

ART_tery : An Art for the Artisans
Craft Interpretation Centre
Bangshi riverbank, Dhamrai

By

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Acknowledgements

All graces to the Almighty for everything I have achieved and I have become. I am thankful to my family for their unconditional support, encouragement and sacrifices. I would like to take the opportunity to show my full gratitude to my mentors and Architecture department of BRAC University, who have guided me through out this journey, taught me to **see** not just to preview but to **perceive** and explore different perspectives of life and cherish the simple details even in the most insignificant things nature has to offer. I would also like to thank all the artisans of pottery and metal casting for their wonderful creations that has inspired me to conceptualize this project. I am extremely grateful to HARAPPA, Rudro Naser Bhaiya, Cane artisans-Sumon Bhaya and Putul Apu for their time and effort. Last but not the least; I would like to thank to my dear friends Salman, Rumana, Maliha and Nova for their support and everyone who kept me in their prayers.

Abstract

Dhamrai has been the abode of creativity for a long time. It has a rich history of artistic creativity tracing back to the Pala Dynasty (800-1100AD), during which time both early Buddhist and Hindu settlements once flourished. Some of the most beautiful crafts like metal casting, pottery, terracotta work etc have been flourished in this region for decades. But due to mass production in factories, small scale exposure of the crafts and many other reasons these crafts are in jeopardy and so are the artisans. The urge to restore the glory of the tradition of this culture and provide an exposure to the traditional art and artisans with the help of contemporary architectural intervention laid the basis of the hypothesis of this project.

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CONCLUSION

REFERANCE

CHAPTER 01

INTRODUCTION OF THE PROJECT

1.1 Project brief:

Name of the project: ARTERY _ An Art for the Artisans

Project type: Craft Interpretation Centre

Client: Bangladesh Small & Cottage Industry Corporation (B.S.C.I.C)

Location: Bangshi riverbank, Dhamrai

Site area:

1.2 Rationale of the project

Dhamrai has always been the advocate of multifarious art and crafts of our country by weaving the cultural values and traditions with its root and people throughout the history. It is the abode of some of the precious talents of our country who are bestowed with the gift of creativity. It is a matter of sorrow that this city of culture's roots is slowly drying up as the creativity and traditional crafts are being drained out from its chalice of life. Although it attracts a number of overseas enthusiasts of art and crafts, very few know about the potentials of this place. It barely has the recognition it should have in national and international level as it is not efficiently acknowledged. Due to the lack of consciousness and preservation practice, the artistic origin of the area is fading away.

“Though once a matter representing our golden age of civilization, pride and social identity regrettably in the course of time that cultural heritage highly rich in aesthetics and artistry has fallen on the verge of extinction. In fact only a few in our society nowadays, are aware of the fact that one of the main centers of such metal crafts of the sub-continent had been on this soil where only a few artisans still have been toiling to their most to revive the millennium-old art-form.”

Mesbah UI Haq, Dhamrai Metal Craft: Story of a Dying Cultural Heritage.

Although these traditional crafts and artistry has been thriving for a long time in our country, but the artisans and craft men involved in these traditional professions are not self sufficient. More over due to mass industrial production of similar products, modern day crisis, ignorance, and lack of contemporary techniques have made their situation more miserable, forcing them to leave their family business and adopt more contemporary jobs for making their minimum living.

The project is conceptualized to fill in the gaps between the communications of artisans and art enthusiasts. The idea is not only to uphold our traditional culture and artistry but also to improve the situation of the people who have so long been involved with these crafts.

1.3 Aim of the project

The concept of craft interpretation center is to provide an interactive platform to congregate the universal artists, artisans and art enthusiastic in one thread. It will provide an opportunity to interpret not only the craft but also the life of craftsmen. The project aims at the following:

It is an attempt to revive our cultural heritage that has regrettably fallen on the verge of extinction in the course of time.

- To develop the socio cultural economy and position of craft
- To motivate the artisans by providing them an exposure
- To identify and locate the different types of art and crafts situated in this area
- Craft interpretation center will act as the ultimate exposition of art, craft and life to involve everyone to participate in our cultural heritage.
- To develop the river front by providing recreational and entertainment facilities
- To develop a cultural corridor in continuance at the outskirts of Dhaka in order to promote decentralization of the cultural activities and provide recreational public places
- To provide an opportunity to enhance the field of tourism through our cultural assets
- To provide an universal platform for the easy communication of art and craft practitioners, enthusiasts and learners beyond the borders

1.4 Reason for choosing the site

Dhamrai is specifically chosen to conduct the project as it houses the most various crafts of Bangladesh that are highly enriched in aesthetics and artistry for a long span of time. It itself is a city of culture. It is the main center for metal casting in Bangladesh and at present it is the only one to continue this craft. For many generations, this place has produced handmade metal ware for markets throughout Bangladesh, using the 2,000 years old lost wax casting method. The pottery villages of Dhamrai trace back to 300 years old. The potters of the area have always been appointed as the chief artisans to make Hindu idols for different celebrations. Dhamrai is also well known for the annual Hindu festival 'Jagannath Rath Jatra' all throughout Bangladesh.

The site is situated on the bank of Bangshi River. There are Paal paras (potter communities) and craftsmen communities scattered in many different locations of Dhamrai region. The site is chosen considering the fact that it will act as the central heart of all the crafts and creativity. Also, the site is chosen to expand along the river to commemorate the ambience of traditional village fairs of Bangladesh that used to sit on river banks for the easy communication with remote villages.

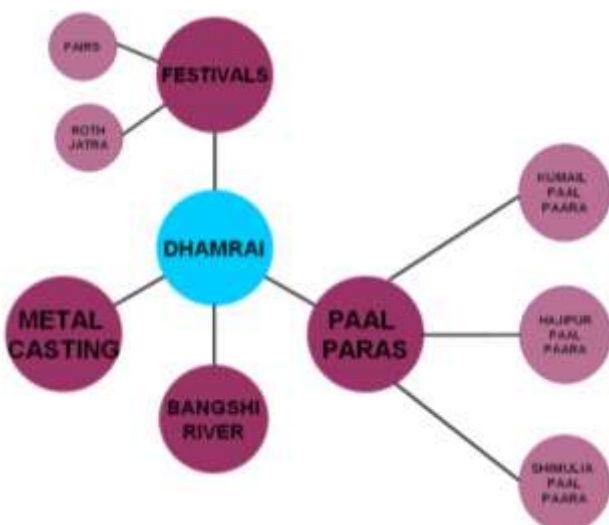
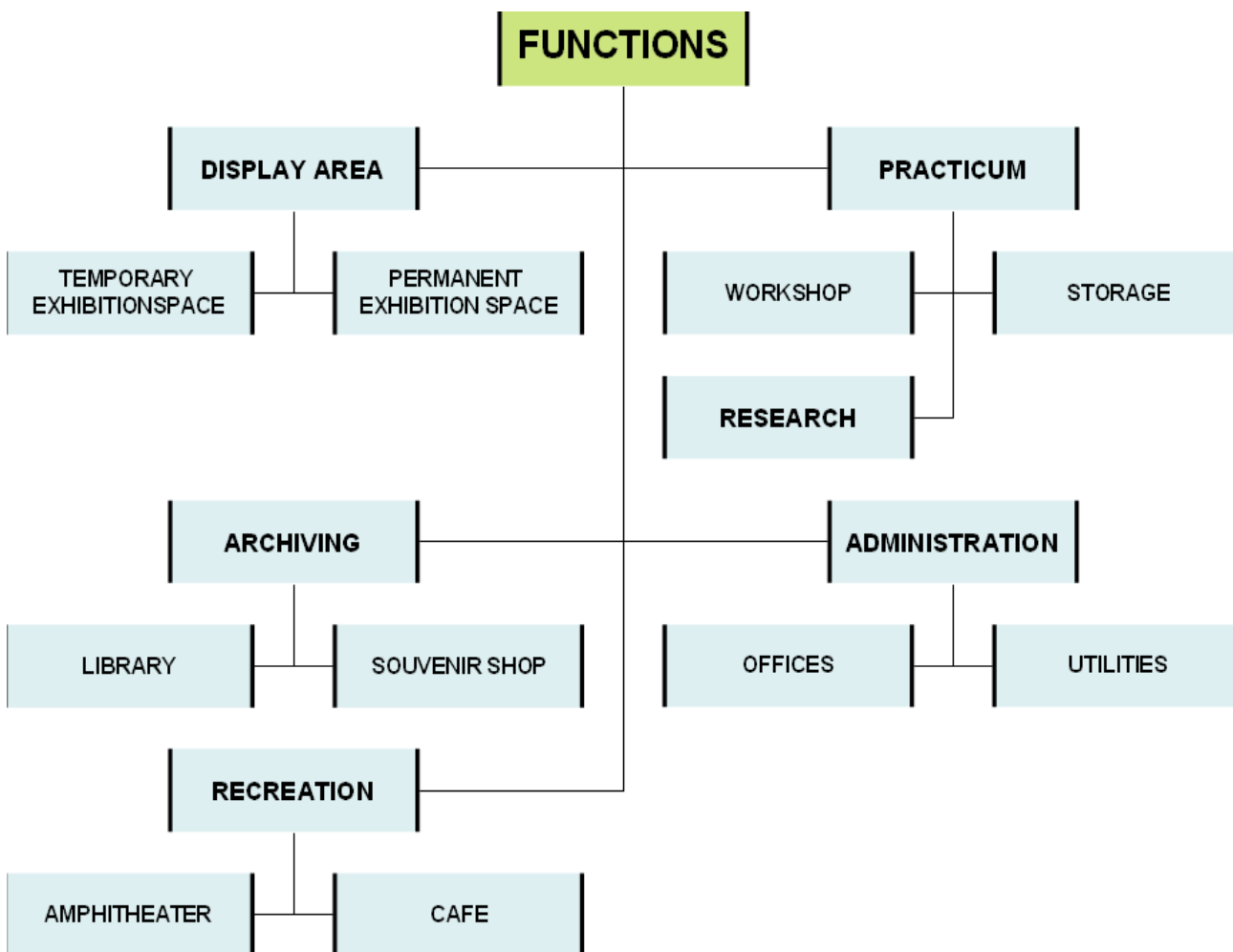


Figure 1.4.1: Reason for choosing the site (Source: Mehnaz 2013)

1.5 Suggested Functions and programs for the proposal

- Display Area-Permanent
- Workshops
- Library
- Amphitheatre
- Multipurpose Hall
- Cafeteria
- Utilities
- Administrative office
- Souvenir shops



CHAPTER 02

SITE APPRAISAL

2.1 Site introduction:

The site is situated at the bank of Bangshi River in Dhamrai. Dhamrai is located about 40 kilometers north west of the capital city of Dhaka; it is located within the coordinates of 90.02 - 90.14E and 23.50 - 24.02E.

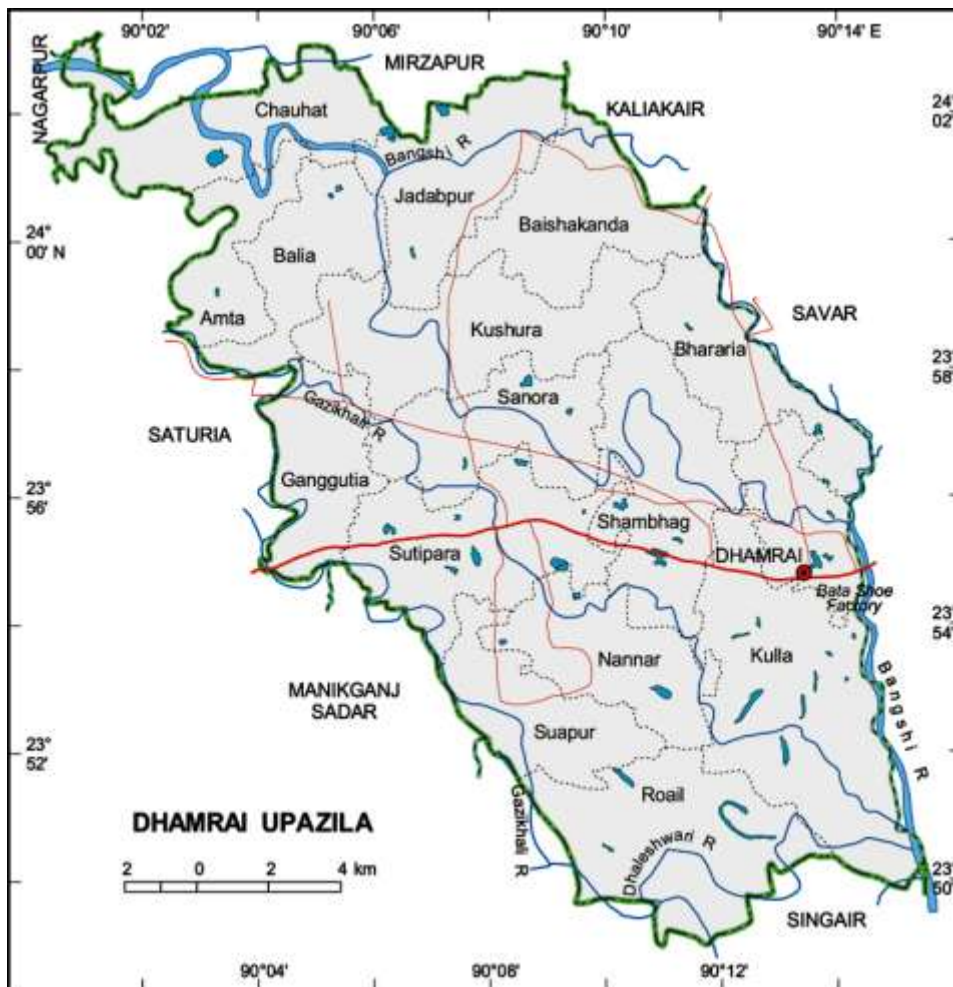
Dhamrai town area: 5.84 sq km

Population: 22394

Male: 53.34%

Female: 46.66%

Literacy rate: 59.3%



Map 2.1.1: Introduction to Dhamrai, Dhamrai Upazila Map (Source: Collected)

2.2 Site history:

2.2.1 Naming of Dhamrai:

There are two versions of how the name of Dhamrai came about:-

During the time of Asoka the Great there was a Buddhist 'Dharmarajika' and the name became truncated and in time came to be known as Dhamrai. The discovery of a prehistoric Buddhist 'stupa' in Savar, about 10 miles away from Dhamrai lends credence to this opinion.

The other version, is that a famous Sufi Saint Hazrat Shahjalal came to, what is now Bangladesh, about eight hundred years ago with 360 companions. Legend has it that five of them (Tirmizi Al-Hussaini, Hazrat Hazi, Hazrat Gazi, Hazrat Zambahadur and Hazrat Shah Magdum) came to Dhamrai which was then sparsely populated and heavily forested. They settled and started leading a secluded life. Food supplies ultimately ran short and one day they slaughtered a stray cow and used the meat to satisfy their hunger. After a few days a couple; Dhama Gope and his wife Rai Goalini claimed that the cow demanded compensation. The Sufis learnt that the couple was childless. It is said that with their blessings a child was born to the couple and also they named the place accordingly. Thus the name Dhamrai (Dham+Rai) came about.

2.2.2 Traditional transport:

Traditional transport of Dhamrai is Palanquin, horse carriage and bullock carts, These means of transport are either extinct or nearly extinct.

2.2.3 Traditional occupations:

For generations, Dhamrai has been the house of crafts like metal casting and pottery. But these traditional occupations are now in jeopardy as those could not compete with modernization. Once Dhamrai used to be a whole craft village but now other occupations have come into being reducing the handicraft based jobs. Even most of the artisans are leaving their age-old professions and taking up other occupations to accommodate their livelihood.

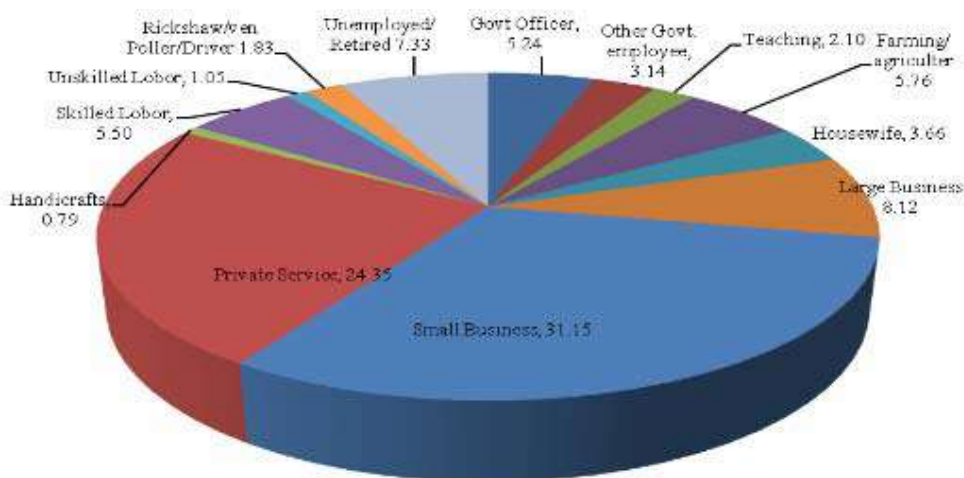


Figure 2.3.4: Occupation Survey on Dhamrai (Source: Dhamrai Pouroshava Survey report, UTIDP)

2.3 Site and site surrounding

2.3.1 Land use pattern:



Map 2.3.1: Land use map of Dhamrai Pouroshava

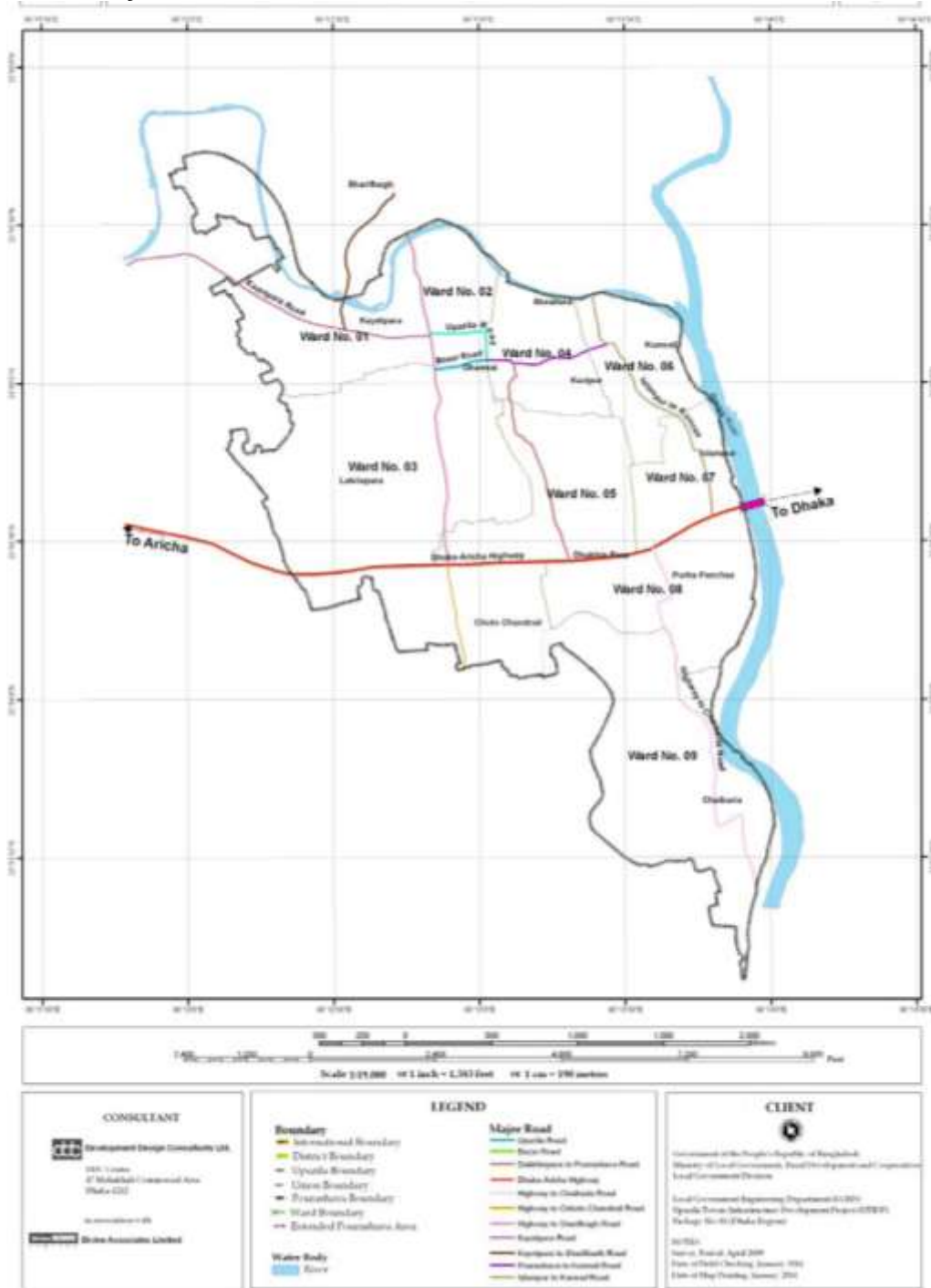
2.3.2 Communication network:

Pucca road: 43 km

Semi pucca road: 20 km

Mud road: 297 km

Waterways: 51 nautical miles



Map 2.3.2: Major road network map of Dhamrai Pouroshabha (Source:)

Type of road	Width in feet	Surface type
Arterial or major thoroughfare	80	Pucca
Secondary/ distributor road	16 - 20	Pucca
Tertiary /Collector road	12 - 15	HBB & Katcha
Private road	8 - 10	Katcha
Pedestrian road	No	-

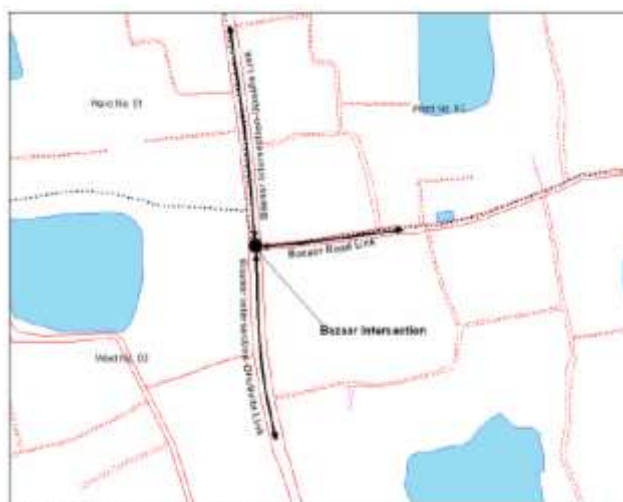
Source: Physical Feature Survey 2009

Table 2.3.1: Hierarchy of roads in Dhamrai Pouroshabha (Source:)

2.3.3 Traffic analysis:

Presently, ‘Dhamrai Bazaar Intersection’ is found the most significant and busiest intersection in Dhamrai Pourashava from every consideration. This intersection comprise 3 segments where the ‘traffic volume survey’ was carried out (figure-5.1). The segments are:

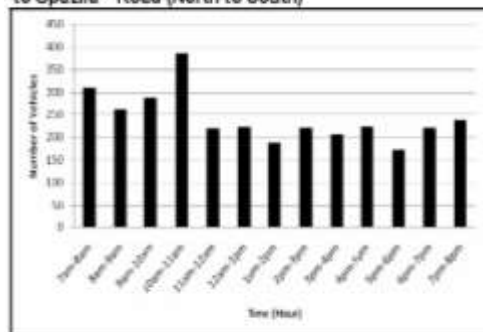
1. Bazaar Intersection-Dhulivita Link
2. Bazaar Intersection-Upazila Link
3. Bazaar Road Link



Source: Physical Feature Survey, 2009

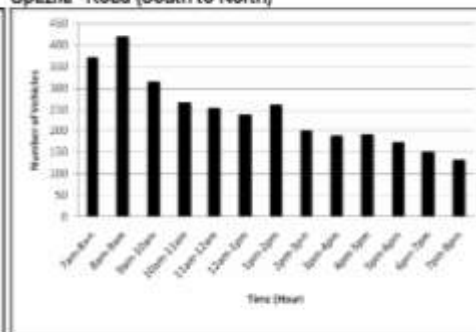
Figure 2.3.1: Dhamrai Bazaar intersection

Figure 5-3: Hourly Traffic Flow along "Dhulivita to Upazila" Road (North to South)



Source: Transport Survey-2009

Figure 5-4: Hourly Traffic Flow along "Dhulivita to Upazila" Road (South to North)



Source: Transport Survey-2009

Figure 2.3.2: Hourly traffic flow Dhulivita to Upozila link road.



Figure 2.3.2: Dhulivita to Upozila link (Source: Physical feature survey, 2009)

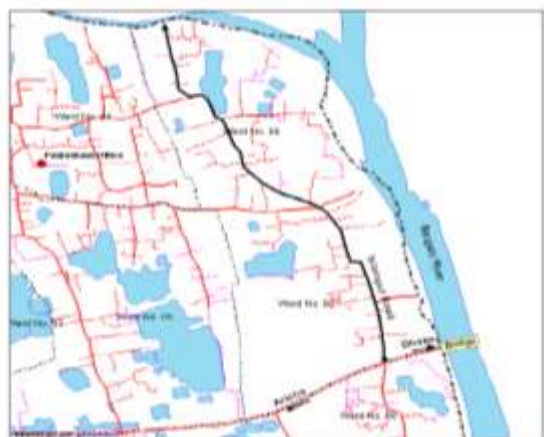


Figure 2.3.3: Islampur road link, Composition during peak hour (Source: Physical feature survey, 2009)

Figure 5-33: Composition during peak hour (07am-08am) along Islampur Road (North-South)

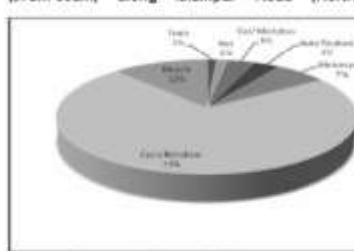
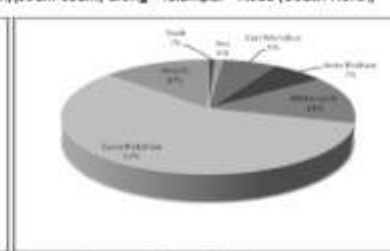


Figure 5-34: Composition during peak hour (08am-09am) along Islampur Road (South-North)

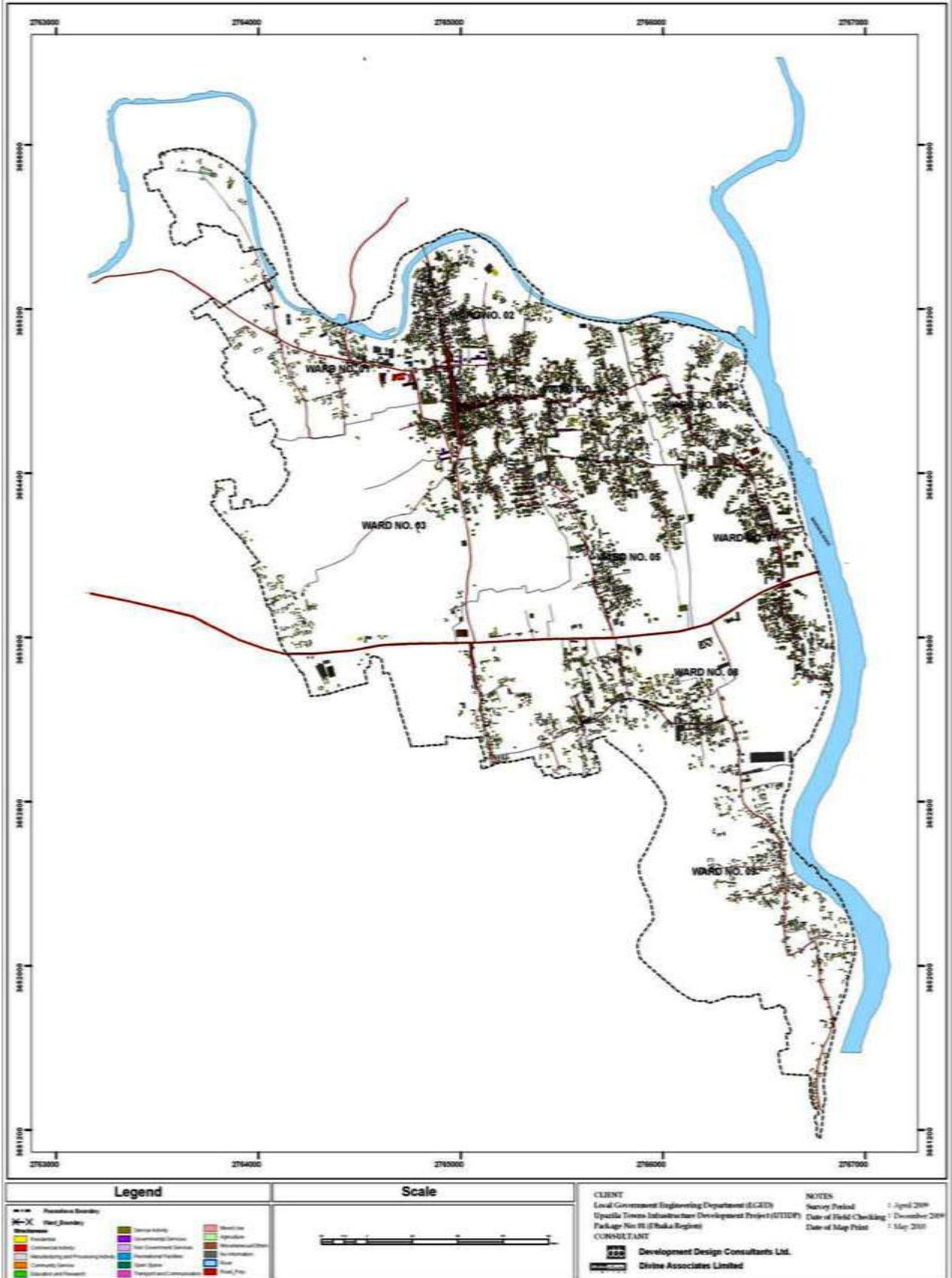


2.3.3.1 SPEED AND DELAY STUDIES/SURVEY AND FINDINGS

- Non motorized vehicles like cycle rickshaw, van and bicycle occupy the roads most of the time of the day. Volume count survey revealed that around three-fourth share is of non-motorized vehicles.
- Thana road, Hospital road, Islampur road, Bazaar road, Girls' school road—all those roads are very important for traffic circulation but they are not wide and straight enough for smooth circulation.
- Other than Dhulivita-Upzila-Kalampur road, roads are too narrow for bus and truck.
- There are few important roads which can open-up the whole municipality and increase the mobility within and outside the municipality
- Most of the southern part (ward no: 8, 9) of the municipality is still of rural characteristics. This part is also potential for future settlement and industrial

(Source: Dhamrai Pouroshava Survey report, September 2011, Local Govt. Engineering Department, UTIDP)

2.3.4 Structure use pattern:



Map 2.3.3: Structure use of Dhamrai Pouroshabha (Source:)

2.4 Significant structures:

A number of significant structures and places are situated in Dhamrai. Marks of the War of Liberation Mass grave: near Kalampur Bazar, Panch Pirer Mazar, Dhamrai Madhab Bari, Bangladesh Betar relay station, Bata Shoe Factory, Monnu Ceramic Industry, Ekmi Laboratory, K & Q Factory, Deep Textile, Boyan Mills and Carpet Mills are few of them.



Figure 2.4.1: Places and spaces of Dhamrai (Source: Collected)

2.5 Site selection and views:

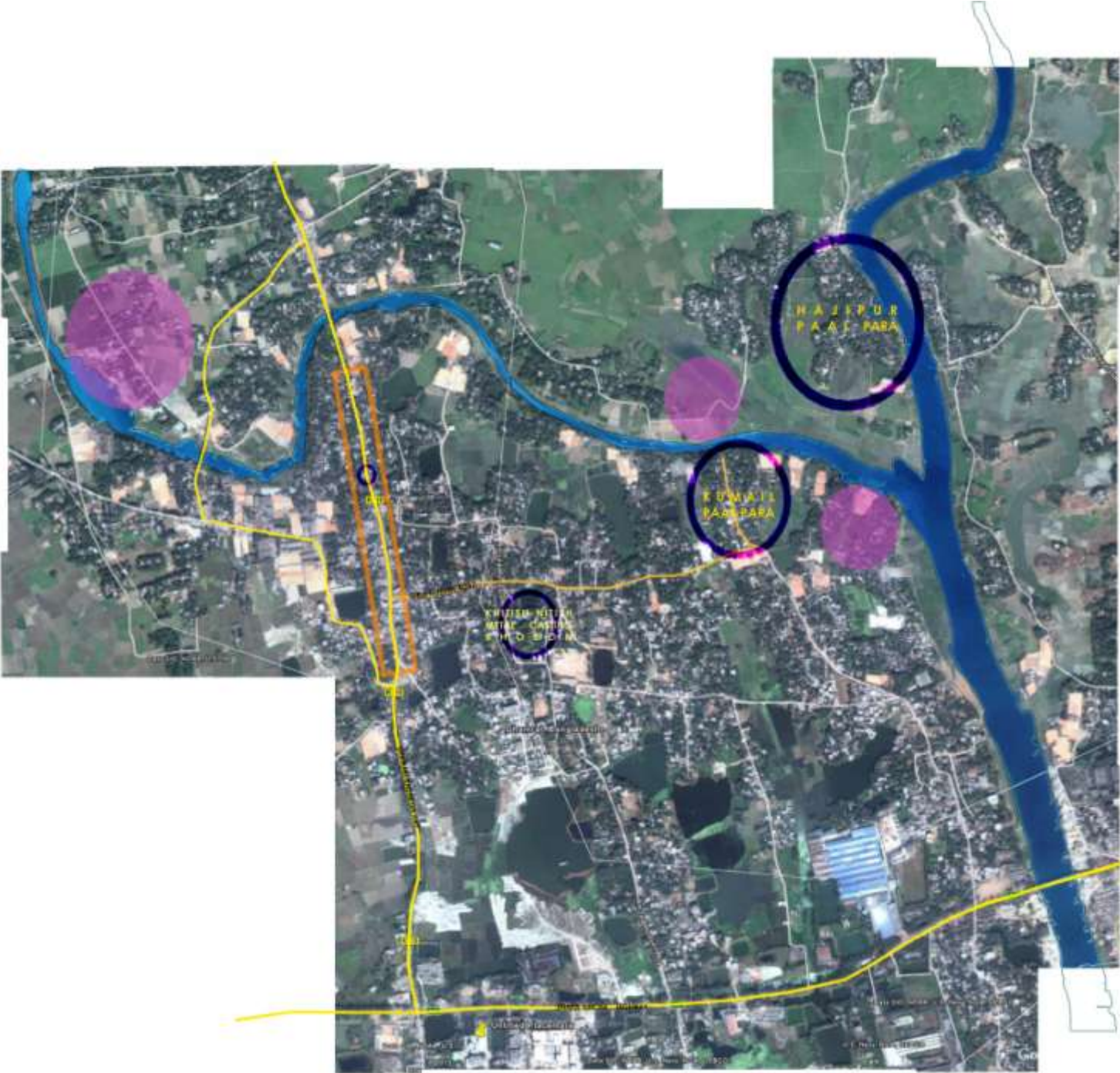
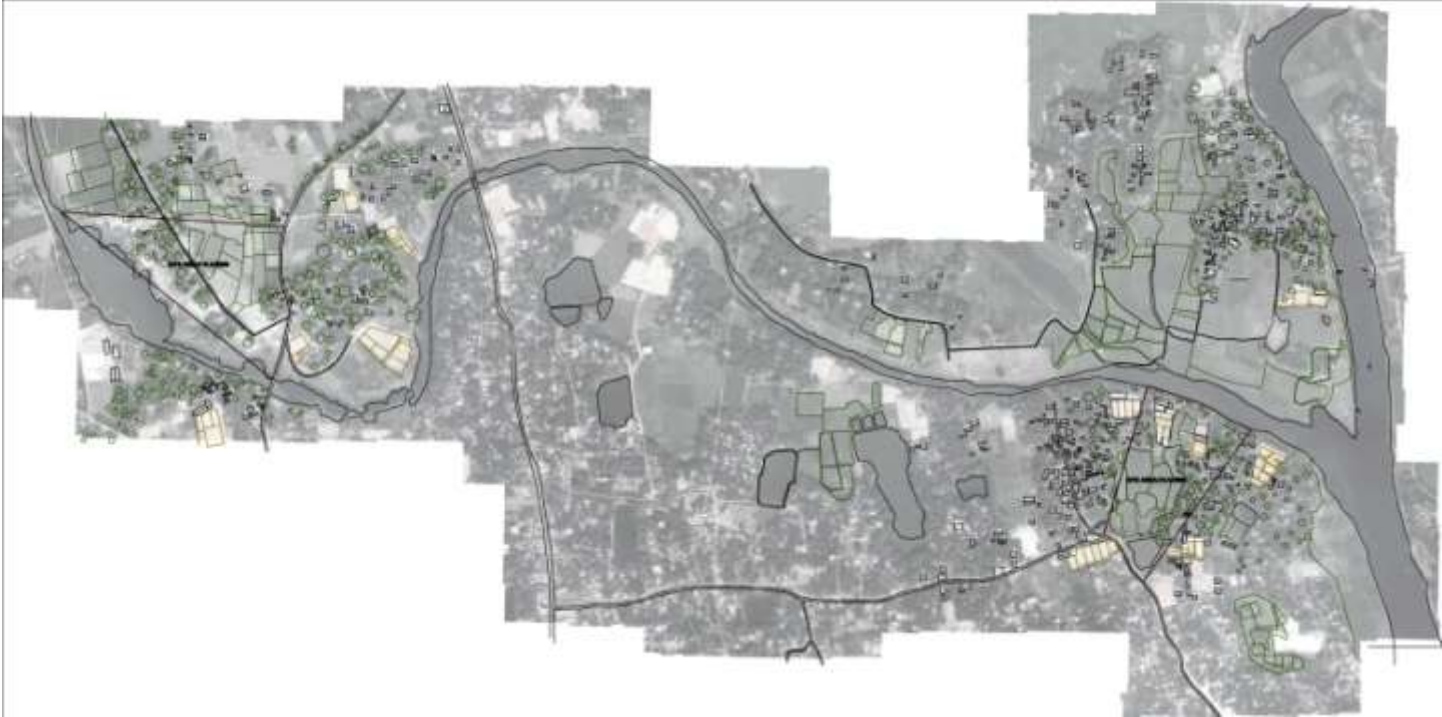


Figure 2.5.1: Potential and resourceful areas (Source: Mehnaz 2013)

2.5.1 Site potentials and resources:



Google earth image



Figure 2.5.1: Potential and resourceful areas (Source: Mehnaz 2013)

2.5.2 Possible site A:

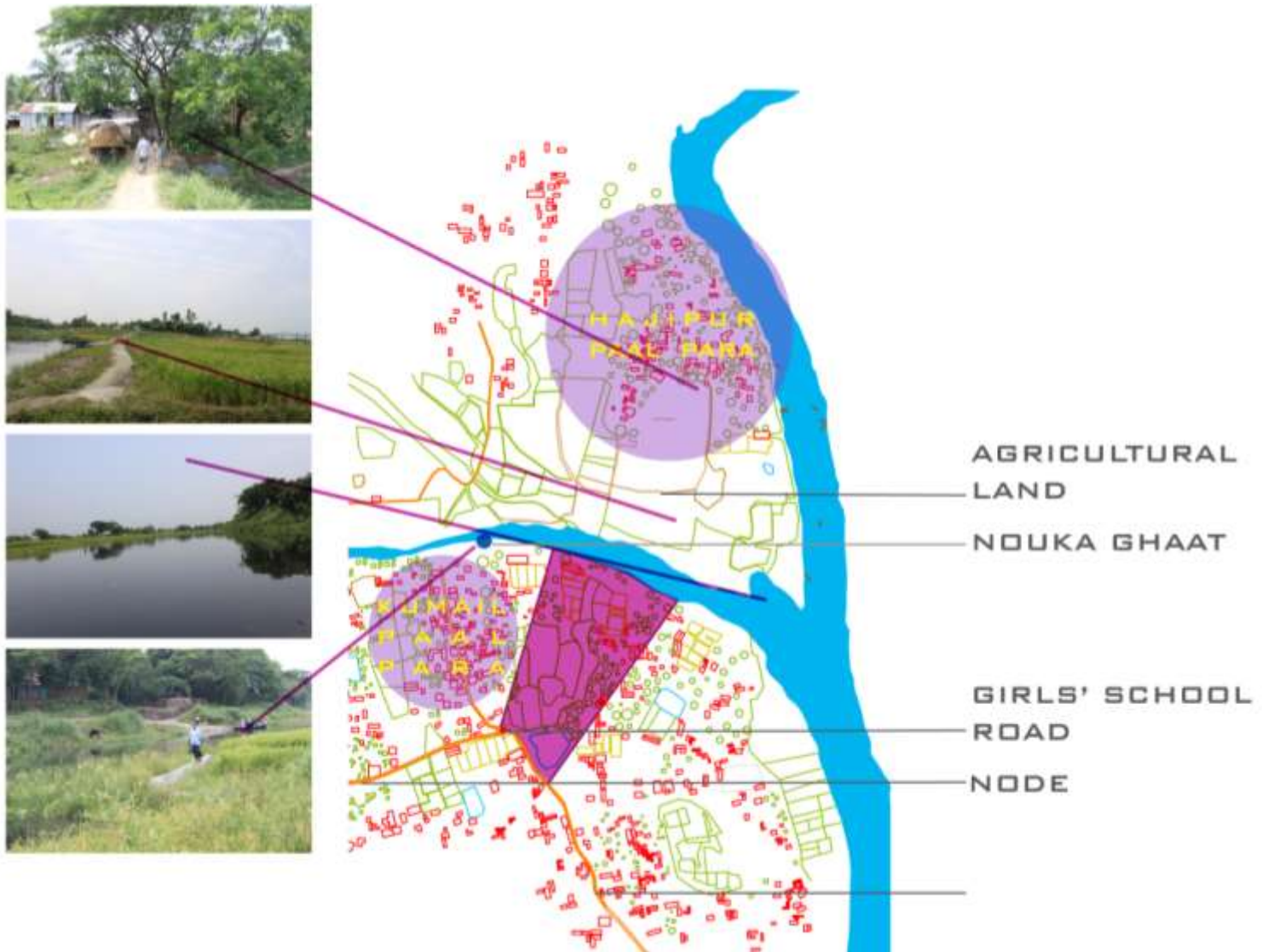


Figure 2.5.2: Possible site A (Source: Mehnaz 2013)



2.5.3 Possible site B:

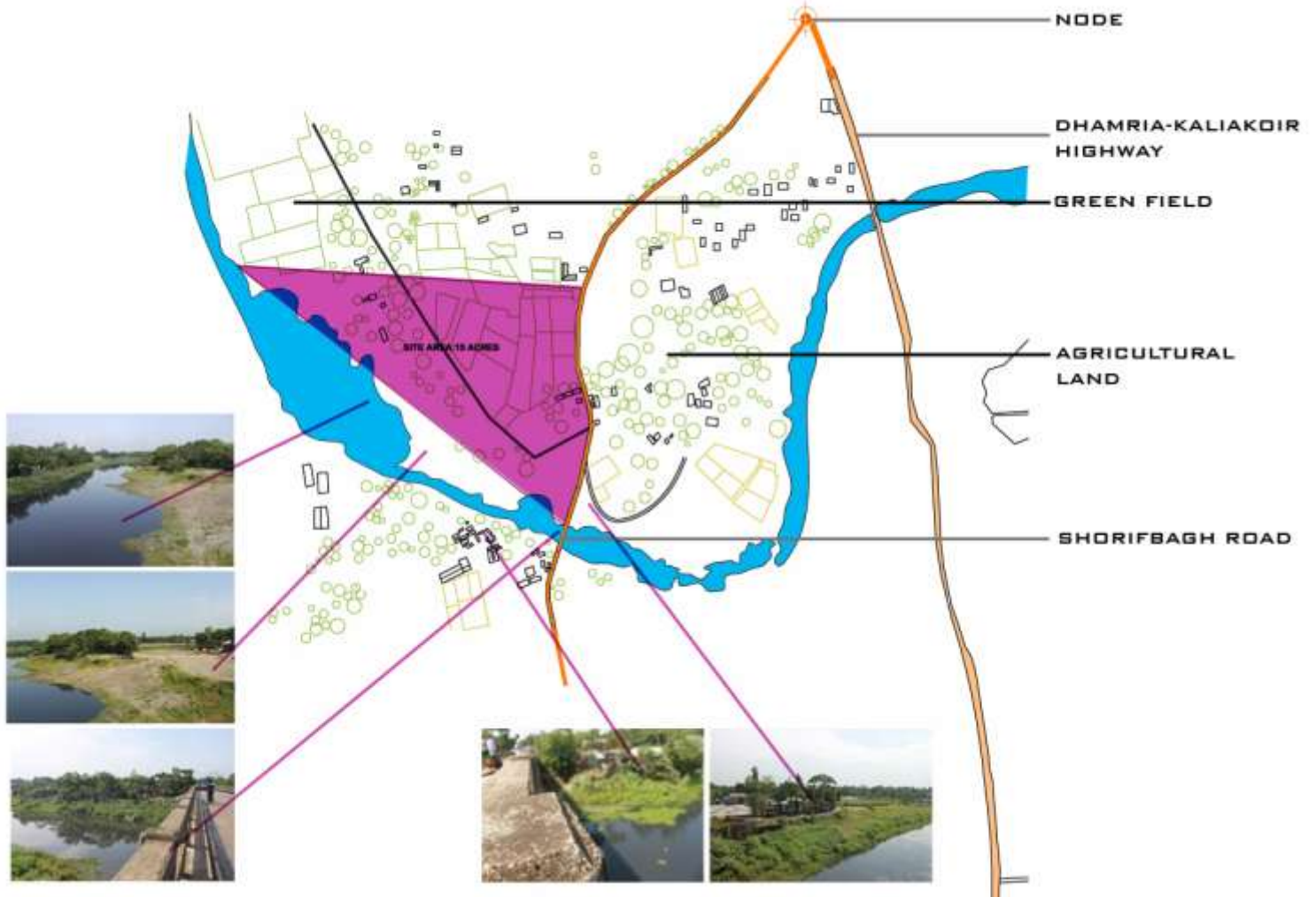


Figure 2.5.3: Possible site B (Source: Mehnaz 2013)



2.5.4 Possible site C and D:



Figure 2.5.4: Possible site C and D

2.6 Selected site:

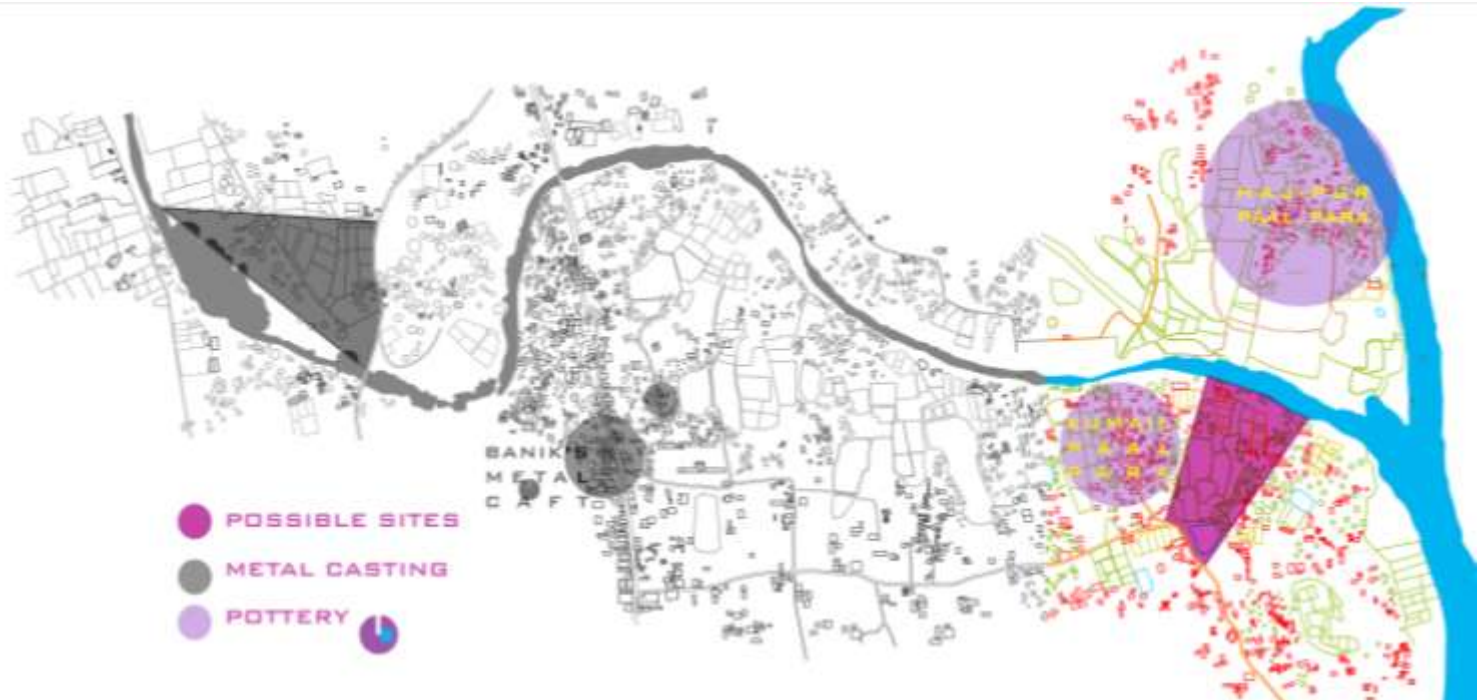


Figure 2.6: Selected site for ARTtery

Reasons for choosing the site are-

The site is located in the vicinity of two major Paal paaras of Dhamrai town: Hajipur Paal Paara and Kumail Paal Paara

Its proximity to the Dhamrai town and metal craft resources

The site is closely connected with the town by 15 feet wide road

2.7 Environmental considerations:

2.7.1 Topography:

Dhamrai represents an undulating area with conspicuous crests and troughs. The soil is a heterogeneous assortment of dry, moist and clay material. Dhamrai is composed of the alluvium soil of the Bangshi and Dholesshori rivers. Other rivers are Kolmai and Gazikhali.

2.7.2 Natural habitat:

2.7.2.1 Fauna

A substantial number of monkeys have Dhamrai Township and adjoining areas as their natural habitat. Besides, there are quite a few water bodies where migratory birds come during winter months.

2.7.2.1 Flora

A total of 263 angiosperm species under 210 genera and 79 families have been recorded from Dhamrai Upazila of Dhaka district. Of these, Magnoliopsida is represented by 200 species under 154 genera and 62 families while Liliopsida is represented by 63 species under 56 genera and 17 families.

Main fruits grown in this area are mango, jackfruit, papaya, guava, blackberry, litchi, banana etc. And main crops are paddy, jute, wheat, potato, mustard seed, onion, garlic, sugarcane and vegetables.

(Source: http://www.banglapedia.org/HT/D_0182.HTM)

Dhamrai Upazila is endowed with different aquatic habitats including ponds, tanks, beels and other low-lying areas filled with seasonal water. This habitat is rich with diverse aquatic vegetation. Some of the important aquatic angiosperms are Alligator weed, Hornwort, Water Hyacinth, Helancha, Hydrilla, Kokilaksha, Marshweed, golden bladderwort etc.

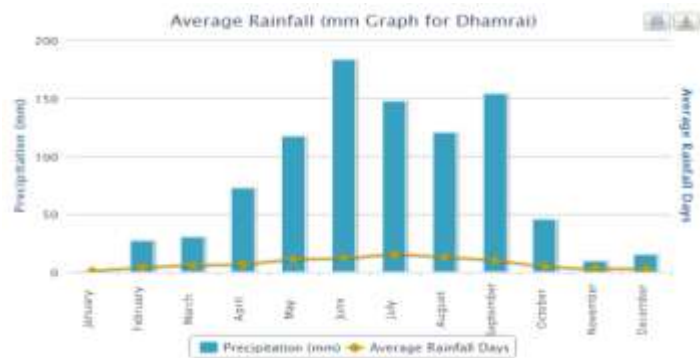
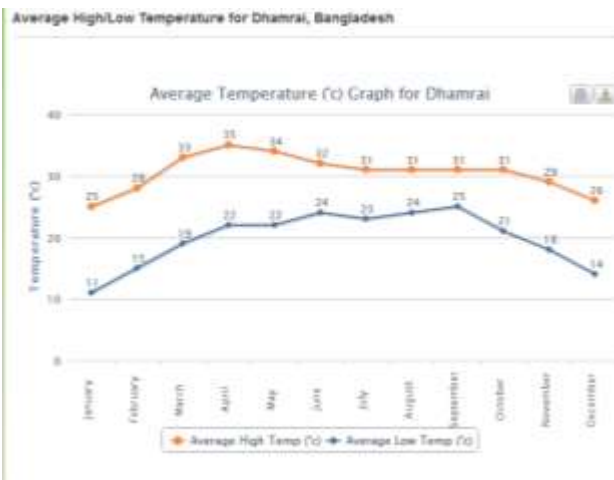
(Source: Floristic diversity of Dhamrai Upozila of dhaka with emphasis on medical plants by M. Oliur Rahman*, Rumana Tanjin Antara, Momtaz Begum & Md. Abul Hassan, Department of Botany, University of Dhaka, Dhaka 1000, Bangladesh)



Varieties of flora in Dhamrai

2.8 Climatic Consideration:

Dhamrai Upazila enjoys the same climatic condition as other parts of the district do in the tropical monsoon zone. The temperature of the area ranges from 14.8 - 35.6°C. Monthly humidity varies from 48 - 79% throughout the year. The highest humidity is noted in August and the lowest in February (BBS 2009).



2.9 SWOT Analysis:

Strength

Enriched cultural and traditional background of the place
 House of various traditional art and crafts
 Epicenter of all the potential areas
 Adjacent to capital city, Dhaka
 Proximity to the main road
 Significant structures and surroundings around the site
 Attracts tourists and foreigners as well as native people
 A rapidly developing area, though still holding to its root of tradition and culture
 Natural beauty of Bangshi River
 The refreshing landscape act as a green retreat
 Enriched flora and fauna
 Humble cityscape of the town
 No major annual catastrophe
 Less threat of inundation
 Attractive local communities

Weakness

Inefficient infrastructures
 The site and surrounding is not properly taken care of
 Insufficient facilities for visitors

Opportunities

Potential for the assemblage of art, craft and life
 The humble surrounding will act as a positive force for craft interpretation and craft works
 Potential to flourish as a refreshing public place at the outskirts of Dhaka
 Potential for developing as a planned urban area
 Potential for the confluence of old and new
 Potential the river front development
 Reviving Bangshi River by creating consciousness through positive activities
 Potential of becoming internationally remarkable

Threats:

Slow death of the river due to toxic industrial waste
 Gradual extinction of age old traditional crafts
 Industrial mass production
 Unplanned development may ruin the potentiality
 Land encroachment
 Negative forces or growth may affect the local communities

CHAPTER 03

LITERATURE RIVIEW

3.1 definitions of the words concerned

3.1.1 Craft:

Craft is a line of work that involves skill and manual labor. In a historical sense, particularly the Middle Ages and earlier, the term is usually applied to the profession where people are occupied in small-scale production of goods that requires particular kind of skilled work.

3.1.2 Interpretation:

An **interpretation** in the philosophy of art is an explanation of the meaning of some work of art. An interpretation articulates an understanding of a work of art, a poem, performance, architecture or artifacts. Two broad types of interpretations can be distinguished in the matter of aesthetics; Interpretation of physical objects and interpretation of concepts. In its simplest of meaning, interpretation is, understanding something by analyzing it through cognitive or emotional coordination.

3.1.3 Heritage interpretation:

Heritage interpretation is the communication of information about, or the explanation of, the nature, origin, and purpose of historical, natural, or cultural resources, objects, sites and phenomena using personal or non-personal methods.

“Any communication process designed to reveal meanings and relationships of cultural and natural heritage to the public, through first-hand involvement with an object, artifact, landscape or site.”

-Freeman Tilden for the US National Park Service

3.1.4 Craft interpretation:

Craft interpretation refers to the full range of potential activities intended to raise public awareness and enhance understanding of the traditional craft by expanding the opportunity of involvement. The interpretation of craft involves two kinds of participations; Subjective and objective. Subject is the viewer/tourist/art enthusiast to whom craft is interpreted or who seeks to know or experience the craft, heritage and culture of craft. On the other hand objectives are the interpreter; the artisans in this case who pursue the craft work and the ‘craft’ itself, which is being interpreted by the artisans represented through their creation and the process of creation.

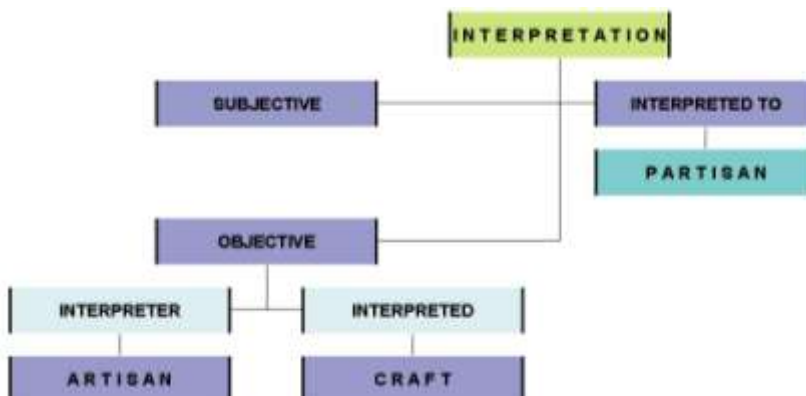


Diagram 3.1.4: Interpretation of craft interpretation (Source: Mehnaz 2013)

3.1.5 Artisans:

An artisan is a person engaged in or occupied by the practice of a craft, who may through experience and talent reach the expressive levels of an artist using his hands, mind and heart in his work and what he creates.

The traditional terms craftsman and craftswoman are nowadays often replaced by artisan and rarely by craftsperson.

Historically, craftsmen tended to concentrate in urban centers and formed guilds. The skill required by their professions and the need to be permanently involved in the exchange of goods also demanded a generally higher level of education, and craftsmen were usually in a more privileged position than the peasantry in societal hierarchy. The households of craftsmen were not as self-sufficient as those of people engaged in agricultural work and therefore had to rely on the exchange of goods.

(Source: <http://en.wikipedia.org/wiki/Craft>)

3.2 Craft Interpretation Centre:

A craft interpretation centre, is an institution for dissemination of knowledge of craft, artisans and cultural heritage. It uses different means of communication to enhance the understanding of heritage. To aid and stimulate the discovery process and the visitor's intellectual and emotional connection to heritage, the main presentation strategy tends to be user-friendly and interactive, and often use scenographic exhibitions and multimedia programs.

An interpretation centre can be a viable solution for effective communication of heritage information in municipalities and rural areas where resources may not exist to establish a traditional, full-scale museum, and where heritage can be an important factor for tourism development.

Unlike traditional museums, interpretation centres do not usually aim to collect, conserve and study objects; they are specialized institutions for communicating the significance and meaning of heritage. They work to educate and raise awareness. Non-core jobs as conservation and research are services usually done by specialized, external entities.

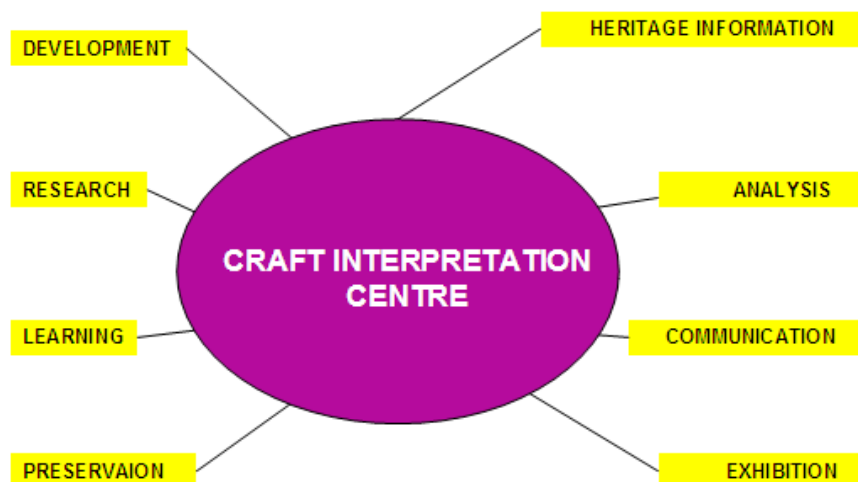


Figure: Craft interpretation Center's Functional Diagram (Source: Mehnaz 2013)

3.3 Artisans of Dhamrai:

Dhamrai has always been one of the most interesting craft villages of Bangladesh, though the prominence has faded away. The remaining artisans of Dhamrai are the generation of those who were once the soul of Dhamrai: the fine craftsmen of ancient Bangla. Though the number is decreasing in a drastic rate, there are still artisans left to continue the age old professions of creation. The basic artisans of Dhamrai are metal casting artisans, and potters also known as 'Paal'. Usually Paals work freelance whereas metal casting artisans work after getting assignments.

3.4 The concept of ARTery:

In literal sense, artery means the carrier of blood; the main energy fluid of organism; from the heart to the different parts of body.

But here, **ARTery** defines the indigenous practice of crafts that has been flowing in the heart of our history, heritage and stimulated our traditions, and still run through the veins of our culture. **ARTery** is the platform where our cultural assets; **crafts** are encouraged, explored and represented by the most qualified interpreter, thus the '**artisans**'. **ARTery** is the platform for the exposition of our crafts, culture and heritage while it provides opportunity for other partisans such as art enthusiasts, art collectors, and visitors to experience and explore our cultural treasures. Thus **ARTery** is the vessel through which we can hold up our arts, crafts and life of artisans to the world.

3.5 An Art for the Artisans:

For ages, the artisans of our country have been devoted to meet our aesthetical and analytical needs through their creativity. The artisans of Dhamrai have brought the region fame through their fine creations. Once Dhamrai was renowned for being one of the finest craft villages in our country but due to modernization, lack of sensitivity and awareness the age old crafts are fading away and so are the contribution of artisans in our society. **An Art for the Artisans** is an attempt to regenerate and revive the scenario. It is the celebration of creativity and tribute to the artisans for their creations and contributions.

3.6 Dhamrai As a city of culture:

Dhamrai can be referred to one of the city of cultures in our country. It is not only famous for its fine artifacts like terracotta, idols, and statues etc and indigenous crafts like pottery and metal casting but it is a great hub of celebrations. Dhamrai is in a festive mood all around the year. Here cultural events are rejoiced as well as regional festivals. The whole year is occupied with fairs, festivals, Roth Jatra etc keeping the artisans busy and citizens delighted.

3.7 Crafts of Dhamrai

3.7.1 Metal Casting:

Mathew S Friedman mentioned in his book-

"There is something about the lost wax technique used in Bangladesh that tends to bring out details that are higher quality than other workshop in the region, for say India/Nepal."



For generations, Bangladeshi craftsmen have been making beautiful metal objects using a variety of different techniques. These metal objects, ranging from everyday use items like culinary to religious idols of both Buddhism and Hinduism, are not only unique artworks, but also represents the tradition of centuries of craftsmanship practiced in certain part of the country among certain communities. There is something about the lost wax technique used in Bangladesh that tends to bring out details that are higher quality than other workshop in the region, for say India/Nepal.” Mathew S Friedman mentioned in his book. This is because, in both India and Nepal, items are reproduced by replicating it from the master mold whereas here at DMC, each item is being made from the scratch and thus is unique.

Traditionally Hindus and in lesser proportion Buddhists were the main force behind this metal art who articulate their religious and social imaginations, beliefs, messages through artistry.

Predominantly a Hindu inhabited area, Dhamrai used to be the centre of metal crafts where almost every family was involved in this art form using some unique 2000 years old techniques. For generations, they had been making beautiful metal objects using a variety of techniques. Those metal objects ranging from daily use items like utensils to idols of both Hindu and Buddhism, are not only unique art works but also the representation of centuries old tradition of craftsmanship.

Although this metal casting business once existed on other parts, Dhamrai had been the epicenter due to the quality, workmanship and aesthetic appeal attached to its artifacts and now it is the only one to pursue metal casting industry as none other left in the country. While in the early 1950's about 30 villages in Dhamrai-Shimulia region were in this business but as the artisans left now only around five families with 30 artisans continue to keep this tradition moving.

3.7.1.1 Lifestyle of metal casting artisans:

Artisans of metal casting usually work for an assigner, who is a business man trading artifacts. Mostly, the assigners belong to different families entitled to 'Banik'. Specifically the works requiring extreme detailing like idol making or statue making projects are assigned and financed by assigners.

(Source: dhamrai metal crafts: story of a dying cultural heritage by mesbah ul haq)

3.7.1.2 Workshops of metal casting:

Workshops differ as to the requirement of detail and type of work. The daily utensil making workshops are different than the ones that require detailing like idol or statue making.

Usually artisans do the work of details in the assignor's house, in the workplace designated and planned for 'detail working' which requires delicate working, considerations and extreme patience.

Workshop-01: The daily ware making workshops are usually along with the artisans' residence. Usually these artisans live in a cluster to facilitate working.

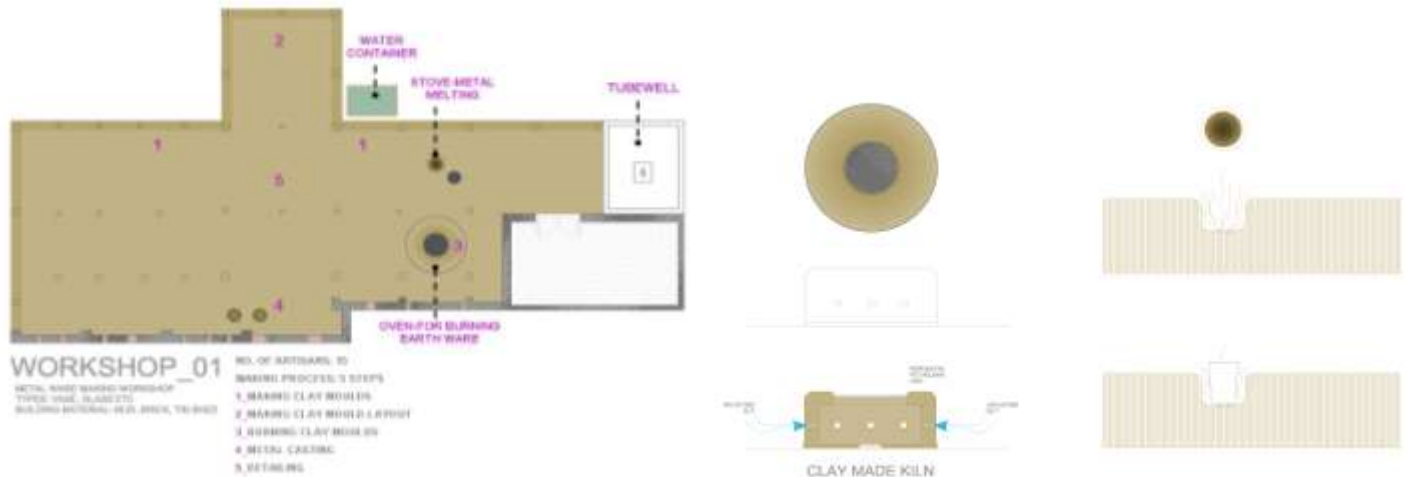


Figure 3.7.1.2 a: Metal ware making workshop_01 (Source: Mehnaz 2013)



Figure 3.7.1.2 b: Metal ware making workshop_01 and Residence of the artisans (Source: Mehnaz 2013)

Workshop-02: Banik House is built around a courtyard, rooms leading off the central space and the verandas form the spaces where men work on the different stages of the casting process. The men work in the shade of the veranda around the courtyard also.



Figure 3.7.1.2 c: Artisans working at Sukanta Banik's house, owner of Dhamrai Metal Casing (Source: Collected)

The wax modelers' work in a room around a small table with a hood fitted. The hood is made from timber and sack cloth. It contains 4 x 200 watt electrical bulbs. They create an warm environment which softens the wax and allows it to be maintained at a workable temperature. A small kerosene lamp is used to give intense localised heat to tools and wax objects. Bowls of water are used to cool the wax once it is formed.

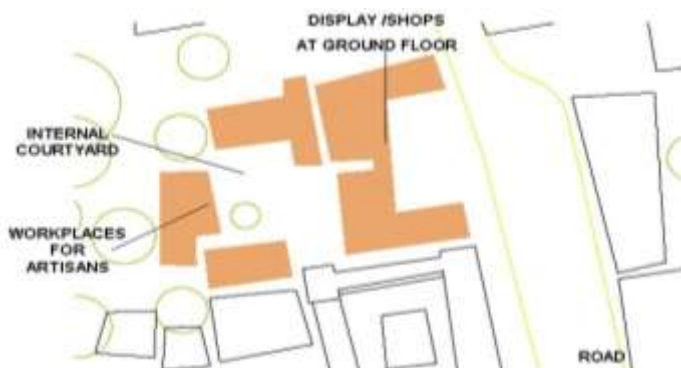


Figure 3.7.1.1 d: Workshop_2, Banik's House (Source: Mehnaz 2013)



3.7.1.3 Lost wax method:

The lost wax technique involves constructing a model from wax then creating a refractory shell around it. The wax is burnt out of the mold and the resulting void is then filled with molten metal. When the metal has cooled the shell is removed/destroyed exposing the metal casting in the same design as the wax model. This is then cleaned and finished.

Modern production processes use moulds to reproduce the wax models, at Dhamrai pieces are singular and unique, each of the wax models are made and modelled by hand, ensuring the fine detail of the designs and at the same time preserving a craft tradition.

The wax models are made in sections or components which are gradually added to each other to make the final design. Some pieces can take up to six months to make and, with no moulds, if the casting fails, all work may be lost.

A large sheet of wax rolled out using a rolling pin then cut to shape. This will form the back-drop for a piece. Small 'sprig' moulds, made from clay, are used when consistent details are needed. Skilled hand work produces the other details on the figures and their supports /surroundings. The wax is made from parafin and beeswax. The correct combination is needed to ensure the wax is hard enough to hold its shape but soft enough to be modelled. Sheets are cast by pouring the wax into bowls of water.



Figure 3.7.1.3 a: Sprig moulds for lost wax method (Source: Dhamrai Metal casting, Making Space: Sensing Place, Steven Follen)

Improvised tools are made from shaped bamboo, old saw blades and a craft knife blade to cut and model the wax. Blades are used to soften and then attach the elements together. A bamboo stick is one of the tools used to blend and smooth the wax components.

Sheets and components need to be of a thickness that will leave a void in the shell large enough to allow the molten metal to run freely.



Figure 3.7.1.3 b: Tools required for Detailing (Source: Dhamrai Metal casting, Making Space: Sensing Place, Steven Follen)

When the wax model is complete and finished, the process of making the refractory mould or 'shell' begins. Local clay is made into a solution and layers are painted onto the wax model. Initially a very fine layer of clay is used to cover the wax, this is allowed to dry over 1 - 3 days, then a further layer is added. The fine clay is added carefully in order to ensure that the detail of the wax work is captured. Subsequent layers use the same clay mixed with (1) jute fiber and sand (2) Clay mixed with rice husk and sand.

Steel wire is embedded between the later layers to strengthen and support the mould reducing the risk of cracking when it is baked in the furnace (1000 degrees) and when the molten metal is poured in. On large moulds, to reduce the weight of the object and use less wax and metal, cores are made to create hollow objects. The core for the object is made from straw or jute, which is then covered and modeled with clay.

Sheets of wax are applied to the core and then modeled, detailed and finished in the same way that a solid wax model would be.

Moulds are ready for casting, including the pouring spouts or 'sprues', The mould and the crucibles (filled with the metal) will all be place in the furnace at the same time. The wax is burnt out of the mould (hence lost wax) and the mould is brought up to a temperature that reduces the risk of thermal shock damage when the molten metal is poured.



Figure 3.7.1.3 c: Making on the process (Source: Dhamrai Metal casting, Making Space: Sensing Place, Steven Follen)

Using a bamboo tool to create the effect of pleats in fabric, the finished wax article is ready for being covered with clay. The pieces are 'antiqued' using acids, oils and chemicals to color and 'age' the pieces.



Figure 3.7.1.3 d: Making on the process (Source: Dhamrai Metal casting, Making Space: Sensing Place, Steven Follen)

(Source:FILE:///F:/SEMINAR%202/MAKING%20SPACE%20SENSING%20PLACE%20%20DHAMRAI%20METALCASTING.HTM)

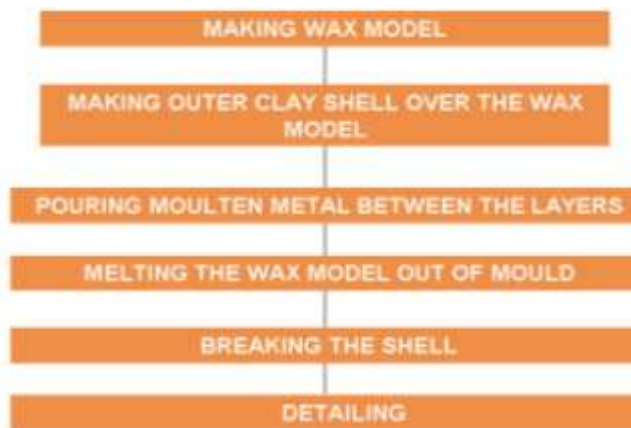


Diagram 3.7.1.3 a: Lost wax method steps (Source: Mehnaz 2013)

3.7.2 Pottery:

Pottery is the art of earth ware making. The history of Bangladeshi pottery is as ancient as it is illustrious, dating as far back as the Mohenjodaro and Harappa civilisations where earthenware was found after the excavation of Mohasthanagarh in Bogra (300 BC). The folk arts of these categories are now being used most tastefully in modern design. Pottery has now become a commercially successful product in Bangladesh. Clay pots are widely available in rural Bangladesh; kumars sell their products at the weekly village bazaars or in roadside stalls. (Source: The Daily Star, Volume 6, Issue 19, May 10, Journey With our crafts, Nazneen Haque Mimi, Interior Consultant, Journeyman).

Bangladeshi potter has always laid stress on the basic form and texture of his articles. The wheel is of the common kind, thick with shoats' spokes, and turns on a pivot of hard wood on metal, provided with a large hub that acts as a revolving label. The potter throws the kneaded clay into the center of the wheel rounding it off, and then spins the wheel. As the whirling gathers momentum, he begins to shape the clay. When it is over he severs the shaped bit flour the rest As for the types of wares, pottery comprises true distinctive types of wears.

3.7.2.1 Paal Paara:

Paal Paara refers to the pottery villages of Dhamrai. There are several pottery villages in Dhamrai. Such as Shimulia Paal Para, Notun Bondor Paal Para etc. A Kumar's house usually has the same type of zoning and configuration. Beneath the same thatched roof are the kiln, storehouse and dwelling house, while a free space in front of the door or the courtyard is used as a place to prepare the clay.

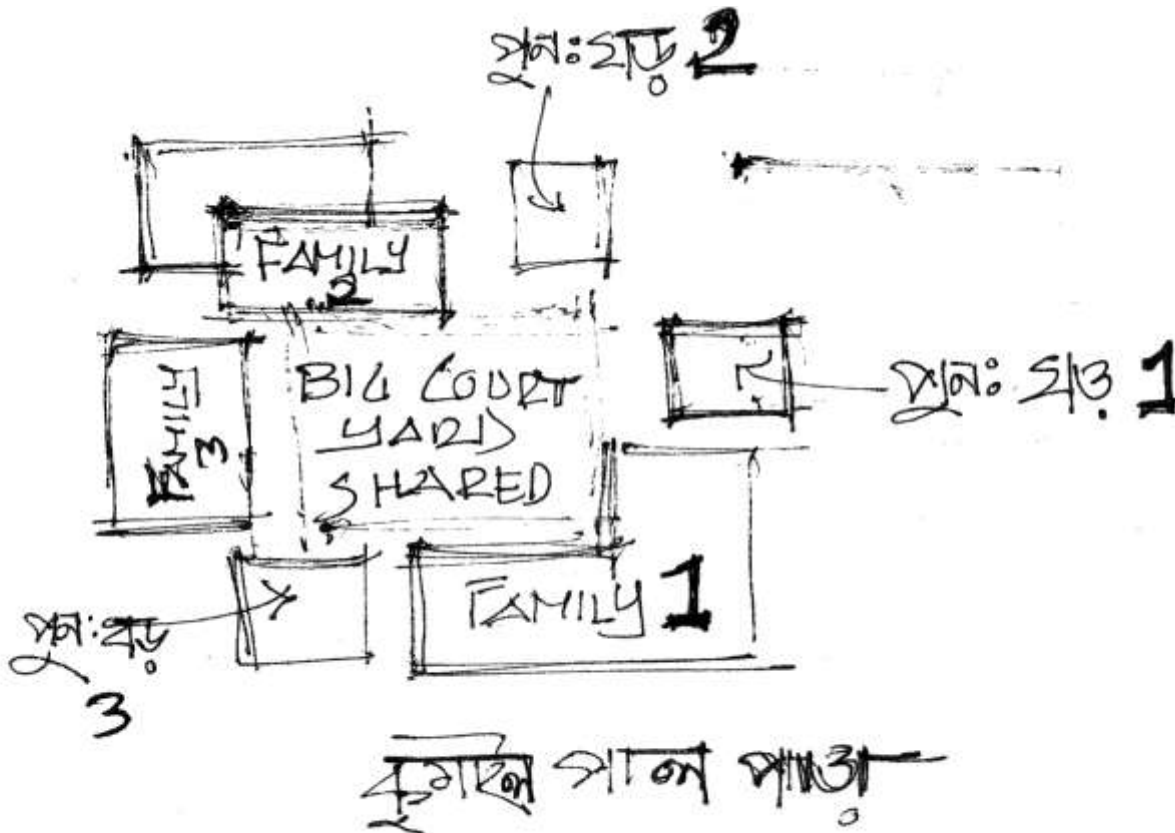


Figure3.7.2.1: Kumail paal para

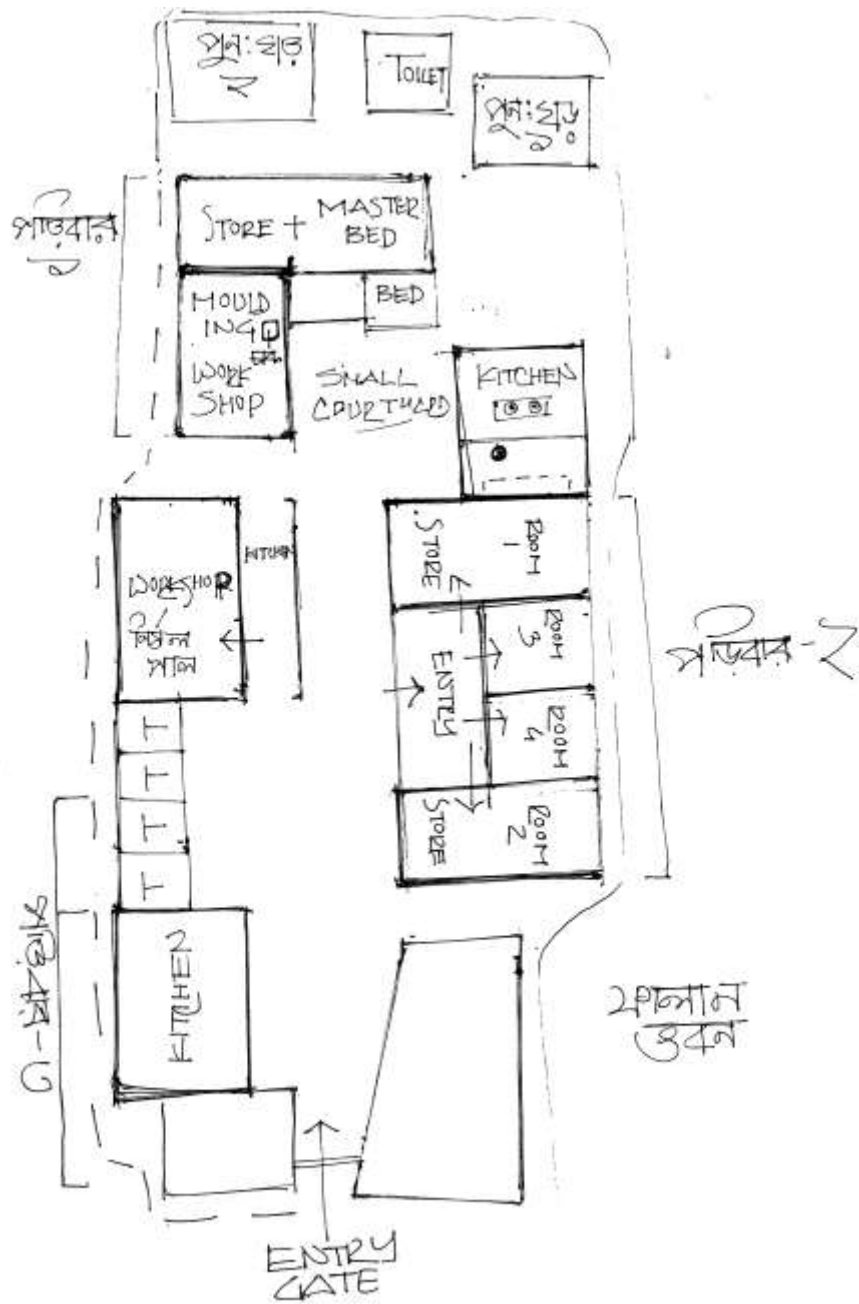


Figure3.7.2.1: Hajipur paal para

3.7.3 Soil and technique:

Earthenware is basically composed of clay- often blended clays - and baked hard, the degree of hardness depending of the intensity of the heat. Kumars use two kinds of earth: bali (sandy soil) and kalamati (blackish sticky soil). The former is mixed with the latter in a proportion of 1:2 for production of strong pottery. After the inventions of glazing, earthenware's were coated with glaze to render them waterproof; sometimes glazed was applied decoratively. It was found that, when fired at great heat, the clay body became nonporous. This second type of pottery, called stoneware, came to be preferred for domestic use.

All kumars, whether of ancient or modern times, employ a simple technology in making the earthenware. The clay dug from the earth's surface is prepared by beating and kneading with the hands, feet or simple mallets of stone or wood. The steps usually followed include: (1) clay collection and preservation, (2) preparing the clay for production, (3) modelling the shape and size of the wares, (4) drying the ware in the sun and finally, (5) firing and colouring it.

Kumars use wheel with which they fashion various kinds of pottery, which then dried in the sun and later are heated in the kiln (panja). The wheel in its simplest form is a heavy disk pivoted in a central point to be set going by the hand of the workman squatting on the ground.

After the processing in rotation is complete, the piece is removed from the wheel and set aside to dry. The neck and shoulders of all globular vessels are made with the wheel, but the body is fashioned by hand, often by women. A round ball of hardened clay (boila) is held inside, while with a wooden mallet (pitna) the material is beaten from the outside into requisite shape and thinness. (Source: Demotix, Bangladeshi Pottery: An Art Of Earthenware Making, February 7th, 2009 by [Zakaria Shahid](#)).

3.8 DHAMRAI ROTH JATRA AND FAIR:

The annual Jagannath Roth Jatra is a famous Hindu festival attracting thousands of people. Dhamrai is well known for this annual festival all throughout Bangladesh. Roth jatra festival begins on around the 10 day of Bangla Calendar month of Ashar and "Ulto Roth" takes place one week after. A month long Roth Mela is held in Dhamrai for this occasion. The Roth cart is approximately 45 feet (14 m) high and pulled by the thousands of pilgrims who turn up for the event. Dhamrai Poush Samkranti Mela is another popular fair that has been continuing for generations in this area.

CHAPTER 04

CASE STUDIES

4.1 Case study_01:

Project name: Jawahar Kala Kendra

Location: Jaipur, India

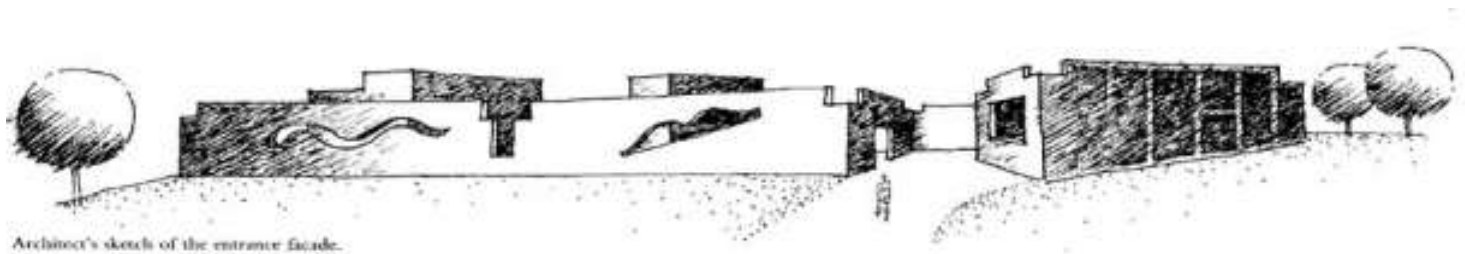
Project area: 9.5 Acre

Project year: 1986-1992

Architect: Charles Correa

4.1.1 Introduction:

Jawahar Kala Kendra is an art and crafts center located in the city of Jaipur, Rajasthan. The center was commenced by the state government to provide an exposure to the cultural and spiritual values of India and display the rich craft heritage. It is dedicated to the late prime minister of India Jawaharlal Nehru. It is managed and funded by various NGOs across the country.



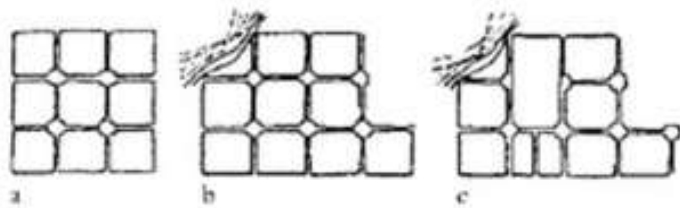
Architect's sketch of the entrance facade.

Figure 4.1.1: External facade

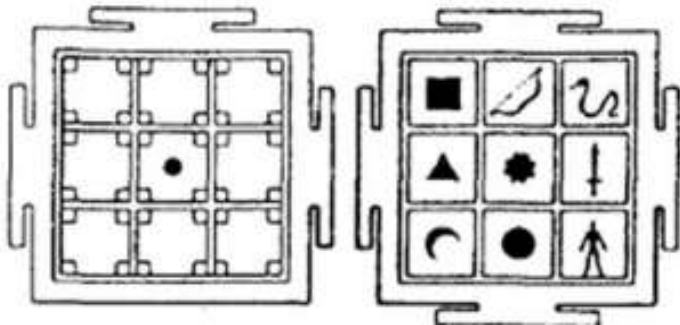
4.1.2 Concept:

The centre is an analogue of the original city plan of Jaipur drawn up by the Maharaja, a scholar, mathematician and astronomer, Jai Singh the Second, in the mid-17th century. His city plan, guided by the Shipla Shastras, was based on the ancient Vedic madala of nine squares or houses which represent the nine planets (including two imaginary ones Ketu and Rahu). Due to the presence of a hill one of the squares was transposed to the east and two of the squares were amalgamated to house the palace.

Correa's plan for the Kendra invokes directly the original navagraha or nine house mandala. One of the squares is pivoted to recall the original city plan and also to create the entrance. The plan of Jaipur city based on the nine square Yantra in which one square is displaced and two central squares combined. The squares are defined by 8m high wall, symbolic of the fortification wall along the Jaipur old city.



The plan of Jaipur city based on the nine square Yantra in which one square is displaced and two central squares combined.



Ground plan of the Nāt-Mandir in Konarak (left), corresponding to the divisions of the Yantra of the Nine Planets or *Navagraha* (right). The symbols of the yantra are: square = Venus; bow = Mercury; snake = ketu; triangle = Mars; lotus = the sun, at the centre; sword = Rahu; crescent = the moon; circle = Jupiter; man = Saturn. Based on the *Mandala Sarvasva*.

Figure 4.1.2: Concept of layout planning



Figure 4.1.3: Google image of Jawahar kala kendra

4.1.3 Plan:

The plan of Jawahar Kala Kendra is a reflection of the original city plan of Jaipur which is based on the concept of nine Mandalas or Navagraha (nine planets) placed in a grid pattern with one block displaced diagonally to accommodate the main entrance. The visitors are welcomed into the building through the main entrance hall. Topped with a huge circular dome which is decorated with traditional murals on the inside, the entrance provides a glimpse of what lies ahead. As one passes through the beautiful sun lit corridors he experiences a transition into a new dimension. Interesting circulation patterns are created within the space by the use of several openings in each of the nine blocks.

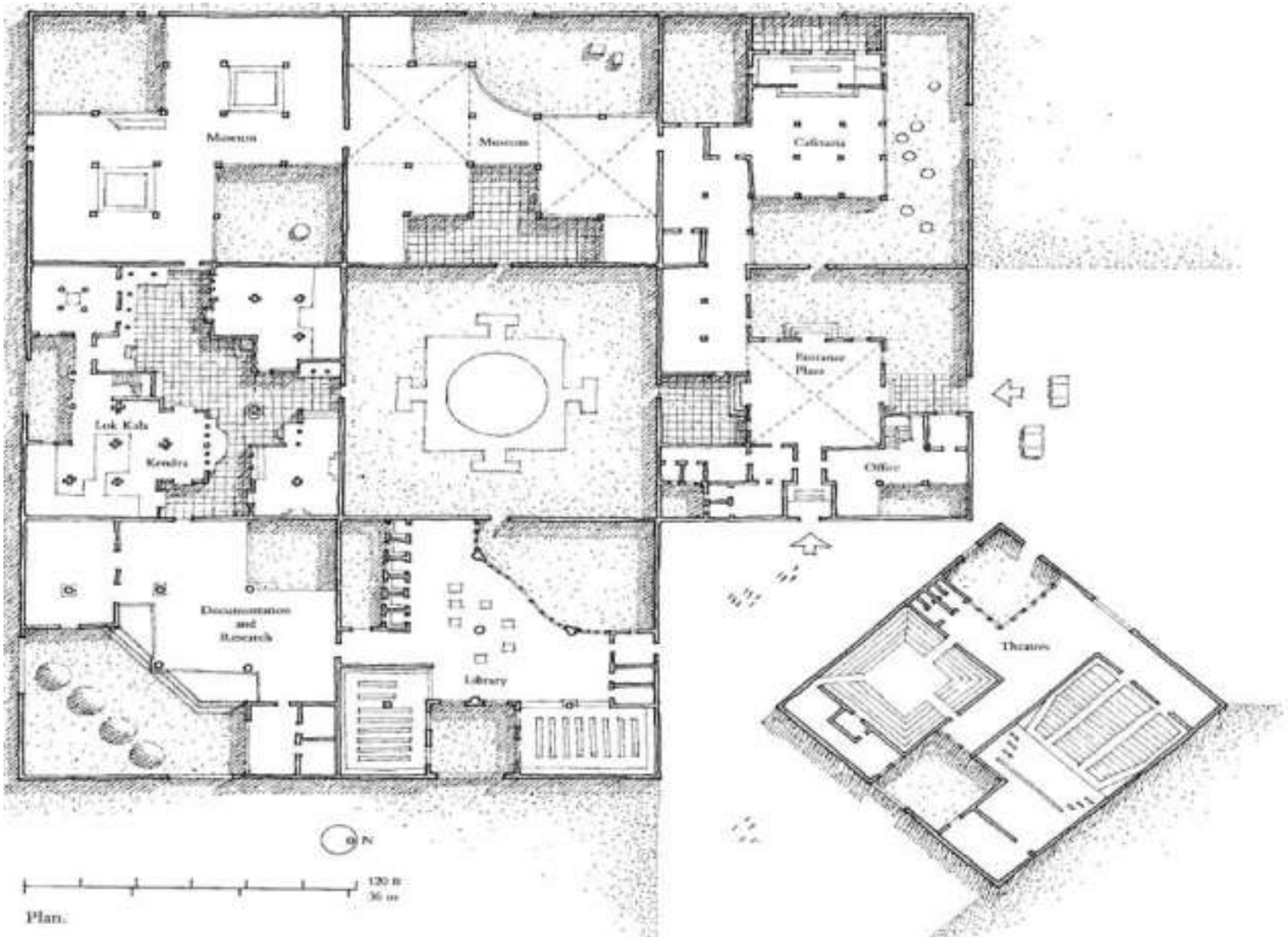


Figure 4.1.4: Plan

4.1.4 Layout planning:

The layout planning is conceptualized according to the 'Mandalas'. The building program has been "disaggregated" into eight separate groupings corresponding to the myths represented by that particular planet:

- For instance, the library is located at the square of the planet Mercury which traditionally represents knowledge
- The theatres are in the house of Venus, representing the arts.
- The central square, as specified in the Vedic Shastras, is a void: representing the **Nothing which is Everything**. The flooring pattern in this square is a diagram of the lotus representing the sun. City Palace, Jaipur.
- The astrological symbol of each planet is directly expressed in a cut-out opening along its external wall.

- The cafeteria is located in the lunar section which represents various myths about astronomy; directly translating into the unexplored gastronomic ventures of the visitor.
- Rahu (Ascending node) represents the Devourer and Restorer. This section hence houses the documentation section symbolising the restoration.
- The Mars section representative of power has the administrative block.

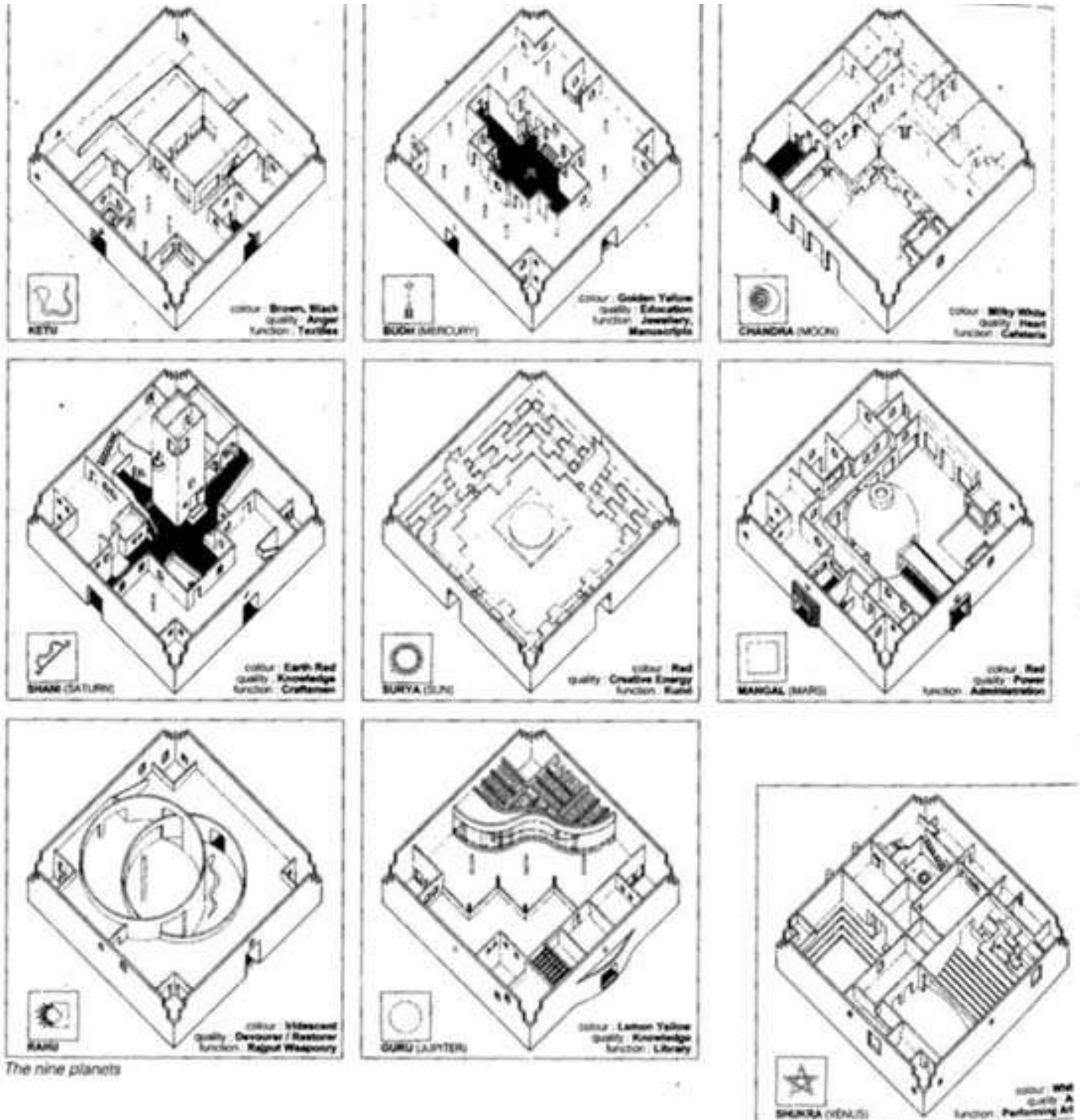


Figure 4.1.5: Programs and Layout planning

4.1.5 Programs and activities:

The centre has been made in eight blocks housing

- museums,
- theatres,
- library,
- arts display room,
- cafeteria,
- Hostel, studio
-

The centre is frequently occupied with artists and art enthusiasts. Many exhibitions and performances by local artists are displayed at the centre. The annual festivals of classical dance and music are held in the centre. The centre hosts many workshops of dance and music.

(Source: Atisha Varshney's presentation on Jawahar Kala Kendra)

4.1.6 Spatial Quality:

Built in red sandstone with white marble coping, the building blends very well with the traditional architecture. Traditional concepts of courtyard planning and mutual shading for natural cooling have been incorporated in the basic design of the spaces. Also each block represents its respective planet in the form of a motif or cut-out on the exterior facade or flooring pattern, as symbolized in Indian mythology. For instance- bow for Mercury, crescent for Moon, sword for Rahu etc.

Built with the vision of preserving local heritage, the Kendra offers a shelter to the local Rajasthani art forms and paves way for artists of the future. This facility includes a permanent ethnographical art gallery called The Alankar Museum (Hindi: alankar – “ornament”) which depicts the tangible and intangible heritage of Rajasthan, through a vast range of artifacts exhibited here.

Another six exhibition galleries presently function as exhibition spaces. These exhibition spaces alternatively serve as workshop areas as well. During different parts of the year they offer an interactive playground for artists.

Adjoining the main building of the Kendra is **Shilpgram**- a rural complex symbolizing the rural ambience of various regions of Rajasthan. This rural setting is a reflection of the way of life of the indigenous folk of Rajasthan. Small huts built in mud, with thatched roofs play host to artisans from various regions in and around Rajasthan. They display and sell their craft in these replicas of their indigenous rural houses. This setting not only makes the rural folk feel close to the desert landscape but also gives the onlookers an insight into their way of life. The Shilpgram also hosts colorful dance and musical performances throughout the year which attracts a huge number of visitors from across the country.

Another architectural element which has been beautifully executed is the interplay of light and shadow in the building. Different blocks with varying heights, cast shadows on each other. Pergolas and fenestrations in the walls create dramatic effects of sunlight; as one moves from one block to the other the spectator experiences a different state of illumination. The use of skylights is meticulously done to engulf just the right amount of sunlight into the built space.

The astrological element is not only restricted to the planning of the building but is liberally represented throughout the building in the form of paintings and murals depicting ancient Indian symbolism of planets and position of stars.



Figure 4.1.6: Internal views

4.1.7 Findings:

The place has an amazing interplay of light, shadow and colors, evoking emotions in the user and invites to move further. The flow of spaces is narrative itself and changes the moods of the user, but the overall circulation lacks of continued covered corridor, which makes the place unusable during summers and rains. The open air theatre is enclosed by the high walls which create acoustic and ventilation problems at the time of crowd.

The high walls with no fenestration in the façade, makes the building enclosed. And it does not open up to the city. However within the building the activities are disintegrated but combine to a heterogeneous mixture of various cultural activities happening individually.

The Kendra does not showcase Art as an indulgence for the elite, but rather, as a tradition which everybody can experience and be a part of. Here, economic and social status is not a barrier. It thrives on the concept of 'accessible art'.

The Kendra holds great public significance as it is an attempt to make people aware of a lost culture. Through its wise interpretation and amalgamation of a very ancient concept of Mandala and its spatial arrangement, it has achieved its uniqueness.

(Source: Jawahar Kala Kendra- The artist's haven by Gauri Mathur)



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Figure 4.1.6: Internal Courtyard



Figure 4.1.7: Craft activities

4.2 Case study_02:

Project name: Jean-Marie Tjibaou Cultural Centre

Location: Island of New Caledonia, South Pacific.

Purpose: Centre for Kanak culture: including permanent and temporary exhibitions, a multi-media library, interior and exterior performance spaces and thematic landscape.

Architect: Renzo Piano Workshop

Built: 1991-1998

Cost: 200 millions French Francs (AU\$55.5 million)

4.2.1 Introduction:

Jean-Marie Tjibaou Cultural Center, by Renzo Piano on the island of New Caledonia in the South Pacific is built to honor the assassinated Kanak leader, Jean-Marie Tjibaou, as well as to showcase the culture of the Kanak peoples.



Figure 4.2.1: Cases of Village 1 seen from the lagoon. Photo by John Gollings.

According to the architect, Renzo Piano, “the major challenge behind this project was the task of paying homage to a culture while also respecting its traditions and history, past, present and future, as well as its sensitivities. This meant putting European technology and expertise at the service of the traditions and expectations of the Kanak.”

4.2.2 Orientation and arrangement:

The cultural center is situated on a narrow strip of land surrounded by the ocean and lots of lush vegetation. Ten pavilions of various sizes ranging in height between 9 and 24 meters high are situated asymmetrically along a main path.

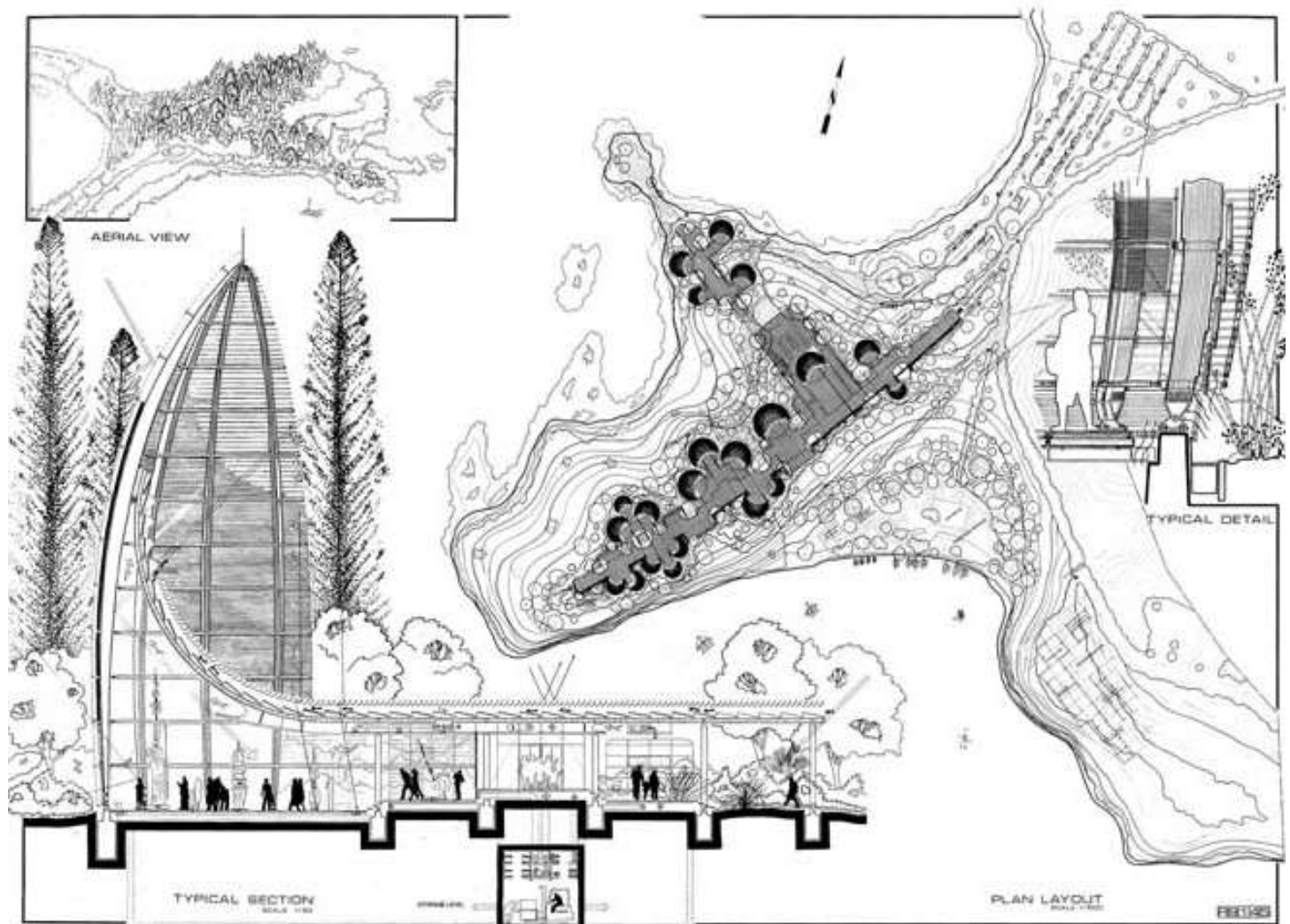


Figure 4.2.2

4.2.3 Concept:

The cultural center is modeled after a traditional Kanak village, and the pavilions were inspired by Kanak huts. Using traditional materials coupled with modern materials and technology, Piano also utilizes clever green building strategies to keep the pavilions cool and integrate the center with nature.

The pavilions themselves were inspired by traditional Kanak huts, but were not copied exactly – they're more of a modern take on the traditional architecture. Built from iroko wood as well as glass, steel, and bamboo, they respect traditional construction methods according to the most sophisticated engineering studies.

“The centre is composed of 10 ‘houses’, all of different sizes and with different functions intended as a celebration of Kanak culture... It is a genuine village, with its own paths, greenery, and public spaces, located outside and in direct contact with the ocean.”

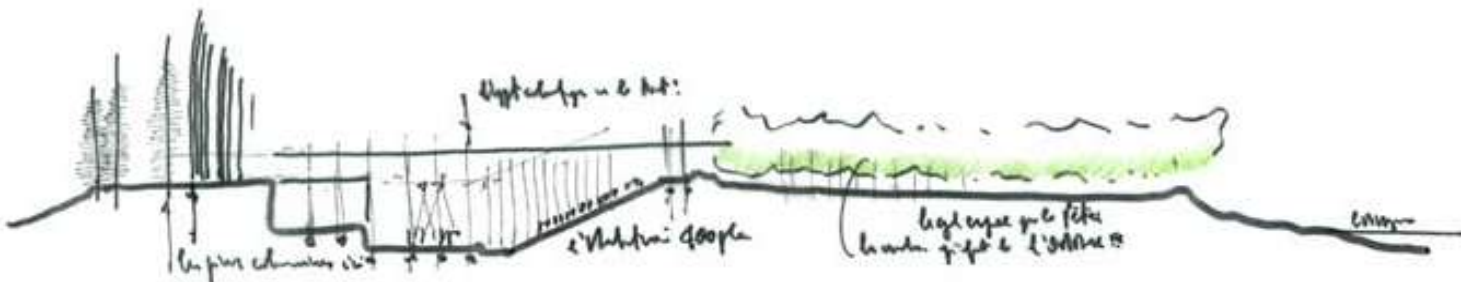


Figure 4.2.5: Conceptual elevation

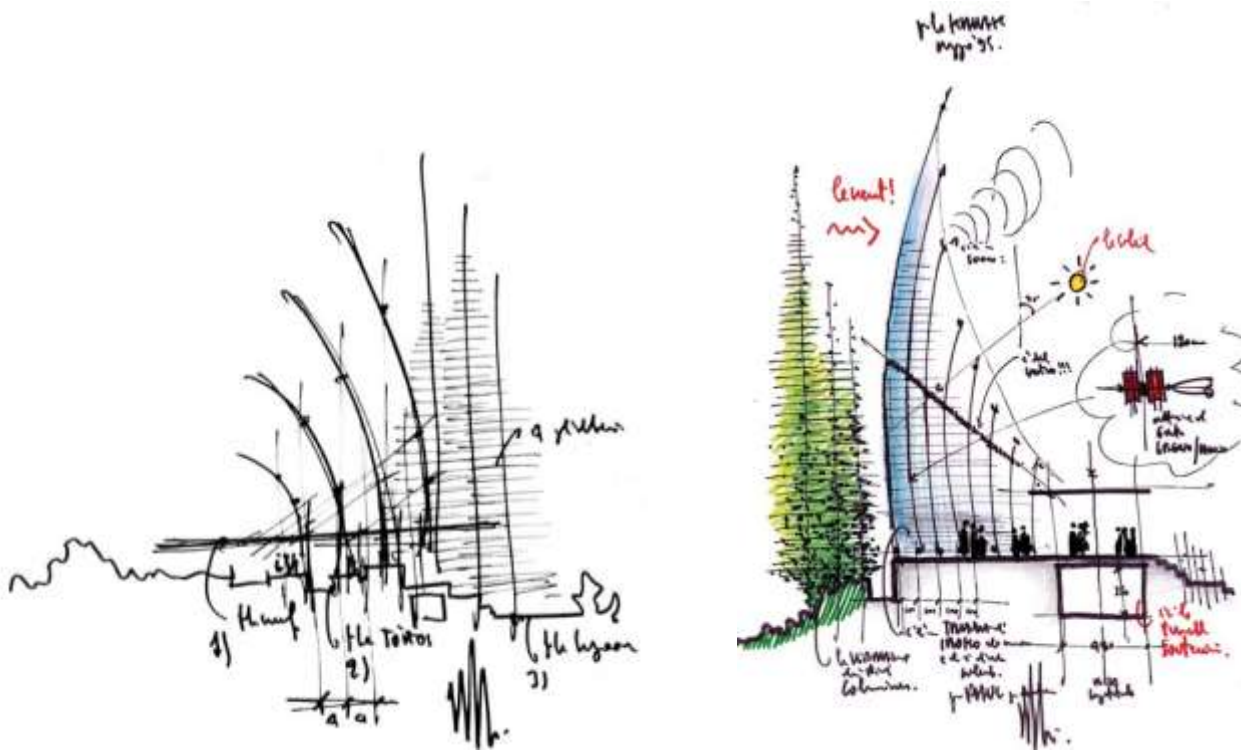


Figure 4.2.6: Conception of Pavilion

4.2.4 Layout planning:

Curved shell-like structures, ten in all, made from slats of wood, are arranged around a covered atrium, just like a traditional village. The site, chosen together with the Kanaki (which literally means "men") is a peninsula jutting out into the ocean, rich in vegetation and directly in contact with nature.

Their layout reflects that of traditional villages, composed of several clusters of houses grouped together. These very unusual huts are also grouped together in a sequence, precisely in three clusters.

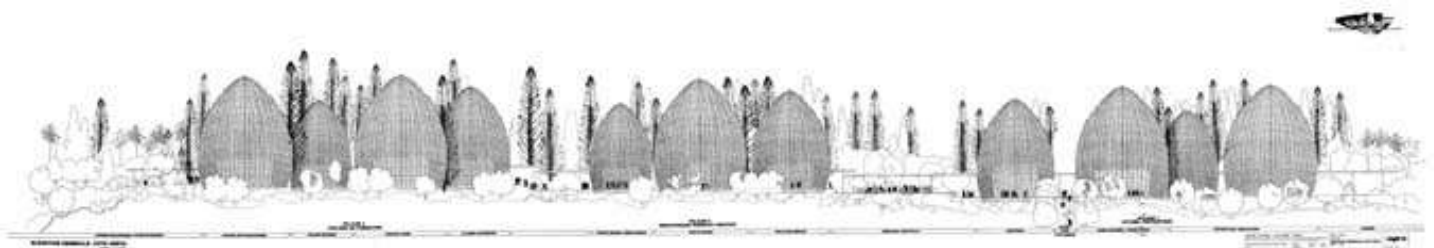


Figure 4.2.7: Elevation of the huts

The first, which also serves as the entrance, houses a permanent exhibition on the Kanak civilization, as well as an auditorium and catering services.

A library, conference room and the offices are on the contrary housed in the second cluster, while the third is made up of rooms for creative activities, from music to painting.

A covered walkway, overlooking the ocean on one side and the dense vegetation of the island on the other, joins all 10 structures together. The shells dot the landscape as Kanaki huts do and like them they allow breezes to blow through them, additionally concealing an efficient system of passive ventilation.

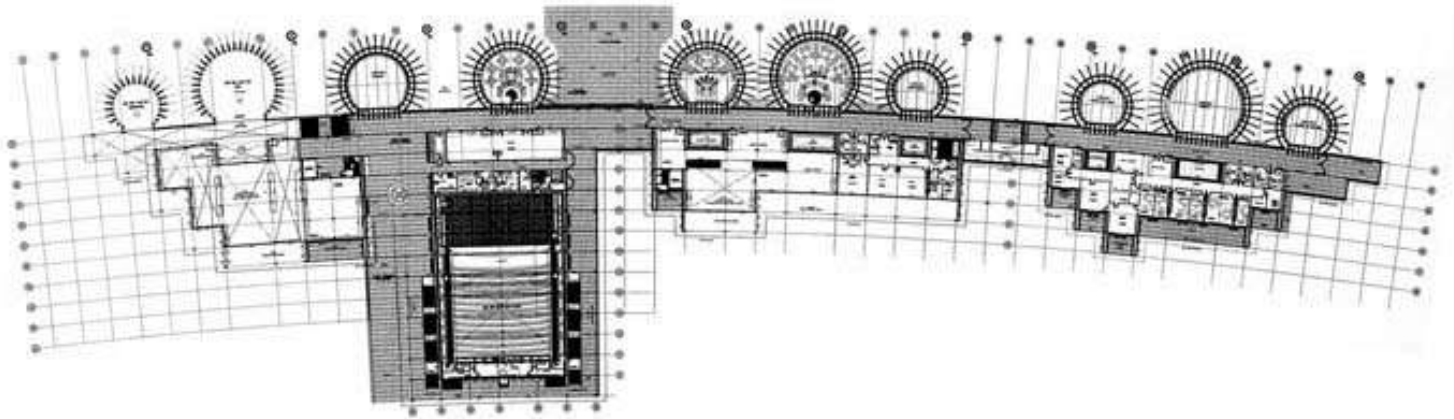


Figure 4.2.8: Plan of the pavilions

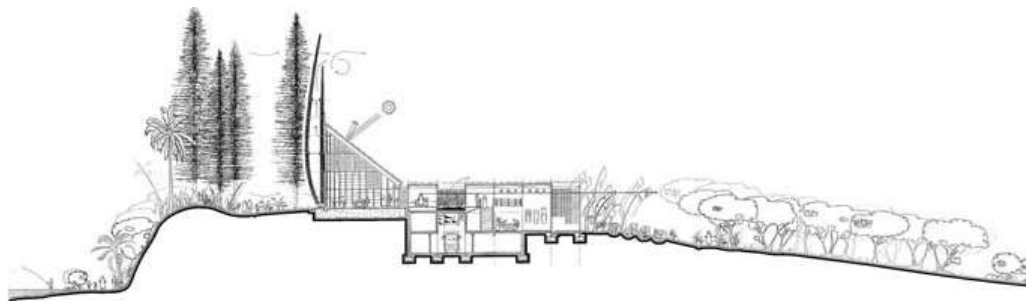
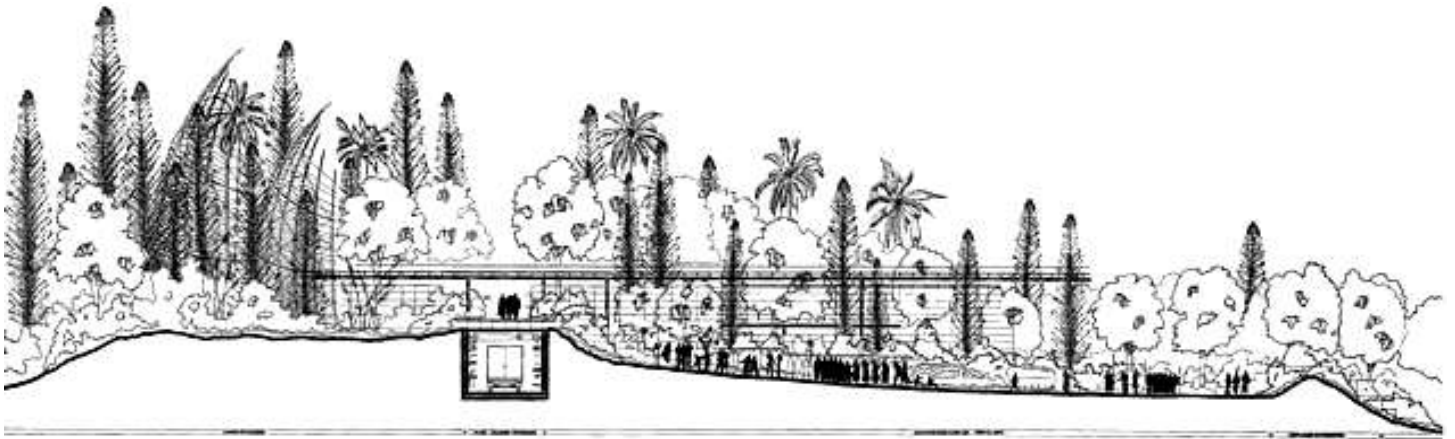


Figure 4.2.8: Sections
4.2.5 Functions:

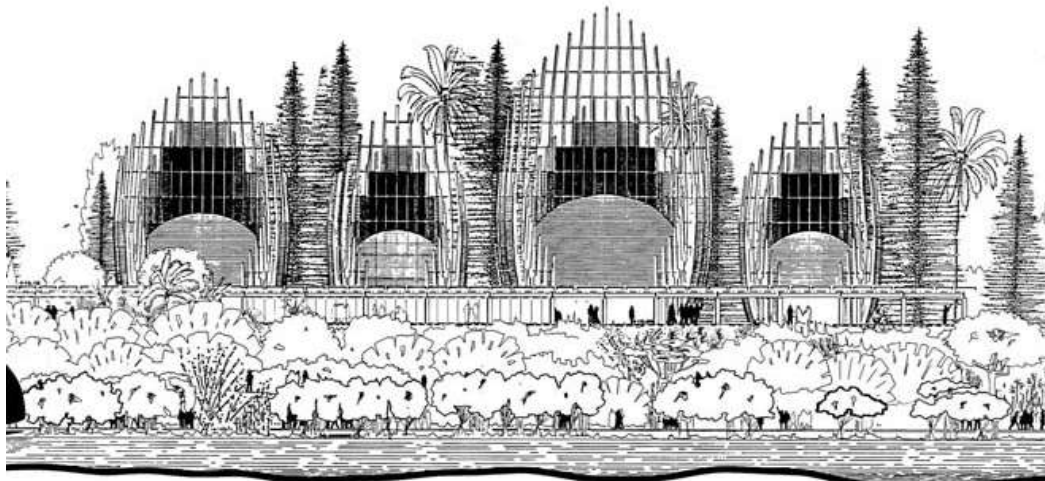
30 TALASSE EXPOSEE AUX ALIZES CASE ALLEE VOLUME BAS CHEMIN KANAKI FORET SCULPTURALE ENIGMOSIE MARS

This Centre for Kanak culture includes display area, a multi-media library, interior and exterior performance spaces and thematic landscape.

Each pavilion serves a various function or evokes certain themes and includes permanent or temporary exhibitions. Some contain studios for traditional activities, such as music, dance, painting and sculpture. Also housed at the center is an auditorium, an amphitheater, the administrative departments, research areas, a conference room and a library.

VILLAGE 3 : ATELIERS THEMATIQUES (MUSIQUE, DANSE, PATRIMOINE...)

ELEVATION VILLAGE 3 COTE ALLEE



VILLAGE 2 : MEDIATHEQUE, BUREAUX DES CREATIFS

ELEVATION VILLAGE 2 COTE ALLEE

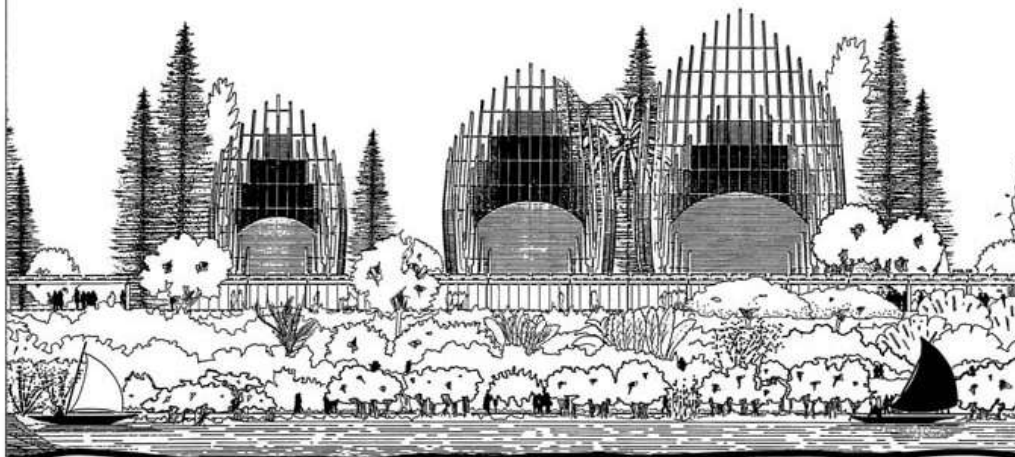


Figure 4.2.9: Elevations, Different villages house different functions

VILLAGE 1 : ACCUEIL, EXPOSITION, CAFETERIA, SPECTACLE

COUPE SUR EXPOSITIONS

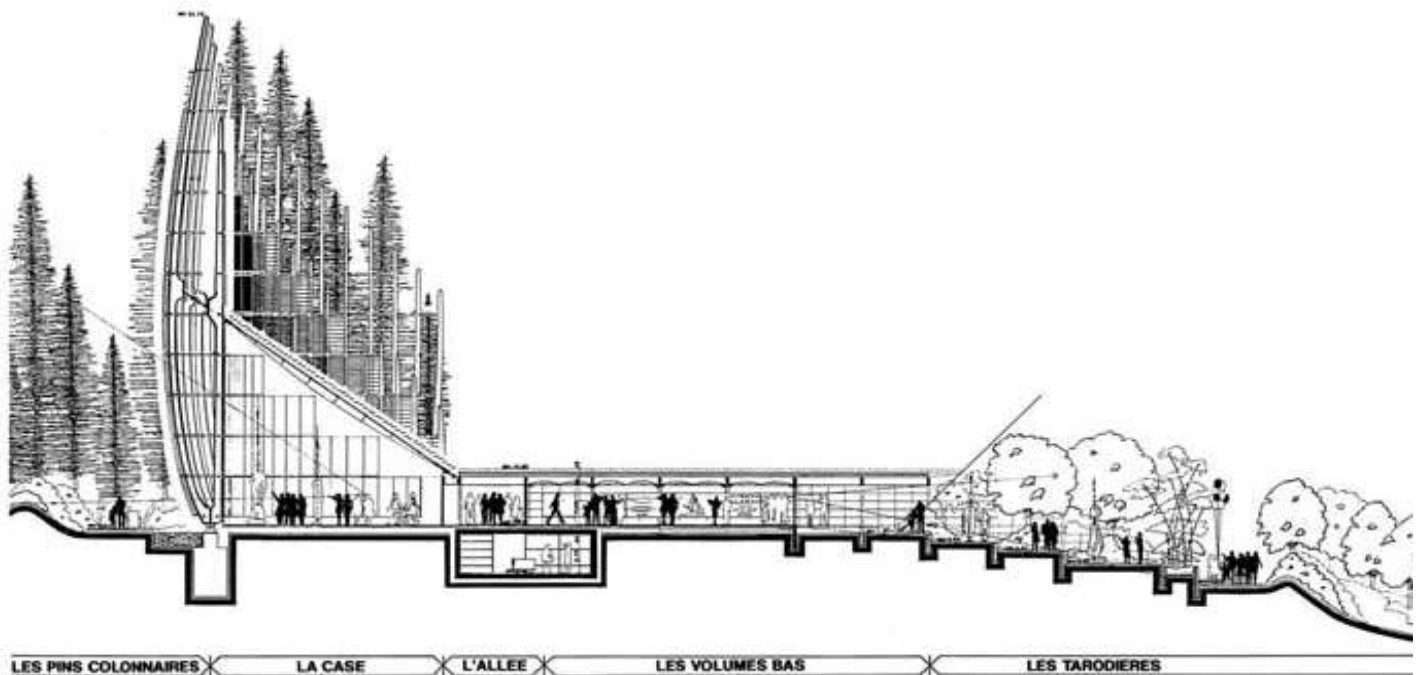


Figure 4.2.10: Section through village 1

4.2.6 Spatial quality:

The green building design concept of the center is largely a modern version of traditional architecture. Operable roof skylights and use of laminated bamboo wood allows penetration of abundant natural sunlight. Bamboo also helps in ventilating the pavilion by pushing hot air up to the top. The slats were assembled into independent panels that were then fixed to the outer ribs of the village hut structure. Even the minute details are very profound.



Figure 4.2.11(a): Detail of texture



Figure 4.2.11(b): Exterior Facade



Figure 4.2.12: Inside the Jean-Marie Tjibaou Cultural Centre, a multi-media library of Kanak Culture. Photo by John Gollings.



Figure 4.2.13: View of the pavilions



Figure 4.2.14: Covered walkway, view from courtyard

(Source: <http://www.designbuzz.com/jean-marie-tjibaou-cultural-center-a-classic-example-of-green-architecture/>)



Figure 4.2.15: Interior

4.2.7 Findings:

Respect for local traditions and culture, sensitivity towards nature, and the ability to communicate with people that is so different, make this project a truly exemplary work of the kind of architecture that seeks universality in authentic values.

Zoning of functions are prepared according to the public accessibility and privacy. The Master planning is a great example of sensitive design. The elements of the design are taken from rustic source, yet accommodating the modern amenities and technologies and all together representing the core concept of village life.

Sensitivity towards minute details and enhancing the details to specific significance is another important factor to learn from this project.

(Source: <http://www.floornature.com/projects-learning/project-jean-marie-tjibaou-cultural-centre-new-caledonia-renzo-piano-1998-4912/#.UT9wota8CUU>)

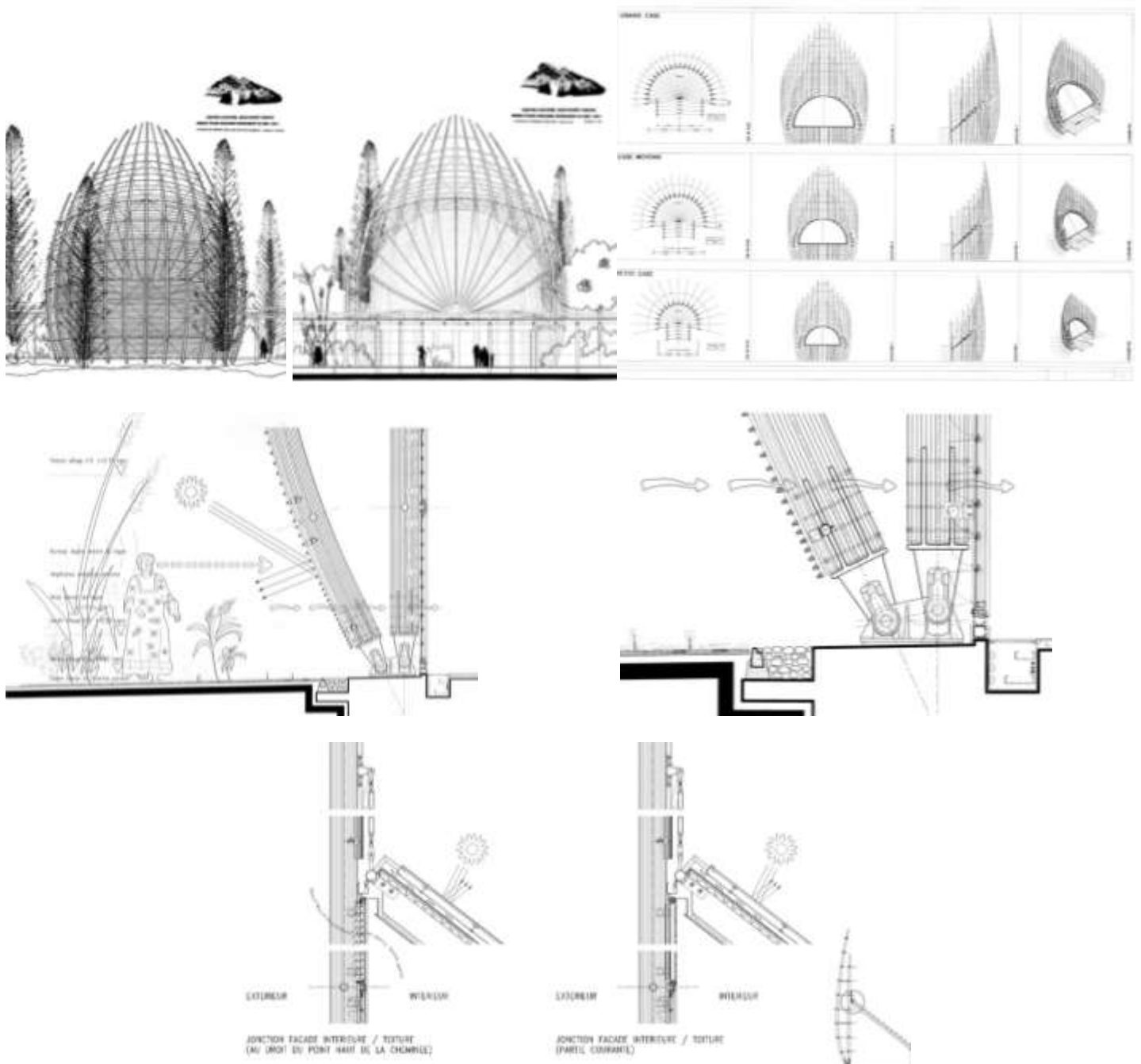


Figure 4.2.16: Details of huts



4.3 Case study_03:

Project name: Makuleka Cultural Project

Location: Limpopo, South Africa

Project area: 24,000 hector

Project year:

Architect: Peter Rich

4.3.1 Introduction:

In 1997, Rich was engaged as a technical advisor to a rural livelihoods programme service provider to work as facilitator and architect for a displaced Shangaan community at Makuleke village, situated at the border of the Kruger National Park in the Pafuri region. After their forced removal under apartheid, the community had finally been allowed to return to their homeland, an area rich in wildlife and adjacent to a major tourist destination. A craft centre and lodge project formed part of a new cultural tourism initiative based on local values and traditions, offering an effective and sustainable base for community economic empowerment.

4.3.2 Concept:

Cultural tourism initiatives based on local values and traditions offer an effective and sustainable base for community economic empowerment as well as potentially generating a sense of communal pride. Amongst many initiatives was the design and construction of a craft and Interpretation Centre where exhibitions and oral histories would present local heritage and culture. Also part of the initiative is a guesthouse that reflects the local vernacular construction, providing a venue for interaction with tourists and visiting scholars.

4.3.3 Spatial quality:

Just as the community members became the client, they became the builders of the projects using their traditional skills. Therefore the buildings is an inventory and demonstration of local building techniques as well as an illustration of how new technology can extend and enhance traditional methods.

The visitor will experience the “living culture” of the Shangaan and will witness a community in the process of reclaiming its identity through the reclamation of a new public space in the centre of the village.



Figure 4.3.1: Traditional huts, housing different functions

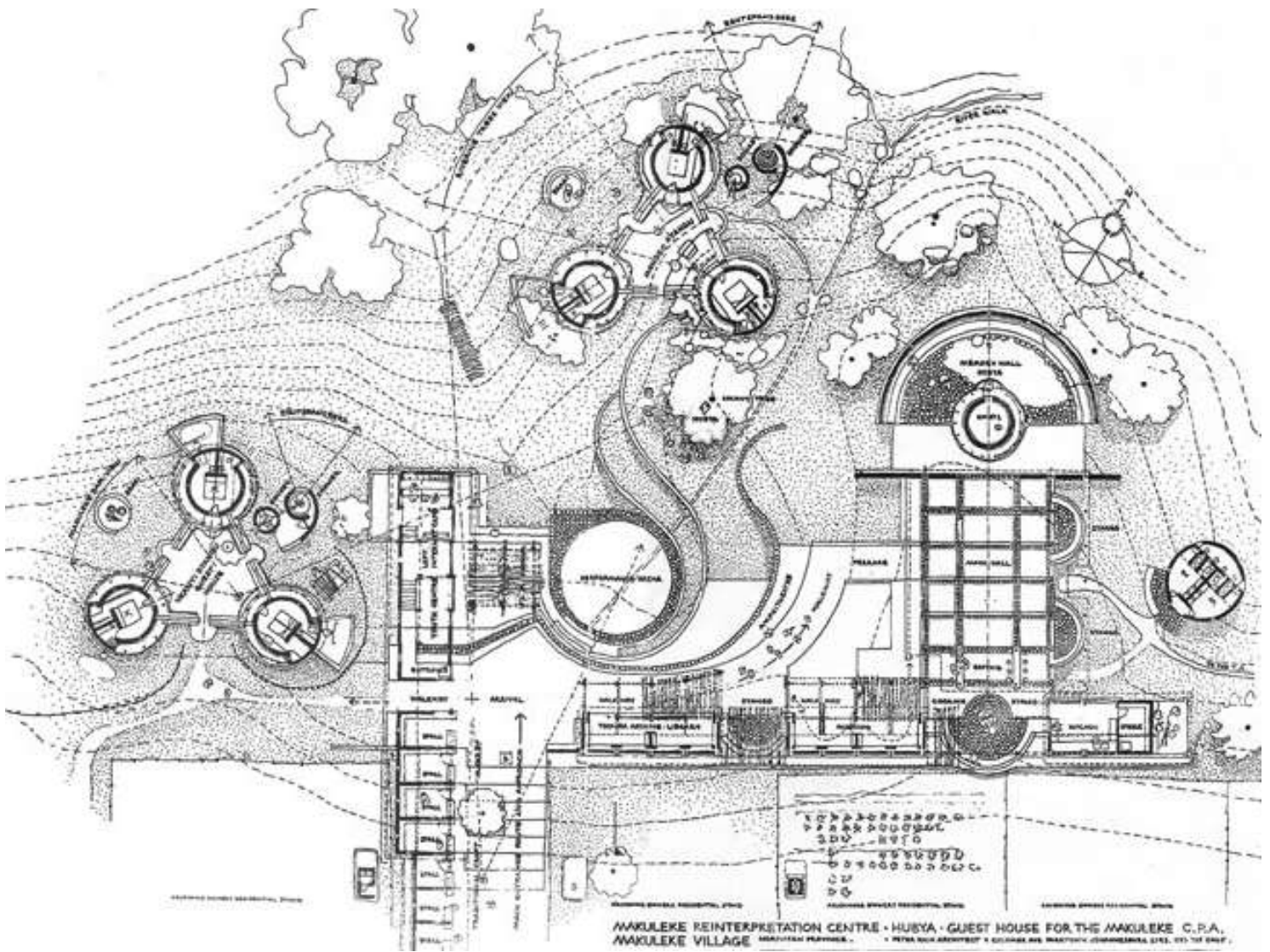


Figure 4.3.2: Master plan

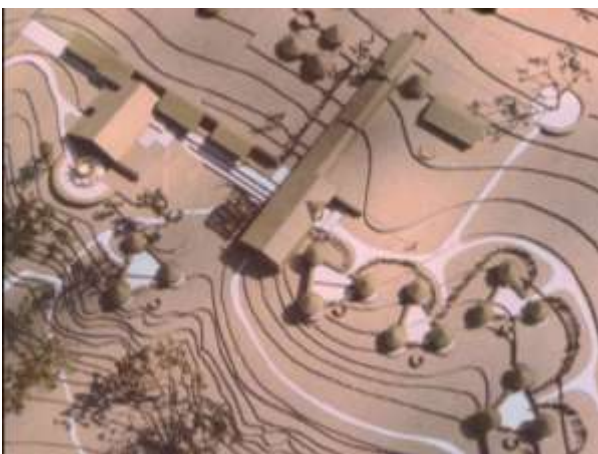


Figure 4.3.3: Master plan model

4.3.4 Functions and programs:

Craft and Interpretation Center- Exhibition of indigenous culture and heritage

Learning Centre-Community Library

Two eco lodges

Pafuri camps-Made of wooden structures and safari tents

(Source: <http://www.vayamzansi.co.za/trade/en/articles/entry/article-southafrica.net-makuleke-people-of-south-africa-benefit-from-touris>)



Learning centre



Makuleke Village, Cultural Center, Auditorium, meeting place by Christian Stowasser



Outpost lodge



Guest rooms

Figure 4.3.4: Different functions of Makuleka project.

Findings:

On all of these projects locally sourced materials, skills and labor were used: gum poles for structure, thatch for the roof coverings, and locally gathered stone or soil bricks (made using Hydra form presses) for walls, use of solar panels and waste recycling system for community. The Outpost lodge was constructed on platforms to avoid damaging the soil with invasive foundations. This adoption of local, commonsense technologies meant not only that architectural interventions were sustainable but that they also engaged and empowered local communities.

Not only has the project created opportunity to bring out the culture and heritage of Makuleka but also involve tourists into its traditions and experience the soul of indigenous community, which is after all, the focal idea of the project.

“Every summer (June-August) and January I travel to the beautiful village of Makuleke, with a population of 12,000, to work with them in collecting, recording, and storing their knowledge in their own village.

So rich is its culture, so talented its artists and storytellers, and so bountiful are the stories the elderly tell of the culture and nature intermix that used to animate life in ‘Old Makuleke’ before the apartheid matchstick torched their roofs of their grass-thatched huts, and so warm and boundless is their love for other that one volunteer expedition after another that Traditional Knowledge of African Villages has conducted since 2008 has remarked.”

Clapperton Chakanetsa Mavhunga, assistant professor of science, technology, and society at MIT.



Figure 4.3.5: Details of earthen walls and floors.

(Source: www.peterricharchitects.co.za/projects/makuleke.php)

4.4 Case study_04

Project name: Nishorgo, Visitor interpretation Center

Location: Teknaf, Bangladesh

Project area: 288 sqm

Project year: 2008

Architect: Ehsan Khan, Vitti Sthapati Brindo Ltd.

4.4.1 Objective:

The main objectives of this interpretation center, located in a protected forest and nature reserve in Chittagong District in the south of Bangladesh, are nature education and interpretation tours, in an effort to create awareness and promote biodiversity, conservation and eco-tourism.



Figure 4.4.1 (Source: <http://www.akdn.org/architecture/project.asp?id=3803>)

4.4.2 Concept:

Nishorgo means environment in Bengali, and the central concept driving the project is therefore to cherish the sanctity of nature, there again by interrupting the nature at the least possible way.

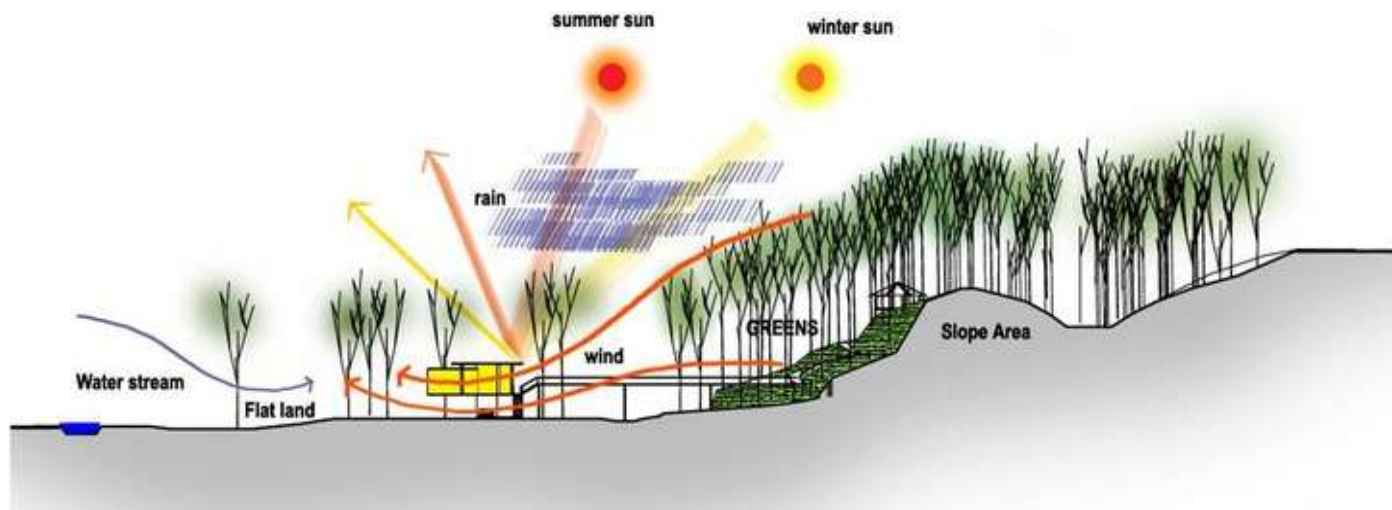


Figure 4.4.2: Conceptual Elevation

4.4.3 Layout Planning:

The building itself is sensitively placed within the landscape: the reinforced concrete platforms of the 'pavilion shelter' float above the ground on structural walls; the concrete slabs are pierced by tree trunks where necessary, reflecting the project's aim to create as little impact on the environment as possible.

The visitor walks up the layers of platforms to a raised level to observe the surroundings. An exhibition area is enveloped in a compositional arrangement of openings framed by wooden lattices, and there is a space for viewing films with walls of exposed, burnt clay brick.

(Source: Nishorgo Nature Interpretation Centre, By Nico Saieh, on Nov 5, 2012 • 21:51)

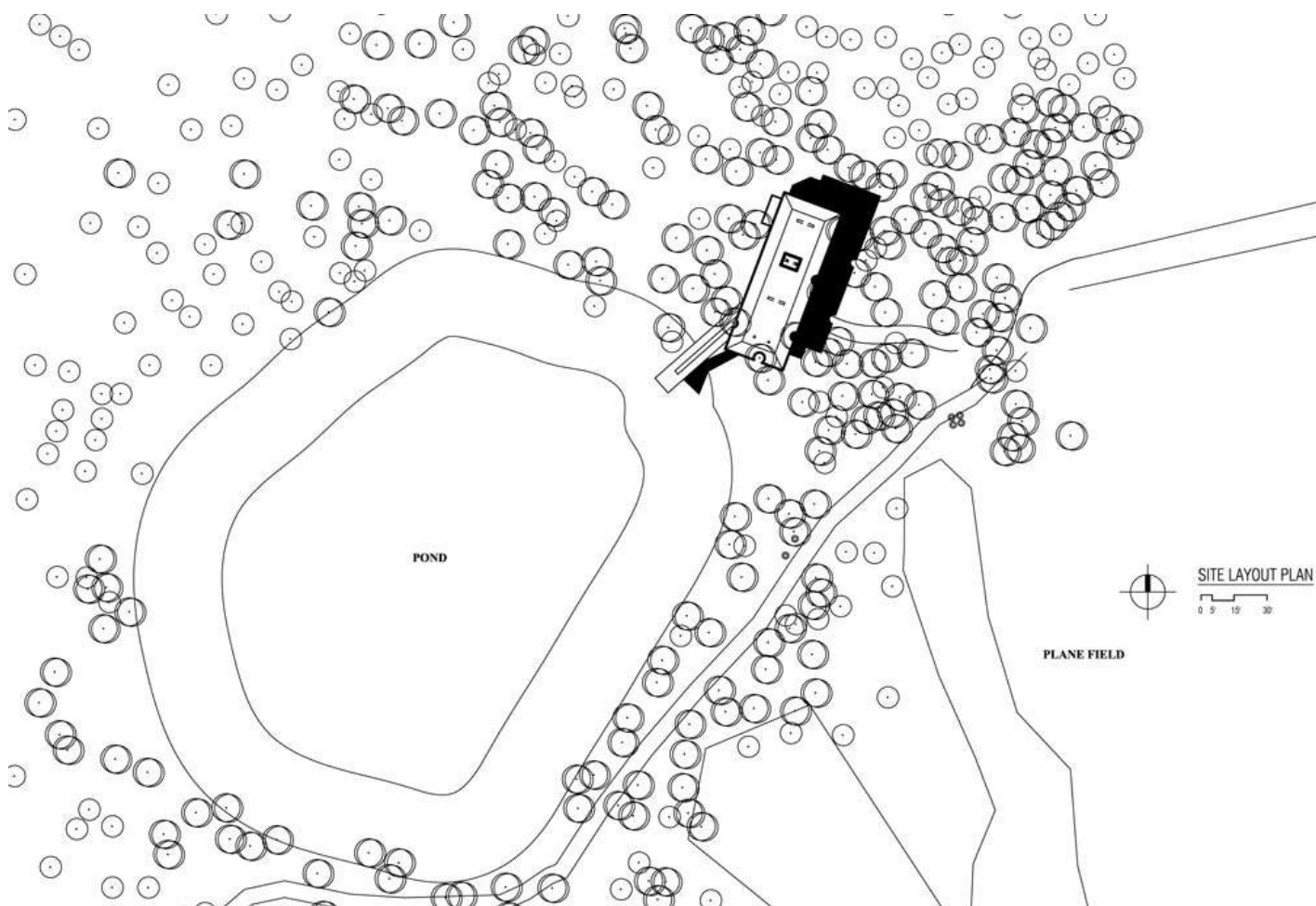


Figure 4.4.3: Site plan



Figure 4.4.4: Approaching views.

4.4.4 Functions and Programs:

- Indoor exhibition
- Outdoor exhibition
- Open air theatre
- Screening theatre
- Rest rooms
- Deck
- Information kiosk
- Souvenir shop
- Utilities

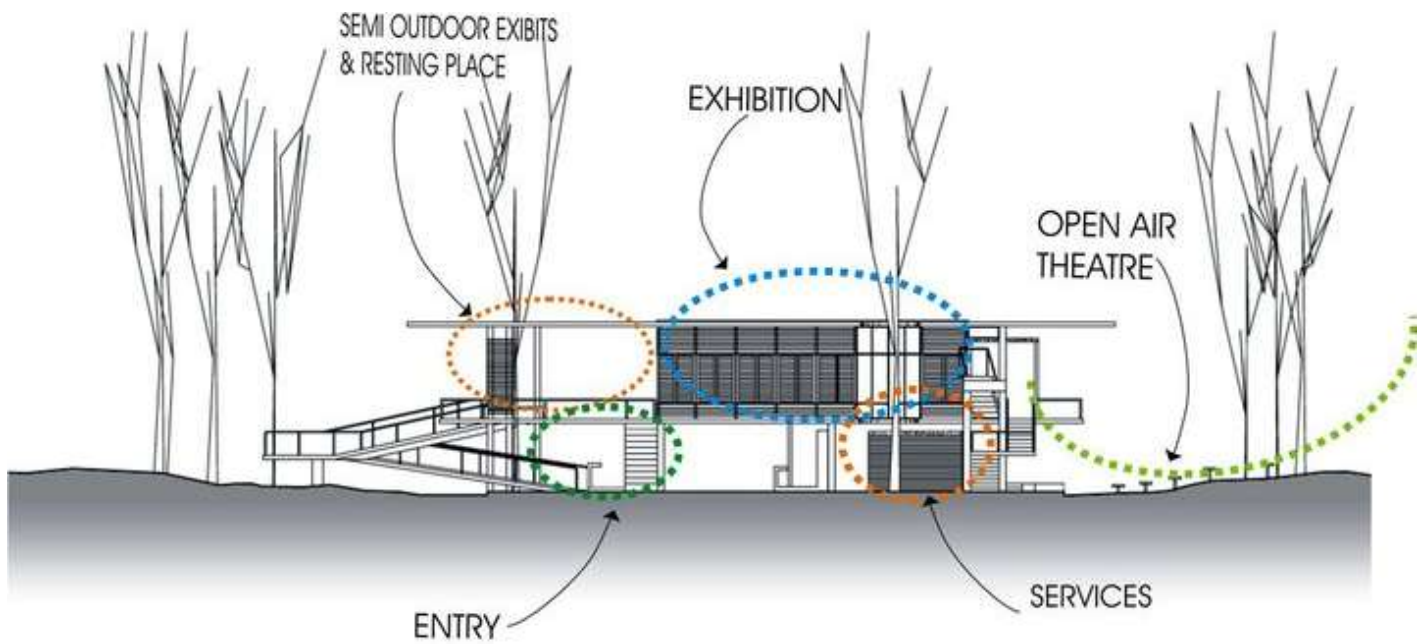


Figure 4.4.4: Elevation 1

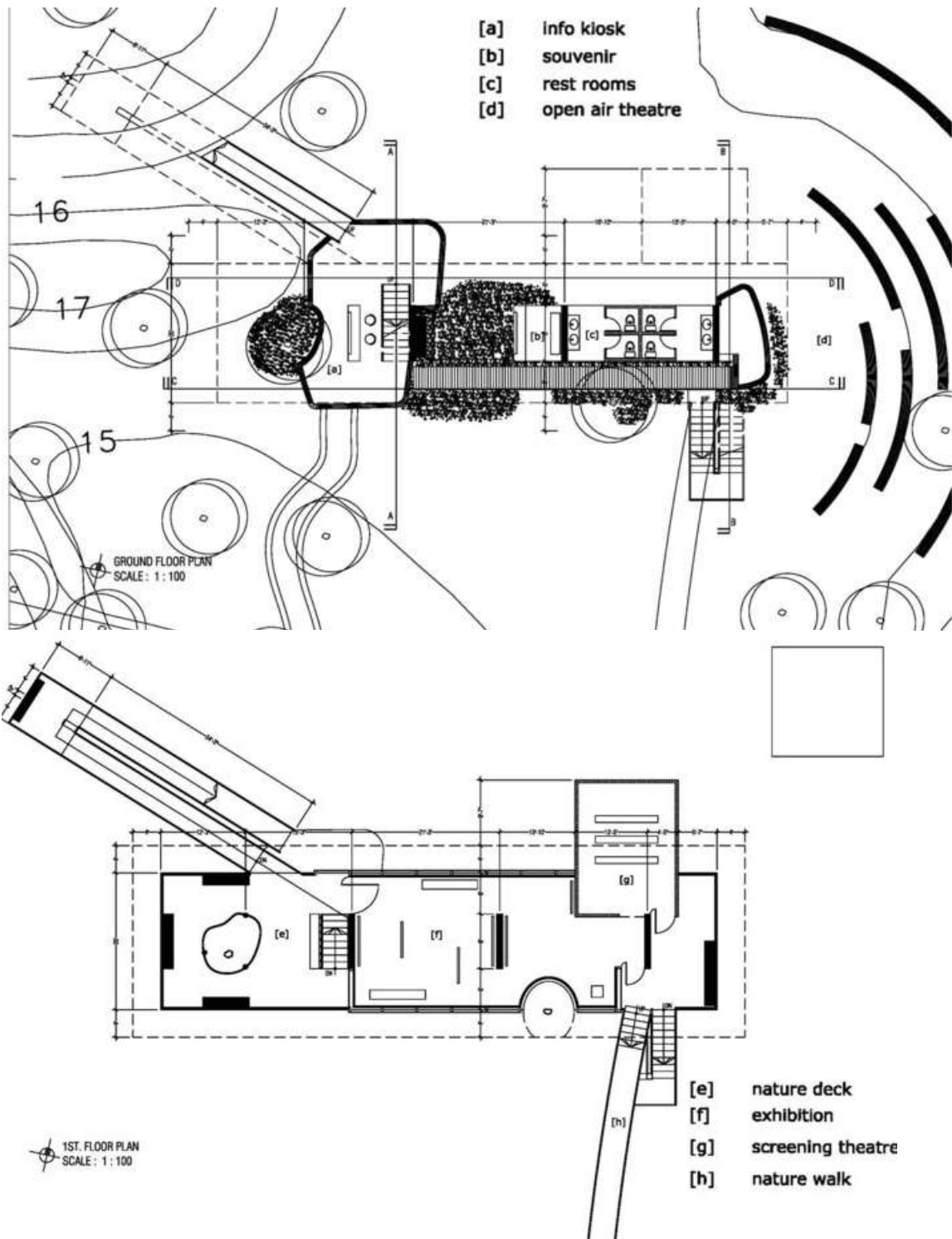


Figure 4.4.5: Ground floor plan

Spatial quality:

Exposure to the nature is the main focus of the project achieved by creating a sense of sustainability. The project intends to blend with the nature as it tries to signify the softness of the landscape by fading the hard surface from vision. It is as if a floating structure over the lush of green, which gives it required amount of virtual lightness.



Figure 4.4.6 (a): Bird's eye view



Figure 4.4.6 (b): Entry view



Figure 4.4.7: View 1

Findings:

The concept and intention of the project is itself very innovative and essential in our context and architectural intercession.

It provides the opportunity to boost up the eco-tourism of our county through a fresh architectural intervention, "Interpretation Centre", with a fresh concept of sustainability and nature.

It also ventures the possibility of different types of architectural facilities in our country beyond the mainstream types such as museums, art galleries or tourist centers and encourages one to think about the "unusual" not

concerning the design or design elements only but also about innovative functions and programs, while creating.

The necessity of contextual treatment while designing is also an important issue that is highlighted here.

The architecture of creating the desired atmosphere through design and to infuse the conceptual spirit within the inanimate structure can altogether create responsive and lively phenomena that can inject life even into the most rigid material.

Its a great example of experiential architecture.

(Source: Nishorgo Nature Interpretation Centre, By Nico Saieh, on Nov 5, 2012 • 21:51)



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Figure 4.4.8: Views 2



Figure 4.4.9: Model

(Source: <http://arc.com.bd/2012/11/nishorgo-nature-interpretation-centre/>)

4.5 General Findings and intension of case studies:

- To understand the various levels of the interpretation centre or such civic complex for the inception of its master planning
- To study about the different layers and the relationship among them while conceptualizing such multifaceted civic amenities.
- 'Jean-Marie Tjibaou Cultural Center' is a great example to learn about cultural sensitive architecture as well as sensitivity towards both detail and structure.
- Study of 'Jawahar Kala Kendra' develops the integrity towards the focused concept as well as edifies environment responsive architecture for indigenous amenity designs.
- The concept of 'Nishorgo' is a great inspiration to explore different types of civic amenities and functions.
- These examples also signify the contribution of architecture to bring out a unique community's gripping aboriginal characteristics and share the experience with everyone.
- Also, the examples help to understand the sensitivity towards handling such unique communities while designing community-based projects.
- 'Makuleka Cultural project' is a shining example of how local communities can benefit from tourism through architectural interventions. Instead of turning their land into agricultural land and going back in to resettle upon it, the people of Makuleke chose to turn the area over for joint conservation and management with South African National Parks, thereby preserving the form and shape of Kruger National Park. This project highlights the co-existence of community and contextual conservation that is very necessary for sensitive architecture.

CHAPTER 05

PROGRAM DEVELOPMENT

5.1 Rationale of the programs:

The programs have been selected to develop the complex as a public recreational space as well as a platform where heritage, craft and eco tourism can thrive. Temporary exhibition spaces are designed to exhibit the works produced in workshops where as the museum will house all the vintage collection that the artisans have produced over time. The dormitory will house the foreign apprentices and teachers as well as apprentices from other areas. Artisans will be able to work in specialized workshops and general workshops. The cafeteria is designed to accommodate modern amenities for tourists as well as to work as a platform for different mix of people. Above all, the workshops are designed to be the most significant feature of the complex to commemorate the contribution of artisans in our culture as well as to provide the best possible workspace for them.

5.2 Program summary:

PROGRAM SUMMARY

Function Name	Quantity	Space	Capacity	
<u>PERMANENT GALLERY SPACE</u>		5400 SFT		
<u>CAFETERIA</u>		7000 SFT		
<u>METAL CASTING WORKSHOPS</u>		11,200 SFT		
<u>POTTERY WORKSHOPS</u>		19,400 SFT		
<u>DORMTORY</u>		6,120 SFT		
<u>PLAZA/Public RECREATION</u>		11,400 SFT		
<u>Administration</u>		1,710 SFT		
<u>Library</u>		1,240 SFT		
TOTAL		63,470 SFT		

5.3 Program in detail:

Programme Chart

PERMANENT GALLERY SPACE

Function Name	Quantity	Space	Capacity	
Exhibition space		3000 SFT		
Lobby		700 SFT		
Archive		1000 SFT		
Toilets	Men-8, women-6	200 SFT		
Admin		300 SFT		
A.H.U		200 SFT		
TOTAL		5400 SFT		

CAFETERIA

Function Name	Quantity	Space	Capacity	
Service area	1	1000 SFT		
Lobby	1	300 SFT		
Storage	1	212 SFT		
Toilets	Men-8, women-6	288 SFT		
Outdoor eating space		1700 SFT		
Indoor eating space		3500 SFT		
TOTAL		7000 SFT		

METAL CASTING WORKSHOPS

Function Name	Quantity	Space	Capacity	
Storage space	1000x6	6000 SFT		
Indoor workshop	500x4	2000 SFT	5x4 ppl	
Combined workshops	2	2800 SFT	8x2 ppl	

Toilets	Men-8	400 SFT		
TOTAL		11,200 SFT		

POTTERY WORKSHOPS

Function Name	Quantity	Space	Capacity	
Storage space	1000x10	10,000 SFT		
Indoor workshop	500x4	2,000 SFT		
Outdoor workshop	5	4200 SFT		
Combined workshops	2	2800 SFT		
Toilets	Men-8, women-6	400 SFT		
TOTAL		19,400 SFT		

DORMTORY

Function Name	Quantity	Space	Capacity	
Rooms	(12x12)x10	1,440 SFT	24 male+20 female	
Toilet	30x6	180 SFT		
Dining space	1	2,000 SFT	24	
Common space	2	2,000 SFT		
Admin		500 SFT		
TOTAL		6,120 SFT		

PLAZA

Function Name	Quantity	Space	Capacity	
Temporary exhibition space		6,000 SFT		
Amphitheater Performance space		900 SFT		
Amphitheater seating space		2600 SFT		
Shops		1,500 SFT		
Toilet		200 SFT		
Store		200 SFT		
TOTAL		11,400 SFT		

ADMINISTRATION

Function Name	Quantity	Space	Capacity	
Reception lobby		300 SFT		
Toilet		180 SFT		
Manager's office	1	200 SFT		
Complex superintendent	1	150 SFT	3	
General office	1	180 SFT		
Store	1	100 SFT		
Multipurpose room	1	300 SFT		
Staff room	1	300 SFT	6	
TOTAL		1,710 SFT		

LIBRARY

Function Name	Quantity	Space	Capacity	
Reading space		400 SFT		
Stack area		120 SFT		
Liberian's room		70 SFT		
Audio-visual learning		650 SFT		
TOTAL		1,240 SFT		

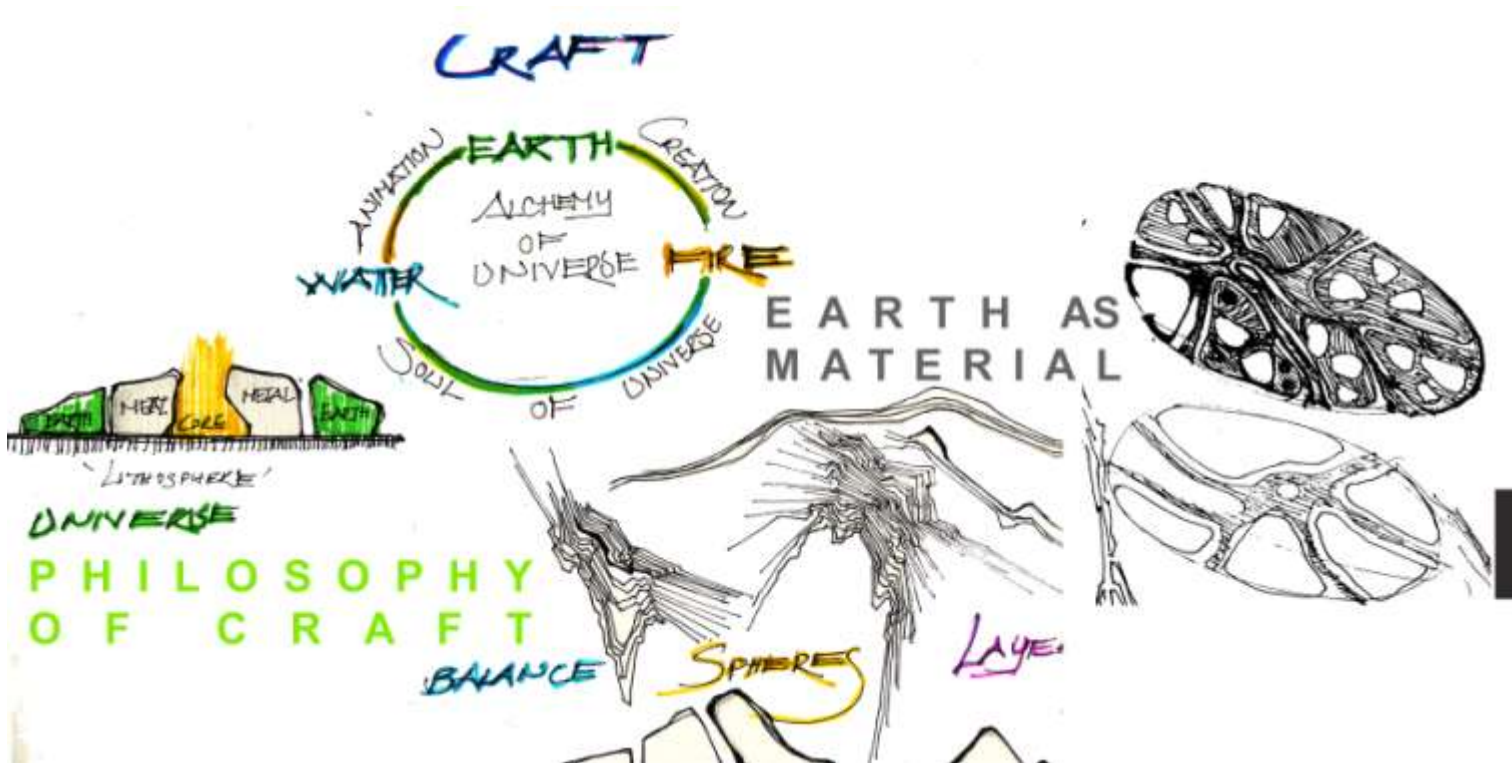
CHAPTER 06

FINAL DESIGN

6.1 Site Introduction:



6.2 Philosophy:

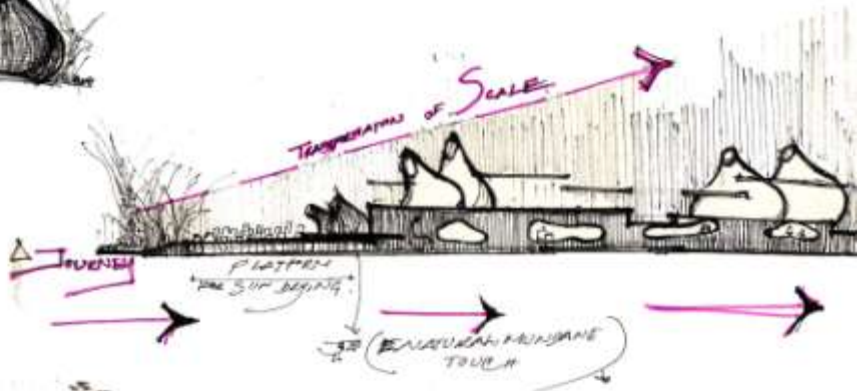
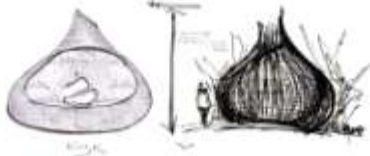
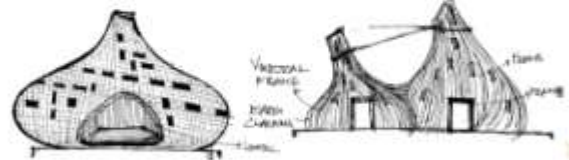
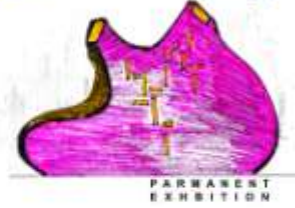
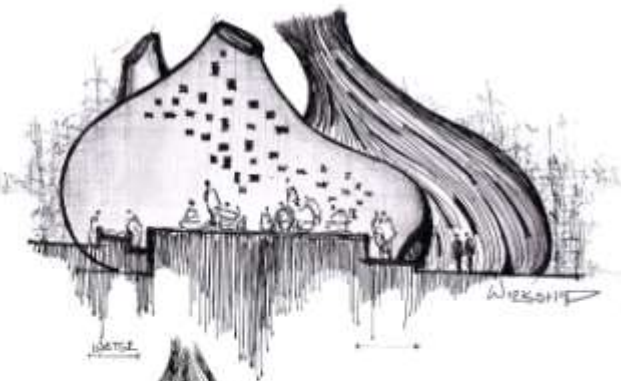


6.3 Concept:

The project is conceptualized as to signify the magnificence of crafts and artisans in our culture and heritage as well as to design a universal platform for the gathering of art lovers and practitioners. Hence the concept of the project is derived from the philosophical aspect of craft. Also the concept of the physical forms of the complex is generated from the very ideal symbol of pottery and metal casting which is at the same time, very native to our culture and also universal; The “Vases”. In the process of design there has been the attempt to manipulate the conceptual form to derive the best possible spaces and tectonic composition of spaces. Hence A prototype form is generated in the 1st phase of design which has been modified by adding up two or three prototypes along with established distortion, rotation or mutation to explore the different aspects of design and design the experience of visualizing the undulating form.

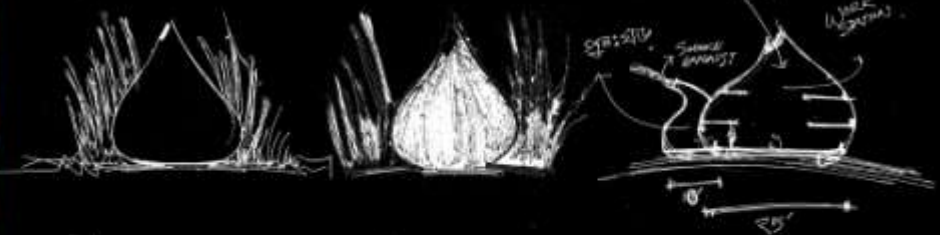
C R A F T
INTERPRETATION CENTER
ART_TERY
AN ART
FOR THE
ARTISANS

CONCEPT GENERATION
FORM AND SPACES



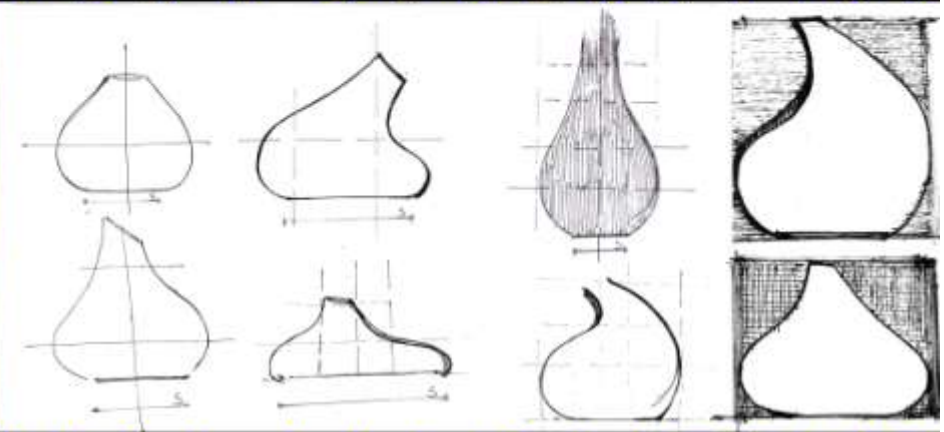
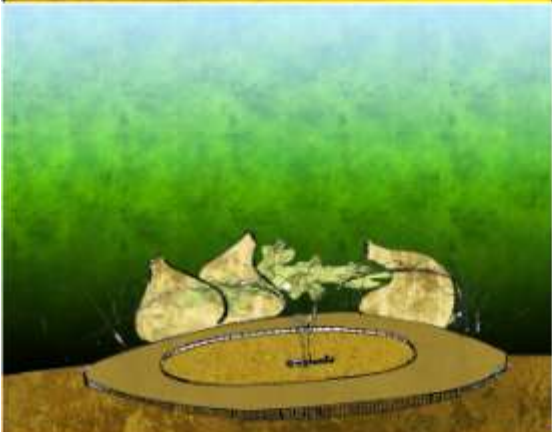


FORM AND FABRIC



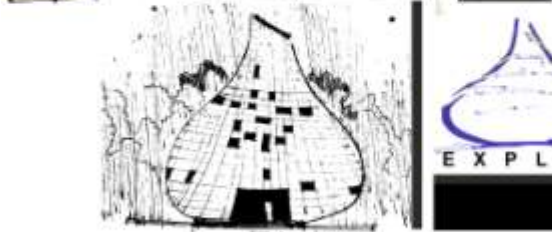
FORM INSPIRATION

FORM GENERATION

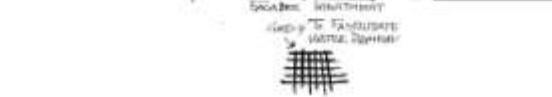


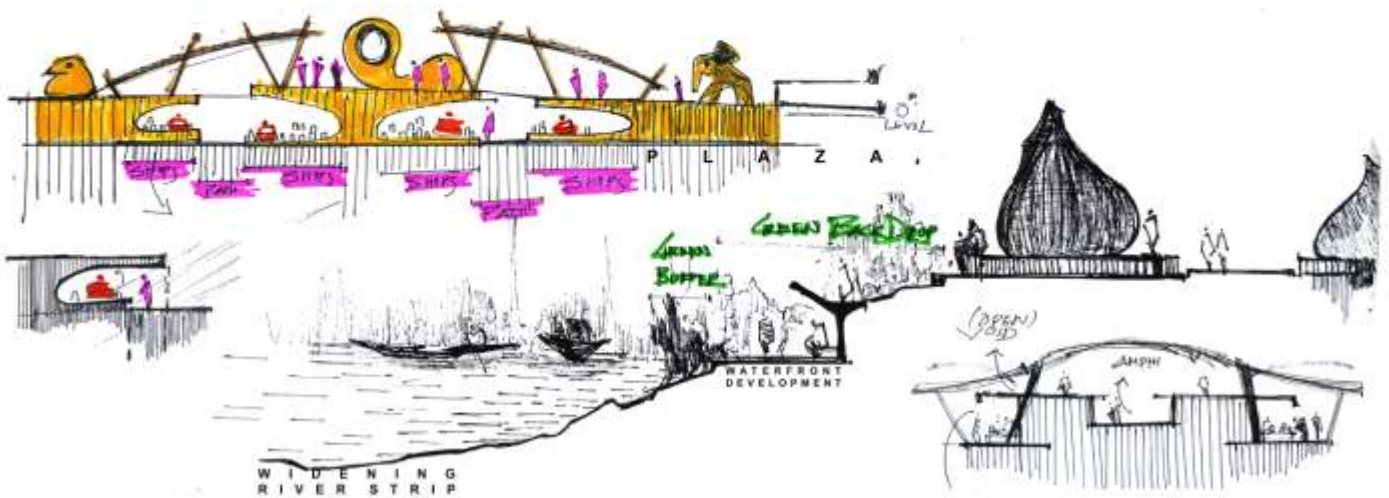
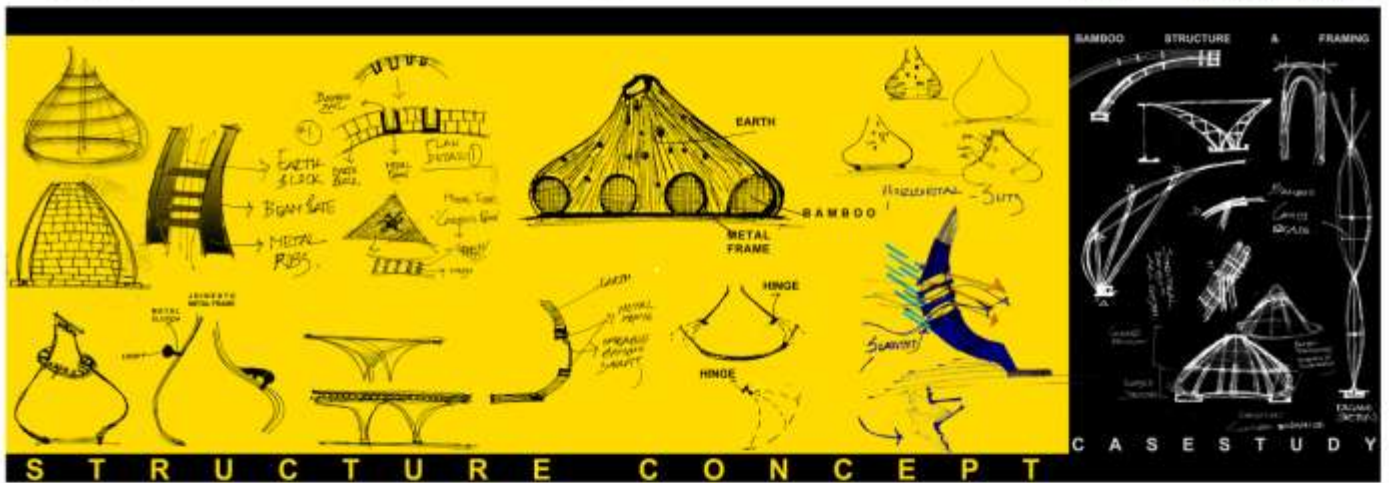
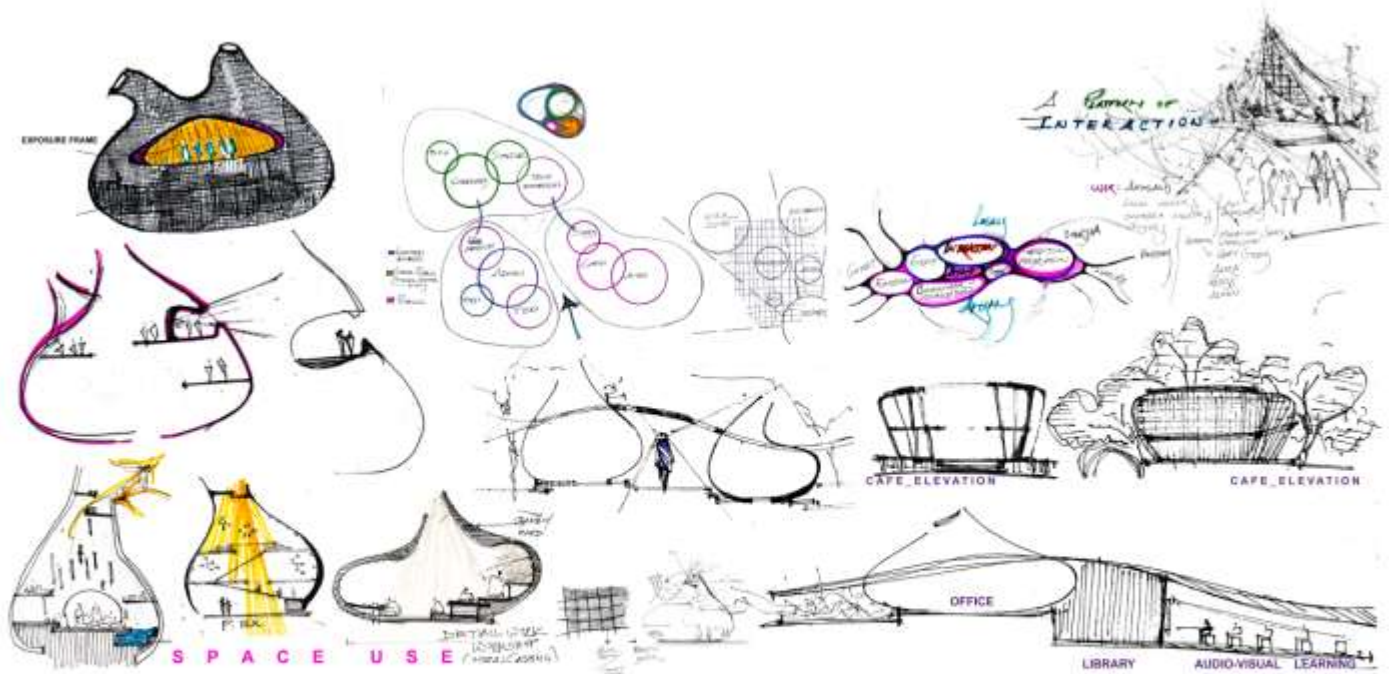
WORKSHOP CLUSTER

FORM MANIPULATION



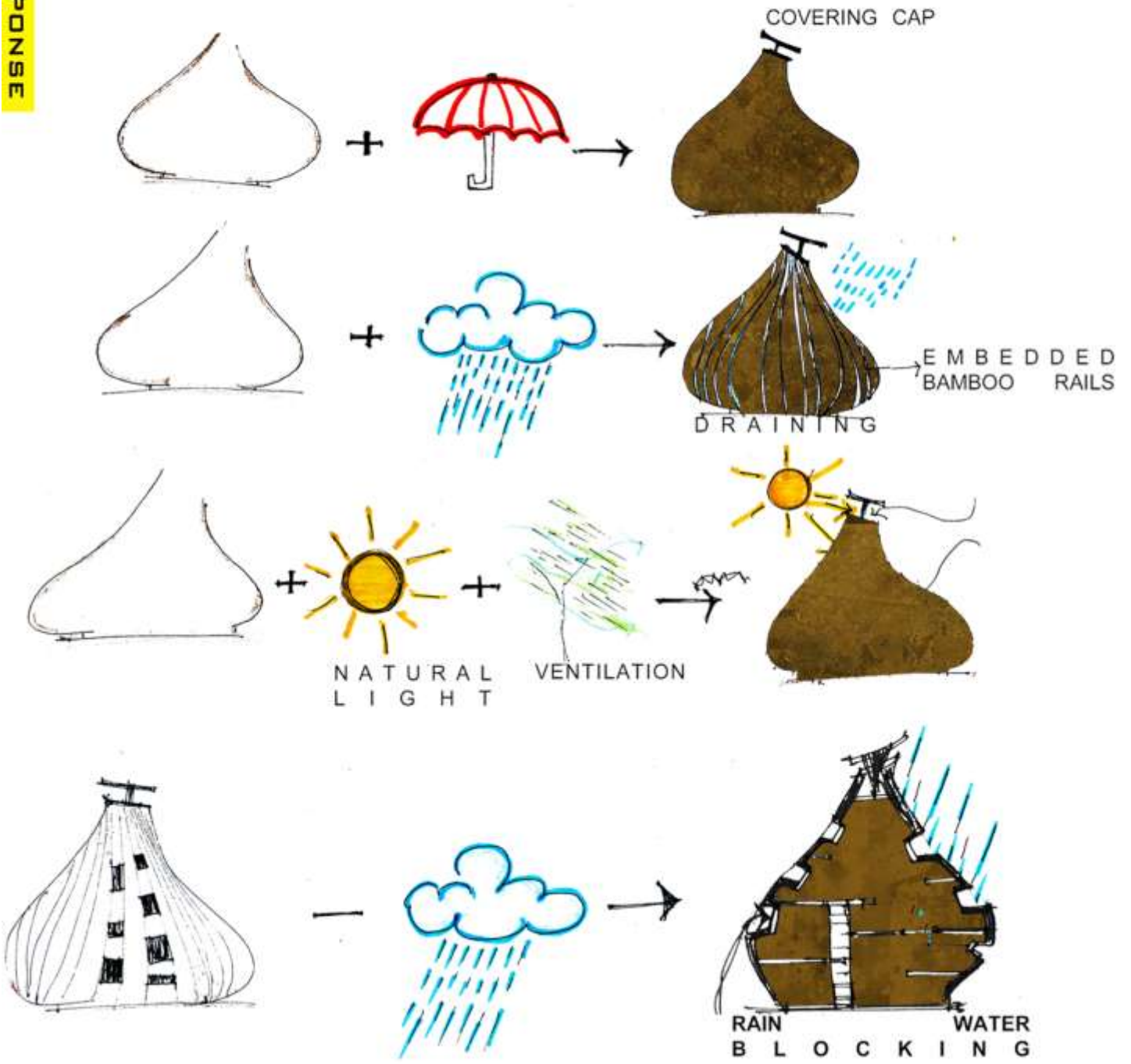
EXPLORING FENESTRATION





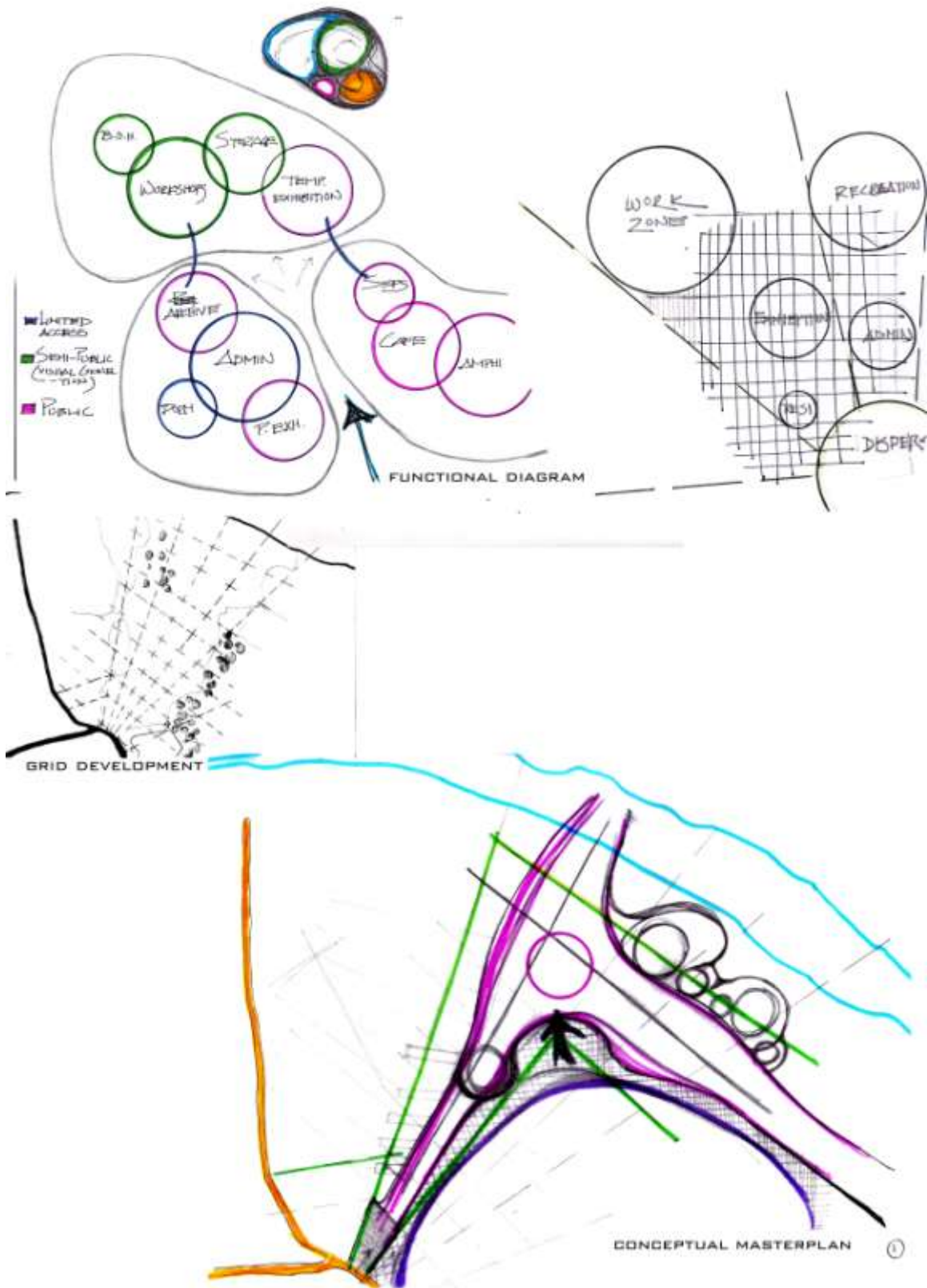
6.3.1 Form analysis:

CLIMATE RESPONSE



6.4 Master plan development:

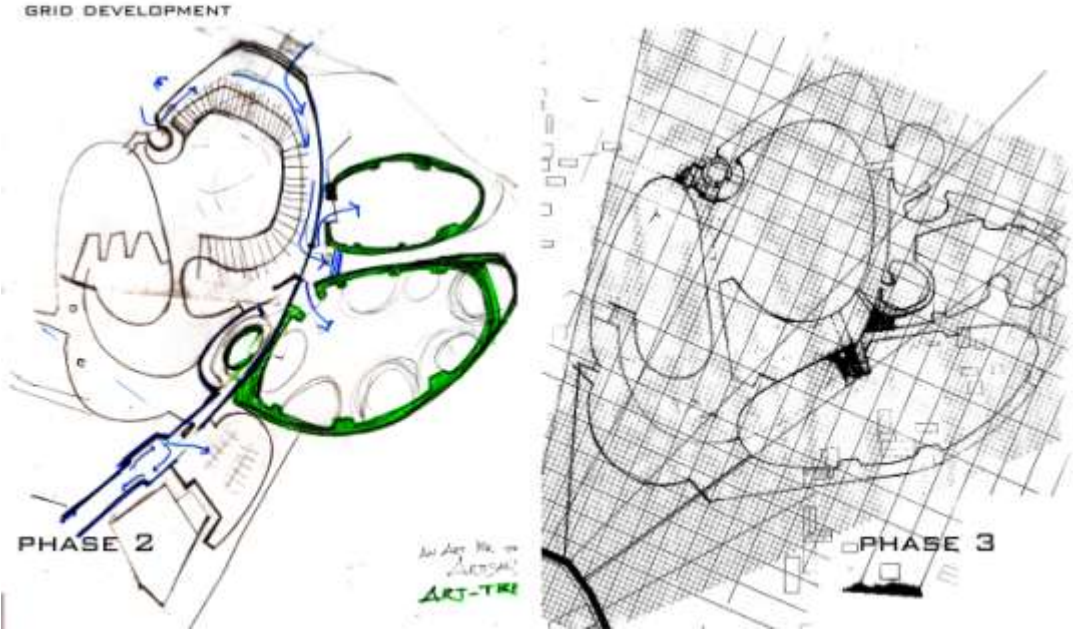
6.4.1 Phase 01



6.4.2 Phase 02



PHASE 1



GRID DEVELOPMENT

PHASE 2

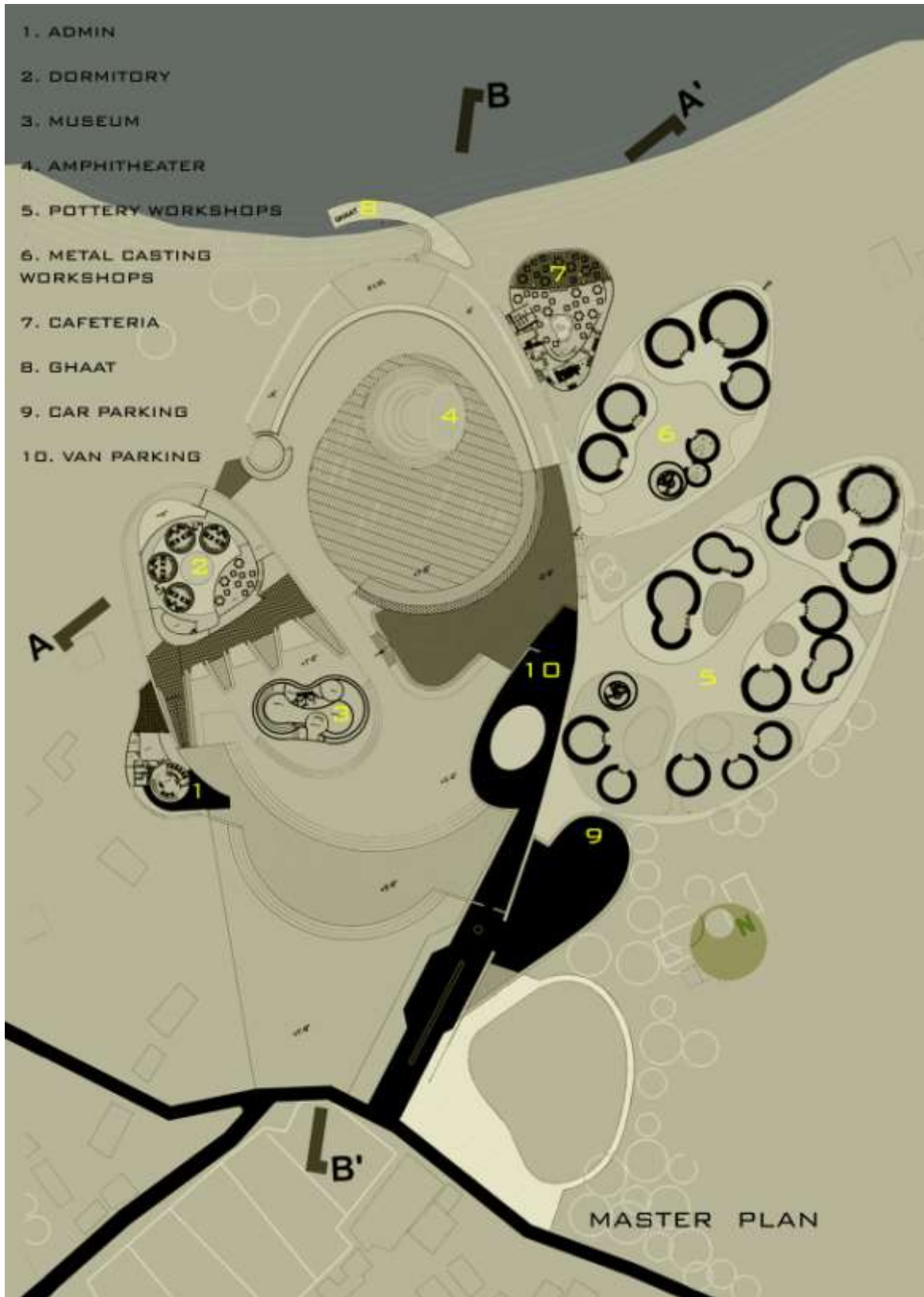
PHASE 3

ART-TREE

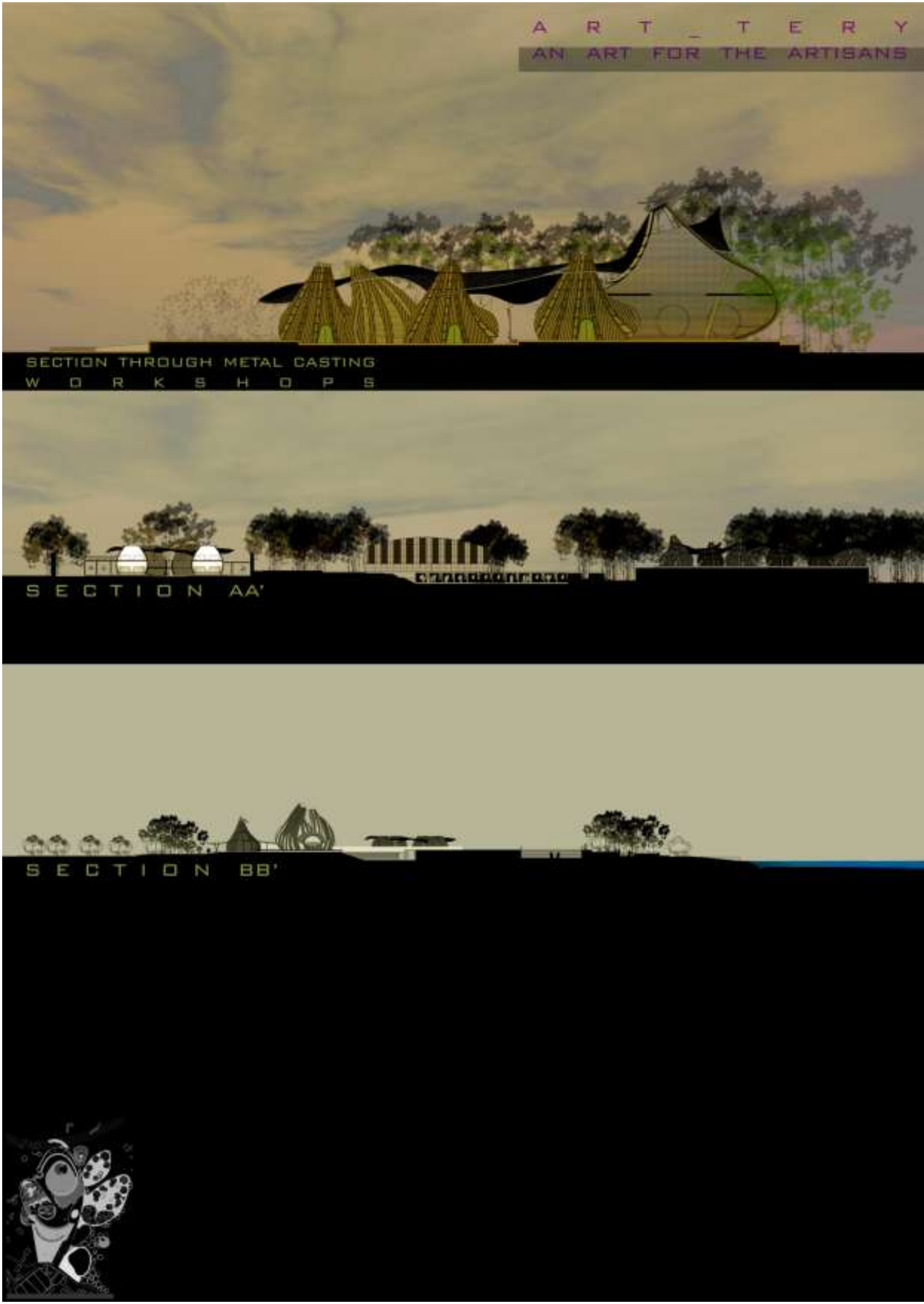
6.4.3 Zoning

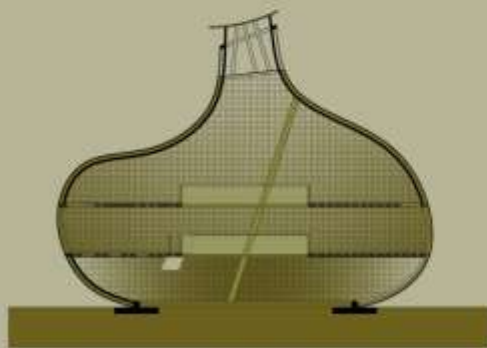
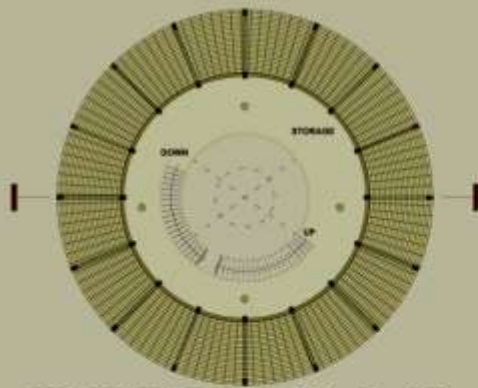
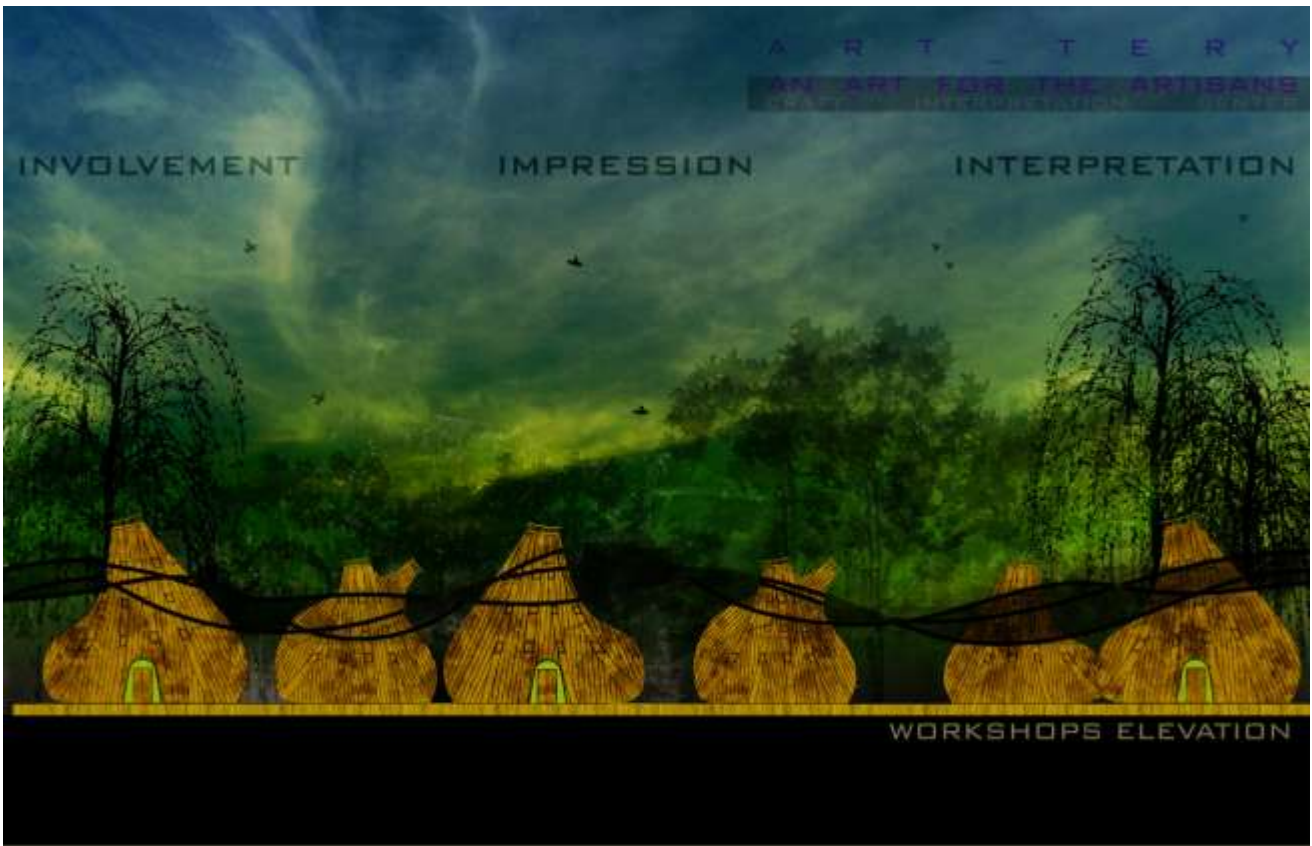


6.5 Master Plan



6.6 Sections



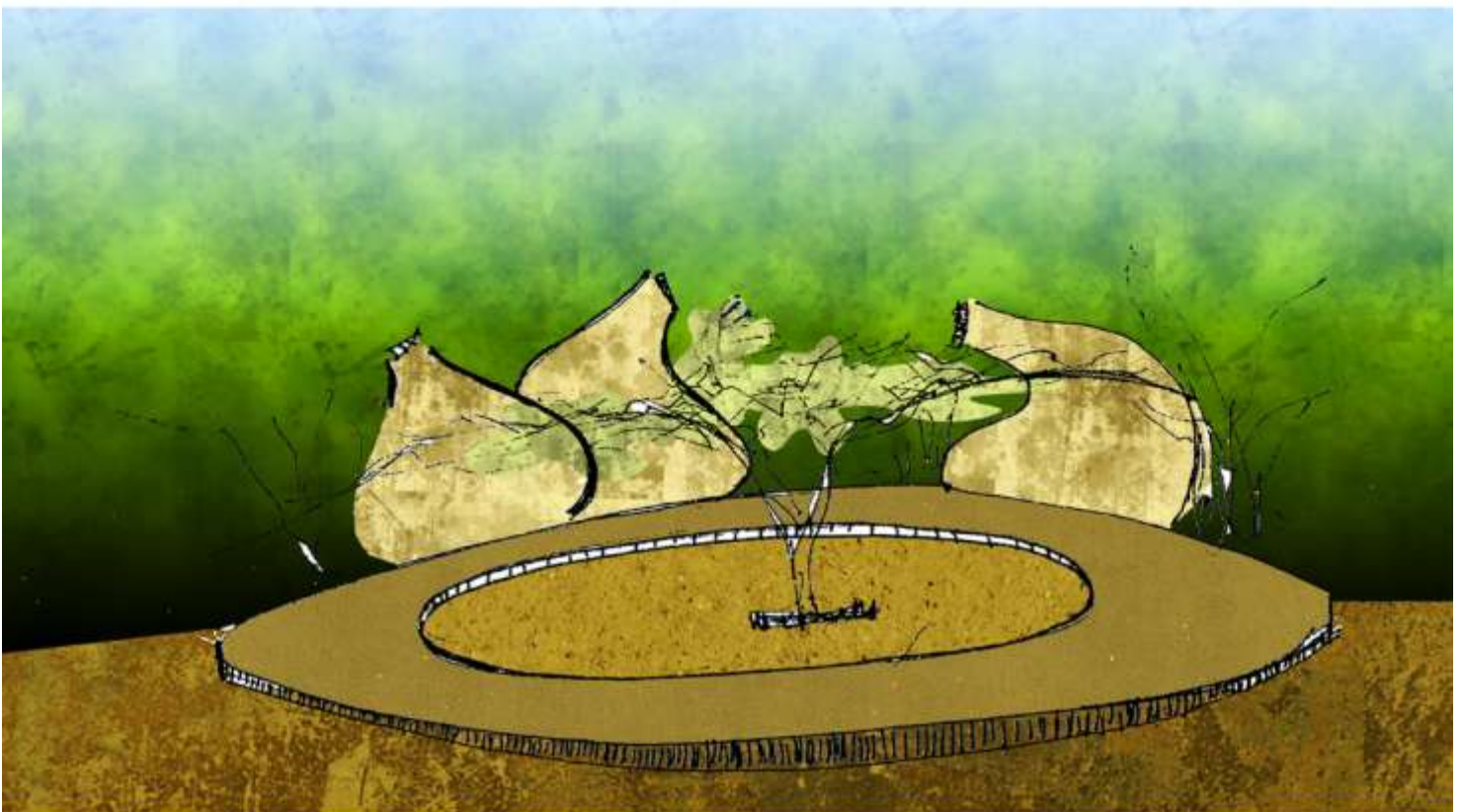


6.7 Views





VIEW OF THE WORKSHOPS



CLUSTER ARRANGEMENT OF WORKSHOPS



6.8 Model making





PHASE_02 PRELI MODELS



Conclusion

ART_tery would be such an interactive place that should create its own spaces through the activities of the users. The design proposal is not only conceptualized to hold out the rich culture of traditional crafts of the specific region but to be an epicenter of traditional crafts and artisans. Through interpretation, impression and involvement, it should become a spontaneous platform that not only thrive culture but also act as a catalyst of economical development through eco tourism and trading for artisans and eventually for this ancient Town of Dhamrai. I tried to incorporate all the necessary functions to fulfill this purpose and modified functions as required. Also the whole complex is designed to act as the recess or breathing space with its green buffers, sculptural garden and plazas to provide Dhamrai a recreational space as well as green open space. It is an event space that gets active by the daily gatherings, social-cultural events and above all with the celebration of creativity. My journey of ART_tery: An art for the artisans, the learning and all the experiences, hence, is dedicated to all the craftsmen of Bangladesh who have kept their wheel revolving and kept alive the heritage of traditional Bangla.

REFERANCE

Metal Craft: Story of a Dying Cultural Heritage

Artisan Clusters – Some Policy Suggestions Dr. Tamal Sarkar Programme Manager of the Foundation for MSME Clusters, New Delhi, **Sukanya Banerjee** Foundation for MSME Clusters, New Delhi

Dhamrai Pouroshava Survey report September 2011, Preperation of masterplan for Pouroshavas under UTIDP, Package no. 01 (Dhaka region)

Making Space:Sensing Place blog by Steven Follen

Hope rekindles for terracotta art, article by Faizul Khan Tanim- The Independent Magazine, July 01, 2011

Preserving a 200-year-old Family Tradition, article by Kavita Charanji STAR WEEKEND MAGAZINE, THE DAILY STAR, Volume 4, Issue 16, October 8, 2004

Dazzling display of metal works, article by Kavita Charanji, THE DAILY STAR, volume 5, no. 707, May 26, 2006

www.google.com

www.wikipedia.com

http://www.flickr.com/photos/mkh_ewu/3307120564/in/photostream/

<http://msspfolen.blogspot.com/>

<http://www.worldweatheronline.com/Bangladesh-weather.aspx>

