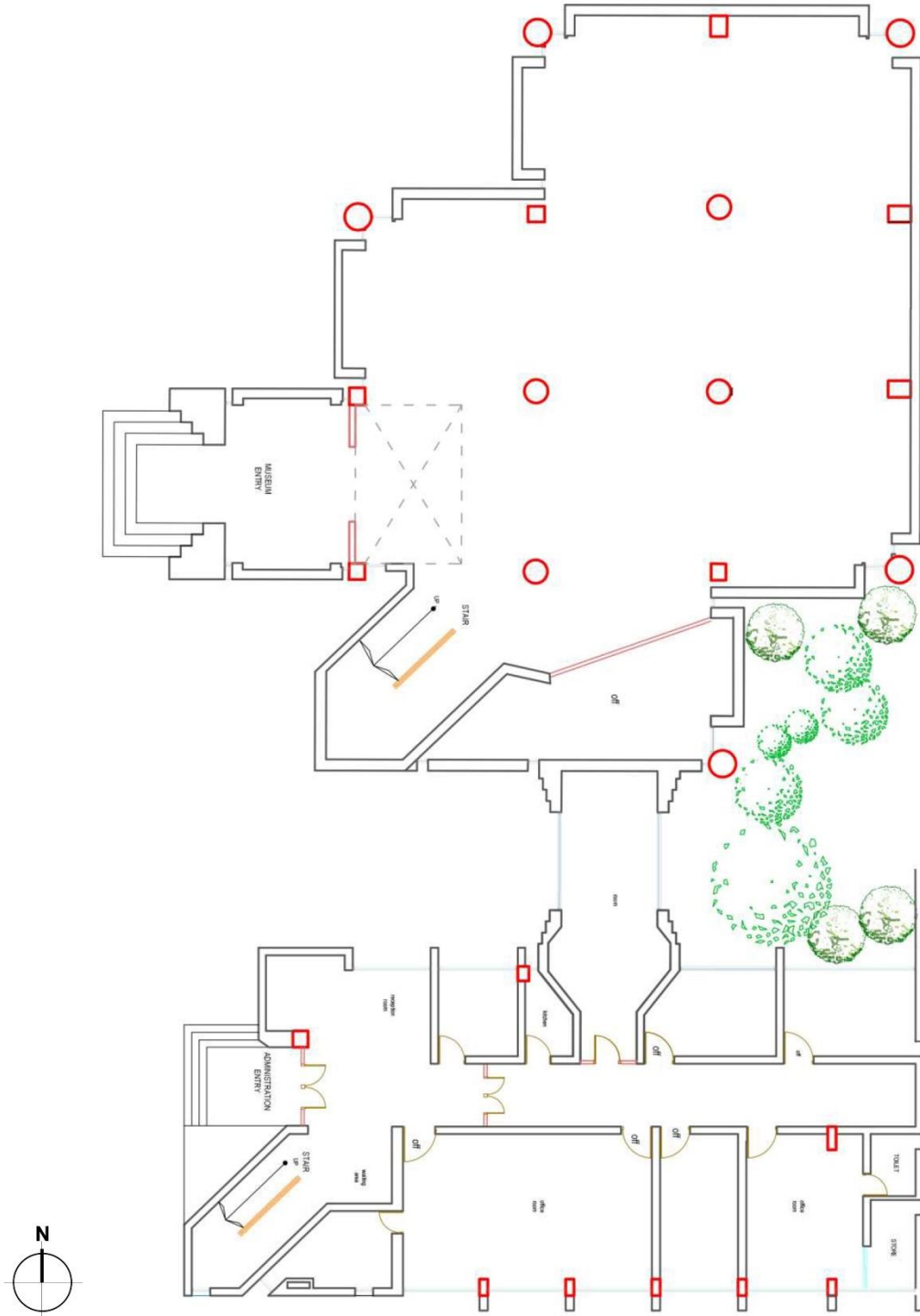


Figure 48: Ground floor plan of Museum

(Source: Modified by Author)

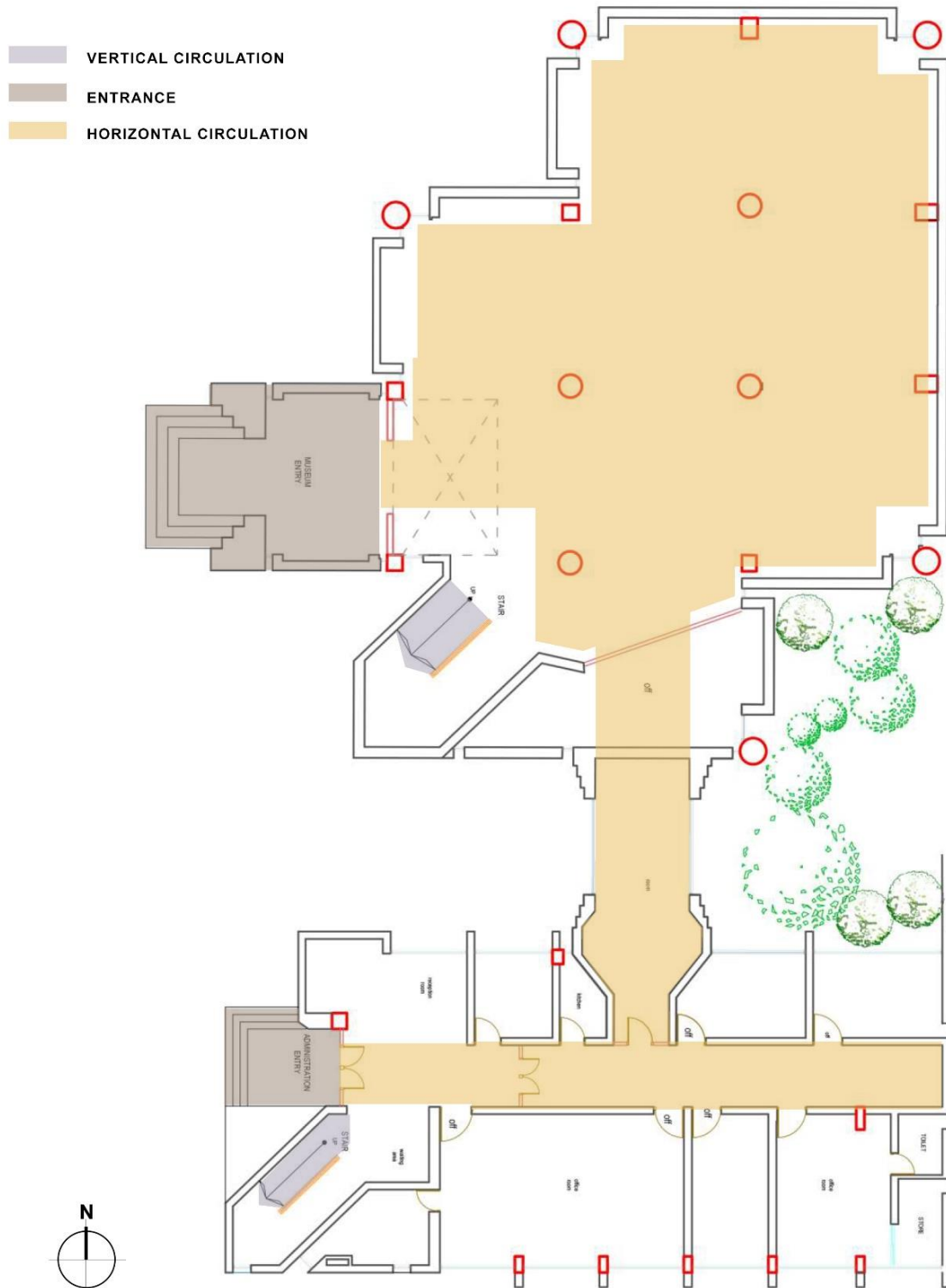


Figure 49: Vertical and Horizontal Circulation

Vertical and Horizontal Circulation of ground floor plan (Source: Modified by author)



Figure 50: Representing Bangla folk art through craft sculpture

(Source: Hasan, 2021)

Findings:

- Essence of tradition by making a doorway towards the heritage
- Merging the site and landscape with the museum by giving aperture
- Creating dialogue between traditional site by using local material and preserving the crafts
- site and climate responsive building

4.2 National crafts Museum, Delhi

Project Brief

Project Location: Delhi, India

Site Area: 6800 sq m

Client: Trade fair authority of India

Architect: Charles Correa

Location – Near Purana Quilla on the Bhairon Road. Just opposite Pragati Maidan

Date of Completion – 1990

Footfall: 4000 visitors annually

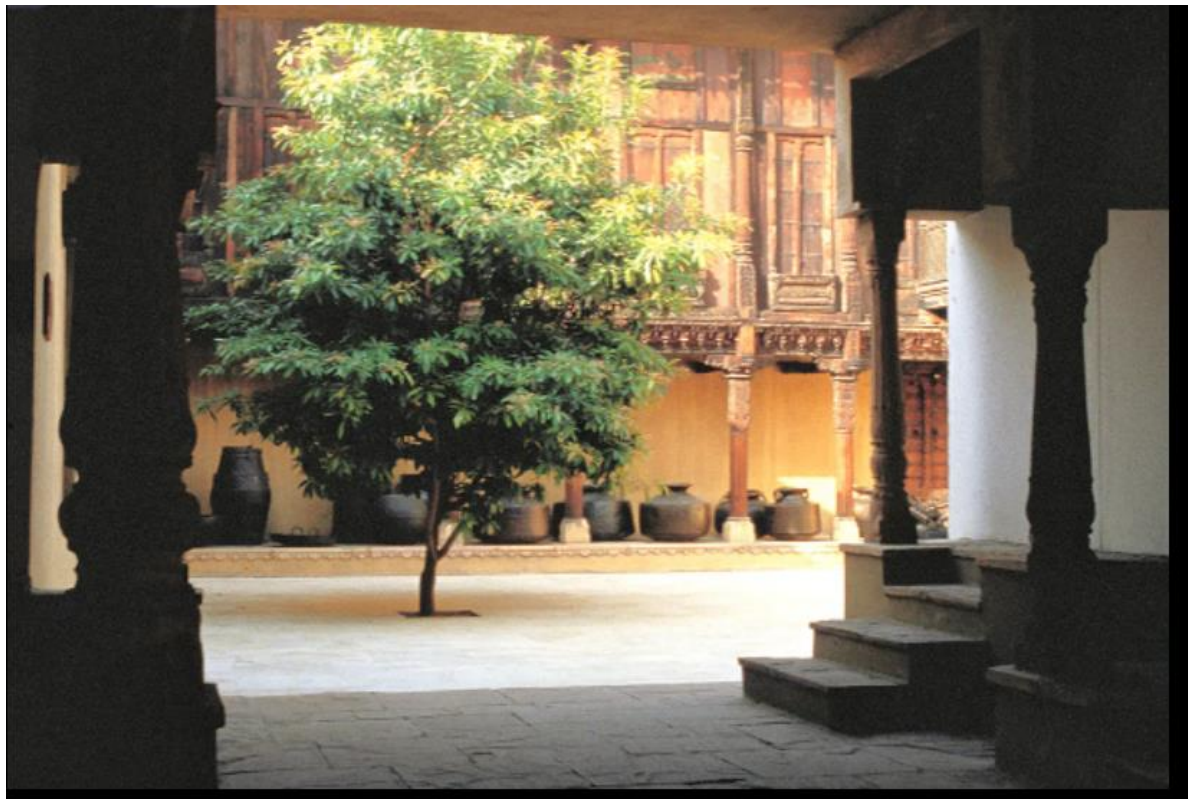


Figure 51: National crafts museum

(Source: <https://www.architectural-review.com/essays/crafts-museum-in-delhi-india-by-charles-correa>)

Background of the Project

The late freedom fighter Smt. Kamaladevi Chattopadhyay worked for 30 years to establish the national crafts museum, which was designed by architect Charles Correa. At the time, the area was envisioned as an ethnographic space where craftsmen from different parts of India would come in to work on preserving the various traditional arts and crafts of India.

Diverse items from various regions of India are on show in the Crafts Museum. Display the extensive history of Indian handicrafts. The ideal illustration of how local and national identities of crafts have been developed via the use of architecture, places, materials, and other components.

With a sizable collection by the 1980s, the museum area progressively changed through time to take on its current appearance. The museum now houses approximately 35,000 rare and unique items that illustrate the ongoing heritage of Indian craftspeople via painting, embroidery, textiles, and other kinds of clay, stone, and wood crafts while fusing traditional architectural vocabulary with contemporary design. This museum aspires to be unique; it is a self-contained institution that serves as a venue for the craftspeople to engage and gain practical experience. The artisans study the archives, and research is done. They are able to communicate and share ideas in this way. In essence, this idea provides traditional Indian craftspeople with an incentive that has never before been made available, (Handicrafts India, 2017) [7]



Figure 52: Elaborately decorated wall

(Source: The architectural review, <https://www.architectural-review.com/essays/crafts-museum-in-delhi-india-by-charles-correa>).

Planning and Design Considerations

The advantages of open-to-sky areas have frequently been mentioned by Correa. Three courtyards of various sizes and intensities are located along a diagonal axis in this understated building,

creating a metaphor for an Indian street. They are beautiful areas with noticeable mood swings that make for excellent architecture.

But it goes beyond simple nostalgia for days gone by. Although Correa's work has always drew from the vernacular and "deep-conscious" echoes, it is also contemporary in that it combines an underpinning orthogonal grid, high internal exhibit areas, and open and semi-open pathways that are lined with objects and have tiled roofs.

Correa has been successful in virtually disappearing the museum. He cultivates a setting that is hard to categorize or pin down. In its interaction with its ages-old neighbor, the Purana Quila, it is not institutional and purposefully humble. It also doesn't cast a shadow over the nearby artists' village complex.

On the other hand, the famous Buddhist and Hindu temples of the past, such as those in Bali (Besaki), Java (Borobudur), and southern India (Srirangam), which are built around an open-air ceremonial walkway, served as inspiration for the architect. The organization of the crafts museum revolves on a main walkway, displaying a series of rooms along the pedestrian spine. [7]

Form and functions:

The built spaces on the property make up about 80% of the total area. Here, the geometry and structure of the unit of whole serve to emphasize the link. Every unit has a repetitious to unique relationship. Regular structures that define space include columnar and planar structures. The complex's primary geometry is rectangular. Geometric manipulation can be done in other complex ways. Geometry changes with consistency and regularity. Through the scale and geometry of the spaces, there is hierarchical order from main to minor spaces, which aids in symmetry configuration equilibrium. The complex's central amphitheater provides stability for the whole thing.

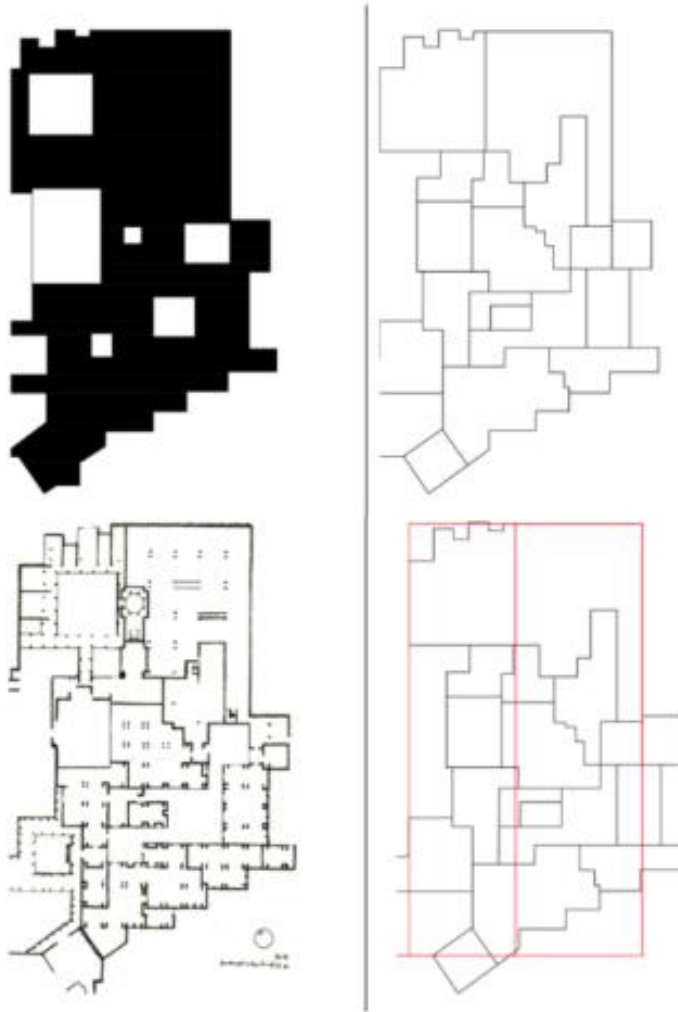


Figure 53: Architectural analysis of the Museum

(Source: The architectural review, <https://www.architectural-review.com/essays/crafts-museum-in-delhi-india-by-charles-correa>).

Functions:

About 40% of the area is occupied by the courtyards and exhibition spaces which acts as the main focus of the museum.

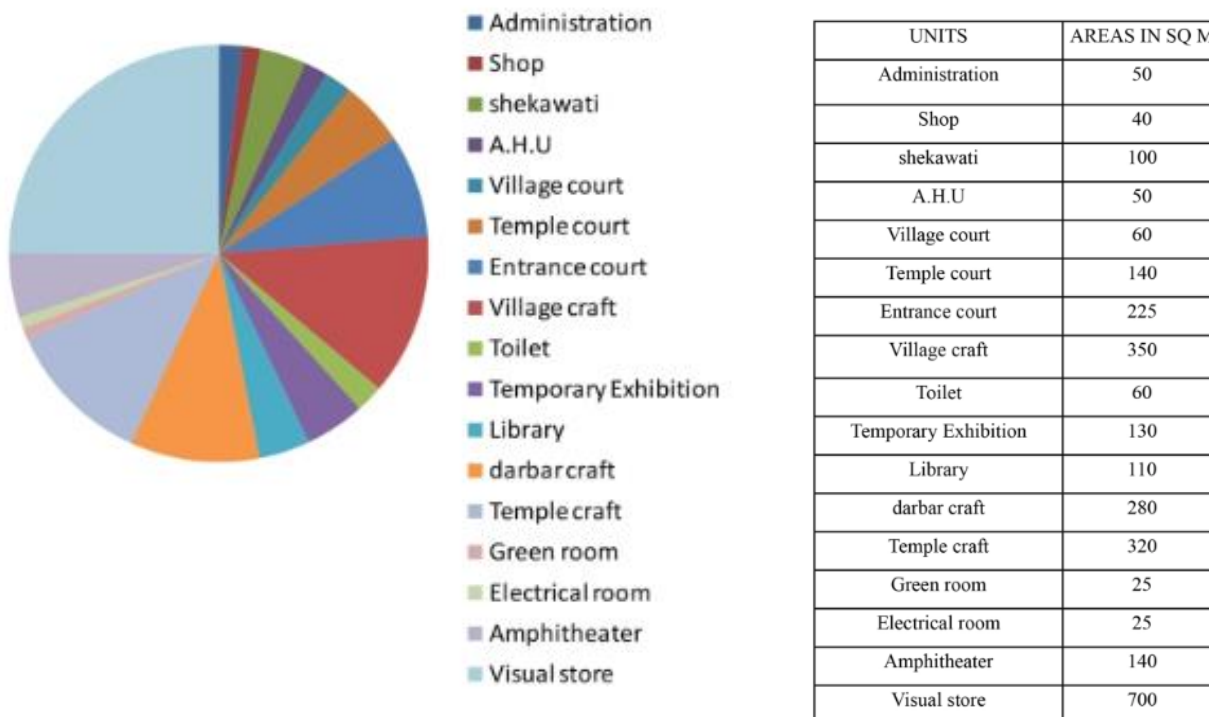


Figure 54: Program Analysis of the museum

(Source: <https://www.architectural-review.com/essays/crafts-museum-in-delhi-india-by-charles-correa>).

The collection is stored in distinct rooms for the benefit of the very best craftsmen who are chosen from all over India to come and study these archives; less than half of the entire floor surface of 5500 square meters is accessible to the public. In this way, a potter from Bengal might see firsthand the best creations of his contemporaries in Kerala, at the other end of the nation, or even what his own ancestors in Bengal produced two or three centuries earlier. This is a viewpoint that traditional Indian craftspeople have never had before.

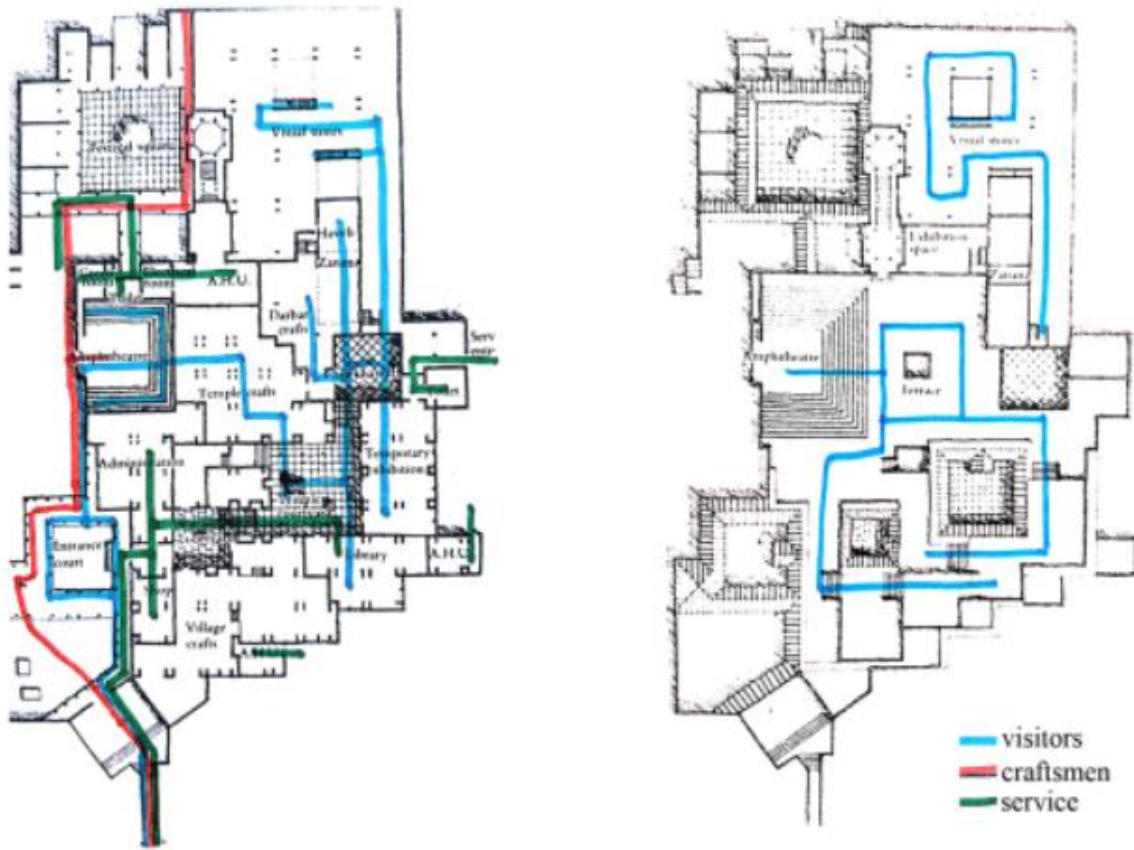


Figure 55: Circulation of the museum

(Source: The architectural review, <https://www.architectural-review.com/essays/crafts-museum-in-delhi-india-by-charles-correa>).

The walk through the museum leads one through a series of open, semi open and closed spaces. The whole museum is divided into small galleries which reduces the problem of circulation.

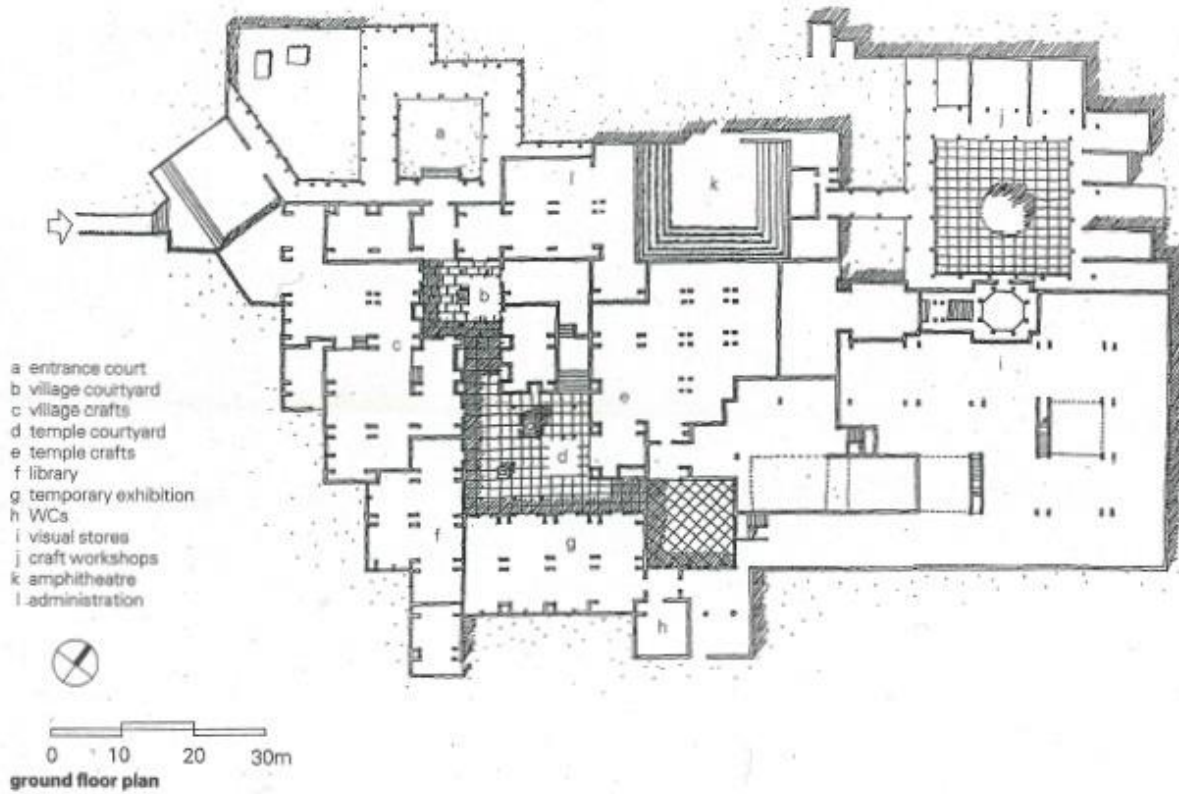


Figure 57: Ground floor plan of National crafts museum

(Source: The architectural review, <https://www.architectural-review.com/essays/crafts-museum-in-delhi-india-by-charles-correa>).



Figure 58: Sectional view of the Museum

(Source: The architectural review, <https://www.architectural-review.com/essays/crafts-museum-in-delhi-india-by-charles-correa>).

4.3 Verdant works Jute Mill Museum, Scotland

Project Brief

Project Location: Dundee, Scotland

Client: Dundee Heritage Trust

Architect: JFS Architects

Lead Designer: Kevan Shaw

Newly conserved: 2015



Figure 59: Queen Victoria Jute mill during 1833

(Source: <https://medium.com/@lewiswotherspoon/queen-victoria-jute-mill-bb7742fc4afc>)

Background of the Project

Verdant Works got its name because there were verdant fields all around it when it was constructed in 1833 for flax spinner and businessman David Lindsay. The Scouring Burn's ready access to water made it the ideal place for a mill. Three steam engines were used in the Works in 1864 to power 2,800 spindles and 70 power looms. With 500 people at the time, Verdant ranked as the 16th largest employer in the Dundee jute industry.

Verdant Works was purchased as a vacant property by Dundee Heritage Trust in 1991. It has been a lifelong labor of passion to restore the jute mill. Fortunately, many of the original features still exist, including a lade—a stone channel—that was used to direct water from the Scouring Burn to the mill and is concealed beneath the floor. The structure was restored using historic materials and methods as far as possible, and it became a museum in September 1996.

The High Mill was initially made public in 2015 following the most recent restoration work. The mill's original structure, which dates to 1833, would have housed hundreds of mill employees and equipment at its height. The High Mill also houses a restored Boulton and Watt beam engine from 1801 that is on kind loan from Dundee City Council through a collaboration with Leisure and Culture Dundee. The High Mill has been opened up to reveal a cathedral-like space, allowing for views of the stunning architecture involved. The museum's size has doubled as a result of the introduction of this area, which also makes room for major exhibitions and activities. Additionally, it has made it possible for far more items from the collections to be kept on permanent display. (Nomimaci, 2019)

Verdant Works whisks you back in time to the height of Britain's Industrial Revolution. In Scotland, riches were being produced and then multiplied one hundred times over, while the "black satanic mills" of England were running at full capacity. At the end of the Victorian period, Scotland produced half of Britain's engines, a third of its steel, a third of its ships, and a third of its railway engines. The amazing tale of jute in Dundee was performed against this historical backdrop.

At Verdant Works, you can travel back more than a century to a time when jute was king and Dundee was its domain thanks to the rattle and roar of the original rebuilt machinery. Discover the history of the mill and its employees by going inside the atmospheric old jute structures. [8]

Form and functions:

The site is large and has lain derelict for a few decades now. Most of the nearby jute mills, which were once a part of a lively, active industrial area, have been transformed into residential and commercial spaces. With the exception of the historic old mill buildings and the perimeter wall, many of the structures on the property are now completely destroyed. The tall mill to the north of the site is still standing; it has two stories, an attic, and a wall with nine windows that runs down the east and west sides on sturdy ground floor cast-iron columns. At this point, much of the roof and the floors had fallen. The site's former foundry structure, which is still standing to the east, has two stories, five windows, and cast iron columns on either elevation.

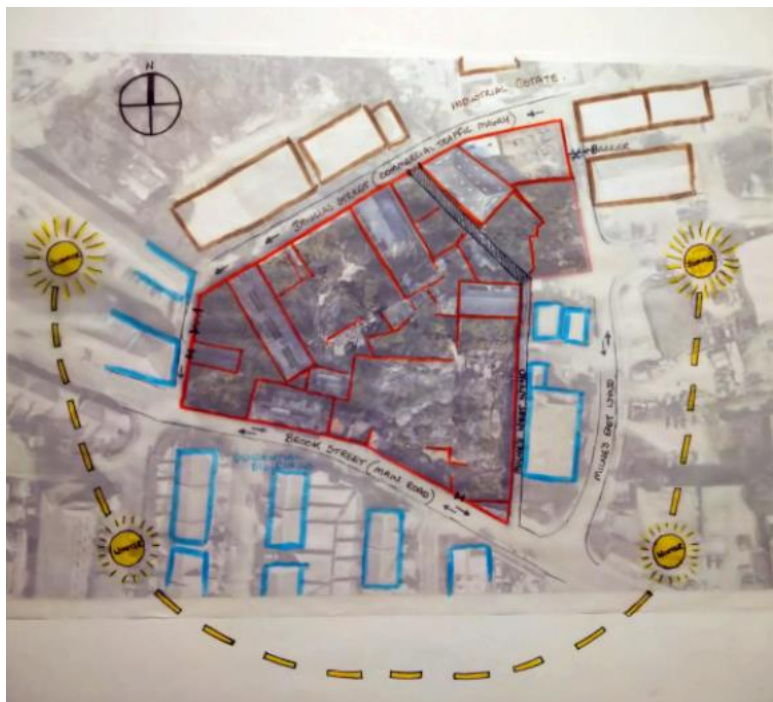


Figure 60: Climate consideration for Verdant jute mill museum

(Source: <https://nomimaci.com/2019/12/22/queen-victoria-works-site-analysis/>)

The old maps of the location and the area, including aerial views from the 1940s and some older inside views of the spinning mill illustrating the manufacture of jute, were acquired due to the old jute mill's rich history. Built between 1828 and 1834, the old high mill at the site's northernmost point was formerly named as Pleasance Mill. The Queen Victoria Works was renamed for the 1887 Jubilee, and it eventually changed its name to Victoria Spinning Ltd. In 1982, at that time, it was the oldest jute mill still in operation in the world.

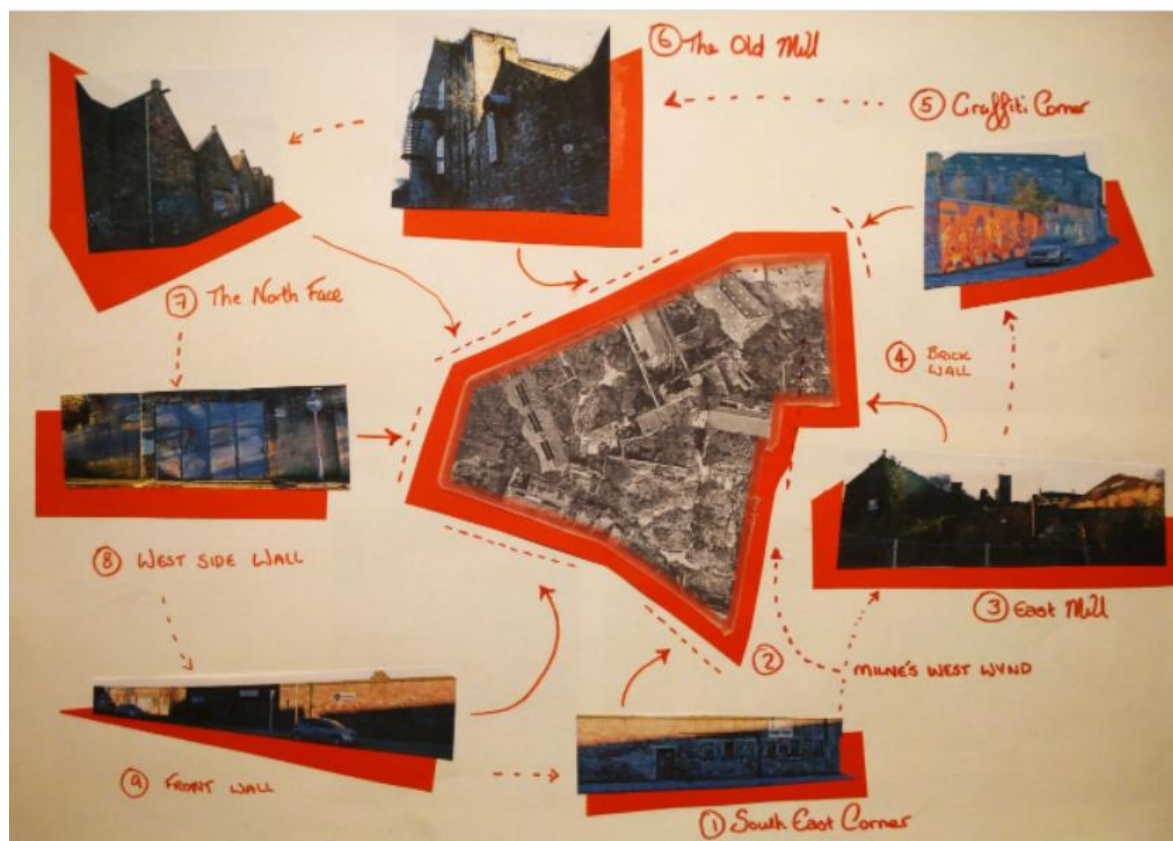


Figure 61: Connection of the Jute mills.

(Source: <https://nomimaci.com/2019/12/22/queen-victoria-works-site-analysis/>)

Functions:

The museum is divided into four main sections: a jute-focused area (blue area), a learning area with dress-up areas and a classroom (pink area), a section about life in Victorian times, including health, work, school, and recreation (green area), and a space that hosts a variety of traveling exhibits throughout the year, including the Lego exhibition that was on display at the time (purple area).

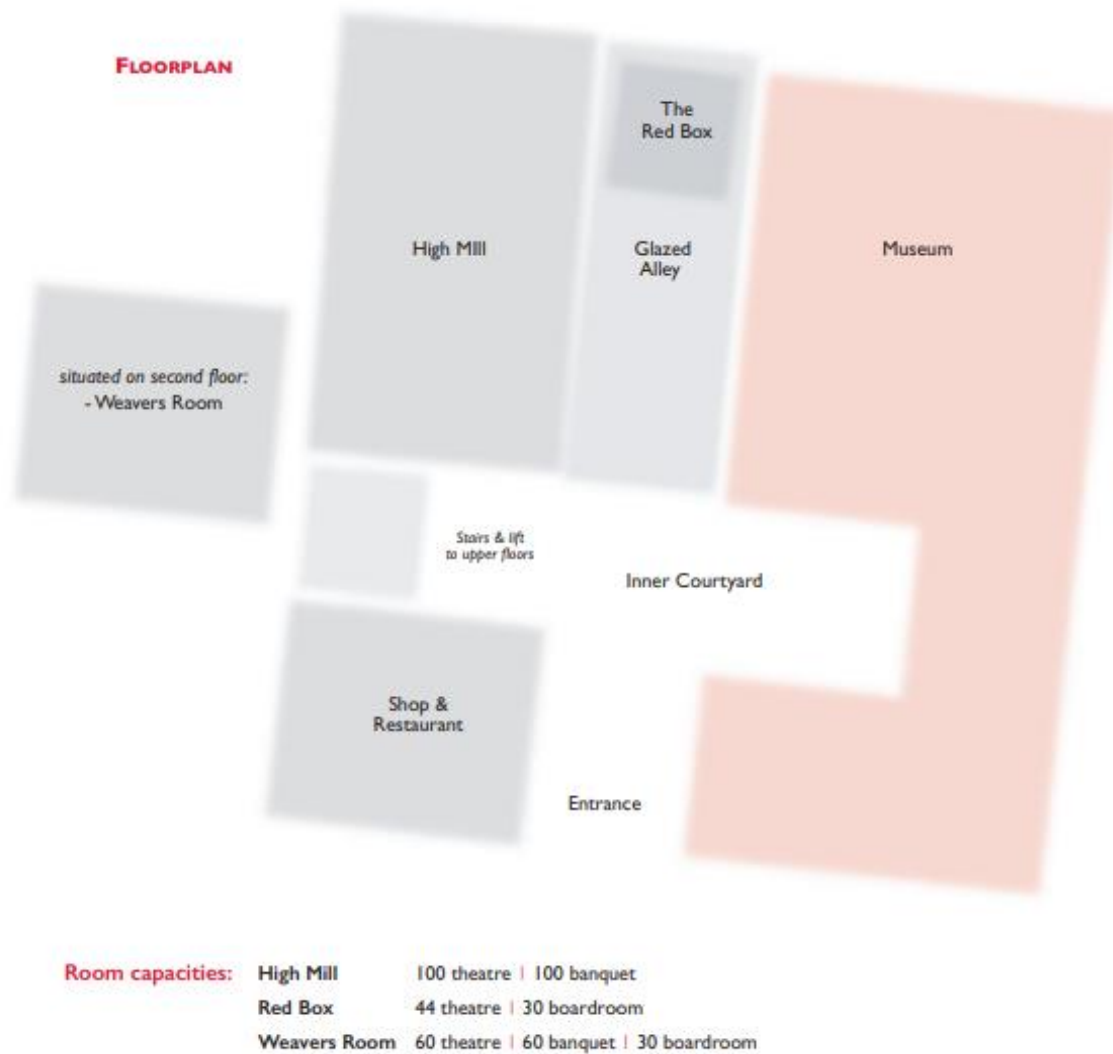
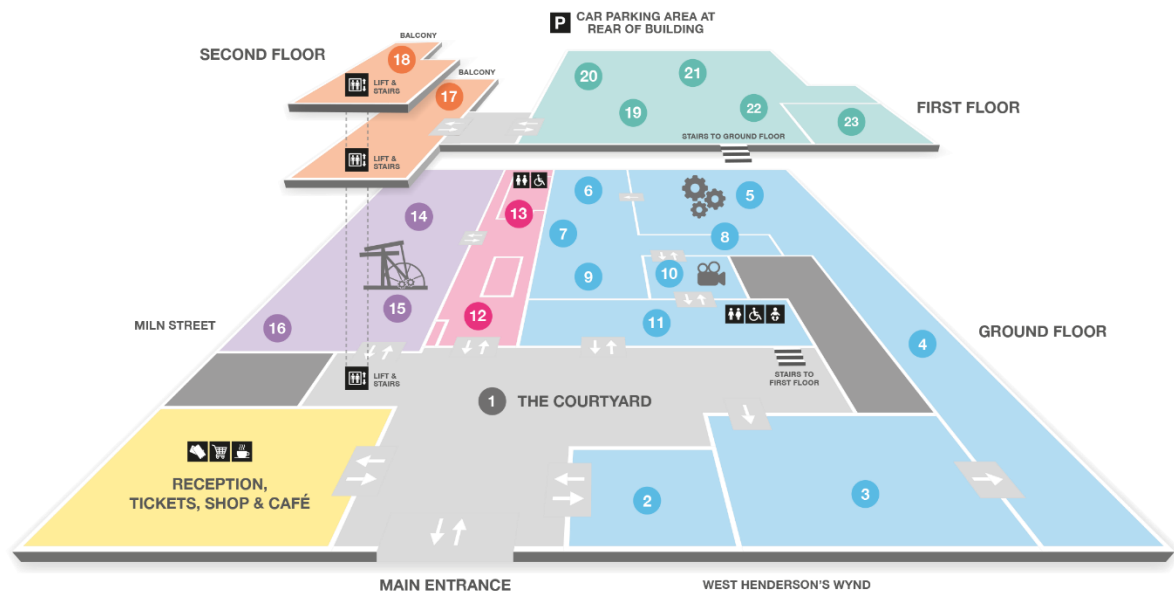


Figure 62: Floor plan of Verdant's work museum

(Source: Verdant work, Nomimaci,2019).



Verdant Works is a large museum with a lot to see. If you are short of time please use this map to plan your visit so that you don't miss the things you are most interested in.

FACILITIES	GROUND FLOOR	FIRST & SECOND FLOOR
Tickets	1 Courtyard	17 First Floor Balcony AV Display & Viewing Platform
Shop	2 Lodge Keeper	18 Second Floor Balcony Viewing Platform
Café	3 The Works Office	19 Health & Housing
Toilets	4 From Harvest to Home	20 Women & Work
Disabled Toilets	5 From Fibre to Fabric - Machine Hall	21 Children & Leisure
Baby Changing	6 Dundee Textiles	22 Jute Barons
Lifts & Stairs	7 Dundee and the Indian Subcontinent	23 Special Exhibition Gallery
Parking	8 Rope	
	9 R & D / PolypropyleneFilm	
	10 Theatre - 13 minutes	
	11 Special Exhibition Gallery	
	12 History Hub	
	13 Red Box - Activity Pod	
	14 Open Collections	
	15 Boulton & Watt Steam Engine	
	16 Mechanics Workshop	

Figure 63: Functional plans of Verdant's work museum

(Source: <https://www.verdantworks.co.uk/about/>)

The facility was abandoned when Dundee Heritage Trust bought Verdant Works in 1991. Verdant Works has been listed as a "Category A" building of national architectural significance because it is a unique surviving example of a courtyard type mill.



Figure 64: Three-dimensional expression of the museum

Three dimensional expression of the inside of the museum. (Source: <https://www.bbc.com/news/uk-scotland-tayside-central-28228721>)

When Dundee Heritage Trust purchased Verdant Works, it had not been significantly modernized, and many of the original elements are still present. In 2016, the High Mill refurbishment was shortlisted for the Royal Incorporation of Architects in Scotland's annual awards and won first place in the Special Category of the Historic Environment Scotland Award for Conservation & Climate Change.

Findings:

- Creating a space for public to enjoy the space and the heritage
- Reconditioning major space to advance more school curriculum and gain more recognition
- Large events space creates opportunities for exhibitions on a totally different scale which upholds the visitors's attraction more
- being contious about the history and climate and preserving the heritage

Chapter 5: Program Appraisal

5.1 Rationale of the program

The existing museum complex and the proposal created by the textile and jute ministry have been studied. The design of this museum is to be more extroverted and public-oriented as it is a museum representing the jute heritage of our country rather than the aristocrats. Along with the jute display galleries, temporary gallery spaces have been included in the program which will exhibit the textile products produced in the workshops. These workshops will be initiatives of the individual, rentable for weeks, textile and jamdani weaving studios, which will offer a space for the weavers to work in a favorable condition. These studios can organize "open houses" for the public to see their work. This will create an opportunity for this museum to come alive and bring the public very close to its jute and textile heritage. The Archive will provide those who want to know about jute and textiles with information. Book shops, weaving shops, and libraries have also been added for further knowledge acquisition. Moreover, this museum will not only exhibit the jute and textiles to the public, but it will rather create a platform where the weavers and the audience will interact with each other, and the audience will be enlightened.

5.2 Program Derivation

The governing body has not yet provided the proposal with certain programs. Addition and subtraction were completed after examining several textile and jute center programs. There are now also training facilities, workshops, and research institutions. Public amenities were prioritized alongside the museum program, rather than being viewed as a museum's solitary structure. To make this place livelier, book stores, art galleries, and a library have been added.

5.3 Tentative area for Programs

Programs	Area/ Sqm	Area/ Sqft
Administration	559	5750
Museum	4587	49100
Research & Publications	896	9000
Training centre	1047	10600
Auditorium	486	7400
Library	422	4220
Seminar/Multipurpose hall	611	6150
Weaver's Accomodation	232	2320
Cafeteria	216	2200
Others/Mela space		
Total Program Area (Without Circulation)	9056	97500
Circulation (30%)	2370	25510
Total Program Area (With Circulation)	10270	110545

Figure 65: Tentative area for programs

(Source: Author)

5.4 Detail Programs

Admin	Quantity	Area per unit (Sqm)	Area per unit (Sqft)
Entry			
Lobby	1	40	400
Reception	1	10	100
Toilet	5 men, 5 women	46	500
Total		96	1000
Office			
Director's room	1	30	300
Deputy director	1	30	300
Assistant director	2	40	400
Executive engineer	1	20	200
Display office	1	20	200
Collection officer	1	20	200
Weaver's instructor	1	20	200
Research Office	3	35	360
Preservation Office	2	24	240
Registration Office	1	12	120
Accounts Office	1	12	120
Sub-assistant officer	1	12	120
Guide lecturer	2	16	160
Lab assistant	1	10	100
Store keeper	1	11	110
Technician	7	12	120
Complex superintendent	6	30	300
Conference room	For 100 person	110	1200
Staff room	For 10 person	75	800
Toilet	2 men, 2 women	20	200
Total		559	5750
Museum			
Permanent gallery			
Lobby	1	95	1000
Space for Exhibition	3 x 10000	2800	30000
Store	3 x 5000	1400	15000
Toilet	5 men , 5 women	46	500
Tempoary Gallery			
Space for Exhibition		200	2100
Toilet	5 men , 5 women	46	500
Total		4587	49100
Research			
Lobby	1	30	300
Conference room	25 persons	40	400
Documentary room	1	40	400
Researcher's room	1	30	300
Researcher's lab	2	60	600
Digital archive	3	30	300
Store	1	20	200
Craft workshop	2	400	4000
General workshop	2	200	2000
Toilet	5 men, 5 women	46	500
Total		896	9000
Training Center			
Common space	1	95	1000
Toilet	5 men, 5 women	46	500
Weaving Classroom			
Jute classroom	2	200	2000
Textile and Fashion Design	2	200	2000
Jute weaving and design display studio	(1) 30 person	300	3000
Storage	1	46	500
Trainer's area			
Head of the department	4 x 250	100	1000
Teacher's room	10	20	200
Student's room	20	40	400

Total		1047	10600
Weaver's accomodation			
Lobby	1	20	200
Single room	20	200	2000
Toilet	2 men, 2 women	12	120
Total		232	2320
Auditorium			
Lobby	1	50	500
Toilet	5 men, 5 women	46	500
Snacks bar	1	30	300
Ticket counter	1	20	200
Projection room	1	20	200
Store	1	20	200
Back stage	1	50	500
Hall	for 500 person	250	5000
Total		486	7400
Library			
Lobby	1	50	500
Book stack area	1	120	1200
Reading area	for 200 person	160	1600
Librarian's room	2	50	500
Storage	1	30	300
Toilet	2 men, 2 women	12	120
Total		422	4220
Seminar/ Multipurpose hall			
Lobby	1	50	500
Main seating	for 500 person	250	2500
Performance area	1	85	850
Back- stage facilities and rehersal area	3	90	900
Storage	3	45	450
Controlling area	3	45	450
Toilet	5 men, 5 women	46	500
Total		611	6150
Cafeteria			
Seating area	50 x 16	80	800
Snacks bar	2	30	300
Kitchen	1	25	250
Serving area	1	15	150
Toilet	5 men, 5 women	46	500
Store	1	20	200
Total		216	2200
Others			
Shops	10	150	1500
Mechanical room	1	15	150
Electrical room	1	15	150
Security room	1	15	150
Total		195	1950
Total built area		9347	100600
Circulation 30%		2370	2600
Total built up area including circulation		10270	103200
Research field or cultivation land		2000	

Figure 66: Detail programs

(Source: Author)

5.5 Program Analysis

After analyzing the programs in light of the research, zoning is carried out. They are made possible through functions, and as a result, the whole community intersects. Proposed programs are given below-

- Multipurpose Hall
- Cafeteria
- Administration
- Research and training center
- Workshop
- Weavers' accommodation
- Display and sales center
- Accommodation for visitors

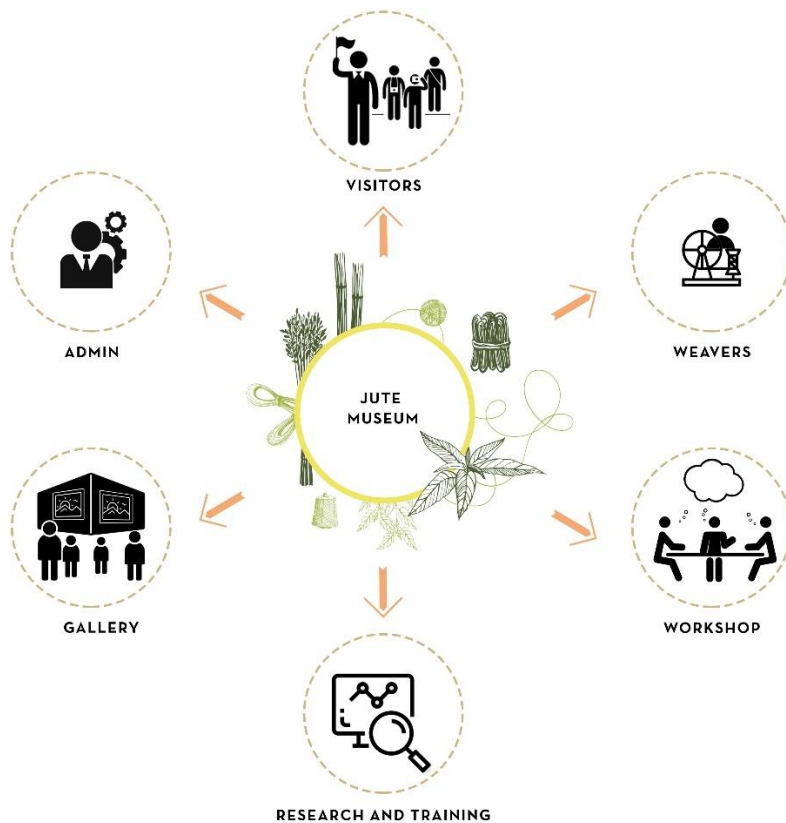


Figure 67: Program analysis (Source: Author)

Besides this, the process of Jute cultivation has to be kept in mind, for which it is essential to understand the time duration of Jute cultivation. The cultivation land can also be used as a rotational farming process for alternative rice, potato or other vegetation.

ROTATIONAL FARMING PROCESS CAN BE APPLIED

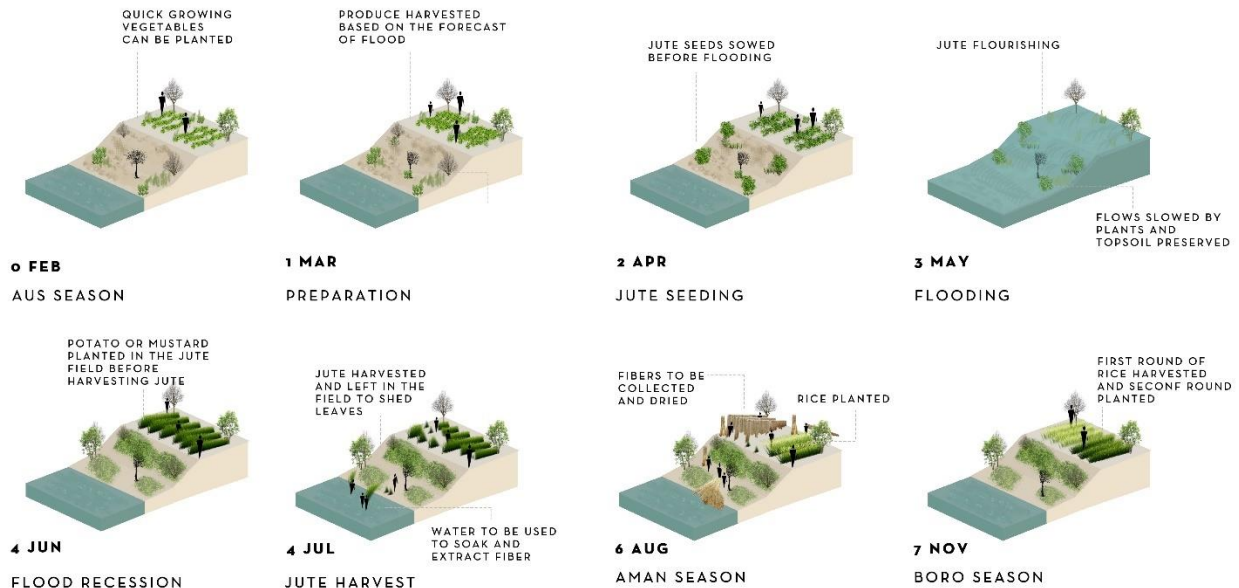


Figure 68: Rotational farming process

(Source: Author).

Rotational farming process can be applied. Considering the rotational farming process, jute cultivation will take about a total of 135 days from the late Falgun to the late Ashar month. On the other hand, the soil will be suitable for quick vegetation. Aman and Boro can be harvested in the meantime. The whole site would be used for agricultural purposes and surrounded by its landscape.

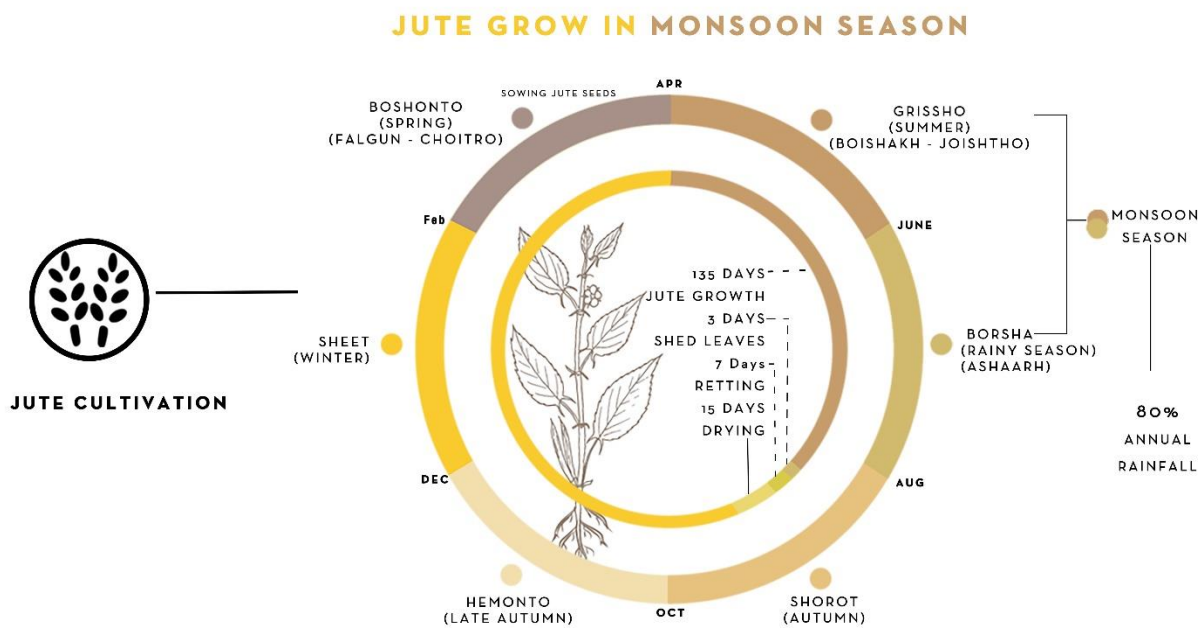


Figure 69: Jute cultivation season

(Source: Author)

The jute cultivation process needs land preparation, use of pesticides, sowing the seeds, irrigation, cutting the plant, rotting/retting, fiber collection, washing, dyeing, and processing. For harvesting purposes, during the retting process, running water is necessary to keep the jute golden and remain as golden fiber. The methods need to be followed properly and the resulting fiber can be used to make different types of jute products. Nevertheless, the SDG can be utilized and modified in the near future for goods made out of Jute.

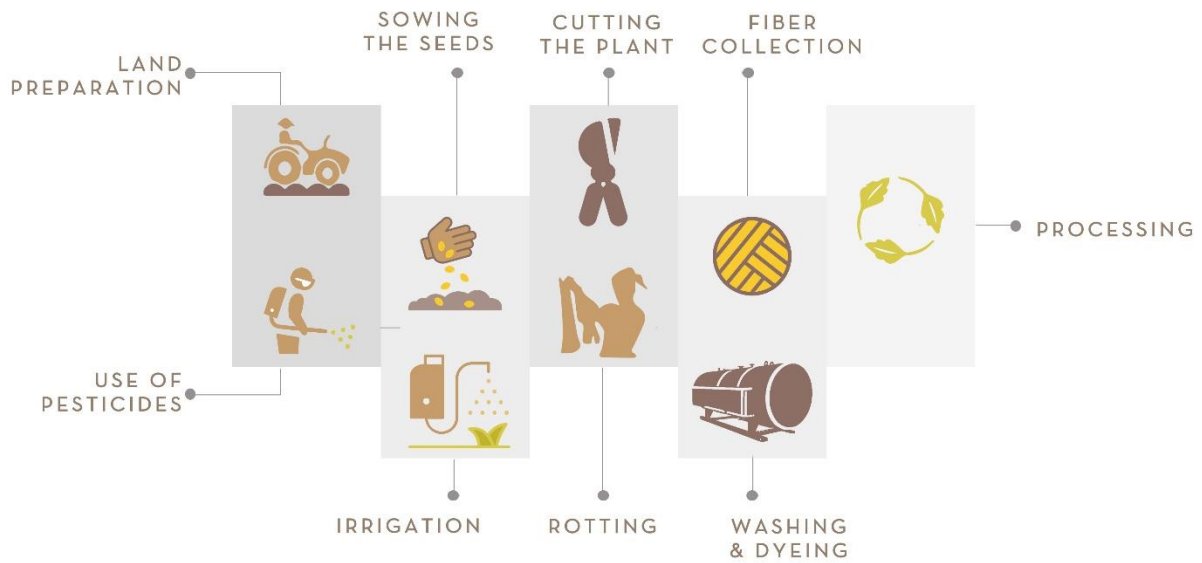


Figure 70: Jute cultivation process in Bangladesh

(Source: Author)

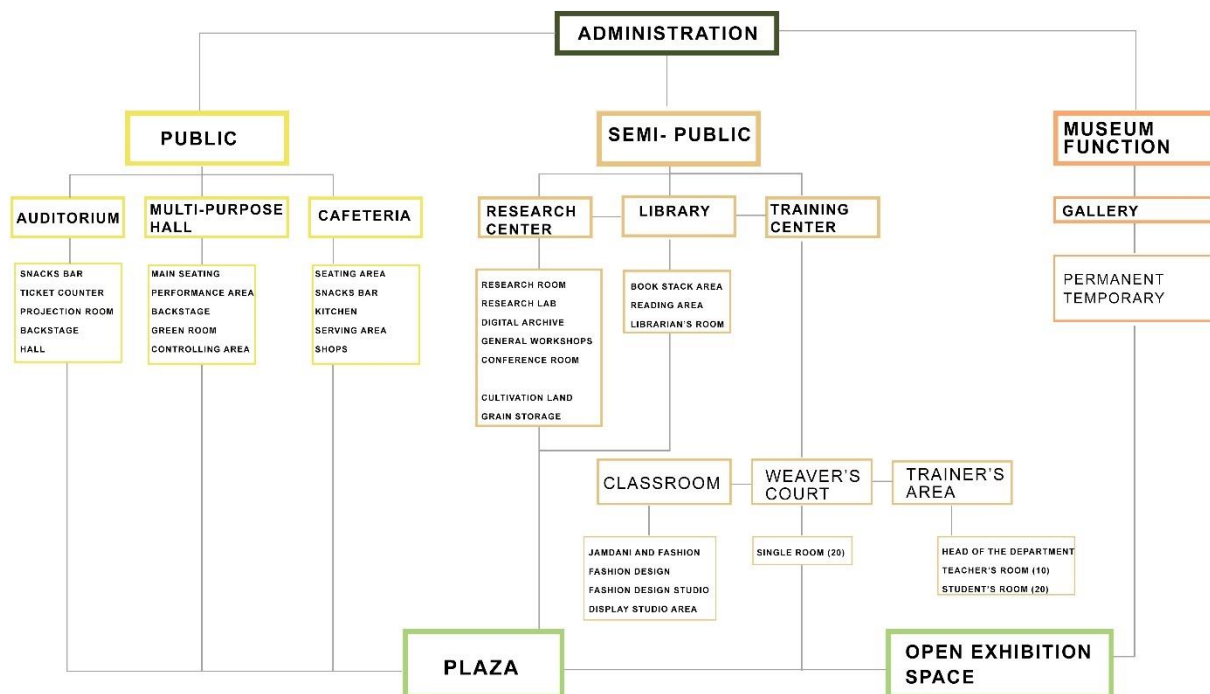


Figure 71: Functional flow Diagram

(Source: Author)

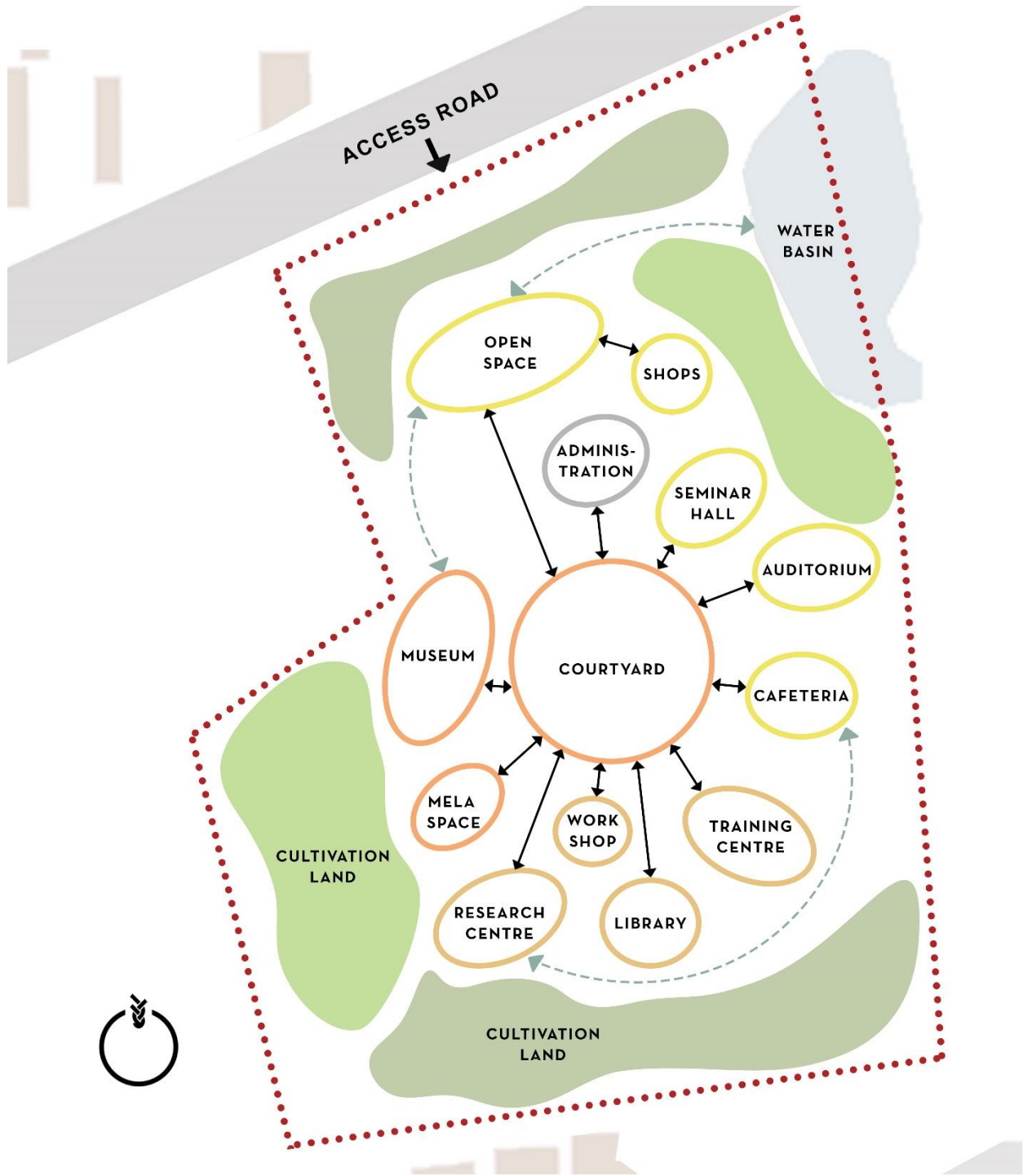


Figure 72: Functional analysis

(Source: Author).

Chapter 6: Design Considerations

Some design considerations for the “সোনালী আশা, Bangabandhu Jute and Textile Museum, Tarabo, Nrayanganj, would be as follows, taking into account the research and analysis of the site context, literature of Jute culture and cultivation, and its needs for space and living environment.

6.1 Introduction

Giving proper exposure by preserving the jute and textile industries through rich heritage and cultural activity in a more contemporary manner to gain more audience.

- Spaces to exhibit/ showcase jute heritage gallery;
- Marketing & appreciation;
- Right value.



Figure 73: Connecting traces of jute extinction accordingly

(Source: Author)

6.2 Concept Development

The primary agenda was to revive the jute culture and its heritage in the neighborhood. Creating a sustainable infrastructure for the weavers to demonstrate their skills and earn their livelihood is crucial.

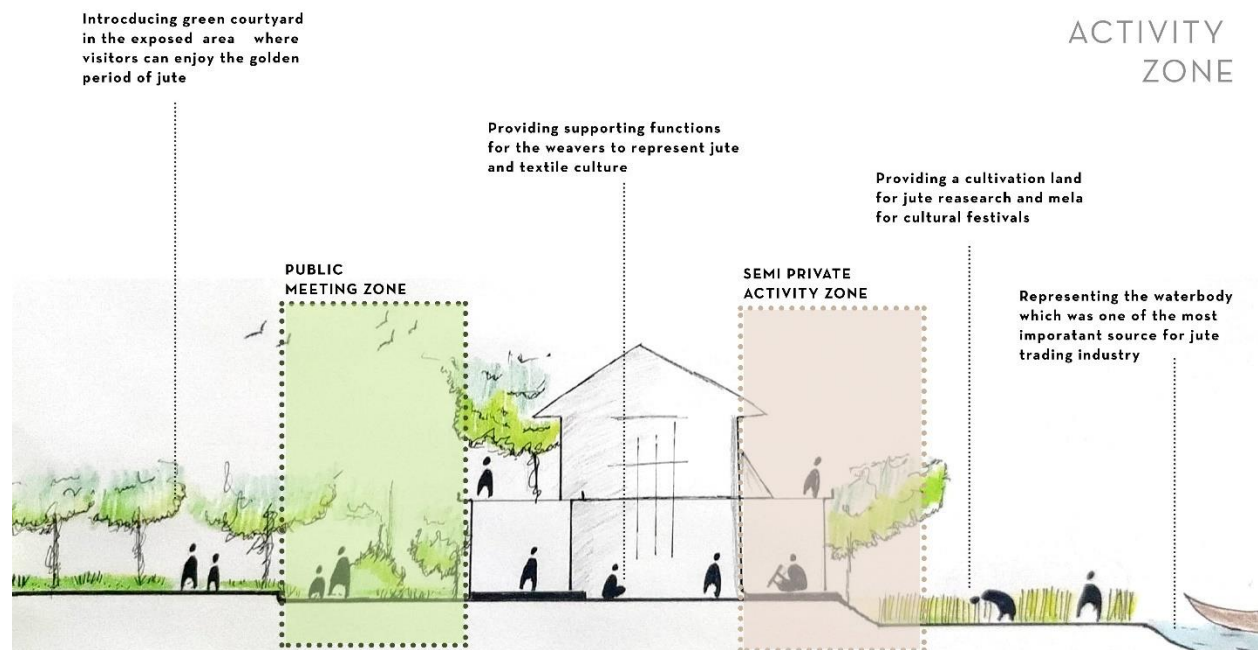


Figure 74: Planning interactive spaces

(Source: Author)

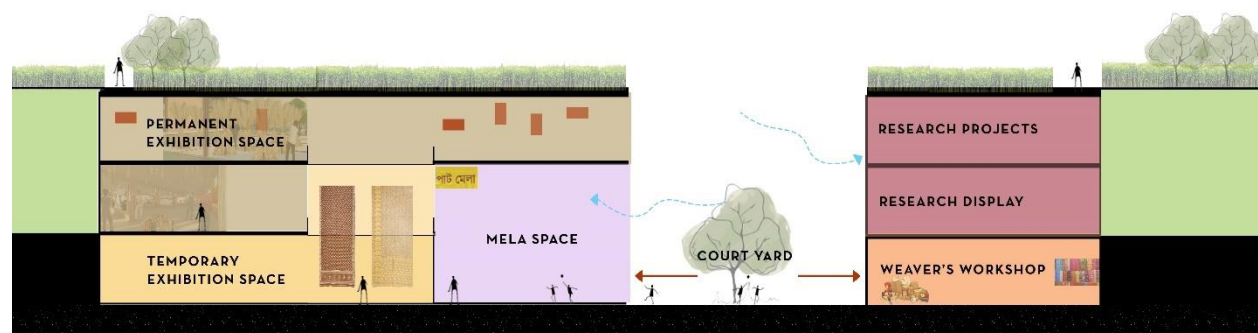


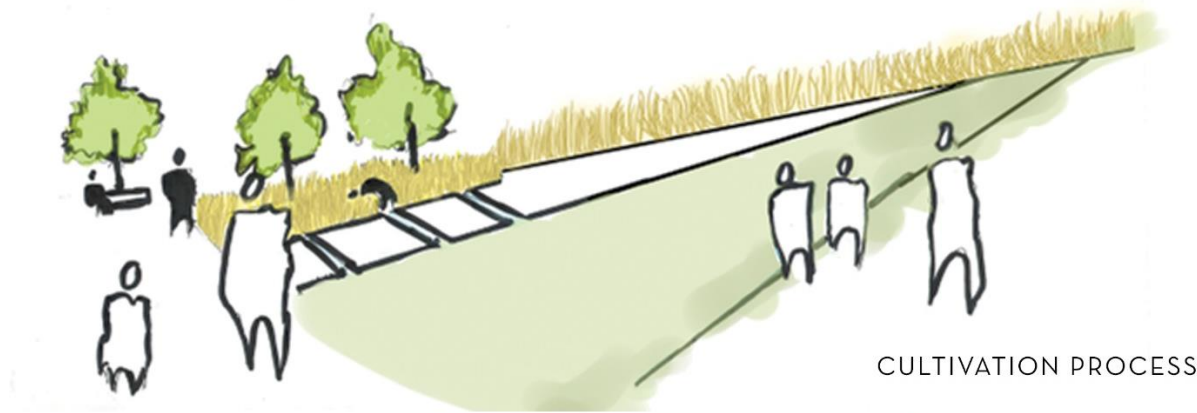
Figure 75: Conceptual Section

(Source: Author)

Concept

The main idea is to demonstrate the golden history of jute where different spaces would tell different stories about the jute industries, processes, opportunities, products, etc. People can experience a walkthrough of jute history and jute culture.

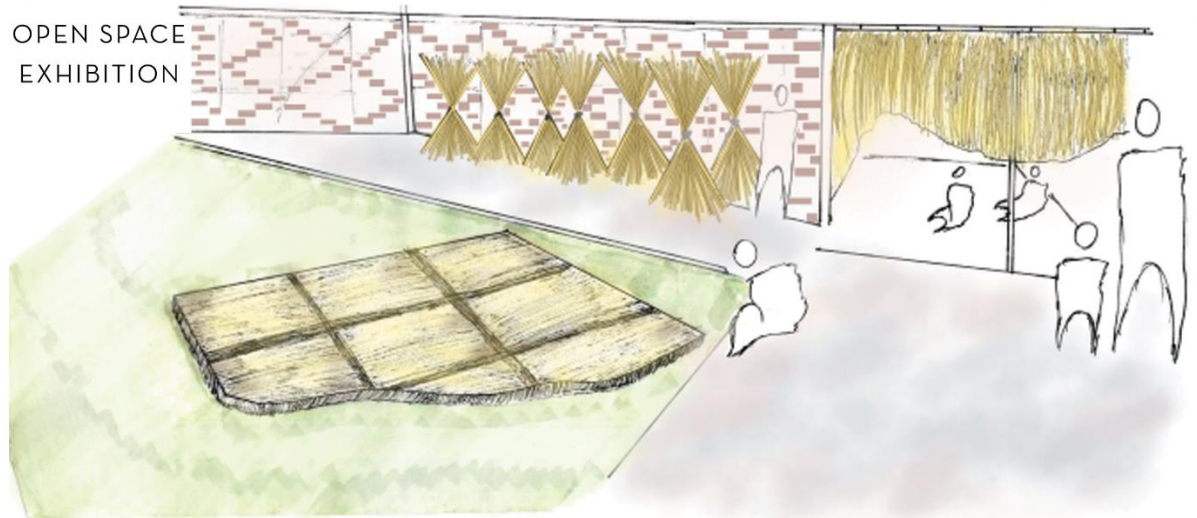
ENTRANCE



CULTIVATION PROCESS



OPEN SPACE
EXHIBITION



(Source: Author)

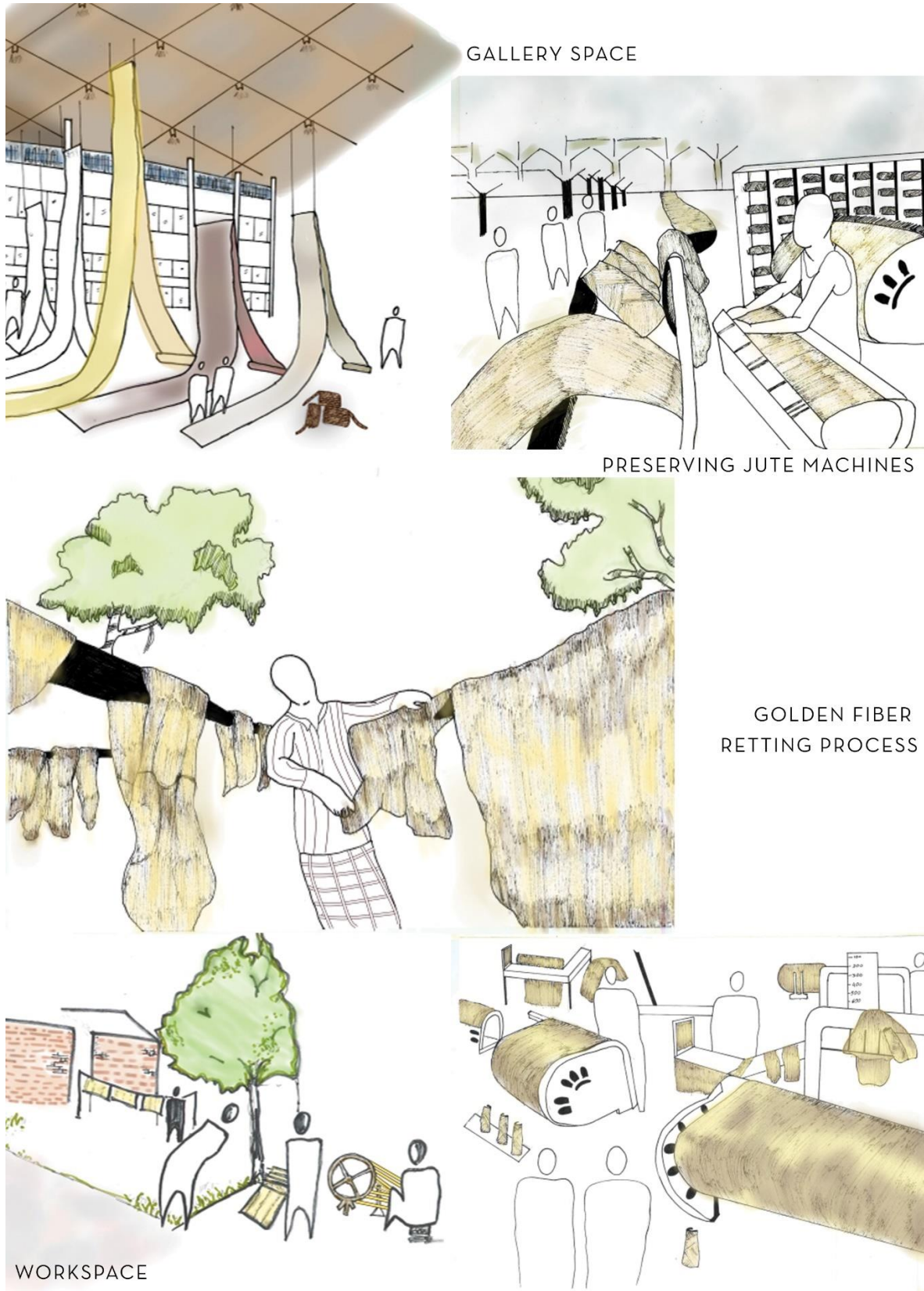


Figure 76: Conceptual sketches

6.3 Form Development & Programmatic Layout

The entire site has fewer access points in the neighborhood, a water basin disconnected from the site, and the existing landscape. So, having such references, the form is generated by connecting the possible routes and landscape.

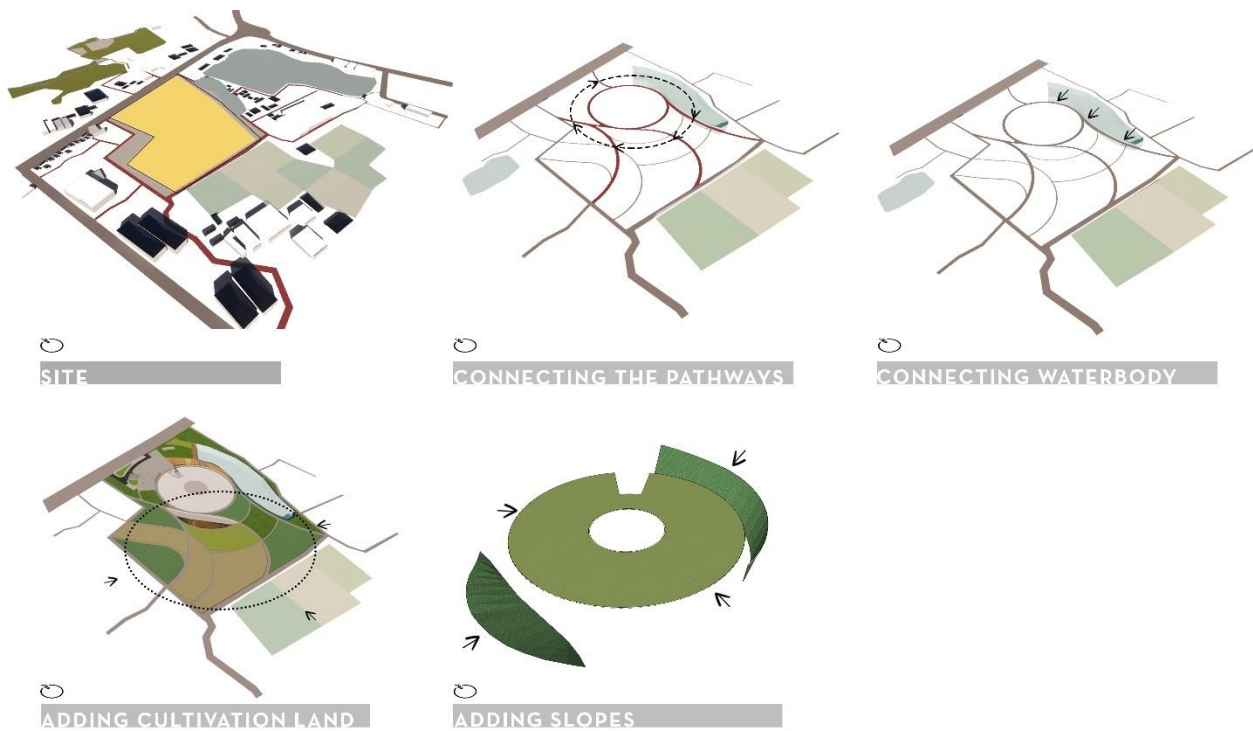


Figure 77: Form Generation

(Source: Author)

As the roads were disconnected from the site, it has been developed to connect with the neighborhood. Furthermore, weavers in the surrounding area will have easy access to the functions. The water basin has been connected with the site to keep an interactive space and add more depth to it so that it can store rain water for the jute retting process. Developing cultivation land along with the pathways creates a journey through the cultivation land. Adding slopes to surround the complex, considering the climatic considerations and cross ventilation.

The suggested design integrates the agricultural environment in such a manner that the aisle links to the proposed routes connecting the courtyards. With the functions arranged around it, the entire museum complex is connected by a continuous corridor and a subterranean plaza.

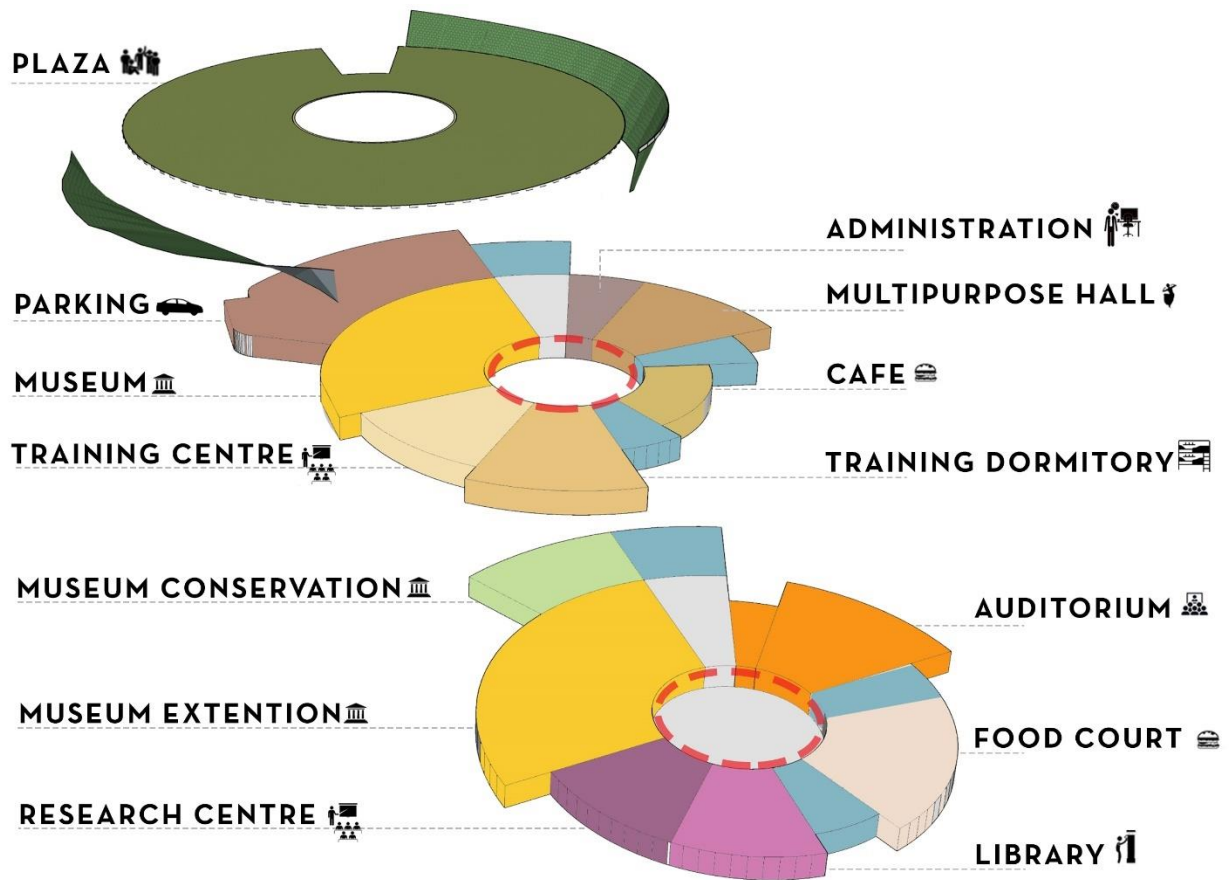


Figure 78: Functional analysis of the museum complex

(Source: Author)

Chapter 7: Final Design Drawings

7.1 Plans

All the plans, sections, perspective spaces and model images were done by the author. Keeping the key design ideas, zoning, landscape in mind by creating a journey through one space to another.

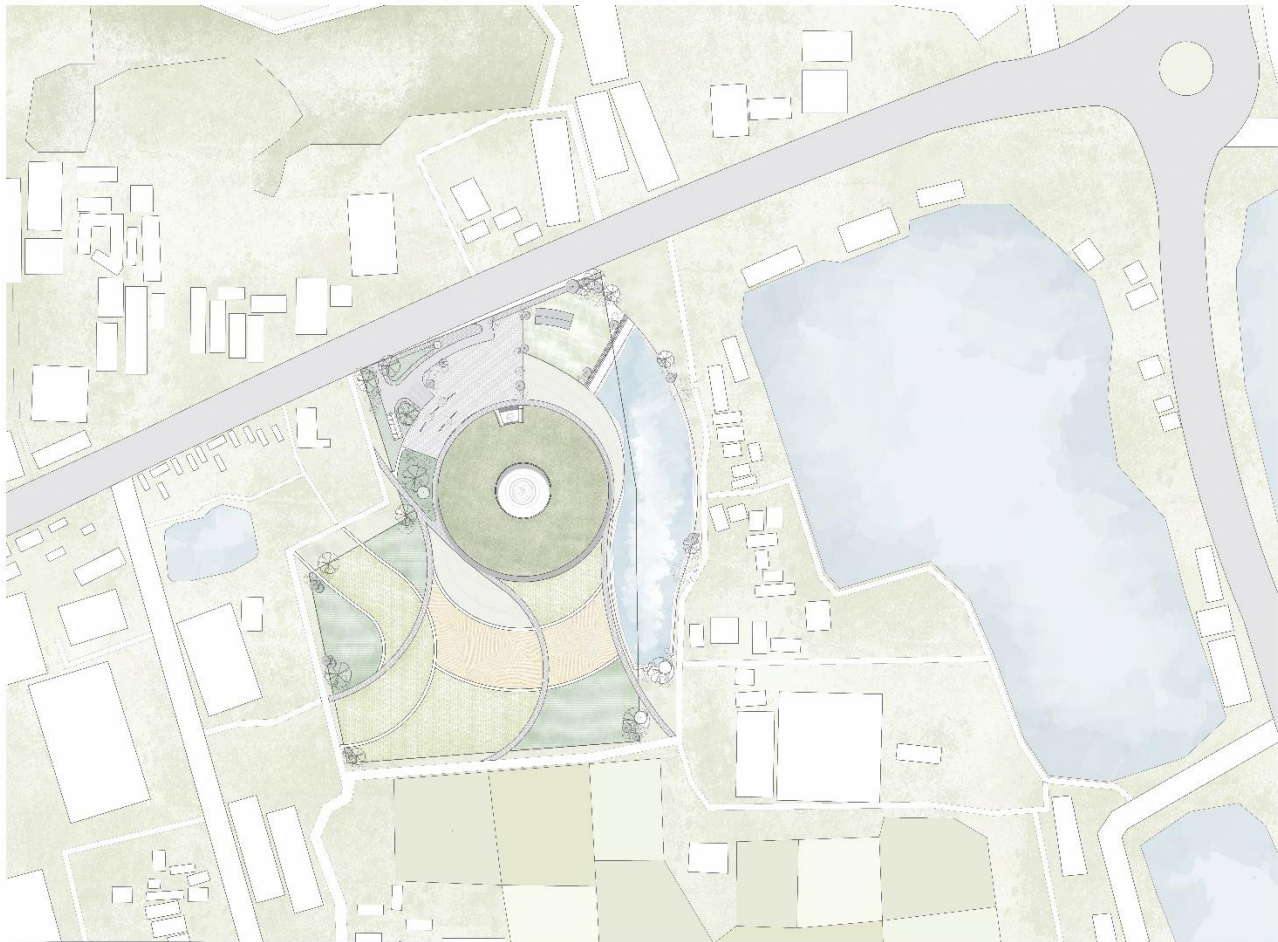
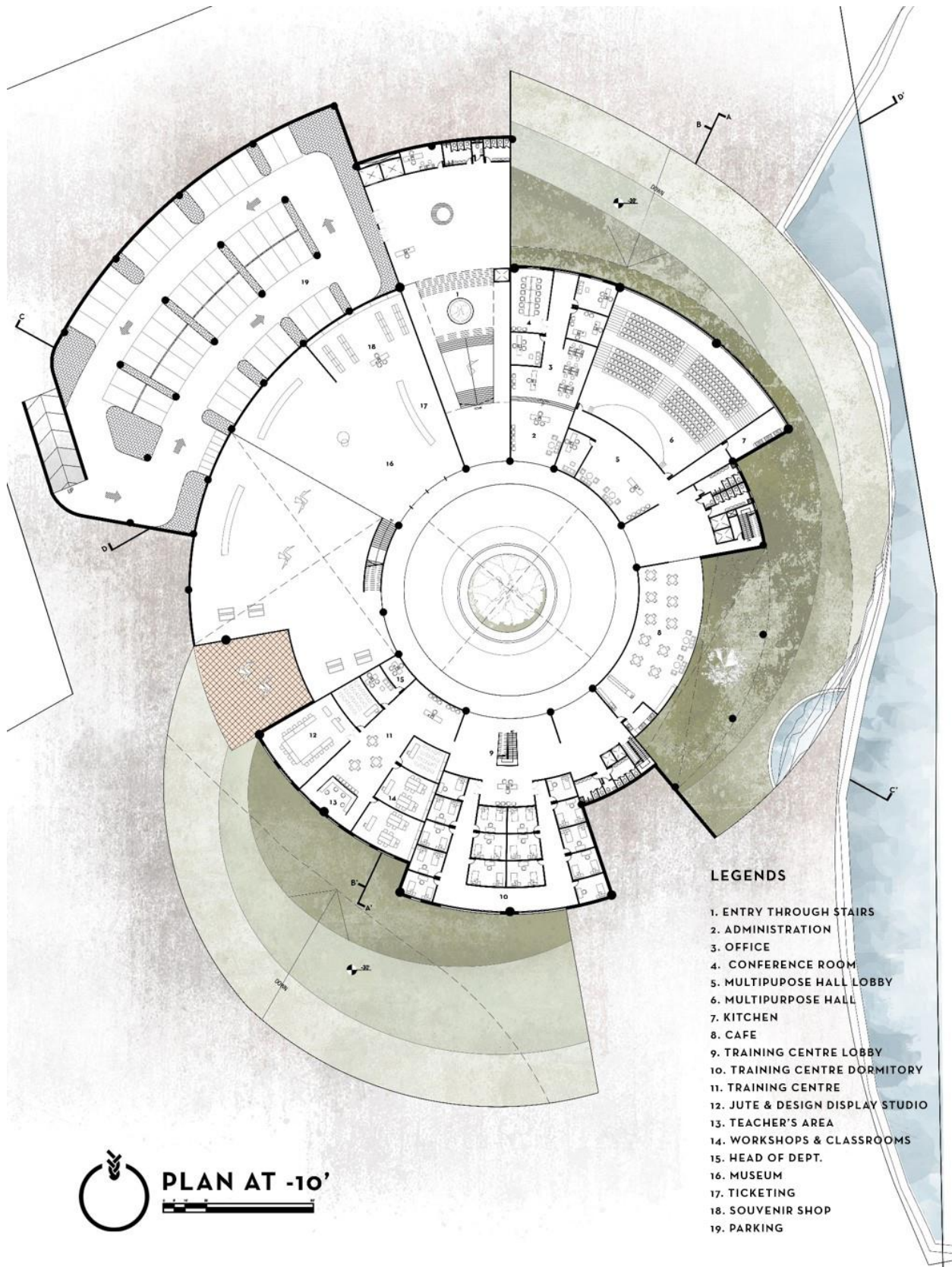
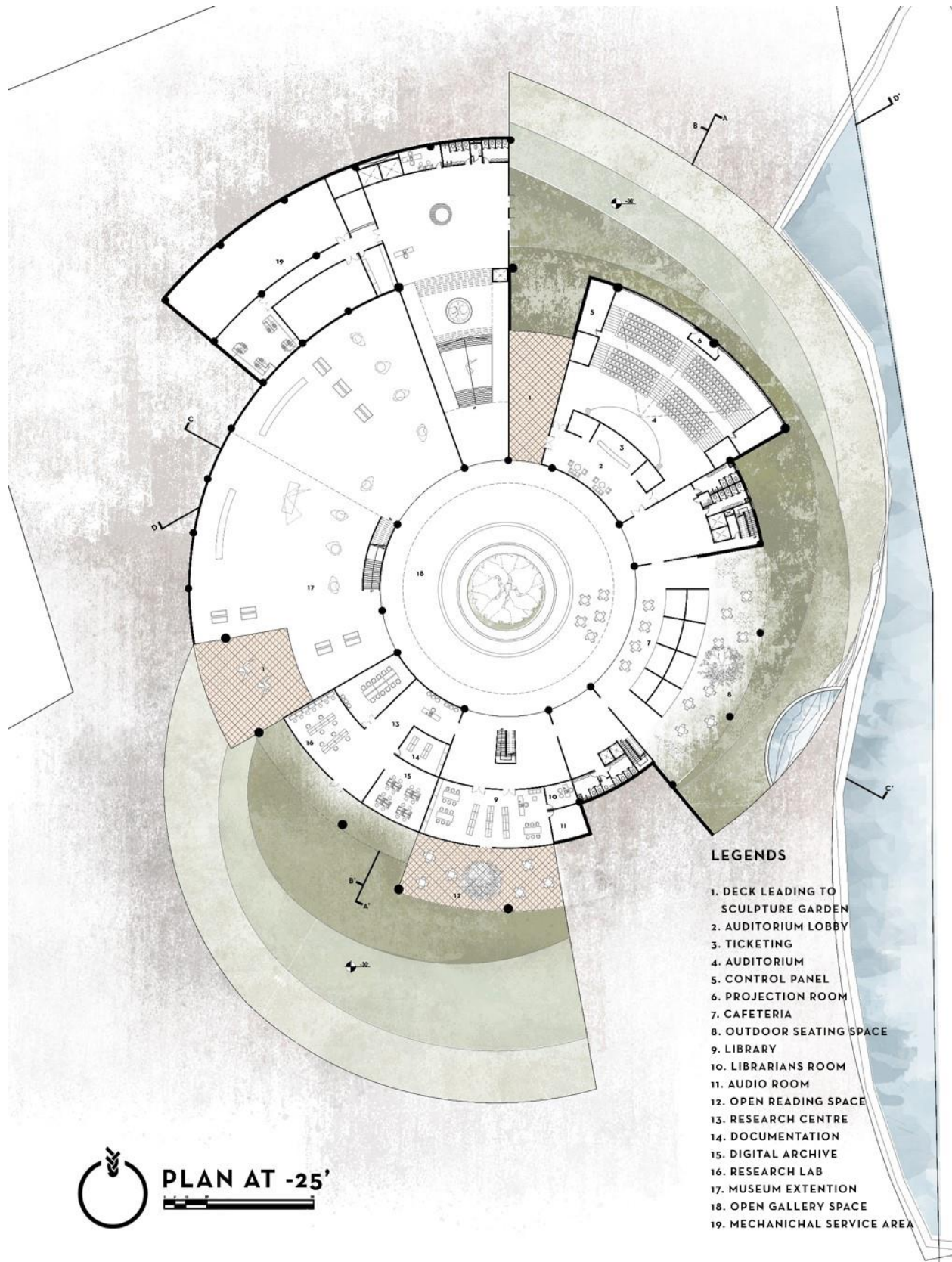


Figure 79: Site Plan

(Source: Author)







7.2 Sections



Figure 83: Section AA'



Figure 84: Section BB'

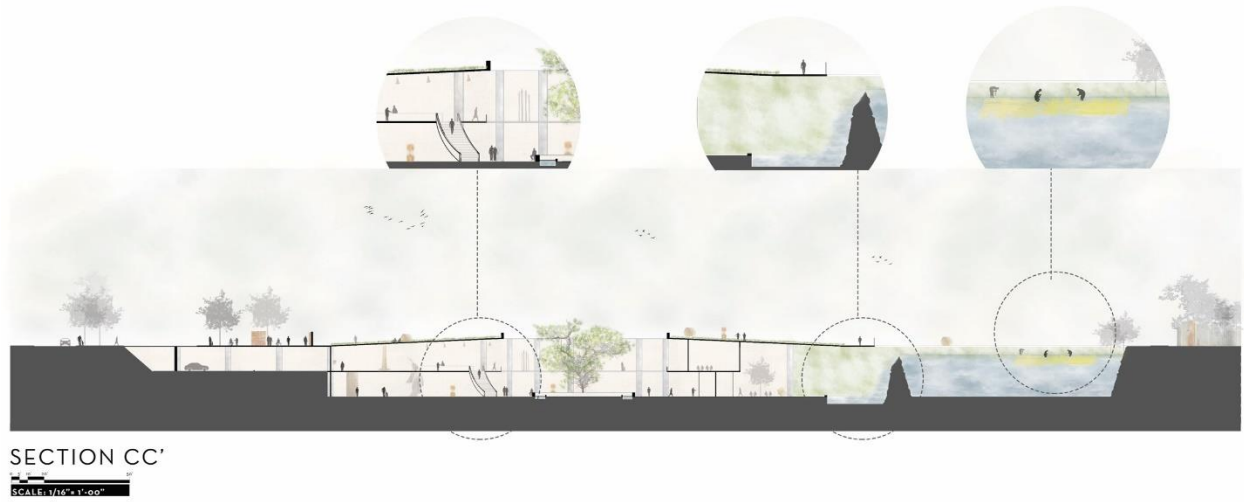


Figure 85: Section CC'



Figure 86: Section DD'

7.3 Perspective Spaces



Figure 87: View from museum



Figure 88: View from Sunken-plaza.



Figure 89: View from cultivation land through pathway



Figure 90: View from plaza used as mela space



Figure 91: View from museum



Figure 92: View from entrance



...VIEW FROM FOOD COURT
BESIDE WATER CURTAIN

Figure 93: View from food court beside water curtain



...VIEW FROM RESEARCH CENTRE

Figure 94: View from research center

7.4 Model Images



Figure 95: Site model

Site model, scale: 1/4000" = 1'-0".

This portion of the scale was taken to show the Karim Jute Mill and Bawani Jute Mill beside the Shitlakhya river on the other side of the Sultana Kamal bridge.



Figure 96: Sectional Model image

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



Figure 97: Model reference to Section AA'



Figure 98: Model reference to Section BB'



Figure 99: Sunken-plaza in model



Figure 100: Slope spaces, reference from section AA' in model



Figure 101: Museum space, reference from section BB'

Chapter 8: Conclusion

“সোনালী আশা” is a project that honors the history and golden fiber of Bangladesh. With the help of this project, the jute industry may be able to revive its legacy while also becoming more economically viable. Additionally, this idea can provide weavers and other artisans with a platform to demonstrate their abilities and the effort they put into the jute items made out of the golden fiber. The design infrastructure will bring through jute goods and cultivation solvency as a local heritage. People can visit the museum and learn about Jute culture, which can be the project's immediate impact. On the other hand, the connection between our future generations and the golden history of Bengal Jute culture would be this project's long-term influence. The project may benefit the jute industry and the return of jute as a cash crop in Bangladesh.

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