

# **Platform for Rock**

**Purbachal Model Town, Dhaka, Bangladesh**

By

MD. Sibat Ahnaf

ID: 07208012

**Bachelor of Architecture**

Submitted in partial fulfilments of the requirements

For the degree of Bachelor of Architecture

Department of Architecture

**BRAC University**

Summer 2013

## Acknowledgement

Thesis is not just the effort of one individual but rather the collective effort of many and I would like to take this opportunity to express my heartfelt appreciation to the people whose contributions have been instrumental to the successful completion of this project.

To begin with, my sincerest gratefulness to the Almighty Allah for everything that I have accomplished till now. In addition, I offer my deepest gratitude to my instructors, A. F. Mahmudun Nobi, Imon Chowdhoree, Nandini Awal and Shakil A. Shimul for supporting me through their guidance and persistent help throughout the duration of this project. Their motivation and constructive criticism had a lot of influence in my overall thought process all through the design and development phase of the project. They have always challenged me intellectually to go beyond my boundaries while at the same time giving me the space needed to work in my own style.

Thesis is the most crucial stage in the life of an architecture student. My project would not have materialized without the encouragement and help of a few seniors and juniors. I take this opportunity to thank Rubaiyat Bhai, Syed Mahmud, Ali Akbar, Sami, Piyal, Bonny, Reza, Walid, Javed, Tithi, Rifat, Joba, Maisha and Fahim for their unrelenting support, optimism and words of inspiration. The project would not have been possible had it not been for you all.

Last but not the least, I would like to thank my parents for their love and unconditional support and for continually being there for me, especially during this arduous phase of my life. What I am today, I owe it to them.

In conclusion, I want to dedicate my project for anyone out there who shares a passion for rock music.

## **Table of Contents:**

### **Chapter 01: Background of The Project**

- 1.1 PROJECT INTRODUCTION
- 1.2 PROJECT BREIF
- 1.3 OBJECTIVES OF THE PROJECT
- 1.4 GIVEN PROGRAM

### **Chapter 02 : Site Appraisal**

- 2.1 SITE AND LOCATION
  - 2.1.1 Purbachal
  - 2.1.2 General land uses of the area
  - 2.1.3 Location Map
- 2.2 Site and Surrounding
  - 2.2.1 Surrounding Land use Maps
- 2.3 Site Analysis
  - 2.3.1 Access
  - 2.3.2 Traffic Flow
  - 2.3.3 Noise
  - 2.3.4 Sun

2.3.5 WINDFLOW

2.3.6 View

2.4 SWOT Analysis

## **Chapter 03: Literature Review**

3.1 What is Music?

3.1.1 Music is science

3.1.2 Music is mathematical

3.1.3 Music is a foreign language

3.1.4 Music is history

3.1.5 Music is physical education

3.1.6 Music is art

3.2 Rock Music

3.2.1 Few Categories of Rock Music

3.3 Music Institute

3.3.1 Museum

3.3.2 Auditorium

3.3.3 Recording Studio

3.3.4 Amphitheatre

3.3.5 Library

3.3.6 Souvenir Shop

## **Chapter 04: Case Studies**

4.1 Taipei Pop Music Center

4.2 Oslo Opera House

## **Chapter 05: Programme Development**

## **Chapter 06: Conceptual Stage and Design Development**

6.1 Idea Generation and Concept Development

6.2 Zoning

6.3 Form Study

## **Chapter 07: Final design**

7.1 Site and Masterplan

7.2 Plans

7.3 Sections

7.4 Elevations

7.5 3D Images

7.6 Model Photographs

## CHAPTER 01

### 1.5 PROJECT INTRODUCTION

Name of the project: Platform for Rock

Location: Purbachal, Dhaka

Client: Bangladesh Musical Band Association, BAMBA

### 1.6 PROJECT BREIF

A place to know and learn about rock music and to encourage people in an active participation in the field of music. Purbachal in a future development project and so is the music these days. An idea to incorporate both of these into a platform for ROCK !!!

### 1.7 OBJECTIVES OF THE PROJECT

The world is melodious; it has various sounds and different languages. There are roughly 6,500 spoken languages in the world today. However, about 2,000 of those languages have fewer than 1,000 speakers. How many languages do we know, or understand? Perhaps a few. But we might have listened to music from different cultures and languages. If I mention our culture to be in particular, we are very much connected with music. Music is found in different parts of our culture. Yes, music has different languages and genres; I have chosen Rock Music to evolve in Bangladesh. I believe Rock does not have the best exposure yet. My design focuses on the development of Rock Music in Bangladesh. Purbachal, 9000 acre land, the future of modern residential area in Bangladesh is the future of Dhaka. My idea was to place my centre at the future of Dhaka. The history of Bangladeshi rock music started in late 1960's when a handful of self-taught musicians got together to create original

music tracks. Their efforts resulted in the birth of the "Bangla Rock Scene". Among the pioneering groups in the late '60s were bands such as Windy Side of Care (Rafique Mazhar Islam Saju and Rafi Omar) (Ex-Iolites), The Lightning, Rambling Stones, Ugly Phases and Insex Dui. They didn't have the privilege of expensive instruments or sound systems, which present-day rockers now take for granted. In 1963, "Zinga Goshti" was the first Orchestra Band in Bangladesh, formed in Chittagong by a young students group of Chittagong College. Azam Khan (Uchharon) a.k.a. "the Legend", a.k.a. "the Imaginative Composer", emerged around early and late 70s. Happy Akhand's "Abar Alo Elo Je Shondha" is a well known song. His premature death was a big blow to all of the musicians who were influenced by Happy's passion for music. His contemporaries include some popular figures such as late Firoze Shahi, Ferdaus Wahid, and Fakir Alamgir. Among the old bands there are many bands that are still active, such as Souls (1970), Feedback (1976), Miles (1978), and Nagar Baul (1980), Warfaze (1984) others. They did not have the exposure they have now, it could well be not everybody did not even know them at their times. My idea is very clear and precise, I want to promote Rock music and also show the world our heritage. My centre does not only showcase rock, it also has a great training centre with highly professional team. Every weekend a surprise celebrity will come sing some songs, spend some time with them. It will have a recreational civic space. The centre will not only encourage people but they will also inspire the audience to learn about Rock. Its unusual shape and unique concept will attract people to come in, and rest music will do itself. The recent availability of proper jamming Pad's in Dhaka are not helping the youth to practice enough. We are offering Jamming Pad's at low rates for upcoming bands, and not a few but several bands will rock simultaneously. After they are done practicing, they can come straight to the studio and record their dream with us and take it home, listen to them in the car and extend their songs. It has amphitheatres and water body's to open up the musicians mind to another level. Like any other Public structures, we also offer restaurants



but in an interesting way. There will be karaoke; there will be amplifiers, guitars, drums in room. Basically the theme lounge will look like an underground music concert arena. The design is carried away keeping the nourishment of Rock music in mind. It is situated in the future of Dhaka keeping the future of Bangladesh in mind

## **1.8 GIVEN PROGRAM**

1. Auditorium
2. Galleries
3. Class Rooms
4. Library and Archive
5. Music Booth
6. Jamming Pads
7. Recording Studio
8. Restaurant and Lounges
9. Amphitheatre
10. Administration and Offices
11. Souvenir Shops

## CHAPTER 02 : Site Appraisal

### 2.1 SITE AND LOCATION



IMAGE 1: SATELLITE IMAGE OF PURBACHAL, DHAKA

SOURCE: WIKIMAPIA

#### 2.1.1 Purbachal

Dhaka is one of the most densely populated cities in the world. Millions of people dwell in this capital city mainly for work, business, etc. To meet the needs of accommodation for the growing population of Dhaka, the city must be extended by developing surrounding areas in a proper method. One such approach led to the development of “Purbachal”.

The entire Purbachal area has 6150 acres of land. It is located in between the “shialakhya” and the “balu” river at Rupgonj thana of Narayangonj district and at Kaligonj thana of Gazipur district, in the north-eastern side of Dhaka.

It will be connected from the existing airport road through a proposed 8 lane wide expressway.

A 300 feet wide road will meet at “Pragati Sharani” will connect the town with Dhaka. There will be about 26,000 residential plots of different sizes, and 62,000 apartments.

Rajuk campaigns the area to be designed in a planned way, incorporating modern facilities and strategies.

The objective of the project was to reduce the pressure of population in Dhaka city by creating residential accommodation of the city dwellers in the proximity of the city, to maintain the balance of environment by proper urbanization, to create environment friendly and sustainable atmosphere, to decrease the existing severe housing problem, to develop civic facilities in the nearby and surrounding areas gradually, to improve new area to expand economic facilities, to fulfill the future housing demands.

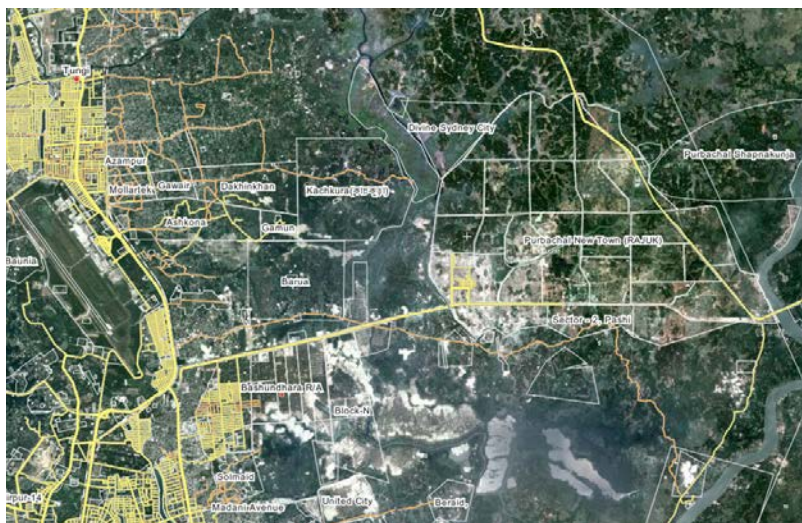


IMAGE 2: SATELLITE IMAGE OF A ROAD CONNECTING PURBACHAL WITH PRAGATI SHARANI DHAKA

SOURCE: WIKIMAPIA

### 2.1.2 General land uses of the area

38.74% land used for Residential

25.9% for Road

6.41% for Administrative and Commercial

3.2% for Institution and Industrial Park

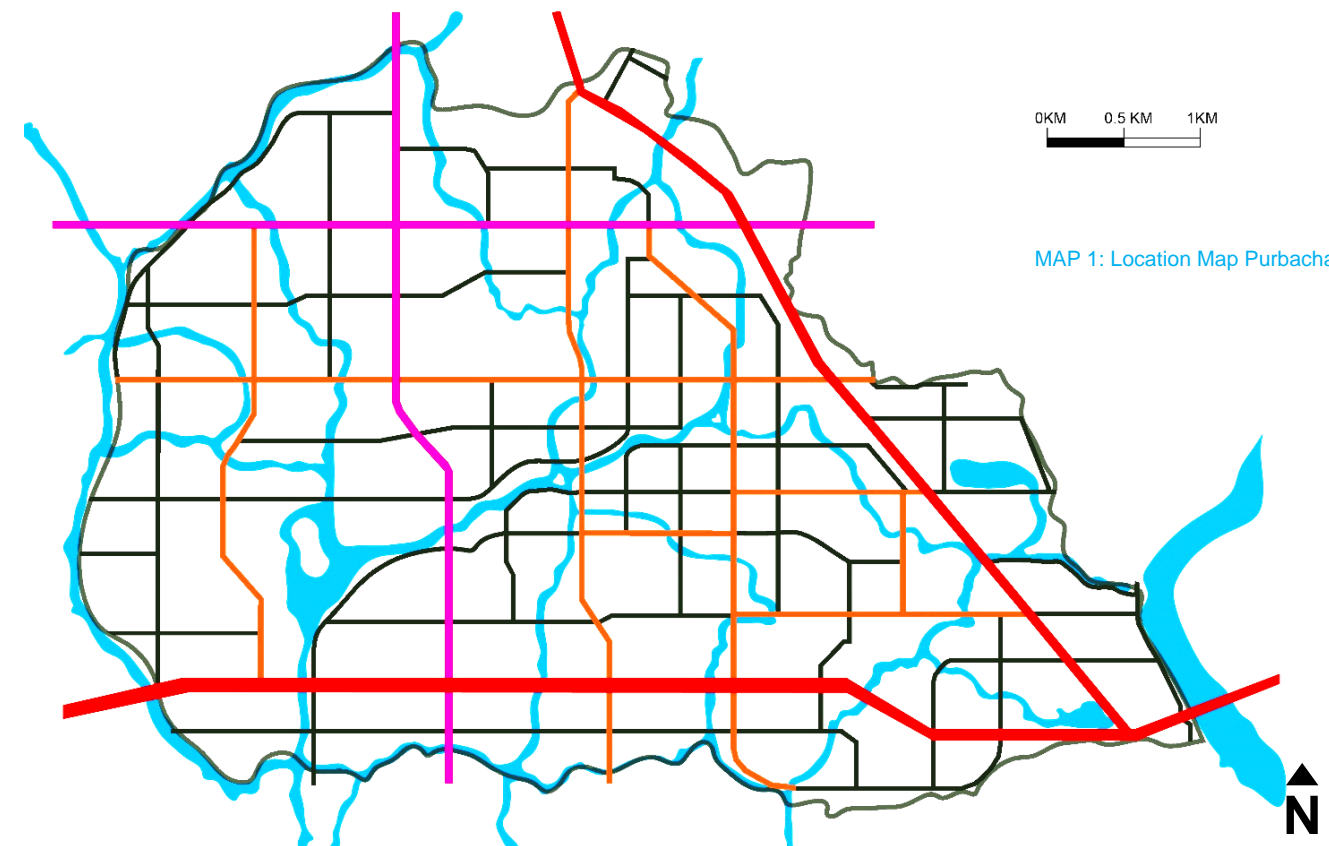
6.6% for urban Green and Open spaces

7.1% for Lakes and canals

2.5% for sports,

6% for Education, Health and Social Infrastructure

### 2.1.3 Location Map



0KM 0.5 KM 1KM

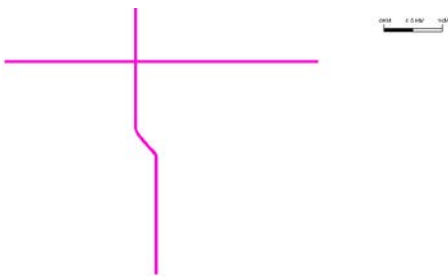
MAP 1: Location Map Purbachal

PRIMARY ROAD SECONDARY ROAD TERTIARY ROAD INTERNAL ROAD WATERBODY

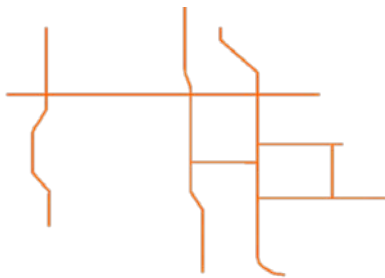


MAP 2: Primary road

Primary road

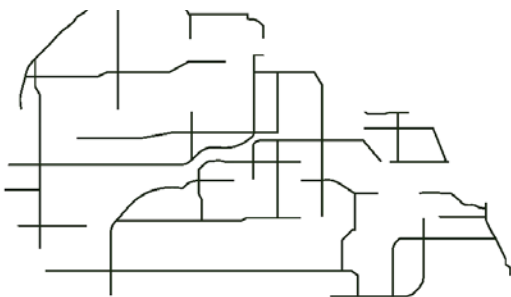


Secondary road

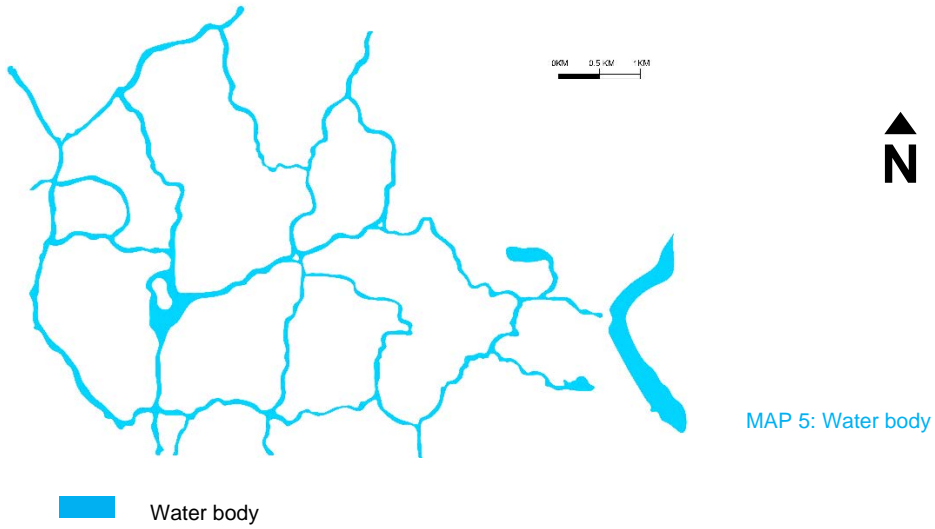


MAP 3: Secondary road

Tertiary road

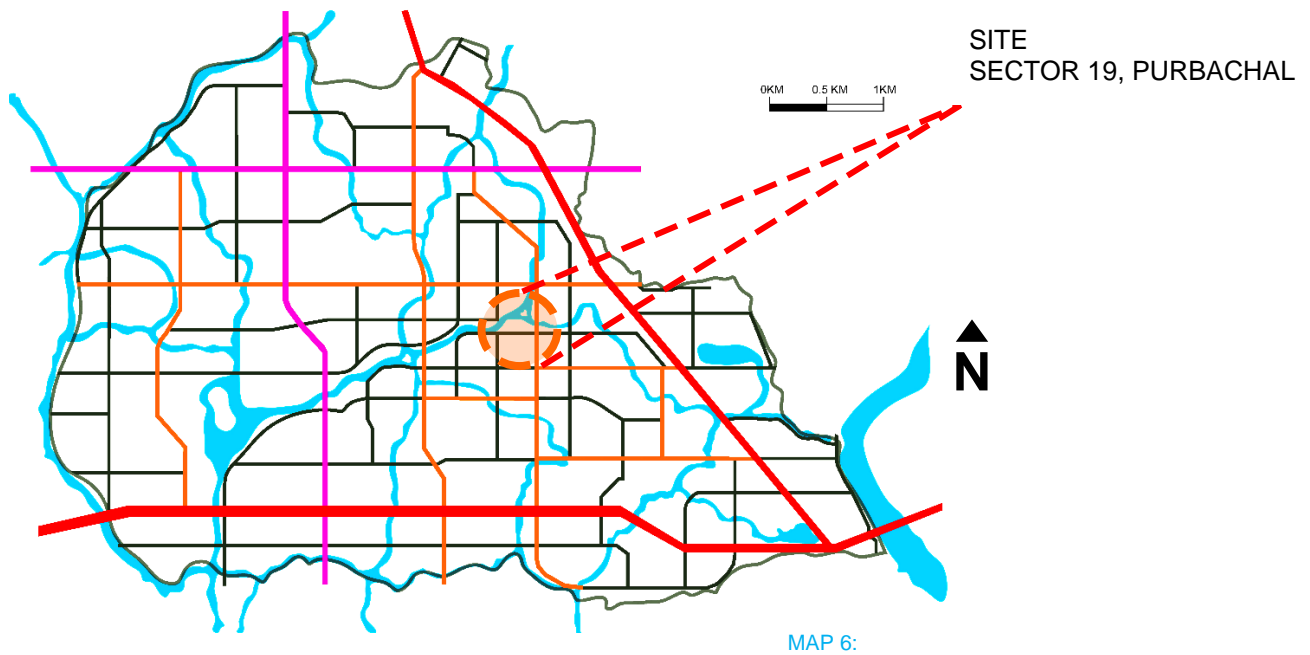


MAP 4: Tertiary road



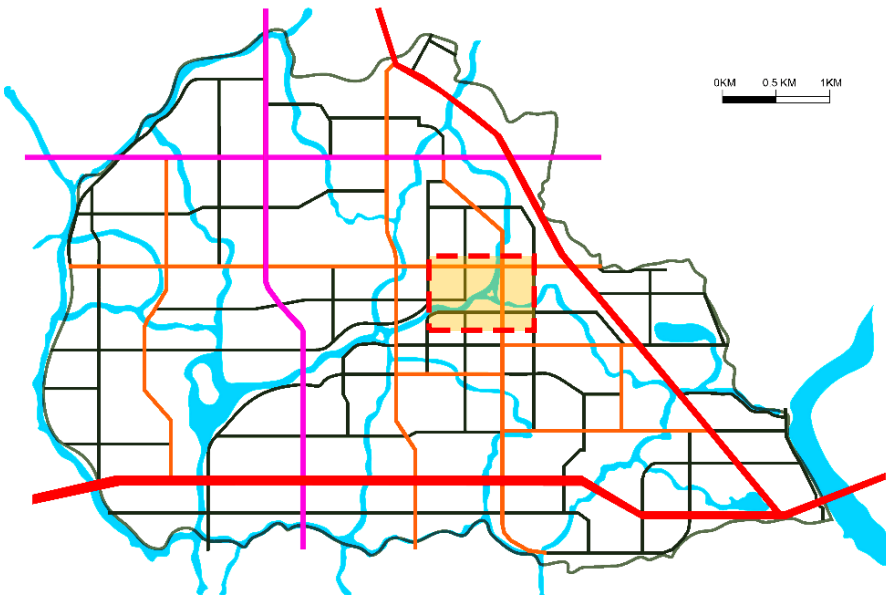
## 2.2 Site and Surrounding

### 2.2.1 Surrounding Land use Maps

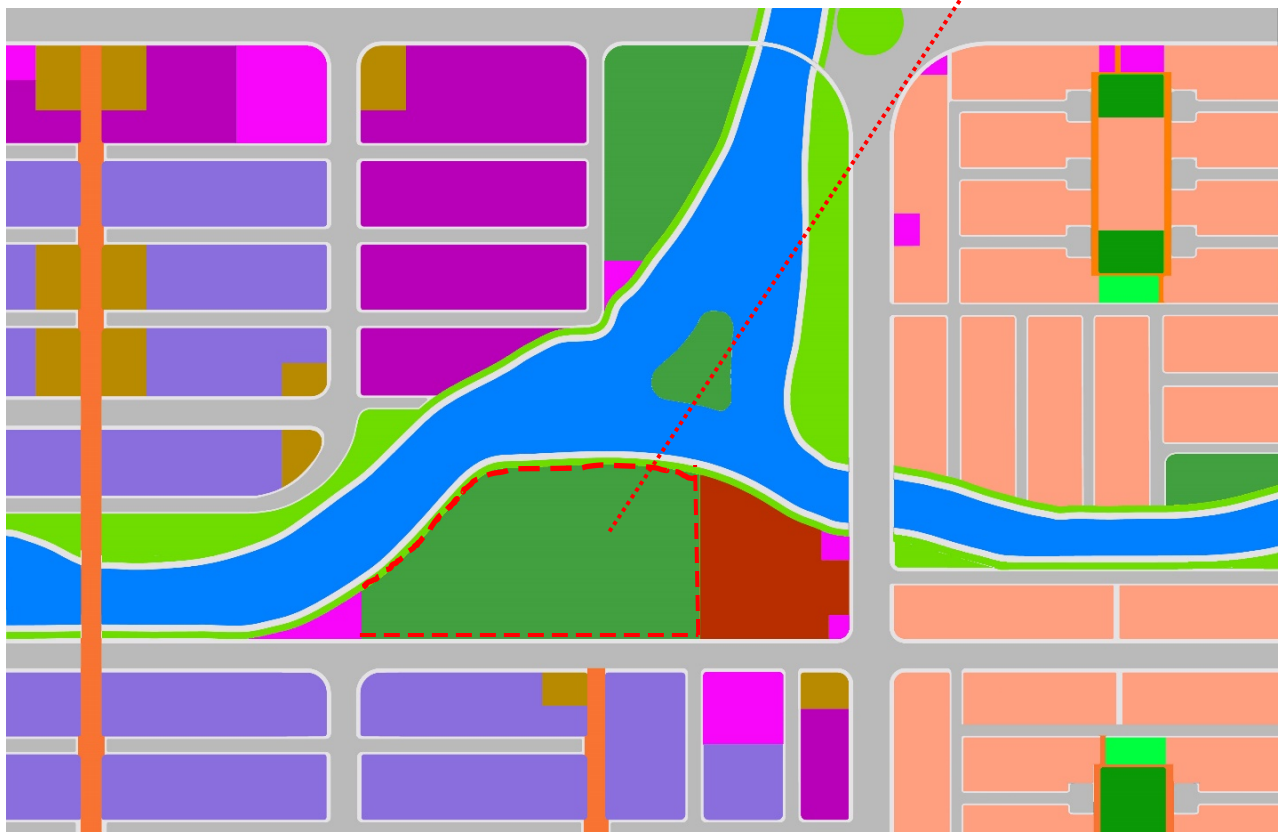


Location: Purbachal, Dhaka, Bangladesh

Area: - 5.65 acres



**SITE**  
5.65 acres

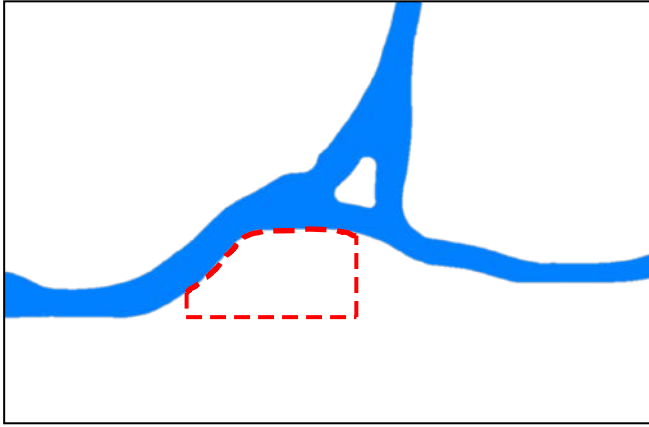


MAP 7: Site Surrounding

- |                       |                |             |
|-----------------------|----------------|-------------|
| Internal Roads        | Administrative | Nursery     |
| Water body            | Commercial     | Educational |
| Tertiary Roads        | Residential    | Utilities   |
| Park                  | Plaza          |             |
| Social Infrastructure | Walkway        |             |



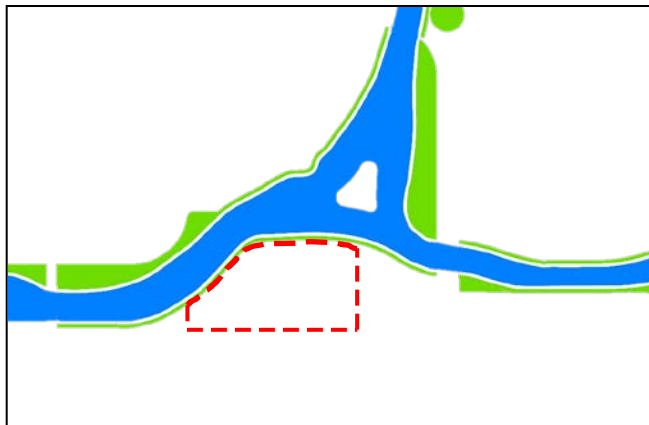
Ahnaf 16



WATER BODY



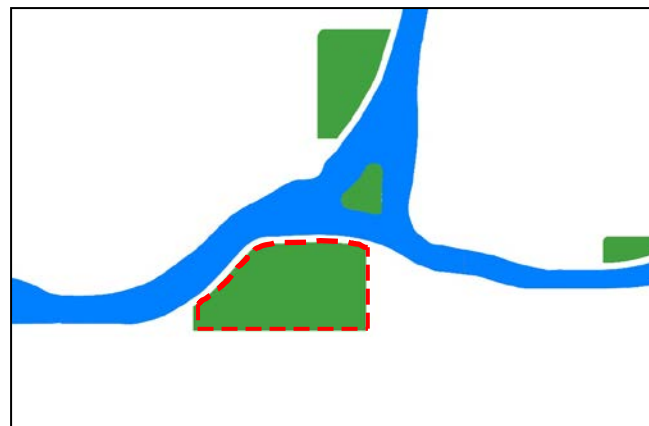
MAP 9: Water body



WATER BODY  
PARK



MAP 10: Park



WATER BODY  
SOCIAL  
INFRASTRUCTURE



MAP 11: Social Infrastructure

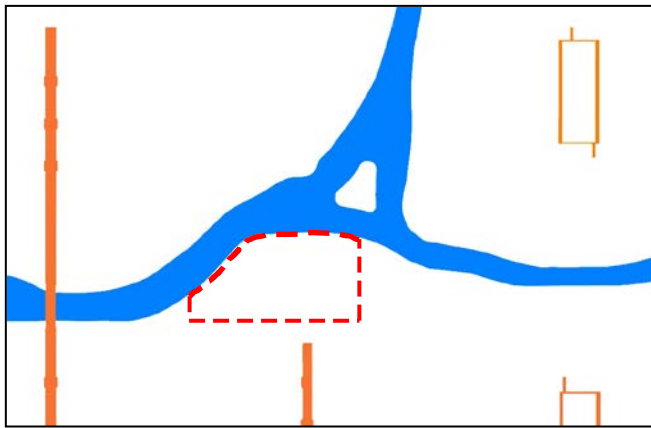




■ WATER BODY  
■ INTERNAL ROADS



MAP 12: Internal Roads



■ WATER BODY  
■ TERTIARY ROADS



MAP 13: Tertiary Roads

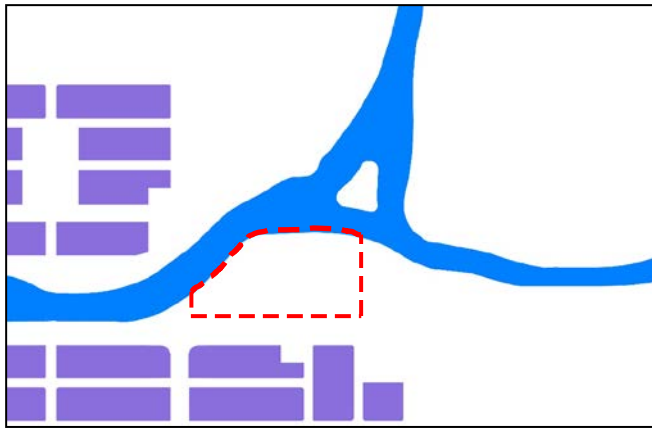


■ WATER BODY  
■ WALKWAY



MAP 14: Walk ways

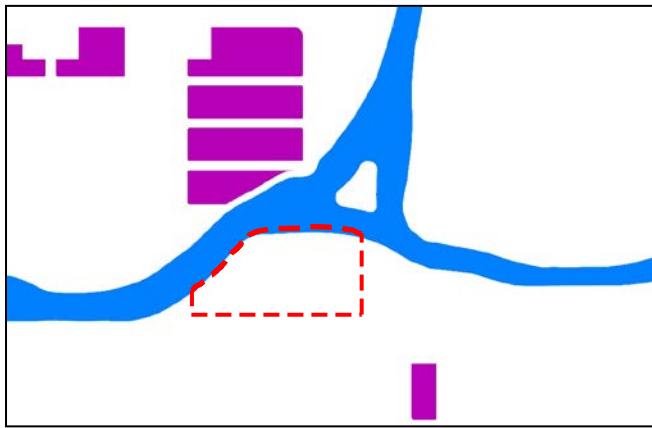
# Ahnaf 18



■ WATER BODY  
■ ADMINISTRATIVE



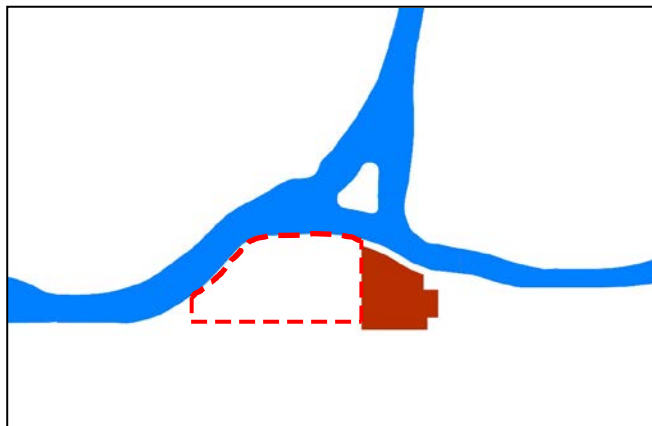
MAP 15: Administrative



■ WATER BODY  
■ COMMERCIAL



MAP 16: Commercial

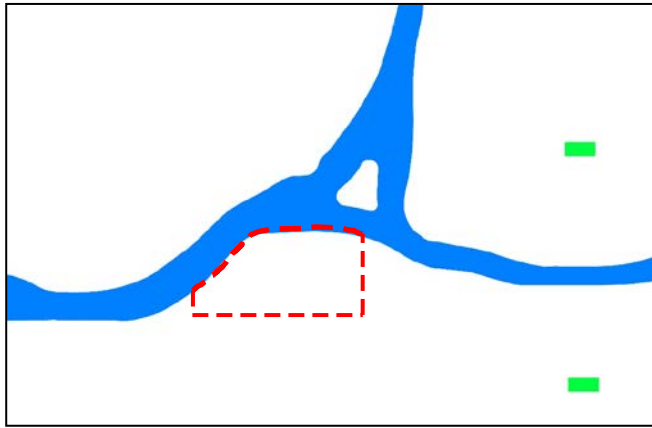


■ WATER BODY  
■ EDUCATIONAL



MAP 17: Educational

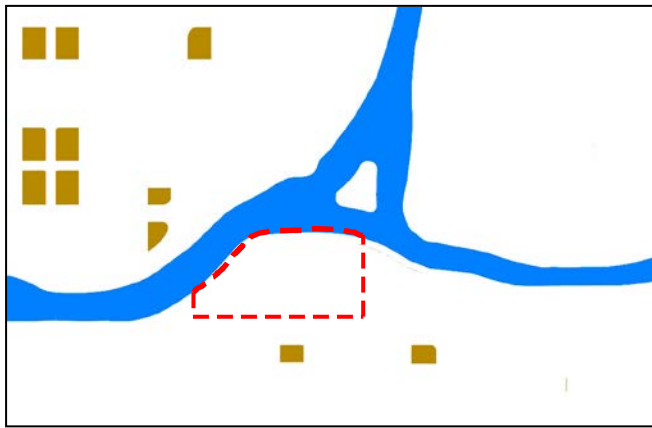
**Ahnaf 19**



■ WATER BODY  
■ NURSERY



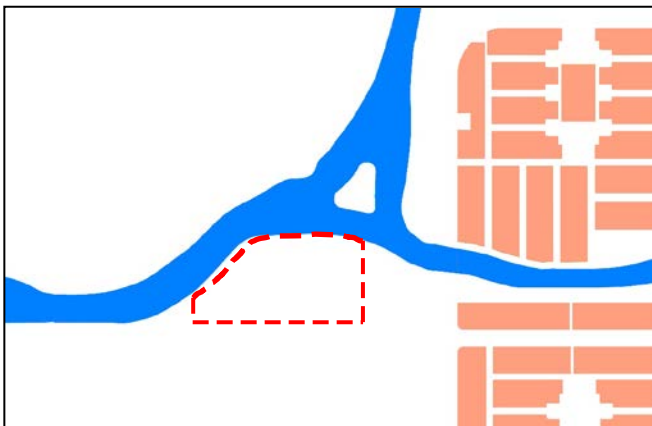
MAP 18: Nursery



■ WATER BODY  
■ PLAZA



MAP 19: Plaza

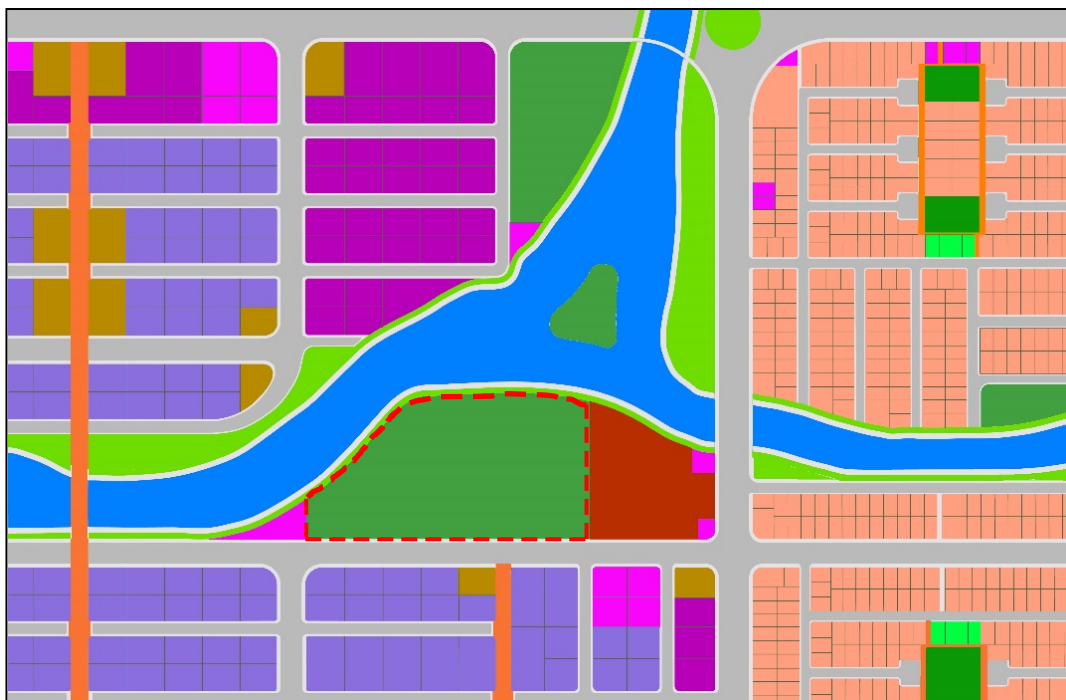
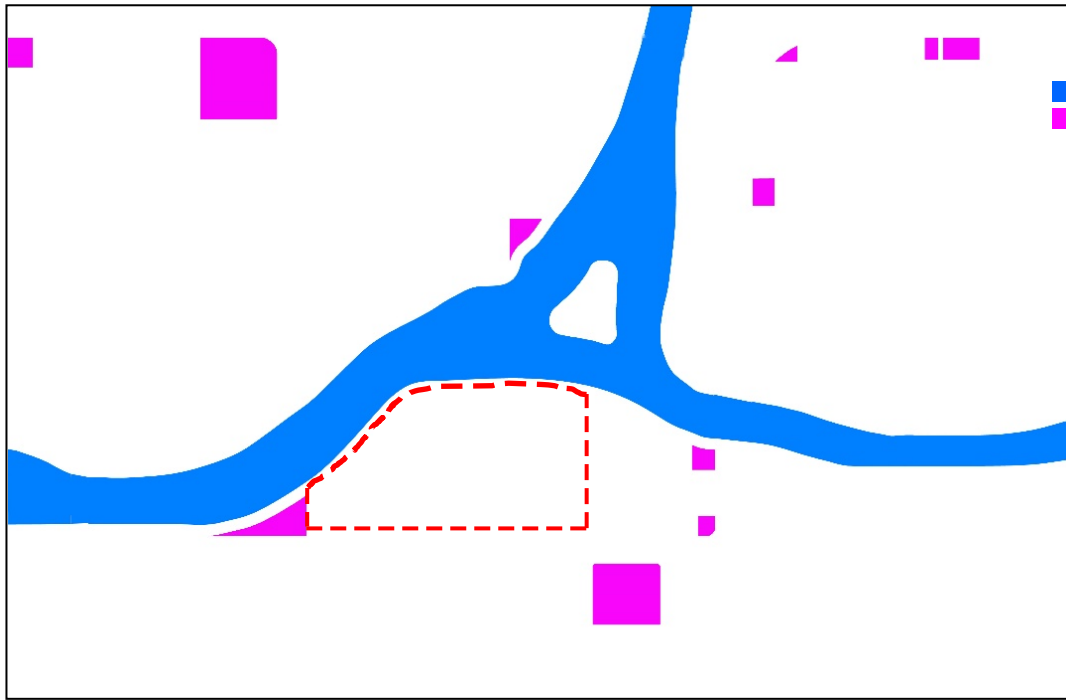


■ WATER BODY  
■ RESIDENTIAL



MAP 20: Residential

Ahnaf 20



- |                       |                |             |
|-----------------------|----------------|-------------|
| Internal Roads        | Administrative | Nursery     |
| Water body            | Commercial     | Educational |
| Tertiary Roads        | Residential    | Utilities   |
| Park                  | Plaza          |             |
| Social Infrastructure | Walkway        |             |

## 2.3 Site Analysis

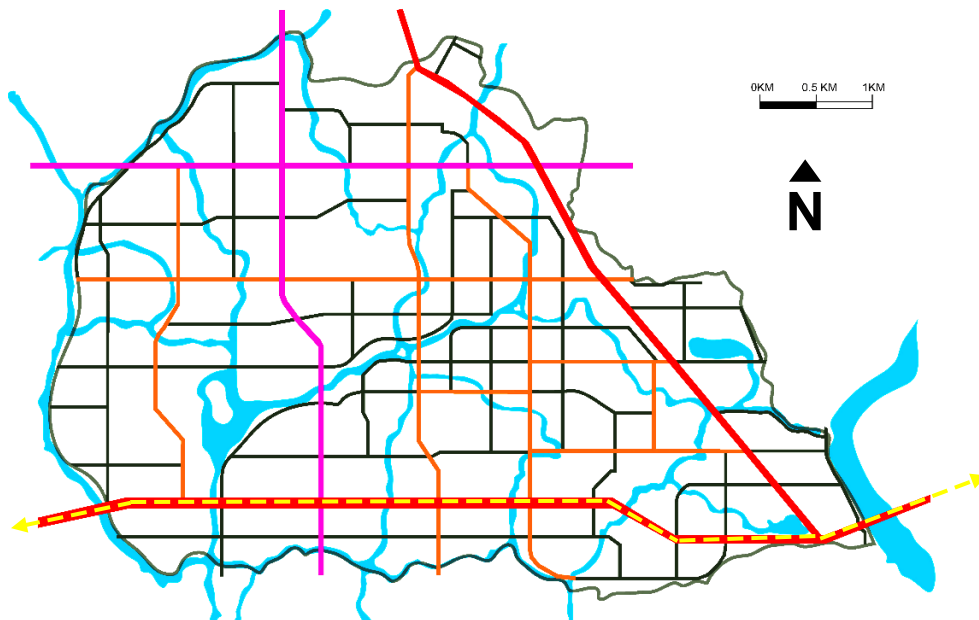


IMAGE 3: SATELLITE IMAGE OF THE SITE

SOURCE: WIKIMAPIA



### 2.3.1 Access



Main access road from Dhaka to Purbachal

The site is approached from the 75ft internal road and is on the south of the site. The site is located at a close proximity to residential and commercial areas, making it more accessible for public and users.

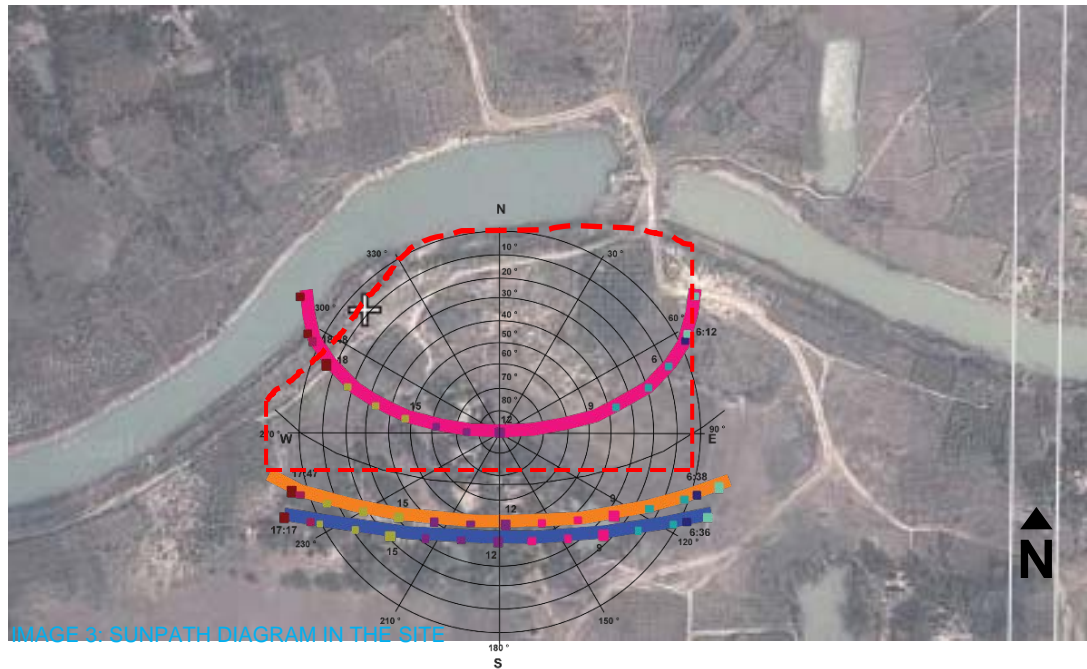
### 2.3.2 Traffic Flow

Traffic flow is expected to be high, since the site is closed to commercial and administrative area.

### 2.3.3 Noise

Noise is considerable low, especially after office hours, hence the proposed project can contribute in bringing life in that particular area.

### 2.3.4 Sun



SOURCE: WIKIMAPIA,

The sun remains at a comparatively low altitude during the winter making the environment pleasant. During hot summer the sunrays are usually uncomfortable. Rays usually fall on

building from east, south and west and partly from northeast to northwest high altitude of the sun.

### 2.3.5 WINDFLOW

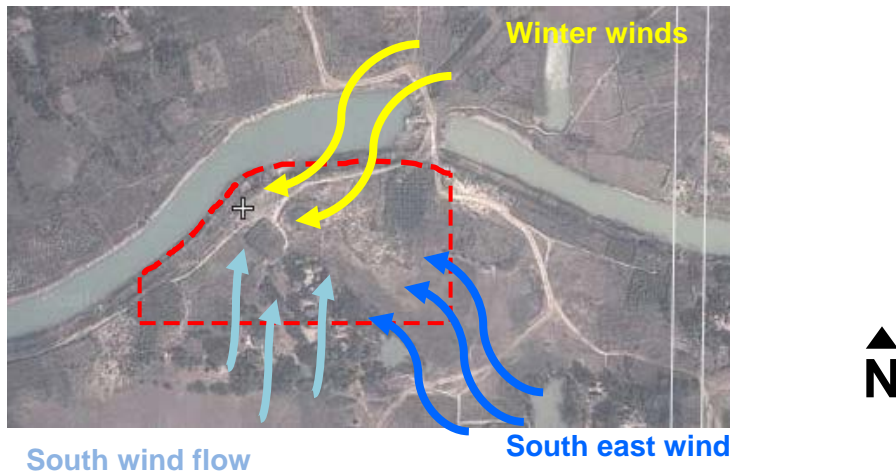


IMAGE 4: WINDFLOW DIAGRAM IN THE SITE

SOURCE: WIKIMAPIA,

### 2.3.6 View

The site is beside a water body, hence it has a good view towards the north.



IMAGE 5: IMAGE OF THE EXISTING CONDITION OF THE SITE

## 2.4 SWOT Analysis

### STRENGTH:

- The location is good for the objective of the institute, since it is within close proximity of both residential and commercial zones
- The place can be a good urban public place and will increase the cultural value of the place
- The area will be active and vibrant even during night and after office hours with the development of the Nazrul Institute in the site
- The site is located beside a water body allowing good view, gentle breeze and also scope for different activities.
- The water body is at the north of the site allowing wind flow.
- Visual connection from the other sectors as well.
- South facing site.

### WEAKNESS:

- The site is larger at the east west side.
- Utility facilities proposed right beside the site, can hamper the activities in the future
- A 75ft width road is the approach to the site, and probable chances of traffic congestion as it has commercial and administrative land uses at the closest vicinity of the site.

### OPPORTUNITIES:

- The site is proposed for social infrastructure development, and hence the proposed project will be extremely beneficial for the site, and its development.



- The accessibility from both the commercial and residential zones along with an educational institute beside it, provides an opportunity for the purposes of the Nazrul Institute to be fulfilled which the current locations lacks.
- The climatic conditions of the site along with its view makes it potential for a public place for learning and being culturally entertained as well.

**THREATS:**

- The design must be done with proper care to the site and surroundings making sure that the activities do not suffer due to the land uses of the surrounding area.

## Chapter 3: Literature Review

### 3.1 What is Music?

According to Webster's II: New Riverside University Dictionary, music is "the art of arranging tones in an orderly sequence so as to produce a unified and continuous composition". In reality, music does not have any one concrete meaning. Music has different meanings for different people. Music is unique in each person's life. To a musician, music is their life. They eat, breathe, and live music. Music is their passion. For others, music is a hobby, a pastime. Music is something that arouses interest and is pleasurable. The casual fan may learn about music, how to read music, how to sing, or how to play a musical instrument, but they do not have the all encompassing passion a musician possesses. Music is a means of relaxation for some, while others simply enjoy listening to the sounds, melodies, and rhythms that music brings to their ears, minds, and hearts.

The following definitions are taken from an article that defines music according to different perspectives.

#### 3.1.1 Music is science

It is exact, specific; and it demands exact acoustics. A conductor's full score is a chart, a graph which indicates frequencies, intensities, volume changes, melody, and harmony all at once and with the most exact control of time.

#### 3.1.2 Music is mathematical

It is rhythmically based on the subdivisions of time into fractions which must be done, not worked out on paper.

### 3.1.3 Music is a foreign language

Most of the terms are in Italian, German, or French; and the notation is certainly not English – but a highly developed kind of shorthand that uses symbols to represent ideas. The semantics of music is the most complete and universal language.

### 3.1.4 Music is history

Music usually reflects the environment and times of its creations, often even the country and/or racial feeling.

### 3.1.5 Music is physical education

It requires fantastic coordination of finger, hands, arms, lip, cheek, and facial muscles, in addition to extraordinary control of the diaphragmatic back, stomach, and chest muscles, which respond instantly to the sound the ear hears and the mind interprets.

### 3.1.6 Music is art

Music is all of these things, but most of all music is art. It allows a human being to take all these dry, technically boring (but difficult) techniques and use them to create emotion. That is one thing science cannot duplicate: humanism, feeling, emotion, call it what you will.

## 3.2 Rock Music

It is certainly arguable that by the end of the 20th century rock was the world's dominant form of popular music. Originating in the United States in the 1950s, it spread to other English-speaking countries and across Europe in the '60s, and by the '90s its impact was obvious globally (if in

many different local guises). Rock's commercial importance was by then reflected in the organization of the multinational recording industry, in the sales racks of international record retailers, and in the playlist policies of music radio and television. If other kinds of music—classical, jazz, easy listening, country, folk, etc.—are marketed as minority interests, rock defines the musical mainstream. And so over the last half of the 20th century it became the most inclusive of musical labels—everything can be “rocked”—and in consequence the hardest to define. To answer the question, What is rock?, one first has to understand where it came from and what made it possible. And to understand rock's cultural significance, one has to understand how it works socially as well as musically.

What is rock?- The difficulty of definition

Dictionary definitions of rock are problematic, not least because the term has different resonance in its British and American usages (the latter is broader in compass). There is basic agreement that rock “is a form of music with a strong beat,” but it is difficult to be much more explicit. The Collins Cobuild English Dictionary, based on a vast database of British usage, suggests that “rock is a kind of music with simple tunes and a very strong beat that is played and sung, usually loudly, by a small group of people with electric guitars and drums,” but there are so many exceptions to this description that it is practically useless.

Legislators seeking to define rock for regulatory purposes have not done much better. The Canadian government defined “rock and rock-oriented music” as “characterized by a strong beat, the use of blues forms and the presence of rock instruments such as electric guitar, electric bass, electric organ or electric piano.” This assumes that rock can be marked off from other sorts of music formally, according to its sounds. In practice, though, the distinctions that matter for rock fans and musicians have been ideological. Rock was developed as a term to distinguish certain music-making and listening practices from those associated with pop; what

was at issue was less a sound than an attitude. In 1990 British legislators defined pop music as “all kinds of music characterized by a strong rhythmic element and a reliance on electronic amplification for their performance.” This led to strong objections from the music industry that such a definition failed to appreciate the clear sociological difference between pop (“instant singles-based music aimed at teenagers”) and rock (“album-based music for adults”). In pursuit of definitional clarity, the lawmakers misunderstood what made rock music matter.

### 3.2.1 Few Categories of Rock Music

#### Rock in the 1960s

##### A black and white hybrid

Whatever the commercial forces at play (and despite the continuing industry belief that this was pop music as transitory novelty), it became clear that the most successful writers and producers of teenage music were themselves young and intrigued by musical hybridity and the technological possibilities of the recording studio. In the early 1960s teenage pop ceased to sound like young adult pop. Youthful crooners such as Frankie Avalon and Fabian were replaced in the charts by vocal groups such as the Shirelles. A new rock-and-roll hybrid of black and white music appeared: Spector derived the mini-dramas of girl groups such as the Crystals and the Ronettes from the vocal rhythm-and-blues style of doo-wop, the Beach Boys rearranged Chuck Berry for barbershop-style close harmonies, and in Detroit Berry Gordy's Motown label drew on gospel music (first secularized for the teenage market by Sam Cooke) for the more rhythmically complex but equally commercial sounds of the Supremes and Martha and the Vandellas. For the new generation of record producer, whether Spector, the Beach Boys' Brian Wilson, or Motown's Smokey Robinson and the team of Holland-Dozier-Holland, the commercial challenge—to make a record that would be heard through all the other noises in teenage lives—

was also an artistic challenge. Even in this most commercial of scenes (thanks in part to its emphasis on fashion), success depended on a creative approach to technological DIY.

The peculiarity of Britain's beat boom—in which would-be pop stars such as the Beatles turned arty while would-be blues musicians such as the Rolling Stones turned pop—had a dramatic effect in the United States, not only on consumers but also on musicians, on the generation who had grown up on rock and roll but grown out of it and into more serious sounds, such as urban folk. The Beatles' success suggested that it was possible to enjoy the commercial, mass-cultural power of rock and roll while remaining an artist. The immediate consequence was folk rock. Folk musicians, led by Bob Dylan, went electric, amplified their instruments, and sharpened their beat. Dylan in particular showed that a pop song could be both a means of social commentary (protest) and a form of self-expression (poetry). On both the East and West coasts, bohemia started to take an interest in youth music again. In San Francisco, for example, folk and blues musicians, artists, and poets came together in loose collectives (most prominently the Grateful Dead and the Jefferson Airplane) to make acid rock as an unfolding psychedelic experience, and rock became the musical sound track for a new youth culture, the hippies.

The hippie movement of the late 1960s in the United States—tied up with Vietnam War service and anti-Vietnam War protests, the civil rights movement, and sexual liberation—fed back into the British rock scene. British beat groups also defined their music as art, not commerce, and felt themselves to be constrained by technology rather than markets. The Beatles made the move from pop to rock on their 1967 album, *Sgt. Pepper's Lonely Hearts Club Band*, symbolically identifying with the new hippie era, while bands such as Pink Floyd and Cream (Clapton's band) set new standards of musical skill and technical imagination. This was the setting in which Hendrix became the rock musician's rock musician. He was a model not just in his virtuosity and inventiveness as a musician but also in his stardom and his commercial charisma. By the end of the 1960s the great paradox of rock had become apparent: rock

musicians' commitment to artistic integrity—their disdain for chart popularity—was bringing them unprecedented wealth. Sales of rock albums and concert tickets reached levels never before seen in popular music. And, as the new musical ideology was being articulated in magazines such as *Rolling Stone*, so it was being commercially packaged by emergent record companies such as Warner Brothers in the United States and Island in Britain. Rock fed both off and into hippie rebellion (as celebrated by the Woodstock festival of 1969), and it fed both off and into a buoyant new music business (also celebrated by Woodstock). This music and audience were now where the money lay; the Woodstock musicians seemed to have tapped into an insatiable demand, whether for “progressive” rock and formal experiment, heavy metal and a bass-driven blast of high-volume blues, or singer-songwriters and sensitive self-exploration.

Rock in the 1970s

Corporate rock

The 1970s began as the decade of the rock superstar. Excess became the norm for bands such as the Rolling Stones, not just in terms of their private wealth and well-publicized decadence but also in terms of stage and studio effects and costs. The sheer scale of rock album sales gave musicians—and their ever-growing entourage of managers, lawyers, and accountants—the upper hand in negotiations with record companies, and for a moment it seemed that the greater the artistic self-indulgence the bigger the financial return. By the end of the decade, though, the 25-year growth in record sales had come to a halt, and a combination of economic recession and increasing competition for young people's leisure spending (notably from the makers of video games) brought the music industry, by this point based on rock, its first real crisis. The Anglo-American music market was consolidated into a shape that has not changed much since, while new sales opportunities beyond the established transatlantic route began to be pursued more intently.

The 1970s, in short, was the decade in which a pattern of rock formats and functions was settled. The excesses of rock superstardom elicited both a return to DIY rock and roll (in the roots sounds of performers such as Bruce Springsteen and in the punk movement of British youth) and a self-consciously camp take on rock stardom itself (in the glam rock of the likes of Roxy Music, David Bowie, and Queen). The continuing needs of dancers were met by the disco movement (originally shaped by the twist phenomenon in the 1960s), which was briefly seized by the music industry as a new pop mainstream following the success of the film *Saturday Night Fever* in 1977. By the early 1980s, however, disco settled back into its own world of clubs, deejays, and recording studios and its own crosscurrents from African American, Latin American, and gay subcultures. African American music developed in parallel to rock, drawing on rock technology sometimes to bridge black and white markets (as with Stevie Wonder) and sometimes to sharpen their differences (as in the case of funk).

Rock, in other words, was routinized, as both a moneymaking and a music-making practice. This had two consequences that were to become clearer in the 1980s. First, the musical tension between the mainstream and the margins, which had originally given rock and roll its cultural dynamism, was now contained within rock itself. The new mainstream was personified by Elton John, who developed a style of soul-inflected rock ballad that over the next two decades became the dominant sound of global pop music. But the 1970s also gave rise to a clearly “alternative” rock ideology (most militantly articulated by British punk musicians), a music scene self-consciously developed on independent labels using “underground” media and committed to protecting the “essence” of rock and roll from commercial degradation. The alternative-mainstream, authentic-fake distinction crossed all rock genres and indicated how rock culture had come to be defined by its own contradictions.

Second, sounds from outside the Anglo-American rock nexus began to make their mark on it (and in unexpected ways). In the 1970s, for example, Europop began to have an impact on the



New York City dance scene via the clean, catchy Swedish sound of Abba, the electronic machine music of Kraftwerk, and the American-Italian collaboration (primarily in West Germany) of Donna Summer and Giorgio Moroder. At the same time, Marley's success in applying a Jamaican sensibility to rock conventions meant that reggae became a new tool for rock musicians, whether established stars such as Clapton and the Rolling Stones' Keith Richards or young punks like the Clash, and played a significant role (via New York City's Jamaican sound-system deejays) in the emergence of hip-hop.

Rock in the 1980s and '90s

Digital technology and alternatives to adult-oriented rock

The music industry was rescued from its economic crisis by the development in the 1980s of a new technology, digital recording. Vinyl records were replaced by the compact disc (CD), a technological revolution that immediately had a conservative effect. By this point the most affluent record buyers had grown up on rock; they were encouraged to replace their records, to listen to the same music on a superior sound system. Rock became adult music; youthful fads continued to appear and disappear, but these were no longer seen as central to the rock process, and, if rock's 1970s superstars could no longer match the sales of their old records with their new releases, they continued to sell out stadium concerts that became nostalgic rituals (most unexpectedly for the Grateful Dead). For new white acts the industry had to turn to alternative rock. A new pattern emerged—most successfully in the 1980s for R.E.M. and in the '90s for Nirvana—in which independent labels, college radio stations, and local retailers developed a cult audience for acts that were then signed and mass-marketed by a major label. Local record companies became, in effect, research and development divisions of the multinationals.

The radical development of digital technology occurred elsewhere, in the new devices for sampling and manipulating sound, used by dance music engineers who had already been exploring the rhythmic and sonic possibilities of electronic instruments and blurring the distinctions between live and recorded music. Over the next decade the uses of digital equipment pioneered on the dance scene fed into all forms of rock music making. For a hip-hop act such as Public Enemy, what mattered was not just a new palette of “pure” sound but also a means of putting reality—the actual voices of the powerful and powerless—into the music. Hip-hop, as was quickly understood by young disaffected groups around the world, made it possible to talk back to the media.

The regeneration of DIY paralleled the development of new means of global music marketing. The 1985 Live Aid event, in which live television broadcasts of charity concerts taking place on both sides of the Atlantic were shown worldwide, not only put on public display the rock establishment and its variety of sounds but also made clear television’s potential as a marketing tool. MTV, the American cable company that had adopted the Top 40 radio format and made video clips as vital a promotional tool as singles, looked to satellite technology to spread its message: “One world, one music.” And the most successful acts of the 1980s, Madonna and Michael Jackson (whose 1982 album, *Thriller*, became the best-selling album of all time by crossing rock’s internal divides), were the first video acts, using MTV brilliantly to sell themselves as stars while being used, in turn, as global icons in the advertising strategies of companies such as Pepsi-Cola.

The problem with this pursuit of a single market for a single music was that rock culture was fragmenting. The 1990s had no unifying stars (the biggest sensation, the Spice Girls, were never really taken seriously). The attempt to market a global music was met by the rise of world music, an ever-increasing number of voices drawing on local traditions and local concerns to absorb rock rather than be absorbed by it. Tellingly, the biggest corporate star of the 1990s, the

Quebecois Céline Dion, started out in the French-language market. By the end of the 20th century, hybridity meant musicians playing up divisions within rock rather than forging new alliances. In Britain the rave scene (fueled by dance music such as house and techno, which arrived from Chicago and Detroit via Ibiza, Spain) converged with “indie” guitar rock in a nostalgic pursuit of the rock community past that ultimately was a fantasy. Although groups like Primal Scream and the Prodigy seemed to contain, in themselves, 30 years of rock history, they remained on the fringes of most people’s listening. Rock had come to describe too broad a range of sounds and expectations to be unified by anyone.

### **3.3 Music Institute**

A music institute is an educational institution specialized in the study, training and research of music. Such an institution can also be known as a school of music, music academy, music faculty, college of music, music department (of a larger institution) or conservatory.

Music instruction can be provided within the compulsory general education system, or within specialized children's music schools such as the Purcell School. Elementary school children can access music instruction also in after-school institutions such as music academies or music

schools. In Venezuela El Sistema of youth orchestras provides free after-school instrumental instruction through music schools called núcleos. The term “music school” can be also applied to institutions of higher education under names such as school of music, such as the Jacobs School of Music of Indiana University, music academy, like the Sibelius Academy, music faculty as the Don Wright Faculty of Music of the University of Western Ontario, college of music, characterized by the Royal College of Music and the Berklee College of Music, music department, like the Department of Music at the University of California, Berkeley or the term conservatory, exemplified by the Conservatoire de Paris and the term higher school of music or university of music such as the Cologne University of Music known as Hochschule für Musik und Tanz Köln in German. Instruction includes training in the performance of musical instruments, singing, musical composition, conducting, musicianship, as well as academic and research fields such as musicology, music history and music theory.

University music departments originally placed more emphasis on academic study of music, rather than performance. However, today, the division may not be so rigid with many often placing greater emphasis on performance now than they did in the past. The specific balance of vocational training and academic study varies from one institution to another and from one country to another. Some countries separately define their institutions between university status and vocational university status, whilst other countries do not define such a rigid division. In addition to offering degrees similar to those offered at Conservatories, some universities offer non-professional music-related degrees such as a Bachelor of Arts in Music or a Bachelor of Arts in Music Education. A number of previously independent Conservatories have become affiliated to Universities.

### 3.3.1 Museum

A museum is an institution that cares for (conserves) a collection of artifacts and other objects of scientific, artistic, cultural, or historical importance and makes them available for public viewing through exhibits that may be permanent or temporary.[1] Most large museums are located in major cities throughout the world and more local ones exist in smaller cities, towns and even the countryside. The continuing acceleration in the digitization of information, combined with the increasing capacity of digital information storage, is causing the traditional model of museums (i.e. as static “collections of collections” of three-dimensional specimens and artifacts) to expand to include virtual exhibits and high-resolution images of their collections for perusal, study, and exploration from any place with Internet.[citation needed] The city with the largest number of museums is Mexico City with over 128 museums. According to The World Museum Community, there are more than 55,000 museums in 202 countries

Museum purposes vary from institution to institution. Some favor education over conservation, or vice versa. For example, in the 1970s, the Canada Science and Technology Museum favored education over preservation of their objects. They displayed objects as well as their functions. One exhibit featured a historic printing press that a staff member used for visitors to create

museum memorabilia.[7] Some seek to reach a wide audience, such as a national or state museum, while some museums have specific audiences, like the LDS Church History Museum or local history organizations. Generally speaking, museums collect objects of significance that comply with their mission statement for conservation and display. Although most museums do not allow physical contact with the associated artifacts, there are some that are interactive and encourage a more hands-on approach. In 2009, Hampton Court Palace, palace of Henry VIII, opened the council room to the general public to create an interactive environment for visitors. Rather than allowing visitors to handle 500 year old objects, the museum created replicas, as well as replica costumes. The daily activities, historic clothing, and even temperature changes immerse the visitor in a slice of what Tudor life may have been

### 3.3.2 Auditorium

An auditorium is a room built to enable an audience to hear and watch performances at venues such as theatres. For movie theatres, the number of auditoriums is expressed as the number of screens.

The audience in a modern theatre are usually separated from the performers by the proscenium arch, although other types of stage are common.

The price charged for seats in each part of the auditorium (known in the industry as the house) usually varies according to the quality of the view of the stage. The seating areas can include some or all of the following:

Stalls or arena: the lower flat area, usually below or at the same level as the stage.

Balconies or galleries: one or more raised seating platforms towards the rear of the auditorium. In larger theatres, multiple levels are stacked vertically above or behind the stalls. The first level is usually called the dress circle or grand circle. The highest platform, or upper circle is

sometimes known as the gods, especially in large opera houses, where the seats can be very high and a long distance from the stage.

Boxes: typically placed immediately to the front, side and above the level of the stage. They are often separate rooms with an open viewing area which typically seat only a handful of people. These seats are typically considered the most prestigious of the house. A state box or royal box is sometimes provided for dignitaries.

### 3.3.3 Recording Studio

A recording studio is a facility for sound recording and mixing. Ideally both the recording and monitoring spaces are specially designed by an acoustician to achieve optimum acoustic properties (acoustic isolation or diffusion or absorption of reflected sound that could otherwise interfere with the sound heard by the listener).

Recording studios may be used to record musicians, voice-over artists for advertisements or dialogue replacement in film, television or animation, foley, or to record their accompanying musical soundtracks. The typical recording studio consists of a room called the "studio" or "live room", where instrumentalists and vocalists perform; and the "control room", where sound engineers sometimes with producer(s) as well operate either professional audio mixing consoles or computers (post 1980s) with specialized software suites to manipulate and route the sound for analogue or digital recording. Often, there will be smaller rooms called "isolation booths" present to accommodate loud instruments such as drums or electric guitar, to keep these sounds from being audible to the microphones that are capturing the sounds from other instruments, or to provide "drier" rooms for recording vocals or quieter acoustic instruments.

Design and equipment

Recording studios generally consist of three rooms: the studio itself, where the sound for the recording is created (often referred to as the "live room"), the control room, where the sound from the studio is recorded and manipulated, and the machine room, where noisier equipment that may interfere with the recording process is kept. Recording studios are carefully designed around the principles of room acoustics to create a set of spaces with the acoustical properties required for recording sound with precision and accuracy. This will consist of both room treatment (through the use of absorption and diffusion materials on the surfaces of the room, and also consideration of the physical dimensions of the room itself in order to make the room respond to sound in a desired way) and soundproofing (also to provide sonic isolation between the rooms) to prevent sound from leaving the property. A recording studio may include additional rooms, such as a vocal booth - a small room designed for voice recording, as well as one or more extra control rooms.

Equipment found in a recording studio commonly includes:

Mixing console

Multitrack recorder

Microphones

Reference monitors, which are loudspeakers with a flat frequency response

Keyboard

Acoustic drum kit

Equipment may include:



Digital audio workstation

Music workstation

On Air or Recording Light

Outboard effects, such as compressors, reverbs, or equalizers

### 3.3.4 Amphitheatre

An amphitheatre (or amphitheater) is an open-air venue used for entertainment, performances, and sports.

Ancient Greek theatres were built to a semicircular plan, with tiered seating above a performance area. Ancient Roman amphitheatres were oval or circular in plan, with seating tiers that surrounded the central performance area, like a modern open-air stadium. Modern usage for "amphitheater" does not always respect the ancient usage, and so the word can embrace theatre-style stages with the audience only on one side, theatres in the round, and stadiums. Natural formations shaped like man-made theatres or amphitheatres are sometimes known as natural amphitheatres.

A contemporary amphitheatre, the sense in which the word has come to be used now, is a curved, acoustically vibrant performance space, particularly one located outdoors.

Contemporary amphitheatres often include standing structures, called bandshells, sometimes curved or bowl-shaped, both behind the stage and behind the audience, creating an area which echoes or amplifies sound, making the amphitheatre ideal for musical or theatrical performances. Most are semicircular in shape, so they should not properly be called amphitheatres.

A natural amphitheatre is a performance space located in a spot where a steep mountain or a particular rock formation naturally amplifies or echoes sound, making it ideal for musical and theatrical performances. The term amphitheatre can also be used to describe naturally occurring formations which would be ideal for this purpose, even if no theatre has been constructed there.

### 3.3.5 Library

A library (from French "librairie"; Latin "liber" = book) is an organized collection of information resources made accessible to a defined community for reference or borrowing. It provides physical or digital access to material, and may be a physical building or room, or a virtual space, or both.[1] A library's collection can include books, periodicals, newspapers, manuscripts, films, maps, prints, documents, microform, CDs, cassettes, videotapes, DVDs, Blu-ray Discs, e-books, audiobooks, databases, and other formats. Libraries range in size from a few shelves of books to several million items. In Latin and Greek, the idea of bookcase is represented by Bibliotheca and Bibliothēkē (Greek: βιβλιοθήκη): derivatives of these mean library in many modern languages, e.g. French bibliothèque.

In the 21st century there has been increasing use of the Internet to gather and retrieve data. The shift to digital libraries has greatly impacted the way people use physical libraries. Between 2002 and 2004, the average American academic library saw the overall number of transactions decline approximately 2.2%.[99] Libraries are trying to keep up with the digital world and the new generation of students that are used to having information just one click away. For example, the University of California Library System saw a 54% decline in circulation between 1991 to 2001 of 8,377,000 books to 3,832,000.[100]

These facts might be a consequence of the increased availability of e-resources. In 1999–2000, 105 ARL university libraries spent almost \$100 million on electronic resources, which is an increase of nearly \$23 million from the previous year.[101] A 2003 report by the Open E-book Forum found that close to a million e-books had been sold in 2002, generating nearly \$8 million in revenue.[102] Another example of the shift to digital libraries can be seen in Cushing Academy's decision to dispense with its library of printed books — more than 20,000 volumes in all — and switch over entirely to digital media resources.

One claim to why there is a decrease in the usage of libraries stems from the observation of the research habits of undergraduate students enrolled in colleges and universities. There have been claims that college undergraduates have become more used to retrieving information from the Internet than a traditional library. As each generation becomes more in tune with the Internet, their desire to retrieve information as quickly and easily as possible has increased. Finding information by simply searching the Internet could be much easier and faster than reading an entire book. In a survey conducted by NetLibrary, 93% of undergraduate students claimed that finding information online makes more sense to them than going to the library. Also, 75% of students surveyed claimed that they did not have enough time to go to the library and that they liked the convenience of the Internet. While the retrieving information from the Internet may be efficient and time saving than visiting a traditional library, research has shown that undergraduates are most likely searching only .03% of the entire web.[104] The information that they are finding might be easy to retrieve and more readily available, but may not be as in depth as information from other resources such as the books available at a physical library.

In the mid-2000s Swedish company Distec invented a library book vending machine known as the GoLibrary, that offers library books to people where there is no branch, limited hours, or high traffic locations such as El Cerrito del Norte BART station in California.

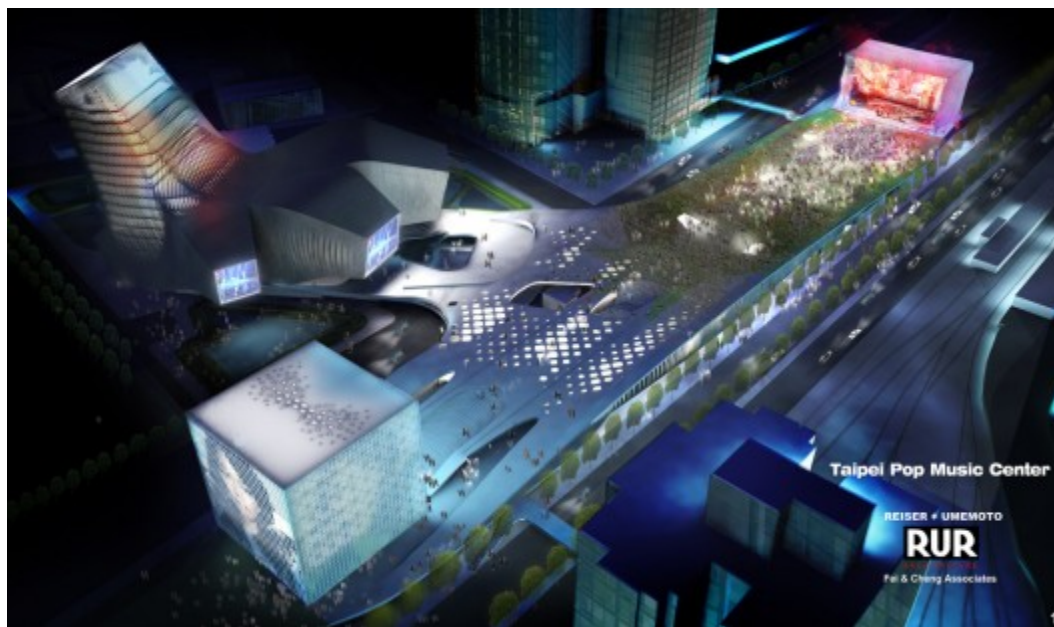
### 3.3.6 Souvenir Shop

A gift shop or Souvenir gift shop is a store primarily selling souvenirs relating to a particular topic or theme. The items sold often include coffee mugs, stuffed animals, t-shirts, postcards, handmade collections and other souvenirs. Gift shops are normally found in areas visited by many tourists. Hotels and Motels in Canada and the United States often feature a gift shop near their entrance. Venues such as zoos, aquariums, national parks, and museums have their own gift shops; in some cases these shops sell items of higher value than gift shops not associated with a venue, as well as trinkets. These stores are sometimes a source of financial support for educational institutions.

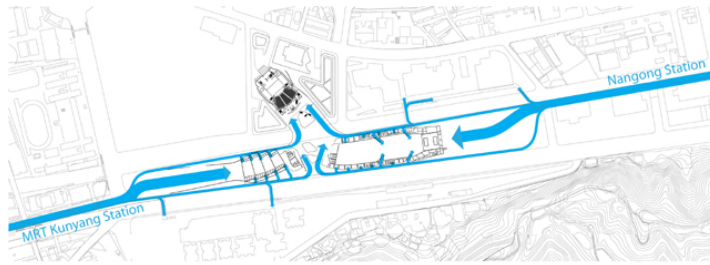
## CHAPTER 04: CASE STUDIES

### 4.1 Taipei Pop Music Center

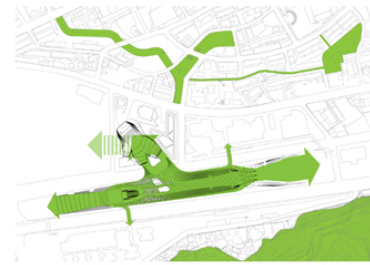
Reiser + Umemoto RUR Architecture PC along with joined tenderer Fei & Cheng Associates received first prize at the Taipei Pop Music Center Competition and it is the first case study for my thesis. Reiser + Umemoto, RUR Architecture PC's Taipei Pop Music Center (TPMC) breaks ground on the edge of Taipei, Taiwan. Challenging the limitations of traditional performance space, the center will consist of several mixed-use spaces woven together into a dynamic, multi-purpose venue that reflects and supports the evolving culture of pop music. Three monumental elements—the **Main Hall, Hall of Fame, and Industry Shell**—symbolize the principal uses and attractions of the complex, making it a powerful representation of Taiwan's pop music industry worldwide.



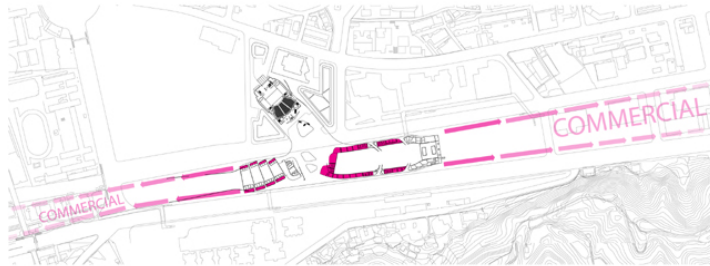
With the Taipei Pop Music Center, Reiser + Umemoto and ARUP have fundamentally rethought the live music and entertainment venue to meet the challenges and opportunities of pop music and digital media in the 21st century. The Taipei Pop Music Center will become a new global center for the music industry. It will speak to existing typologies of Taipei music and public space by linking to a larger set of citywide greenways, transport systems, and pedestrian bridges. It will be at once a platform for Taipei life and a world center for the music industry.



public connections



greenway/community connection



urban catalyst



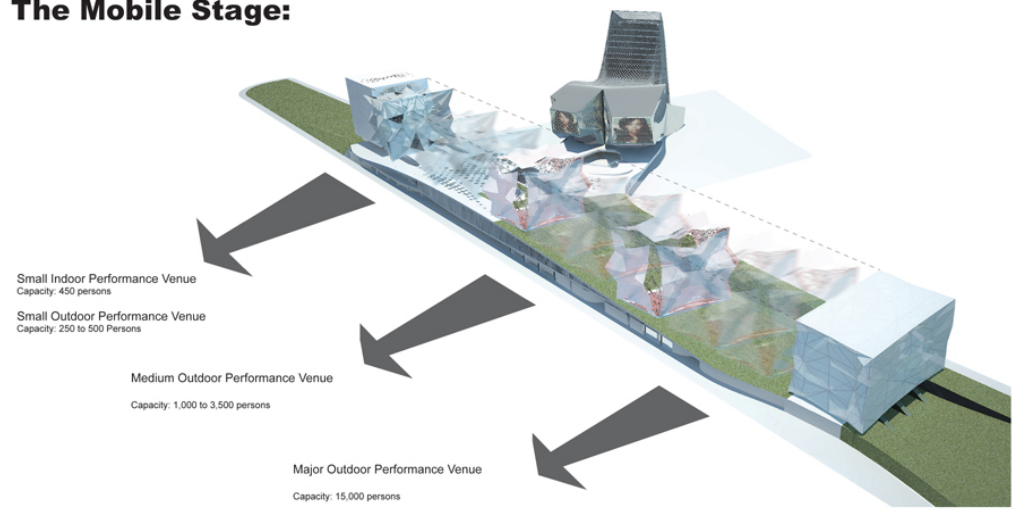
built space/unbuilt space

Pop music, while a global phenomenon,

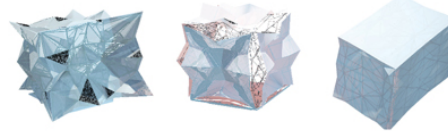
is regional in its definition. The East Asian music scene typifies the phenomenon; while it crosses borders and cultures and dialects, it nevertheless has produced styles and genres with distinct transnational form and appeal. Though many aspects of pop culture exist in a hyper-technological or virtual realm, there is a need for a defined physical hub dedicated to the production and reception of pop.



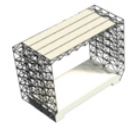
## The Mobile Stage:



**The Kiss**

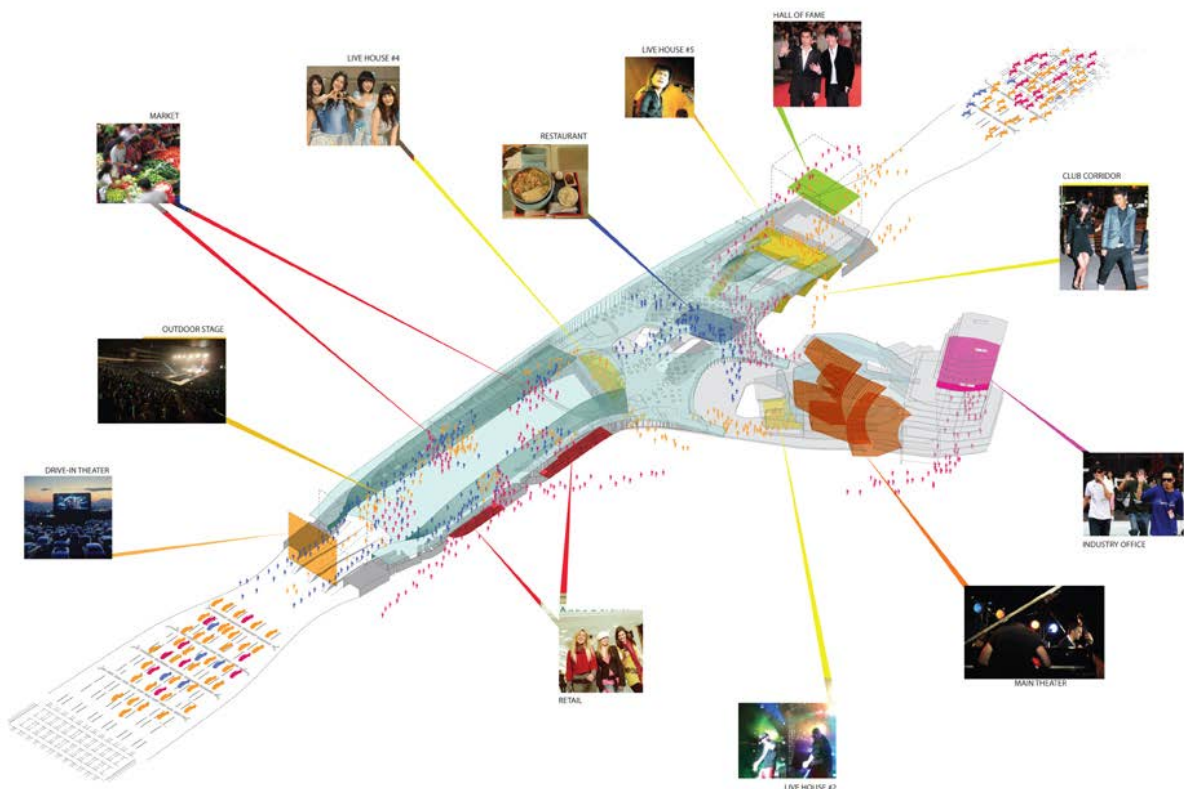


**The Robot Origami**

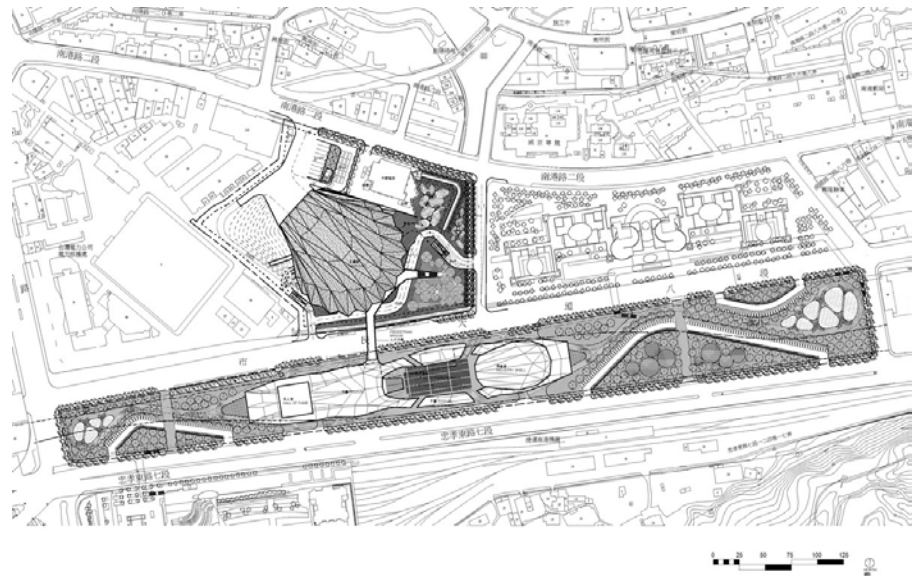


**The Super Structure**

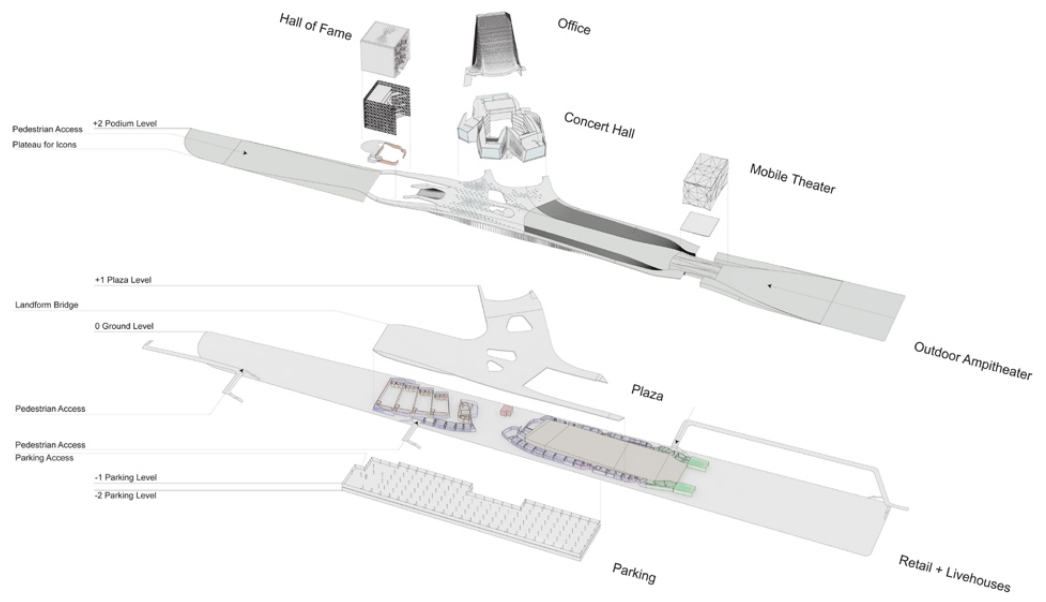
A Gradient of mixed-use spaces, from the fully public realm to the interior of the auditorium, allows the visitor to partake of the event dynamic however they choose to visit this complex. Whether they plan a night of music or are browsing the myriad shops, markets, cafes, and restaurants, the complex will be a 24-hour attraction independent of the schedule of performances in the theaters. The image of the Taipei Pop music Center must be based on the



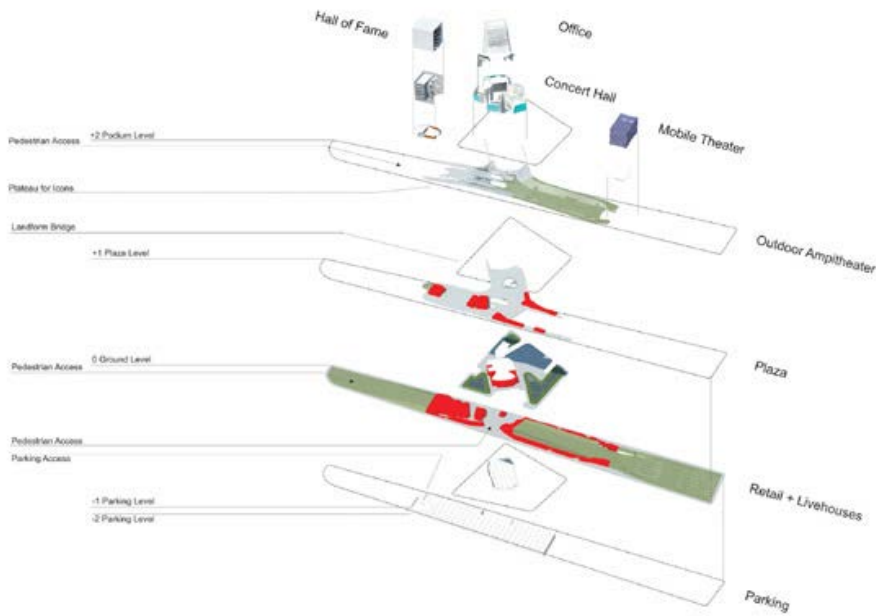
same transnational values of the music. Like Times Square,



Taipei’s Pop Music Center will exist simultaneously as a mediated icon and as a real world venue. The TPMC will challenge the rigidity of traditional performance space; RUR proposes a synthesis of park, theater and public space. The TPMC integrates theater with public space and commerce to become a cultural hub that will engage visitors independently of scheduled performances. While the scale and grain of the civic programs – retail, dining, offices, etc. – respect the vital fabric of Taipei street life, their architectural identity is unique and distinct.







The evolving culture of pop has superseded the possibilities of traditional performance venues, The previous century's models for event spaces were largely adaptive appropriations of old theatrical forms: stadia, concert halls, or open fields (Woodstock).

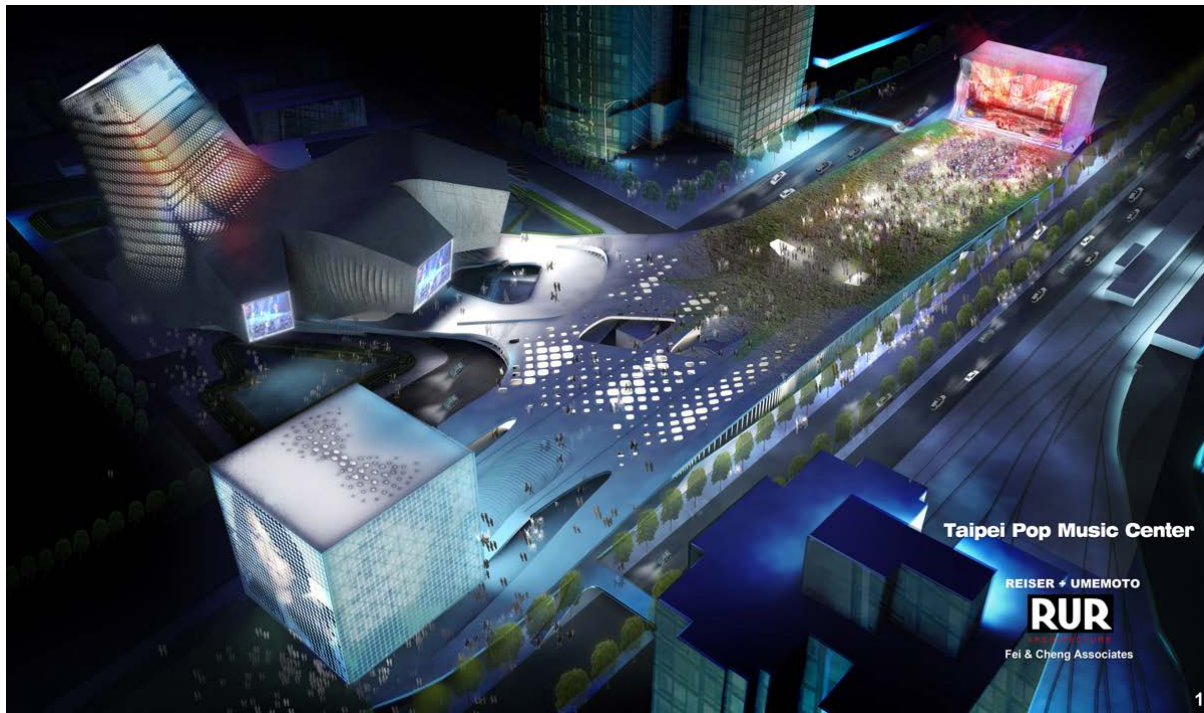


While such adaptive models continue to host isolated events, they fail to provide an adequate context, identity or home base for the new ways producing, performing and consuming pop music. Only a “branded” piece of city, a flagship venue, can accomplish this sleight of hand: an immediately recognizable work that functions as an organic part of Taipei’s everyday life. It is therefore important to concentrate particular icons and connect them into a super-form that creates a site that will become synonymous with the Pop music industry.

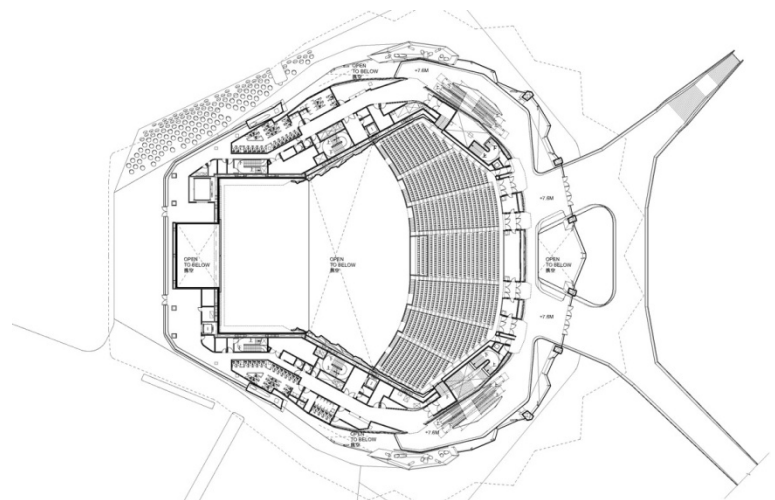
We propose creating a new elevated public ground, which will bridge the two building sites presently divided by Xinsheng Rd Corridor. This will effectively join the three major theaters and create a coherent public space distinct yet connected to the life of the city. The elevated public space is a pedestrian zone that will serve as forecourt to the concert hall, outdoor concert space and the street of clubs which houses the museum and hall of fame, the public space is in itself a focus for outdoor events, surrounded by cafes, restaurants and shops. Here, the spectacle of pop music can be celebrated and broadcast to the world.

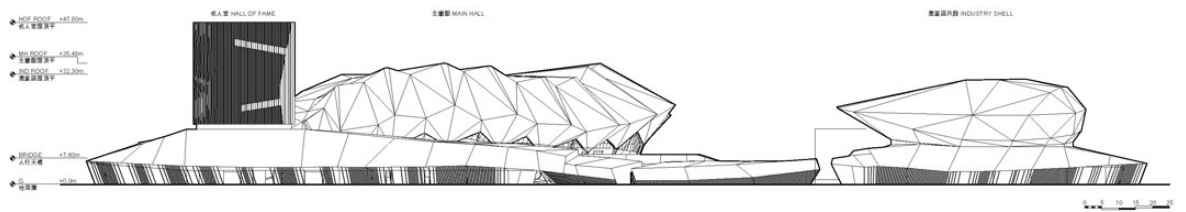
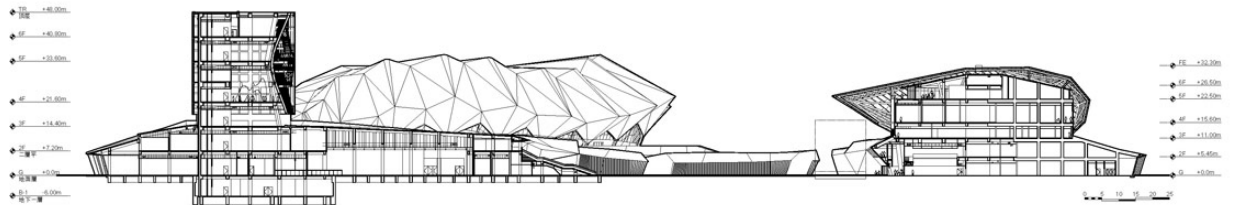
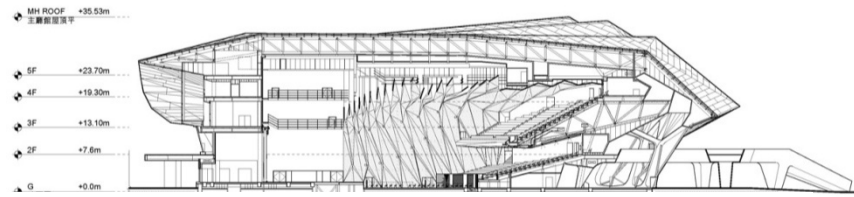
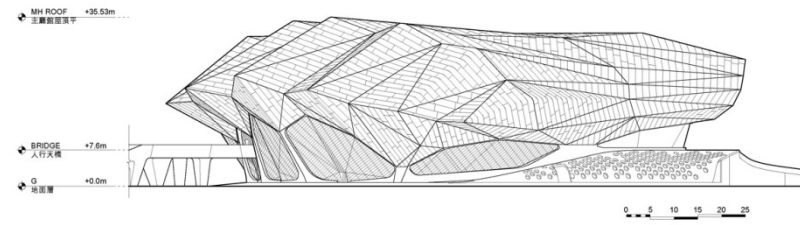
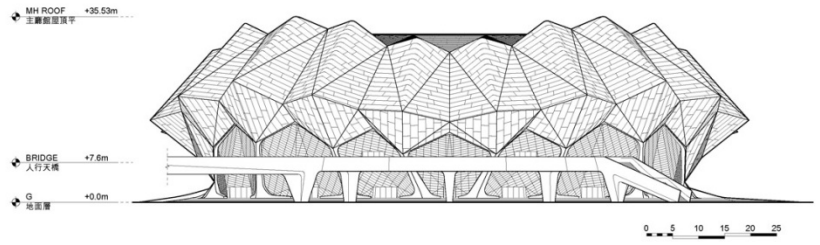
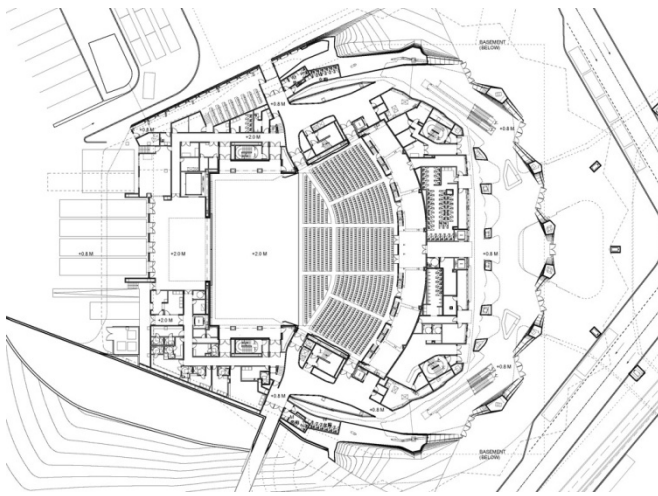


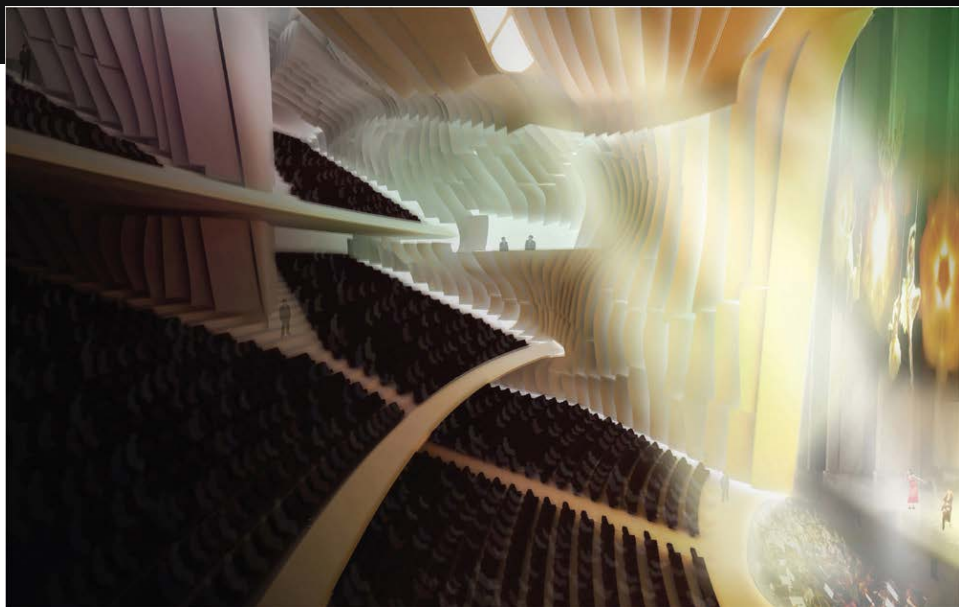
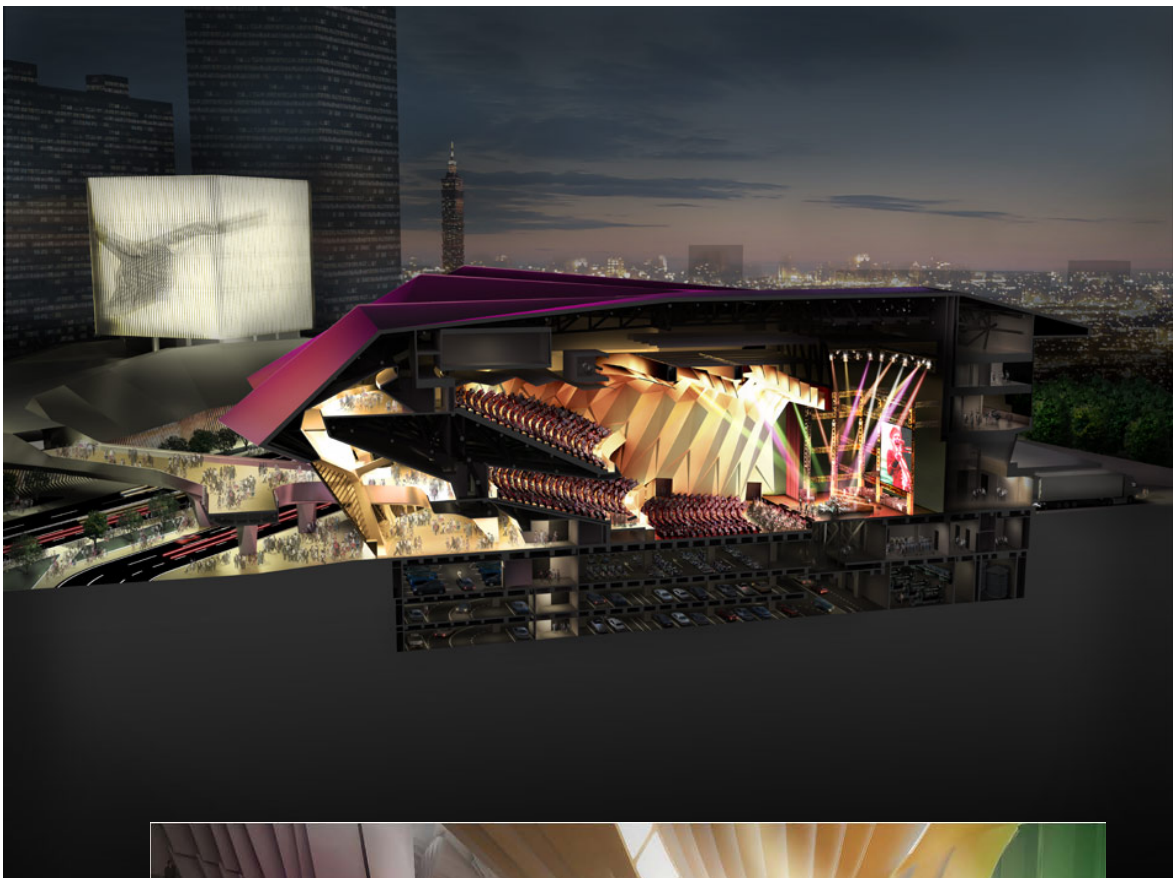
The landscape of the site emerges from the ground but maintains its artificiality, allowing the center to be organizationally integrated into the city of Taipei while also remaining architecturally distinct. The new elevated public ground bridges two building sites presently divided by the Xinsheng Rd Corridor, and acts as a socle for the Main Hall, Hall of Fame, and Industry Shell.



As the centerpiece of the TPMC, the Main Hall is a dynamic architectural form located on the northern site. With a seating capacity of 5,000, the interior auditorium is the jewel within the shell of the Main Hall. Visitors experience a series of unique spaces as they move from the faceted fan-shaped exterior of the building to the soaring and inviting lobbies, and finally to the crystalline auditorium interior. The distinctive architectural form of the Main Hall is one bound to become an internationally recognizable symbol of Taiwan and Asian pop music.





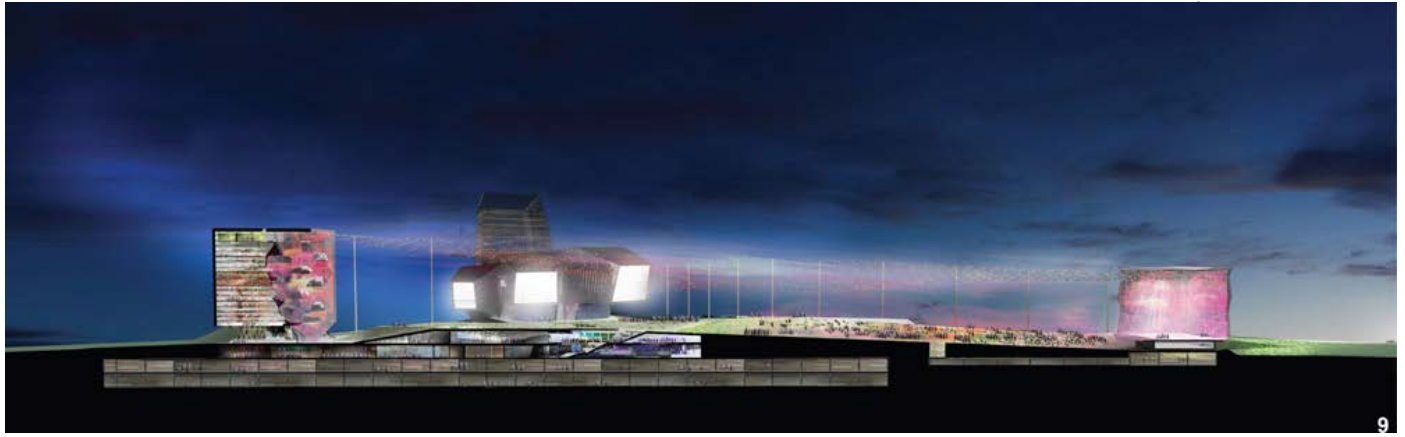




A pedestrian walkway bridges the Main Hall to the heart of the complex. On the southern site the bridge terminates in a grand staircase, opening to an outdoor performance courtyard with a standing capacity of 3,000. The staircase has a generous and gentle rise to house impromptu seating during concerts, while the Industry Shell at the other opposite end provides a spectacular cover for the outdoor stage.



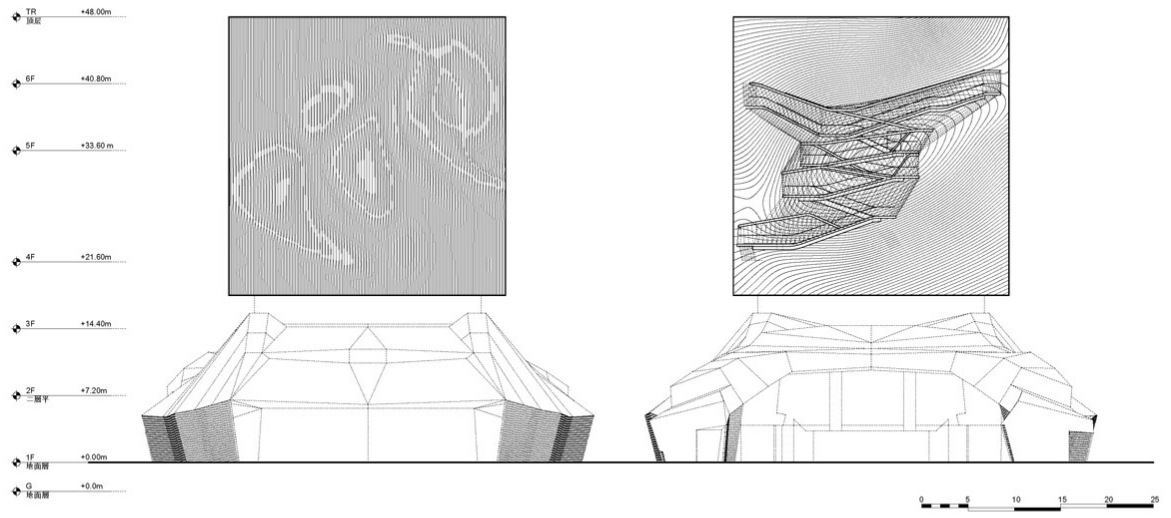




The courtyard is anchored to the east and west by three live houses, in addition to several dining and retail attractions. The crystalline egg of the Industry Shell houses up-to-date production facilities, which together with the performance spaces make the TPMC the preeminent facility in Taiwan dedicated to the music industry.

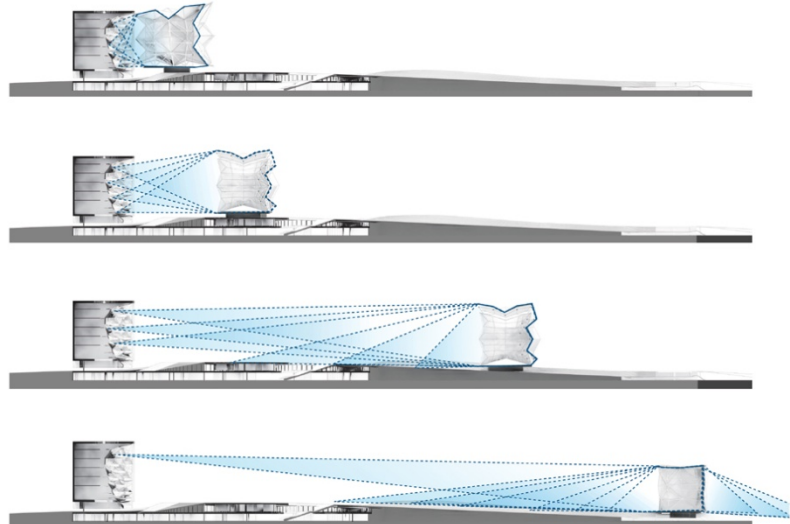


The Hall of Fame is housed within the cube, the TPMC's most ideal architectural form and also the most autonomous object elevated from the ground. The ideal platonic geometry of the Hall of Fame cube is a testament to the highest achievements of pop culture. It is the place for the celebration and display of pop music and includes four floors of exhibition space, a café, administrative offices, research facilities, and a 300-seat lecture hall.



HALL OF FAME WEST ELEVATION

PUBLIC STAIRCASE ELEVATION



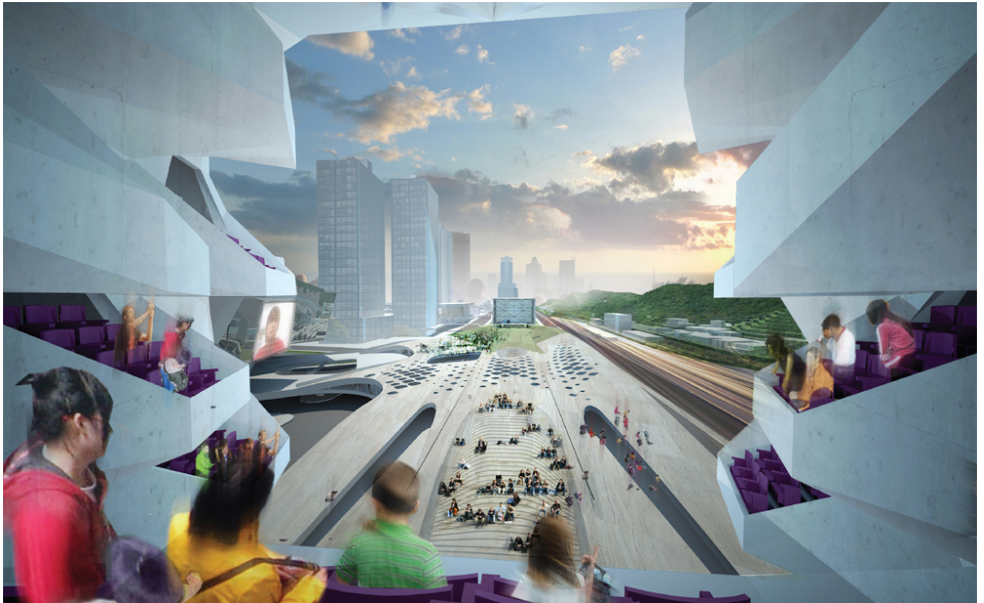
**Variable Focal Points**

The expansion and programmatic diversification of this threshold and junction was key. We are providing the substrate – the canvas for pop events now and for unforeseen events in the future. Our project therefore acts as a lens allowing for the focus of attention and flows of people, young and old on different paths of the site within different ambient zones. Creating a cultural hub also invites “ambient” users, those who may not be specifically attending a planned concert or event, to use and engage the TPMC; it will function like a park or center of commerce – a destination to frequent even when no specific itinerary exists.

The notion of cultural venue has been fundamentally rethought. Gone is the concert hall as a closed monument. Instead of a mere façade, we sought to create an expanded zone between public and concert. The expansion and programmatic diversification of this threshold and junction was key.



The traditional outdoor venues for mass events such as stadia, while highly effective as machines for concentrating large audiences, expose their mono-functionality during down times. Ultimately they become dead voids in the city that only vitiate the neighborhoods around them. We propose a new hybrid urban morphology that has the capacity to foster myriad types of events and public uses ensuring 24 hour vitality.

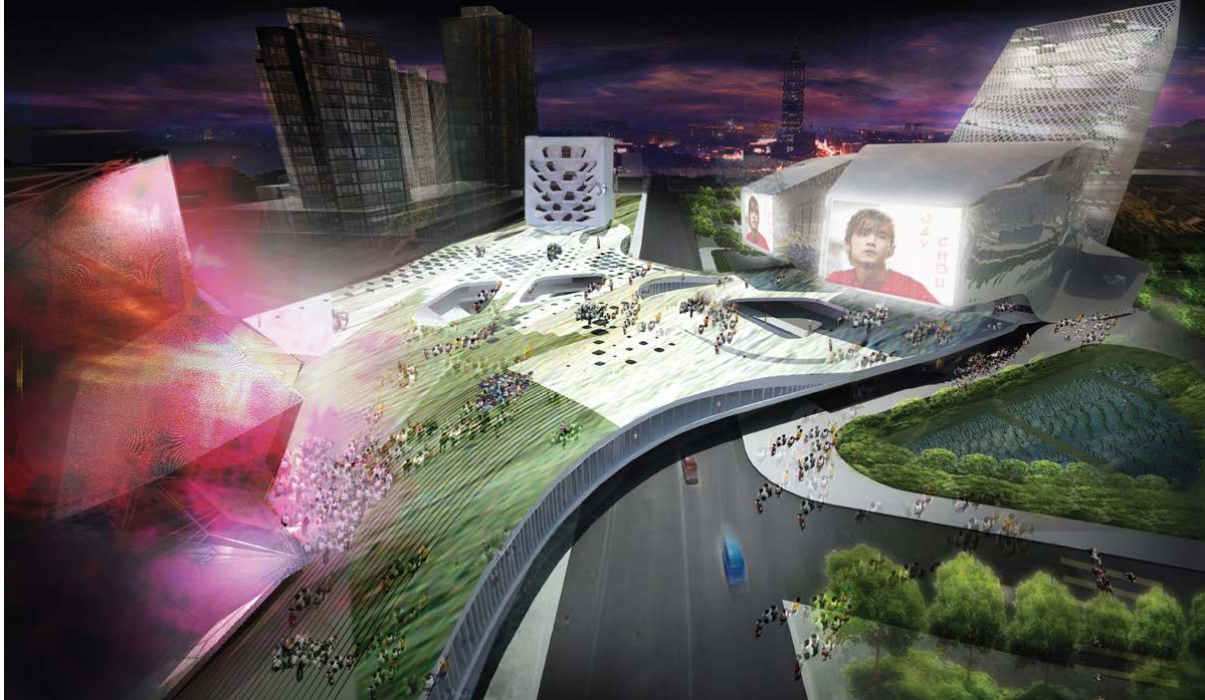


The landscape of the complex will blend the beauty of the traditional rice ponds of Taiwan with a green energy system, A geothermal pond cooling system will be located in a water feature to join Taipei's natural history with its sustainable future, The cooling pond will have geothermal plates submerged in them to reject building heat, These plates replace traditional cooling towers, which are large, require maintenance, and use energy, A closed-loop pond heat refection system uses a sealed circuit if warn condenser water which passes through cooler pond water, thus rejecting its heart, Additionally, rice ponds placed around the site will provide passive cooling to patrons nearby as the consistent Taipei winds move over the water.

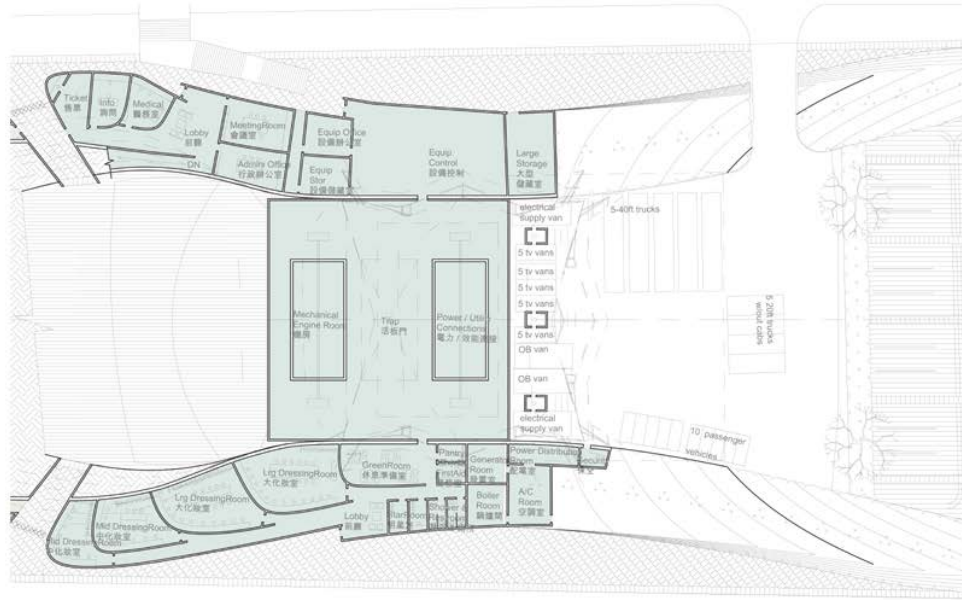
The form of our outdoor performance space is a hybrid of circus and city, In effect our design synthesizes what took centuries to accomplish, as for example in the shift from the Roman "Circus Agonalis" to the Piazza Navona.



With the mobile stage, our design can adapt to a spectrum of event scales and public uses and mass events, accommodating audiences of 16,000 people to smaller shows operating simultaneously or with other functions such as day or night markets.



South Site: Ground Level  
1:800



Ground Level Detail  
2A - Outdoor Theater  
Back of House  
1:200

As opposed to a singular or inflexible performance venue, the TPMC allows both high end, in-demand performances to coexist with small, up-and-coming artists. This has consequences not only for the diversity of concert-goers that the center will attract, but can also have important collaborative effects on pop music production in Taipei.

We envision a coherent environment, not merely a collection of performance spaces but a vibrant new part of the city itself. As Hollywood is to world cinema so the Taipei Pop Music center will be to Asian Pop.

## 4.2 Oslo Opera House



Architects: **Snohetta**

Location: **Bjørvika, Oslo, Norway**

Client: **Ministry of Church and Cultural Affairs**

Area: **38.500sqm**

Construction start: **2004**

Completion: **2007**

Contractors: **55 contracts**

Geological Engineer: **NGI**

Structural Engineer: **Reinertsen Engineering ANS**

Electrical Engineer: **Ingeniør Per Rasmussen AS**

Theatre Planning: **Theatre Project Consultants**

Acoustics: **Brekke Strand Akustikk, Arup Acoustic**

Artists, integrated artwork: **Kristian Blystad, Kalle Grude, Jorunn Sannes, Astrid Løvaas og Kirsten Wagle**

Photos: **Snohetta, Nina Reistad, Statsbygg, Erik Berg & Nicolas Buisson**





### **About the Building Client and the User**

Statsbygg is Norway's largest civil property manager, with 650 employees. It is the state's main consultant on building and property issues, development and management. Statsbygg is a management company under the Ministry of Renewal and Administration, but provides services and support to all ministries and state organs. In 1998 the National Assembly decides that Statsbygg would be the building client for the new operahouse, responsible for planning and management. Statsbygg procure services in the private sector, but are responsible for professional coordination and quality control of the consultants, contractors and suppliers. The Norwegian Opera and Ballet is the building's end user. They are Norway's largest music and theatrical institution. Their core purpose is to be the national producer of opera, ballet, music and dance theatre, and concerts. They intend to have approx. 300 shows and 250,000 visitors per year. The Operahouse will be a workplace for approx. 600 employees from more than 50 professions.

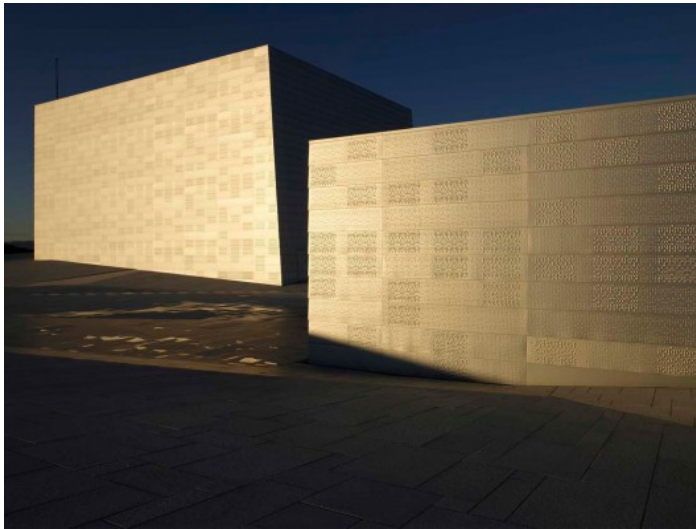
### **Architect's description**

The operahouse is the realisation of the winning competition entry. Four diagrams, which were part of the entry, explain the building's basic concept.



### “The wave wall”

Opera and ballet are young artforms in Norway. These artforms evolve in an international setting. The Bjørvika peninsula is part of a harbour city, which is historically the meeting point with the rest of the world... The dividing line between the ground ‘here’ and the water ‘there’ is both a real and a symbolic threshold. This threshold is realised as a large wall on the line of the meeting between land and sea, Norway and the world, art and everyday life. This is the threshold where the public meet the art.



### “The Factory”

A detailed brief was developed as a basis for the competition. Snøhetta proposed that the production facilities of the operahouse should be realised as a self contained, rationally planned ‘factory’. This factory should be both functional and flexible during the planning phase as well as in later use. This flexibility has proved to be very important during the planning phase: a number of rooms and room

groups have been adjusted in collaboration with the end user. These changes have improved the buildings functionality without affecting the architecture.



### “The Carpet”

The competition brief stated that the operahouse should be of high architectural quality and should be monumental in its expression. One idea stood out as a legitimation of this monumentality: The concept of togetherness, joint ownership, easy and open access for all. To achieve a monumentality based on these notions we wished to make the opera accessible in the widest possible sense, by laying out a ‘carpet’ of horizontal and sloping surfaces on top of the building. This carpet has been given an articulated form, related to the cityscape.

Monumentality is achieved through horizontal extension and not verticality.

The conceptual basis of the competition, and the final building, is a combination of these three elements – **The wave wall, the factory and the carpet.**



### Urban situation

The operahouse is the first element in the planned transformation of this area of the city. In 2010 the heavy traffic beside the building will be moved into a tunnel under the fjord. Due to its size and aesthetic expression, the operahouse will stand apart from other buildings in the area. The marble clad roofscape forms a large public

space in the landscape of the city and the fjord. The public face of the operahouse faces west and north – while at the same time, the building's profile is clear from a great distance from the fjord to the south. Viewed from the Akershus castle and from the grid city the building creates a relationship between the fjord and the Ekerberg hill to the east. Seen from the central station and Chr. Fredriks sq. The opera catches the attention with a falling which frames the eastern edge of the view of the fjord and its islands. The building connects city and fjord, urbanity and landscape. To the East, the 'factory' is articulated and varied. One can see the activities within the building: Ballet rehearsal rooms at the upper levels, workshops at street level. The future connection to a living and animated new part of town will give a greater sense of urbanity.

### Choice of materials

In the operahouse, three main materials were specified as early as the competition entry: White stone for the 'carpet', timber for the 'wave wall', and metal for the 'factory'. During the continued work on the project, a fourth material, glass, which allows for the exposure of the underside of the 'carpet', has been given specific attention.



### Stone

After an international tender competition, the Italian marble, La Facciata, was chosen. This is a stone which, in common with other marbles, retains its brilliance and colour even when wet. It has the necessary technical quality in terms of stability, density, and longevity. The producer, Campolonghi, has had the professional ability, capacity, and experience necessary for such a large and complex project.

The accessible area of the 'carpet' is approx. 18,000 m<sup>2</sup>. Its detailed design has been

important: the architect desired that it should not interfere with the general form of the building but that it simultaneously was articulated enough to be interesting at close quarters.

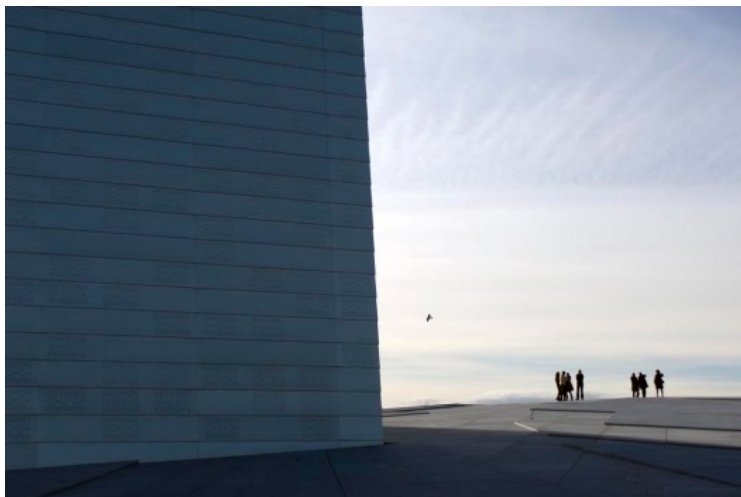
Together with the artists several alternatives were proposed before a particular non repetitive pattern with integrated raised areas, special cuts, various surface textures, and specific details were designed to articulate the main geometry.



### Timber

Oak has been chosen as the dominating material for both the 'wave wall' and the main auditorium. For the wave wall it has a light and varied surface. Oak is used throughout for the floors, walls and ceilings. The wave wall has a complex organic geometry made up

of joined cone shapes. It is also an important acoustic attenuator within the foyer space. To achieve these goals it is made up of smaller elements which can deal with the changing geometry and provide acoustic absorption. Inside the auditorium oak has been chosen for a number of reasons: It is dense, easily formed, stable and tactile. The oak has been treated with ammonia to give a dark tone. Here too oak is used for floors, walls, and ceilings, as well as balcony fronts, and acoustic reflectors.



### Metal

An operahouse is designed and built to have a long lifespan. This means that a simple, modern metal cladding, such as we associate with factories and workshops, needs to be re-evaluated and redesigned. After a consideration of aesthetics, longevity, malleability

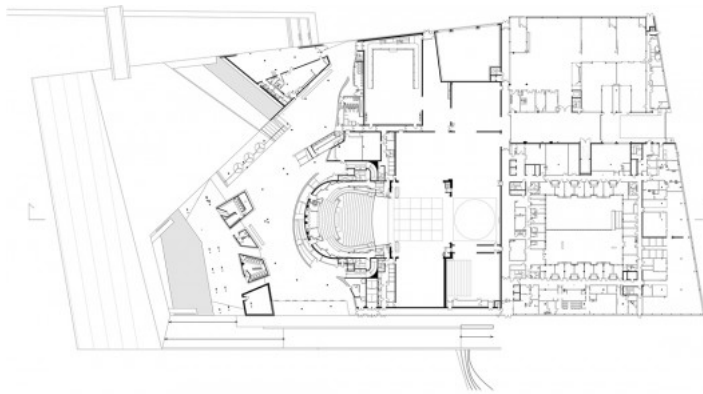
and the possibility to make very flat panel, aluminium was chosen. To give the panels further quality, a collaborative process was begun with two artists. The design team initially aimed for an industrial modularity but that the panels themselves should have greater visual quality. The panels were punched with convex spherical segments and concave conical forms. The pattern was developed by the artists based on old weaving techniques. In all, eight different panels were designed which give a constantly changing effect depending on the angle, intensity and colour of the light playing on them.



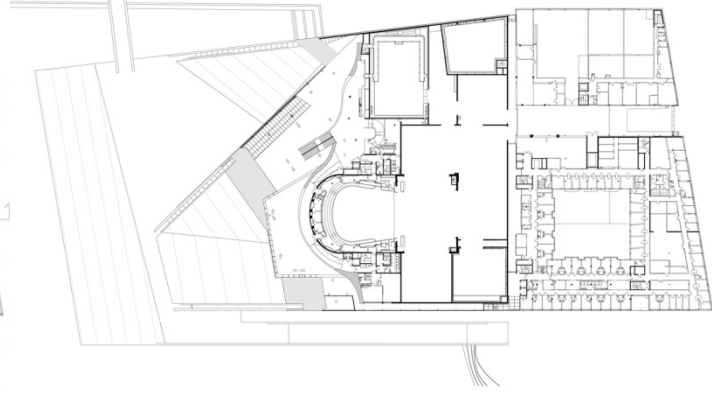
### **Glass**

The high glass facade over the foyer has a dominant role in the views of the building from the south, west, and north. Early in the project it was realised that this glass faced was more important than previously assumed, both during the day and night when it would act as a lamp illuminating the

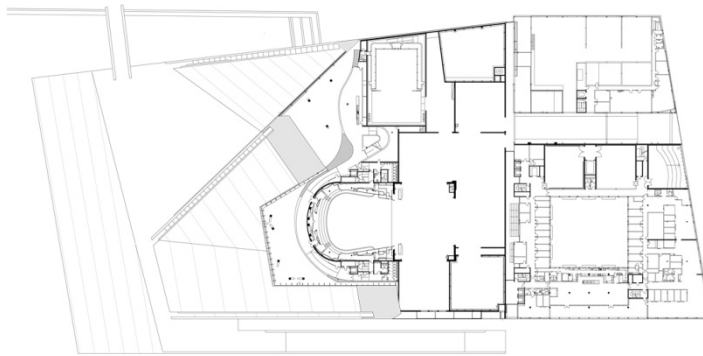
external surfaces. The glass façade is up to 15 meters high. It was the architect's intention to design a glass construction with an absolute minimum of columns, framing, and stiffening in steel. The solution was to use glass fins where minimised steel fixings are sandwiched inside the laminates. The requirements for the glass's stiffness increased due to the desire for large panels and slim joints where the panels meet. Thick glass of this sort tends to be quite green rather than transparent. It was therefore decided that the façade of the operahouse would use low iron glass.



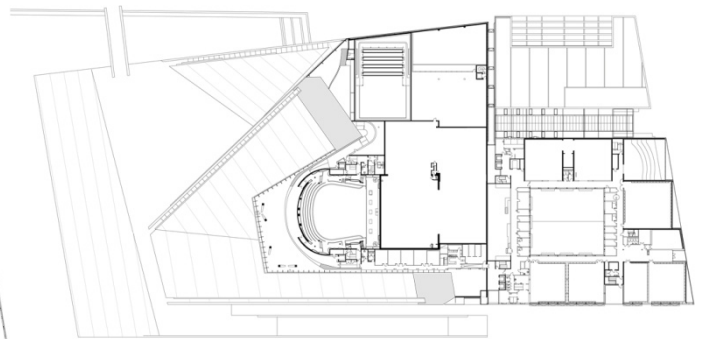
PLAN 1 MÅLSTOKK 1 : 1000 /A4



PLAN 2 MÅLSTOKK 1 : 1000 /A4



PLAN 3 MÅLSTOKK 1 : 1000 /A4



PLAN 4 MÅLSTOKK 1 : 1000 /A4

## Plan solution, general arrangement

The building is split in two by a corridor running north-south, the 'opera street'. To the west of this line are located all the public areas and stage areas. The eastern part of the building houses the production areas which are simpler in form and finish. Comprising 3 to 4 storey's above ground. There is also a basement level – U1 – below this part of the building. The sub stage area is a further 3 storey's deep.

## The building's western part

A marble clad plaza leads the visitors to the foyer and other public areas. A secondary entrance on the north façade gives direct access to the restaurant and foyer. To the south, the foyer opens up to the inner Oslo fjord and views of Hovedøya island. To the west and north it is views of the city which dominate, while the auditoria lie to the east. There can be as many as 1900 audience members in the building. 1400 in the main auditorium, 400 in stage 2 and 150 in

rehearsal room 1, which doubles as a black box theatre. There is a brasserie to the south of the foyer, a restaurant to the north and several bars which can be run separately from the performances. Service functions such as education spaces, cloakrooms, toilets, information/ticketing desk and diverse smaller rooms are located around the foyer. From the foyer, at ground level, and from the public galleries, access is provided to the two main auditoria. The large stage area occupies a significant part of the building footprint. Here is the main stage (16m x16m) with an 11.8m deep sub stage, two side stages and two rear stages, as well as a scenery hall and store. There is a free height of minimum 9m throughout these areas. Storage for the backdrops is located above the rear side stage. Finished scenery for several performances and acts can stand ready on the rear and side stages as well as below stage. In addition, the large rehearsal room is located in direct connection to the stage areas and can provide further scenery storage should this be necessary. The orchestra rehearsal room – an acoustically sensitive space – is also located in the western part of the building – at basement level. This hall is the orchestra's most important rehearsal space and can also be used for recording purposes. The requirement for variable acoustics is achieved by the use of adjustable paneling and drapes. The room can achieve similar acoustics to the main auditorium. A passage from the foyer, along the southern façade, leads to rehearsal room 1 allowing it to be used as a public performance space. The same area of the building at the upper levels houses sponsor lounges and a VIP room. To the east of the 'opera street' are located all the production and administration areas; approx 1000 rooms of varying size and function. The opera street is the main communication artery for all the employees – almost 600 persons from more than 50 professions. A large loading dock running east west splits the back of house area in two. Here also, the dimensions of the space are given by the size of scenery elements, up to 9m high. To the north lie the 'hard workshops' where the scenery is made. Several professions have their workspaces here, carpenters, metalworkers, painters and decorators. The finished scenery is moved through the loading dock and directly into the rear stage area. To the south lie all the other functions necessary to serve the needs of the dancers and singers: 'Soft workshops' with costume production, wigs, hats, gloves and make up areas. Also administration and changing rooms are located here. A spacious green courtyard is at the heart of this area on levels U1 and Ground. Most of the changing rooms house 4 performers with all the necessary costume and make up for each show. The rooms are also intended to be a place for relaxing and concentrating and are therefore equipped with a day bed. The opera and ballet departments have several large rehearsal rooms in this zone on levels 3 and 4 and it is possible to transport scenery from the loading dock to the rehearsal spaces on level 3 via an elevator with a clear



height of 6m. The largest of the rehearsal rooms has a clear height of 9m and is as large as the main stage. This allows the dancers to practice a complete performance. All these spaces have walls with acoustic attenuation. There are also a number of small rehearsal rooms at plan 2. The wig makers, makeup artists, and dressers are located closer to the stage at level 1 (ground). From here the artistes can access the stage areas at ground level or from the basement. At level 2 there are music archives, offices, and support functions for the orchestra as well as a health center and gym. Level 3 houses the administration department with a large canteen on the south with a terrace overlooking the fjord.



### **The main auditorium**

The main auditorium is a classic horseshoe theatre built for opera and ballet. It houses approx. 1370 visitors divided between stalls, parterre, and three balconies. Technical spaces occupy the area above balcony 3. The orchestra pit is highly flexible and can be adjusted in height and area with the use of three separate lifts. On each side of the stage are mobile towers which allow for adjustments in the proscenium width for ballet or opera without damaging the acoustics of the hall. Reverberation time is fine tuned using drapes along the rear walls and control rooms for sound and light are located to the back of the hall. The form of the auditorium is based on several relationships: short distance between the audience and the performers, good sight lines, and, above all, excellent acoustics. The architectural intentions for a modern auditorium with traditional, acoustic musical performance have been developed in parallel with requirements for visual intimacy and acoustic excellence. In older opera halls acoustic attenuation was often

achieved by using rich decorative, sculptural elements on most surfaces. In this case the requirements have been met with a clean, carved aesthetic using a modern formalistic language. The requirement for a long reverberation time results in a room with a large volume. In this case the volume is increased by the use of a technical gallery which cantilevers out over the walls below, giving the hall a T shaped section. The main structure of the stone clad roof above is included in the volume of the hall rather than being hidden behind a false ceiling.

**Optimum acoustics have been achieved by the following methods:**

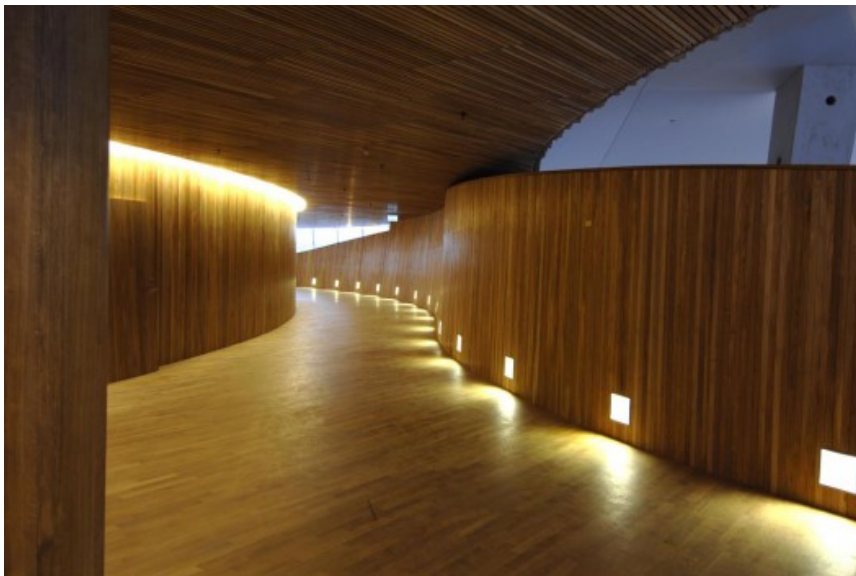
- We have, also as an aesthetic move, given the balcony fronts a geometry which changes relative to its location in the room and the acoustic function necessary in each location. At the sides the form reflects sound back down to the audience whilst at the rear it sends sounds in multiple directions to avoid focusing.
- The oval ceiling reflector visually finishes the hall and also reflects sounds in very specific ways. The same principle is used as with the balcony fronts.
- The rear walls at each level are made up of convex panels to avoid focusing and to spread sound evenly through the room.
- The geometry of the interlying walls, main orchestra reflector, and the mobile towers are modulated to scatter sound around the space. Using timber staves of varying dimensions to modulate sound of different wavelengths.
- All the surfaces are of relatively dense materials to avoid high frequency vibrations.



**Stage 2**

Stage 2 can, depending on the chosen seating configuration, house an audience of up to 400. It will be used by both opera and ballet, as well as for banquet functions, rock concerts, experimental performances and children's theatre. It is a

multi use hall where the seats, which are on large wagons, can be repositioned in a number of different configurations. There are 2 large elevators which form an amphitheatre, orchestra pit and transport seating wagons for storage in the basement. The area which is normally the stage is made up of removable floor elements. The auditorium has no fly tower but rather an extensive motorised pulley system to hang and transport scenery, backdrops and acoustic reflectors when necessary. A 9m high sliding gate connects the stage area with the back stage zones and scenery stores. The reverberation time in the hall can be damped down for amplified performances. The client required an auditorium with the flexibility of a black box but with an amount of architectural quality and identity. These two requirements are generally considered to be mutually exclusive, but after close discussions with the end user, a solution was found where of a black box has a high quality contrasting, freestanding structure placed inside it. This 'object' has rounded, high gloss, red paneling on the outside and a cooler metallic silver finish in towards the stage. Four technical bridges span across the space at high level housing lighting and ventilation and forming an important visual and acoustic ceiling. Between the columns, large, black painted doors and removable panels are used to adjust to different configurations. These panels have also been given acoustic consideration.



### Interiors

The exterior of the operahouse becomes diffuse as night falls. The large timber 'wave wall' in the foyer is illuminated and the building takes on a completely different character. The interior becomes the façade. It shows how interdependent the interior and exterior of the building are. The building's architectonic ideas and concepts have also

been used in the buildings interiors. The task has included considerable interior planning based on the schedule of rooms, functions, colours, materials, and surface treatments, coordinating lighting schemes, technical installations, built in furniture, wet rooms, kitchen solutions, elevator

cars, fittings and fixtures.

It has also encompassed design and coordination of the end user equipment and loose furnishings. Cooperation between the various architectural disciplines has been vital.

### **Interiors concept, public spaces**

The experience of the buildings exterior clearly requires that the interiors be of equally high architectural quality. On entering the building one is first lead in under the lowest part of the sloping roofscape where the ceiling falls to meet the floor. This area is used for the public cloakroom where a copse of slim columns hold the visitors coats. Further out into the foyer, four volumes hold up the roof. The perforated, illuminated cladding of these is another example of integrated artwork. In this case by Olafur Eliasson. These white forms house the public toilets. Moving out into the open space of the foyer one is below an expanse of white, sloping ceiling held up by angled white columns which meet in clusters at floor level. The grand staircase is



peeled out of the wooden wall and leads up to 3 galleries around the auditorium. Thus providing access to the upper levels of the hall. The interior of the wooden wall has an intimate feel in contrast to the open, white foyer. Dark light locks lead the audience into the heart of the building, the main auditorium. The feeling is of being inside a carved out piece of timber, or perhaps within a musical instrument.

### **Landscaping**

The opera's landscape comprises of the marble roof, additional marble clad areas, and the areas between the building and the surrounding streets. Access to the plaza and the main entrance is over a marble clad footbridge over the opera canal. The plaza forms a part of a public promenade and cycle lane which continues around the west and south sides of the building, and eventually coming to a planned bridge over the Aker river to the east. As early as

the competition entry, Snøhetta proposed that the roofscape should be openly accessible to the general public and that it should be clad with white stone. Today the building's defining feature is the characteristic geometry of the roof as it rises from the fjord and is laid out like a carpet over the public areas. An important move has been to introduce channels along the roof edges with ramps and steps. This allows the integration of regulation height balustrades with raising the line of the roof itself. To achieve enough acoustic volume in the auditorium, the roof has been raised independently inside the line of the balustrades. This has created a new viewing point from which the city and the fjord can be experienced. The roofs are mostly too steep for wheelchair use but access to the near flat, upper areas is provided via a dedicated elevator. The surface treatment of the stone, its pattern, cuts and lifts which create a shadow play, have been designed in close collaboration with the artists. The white marble is 'La Facciata' from the Carrara quarries in Italy. The north facade and all the stone cladding which is in contact with water is a Norwegian granite called 'Ice Green'. Prototypes and tests at full scale were studied at the contractor's facilities before the final choices were made for colour nuance and surface texture. A running quality control regime has been implemented throughout the production process. Adjacent areas during the building period it became clear that rapid and considerable settling of the ground level around the building would need to be addressed. Large areas of gravel which is designed to take local vehicular traffic have been laid around the building footprint. This is easy to adjust as the ground sinks relative to the building which is founded on the bedrock. Trees are planted in the gravel areas, and a zone of street furniture is located along the pavement line with cycle parking, benches and specially designed streetlamps in stainless steel. The pavements are of asphalt with black granite edges and larger areas of granite paving to highlight the entrances to the restaurant, opera street, and stage entrance. The dark grey colour palette is a clear contrast to the light stone and aluminium of the building itself within a cool monochrome language. Landscaping of the surrounding areas has been designed in collaboration between Snøhetta and Bjørvika Infrastructure who have been responsible for the planning of the street around the operahouse.

## **Courtyard**

The courtyard is a garden in the middle of the production area of the building surrounded by facades of black glass, aluminium and timber and open to the sky. There is direct access to the courtyard from ground and basement levels while the upper levels experience it as a green lung deep inside the building.

## CHAPTER 05: PROGRAMME DEVELOPMENT

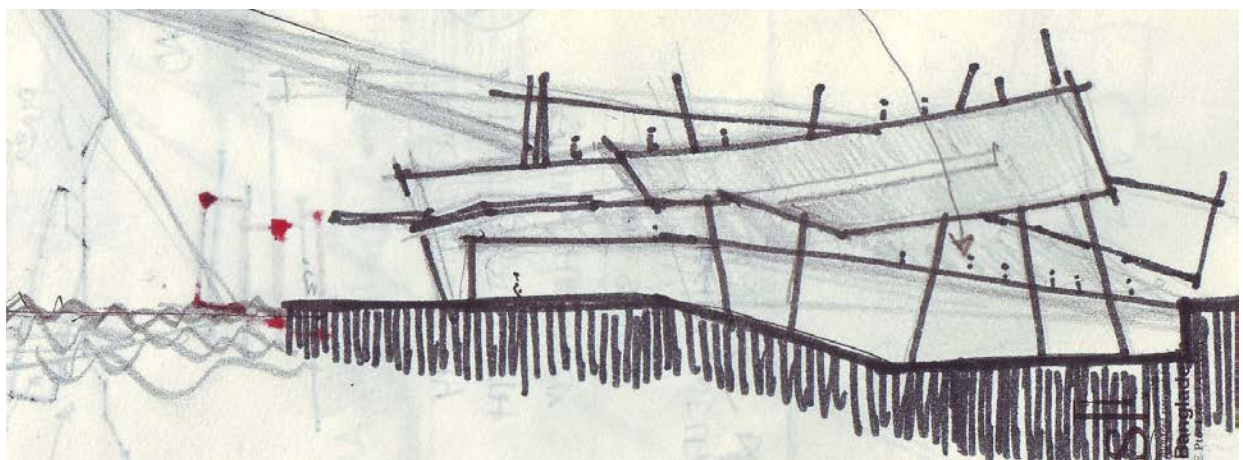
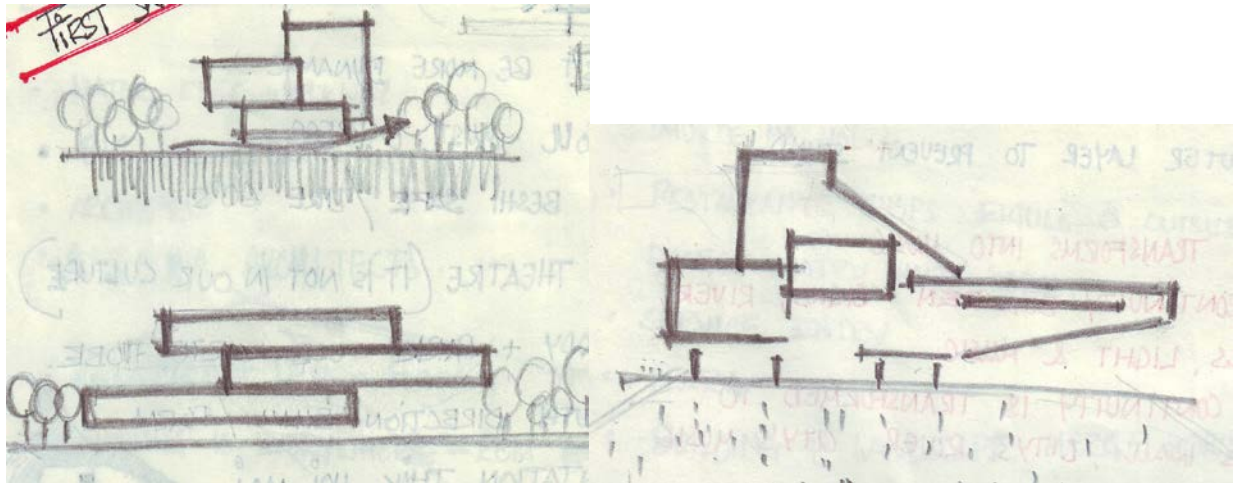
The programmes are developed in such a way that it increases the interaction between music artists and normal people.

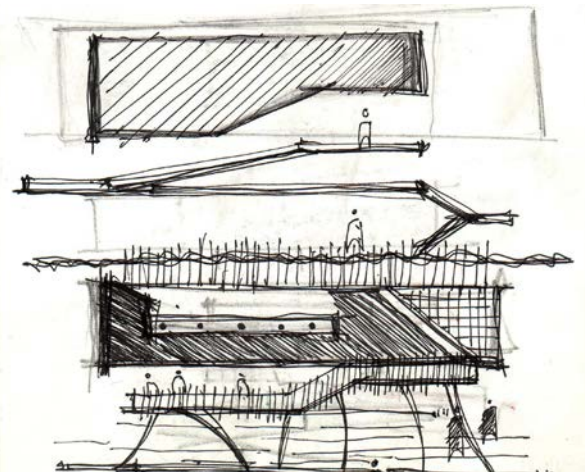
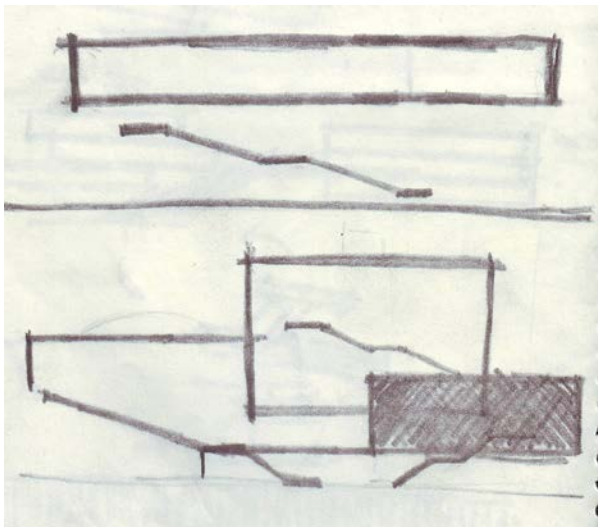
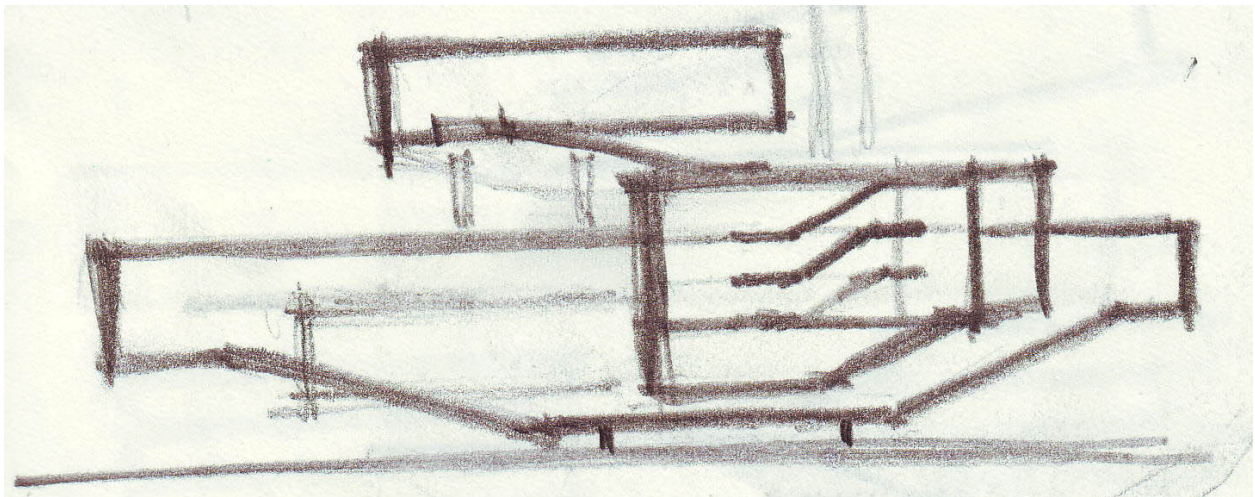
<b>SPACE</b>	<b>QUANTITY</b>	<b>TOTAL AREA / sft</b>
CONCERT HALL	1	30000
AMPHITHEATER	1	25000
ADMINISTRATION	2	12000
GALLERIES	4	17300
SHOPS	1	3000
LIBRARY	1	5700
CLASS ROOMS	7	1800
JAMMING PADS	4	4800
LISTENING BOOTHS	2	4000
INTERACTIVE KIOSK	2	3200
PRODUCTION STUDIO	1	5500
RESTAURANT	1	3000
THEME LOUNGE	2	6200
INDOOR GAMES	2	5800
INTERACTIVE SPACE WITH ARTISTS	1	3400
PARKING		15000
TOTAL		145700
CIRCULATION		45830
GRAND TOTAL		191530

## CHAPTER 06: CONCEPTUAL STAGE AND DESIGN DEVELOPMENT

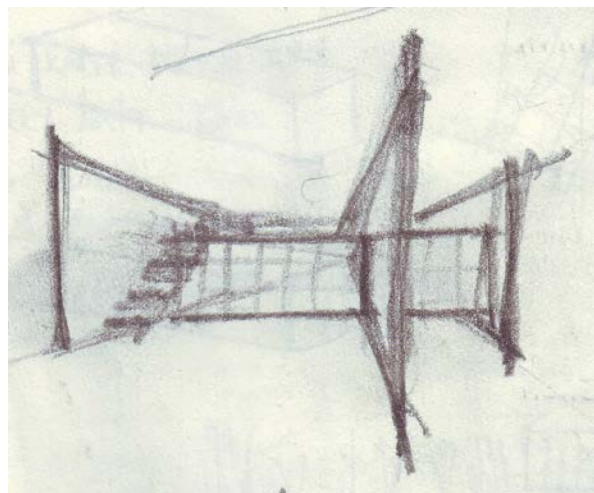
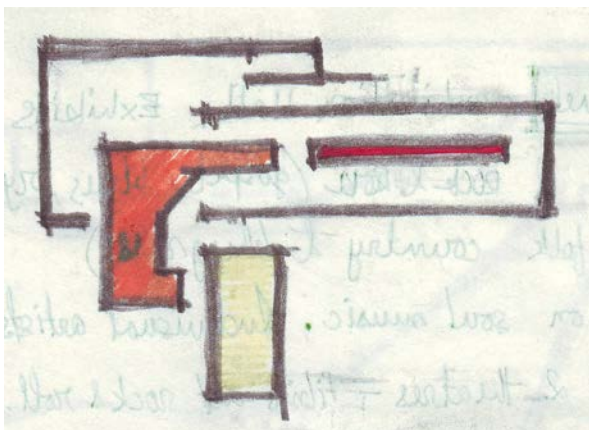
### 6.4 Idea Generation and Concept Development

In this phase I studied different philosophies of rock artists and their way of seeing rock music. I studied the lyrics and tried to understand what rock music actually talks about. What I understood was that rock music is an outburst of the young souls. I used philosophies of different artists to formulate my concept and to build up the design. According to Jonny Thunder- "ROCK N ROLL IS SIMPLY AN ATTITUDE". And yes this attitude of the artists and their music became my concept.

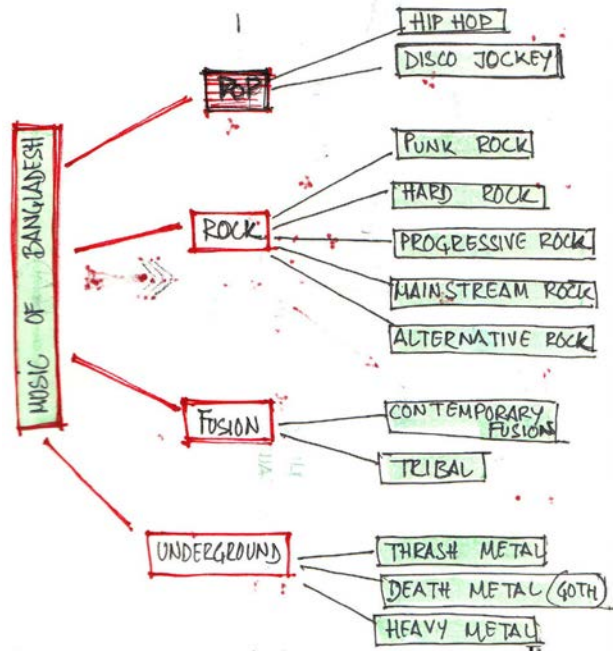
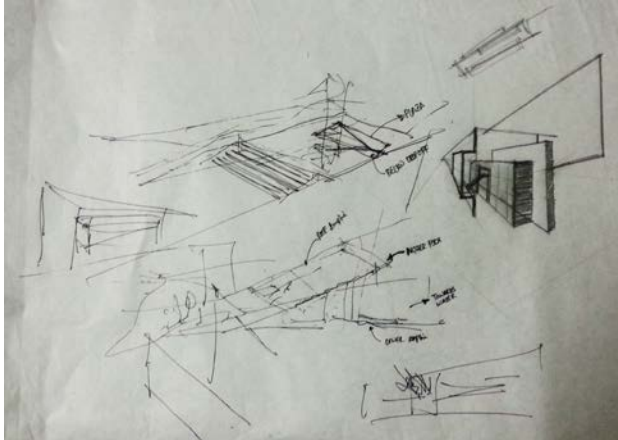




Study phases to understand the space quality through sketches and sections.

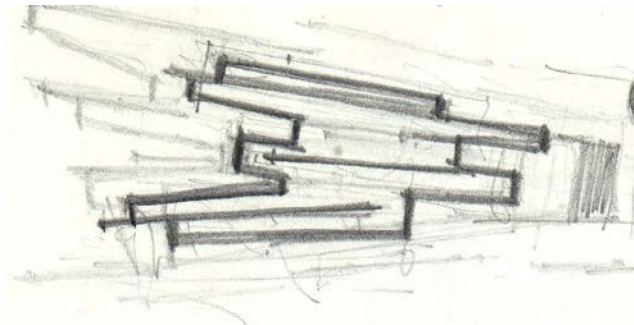
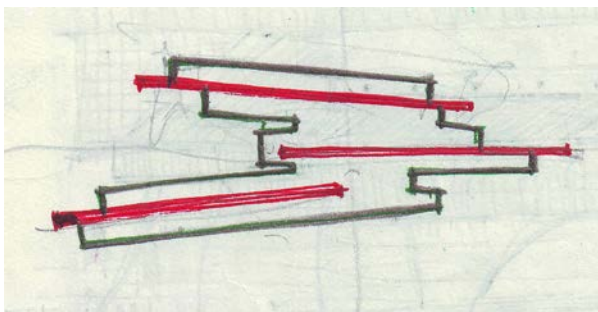


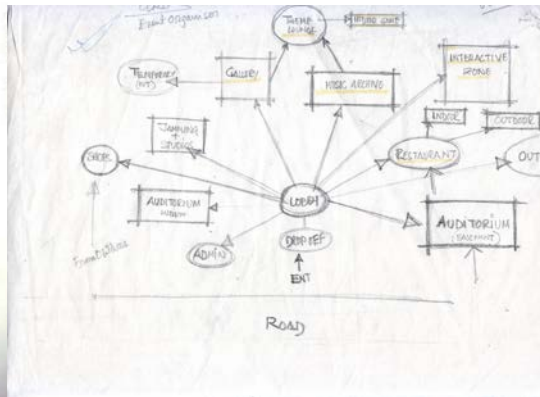
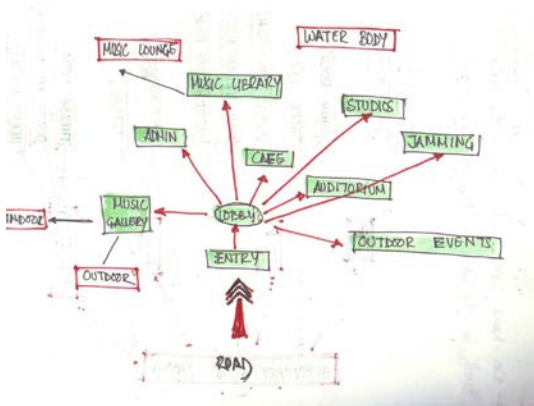
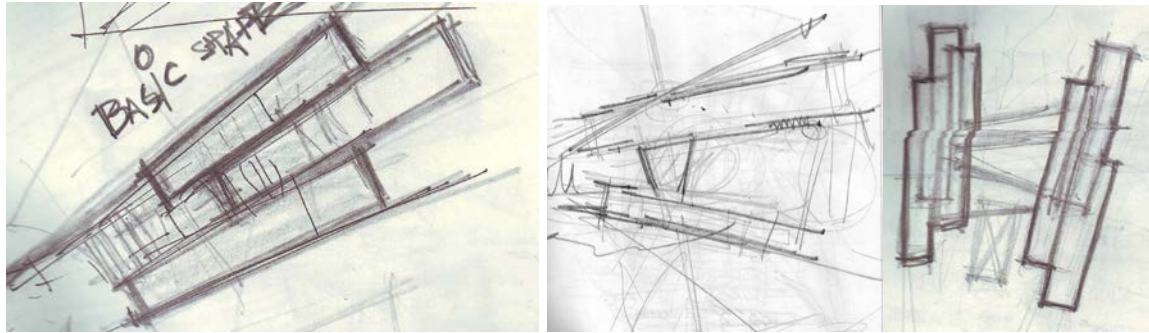




### 6.5 Zoning

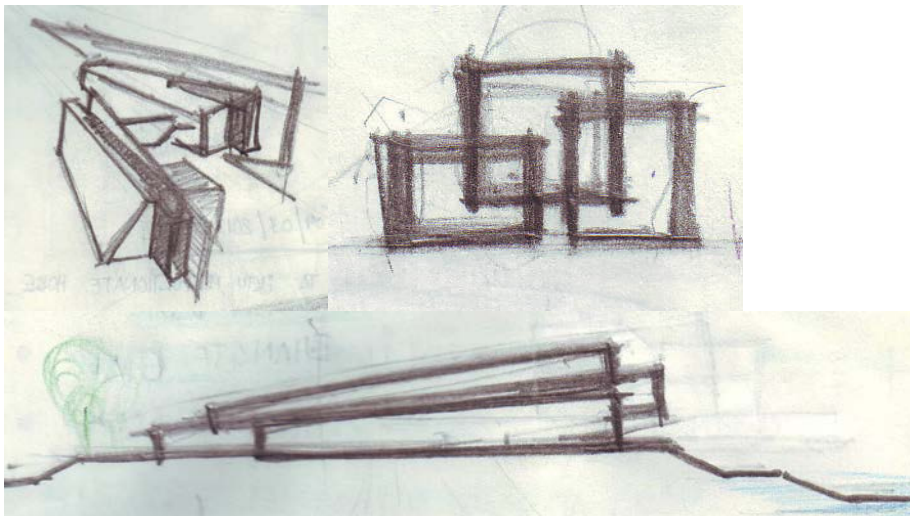
The design is divided into three main segments. An institute where people can learn, an area to perform music, and a museum where legends are remembered. The zoning idea was developed from the life phases of an artist. An artist learns at his early age, performs, and becomes a legend for his performance. I tried to incorporate this idea into the design and thus the design is segmented into two different buildings with connecting bridges, one of which is the institute and the other one is the museum and both are connected by an arena where performance will take place.

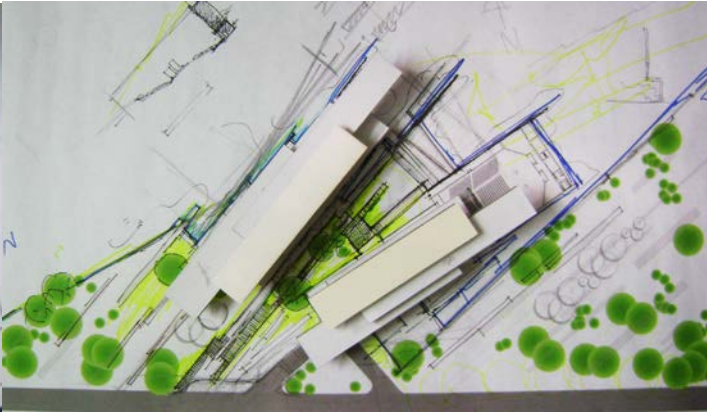
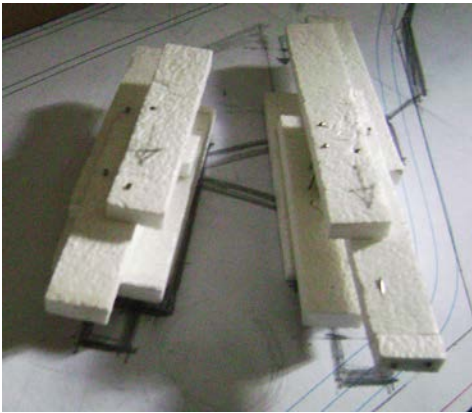
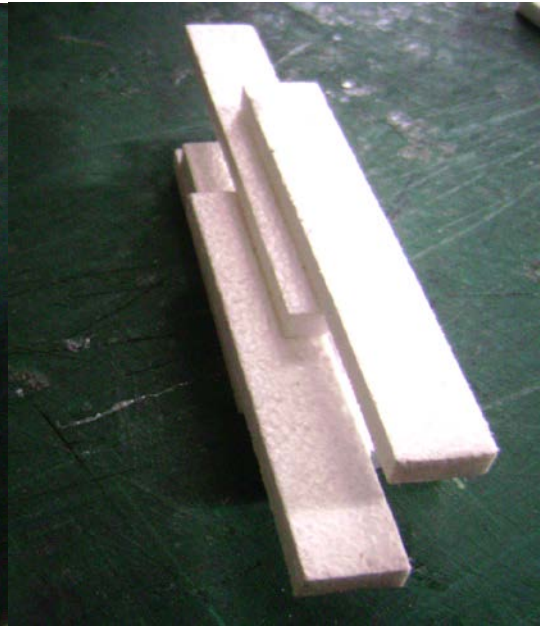
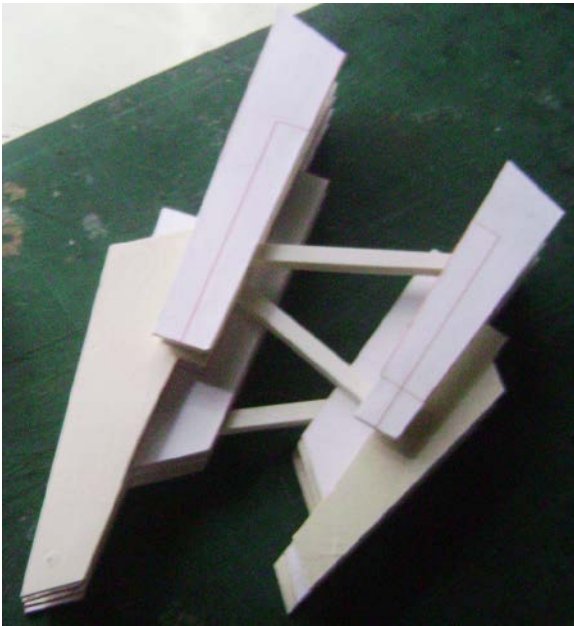
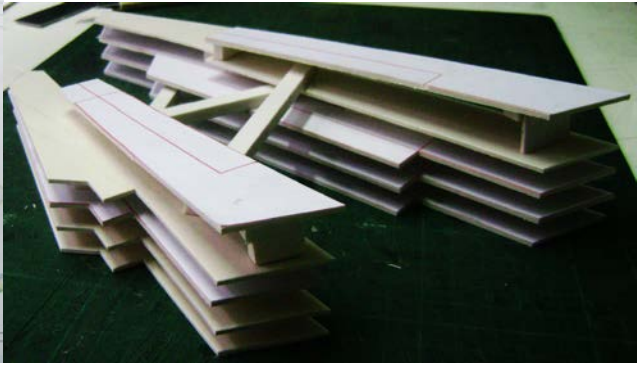
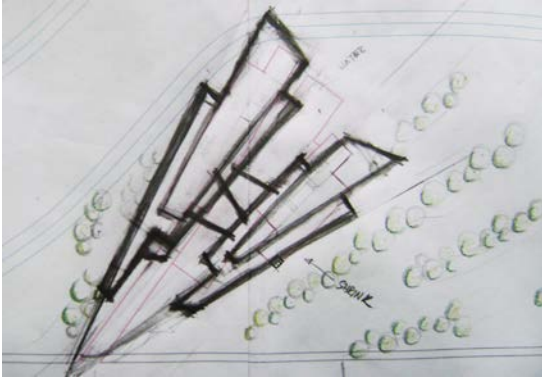




### 6.6 Form Study

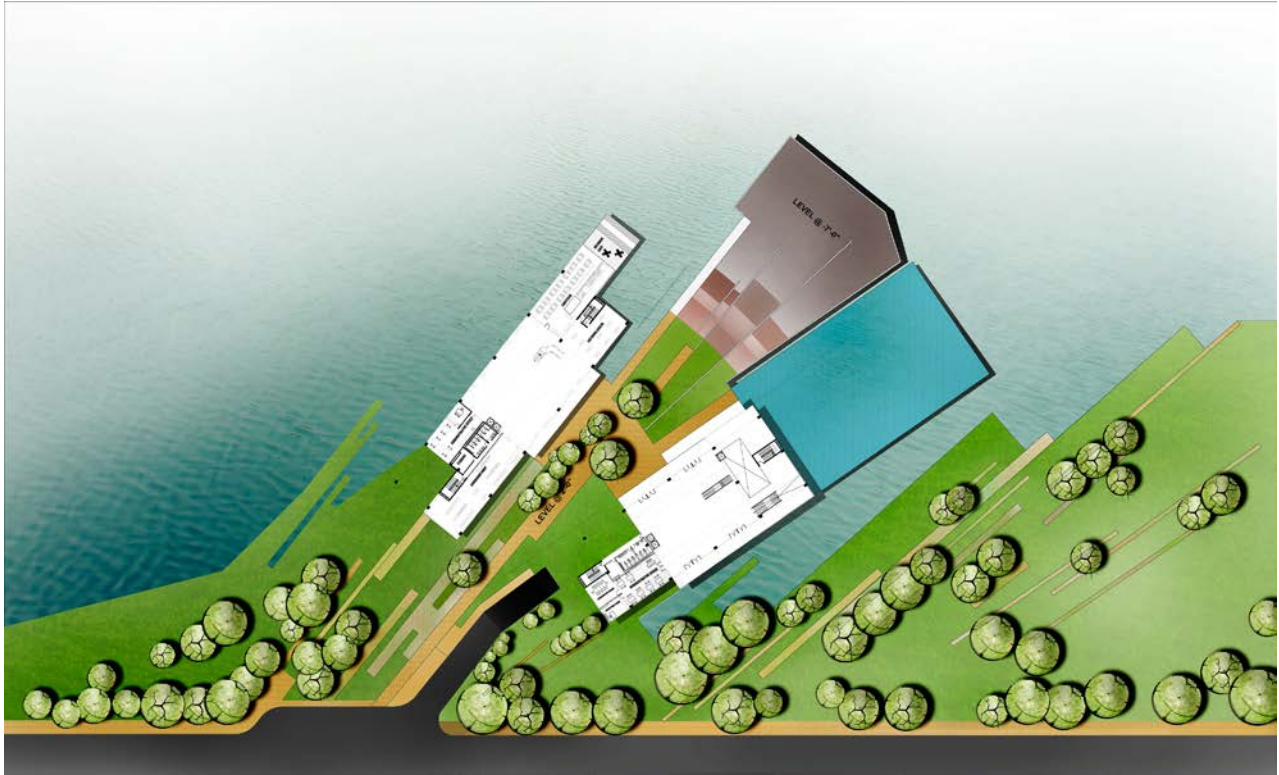
The idea was to keep the form simple and bold since rock music talks about simple daily life in a very bold attitude. To achieve this bold attitude I used pure rectangles and break them into smaller rectangles. The form also shows the shift and slides of rectangles which reflects the continuity and the path that rock music has shown to the music world.



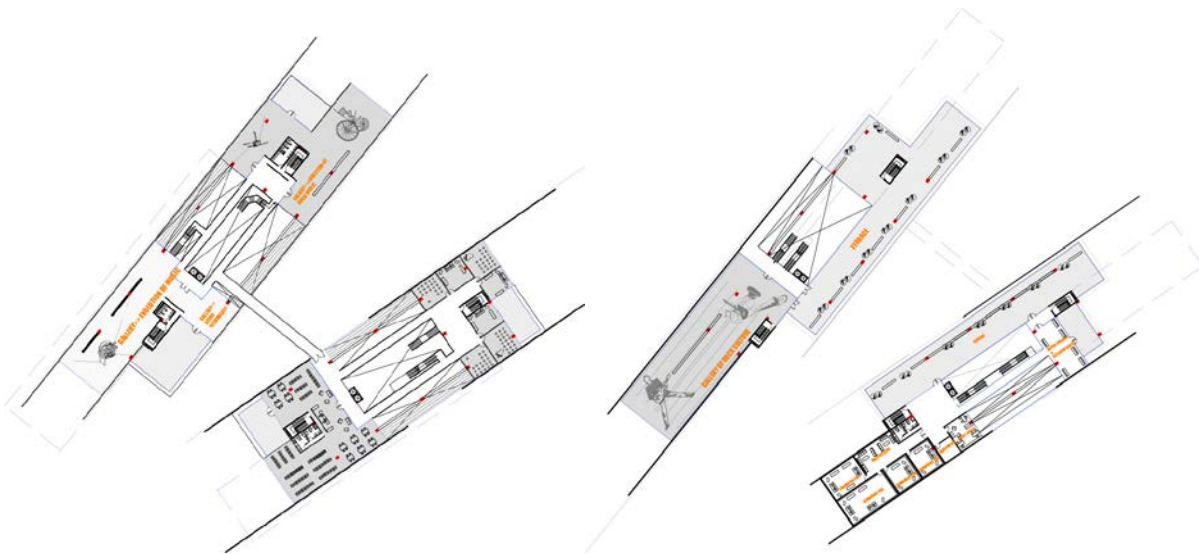


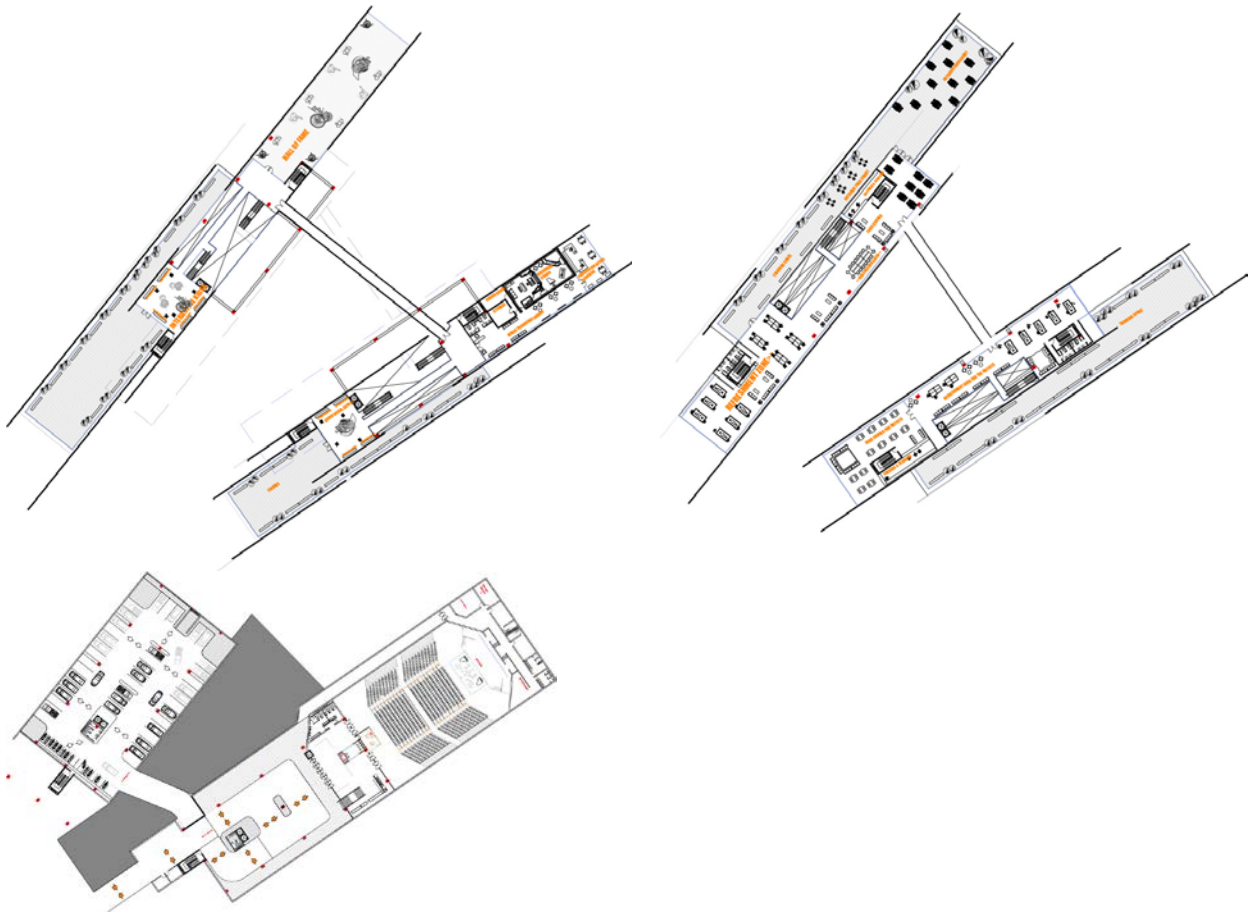
## CHAPTER 07: FINAL DESIGN

### 7.1 Site and Masterplan

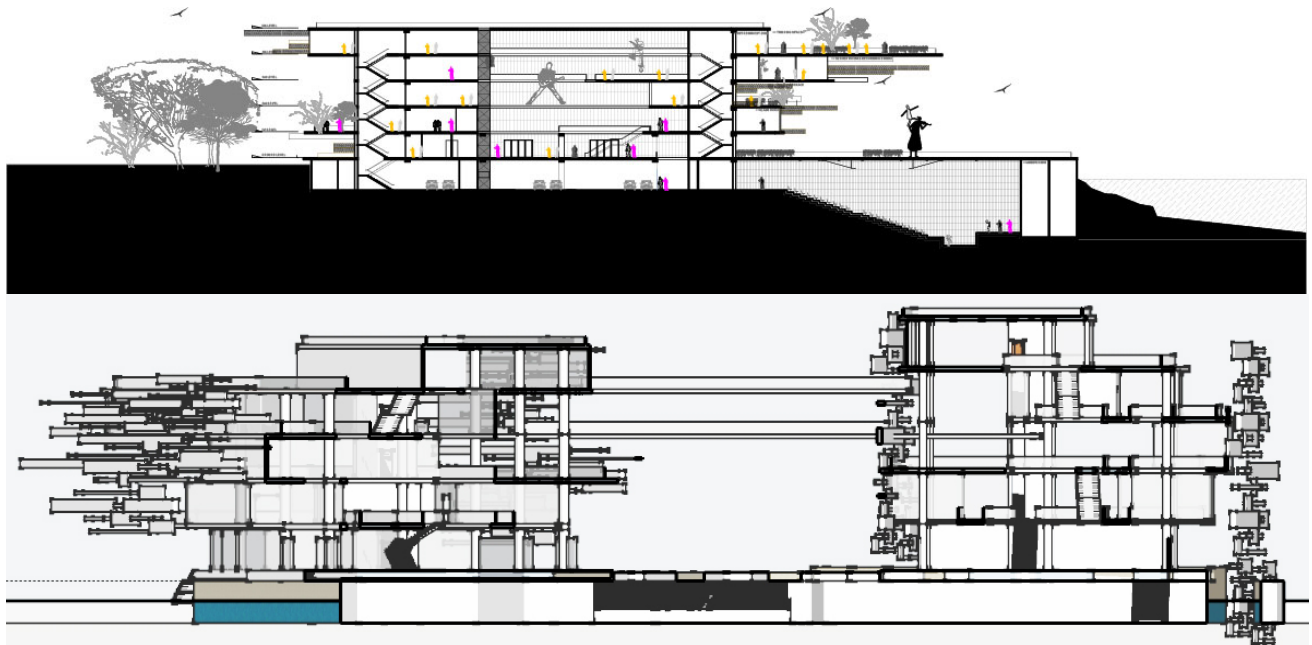


### 7.2 Plans





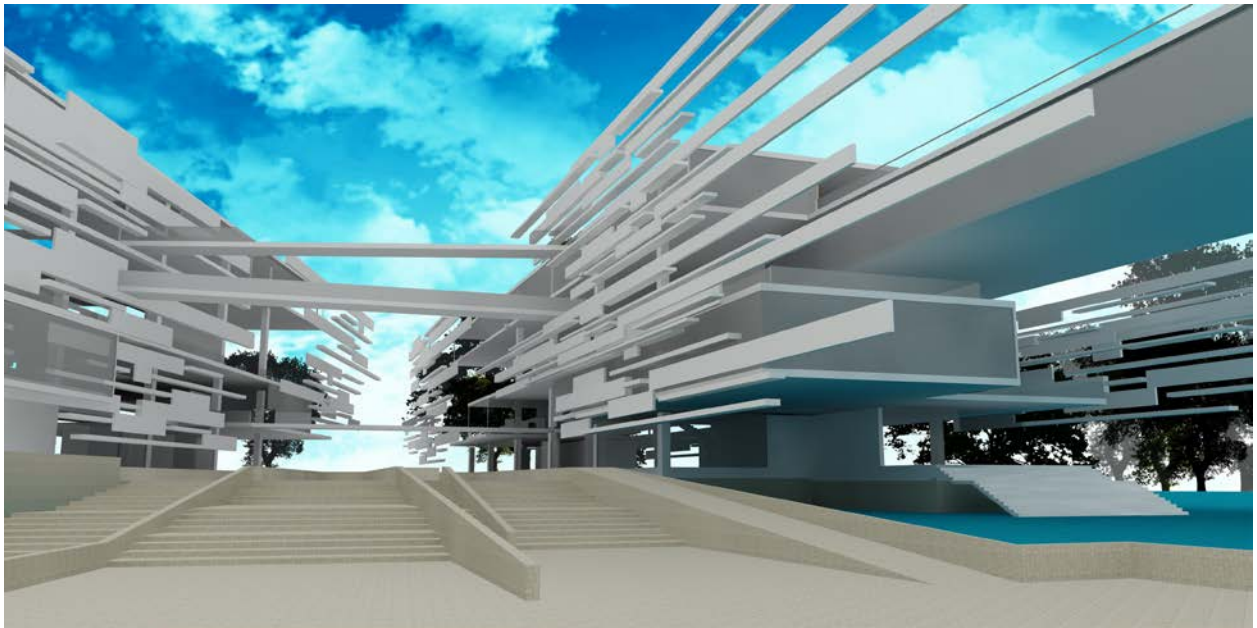
### 7.3 Sections



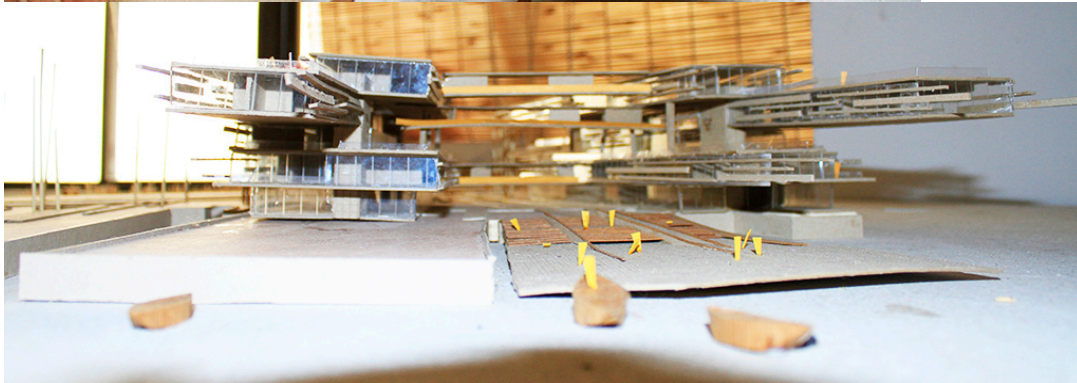
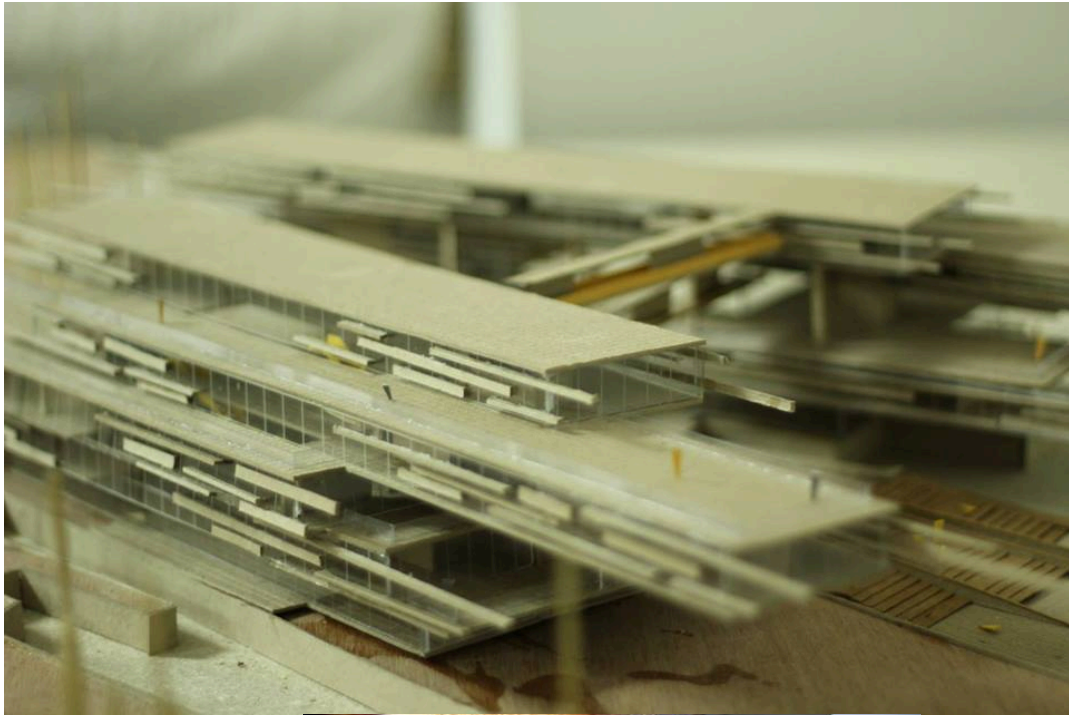
## 7.4 Elevations



## 7.5 3D Images



## 7.6 Model Photographs



## **CONCLUSION:**

In conclusion, I want to dedicate my project for anyone out there who shares a passion for rock music.



References:

<http://www.wikipedia.org/>

<http://wikimapia.org>

<http://www.archdaily.com/>

<http://www.britannica.com/>

<http://www.musiccenters.com/>

<http://www.musicaviva.com.au/education>