Bangladesh Sishu Academy (Bangladesh Children Academy), at Dhaka University, Shahbagh, Bangladesh.

By

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My role model and inspiration Ammu (UmmayHabibaNila),

This one is for you people.

Abstract

One architect gives a very little think about the psychology of a children, when they build a building or made an architecture. It is, to all intents and purpose, children are the future of any nation. Dhaka is the capital of Bangladesh. If Dhaka doesn't have enough space or suitable architecture for the children, then we can easily guess, what is the situation of other cities in Bangladesh. Dhaka, the capital of Bangladesh has a long history of rapid urbanization and urban dwellings. The transformation of space from low-rise to high rise has a tremendous effect on the children's mental and physical health. This high-rise urban dwelling style has ushered in a new socio-cultural era in Dhaka as well as whole Bangladesh, which is significantly different from that of the past. Some high-rise buildings are just for living; they have hardly any scope for social interactions and social gatherings. So, they just stay in buildings and start to play indoor games, which is not good for their mental health. Now-a-days they don't know how to interact with other people, how to compromise and sacrifice, how to play in a group or how to lead a group. Outdoor activity got decreased in a dangerous level in last 15 years. This scenario is not compatible with our traditional culture; it ignores their social values such as sense of community, neighborliness and friendliness.

We need to understand that quality of community space has tremendous effect on a children's mental or physical health. Maintaining traditional socio-spatial pattern helps them to retain their legacy of social harmony and social bond. This study attempts to focus on the effect of our architecture on the children of the Dhaka city. The main focus is to analyze the spatial organization of the community space of architecture of Dhaka are responsible for managing, maintaining and keeping the social harmony through various active performances of the children. With these assumptions, the study develops a conceptual frame work based on relevant theories and concepts and aims to analyze thereby the socio-spatial context and evaluate the findings regarding the issue scarcity of the space for the children.

Socially sustainable community requires good social and physical space as a means to social interaction, active community participation and enough playground or space for the children. There are two case studies on two type of socio-cultural environment of Dhaka. (one with high rise housing system- Japan garden housing and the other one is low cost housing- Korailbosti.) It is hoped that the recommendations as derived from this study can help in building socially sustainable community space for children in the architecture Dhaka.

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7.1 Designed site and master plan

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CHAPTER 1

INTRODUCTION OF THE PROJECT

Content:

1.1 INTRODUCTION

The central focus of this paper is the effect of our architecture on the children's of the dwellers of the Dhaka city. it is found that, no matter what income people group that child belongs to ,he/she is not having mental growth throughout the new urban of Dhaka city. It is focused on the scarcity of spaces for children in Dhaka city and continuous haphazard of their mentally growth in this concrete city. These days everyone is getting busy with their own life, own circle.

No one paying enough attention on the children.

We give a very little thought about over physical, environmental, socio-cultural and other impacts of our growing architecture on a child, where they should be our first concern because they are the future of us. If we failed to bring up properly our child, then we won't be able to see a good future of them as well as our country.

1.2 Project Brief:

1.1.1. Name of the project: Bangladesh Shishu Academy

1.1.2. Project type: Cultural

1.1.3. Client: Ministry of Cultural Affairs, Bangladesh Government

1.1.4. Location: DoyleChattar Node, Bangladesh (opposite of Karzon Hall)

1.1.5. Site area: 343669.37 SQFT, 7.9 ACRES

1.3. Background of the project:

Dhaka is the capital of Bangladesh. If Dhaka doesn't have enough space or suitable architecture for the children, then we can easily guess, what is the situation of other cities in Bangladesh. Dhaka, the capital of Bangladesh has a long history of rapid urbanization and urban dwellings. The transformation of space from low-rise to high rise has a tremendous effect on the children's mental and physical health. This high-rise urban dwelling style has ushered in a new socio-cultural era in Dhaka as well as whole Bangladesh, which is significantly different from that of the past. Some high-rise buildings are just for living; they have hardly any scope for social interactions and social gatherings. So, they just stay in buildings and start to play indoor games, which is not good for their mental health. Now-a-days they don't know how to interact with other people, how to compromise and sacrifice, how to play in a group or how to lead a group. Outdoor activity got decreased in a dangerous level in last 15 years. This scenario is not compatible with our traditional culture; it ignores their social values such as sense of community, neighborliness and friendliness.

One architect gives a very little think about the psychology of a children, when they build a building or made an architecture. It is, to all intents and purpose, children are the future of any nation.

Bangladesh Shishu Academy is only one public academy for children in Dhaka.But architect doesn’t consider the facts of a children's psychology, emotion, natural ventilation when he designed this project.

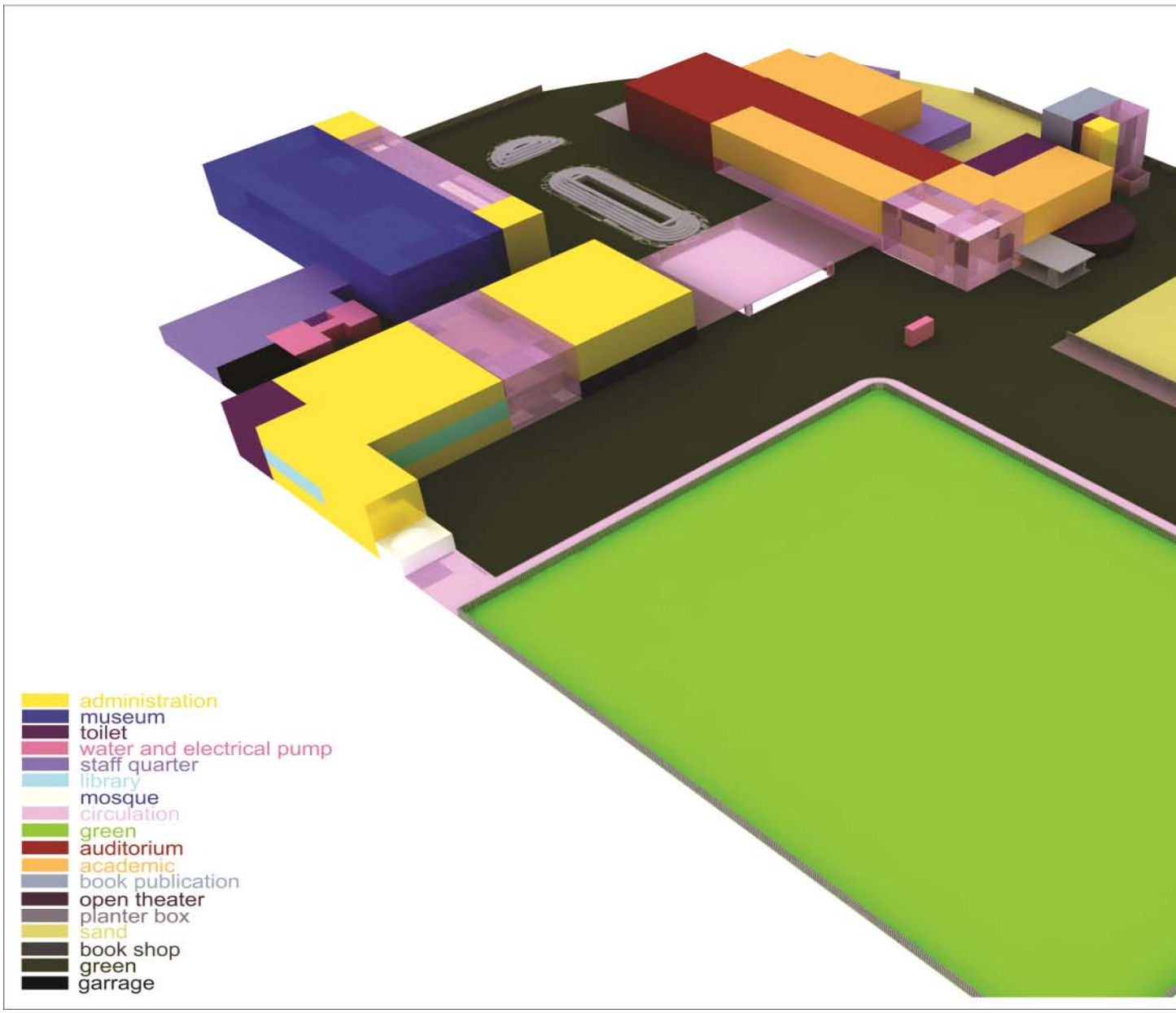


Fig 1.1: existing site and surrounding.

Source: site survey by moon 2014, February 2014

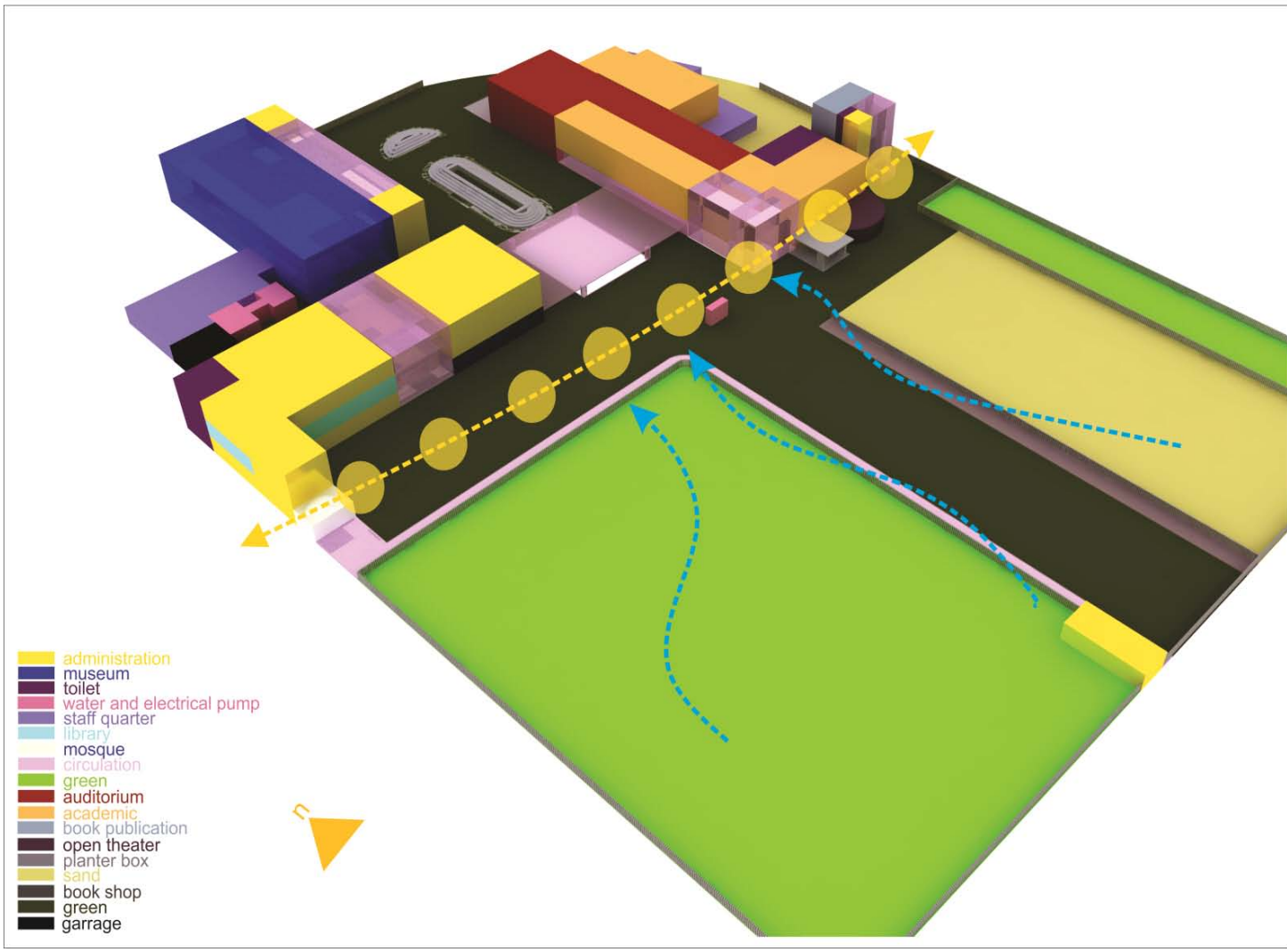


Fig 1.2: Nature is totally ignored in the existing design.

Source: site survey by moon 2014, February 2014

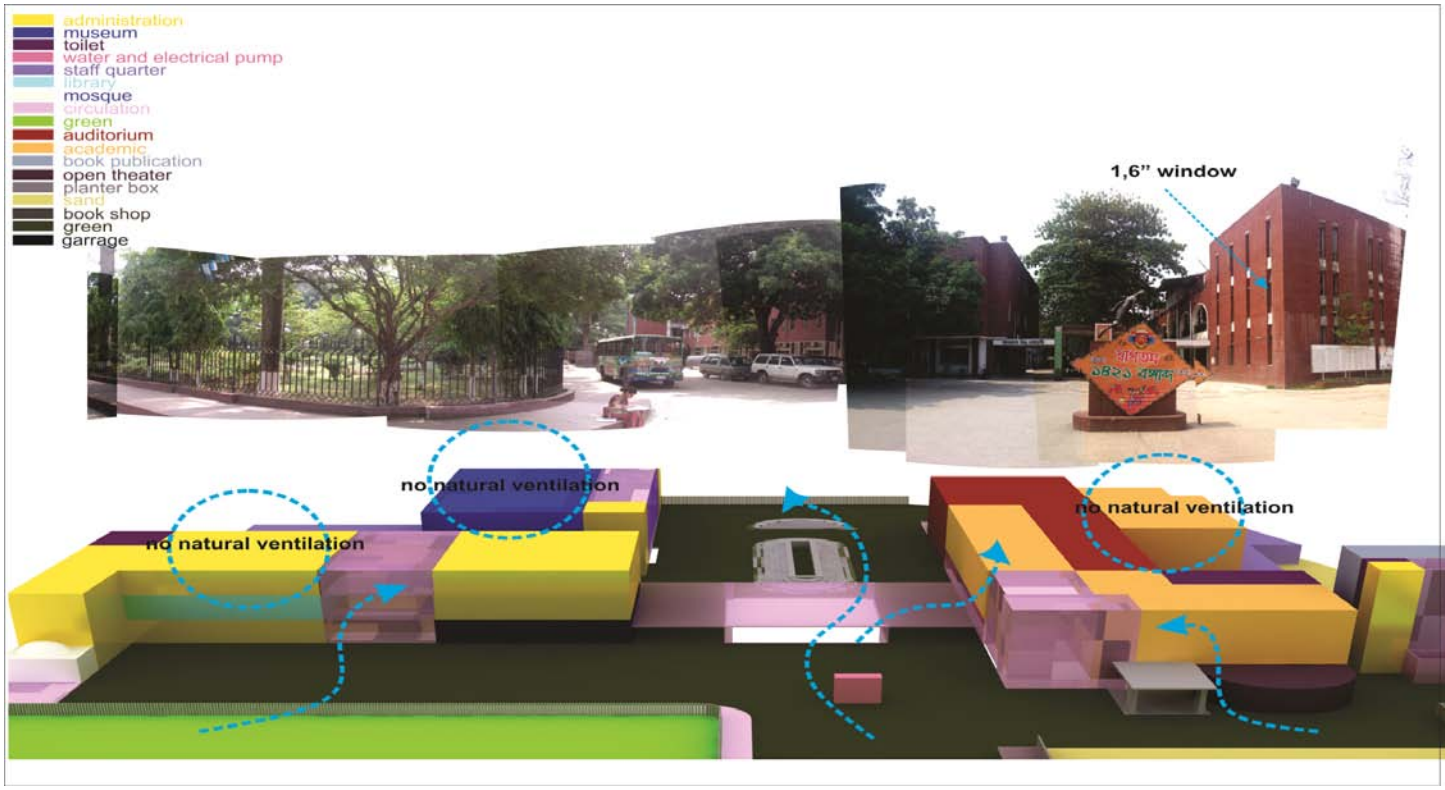


Fig 1.3: Natural ventilation is totally ignored in the existing design.

Source: site survey by moon 2014, February 2014

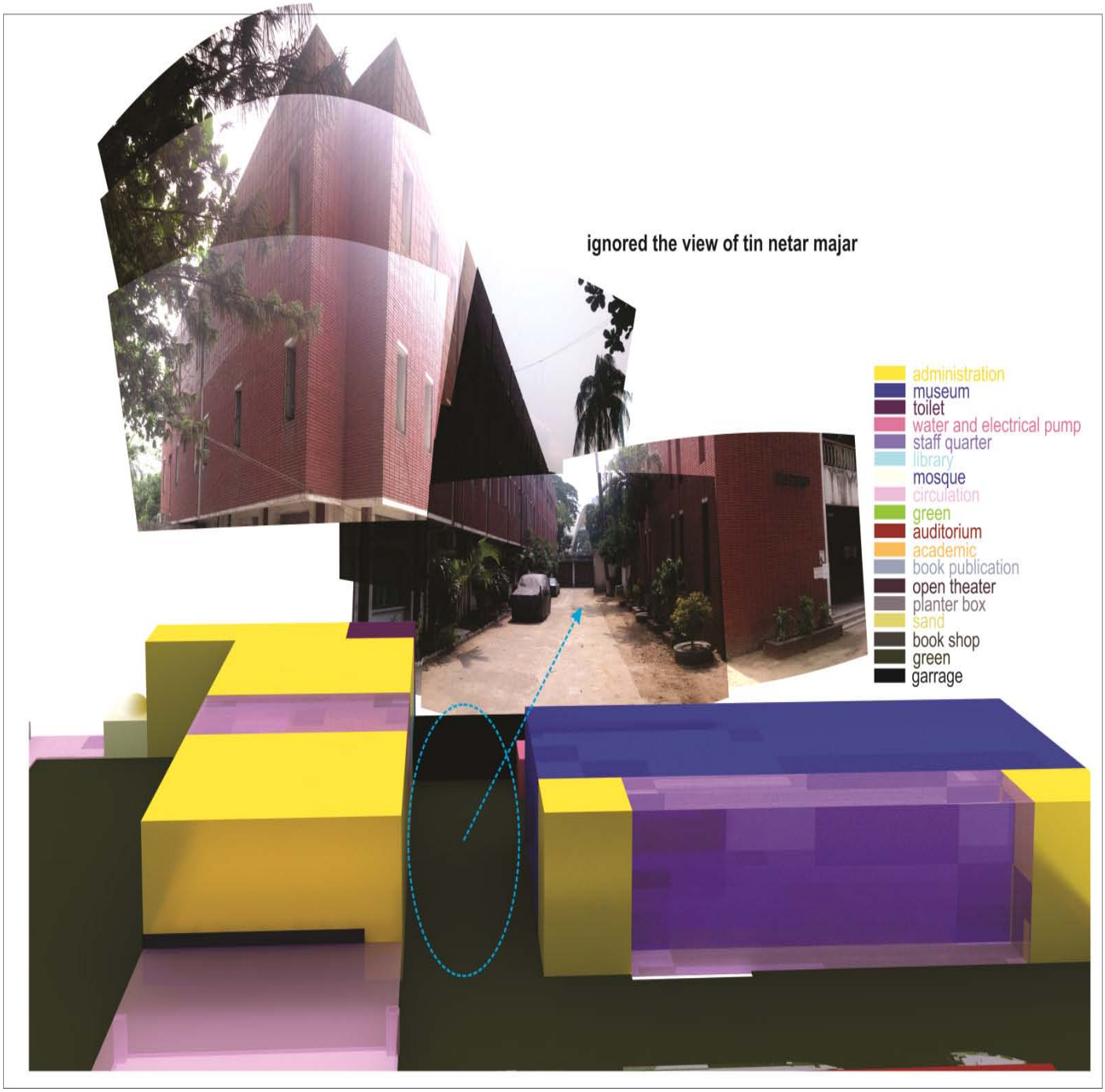


Fig 1.4: Surrounding important structures and view also ignored in the existing design.

Source: site survey by moon 2014, February 2014

Fig 1.5: Surrounding important structures and view also ignored in the existing design.

Source: site survey by moon 2014, February 2014

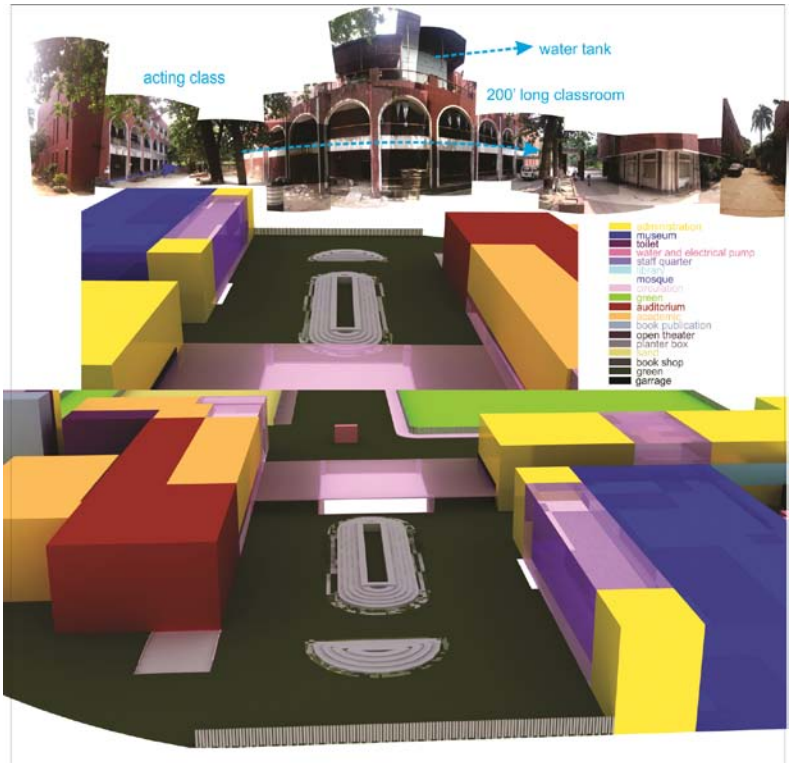


Fig 1.6: Surrounding important structures and view also ignored in the existing design.

Source: site survey by moon 2014, February 2014

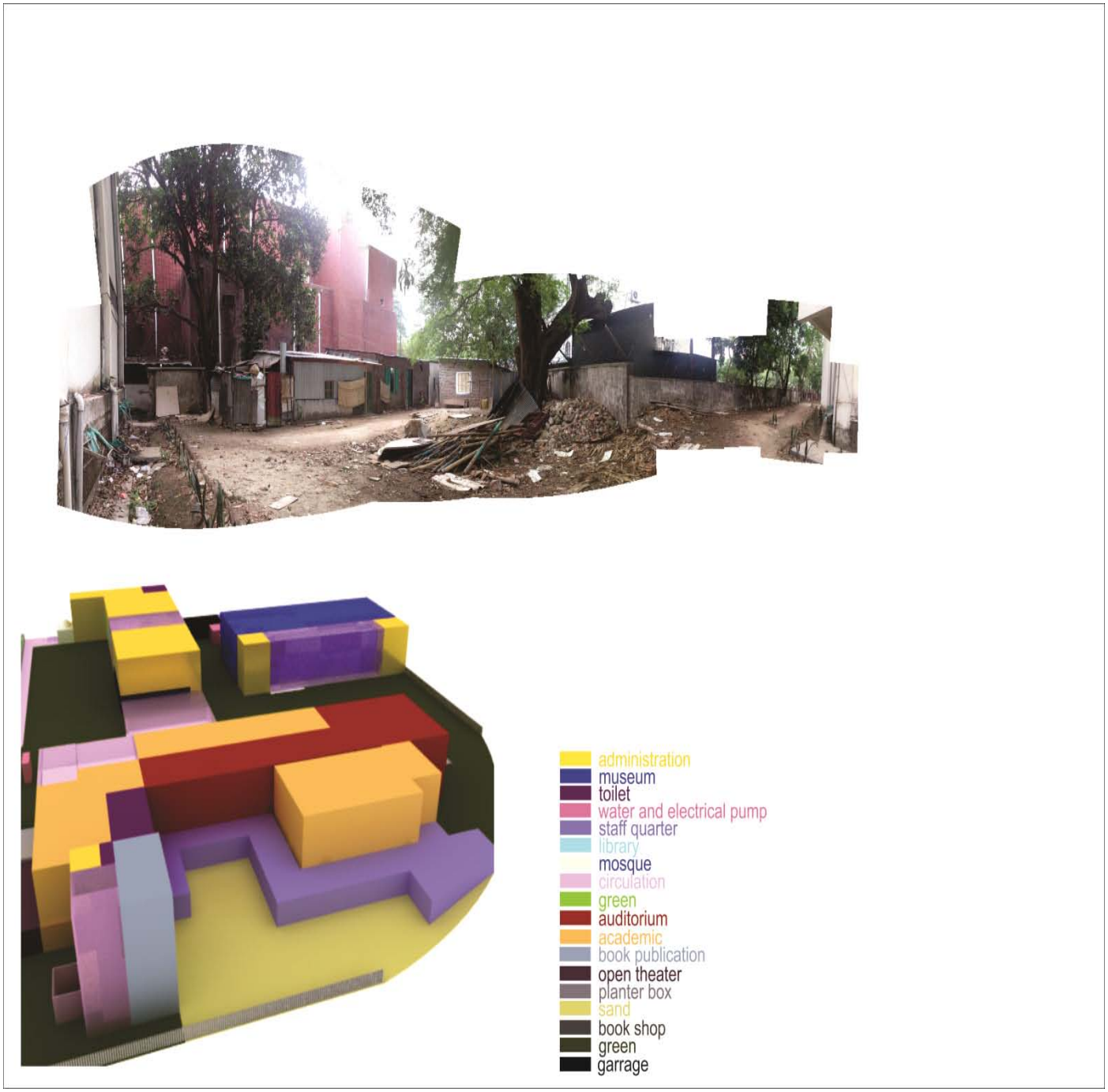


Fig 1.7: Surrounding backs and leftover spaces are poorly handled in existing design.

Source: site survey by moon 2014, February 2014

Fig 1.8: Surrounding backs and leftover spaces are poorly handled in existing design.

Source: site survey by moon 2014, February 2014

1.5 Aim of the project:

We need to understand that quality of community space has tremendous effect on a children's mental or physical health. Maintaining traditional socio-spatial pattern helps them to retain their legacy of social harmony and social bond. This study attempts to focus on the effect of our architecture on the children of the Dhaka city. The main focus is to analyze the spatial organization of the community space of architecture of Dhaka are responsible for managing, maintaining and keeping the social harmony through various active performances of the children. With these assumptions, the study develops a conceptual frame work based on relevant theories and concepts and aims to analyze thereby the socio-spatial context and evaluate the findings regarding the issue scarcity of the space for the children.

1.6. Reasons for choosing the program:
There is no another academy for children then Bangladesh Shishu Academy. This Academic's design is also not suitable for children. Children are the main strength of one country. They are our future. We should not ignore them,

If we could provide a good healthier place for them, then we might be able to get our new pets, singer and dancer.

Singing, dancing and painting are the main programs in this institution. But we can increase our programs in these institutions, as I tried to give an opportunity to flexible spaces according to the programs.

1.6.2. Program in brief:

Permanent exhibition space

This is an academic center. Children would draw here, would make sculpture here. So they need a permanent exhibition space.

Temporary exhibition space

This exhibition space is needed for different kind of days. Such as- "eid", "puja", "world children's" day etc.

Multipurpose hall

A multipurpose hall is needed for their performance.

Seminar room/ Documentation room

Different kind of seminar could be held here.

Auditorium

For present their performance at different kind of art.

Library/ archive

A library is must for any kind of academic center.

Book shop

For selling books for children.

Museum- (existing) puppet and cartoon History in Bangladesh

Already there is a museum of Bangladesh's history of British period. This museum could be expanded and can introduce a puppet and cartoon museum for children. There is not any cartoon museum in Bangladesh yet.

Though Bangladesh's cartoon and puppet culture is quite rich.

Cafeterias

A cafeteria is a must in any kind of academic area.

Open theatre/ Performance space

There could be an open theater for acting or street dram or any kind of performance.

Class room

This academy needs some classes for different kinds of arts.

Workshops

Workshops should be there for some basic course at some area

Teacher's room

Teacher’s room is a must in any kind of academic area.

Administration/offices

Administration office is needed for continuing the program correctly.

Accommodation of staffs

Some staffs needs accommodation

Student’s dorm

A dorm is needed for foreign students and students for outer of Dhaka city

Kitchen

A kitchen is needed for the cafeteria and dining.

Dining

For the foreign students

Indoor game

Bangladesh is enriched by indoor games. these games can be played here.

CHAPTER 02

Site Appraisal

Content

2.1. Location of the site:

2.1. Location: Doyel Chattar, Shabagh, Dhaka, Bangladesh, opposite of karzon hall.

2.1.2. Site area: 343669.37 sqft, 7.9 acres

Built area: 248554 sqft

2.2. Site and surroundings:

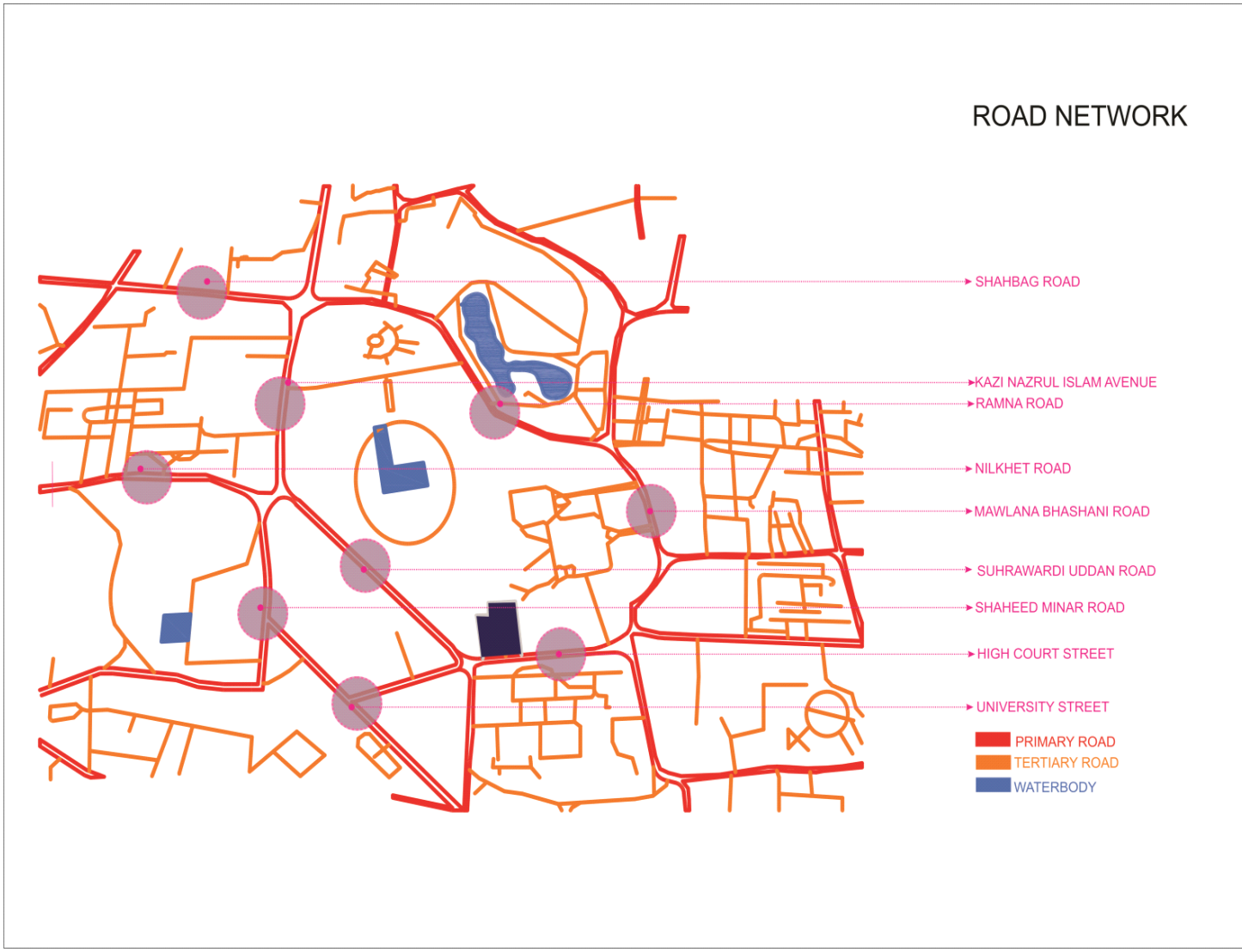


Fig 1.9.: Site surrounding and road connections.

Source: (www.googleearth.com)

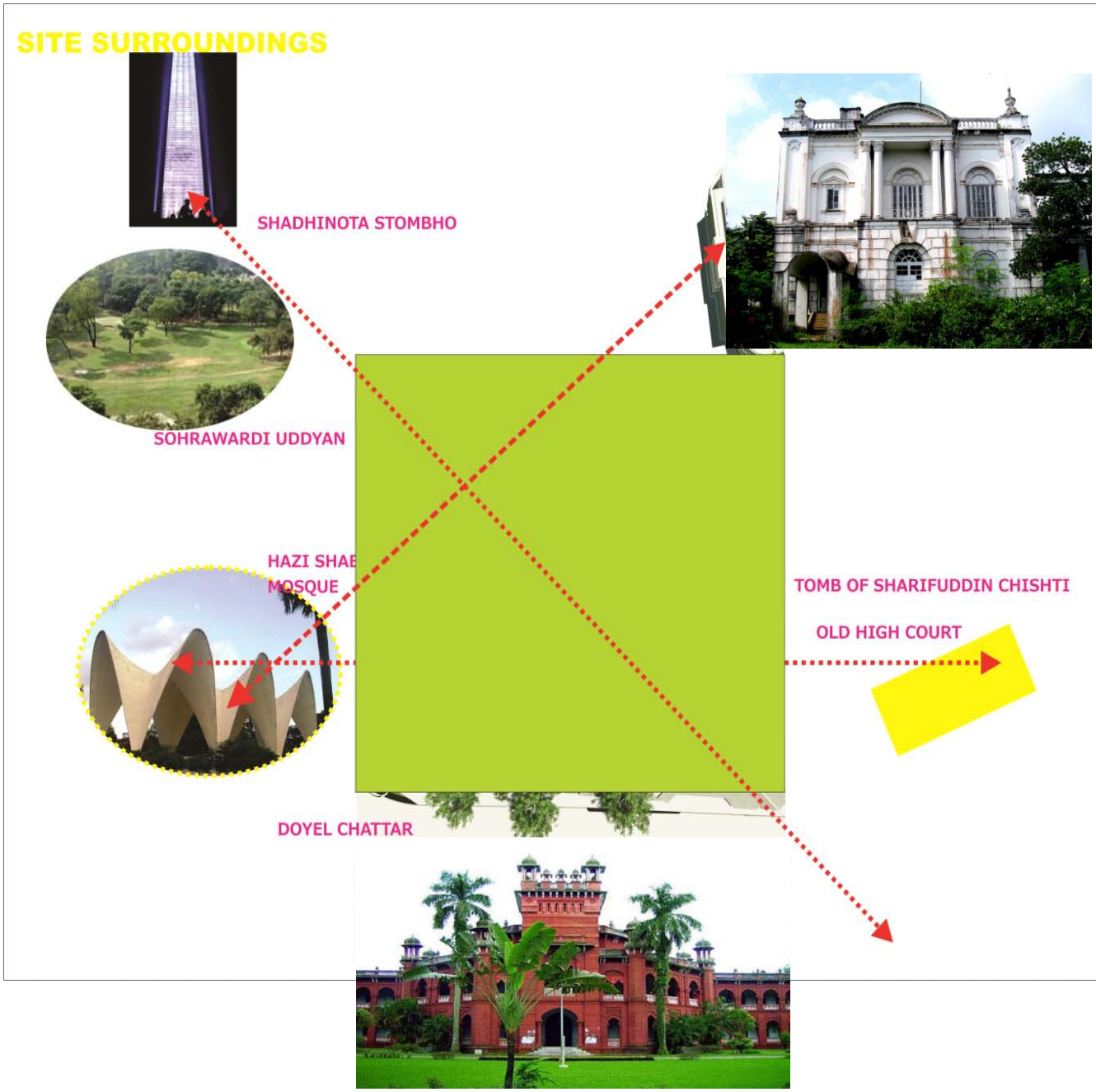


Fig 2.1: Site surroundings, important historical structures and views.

Source: (www.googleearth.com)

2.2.1. Site area:

The area of the site is approximately 343669.37 sqft, 7.9 acres.

2.2.2. Existing Land use:

The site is originally owned by Dhaka university authority. In the British period,

there was a British officer's mess. But later the area was brought for Dhaka University, by a Group of elite people of Bangladesh lead by "Nawab Solimullah", which was the basic requirement for establish a university.

But after British period, when Bangladesh was East Pakistan, the Pakistani government took many lands from Dhaka university property, which is now used as B.U.E.T. University, "Silpokola academy" extension, "Bangladesh sthapotto audhidopter" etc. institution.

But the area of the site was, unused till 1995. Recently it is being used as "Shahbagh Police station".

2.2.3. Adjacent land use:

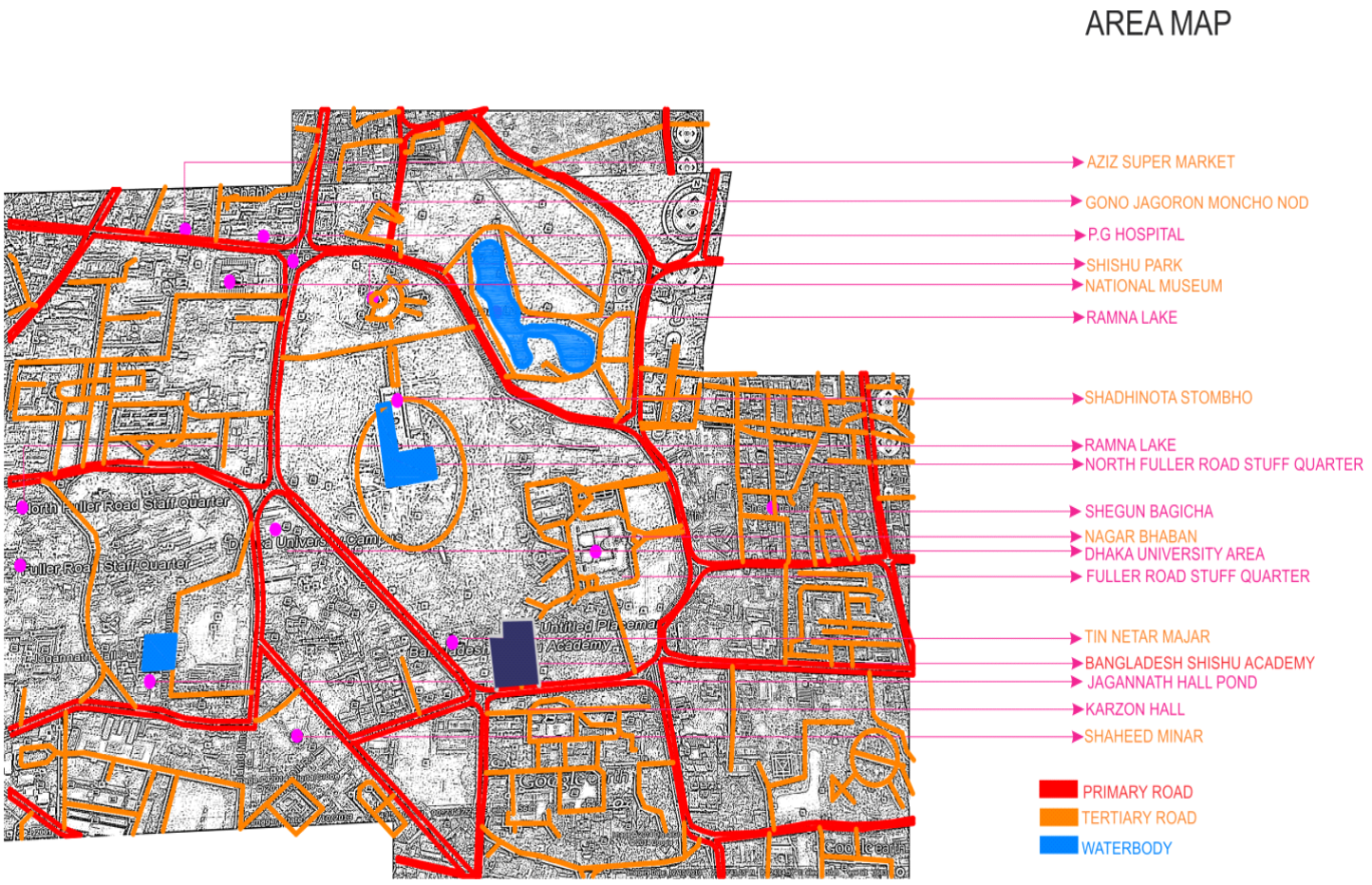


Fig 2.2: Site surroundings important places.

Source: (www.googleearth.com)

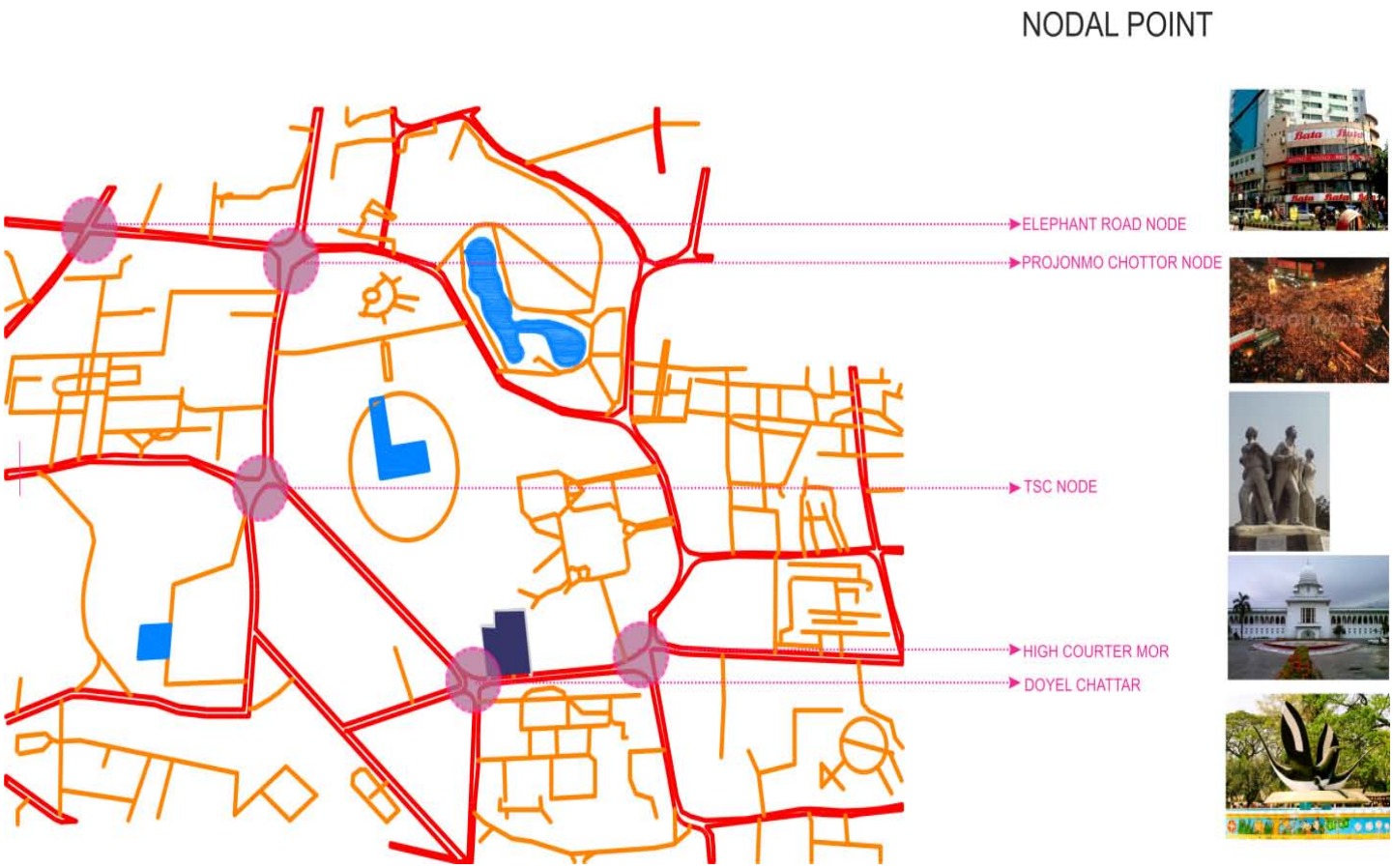


Fig 2.3: Site surroundings Important Nodes.

Source: (www.googleearth.com)

The site is situated at the doyelchattar node.

At the south side there is karzon hall.

At the east side there is Banglasdeh supreme High Court.

At the west side there is Tin netarmazar.

At the southern western side there is situated "Shadhinotarstamva"

2.3. Environmental considerations:

2.3.1. Topography

The topography is flat land and no significant elevation variation.

2.3.2. Habitation

To the northern spare,

Tejgaon, gulshan, banani etc. mixed commercial-residential zone situated.

Which are also called elite class habitant spare, of the Dhaka urban city.

To the southern spares,

The most old and dense habitation, old Dhaka situated. Lalbagh, shutrapur etc.

To the eastern spare, a large chunk of green, as sauradiuddayan and Ramna Park situated and then government offices. So, on a large portion of the eastern spare are without residential area. And after office time become vacant.

Then motijhel (commercial place), place at the outer spare.

To the western side,

Elephant road, dhanmondi residential area, hazaribaghetc residential places situated.

2.4. S.W.O.T. Analysis:

Strength:

• Offers a variety of choices to the public to engage in

• The museum, public library and institute of fine arts, Shahbagh market, hospitals define the node as a secondary heart of the city.

• Open recreational spaces- Ramna park, Sohrawardy Uddyan

Weakness:

• Too much services, at one place.

• No well-defined public streets although a lot of public services- library, museum, and hospitals exist.

• Hoodlum, beggars use the dividers in an unregulated manner.

Opportunity:

• Some of the open spaces specially Sohrawardyuddan opposite to institute of fine arts can be redesigned for better public use.

• The transport hub can be redesigned to serve better ends

Threat:

• The unplanned growth when coupled with the essence of a city centre can result in it's failure.

The C.H.I.P. data:

Culture:

-Invites a diverse age group

-The street shops imbibes the idea of providing junctions for people to congregate

-The Institute of Fine Arts encourages artists Students of the Dhaka University enlivens the place

-Exhibitions, cultural performances saturate the public life at times

Heritage:

-National museum

-Shwardi Uddyan: A place that reflects the past

-Art history depicted at the Institute of Fine Arts

-An important place during various festivals

- Hazi Shahibuddin mosque

-Tomb of SharifuddinChishti.

Infrastructure:

-Diverse height profile

-Massive built forms

-Wide roads

-Public spaces

-Diverse population group entertained

-Important transportation hub

-Important public infrastructure such as Public Library, Specialized Hospitals, market, amusement park, park, educational institution, religious institution.

Preservation:

-Preserve its nature as an intermediate space between old and new town

-The public spaces

-The green spaces

-The floral shops

Chapter 3

Literature Review

Content

3.1 History of Bangladesh Shishu Academy.

3.2 The objective of the department

3.1. History of Bangladesh Shishu Academy.

Half of the populations of Bangladesh are children. Bangladesh Shishu Academy was established in 1976 with the view to the development of physical, mental, cultural and latent talent of children and thus builds up the future nation builders as efficient citizens. Even 13 years before the Child Right Convention regarding child security and welfare by the United Nations was adopted in 1989, the founding of Bangladesh Shishu Academy played an important role in the development and national interest of the children of Bangladesh.

Out of the necessity of Shishu Academy in different districts of Bangladesh, in FY-1980-81 in the then 20 large districts the branch offices of Shisu Academy were established. Later on, in 1993-95 in the rest of the 44 districts and in FY 1996-97 in the 6 upazilas of 6 districts the branch offices of Shishu Academy were established.
At present Bangladesh Shishu Academy is an autonomous institution under the Ministry of Women and Children Affairs. Its activities are run by a 13 member board of management.

Bangladesh Shishu Academy (BSA) is the only national institution working for children's cultural and mental development. The main activities of Shishu Academy are operated by the central office. The same activity is followed by the central office as well as in all districts. For the smooth operation of the branch offices there is an operational committee headed by the District Commissioner. There is a local committee headed by the UNO to operate the children activities in every upazila. Thus it has been made possible to start an effective process to bring all the children of the country under the activities of the academy.

Bangladesh Shishu Academy, a unique organization for cultural and mental development of Bangladeshi children has started from 1976. From 1992, Bangladesh Shishu Academy's activities have spread out all over the country through district offices. Every year, more then 30 events have implemented all over the country with three regular activities like cultural training, National children award competition and SBK and Pre-school program
Bangladesh Shihsu Academy is working in different areas for overall development of the children. The areas are Music, Dance, Painting, Acting, Musical Instrument playing, Recitation, sports, Information technology, Children film, Children publication, Children

library, Children Museum, Debate etc. Recently Early childhood development becomes as an important area of activities of Bangladesh Shishu Academy.

The nature and working pattern of the Academy is unique and uncommon. So the initiative was appreciated nationally and internationally. But due to the lack of publicity, it was really difficult for others to know about BSA and its activities. This web site actually will open the doors and windows of opportunities and information about BSA for world's citizen.

Government of the Peoples Republic of Bangladesh is promoting information technology and e-governance very strongly and now BSA is one step ahead to enter to the world of e-governance.
It's just a start. Gradually BSA will enrich the web site by making it more interactive and participants friendly.

3.4. The objective of the department:

Initial concept was try to make an architecture, which will attract children towards this academic building. Shape of the building will help them to express their inner world.

Children are like puzzles. They love lego.They love to make different shapes by interlocking these square and rectangular boxes.

Lego symbolizes children. We can build anything by those small square and rectangular pieces by interconnecting them.

Children are like lego. They can be anything. They are our future. They can be poet, they can be painter, they can be dancer. But we have to give them that oportunity.

Dhaka has a big lack of open spaces. There is a very few playground for the children. But parents are afraid to send their children there for the lack of security.

My main goal was to give as much as playground for them. As they love up downs of level, my another concern was to give them different level of spaces. I wanted to attract them towards the building by different level of spaces, by a large number of green spaces.

As, “shadhinota stamva” is situated at the north west side and “Karzon hall” at the south side of the site.

Here a strong attempt was made to, create an alley by connecting this two notions. Because, when they will enter into the site they will walk towards our pride from our glorious past.

Chapter 4

Case studies

Content

4.1. CASE STUDIES 01:

Fig 2.4: Entry view of the project.

Source: (http://www.archdaily.com/383206/the-big-lego-house-reveal/51aebdb6b3fc4bf3fc0000db_the-big-lego-house-reveal_1-jpg/)

Project name: BIG's designs for Lego visitor centre
Location: Billund, Denmark.
Site area: 80 X 100 meters
Built area: 7,600 square meters
Building Type: visitor centre
Year of complete: 2016
Architect: BIG

Toy brand Lego has revealed the design by Danish studio BIG for a visitor centre based on its famous plastic bricks.

The Lego House resembles a stack of Lego bricks rising from a public square in the company's home town of Billund, Denmark.

Inside, the bricks will house exhibition spaces, a café and a shop, while several roof top gardens and sheltered spaces beneath the building will be accessible to the public.

“The creative use of the Lego brick shape is a true visualization of the systematic creativity that is at the core of Lego play,” said Peter Folmann, marketing responsible for the Lego House in a statement on the company's website.

Construction is due to begin in early 2014, with the inauguration scheduled for 2016

BIG previously built a model of a proposal for some organically-shaped towers from 250,000 Lego bricks.

The LEGO Group today revealed the design of the experience center "The LEGO House". The center, which will be built in Denmark, illustrates the systematic creativity of LEGO bricks and is expected to attract 250,000 visitors annually.
When the LEGO House opens in 2016 visitors to the house in Billund, Denmark will enter a building that resembles gigantic LEGO bricks combined and stacked in a creative way to create an imaginative experience both outside and inside. In the experience center guests can expect hours full of active fun while at the same time engaging in an educational and inspirational experience – everything that LEGO play offers.

Fig 2.5: Entry view of the project.

Source: (http://www.archdaily.com/383206/the-big-lego-house-reveal/51aebdb6b3fc4bf3fc0000db_the-big-lego-house-reveal_1-jpg/)

Kjeld Kirk Kristiansen, LEGO owner, explains: "The LEGO House will show the past, present and future of the LEGO idea and I am certain it will be a fantastic place, where LEGO fans of all ages and their families and friends will get a wide range of unique LEGO experiences. It is our belief that LEGO play fosters innovative thinking, and the LEGO House gives us an opportunity to make it very tangible what LEGO play offers and how it stimulates children's creativity and learning."
The LEGO House will be approximately 30 meters tall, and there will be public access to several roof-top gardens from the outside. The building will offer visitors a total of 7,600 square meters of exhibition areas, a café, a unique LEGO store and a large public square.
"It is our wish that the LEGO House is used by both visitors and the citizensofBillund; the birthplace and home town of the LEGO Group. For this reason a large part of

the building – 1,900 square meters - will be a covered square with free access for the public, and we hope it will be a natural gathering point for people living in Billund as well as visitors. We do not know what specific activities will be in the house," says Hans Peter Folmann and adds:
"We are very ambitious with the LEGO House – It is our hope and mission that a visit to the LEGO House will be an experience you will never forget, no matter if you are a long time fan or just want to know more about what LEGO play stands for."

The LEGO House:
Will cover an area of 80 by 100 meters and it will be approximately 30 meters tall.
Will feature a total of 7,600 square meters – including exhibition areas, a café, a LEGO store and a public square.
Will be built at the center of the town of Billund, and many entrances will open up the building to the surrounding area.
Will be built in collaboration between KIRKBI A/S, the LEGO Foundation and the LEGO Group, but the LEGO Group will handle the daily operation of the LEGO House once finished.

Fig 2.6: Arial view of the project.

Source:
(http://www.google.com.bd/imgres?imgurl=http%3A%2F%2Fcdn.theatlantic.com%2Fnewsroom%2Fimg%2Fposts%2F2014%2F08%2FLego_House_02%2F9a62e4876.jpg&imgrefurl=http%3A%2F%2Fmuseum.breuerpress.com%2F2014%2F08%2F20%2F&h=310&w=620&tbnid=yuNl0bNwWGBFIM%3A&zoom=1&docid=65v3JuM3DerywM&ei=lfr6U9-2NdWRuATMo4C4Bw&tbm=isch&ved=0CEQQMygjMCM&iact=rc&uact=3&dur=425&page=3&start=35&ndsp=20)

4.3 Case studies 02:

Project name: SHANTINEKATAN
Location: Billund, Denmark.
Site area: 80 X 100 meters
Building Type: University
Year of complete: 23 December 1921
Architect: not formally mentioned

Fig 2.7: open to sky class room.

Source: (http://ananda-amrita.com/images/Bio_2.jpg)

In 1901, Rabindranath started a school at Shantiniketan named Bramhachari Ashram that was modeled on the lines of the ancient Gurukul system that later came to be known as the PathaBhavan, the school of his ideals, with central premise that learning in a natural environment would be more enjoyable and fruitful. With the financial backing of the Maharajah of Tripura, the Visva-Bharati Society was established in 1921. Tagore envisioned a center of learning which would have the best of both the east and the west. The school was expanded into a University. It was named Visva-Bharati, which was defined by Tagore as 'Where the world makes a home in a nest." The Open-air education as opposed to being cloistered in the four walls of a classroom became a reality here. Eminent people from all over the world came to Visva-Bharati during its peak period. Visva-Bharati became a Central University in 1951. Leaves of the Chhatim

(Saptaparni – or 7-leaf sprigs) trees are given to graduating students at the annual convocation. Many world famous teachers have become associated with it over the years. Indira Gandhi, Satyajit Ray, and AmartyaSen are among its illustrious students. The Prime Minister of India is the Chancellor of the University.

Kala Bhavana, the art college of Shantiniketan, is still considered one of the best art colleges in the world. Other institutions here include VidyaBhavana: the Institute of Humanities, ShikshaBhavana: the Institute of Science, SangitBhavana: Institute of Dance, Drama and Music, VinayaBhavana: Institute of Education, RabindraBhavana, Institute of Tagore Studies and Research, Palli-SamgathanaVibhaga: Institute of Rural Reconstruction, and PalliShikshaBhavana: Institute of Agricultural Sciences. There are also other centres, affiliated to major institutions such as Nippon Bhavana, the Indira Gandhi Centre for National Integration, Rural Extension Centre, SilpaSadana; Centre for Rural Craft, Technology and Design, Palli-Charcha Kendra: Centre for Social Studies and Rural Development, Centre for Biotechnology, Centre for Mathematics Education, Centre for Environmental Studies and a Computer Centre. Apart from Patha-Bhavana, there are two schools for kindergarten level education: MrinaliniAnandaPathsala, SantoshPathsala: a school for primary and secondary education known as ShikshaSatra, and a school of higher secondary education known as Uttar-ShikshaSadana.

Fig 2.7: shanti-niketon building.

Source: (http://www.amantrangrouptarapith.com/images/Santiniketan_School.jpg)

4.5 Case studies 03:

Project name: Charukola (Institute Of Fine Arts, Dhaka University)

Location: Dhaka University area.

Site area: 700 square meters
Built area: 400 square meters
Building Type: Fine art Institute
Year of complete: 1956
Architect: Mazharul Islam

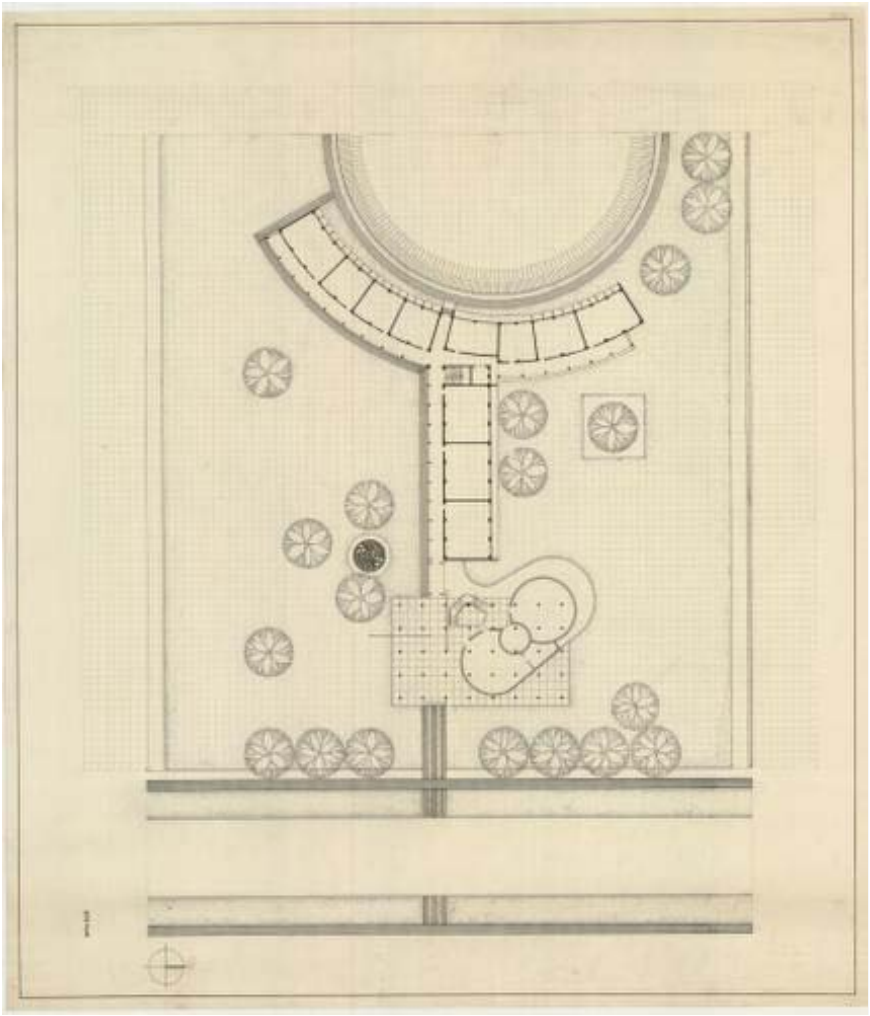


Fig 2.8: Site plan.

Source:(http://www.google.com.bd/imgres?imgurl=http%3A%2F%2Fwww.muzharulislam.com%2Fprojects%2Ffine_arts_institute%2Fdrawings%2F15site_plan.jpg&imgrefurl=http%3A%2F%2Fwww.muzharulislam.com%2Fprojects%2Ffine_arts_institute%2Ffine_arts_institute_dhaka_drawings.html&h=500&w=428&tbnid=rNRimL3EV7MlOM%3A&zoom=1&docid=SFYBAHolPlEMIM&ei=wA37U5TdFY7s8AW6wYLoAQ&tbm=isch&ved=0CFAQMygvMC8&iact=rc&uact=3&dur=0&page=3&start=38&ndsp=21)

This masterpiece was Muzharul Islam's first architectural endeavor. The site is located in the roman area apart of Dhaka University Campus. The Roman area is well known for it's gardens and parks. Most of the buildings in this area have been designed in the scheme of a "baganbari" (house in a garden). The site that was given for the purpose of the institute was dotted with beautiful trees with a large circular depression at the end of the site. Muzharul Islam decided to come up with a design scheme that will retain all the trees on the site (as some of them were large beautiful trees that would have require many years to grow). His scheme was also climate responsive and had large continuous verandahs shading the inner walls and windows of the classrooms and studios. The design echoes the out house and inner house scheme of rural Bangladesh. It also transforms 'Jalees' (lattices) and 'beras' (perforated screens) into wonderful screens that separates and creates thresholds. One enters into the front pavilion, a wonderful structure that houses galleries on the ground floor and teachers and common rooms etc. on the first. A wonderful sculptural stairs connects the two levels around a wonderful internal courtyard. Past the pavilion are the classrooms and studios and in the far end encircling the round depression are the print studios. A lotus pond and sitting area becomes the open heart of the whole institute. The ground on the south both is a relief and a place to gather. This ground and the whole structure itself transforms to host many activities namely the Bengali New Year 'PohelaBoishakh' and numerous art classes and competitions for children. Bricks of the project were also custom designed by Muzharul Islam as so are the terracotta screens. Marvelous shading devices and pergola type details brick our driving rain.

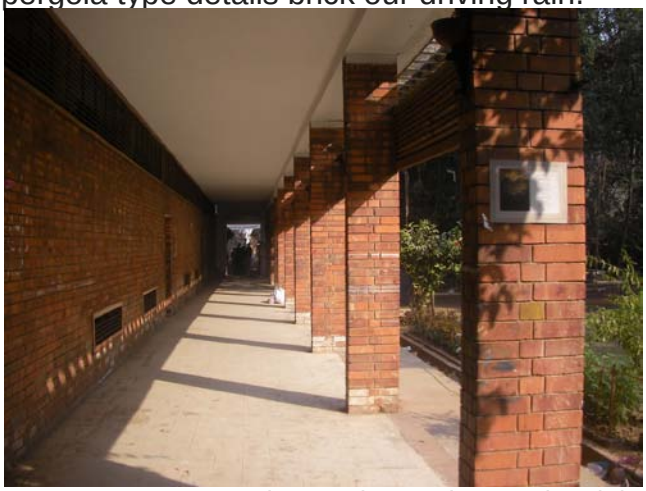


Fig 2.9: class's elongated and deep corridors on the south side.

Source:(http://www.google.com.bd/imgres?imgurl=http%3A%2F%2Fwww.muzharulislam.com%2Fprojects%2Ffine_arts_institute%2Fdrawings%2F15site_plan.jpg&imgrefurl=http%3A%2F%2Fwww.muzharulislam.com%2Fprojects%2Ffine_arts_institute%2Ffine_arts_institute_dhaka_drawings.html&h=500&w=428&tbnid=rNRimL3EV7MlOM%3A&zoom=1&docid=SFYBAHolPlEMIM&ei=wA37U5TdFY7s8AW6wYLoAQ&tbm=isch&ved=0CFAQMygvMC8&iact=rc&uact=3&dur=0&page=3&start=38&ndsp=21)

4.7. Case studies 03:

Project name: METI School
Location: Rudrapur, Bangladesh
Site area: 700 square meters
Built area: 400 square meters
Building Type: Primary School
Built Cost: 35,000 $
Year of complete: from September 2005 to December 2005
Architect: Anna Heringer from Bavaria in southern Germany

Fig 3.1: colorful classes with bamboo structured 1st floor.

Source:(http://archsociety.com/archimg/meti/meti_school_photo.jpg)

ARCHITECTURE

Fig 3.2: class interrior.

Source:(http://archsociety.com/archimg/meti/meti_school_photo-3.jpg)

The Aga Khan Award for Architecture recognizes distinguished architecture that encouragessocialdevelopment, restoration, re-use and environmental responsibility in the Islamic world. One of the winning projects, the METI School of Rudrapur in Bangladesh, is a great example of these values. The school is an amazing hand-built project that showcases great sustainable design practices and locally-sensitive architecture. Elegantly fusing local knowledge, readily available renewable materials and new construction techniques, the project maintains a traditional identity while embracing modernity in both its form and purpose.

Volunteer architects Anna Heringer and EikeRoswag developed the design concept by considering local cultural, economic and ecological aspects. The school is based on regional construction and local materials but implemented with modifications that add efficiency and structural integrity, important factors in the densely populated, flood prone region.

To allow for a second story, the designers improved the bamboo structural system and lashing. They also opted for a brick foundation with a damp proof course to overcome the inevitable rising moisture in the earthen walls. The kiln brick detail enlisted craftspeople from a district 20 kilometers away. The rest of the construction was a collaborative effort between the architects, local craftspeople, students, parents and teachers.

The school building embodies many of the guiding principles behind METI (Modern Education and Training Institute) teaching, an initiative of the Bangladeshi sustainable development NGO Dipshikha. Learning with joy, team-based education, and utilization of nature are all elements of this Montessori-like school.

This hands-on connection was central to the architects' vision. They wanted technical improvements to become part of local knowledge for application in future development. Locally available expertise, skills and materials are all a part of the school's sustainability goals as an environmentally sound, structurally superior catalyst for the local economy and education system.

At the center of the project are the students themselves, many who helped form the thick walls that keep their classrooms cool and hung the shutters that allow natural daylight and ventilation. Under the shaded garden façade where colorful sari material contrasts the school's earth tone walls, the students of the METI School leave their shoes along an expansive veranda and enter the handmade structure built to bring out the best in them. It is with intent that the principles guiding their education take form in the building that surrounds them. The structure, like the program within, serves as a wonderful example for a sustainable future.

The METI School in Rudrapur is a recipient of a 2007 Aga Khan Award for Architecture. The project has also been recognized by the 2007 International Bamboo Building Design Competitionas a Visionary Design for Ecological Living, received a 2006 AR Award for Emerging Architecture and the 2006-07 Kenneth F. Brown Asia Pacific Culture and Architecture Design Awards.

4.3 Case findings

Shantiniketan, India.

- The courtyard topology madrasa character.

Shaded courtyard or deep verandah helps good ventilation and this deep shaded places cools the surrounding air and ventilation.

- Courtyards at various levels and an amphitheater in the main courtyard.

Which form a series of open spaces that collectively offer a unique opportunity for different type of cultural affairs.

- All this open, semi-open places creates idle places for nurturing creativities.

This institute also a great example to show in this kind of study, nature plays a vital role.

- The courtyard and internal surface are treated as the public realm.

These places are also very favorite among the youth generation.

- Most the class room at the outer edge

Which formed of circulation spaces on all levels and modulated of create semi-open spaces, sitting alcoves and terrace, thereby further reinforcing a public a public realm along the edge of the courtyard.

-This project shows how different level changes create a normal place into a whole new spaces.

- The design results from the integration of programmatic, structural and mechanical needs.

So, most of the decision comes from the practical solving of different requirements.

- Unique façade treatment.

4.8. Case findings : METI School of Rudrapur, Bangladesh

- With the formal qualities of a town square the new landscaping at the front of the building provides an arrival point on the campus.

- Second Square connects the new School offers students substantial outdoor space to display, perform and showcase their artwork, offering the opportunity for collaboration between the two departments.

- This façade treatment responds to the local mud and bamboo.

The building is wrapped entirely in tiled zinc cladding and punctured regularly with recessed openings.

- A flush glazed high specification curtain walling system provides a datum around the building, bringing natural daylight into the circulation spaces and offering views into the ground and first floor of the building.

- Solar shading is provided through the use of encapsulated zinc mesh within the system.

Negating the requirement for any applied projected external shading, which would disrupt the building’s seamless

- The building's simple yet bold square plan beguiles the intricately arranged internal spaces.

Box-like rooms, mostly double-height, individually cater for the distinct and separate environments appropriate to each of the departments.

- The central atrium accommodates a robust steel staircase with link spaces that provide informal meeting and social spaces encouraging interaction between the students and staff from the different departments.

- A distinctive but neutral color palette of black, white and grey helps to bring order to a series of spaces that are full of energy and activity.

- At roof level, offices for the academics are arranged around a roof terrace offering an outdoor meeting/teaching space.

CHAPTER 05

Program Development

Content

5.1. Proposed Program:

Below the proposed program is provided in brief. The different component and the proposed area of the different units demand an elaborate master plan.

1.6.2. Program in brief:

Common Facilities

Photography exhibition gallery:

Lobby

Main gallery

Total 7905 sqft

Seminar Room:

With provision for cultural and other functions (for 70 persons)

Main hall

Stages area

Store

Toilet in lobby (gents and ladies)

Total 2711 sqft

Cafeteria 1: (Main Cafe)

For 20% of the 640 student, 210 students,

Main served area

Delivery counters

Washing room

Kitchen storage,

Cooking space

Outdoor setting space

Washing zone, toilet

Total 22844 sqft

Cafeteria 2: (Snacks bar Cafe)

Preparation zone

Counter + food display

Outdoor sitting

Indoor sitting

Total 5666 sqft

Auditorium:

Lobby

Snacks bar

Ticket counter, projection rooms,

Back stage

Total 15856 sqft

Outdoor market

Flower shops

Public food shops

Total 10708 sqft

Administration

Department’s chairman room

PA to Department’s chairman and waiting room

In 2 section of the department each would have 12 teachers,

In total 24 teachers and 2 department head,

1 department head (1 room)

2 D.C.O.

1 professor (1 room)

Associate professors (2 rooms)

4 Assistant professor (2 rooms)

5 lecturers (2 rooms)

General meeting room

Office room

(1 section officer+ 3 Clark + 2 computer officer)

Resource room

Lobby

Toilet (gents and ladies)

Total 5801 sqft

Academic block

Film developing unit

Studio-1 (Videographic Studio / Umatic/ Still)

Main studio (triple height)

Equipment storage

Electrical room

Engineering section

Control room

Gents and ladies room

Total 5800 sqft

Studio-2 (VHS video Camera/ Still Photography)

Main studio

Store (materials)

Equipment store

Electrical Room

Control room

Editing

Computer animation

2 co-ordinate room

Gents and ladies dressing room

Total 6314 sqft

Green Room 577 sqft

Dubbing studio 2278 sqft

Film mixing studio 2382 sqft

Total 24994 sqft

CLASSROOM

12 studio class rooms

(20 students x {8'x8'}, 1280sqft +30% circulation, 384 sqft.

= 1,664 sqft.)

8 lecture class room,

(20 students x {6'x6'}, 720 sqft. +30% circulation, 216 sqft.

= 936 sqft.)

4 computer classes (1849 sqft x 4)

Toilets (gents & ladies)

Total 22849 sqft

Library

(Photography library)

(videography library)

Total 6100 sqft

Parking 24203 sqft

In total, 248554 sqftKadri 76

5.2 Developed Program

Site Area, A= 343669.37 sqft,

= 7.9 acres

Road width around the site = 100’ (highest) & 60’ (lowest)

= 30 m & 18 m

So, for public educational institute,

FAR = 5

MGC = 50% of A = 171835 sqft

Total Built Area, TBA = FAR x Site Area

= 5 x 343669

= 1718346.9 sqft

Total floors can be built on the site (maximum) = TBA/MGC

= 1718346.9/171835

= 10 floors

Set back for the site :

Front = 1.5 m = 5’

Back = 3 m = 10’

Each side = 3 m =10’

Parking …….. 16900 sqft

Staff’s car 10 Nos.

Visitor’s car 90 Nos.

Bus 3 Nos.

Grand total of built area required (with 30% circulation and services) = 248554 sqft

5.2 Conceptual Layout:

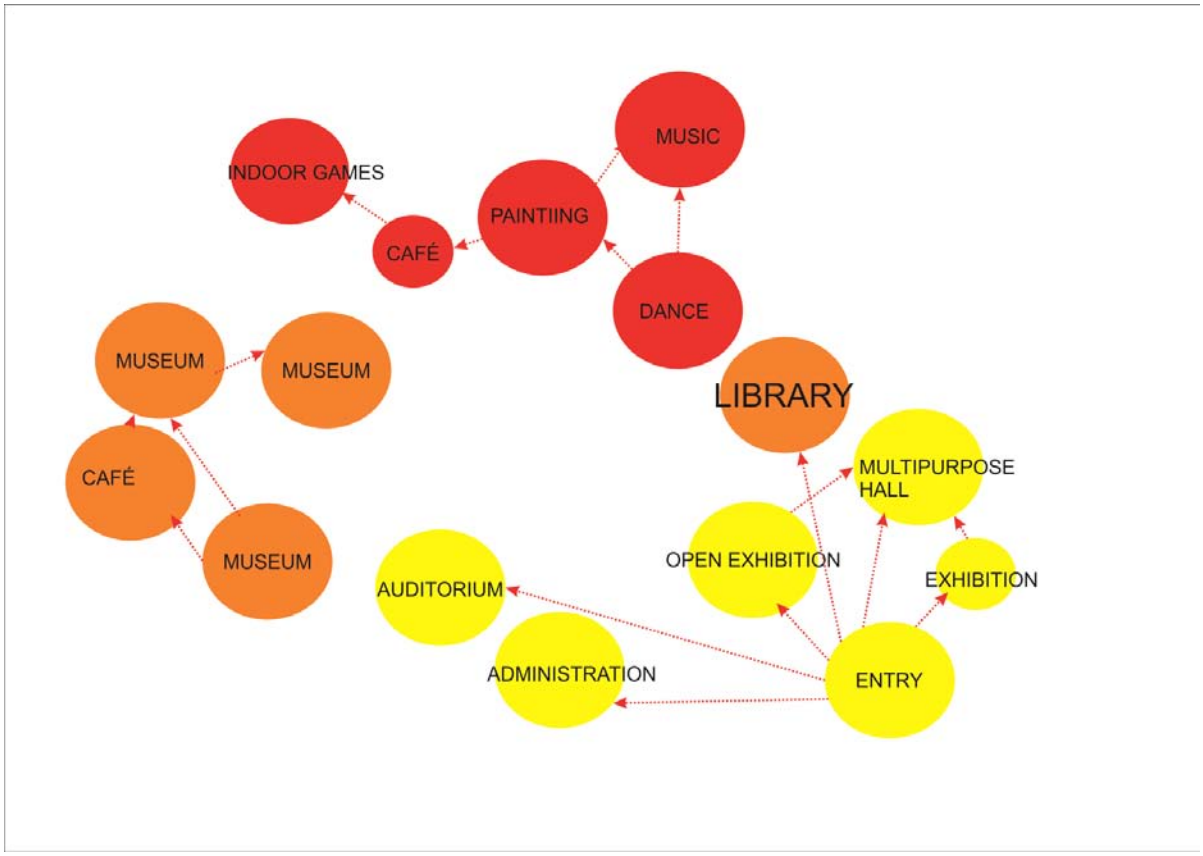


Fig 3.3: Schematic diagram.

Source: (generated from initial design)

5.4. Proposed functions and spaces

Exhibition gallery:

A 7905 sqft, sealing to floor glass façade towards the main road , photography exibiton gallery have a close relation with outside world, yet has all the quality needs into a exhibition gallery. 15’ high gallery has cable hanging panels, which can easily be rearranged. Connected with a reception lobby and one side solid, one side transparent this gallery would be a one of the main focus at the night.

Auditorium:

A 15856sqft Auditorium, with almost 300 hundred viewers each shows, it would be the main display of the students chosen works. Also, ticket shows would be regularly continued. With a snacks bar, and green rooms. Back stage lobby, this auditorium could be used in various way, and would be great source of money.

Cafeteria 1:

A 22844 sqft, with semi indoor and outdoor spaces, designed especially for student socialization. With a glass kitchen, one can see how and when his/her food is cooking. With an adjacent amphitheater and open air movie projection system, one can enjoy food and cinema at the same time.

Cafeteria 2 and tea stalls:

A **5666 sqft**, this cafeteria is mainly for the 15’ high plaza and Library; here mainly light snacks would be sold.

This would create the plaza more vibrant and a place for short refreshment between classes short breaks

Library:

A 6100 sqft, common library for both videography and photography students is also a meeting place. Glass façade at almost 3 sides provides ample of lights and southern openings at besides reading place create a comfortable place for study. And also the view of the forest of the recourse park gives eyes a rest. And readers can easily go into the plaza and sit into the green, or have a short snacks break between reading.

Classrooms, studios:

In the Classrooms, studios, natural ventilation and lighting are provided as per demand. With wooden louver in the south wall, glass window from floor to roof in the northern side, in the western side with deep corridor, green mesh provided shading. Each floor

has at least two store rooms, as it is needed for equipments and lockers on the meeting places.

CHAPTER 06

Design development

Content

6.1Concept Development

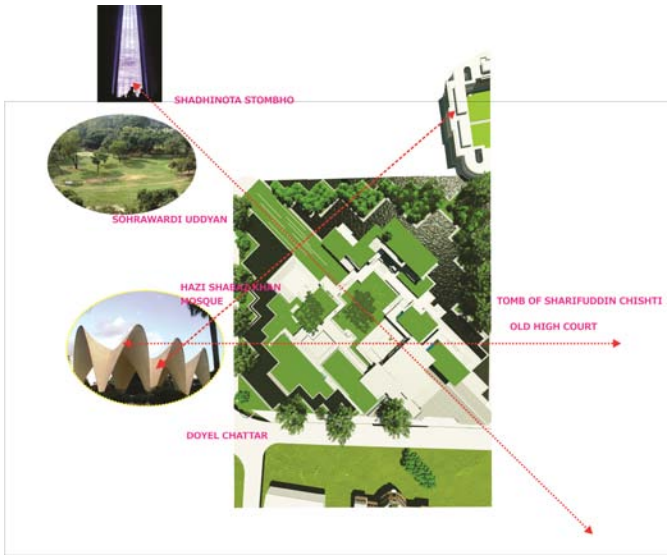


Fig 3.4: Surrounding Views of the project .

Source: (generated from initial design)

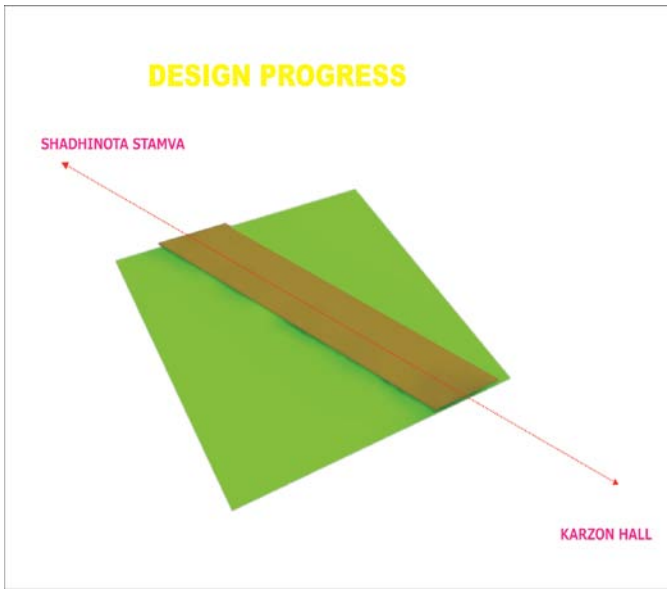


Fig 3.5: creating strong axis from shadhinota stamva to karzon hall.

Source: (generated from initial design)

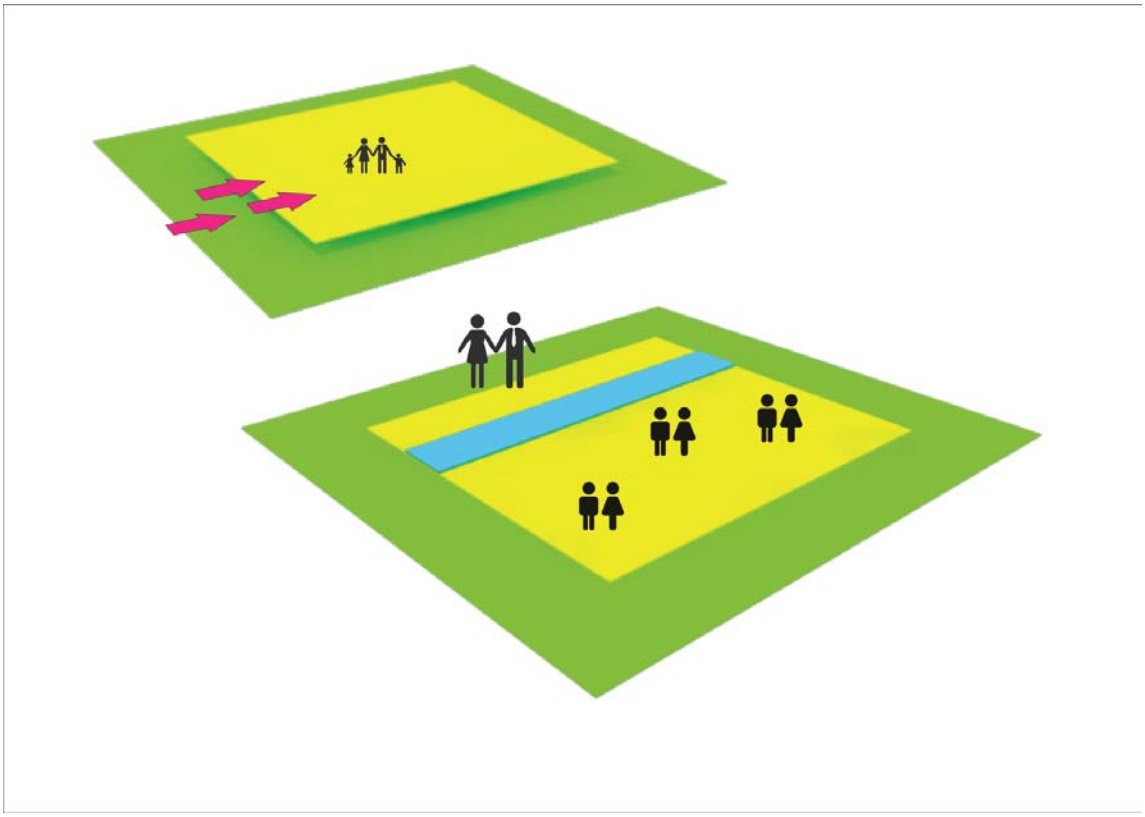


Fig 3.6: creating two courtyard separated by water body for parents and student.

Source: (generated from initial design)

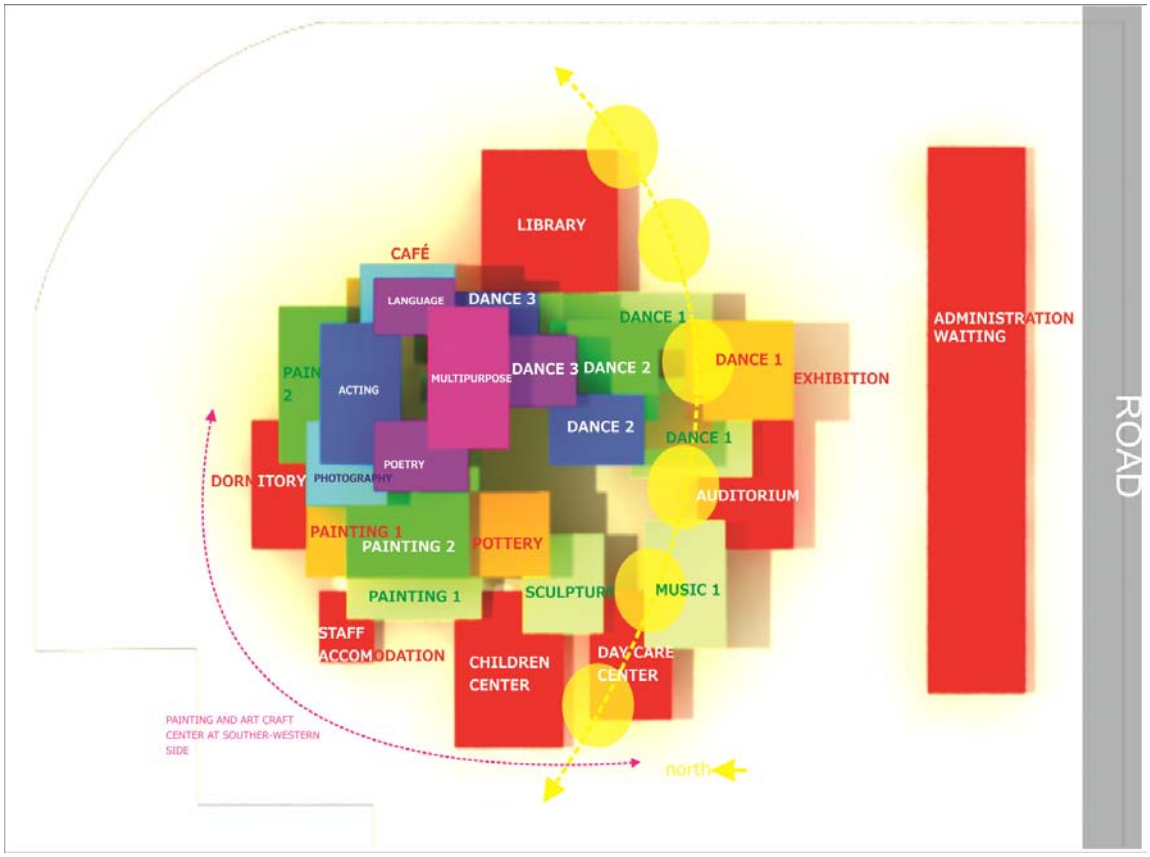
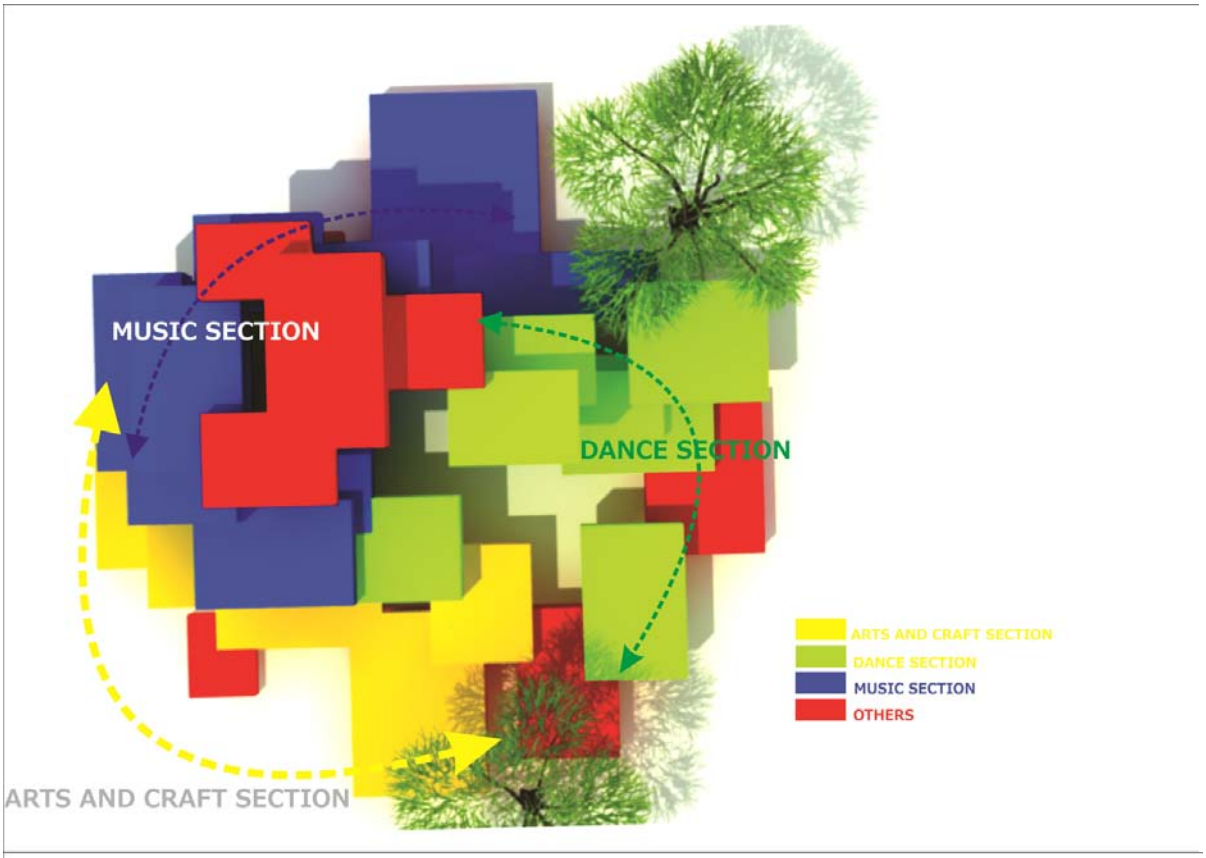


Fig 3.7: 3d schematic orientation.

Source: (generated from initial design)


MUSIC SECTION
DANCE SECTION
ARTS AND CRAFT SECTION
ARTS AND CRAFT SECTION
DANCE SECTION
MUSIC SECTION
OTHERS

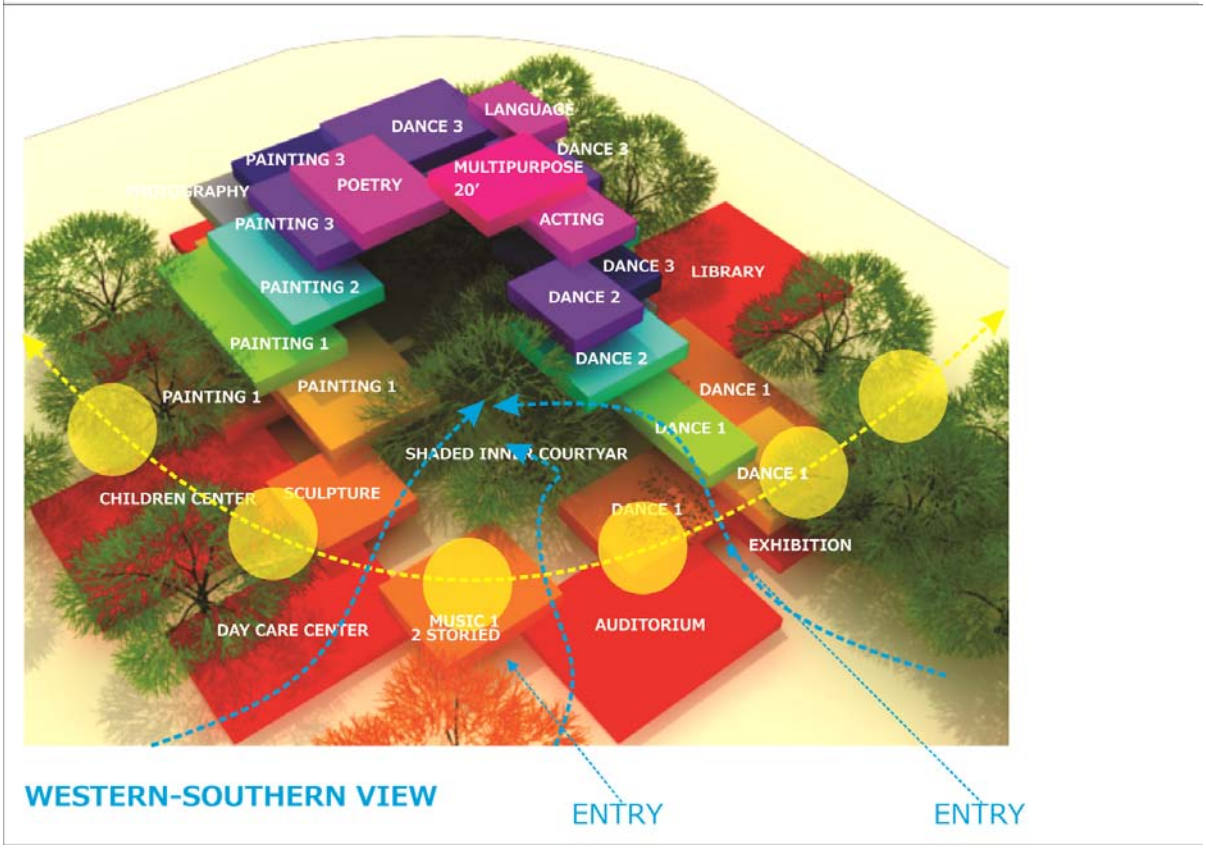

DANCE 3
LANGUAGE
DANCE 3
PAINTING 3
POETRY
MULTIPURPOSE
20'
PAINTING 3
ACTING
DANCE 3
LIBRARY
PAINTING 2
DANCE 2
PAINTING 1
DANCE 2
PAINTING 1
PAINTING 1
DANCE 1
DANCE 1
SHADED INN COURTYAR
DANCE 1
CHILDREN CENTER
SCULPTURE
DANCE 1
EXHIBITION
DAY CARE CENTER
MUSIC 1
2 STORIED
AUDITORIUM
WESTERN-SOUTHERN VIEW
ENTRY
ENTRY

Fig 3.8: 3d schematic orientation with climatic factors.

Source: (generated from initial design)

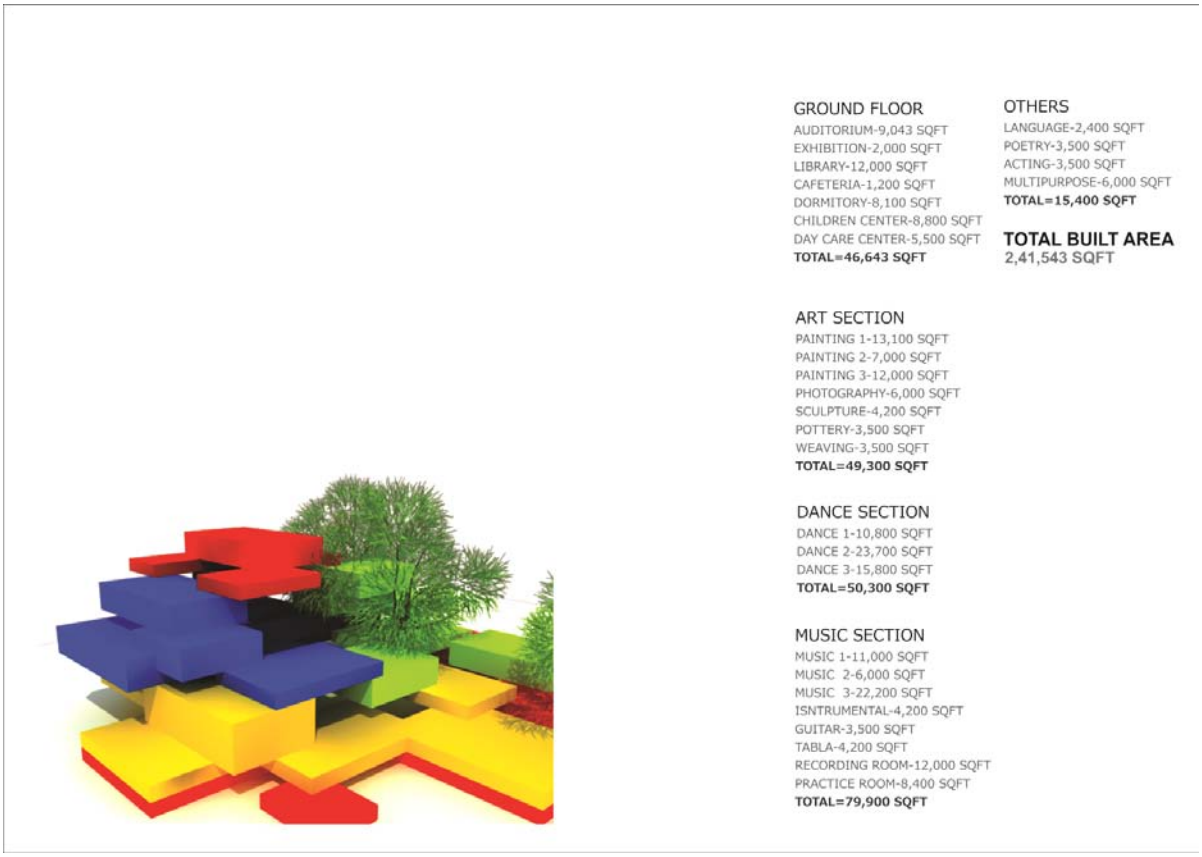


Fig 3.9: required spaces measurements.

Source: (generated from initial design)

Master Plan Development:

The master plan developed with two major concerns.

Create public spaces as much as possible.

At first I created an alley by connected two notions in my site.

Then all functions are divided into three categories.
Public, semi-public, private.

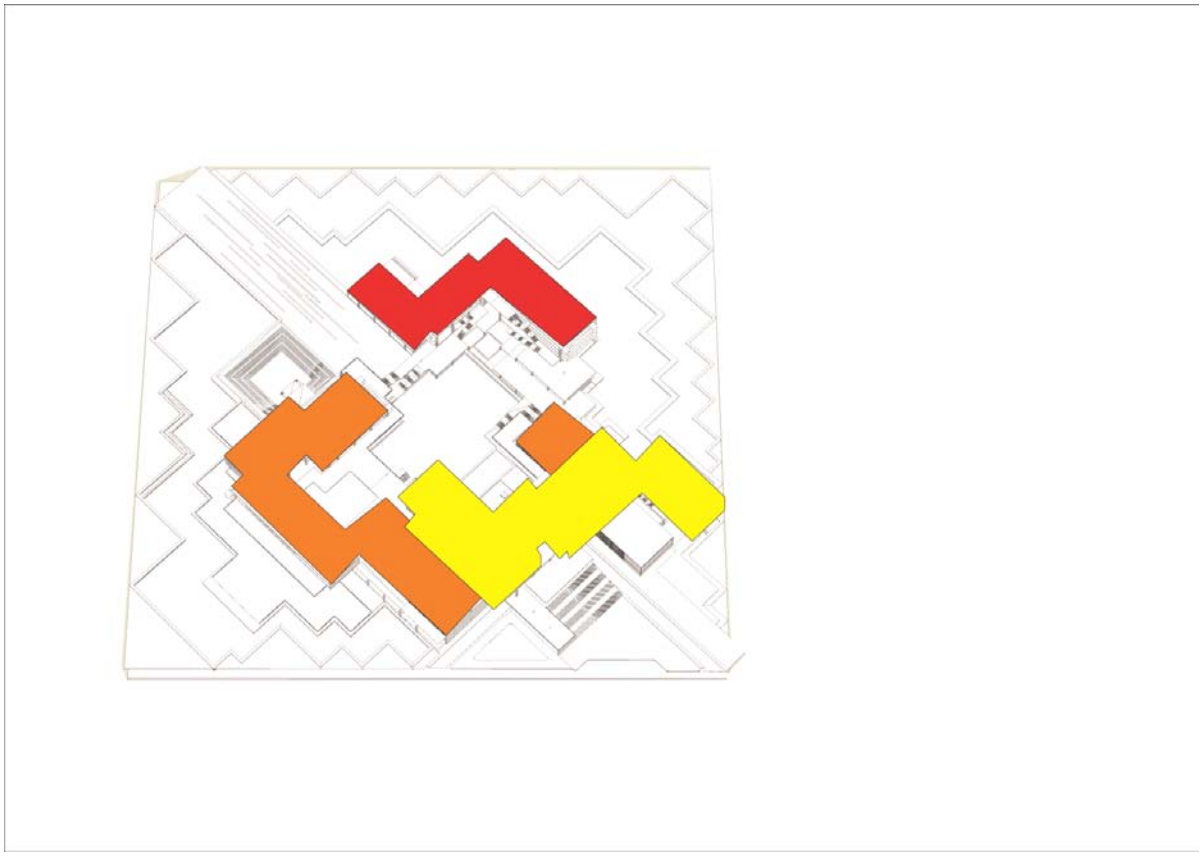


Fig 4.1: yellow semi public, orange public and red private mass.

Source: (generated from initial design)

Public:

Auditorium, exhibition space, multipurpose hall, administration.

Elder people can enter into these programs.

Semi-public:

Museum and Library, where other children can come with their parents.

Private:

All academic facilities are included into this section.

There are two water bodies on the edge of my site. water body beside the private section, I tried to controlled the entry. This is a shallow water body.

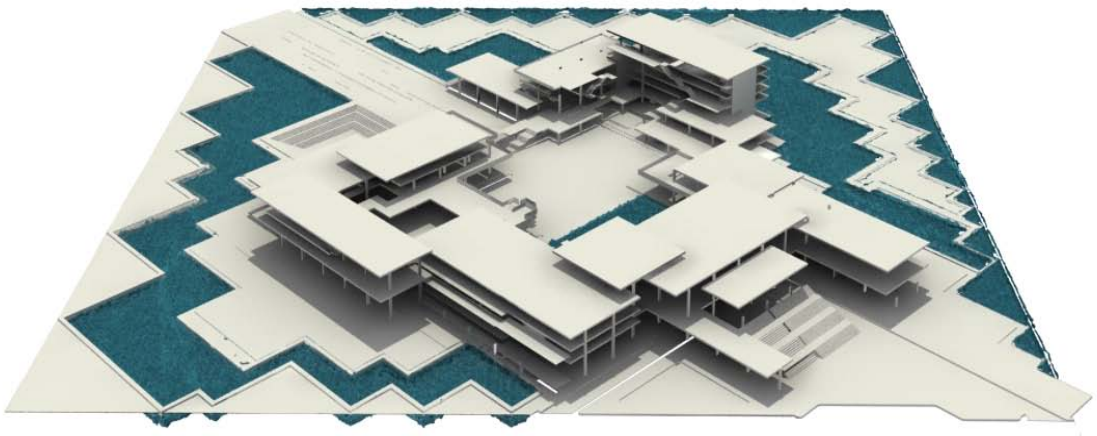


Fig 4.2: 3d mass of the whole site.

Source: (generated from initial design)

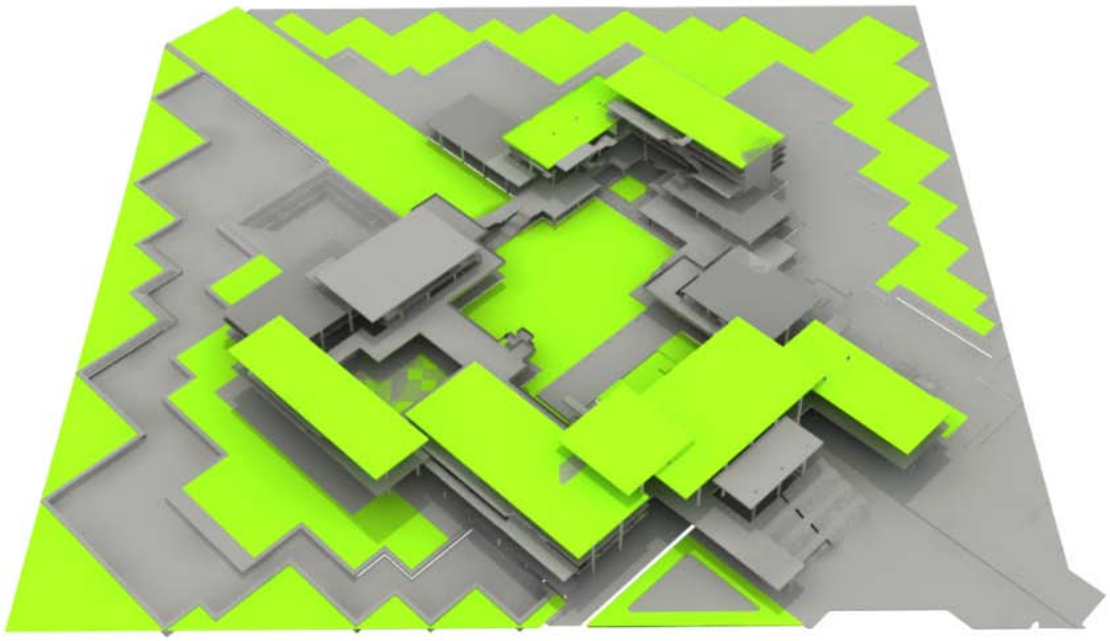


Fig 4.3: green part of the site.

Source: (generated from initial design)

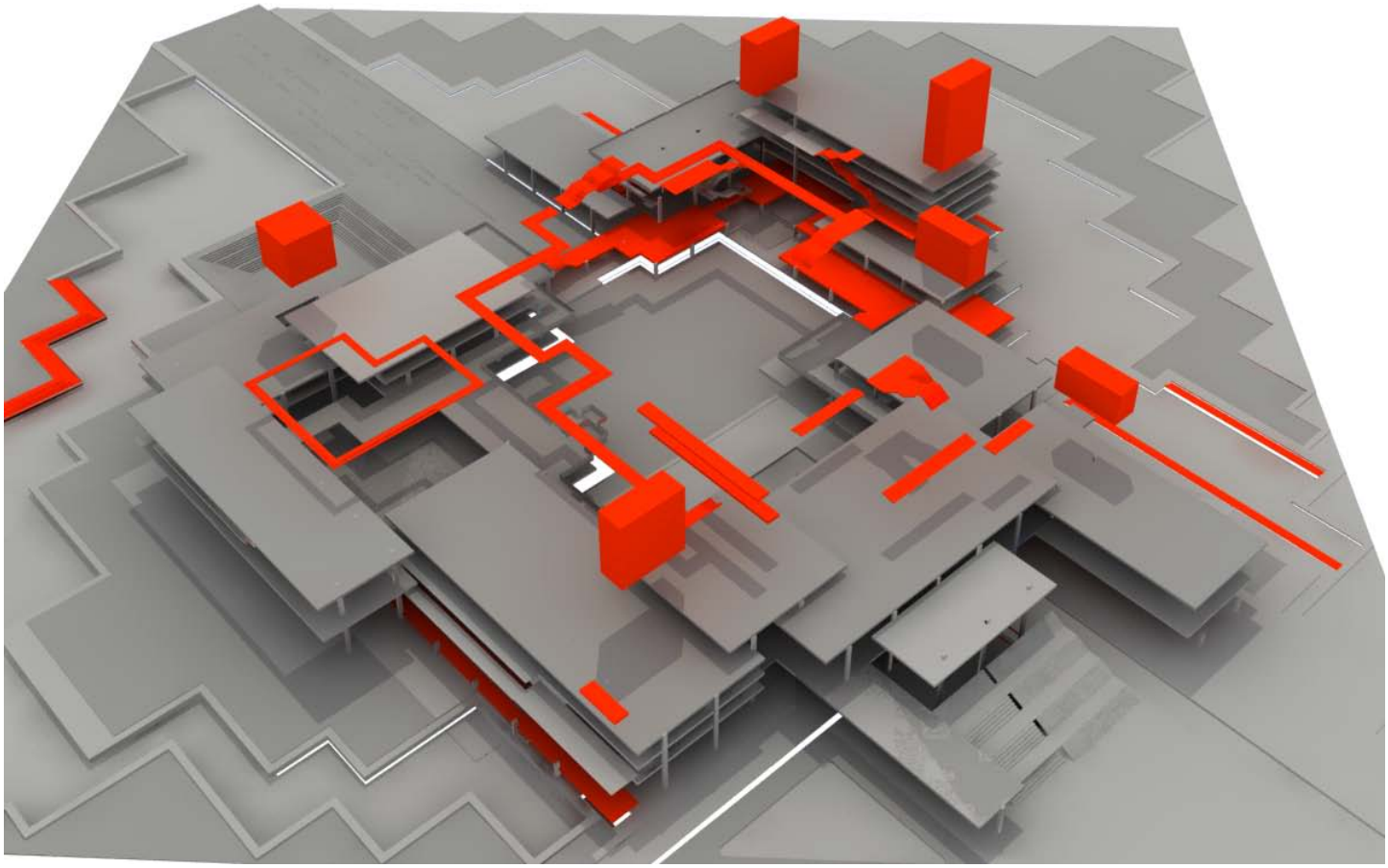


Fig 4.4: 3d circulation spaces, red colored and cores.

Source: (generated from initial design)

6.2.2. Development Phase:

6.2.2.1. Phase 1:

Characteristics:

- Linear arrangement
- Free from the ground
- Has terrace on every function
- Central core design arrangement
- On to a plaza

Problems:

Scale is a little bit high compared to the children heights scale

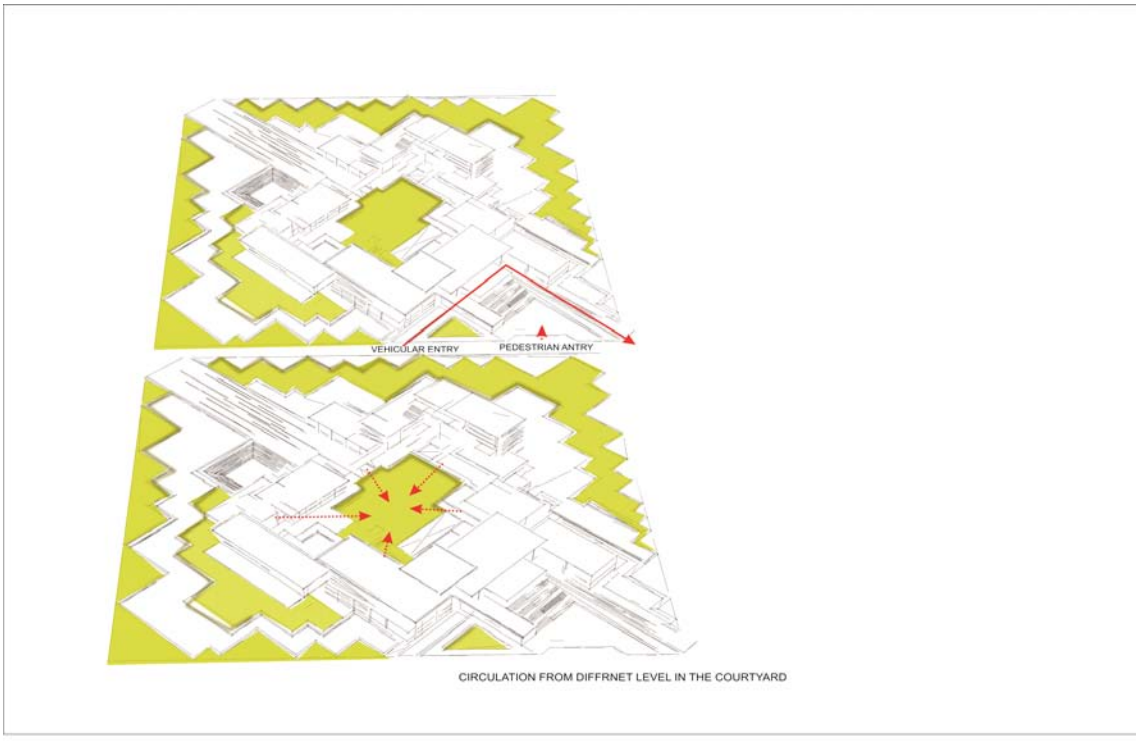


Fig 4.5: Inner courtyards.

Source: (generated from initial design)

6.2.2.2. Phase 2:

Characteristics:

- Courtyard based institution

- Every function is faced towards the center courtyard.

- Can be access to the center court yard from every function.

CHAPTER 07

Final design

Content

7.1 Designed site and master plan

Fig 4.6: Master plan.

Source: (generated from initial design)

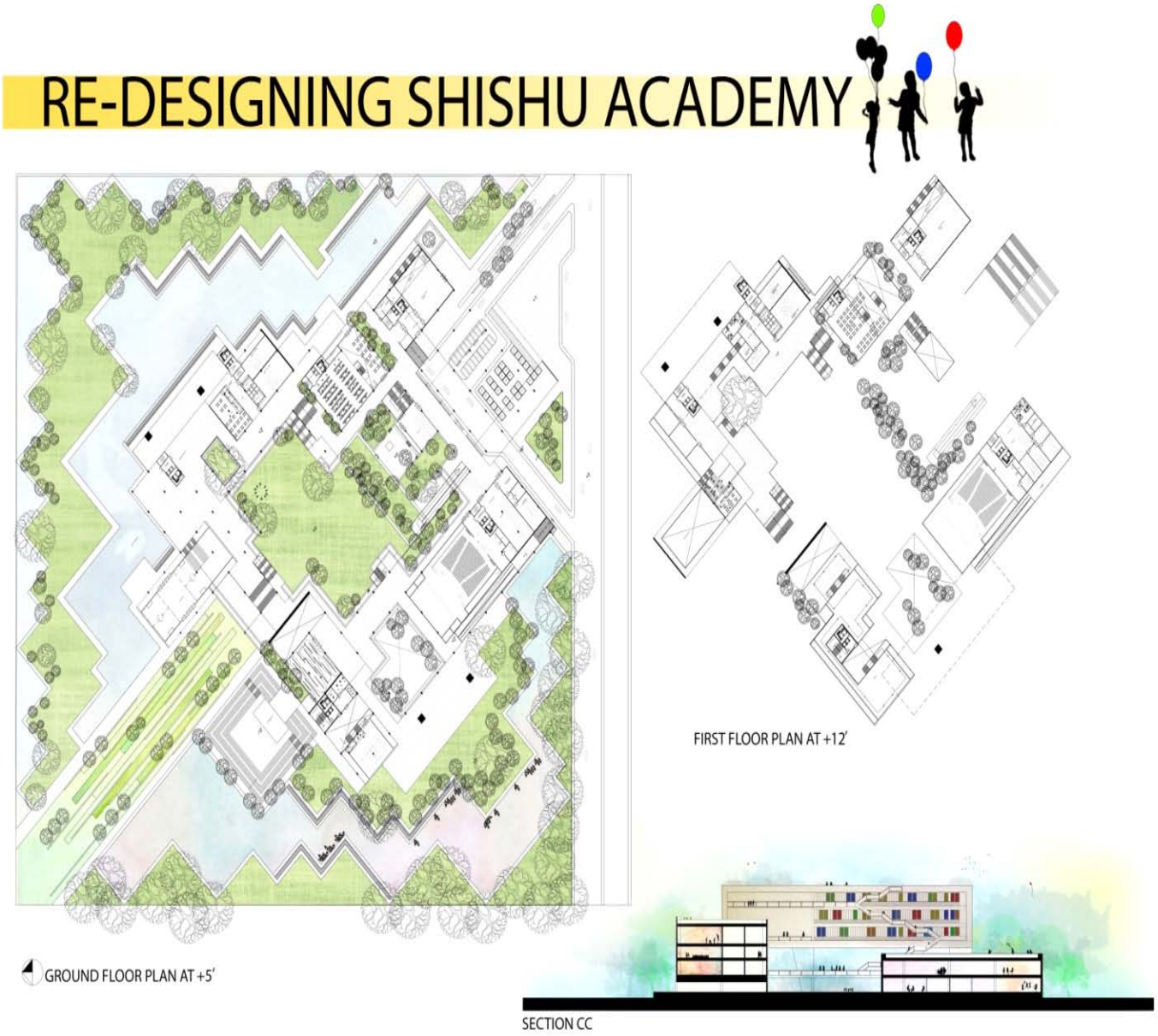


Fig 4.7: Ground floor, first floor.

Source: (generated from initial design)

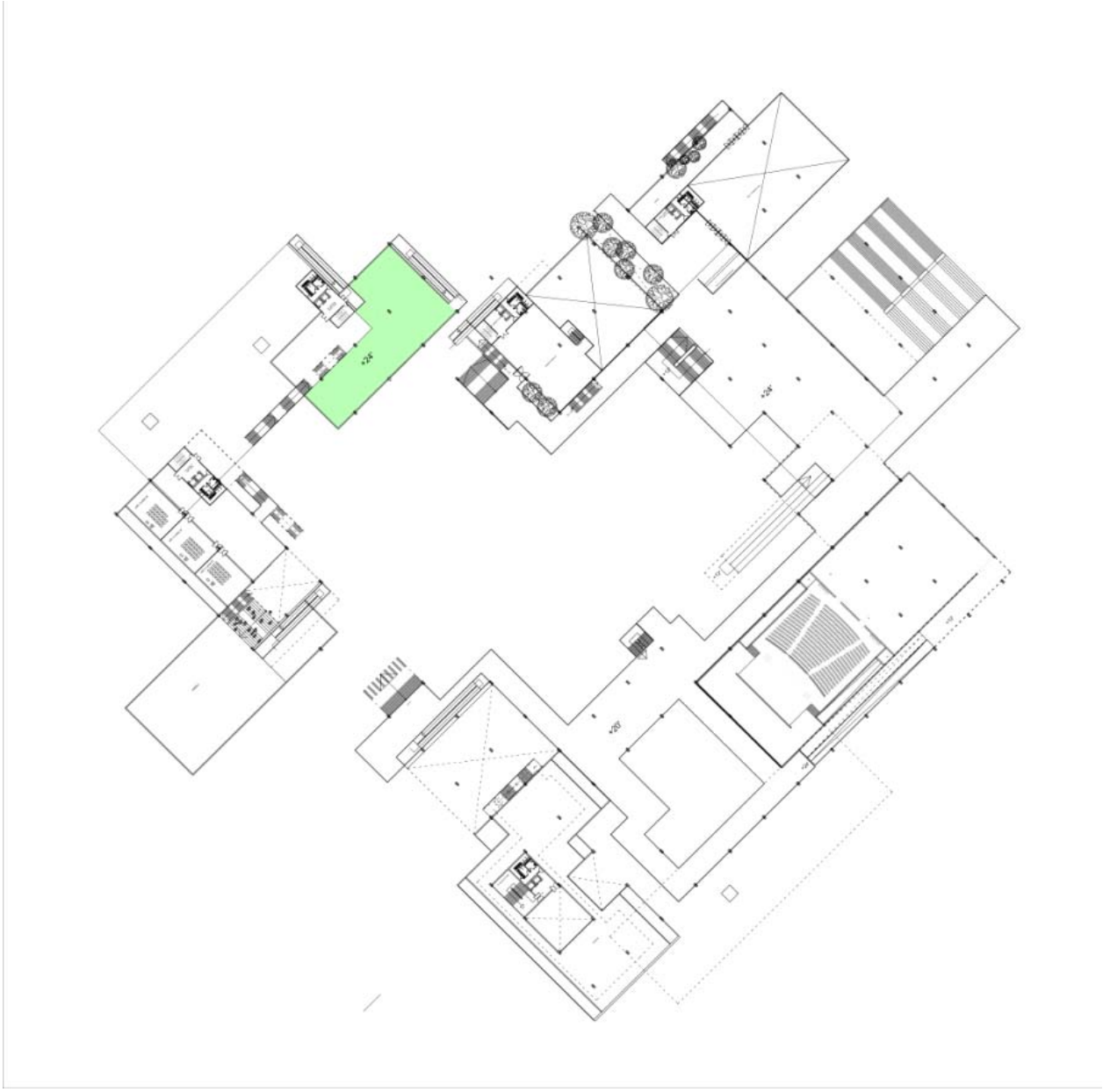


Fig 4.8: 2nd floor.

Source: (generated from initial design)

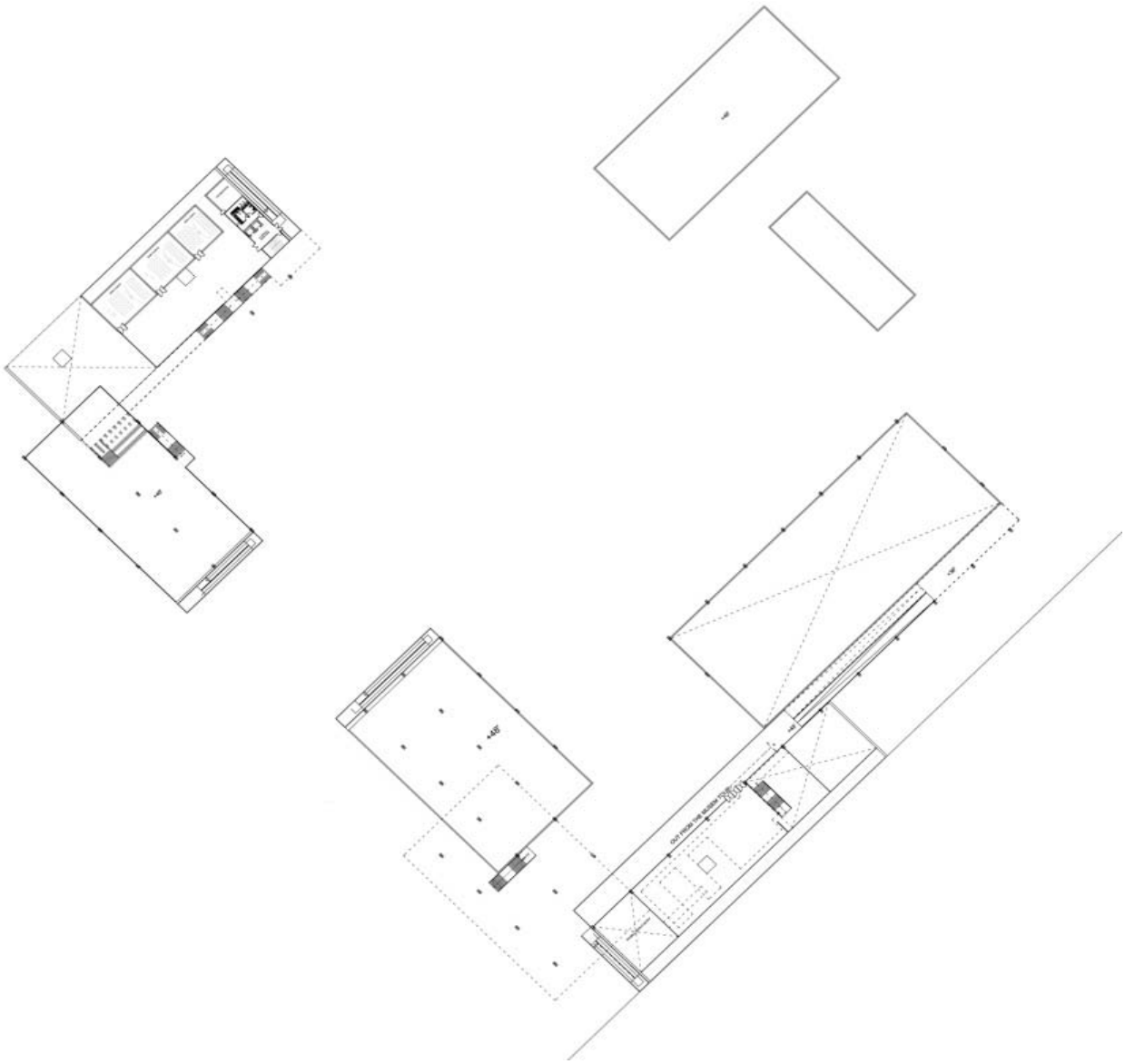


Fig 4.9: 2nd floor.

Source: (generated from initial design)

Fig 5.1: 5th floor.

Source: (generated from initial design)

Fig 5.2: west side section.

Source: (generated from initial design)

Fig 5.3: west side section.

Source: (generated from initial design)

Fig 5.4: North Elevation.

Source: (generated from initial design)

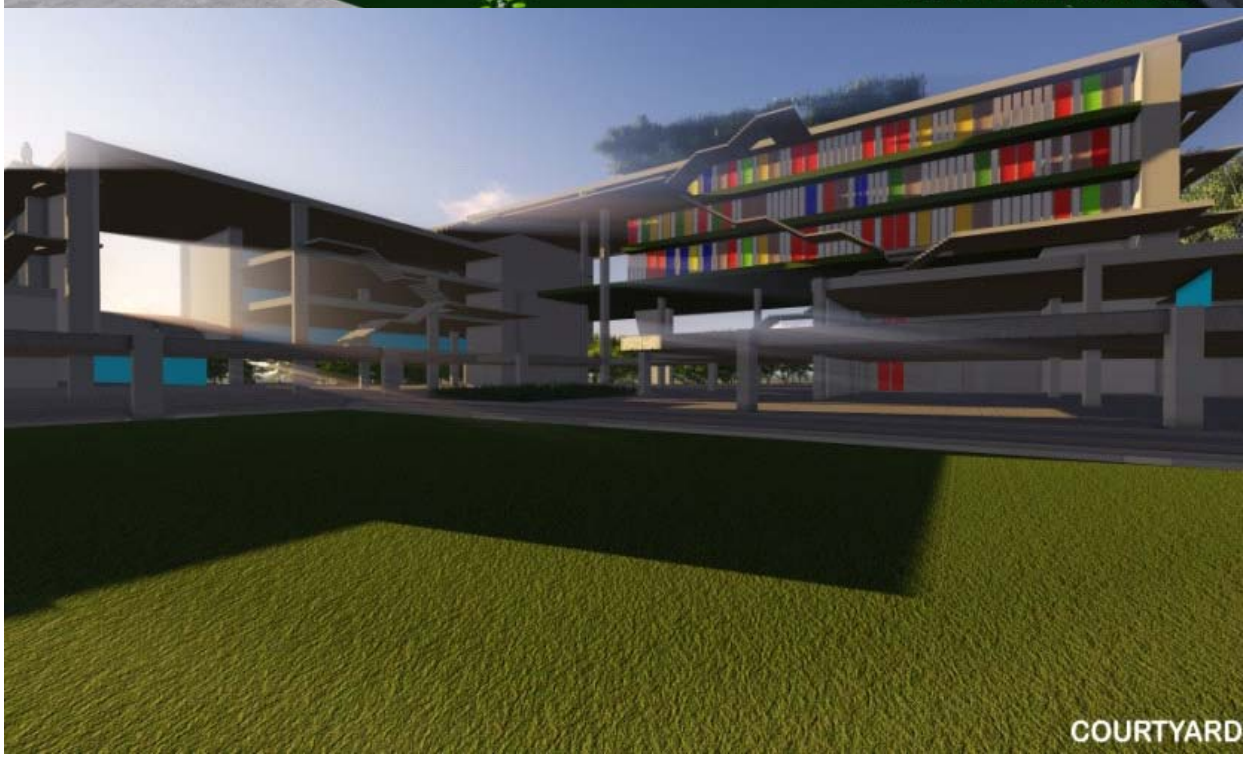
Fig 5.5: North Section.

Source: (generated from initial design)

Fig 5.6: East Elevation.

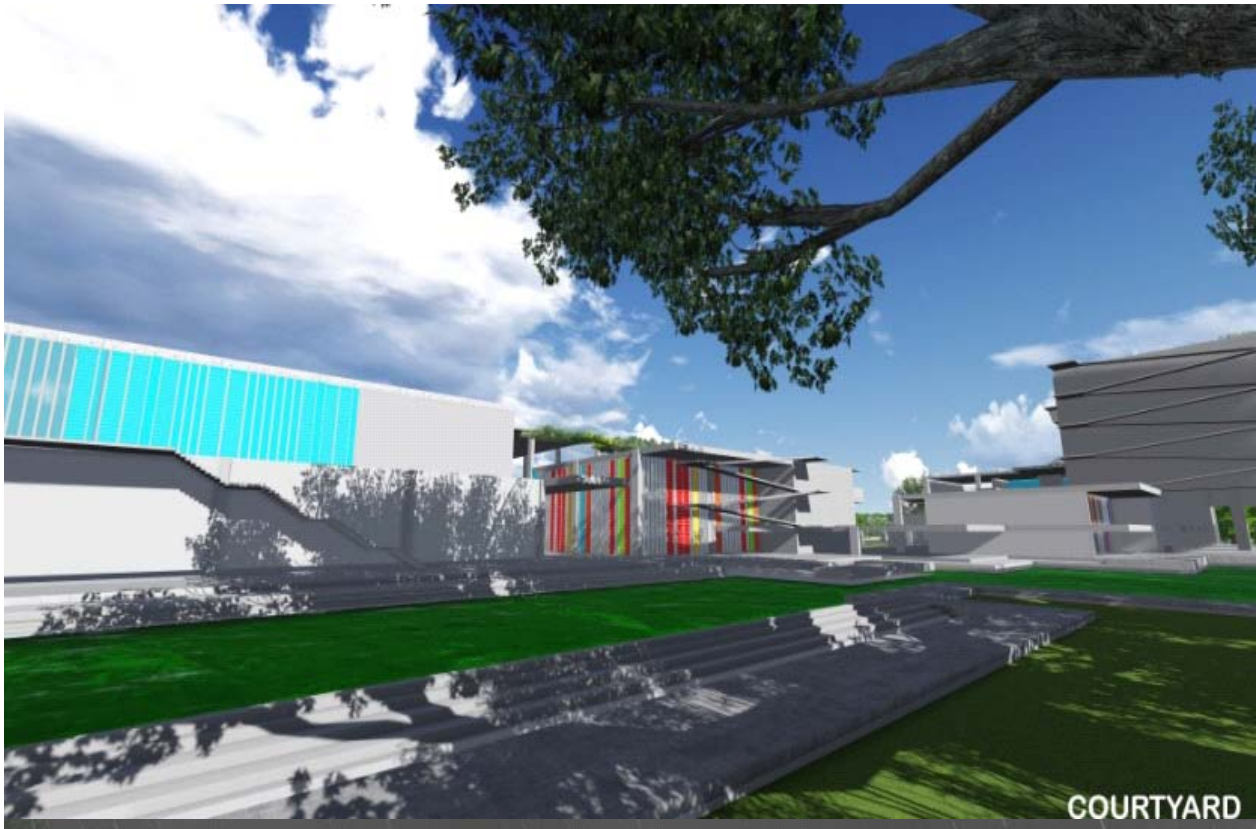
Source: (generated from initial design)

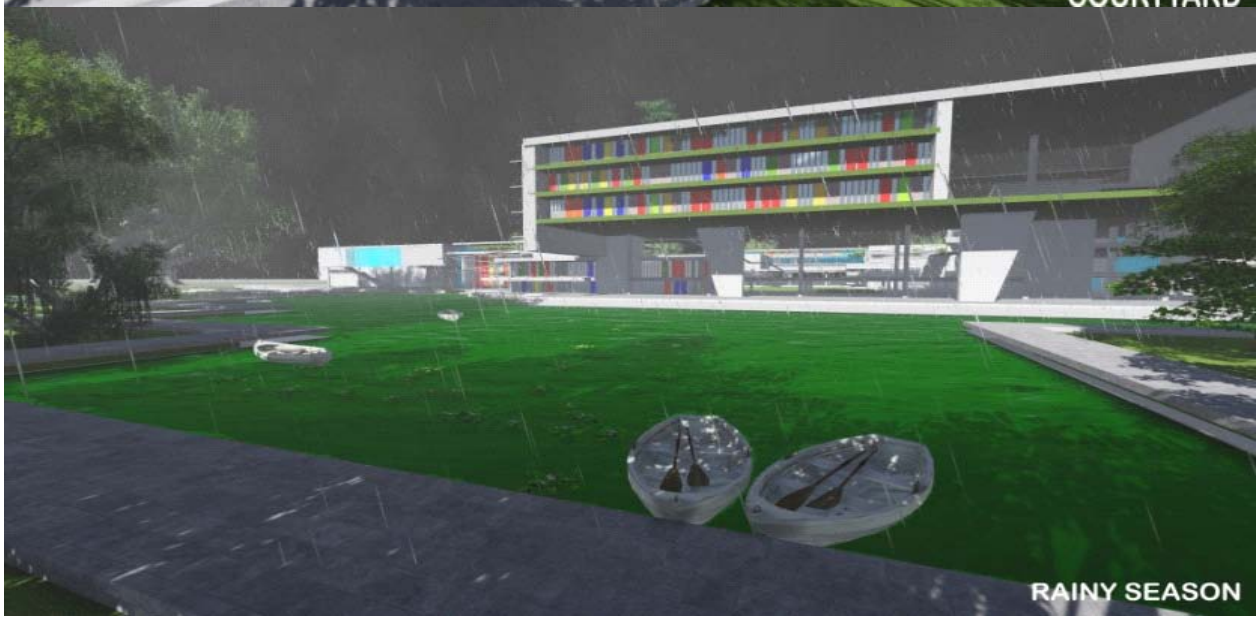
7.2. 3 Dimensional perspective Views of spaces

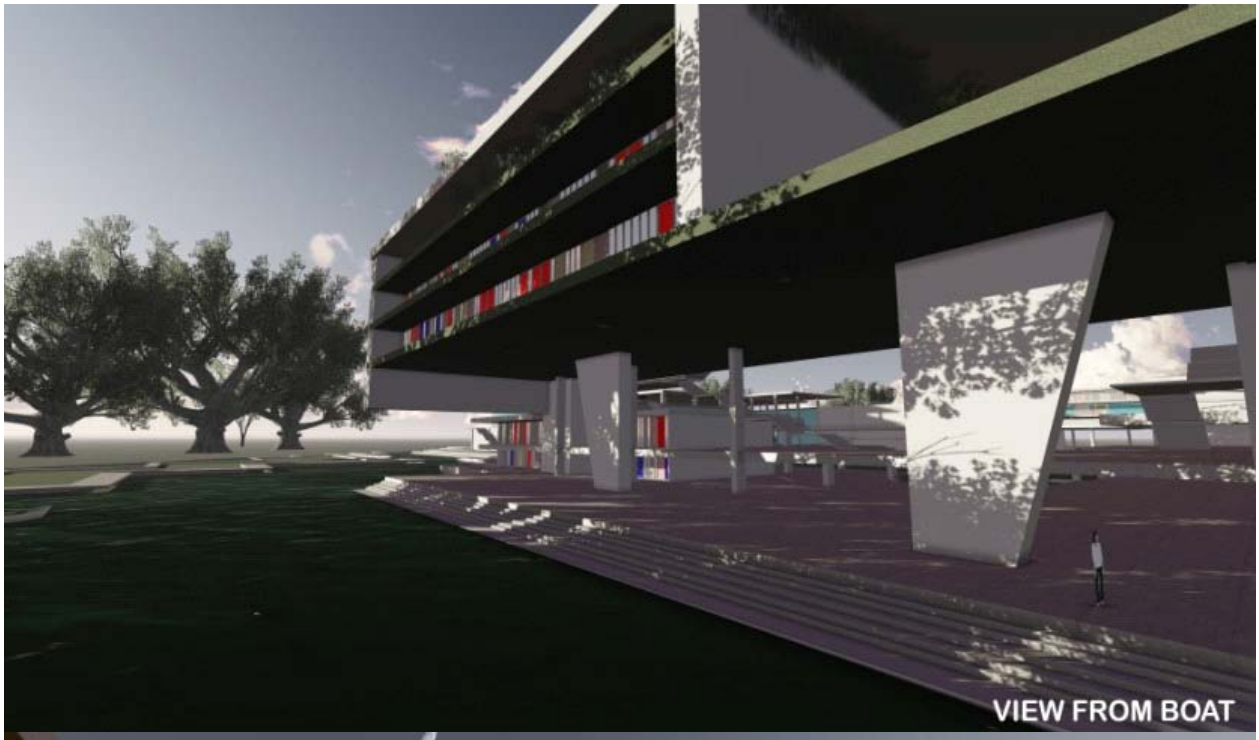


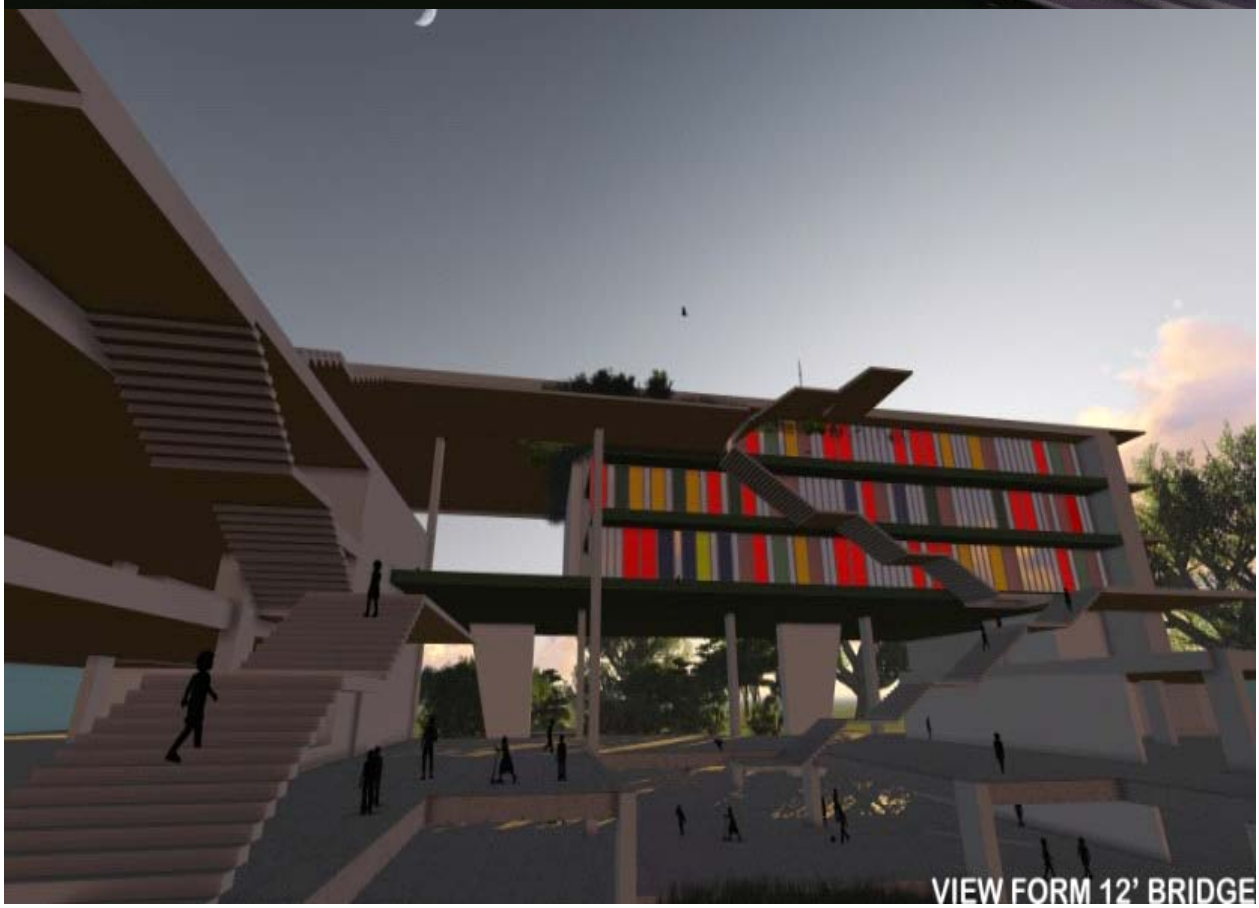
VIEW FROM LIBRARY

AMPHITHEATER


COURTYARD


RAINY SEASON


VIEW FROM BOAT


VIEW FORM 12' BRIDGE


MUSIC BLOCK


MUSIC BLOCK

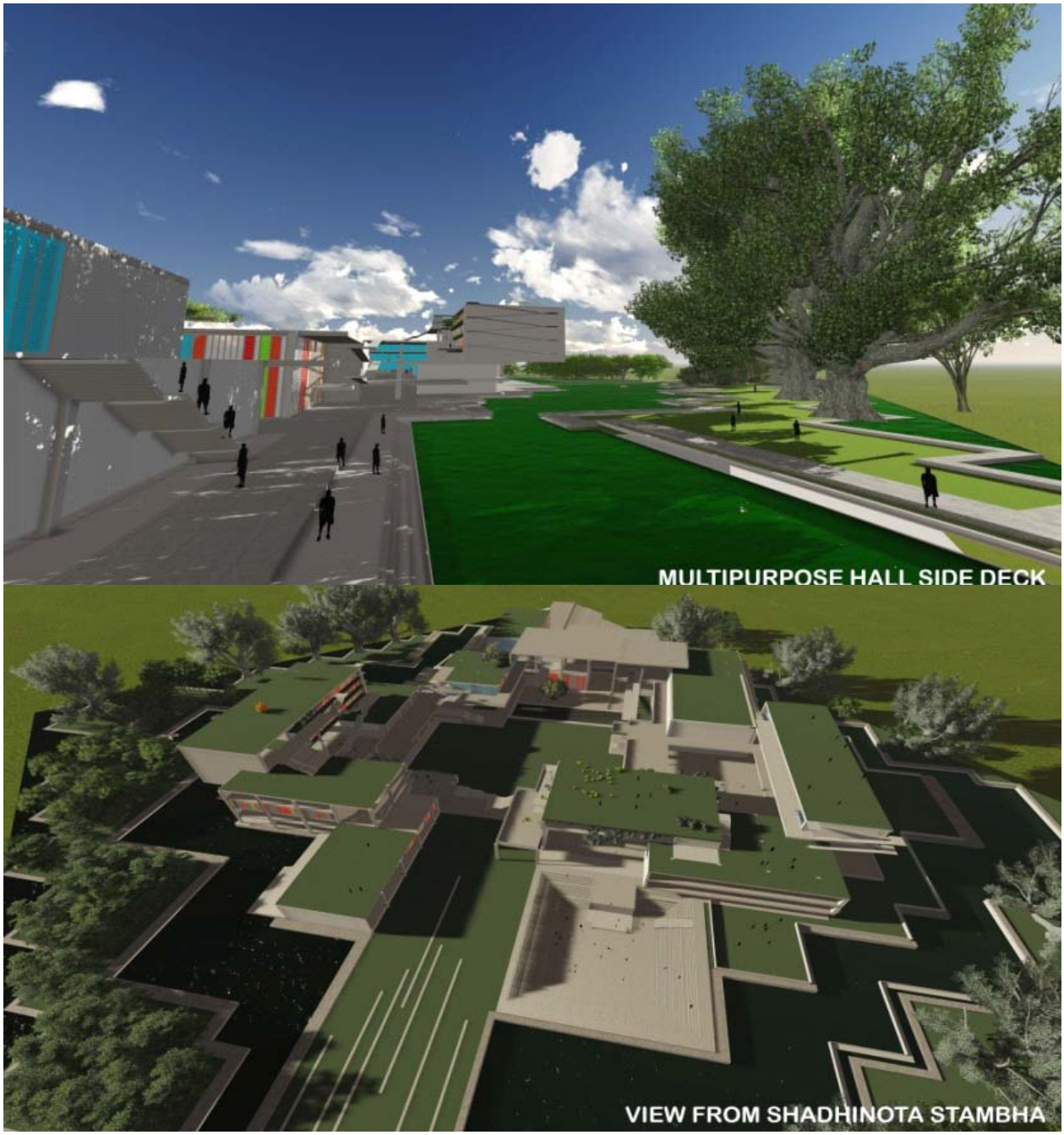


Fig 5.7: 3D perspective views.

Source: (generated from initial design)

7.7 Models of the Project

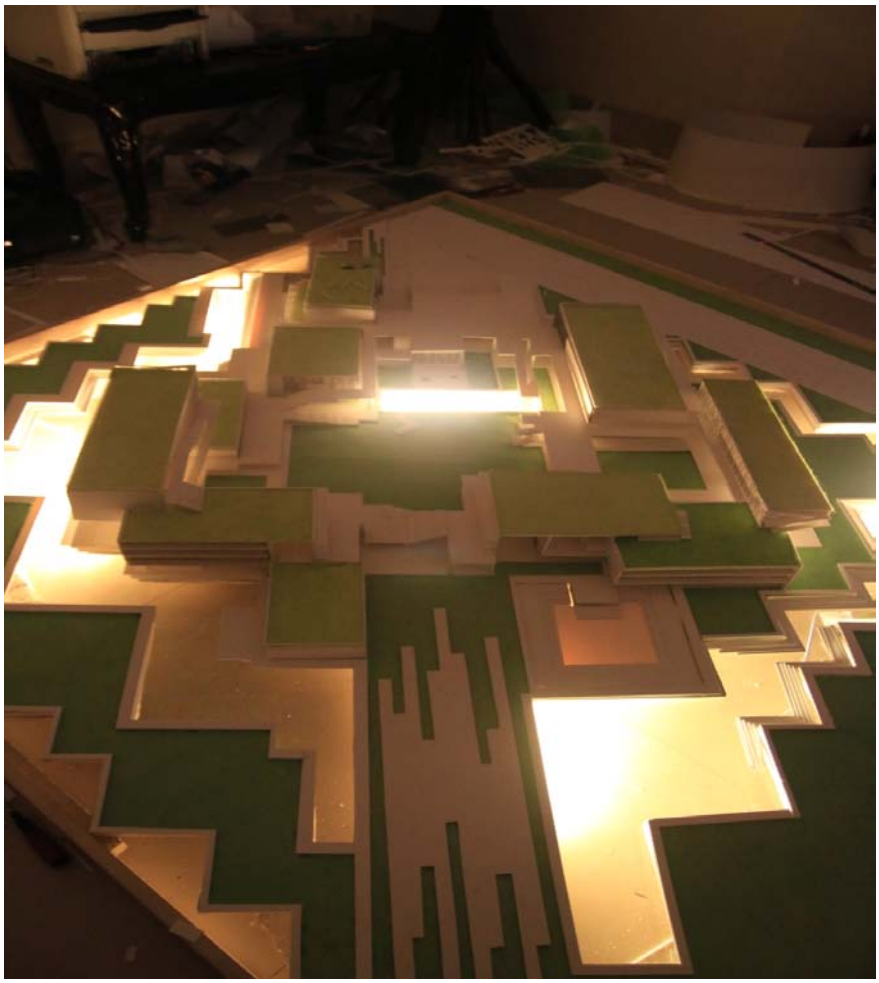


Fig 5.8: model form northern side.

Source: (generated from initial design)

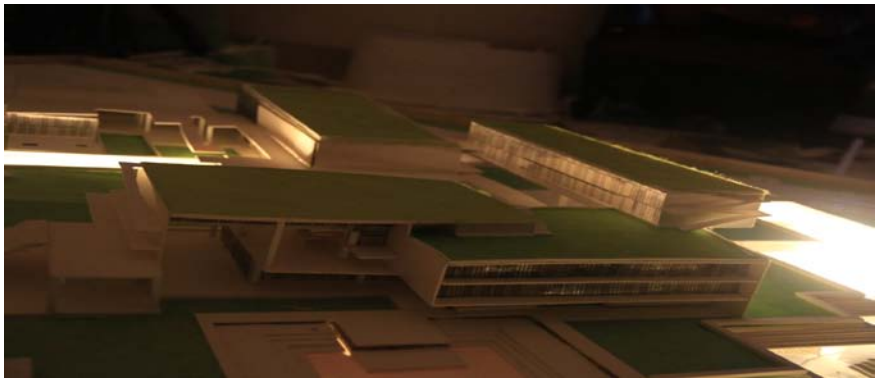


Fig 5.9: Model from Eastern side.

Source: (generated from initial design)

08. CONCLUSION

The stated above chapters include the process & journey of completion of the design of a Children's Academy in Bangladesh, suitable with Tropical Climate.

A Children's Academy can have a huge impact on any country's future, as it involves with it's next generation, who would lead them in future. It's like a make house of future actors, singers, painters, dancer's photographers, cinematographer most importantly Future leaders of a country, in whose hands it's future rest.

Designed "Bangladesh Children Academy" also focus a big part on children of all classes to mingle throughout whole the design process. Which will helps them to share their ideas with each other, most importantly shape up their own ideology and characters properly from the beginning.

Through out this exchange of culture, playtime with each other and all there would be bond of trust, which is very much needed right now in Bangladesh for the better future.

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