

NATIONAL HOTEL AND TOURISM TRAINING INSTITUTE

By

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A thesis submitted to the Department of Architecture in partial fulfillment of the
requirements for the degree of
Bachelor of Architecture

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Declaration

It is hereby declared that

1. The thesis submitted is my/our own original work while completing degree at Brac University.
2. The thesis does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The thesis does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I/We have acknowledged all main sources of help.

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Approval

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Abstract

Tourism and hospitality hold a very significant position in the future development of this country as we are graduating ourselves to the middle-income economy. We have been able to achieve some maturity in some of the export-oriented industries, along with agriculture. However, one of the most important, thriving sectors which could really help our economy improve – **‘tourism and hospitality’** – was long been neglected. It has both local and international implications and we have not tapped its full potential yet. Through this sector, we could export skilled hospitality professionals to abroad and also earn foreign remittances. To sum it up, it can be said that this area still remains as unventured and neglected.

Tourism has been experiencing decline in interest for foreign travelers, whereas in many developing countries like ours, tourism has played a vital role in the development of those countries. As this sector is completely service-oriented; therefore, the strategic development of its tourism products depends upon training the professionals of this sector.

In order to restructure our tourism activities, a training institute for tourism and hospitality sector that will have adequate training facilities to help in building a career for the new generation of professionals is required.

The design of the National Hotel and Tourism Training Institute is aimed at creating a paradigmatic architectural resolution that the country’s policy makers, public representatives and even the academia including students of architecture would be greatly benefitted from.

Keywords: tourism; hospitality; institute; hotel; training

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CHAPTER 01: INTRODUCTION

1.1 Project Background

1.1.1 Tourism

1.1.2 Types of Tourism

1.1.3 Importance of Tourism in a Country

1.2 Project Rationale

1.3 Project Brief

1.4 Problem Statement

1.5 Aims and Objectives

1.6 Tentative programs

Chapter 1

Introduction

1.1 Project Background

Tourism is an income generating activity of one of the highest importance in today's world and holds great economic promise for the developing countries. Many countries depend on this industry as the main source to their economy. This can be the same for Bangladesh as this country has a vast scope for earning a lot from the tourism industry due to its rich tourist attractions.

1.1.1 Project Background

Tourism can simply be described as 'travelling to places for pleasure or even for business purpose'. Travelling can be both domestic or international. The practice of tourism contains the business of attracting tourists, accommodating them, entertaining the tourists as well as the business of operating guided tours.

1.1.2 Types of Tourism

Type of tourism depends on the reason for the travel. Based on the purpose of visit, tourism can be categorized into the following:

1. Nature based tourism: This type of tourism focuses on the natural aspects of a place. The visitors' visit experience and appreciate the natural splendors of the location. Hiking, water cruising, camping, star gazing, sightseeing and many other activities take place.

1.1. Ecotourism

1.2. Marine Ecotourism

1.3. Geo-Tourism

1.4. Agro-tourism

1.5. Astrological Tourism

2. Culture based tourism: This is a type of tourism activity in which the tourist's main aim is to discover and experience the tangible and intangible cultural attractions from a tourism destination.

2.1. Cultural and Traditional Tourism

2.2. Historical Tourism

2.3. Rural Tourism

3. Leisure Tourism: This is for tourists who like to spend their vacation to relax and refresh themselves from everyday stress. They prefer to stay tranquil destinations, like, hill resorts, beach resorts or island resorts.

4. Health Tourism: Health tourism or medical tourism is where people travel great distances in search of medical treatment. Due to numerous medical travelers, many hospitals in various countries have specially designed packages including hotel or resort facilities.

5. Religious Tourism: It is a form of tourism, where people travel individually or in groups for pilgrimage. Here, the travelers often visit the holy sites.

6. Sports Tourism: Sports Tourism refers to travel which involves either viewing or participating in a sporting event. Olympic Games and the FIFA World Cup are the kind of sports events that attract a huge number of visitors.

7. Educational Tourism: In educational tourism, the focus of the tour is visiting another country to learn about the culture. Student Exchange Programs and Study Tours encourage such tourism.

8. Business Tourism: Here, tourists visit a particular destination for various reasons related to his/her work such as attending a business meeting, conferences,

conventions or meeting with clients. Business tourism is popularly called as MICE (Meetings, incentives, conferences, and exhibitions) tourism.

9. Special Interest Tourism: Other than the types of tourism discussed above, there are some more types that be vastly classified into different subdivisions of tourism. These are as follows:

- 9.1. Ethnic Tourism
- 9.2. Adventure Travel
- 9.3. Home/Farm Stay
- 9.4. Long Stay
- 9.5. Mixed tourism

1.1.3 Importance of Tourism in a Country

Tourism is one of the most important sectors in today's world that creates an impact on the development of a country's economy. Income generation and new job opportunities are the main advantages from this industry. Economic, socio-cultural and environmental benefits are the three main factors in which a country can be benefitted. (Roy, 2015)

1.2 Project Rationale

The National Hotel & Tourism Training Institute (NHTTI) was established in 1974 under Bangladesh Parjatan Corporation (The National Tourism Organization) as the pioneer of tourism training institution.

The amount of local and internal tourism of our country has increased over the years, however, the number of international (foreign) tourists have decreased since 2014. Hence, it can be said that tourism is a fading industry in our country for foreign travelers, whereas in many

developing countries like ours, tourism has played a vital role in the development of the country.



Figure 1: Data shows the decrease in arrival of tourists in Bangladesh from 2003 to 2014. Source: World Bank, 2019

This sector is completely service-oriented; thus, the efficient management of tourism products depends upon professional training, practice and awareness. In order to develop professionalism, create awareness of tourism and its help in our country's growth, an institute for training such professionals need to have the adequate training facilities. This will help in building an image of our country to the world, bring more travelers to visit our country, as well as encourage the younger generation to think about a career in this sector.

1.3 Project Brief

In order to restructure our tourism activities, a tourism institute that will have adequate training facilities and help in build a career for the new generation is required. There is a proposal of a 'TOURISM INSTITUTE' which has an allocated area of 5.4 acres at Purbachal New Town, Dhaka. Purbachal is considered to be the future city of the capital, with all the promising potentials. This area has a strong visionary of incredible development.

The client of this project is the NATIONAL HOTEL AND TOURISM TRAINING INSTITUTE (NHTTI) which is a training institute that works under the Government's 'BANGLADESH PARJATAN CORPORATION'.

Project Name: National Hotel and Tourism Training Institute

Location: Sector 6, Purbachal New Town, Dhaka

Client: National Hotel and Tourism Training Institute (NHTTI)

BANGLADESH PARJATAN CORPORATION

Site area: 5.4 Acres (2,34,000 square feet)

1.4 Problem Statement

Bangladesh needs to be promoted to the world so that more international visitors get interested in visiting our country resulting in an increase in the country's tourism activities.

In reality, there is only one institution that is solely dedicated for tourism training in the country – NHTTI. Other than this there two universities that offer certain courses in tourism and six other privately owned institutes that also offer similar tourism related trainings.

These institutes do not always provide the adequate space and training needed for such an important and vast sector.

In order to increase tourism activities of Bangladesh, there needs to be more trained personnel who will help in the growth by promising the visitors a good time in the country. Therefore, there needs to be a training institute that will provide the proper training facilities to the people that are interested in taking this career path and also encourage many others. There needs to be an institute that will not only teach about tourism training but will also make them teach about the environment and ecology and make them aware of the heritage site and show them the meaning of conservation and preservation of those.

1.5 Aims and Objectives

If there are more trained personnel in this service-oriented sector, then the country's economy can reach to a greater height. In addition to the revenue, tourism industry can also bring about a real sense of pride and identity to the country.

- a. The main aim here is to promote tourism trainings and create awareness amongst the people about the importance of tourism in a country.
- b. The tourism industry can create new job opportunities in this sector.
- c. Tourism will help in promoting the country to the world and therefore bring in more tourists (both local and foreign).
- d. It will create a platform for everyone to learn more about the heritage, promote ecological awareness and learn about climate change.
- e. Create an eco-friendly design.
- f. To increase the revenue earning potential of Bangladesh Parjatan Corporation.

1.6 Tentative Functions

Institute and Dormitory:

- | | |
|---------------------|-------------------|
| • Classrooms | • Amphitheatre |
| • Computer Labs | • Seminar Hall |
| • Kitchens | • Logistic Centre |
| • Restaurants | • Info Desk |
| • Lobby(s) | • Business Centre |
| • Coffee Shop/Kiosk | • Admin Block |
| • Exhibition Area | |

Hotel:

- Guest Rooms
- Lobby
- Café/Deli
- Restaurant
- Kitchen
- Fitness Centre
- Swimming Pool and Deck
- Banquet Halls
- Logistic Centre
- Info Desk
- Souvenir Shops
- Business Centre
- Car Parking
- Other Utility Zone

CHAPTER 02: BACKGROUND STUDY

2.1 Importance of Tourism in a Country

2.2 Overview/Condition of Tourism in Bangladesh

2.3 Importance of Tourism Institute

2.4 Tourism Institute

2.5 Existing Tourism Institutes in the Country

2.5.1 Condition of the Institutes

2.5.2 Existing Training Courses

2.5.3 Career Opportunities in this Sector

Chapter 2

Background Study

2.1 Importance of Tourism in a Country

Tourism is one of the most important sectors in today's world that creates an impact on the development of a country's economy. Income generation and new job opportunities are the main advantages from this industry. For many countries (developed and developing), it is the most important source of welfare. (<http://thepoint.gm>, Guest Editorial, 2018)

There are many benefits in this sector. These are the economic, socio-cultural and environmental key benefits of tourism. (Roy, 2015)

i) Economic benefit: Tourism can provide direct jobs to the community, such as tour guides and hotel housekeeping. Indirect employment is generated through other industries like agriculture, food production and retail. Infrastructure development and visitors' expenditure generates income for the local community.

ii) Social benefit: In addition to the revenue, tourism can bring about a real sense of pride and identity to communities. It allows them to look at their history, and community identity.

iii) Environmental benefit: Tourism provides financial support for the conservation of ecosystems and natural resource management, making the destination more authentic and desirable to visitors.

Bangladesh Government reformed the National Tourism policy in 2010. The goal of this policy was to increase employment, ensure economic development, environmental purity and sustainability. (Siraj, 2009).

International tourism has both incoming and outgoing implications on a country's balance of payments. It helps generate a significant amount of revenue for each country whether it is domestic travelling or international travelling. This is because no matter where the person is travelling, one needs to buy tickets, book cabs, does shopping etcetera. Revenue is generated through this, as well as employment opportunity. Tourism brings in a lot of people who are willing to pay for things naturally found in that country and other specialties at slightly higher prices than the natives would pay, since they are on vacation. As long as there is reason for people to visit a particular place, there will be more visitors and thus more jobs will be created along with revues earned.

BANGLADESH: VISITOR EXPORTS



Figure 2: Economic Benefit - Contribution of travel and tourism to Visitor Exports. Source: WTTC Travel & Tourism Economic Impact, 2014

Apart from this, tourism helps in understanding various cultures, geographical and historical facts about each country. It opens a new window to the traveler's world and enables in broadening one's horizon.

Tourism is backbone of many financial hubs of many countries in world. Tourism inspires people to show your culture and living style to other peoples of worlds and promote their good things. For example, London is top city in the world that attracts many traveler's each year and one of the important cities in world that is most visited by travelers.

Tourism is perhaps the highest 'people-moving' chase in today's world, as well as one of the highest-grossing industries. The World Tourism Organization reported that in 2009 alone, 880 million international tourist arrivals were registered, and the United States reported over \$90 billion in international tourist receipts.

2.2 Overview/Condition of Tourism in Bangladesh

Tourism in Bangladesh is a gradual developing foreign currency earner. The country has yet to attract a lot more international and domestic tourists. The Balance of Payment (BOP) of our country could be achieved with successful tourism.



Figure 3: Travelers hiking and taking a boat ride in the Sundarbans. Source: bengallogistics.blogspot.com, 2017

Bangladesh is a country that has many natural resources as tourist attractions. These include archaeological sites, historical mosques and monuments, eco-friendly, beaches, forests and, wildlife of various species. Bangladesh offers plentiful opportunities to tourists for fishing, water skiing, river cruising, hiking, rowing, yachting, and sea bathing. In 2011, Lonely Planet (a large travel guide book publisher) ranked Bangladesh as the best value destination for the said year.

In the Northern part of the country, there are various archaeological sites. The largest and most ancient archaeological site resides in Bogra – Mahasthangarh - the single largest Buddhist monastery. Somapura Mahavihara in Paharpur and the most ornamental terracotta Hindu temple in Bangladesh - Kantaji Temple are among the many historic sites.

In the South-Western part, there is the Sundarbans - the largest mangrove forest of the world with Royal Bengal Tiger and spotted deer. There is also architecturally important sixty domed mosque in Bagerhat which is a notable historic site.

In the North-Eastern part, Sylhet division, there are plenty of carpets of green - tea plants on small hillocks. There are various natural reserved forests which are considered great attractions; migratory birds in winter, visit these areas which is also a wonder sight for the tourists.

In the South-Eastern part, there are natural and hilly areas, like Chittagong Hill Tracts, along with sandy sea beaches. The most notable beach, in Cox's Bazaar, is a contender for the title of longest unbroken sandy sea beach in the world. While the hill tracts are a very popular locations for adventurous tourists and trekkers.

Gradually, the importance of Bangladesh is increasing among foreigners as a charming tourist attraction place. There are many opportunities in the country and some of the notable tourist attraction locations have also been mentioned before.

That being said, this is also true that the infrastructure development and the resources required for promoting tourism is hampering the development of this industry. Planned development of the tourist product is partly dependent on the socio-economic conditions of the country. Marketing of Bangladesh tourism abroad faces constraints created by inadequate funds and lack of knowledge. Lack of transport links (air, rail, road and sea transport connecting major tourist destinations) acts as a disadvantage in this sector's growth.



Figure 4: Data shows the increase in the expenditure for travel items of in Bangladesh from 2005 to 2016.
Source: World Bank, 2019

Absence of effective coordination among the relevant departments, agencies and ministries in Bangladesh is another distinguished drawback. “Hotel rates in Dhaka are high compared to neighboring countries, reflecting the high taxation imposed on hotels in Bangladesh.” Lack of support from Government is one of the major problems regarding tourism industry in Bangladesh. (Arif, 2011).

Every year in Bangladesh, there can be seen a rise in ‘International Tourism Expenditures’. These are expenditures of international outbound visitors in other countries - the goods and services purchased by, or on behalf of, the traveler or provided. this shows that the number of visitors going outside Bangladesh is increasing while the rate of incoming travelers has decreased.

2.3 Importance of Tourism Institute

It has been mentioned numerous times - tourism is an important sector in today's world that creates an impact on a country's economic growth. The total contribution of Travel & Tourism to GDP was BDT 394.8 billion (4.3% of GDP) in 2012. Along with the growth, people also exchange knowledge about history and culture of that country. (www.ceicdata.com)

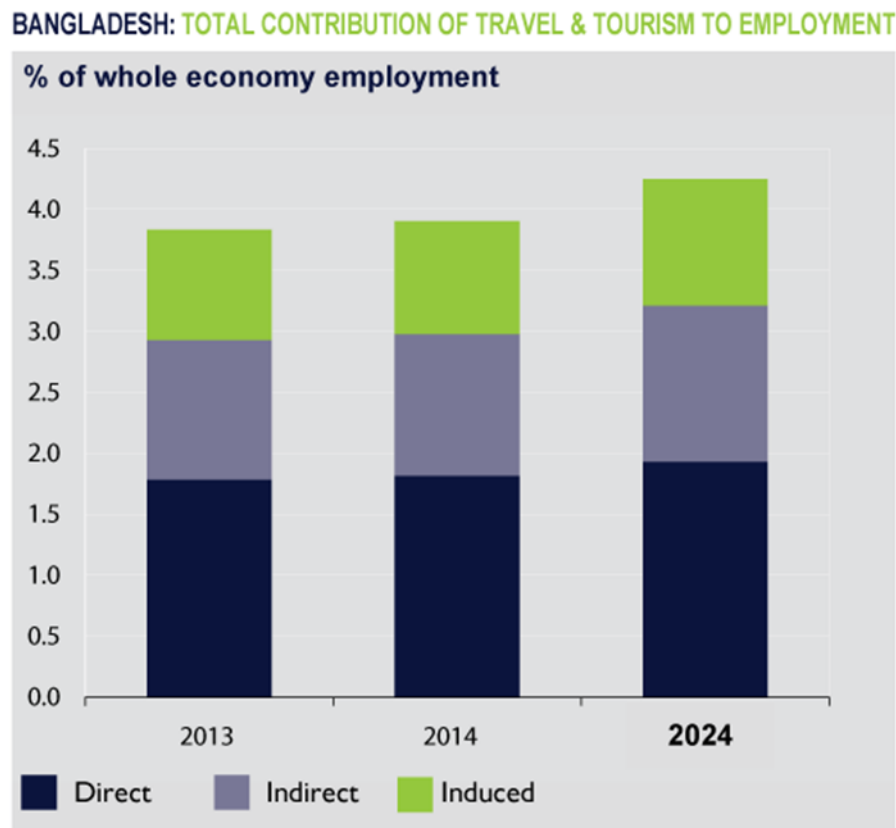


Figure 5: Bangladesh: Total Contribution of Travel & Tourism to Employment. Source: WTTC Travel & Tourism Economic Impact, 2014

According to World Travel and Tourism Council (WTTC) report (2014), The total contribution of travel and tourism was 4.4% of GDP in 2013 and is expected to grow 7.9% to 4.5% of GDP in 2014. It is forecasted to rise by 6.5% per annum to 4.7% of GDP by 2024. Notable that, total contribution consists of direct, indirect and induced contribution. (www.ceicdata.com)

Since the ‘revenue generating’ industry is a multi-dimensional activity and a service industry, it is necessary that all the participants become active partners in the endeavor to attain sustainable growth in tourism if Bangladesh is to become a world player in this sector.

The overall quality within the hospitality and tourism sector depends on education and professional development, i.e. on the overall level of education of employed personnel. High-quality and sustainable development of tourism demands an efficient national policy of education and professional development. Over the past decade particular attention was given to the education of personnel within most sectors because educated personnel present both the first and the last link in the chain of competitiveness. Hospitality and tourism professions are less popular and attractive, so this sector is faced with a lower number of students enrolled in existing tourist, hotel management and hospitality schools. The education system needs to be adapted to modern trends in hospitality and tourism. (Perman, L. 2014).

2.4 Tourism Institute

Tourism Institute is an institute or a school that offers courses and gives degrees in tourism and hospitality subjects. The objective is to provide students with outstanding opportunities through classroom and field-based learning, so that they can work both nationally and internationally.

The tourism sector is a service-oriented sector that needs to have a very efficient management of tourism products. Therefore, the institute will help in achieving proper specialized training, help the students to create awareness about the country’s cultural and heritage significance and also give them first hand field-based training. The institute will also help to develop competence and create professions in the field of tourism which will eventually help in our country’s growth.

Tourism Institute needs to provide various types of courses to a wide-range of students who joins with different objectives. Many youths have joined programmes such as the

‘housekeeping’ programme which helps them to achieve a job easily (nationally and internationally). This also does not require a high education standard and thus many people have followed this path. However, in recent days, many are attending courses for making their career in the hospitality sector - specially as chef, bakery chef, food and beverage manager etcetera; as this give them a good job opportunity (nationally and internationally), it is also considered prestigious. They are also some people who simply join the courses to learn something different.

2.5 Existing Tourism Institutes in the Country

At present, there is only one institution that is solely dedicated for tourism training – NHTTI. Other than this there two universities that offer certain courses in tourism and six other privately owned institutes that also offer similar tourism related trainings.

NHTTI

The National Hotel & Tourism Training Institute (NHTTI) was established in 1974 under Bangladesh Parjatan Corporation (The National Tourism Organisation) as the pioneer of tourism training institution. “Tourism is an income generating activity of the highest importance in the current world and holds great economic promise for the developing countries.” This institute was established after recognizing the need for training in all areas involved with tourism development.

During the 1980s, institute and its application hotel was built, equipped and training was conducted mostly in hotel, tourism, travel agency and a number of other short courses. In 1994 they first started a two-year long diploma in Hotel Management Course. Due to an expansion of tourism in the country, need for skilled manpower in the managerial level always exists. Hence, Diploma certificate in Hotel Management Course was re-introduced on a regular basis.

Finally, from March 1996, NHTTI started most of its training courses fully and started its operation.

Currently, NHTTI has a total of eleven different training programmes. The classes for these courses take place on a regular basis. However, the institute also offers various seminar, trainings or even customized courses upon requests from different schools and institutes.

BHMTTI

Bangladesh Hotel Management & Tourism Training Institute (BHMTTI) is the oldest and the foremost private Government approved Institute which was established in 1990. It is the only Institute of its kind in the private sector which was approved by the Ministry of Civil Aviation & Tourism, Government of the Peoples Republic of Bangladesh.

This institute's aim is to offer Hotel, Tourism and Hospitality industry related professional courses at affordable costs. The course contents of the programmers include both theoretical and practical classes to acquire personal qualities and professional skills required to perform duties in the industry. Here, classrooms for theory classes and training facilities to conduct practical training classes are provided. Some of these training include the following: Training Kitchen, Training Restaurant and Bar Counter, Front Office Management, Housekeeping, CRS, E-Ticketing, etcetera. The successful trainees of this institute have been sent to perform internship at different hotels and hospitality related organizations to enrich their knowledge.

Other than these two institutes, there are more privately-owned institutes that provide tourism training. However, those institutes do not have as many training facilities and courses like these two institutes. Institutes that provide similar training are as follows:

1. Institute of Tourism and Hotel Management (ITHM)
2. Atab Training Institute
3. Ornate Institute of Hotel & Tourism

4. National Institute of Hotel Management Bangladesh (NIHMB)
5. International Institute of Tourism and Hospitality Management (IITHM)

2.5.1 Condition of the Institutes

In Bangladesh there are different universities that teaches a few tourism related courses but there are only two institutes that specialize in tourism training facilities - National Hotel & Tourism Training Institute (NHTTI) and Bangladesh Hotel Management & Tourism Training Institute (BHMTTI). Out of these two institute, NHTTI is run by the government under the Bangladesh Parjatan Corporation, while BHMTTI is a privately-run institute.

These institutes do not have all the adequate space required for training because they were not built like that. The buildings used for the institutes are commercial or mixed used buildings that are being used for educational purposes. The classrooms, studios and labs are not large enough to accommodate the number of students and the space given to each student is less than the standard amount. In an interview with the Principal of NHTTI, it was learned that due to inadequate classroom space, there needs to be more than three-four shifts of the same course each day.

2.5.2 Existing Training Courses

NHTTI

- Professional Chef Training
- Diploma in Tourism and Hospitality
- Diploma in Hotel Management
- Food and Beverage Production
- Food and Beverage Service
- Front Office and Secretarial Operations

- Bakery and Pastry Production
- Housekeeping and Laundry Operations
- Tour Guide and Travel Agency Operations
- Language Training
- Computer Literacy

Along with these courses, the institute also provides customized or tailor-made courses upon request from different institutions like, Bangladesh Army, different universities, etcetera. They also arrange seminars and training courses for teachers. The institute also provides in-service and on the job training for BPC personnel and arrange special seminar and workshop related to tourism development.

BHMTTI

This institute provides short term training that last for four to six months, also offers diplomas that takes up to 3 years to graduate. These courses include:

- Food & Beverage Service
- Food & Beverage Production
- Front Office & Secretarial Operation Course
- House Keeping & Laundry Service
- Bakery & Pastry Production
- Travel Agency, E-Ticketing & Tour Operations
- Professional English Language
- Basic Computer Training
- Higher Diploma in Hotel, Tourism & Hospitality Administration
- Diploma in Tourism& Hospitality Management
- Diploma in Hotel Management

- Diploma in Professional Chef Course
- Advanced Diploma in Professional Chef Course

2.5.3 Career Opportunities in the Sector

According to the World Travel & Tourism Council, travel and tourism accounts for 8% of the world's jobs and has the highest potential for growth of any industry. Bangladesh is full of natural attractions - rivers, beaches, historical and cultural sites, religious places, hills, forests, waterfalls, tea gardens surround our entire country. The Sundarbans, Bagerhaat Mosque and Somapura Mahavihara in Paharpur are three world heritage locations of Bangladesh among 1007 other tourist destinations of the country.

BANGLADESH: TOTAL CONTRIBUTION OF TRAVEL & TOURISM TO GDP

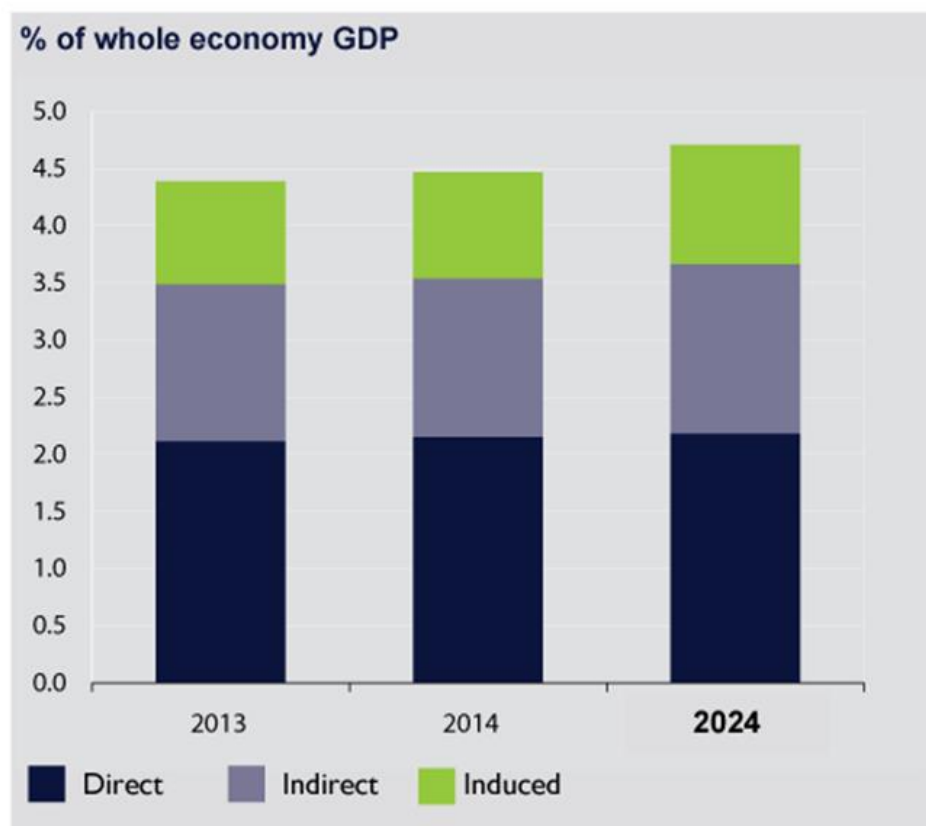


Figure 6: Contribution of travel and tourism to GDP. Source: WTTC Travel & Tourism Economic Impact, 2014

In 2011, Lonely Planet (a large travel guide book publisher) has called Bangladesh one of their 'best value destinations' that are hardly explored by tourists and backpackers. Since then, a rise in local tourism was observed; middle income, domestic travelers now spend their money on travelling. This change is brought mainly due to rise in internet advertisement and budget friendly tours. (assignmentpoint.com, 2018)

After the fall in the number international tourists coming to Bangladesh, tour companies have started focusing on international growth and cheap air travel. Due to the growth of domestic airline companies, gradually foreign tourists have also started to visit our country. Hospitality and tourism are a massive industry with various different career paths – hotel management to even establishing one's own hospitality service practice.

Since, this sector is still a developing in our nation, there is a huge opportunity for new careers. With the gradual increase in the rate of tourism activities, career opportunity is massive. Hotel Management, Food and Beverage Operations, Chef, Tour Guides – are some of the careers that can be achieved in this sector.

In 2012, the total contribution of Travel & Tourism to employment, including jobs indirectly supported by the industry, was 3.7% of total employment (2,714,500 jobs). Travel and Tourism generated 1,328,500 jobs directly in 2013 and this is forecasted to grow by 4.0% in 2014. This includes employment by hotels, airlines, travel agents and other passenger transportation services. It is supposed to increase by 2.7% per annum on average over the next ten years. It is predicted that by 2024, travel and tourism are forecasted to support 4.2% of total employment. (WTTC Travel & Tourism Economic Impact 2014)

CHAPTER 03: SITE APPRAISAL

3.1 Background

3.2 Land Use and Surrounding Area Plan

2.3 Current Condition of the Site

2.4 Environmental Condition/Challenges

2.5 Swot Analysis of Site

Chapter 3

Site Appraisal

3.1 Background

<u>Project Name:</u>	Tourism Institute
<u>Location:</u>	Sector 6, Purbachal New Town, Dhaka
<u>Client:</u>	National Hotel and Tourism Training Institute (NHTTI) BANGLADESH PARJATAN CORPORATION
<u>Site area:</u>	5.4 Acres (2,34,000 square feet)

The site for the project is located at Sector 6 of Purbachal, which is within very close vicinity of the Dhaka city. Dhaka city has turned into the busiest and the most densely populated cities; the dwelling space required for the large number of people is not sufficient enough within the metropolitan area. Many residential areas of Dhaka are turning overcrowded with increase in the amount of pollution, which as a result is degrading the environment overall. As a solution for reducing this, the surrounding area or the outskirts of the city needs to be developed in a planned way, so that it can be established as the permanent residential accommodation. Purbachal New Town Project is situated at Rupgonj, Thana of Narayanganj District and Kaligonj, Thana of Gazipur District - in between Balu river and Sitalakhya river, at a distance of 16 km from zero point of Dhaka. The total area is 6,150 acres which is divided into thirty sectors.

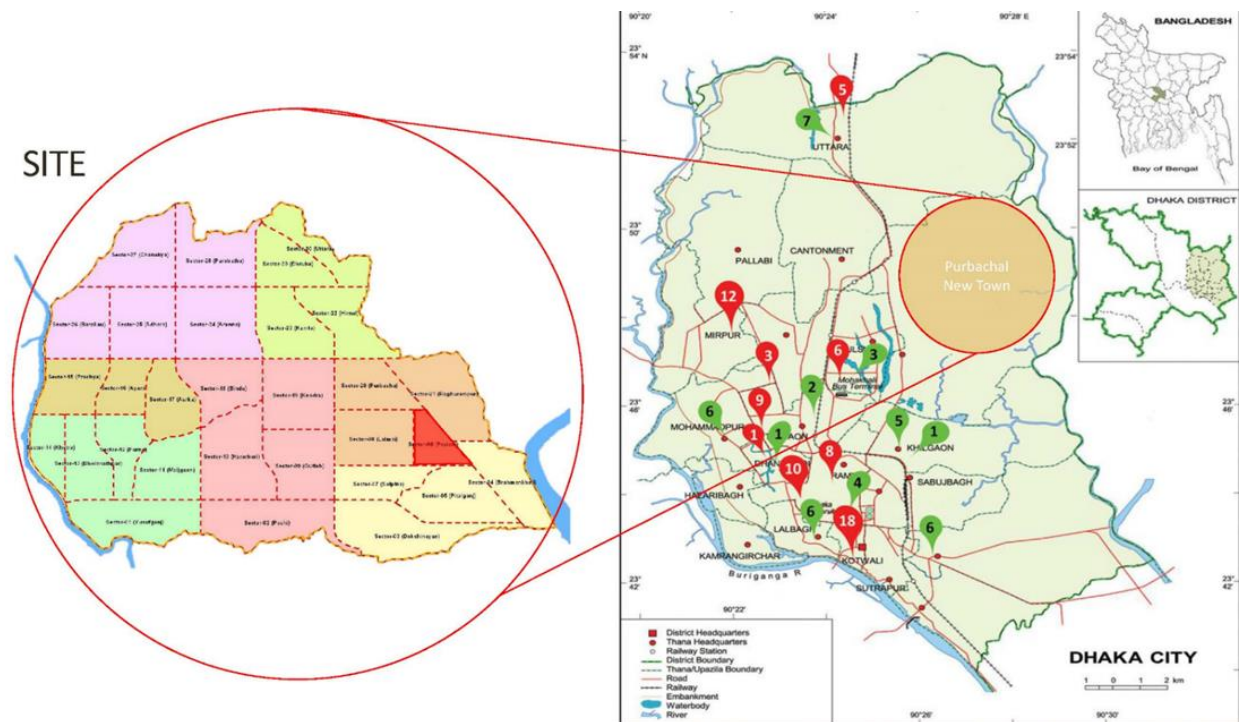


Figure 7: Map locating Purbachal from the Dhaka city plan. Source: Rajuk, 2016

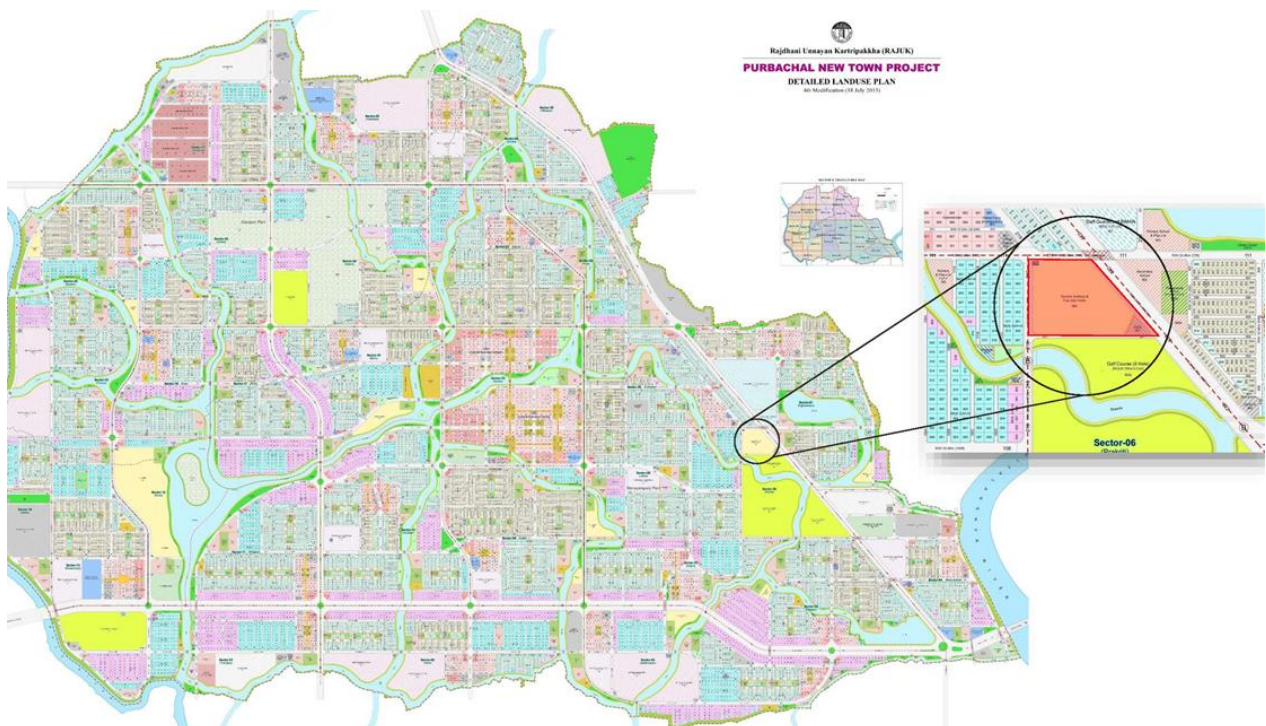


Figure 8: Map locating the site from the Purbachal area plan. Source: Rajuk, 2016

3.2 Land Use and Surrounding Area Plan

Sector 6 is the part of Purbachal where the authority intends to build all the commerce based or revenue generating industries or sources. This location has mostly industrial and urban amenities around its surroundings. The Centre for International Trade Fair Events is currently under construction and will encourage many public activities in the area.



Figure 9: Artistic impression of the location of the site and road network of surrounding area.. Source: Author, 2019

The approach to the site is from the 100 feet wide road which is known as the Dhaka Mahanagar Bypass road. This road can be stretched to North-West towards Tongi. This road connects to the 300 feet wide Purbachal Express Highway or the Progoti Sharani Road on a node which is very close to the Shitalakshya River. The Purbachal express highway is considered to be the main access to this town which is around 10 km away from the Kuril flyover.

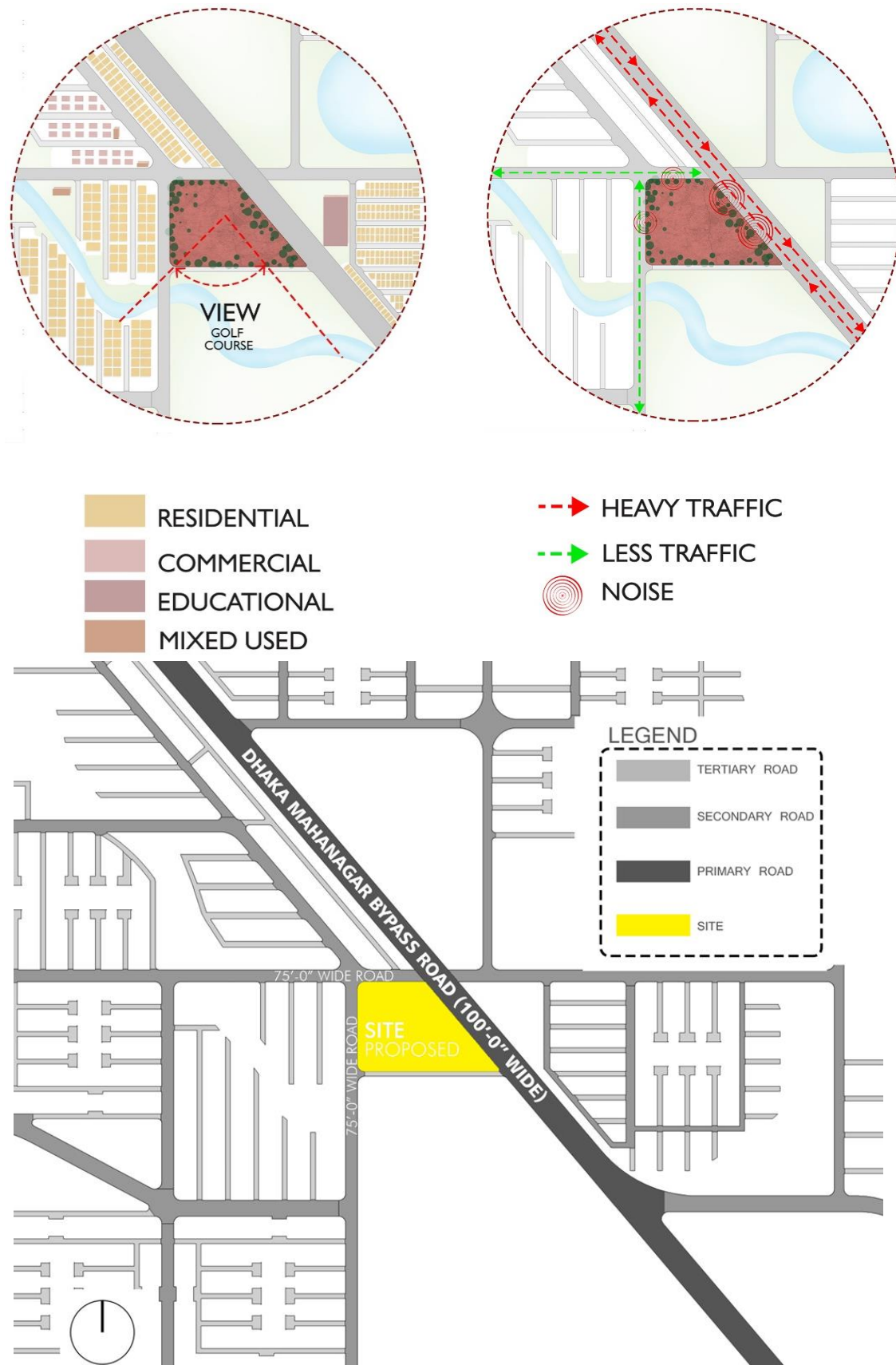


Figure 10: The figures show the physical constraints and character of the site. Source: Author, 2019

3.3 Current Condition of the Site

Currently, the site and its surrounding can be said to be almost deserted. Other than a few locals with small houses roofed with corrugated sheets and some tea stalls of the similar characters, there is no other built structure on the site.



Figure 11: Ariel view of site and surroundings. Source: Author, 2019

This sector of Purbachal is just about to start its infrastructural development. In Sector 4, The Centre for International Trade Fair Events is under construction now and this in the future will encourage to new infrastructure in the area.

Due to this center, there will be a large number of public activities in the area and the already busy Dhaka Mahanagar Bypass Road will experience more traffic.



Figure 12: Panoramic view of water body near the site. Source: Author, 2019

A few buildings of social and infrastructural amenities have already been built in the nearby areas and there are still many other buildings and facilities yet to be constructed. The roads surrounding the site are all carpeted and quite wide.



Figure 13: Panoramic view of the site surroundings. Source: Author, 2019

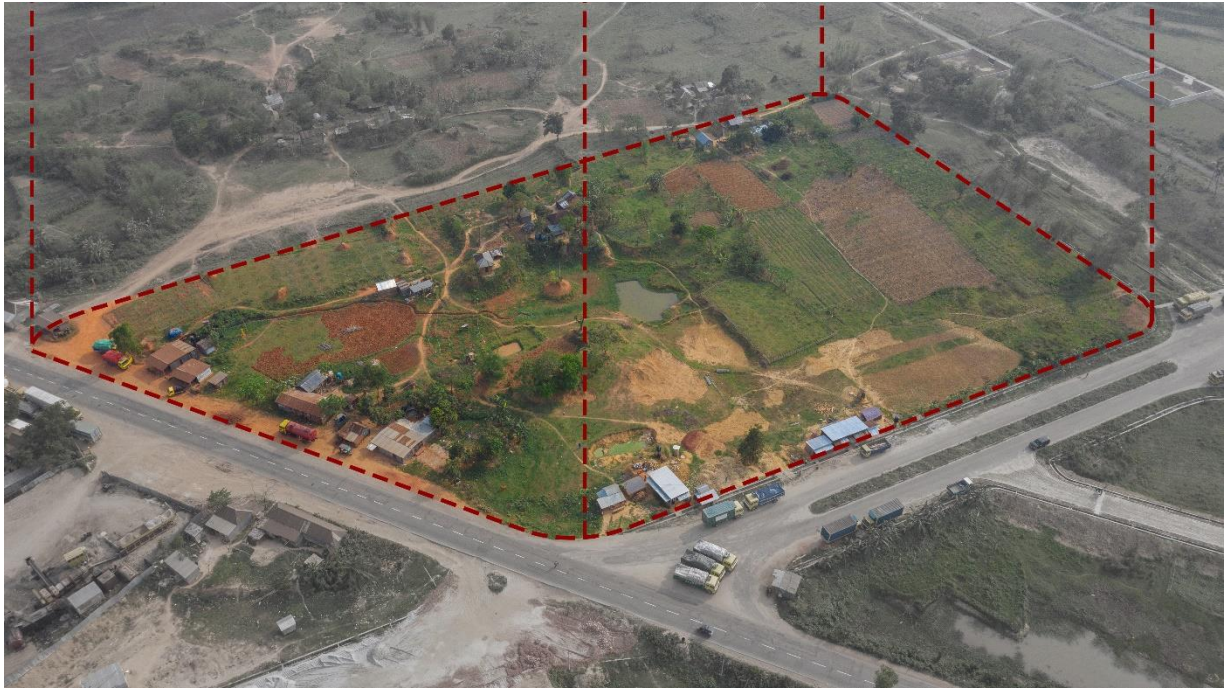


Figure 14: Panoramic view of the site. Source: Author, 2019

On the east side of the site is the Rupganj area. This is on the other end of the Shitalakshya River. There are water bodies throughout the surrounding area that is expected to keep the land cool. There is branches of the Turaj river running very close to the site and some part of the water body also enters the golf course on the south of the site.

3.4 Environmental Condition/Challenges

The idea of creating a new town within the city is to enrich the environment of the city. The planning of this town is made with the goal to reduce the pressure of population in Dhaka city by creating new opportunity of residential accommodation within the vicinity of the city.

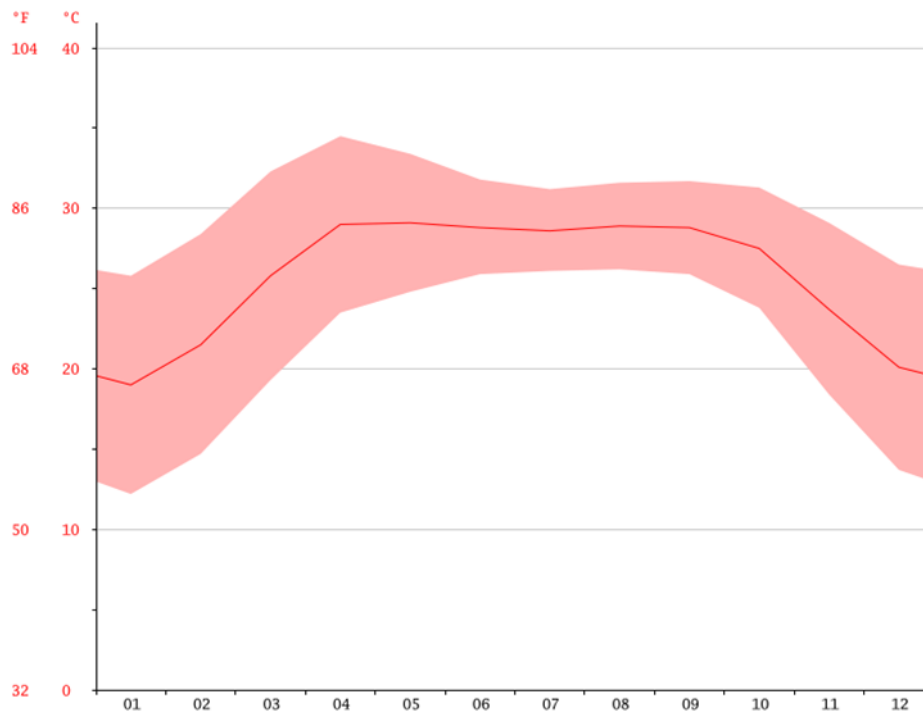


Figure 15: Graph showing the average temperature of Dhaka. Source: Climate-data Organization

The climate is tropical in Dhaka – heavy rainfall during the summer time and very little winters time. The average temperature in Dhaka is 25.9 °C. In a year, the average rainfall is 2022 mm. (Climate-data Organization, Dhaka. 2018)

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature (°C)	19	21.5	25.8	29	29.1	28.8	28.6	28.9	28.8	27.5	23.7	20.1
Min. Temperature (°C)	12.2	14.7	19.3	23.5	24.8	25.9	26.1	26.2	25.9	23.8	18.4	13.7
Max. Temperature (°C)	25.8	28.4	32.3	34.5	33.4	31.8	31.2	31.6	31.7	31.3	29.1	26.5
Avg. Temperature (°F)	66.2	70.7	78.4	84.2	84.4	83.8	83.5	84.0	83.8	81.5	74.7	68.2
Min. Temperature (°F)	54.0	58.5	66.7	74.3	76.6	78.6	79.0	79.2	78.6	74.8	65.1	56.7
Max. Temperature (°F)	78.4	83.1	90.1	94.1	92.1	89.2	88.2	88.9	89.1	88.3	84.4	79.7
Precipitation / Rainfall (mm)	6	21	57	138	272	367	377	317	271	157	32	7

Figure 16: Average Dhaka weather by month. Source: Climate-data Organization, 2018

The driest month is January with only 6 mm of precipitation. While most precipitation in July with an average of 377 mm.

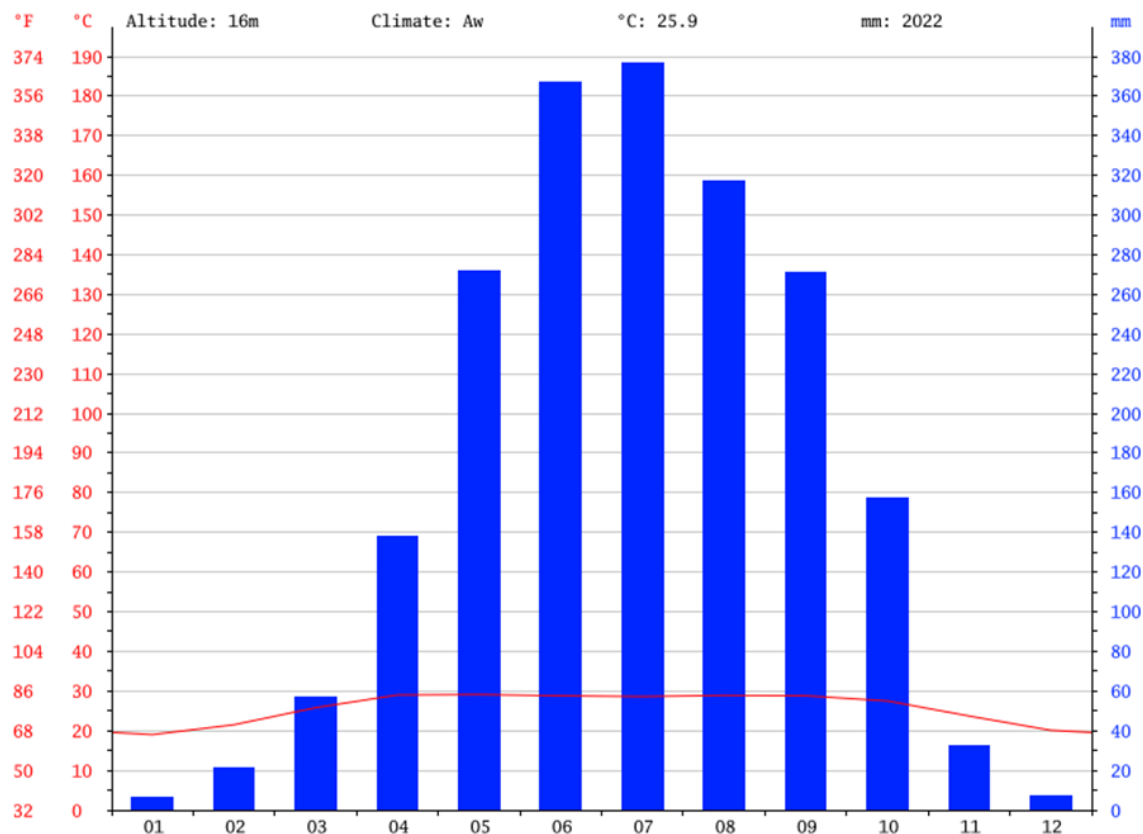


Figure 17: Climate Graph shows Dhaka weather by month. Source: Climate-data Organization, 2018

With an average of 29.1 °C, May is the warmest month, while January is the coldest month, with an average temperature of 19.0 °C. The precipitation varies 371 mm between the driest month and the wettest month. Throughout the year, temperatures vary by 10.1 °C. (Climate-data Organization, Dhaka. 2018)

3.5 Swot Analysis of Site

Strength

- Main roads on 3 sides of the site
- Strong road connection from main road
- Large open golf course area on the south side
- Water body (river) is within very close vicinity
- Only 16km from Dhaka's zero point

Weakness

- The accessibility to the site may seem like it is far from urbanism and has got minimal infrastructure yet within its locality
- Difficult to travel during night time
- Lacks security
- Lack of street lights on road

Opportunities

- Increase in urban sprawl
- Encourage more urban growth
- Development here can increase scopes in other unplanned and enjoyable facilities

Threat

- Transportation is a problem since our country does not have adequate public transport services
- If not taken care properly, the development may not be proper
- Yet no water, gas or electricity supply in the area

CHAPTER 04: CASE STUDIES

4.1 School of Planning and Architecture, Vijayawada

4.2 Neeson Cripps Academy

4.3 University of Mpumalanga

Chapter 4

Case Studies

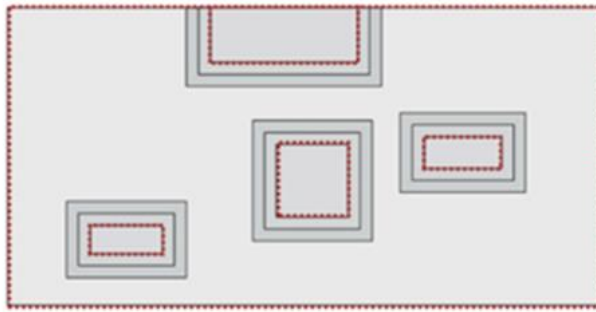
It is important to study existing projects of similar programs and criteria before beginning to design a project. This is because these existing, functioning projects will help in understanding the quality of spaces, zoning, functions and distribution of the programs accurately.

4.1 School of Planning and Architecture, Vijayawada

The School of Planning and Architecture at Vijayawada, India is a higher education institute that specializes in education and research in the field of urban planning and architecture. This project was finished building in 2018 and the design team was lead by architects Shantanu Poredi and Manisha Agarwal.

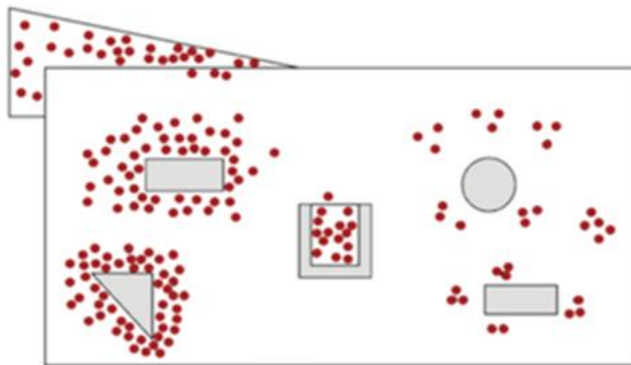


Figure 18: Southeast view of School of Planning and Architecture, Vijayawada. Source: Edmund Sumner, 2018



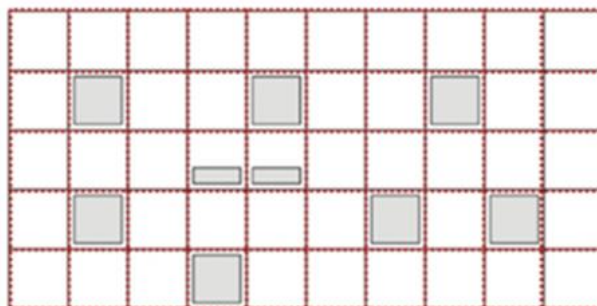
GROUND LEVEL

CENTER AND PERIPHERY EFFECTIVE FOR INTERACTIVE LEARNING



CONCOURSE LEVEL

FIELD INFORMAL FOR NETWORKED EXCHANGE



TOP LEVEL

GRID EFFICIENT FOR FOCUSED LEARNING

Figure 19: Zoning diagram shows how each block is placed. Source: ArchDaily.com

Although it is a school of Planning and Architecture and not a 'Tourism Institute', this project is very similar to it. This is because, it is also an educational building and these have similar characteristics – there are classrooms, laboratories, studios, student and teacher facilities, auditoriums/multipurpose halls, etcetera.

Along with this similarity, the weather and climatic conditions of India and Bangladesh is also alike. Hence, studying the materials chosen here and the climatic response will be helpful.

The design here focuses on the different types of programs and separates those after keeping a connection within all the various blocks.

The design demonstrates a scale parallel to a public building on the outside but explores a humane scale that suitable for an engaged student community on the inside.

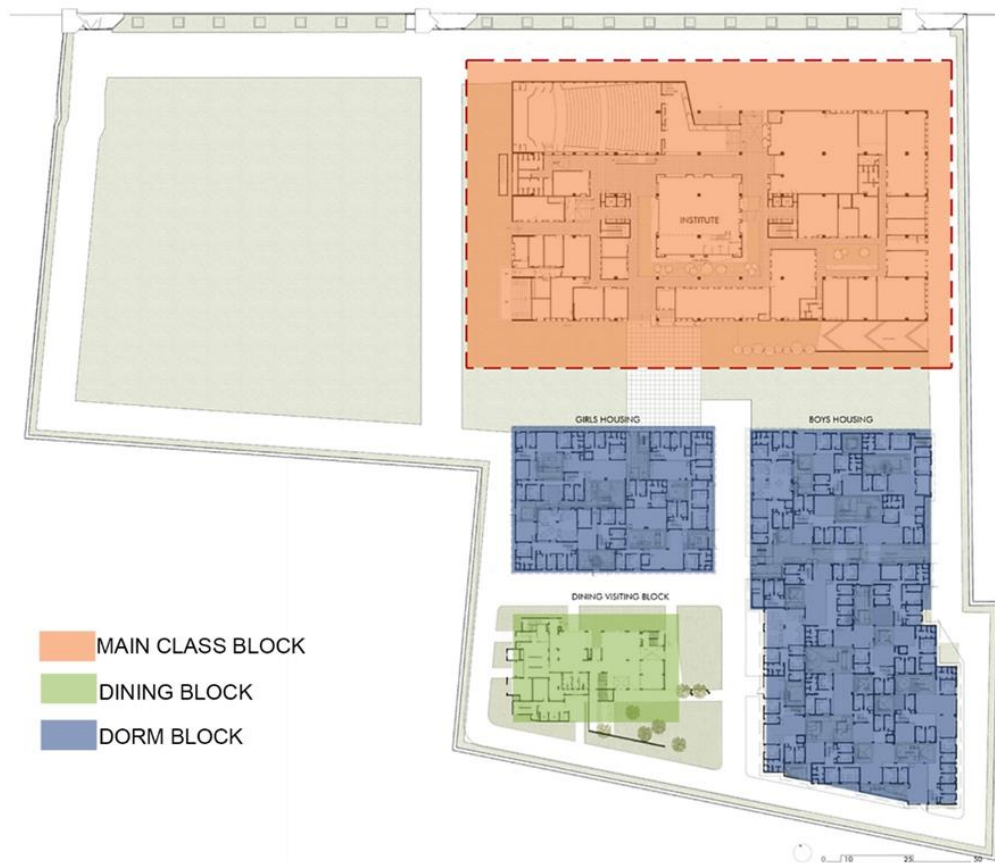


Figure 20: Zoning diagram shows how each function has been placed according to its program. Source: ArchDaily.com (Edited by Author)

Keeping in mind the context of the area, a traditional courtyard is there that is used for common public and community programs. “It behaves as a concourse to the entire building as it filters and mediates the movement of people.” There are smaller courtyards that work as light wells and offer visual connectivity through all the layers and is occupied by the entire population - faculty, students, administrators and visitors. (ArchDaily.com)

The fair-faced concrete, a local stone called tandur, Corten Steel and fly ash bricks are used to a natural and local character to the building. The courtyards in the building helps to funnel winds through it and enable cross-ventilation. This regulates the temperature and creates thermal comfort.

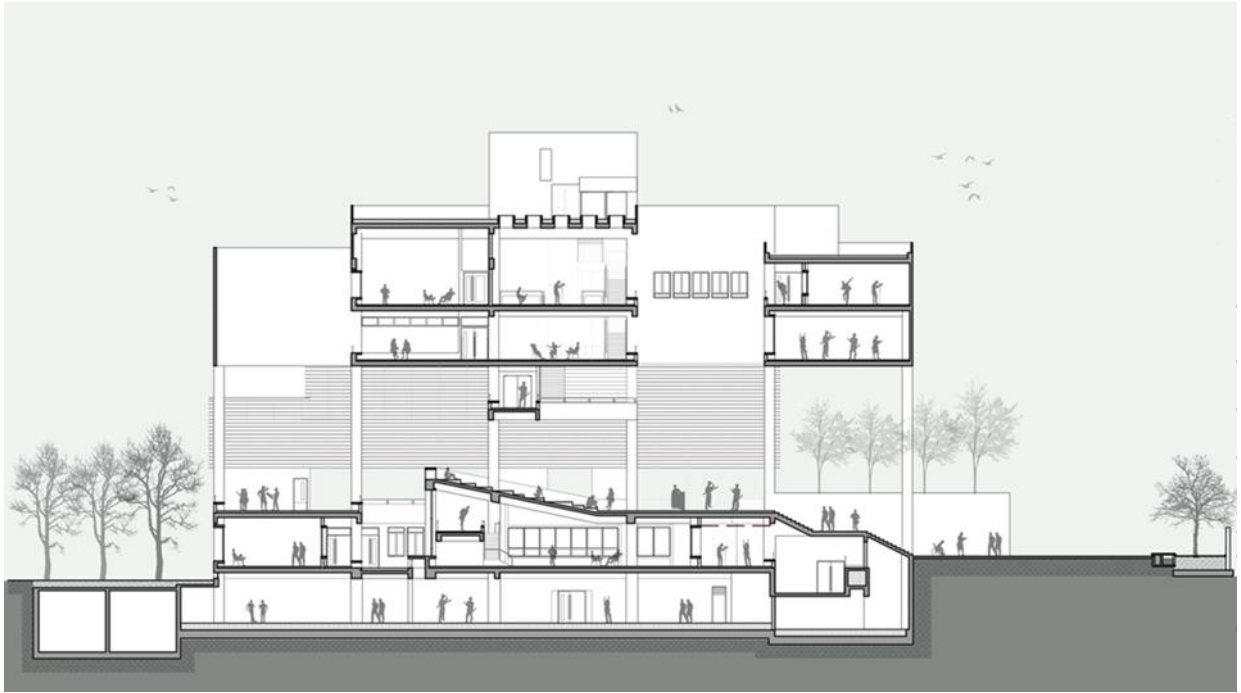


Figure 21: Section shows the different layers of function distribution. Source: ArchDaily.com



Figure 22: Building with respect to the surrounding context. Source: Edmund Sumner, 2018

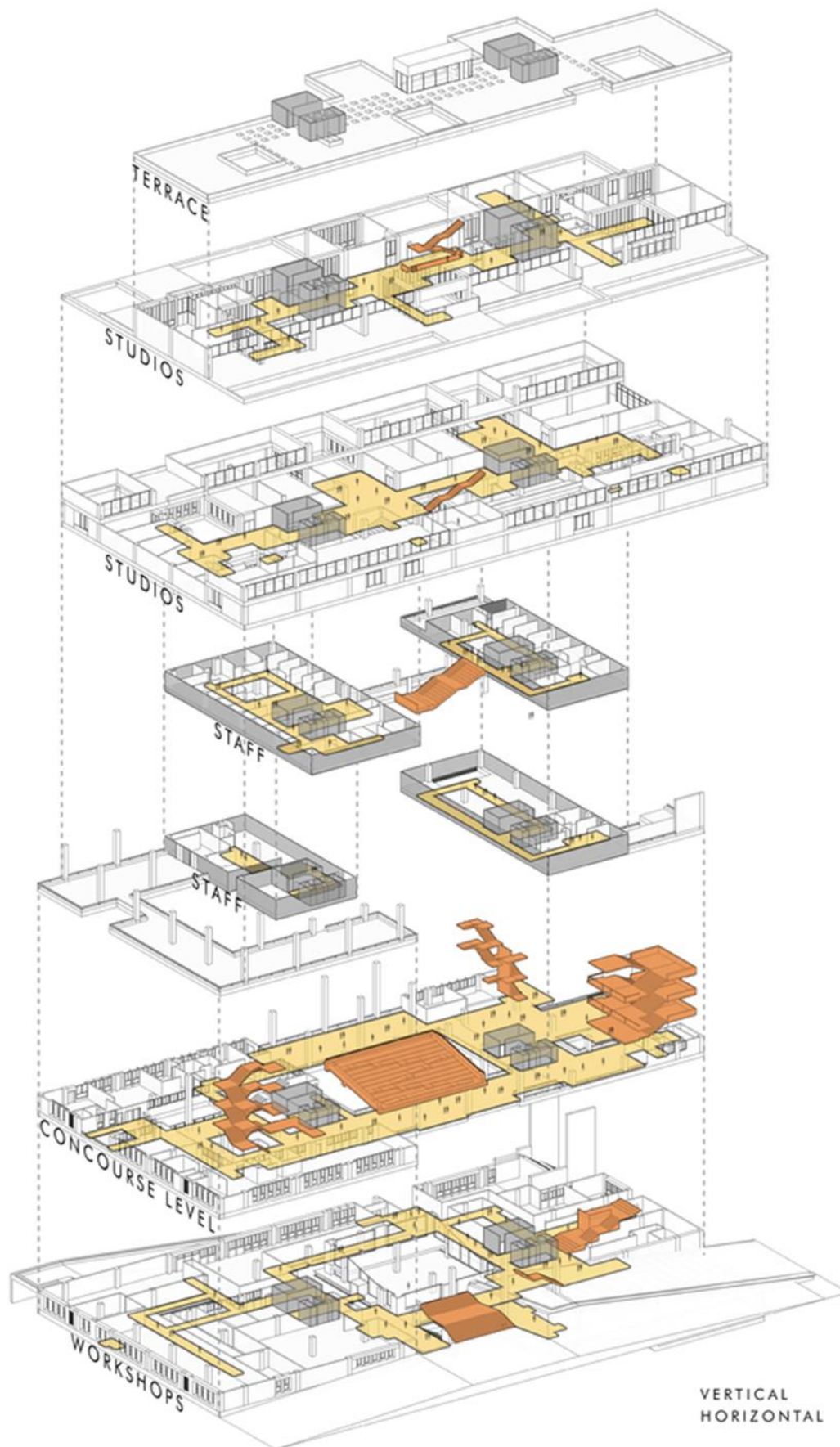


Figure 23: Diagram showing the different layers of vertical connections. Source: ArchDaily.com

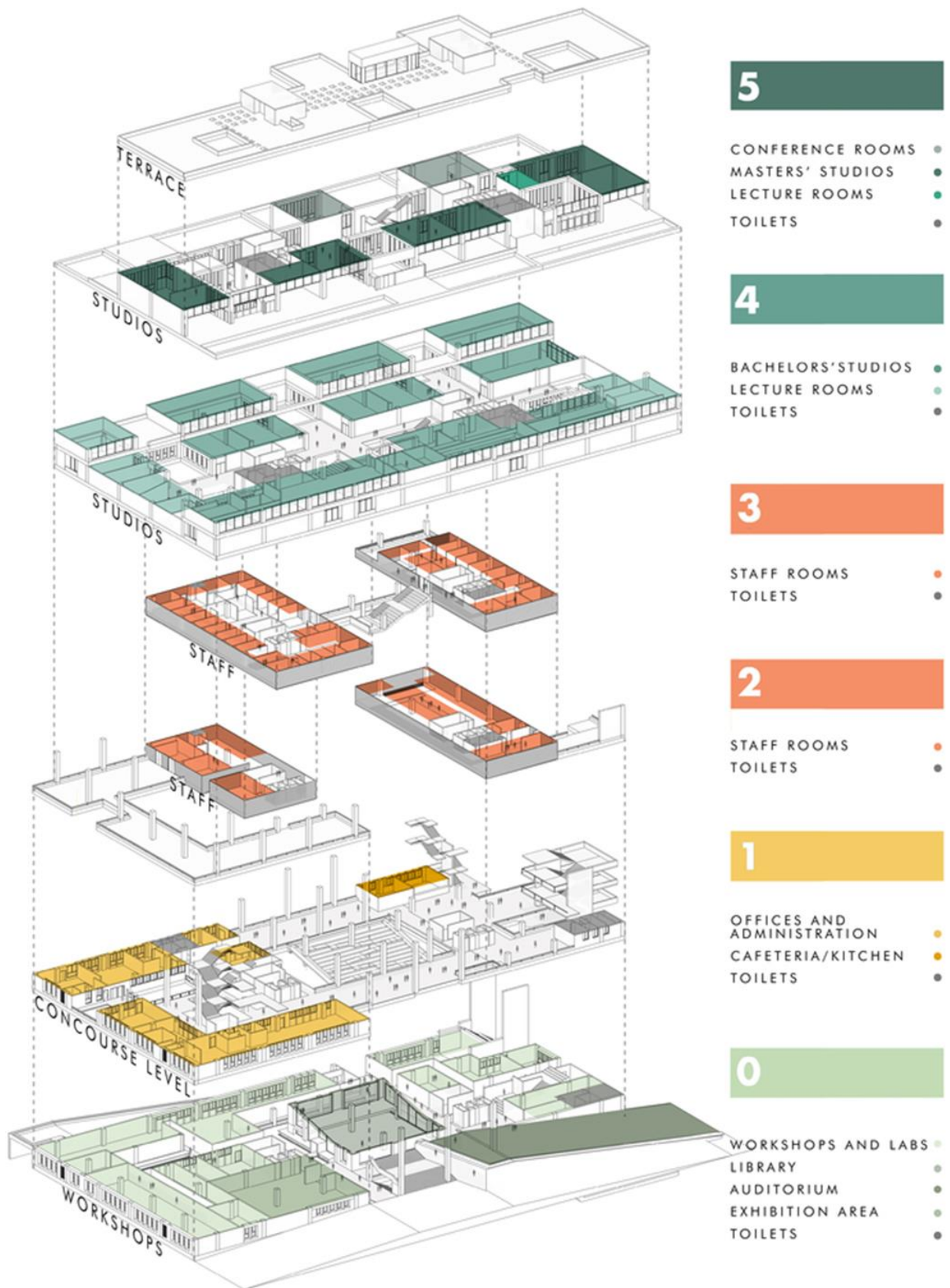


Figure 24: Diagram shows functional zoning by layers. Source: ArchDaily.com

4.2 Neeson Cripps Academy

Neeson Cripps Academy is a high school in the capital of Cambodia, Phnom Penh, designed by New York based firm CookFox Architects, that was built in 2017 for city's most disadvantaged children.



Figure 25: Neeson Cripps Academy. Source: David Yeow, 2017



Figure 26: Neeson Cripps Academy. Source: David Yeow, 2017

This is also not an institute for tourism training but is a school that provides secondary education to 400 children aged between thirteen and eighteen. Just like any other school, this educational institution also has the common functions like, classrooms, laboratories, multipurpose halls, etcetera.



Figure 27: Plans show the large amount of open areas that are good for natural ventilation. Source: ArchDaily.com



Figure 28: Students can have thermal comfort due to cross ventilation. Source: David Yeow, 2017

The school building is divided into two distinct halves. Firstly, there is a long, south wing that is composed of “open-air classrooms and flexible enclosed learning spaces accessed by outdoor walkways”. There is intricate bamboo screening that forms a deep overhang and the shades the façade.

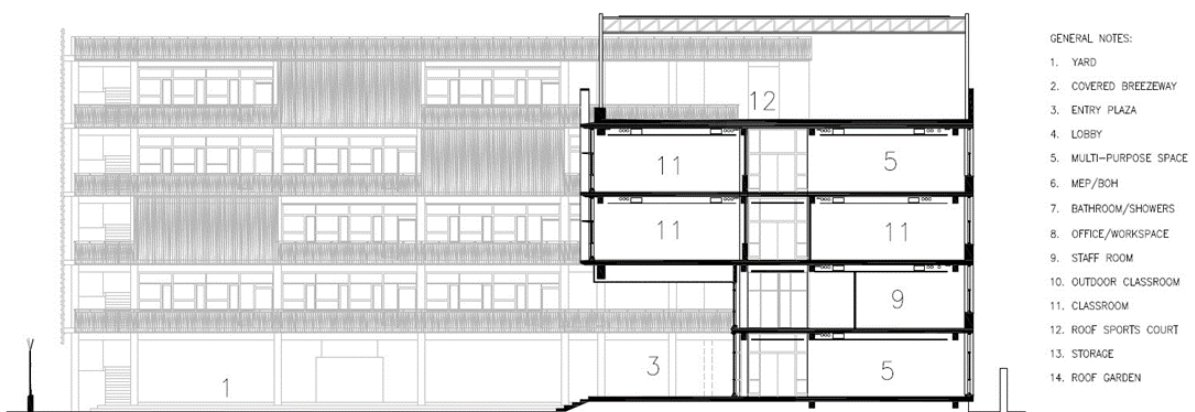


Figure 29: Part of the elevation shows the bamboo screening that shades the inner facades. Source: ArchDaily.com

Secondly, there is the north wing that rooms that are controlled by mechanical systems - science labs, art studio, computer lab, film and media room, galleries, multipurpose spaces and administration offices.

The design is made in a way that it prioritizes the use of daylighting in classrooms and circulation spaces and thus reduce demand for energy and provide learning benefits to the students.



Figure 30: Students can gather in the open court for assembly or even take shelter from flood. Source: David Yeow, 2017

As a climatic response to the vulnerability of flooding in the area, most parts of the ground level are open that provides covered gathering space, which in fact has a visual connection to a large courtyard garden.

4.3 University of Mpumalanga



Figure 31: Approach to the Hall of the University. Source: Tristan McLaren, 2018

University of Mpumalanga is based in Mbombela, South Africa. It was established in 2014, initially accommodating a modest intake of one hundred and forty students. This university mainly offers agriculture-based courses and along with those, they also offer a Diploma in Hospitality Management.



Figure 32: Sections shows the difference in height due to contour. Source: ArchDaily.com

This is a small university and is one out of the two newest universities of Africa. The design of this project is topography guided - steeply sloped. The massing is placed in such a way that at places the building is two storied and four-five stories somewhere else.

The design of this project is such that the student residences and other public facilities are nearby to each other function. This connection is created by a promenade route which is a deck that follows its way through the trees.

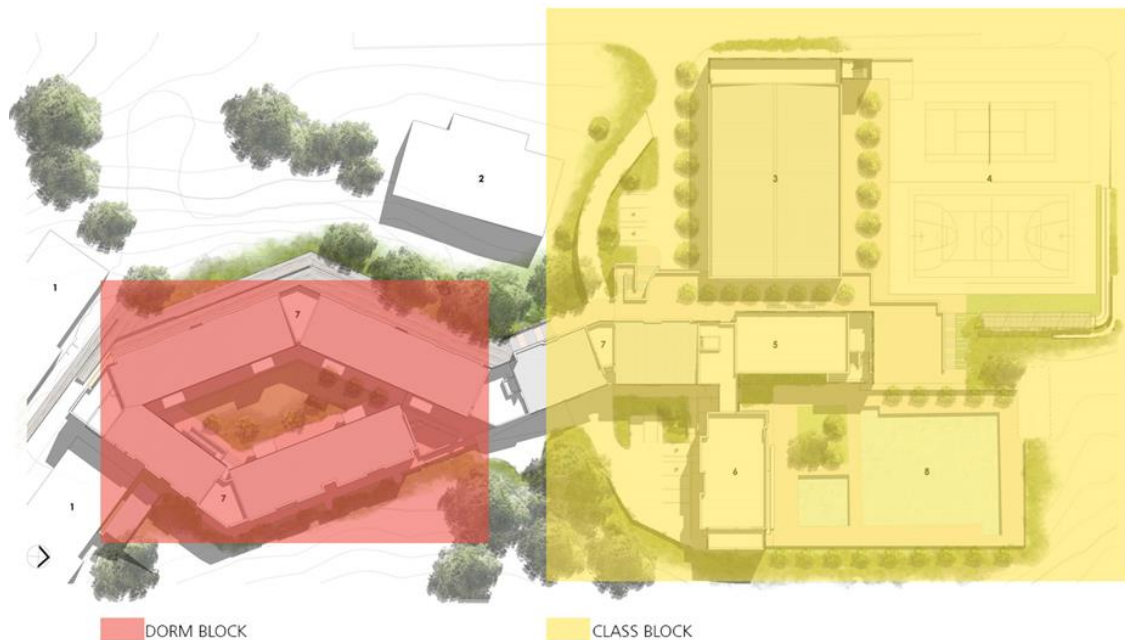


Figure 33: Functional Zoning of the blocks. Source: ArchDaily.com (edited by Author)

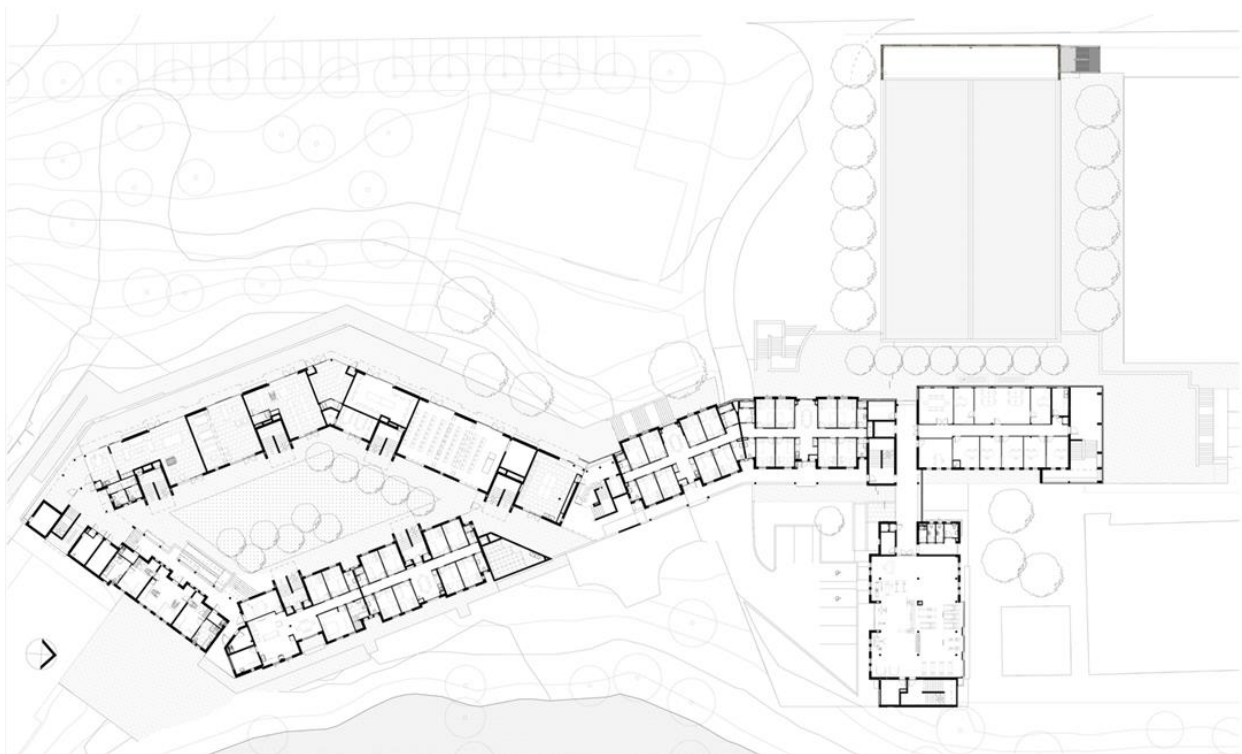


Figure 34: Plan shows the connection between the blocks. Source: ArchDaily.com

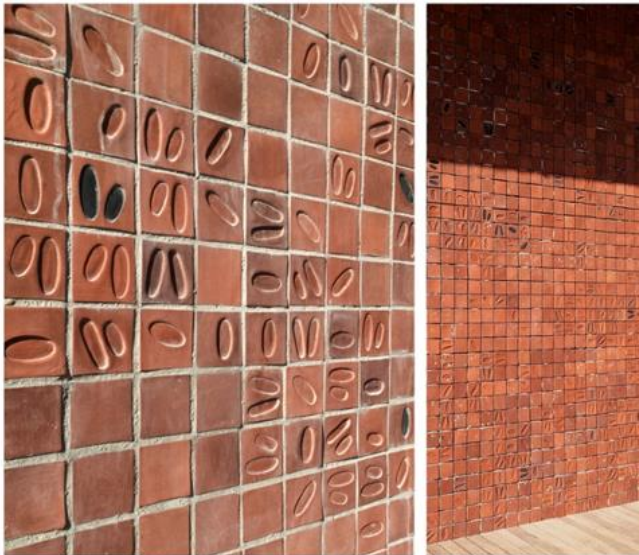


Figure 35: Terracotta Mosaic. Source: ArchDaily.com

The material and the natural colors and textures used here reflects that of the Mpumalanga landscape. “The building has a sense of growing out of landscape with the core material being a local clay face brick.” Punctured brickwork creates ‘jaali’ like screening that shield the facade against direct sunlight, allowing for cross ventilation while maintaining

privacy and security. To have more local essence in the design, public art is also introduced along the promenade through a series of personalized terracotta mosaic tile feature walls by a local artist.



Figure 36: Local colors and materials are used here. Source: Tristan McLaren, 2018

CHAPTER 05: PROGRAM DEVELOPMENT

5.1 Programs from Client

5.2 Proposed Programs

Chapter 5

Program Development

5.1 Programs from Client

The client of this project is the National Hotel and Tourism Training Institute (NHTTI) which is the pioneer tourism training institution that works under the Government's 'Bangladesh Parjatan Corporation' (The National Tourism Organization).

There was no list of programs given by Bangladesh Parjatan Corporation (BPC). However, NHTTI has an existing institute with a list of training programs. Through interviewing the Principal of the institute, it was clearly understood what type of classrooms and how many of them this institute requires along with the other facilities.

The existing list of training programs currently present at NHTTI are as follows:

- | | |
|--|--|
| 1. Professional Chef Training | 7. Bakery and Pastry Production |
| 2. Diploma in Tourism and Hospitality | 8. Housekeeping and Laundry Operations |
| 3. Diploma in Hotel Management | 9. Tour Guide and Travel Agency |
| 4. Food and Beverage Production | Operations |
| 5. Food and Beverage Service | 10. Language Training |
| 6. Front Office and Secretarial Operations | 11. Computer Literacy |

This list of training programs was then analyzed and revised to propose some new training programs. The area required for these programs were studied and proposed.

The revised set of training programs that are being proposed can be divided into 3 major categories:

1. *Hotel Management Training*
2. *Environmental Training*
3. *Guide Training*

1. Hotel Management Training:

- Professional Chef Training
- Diploma in Tourism and Hospitality
- Diploma in Hotel Management
- Food and Beverage Production
- Food and Beverage Service
- Front Office and Secretarial Operations
- Bakery and Pastry Production
- Housekeeping and Laundry Operations

2. Environmental Training:

- Ecology and Environment Classes
- Conservation and Preservation Classes

3. Guide Training:

- Tour Guide and Travel Agency Operations
- Language Training
- Computer Literacy
- Guide Training
- Chauffer Etiquette Training

Along with the existing training programs, there are also customized or tailor-made courses for different institutions like, Bangladesh Army, different universities and there are also training courses for teachers.

5.2 Proposed Programs

To propose programs for the institute, I had to first access, examine and review the details of this project. I got access to the program form the government, concerned departments and

ministry. I researched the global precedence, interviewed the local stakeholders and also the peripheral experts, like private organizations. I learned about the curriculums of the institute in detail and then proposed a set of set of programs based on it. These have been reviewed and examined by successive reviews that has preceded this report.

	Classroom	Unit Area per student (SFT)	Unit Area (SFT)	Note/Primary Purpose/Capacity	Count	Total Classes per week @ 80% occupancy	Net Area (SFT)	Gross Area (SFT)
1	Theory Class	20	700	30 students per class (24 batches)	28		19,600	25480
2	Language Lab	25	875	30 students per class	2		1,750	2275
3	Computer Lab	25	875	30 students per class	2		1,750	2275
4	Cooking Studio	60	2100	30 students per class	1		2,100	2730
5	Baking Studio	60	2100	30 students per class	1		2,100	2730
6	Pantry and Storage	35	300	30 students per class	2		600	780
7	Seminar Room (Special)	20	700	30 students per class	2		1,400	1820
8	Break-Out Spaces		540		8		4,320	5616
9	Faculty Office		2150		2		4,300	5590
10	Faculty Lounge		860		4		3,440	4472
11	Teacher's Room		860		4		3,440	4472
12	Principal's Office		1600		1		1,600	2080
13	Administrative Office		860		1		860	1118
14	Cleaning Staff		325		2		650	845
15	Janitorial Closet		55		2		110	143
16	Storage		860		1		860	1118
Group Total							48,880	63544

	Classroom	Unit Area per student (SFT)	Unit Area (SFT)	Note/Primary Purpose/Capacity	Count	Total Classes per week @ 80% occupancy	Net Area (SFT)	Gross Area (SFT)
1	Lobby and Community		5000		1		5000	6500
2	Library	25	10500	25 sft per student for 25% occupancy	1		10500	13650
3	Auditorium		8000	25 sft per student for 25% occupancy	1		8000	10400
5	Cafeteria	15	12600	15 sft per student for 50% occupancy	1		12600	16380
6	Kitchen		2150		2		4300	5590
7	Head Office		1075		2		2150	2795
8	IT Office		860		2		1720	2236
9	Nurse Office		1075		2		2150	2795
Group Total							46420	60346

	Classroom	Unit Area per student (SFT)	Unit Area (SFT)	Note/Primary Purpose/Capacity	Count	Total Classes per week @ 80% occupancy	Net Area (SFT)	Gross Area (SFT)
1	Admission Office		270		4		1080	1404
2	Business Office		270		4		1080	1404
3	Facilities Office		270		3		810	1053
4	HR Office		270		4		1080	1404
5	Director's Office		1600		1		1600	2080
6	Security		650		1		650	845
Group Total							6300	8190

	Residence	Unit Area per student (SFT)	Unit Area (SFT)	Note/Primary Purpose/Capacity	Count	Total Classes per week @ 80% occupancy	Net Area (SFT)	Gross Area (SFT)
1	Dorm Room		165	<i>ratio of female student: male student = 3:4 (for 50% occupancy of total no. of students)</i>	210		34650	45045
2	Dining	15	6000	<i>15 sft per student for 50% occupancy</i>	2		12,000	15600
3	Common Space		425		2		850	1105
4	Cleaning Staff		325		2		650	845
5	Storage		860		2		1,720	2236
Group Total							49870	64831

F.A.R and M.G.C

F.A.R: Floor Area Ration

M.G.C: Maximum Ground Coverage

After studying about the total area of the site and its location, it has been found out that this site has an M.G.C value of 50.0 and a value of 5.2 (after adding the extra for road width) for F.A.R.

CHAPTER 6 DESIGN DEVELOPMENT

6.1 Design Considerations and Concept

6.2 Form Generation

6.3 Design Phase

6.4 Artistic Impression Through 3D Visualization

Chapter 6

Design Development

6.1 Design Considerations and Concept

Design considerations begin with the understanding of the site. The site is analyzed through 2 important areas: 1. physical aspect which includes physical attributes, topography, climatic aspects of site; and 2. the architectural aspect of the site.

- i. The **physical** site is 5.4 acres in area. It is located at the edge of Purbachal flanked by Dhaka Mahanagar Bypass on its east and other 3 sides by surrounding internal roads. It is like an island. The highway on its East and the large, lush golf course on its South acted as the most important factors that influenced my design.



Figure 37: Artistic impression of the site and surrounding area. Source: Author, 2019

These factors helped me to decide how to orient the building, or how to block the undesired view or noise from the highway and ultimately position the building masses. Having the golf course on the South helped to determine that the building needed to be oriented towards it and the masses placed in such a way that the unwanted noise and views from the highway could be blocked out. From the analysis, a natural decision to determine the access points was also made. As the North road is the largest road that will be connected to the highway, it was automatic choice for me to have come up to position the access points on the West and South of the site.

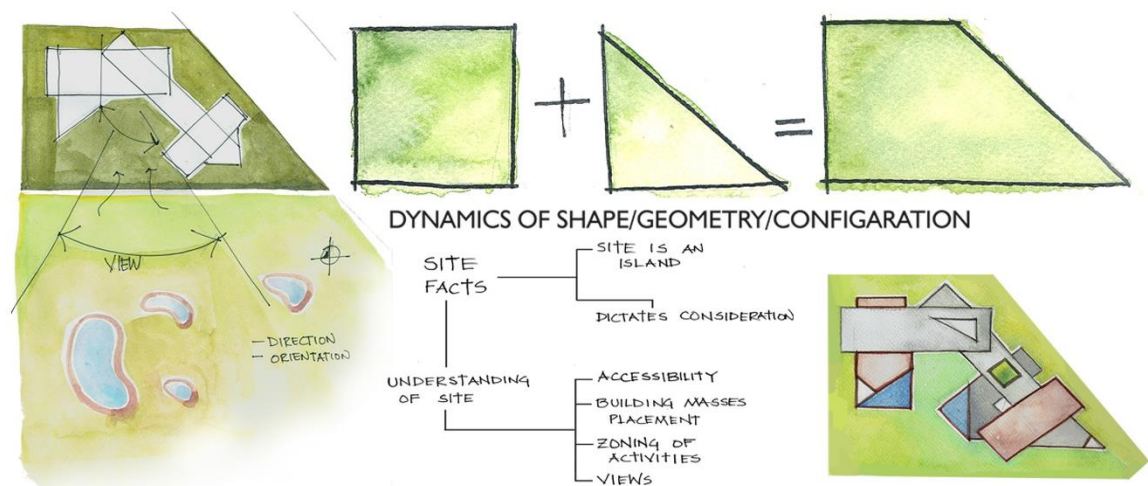


Figure 38: Conceptual diagrams showing deciding factors of design process and topology study. Source: Author, 2019

- ii. The **architectural** aspect – the site is regular in shape – geometrically determinatant. Topologically analyzing it, the inherent dynamics of the site was found to be a trapezium and thus, it is a combination of a square and a triangle. This acted as a very important guiding force in the design. From the topological study of site, it was also an obvious choice for me to intervene the site through geometry; not with organic or disjunct forms or sprawling masses.

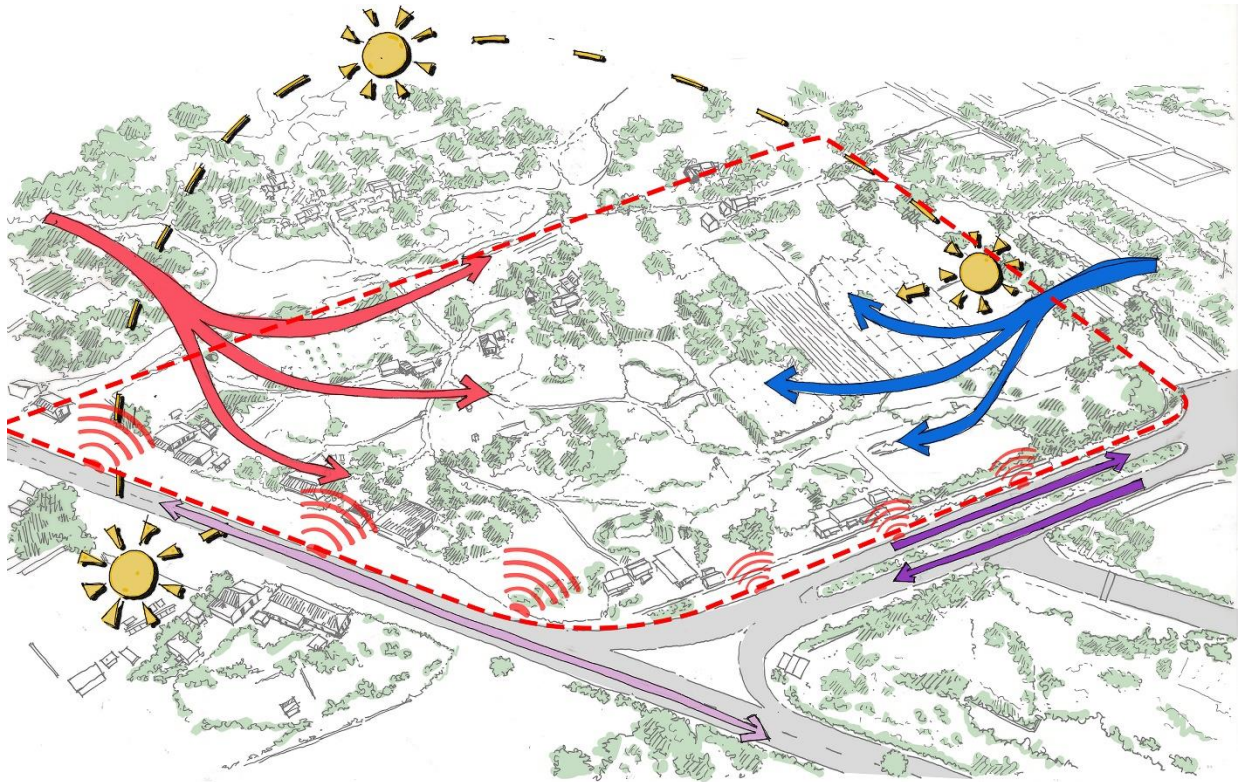


Figure 39: Artistic impression of the physical influences of the site, like, wind flow, sunlight and noise. Source: Author, 2019

The building blocks I chose are triangles, square and rectangles. Eventually these blocks are placed in such a way that it takes the climatic advantages from South and create an opportunity to have views of South from and within the masses. They are also consolidated as such that it creates a barrier on the Eastern bypass which is a constant source of noise.

6.2 Form Generation

The institute has 3 main components: the **academic** block, the **residential** facilities – the male and female dormitories and the **hotel** which would act as a training lab for the students. As it is a complex functional mix with academic, residential and hotel, the best strategy is to deal with geometries as the dynamics of the site also dictated it.

Initially the design process started with 3 rectangles of masses that represented the 3 main functions. As the design process progressed, it also took help of 2 triangles – that are placed in sympathy to the site. The triangles at the North-West and South-West corners are intended to

accommodate the auxiliary facilities of two important functions of the auditorium for the academy block and the banquet hall for the hotel.

The main notion was to juxtapose the 3 functions and dissolving those into one big complex. This action of intersecting masses also has a symbolic significance to the project. The 3 different functions of masses are fused to create a big holistic experience of a big family of institute. Specific to say, all being connected together and finally emerging as one single entity.

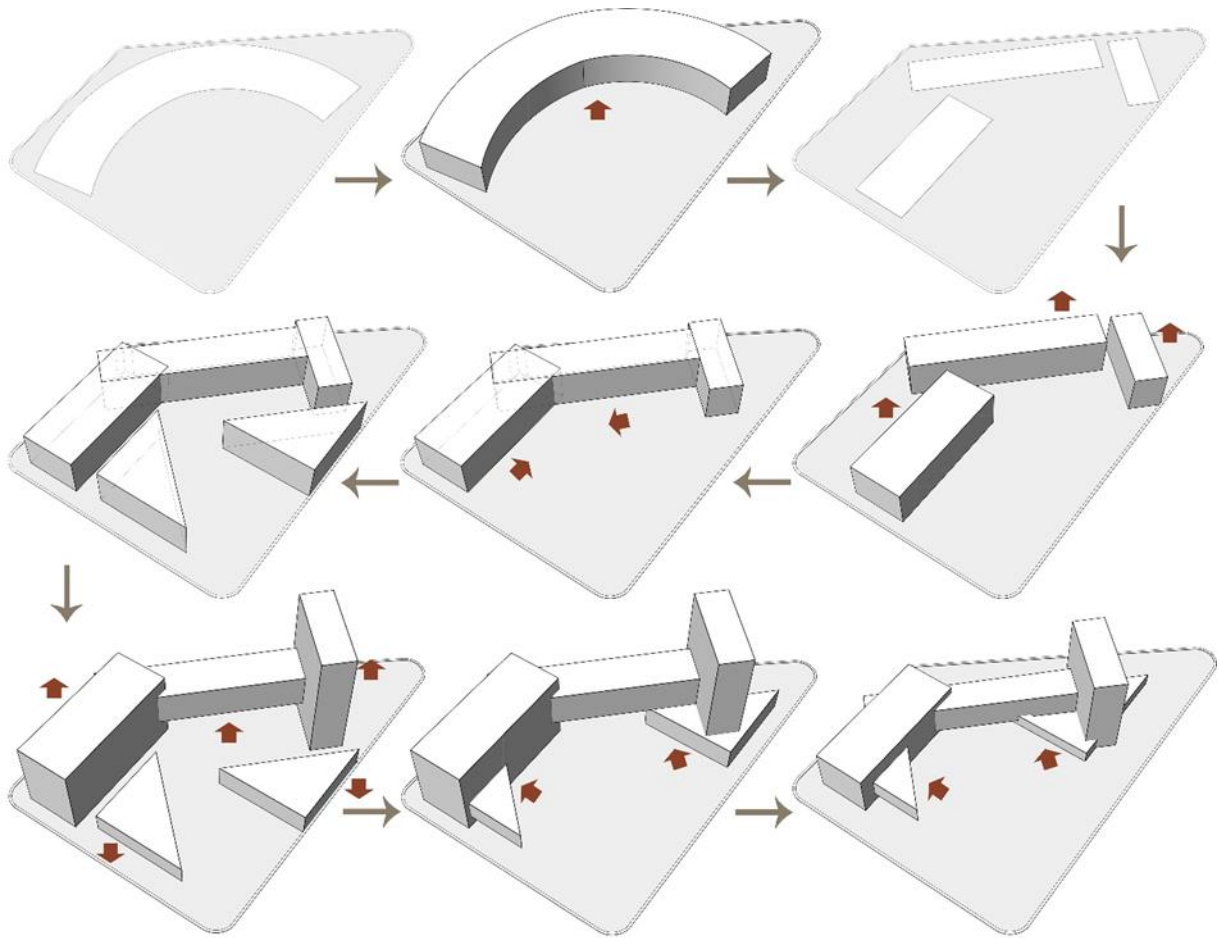


Figure 40: Diagram showing the phases of form derivation. Source: Author, 2019

6.3 Design Phase

The design is civic-minded in nature. One big encircling mass emerged from combining individual masses created a civic quality facing a big forecourt of green lawn symbolizing a big public square. The academic block is on the West corner, the dormitory is the middle mass that connects the academy to the hotel at the South-East. The academic building is accessed from the West while the hotel has an exclusive access from the Southeastern end. This would definitely help the project maintain a chaos free traffic movement. Also, the hotel being a commercial venture in nature and operation, and guests requiring exclusivity and privacy, is designed to have its own independent identity. The vehicular movements in the campus will be mostly for auxiliary functions like the auditorium and banquet halls if they are let it out for commercial purposes. The segregation of the entrance to the academy and hotel thus will be free from any potential traffic congestion during the operation of these facilities.

Both the vehicular drop offs take place under the covered masses and vehicles go directly to the 2 separate basements. Both of these have an internal roundabout and traffic loop that helps to merge the traffic within the premises. There is a highlighted pedestrian entry here for students and faculty avoiding conflicts or crossing with the vehicular movements.

The ground floor welcomes all the users and visitors to its lofty 20 feet-height covered plaza which also leads the students to the dormitories. The ground floor is basically a big plaza which allows the students to come congregate then disperse into academic activities to the upper levels or go straight to the dormitories. This level at the ground is made as open as possible to give the expanse a serial dimension and become an image or face of the campus/institute.

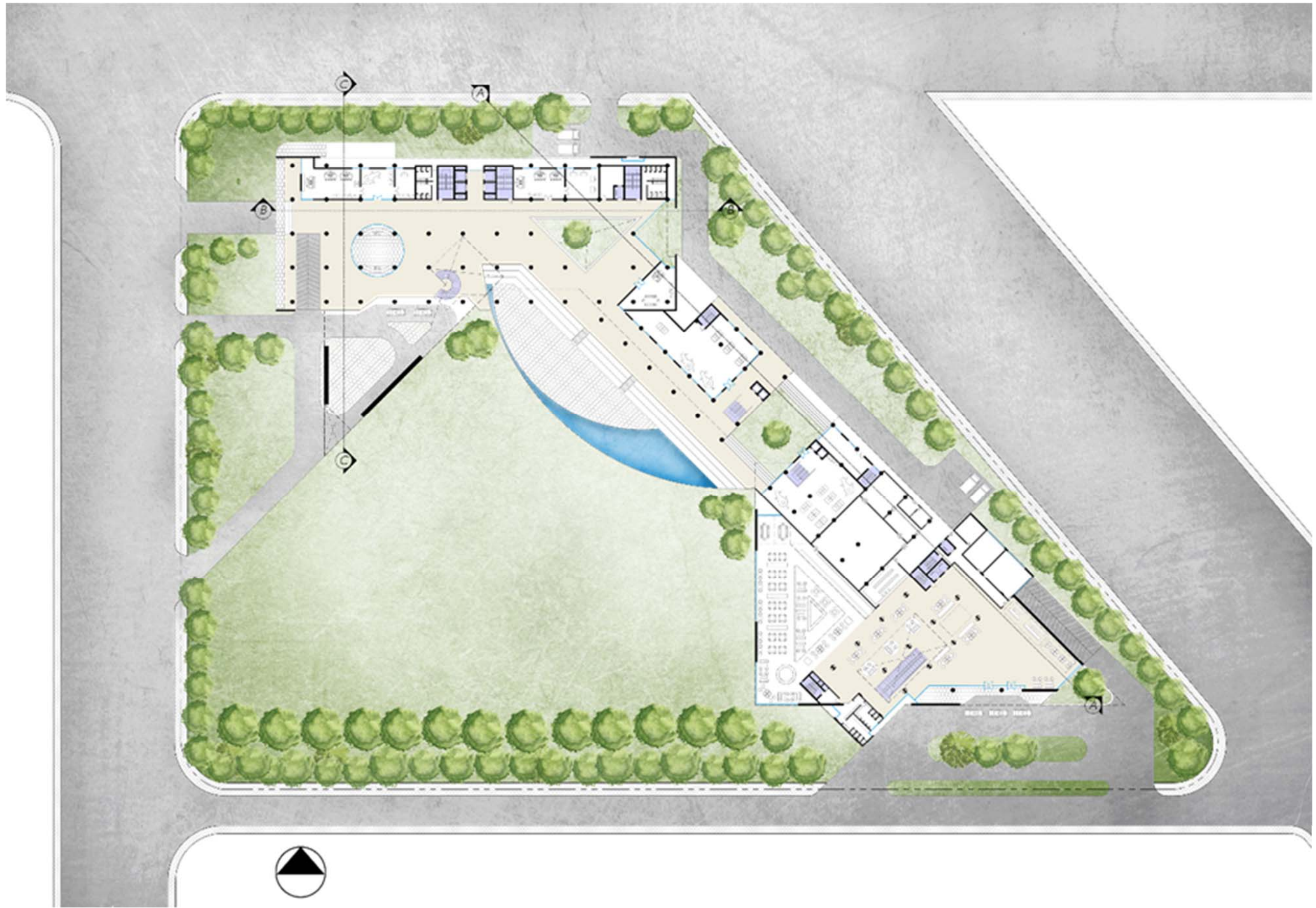


Figure 41: Ground floor plan. Source: Author, 2019

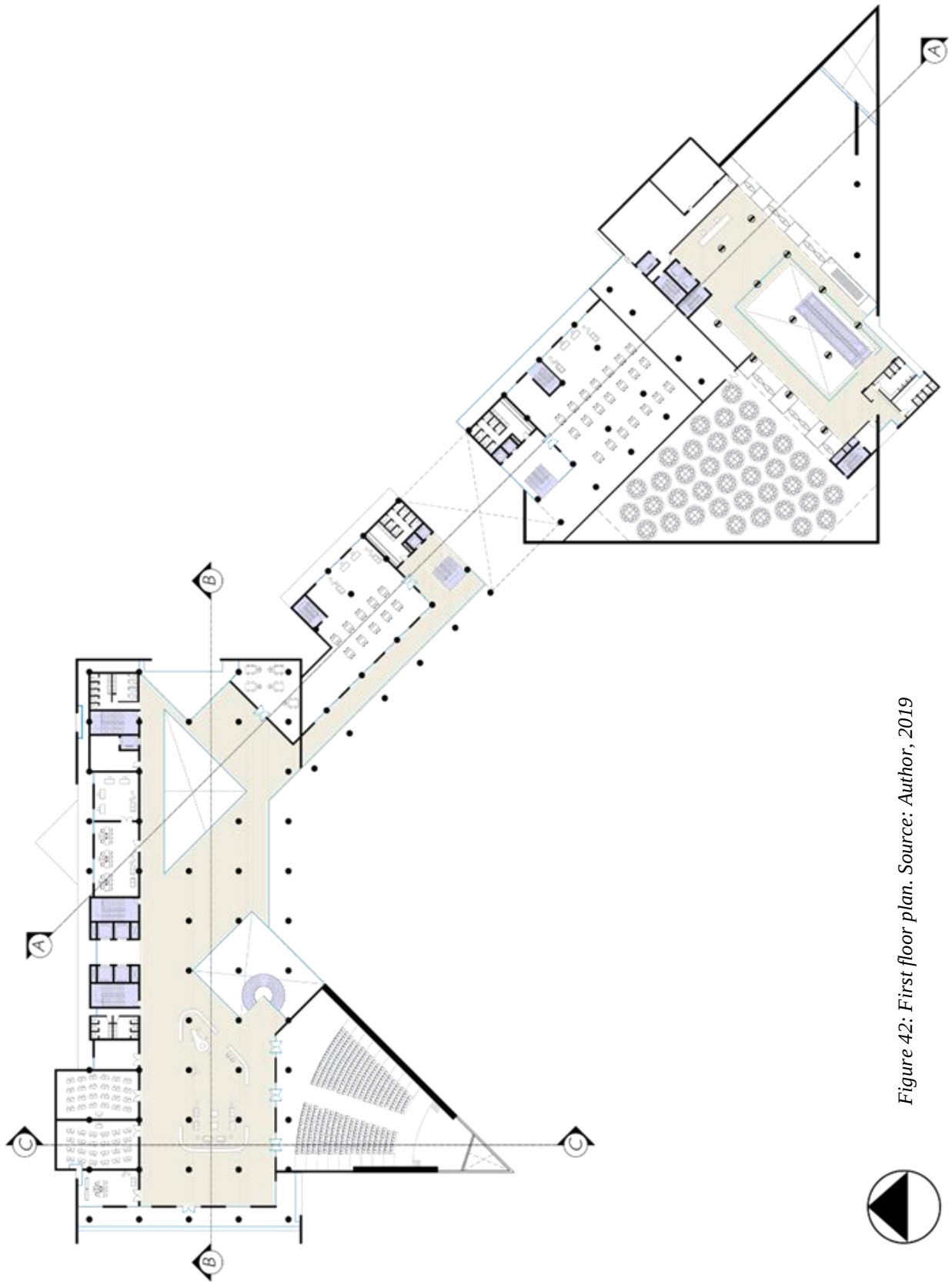


Figure 42: First floor plan. Source: Author, 2019

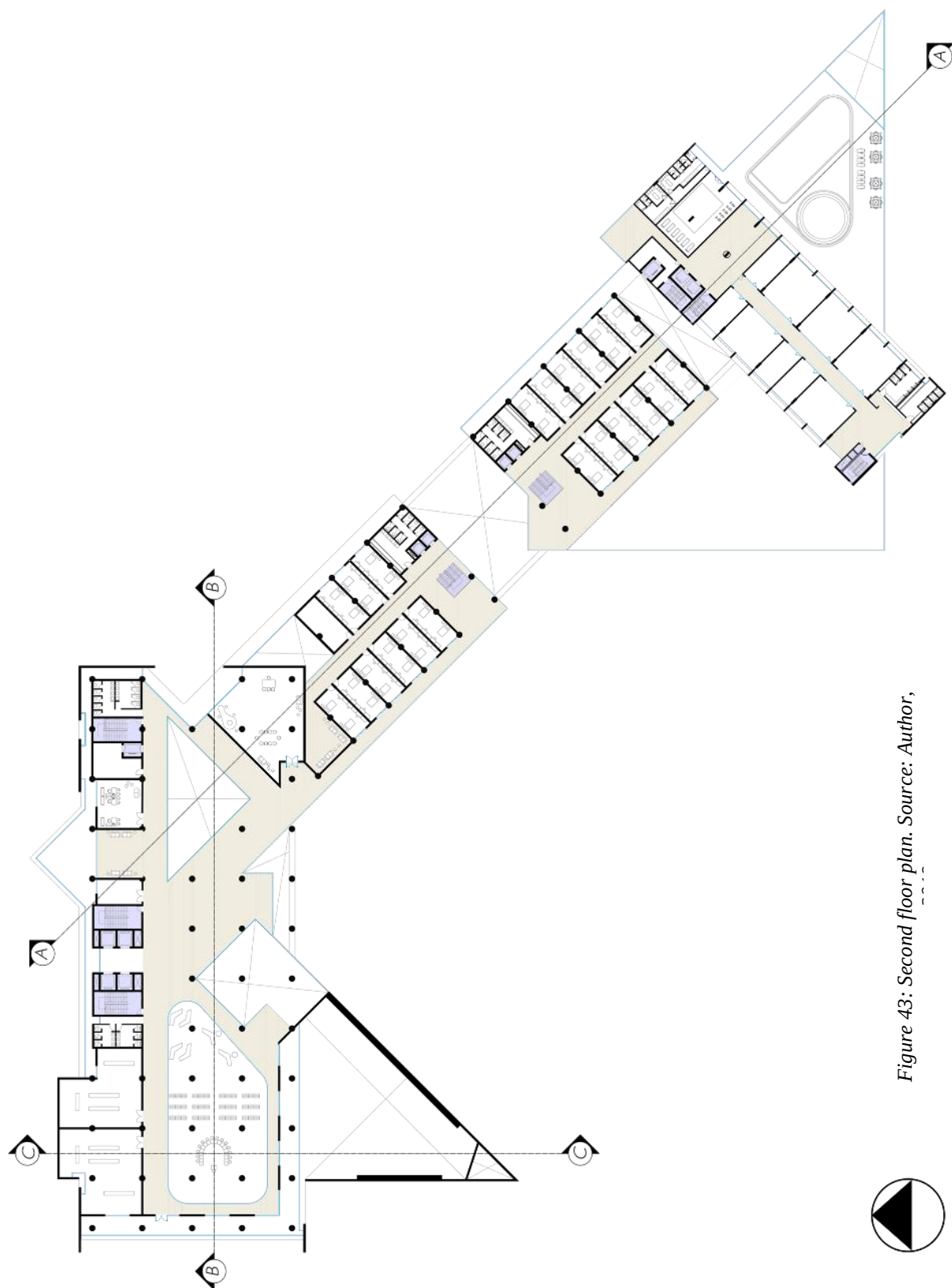


Figure 43: Second floor plan. Source: Author,

The plaza eventually opens up to the forecourt of large green lawn. The 450-seat auditorium on the first floor serves as an earning center for the institute and the feature stair being an important, inviting element is deliberately created so that it becomes a vertical connector between the auditorium and plaza.

The dormitory is interestingly one big mass with a green court dividing the two parts into two wings –the female and male dormitory. Both has their independent service core of lifts, stairs and amenities at the lower level to support its activities.

The hotel has drop off at the ground floor with a reception lobby to confront at the doorstep. There are concierge a restaurant, café, kitchen at this level too. There is also a service road accessed from the Northern end leading to hotel's Eastern side to serve its 'back of house (BOH)'.

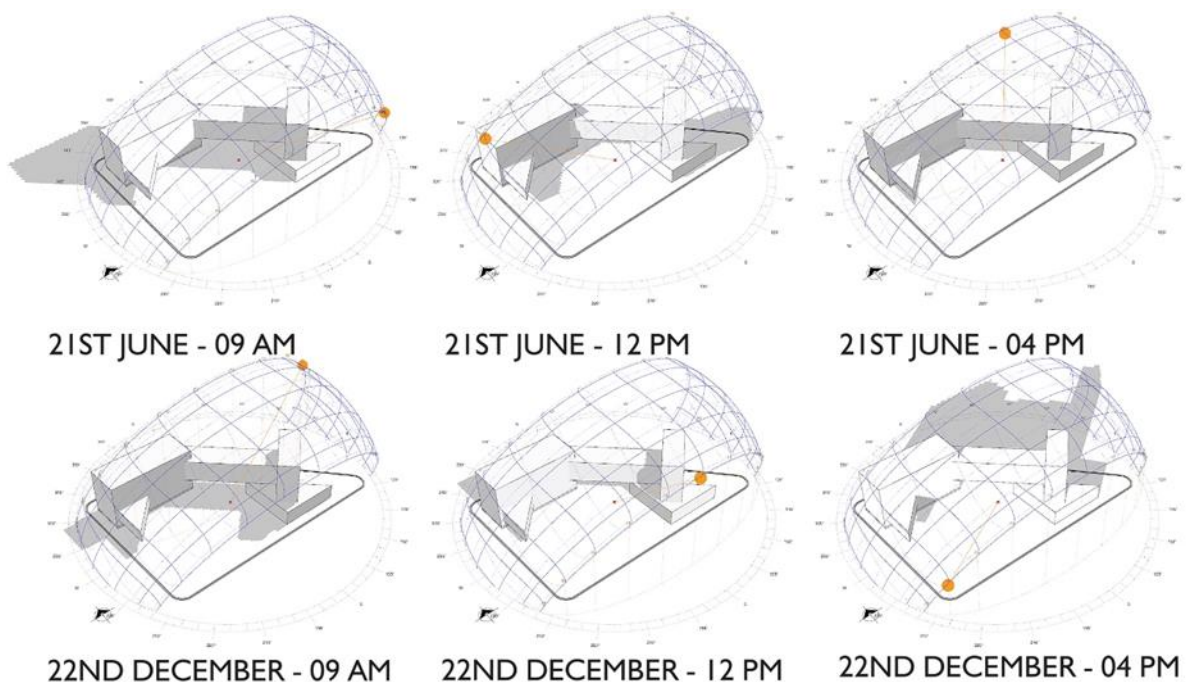


Figure 42 : Shadow analysis diagrams showing how the orientation has helped to not create a 'dark area' in this complex juxtaposition. Source: Author, 2019

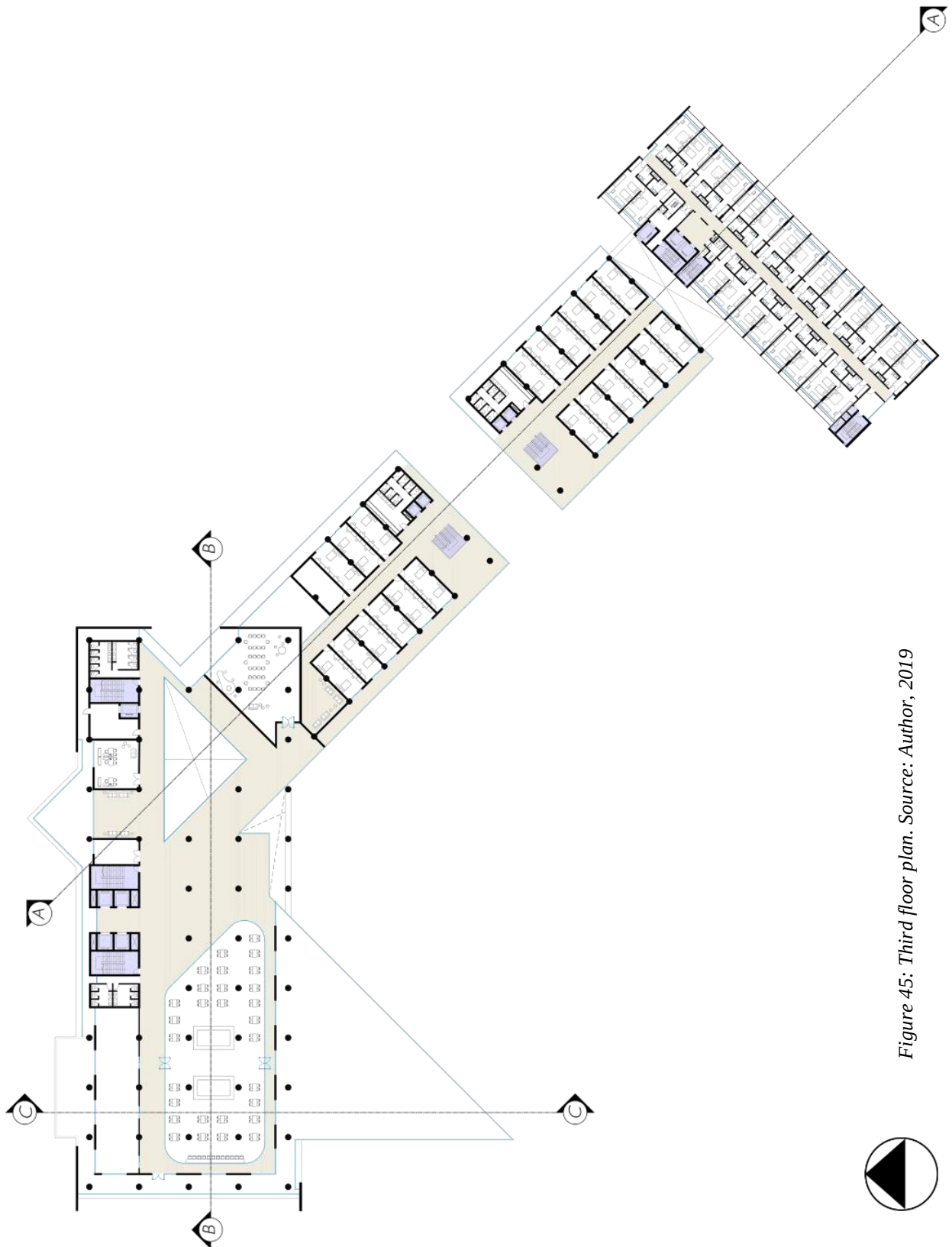


Figure 45: Third floor plan. Source: Author, 2019

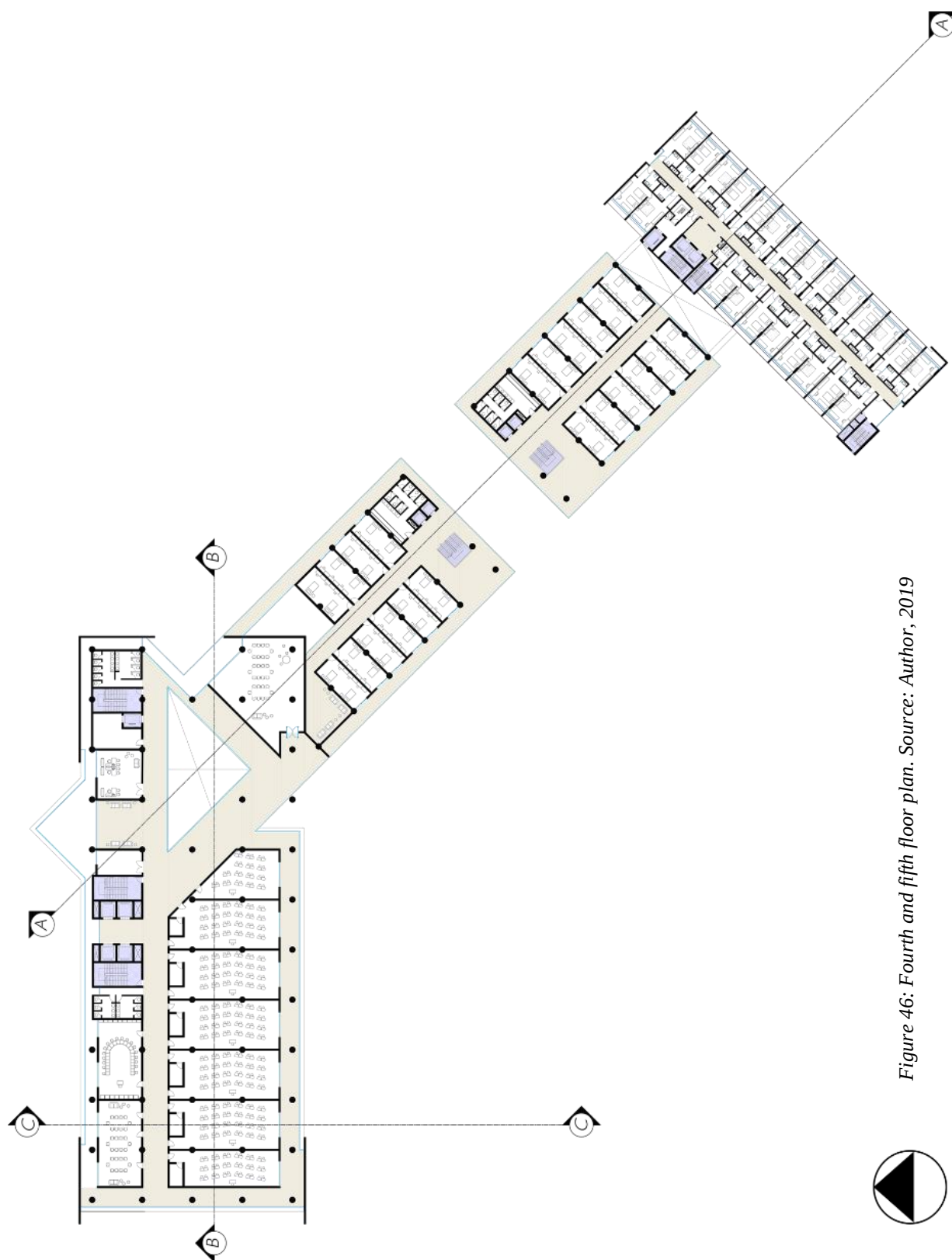


Figure 46: Fourth and fifth floor plan. Source: Author, 2019

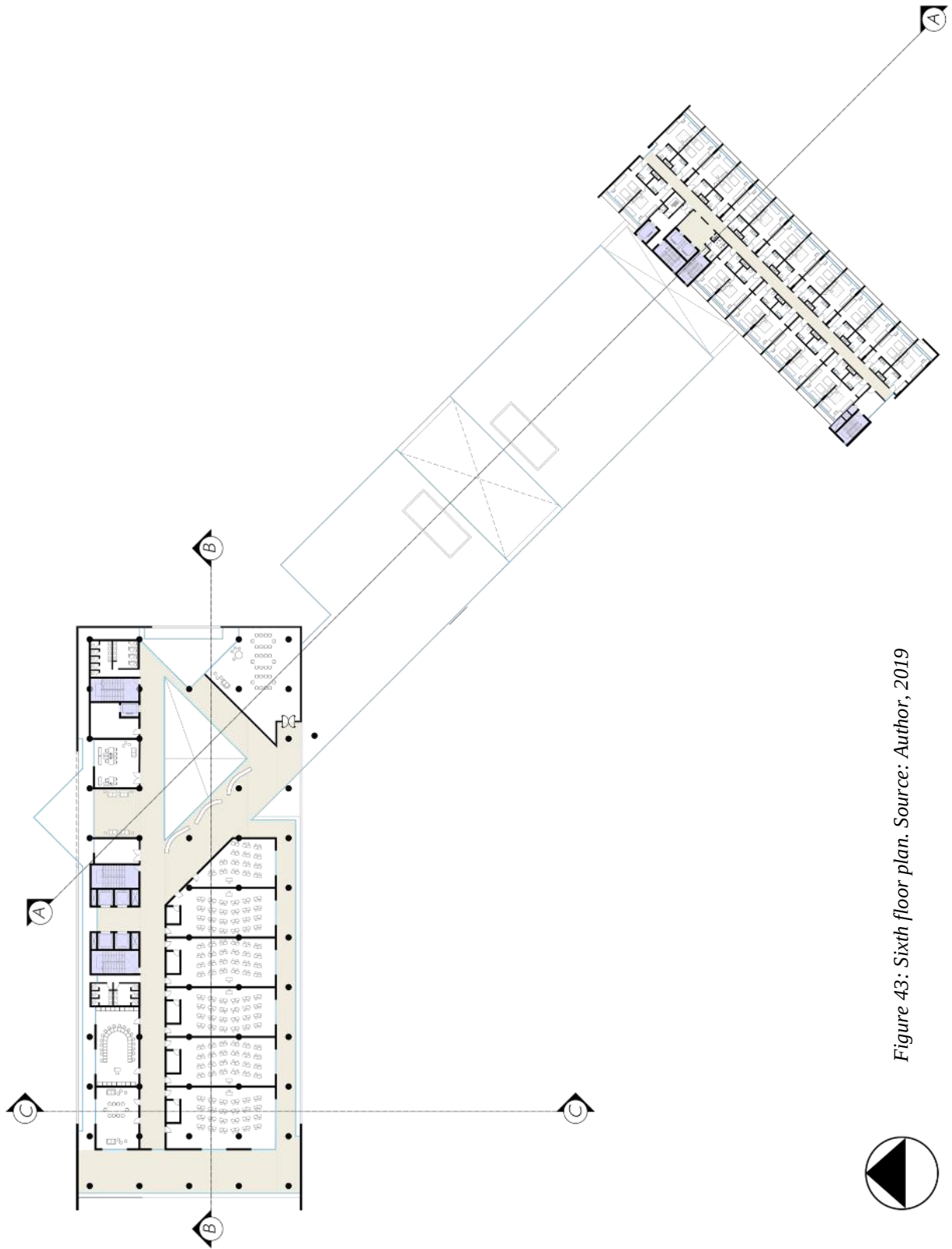


Figure 43: Sixth floor plan. Source: Author, 2019

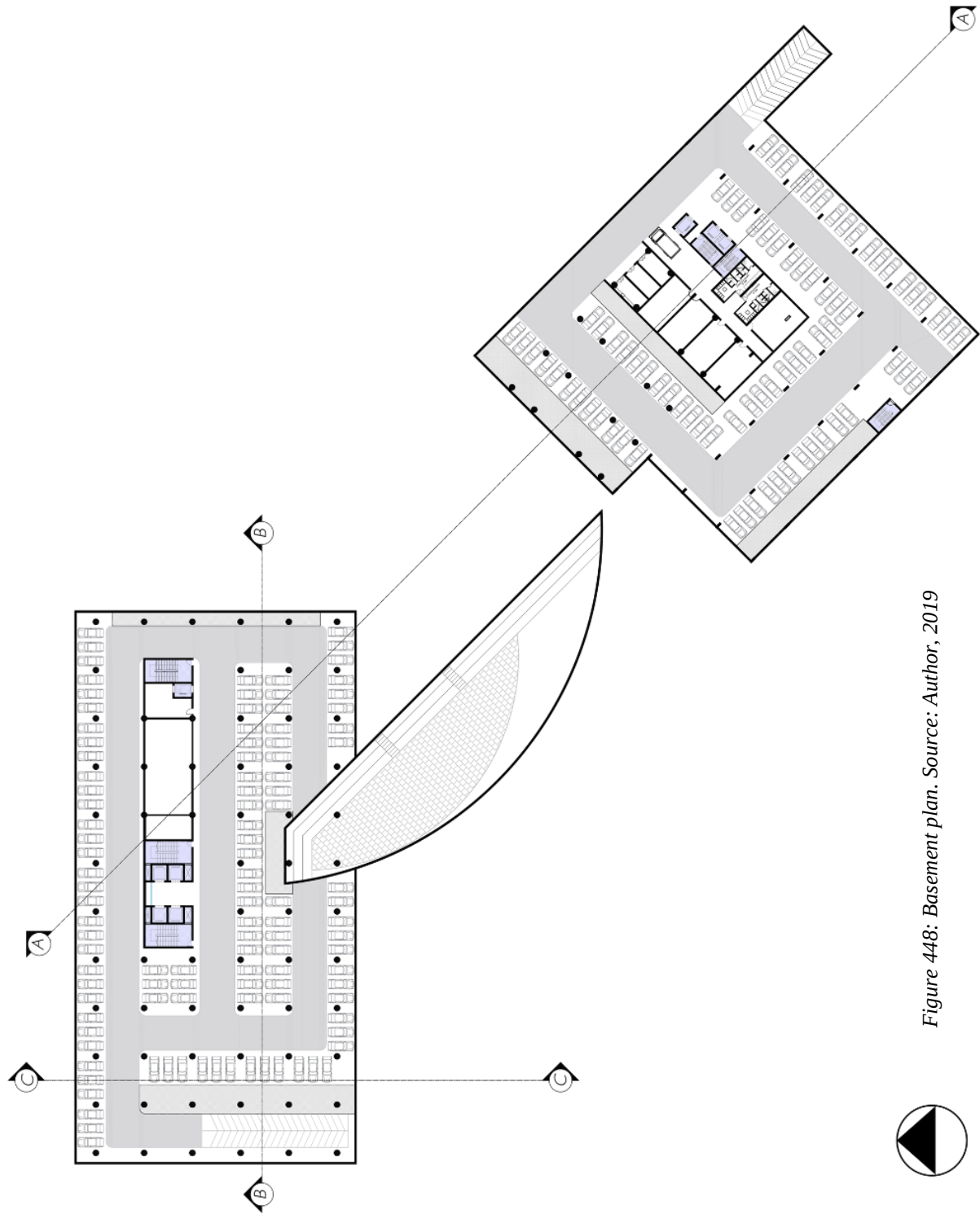


Figure 448: Basement plan. Source: Author, 2019

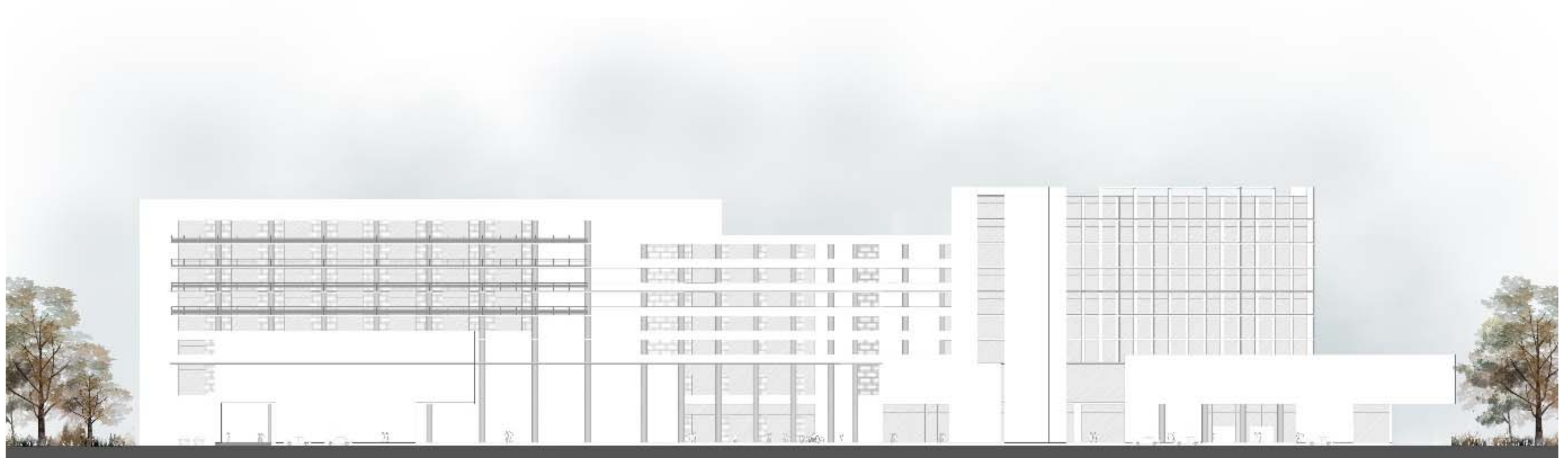


Figure 49: South elevation. Source: Author, 2019



Figure 50: West elevation. Source: Author, 2019



Figure 51: Section AA. Source: Author, 2019



Figure 52: Section BB. Source: Author, 2019

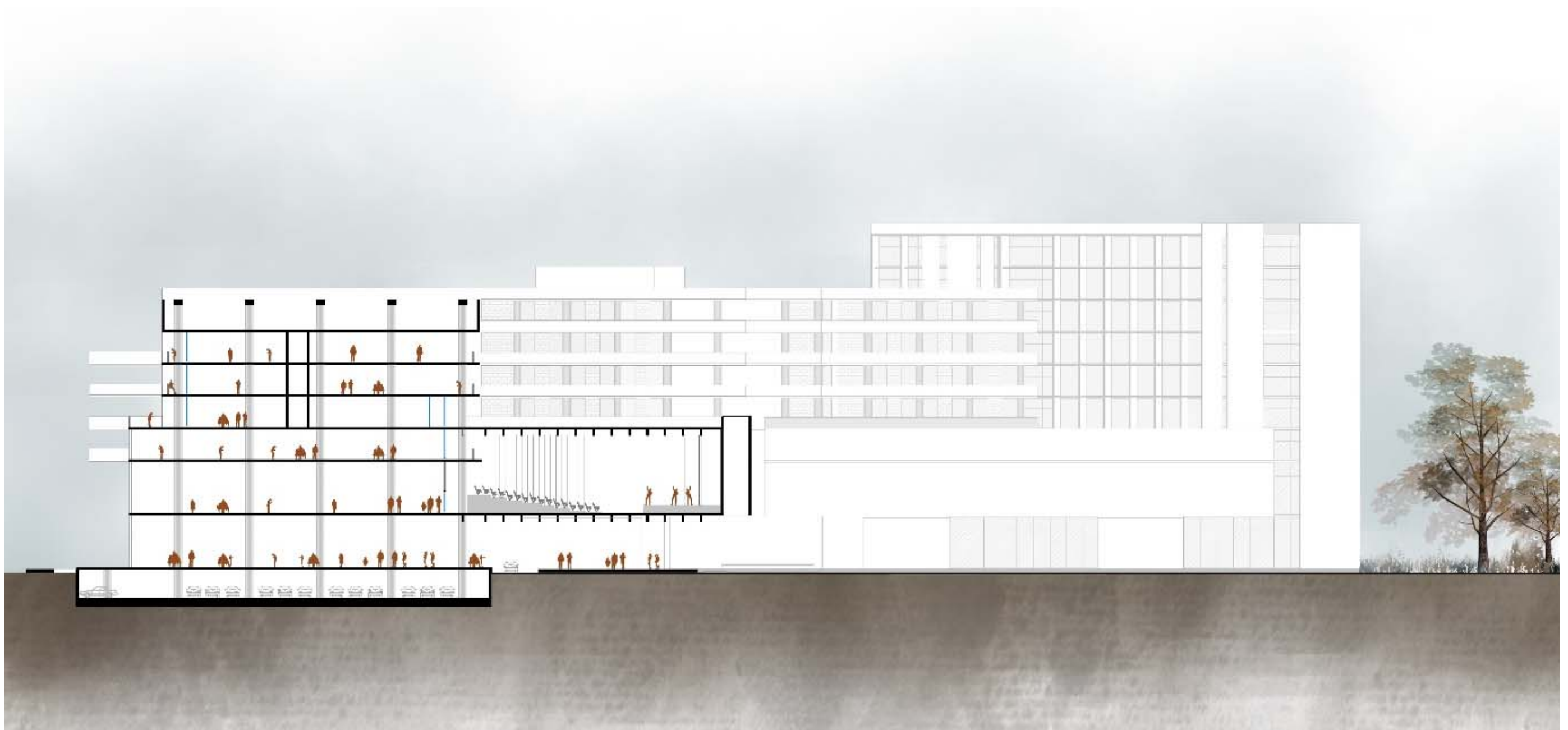


Figure 53: Section CC. Source: Author, 2019

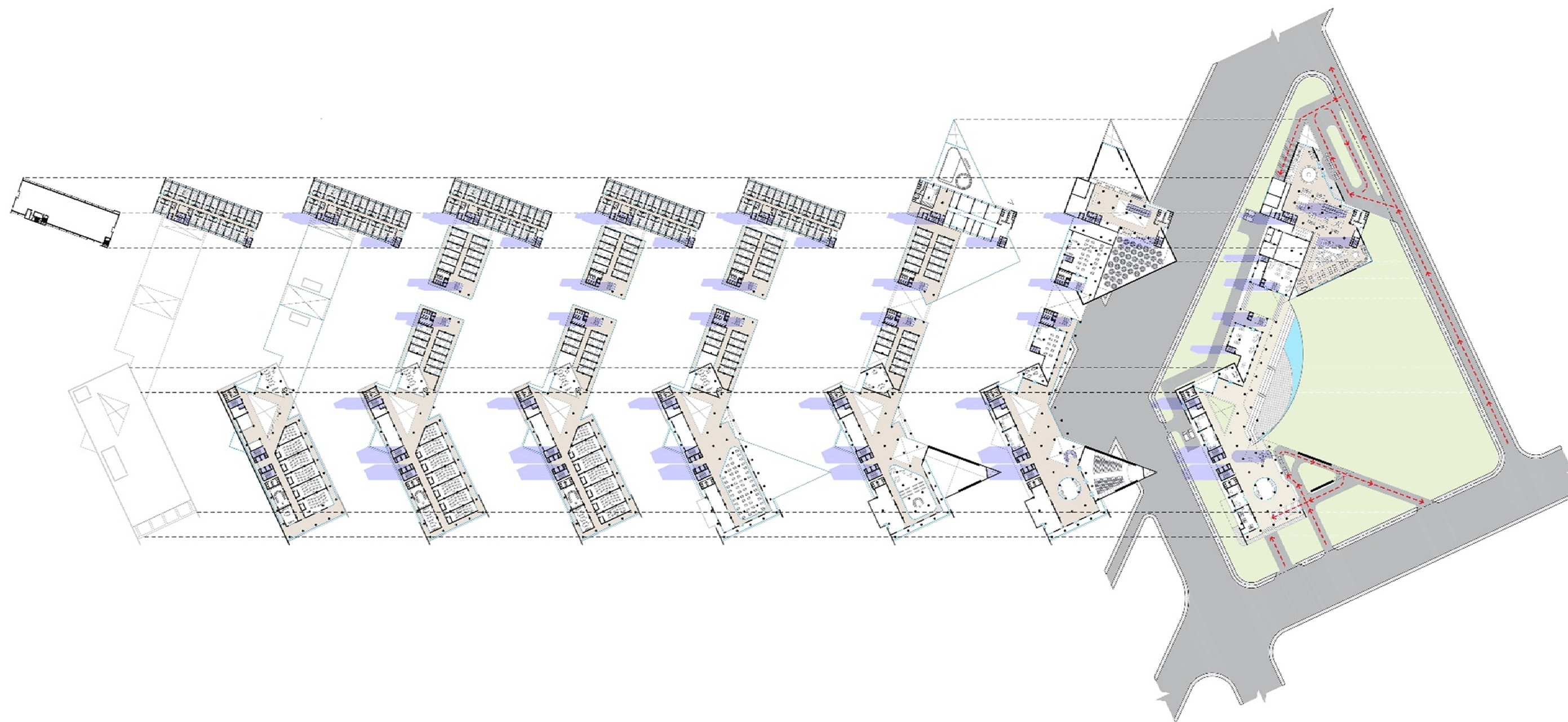
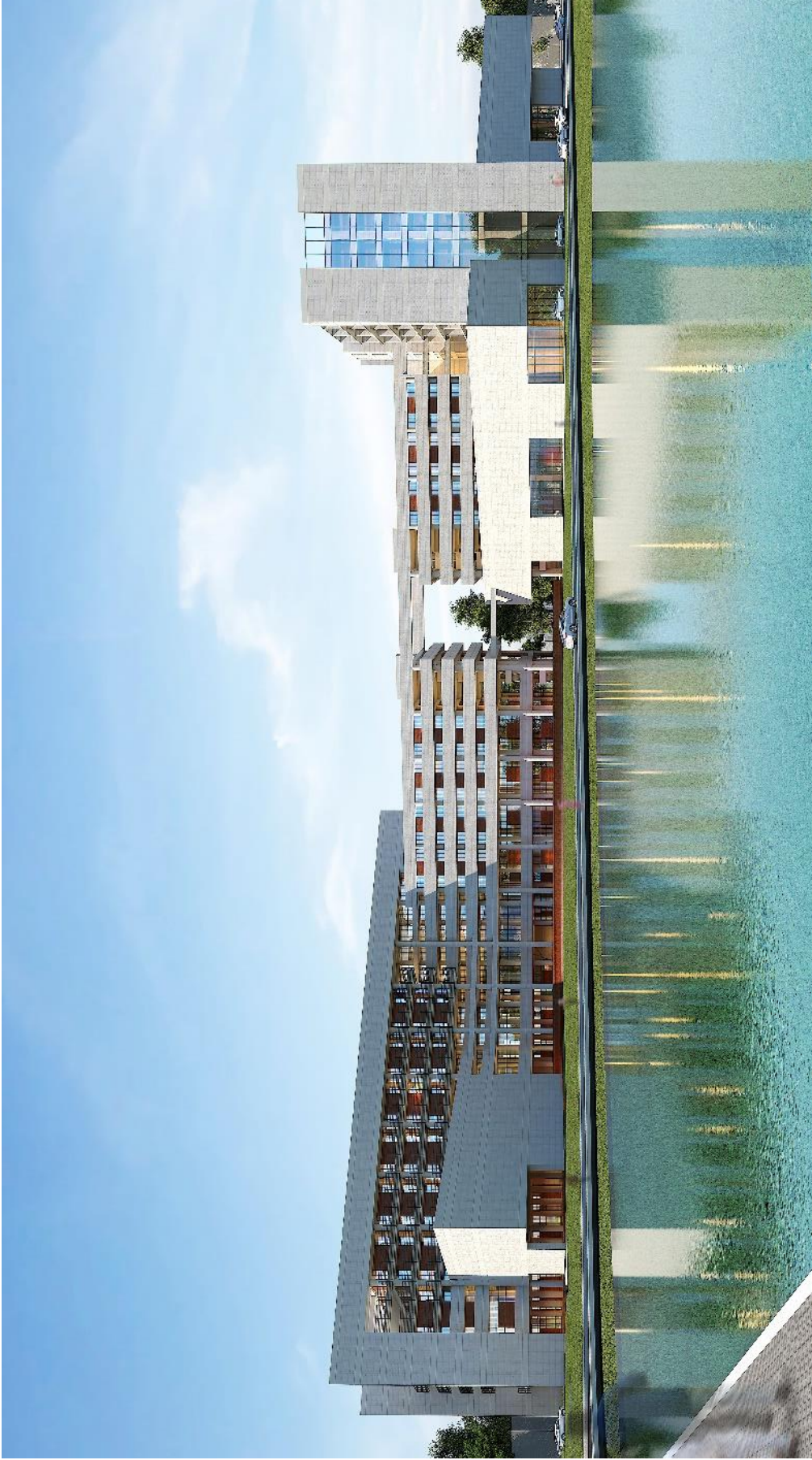


Figure 54: Exploded axonometric diagram showing the various types of circulation through the project. Source: Author, 2019

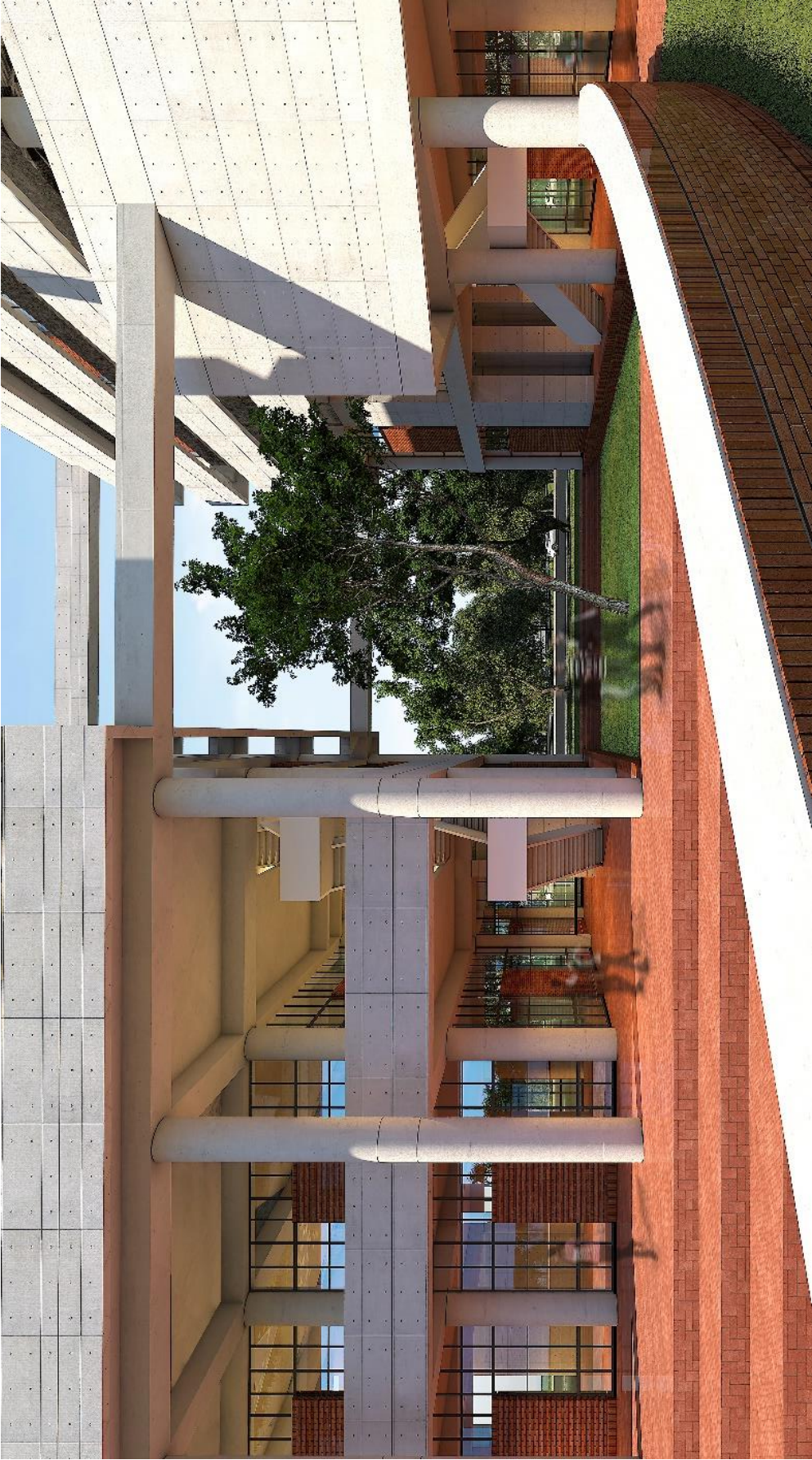
6.4 Artistic Impression Through 3D Visualization



Source: Author, 2019



Source: Author, 2019



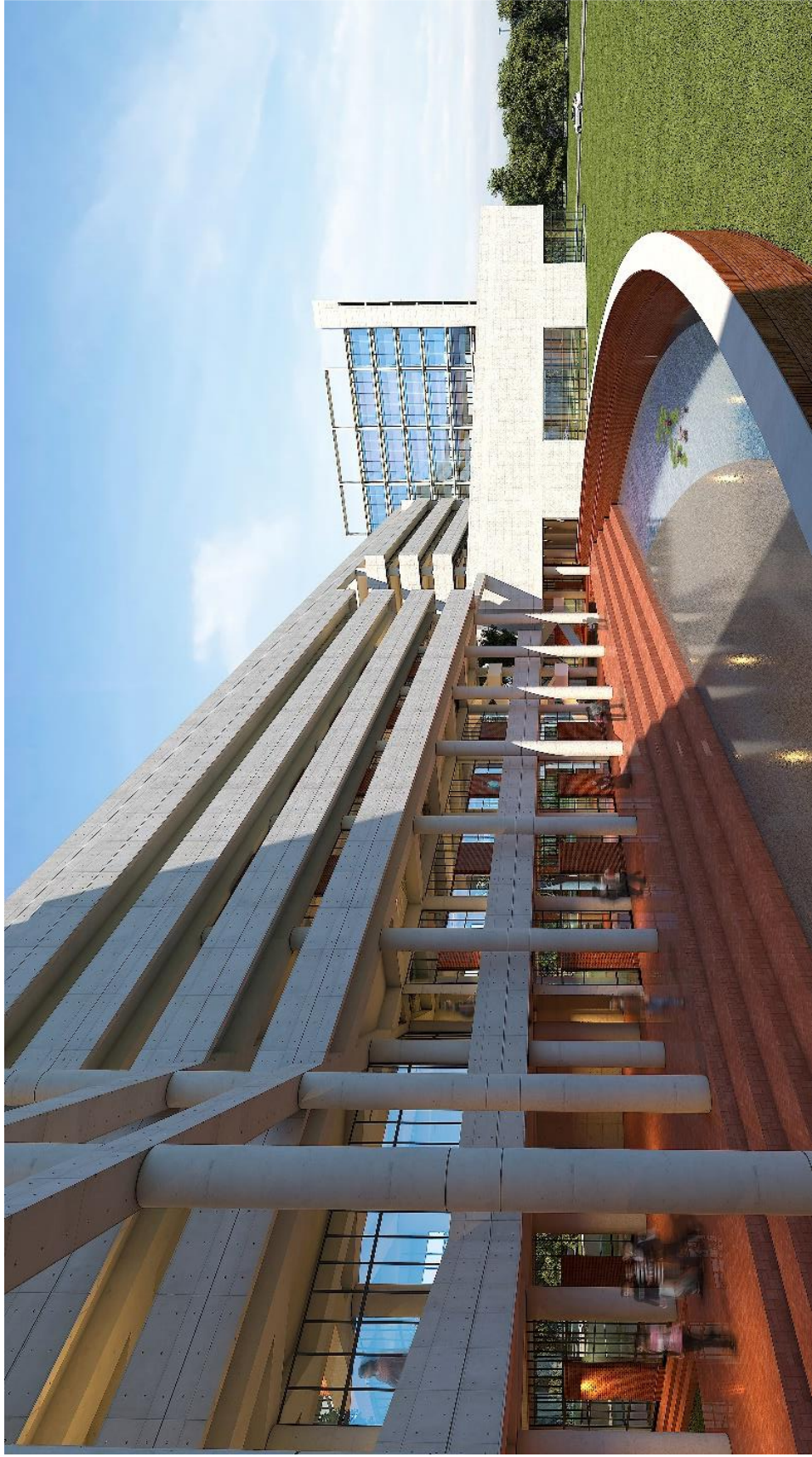
Source: Author, 2019



Source: Author, 2019



Source: Author, 2019



Source: Author, 2019



Source: Author, 2019



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Source: Author, 2019



Source: Author, 2019



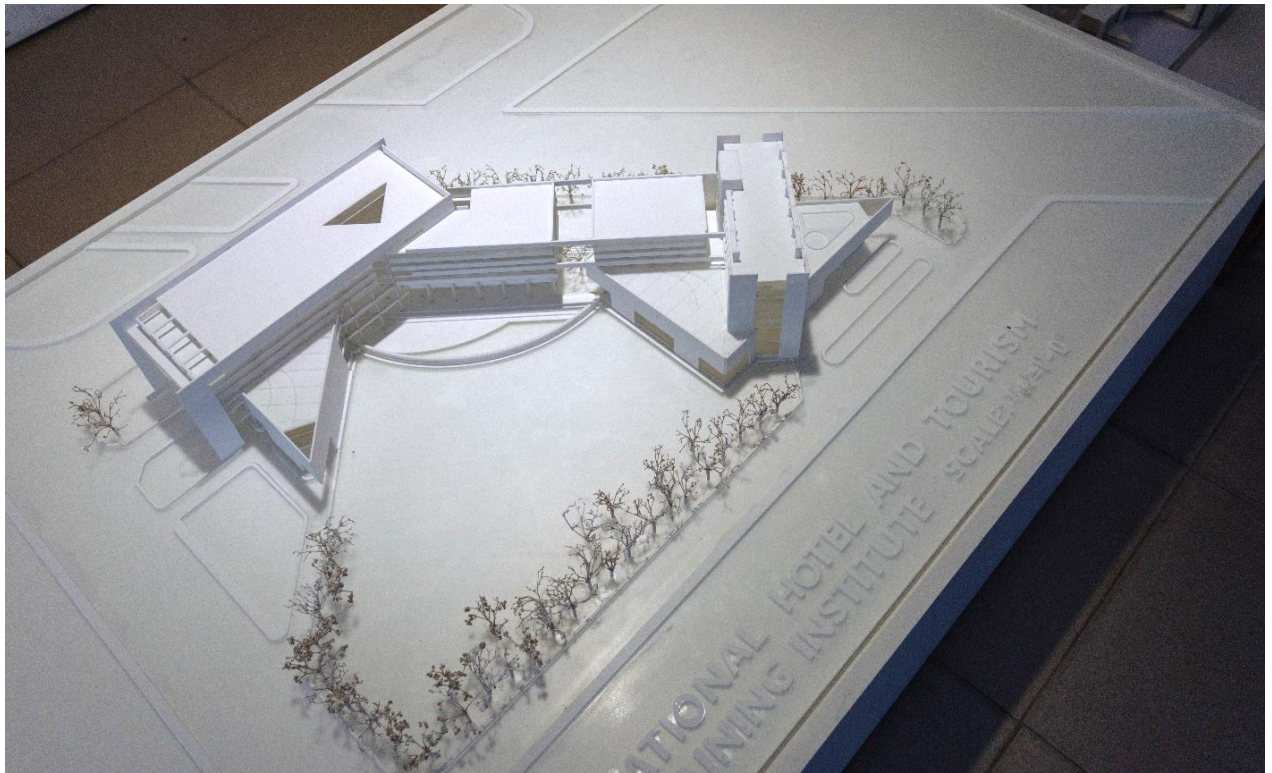
Source: Author, 2019



Source: Author, 2019



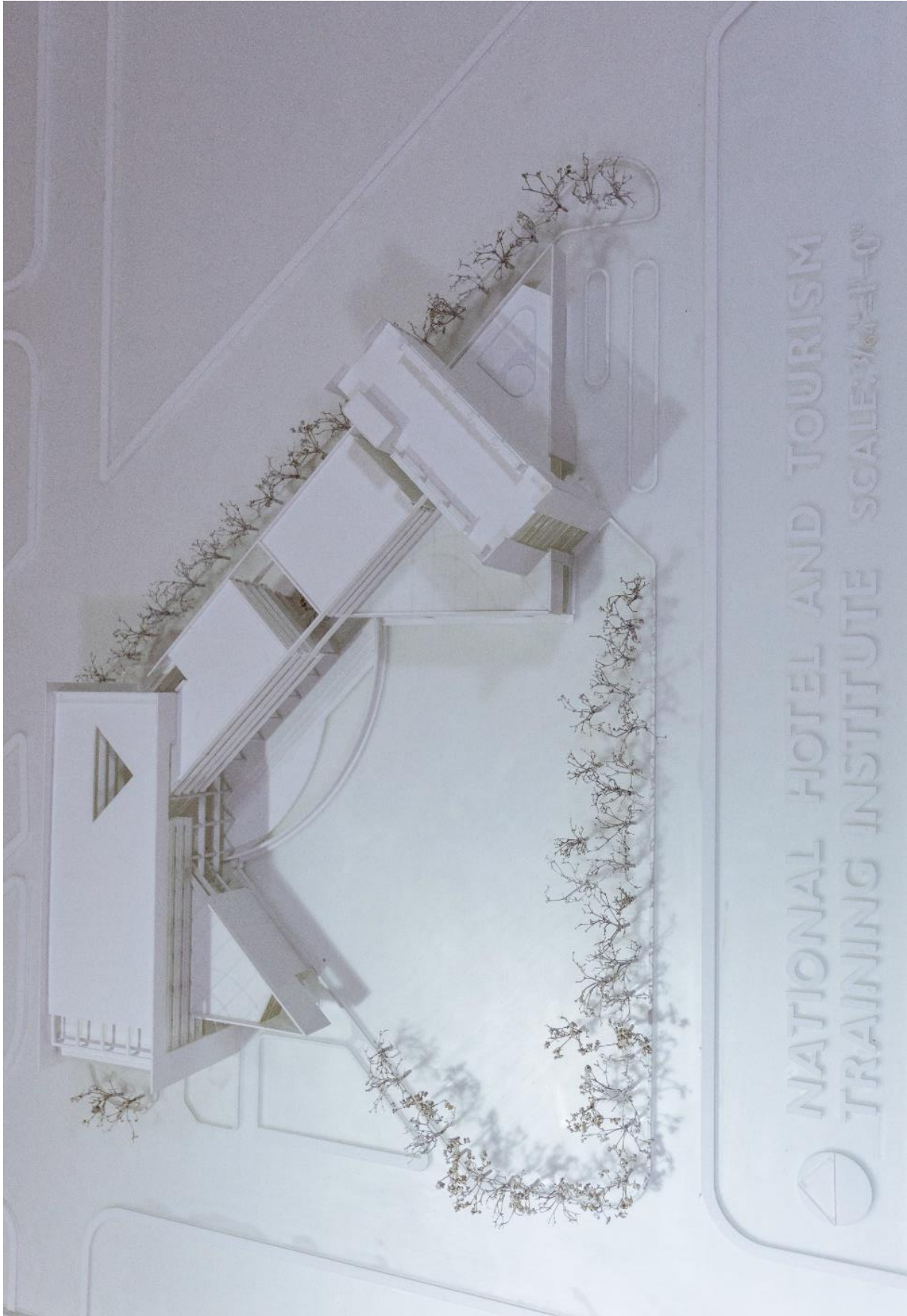
Source: Author, 2019



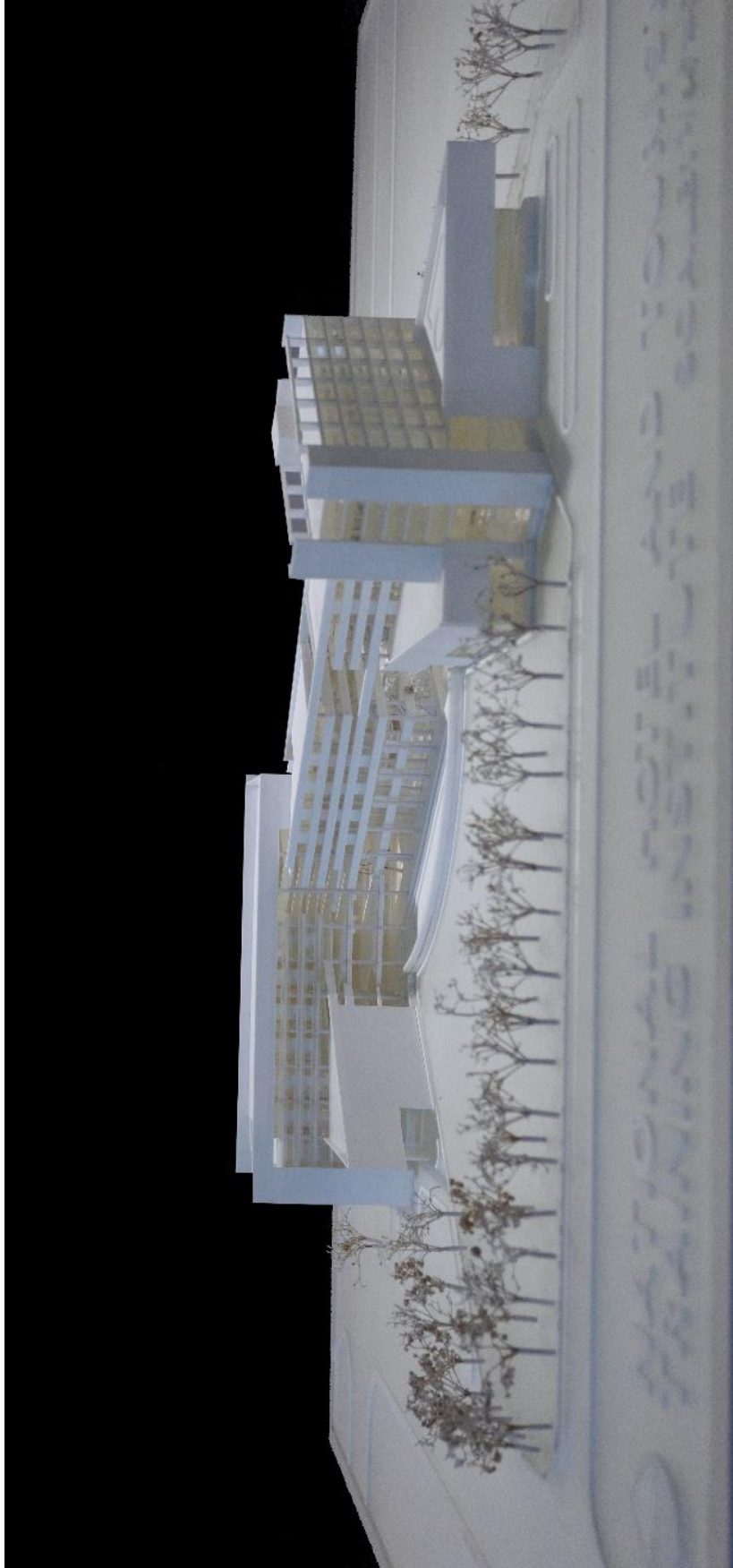
Source: Author, 2019



Source: Author, 2019



Source: Author, 2019



Source: Author, 2019

CHAPTER 7 CONCLUSION

Chapter 7

Conclusion

This project examines architectural and urban design issues relating to architectural form and design within an Eastern Dhaka context, specifically Purbachal New Town.

Since the project is intended to create a paradigm of place responsive architecture with particular reference to the city of Dhaka's dense urban fabrics, the design attempted to create a viable and efficient compact urban form that could be emulated by the future researchers and policymakers to validate the neediness of compact development resolution against urban sprawl. The design also experiments with geometry, shapes and forms and their complex juxtaposition to show how an architectural project would respond to high density city like Dhaka. This project in Purbachal finally becomes a paradigm of dense building development suited to the context of a city that have growing urban population.

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