

Rabindra Complex

Dakshindihi, Phultola, Khulna

By

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Submitted in partial fulfilment of the requirements for the degree of
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DISSERTATION
DESIGN OF
DAKSHINDIHI RABINDRA COMPLEX.

DAKSHINDIHI, PHULTALA, KHULNA

This dissertation is submitted to the Discipline of Architecture in partial gratification of the exigency for the degree of Bachelor of Architecture (B.Arch.) in BRAC University, Dhaka.



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ABSTRACT

Human civilization from an early age has been influenced by different philosophical developments whether that is through its literal, cultural, social or architectural aspects. Art and literature which is a media for such philosophical development thus plays a vital role in molding the lives and lifestyles of the people. Among some of the great pioneers of the 19th and the 20th century who catalyzed such development, was Visya Kabi(Poet of the Universe) Rabindranath Tagore. Rabindranath Tagore is a charismatic versatile in the world of literature. His work seems to touches the souls of Bengalis and gives rise to a new formed passion for literature. However, his role in the innovation of educational ideas has been eclipsed by his fame as a poet. An important parcel of the life of the great poet remains amidst the outskirts that lie between Jessore and Khulna in the district of Dakshindi,Phultola which houses the Residence of the Father-in-Law of the great poet. In 1995,through an initiative adopted by the district commissioner Riazul Haque and few other art lovers, the directorate board proposed the construction of a Cultural institute that would conserve the existing structure and provide a place that would act as a center for cultural practice in which all creative and different socio-cultural activities can be organized and performed. The dwellers of a community also want a place where they can gather and exchange their views and thereby cultivate their aesthetical feelings. Proposing such a complex would also require an attempt to understanding of Tagore's philosophy and incorporating his educational thoughts and therefore find a way of design that fit in aesthetically with the social or natural environment. The design must also respect and conserve the existing building (Rabindra Bhaban) and thus present Rabindra Complex as a conservation project.

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CHAPTER_01

1.1 The Project

Name of the project: Dakshindihi Rabindra complex.

Location: Dakshindihi, Phultala, Khulna.

Area: 7.8 acres.

Client: P.W.D and Khulna Development Authority.

Execution: P.W.D and Khulna Development Authority.

1.1 Background of the Project and history

Rabindranath is a charismatic versatile in the world of literature. His work seems to touches the souls of Bengalis and gives rise to a new formed passion for literature. Dakshindihi placed in Khulna district of Phultala thana is a part and parcel of Rabindranath's life circle and family so we cannot evaluate his life without Dakshindihi. His ancestors were closely related to that place and his uncle had his residence there. He got married there to the daughter of Beni Madhab Ray Choudhuri. Dakshindihi is a modern name. It was initially named "poyogram". Jaganath Kusuri, an old relative of Rabindranath lived there. 7.08-acre land of Beni Madhab Choudhuri (Father in law of the universal poet Rabindranath Tagore) at phultala thana, Khulna zilla, was illicitly disposed for many years. By the personal endeavour of the district commissioner Mr. Kaji Riajul Haque, the land and the existing building were delivered from the possessor at 7th September in 1995. Many intelligent, litterateur and the cultural people had encouraged this action. From this excitement, the exalted people of Khulna started to dream about a Rabindra complex to be built and primarily they formed the directorate board of Rabindra Complex. The directorate board decided that in future this place should be the centre of cultural practice and planned to build Rabindra institute. This institute will have the place of research, and the place of practicing of culture and literature and it based on the ethics of Rabindranath Tagore. Also, a Rabindra museum could be there where the pictures, painting and things used by Tagore will be exhibited. Some specific festival would held at specific date in every year

- Death anniversary of Mrinalini Debi at 7th Agrahayan.
- Marriage day at 24th Agrahayan.
- Birth day of Rabindranath tagore at 25th Baishak.
- Death anniversary of Rabindranath Tagore at 22th Sraban.

1.2 Given Programme

1.The Mrinalini Mancho (The plaza under the tree)

2.The Museum

3.Auditorium or Multi-purpose Hall (For 500 persons)

4.Open air theatre

5.The Rabindra Institute (For masters and researchers)

- School of performing arts

a)For Dance -02_class rooms

01_green room

01_Store room

01_Ballet room

b)For Music -02_Class room

01_Store room

c)For Drama -01_Class room

01_Rehersal room

01_Store

- School for Fine Arts: (Painting,sculpture and graphic arts)

a)For Painting -Studio cum class room_01

For Sculpture -Studio cum class room_01

For Sculpture -Fire place_01

For Graphic arts-Studio cum class room_01

-Store

- Library and Archive:

a)Archive (For preservation of manuscripts,paintings,sketches,letters, photographs,audio records.)

b)Book Stacks

c)Reading room

d)Research room

e)Technical room

- f) Librarian's office
- g) General Office
- Seminar or lecture hall_01 (For 100 persons)

6) Administrative Block

- Director's room_01
- Admin officer's room_01
- General office_01 (for 5 persons)
- Teacher's room_01
- Receptionist room+lobby+loading+information room
- Accounts room_01

7) Residential block

- Director's residential/rest house (for 4 persons)
- Teacher's quarters (for 6 persons)
- Dormitory/Hostel (for 40 to 50 persons)

8) Crafts centre_2 to 5 shops (for tourists)

1.3 Reasons for choosing the project

The project being the last design project for the undergrad program, aspirations were to design something that would offer everything and anything that defines and environment, an open environment for all. A place for learning. Learning about the environment that surrounds it and learning about life. To propose a civic space that would provide functions that enrich the human soul. Thus the primary considerations were a civic or a cultural centre. It was then intended to design a cultural mile that would commemorate someone whose presence has been vital for the growth of human soul and thus came Rabindranath in mind. Looking more into the prospective project, this site of Dakshindi was come across which already had a similar proposal that I had in mind. The site also has a building that required conservation. This fact acted as an added interest on opting for this specific site. Aim was to learn Rabindranath's definition of learning environment which is reflected through his "shantiniketon" institute to serve as an inspiration. Thus the selection of Dakshindihi Rabindra Complex of Dakshindihi, Phultala, Khulna as a thesis project.

1.4 Rationale for the project

The proposed cultural complex is intended to promote and help develop the national culture. It will also focus on research and preservation of art and heritage, and provide a meeting ground for art lovers in arranging cultural and film shows, drama, music, dance, discussion meetings, seminar, workshops etc. For a city such as Khulna that has a rich history, it has developed very little in the cultural sector and this project is intended to be an

initiation to that. The complex will help to promote and facilitate cultural activities especially in the field of performing arts and fine arts. This in turn will help to strengthen the socio-cultural aspects of the city and its society and thus our culture will be enriched. Provisions of a well-designed cultural centre with properly designed auditorium, art galleries and classrooms will help the city to prosper in its cultural sphere.

The existing site has a building located at somewhat near its centre. It used to be the residence of Mrinalini Devi (Rabindranath's wife). The role of the building in the vernacular fabrics now is that of an antique stage of Bengali's glorious past. The antique deserves social, philosophical, archaeological and architectural phenomena. During Rabindranath Tagore's birthday celebration people from various walks of life and from various countries come to cherish the memories of the great contributor of Bengali Literature. Many people often just come to visit the place to look at the building thus it does hold a historical and social significance. The existing building has no existing function. But it serves as the recreational parameters for the certain community. Recently the government has taken initiative to conserve the building. Although there is legislation for protection of the building however the encroachment of rural house and construction of buildings in the surrounding area shows the mismanagement of the legislation. It is eventually going to hamper the environment of the existing structure and affect its antiquity.

Providing it with the function as that of Rabindra Complex it would not only make the heritage site active but would also become an essential part of people's lives mainly those of Khulna.

1.5 Aim and objective of the project.

The aim of the project may be-

- To commemorate the memory Rabindranath Tagore.
- To propose a place that could add value to the society by enhancing the free cultural environment.
- To think of the inner spirit of human unity and imply it in the design.
- To encourage the practice of music, dance, drama and arts;
- Revitalize the various elements of our traditional culture and provide a ground for its celebration.
- To provide researchers with an active information centre to explore new possibilities
- To enrich the knowledge about Rabindranath Tagore and his philosophy

CHAPTER_02

Site Appraisal

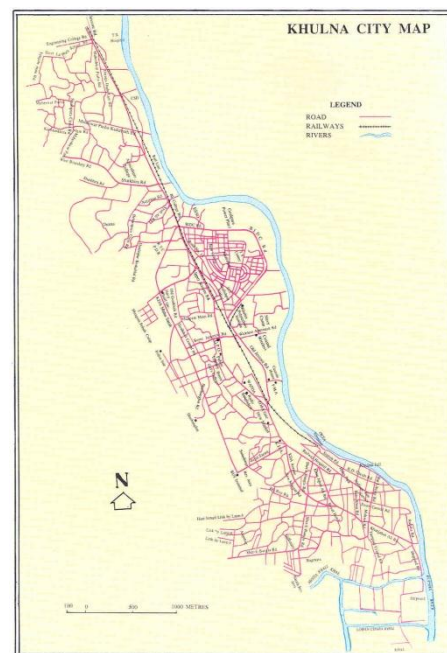
2.1 Site and Location

2.1.1 Khulna

Khulna is the third largest city in Bangladesh. It is located on the banks of the Rupsha and Bhairab rivers in Khulna District. It is the divisional headquarters of Khulna Division and a major industrial and commercial center. It has a seaport named Mongla on its outskirts, 38 km from Khulna City. The population of the city, under the jurisdiction of the City Corporation, was 1,000,000 in 2010 estimation. Khulna city is located in the southwest region of the country, developed and influenced by the process of siltation from a network of rivers. Because of its location in a moribund delta and tidal environment, the city has specific characteristics as far as land, soil, climate, hydrology, rainfall and salinity are concerned.



Map 01: Map of Bangladesh
Source:<http://www.geology.com>



Map 02: Map of Khulna City
Source:<http://www.bdtradeinfo.com/bangladesh/khulnamap.asp>

2.1.2 Surrounding Regions:

West- Sathkhira district.

East- Jessore and Narail district.

North- Bagerhat district and Vairab River.

South- Bay of Bengal, sundarban,

2.1.3 Altitude

Lies between 22°49' north latitude and 89° 34' east longitudes.

2.1.4 Topography.

Natural environment has a profound impact on a city in shaping its physical setting and the pattern of growth. The land of Khulna region can be broadly characterized by the Ganges-tidal floodplain having lower relief and being criss-crossed by innumerable tidal rivers and channels. It is nearly flat and surface is poorly drained. Some peat basin of 3 m thickness has also been found in many parts of khulna. These peats are formed due to the decomposition of reeds and grass having relationship with a tidal or mangrove ecosystem.

2.1.5 Ecology

Well- known florals are producing timber. They are Segun, gewa, garan, mehegony, sundari, nageswar, chambal, babla, gargan and chapalis; etc these tree are commercially important. Also, common fruits are available, different types of oak, chestnut, cane bamboo, grown in large quality.

2.1.6 Geological setting

Bangladesh occupies major part of the Bengal basin, which has been formed, due to the subsection of the northeastern part of the Indian plate that started in the Cretaceous period. The basin has been evolved since the last 35 million years and contains almost complete geological sequences from Cretaceous to recent period.

2.1.7 Climatic Information

i) Microclimatic condition.

Typically a monsoon climate prevails all over Bangladesh with little regional variation. Besides, the climate can also be characterized by distinct seasonal variation of temperature, rainfall and wind direction. Khulna region does not show any remarkable climatic difference compared to that of rest of the country although similar to other coastal districts, some marine influence is observed. The distinct feature of climate at Khulna is the salt laden air through the year, especially when it blows from the sea as a result of diurnal changes in sea and land breezes at regular intervals.

Table 01: Three distinct seasons at Khulna and their characteristics.

Seasons	Months	Characteristics
Summer	March - may	Hottest, dry and maximum evaporation rate.
Monsoon	June- October	Highest rainfall, wet and high humidity.
Winter	November- September	Cool, dry and low wind velocity.

ii) Mean monthly and extreme –Temperatures

Remarkable changes in temperature can be found with the changes of seasons in Khulna. April is the hottest month showing a monthly maximum temperature of up to 35°C. However, Khulna city shows a mild summer than many of the inland areas, particularly north-western districts, where summer temperature sometimes exceeds 40°C. In June, there is a sharp fall in temperature due to the outbreak of monsoon. During the monsoon, the monthly maximum temperature is about 30°C. The cool dry winter season begins in November, and January is the coldest month with a minimum monthly temperature of about 10°C. However, due to the locational advantage, i.e. nearness to the sea coast, winter is also mild in Khulna than many of the island districts. For example, the winter temperature of Rangpur sometimes drops down to 4°C.

Tabular view for temperature and precipitation per month

Months	Temperature			Precipitation
	Normal	Warmest	Coldest	Normal
January	20.1°C	26.4°C	13.8°C	1
February	23.0°C	29.1°C	16.9°C	2
March	27.6°C	33.5°C	21.7°C	3
April	30.2°C	35.3°C	25.1°C	4
May	30.7°C	35.4°C	26.0°C	8
June	30.3°C	34.0°C	26.5°C	14
July	29.2°C	32.3°C	26.1°C	20
August	29.1°C	32.1°C	26.1°C	20
September	29.1°C	32.4°C	25.8°C	15
October	28.2°C	32.3°C	23.9°C	8
November	24.9°C	30.3°C	19.6°C	1
December	20.8°C	27.0°C	14.5°C	0

Table O2: Temperature and precipitation

Source: <http://www.levoyageur.net>

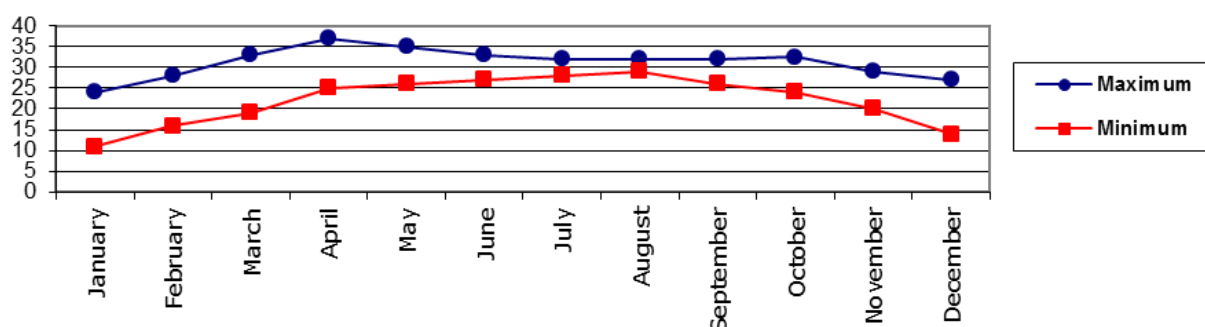


Chart 01: Maximum and minimum temperature
 Source: <http://www.levoyageur.net>

iii) Rainfall and humidity:

Rainfall can be sudden, heavy or light usually wind borne and may continue for hours. Khulna receives an average annual rainfall of about 1800-mm. The main source of rainfall is the southwestern monsoon. Nearly 81 percent of total rainfall occurs during June- October (fig). During march- May some rainfall also occur due to North-eastern effect. Winter is the dry period with little or nearly no rainfall. However, during the month of December – January little rainfall has been recorded.

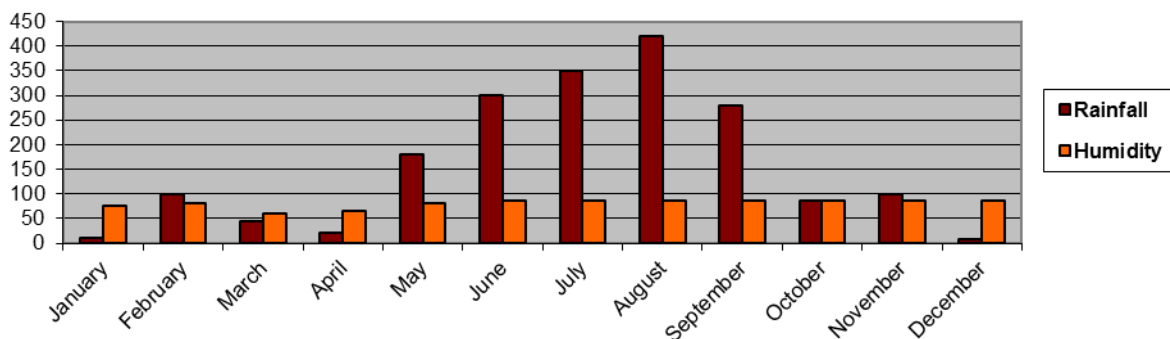


Chart 02: Rainfall and humidity data
 Source: <http://www.levoyageur.net>

iv) Flood

Flood is seldom experienced in Khulna as it stands on high ground. Only sometimes low-lying areas in Khulna city experience flood during heavy down pour. Floods however sometimes cause local damage when heavy rains fall occurs in the catchments area.

2.1.8 Agriculture.

Still agrarian in the scene. In hard and salty clay soil grows only paddy in winter. In other area two or three crops can be found in a year.

2.1.9 Industry

Mainly jute, cotton, general, electrical, matches, cigarettes, sawmills, timber etc, are found, small and cottage industry have great importance.

2.1.10 Religion

population by religion in %

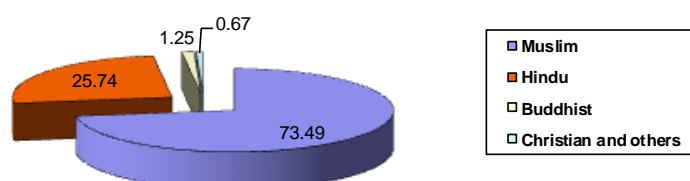


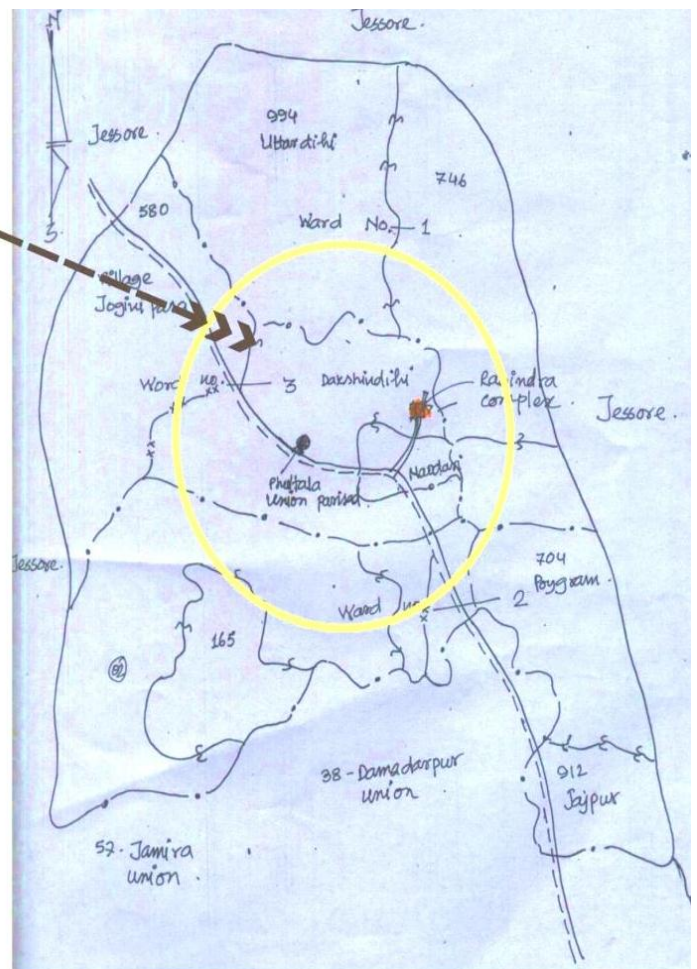
Chart 03: Religion distribution chart
Source: www.banglapedia.com

2.2 The Site

7.08-acre land of Beni Madhab Choudhuri (Father in law of the universal poet Rabindranath Tagore) at phultala thana, Khulna zilla, was illicitly disposed for many years. By the personal endeavor of the district commissioner Mr. Kaji Riajul Haque, the land and the existing building that resides on approximately the centre of the site were delivered from the possessor at 7th September in 1995 and a proposal for building the Rabindra Complex was made.

2.2.1 Location of Site:

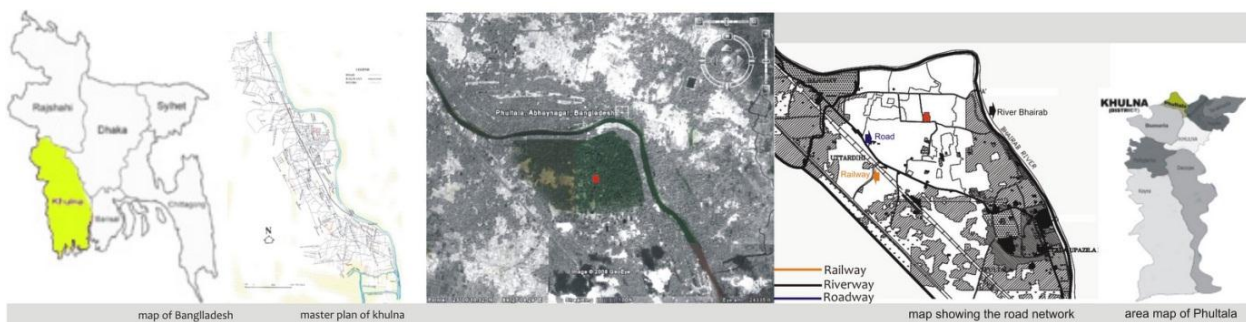
Dakhshindi, Phultala, Khulna.



Map 03: Khulna city district map
Source: <http://incrediblebangla.blogspot.com>



Map 04: Maps to locate the area of site
 Source: Google Earth



Map 05: Maps to locate the area of site
 Source: Google Earth

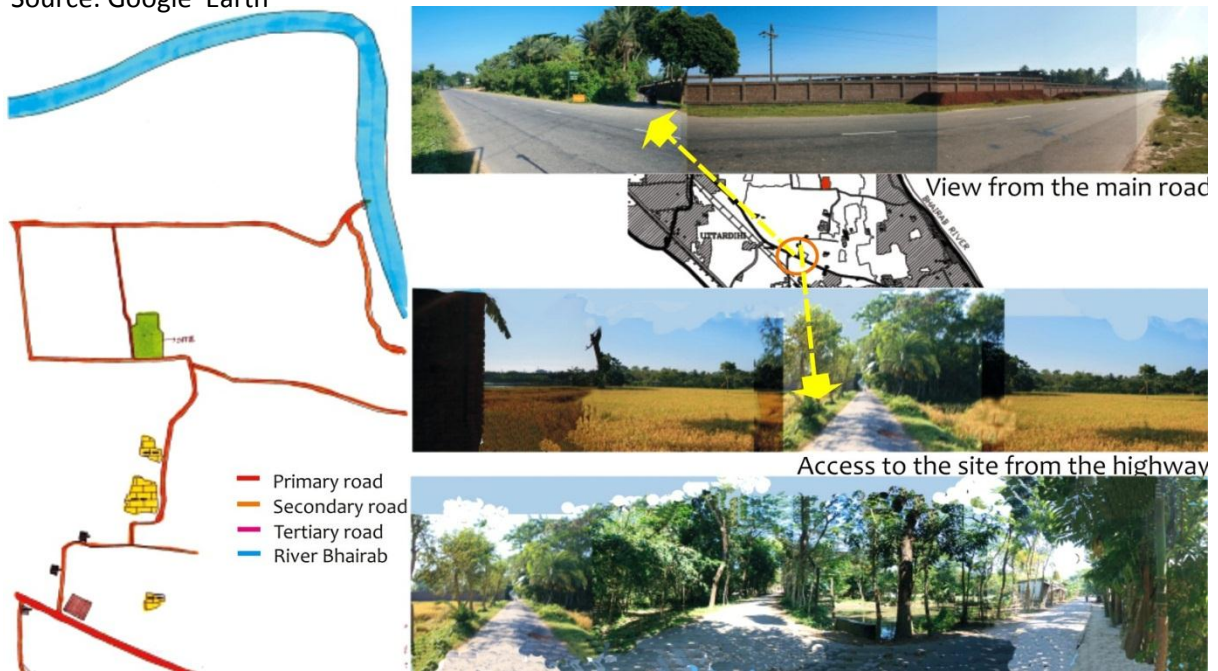
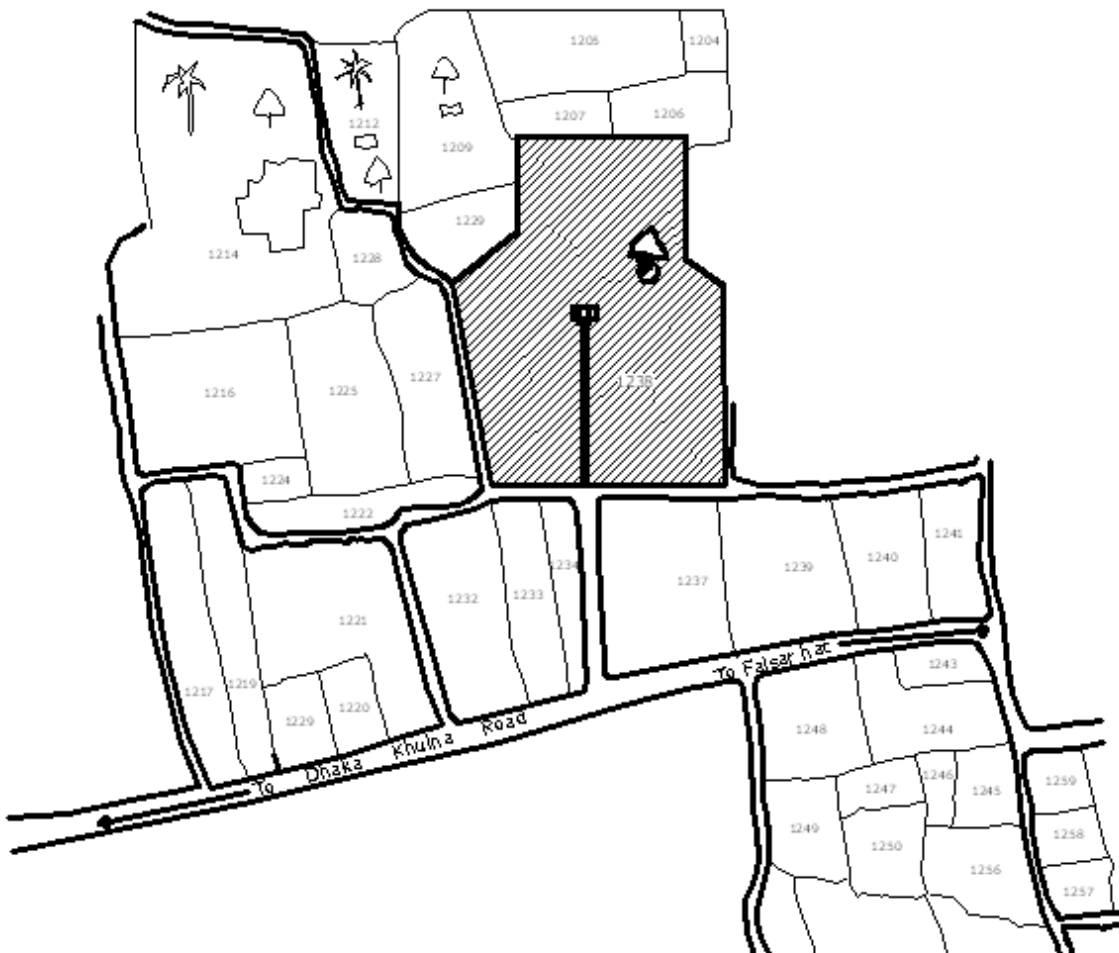


Fig 01: Access road to site
 Source: Rahman.2012





Map 07: Google map of Phultola, Khulna
Source: Google earth

2.2.2 Access

At present the site is approached from the main road which is around 30ft wide and is on the west of the site. The secondary and tertiary roads lead to the site cause an entry to the site which is from the south. It is desirable to have the main entry from the south or from the central point of the site.

2.2.3 Traffic flow

Traffic or vehicles is considerable low in this brick-soling road. Only the rickshaw, van, in somewhat minimum frequent rate is observed. Fast moving vehicle flow is almost nil and is rarely observed.

2.2.4 Ground investigation



Fig 02: Site Study
Source: Rahman 2012

In the existing site an existing two-storied structure is found which used to be the residence of Beni Madhab Choudhury (father of Mrinalini debi and father in law of Rabindranath Tagore.) and mainly the structural system is load bearing brick wall. Also there are some temporary residential buildings that have developed on land acquired by the locals. These structures are mostly built by bamboo, straw, C.I sheet, etc. A few recent ones have been constructed with brick also. The surrounding scenery of the site is mainly filled by huge vegetation. Within the existing site a large Sobeda tree in northeast corner which is said to have been planted by Mrinali Devi, the wife of Rabindranath Tagore. Also the vegetation's are dense in the northwest portion of the site.

2.2.5 Noise

Though the site is situated in sub-urban,rather rural location, it is surrounded by large greens and farmlands, so, noise level is considerably low for such type of institutional complex. Surrounding residential areas maintain the distance from the site.

2.2.6 Services

Exempting the electricity there is no infra-structural facilities in the site. For water people use tube- wells, wells, and fresh water pond is used. For cooking wood is mainly used, other fuels are used as energy source. No drainage sewerage line runs within the site.

2.2.7 Surrounding built form.

It is situated in the area, which is almost rural in character. The site is surrounded by residential area, which is basically scattered settlements on acquired land and are mostly tin shed buildings. Also farmlands surround the site. Some brick fields and wood industry (saw mills) are also available beside the Khulna – Jessore highway. Generally the surrounding built forms are not more than one storied and also they have high plinth and made by local element. A girl’s college, primary high school, and a junior high school are situated in the center of Phultala thana. A kindergarten and a madrasa are present in the commercial node.

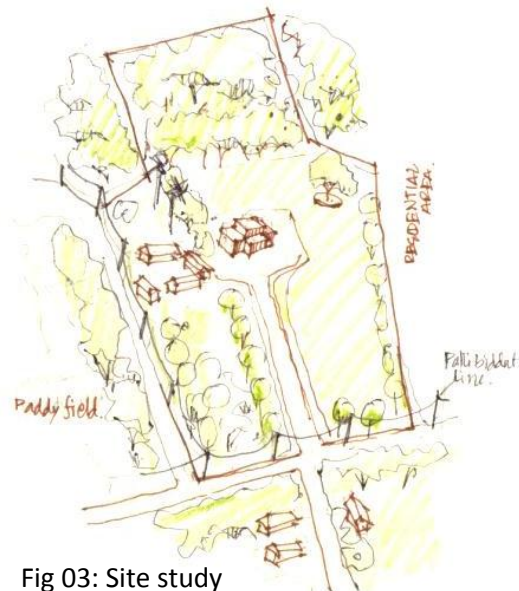


Fig 03: Site study
Source: Rahman 2012

Use of building materials (at phultala) in Nos

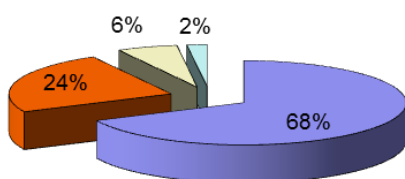
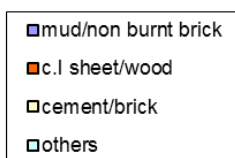


Chart 04: Use of building materials
Source: Rahman 2012



2.2.8 Sunpath and windflow

i) Sun

During the winter months, sun remains at a comparatively low altitude which makes possible the pleasantly winter sun days enter into living spaces with little care in space organization and in placement of opening. During hot summer the sunrays are most undesirable in occupied space. Rays usually falls on building from east, south and west and partly from northeast to northwest high altitude of the sun. The occupied spaces can be easily protected from the rays during noontime. It is easterly and westerly sun that creates trouble, which needs adequate though and care to protect occupied space from its disturbing effect.

ii) Wind direction

General wind direction varies from southwest to south in summer and northwest to north in winter. Breeze during summer particularly in the humid season (June-September) is very pleasant.

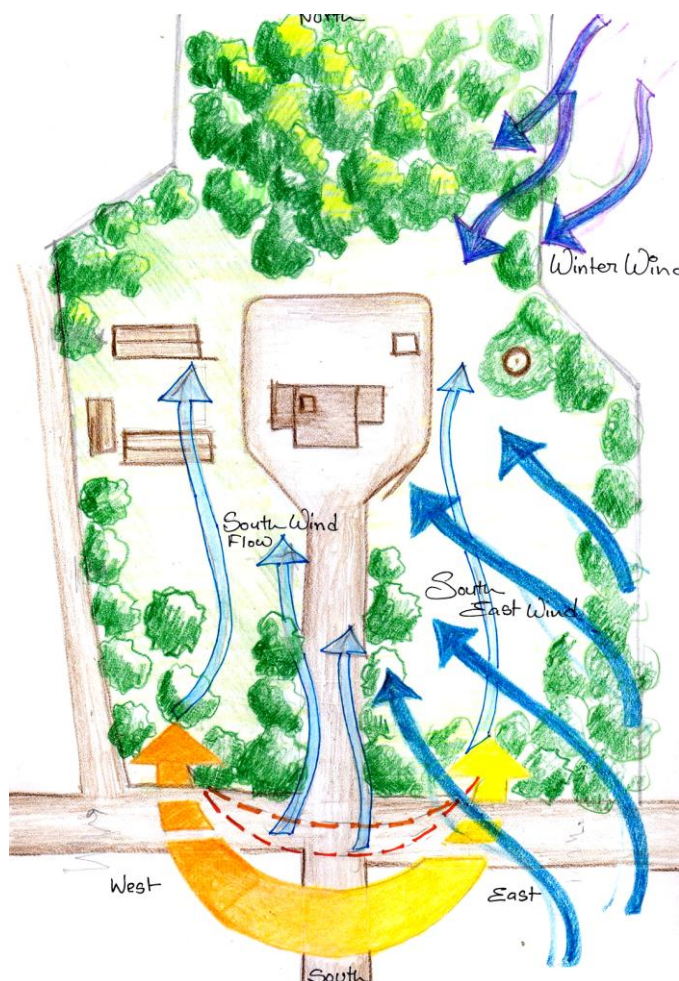
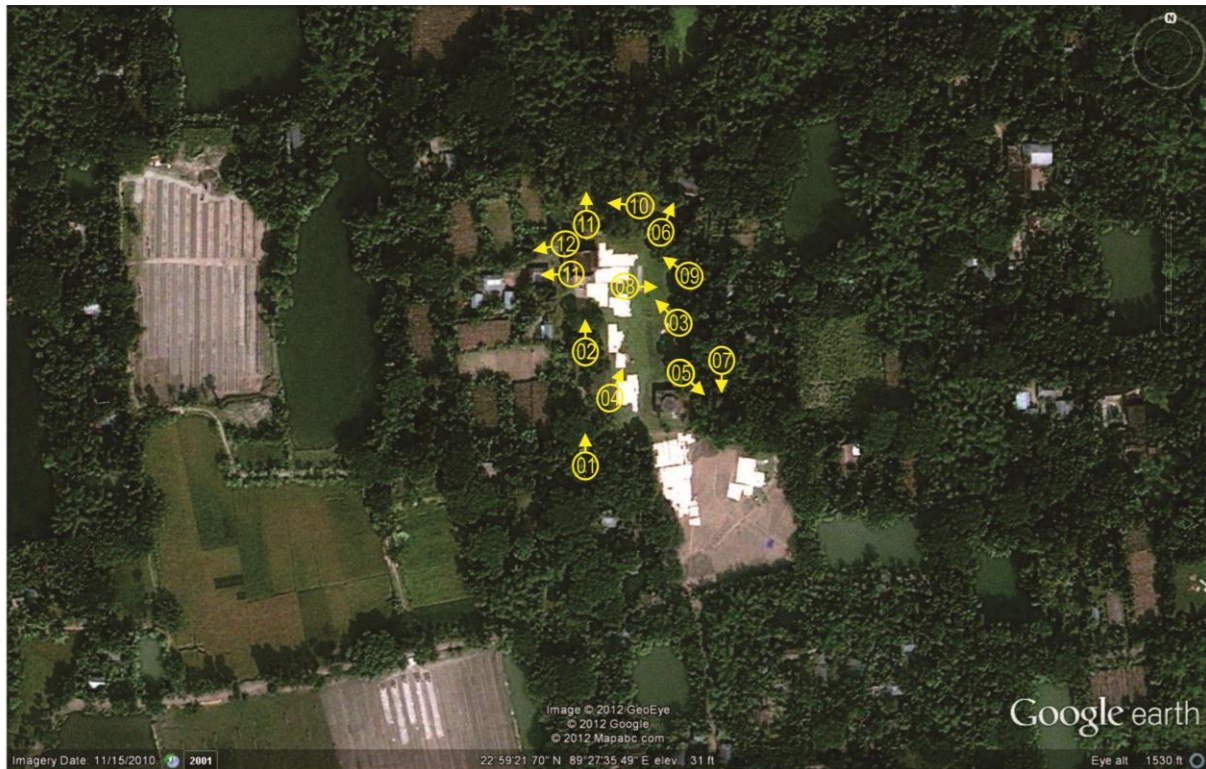


Fig 04: Site study
Source: Rahman 2012

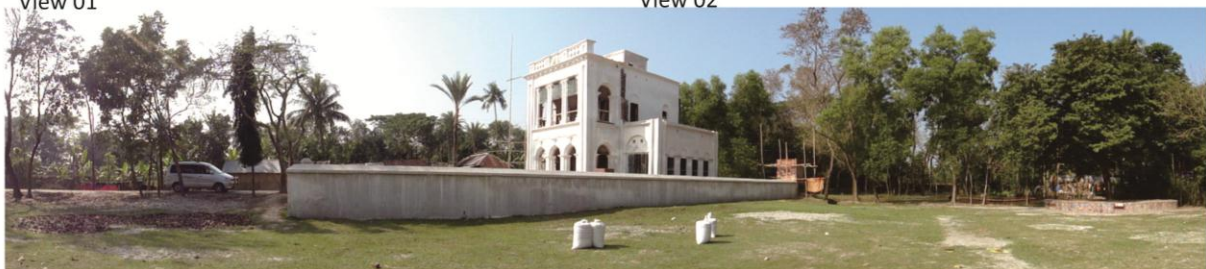
2.2.9 Panaromic views of the site



View 01



View 02



View 03



View 04

Fig 05: Site study (Photographs)
Source: Rahman, 2012



View 05



View 06



View 07



View 08



View 09



View 10

Fig 06: Site study (Photographs)
Source: Rahman, 2012



View 10



View 11



View 12

Fig 07: Site study (Photographs)
Source: Rahman, 2012

2.3 The Existing Building on Site

There is an existing building on site that is known to be the residence of Mrinalini Devi (Wife of Rabindranath). It was reacquired in 1995 along with the land for the proposal. Currently the building is under conservation under the supervision of the Department of archaeology, Khulna.

2.3.1 Images of Existing structure

Before conservation started



After conservation started



Fig 08: Existing Structure on site (Photographs)
Source: Rahman, 2012



Fig 09: Existing Structure on site (Photographs)
Source: Rahman, 2012

2.3.2 Building pattern of the existing building

- The existing building is a two-storied building. Made by brick and lime mortar and constructed with the flavour of European Renaissance Architecture.
- The building presents an approximately 50' long frontage.
- It is a two-storied symmetrical building and is projected on its eastern and western end by single storied with the extensions of 12'6".
- Its central part, which is about 22' 4" wide, has an imposing portal in front.
- The front veranda at first floor is supported by sets of three columns and at ground floor the entry veranda is supported by three half-rounded Khilan, which gives the impression of greek buildings.
- There is a staircase and a secondary entry on the backside of the building.
- The building possesses some rich and well worked- out details. The central part of the building is a two-storied edifice with an arcaded verandah on the ground and a colonnaded one of the upper level.

2.3.3 Building style, materials and technique.

- In keeping with the mid-nineteenth to early twentieth century tradition of the landed gentry of the Bengal, the house is built in the then European style reflecting mainly an amalgamation of neo- classical and Gothic elements.
- The building is built with load bearing walls –the wall of the building is 16 inches thick and built with brick, lime mortar. Brick size is general 10*5*2.5 inches.
- The rafter and joist technique for roof construction was commonly found in the building, for which steel I beam and wooden beams are equally used. The plinth of the building is 3 feet. The ceiling height of the building is 16 feet.

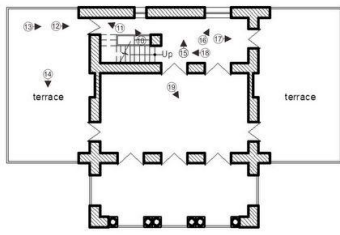


Fig 10: Existing Sculptures on site. Rabindranath Tagore (Right) and Mrinalini Devi (Left)
Source: Rahman, 2012

2.3.4 Interior views of the existing structure



Fig 11:Interior views of the Existing structure
Source: Rahman,2012



View_10



View_11



View_12



View_13



View_14



View_15



View_16



View_17



View of outside from the terrace



View of outside from the terrace_02



View_18



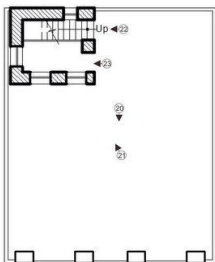
View_19a



View_19b



View_19c



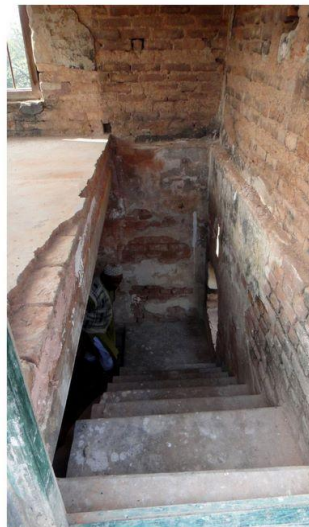
View_20



View of Mrinali Moncho



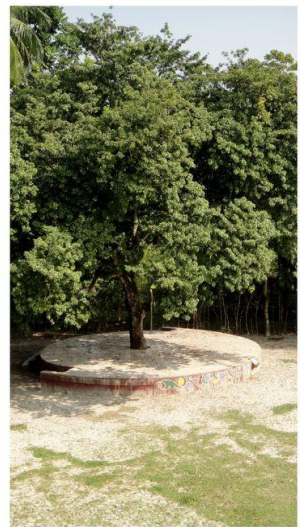
View_21



View_22



View_23



View of Mrinali moncho

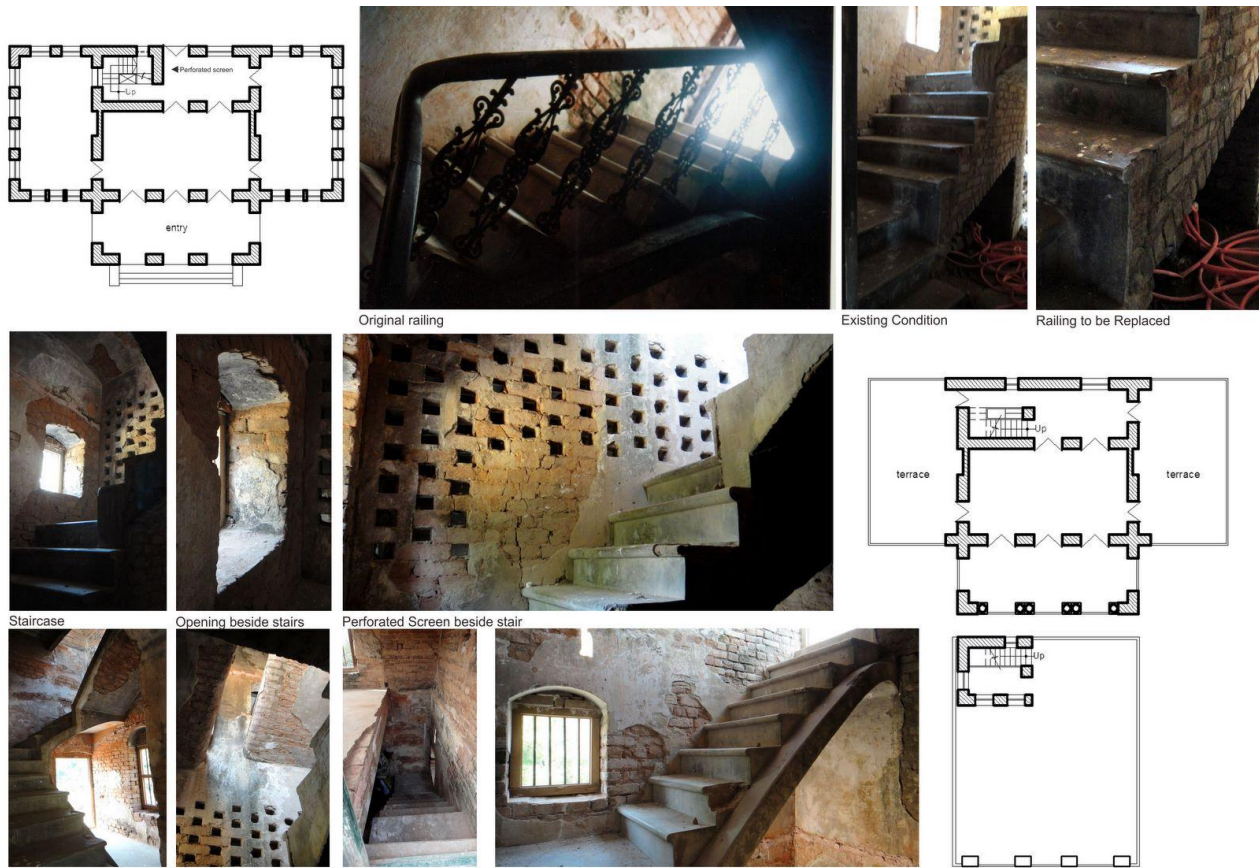


Fig 12:Interior views of the Existing structure
 Source: Rahman,2012

CHAPTER_03

Literature Review

The section contains the life sketch of Rabindranath Tagore and his views on education. It also contains the educational structure of “bhishva varati” (Shanti Niketon) and the educational system of “Rabindra Sikkha Sadan”. It also describes the functional detail of the complex.

3.1 Rabindranath Tagore

3.1.1 About Rabindranath Tagore

Rabindranath Tagore was a Bengali poet, novelist, musician, painter and playwright who reshaped Bengali literature and music. As author of Gitanjali and its "profoundly sensitive, fresh and beautiful verse", he was the first non-European who was awarded the Nobel Prize for Literature in 1913. His poetry in translation was viewed as spiritual, and this together with his mesmerizing persona gave him a prophet-like aura in the west. His "elegant prose and magical poetry" still remain largely unknown outside the confines of Bengal.

A Pirali Brahmin from Kolkata, Tagore was already writing poems at age eight. At age sixteen, he published his first substantial poetry under the pseudonym Bhanushingho ("Sun Lion") and wrote his first short stories and dramas in 1877. Tagore achieved further note when he denounced the British Raj and supported Indian independence. His efforts endure in his vast canon and in the institution he founded, Visva-Bharati University.

Tagore modernized Bengali art by spurning rigid classical forms. His novels, stories, songs, dance-dramas, and essays spoke to political and personal topics. Gitanjali (Song Offerings), Gora (Fair-Faced), and Ghare-Baire (The Home and the World) are his best-known works, and his verse, short stories, and novels were acclaimed for their lyricism, colloquialism, naturalism, and contemplation. Tagore was perhaps the only litterateur who penned anthems of two countries – “Jana Gana Mana” the Indian national anthem and “Amar Shonar Bangla” the Bangladeshi national anthem.

3.1.2 Life of Rabindranath Tagore

The youngest of thirteen surviving children, Tagore was born in the Jorasanko mansion in Kolkata of parents Debendranath Tagore (1817–1905) and Sarada Devi (1830–1875). Tagore family patriarchs were the Brahmo founding fathers of the Adi Dharm faith. He was mostly raised by servants, as his mother had died in his early childhood; his father travelled extensively. Tagore largely declined classroom schooling, preferring to roam the mansion or

nearby idylls: Bolpur, Panihati, and others. Upon his upanayan initiation at age eleven, Tagore left Calcutta on 14 February 1873 to tour India with his father for several months. They visited his father's Santiniketan estate and stopped in Amritsar before reaching the Himalayan hill station of Dalhousie. There, young "Rabi" read biographies and was home-educated in history, astronomy, modern science, and Sanskrit, and examined the poetry of Kālidāsa. He completed major works in 1877, one a long poem of the Maithili style pioneered by Vidyapati. Published pseudonymously, experts accepted them as the lost works of Bhanusimha, a newly discovered 17th-century Vaiṣṇava poet. He wrote "Bhikharini" (1877; "The Beggar Woman"—the Bengali language's first short story) and Sandhya Sangit (1882)—including the famous poem "Nirjharer Swapnabhanga" ("The Rousing of the Waterfall").

A prospective barrister, Tagore enrolled at a public school in Brighton, East Sussex, England in 1878. He read law at University College London, but left school to explore Shakespeare and more: *Religio Medici*, *Coriolanus*, and *Antony and Cleopatra*; he returned degreeless to Bengal in 1880. On 9 December 1883 he married Mrinalini Devi (born Bhabatarini, 1873–1902); they had five children, two of whom died before reaching adulthood. In 1890, Tagore began managing his family's vast estates in Shilaidaha and later also to Shazadpur, regions now in Bangladesh; he was joined by his wife and children in 1898. In 1890, Tagore released his *Manasi* poems, among his best-known work. As "Zamindar Babu", Tagore crisscrossed the holdings while living out of the family's luxurious barge, the *Padma*, to collect (mostly token) rents and bless villagers, who held feasts in his honour. While staying in a houseboat on the Padma River (i.e., the Ganges River), being in close contact with village folk, his sympathy for their poverty and backwardness became the keynote of much of his later writing. Most of his finest short stories, which examine "humble lives and their small miseries," date from the 1890s and have poignancy, laced with gentle irony that is unique to him, though admirably captured by the director Satyajit Ray in later film adaptations. Tagore came to love the Bengali countryside, most of all the Padma River, an often-repeated image in his verse. During these years he published several poetry collections, notably *Sonar Tari* (1894; *The Golden Boat*), and plays, notably *Chitrangada* (1892; *Chitra*). Tagore's poems are virtually untranslatable, as are his more than 2,000 songs, which remain extremely popular among all classes of Bengali society. These years—1891–1895: Tagore's *Sadhana* period, after one of Tagore's magazines—were his most fecund. During this period, more than half the stories of the three-volume and eighty-four-story *Galpaguchchha* were written. With irony and gravity, they depicted a wide range of Bengali lifestyles, particularly village life.

In 1901 Tagore founded an experimental school in rural West Bengal at Santiniketan ("Abode of Peace"), where he sought to blend the best in the Indian and Western traditions. He settled permanently at the school, which became Visva-Bharati University in 1921. Years of sadness arising from the deaths of his wife and two children between 1902 and 1907 are reflected in his later poetry, which was introduced to the West in *Gitanjali*, *Song Offerings* (1912). This book, containing Tagore's English prose translations of religious poems from several of his Bengali verse collections, including *Gitañjali* (1910), was hailed by W.B. Yeats and André Gide and won him the Nobel Prize in 1913. Tagore was awarded a knighthood in 1915, but he repudiated it in 1919 as a protest against the Amritsar Massacre.

From 1912 Tagore spent long periods out of India, lecturing and reading from his work in Europe, the Americas, and East Asia and becoming an eloquent spokesperson for the cause of Indian independence. Tagore's novels, though less outstanding than his poems and short stories, are also worthy of attention; the best-known are *Gora* (1910) and *Ghare-Baire* (1916; *The Home and the World*). In the late 1920s, at nearly 70 years of age, Tagore took up painting and produced works that won him a place among India's foremost contemporary artists.

His last five years were marked by chronic pain and two long periods of illness. These began when Tagore lost consciousness in late 1937; he remained comatose and near death for a time. This was followed in late 1940 by a similar spell. He never recovered. Poetry from these valetudinary years is among his finest. A period of prolonged agony ended with Tagore's death on 7 August 1941, aged eighty; he was in an upstairs room of the Jorasanko mansion he was raised in. The date is still mourned. A. K. Sen, brother of the first chief election commissioner, received dictation from Tagore on 30 July 1941, a day prior to a scheduled operation: his last poem.

“ I'm lost in the middle of my birthday. I want my friends, their touch, with the earth's last love. I will take life's final offering, I will take the human's last blessing. Today my sack is empty. I have given completely whatever I had to give. In return if I receive anything—some love, some forgiveness—then I will take it with me when I step on the boat that crosses to the festival of the wordless end.”

3.2 Education and Rabindranath Tagore

3.2.1 Rabindranath's Role in Education

Today we all know that what the child imbibes at home and in school is far more important than what he studies at college, that the teaching is more easily and naturally communicated through the child's mother-tongue than through an alien medium, that learning through activity is more real than through the written word, that wholesome education consists in training of all the senses along with the mind instead of cramming the brain with memorized knowledge, that culture is something much more than academic knowledge. But few of Rabindranath's countrymen took notice of him when he made his first experiments in education in 1901 with less than half a dozen pupils. Even today few of his countrymen understand the significance of these principles in their national life. The schoolmaster is still the most neglected member of our community, despite the fact that Rabindranath attached more merit to what he taught to children in his school than to the Hibbert lectures he delivered before the distinguished audience at Oxford.

Mahatma Gandhi adopted the scheme of teaching through crafts many years after Rabindranath had worked it out at Santiniketan. In fact the Mahatma imported his first teachers for his basic School from Santiniketan.

If Rabindranath had done nothing else, what he did at Santiniketan and Sriniketan would be

sufficient to rank him as one of the India's greatest nation-builders.

With the years, Rabindranath had won the world and the world in turn had won him. He sought his home everywhere in the world and would bring the world to his home. And so the little school for children at Santiniketan became a world university, Visva-Bharati, a centre for Indian Culture, a seminary for Eastern Studies and a meeting-place of the East and West. The poet selected for its motto an ancient Sanskrit verse, *Yatra visvam bhavatieka nidam*, which means, "Where the whole world meets in a single nest."

"Visva-Bharati", he declared, "represents India where she has her wealth of mind which is for all. Visva-Bharati acknowledges India's obligation to offer to others the hospitality of her best culture and India's right to accept from others their best."

In 1940 a year before he died, he put a letter in Gandhi's hand, "Visva-Bharati is like a vessel which is carrying the cargo of my life's best treasure, and I hope it may claim special care from my countrymen for its preservation."

3.2.2 Rabindranath's philosophy about Education

Rabindranath Tagore's world of education is an endless ascanse, erudition and re-discovery of consciousness. Right from the global crisis in education to the absence of finer sensibilities and superior vision of life, the present day pollution in education necessitates a change in the light of Rabindranath's thoughts and experiments on education of the Man par excellence.

Education is a lifelong process and an individual goes on increasing his store of experience through contact with the environment, he receives some education in one form or another.

Education is basically a social process which is concerned with how the student develops as an individual and in group relations. Its objective is to prepare the individual for participation in society, and it serves as a vehicle by which the culture of the group can be transmitted and perpetuated. Education is preparation for life. Education is experience. The word education has sometimes been used in a very broad sense to designate the totality of influences that nature or other men are able to exercise on our intelligence or on our will.

Tagore's views of education are not available in any single volume. It is traceable in his various expressions. It may be gleaned from his addresses and may be read in his essays. It may also be obtained from his conversational *Viswa – Bharti*. Tagore's ideas on education were derived mainly from his own experience. Tagore's educational ideals have been shared by other educationists and many of his innovations have now become part of general educational practices, but his special contribution lay in the emphasis on harmony balance and total development of personality. Discussing the problems of education, Tagore said that a boy should be allowed to read books of his own choice in addition to the prescribed

text books he must read for his school work. Tagore wrote. "A boy in this country has very little time at his disposal. He must learn a foreign language, pass several examinations and qualify himself for a job in the shortest possible time. So what can he do but cram up a few text books with breathless speed? His parents and his teachers do not let him waste precious time by reading a book of entertainment, and they snatch it away from him the moment they see him with one."

Another problem is that the men who teaching the primary schools are not adequately trained for their job, Tagore wrote. "They know neither good English nor good Bengali and the only work they can do is misteaching"

Present system of education does not allow us to cultivate the power of thought and the power of imagination Tagore wrote. "To read without thinking is like accumulating building materials without building anything. We instantly climb to the top of our pile and beat it down incessantly for two years. Until it becomes level and somewhat becomes level and somewhat resembles the flat roof of a house."

Our education system is joyless. Small children are burdened with tons of books. Tagore wrote. "From Childhood to adolescence and again from adolescence to manhood, we are coolies of the goddess of learning, carrying loads of words on our folded backs."

It has no relation to our life; the books we read have no vivid pictures of our homes and our society. Our first twenty two years are spent in picking up ideas from English books. But these ideas are of no use because these do not resemble with our society. Education and life can never become one in such circumstances and are bound to remain separated by a barrier. Tagore writes "We being to think that we are learning untruths and the European Civilization is wholly based on them, which Indian civilization is wholly based on truth and our education is directing us to a land of enchanting falsehood. Tagore calls a school in this country is really a factory. Tagore writes "At half past ten, in the morning the factory opens with the ringing of a bell, and then as the teachers start talking, the machines start working. The teachers stop talking at four in the afternoon when the factory closes and the pupil then go home carrying with them a few pages of machine made learning".

Ancestors in India cared little for social formalities and much for social duties but we do the opposite. They regarded furniture as part of wealth, but not of civilization.

Economic forces compel the teachers of today to look for pupils, but in the natural order of thing it is the pupil who should look for the teacher. The teacher is now a tradesman, a vendor of education in search of customers.

There are not enough text books in our own language. Ancient learning has not been applied for those scientific, historical and rationalistic methods that we apply to western learning. For education, a foreign language cannot be the right medium. English the knocking at the gate and the turning of the key take away the best part of our life. The ideas came late and the tedious grinding over grammar and a system of spelling which is devoid of all rationale take away our relish for the food when it does come at last."

Tagore laid equal emphasis on development of body along with that of children to take care of their body should be treated as very important. This is due mainly to the joyless education. Tagore writes in this concern, "Human beings need food and not air to satisfy their hunger but they also need air properly to digest their food."

Freedom is essential to the mind in the period of growth and it is richly provided by nature.

The crux of Tagore's educational philosophy was learning from nature and life. Tagore also attached great importance to Tapasya and Sadhana. In 'Siksa' there is an indirect exposition to Brahmacharya (a life of abstinence and discipline during student's life) as a mean of real education in early year.

Tagore was critical of the way in which education designed to be job-oriented. Referred to its end of earning bread and butter Tagore observed, "From the very beginning such education should be imparted to village folks so that they may know well what mass welfare means and may become practically efficient in all respects for earning their livelihood."

The experiment at Sriniketan was undertaken with a limited end in view. Tagore was a man of wider vision one who had extensively travelled. He visited various universities of America and Europe in the west and Japan and China in the East. He went on to establish Visva - Bharti as an international University where the values of the East and the West could be combined to develop to truly universe and humanitarian outlook based over faith in man.

Santiniketan, Visva Bharti and Sriniketan may said to constitute Tagore's educational trinity through which he endeavoured to develop his education theme.

The visionary in Rabindranath and the great educationist in him solved the problem of today as far back as fifty years. The problems of modern education are attendance, copying or use of other unfair means and discipline. Tagore solved these problems in a noble way. Freedom in the class solved the problem of attendance, absence of invigilator solved the copying or use of unfair means. Thus Tagore's educational system is a great feat.

3.2.3 Education system according to Rabindranath Tagore

As one of the earliest educators to think in terms of the global village, Rabindranath Tagore's educational model has a unique sensitivity and aptness for education within multi-racial, multi-lingual and multi-cultural situations, amidst conditions of acknowledged economic discrepancy and political imbalance.

Rabindranath did not write a central educational treatise, and his ideas must be gleaned through his various writings and educational experiments at Santiniketan. In general, he envisioned an education that was deeply rooted in one's immediate surroundings but connected to the cultures of the wider world, predicated upon pleasurable learning and individualized to the personality of the child. He felt that a curriculum should revolve

organically around nature with classes held in the open air under the trees to provide for a spontaneous appreciation of the fluidity of the plant and animal kingdoms, and seasonal changes. Children sat on hand-woven mats beneath the trees, which they were allowed to climb and run beneath between classes. Nature walks and excursions were a part of the curriculum and students were encouraged to follow the life cycles of insects, birds and plants.

3.3 Shantiniketon

Visva Bharati University, Santiniketan is a Central University for research and teaching in India, located in the twin towns of Santiniketan and Sriniketan in the Indian state of West Bengal. It was founded by Rabindranath Tagore who called it Visva Bharati, which means the communion of the world with India. In its initial years Tagore expressed his dissatisfaction with the word 'university', since university translates to Vishva-Vidyalyaya, which is smaller in scope than Visva Bharati. Until independence it was a college. Soon after independence, in 1951 the institution was given the status of a university, and was renamed Visva Bharati University.

The origins of the university date back to 1863 when Maharshi Debendranath Tagore, himself the zamindar of Silaidaha in East Bengal, was given a tract of land from Babu Sitikanta Sinha, the zamindar of Raipur,^[1] which is a neighbouring village not too far from Bolepur and present day Santiniketan and set up an ashram at the spot that has now come to be called chatim tala at the heart of the town. The ashram was initially called Brahmacharya Ashram, which was later renamed Brahmacharya Vidyalaya. It was established with a view to encourage people from all walks of life to come to the spot and meditate. In 1901 his youngest son Rabindranath Tagore established a co-educational school inside the premises of the ashram.

From 1901 onwards, Tagore used the ashram to organise the Hindu Mela, which soon became a centre of nationalist activity. Through the early twentieth century the former zamindars of Surul, another neighbouring village, a few minutes by cycle from the Uttarayan Complex, and the zamindars of Taltore, another neighbouring village just north of the university town, continued to sell their lands and other properties to the ashram and the college that was being built on this spot.^[2] On 23 December 1921 Tagore formally started the college with proceeds from the prize money of the Nobel Prize he received in 1913 for the publication of his book of poems entitled Gitanjali. The college also became a centre of Brahma learning in this period. It was granted full university status in May 1951 by the Government of independent India. The poet's eldest son, Rathindranath Tagore, became the first upacharya of the newly founded university. Another member of the Tagore family who performed the role of upacharya of the university was Indira Devi Chaudhurani, a niece of the poet.

3.3.1 Education structure at Visva Bharati

The university is divided into institutes, centres, departments and schools. The respective departments are included in the institutes. The university's various programmes dealing with its rich cultural heritage as well as art and dance education are funded by the Department of Science and Technology (DST), Government of India.

Institutes and Museums

- Cheena Bhavana (Institute of Chinese Language and Culture): It was founded in April 1937 with the great vision of Tagore. Tagore invited Prof. Tan Yunshan to serve as the first chairperson of Cheena Bhavana. International scholars such as Jan Yun-hua worked at the Cheena-Bhavana on topics ranging from Sino-Indian studies, Buddhism and Chinese philosophy. Chiang Kai-shek and Zhou Enlai donated a large number of Chinese books to Cheena Bhavana, making it one of the most important libraries for classical Chinese studies in India.
- Darshan Bhavana (Institute of Philosophy): This department is also well-known for its research and teaching. Professor Jiten Mohanty has been associated with the work of this department.
- Kala Bhavana (Institute of Fine Arts): Arguably one of the most well known of all the departments of the university, it boasts of an extremely well known faculty and students' body. It is most well known for the spread of Bengal School of Art. Abanindranath Tagore, one of India's most eminent artists was one of its founders and chief patrons. Luminaries such as Abanindranath Tagore, Gaganendranath Tagore, Nandalal Bose, Binode Bihari Mukherjee, Ramkinkar Baij, Dinkar Kaushik, K.G. Subramanyan, Beohar Rammanohar Sinha and Ghulam Mohammed Sheikh have either taught or been students here.
- Palli Charcha Kendra (Sriniketan):
- Palli-Samgathana Vibhaga (PSV) (Institute of Rural Reconstruction) (Sriniketan):
- Palli Siksha Bhavana (Institute of Agricultural Science) (Sriniketan):
- Rabindra Bhavana (Institute of Tagore Studies and Research) (Uttarayan complex): Dr. Swapan Chakrabarty is the present Director of this institution.
- Sangeet Bhavana (Institute of Dance, Drama & Music): The eminent Rabindrasangeet singer, Kanika Bandyopadhyay was a Principal of Sangeet Bhavana.
- Siksha Bhavana (Institute of Science): This department houses the Centre for Biotechnology, Centre for Environmental Studies, Physics, Chemistry, Mathematics, Statistics, Computer Science, Botany, Zoology
- Silpa Sadan (Sriniketan): Silpa Sadana (Institute of Craft and Design) is a reputed Institute of Visva Bharati engaged in promoting Crafts and Design education which

was setup by Gurudev Rabindranath Tagore in 1922 to uplift craft and Craftsmen and thereby improving the rural economy.

- Rural Extension Centre (Sriniketan):
- Vidya-Bhavana (Institute of Humanities & Social Sciences): This institute includes the humanities and social science departments, such as the Department of History and the Department of Economics.
- Vinaya Bhavana (Institute of Education): This section has a basic studies

3.3.2 *Aim and objectives of visva Bharati*

It was always the objective in Santiniketan that learning would be a part of life's natural growth. The first step towards this objective was to establish in the child a sense of oneness with nature. A child has to be aware of his surroundings - the trees, birds and animals around him. The mind is deprived if one is indifferent to the world outside. Rabindranath said we concentrate on learning from books and neglect the knowledge that is freely available on all sides.

From the beginning, Tagore wanted his students to be aware of their environment, be in communication with it, probe it, make experiments and collect data and specimens. And to guide them he wanted teachers who could go beyond book-learning, who were seekers themselves and who would find joy in the process of learning. In this context one might mention Tejeschandra Sen, who along with Jagadananda Roy, was one of the pioneering teachers of Nature Study in India. They were able to instill in children a love for and curiosity about the natural world.

3.4 **Study on Conservation**

3.4.1 *What is Conservation?*

The present century will no doubt be remembered for the unprecedented culture, and political upheavals that have led to a condition of in global instability. The speed with familiar touchstone of tradition have undergone transformation has greatly increased the physiological need for performance. But while on the one hand we proudly proclaim our inheritance of civilization which has endured thousands of years, creating the sense of stability and identity that we crave, most of us are doing precious little of respect or even understand what that heritage is all about, much less regards it as the bedrock of our future. Through the dynamic act f process observed and develops regard of our past: we learn a bit of history, sociology, and anthropology, building design in short we learn about ourselves. Once we stopped talking our past and our surrounding for granted, with awareness and

enough motivation. We can even participate in the process of what our future and we are becoming.

The act or process of preserving something in being, of keeping something alive or conservation means all the process of looking after a place so as to retain its cultural significant. It may include maintenance, preservation, restoration, reconstruction and adaptation according circumstance and will be commonly a combination of more than one of these. So conservation does not exclude demolition or new construction. It does not in the other word, exclude changes. It might include take the argument further and say that: without the ability to change, a city as well as building would die, and analogy with politics, agree with Edmund Burkes' view that "A state without the means of some changes is without the means of its conservation."

So we can state "maintaining the presence of past in the present, that involves preserving, restoring and/or adapting old building; designing new one's that respect their neighbors and the continuity of history: weaving old and new together in urban fabric of variety and richness."

3.4.2 Conservation practice: a global view

Conservation and restoration of buildings are practiced nearly as old as buildings themselves and have existed as long as long cities has existed. In Europe, the pioneer in conservation movement, the concern of for cultural rehabilitation, restoration, and conservation dates 16th Century when the humanists looked back to Greek and Roman legacies for inspiration and direction. At that time all expressions of civilization from the architecture, to law and philosophy belonging to the classical period become the object of learning, imitation and conservation'.

However it was not until the latter half of the 19th century that Architecture conservation was effectively institutionalization in Europe 4. Unprecedented and indiscriminate destruction of existing landscape historic monument, and familiar surroundings that that took place in the white heat of technology" following the industrial revolution caused, widespread concern and reaction in European communities – Societies were formed and law were incited in European communities to protect ancient moments and buildings, and to counter the trend where destruction of historic centers and cities, and dehumanization of the living environment become the synonym ice development, modernity, and progress. The trend repeated and consequently the movement for conservation was intensified after world war. To capture the cultural identity, lost as revenges of war, repaid industrialization, and urbanization that it accompanied presentation of patrimony become an essential part of political ideology in the in the post-war Europe. In recent times history held as ideological nationalist tool and forms a strong lobby for conservation of patrimony in the developing countries seeking national and cultural identity.

3.4.3 Bangladesh context, an overview

Against the background discussed the state of art in Bangladesh if reviewed. It can be said that architectural conservation is yet to be a wider public and professional concern, and the contemporary philosophy and concepts of architectural conservation is yet to gain currency. What is practiced here is archeological preservation based on the principles and legislation introduced in the subcontinent by John Marshall nearly a century ago. Due to the restrictive policy followed e. g. a building must be hundred years old to be designated as historic property. Significant portion of the country's architectural heritage remains outside the jurisdiction and care of the relevant body namely the Directorate of archeology and museum, Ministry Of Culture. Instances where there is practice of architectural conservation, as by the architecture department, Ministry of Works, it reflects initiative of enlightened administrator rather than an institutional framework.

Bangladesh is yet to defined her cultural policy late alone a policy of architectural conservation. This understandable imposes serious difficulties in policy formulation, its execution and implementation of architectural conservation projects.

In addition to those already mentioned problems and issues in the field are:

1. Resource constraints.
2. Ineffective machinery and legislation,
3. Lack of policies and priorities,
4. Lack of co-ordination between different relevant bodies.
5. Lack of public awareness and involvement.
6. Absence of necessary expertise in the relevant body etc.

Resource constrains in Bangladesh need no elaboration. Directorate of Archeology is allocated Tk 1 million (US\$ 25000,1998) per annum to protect 229 listed monuments and sites scattered all over the country. The Directorate of architecture, Ministry of Work has no budget allocation for conservation. Therefore needs to raise funds on project basis. At present more public funds are also not likely to be available. Private sector needs to be explored for the additional funds.

Even in the developed countries conservation has a low sector priority in budget allocation. The financial involvement in the responsible public authority is also not so overwhelming. As already mentioned in England only 1% of the sum spent per annum for maintenance and repair of listed building is borne by the public authority, and as a consequence most listed building owners have an uneconomic obligation thrust upon them. Money in England comes from many directions e.g. Building Thrust, Conservation Societies Bank, Insurance etc. since 1979 UK government has encouraged and lured private and

commercial sponsors by corporate and personal tax reduction. Tourism is an important but indirect fund generating resource in this field in the country.

Fund constraints, while may be an important factor in Bangladesh, it is not the only obstacle that inhibit progress and development. Lack of motivation, lack of expertise in relevant bodies, absence of clear policies and priorities, absence of effective mechanism to execute and implement decisions are less daunting. The Paharpur and Bagerhat preservation will illustrate the point. Being alarmed by the progressive deterioration of those two moments Government of Bangladesh made appeal to UNESCO for their protection in 1972. The appeal acknowledged by UNESCO in 1980. A master plan prepared with technical assistance from UNESCO and UNDP in 1982. UNESCO's 'World Heritage Council made an international appeal for US \$ 5 million (current estimate US \$ 7 million) and the Japanese Government respondent with an offer of US six million. A national committee was formed to work out the terms and conditions. By 1986 formed the working and they were required to submit their report by 1988 to recede the proposed financial grant from the Japanese Government. Unfortunately the committee was unable to meet until August 15, 1990. As the contract period had already lapsed by then the whole process had to start a new.¹¹

The situation so described is a consequence of the absence of a coherent policy with resultant vacuum in the decision making process. In Bangladesh there is no responsible body or mechanism to deliberate upon such issues- the absence of necessary expertise in the relevant bodies further aggregates the situation. It may be of interest to the readers to learn that at present the director of Archaeology and Museum the Custodian of Heritage is a police officer. The D.G. of the National Museum are civil servants of administrative cadre and the D.G. of the Bangladesh archives is also a a civil servant of administrative cadre.

Even if we choose to disregard the vacuum in the administration, the lack of trained personnel at the technical level imperils our listed property. Perhaps an incident concerning the preservation of the Paharpur site would include the statement. Water logging and sanitary is a serious problem at the paharpur site. As a preliminary measure a decision was taken to drain the surrounding area mechanically. The Japan government as per agreement sent the required machinery. When the pumps arrive at the site it was realized that the necessary infrastructure needed to install and put them into operation had not been considered. The expensive machinery lay under the open sky for a considerable period – its implication need no elaboration. In recent times the directorate has built a site museum at Paharpur one that has needed. What disturbs is that the development has been without proper supervision and by people who do not adequately qualify for the task. Development in historic sites should be restricted, thoroughly deliberated and design carefully chosen an insensitive development can mar the setting and imperil the moment. Development of the Paharpur site, a World Heritage Property, should be through open architectural competition, or could he commission to to a qualified Architect-conservator or at least collaborated with the directorate of Architecture ministry of work.

It should be borne in mind that Architectural conservation is multi-disciplinary. It involves archaeologists, planner, Architects, historian (art-historians), engineers, sociologist, ethnographers, craftsmen, artisan's etc. All of who need formal orientation to gain a common frame of reference. At presents there is little scope of that in Bangladesh. No

courses on Architectural conservation are offered at any level from any institution in Bangladesh. Recently Department of Architecture, BUET, has taking a decision to offer such a course at the under graduate level but not in the immediate future.

If training of archaeologist, people at the helm of conservation actively are considered, the scenario is not any better. Dhaka University once offered special courses on archaeology, but it has been discontinued long since. Jahangir Nagar University has recently opened an archaeology department but is unlikely to fill the vacuum single-handed. Although state of the Directorate are sent to ICCROM for training which on doubtly increases the technical skill, but they along cannot perform with excellence or vision as a complete Architectural conservation team could.

3.4.4 Methods of Conservation:

ICOMOS (International council on Moments and sites) has promulgated a number of charters defining and addressing the different aspects of conservation. To put simply preservation, Restoration, and Conservation are different modes or approaches' implying different degree intervention The BURRAC 9, Australia, ICOMOS, defines these terms as follows:

1. Preservation: means maintaining the fabric of a place in its existing state and retarding deterioration.
2. Restoration: Means retaining the existing Fabric of a place to a known earlier state by reassembling existing components without the introduction of new material.
3. Reconstruction: returning a place as nearly as possible to a known, earlier to a state and is distinguished by the introduction of new materials (new or old) into the fabric.
4. Conservation: Means all the processes of looking after a place so as to retain its cultural significance. It may include maintenance, preservation, restoration, reconstruction and adaptation according to circumstance and will be commonly a combination of more than one of those.

The difference between Archaeological and Architectural conservation that the issue of the later is not the preservation of historical evidence but retain the cultural significance, the intrinsic value of areas, environments, monuments, buildings and living communities. The scope of Architectural Conservation work, as practiced today, may range from town planning to preservation of a crumbling artifact. Another important aspect of Architectural conservation is that it augments contemporary uses in old buildings (Without destroying their historical value). This ensures the continuance of life and value of the old buildings.

In the current concept of Architectural conservation the environs and setting of the historic building is considered just as important as the building itself. Not only Architectural historical but also the more modest works of the past, which have acquired cultural significance, are now considered worthy of preservation and conservation. This has added new dimension to the practice of Architectural conservation namely the conservation of areas.

3.4.5 Problems of Conservation:

Old parts of cities and towns of Bangladesh and much of the region are marked by small irregular parcels, traffic congestion, structural, and functional obsolesces, congestion of accompany in all types of premises and inadequate services. But despite the poverty of the people living in those areas and physical decay all around, old part of city in Bangladesh serve vital economic and social function. Most of place of historic interest and located in the old parts of the cities and towns. They have a social and physical character that signals them, out from the rest of the city.

Such areas in a continual flux change re-adjusting to the changing demands of economy and related activities. With or without government intervention changes in weight rebuilding and renovation are taking place. This is both encouraging and unfortunate. It is encouraging because private initiative and capital are being used in physical transformation and unfortunate because changes are often for worse. The rebuilding or development are taking place has no reference to any plan or context. Those developments are changing the basic character areas. Building of significant cultural importance are being destroyed and communities arid activities that land character to the areas at being disrupted. (For instance the Former State Bank building, perhaps, the oldest of British Building in Dhaka, was vandalized and then action for demolition.

We have old parts of cities/ towns that are:

1. Inhabited by the poor, but never the less economically vital to the city.
2. Experiencing continual changes both due to economic force and rebuilding activities.
3. Plagued by Deteriorating environment and inadequate services.
4. Replete with building of exquisite craftsmanship styles and character as for monuments, common problems arise.
 1. When the old monuments lose their original use.
 2. When the people the course of development destroy immediate surroundings to monuments.

Monuments, which lose their original function, are often considered useless and unnecessary. They become derelict, misused or even left to the mercy of the general public. Monuments in remote areas are usually not taken care of. Encroachment on the sites of monuments is a common practice, as is the use of building materials from a monument site by local people.

3.4.6 Motivation and Legislation:

The cultural heritage should be conserved is not a thought shared by all, there is need for motivation and raising the general awareness towards conserving old buildings, monuments and historical districts, but the philosophy of conservation has to be politically and socially acceptable. Conservation is a process of development rather than step backward. Like land use conservation it has political connection as it carries with the improvements of the living conditions of ordinary people. Conservation, like planning, cannot be effective unless it is supported by political power and legislative support.

Ordinary Planning and conservation of building and areas are difficult where the directions of developments depend on decisions taken by numerous individuals separately, on the basis of immediate needs without reference to a plan, policy or what others are doing. The urban form that evolves in the absence of regulation or control does not respect culture, environment, public health or safety. Without adequate legislation, the deterioration of historic areas will continue unabated and it will be difficult to stem the tide of what is conceived of as 'progress and internationalism'.

Legislation relating to building and land-use controls in Bangladesh exists in the form of the East Bengal Building Construction Act (EBBC) of 1952, The Pourashava Act of 1977 and the Building Construction Regulation of 1984. In cities having Development Authorities such as Dhaka, Chittagong, Khulna and Rajshahi, the Town Improvement Act (TIA) of 1953 prevails in addition to the EBBC Act. In all this legislation there is not even a passing reference to conservation.

Preservation is dealt with in some detail in clauses 5, 10 and 12 of the Antiquities Ordinance of 1976. The regulatory framework leaves much to be desired. There is a need to expand building regulation and land use controls both in scope and intent to include conservation of not only buildings, but also areas of historical and cultural significance.

But it is not axiomatic that enforcement of laws will follow enactment. Even the existing elementary rules and regulations on buildings and land use controls have seldom been used by municipalities other than Dhaka, Chittagong, Khulna and Rajshahi. This is partly because municipalities are presently ill-equipped to enforce those rules.

3.4.7 Recommendations

Recommendation, whether legislative or otherwise, have to be seen against the backdrop of socioeconomic conditions. There will be continuing need to balance scarce 'source between development and maintenance of existing rural and urban areas. Financial resources for conservation will remain severely limited, maximum use must therefore be made of existing levels of commitment and we must devise tools that are economical in the use of resources but nerveless create the necessary impact-in this spirit the following general recommendations are followed.

1. Formulate criteria for designation of prevention areas after careful study of representative areas in different towns create zoning laws to ensure their survival
2. Write rules and regulation of pertaining to preservation of facades and building envelops, in order that new buildings in historic district may be in sympathy in scale architectural character, details and color.
3. Spell out clearly procedure for listing historic buildings structures of culture/ social significance. A building to be worthy of preservation need not be very old. The criteria for inclusion should be historic or cultural importance- such a listing should exclude financial compensation to the owner for being placed on the list.
4. Enact protective legislation at the national level to prevent local powerful elites from changing regulations to suit their interests.
5. Establish the legal basis to invite interested private and public bodies to share some responsibilities in the protection of monuments and antiquities, especially the 229 government-listed antiquities.
6. Support conservation legislation by careful planning politics, uses in historic buildings requires restriction of those uses in new buildings. For instance, laws to convert historic places to museums should restrict lire setting up of museum in new buildings.
7. Provide for re-housing any original occupants forced out by conservation. In a developing country dislocation of people is a serious problem.
8. Encouraging citizen participation as a step to the revitalization of the community, another-goal of conservation. This will include a sense of belonging to the conserved area.

9. Create incentives rather than proscriptive regulations, which tend to stifle: reactively and result in banal, lifeless communities. Performance bonuses may also prove to be an important tool.
10. Improve infrastructure and social services in old areas- Attention to small things coupled with imagination can help enhance the viability of old areas and stonecutters without necessitating huge capital outlays- Low-cost measures cannot of course take the place of needed infrastructure but high investment alone cannot ensure the quality of life. A series of low-cost improvements may bring greater benefit to the people in terms of increased well-being than project of spectacularly high investment.
11. Promulgate national standard on conservation with regards to materials use, craftsmanship. Color and form. The importance of conservation is not limited to maintaining the forms of historical buildings for posterity; conservation is also the mechanism for the carry-over of old traditions, from their conceptual as well as the functional viewpoints.

The scarcity of financial and human resources, the lack of awareness of the need of conservation, and the absence of political commitment make conservation a difficult proposition both socially and politically. We have many constraints, but the irreversible damage to our historical environment and buildings cannot be condoned. Conservation cannot wait till a point when resources may be available or the political climate may change. The recommendations outlined do not make large demands on capital, but nevertheless, will serve the cause of conservation.

3.5 Assessing Rabindra complex as a conservation project.

Considering the specific issues of building conservation, the research and documentation, it can be understood that a structure must fulfill certain criteria in order to be considered worth restoration or conservation. To make this assessment, there are five questions, which are to be answered, four of which have a universal and timeless quality and fifth being of a more typical nature. The building existing on the proposed site is thus considered on the basis of the five questions.

3.5.1 What is the historic value of the building?

The old residential building contains memories of many valuable historic events, as well as the social, political, philosophical, and a certain movement.

3.5.2 What is the architectural value of the building?

In keeping with the mid-nineteenth to early twentieth century tradition of the landed gentry of the Bengal, the house is built in the then European style reflecting mainly an amalgamation of neo- classical and Gothic elements. In that, the building possesses some rich and well worked- out details. The central part of the building is a two-storied edifice with an arcaded verandah on the ground and a colonnaded one of the upper level. The two wings on either side are single storied and have façade treatments which have distinctive Gothic motifs. From the indentations in the brickwork of the walls above the wings, it is evident that the owner intended to build upper levels rooms at a later stage, which for some reason was never done.

3.5.3 What is the significance of the building in the wider context of its street or town?

The role of the building in the vernacular fabrics performing like an antique stage of Bengali's glorious past. The antique bears the potential for social, philosophical, archeological and architectural phenomena, which would appeal to our rich heritage and get royal recognition in the platform of Dakshindihi, Khulna division as well as the world heritage.

3.5.4 What is the essence of the building: its spirit?

This is of particular importance if the building is to be adapted to a new use. And it should be remembered that the building has a tremendous touch of the great Bengali poet Rabindranath Tagore. Anything that is associated to Rabindranath tends to be of great emotional value to his audience and admirers and thus this structure has gained that respect and importance over the years. To the residents of Khulna it is a rich gem and an asset. It should be considered so for a much larger global population.

3.5.5. What is the economic and social viability of the particular building?

The existing building has no existing function. But it serves as the recreational parameters for the certain community. Recently the government has taken the project under conservation which highlights its importance. The government intends to treat it as a symbol of our rich cultural background and heritage. Considering the cultural activities

around it this structure promotes social activities and also an economic generation. Above all it offers an upliftment of the cultural sector for the country and specifically that region.

3.6 Degree of intervention necessary for conservation of Rabinbra Bhavan.

3.6.1 Legislative support.

Legislation for protective and preserving historical monument Rabindra Bhavan still exists in Dakshindihiiin, Phultala at Khulna. However the encroachment of construction of Buildings, shows the mismanagement and lack of strong implementation of the legislation. These encroachments affect the environment and the antiquity of the structure. So a pooper legislation background should be provided.

3.6.2 Public awareness.

The structure is more widely acclaimed and known among primarily the residents of Khulna and the nearby regions and among the admirers of Rabindranath. There is still a mass of people who are not aware of its existence. The proposal to conserve and generate cultural activity would bring it to the attention of the people and it would serve a purpose. For example during the birth and death anniversaries of the poet masses of his admirers gather here to commemorate the poet. Awareness to a greater and larger mass will encourage people to accept the responsibility of protecting antique from natural deterioration and / delivered destruction.

3.6.3 Planning control.

A master plan for preservation and protection of the museum need to be prepared.

3.6.4 Physical intervention of the Rabindra Bhavan.

The Rabindra Bhavan was constructed in about early nineteenth century; it has suffered natural deterioration due to climatic conditions and of necessary maintenance. The following specific tasks suggested conserving and reviving the structure.

- 10 inch first class brick work repair and restoration with cement mortar (1:6)

- Breaking of existing neat cement flooring.
- 1.5 inch thick artificial patent stone with 6"*6"*1' terracotta tile on floor.
- Half inch cement plaster (1:4) on wall with 6"*6"*1' terracotta tile in skirting.
- Chipping of existing plaster work on wall.
- Quarter inch cement plaster (1:4) in ceiling.
- Half-inch cement plaster (1:4) in wall recesses.
- Sand cement decorative molding work.
- Making and fitting of door and window frames with Chittagong teak wood as per design.
- Making and fitting of door and window shutter with Chittagong teak wood as per design.
- Window grill made of 5/8 inch dia plain mild steel bar framed with 1in*1/8 inch mild steel flat bar.
- Decorative wrought iron verandah and stair railing as per design.
- Foreign origin Snowcem 2 coat exterior paint with proper curing.
- Water bound distemper paint on wall and ceiling.
- Egg- shell Elite Lacquer (3coat) finishing on door and window frame and shutter.
- Supply, fitting and fixing of 5 mm thick glass on door and window.
- Removal of existing lime terracing and installation of new four inch thick lime terracing on roof.
- Hinge, bolt, tower bolt, padlock, doorstopper etc.
- Electrical work including concealed wiring, fitting and fixture.

3.7 Environmental Psychology and Public spaces

3.7.1 Environment of Public Spaces

Environment and the settings in which human beings dwell has an effect on their adjustment, social interactions, the ability to form and sustain relationships, mental and physical health, and their overall personality. As understood from the studies conducted for and represented in the article "The Mental Health and Wellbeing Effect of Walking and Outdoor Activity Based Therapy Project by Elisa Mendelsohn it can be concluded that spending time in nature makes people feel more lively, decrease mental fatigue, restore mental clarity, and provide an increased sense of well-being . This highlights the importance for green and open public spaces and therefore relative analysis of the development of landscape architecture such as Japanese gardens, Zen gardens and development of the art form of Feng-Shui can be conducted.

3.7.2 Environmental Psychology theories

Through analysis of such studies over the times, many psychologists have come up with a few theories environment-behavior models which can be applied to predict human behavior in their interaction with certain elements in the environment when attempting to design a successful public space. Venetin Aghostin-Sangar in his paper “Human behavior in public spaces” has summarized a few of the theoretical perspectives that interest the topic under discussion. They include:

1. Arousal Theory
2. Stimulus Load Theory
3. Behavior Constraint Theory
4. Adaptation Level Theory
5. Environment Stress Theory
6. Perception Theory/Cognition Theory

The theories that can be related to the focus of the paper are the Stimulus Load Theory, the Behavior Constraint Theory.

The Stimulus Load Theory - Conceptualizes the environment as a source of sensory information (referred to as stimulus or stimuli), that provides people with psychological stimulation (Gifford 2002; Veitch and Arkkelin 1995 in Venetin Aghostin-Sangar).

The Behaviour Constraint Theory - The focus of behavior constraint theories is on the real or perceived restrictions that are imposed on people by the environment, and the perceived degree of control that people have, or want to have, on an environment (Gifford 2002; Veitch and Arkkelin 1995 in Venetin Aghostin-Sangar).

3.7.3 Public spaces and need for public spaces

Table 08 Typology of Open spaces

OPEN SPACE	
Any unbuilt land within the boundary of a village, town or city which provides, or has the potential to provide, environmental, social and/or economic benefits to communities, whether direct or indirect.	
GREEN SPACE	CIVIC SPACE
A subset of open space, consisting of any vegetated land or structure, water or geological feature within urban areas.	A subset of open space, consisting of urban squares, market places and other paved or hard landscaped areas with a civic function.
Parks and gardens Amenity greenspace Children's play areas Sports facilities Green corridors Natural/semi-natural greenspace Other functional greenspace	Civic squares Market places Pedestrian streets Promenades and sea fronts

Source: Kit Campbell Associates (2001)

The Oxford Dictionary defines the term ‘public’ as: of or concerning the people as a whole; Representing, done by, or for the people; open to or shared by the people; open to general

observation, done or existing in public. Thus when designing a space it is vital to know how humans interact with the environment and thus the need for referring to Environmental Psychology which helps determine ways to create positive, beneficial energies between people and places. Before probing into how public open spaces impacts people it is important to know how the public realm is defined and thus knowing the typology of spaces necessary.

As also mentioned in the article “Human behavior in Public Spaces” by Venetin Aghostin-Sangar ,when we are talking about what humans experience or feel in public spaces we must acknowledge that the terms “feel” and “experience” convey the complexities of the human mind and emotions. In order to appreciate how the environment impacts people, it is necessary to have an understanding of people’s physiological and psychological processes. These psychological processes are influenced by certain features of spaces. . These features may be physical, social, cultural or sensory but what they share in common is the power to affect people’s behavior in, and experience of the public realm. The figures that dictate the looks, features, location, and enclosure (which influences user experience) of a public space are none other than professionals such as architects, planners and designers. At the same time, the users of these spaces are also capable of influencing their form and feel, by introducing social characteristics and elements such as culture, gender, sexuality, ethnicity and age. These elements, together with the physical and ambient (or non-physical) features of the public space, are capable of having a profound effect on the way that people behave, experience and interact in public spaces. In conclusion, visible and non-visible elements determine the success or failure of public spaces.

3.7.4 Factors that affect the use of a space

In his paper “The Contribution of Space Syntax to a comprehensive theory of Environmental Psychology, Daniel R. Montello identifies certain psychological mechanisms such as sensory access, attention, memorability, behavioral affordance, and affect. These psychological mechanisms can be related to the factors of design as suggested in the book “Responsive Environment” by Ian Bently, Alan Alcock, Paul Murrain, Sue Mcglynn, Graham Smith. These authors co-relatively agree with Kevin Lynch’s suggestion that factors such as permeability, ease of movement, diversity, legibility etc. are vital to the design of a space and its use, permeability, variety, legibility, etc.

We can juxtapose these, factor and learn to analyze the psychological mechanisms in how they affect the users of space and that the designers must keep them in mind.

- a) Sensory Access –Illumination of spaces,the sound of spaces,the temperature of spaces,the smell of spaces
- b) Attention and Memorability
- c) Behavioral Affordance
- d) Affect

3.7.5 *Five indicators that a space works for people*

1. A high proportion of people in groups use the space.
2. A higher than average proportion of women use the space which indicates safety and comfort.
3. Different age groups use the space, together and at different times of the day.
4. A range of varied activities occur simultaneously.
5. More activities of affection are present, such as smiling, embracing and holding hands.

(Source: PPS 2000: 81-83)

3.7.6 Conclusion

As can be seen above spaces usually fail leading to certain factor such as restrictions-when people do not have free access to the utilization of the space whether that be physical or Poor design. Poor entrances and visually inaccessible spaces are often the root causes of failure of a public space. Another feature that hampers the use of the space is the poor design of landscape elements. It could mean the balance between soft and hard paved or presence of street furniture or places to sit. Accessibility inside the public space, for example, in a park is also vital to its use. Paths must network all zones of the public realm leading people to the spaces they may want to go. Also presence of blank walls and dead zones around the edges of a place may cause it to fail to attract users and passerbys from visiting the space. If the design fails to produce gathering points it does not function well. Often mixed use features such as shops and restaurants, food courts help to create gathering points and give people more than one reason to use the space. Absence of activities on the edge often results in failure to generate use of space. With the introduction of mixed use, it must be handled that the space does not suffer from the domination of vehicles which deter people from using the space. The space must allow “things” to happen, it must give the people a freedom to do what they want to do, such as gatherings, concerts, cultural functions, gathering for events, etc. Maintenance is an important factor which gradually impacts the use of space and a constant upkeep is very important.

Chapter _04

Case Studies

4.1 Case Study 01: *Sanskriti Kendra*



Figure 13: Sanskriti Kendra
Source: Architecture Plus, Vol. 4

4.1.1 *Project Profile*

Location: Anandgram, Delhi, India
Architect: UppalGhosh and Associates
Site Area: 8 acres
Building area: 925 sqm
Year of Completion: 1990

4.1.2 *Concepts and Planning*

The Sanskriti Kendra is situated away from the hustles of the overcrowded city of Delhi, at the foothill of the Aravillas. It is a far cry from the desultory attempts at modernisation where traditional building methods have been lost in the oblivion as steel, glass and concrete structures overshadow historical monuments like the QutubMinar close by.

In many ways it is the embodiment of all that SanskritiPratisthan stands for and the myriad of activities it is involved in are:

1. Preservation and presentation of indigenous heritage, craftsmanship,
2. Craft
3. Literature
4. Children's education
5. Performing arts

The Sankriti Kendra complex consists of:

1. Museums
2. Library
3. Workshops
4. Residential dormitories
5. Amphitheatre
6. Studios

4.1.3 Design Philosophy

In the words of the architect UppalGhosh, "I like simplicity in architecture. A building should project a client's concept and not the architect's perceptions. Sanskrit Kendra is the result of planning that extends over a period of eight years. In this time the complex has grown organically with plans altered several times along the way."



Figure 14: Open space (courtyard)
Source: Architecture Plus, Vol. 4

This in essence is the nature of Indian architectural tradition where the master craftsmen does not design on a table but build with his own hands three dimensional models. This essence has been largely reflected in the design of the Sanskriti Kendra.

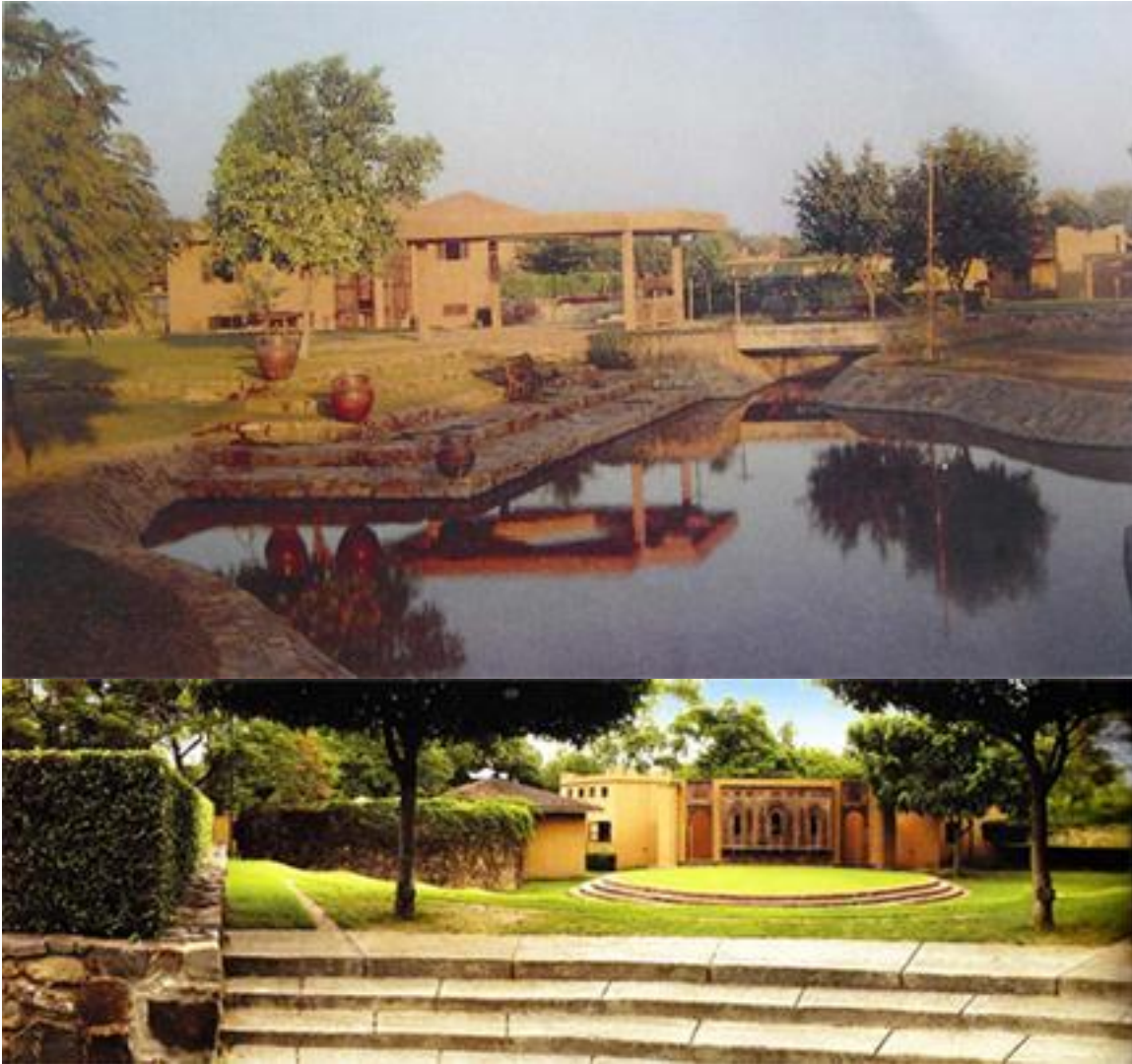


Figure 15: Blending Nature with Built Form

Source: Architecture Plus, Vol 4.

The complex offers a space where nature mingles with modernity and creativity thrives. It serves as a place where creative minds devoted to diverse disciplines can study, interact, and reflect upon their respective areas. It is thus a land of bliss where the environment these creative minds are not distracted from the daily hustles of the city.

4.1.4 Space Analysis

The Sanskriti Kendra opens up and greets its visitors with a large banyan tree where the rural landscape gradually reveals the buildings of the complex. The two museums, Museum of Contemporary Terracotta and the Museum of Everyday Art are situated to the east of the complex. These are built as modern units around a landscaped courtyard. At some places the Terracotta Museum is nothing but a square platform, a room with a roof and no walls, while in others a room with walls but no roof.

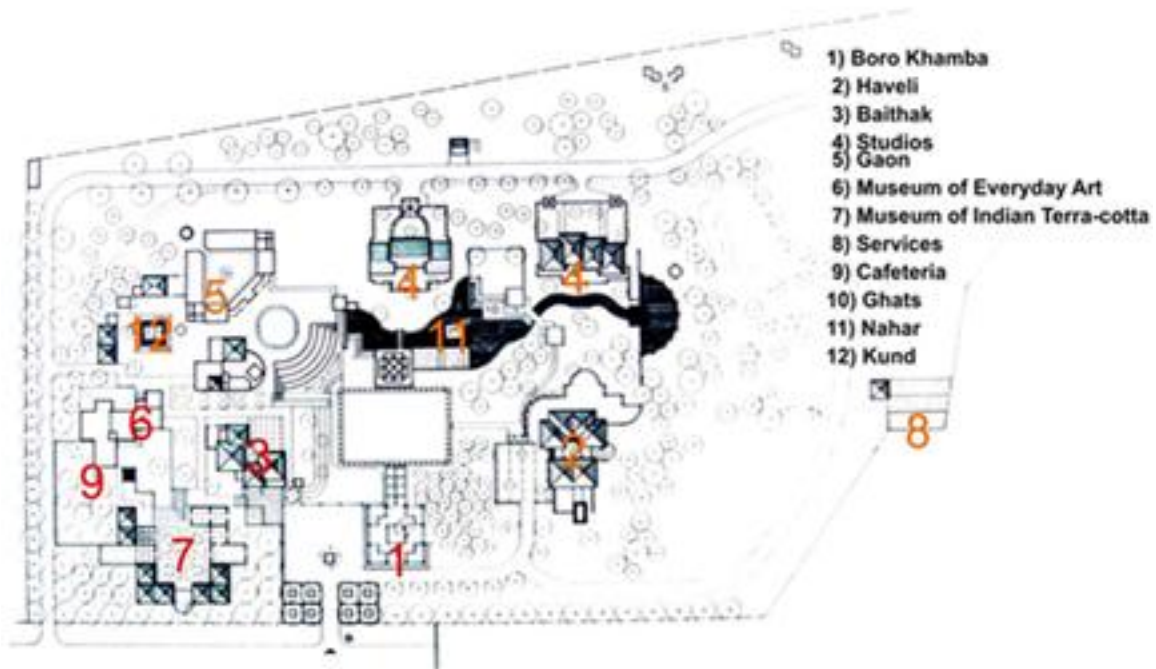


Fig 16: Plan of Sanskriti Kendra
Source: Architecture Plus, Vol. 4



Fig 17: Outdoor Exhibition
Source: Architecture Plus, Vol. 4

The Kendra is a self-contained village with its own courtyard. Its dormitory type residential units accommodate school groups and provide spaces for craftsmen to live and work. The southern edge of the complex houses 12 studio residences for artists around the world.



Fig 18: Studios
Source: Architecture Plus, Vol. 4

The layout of an arrangement of the spaces allows for plenty of breathing and strolling space between them, yet close enough to avoid a sense of isolation. The orientation of all the buildings is designed to have minimal dependence on cooling systems. The studios have provision of cross ventilation and shade from the trees which protects the studios from the extreme heat of the sun.

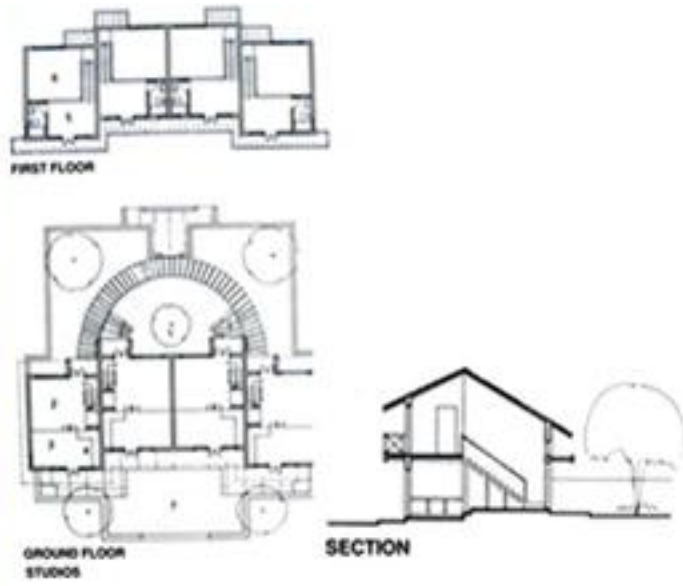


Fig 19 : Plan and section of studios
Source: Architecture Plus, Vol. 4

A 200 seated amphitheatre creates a platform for cultural synthesis and an ambience which creatively inclined may work in contended isolation or intermingle with fellow guests.

4.1.5 Material and Scale

The material use of Sanskriti Kendra is very simple and traditional of semi rustic finish. The complex is very low profile, subtle and typically Indian where rural and urban architecture is successfully blended without flamboyance.

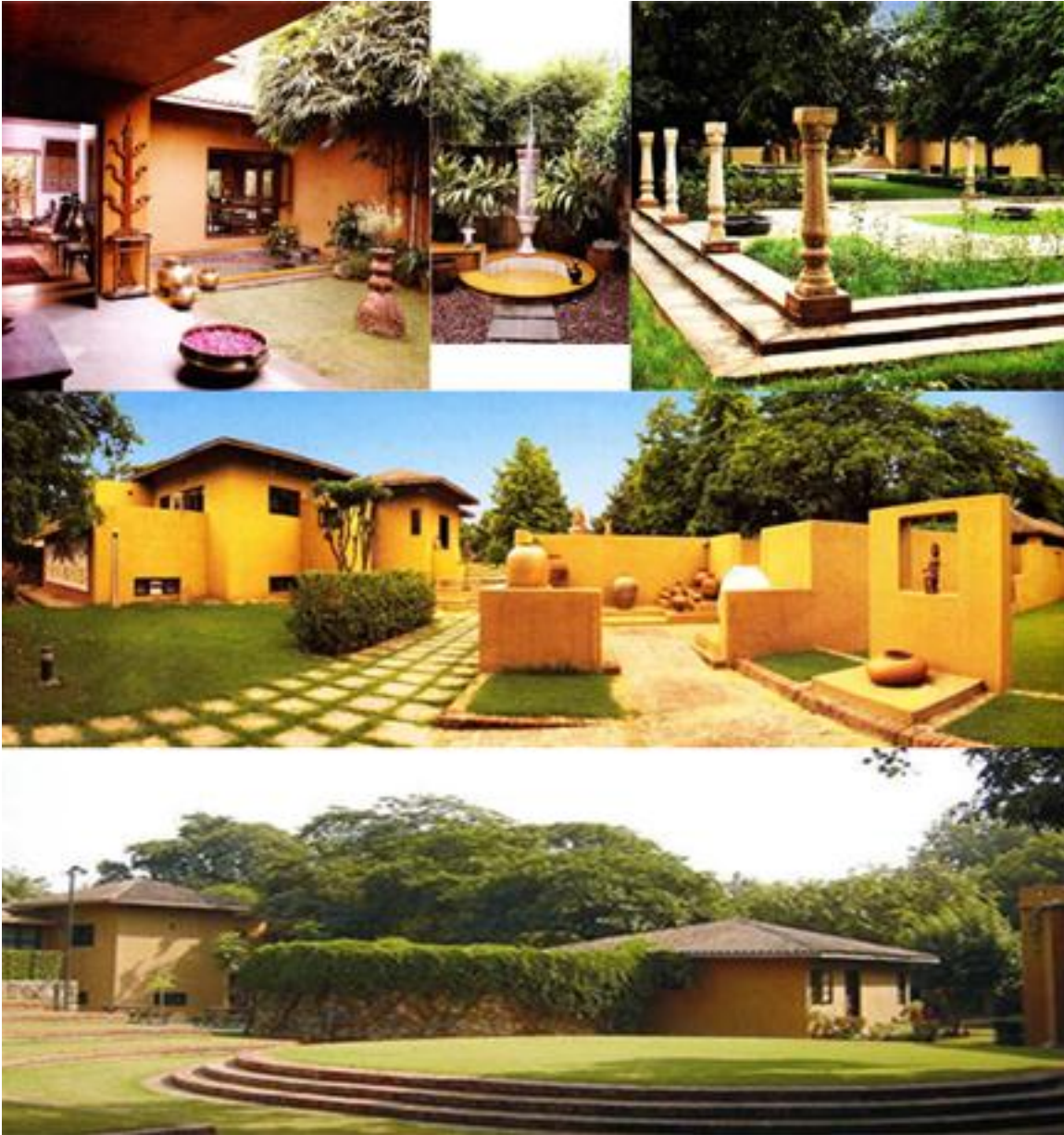


Fig 20: Open Spaces and Courts
Source: Architecture Plus, Vol. 4

4.1.6 Observation

- Respecting the rural context
- Indoor, outdoor relationship.
- Creating a breathing space in between the buildings

- Natural ventilation
- Uses of open spaces.
- Connecting the spaces with the courtyards.

4.2 Case study 02: *Shantiniketon*



Fig 21 Shantiniketon class room
Source:www.shunya.net

4.2.1 *Project Profile*

Location: Bolpur town, Birbhum district, West Bengal, India.

Concept: Rabindranath Tagore

Type: University

4.2.2 *History and Background*

Shantiniketan began as SantiniketanAsram, a meditation centre founded and endowed in 1863 by MaharshiDebendranath Rabindranath Tagore, in turn, established the Brahma Vidyalaya (school)and in 1901 another open-air laboratory school. By 1921 the latter had expanded into

Visva-Bharati University, which sought a basis for a common fellowship between the cultures of east and west, where emphasized the interrelationship of humanity with all human being.

4.2.3 Concept

Shantiniketan- Shanti meaning peace and Niketan meaning place or abode was begun by Rabindranath Tagore and funded partly privately and partly by the Government of India. It was not only at Shantiniketan that the aristocratic folk example in architecture was displayed. It is a recurring theme in India and, indeed, in much of the world. Architects such as Walter BuileyGiffin sought inspiration in the example in designing for the Raja of Mahmudabad in the 1930s (Weirick'1988). Indian politicians play on the theme in their presentation of themselves to the world today.)This architectural attitude was continued indirectly in the Revivalism of the 1930s and 1940s, butwith neither the folk orientation nor the intellectual underpinnings of Tagore.



Fig 22: Sculpture, Fig 23: School

Source: www.shunya.net

The concept of Shantiniketan as a physical and intellectual institution in a congruent relationship with nature has had, however, a low-key influence on Indian educational philosophies ever since. This concern is world-wide and not tied to any nationalism. In many ways it reflects the Gandhian spirits. A beautiful garden was laid out on all sides of the house. The top-layer of gritty dry soil was removed and filled with rich soil brought from outside. Trees were planted for fruit and shade.

4.2.4 Site Analysis

The celebration of seasons was always a feature in the Asrama. These festivals came to be associated with the special culture of this institution and the introduction of traditional Indian forms and rituals in organizing these festivals, including the decoration of the site, use of flowers, alpana, chanting of Vedic hymns and blowing of conch-shells gave them a new dimension, aesthetically attractive, intrinsically Indian yet totally secular. Rabindranath felt, it was necessary that an affinity be built between the students' minds and the flora and fauna of the students.

Rabindranath's choice of Santiniketan for his school was definitely because of its environment. In "My School", he has written: "I selected a beautiful place, far away from the contamination of town life, for I myself, in my young days, was brought up in that town in the heart of India, Calcutta, and all the time I had a sort of homesickness for some distant lane somewhere, where my heart, my soul, could have its true emancipation..I knew that the mind had its hunger for the ministrations of nature, mother-nature, and so I selected this spot where the sky is unobstructed to the verge of the horizon. There the mind could have its fearless freedom to create its own dreams and the seasons could come with all their colors and movements and beauty in to the very heart of the human dwelling."



Figure 24 : Entry and Plaza

Source: www.shunya.net

However, although the outskirts have developed and altered, the main campus or core area of the asrama has undergone comparatively lesser change and retains the quiet, picturesque, sylvan atmosphere that gave Santiniketan its distinctive charm. The same joyous atmosphere is evident and the children look as happy and free as ever. Classes even to this day are held under the trees. The first day of rains is still celebrated with an outing, barefoot and sans umbrellas. The spirit of Rabindranath lives on in Santiniketan.



Fig 25: Old Structure

Source: www.shunya.net

4.2.5 Objectives of the Institute

It was always the objective in Santiniketan that learning would be a part of life's natural growth. The step towards this objective was to establish in the child a sense of oneness with nature. A child has to be aware of his surroundings - the trees, birds and animals around him. The mind is deprived if one is indifferent to the world outside. Rabindranath said we concentrate on learning from books and neglect the knowledge that is freely available on all sides. From the beginning, he wanted his students to be aware of their environment, be in communication with it, probe it, and make experiments and collect data and specimens. Moreover, to guide them he wanted teachers who could go beyond book learning, who were seekers themselves and who would and joy in the process of learning. In this context, one might mention Tejeschandra Sen, who along with Jagadananda Roy, was one of the pioneering teachers of Nature Study in India. They were able to instill in children a love for and curiosity about the natural world. Lord Haldane, visiting Santiniketan in 1954 was much impressed with Tejeschandra's method of teaching.

4.2.6 Environment

One cannot write of the Shantiniketan environment without mentioning Ramkinkar Baiz. His outdoor sculpture is a part of our environment, not meant to be exhibited in museums.

Children grow up with them, treating them as much a part of the environment as the trees and sky. Made of locally available material, these sculptural pieces depict life in and around Santiniketan. The Santhal Family or the Call of the Mill is so integral to Santiniketan that they do not evoke the same emotions when seen in its bronze cast in the capital of India! When Sujata was placed in SangitBhavana by Ramkinkar, walking towards the Buddha, Nandalal Bose planted eucalyptus trees around it to accentuate its height and blend it in a natural scene.

4.2.7 Present Condition

However, Santiniketan today is a veritable botanists' paradise. Plants, trees, creepers and orchids from various parts of India and abroad have been made to flourish in this once semi-desert. Rabindranath himself took a deep interest in planting trees. He introduced the Vriksharopana, or tree-planting ceremony in 1928, popularizing the concept. His son, Rathindranath, was a horticulturist by training and introduced a number of new trees and plants into Santiniketan. Fortunately, the Santiniketan community in general shares this interest in trees and gardening. The seasons are clearly marked in Santiniketan; one knows the end of one season and the beginning of the other with the sights and smell of blossoms in bloom.

4.2.8 Observation

- The education philosophy of Rabindranath Tagore
- How art follows the nature

4.3 Case Study 03: Kala Academy



Fig 26: Kala Academy

Source: CharlesCorrea,Architect in India by Hassan Uddin Khan

4.3.1 Project Profile

Location: Panaji, Goa

Duration: 1973-83

Architect: Charles Correa

Site: On the site along Mondovi river

Type: Art Academy.

4.3.2 Main Function

This center for the performing arts provided 10,500 sqm of facilities for visiting artistes and troupes of performers from other cities in India and abroad, as well as for local Konkani and Marthi theatre groups and musicians who travels around many villages and towns of Goa-and who constitute a vigorous and essential part of its cultural part of its cultural traditions.



Fig 27: Lobby and other views

Source: Charles Correa, Architect in India by Hassan Uddin Khan

- 1000 seat Auditorium
- 200 seat Amphitheatre
- School of Indian classical dance
- School of Indian and European classical music
- Exhibition space for sculpture and paintings
- Accommodation for visiting artists and musicians.

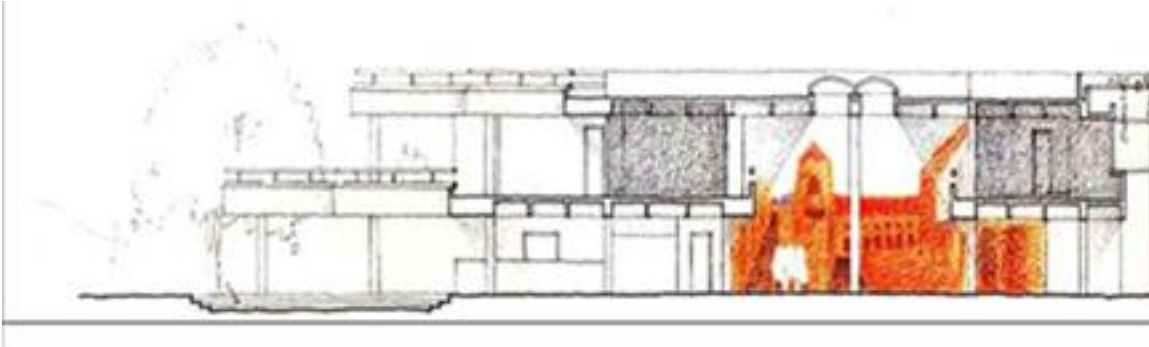


Fig 28: Section

Source: Charles Correa, Architect in India by Hassan Uddin Khan

The site, which faces the historic Mondovi River, is on the Campal, a wide tree-lined road running through an old residential area of Panaji. Thus the built form is low-key and

unobtrusive – the main “event” along the road being the large pergola-covered foyer for the auditorium and the amphitheatre. As will be seen from the plan, this space leads one toward the casuarinas trees along the riverfront, so that the building in fact acts as a large breezeway, connecting the camel to the Mondovi River.



Fig 29: Three Dimensional Wall

Source: Architecture Students Corner, 2012

Illusion and reality merge in the spaces of the Kala Academy. Murals on the high walls turn visitors into actors, 'performing' as they walk from art gallery to canteen. It is perhaps a tribute to '*tیاترو*' a highly popular and successful form of Konkani theatre. The realistic perspective of the street murals resembles the elaborate backdrops.

4.3.3 Program of the Institute

1. DINANATH MANGESHKAR KALA MANDIR (A.C. AUDITORIUM)	
Object	Size/Number
Seating capacity	954 Seats
Stage Proscenium Opening	32' which can be extended to 38'
Proscenium Height	15'
Depth from Curtain Line	42'
Apprence Stage Depth	9'
Orchestra pit of size	24' x 7'
Total number of green rooms/dressing rooms	4

2. OPEN AIR AUDITORIUM	
Object	Size/Number
Seating capacity (Without chairs on the floor)	2000
Seating capacity (with chairs)	1034
Proscenium opening of stage	50'
Depth from curtain line	42'
Apprence stage depth	35'

3. BLACK BOX (AIR CONDITIONED)	
Object	Size/Number
Seating capacity (without chairs)	200
Seating capacity(with chairs)	125
No. of green room / Dressing Room	1
General lighting arrangement with one halogen/flood	1000 watts with Dimmer

4. REHEARSAL HALL	
Object	Size/Number
Seating capacity (Without chairs)	200
Seating Capacity (With chairs)	100
General light with two halogen / floods	1000 Watts

5. MINI OPEN AIR AUDITORIUM	
Object	Size/Number
Seating capacity (without chairs)	300
Seating capacity (with chairs)	215
Open stage (without roof/ceiling)	
General light with 2 halogen / floods	1000 Watts

6. ART GALLERY	
Object	Size/Number
Running Wall Space (Approx.)	30x1.50 Sq. Mtr.
Carpet area of Gallery (Approx.)	90 Sq. Mtr.



Fig 30: Exhibition Gallery

Source: Architecture Students Corner, 2012

7. MEETING ROOM

Object	Size/Number
Carpet Area of the Room (Approx.)	7.30 x 6.15 sq.mtr
Room with Table and Chairs	Table x 1 and Chairs x 6

8. GROUND RENT EXHIBITION LANES

Two exhibition lanes could be provided admeasuring the area of 1000 sq.mtr each approximately for temporary erection of pandel, exhibition stalls and also serving the refreshment at the time of Conferences, Exhibitions, Art Mela etc.



Figure 31: Outdoor exhibition

Source: Architecture Students Corner, 2012

9. DARYA SANGAM

In order to cater to the need of the public, Kala Academy has developed a nice arena adjacent to River Mandovi, suitably named "Darya Sangam". This developed area is specially used for receptions and cultural activities. The area can be covered with temporary pandal and adequate seating arrangement.

10. GUEST ROOM AND ACCOMODATION

There is a dorm to accommodate the artist and the musicians for different parts of the country.

4.3.4 Observation

- Making a space interesting by creating two dimensional things into three dimensional
- Detail of the material
- Texture is an important feature of architecture
- Open spaces can be used for exhibition for an extension
- Natural lighting and ventilation
- Contextual architecture

4.4 Case Study 04: Bharat Bhavan



Fig: 32 Bharat Bhavan

Source: www.wikipedia.com

4.4.1 Project Profile:

Location: Bhopal, India.

Architect: Charles Correa

Year of Completion: 1975-1981

4.4.2 Main Functions:

- 1) Museum of Tribal Art
- 2) Library of Indian poetry
- 3) Exhibition gallery for contemporary art
- 4) Workshop for lithography and sculpture
- 5) Indoor auditorium
- 6) Residence for artist
- 7) Open air amphitheatre



Fig 33: Location of Bharat Bhavan

Source: Google Earth

4.4.3 Concept

This art center is on a gently sloping plateau overlooking the lake in Bhopal. The natural contour of the site has been used to create a series of sunken courts and terrace gardens around which a number of cultural facilities are organized. The terrace and courtyard reflect the designer's concern with progression through space- the maze or puzzle- where parts are casually revealed and the complex of internal streets act rather like a village layout. In this way the architect made the building reflect Bhopal's own organizational layout.

4.4.4 Design Consideration

The design of the complex considered the culture and the traditional pattern of the Indian villages. Apart from that in a hot humid area this complex shows its performance by the openness of the functional spaces. As the site sloped toward the river the whole complex gets slanted by the steps according to it.

4.4.5 Planning

The sunken court and terrace gardens cover a wide range and include a museum of tribal art, a library of Indian Poetry, galleries of contemporary art, workshop for lithography and sculptures and a studio for artist-in-residence. Bharat bhavan houses a full-fledged theater repertoire company and extension facilities for the performing arts including the indoor auditorium and the open air amphitheater overlooking the lake.

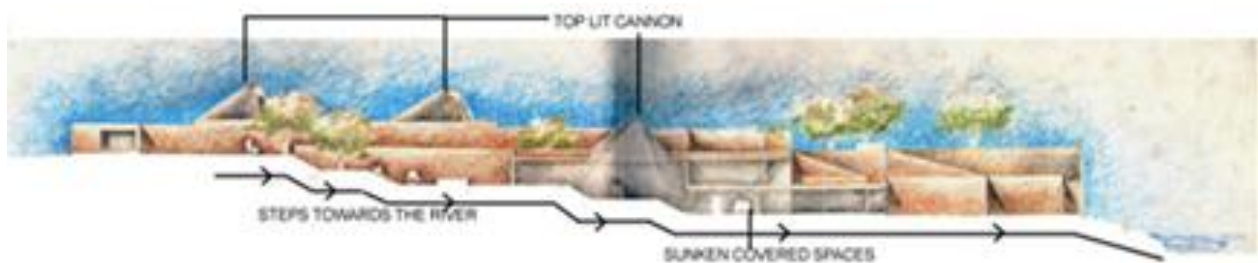


Fig 34: Section of Bharat Bhavan

Source: Charles Correa, Architect in India by Hassan Uddin Khan

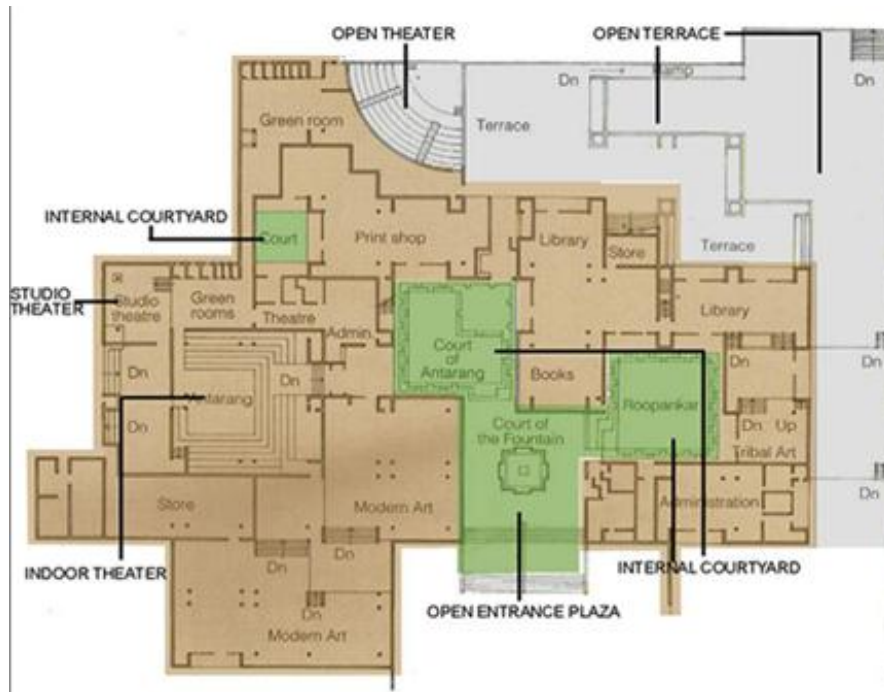


Fig 35: Plan of Bharat Bhavan

Source: Charles Correa, Architect in India by Hassan Uddin Khan

The top lit 'cannon' provides lighting and ventilation to the sunken covered spaces. In addition to these, the opening to the courtyards and terraces have two sets of shutters- the inner one consisting of a combination of glass and operable panels for ventilation, for the outer ones with large wooden doors which can be closed for security.

The open to sky pathway is constructed around three courtyards from which one enters the various facilities. These feelings to open space are an essential part for the people to experience the Bharat Bhavan. Progressing through the terrace gardens and courtyards one comes across the exhibition spaces, workshops and dance theaters, in an easy and casual manner, making them accessible to the people.

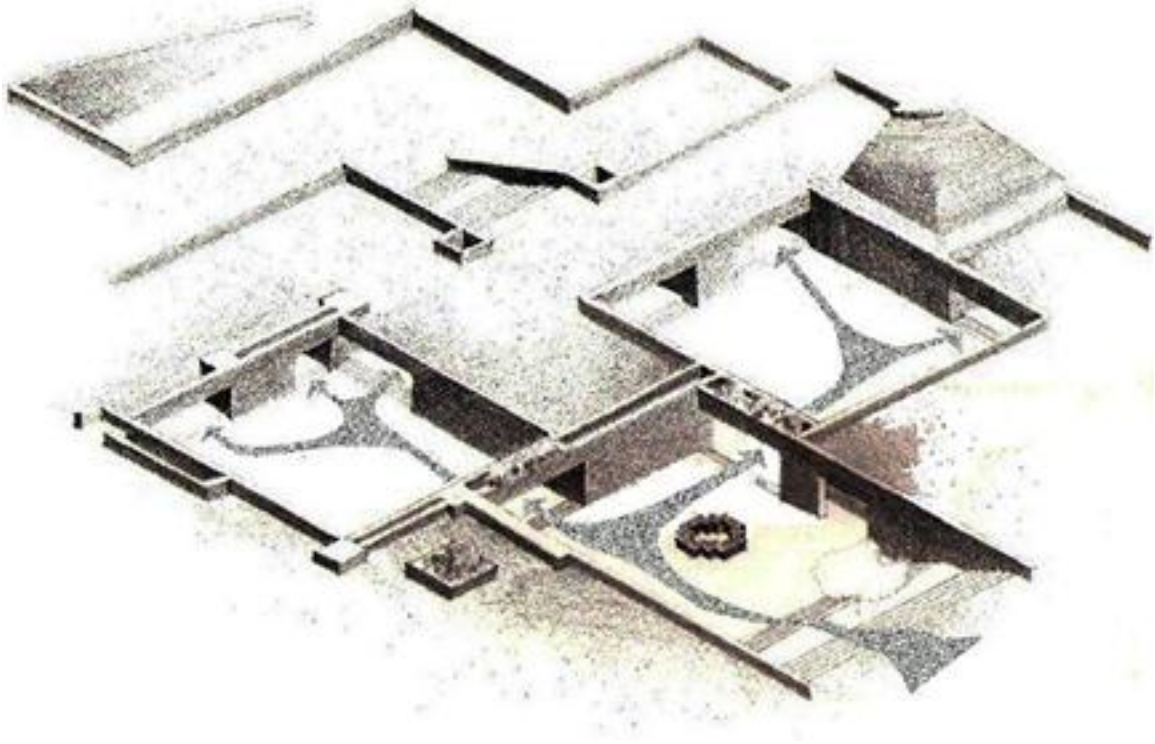


Fig 36: View of Bharat Bhavan

Source: Charles Correa, Architect in India by Hassan Uddin Khan

4.4.6 Internal Space Analysis

The gallery and the library spaces are surrounded by the internal courtyard. These courtyards are being used as theatres which has different name. The services are mostly placed in one side for the comfortable use of services. And these services are placed in the east so that the heat cannot become a problem for the building and the courtyards can be used properly. The open sunken terraces are facing to the south and library is being placed beside the terrace for the well lighting.

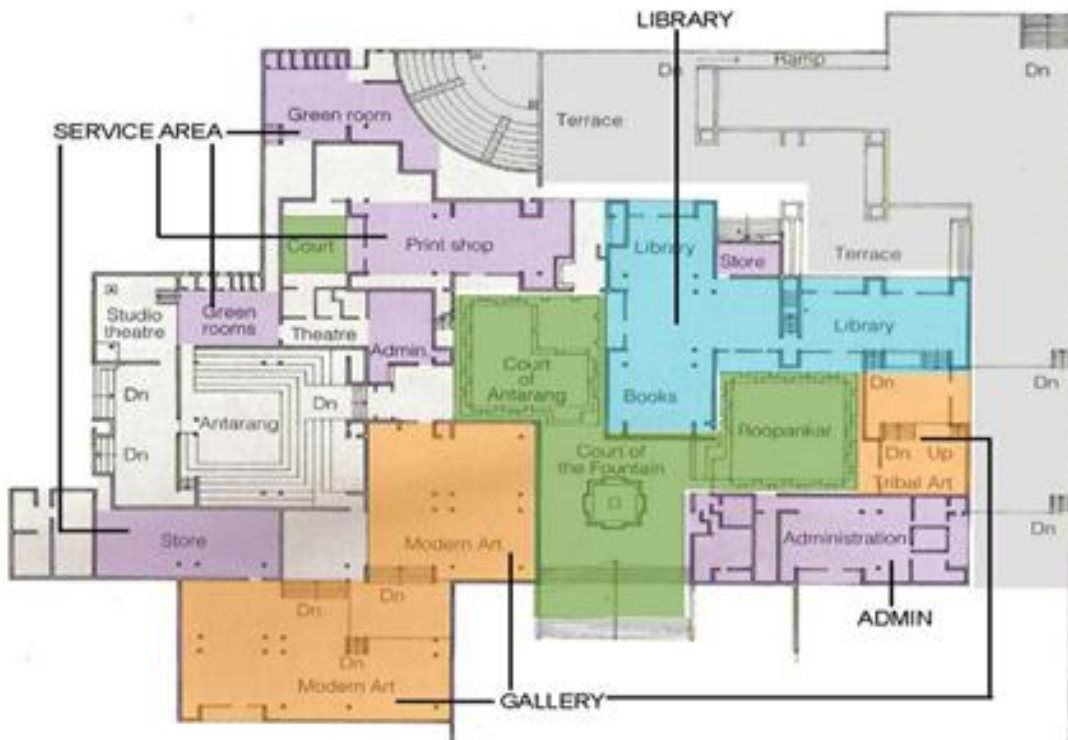


Fig 37: Plan of library area of Bharat Bhavan
 Source: Charles Correa, Architect in India by Hassan Uddin Khan



Fig 38: Interior Views
 Source: www.Hindu.com

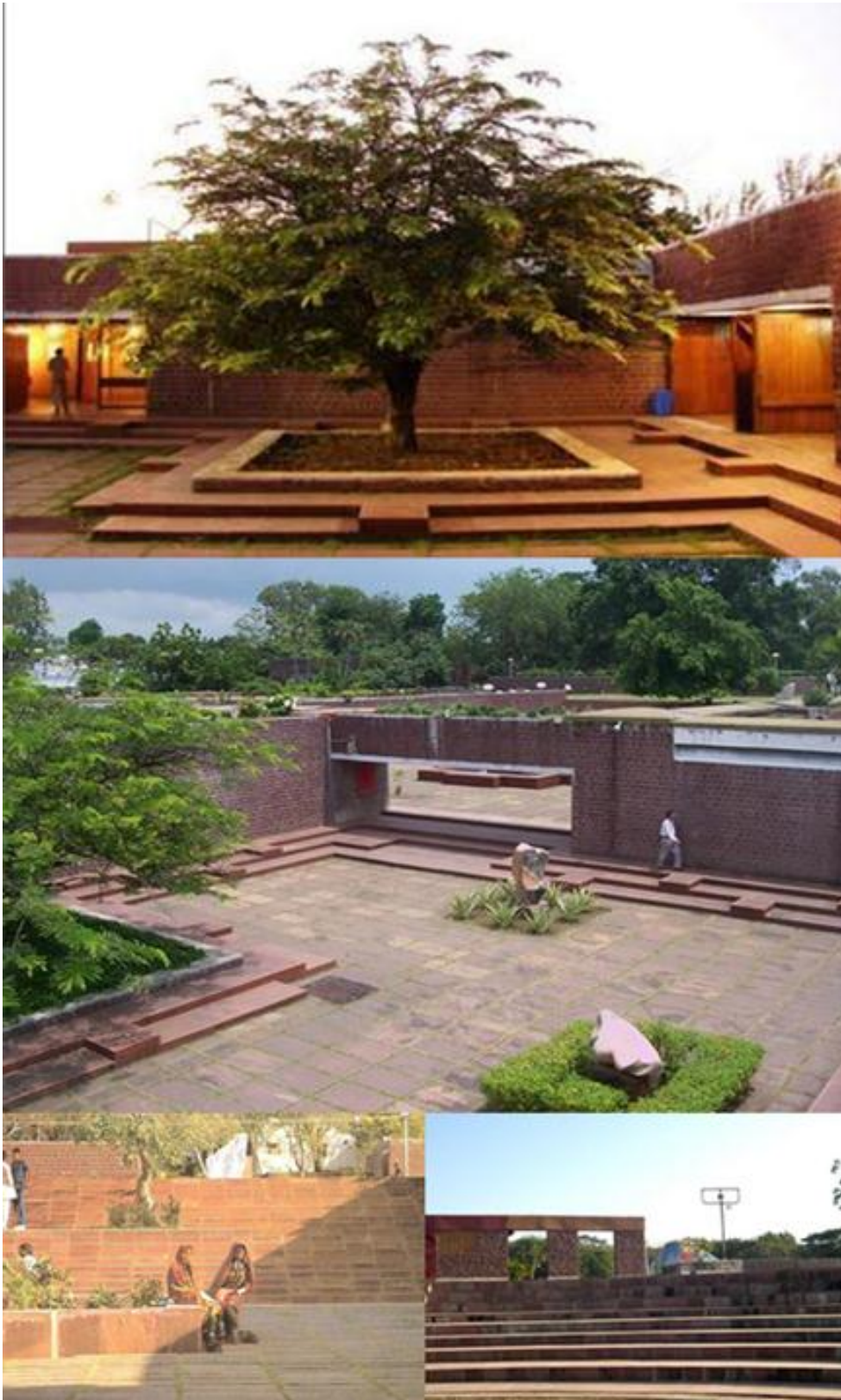


Fig 39: Views of courts
Source: www.hindu.com

4.4.7 Objectives

- A very fascinating site due to a succession of natural settings, passing through close vegetation and open spaces.
- Nature and architecture are closely linked and every visitor can experience.
- This functional compound built showing a strong respect for traditional architecture and local culture.
- The designer is very conscious about lighting and ventilation.
- Create an inside-outside transition.
- Respecting the site context.

4.5 Case Study 05: Gandhi Smarak Sangrahalaya



Fig 40: Gandhi Smarak Sangrahalaya

Source: Charles Correa, Architect in India by Hassan Uddin Khan

4.5.1 Project Profile

Location: Ahmadabad, India

Architect: Charles Correa

Year: 1958 – 1963

4.5.2 Main Functions:

- i. Gandhi memorial & Museum
- ii. Library
- iii. Prayer area
- iv. Office area



Fig 41: Location of Gandhi Smarak Sangrahalaya
Source: Google Earth

4.5.3 Concept

In this complex the designer demonstrates the uncompromising execution of an idea as a powerful statement of form- an approach where single overriding concepts become the major organizing element of the structure.

4.5.4 Design consideration

The hot and humid tropical climate, demanding ventilation and protection against sun and monsoon rains, has cubical open volumes and efficiently sheltered. The roof structure and the louvers are definitely ensures a comfortable inside-outside transition, in addition of internal courtyard adding on proper lighting for the memorial museum space.

4.5.5 Planning

These elements are grouped in a consciously asymmetric manner to be analogous to the Indian village with its pathways and seemingly randomly placed buildings and its meeting points, in this instance the central water court. The initial constructed on 51 modular units. Some of the units are enclosed by walls. The exhibition spaces created counterpointed by areas for rest where the visitor can sit and meditate.



Fig 42: Plan

Source: www.byindia.net

4.5.6 Sectional Analysis



Fig 43: Section Through Building

Source: www.byindia.net

The above section shows channels for carrying rainwater and for adding new units. Since the collection will, by its very nature, be augmented from time to time, the Sangrahalaya is a “living” structure which can grow and modulate.

4.5.7 Structural System

In order to reflect the simplicity of Gandhi’s life and the incremental nature of a living institution the designer used modular units 6m x 6m of reinforced cement concrete connecting space, both open and covered, allowing for eventual expansion.

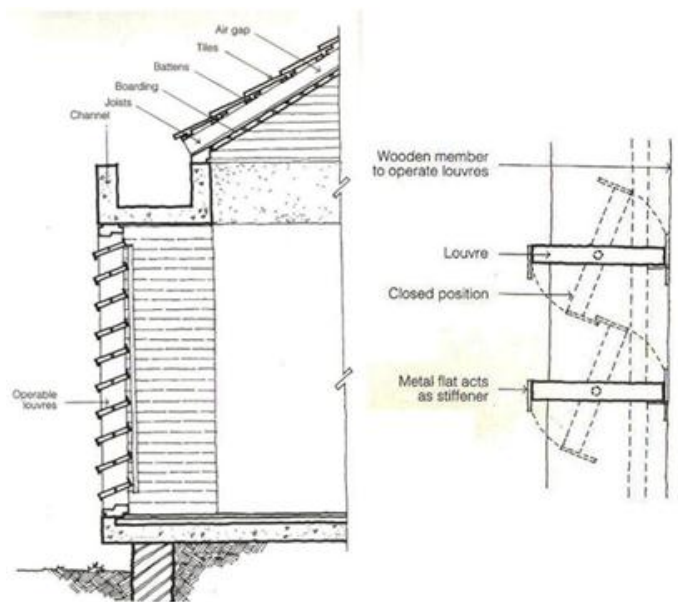


Figure 44 : Structural detail

Source: Charles Correa, Architect in India by Hassan Uddin Khan

The modular simplicity of the structure is continued in the use of basic materials:

- Stone floors
- Brick walls
- Wooden doors
- Louvered windows devoid of glass
- Tiled roof




4.5.8 Space Analysis

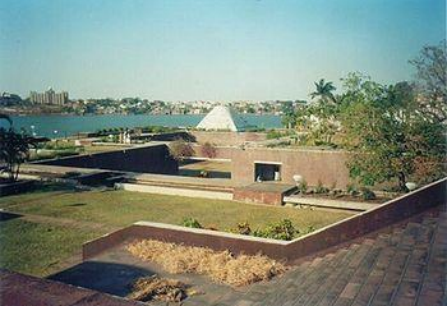



Fig 45 : Views of structure

Source: www.byindia.net

4.6 Overview of Case Studies

Pictures	Projects	Objectives
	<ul style="list-style-type: none"> • Sanskriti Kendra • Location: Anandgram, Delhi, India • Architect: UppalGhosh and Associates 	<ul style="list-style-type: none"> • Rural architecture • Space quality • Courtyard spaces • Indoor, outdoor relationship
	<ul style="list-style-type: none"> • Shantiniketon • Location: Bolpur town, Birbhum District, West Bengal, India. • Rabindranath Tagore. 	<ul style="list-style-type: none"> • To understand the Tagore Philosophy on education. • How to learn through nature. • Interaction between students and teachers.
	<ul style="list-style-type: none"> • Kala Academy • Location: Panaji, Goa, India. • Architect: Charles Correa 	<ul style="list-style-type: none"> • Natural lighting • Indoor spaces • Ventilation • Contextual architecture

Pictures	Projects	Objectives
	<ul style="list-style-type: none"> • Bharat Bhaban • Location: Bhopal, India. • Architect: Charles Correa 	<ul style="list-style-type: none"> • Designing in a rural context. • Relation between green space and indoor functional space. • Functional relation of a public complex • Material used in rural context architecture
	<ul style="list-style-type: none"> • Gandhi smarakaSangrahalaya, Sabarmati, Ashram. • Location: Ahmedabad, India. • Architect: Charles Correa. 	<ul style="list-style-type: none"> • Transformation of a great character's thought into architecture. • Understanding of a rural architecture. • Relation between functional spaces.

CHAPTER_05

COMPLEX ADMINISTRATION

An administration office is required to be constructed on the campus for the supervision and control of the cultural complex. It is designed to accommodate professionals such as the director who not only administers the management of the complex but also the institution within the complex. This office also contains the accounts room required both by the auditorium, exhibition gallery and also the institution

Lobby

- Reception and lobby 800

Office for managing director and deputy director

- Director room and toilet (314'+64')= 378
- Deputy directors room and toilet (314'+64')= 378
- Meeting room 700
- Space for P.A and lobby to director's office 300

Staff Offices and services

- Management office (for 4 persons) 784
- Accountant (for 2 persons) 527
- Staff room (for 6 persons) 500
- Toilet (Ladies and gents) 418
- Projection room 250

Sub Total	4785
Circulation 30%	1436

Total	6220 sqft
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MUSEUM (EXSISTING BUILDING)

A use is administered into the existing structure the holds the essence of the site to keep the building alive and it is used to display souvenirs that act as remembrances of Rabindranath Tagore and also his wife Mrinalini Devi. It is expected to function as a mini museum which was also suggested in the program given by the authority

Exhibiting Space	600
------------------	-----

Sub Total	600
Circulation 30%	180

Total	780 sqft
--------------	-----------------

AUDITORIUM

The cultural institute in a way is to host the cultural events that usually take place during seasonal occasions or traditional events. It however primarily is to hold events that are dedicated to Rabindranath Tagore. Such as those hosted during his birthdays and death anniversaries. Events as these usually constitute of dance, music and theatrical performances dedicated to Rabindranath. In order to house such performances an enclosed auditorium is required by the program.

Entry and visiting areas

- | | |
|--|------|
| • Lobby and Lounge (for 500 people @ 2sqft/person) | 2000 |
| • Reception and inquiry (for 2 receptionists) | 300 |
| • Ticket Counter _02 | 100 |
| • Toilet (Ladies and gents) | 375 |

Administration

- | | |
|-------------------------------|-----|
| • Office room (for 1 persons) | 156 |
|-------------------------------|-----|

Production

- | | |
|-------------------------------|-----|
| • Stage and costume(workshop) | 300 |
| • Stage and costume store | 350 |
| • Chair store | 160 |

Monitoring

- | | |
|----------------------------------|-----|
| • Light and sound control | 156 |
| • Spot light booth | 300 |
| • Projection room | 145 |
| • Electrical and mechanical room | 600 |

Performance

- | | |
|---|------|
| • Stage | 1700 |
| • Wings | 1800 |
| • Backstage | 800 |
| • Seating (for 800 people @ 7.5/person) | 5500 |

Sub Total	14742
Circulation 30%	4423

Total	19164 sqft
--------------	-------------------

LIBRARY AND RESEARCH INSTITUTE

Education is light, knowledge is power. It cannot be said unless the power of knowledge can be spread to the mass people. The Library wing also is proposed to contain researchers cabins for those who intend to come stay for a few days and study in depth about the works of the great philosopher and poet.

Lobby and Office

- Reception and lobby 1170

General reading area

- Reading area for Adults 3473
- Reading area for Children 900

Book Collection

- Book receiving_03 150
- Store 100

Book Stack

- Book stacks 1500
- Catalogue 360

Audio Visual

- Audio visual room (for music and reading) 1600

Research Zone

- Research Cabins 1600

Office

- General office 270

Services

- Toilet (Ladies and gents) 800
- Toilet with lobby 400
- Check area and locker 200

Sub Total 12523

Circulation 30% 3756

Total 16280 sqft

RABINDRA INSTITUTE

Rabindranath has placed a great emphasis on education and learning and the enrichment of culture through the process. Being a cultural complex the program includes small classes held in the department of music, dance, drama, painting, sculpture and recitation.

Program

Total number of departments: 4 (Music, Painting, Sculpture, Dance and Recitation)

Academic year: 4

Max. number of Students per department per class: 20

Department of painting

Per Studio/Classroom/Workshop_20 Students

- Workshop/Class rooms/Studio (27x27x2)=1458

Department of Sculpture

Per Studio/Classroom/Workshop_20 Students

- Workshop/Class rooms/Studio (42'x42'x2)=3528

Department of Music

Per Studio/Classroom/Workshop_20 Students

- Workshop/Class rooms/Studio (27'x27'x3)=2187

Department of Dance

Per Studio/Classroom/Workshop_20 Students

- Workshop/Class rooms/Studio (42'x42'x2)=3528

Department of Recitation

Per Studio/Classroom/Workshop_20 Students

- Workshop/Class rooms/Studio (42'x42'x1)=1764

Common functions between the two departments

- Toilets (Ladies and gents) (800sqft x2)=1600
- Teacher's lounge (42'x42'x1)=1764

Sub Total	15829
Circulation 30%	4748

Total **20578 sqft**

ART GALLERY/EXHIBITION GALLERY

As mentioned before being set in a rural context the site lacks any such benefit so an exhibition gallery is added to the program which would be primarily to exhibit the works done by the Rabindra Institute but also could be rented out for exhibitions if needed.

Entry space

- Reception and lobby 795

Exhibition space

- Permanent gallery (2330x2)4660
- Temporary gallery 1180

Services

- Store 420
- Toilet 800

Sub Total	7855
Circulation 30%	2356

Total **10211 sqft**

CAFETERIA

A cafeteria is provided at site to serve the needs of visitors who visit any of the functions of the complex.

Public zone

- Dining area (for 200 people) 6797

Service zone

- Kitchen 800
- Store 750
- Toilet (Ladies and gents) 800
- Staff 200
- Counter 300

Sub Total	9647
Circulation 30%	2890

Total **12537 sqft**

GUEST HOUSE

Accommodation facilities are provided for those who come here for research or to spend their weekend here or when performers come to perform at events and stay. The rooms could also be rented out to student who come for far away for a month or so for training and need residential facilities.

Common function

• Reception(2)	1077
• Living room(5)	5800
• Dining	3888

Beds

• Double+toilet (42)	(330sqft x 42)=13860
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Services

• Caretaker's room	330
• Kitchen	435
• Store	234
• Toilet and handwash area	280

Sub Total	25904
Circulation 30%	7770

Total **33674 sqft**

AMPHITHEATER

Presence of the Mrinalini moncho already add an open amphitheatre for outdoor performances the encircle around is currently during eventful days. Thus a proposal is made for an designed amphitheatre that could be a recreation space for visitors and also an open hall for performances.

Total **119445 sqft**

CHAPTER_06

Conceptual Stage and Design Development

6.1 Justification behind the cultural complex

Since the design is to respect the philosophies of Rabindranath Tagore, it became important to read and learn about ideas of an environment and what is the importance of a cultural complex. The milestone Rabindranath, the river of knowledge has shared with the world his vast range of ideas about every aspect of life. In order to narrow down to the themes I would incorporate into the design process a few of his lines from different poetries of his were brought to focus along with his ideas of an educational hub as seen in his concept of Shantiniketon.

There are a few lines of Rabindranath that helped assess the project and the validity of such a program. They are given below.

চিত্ত যেথায় হয় শূন্য, উচ্চ যেথা শির, জ্ঞান যেথা মুক্ত, যেথা গৃহের প্রাচীর আপন প্রাঙ্গণতলে
বসুধার রেখা নেই খণ্ড ক্ষুদ্র করি। যেথা বাক্য হৃদয়ের উৎস্যমুখ হতে উচ্ছ্বসিয়া উঠে।
নির্বীরিত স্রোতে দেশে, দিশে দিশে কর্মধারা ধায়। অজস্র সহস্র চলিতার্থ তাই।

Here he talks about a consciousness that is devoid of fear and doesn't bend low in front of adverse circumstances, a knowledge that is free from any kind of influence. Such a sharing of knowledge occurs where there are no barriers, no hypocrisy, whatever is in one's heart is what comes out of his mouth. Such an environment gives rise to activity in every corner and currents of action flourish in the society and people involve in positive form of work.

Reading this we can think of a free environment where knowledge and love for the country could be practiced and a place that would encourage activity that come to the benefit of the society. A cultural centre is capable of producing such an environment.

“জীবনে জীবনযোগ করা না হলে কৃত্রিম পণ্যে ব্যর্থ হয় গানের পসরা”

In another instance he has said if life doesn't add to life it results to be wasted in the materialistic attractions of the world and culture is slowly lost.

This further validates the need to a cultural complex.

6.2 Concept development of the Project

Stage two involved deriving a core concept for developing the masterplan. Being set in a rural setting the surroundings of the site are basically green. One statement by Rabindranath has made a mark that was intended to be held as the core concept of the project and that was:

“সীমা চায় অসীমের মাঝে হারা, অসীম চায় সীমার নিবিড় সঙ্গ”

It could be interpreted “Shima”(centripetal force) wants to blend within the “Asim”(centrifugal force) and that “Asim” (centrifugal force) wants to come in close contact with “Shima”(centripetal force). If we think of it from an architectural point of view it talks about form and formlessness. In philosophical terms, it talks about the tangible and the intangible.



There could be numerous interpretations to this. The way it is incorporated in the project is by considering nature to be the “Asim”, the infinite that surrounds the site and the expected built form that is to be created to be the “Shima”. Thus the constant coexistence of the two should be reflected in the project.

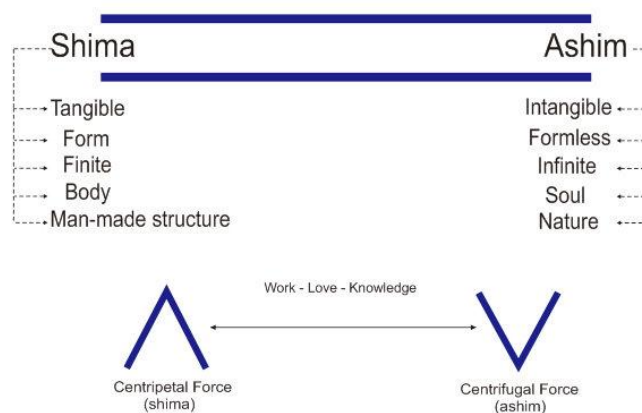


Fig 46: Diagram shows analysis of Shima and shim into other parameters.

6.3 Design Considerations

Nature is formless and when the edge of building become less geometrically than it should a formlessness impact occurs visually through disposition of Spaces and combination of routes .

– (Architect Steven hall , project consideration School of art and history , Iowa)

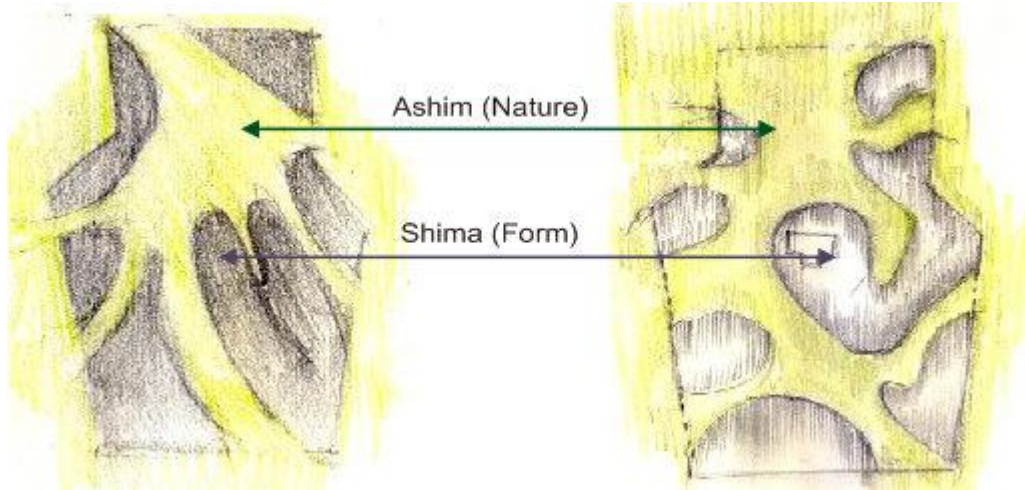


Fig 47: The conceptual sketches show fusing of Shima (Form-- Built-up area) with the Ashim (Formless--Nature,green)

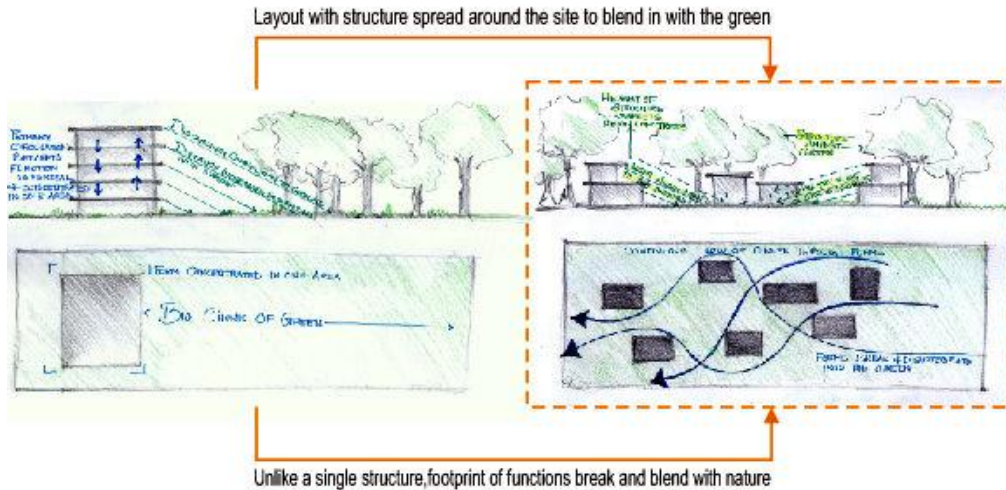


Fig 48: The conceptual sketches of layout pattern.

Reducing footprint and stacking functions would provide undisturbed large chunk of green but the desired experience as one travels from one function to another would not be like as desired thus spreading out the footprint helps create strolling space among functions and enhance the experience of green.

6.4 Developing the form

Based on the study and analysis long extended planes that extend out of the form to relate to the horizon and reduce the impact of edges and produce interaction spaces are used. Large veranda's that result act as a secondary source of learning and interacting space.

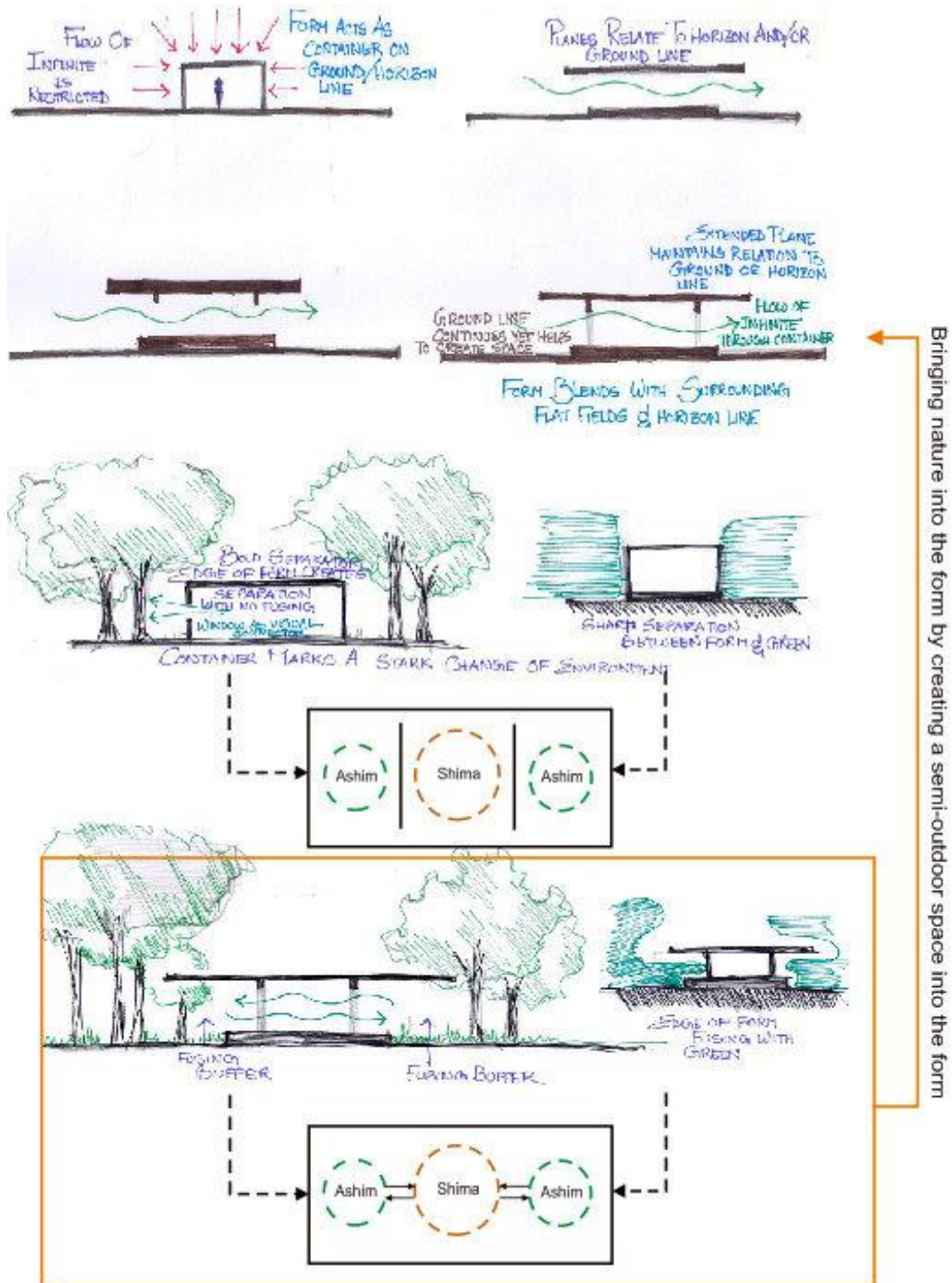
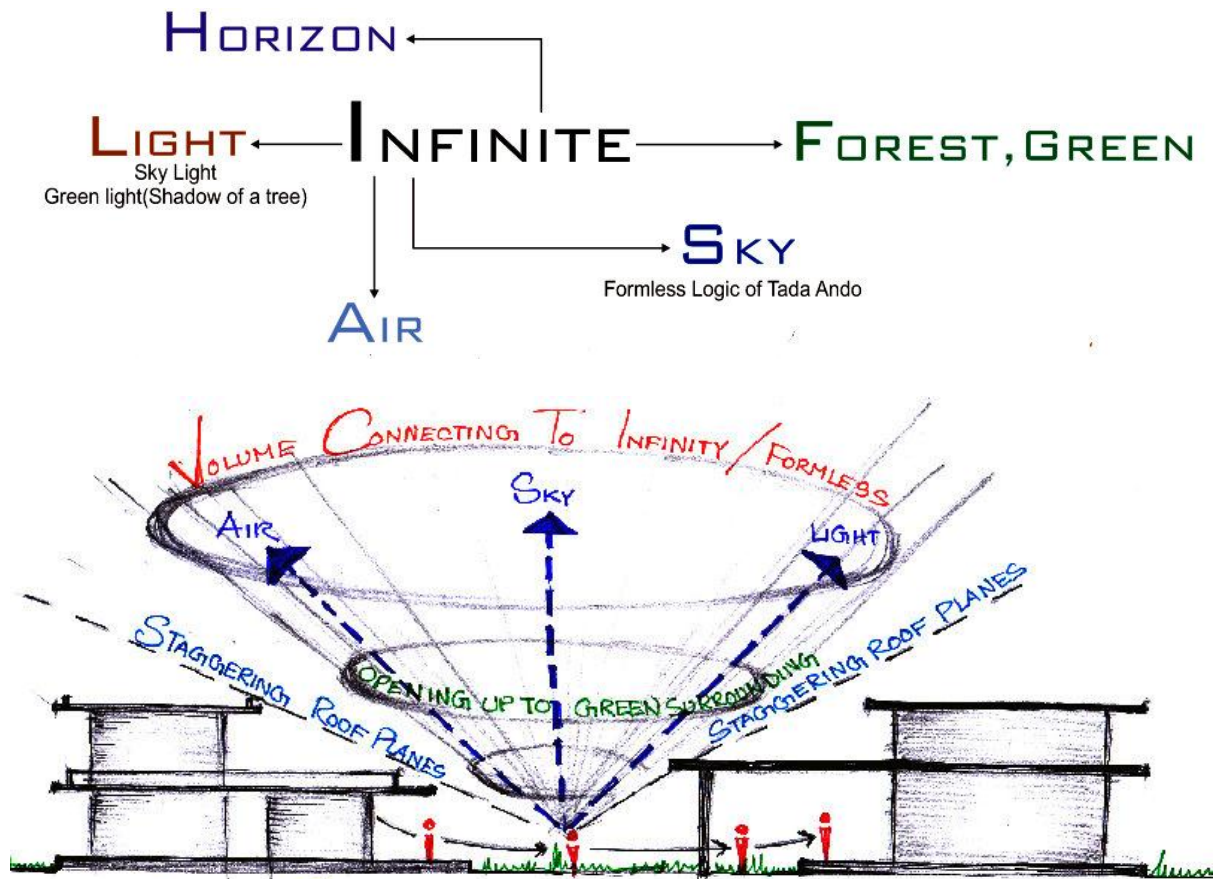


Fig 49: Developing the form



ADJACENT BUILT FORMS ALLOW A JOURNEY FROM THE FINITE (CONTAINER, ROOM) TO THE SEMI FINITE OR FUSER (VERANDA) AND THEN TO THE INFINITE (OPEN SPACE, GREEN, SKY) CONE OF INFINITE FORMS AMONG TRIO ADJACENT BLOCKS WHERE ONE CONNECTS WITH THE ELEMENTS OF THE INFINITE GREEN, SKY, WIND, LIGHT

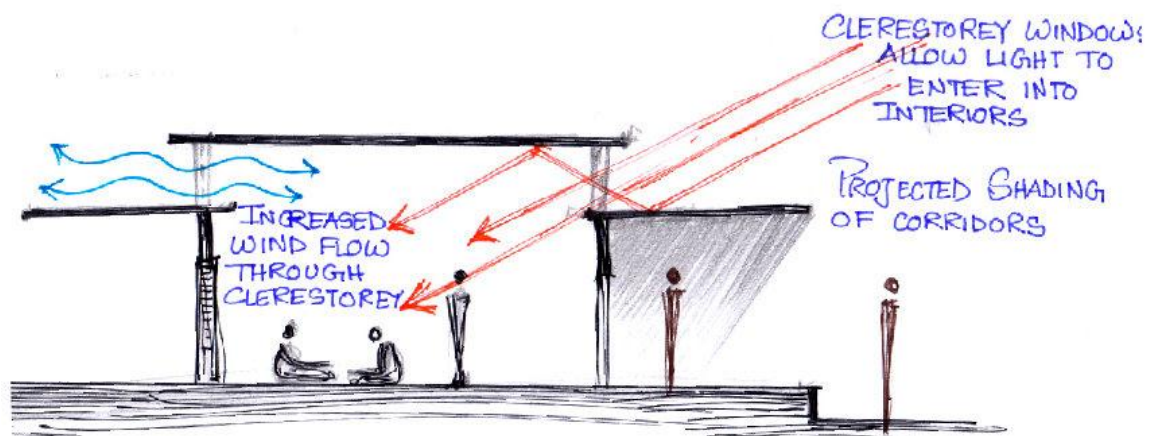


Fig 50: Parameters that helps associating with the infinite and incorporating it in design

In an attempt to blend in with the surrounding trees and also keeping in mind to minimize the impact of edges, the form of the structures are attempted to be in horizontal layers just like those of branches of trees.

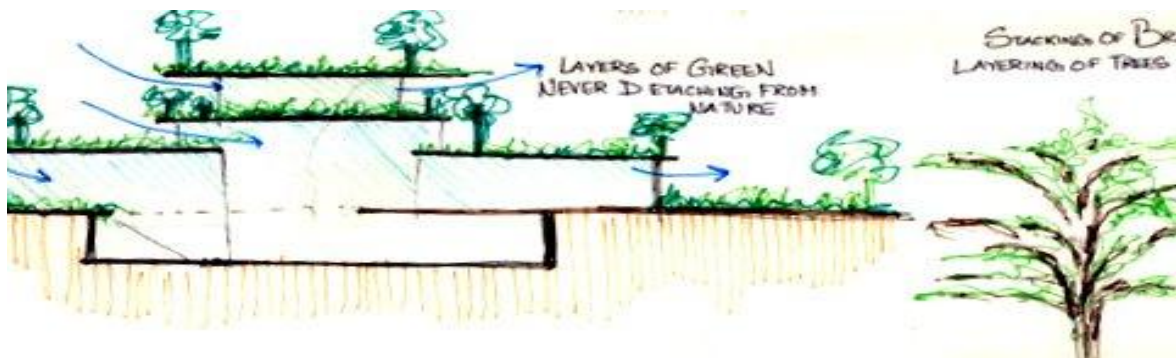


Fig 51: Sketch shows the idea of working with planes at multilayers deriving it from the branches of trees with clear openings in the north south directions so only horizontal planes emphasize

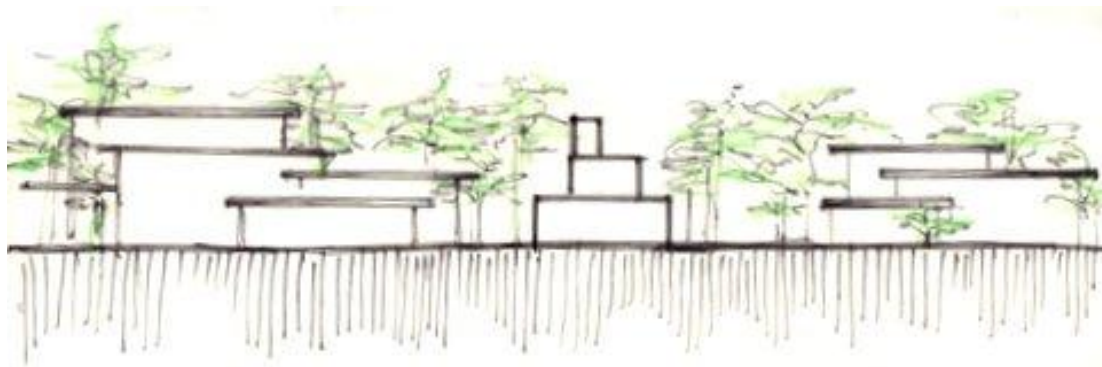


Fig 52: Sketch shows how a single storey can be split into layer to create the impact of layers

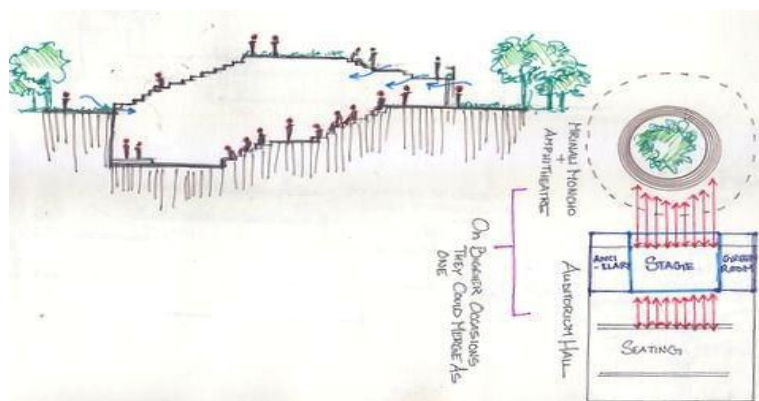


Fig 53: Sketch shows concept of submerging the amphitheatre into the ground to make its height relatable to the structure in its surrounding and allowing it to blend in.

Referring to the elevation of the structure

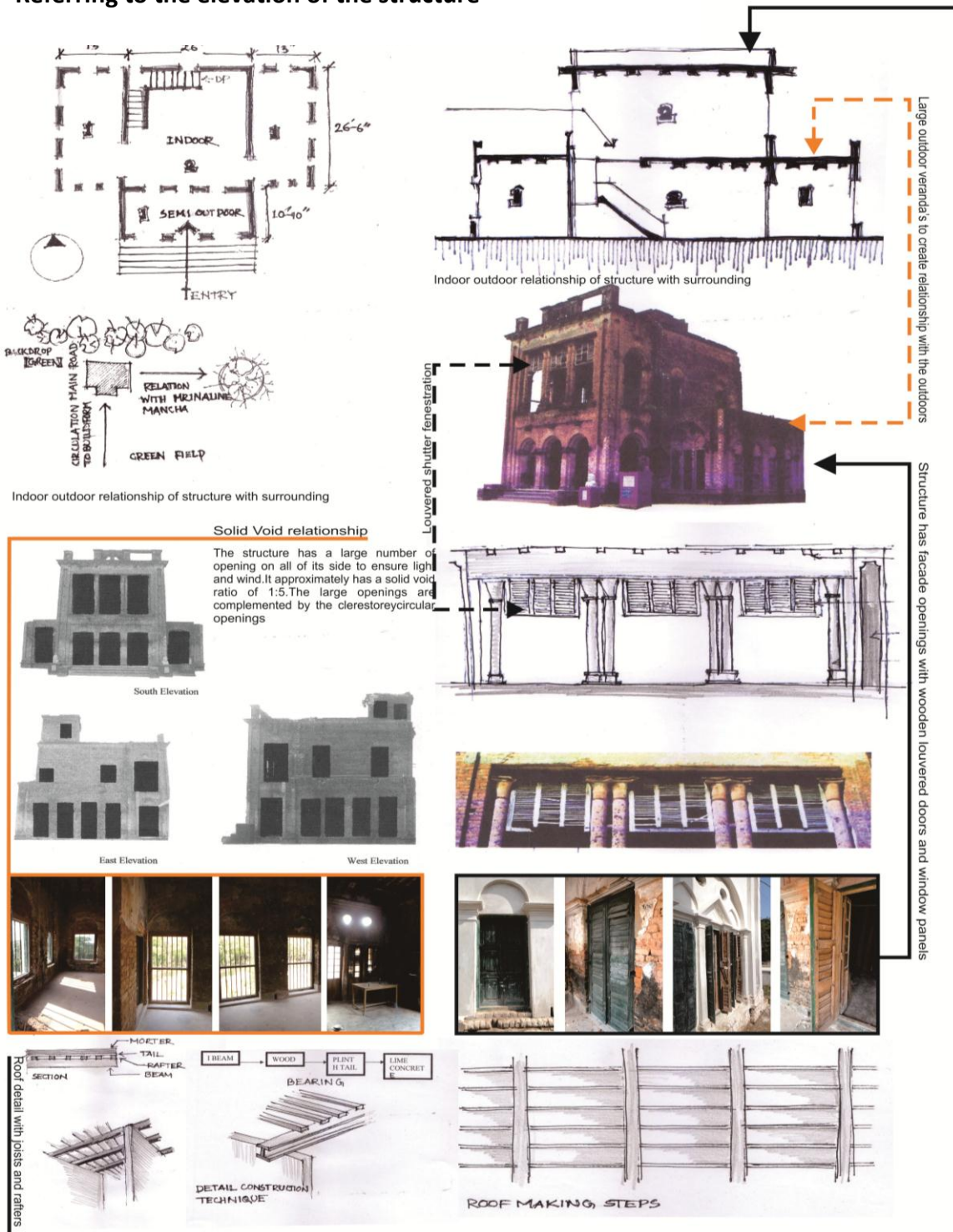


Fig 54: Study of the existing structure that helped design

From the existing structure it is learnt that the openings are in large numbers and proportions to ensure ventilation and light. Also a large use of wooden shutters is visible. The design of the complex thus tries to incorporate this aspect and use wooden shutters and folded doors.

6.5 Conceptual development of individual function and spaces

The second phase of the design development involved understanding Rabindranath's ideas about education and the schooling system in order to realise the kind of environment that needs to be created for the institutional section of the cultural complex.

"The main theme of the educational system is that, there should be a social environment where students perform and develop their sense of close contact with nature and received his or her education that integrated his with universal nature"-A poet's school.

He also said,

"Education is not different from the society and the nature of education is closely related with the nation and the direction of the society we live in and the nature of the society is the primary condition of our educational rule."

"The main concept of human society is the unity of mankind and the civilization means the practice of unifying mankind"-Rabindranath Tagore.

In relating to Shantiniketon he said,

"...therefore I consider it as a part of education for my boys to let them fully realise that they are in a scheme where trees are a substantial fact not merely generating chlorophyll and taking carbon from the air, but are living trees."-Rabindranath Tagore.

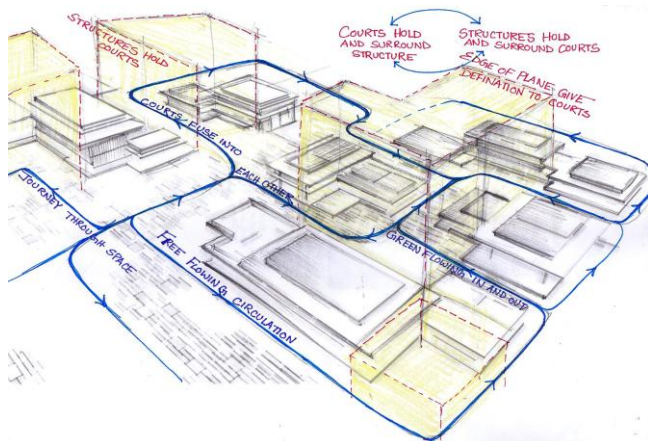
"the soles of children's feet should not be deprived of their education, provided for them by nature, free of cost." -Rabindranath Tagore.



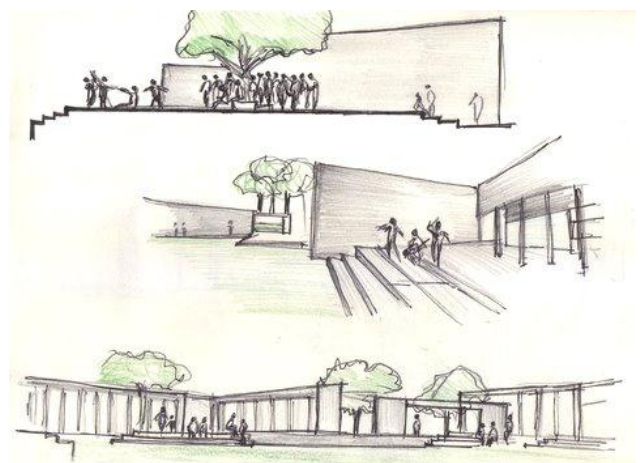
Fig 55: Indoor-Outdoor spaces that encourages association and also a scope to coming in contact with nature

Based on Tagore’s philosophies and his ideas about education and space a few factors must be kept in mind:

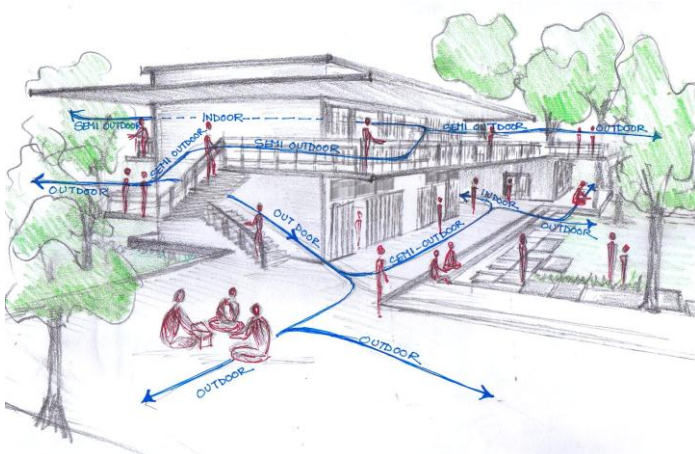
- Continuous indoor outdoor spaces (incorporation of nature)
- A strong relationship between indoor-outdoor and semi-outdoor spaces.
- Outdoor learning spaces (learning from nature)
- Continuous flow of spaces whether that be of courts or indoor spaces, Fluidity.
- Emphasis on flow of light and wind
- Respecting context



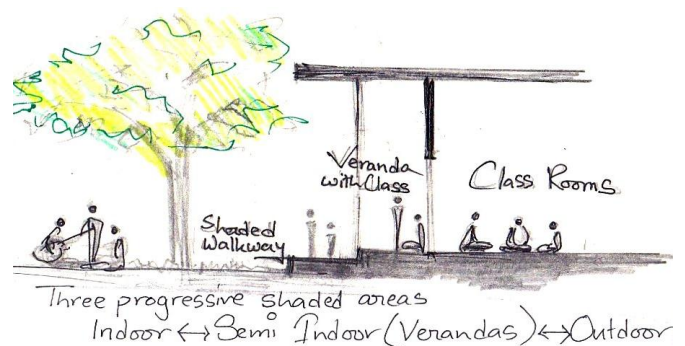
Continuous flow of spaces and court



Outdoor learning spaces and event spaces



Continuous flow of indoor outdoor spaces



Strong relationship between indoor outdoor

Fig 56: Study sketches based on Tagore’s idea of space

6.6 Conceptual development for Landscape

Next was thinking of the landscape and that required looking back into the words of Rabindranath Tagore.

এই তো পায়ে চলার পথ। এসেছে বনের মধ্যে দিয়ে মাঠে, মাঠের মধ্যে দিয়ে নদীর ধারে, খেয়াঘাটের পাশে বটগাছ তলায়। তারপরে ওপারের ভাঙ্গা ঘাট থেকে বঁকে চলে গেছে গ্রামের মধ্যে, তারপরে কৃষি ক্ষেতের ধার দিয়ে কই পৌঁছেছে জানি না।

এই পথে কত মানুষ কেউ বা আমার পাশ দিয়ে চলে গেছে, কেউ বা সঙ্গ নিয়েছে, কাউকে বা দূর থেকে দেখা গেল কারও বা ঘোমটা আছে, কারও বা নেই, কেউ বা জল ভরতে চলেছে, কেউ বা জল নিয়ে ফিরে এলো।

Here he shares his experience about the walkways of a village and the experiences that come along the way, the encounters that one makes.

On another occasion he said similarly,

“I have often wondered at the reasonable Zigzag of footpaths across perfectly plain fields. It becomes all the more perplexing when you consider that a footpath is not made by the caprice of one individual. Unless most of the walkers possessed exactly the same eccentricity such obviously inconvenient passages could not have been made.”-Rabindranath Tagore.

Thus basing of these words of his, a decision was made that instead of a solid paved walkway a free flowing mixed paved pathway would match with the essence of the space. A zigzagging route formed by the obvious selection of routes by the users. Allowing soft and hard paved would also allow a flow of green and prevent it from losing connection.

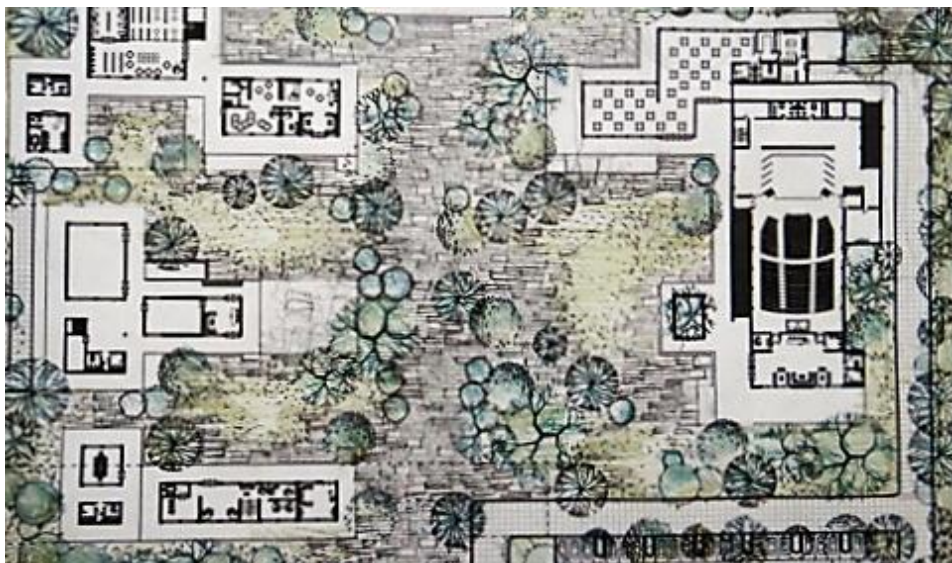


Fig 57: Shows a section of the landscape using mixed paved (soft and hard paved) and allowing green to flow.



Treatment on the north zone, creating a flavor of the forest



Treatment of boundary wall

Fig 58: Sketches shows ideas about landscape treatment

6.7 Design development Phases

Stage_01: The Module of the existing structure was held as a reference to create a standard size for the classrooms and its multiples used for different other spaces.

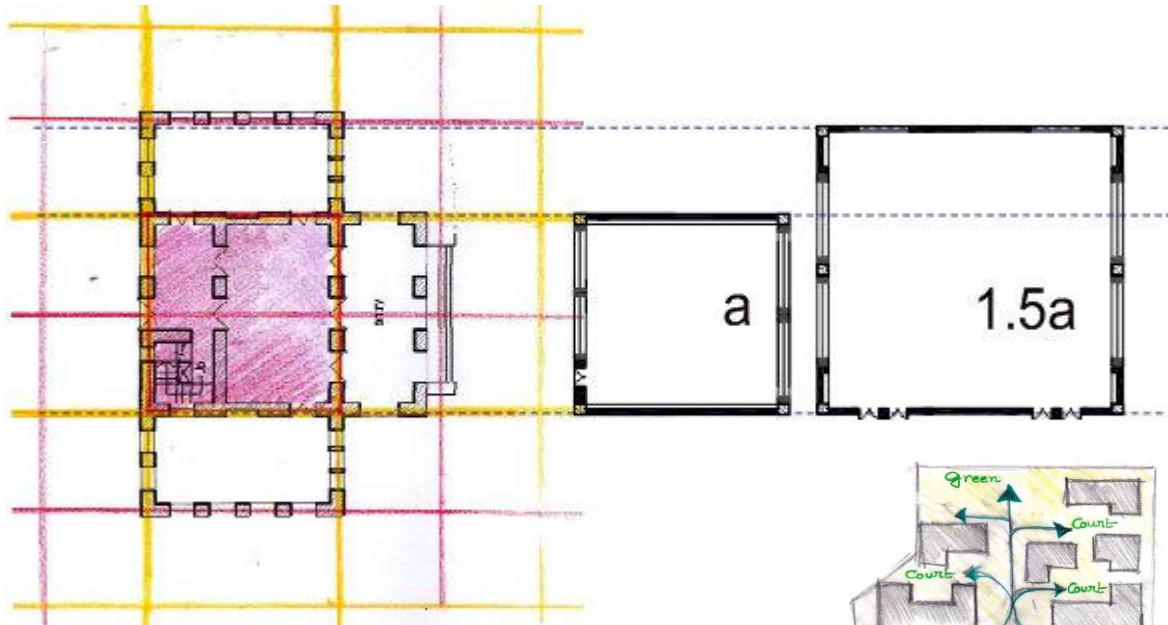


Fig 59: Deriving a module for the structures

Stage_02: Developing the idea that as one enters site to see the structure he meets a number of courts that invite him to the other functions.

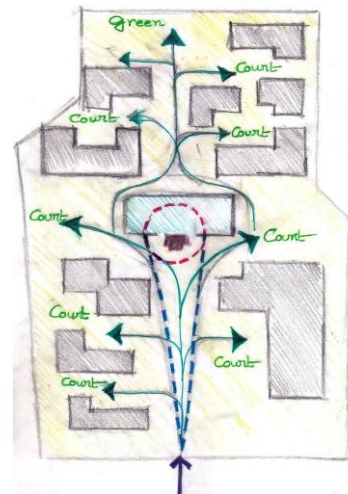
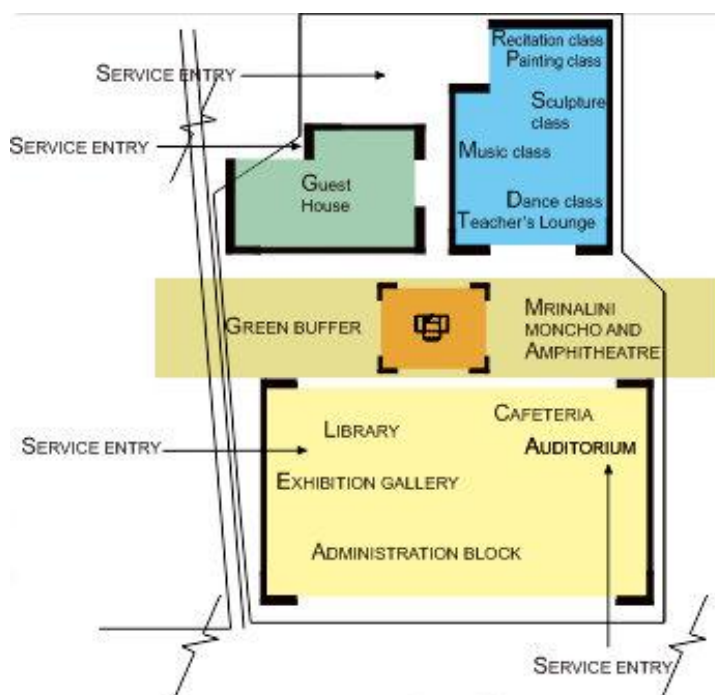


Fig 60: Layout planning



Stage_03: Zoning of the site with functions of mass gathering after the entry followed by a buffer around the existing structure. The guest house and the institution are placed further closer to the chunk of green.

Fig 61: Zoning on site

Stage_04: Creating a bubble diagram for the proposed functions.

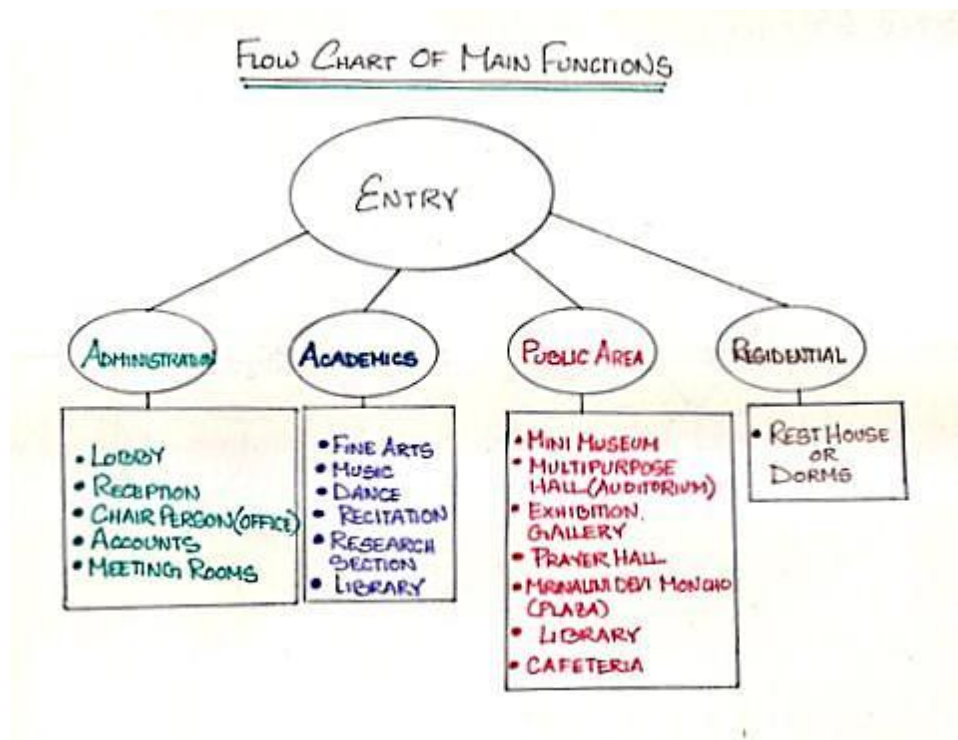


Fig 62: Fundamental zoning of the main functions

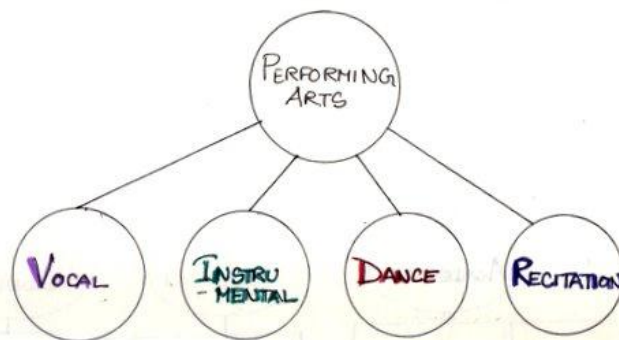


Fig 63: Proposed sections of School

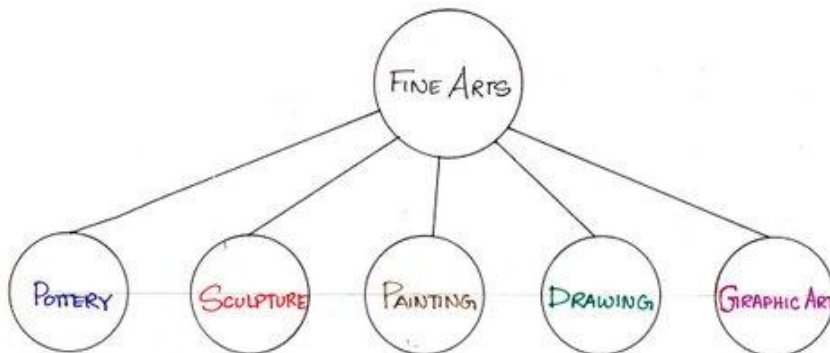


Fig 64: Proposed sections of School

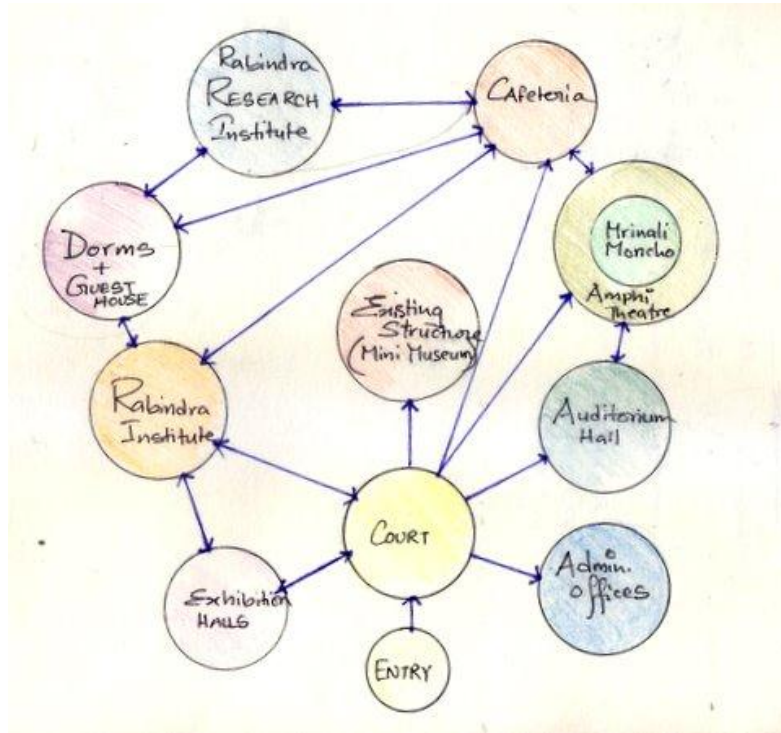


Fig 65 : Zoning of main functions on site

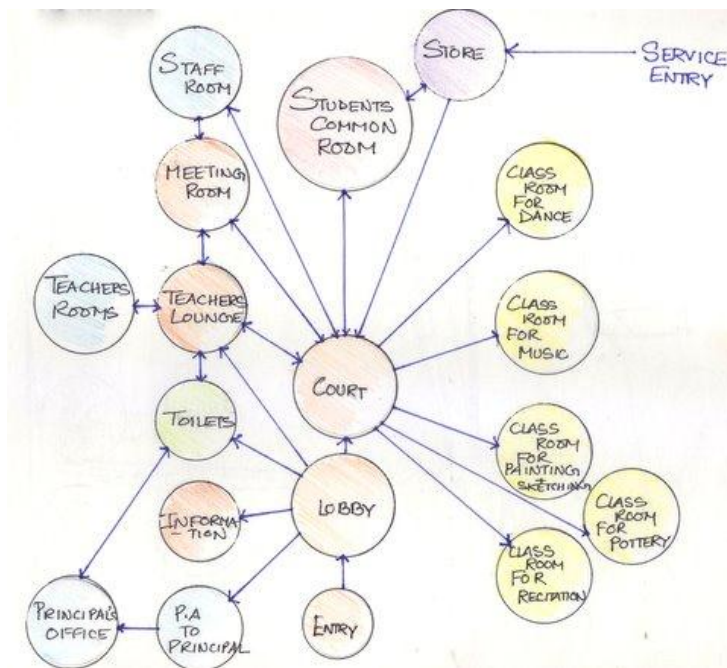


Fig 66: Bubble diagram for the Rabindra Institute

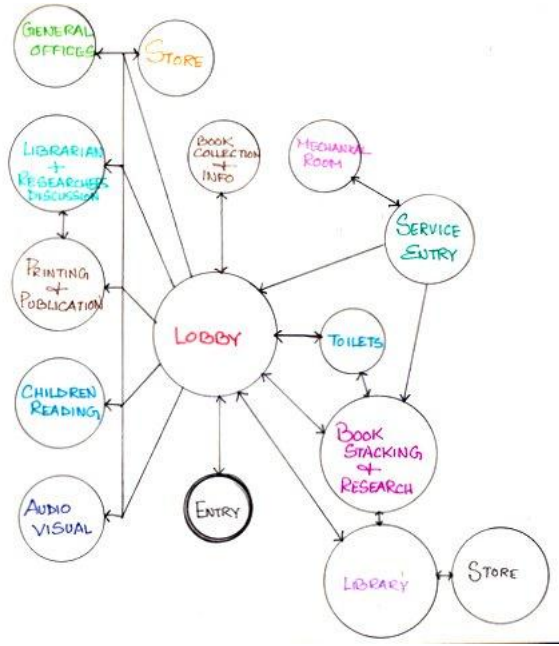


Fig67: Schematic zoning of Library and Research Institute

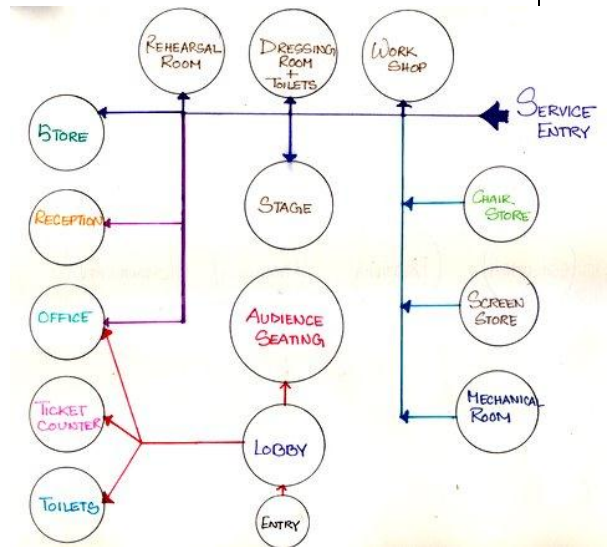


Fig 68: Schematic zoning of Auditorium

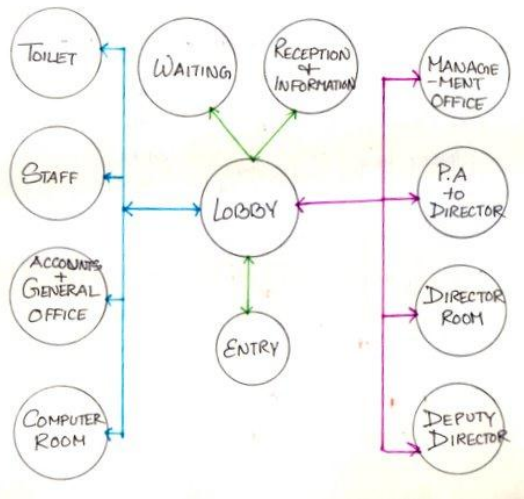


Fig 69: Schematic Zoning of administration building.

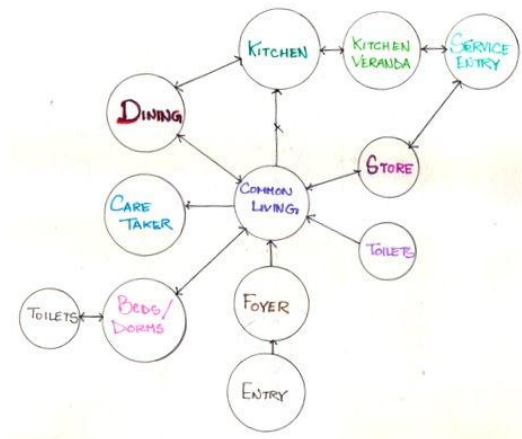


Fig 70: Schematic zoning of guesthouse

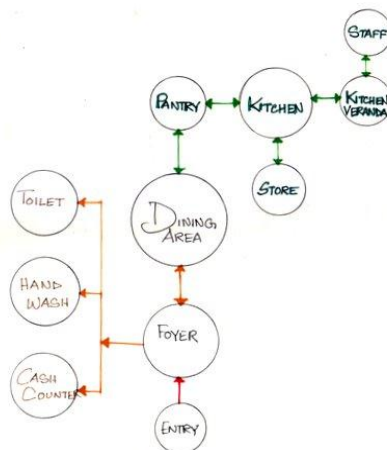
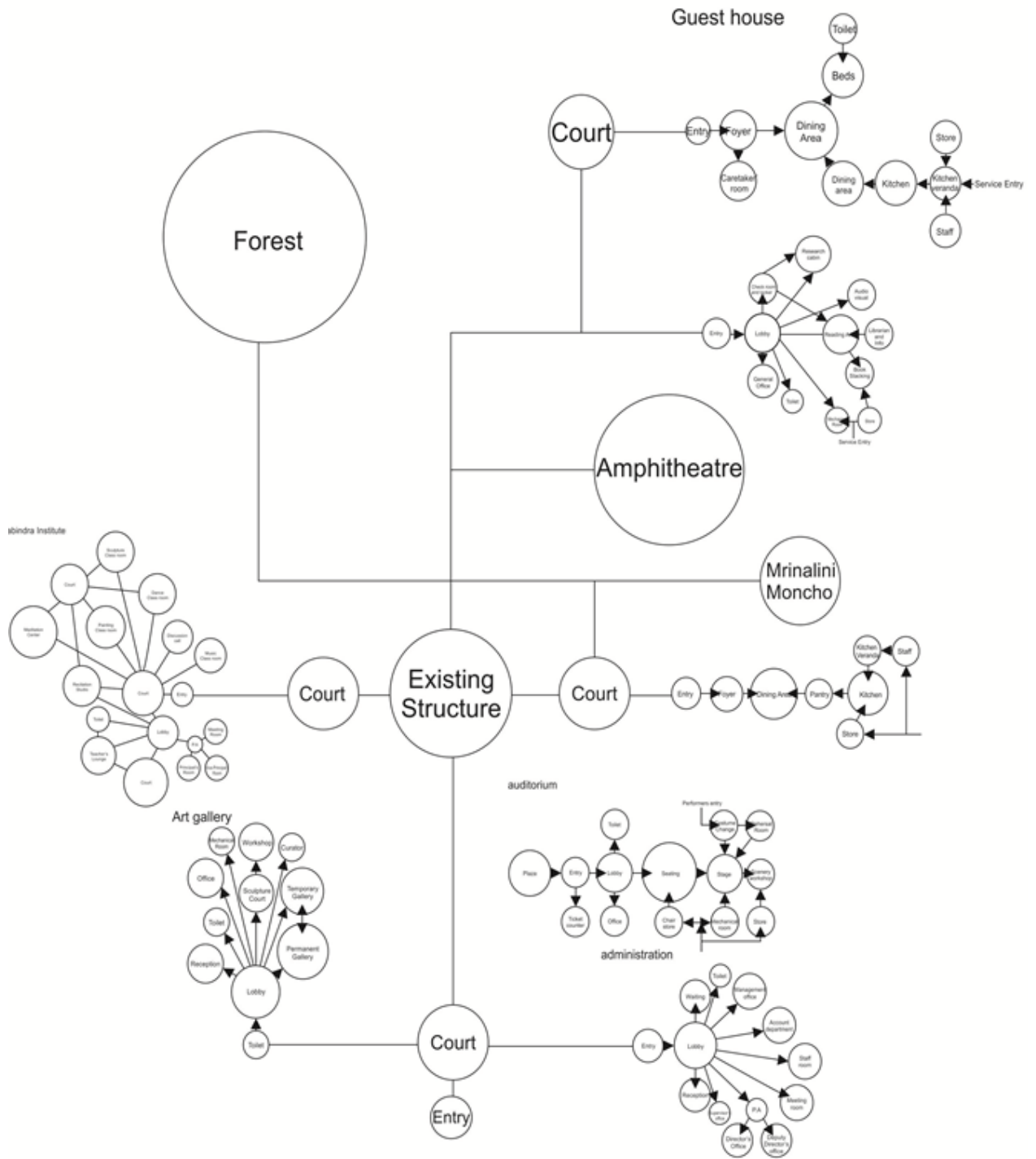


Fig 71: Schematic zoning of cafeteria



Stage_05: It involved trying out different layouts based on the zoning studied

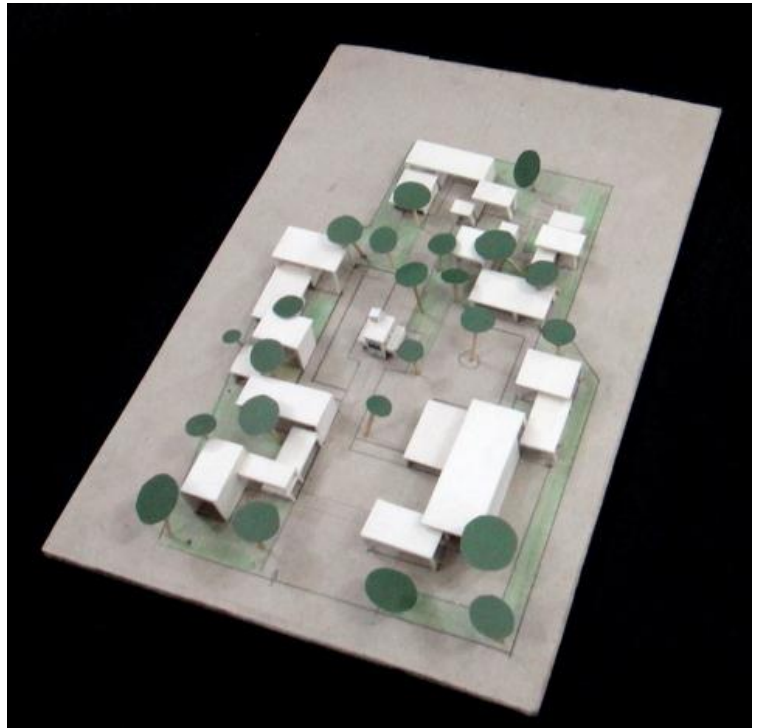
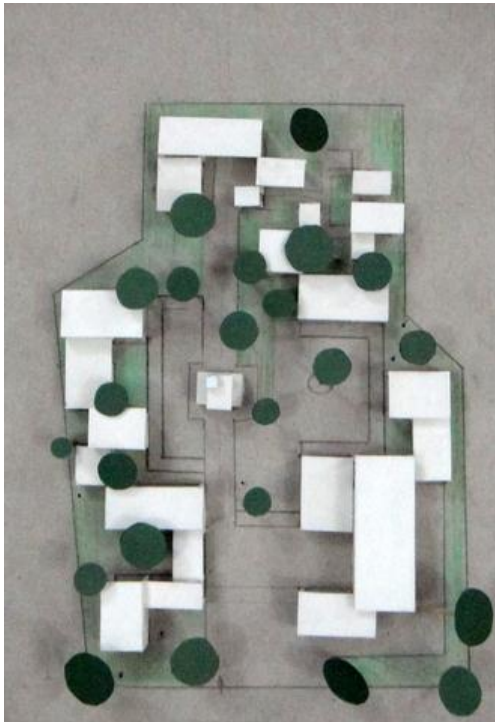


Fig 73: Phase one of layout pattern involved connect buildings



Fig 74: Phase two involved connect structure only amidst same functions. Separate functions being separately placed. Amphitheatre considered



Fig 75:Phase three involved trying to work with lines and planes dominating and connecting structures and breaking the axis of the institutional zone.

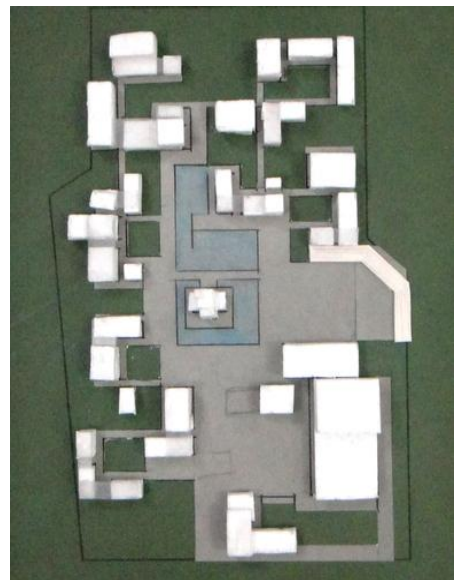


Fig 76 :Phase 4,5,6 involved trying out different patterns of clusters

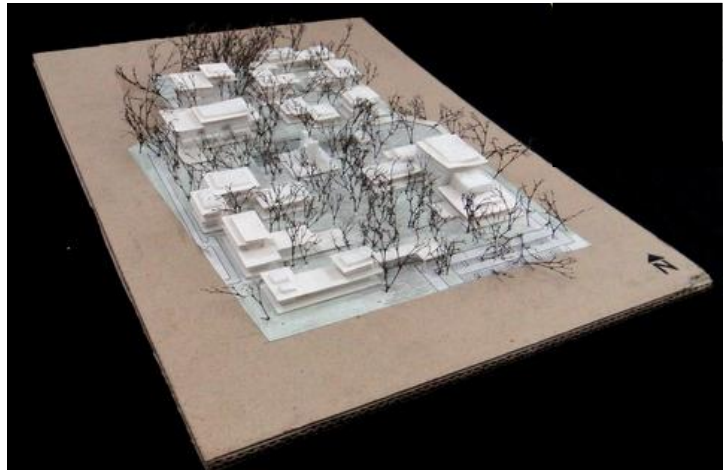
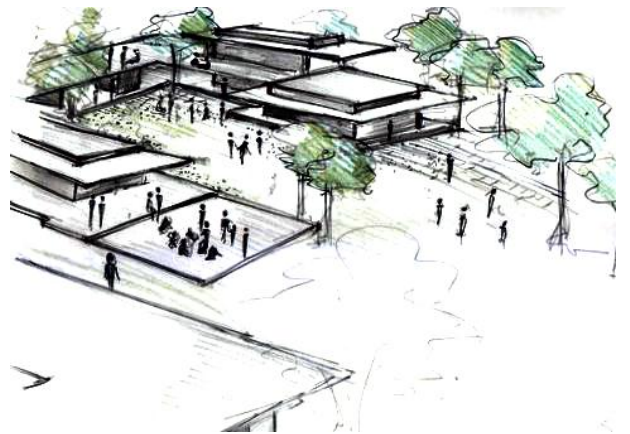
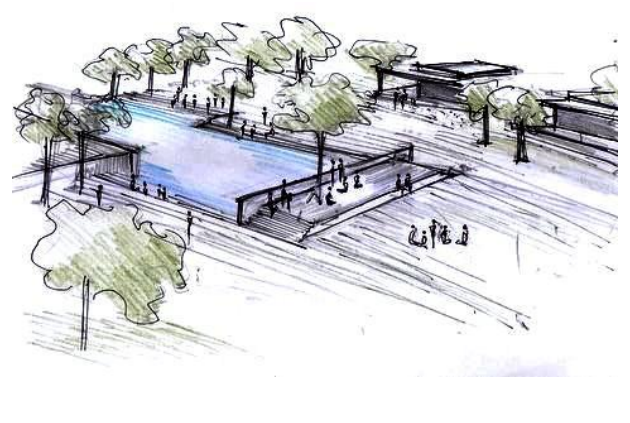
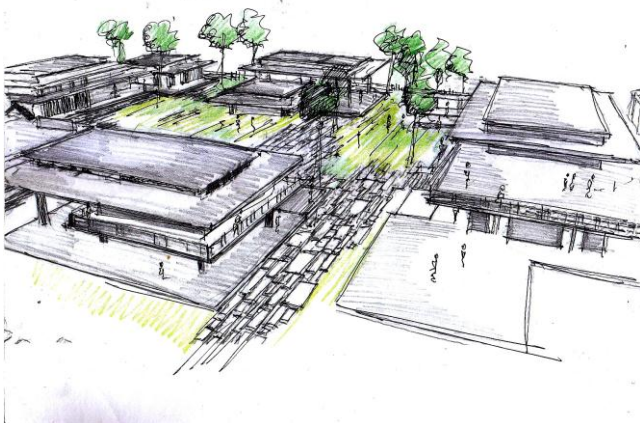


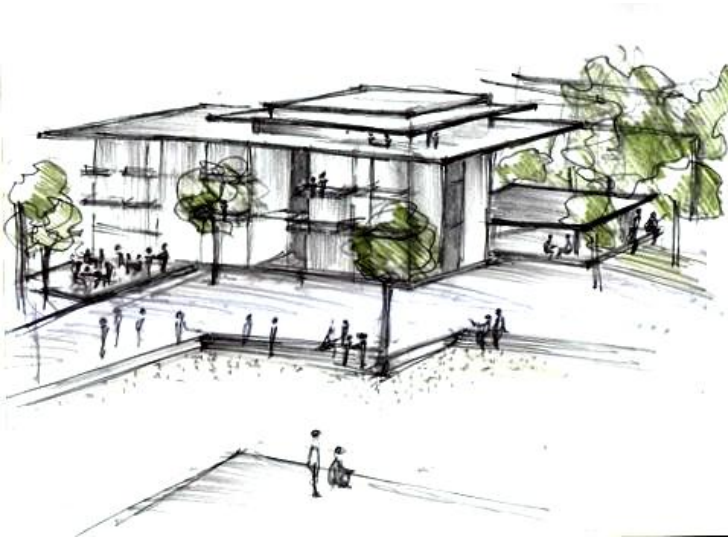
Fig 77: Phase 7 assessing the final layout of the design with free flowing corridors and working with double layer of roofs.

6.8 Conceptual Sketches

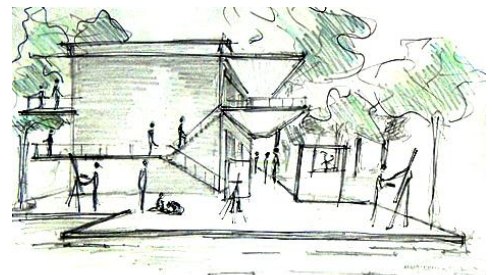
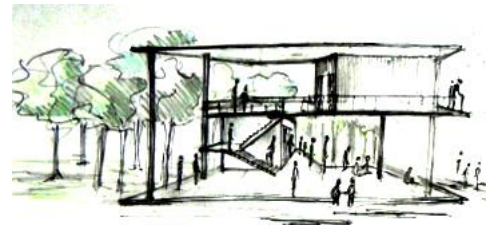
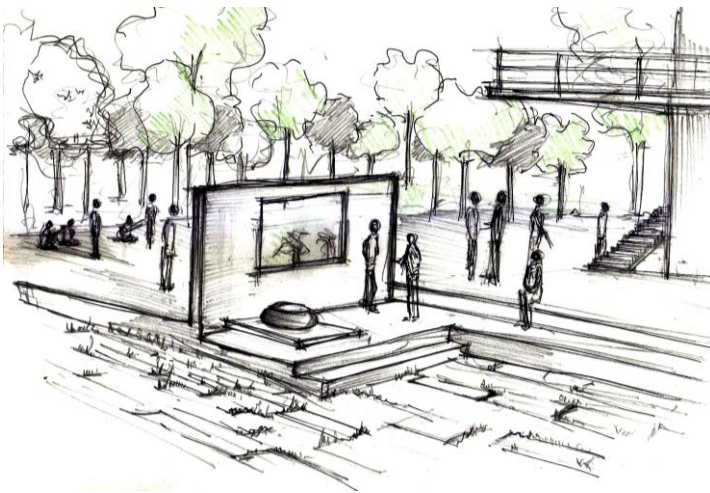
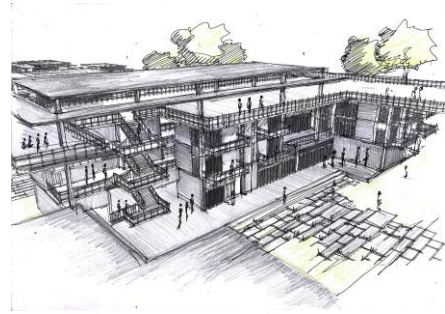


The layout is planned as a series of courts that encourage interaction with nature





Guest house blocks follow a similar language



Classrooms blend with outdoor semi-open spaces and thus associate and interact with nature

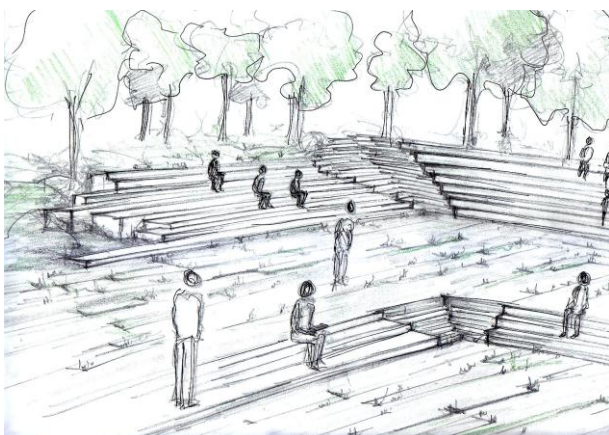


Fig 78: Conceptual sketches of desired areas in design

CHAPTER_06

Conceptual Stage and Design Development

6.1 Justification behind the cultural complex

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There are a few lines of Rabindranath that helped assess the project and the validity of such a program. They are given below.

চিত্ত যেথায় হয় শূন্য, উচ্চ যেথা শির, জ্ঞান যেথা মুক্ত, যেথা গৃহের প্রাচীর আপন প্রাঙ্গণতলে
বসুধার রেখা নেই খণ্ড ক্ষুদ্র করি। যেথা বাক্য হৃদয়ের উৎসমুখ হতে উচ্ছ্বসিয়া উঠে।
নির্বীরিত স্রোতে দেশে, দিশে দিশে কর্মধারা ধায়। অজস্র সহস্র চলিতার্থ তাই।

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Reading this we can think of a free environment where knowledge and love for the country could be practiced and a place that would encourage activity that come to the benefit of the society. A cultural centre is capable of producing such an environment.

“জীবনে জীবনযোগ করা না হলে কৃত্রিম পণ্যে ব্যর্থ হয় গানের পসরা”

In another instance he has said if life doesn't add to life it results to be wasted in the materialistic attractions of the world and culture is slowly lost.

This further validates the need to a cultural complex.

6.2 Concept development of the Project

Stage two involved deriving a core concept for developing the masterplan. Being set in a rural setting the surroundings of the site are basically green. One statement by Rabindranath has made a mark that was intended to be held as the core concept of the project and that was:

“সীমা চায় অসীমের মাঝে হারা, অসীম চায় সীমার নিবিড় সঙ্গ”

It could be interpreted “Shima”(centripetal force) wants to blend within the “Asim”(centrifugal force) and that “Asim” (centrifugal force) wants to come in close contact with “Shima”(centripetal force). If we think of it from an architectural point of view it talks about form and formlessness. In philosophical terms, it talks about the tangible and the intangible.



There could be numerous interpretations to this. The way it is incorporated in the project is by considering nature to be the “Asim”, the infinite that surrounds the site and the expected built form that is to be created to be the “Shima”. Thus the constant coexistence of the two should be reflected in the project.

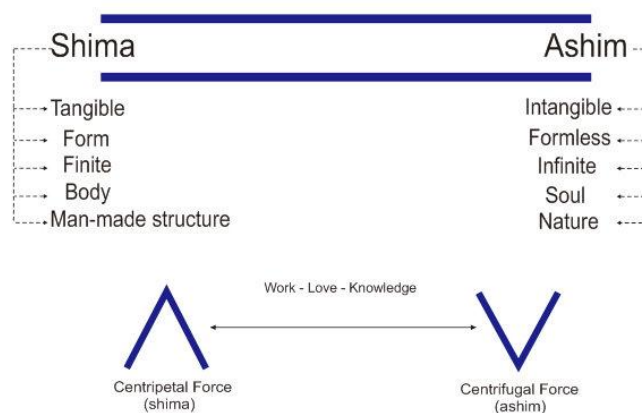


Fig 46: Diagram shows analysis of Shima and ashim into other parameters.

6.3 Design Considerations

Nature is formless and when the edge of building become less geometrically than it should a formlessness impact occurs visually through disposition of Spaces and combination of routes .

– (Architect Steven hall , project consideration School of art and history , Iowa)

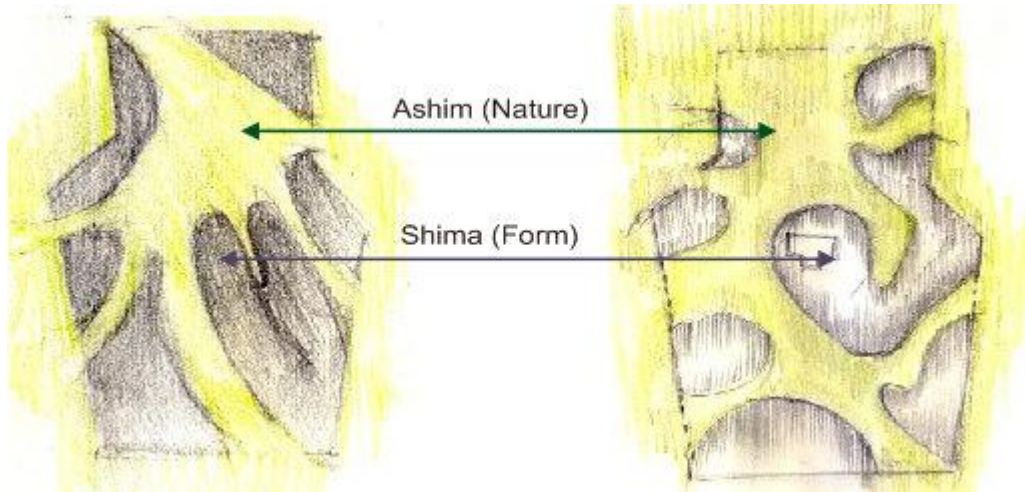


Fig 47: The conceptual sketches show fusing of Shima (Form-- Built-up area) with the Ashim (Formless--Nature,green)

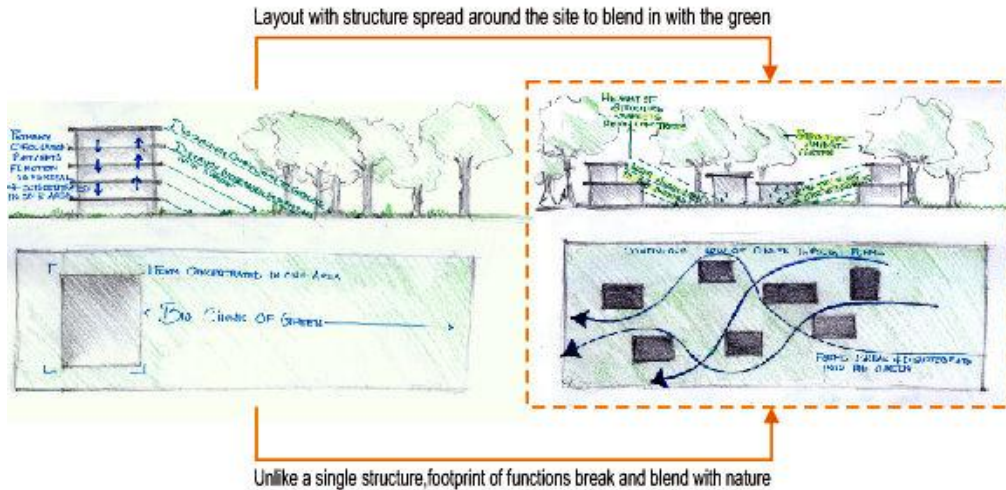


Fig 48: The conceptual sketches of layout pattern.

Reducing footprint and stacking functions would provide undisturbed large chunk of green but the desired experience as one travels from one function to another would not be like as desired thus spreading out the footprint helps create strolling space among functions and enhance the experience of green.

6.4 Developing the form

Based on the study and analysis long extended planes that extend out of the form to relate to the horizon and reduce the impact of edges and produce interaction spaces are used. Large veranda's that result act as a secondary source of learning and interacting space.

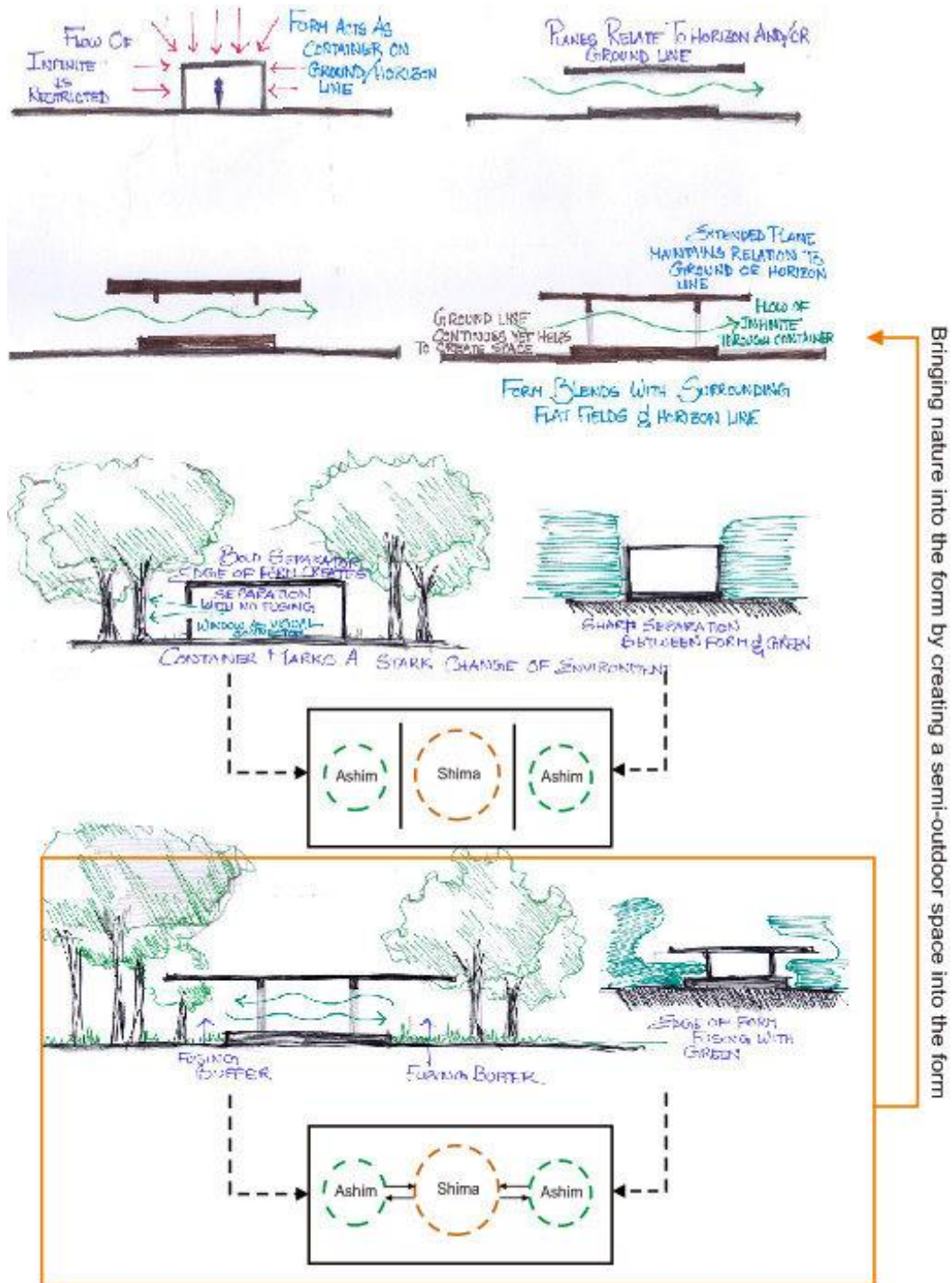
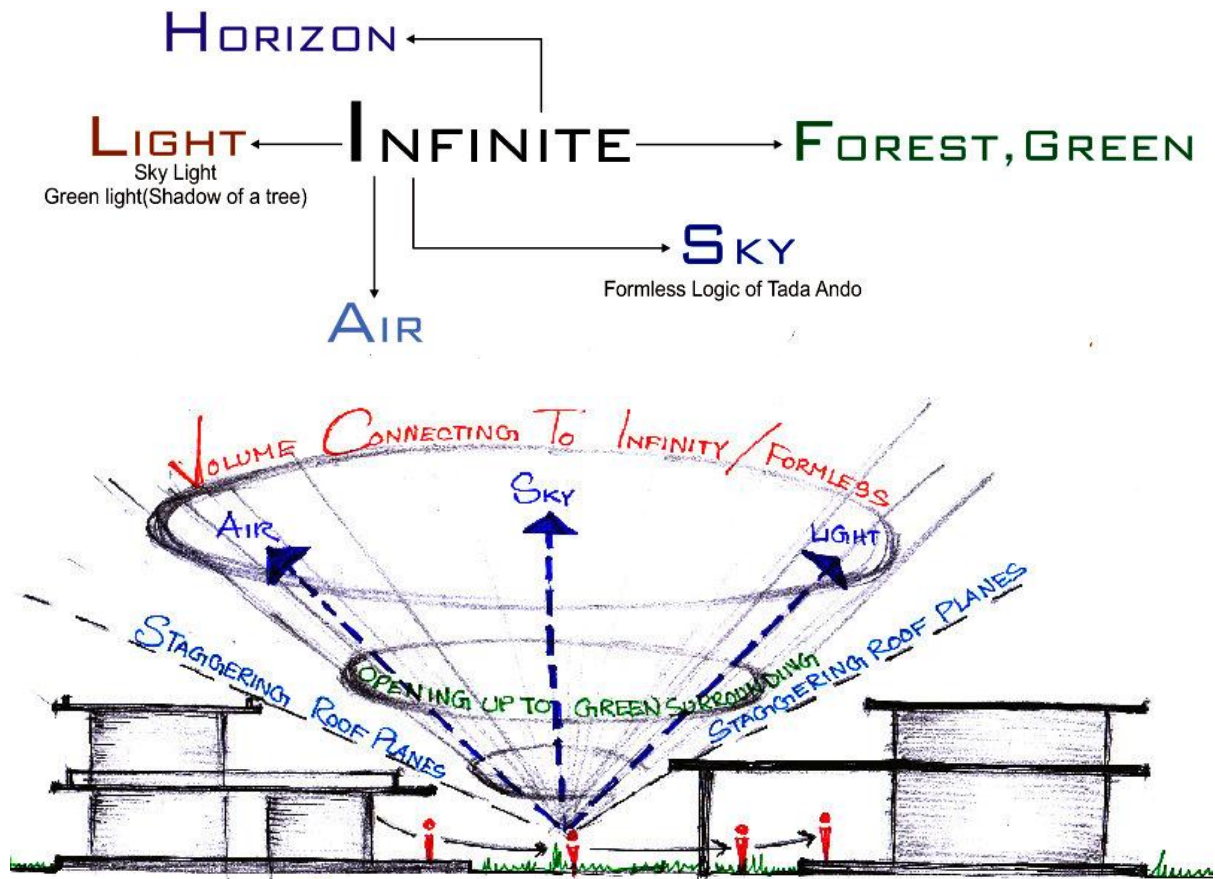


Fig 49: Developing the form



ADJACENT BUILT FORMS ALLOW A JOURNEY FROM THE FINITE (CONTAINER, ROOM) TO THE SEMI FINITE OR FUSER (VERANDA) AND THEN TO THE INFINITE (OPEN SPACE, GREEN, SKY) CONE OF INFINITE FORMS AMONG TRIO ADJACENT BLOCKS WHERE ONE CONNECTS WITH THE ELEMENTS OF THE INFINITE GREEN, SKY, WIND, LIGHT

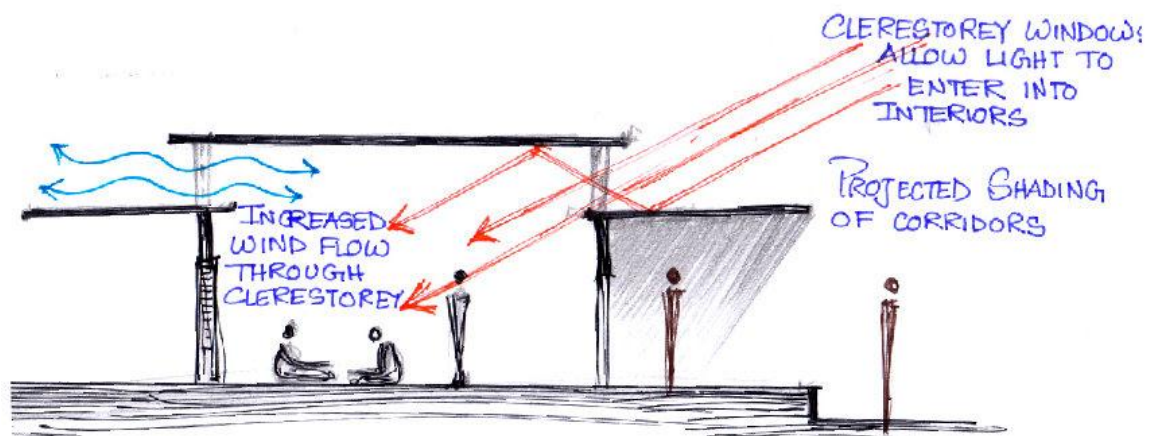


Fig 50: Parameters that helps associating with the infinite and incorporating it in design

In an attempt to blend in with the surrounding trees and also keeping in mind to minimize the impact of edges, the form of the structures are attempted to be in horizontal layers just like those of branches of trees.

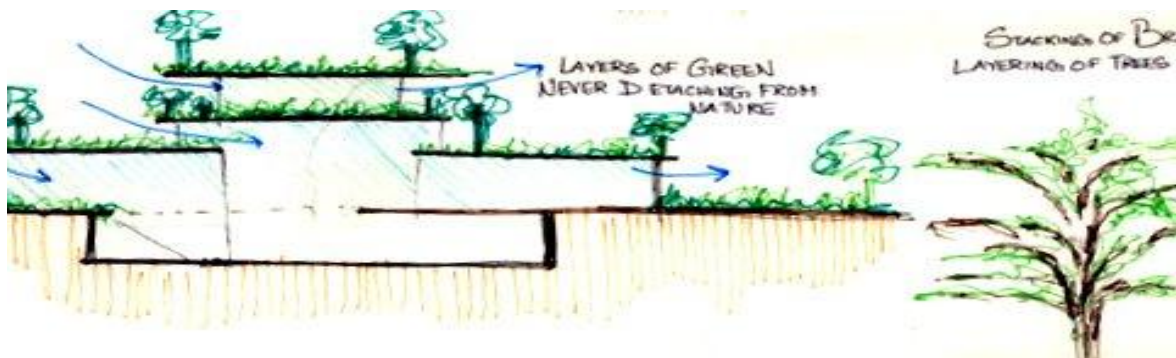


Fig 51: Sketch shows the idea of working with planes at multilayers deriving it from the branches of trees with clear openings in the north south directions so only horizontal planes emphasize

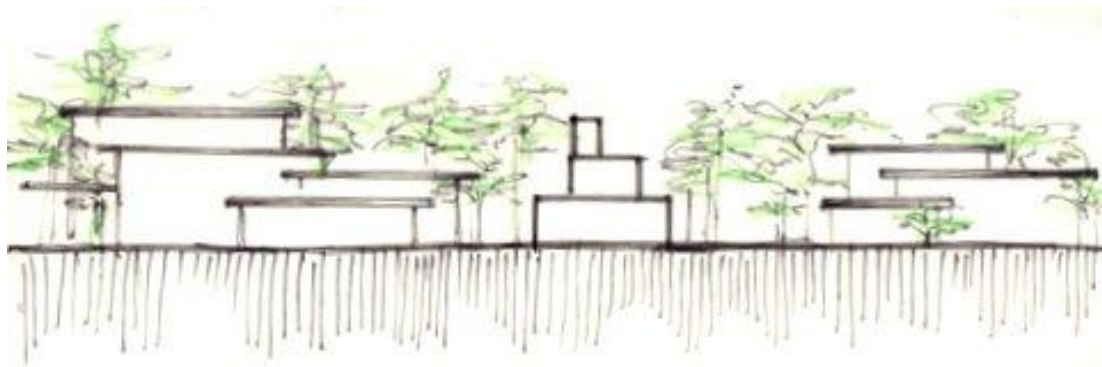


Fig 52: Sketch shows how a single storey can be split into layer to create the impact of layers

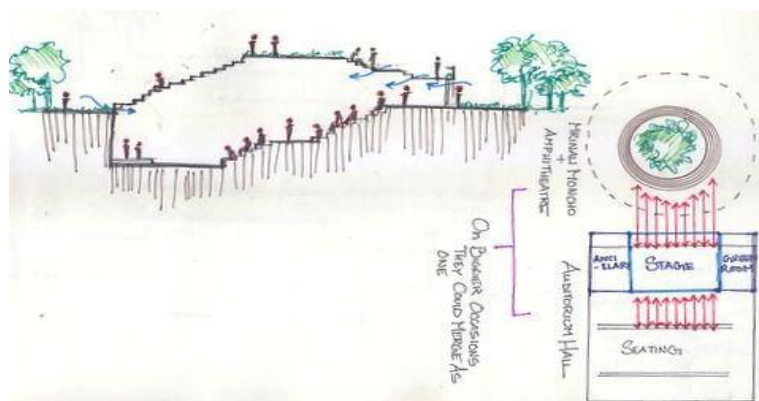


Fig 53: Sketch shows concept of submerging the amphitheatre into the ground to make its height relatable to the structure in its surrounding and allowing it to blend in.

Referring to the elevation of the structure

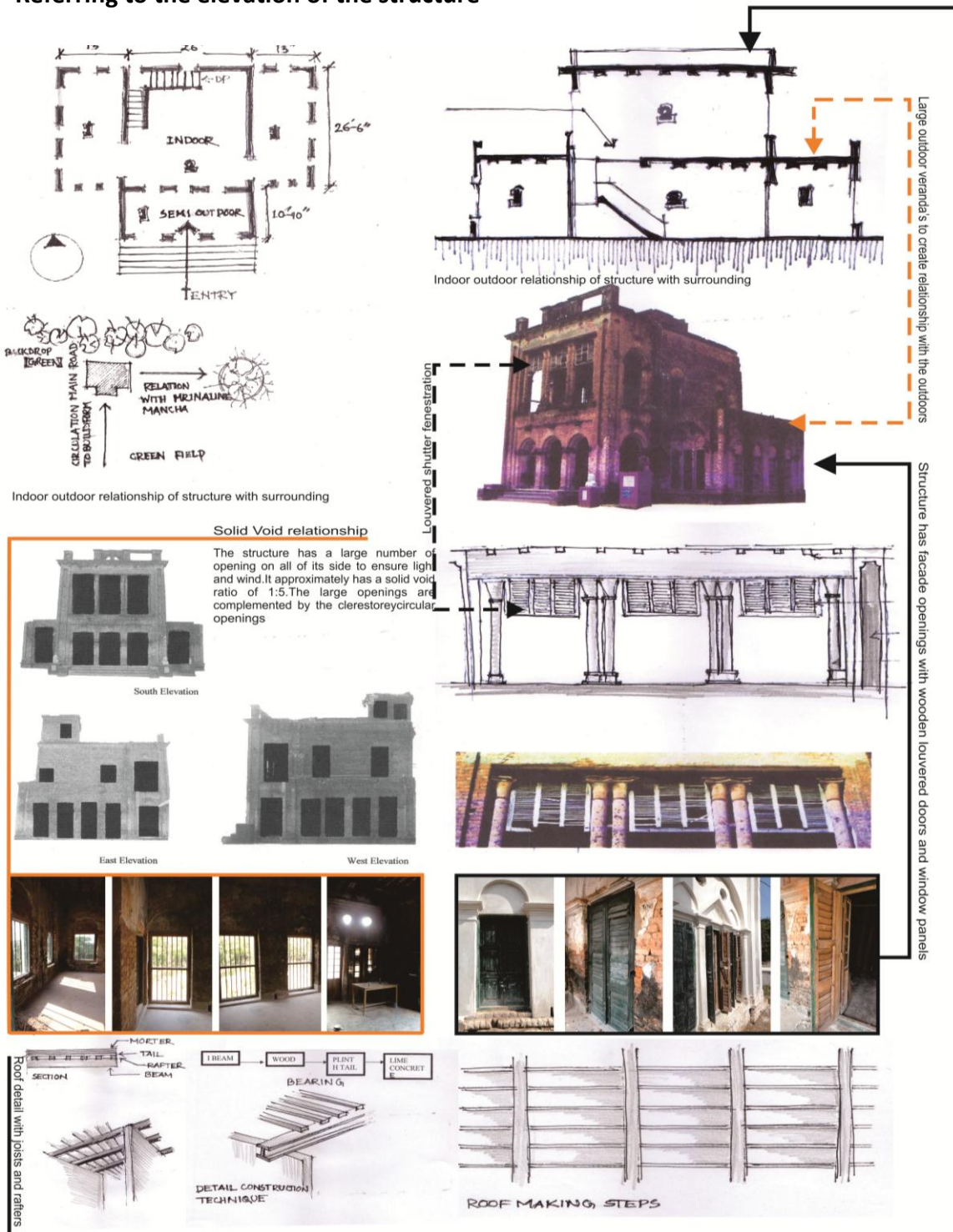


Fig 54: Study of the existing structure that helped design

From the existing structure it is learnt that the openings are in large numbers and proportions to ensure ventilation and light. Also a large use of wooden shutters is visible. The design of the complex thus tries to incorporate this aspect and use wooden shutters and folded doors.

6.5 Conceptual development of individual function and spaces

The second phase of the design development involved understanding Rabindranath's ideas about education and the schooling system in order to realise the kind of environment that needs to be created for the institutional section of the cultural complex.

"The main theme of the educational system is that, there should be a social environment where students perform and develop their sense of close contact with nature and received his or her education that integrated his with universal nature"-A poet's school.

He also said,

"Education is not different from the society and the nature of education is closely related with the nation and the direction of the society we live in and the nature of the society is the primary condition of our educational rule."

"The main concept of human society is the unity of mankind and the civilization means the practice of unifying mankind"-Rabindranath Tagore.

In relating to Shantiniketon he said,

"...therefore I consider it as a part of education for my boys to let them fully realise that they are in a scheme where trees are a substantial fact not merely generating chlorophyll and taking carbon from the air, but are living trees."-Rabindranath Tagore.

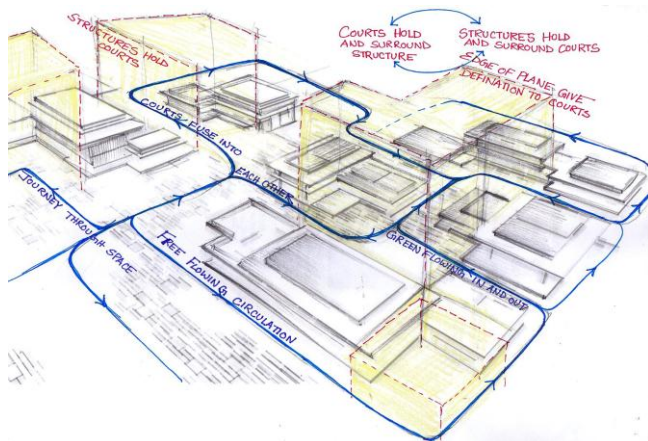
"the soles of children's feet should not be deprived of their education, provided for them by nature, free of cost." -Rabindranath Tagore.



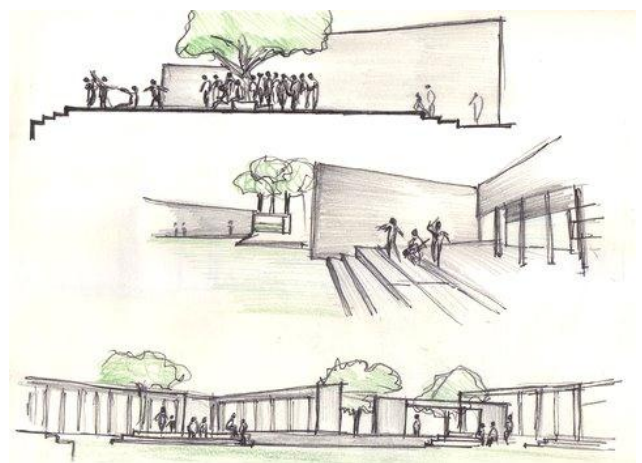
Fig 55: Indoor-Outdoor spaces that encourages association and also a scope to coming in contact with nature

Based on Tagore's philosophies and his ideas about education and space a few factors must be kept in mind:

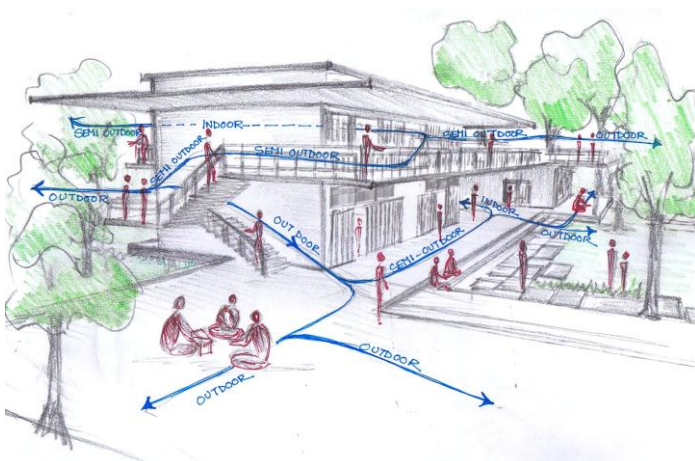
- Continuous indoor outdoor spaces (incorporation of nature)
- A strong relationship between indoor-outdoor and semi-outdoor spaces.
- Outdoor learning spaces (learning from nature)
- Continuous flow of spaces whether that be of courts or indoor spaces, Fluidity.
- Emphasis on flow of light and wind
- Respecting context



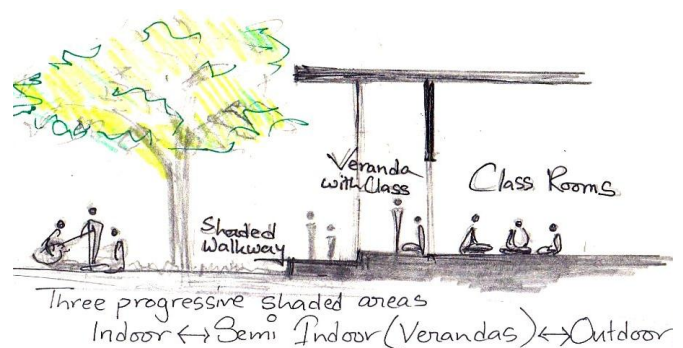
Continuous flow of spaces and court



Outdoor learning spaces and event spaces



Continuous flow of indoor outdoor spaces



Strong relationship between indoor outdoor

Fig 56: Study sketches based on Tagore's idea of space

6.6 Conceptual development for Landscape

Next was thinking of the landscape and that required looking back into the words of Rabindranath Tagore.

এই তো পায়ে চলার পথ। এসেছে বনের মধ্যে দিয়ে মাঠে, মাঠের মধ্যে দিয়ে নদীর ধারে, খেয়াঘাটের পাশে বটগাছ তলায়। তারপরে ওপারের ভাঙ্গা ঘাট থেকে বঁকে চলে গেছে গ্রামের মধ্যে, তারপরে কৃষি ক্ষেতের ধার দিয়ে কই পৌঁছেছে জানি না।

এই পথে কত মানুষ কেউ বা আমার পাশ দিয়ে চলে গেছে, কেউ বা সঙ্গ নিয়েছে, কাউকে বা দূর থেকে দেখা গেল কারও বা ঘোমটা আছে, কারও বা নেই, কেউ বা জল ভরতে চলেছে, কেউ বা জল নিয়ে ফিরে এলো।

Here he shares his experience about the walkways of a village and the experiences that come along the way, the encounters that one makes.

On another occasion he said similarly,

“I have often wondered at the reasonable Zigzag of footpaths across perfectly plain fields. It becomes all the more perplexing when you consider that a footpath is not made by the caprice of one individual. Unless most of the walkers possessed exactly the same eccentricity such obviously inconvenient passages could not have been made.”-Rabindranath Tagore.

Thus basing of these words of his, a decision was made that instead of a solid paved walkway a free flowing mixed paved pathway would match with the essence of the space. A zigzagging route formed by the obvious selection of routes by the users. Allowing soft and hard paved would also allow a flow of green and prevent it from losing connection.

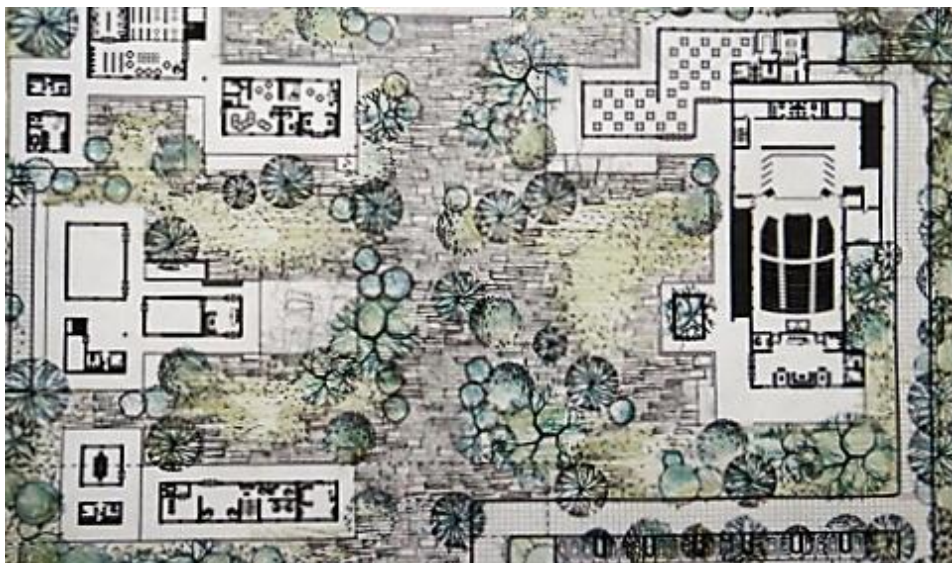
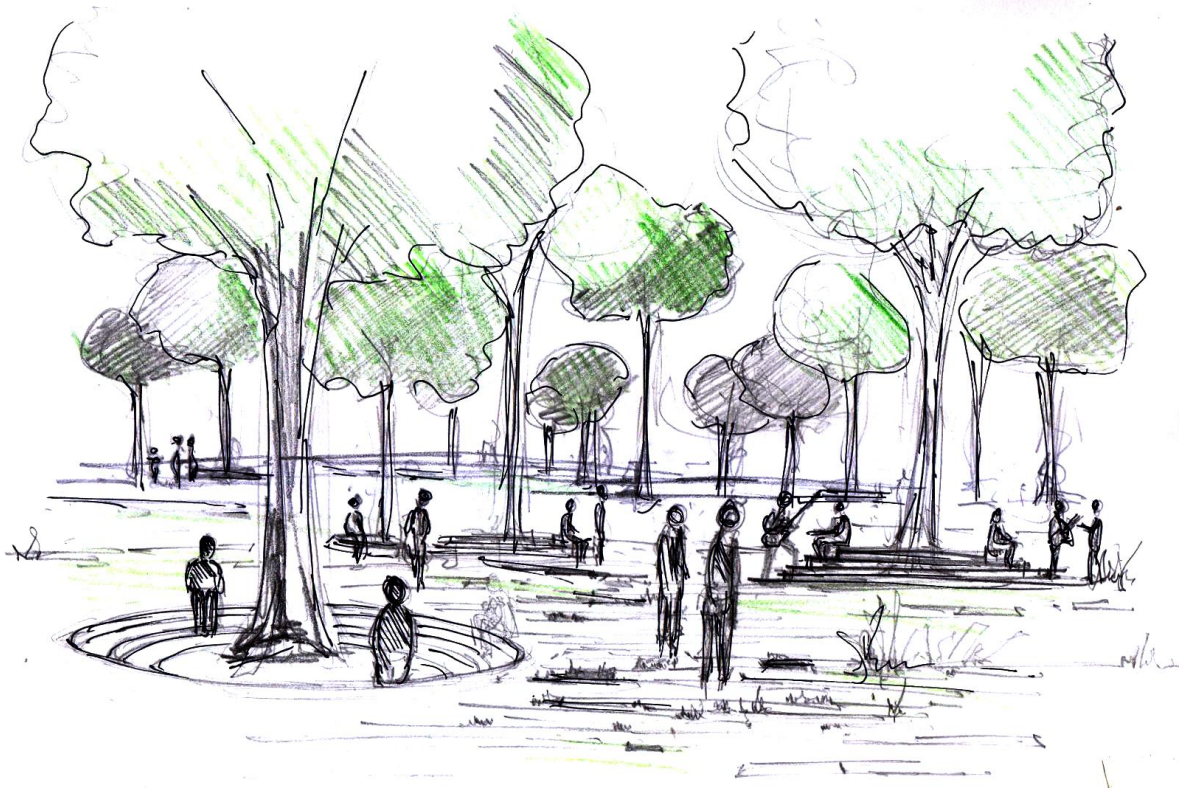


Fig 57: Shows a section of the landscape using mixed paved (soft and hard paved) and allowing green to flow.



Treatment on the north zone, creating a flavor of the forest



Treatment of boundary wall

Fig 58: Sketches shows ideas about landscape treatment

6.7 Design development Phases

Stage_01: The Module of the existing structure was held as a reference to create a standard size for the classrooms and its multiples used for different other spaces.

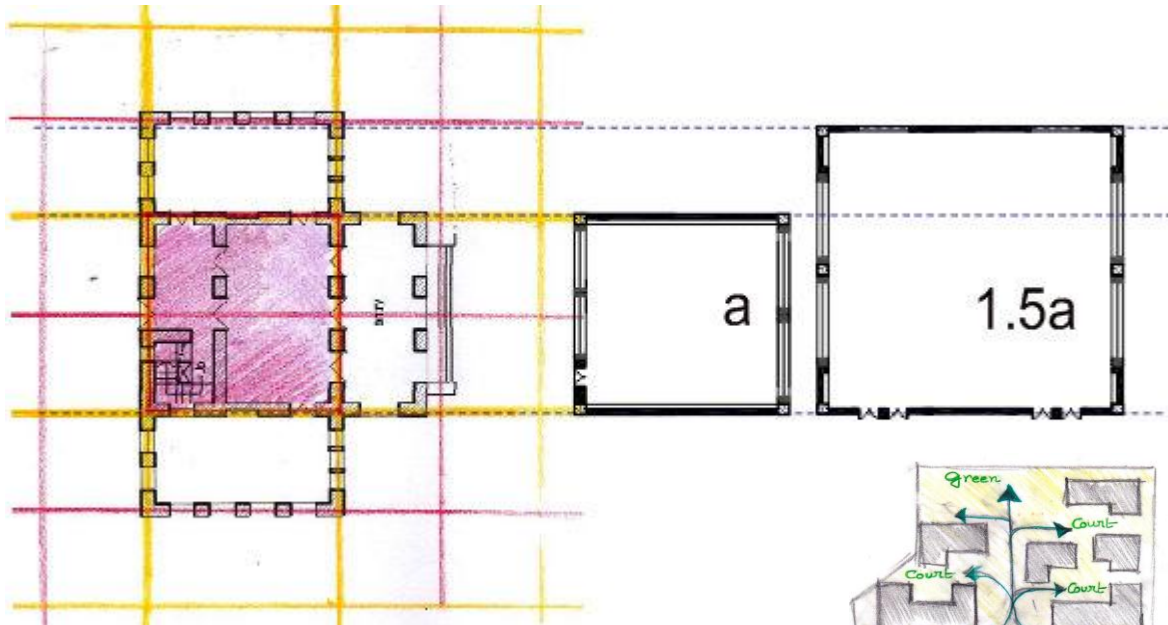


Fig 59: Deriving a module for the structures

Stage_02: Developing the idea that as one enters site to see the structure he meets a number of courts that invite him to the other functions.

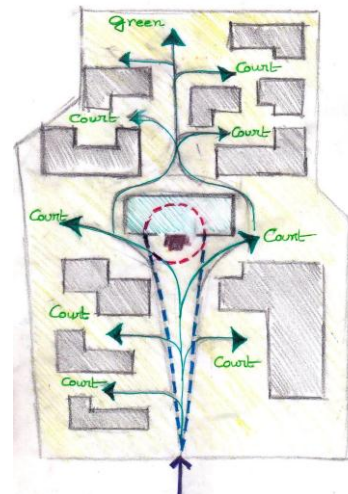
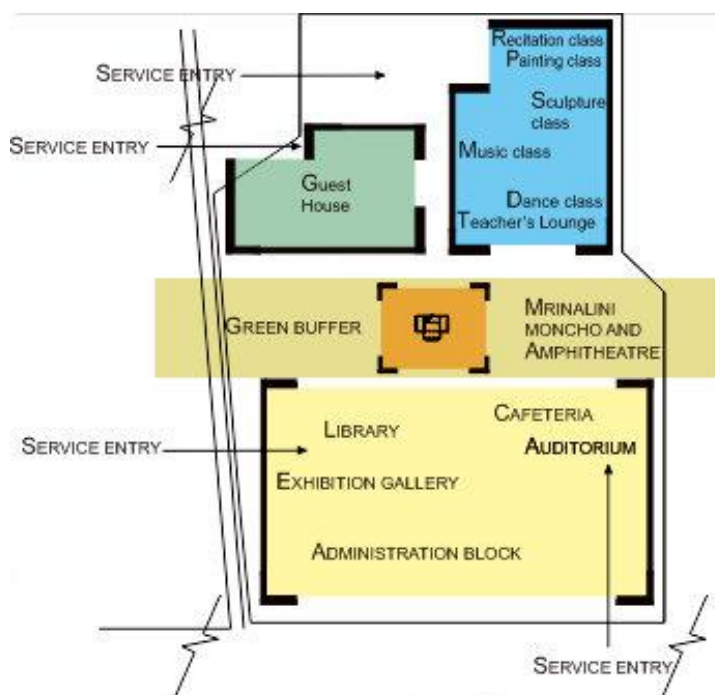


Fig 60: Layout planning



Stage_03: Zoning of the site with functions of mass gathering after the entry followed by a buffer around the existing structure. The guest house and the institution are placed further closer to the chunk of green.

Fig 61: Zoning on site

Stage_04: Creating a bubble diagram for the proposed functions.

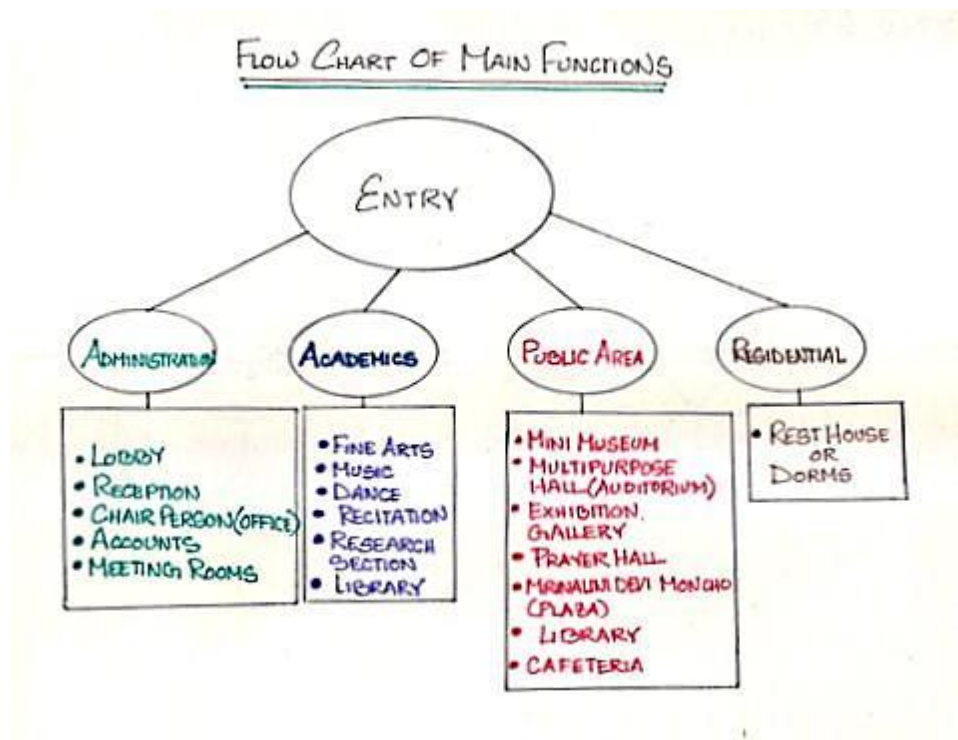


Fig 62: Fundamental zoning of the main functions

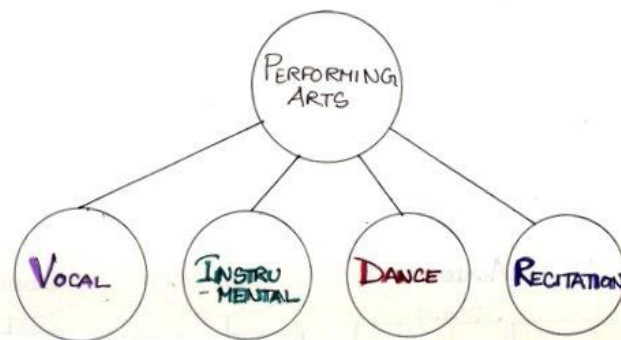


Fig 63: Proposed sections of School

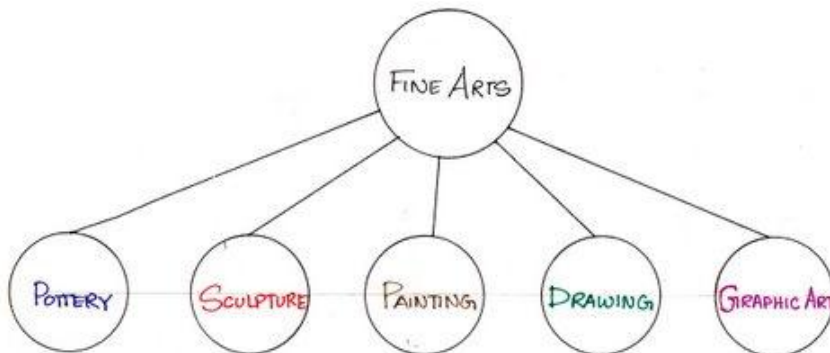


Fig 64: Proposed sections of School

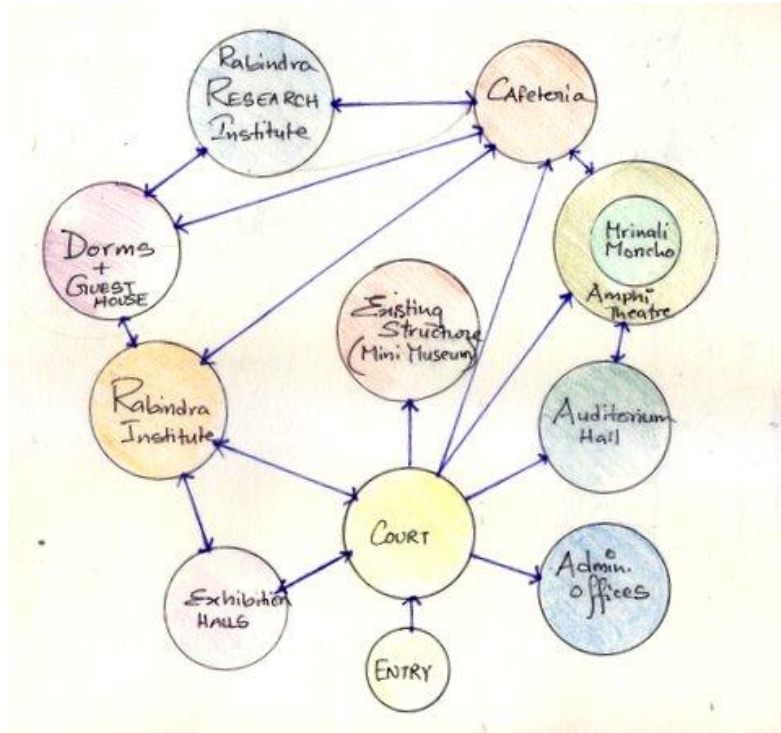


Fig 65 : Zoning of main functions on site

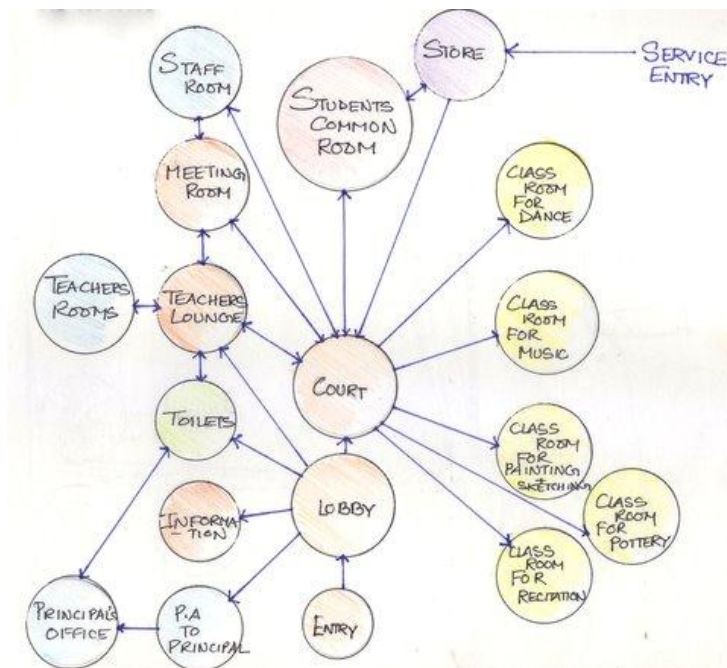


Fig 66: Bubble diagram for the Rabindra Institute

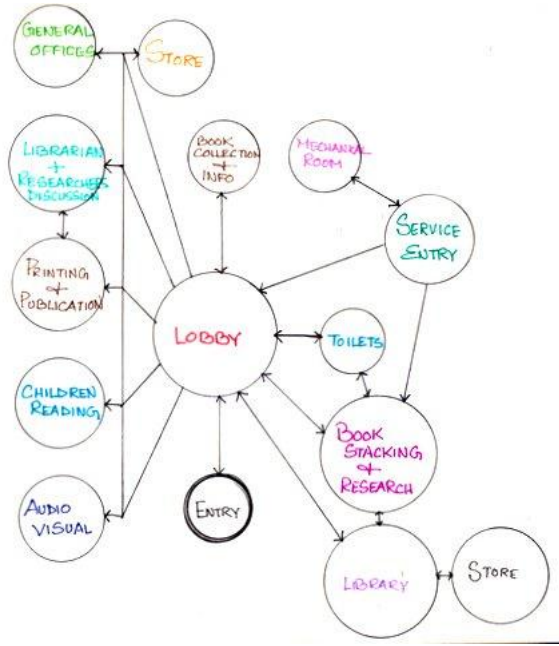


Fig67: Schematic zoning of Library and Research Institute

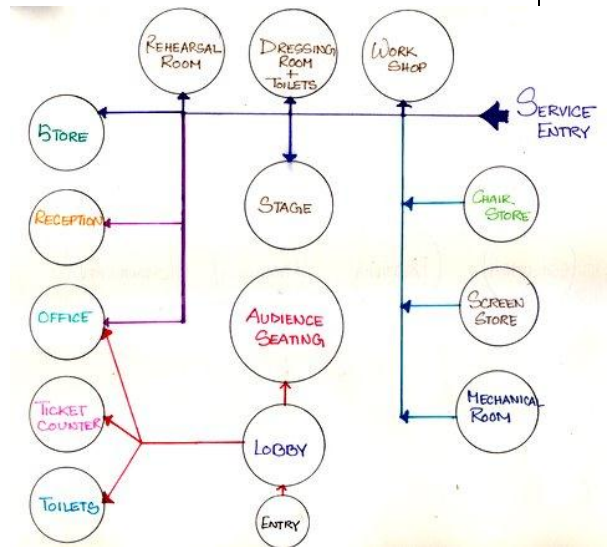


Fig 68: Schematic zoning of Auditorium

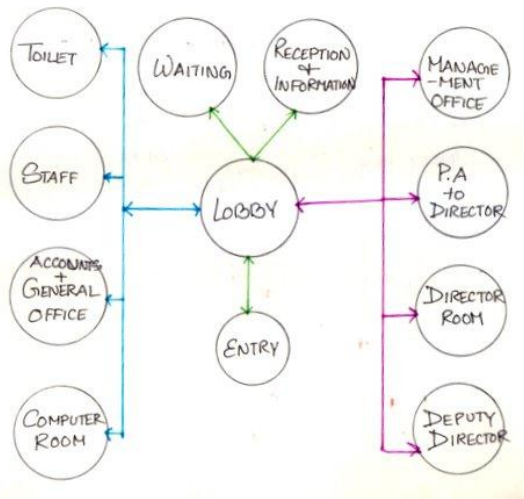


Fig 69: Schematic Zoning of administration building.

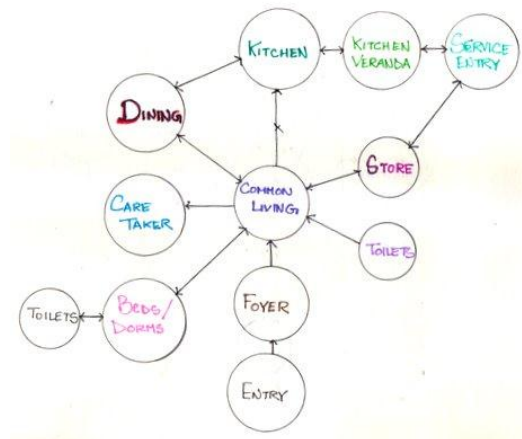


Fig 70: Schematic zoning of guesthouse

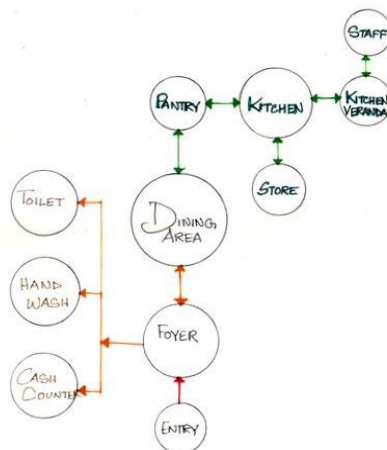
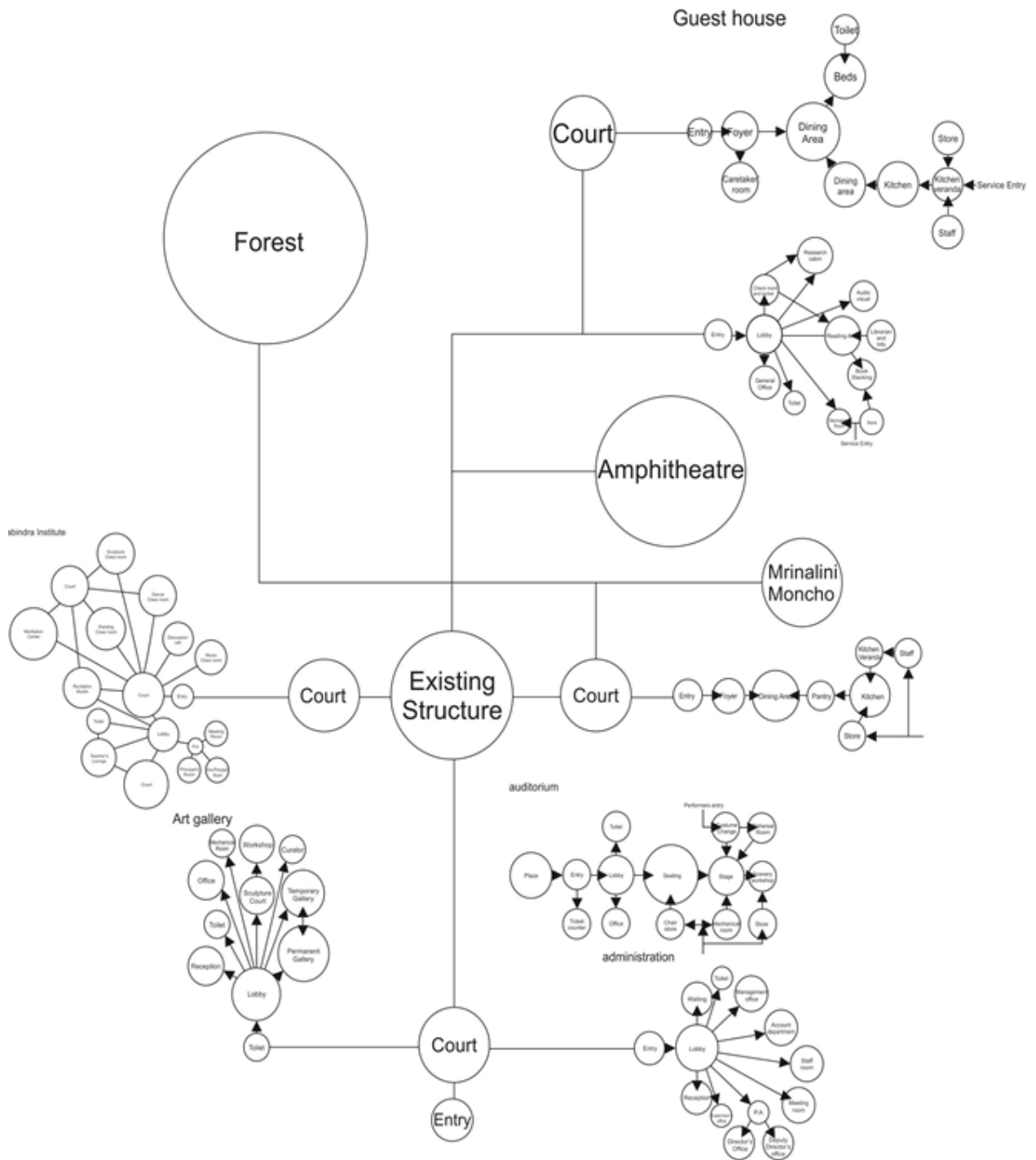


Fig 71: Schematic zoning of cafeteria



Stage_05: It involved trying out different layouts based on the zoning studied

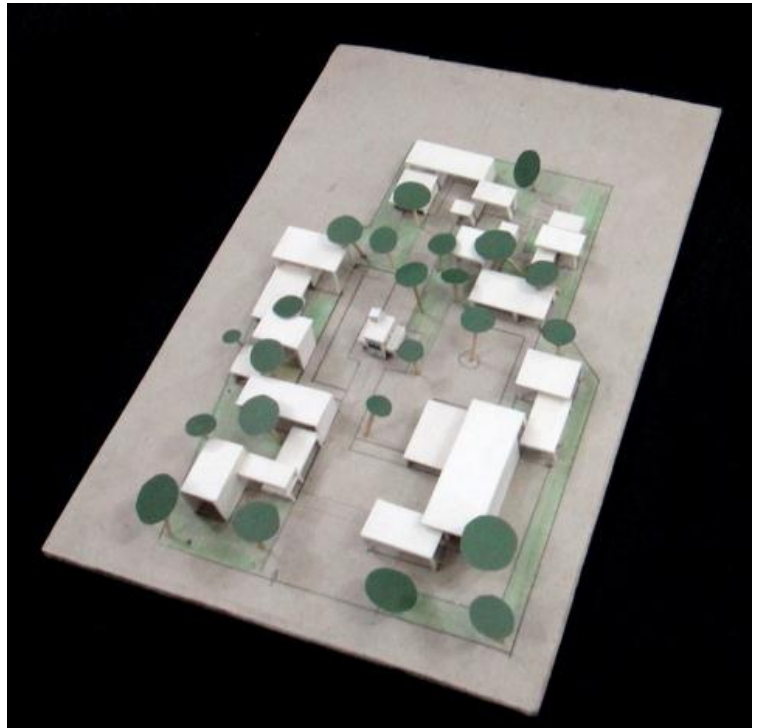
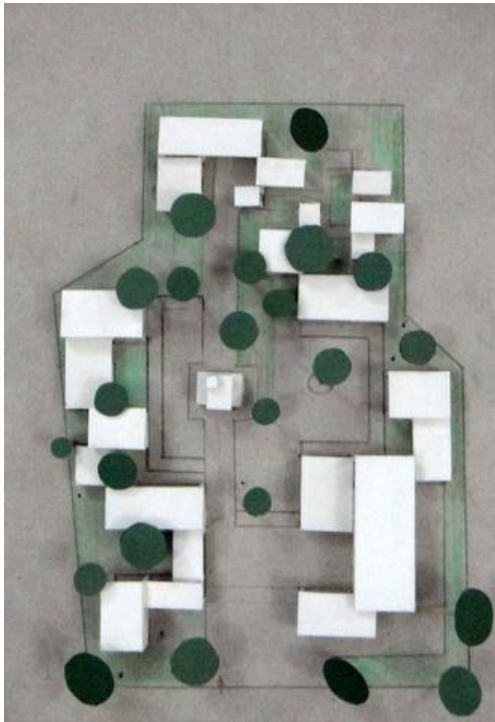


Fig 73: Phase one of layout pattern involved connect buildings



Fig 74: Phase two involved connect structure only amidst same functions. Separate functions being separately placed. Amphitheatre considered



Fig 75:Phase three involved trying to work with lines and planes dominating and connecting structures and breaking the axis of the institutional zone.

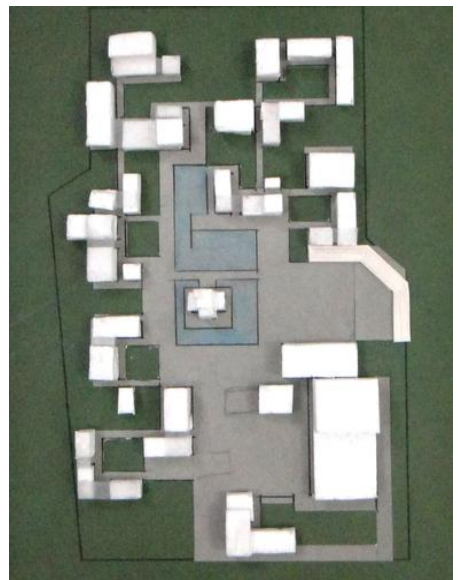


Fig 76 :Phase 4,5,6 involved trying out different patterns of clusters

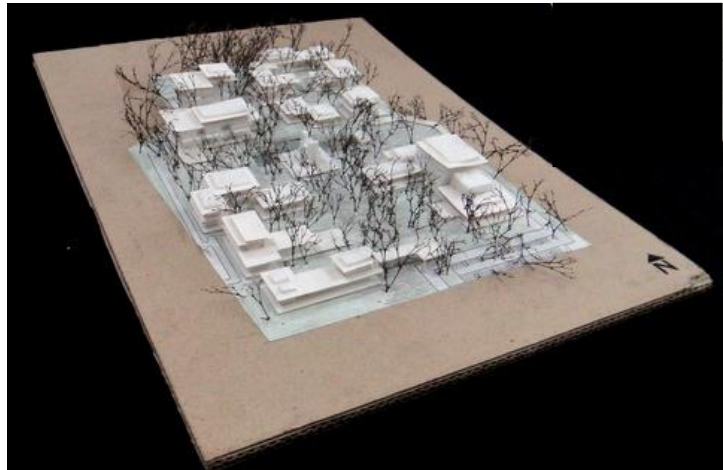
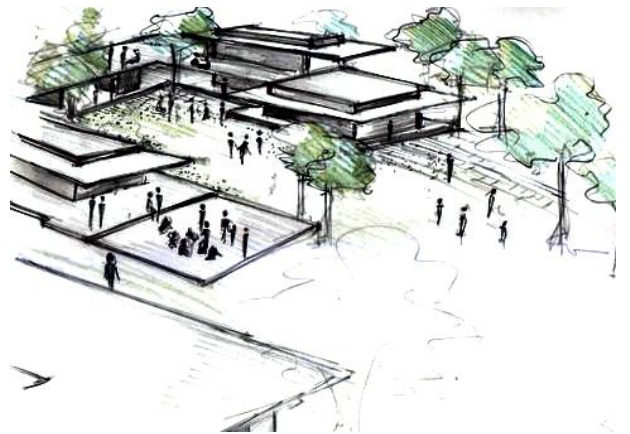
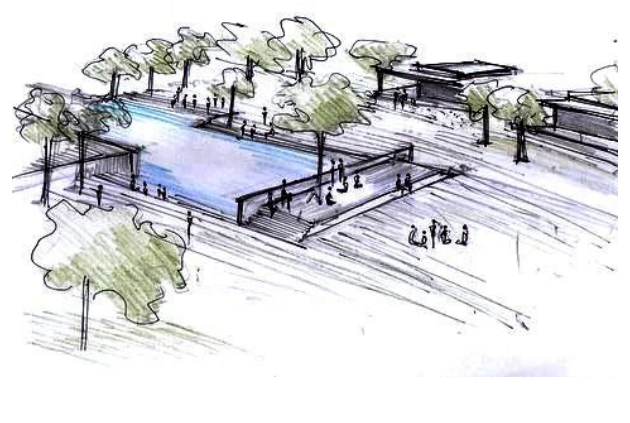
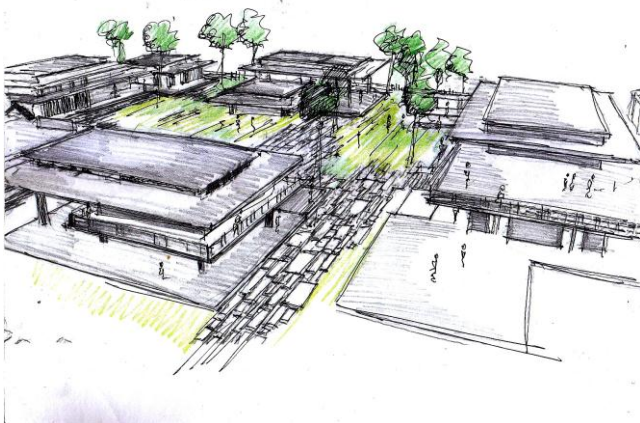


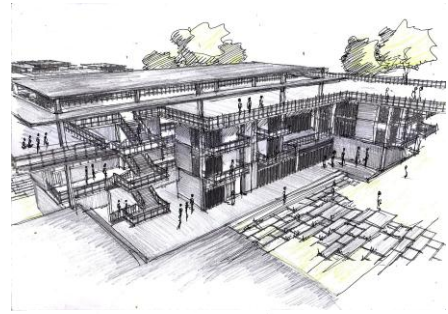
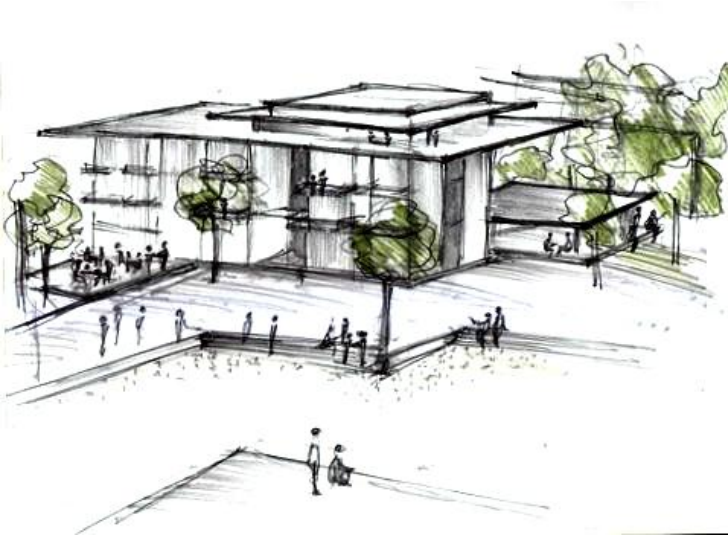
Fig 77: Phase 7 assessing the final layout of the design with free flowing corridors and working with double layer of roofs.

6.8 Conceptual Sketches

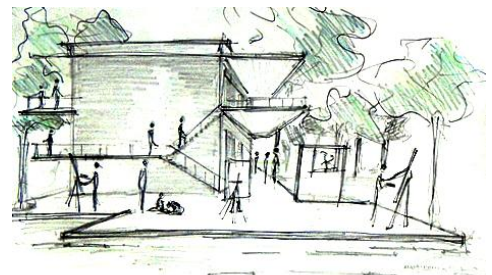
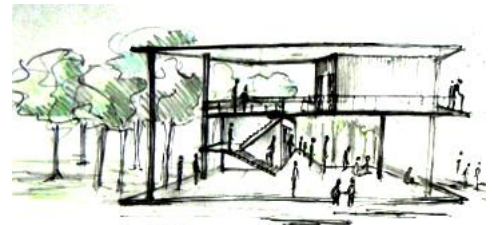
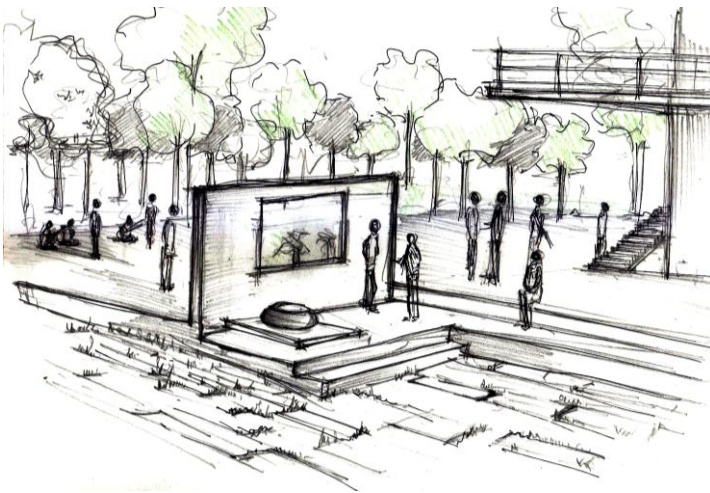


The layout is planned as a series of courts that encourage interaction with nature





Guest house blocks follow a similar language



Classrooms blend with outdoor semi-open spaces and thus associate and interact with nature

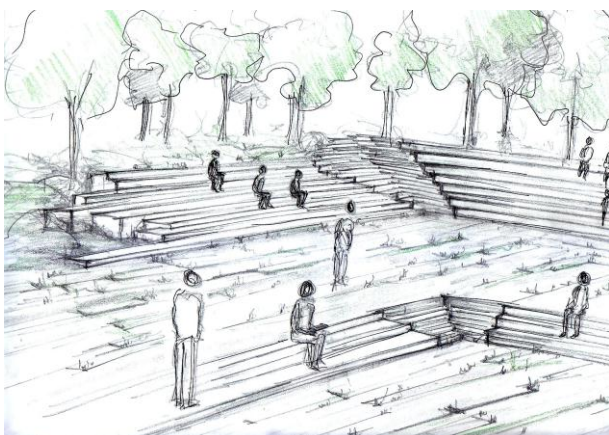
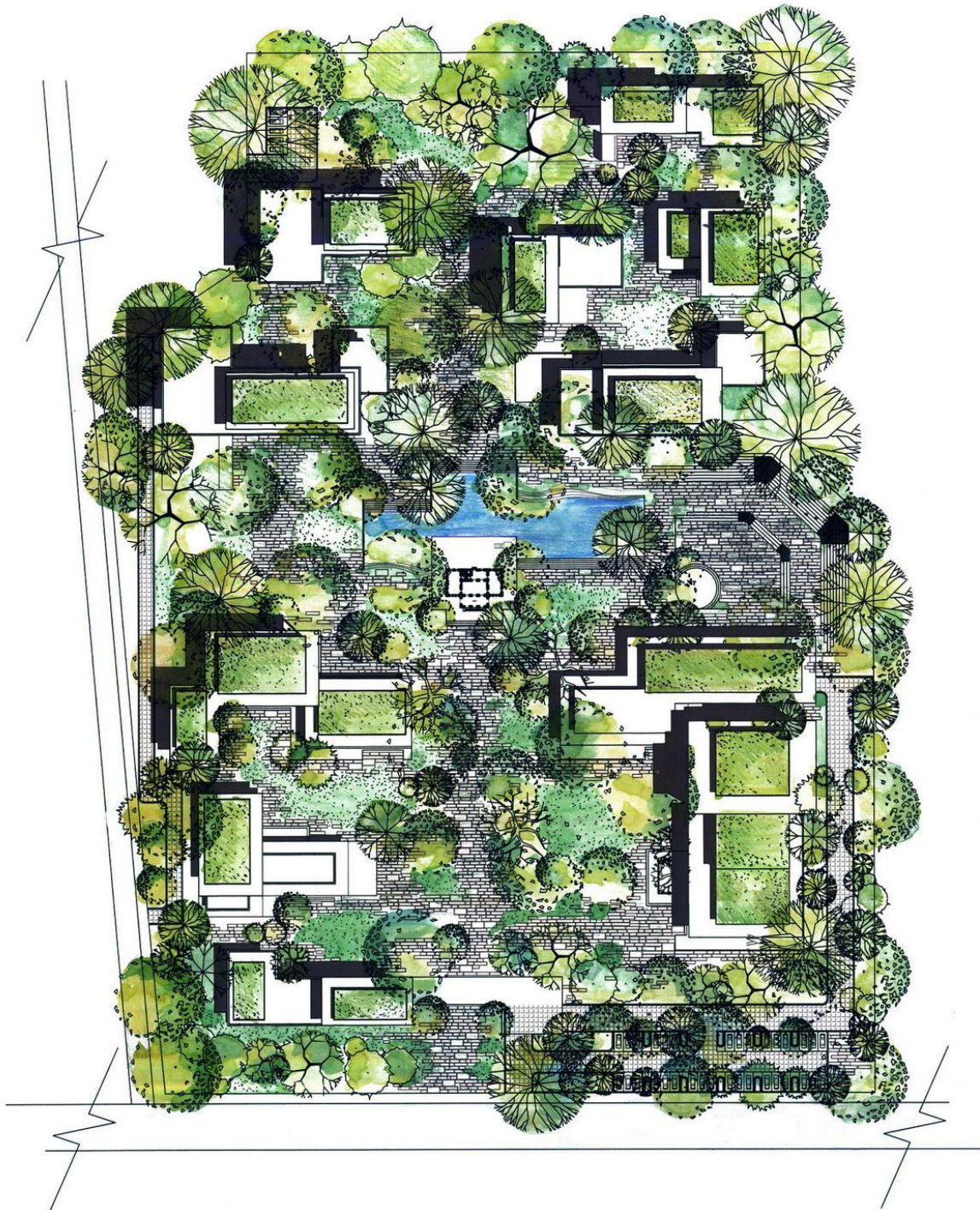


Fig 78: Conceptual sketches of desired areas in design

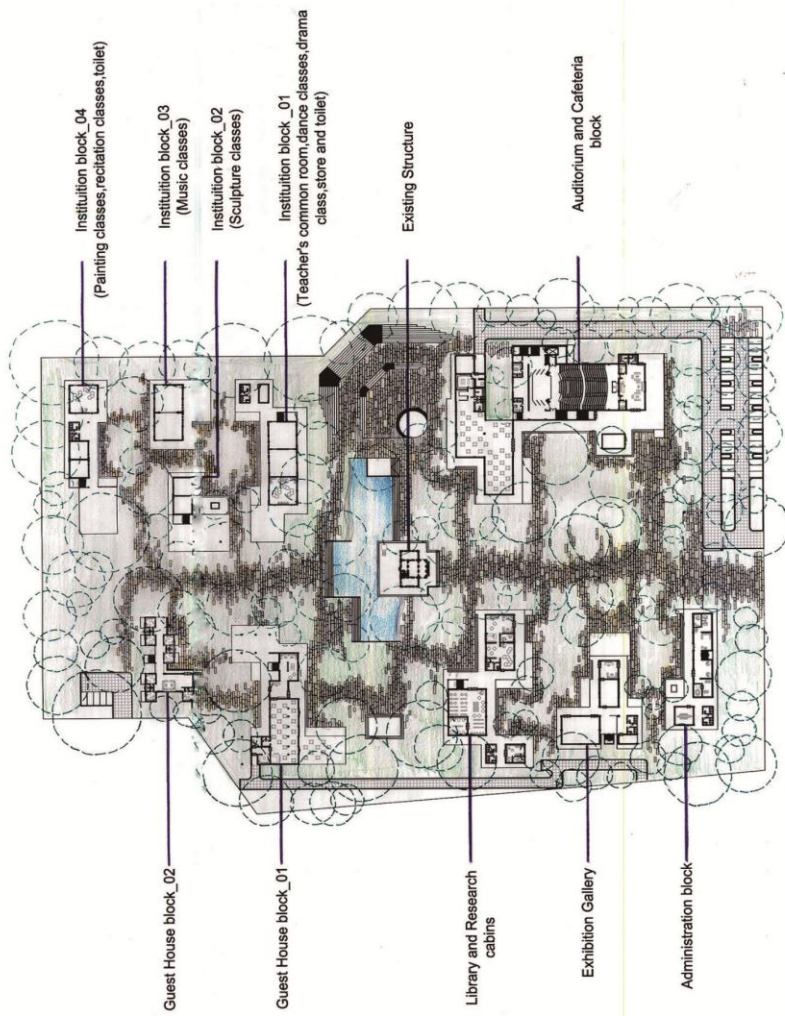


*Drawings not to scale



Roof Plan

*Drawings not to scale




Key Plan




Circulation
 Scale : $\frac{1}{64}$ " = 1' 0"



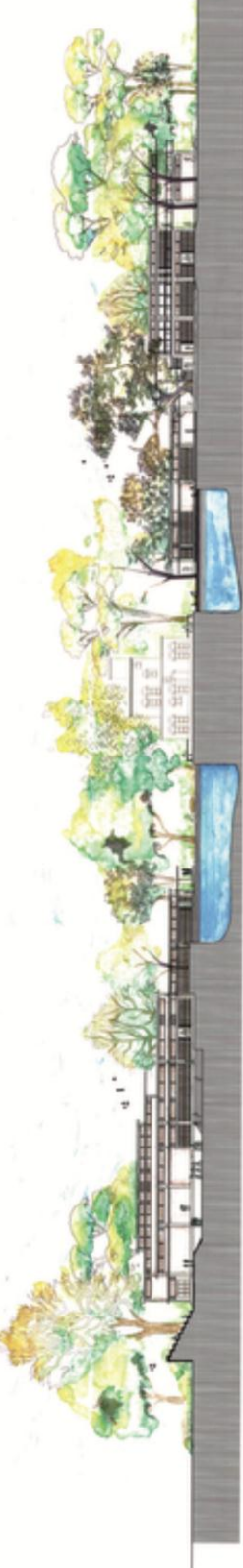
Section : DD'
Scale : 1/8" = 1' 0"



Section : FF'



Section : EE'



Section : CC'





Figure_79 : 3D Views

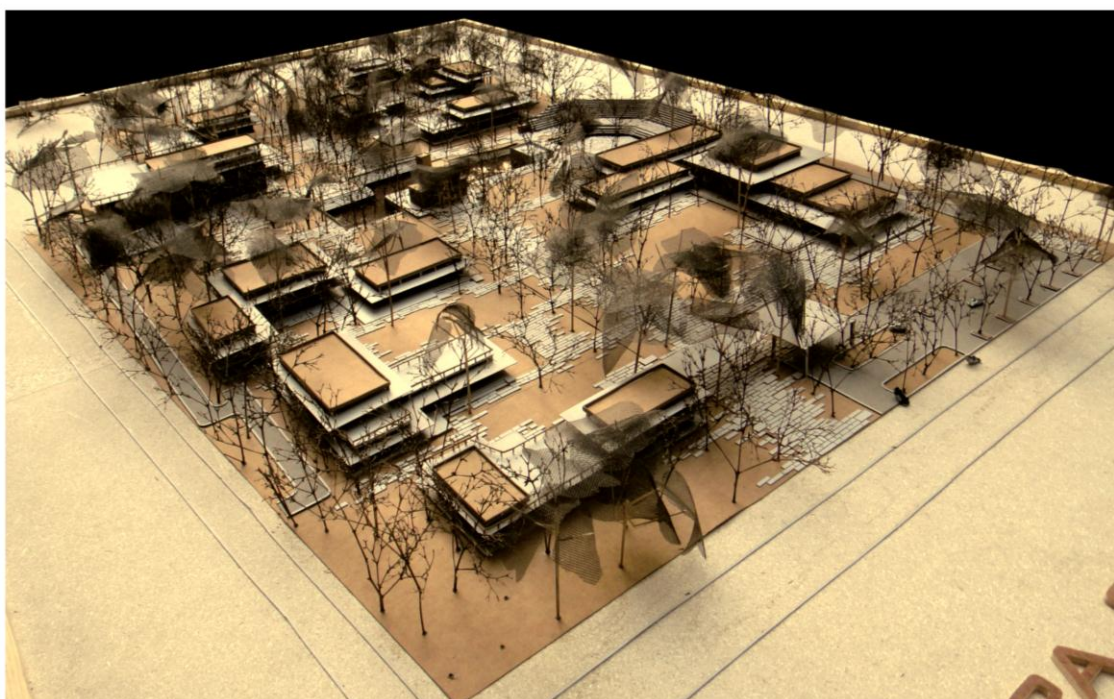
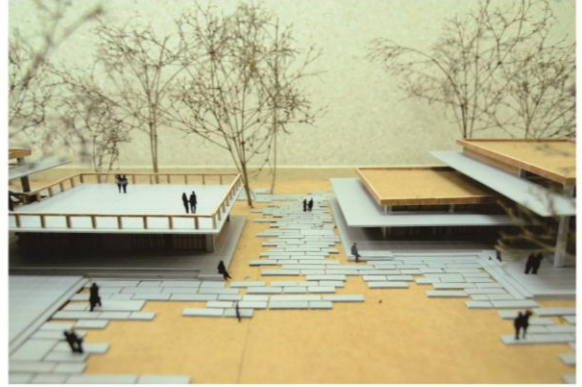


Fig 80: Images of the model



Cluster detail of Institution zone



Elevational Treatment



Fig 80: Images of the model

Conclusion

This project is an attempt to understand Rabindranath's notion about association of man with nature and propose a design that gives greater emphasis to the surrounding and context than to its form. The process involved looking into Rabindranath's philosophies about an educational environment which is materialized through Shantiniketon, his school. Free flowing indoor outdoor space, loose courtyard planning are tools that have been adopted to achieve such a result. Another vital dominating factor is the existing building of Rabindranath's father-in-law's house, around which the development of the cultural complex is proposed. Adjacent location of structures is placed to highlight the prime building. Proposing this cultural complex is intended not only to conserve and give life to the structure with functions, but to provide a cultural hub for the people of Khulna and around to come and share their love for Tagore and enrich and revitalize their culture while associating it to a place that the residents of Khulna consider to be their pride and their own way of relating to Tagore. In conclusion this project has been a heartfelt and earnest attempt to understand a kind of architecture that integrates itself with nature and the divine.

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