# CULTURAL CENTRE, HATIRJHHEL, DHAKA



BY

SUMAIYA ARA SIMI

ID: 13208002

SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS

FOR THE DEGREE OF BACHELOR OF ARCHITECTURE

DEPARTMENT OF ARCHITECTURE | BRAC UNIVERSITY

BRAC University 10th February 2019

FALL'18

| Cultural Centre |

**Abstract** 

The aim of this project was to create a cultural destination for the for the people of Dhaka city.

A place where people can wander and explore different street ambience that reflects the cultural

ambience of Bangladesh. This center will have the contemporary representation respecting the

site its situated in and also have the openness of a building that is required to create aperture

and invite for the people of city and the community. The center is a mix of urban landscape

and spaces creating a panorama to the lake in front. Additionally, one of the primary aim of

this center is to not only showcase but to celebrate the culture of Bangladesh. The center will

be designed including concert halls and performance theaters as the main functions also having

exhibition spaces, library and museum with wide open spaces that would connect and bring

people together.

Key words: culture, center, concert hall, music, theatre, urban, platform

### **Acknowledgement**

First of all, I am grateful to the Almighty Allah for every success and achievements till this day.

I offer my sincere gratitude to my studio instructors **Mr. Fuad H Mallick**, **Mr. Abul Fazal Mahmudun Nobi** and **Mr. Iftekhar Ahmed** for their guidance and support with kindness and patience throughout this journey.

I owe my gratitude to all my teachers who have taught and assisted me throughout my journey in BRAC University.

I am grateful to my fellow classmates – Salima Sharmin, Fariha Tasnim, Sarah S khan, Sanjida Kazal, Rafid Zaman, Akif Akash, Md Mazbah, Maisha Marzan for their support in every thick and thin and the wonderful experience of 5 years journey.

I owe this project to the seniors (**Doito Bonotulshi**, **Rifat Ara Mostafa**, **Rukaiya Karim**, **Rafiqul Islam Tushar**) and juniors (**Meem Zaman**, **Mobasheer Meead**, **Tahreem Maharib Alam**, **Mayeesha Tasneem**, **Farhin Iqbal Chowdhury**, **Sanad Mirza**, **Amit**, **Ruaida Akter**, **Fahmida Sabah**) who had been by my side the whole time for 8 months of relentless struggle.

And lastly nothing would had been possible without the patience, help and support of my family.

# **CONTENT**

# **Chapter 01**| Introduction

**Background Study** 

**Project Introduction** 

**Project Brief** 

Project Rationale

Scope of Work

Aims and Objective

**Proposed Programs** 

# **Chapter 02** | **Literature Review**

Culture Definition

**Cultural Complex** 

Culture of Bangladesh

Music

Dance

Art

Theatre

Culture in Urban City

Relation with Surrounding

# **Chapter 03 | Site Appraisal**

About Hatirjheel

Site Location

Site analysis Land Use Map Road Network Map Infrastructure Impact Map **Environmental Analysis** Vegetation Noise and Air Drainage Physical and Chemical Condition Views **SWOT** Analysis **Chapter 04: Programs and Development** Program Brief **Program Details Chapter 05: Case Study** International **Chapter 06: Design Development** Introduction Site Context Concept Plans Sections and Elevations Rendered Images

# **Chapter 01** Introduction

- 1.1. Background Study
- 1.2. Project Introduction
- 1.3. Project Brief
- 1.4. Project Rationale
- 1.5. Scope of Work
- 1.6. Aims and Objective
- 1.7. Proposed Programs

### 1.1 Background Study

The south Asian part of this continent has a unique mix of culture and inception of this blend goes way back to the third millennium BC. From the great settlings of flourished Indus valleys to the Aryans and many more, brought mingling of languages and constructed the foundation of religious, ethical and philosophical phenomenon of this continent. It is a diverse and vibrant mix of cultural phenomenon. Geographically starting from the Himalayas to the deserts, intermixing with highlands and low lands this continent has so many layers that it became a fabrication of distinct manifolds of culture. Within this miscellany Bangladesh is a delta topographically predominant by low lands.

The inception of Bangladesh was after 1971 independence war with Pakistan. Latterly in the course of transformation and fragmentation Bangladesh developed its own art and cultural norms which has different values and perspectives. The historical changes have expanded into traditions that are treasured with deep significance.

The land of rivers has century old traditions reflected in innumerable customs. In archaeology, sculptures, in stones and terracotta, architectures, museums, archives, classical, music and dance, paintings, dramas, folk arts, festivals, games as well as ethnic cultural activities the cultural practices has given this land a distinctive identity.

The cultural complex in hatirjheel might be an essential node for the people of Dhaka. The aim of this project is to create an inviting place for all people inquisitive about tradition of Bangladesh, an area wherein people can explore and expand their abilities and values. The cultural complex will create an inspiring region so that it will give the site visitors experience and possibilities for cultural development. The complex must be a merge of landscape and

| Cultural Centre |

urban space, designed as a public exhibitions integrating huge variety of programs, essentially

a platform for that offers the city an urban destination it deserves.

1.2 Project Introduction

Hatirjheel is a lakefront landscape project located in the central of the city. This site used to be

a wasteland, filled with unauthorized temporary settlements. After completion the landscape

project became one of the prime locations in the city, benefitting both transportations problems

and working as a recreational area for the city dwellers. In a congested city like Dhaka

Hatirjheel works as a breathing space. The place has connected some major areas like Tejgaon,

Maghbazar, Niketon, Begunbari, Badda, Rampura, and Modhubagh. Since acting as really

successful project, the government has proposed for a cultural complex.

1.3 Project Brief

Project title: Hatirjheel Cultural Complex, Dhaka

Site: Modhubagh, Hatirjheel, Dhaka, Bangladesh

Site Area: 20 acres

Client: Ministry of Cultural Affairs, Bangladesh Government

| Sumaiya Ara | 9

## 1.4 Project Rationale

Dhaka is a dense city with only few places where people can go and breathe fresh air. When we think about culturally rich places only few places like Rabindhra Sharabar, TSC chattar, Shilpakala academy come in our mind. As for the city growing towards north, the north and eastern side of the city barely get public places.

Hatirjheel has the potential to expand further as a more culturally rich establishment connecting people all around the city and a cultural complex can take that opportunity to and eminent grade. It can become a platform for the city acting as an iconic foundation that can represent both our country and culture.

Hatirjheel has successfully worked as an urban intervention for the city. It has become as new home of public spaces which connects the city. So a cultural complex in this location can become an iconic built for the city that can as well represent the country internationally.

# 1.5 Scope of Work

The design part of this project will be mainly the cultural functions which includes the music and cultural show halls, theatres, movie theatres along with the international conference halls.

## 1.6 Aim of the project

- The main aim of this project is to create a cultural complex that will respond to the city
   and the locals
- Create a complex that will accommodate all the cultural facilities

- It will house art, music, cultural facilities as well as galleries and citizen centers
- Provide public amenities
- Represent our culture worldwide
- Organize cultural festivals and international conferences

# 1.7 Proposed Key Programs

- Music and cultural show halls
  - a. Music Concert Hall
  - b. Recital Hall
- Performance Theaters
- Library, Museum & Gallery

# 2. Chapter 02 Literature Review

- **2.1 Culture Definition**
- 2.2 Cultural Complex
- **2.3** Culture of Bangladesh
  - 2.1.1. Music
  - **2.1.2.** Dance
  - 2.1.3. Art
  - **2.1.4.** Theatre
  - 2.1.5. Concert Hall
- **2.4 Culture in Urban City**
- 2.5 Relation with Surrounding

### 2.1 Culture | Definition

Culture consists of the beliefs, behaviors, objects and other characteristics common to the members of a particular group or society. According to 'Culture and society defined', through culture, people and groups define themselves, conform to society's shared values, and contribute to society. Thus, culture includes many societal aspects: language, customs, values, norms, mores, rules, tools, technologies, products, organizations and institutions. This latter term institution refers to clusters of rules and cultural meanings associated with specific social activities. Common institutions are the family, education, religion, work and healthcare.

Cultures should be concept of as incorporated wholes – that is, cultures are coherent and logical systems, the elements of which to a degree are interrelated. Whilst we say that a subculture is integrated we're pronouncing that its additives are more than a random collection of customs. Its miles, rather, an organized system in which precise components can be related to different components. If we are able to view cultures as integrated structures, we will start to see how unique culture developments in shape into the incorporated entire, and consequently how they generally tend to make sense inside that context. If, in reality, cultures are coherent structures, with their constituent elements interrelated with each other, it follows logically that an alternate in one part of the device is in all likelihood to provide concomitant modifications in other parts of the system.

#### 2.2 <u>Cultural Complex</u>

A cultural center or cultural complex is a group of functions or complex that promotes culture and arts. Which conducted by the neighborhood organizations, private or government organizations? Though it may seem static, culture is also very dynamic, evolving through histories. Because of evolution of time and context people have developed their form of culture and traditions.

## 2.3 Culture | Of Bangladesh

Bangladesh is blessed with rich cultural norms deeply rooted in. The three main religious practices (Hinduism, Buddhism and Islam) have had an outstanding influence on its lifestyle and history. Architecture, literature, dance, music, painting, sculpting and apparel are very well contemplated in her root. The people have a rich legacy of fictions being 1000 years old antique literature. The Bengali literature advanced significantly in the course of the medieval period with the upward push of famous poets.

The conventional music of Bangladesh may be very tons similar to that of the Indian subcontinent. The musician Bangladesh may be divided into three most important classes: classical, modern and folk. Each vocal and instrumental classical music is loved in Bangladesh. Modern, pop songs and bands are also taking part in greater significant repute, however are especially popular within the regions of Dhaka city.

Tribal dances are very famous among the Bengalis. Their dances require no regulations as such, just a small quantity of courage and a large amount of rhythm. Popular songs like Shari and Jari are presented with the accompanying dance of each male and woman performers. Drama and theatre is an antique culture that is very famous in Bangladesh.

#### **2.1.1** Music

Music has been in exercise in Bengal from very historic instances. Two very fundamental genres of music had been marga or Classical music, based on

Ragas and desi or local song having carefully connected with indigenous trends.

In classical music the way of rendition is critical, while in desi songs each phrases and tunes are equally emphasized.

### **2.1.2** Dance

*Dance* is a psycho-physiological expression of mood and emotion. Dance and language are internal emotion linking commonplace thread. Temporally, dance in Bangladesh may be explained in four stages, which includes:

- 1. dance in historical Bengal;
- 2. dance in medieval Bengal;
- 3. dance all through colonial technology;
- 4. dance in put up colonial era.

In historic times, dramas had been typically displayed inside the form of dance. It can consequently be assumed that dance turned into a vital part within the dramas of Buddha or Tumburu. The folk traditions in appearing, meals, dances and dramas of that generation has been depicted on the clay-plates found in Paharpur and Mainamati.

Rabindranath Tagore (1861-1941) brought the dances of the Bangalis to the worldwide network. Some of the classical dances practiced in Bangladesh, Bharat-Natyam, Monipuri, Kathak, Orissi and Kathakoli are famous.

### 2.1.3 <u>Art</u>

Historically, the objects of arts and crafts were produced with specific intents such as:

- (a) utilitarian items
- (b) ritual and ceremonial items
- (c) personal decoration

- (d) community requirements in structural architecture (nomadic, tribal, pastoral, agricultural)
- (e) implements of settled rural communities
- (f) trade and commercial items (shells as currency, metal coins etc.)

And (g) beautified objects for visual pleasure, ceremony and enjoyment.

*Tribal crafts* the tribal societies produced varieties of arts and crafts of non-secular and utilitarian values. Each tribe produced particular objects of arts and crafts. Sacred textures and their strategies of manufacturing set up, their price as non-secular artefacts. Handspun cotton, herbal dyes, historical looms and mystery rituals had been the hallmarks of fabrics woven throughout the tribal groups of Bangladesh.

Scroll painting writing and diagrammatic artwork had been a part of the Buddhist-tantric culture of 5000 years, the usage of an expansion of base substances including palm, leaf, bamboo strips, papyrus (processed and seasoned leaves or bark) and fabric. The excellence of Bengali folk lifestyle bore fruit among the 13<sup>th</sup> and 15<sup>th</sup> centuries.

Muslin and jamdani the gem of loom weaving in Bengal, is the finest of high-quality cottons referred as 'muslin'. These exceptional diaphanous gossamer-like fabrics had been woven at the least 2500 years in the past alongside the riverbanks of Sitalakhya, in which the damp air stored the high-quality threads from breaking. Weaving turned into followed by means of ritual and accompanied seasonal patterns. The prestigious Dhaka muslins have been later

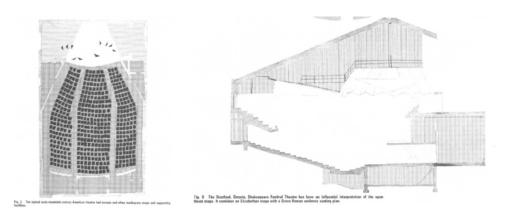
in time patronized with the aid of the Muslim rulers brought the figured designs that received the name of jamdani (wine-providers) a metaphorical connotation of the transparency and charm linked to sparkling wine. The popularity of jamdani as a legacy of an ancient art-craft of the loom holds its position inside the annals of traditional weaving traditions and a dwelling art-craft of these present time.

Pottery appeared in Bengal, in all chance in or around 1500bc. In an alluvial subcontinent like Bengal, exceptional clay is a unique geological characteristic. The ancient population of the vicinity exploited this herbal useful resource for making potteries. Advent of metal and plastic items in recent years has been pushing earthen pottery to nearly extinction. Potters at the moment are making efforts to hold the art alive through introducing novel ideas and more modern techniques.

### 2.1.4 Theatre

Theatre or theater is a collaborative form of fine artwork that makes use of live performers, generally actors or actresses, to provide the experience of an actual or imagined occasion before a live target audience in a particular region, often a stage. The performer might also communicate this experience to the target audience via combos of gesture, speech, music, tune and dance, mediums of artwork, along with painted surroundings and stagecraft which includes lighting fixtures used to beautify the physicality, presence and immediacy of the experience. The particular region of the overall performance is likewise named through the word "theatre" as derived from the Greek "théatron" – an area for viewing, too see or to observe.

By definition, a proscenium theater is a form wherein the audience faces the acting area on one side and observes the performing area via an architectural opening that often has an elaborated architectural frame, even though that isn't always a vital element.



The first Bangla theatre was established with the aid of Lebedeff, a Russian aristocrat. He sat up the "Bengali Theatre" in 1795 at Domtollah (at present Ezra street, Kolkata) and staged drama in Bangla translation known as Kalpank Sangbadal on November that year. After that many theatres were established but only English performances were carried out.

The Bengalis built a number of theatres in Calcutta in the nineteenth century. A few major theatres situated in both East and West Bengal:

Bengali Theatre (1795-961), Banga Natyalay, Hindu Theatre (1831-32), Jorasanko Natyashala1 (1854), Bidyotsahini Mancha (1857), Belgachhiya Theatre (1858-1861), Pathuriaghata (1859-72), Jorasanko Natyashala2 (1865-67), Banga Natyalay, Bowbazar (1868-1875), Bengal Theatre (1873-1901), Emerald Theatre (1887-1896), National Theatre (1872-73), Star Theatre1 (1883-87), Dhaka Pantomime (1989), Star Theatre2 (1888-1991)

### 2.4 Culture | Urban Cities:

Present days new urban practices have grown out of the modern day culture, perpetuating the age old entice of existence that the city holds out. On the same time the comparison between the magnificence of high-rise buildings and crumbling housing initiatives, raises imaginative and tragedy of the cease of city as a significant social order. In a global doubting the cost of urban life and facing the threat of ecological blight, an account of the advent of present day city culture by motley groups of people in 20th century helps the speculation that people will discover their expectations within the city context of a mechanical era that shattered the modifications to urban issues which the people needed. Riding on to the direction of time present cities have iced up into congestion. Only the hideous combination of smells and various levels of noises endured to assault nose and ears. With renewed intensity pedestrians hustled alongside to overhaul roads, clanking of automobiles increase motion and pace into a brand new measurement.

Dhaka city has emerged as a quick growing megacity these days. It started out with a conceivable population of 2.2 million in 1975 which reached the threshold of 10 million in 2000. As this rapid boom of Dhaka is not commensurate with its commercial improvement, the city is characterized through poverty and social vulnerability, scarcity of housing, infrastructure and social services, poor quality of physical and social environment and inefficient urban management. Dhaka city is mentioned for an extreme lack of outdoor sports activities and leisure facilities. Although no comparative facts are available, it's far positive that a number of the globe's metropolises, Dhaka have one of the lowest consistent with capita numbers of playgrounds, stadiums, parks, woods, swimming pools, public libraries, theatres, art galleries, exhibition halls, museums and so forth.

The city surroundings of Dhaka city are bodily and socially missing because an adequate percentage of its land has not been placed aside as 'open space'. Some of the open space including parks is being constantly taken via 'land grabbers' with the assist of those in strength. Additionally, the presence of delinquent elements in these places – particularly in parks and cinema halls – poses a critical risk to their proper use by city residents (Siddiqui et al. 2000). Dhaka city is one of the most 'rural' megacities in the world in terms of both physical appearance and socio-cultural traits. Religiosity, 'people' music and drama, rural accents and expressions, US meals and dress are a crucial part of Dhaka city's way of life. Similarly, 'civic experience' is typically lacking amongst a big segment of the city's population. In line with Siddiqui et al. (2000) a lack of civic experience is genuinely contemplated via the indiscriminate honking, jay strolling, violation of traffic signals, defecation and eliminating garbage in public locations. Due to a disproportionately large awareness of administrative, business, academic and cultural activities Dhaka city is not the simplest or the everlasting destination of rural migrants however also it draws hundred and thousands of day by day commuters and 'round' migrants from neighboring rural districts which has certainly rendered the social environment of metropolitan Dhaka with a weird blend of rural-city trends (Islam 1996a).

## 2.5 Relation with surrounding

A complex should act as a pulling factor in an area. It has strong significance in developing child psychology and guidance. It acts as the civic space physically connecting the city as well as the people. As an example name of Bilbao by Frank Gehry or war center by Daniel Libeskind can be mentioned here. It is an aspiration symbol of its host city's changing identity; it should be an integral and approachable part of its neighborhoods. A complex act as the marker into the urban fabric by means of pedestrian paths. The Tate Modern by Herzog & de Mouron is

described as "not at all precious" it "gives a sense that the building would be one that young and old people want to use. And those groups from the neighborhood would not be intimidated by". It creates possibilities to produce integrated spaces. It also acts as the reflection of culture, heritage, history and art. In Stuttgart, the Neue Staatsgalereie by James Stirling Michael Wilford & Associates has its entrance approach as a progression across terraces and sloping ramps, with the incorporation of a public right way.

# 3. Chapter 03 | Site Appraisal

- 3.1. About Hatirjheel
- 3.2. Site Location
- 3.3. Site analysis
  - **3.3.1.1.** Land Use Map
  - 3.3.1.2. Road Network Map
  - 3.3.1.3. Infrastructure Impact Map
- 3.4. Environmental Analysis
  - **3.4.1.1. Vegetation**
  - **3.4.1.2. Noise and Air**
  - **3.4.1.3. Drainage**
  - 3.4.1.4. Physical and Chemical Condition
- **3.5. Views**
- 3.6. SWOT Analysis

### 3.1 Hatirjheel



Source: www.flickr.com/photos/32750484@N06/9188679341, Safia Azim

Hatirjheel is a prominent depression within Dhaka metropolitan area, the lake is about 302 acres. Hatirjheel Lake being the city's largest reservoir. It is located within the middle of Dhaka and essential detail inside the city's drainage. It was linked to a string of different lakes; the Banani, Dhanmondi and Gulshan Lakes and to the Begunbari Khal at the Rampura Bridge. The Begunbari Khal was once a very vital waterway in the course of the Mughal period (1608-1764) and functioned as the entry to the town (Ferdous and Nilufar, 2007, p. 55). Though in 1991, the canal became a container culvert with an arterial street on top of it, named Pantha path, following the demand for better accessibility via the very dense urban tissue and the unattractive circumstance of the water. At Rampura Bridge, that's part of a brief embankment, there may be a pumping station with a sluice. This prevents lower backflow from the Balu River inside the east in case it bursts its banks. The main structuring factors of cities and landscapes are incredibly clean to perceive whereas known the most important constructed

extent of all territories, the urban fabric of the frequently uncelebrated, predominantly residential, infill is greater complicated. But, it can be argued that the nameless fabric is at the least as significant in defining the character and culture of any given territory as are the larger systems. To in addition recognize the territories of Dhaka, a 1969 approach of fabric analysis through Caminos, Turner and Steffian of Massachusetts Institute of technology (Caminos et al. 1969) become revisited. The systematic illustration of pattern tissues discovered the correlation between numerous settlements, their geographic and cultural contexts. The making of the squares often actually covered the mapping of factors unrecognized, no longer officially mapped or documented. The compilation of an urban tissue atlas of types allows comparative evaluation and stays a beneficial testament to the range and richness of settlement morphology. Admittedly, the risk of such evaluation lies inside the ease to which it could turn out to be distinctly mechanistic. But if properly balanced, it can display the internal workings and offer a materialist to cities and their neighborhoods (Shannon, 2008, p. 113).

### 3.2 Site location:

Hatirjheel Lake is located at 23°48' N & 90°25' E of Dhaka city & length of the lake is 4.1 km which covers an area of 0.79 km2 (collected from Google earth). It has an average depth of 2.6 m. The widest part of the lake is approximately 0.46 km. The peripheral sides are, northern at Gulshan - Banani, southern at Banglamotor, eastern at Rampura & western at Tejgaon industrial area.

Designated site for the cultural complex is located at the middle of this lake project. Beside Mohanagar road linked to Hatirjheel.



source: author

# 3.3 Site Analysis:

The location is placed in a prime location of Dhaka. It is nicely linked with the street network system. The area turned into properly designed with walkways via ducts bridges and delightfully landscaped with bushes and shrubs. Within the preliminary days after its inauguration many people came to visit the area purposefully from unique elements of the city. However, in current days the area can't appeal to as many people as earlier. The underlying reality is particularly associated with the accessibility. It is a non-public automobile orientated improvement which majority of the people in Dhaka can't manage to pay for. On the other

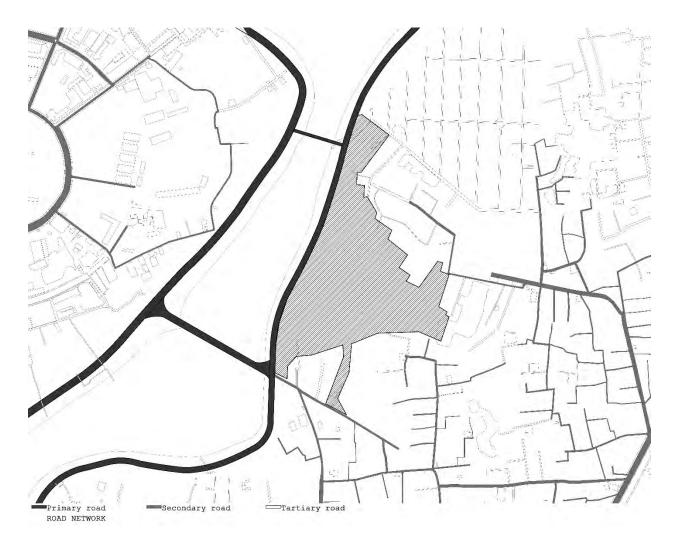
hand, the transport routes of Hatirjheel are prohibited to be used through Non-Motorized motors, in which in Dhaka city; many people rely upon NMVs as their primary transportation option. Once more, the place has emerged as less hospitable for on foot as there is very little attention for traffic control driving in wrong route, reckless car driving, bike stunts and consequently the elevated quantity of street accidents nowadays are severely affecting a pedestrian pleasant on foot environment.

# **3.3.1.1 <u>Land Use Map</u>**



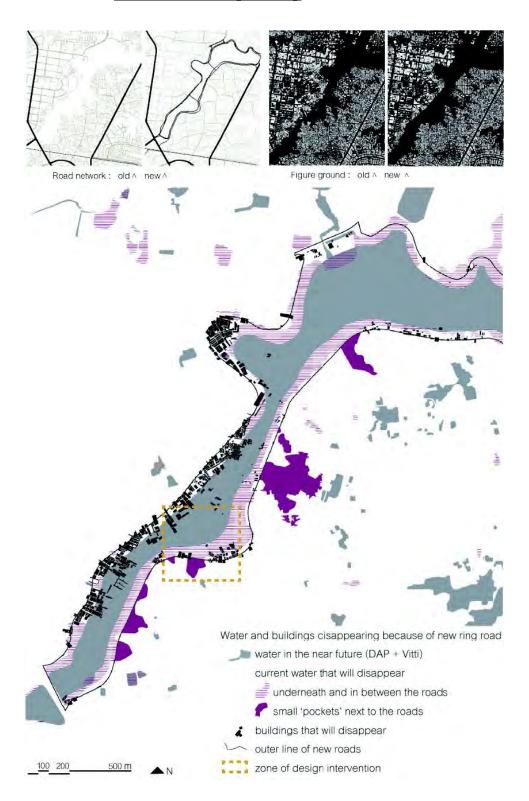
Source: Author

# 3.3.1.2 Road Network Map



Source: Author.

# 3.3.1.3 <u>Infrastructure Impact Map</u>



<u>Figure:</u> Hatirjheel Lake: Infrastructure Impact. T

#### Source:

 $https://www.researchgate.net/publication/265941623\_Readdressing\_Dhaka's\_Public\_Water\_Bodies\_A\_Design\_Research\_Readdressing\_Dhaka's\_Public\_Water\_Bodies\_A\_Design\_Research$ 

## 3.4 Environmental Analysis:

## 3.4.1.1 Climate:



Source: National Oceanic and Atmospheric Administration (2018)

## **3.4.1.2** <u>Vegetation:</u>

Hatirjheel has one of the most vegetated surfaces among the few others in Dhaka.

There are trees planted in rows along the roads and also on the dividers islands.

These trees provide optimal shades to the pedestrians. The overhead road ramp slops are also used for vegetation.

### 3.4.1.3 Noise and Air

Because land development and urbanizations all around Hatirjheel the traffic volume is high which cause noise pollution too.

### 3.4.1.4 <u>Hydrological situation</u>

Mentioned in the study "Evaluation of microbial quality of the surface water of Hatirjheel in Dhaka City", it is said that microbial studies show that Hatirjheel has diversely dissimilar microbial condition. The analysis was performed to trace organisms and pathogens such as E. coli, Salmonella spp., Shigella spp., Klebsiella spp. and Vibrio spp. Presence of pathogenic bacteria in water suggests that water isn't safe for household functions and can prone for causation and spread of various waterborne illnesses. It is needed to take vital steps to prevent the pollutants of water and boom the satisfactory of water along with setup effluent treatment plants (ETP) at the sewage and waste water discharging points. Normal tracking is required to get the favored water quality, persevering with the sound water quality and to repair and maintain the physical, chemical and organic integrity of water bodies to gain the desired water quality, which makes sure protection and propagation of fish, flora and fauna, plant life and also activity in and on water.

#### **3.4.1.5 Drainage**

Low-lying regions around the Hatirjheel detention basin are susceptible to local inundation because of excessive water ranges inside the basin that stops gravity

drainage from those regions. A household-survey based on totally flood harm evaluation shows that the potential damage in a severe situation is higher for the high-income institution. The principle characteristic of the Hatirjheel detention-based drainage system is to keep storm runoff for a noticeably short duration, and permit gradual discharge to the receiving water frame downstream. The downstream regulator gates are kept closed throughout the duration the outside river water level is fairly high to prevent overflow of the detention basin. Although this period, accumulation of the storm runoff from the internal catchments can also have to be pumped out to keep away from overflow of the basin consequently, assuming the detention vicinity to be a wide square basin, the pumping requirement at a given time in the course of this closed-gate duration will rely upon the inner rainfall runoff and the available detention storage at that point.

## 3.4.1.6 Physical and Chemical Condition

<b>Physical Chemical Parameters</b>	Range	Average Result
tested		
Temperature	28.2- 31.3	29.5 °C
pH	7.45- 8.14	7.795
Color (Pt- Co)	102-454	278
TSS (mg/L)	52-119	85.5
Ammonia(mg/L)	8.5-11.4	9.95
COD (mg/L) Filtered	10 to 139	75
Electrical	615 to 815	715
Conductivity(µs/cm)		

Source: Ecosystem Services of Hatirjheel Lake of Dhaka, Bangladesh  $www.duet.ac.bd/DUET\_Old\_Website/ce/template/IICSD2015/.../EE-018.pdf$ 

The outcomes indicated that the lake water is fairly electrically conductive regardless of getting no supply of salinity and seemingly we may want to expect that the lake water had a slight overall dissolved solids concentration. This could be due to a few illegal discharge outlets of industrial effluents or because of the stormwater discharge from the encircling commercial catchment after the primary pre-monsoon rainfalls.

## 3.5 <u>Views:</u>





# Weekend gatherings: (source: BDnews24.com)



Regular sunset views: (source: Flickr, Rajiv Ashrafi)



Weekly water fountain show for general public: (source: Green watch Dhaka)



# Weekly occasional light shows, people gatherings:

(source: www.flickr.com/photos/fulkuchi )



# **3.6 SWOT:**

## Strength:

- Urban recreation space
- Multiple accessibility, through roads and lake. Connected throughout the city
- Publicly robust.
- Public transportation system.
- Because of this large landscape project, a big portion at the center of the city is properly vegetated.

#### Weakness:

- Boundary walls don't connect the adjacent areas.
- Uncontrolled accessibilities as people can come through any source.
- Connection with Maghbazar and Rampura sewerage transforms the lake into a stink odor atmosphere. Which makes it difficult to pass through because of the smell.

• Less numbers of shaded spaces for the foot walkers.

# Opportunity:

- Can be enhanced further greatly as a public zone.
- Because of successful road network within the city any new establishment inside the project has good possibilities of becoming successful.
- Possibilities of becoming an urban destination.

### Threat:

- Water pollution if the connected water routes are not properly monitored and treated.
- Hotspot of hijacking because of being a large site and the lack of properly positioned police boxes and checkpoints.

# 4. Chapter 04: Programs and Development

- 4.1. Program Brief
- 4.2. Program Details

### 4.1 Program Brief:

#### i. **GROUP -1:** MUSIC & CULTURAL SHOW HALLS

- Grand Music Hall for 1200 people, with acoustic and backstage facilities in addition with academic studio
- 2) Recital Hall for 700 people, with acoustic and backstage facilities in addition with academic studio

#### ii. **GROUP -2:** PERFORMANCE THEATER

- Main Theater Hall for 1000 people, with backstage and rehearsal facilities along with studio theatres
- 2) Traditional Theater Hall, an outdoor open-air facility.
- 3) Experimental Theater for in house experiments also used as black box
- 4) Puppet Theater for 500 capacity
- iii. GROUP 5: LIBRARY, MUSEUM & GALLERIES
- iv. **GROUP 6:** OTHER ANCILLARY FACILITIES FOR THE COMPLEX

# 4.2 **Program Details:**

## GROUP 01 MUSIC AND CULTURAL SHOW HALLS

FACILITY	CAPACITY	AREA	QTY.	TOTAL	
Grand Music Hall	1200			1	
01, seatings		(4.8*1200)x 20%			
02. performance area (max)		4000			
03. Backstage				16000	
Recital Hall	7	00		T)	
01, seatings	(4.8*700)x 20%			4000	
02. performance area (max)	1200				
03, Backstage				10000	
Puppet Hall	6	00		0	
01. seatings		(4.8*700)x 20%			
02, performance area (max)		1800		1800	
03. Backstage				10000	
				57800	

### GROUP 02 PERFORMANCE THEATER

FACILITY	CAPACITY	AREA	QTY.	T	OTAL
Main theater hall	1000			1	
01. seatings		(4.8*1000	)x 20%		6000
02. performance area+backstage(max)		20	00		20000
Traditional theater (outdoor)	1000			1	
01. seatings		(4.8*1000	)		4800
02. performance area+backstage(max)		20	00		2000
Experimental theater	600	100	00	1	10000
Studio theater	500	1000*8		1	8000
					50800

## SUPPORT FOR GROUP 01 & 02

FACILITY CAP.	ACITY	AREA	QTY.	TOTAL
Special opera festive lounge withwith dine in fa	cilíties	1000±3000		4000
Rehearsal and changing rooms		3000	) 2	0 60000
Multipurpose hall		20000	)	20000
Research center:				
Library (music, dance, folk music, recording &	digital archieve			10000
Laboratory for sound and IT				1800
Department office				600
Sessional class room				600
Souvenir mini Mall		2500	)	5 12500
CAFÉ & restaurant				2000
Canteen for artists				2000
Canteen for staffs				2000
Press conference room		600	)	3 1800
Box office				600
Warehouse				1000
Office				600
				119500

GROUP 03 DISPLAY, MUSEUM & GALLERY

FACILITY	CAPACITY	AREA	QTY.	TOTAL
Museum of musical instruments				
Galleries		12000		12000
01. Folk art				
02. Modern art				
03. Contemporary art				
04. Photography art				
Library for art & literature				5000
Temporary art gallery				
01. type		1000	0	2 20000
02. type		1500	0	1 15000
Digital lab & Photo studio		100	0	3 3000
Canteen for staff				1000
Café for Visitors				500
Workshop				1000
Office				1000
Store				800
				59300

approaximate grand total (without parking)

2,87,400 sq ft

# 5. Chapter 05: Case Study

# **5.1 International**

| Cultural Centre |

**5.1** International:

**Harpa Concert Hall and Conference Centre:** 

Architects: Henning Larsen Architects

• Location: Reykjavik, Iceland

Category: Exhibition Center

Client: Austurnhofn TR – East Harbour Project Ltd.

Area: 28000.0 m2

Project Year: 2011

Photographs: Courtesy of Henning Larsen Architects

Manufacturers: Zumtobel

Harpa concert hall and conference Centre in Reykjavik gathers notion from the northern lights and the dramatic Icelandic scenery, located at the border among land and sea, the Centre stands

proud as a massive, radiant sculpture reflecting both sky and harbor area in addition to the

colorful existence of the town.

Concept: One of the primary concepts had been to "dematerialize" the building as a static

entity and permit it reply to the encircling hues - the town lighting, ocean and glow of the sky.

**Design:** The staggering facades were designed in near collaboration among Henning Larsen

Architects, the Danish-Icelandic artist Olafur Eliasson and the engineering groups Rambøll and

Art Engineering GmbH from Germany. Harpa concert and conference Centre Reykjavík

through Henning Larsen Architects. The live performance hall and conference Centre of 28,000

m2 is located in a solitary spot with a clean view of the huge sea and the mountains surrounding

Reykjavik. The Centre functions an arrival and lobby region within the the front of the building,

4 halls inside the middle and a backstage place with offices, administration, practice session

hall and converting room inside the back of the building. The 3 big halls are positioned subsequent to every other with public get entry to at the south side and backstage access from the north. The fourth floor is a multifunctional hall with room for greater intimate shows and banquets. visible from the foyer, the halls shape a mountain-like massif that much like basalt rock on the coast forms a stark comparison to the expressive and open facade. at the center of the rock, the most important hall of the Centre, the primary live performance hall, exhibits its interior as a crimson-warm center of force. The project is designed in collaboration with the local architectural corporation, Batteríið Architects. because the name shows, the general objective of the project is to amplify and revitalize Reykjavik's eastern harbor with a brand new downtown plaza, a shopping avenue, a resort, residential homes, academic establishments and mixed industry. manufactured from glass and metallic in a twelve-sided area-filling geometric modular device known as the 'quasibrick', the building seems a kaleidoscopic play of colors, pondered inside the extra than a thousand quasibricks composing the southern facade. The final facades and the roof are manufactured from sectional representations of this geometric system, ensuing in -dimensional flat facades of five and six sided structural frames. That allows you to increase those thoughts the group worked with three-dimensional computer models, finite detail modelling, numerous virtual visualization strategies in addition to moquette, models and mock-ups. light and transparency are key factors inside the building. The crystalline shape, created by means of the geometric figures of the facade, captures and displays the light promoting the talk between the building, town and surrounding panorama.



Figure: Sea view



Figure: City view



Figure: Sea View at dawn

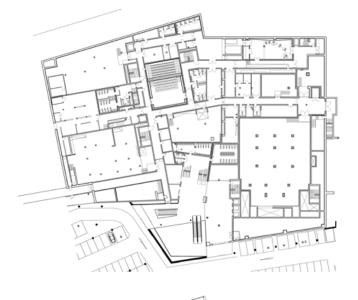


Figure: Ground floor plan

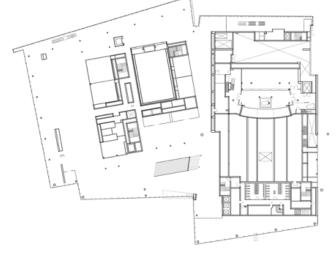


Figure: Ground mezzanine plan

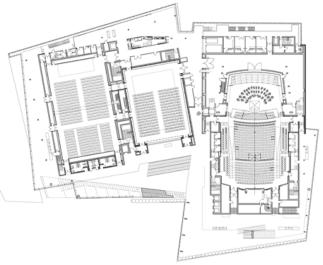


Figure: First floor plan

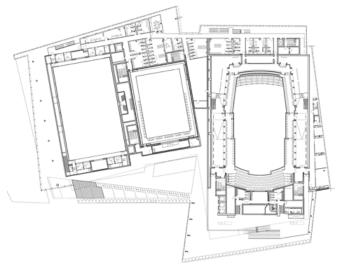


Figure: Second floor plan

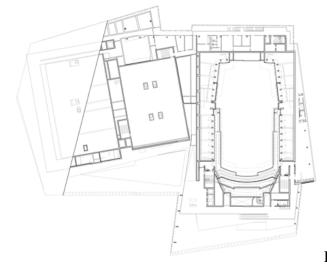


Figure: Third floor plan

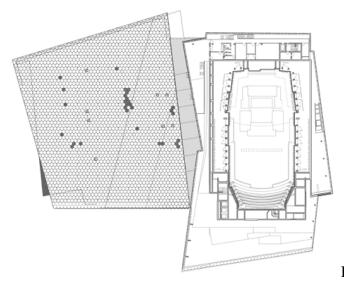
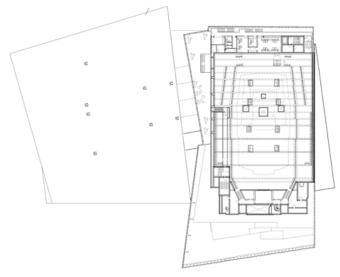
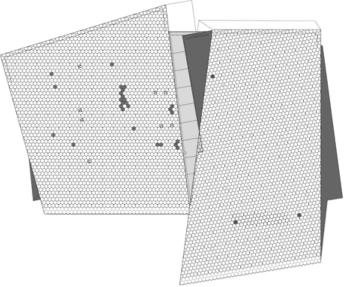


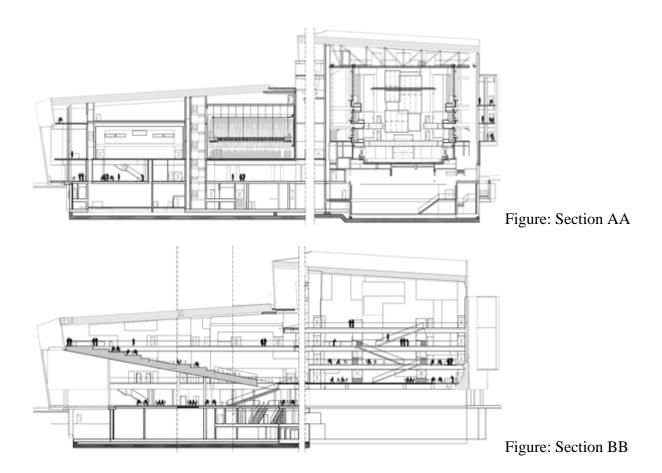
Figure: Fourth floor plan



Fifth floor plan



Roof plan



 $(All\ figures\ source:\ https://www.dezeen.com/2011/08/25/harpa-concert-and-conference-centre-reykjavik-by-henning-larsen-lars$ architects/)

| Cultural Centre |

**Kaohsiung Maritime Cultural & Pop Music Center:** 

• Consultant Team: JJ Pan and Partners, associate architect

• Location: Kaohsiung, Taiwan

• Status: Designed 2011

• Client: Kaohsiung City Government

**Type**: Civic, Cultural

**Size**: 821,300 sf

**Sustainability**: Targeted Gold (Taiwan Green Building Certification)

With its port metropolis at a crucial post-commercial crossroads, the authorities of Kaohsiung hosted

a worldwide competition to rejuvenate a key former commercial site with live music venues and a

maritime museum. Studio Gang's layout includes the town's infrastructure and urban waterfront,

weaving collectively architecture and landscape to infuse a colorful spirit all through the building and

to the harbor beyond.

Ideas: The performance venues, uniquely formed by means of the acoustical situations of the site,

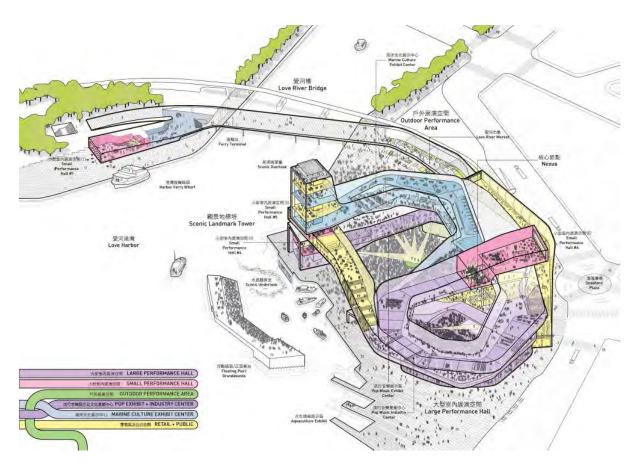
direct noise out to the large harbor, faraway from nearby houses. collectively, the structure and

panorama prioritize access to the harbor for people—instead of industry. Reshaped and reclaimed,

the proposed waterscape has a couple of environmental blessings, turning into an estuarine

hyperlink alongside Kaohsiung's growing community of flood storage and water-quality

development parks.



 $Figure: A xonometric\ diagram\ (Source: \ http://studiogang.com/project/kaohsiung-maritime-cultural-pop-music-pop$ center)



Figure: Waterscape view. (Source: http://studiogang.com/project/kaohsiung-maritime-cultural-pop-music-center )

 $Figures: Concert\ ambience\ (Source: \ http://studiogang.com/project/kaohsiung-maritime-cultural-pop-music-center\ )$ 

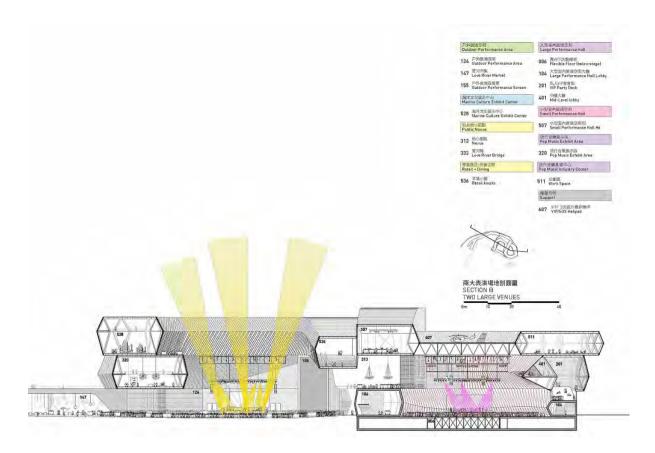




 $Figure: City\ approach\ (Source: \ http://studiogang.com/project/kaohsiung-maritime-cultural-pop-music-center\ )$ 







 $Figure: Section \ (Source: http://studiogang.com/project/kaohsiung-maritime-cultural-pop-music-center\ )$ 

# 6. Chapter 06: Design Development:

- 6.1 Introduction
- 6.2 Site Context
- 6.3 Concept
- 6.4 Plans
- 6.5 Sections and Elevations
- 6.6 Rendered Images

## **6.1 Introduction:**

Bengali way of life is the outcome of the buildup and synthesis of many unique ethnic and spiritual groups and subgroups and varied classes interacting and influencing every other for hundreds of years. It's a 800 to one thousand years antique exercise of adaptability of diverse foundation, improvement, value system and organization.

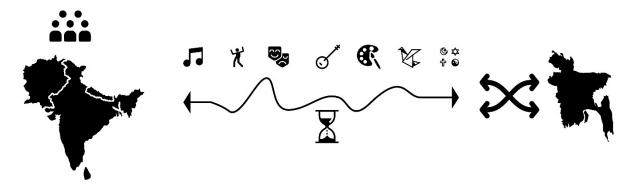


Figure: Timeline diagram. (source: author.)



Figure: Cultural Practices. (source: Banglapedia.)

## **6.2 Site context:**

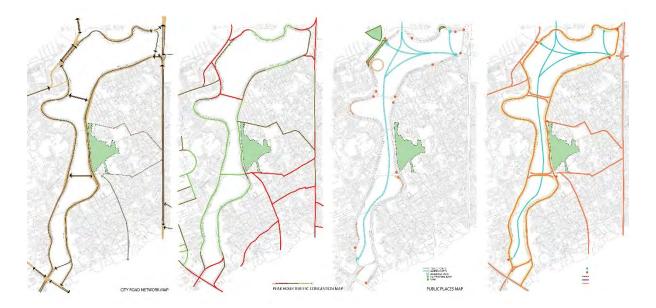


Figure: Site maps. (source: author.)

Site's road network with the city shows it to be a center of the city connect the east, west, north, south parts all together. It has good accessibility with both private and emphised on public transports too. Since the site is situated in an already successful urban landscape project it has the most opportunity for an urban platform than the rest of the city.

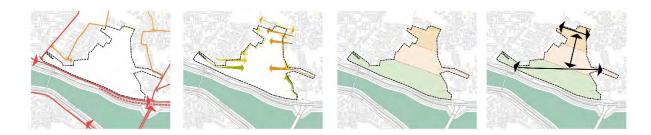


Figure: site maps connecting community. (source: author.)

Furthermore, the site also has an opportunity to create and window for the community to the landscape project.

## 6.3 Concept:

The concept for this project was to create and urban plaza that would connect the center to both the city and the community.

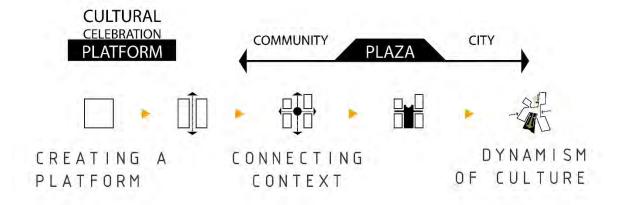


Figure: Conceptual diagram. (source: author.)

# Master Plan:



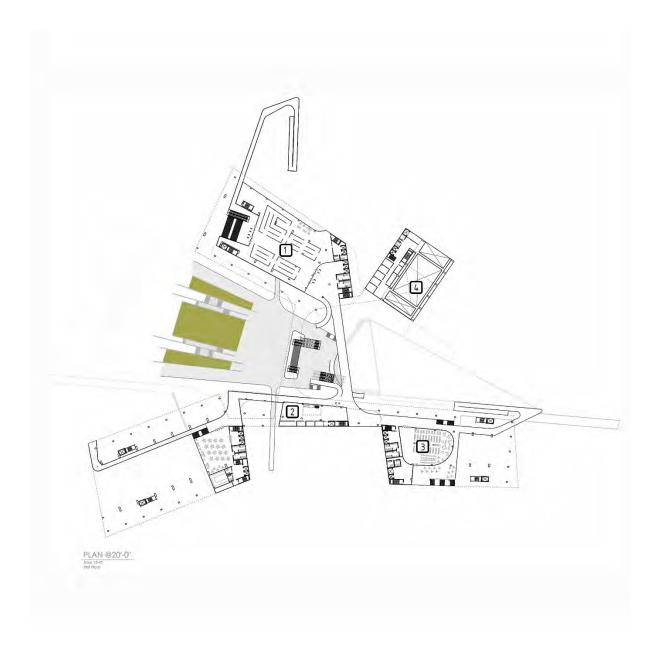


Figure: First floor plan. (source: author.)

## Functions:

- 1) Exhibition Gallery
- 2) Museum
- 3) Library
- 4) Experimental hall

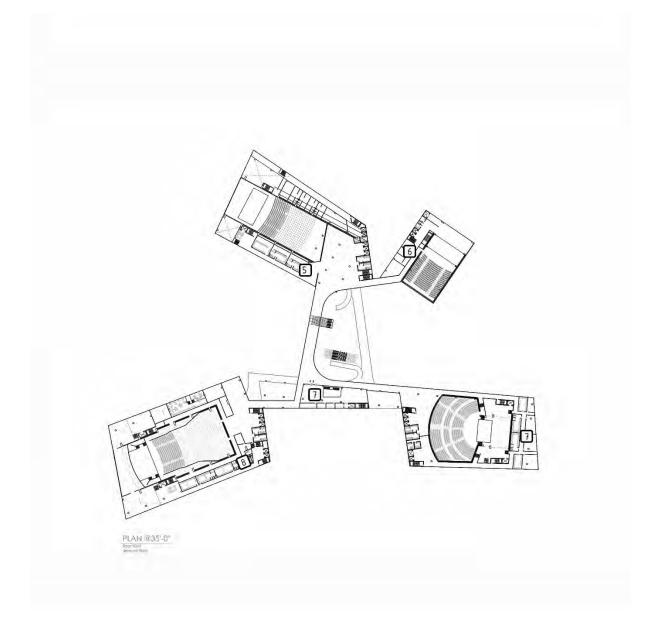


Figure: Second floor plan. (source: author.)

## Functions:

- 5) Backstage facilities
- 6) Backstage facilities
- 7) Backstage facilities
- 8) Museum

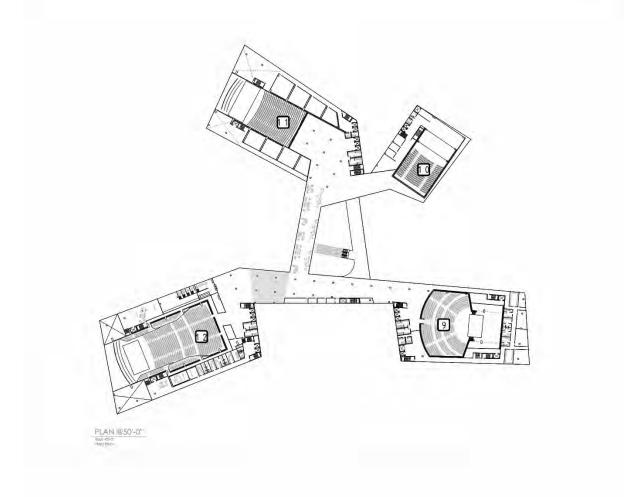


Figure: Second floor plan. (source: author.)

## Functions:

- 9) Performance theatre
- 10) Puppet theatre
- 11) Rcital hall
- 12) Music concert hall



Figure: Roof plan. (source: author.)



Figure: Section AA. (source: author.)



Figure: Section BB. (source: author.)



Figure: South Elevation. (source: author.)



Figure: West Elevation. (source: author.)

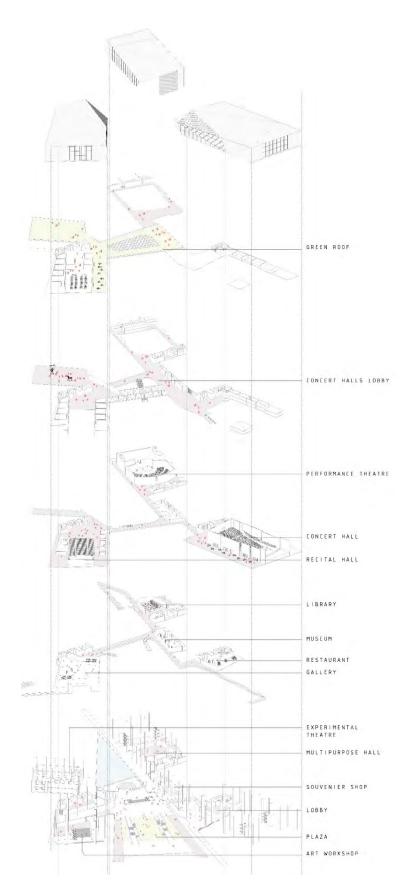


Figure: Exploded programs. (source: author.)

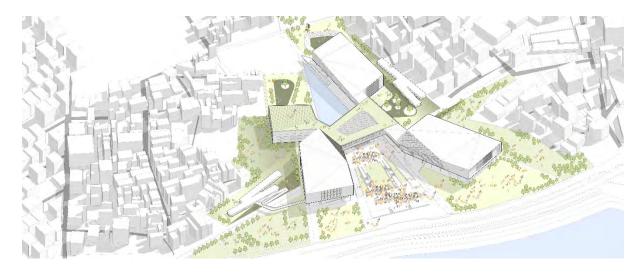


Figure: Arial view. (source: author.)



Figure: Front view. (source: author.)



Figure: East view. (source: author.)

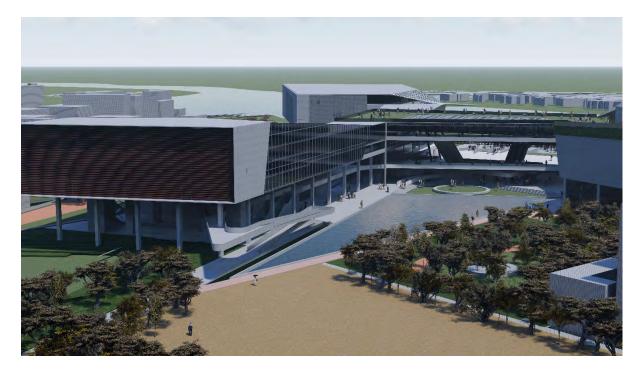


Figure: Back view. (source: author.)



Figure: Plaza. (source: author.)



Figure: Plaza. (source: author.)

### **References:**

https://www.cliffsnotes.com/study-guides/sociology/culture-and-societies/culture-and-society-defined

https://warwick.ac.uk/fac/soc/al/globalpad/openhouse/interculturalskills/global\_pad\_-\_what\_is\_culture.pdf

http://en.banglapedia.org/index.php?title=Pottery

http://en.banglapedia.org/index.php?title=Classical Music

http://en.banglapedia.org/index.php?title=Music

http://en.banglapedia.org/index.php?title=Dance\_Drama

http://en.banglapedia.org/index.php?title=Dance

http://en.banglapedia.org/index.php?title=Theatre\_Stage

https://www.researchgate.net/publication/266377976\_CULTURE\_AND\_SUSTAINABLE\_DEVELOPMENT

https://www.unc.edu/~fbaum/teaching/articles/J-Communication-2007-4.pdf

http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.401.3386&rep=rep1&type=pdf

https://www.researchgate.net/publication/265941623\_Readdressing\_Dhaka's\_Public\_Water\_Bodies\_A\_Design Research Readdressing Dhaka's Public Water Bodies A Design Research

lib.buet.ac.bd:8080/xmlui/bitstream/handle/123456789/.../Full%20Thesis.pdf