

**Establishment of Intl. Standard Tourism Complex at Existing
Motel Upal Compound of BPC at Cox's Bazar.**

By

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

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Brac University
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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 creating more international standard examples. In order to restructure our

tourism activities, a tourism complex that will have adequate accommodation and entertainment facilities will be required. The design of the International standard tourism complex 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; hotel; entertainment

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Chapter 1: Introduction

1.1 Introduction to the Project

The Project is located at Cox's Bazaar, one amongst the foremost most popular traveler locations in Bangladesh. Cox's Bazaar is commonly seen as an anchor for reinforcing touristy within the country through its numerous offerings like beaches and forest areas. The beach city has majority of the drivers in situ for it to grow into a worldwide touristy hub. Its natural beauty a hundred twenty-five-kilometer long unbroken beach, multiple places for leisure activities like national parks, coral islands and places of cultural importance create it a most popular vacation destination for domestic tourists in addition as South Asian and South-east Asian tourists. To support the development of Cox's Bazaar, the government has taken several steps in the form of infrastructure and policy initiatives. Such initiatives include proposed development of Cox's Bazaar international airport, proposed railway link with Chittagong, declaration of Cox's Bazaar as a focus tourist area, development of Cox's Bazaar master plan and constitution of development authority for focused efforts towards its growth. For realizing the Vision of 2021 goal of Bangladesh to become a middle-income country by 2021, a key component of the strategy is to ensure a more rapid and inclusive growth trajectory of the GDP. 5% of total exports (BDT6.0bn or US\$85.8mn) in 2010, growing (nominal terms) to BDT20.5bn or US\$228.5mn (.5% of total) - 3 - in 2020. Travel & Tourism investment is estimated at BDT64.0bn, US\$911.9mn or 3.7% of total investment in 2010. By 2020, this should reach BDT190.7bn, US\$2,124.5mn or 3.8% of total investment.

Thus, providing better tourism facilities will attract more tourists and given the boom in economic condition will invite more businessmen and foreign tourists and lead to target meetings of increasing tourism's contribution to 5 percent by 2021.

Despite its natural drivers, Cox's Bazaar remains underneath developed as a touristy destination. It's completed that for development of Cox's Bazaar as a world category traveler destination, it's essential to make touristy infrastructure of superior quality with best-in-class offerings guaranteeing integrated and distinctive expertise for tourists. Also, would like is felt for making zones for promoting 365-day recreation and amusement activities for increasing average length of keep of tourists in Cox's Bazaar. As a step towards making sensible quality facilities and activity zones for attracting additional traveler footfalls within the city, the catching Authority has projected to develop a world customary touristy advanced at Parjatan court Upal. The catching Authority believes that attraction of personal sector interest is one the viable and economical models of development of best traveler facilities and has thus envisaged developing the project through a PPP model.

1.2 Project idea and scope

In response to increasing demand from tourist's variety of hotel and motels have begun to come into being and are operative in Cox's Bazaar. There are presently one hundred fifty hotels and motels of various standards within the city. However solely some hotels out of those are of 5-star standards and appear to supply an integrated and distinctive diversion experience in international service providing. BPC is presently operating a hotel institution, Motel Upal, that was established as a 24-key lodge. it's placed near to the beach front in Cox's Bazaar within the zone of Holiday complex over a vicinity of 6.06 acres of land near to Laboni Beach and is set on motel road with direct link to airport, additionally, the site houses a restaurant. BPC desires to redevelop this site fully so as to ascertain a global standard hotel facility on a PPP model. The project is projected as a mixed-use development targeted on business enterprise promotion.

1.2 Aim and Objectives of the Project

The aim of the project is to provide an international standard Hotel Facility in a mixed used facility which includes facilities like standard restaurants, shopping facilities and entertainment for the commercial and tourists visiting Cox's Bazaar.

- To ensure more efficient utilization of BPC assets
- To increase revenue earning potential of Bangladesh Parjatan Corporation
- Promote all year-round activities for tourists visiting Cox's Bazaar
- Deliver an economically viable project in an environmentally and socially responsible manner subject to applicable laws and regulations
- Derive best possible commercial utilization for available land
- To exhibit the essence of art, culture, history of Cox's Bazaar

1.3 Project Summary

Name of the Project: Establishment of Intl. Standard Tourism Complex at Existing Motel Upal Compound of BPC at Cox's Bazar.

Implementer of the Project: Private Public Partnership

Location: It is located close to the beach front in Cox's bazaar in the zone of Holiday Complex over

Site area available for the Project Development: 9 acres

Proposed built-up area of the Project: minimum 2 lakh sqft

Proposed Program of the Project:

- Retail
- Food and beverage hub
- Family entertainment center
- Multiplex cinema hall/ theatre
- Hotel- Administration, public area, guest room, restaurants, back of the house

Optional Project Facilities/ Permissible Commercial Activities

- Serviced vacation homes
- Adventure sports or activities
- Banquet hall
- Sports facilities/ academy
- Club
- Amusement Park
- Wet amusement park
- Health and well-being spa
- Training facilities and academy
- Office
- Other tourism related facilities

Chapter 2: Literature Review

2.1 Present state and prospects of tourism in Cox's Bazaar

The significant wellspring of economy of Cox's Bazar is the travel industry. Numerous individuals are associated with these hospitality and client administration type business. Fishing and gathering nourishment and sea items as a source of their living are what many people are involved in. Miles of brilliant sands, tall Cliffs, aquatics waves, uncommon univalve shells, bright pagodas, Buddhist sanctuaries and clans, charming ocean depths of these construct Cox's Bazar as the vacationer capital of Asian nation. Carefully assembled cigars and high-quality handmade items of the Rakhayne social gathering families are savvy purchases. The around-attractions of Cox's Bazar include: Aggmeda Khyang, a Buddhist shelter at the slopes, Himchari outing spot, near 8 kms from Cox's Bazar, Innani Beach, thirty two km far away from the town, Sonadia island, Teknaf ground, about eighty km from city and beautiful St. Martin Island toward the south at thirteen km from land firm. A total of 15933 birds of fifty-two species are seen in Cox's Bazar per a registration of oceanic winged animals (the Daily Star, February 2, 2009). One can easily travel there by bus, car and water. Therefore, all these make Cox's Bazaar a hub of business endeavors.

As per studies and research in tourism, as the variety of tourists to a region increases, locals who initially were extremely keen and hospitable towards the tourists, become more and more reserved considering the temporary advantages gained by the guests. Historically, the economic advantages that were gained from touristy development, are currently being monitored for potential social disruption. It is normally felt that the effect study and frames of mind of inhabitants toward the effects of touristy are certainly to be a critical concocting and approach thought for made advancement, showcasing, and activity of existing and future touristy. Thus,

the touristy business' most noteworthy test is that of combining the needs of all partners during a property setup that contemplates the natural, financial, and social measurements.

Defining a tourism complex

A tourist complex is an area developed as a base for tourism where tourist facilities are established comprehensively for various purposes of tourism and relaxation. The area requirements of a tourist complex shall be at least 500,000 m², and it shall be developed by a private developer according to the Tourism Promotion Act in accordance with Article 2 (7) of the Act. A tourist complex should be equipped with one of facilities for accommodation, sports/amusement, relaxation/culture, or entertainment and support facilities, as well as public facilities and accommodations.

Introduction of Facilities in Tourist Complex		
	Subcategories	Notes
Public Facilities	Public restroom, parking lot, electric facilities, communication facilities, water supply facilities, sewage facilities, and tourist information center	Compulsory
Accommodations	Tourist hotel, floating tourist hotel, traditional Korean hotel, or family hotel	At least one is compulsory.
Sports & Recreation Facilities	Golf course, ski resort, marina for yacht, boat or canoe, ice rink, motor racecourse, horse-riding track, multi-purpose sports complex, racetrack or motorboat racetrack	At least one is compulsory.
Relaxation & Culture Facilities	Folk village, beach, game reserve, zoo, botanical garden, hot spring resort, cave, swimming pool, agricultural or fishing village resort facilities, forest resort facilities, museum, art gallery, gliding club, car campsite, tourist excursion ship, or general amusement complex	
Entertainment Facilities	Tourist theater, tourist entertainment restaurant, tourist theatre entertainment, entertainment restaurant, or tourist restaurant	Optional
Support Facilities	Employee accommodations, training facilities, or distribution facilities	Optional

 Source : Attached Table 18 of the Enforcement Decree of the Tourism Promotion Act.

Figure 1:Facilities to be included in a tourism complex

2.2 Ideologies on international tourism

To design a successful tourism complex, one has to keep in mind certain ideologies and include communal aspects for its sustainability. On designing the complex, these ideologies will help shape the complex as one sensitive to community and site.

According to Godfrey and Clarke (2000), socio-cultural changes of tourism relate to local quality of life and sense of place. Positive changes in the quality of life could be as follows: personal income increases, helps to improve living standards for those more directly involved in industry, supports the diversity of restaurants and other cultural entertainment, influence the assortment of goods for sale in many local shops that would not be available in the same amount if tourist complexes did not exist to support them, park areas are often improved, street furniture and design criteria introduced, greater care and attention placed on overall environmental quality, new opportunities etc.

Hassan (2000) argues that tourism has become sensitive to and depended on a high-quality sustainable environment. Therefore, tourism related projects must focus on forms of tourism buildings that are sensitive to sustain the environmental integrity of nature and cultural heritage resources. He also expects that sustainable tourism will, in the future, make an economic contribution to both the world economy and the economies of the local destination.

Richards & Hall (2000) explains the importance of the host community in relation to sustainability: "Human communities represent both a primary resource upon which tourism depends, and their existence in a particular place at a particular time may be used to justify the development of tourism itself. Communities are a basic reason for tourists to travel, to experience the way of life and material products of different communities" Hunter (2002) says that "For sustainable tourism to occur, it must be closely integrated with all other activities that occur in the host region".

Thus, these should be kept in mind for this project which will increase its value and not only act as a soul-restoring vacation retreat with indulging amenities but also act an example for a tourist complex that pays regard to the marine context, life and the heritage and community.

2.3 User group of the tourism complex and its demand

Nearly two million people visit Cox's Bazar in peak season from November to March (Mr. Abdur Rahman, ACF, Divisional Forest Office, Cox's Bazar in the interview on 14.05.2010). Visitors are mainly Bangladeshi nationals and originate from all parts of Bangladesh. The basic itinerary of visitors includes walk along the beaches, sea bathing, shopping from the Rakhaine stalls and tourists enjoy more when their other facilities that meet international standards.

Research has indicated that a tourist usually spends an average of 25% of total spending on accommodation and dining out (Nield, Kozak & LeGrys, 2000). Other studies suggest that food and beverage consumption comprise up to one-third of the total tourist expenditure (Mak et al., 2012). Generally, tourists like to have wide varieties of local food outside of their hotels, preferably at a cheaper price. Study carried out by Nield, Kozak & LeGrys (2000) found that food satisfaction level of Western Europe and Romanian tourists were significantly varied in terms of quality, value, variety of dishes, attractiveness of surroundings and presentation of food. Restaurant's at Cox's Bazar offer wide varieties of sea food, local cuisine, and European dishes within reasonable prices. Apparently, visited tourists were satisfied with food recipes and price itself. Nevertheless, tourists were concerned about **food hygiene**. Study found except for some brand rating hotels and restaurants, most other restaurant serves cheap dishes and undermine food safety and hygiene. Likewise, comfortable accommodation with convenient price plays a significant role in popularizing any tourist destination (Hall, 1995; Cooper et al., 1996). Studies indicate that cleanness of room, location, value for money, room rate, security, service quality and reputation of the hotels are important to travelers (Weaver and Oh, 1993)

and some international tourists had complaints. In general, tourists were modestly satisfied with the convenient of accommodation; however, during the peak season between November and April, accommodation cost becomes high due to a huge influx of national and international tourists. The tourist zone of Cox's Bazar has some 300 hotels and motels with accommodation capacity for 75000 tourists; however, although there are no actual official figures on numbers of visitors to Cox's Bazar, the arrival tourist crosses the 150000 mark in peak season. Moreover, tourists also expressed divergent feelings on recreational facilities. In fact, tourists were delighted with beach recreational facilities and some other recreational facilities in hotel compounds (e.g. spa, bar, barbecue, water sports, swimming pool, children amusement, restaurant, coffee shop, gymnasium, and indoor games), nevertheless general recreational facilities for mass tourists are virtually absent or not adequate; as a result, tourists show less interest in staying longer. Hence, it is necessary to keep a tourist for at least a week and expansion of existing recreational facilities and the development of various artificial recreational facilities to be must so that the visitors can stay longer. Such facilities include various sports, theatre, dance and music, various destinations with diversified attractions, good shopping facilities and so on. Natural parks, water parks and museums are also important for attracting and keeping tourists.

2.4 Design guidelines

Five-star standard hotel.

One of the prior functions of tourism complex is the accommodation that is hotels. Many people are confused by the star rating system used for hotels. To make matters worse, there is no consistent rating system from country to country. Most classification schemes on the continent don't always take into account the sort of attention to detail which makes the difference between a good hotel and a bad hotel. They simply reflect the facilities and services

available. But that doesn't always give a very accurate impression of what you can expect from a hotel.

18 The key differences:

- Five-star hotels must be open seven days a week all year round
- Five-star hotels must provide enhanced services such as valet parking, escort to bedrooms, proactive attentive table service in bars and lounges and at breakfast, _concierge 'service, 24-hour reception, 24-hour room service, full afternoon tea. At a four-star this may be offered but is not compulsory.
- Five-star hotels must have at least one restaurant open to residents and non-residents for all meals seven days a week. (A four-star hotel 's restaurant doesn't need to offer a full-on lunch service; however, this may be offered.)
- Five-star hotels must have ensuite bathrooms with WC, and thermostatically controlled showers, in each of its rooms. Only 20% of the rooms can have shower-only facilities if the size and quality of the en-suites is exceptional. A four-star hotel can offer thermostatically controlled showers only.
- Five-star hotels must have additional facilities, such as secondary dining, leisure, business center, spa. ● Five-star hotels must offer permanent luxury suites, comprising three separate rooms – bedroom, lounge and bathroom. Four-star hotels may offer suites, but it is not compulsory.
- Five-star hotels will have excellent staffing levels with well-structured and dedicated teams with depth in management levels, as well as exceptional levels of proactive service and customer care. A five-star establishment is based on perfection, and extreme luxury and exceptional attention to detail.

- With four-star hotels, the service should come to the guest as needed, but with a five star hotel every need should be anticipated in advance of when the guest wants them (e.g., hotel staff of a five-star hotel will take control of luggage from guest's arrival outside to prompt delivery in bedroom, full 24-hour room service and 24-hour reception and concierge services).
- With a five-star hotel, from the biggest chain to the smallest boutique hotel, the customer is treated as an individual. The customer service experience is seamless. The high caliber of professionally trained staff means that knowledge provided is expert, whether it comes from bar staff, receptionists or any other department, and is without detriment to other service areas.

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- In order to maintain this exceptional level of service the guest would expect a higher ratio of staff to guests. In a four-star they would expect the average ratio to be one member of staff to three guests. In a five-star it could be as high as two staff members to one guest.
- In most five-star hotels the guests would normally expect a renowned chef who has achieved accolades ranging from Rosettes to Michelin stars.
- In a five-star hotel every physical aspect of 'look and feel' has been specifically designed or chosen for that accommodation whether it's tableware, bedlinen, fabrics, color schemes, so even within a group of hotels it will still remain individually designed. Service in a five-star hotel is above average. The hotel should offer Reception, Concierge, Housekeeping and Room Service 24 hours a day. For a hotel to be rated with five stars, it must have expensive and quality furnishing and decorations such as 400-count sheets. The rating also requires that in-room video, a CD/DVD player and a bath and shower in the bathroom. The hotel itself should have more than one restaurant at the location and the restaurants are expected to offer a variety of gourmet dining options. The proposed Five Star facility at Cox's Bazaar is envisaged as a

mixed functional project focused on the Hospitality and tourism, can also be focused on the cultural wealth and diversity of the country.

Chapter 3: Site Appraisal

The site for this project is located close to the beach front in Cox's bazaar in the zone of Holiday Complex over an approximate of 5.76 acres of land. BPC wishes to re-develop this complete site in order to establish an international tourism complex on a PPP model. The site is adjacent to one of one of the main arterial roads which is approximately 50 feet and happens to be in one of the most important and expensive locations of Cox's Bazaar. The establishment of this project will act as an attraction for tourists from around the world as an enhancement in the lives and economy of the community and Cox's Bazaar town. The site overlooks the beach only at a distance of 700 meter and sits on part of the Chittagong Cox's Bazaar ring road. The existing 24 key motel will be demolished along with the Bangladesh Biman Airlines office.



Figure 2:SITE

3.1 Site surroundings

The site is central to many different of important buildings and public gathering spaces like the future Cox's Bazaar cricket stadium that is under construction on the south side and the airport which is 1.5km on the north along with the central shahid minar , chief judicial court, post office , water development board and BPDC office. Government buildings like the circuit house, Cox's Bazaar district council office and spaces like Eidgah Maidan and Ruhul Amin stadium Burmese market lie on the east. The west side hosts the main beach only at a distance of 0.7km.

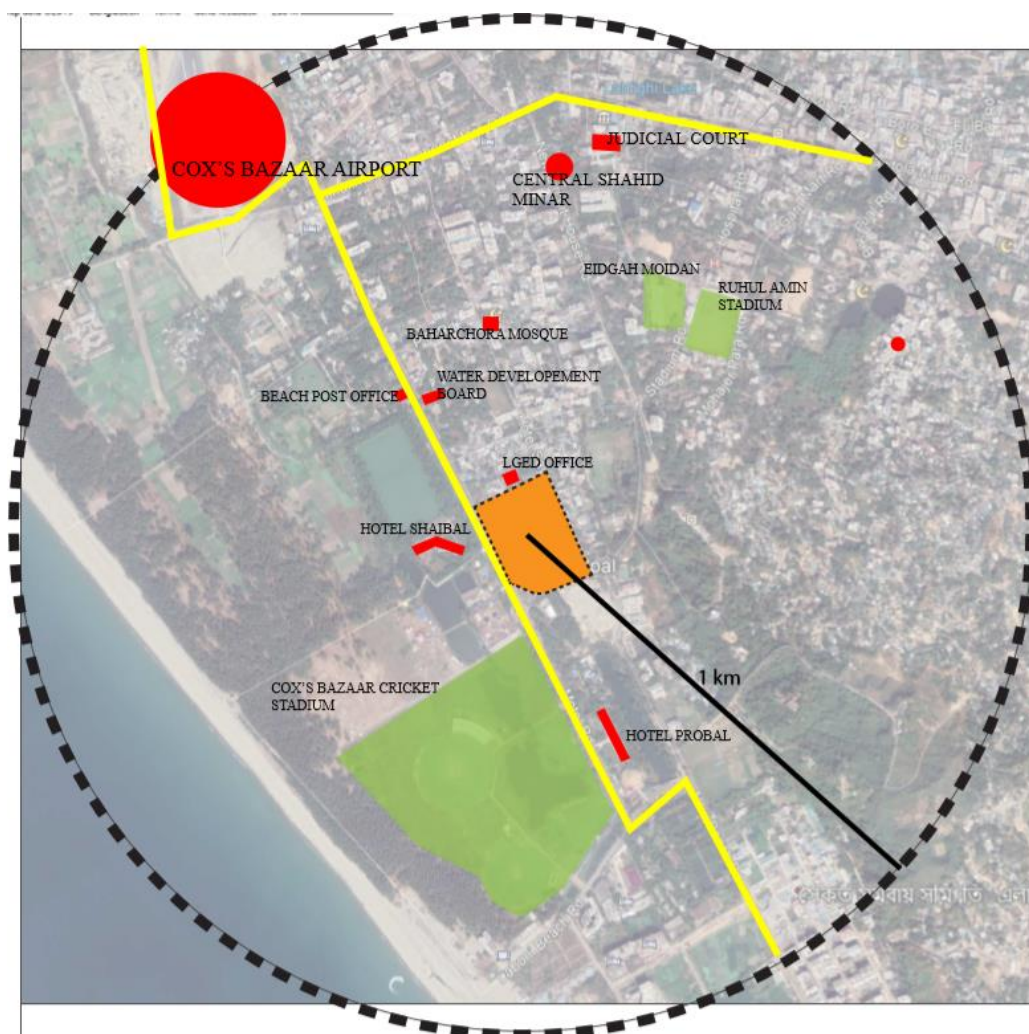


Figure 3: Site surroundings within 1 km

3.2 Geographical and environmental characteristic

The site houses many greeneries like flat grass and tall trees. It is mostly flat without contours and the soil is fit to hold a massive structure and does not need further curing of soil. The large tall trees in the site will give the project prospects to be environmentally sound like acting as noise buffers, pollution filtrates, views etc. Moreover, the site is also safe from tidal upsurge or flooding when there is a rise in the water level, it being at a distance of 1 km from the beach.

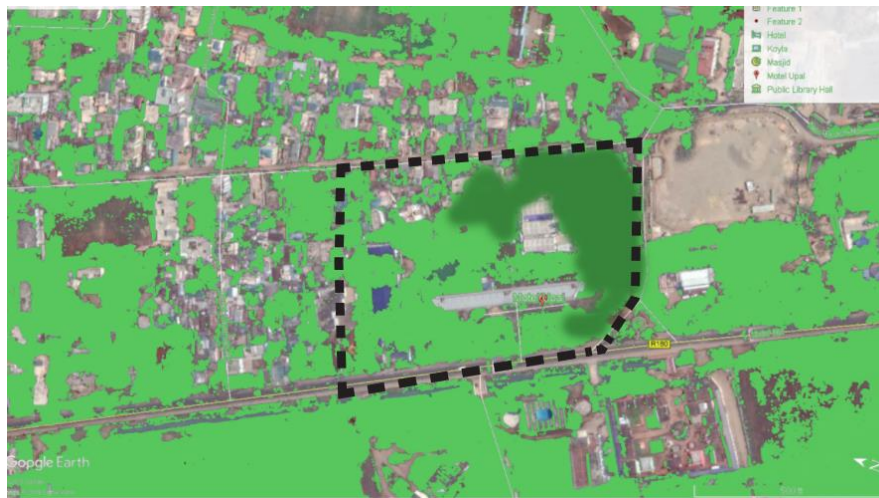


Figure 4:Vegetation map in the site and surroundings

3.4 Land-use Pattern of the Surroundings

The site potentially consists of mostly residential buildings and a number of government office buildings. The main beach at a distance of 0.7km can be considered as a great site force. Moreover, there is a need or sprawl of restaurants and retail stores around the site, however these are not suitable to accommodate the needs of international tourists. The eidgah moidan, cricket stadium and trade fair field area will also act as major site forces. There is an abundance of open play spaces which can act as green breathing spaces for the community. A couple of mosques and a temple and church can be spotted around the site. However, there is an absence of proper medical hospitals or clinics.



Figure 5:Land use map

3.5 Accessibility and Connectivity

The site lies on a major road connection which is part of a ring road and the site is mainly accessible from that motel road only. It is bound on the other three side however it has an informal entry point from south side. The main arterial connection links the site to the airport on the north and forms the Cox's bazaar marine drive as it runs along the south which increases

the value and visibility of the project and increases its attraction factors to tourists. Other secondary connections link the site to the old stadium and eidgah moidan and the Burmese market and jhinuk market. The main beach is accessible by a tertiary connection which has not been developed yet.



Figure 6:Accessibility map



Figure 7:connectivity map

3.6 Climatic Conditions

The exposure to sea level rise is very serious in Cox's Bazaar. The area is densely populated and cultivated except the remaining swampy forests to the sea. The loss of habitable land, population as well as the reactive agricultural land would be very significant if the local sea is raised by 0.83m by 2050 with the global sea level rise (0.13m) and the local subsidence (0.07m) in this region (Millimanet,19g9). The climate of beach area is moist. The main cause of moist weather is a lot of evaporation occurs on the sea. Annual average temperature maximum 32.5°C and minimum 14.8°C. Annual rainfall is 3378 mm. The tropical dry and wet climate of the region is influenced by seasonal monsoon winds and maritime action of the Bay of Bengal. the Cox's Bazar coastal region experiences heavy rainfall and humid climate due to its proximity to the sea. Marine agencies of Cox's Bazar sea beach. Marine agencies shaping the coast include wave, current, tide, term change of sea level, wind and sediment loads and fresh water discharged by river.

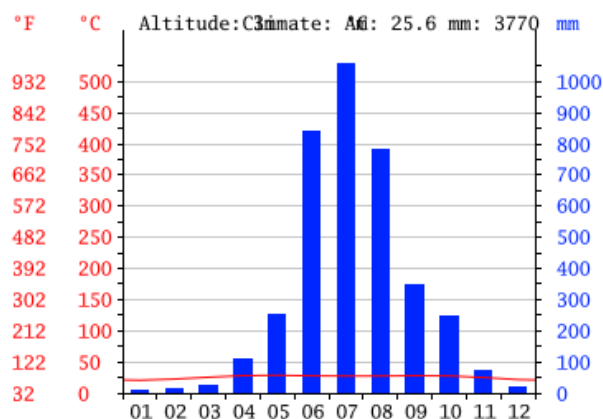


Figure 8: Temperature change

3.7 Socio-Cultural and Economic Contexts

Newspapers and periodicals (Daily) saikat, Cox's Bazar, Ajker Desh-bidesh, Dainandin, Mayer Desh, (weekly) swadesh Bani, Kutubdia, chakori, (fartnightly) Mehdi; extinct- Himchhari, Bak-khali, (weekly) cox's Bazar, cox,s Bazar Barta, sagar Bani, Sagar Kantha, Naf kantha.

Cultural Organization

Cultural organizations club 161, society and organization 5, women's organization 24, cooperative society 367, public library 5, theatre group 3, cinema hall 5.

Main occupations

Agriculture 25.64%, forestry 1.84%, fishing 4.01%, agricultural laborer 21.2%, wage laborer 7.64%, service 4.68%, transport 1.86%, others 17.98%

Land use pattern

NGO activities operationally important NGO are CARITAS, Christian Commission for Development in Bangladesh, Prism Bangladesh, Gana-svasthya Kendra, BRAC, ASA, Ananda, PROSHIKA, Bangla-German sampriti, world vision, concern, Islamic Relief

organization, Muslim Aid, Al-Furkan welfare Association, MSF (Dolland), Red crescent Society, SARE

Socioeconomic change

It is the longest and unbroken sea beach of the world. Everyday a lot of tourists of home and abroad visit this beach. Economic Activities of Cox's Bazaar

- primary Economic Activities
- secondary economic activities
- Tertiary Economic Activities

Primary economic activities of sea beach

- Agriculture
- Fishing
- Plantation

Secondary economic activities sea beach (transportation)

- Bus
- Rickshaw

Tertiary economic activities of sea beach

- Hotel & Restaurant
- Photography
- Rent of beach umbrella & chair
- Horse riding

- Retail selling
- Ground nut
- Chatni
- Jewelry
- Mobile call center
- Cloths
- Weight measurement
- Exhibition of sea beach
- Construction.
- Quaternary
- Tourism
- Museum

3.8 Images of Existing Site Condition



Figure 9: image from entry showing existing upal



Figure 10: image from south side showing existing landscaped green



Figure 11: back of the existing motel (north east)



Figure 12:shadow cast by trees on the south and secondary existing entry



Figure 13:height of trees

Chapter 4: Case Study Appraisal

The following case studies were done to understand better as to how tourism complexes around the world work. They were selected based on relation to the project, to comprehend development of form and function, use of spaces and arrangement and structure solutions.

4.1 Tourist complex at Mikolo Beach



Figure 14:perspective of complex (source:<https://worldarchitecture.org>)

This is a modern complex of four stars, located on the coast of Mikolo beach, Sao Tome and Principe, Central Africa. The complex can accommodate up to 500 guests. This case study was selected to study on formation of buildings near the beach and to comprehend how a *microclimate* can be created on the facades for environmental sustainability.

DESIGNED-2017

COMPLETED-2017

Environment and microclimate and landscaping:



Figure 15:natural ventilation process on the facades (source:<https://worldarchitecture.org>)

The territory of the complex is an entire *ecosystem*. On the perimeter of the balconies of the complex surrounding each of the floors, more than 100 tall trees, 50 medium-sized trees and 250 cascading plants and shrubs are planted. Such a quantity of plants allows to *absorb* more than 10 tons of carbon dioxide and produce about 100 kilograms of oxygen per day.

• **Orientation and location.** Given the local climate, the building does not have a problem of overheating and heat due to the natural ventilation system, as well as the maximum use of

natural

light.

- **Rational use of water resources.**

The complex has catchment systems storing rainwater in tanks, a filter for cleaning for subsequent re-use in the sanitary maintenance of buildings.

- **Energy production.**

The building generates its own energy through alternative sources, such as solar panels, which capture energy from the sun and transform it into electricity.

- **Environment.**

Green roofs, walls, and the complex itself, contributes to the social development and productivity of those who work there and helps the environment, by transforming CO₂ into O₂.

Site planning and landscaping:



Figure 16: aerial view of building showing landscaping and placement of building on site

4.2 Marina Bay Sands, Singapore



Figure 17:marina bay sands (source: archdaily)

Marina Bay Sands is a 929,000 square meter (10 million square-feet), high-density and mixed-use integrated resort complex that brings together a 2,560-room hotel, a 120,000 square meter (1,292,000 square feet) convention center, a shopping mall, an Art & Science museum, two Sands Theatres, six restaurants, and a casino. Conceived as not just a mere building project, but as a city microcosm rooted in Singapore's culture, climate and contemporary life, the \$5 billion project anchors Singapore's waterfront, creating a gateway to Singapore and providing a dynamic setting for vibrant public life.

[Safdie](#) designed an urban structure that weaves together the components of a complex program with a dynamic urban crossing roads and public meeting place. Inspired by the great ancient cities that are arranged around a major thoroughfare, Marina Bay Sands is organized around two main themes running through the neighborhood and give a sense of direction, placing greater emphasis on the pedestrian street, as the center of civic life.

Site planning and landscaping

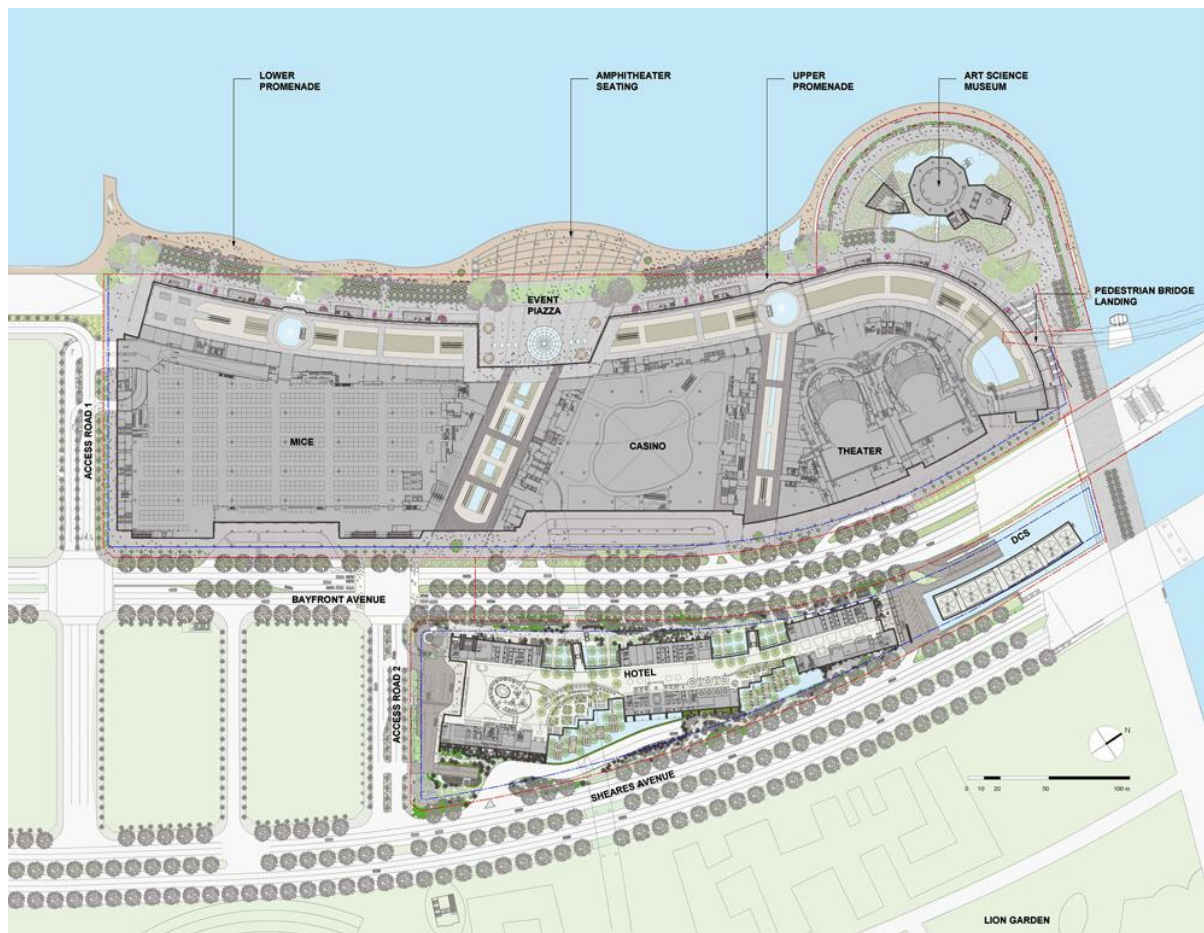


Figure 18: landscaping and site planning of marina bay sands (source: archdaily)

Combining internal and external spaces and providing a platform for a wide range of activities also connected with the metro and other means of transport. A series of garden terraces provide ample green space throughout the complex, extending the tropical scenery from the Marina City Park to the Bayfront. Protected from the winds and with 250 trees and 650 plants, Sky Park celebrates the concept of the garden city, which has been the foundation of the strategy of urban design in Singapore.

The landscape network reinforces urban connections with the environment, being accessible to the public all levels of green spaces and tropical plantations, through the broad pedestrian

streets overlooking the sea. Half of the roof of the hotel, convention center, shopping center and casino complex are covered with trees and gardens. Generous pedestrian streets open to tropical plantings and water views.

Environment and microclimate



View of Hotel Towers at Marina Bay Sands, Singapore.

Figure 19: building façade of MBS and layered gardening (source: mgs architecture)

The tower slabs also give further character to the massing and relate to the site context: the glazed west side faces the city center while the east side is planted with lush bougainvillea facing the botanical gardens and ocean beyond. In plan, as the parcel varies in width, the cross section is decreased from one tower to the next. The tree void spaces are connected by one continuous and conditioned glazed atrium, filling the space between the towers with restaurants, retail spaces and a public thoroughfare. Architect has given great emphasis on designing a solution for façade as the largest amount of heat gain occurs on the west façade. The design solution proposed and implemented was a custom double-glazed unitized curtain wall. The energy efficient double-glazed units rest in a frame suspended from the edge of the slab. Perpendicular to the façade, glass fins were installed to provide shading. The outer skin

follows the natural curved shape of the building, and the use of reflective glass creates a taught mirrored façade. One of the keys to achieving this aesthetic was a minimal spandrel panel at the floor slabs with a continuous double-glazed unit spanning the full 3 meters.

The east façade handles heat gains differently, utilizing deep planted terraces which follow the sloping radial geometry of the building's profile. The planters help to create microclimate cooling and the deep overhangs of the balconies naturally shade the hotel rooms from direct sun.

Form and function



Figure 20:marina bay sands function distribution (source: wikiarquitectura.com)

- 1. Hotel: 2560 luxurious rooms in three towers, with a total of 265.683m²
- 2. Sands SkyPark: the three hotel towers are connected at the top, at 195 meters high by a park of 9.941m² which houses a public observatory, jogging trails, gardens, restaurants, lounges and an infinity pool. This tropical oasis of 1.2 hectares is longer than the height of the Eiffel Tower and large enough for four jumbos to park A380s.

- 3. Casino: The casino “atrium” has four levels of play and entertainment in a total space of 15,000 square meters. Atrium ceiling hangs a lamp 7 tons with 132,000 Swarovski crystals and 66,000 LEDs.
- 4. Shop over 74.322m² of retail space and restaurants.
- 5. Sands Expo and Convention Center: 121,000 m² of flexible convention and exhibition space, including one of the largest ballrooms in Asia with an area of 8,000 m² and a capacity for 11,000 people.
- 6. ArtScience Museum: 15,000 m², of which 6,000 m² corresponds to a gallery, 3,000 pond lilies with a palm tree 80 meters, 62 meters in diameter on level and 11 deep.
- 7. Theatres: 21,980 square meters with a total combined capacity of 4,000 seats
- 8. Crystal Pavilions: 5,914 square feet housing shops and nightclubs, the first steel and glass structure built in Marina Bay.
- 9. Plaza event: 5,000 square meters with capacity for 10,000 people in events of local and international.



Figure 21: depiction of form of MBS (source: archdaily)

The sky park is curved, planes that come around will see a smile from their bird's eye view. the towers represent three mountains or three warriors guarding the gateway to Singapore. despite fengshui being open to many interpretations, there are rules and principles to the practice, which are guided by the so-called balance of the five elements. its silvery white facade represents metal, while other elements represent fire. wood is in the landscaping and greenery, while water surrounds it.

The east-side building and the west-side building that were inclined at 52 degrees maximum for towers I, II and III that were rising in 「入」 form.

In each case, two asymmetrically curved legs have been positioned against each other which grow together like bridge pylons to form units. although the three hotel towers are still identical with regard to the height and number of floors, the forms of the respective building elements have considerable differences in terms of the base width, curvature radius and lateral offset

dimension furthermore, the individual floors are also offset from one another in a longitudinal direction.



Figure 22:sky park recreational facilities (source: <https://www.designboom.com>)



Figure 23:marina bay sands formation and concept (source: designboom)

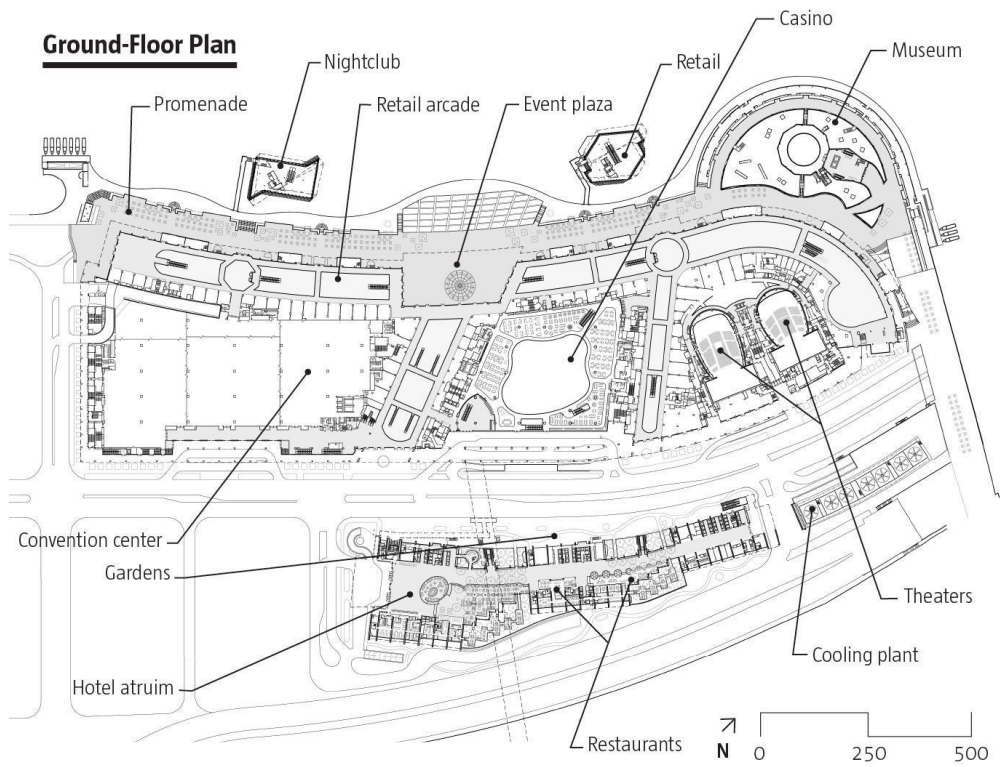


Figure 24:ground floor plan (source: archdaily)

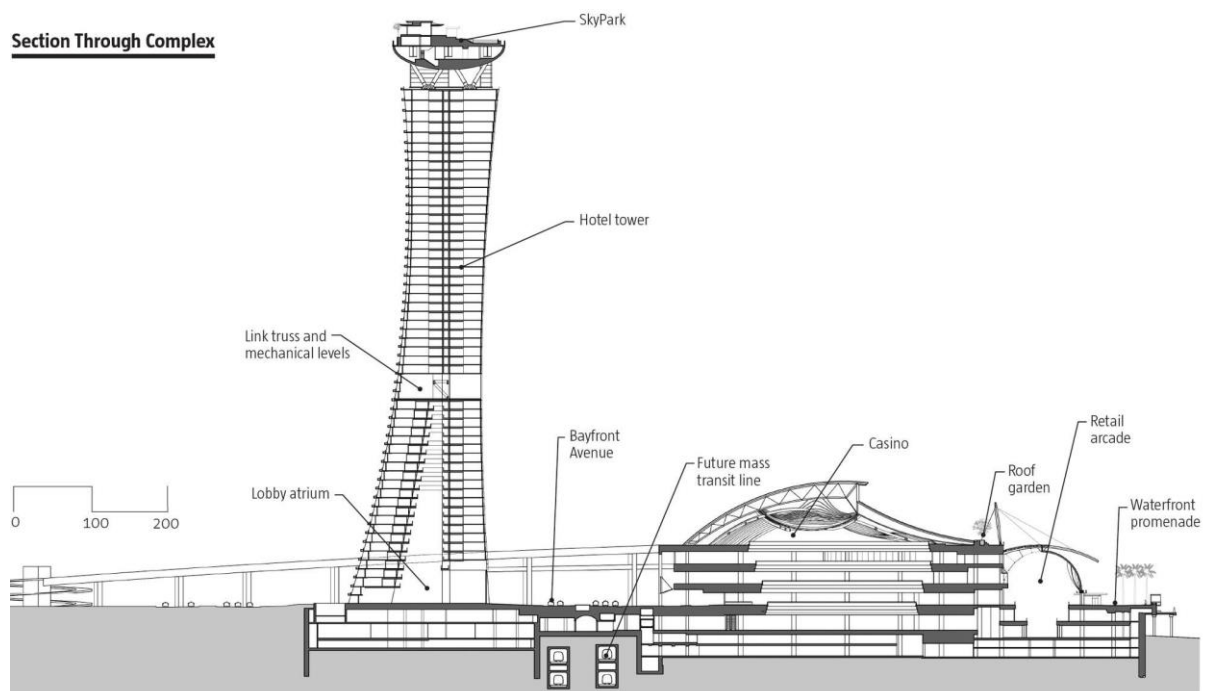


Figure 25:section of MBS (source: archdaily)

Structure of building

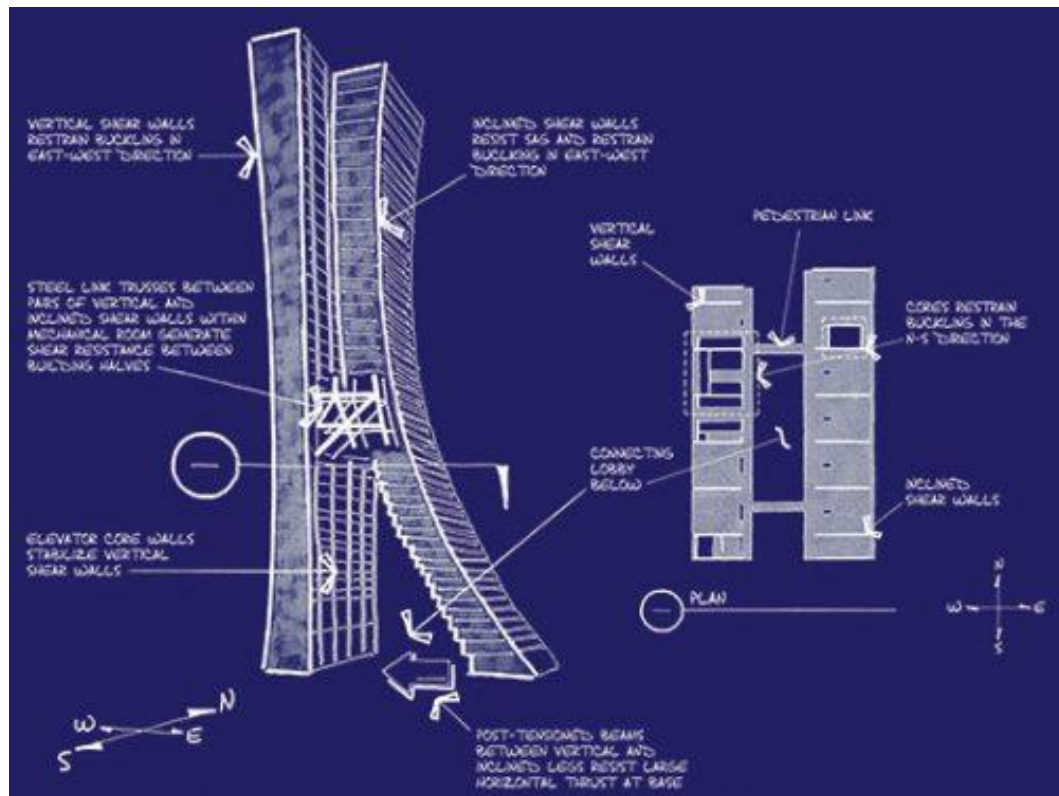


Figure 26: structural analysis (source: wikiarquitectura.com)

Walls reinforced concrete thickness ranging from 28 inches at its base to 20 levels higher plants are found in the centers of 10 meters, within each of the three towers. Shear walls serve as vertical and transverse primary structural system of the three buildings. Additional cores also created with concrete walls are located in both legs of each building containing the hotel longitudinally and helping to prevent the exit plane buckling shear walls within relatively narrow legs of the towers. Flat post-tensioned slabs with a thickness of 22cm, extend directly between shear walls. This structural arrangement maximizes efficiency and creates a simple solution slab floor that can be built quickly. The flat slab scheme also provides flexibility in the distribution of the hotel

room, adapts to the height from floor to floor and building flexibility in service delivery and coordination through each plant.

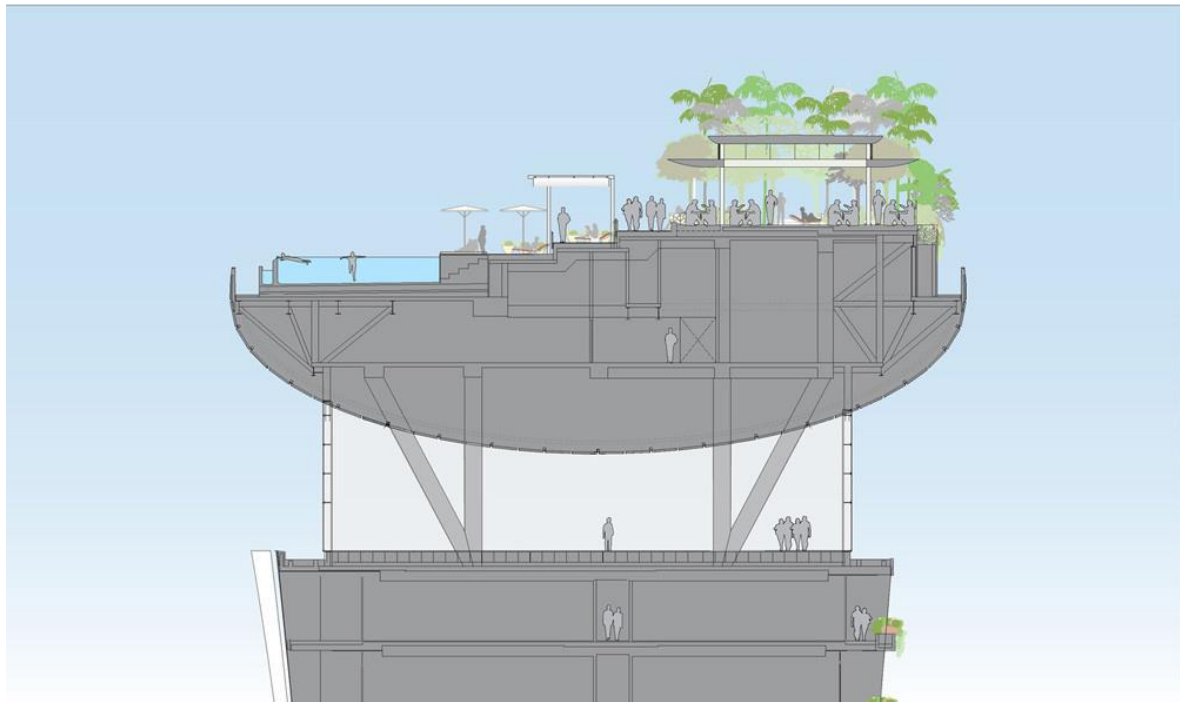


Figure 27: section of skypark showing structure (source: archdaily)

The bridges directly above each tower support struts steel rakes “V” extending from the roof of the hotel directly through the walls of reinforced concrete. The segments between each section of the tower beam simply supported at the ends of adjacent segments.

The relative displacements of the three towers vary due to subtle geometric differences. Movement joints located between each tower accommodate such movement resulting from thermal expansion, wind-induced motions, and other time-dependent lateral movements generated from creep and shrinkage resulting from the asymmetry of the towers. Minute details through infinity pool accommodate these joints giving the impression of a clear and continuous monolithic deck through the towers.

Chapter 5: Program Appraisal

Programming is the process of defining the activities that will be conducted within a hotel, allocating the requisite space, and establishing relationships between the spaces. This is one of the first steps in the development process. While the developer may work with an architect in developing the program, the developer is responsible for creating the program and for ensuring that the building is designed to accomplish the goals set out in the program. In addition to detailing the activities, space allocations, and relationships within the building, a successful program helps to establish the way the building or buildings are situated on a site, the onsite automobile and pedestrian flows, and connections to the external world. In almost all cases, the activities are the starting point. Once the activities are defined, relationships among them are established. Early in the programming process, you can use schematic bubble diagrams to convey both activities and relationships.

The role of the lobby is a central gathering point serving both the public areas and the back-of-house areas. Once the activities and relationships are established, you can allocate appropriate space to the activity, both direct activity space and space needed to support the activity. For example, a hotel needs space not only for its guestrooms, but also for infrastructure such as the plumbing, mechanical systems (heat and air-conditioning), vertical transportation (stairs and elevators), horizontal circulation (corridors), and service areas for housekeeping. The summary of all the activities, relationships, and space allocations in a hotel is called a building program or design brief. The following program list contains the function and space requirements of the tourism complex.

5.1 Public Facilities

The major public areas that you'll need to program are the lobby and public flow space, the food and beverage outlets, and the meeting spaces. These areas are the hotel's "living spaces";

they set the stage for other activities, frame the image of property, add interest and amenities to the guest experience, and provide space for the formal and informal meetings that take place in any hotel. Hotel lobbies have become the most iconic of all hotel spaces. The lobby must function not only as the hotel's "front office," but also as an important transition space. The transition from an often hectic and arduous journey to the security and serenity of the hotel takes place in the lobby. If you think about it, the best lobbies work so well that guests do not even notice the attention to program and planning detail. The reception desk is obvious and inviting, regardless of which entrance the guests use. People circulate effortlessly to the other spaces within the hotel, without feeling lost or disoriented.

Program for					
	Functional space	Number of units	Number of users	Area per person (in sft)	Total area (in sft)
A.	Public Facilities				
1	Main entrance	1	4	193.75	775
2	Luggage loading/unloading	1	20	17.22	344.45
3	Valet Parking service	1	4	7	27.99
4	Vestibule	1	50	7	349.83
5	Grand lobby	1	400	7	2798.62
6	Front Desk Information	1	4	21.53	86.11
7	concierge	1	2	21.53	43.06
8	cashier	1	2	16.15	32.29
9	Porter Service area	1	4	16.15	64.58
10	Luggage Storage	1	10	16.15	161.46
11	Safety Deposit Boxes	1	10	16.15	161.5
12	Grand staircase	1	1	559.72	559.72
13	guest elevators	2	10	4.84	96.88
14	Lounge	1	30	16.15	484.38
15	atrium	1	1	1614.59	1614.59

16	live entertainment	1	2	4	43.06
17	smoking room	1	20	6.99	139.931
18	guest elevators	2	10	4.84	96.88
19	restrooms: male	1	5	26.91	134.55
20	Female	1	5	26.91	134.55
	Prayer room	1	50	8	400
				Subtotal	8149.431

5.2 Administrative facilities:

B.	Administrative facilities				
1	Front office manager	1	1	53.82	53.82
2	customer service director	1	1	53.82	53.82
3	housekeeping manager	1	1	53.82	53.82
4	front office supervisor	1	1	53.82	53.82
5	front desk agents	1	3	26.91	80.73
6	telephone operator	1	1	26.91	26.91
7	reservations supervisor	1	1	26.91	26.91
8	reservation agents	1	3	26.91	80.73
9	waiting area reception	1	4	26.91	107.64
10	managers' offices	1	1	215.278	215.278
	assistant manager	1	1	100	100
	executive secretary	1	1	75.3474	75.3474
11	human resource director	1	1	161.45	161.45
	HR clerks	1	3	53.8196	161.459
12	sales and marketing managers	1	1	161.45	161.45
	catering manager	1	1	75.34	75.34
	sales and marketing assistants	1	3	53.81	161.459
13	finance director	1	1	161.459	161.459
	accounting head	1	1	100.104	100.104
	accounting clerks	1	3	53.8196	161.459

	bookkeeper	1	2	53.8196	107.63
	auditor	1	1	75.3474	75.3474
	purchasing manager	1	1	75.3474	75.3474
	purchasing assistants	1	2	53.8196	107.63
14	general office clerks	1	5	26.91	134.55
15	conference room	1	10	25.83	258.3
16	pantry	1	20	6.99	139.93
17	restrooms: male	1	6	21.53	129.16
	female	1	6	21.53	129.16
18	food and beverage office				
	food director	1	1	161.459	161.459
	dietician	1	1	100	100
	banquet manager	1	3	226.04	75.3474
	banquet captain	1	2	53.81	107.639
	executive chef	1	1	75.3474	75.3474
	kitchen supervisor	1	1	53.81	53.81
	bar supervisor	1	1	53.81	53.81
	restaurant supervisor	1	1	53.81	53.81
19	staff common area				
	employee's entrance	1	60	7	420
	staff lounge	1	15	12.9167	194
	cafeteria	1	20	19.375	388
	pantry	1	4	26.9	108
	restrooms: male	1	10	21.5278	215
	female	1	10	21.5278	215
	lockers	1	10	4.84	48
	changing rooms	2	20		431
	circulation	1	1	538.19	538
20	senior management flat				
	general manager's room	1	1	215.27	215.27
	senior manager's rooms	2	1	215.27	430.556

	pantry	1	1	80.7293	80.7293
	lounge	1	1	96.8752	96.8752
				Subtotal	7291.0725

5.3 Service facilities

One of the most important zones is the back of the house zone for a hotel. It has to be in such a way that the visitors don't cross path with the services yet it should be efficient and properly functional. The back of the house are basically the service functions like the main kitchen, storages, waiters room, the food managers room, the banquet cooking and storage, the employee cafeteria, the food preparation area, the dishwashing area, the housekeeping, time checker, food checker, employees locker 28 and uniform room, the garbage areas which is connected with the deck of the service entry. The service elevators and stairs are also important part of the back of the house zone.

B.	service facilities				
1	Engineering and maintenance office	5	10		426.25
2	cable tv and internet connectivity	4	7		193.75
3	electrical facilities	10	9		1472.5
4	mechanical facilities	26	12		2249.66
5	carpentry	3	6		861.11
6	waste disposal	11	3		409.02
7	food and beverage	24	41		4378.75
8	housekeeping	20	10		1097.92
9	laundry and dry-cleaning service	6	14		345.52
10	hotel security and surveillance	26	4		382.11

11	medical services	4	2		145.31
12	circulation and maintenance	19	13		1547.85
				Subtotal	13509.75

5.4 Recreation facilities

C.	Recreational facilities				
1	lounge	1	20	12.9167	258.33
2	atrium	1	1	1291.67	1291.67
3	guest elevators	2	10	4.84	96.8752
4	billiards room	1	3	236.8	710.41
5	attendants counter	3	2	19.37	116.25
6	video gaming arcade	1	10	32.2917	322.91
7	poker club/mini casino	1	20	19.37	387.5
8	cashier counter	1	4	26.9098	107.63
9	fitness center	1	5	43.05	215.278
10	aerobics studio	1	10	26.9	269.098
11	lap pool	1	1	1894.45	1894.45
12	swimming pool	1	1	3229.17	3229.17
13	pool perimeter	1	1	2647.92	2647.92
14	shower/lockers	2	16		430.556
15	restrooms	2	24		516.668
16	roof deck pool	1	1	2152.78	2152.78
17	changing rooms	4	20		473.61
18	meditation and Zen garden	1	1	3229.17	3229.17
19	viewing deck	1	1	1076.39	1076.39
20	mini golf course	1	1	4843.76	4843.76
21	lawn tennis	1	1	4843.76	4843.76
				Subtotal	29114.1852

5.5 Commercial facilities

D.	Commercial facilities				
1	Banquet hall	1	200		4822.23
2	theatre	1	100	4822.23	2000
3	function rooms	4	50		3980.49
4	meeting rooms	4	20	19.37	1550
5	private dining	2	12	19.37	465
6	storage	2	2		322.91
7	circulation	1	400	6.99	2798.62
8	restrooms	2	24		645.83
9	staff station/reception	1	2	26.9098	53.81
10	waiting area	1	5	21.53	107.63
11	internet center	1	6	26.9	161.459
12	currency exchange	1	1	26.9	26.9
13	atm machines	2	1	26.9	53.81
14	retail				
	travel agency	1	1	430.55	430.55
	beauty salon	1	1	645.83	645.83
	barber shop	1	1	430.55	430.55
	gift shop	1	1	645.83	645.83
	wine shop	1	1	430.55	430.55
	hallway	1	1	430.55	430.55
				Subtotal	20002.549

5.6 Room accommodation

The most fundamental planning for a hotel involves the guestrooms—not only do they account for the bulk of space within a hotel, but a large measure of the hotel experience is in the guestroom. Developing an efficient and effective design of these areas is critical for your initial development budget, but this is also a key to long-term guest satisfaction and operating efficiency. While low-rise hotels with one to three stories typically use a design with

guestrooms on both sides of a corridor (the "double loaded" slab), high-rise hotels use this configuration along with a variety of rectangular, triangular, and circular tower designs. The choice of guestroom floor layout is driven by design, site, and cost considerations.

E.	Residential facilities				
1	standard rooms	80	1	290.62	23250.05
2	deluxe rooms	81	1	333.68	27028.18
3	family deluxe	80	1	430.55	34444.51
4	bridal suite	1	1	430.55	22388.93
5	executive suite	5	1	516.66	2583.34
6	residence suite	2	1	731.94	1463.89
7	presidential suite	1	1	925.69	925.69
8	circulation	28			11000.72
				Subtotal	123085.31

5.7 Food and beverage

For larger hotels, especially those that are resort or convention oriented, management creates an overall vision for the F&B operations. The multiple outlets must offer variety, value, and excitement; in general, the program includes fine dining, casual dining, and a set of beverage-oriented outlets with different themes, from quiet lounges to nightclubs. One growing trend you'll find is for hoteliers to partner with celebrity chefs to create signature dining outlets within the hotel (although this arrangement has the potential downside noted in Chapter 18). The celebrity can open a well-located restaurant, and the hotel gets access to customers seeking a unique dining experience, as the restaurant serves both hotel guests and a local clientele. Programming standards for food and beverage outlets include the following objectives:

- Provide fine-dining venues with direct access to the exterior to maximize street presence and to enhance the restaurant's positioning as a local eatery.

- Locate the hotel's main casual dining restaurant as conveniently as possible in the hotel's main circulation patterns to maximize internal business.
- Conserve back-of-the-house space by sharing kitchens among F&B outlets, except for a kitchen used by a celebrity chef.
- If possible, provide a shared restaurant and banquet kitchen, again for economy of construction and operation.
- Provide satellite bars with an appropriately sized service area for preparation, storage, and backup.
- Design restaurants and bars so that sections can be closed off during slow periods to create more intimate venues.
- If possible, provide separate restrooms for each outlet. This is especially true for high-volume beverage operations.

F.	Food and beverage				
	main dining hall	1	100	19.37	1937.5
	buffet serving area	1	15	6.99	105.48
	specialty restaurant	1	40	21.5278	861.11
	roof deck café	1	25	19.37	484.37
	bar and café	2	23		468.23
	service entrance	1	5	19.37	96.87
	circulation	3	100		936.46
	restrooms	2	24		645.83
				Subtotal	5535.85

Complimentary facilities to be provided:

- Transport to Beach
- If the walking distance from the hotel to the beach is more than 800 meters, the hotel is required to provide transport that may be in golf cart like vehicles. The site of this project is exactly 1 km away from the main beach.
- Retail of Beach Amenities
- A retail outlet selling beach amenities such as swimming goggles, snorkels, sunscreen, sunhats, etc.
- Beach Activities
- A minimum of five supervised beach/ water based activities available such as fishing, banana boat, water skiing, snorkeling, and beach volleyball.
- Leisure Desk
- A dedicated area is provided to inform guests on beach activities and take bookings for beach activities. This may be incorporated with the guest relation or concierge desk.
- The hotel ensures that guests can enjoy privacy and that the flow of beach guests does not offend other guests to the hotel.

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. Factors that invite more international tourists as well as national and local and create an economic trajectory. The following design considerations have been made based on case study of other mixed-use tourism complexes and also the government indications on the project proposals which stated the fulfilment of certain environmental and community-based considerations.

Design in consideration of physical aspects

The physical site is 9 acres in area. It is located at a distance of 1km from the Shaibal beach point which is just alongside the famous Laboni beach. It is like a city center to coxs bazar with the sprawl of commercial development occurring around it. The sea which is perpendicular to the site, stretching alongside the west, the hill views on the east and south and the coxs bazaar town on the north and east demanded a development where all the virtues of the site could participate. The beach site houses the maximum number of tourist engulfed developments like food hubs and star rated hotels etc. resulting to beach encroachment and the second layer remaining dark and insecure with concerning crime rate. The site is like a transition between the first layer which is the beach side and the inner town. The project would mean shifting the focus to this second layer which would in turn radially cause development to spread around coxs bazaar to the inner parts.

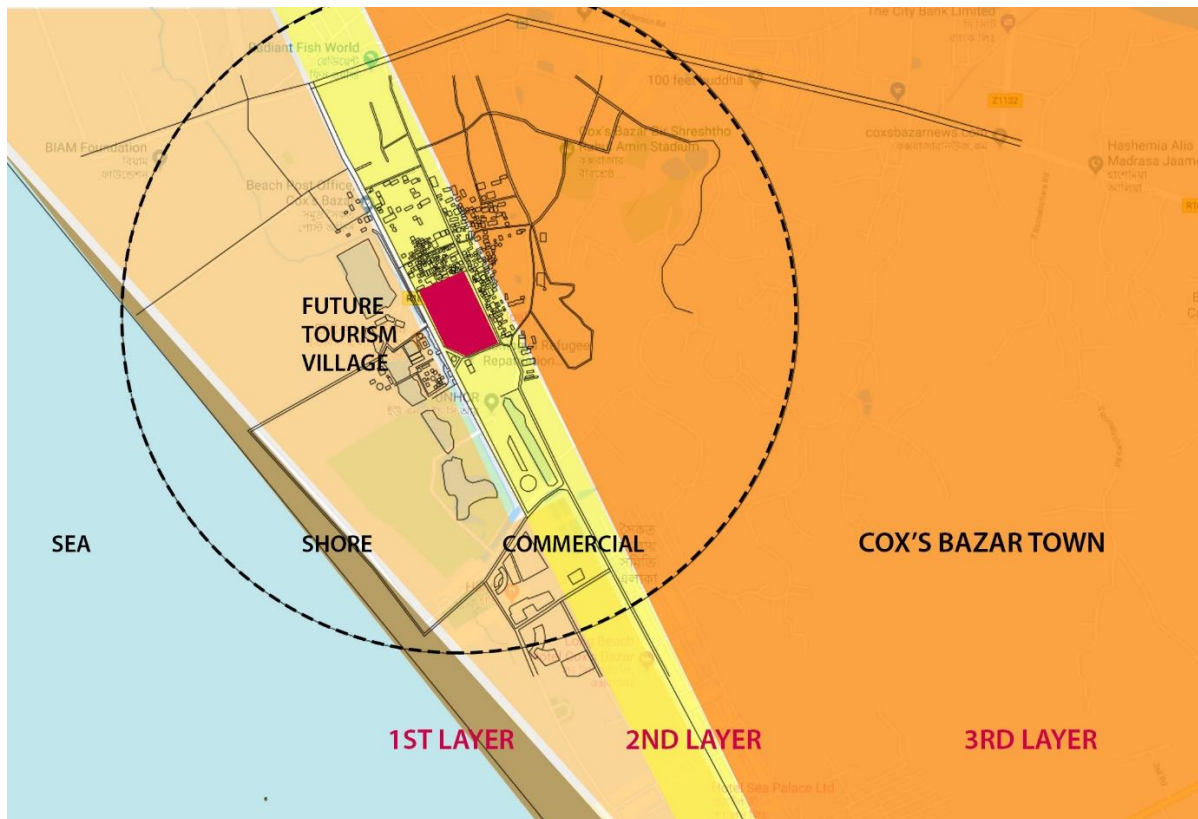


Figure 28: large scale factors that influenced the design

These factors helped me to decide how to orient the building, or how to position the building masses by serving all the site forces. Having the sea on the west meant that the form demanded viewing areas and maximum exposure to the south. The site also demanded an access from the node on its south as it has an international cricket stadium being built and a future tourism village. From the analysis, a natural decision to determine the access points was also made so that tourists as well as locals from all around can easily penetrate the site.

Respect, involve and support local communities

There are many examples of local communities being marginalized from their traditional uses, occupations and enjoyment of land and resources as a result of hotel and resort development. Beginning at the earliest planning stages, and continuing through all phases of the development, developers should assess social impacts on neighboring communities; this is not only a matter of good citizenship but also vital to ensure a social license to operate. The principle of Free,

Prior and Informed Consent (FPIC) recognizes a community's inherent and prior right to the land and resources and respects its legitimate authority, requiring that any third party enter into an equal and respectful relationship with the community (source:IUCN). Therefore, communities should be consulted on proposed hotel, provided with information on its likely impacts and involved in meaningful participatory planning processes from the earliest planning stages and during the development process.



Figure 29:immediate site forces that guided the design

The zoning of the site demand a penetrable public area throughout with hotel semi public zone on the north side. So that tourists and locals can smoothly access the site from the node point and the opposite hub a pedestrian entry was created on the south from the node. The south side and the south east side was completely dedictaed to public entertainment for further integration with the community.



Figure 30:development of zoning

6.2 Form Generation

The form chosen was two circles overlapping and one smaller circle set aside dedicated to the cinema theatre. The complex has 2 main components: the five-star hotel block and the entertainment hub. The entertainment hub was further divided into retail, entertainment, food and beverage hub and multiplex/theatre. As it is a complex functional mix with hotel accommodation, shopping and entertainment, the best strategy is to deal

with geometries as the dynamics of the site also dictated it. Initially the design process started with 2 main circles intersecting which represented the functions. As the design process progressed, it also took help of developing the circles into two rings which created spaces or internal hubs so that the complex and its surroundings could sustain and be a source of

entertainment in this layer of the city further away from the beach. The cinema theatre was set aside from the entertainment mass and the in between space was reserved for the sports zone.

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

different functions of masses are fused to create a big holistic experience of a penetrable and legible tourism hub keeping in mind how successful tourist cities function. Specific to say, all being connected together and finally emerging as one single entity. To give exposure to the sea view the circular masses were taken advantage of as circle is the form which serves a 360-degree purpose of facilitating the site forces. A staggering of the circular layers was created to create terrace on different layers for sea and sunset and hill views. The concave surface of the bigger circle was maximum exposed to towards the west side with sea and the terraces served the purpose as well.

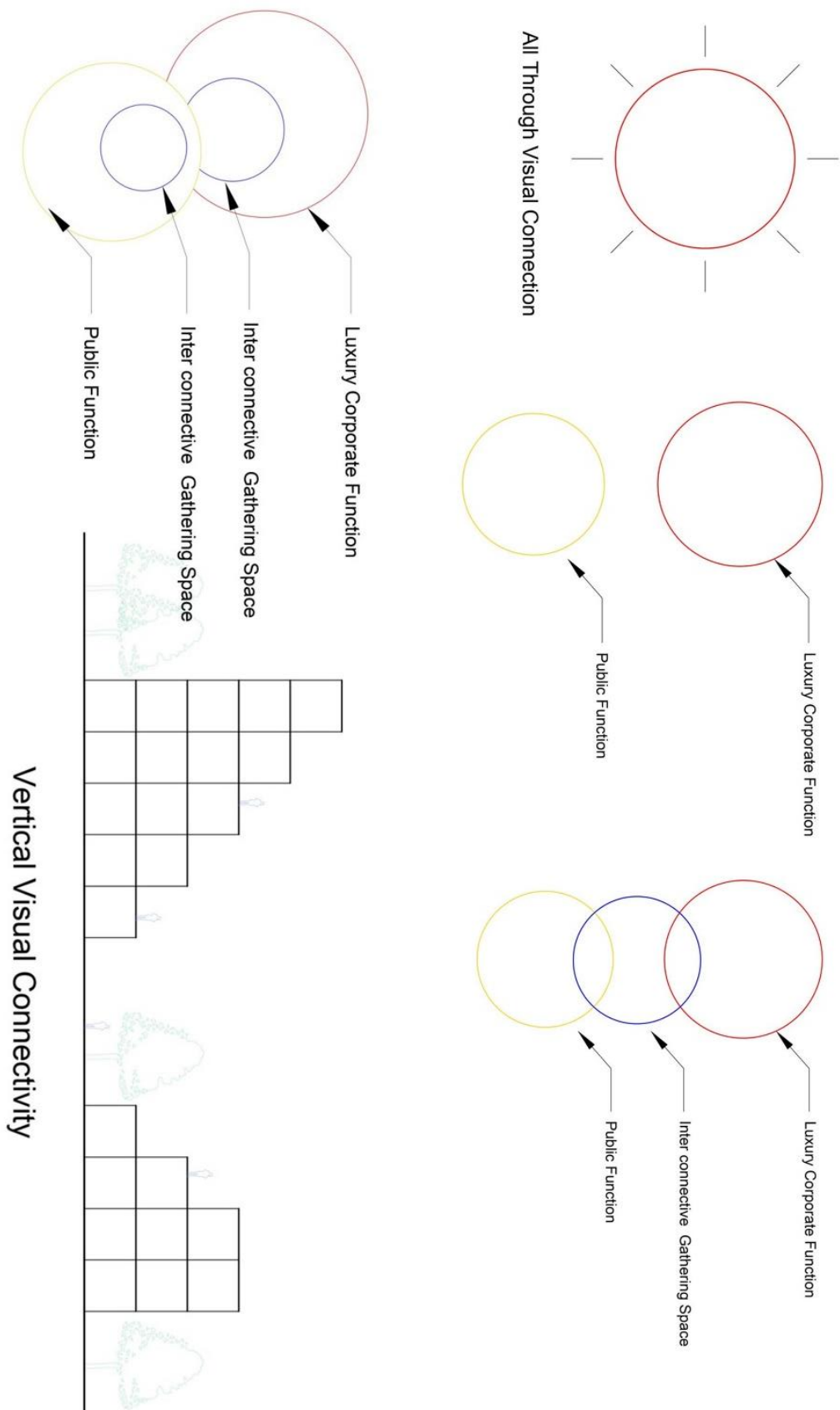


Figure 31: form derivation



Figure 32: function distribution throughout site

6.3 Design Phase

The design is civic-minded in nature. One big encircling mass emerged from combining individual two other circular masses created a civic quality facing a big inner forecourt of green lawn symbolizing a big public space. This public space houses two introvert circular spaces intertwined such as to serve two different space qualities and a smooth flow from the semipublic to the public mass. The hotel block is on the North side and the entertainment block on the south while the theatre and sports zone rests on the North east. The hotel block and lobby is accessed from the south west side main road from under the overhanging hotel room block to induce a feeling of grandeur. The banquet hall is given a separate elongated entry branching from the main entry and ends on the further north to separate the crowd from the other user group of the complex. 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. 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 the locals as well as tourist coming from other accommodations which also branches out and leads to the cinema Théâtre to create the essence of the vibrant streets in tourist countries and the street walk with markets on either end. The ground floor welcomes all the users and visitors to its grand inner public space with lush green and exotic fountains and kiosks and play spaces. The ground floor is basically a big public space in itself which allows the guests to come congregate then disperse into entertaining activities to the upper levels or go straight to the hotel rooms. This level at the ground is made as open as possible to give the expanse a radial dimension and become an image or face of coxs bazaar.

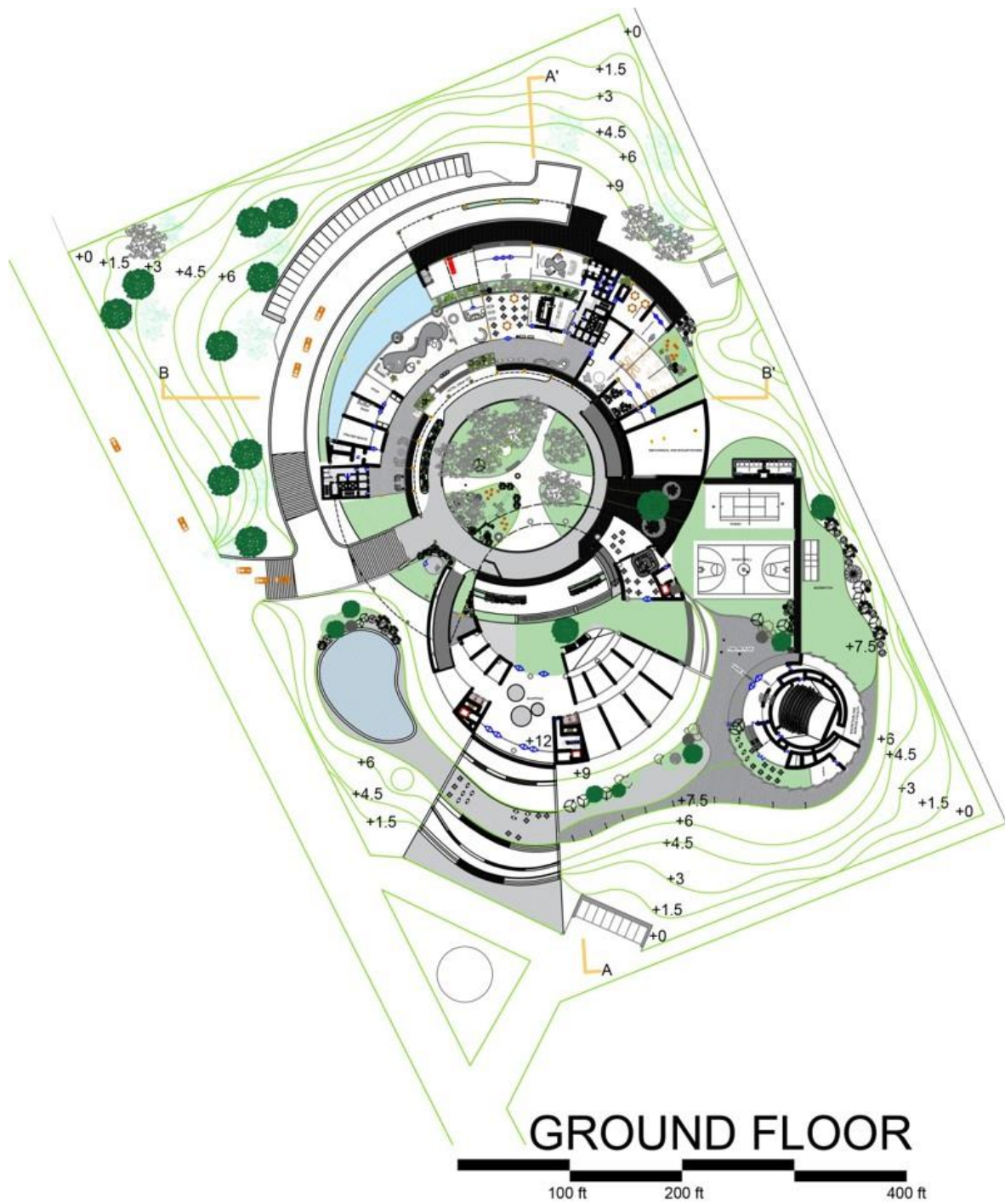
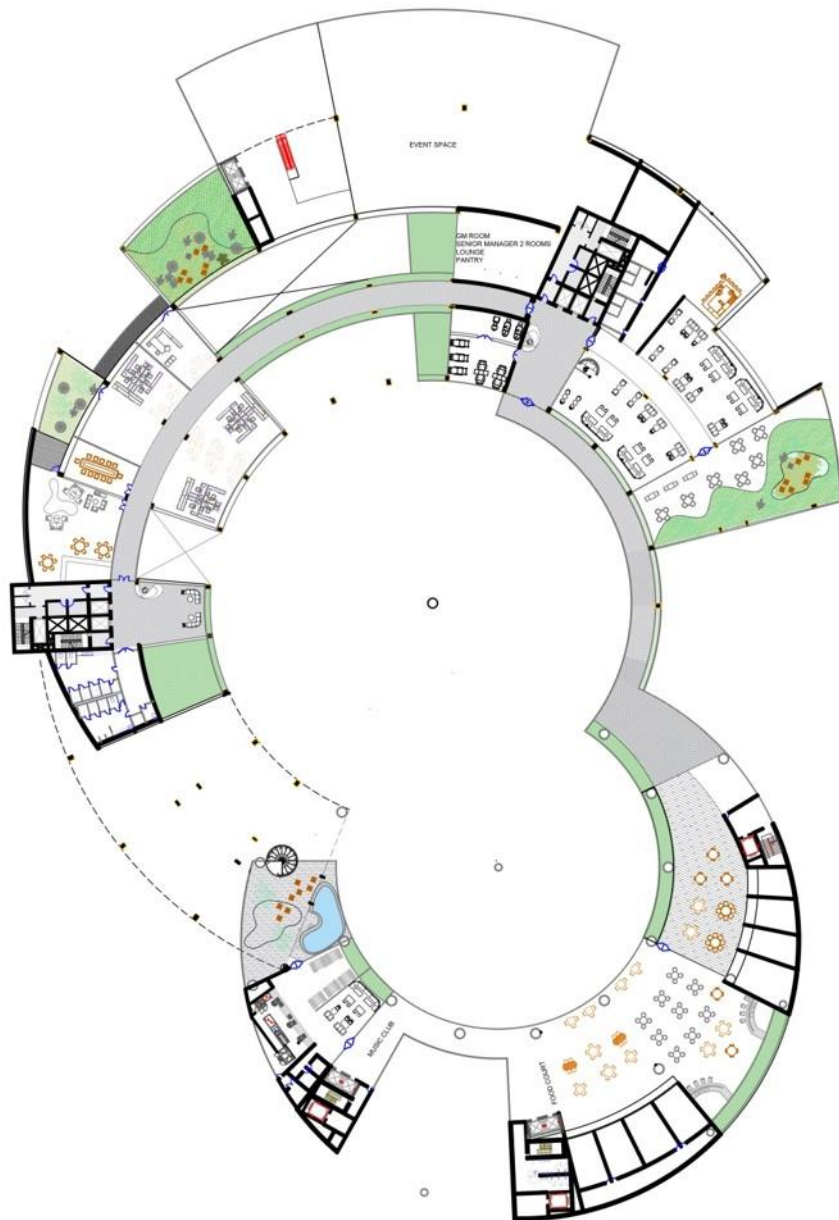


Figure 33:Source:Author,2019



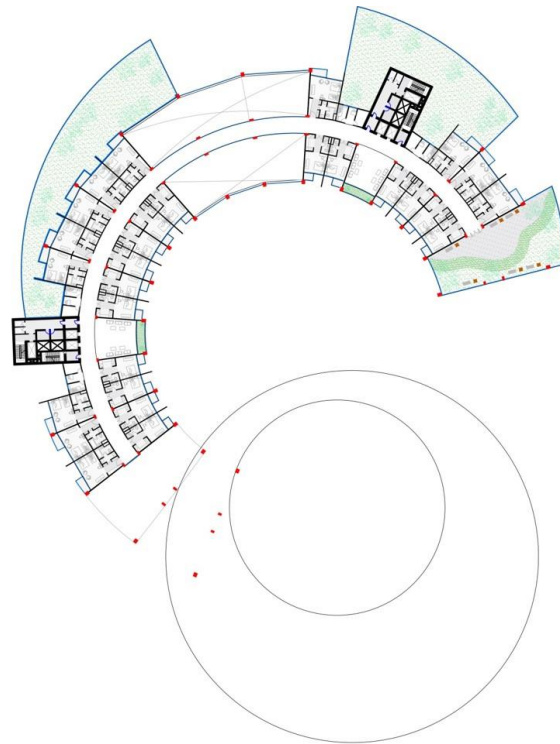
Figure 34:Source:Author, 2019



SECOND FLOOR

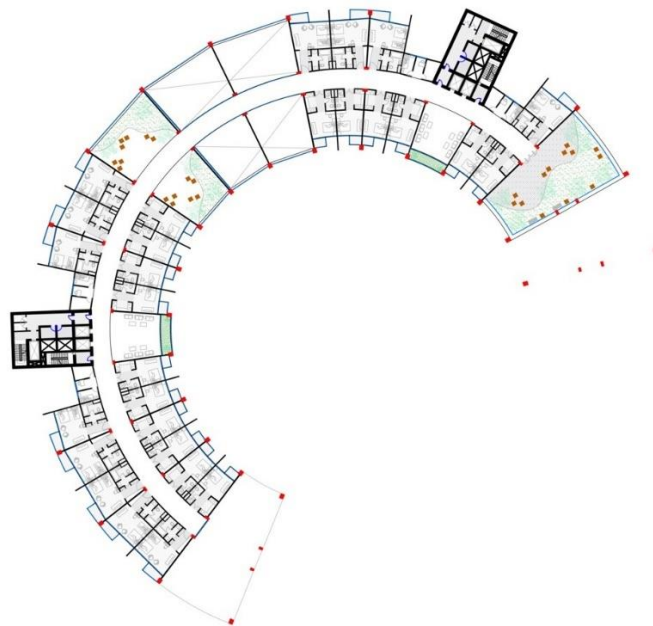
100 ft 200 ft 400 ft

Figure 35:Source:Author, 2019



THIRD FLOOR

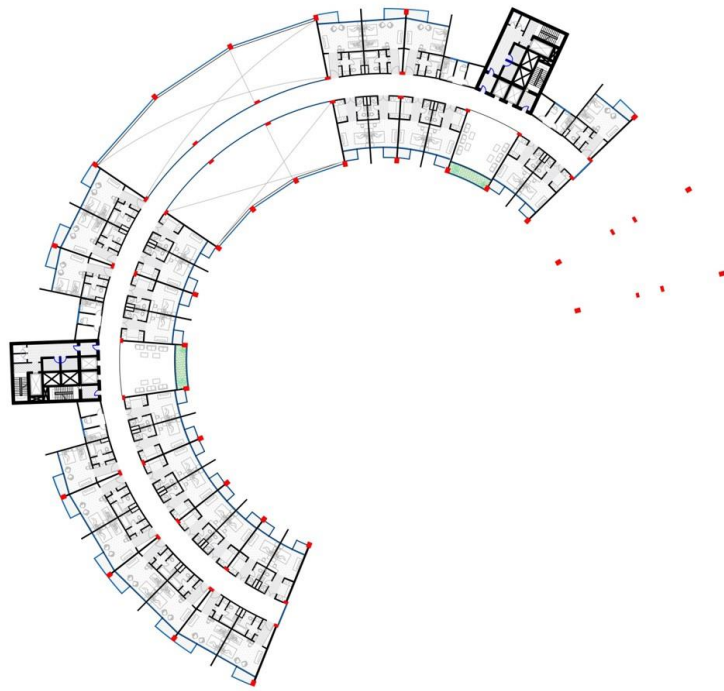
100 ft 200 ft 400 ft



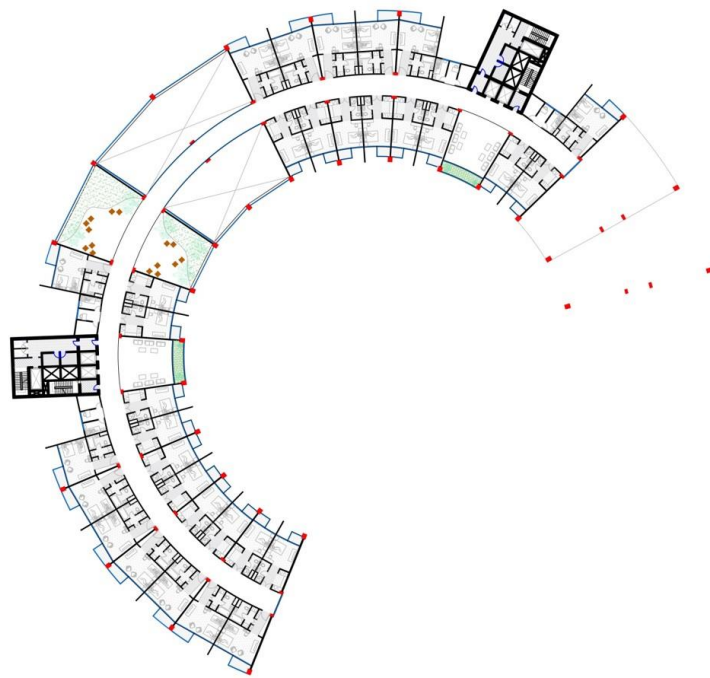
FORTH FLOOR

100 ft 200 ft 400 ft

Figure 36:Source:Author, 2019



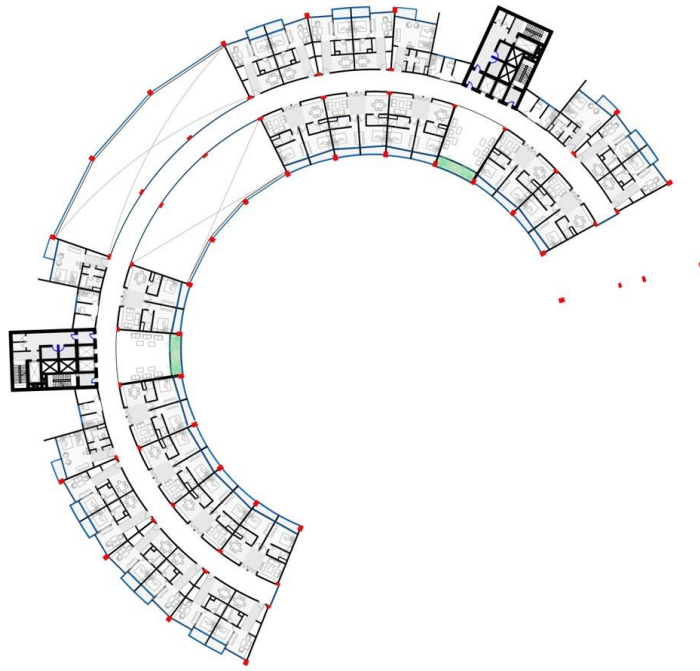
FIFTH FLOOR



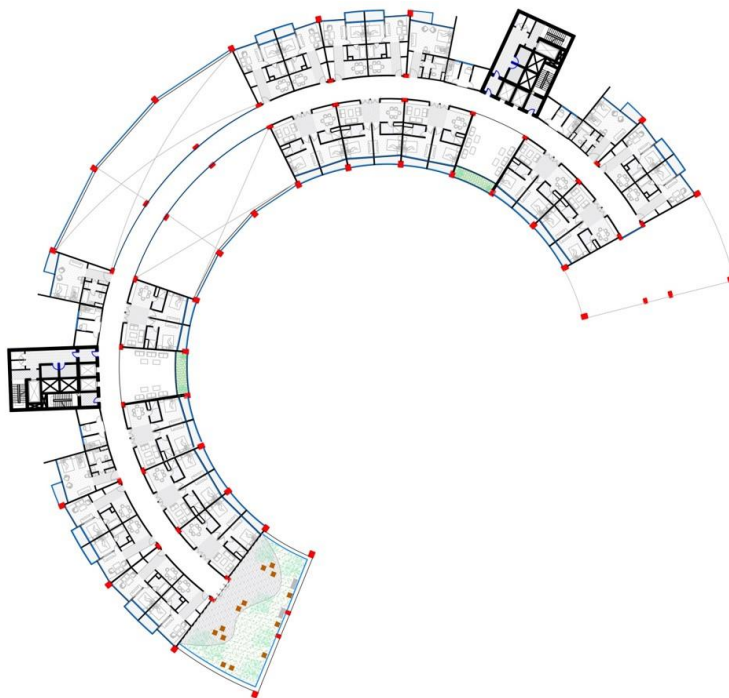
SIXTH FLOOR



Figure 37:Source:Author, 2019



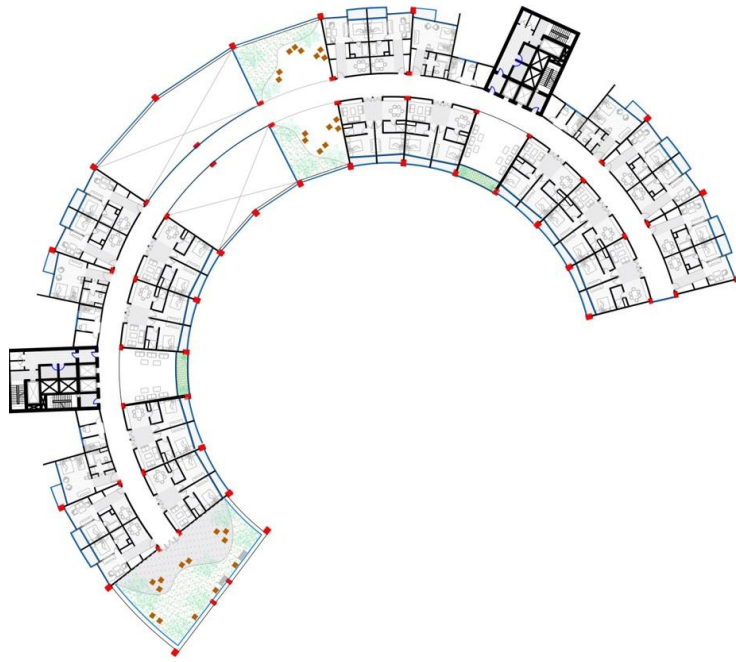
SEVENTH FLOOR



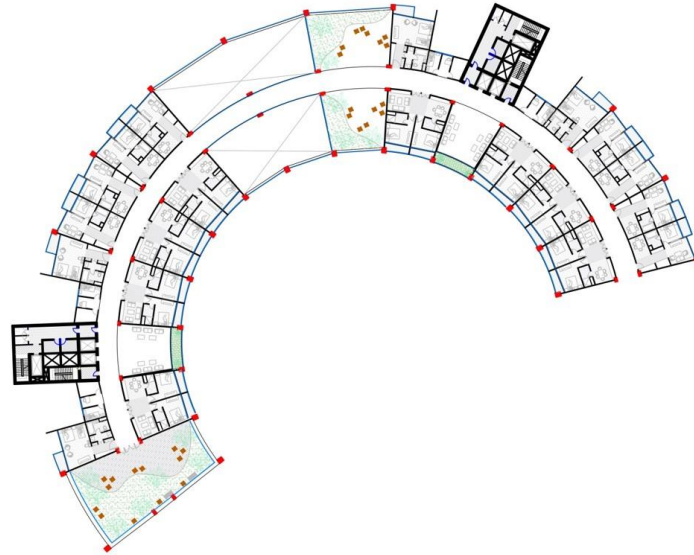
EIGHTH FLOOR



Figure 38:Source:Author, 2019



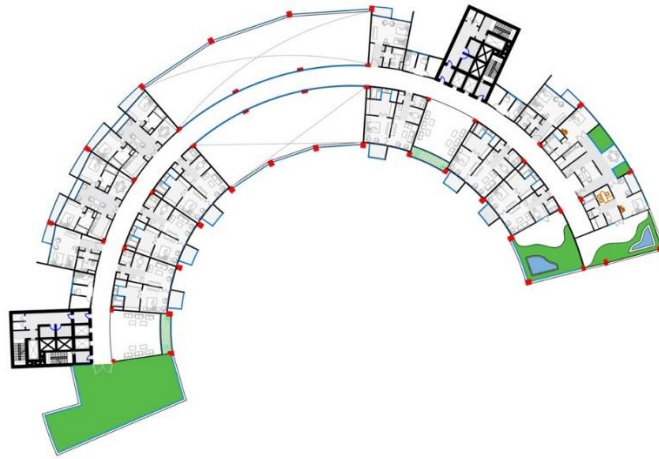
NINTH FLOOR



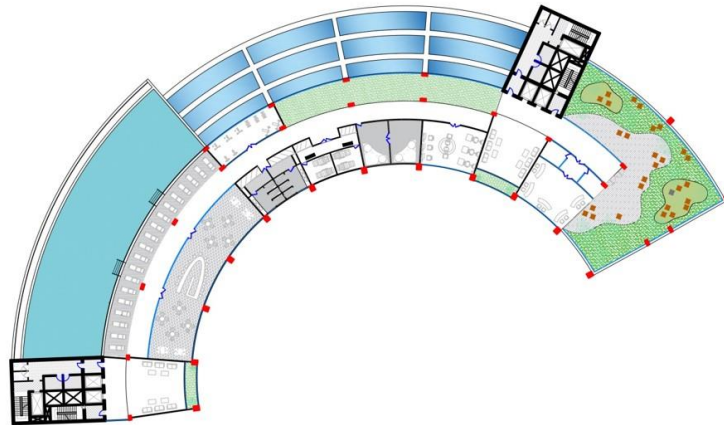
TENTH FLOOR



Figure 39:Source:Author, 2019



ELEVENTH FLOOR



ROOF TOP



Figure 40:Source:Author, 2019

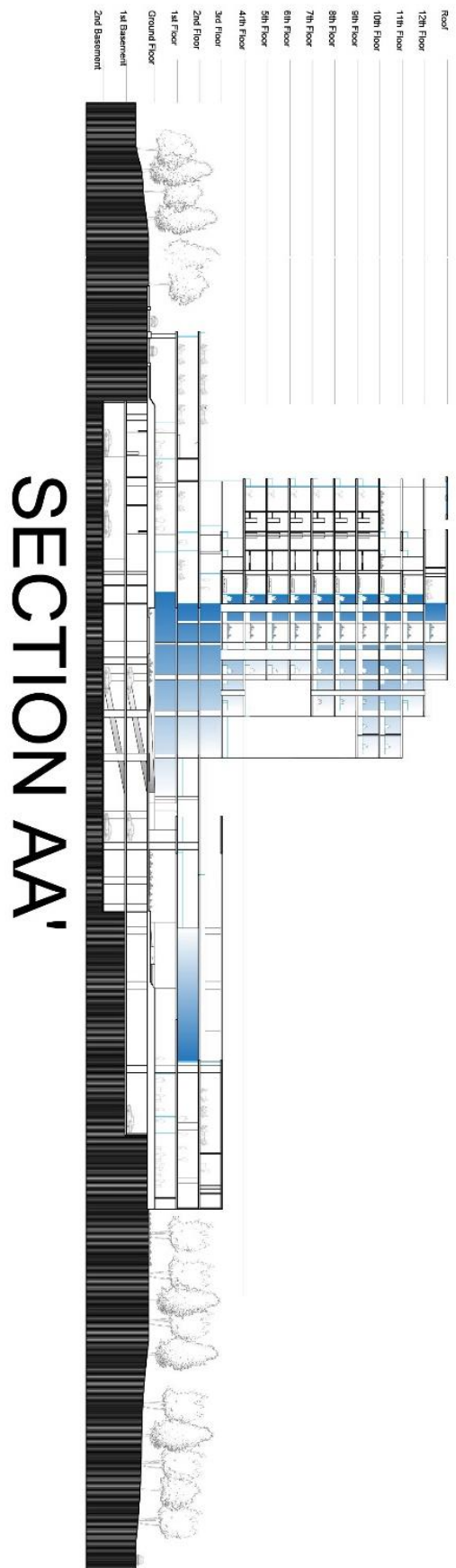


Figure 41:Source:Author, 2019

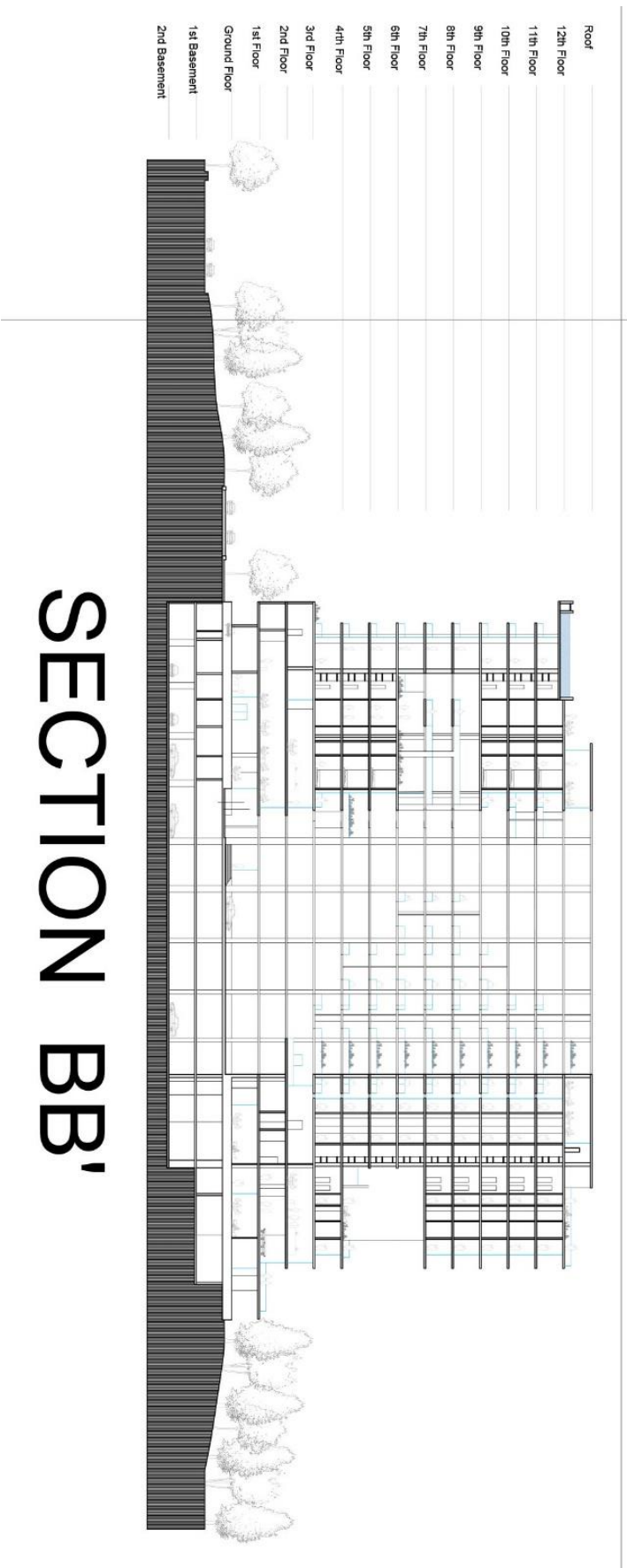


Figure 42:Source:Author, 2019



Figure 43:Source:Author, 2019

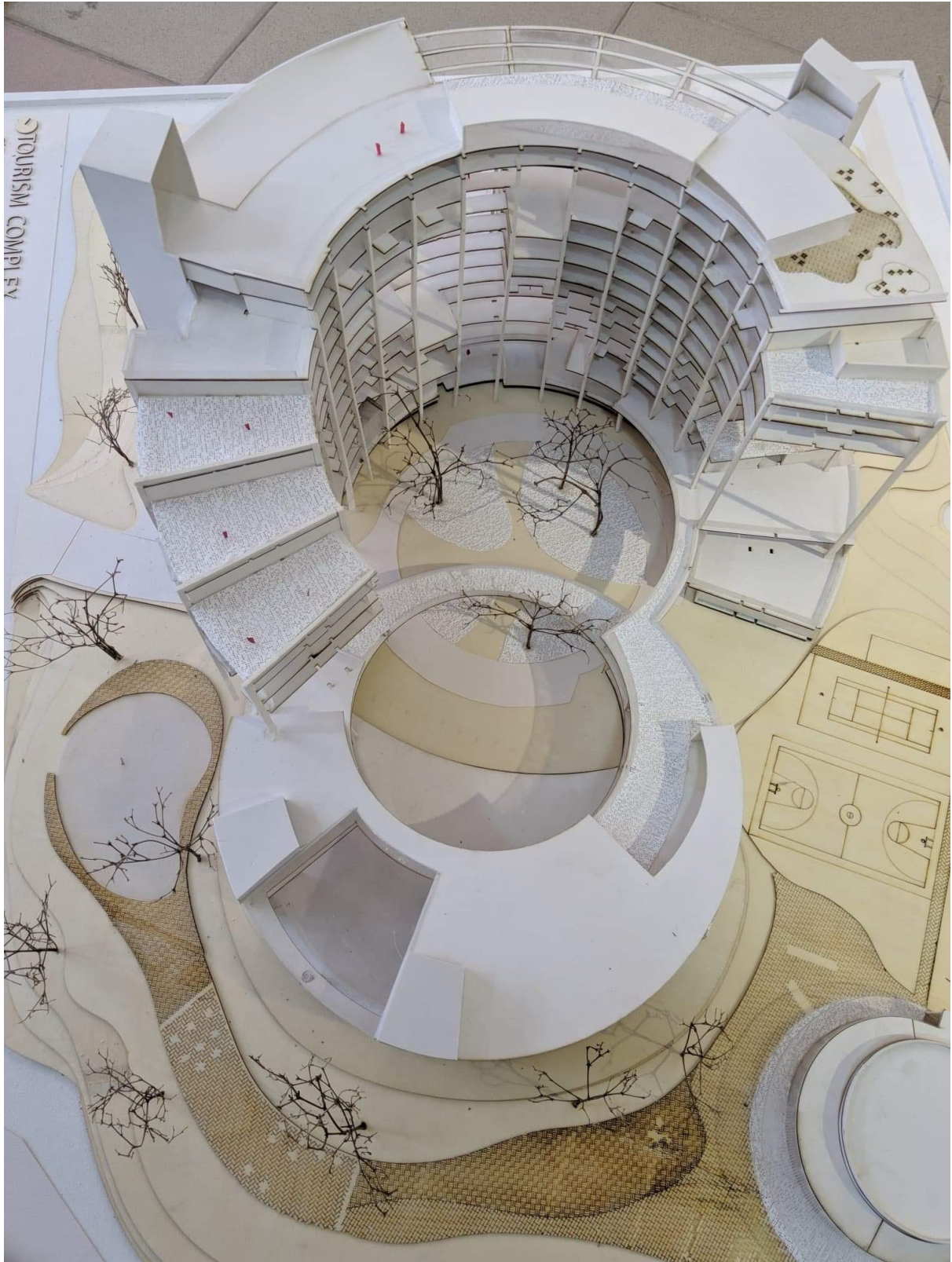


Figure 44:Source:Author, 2019

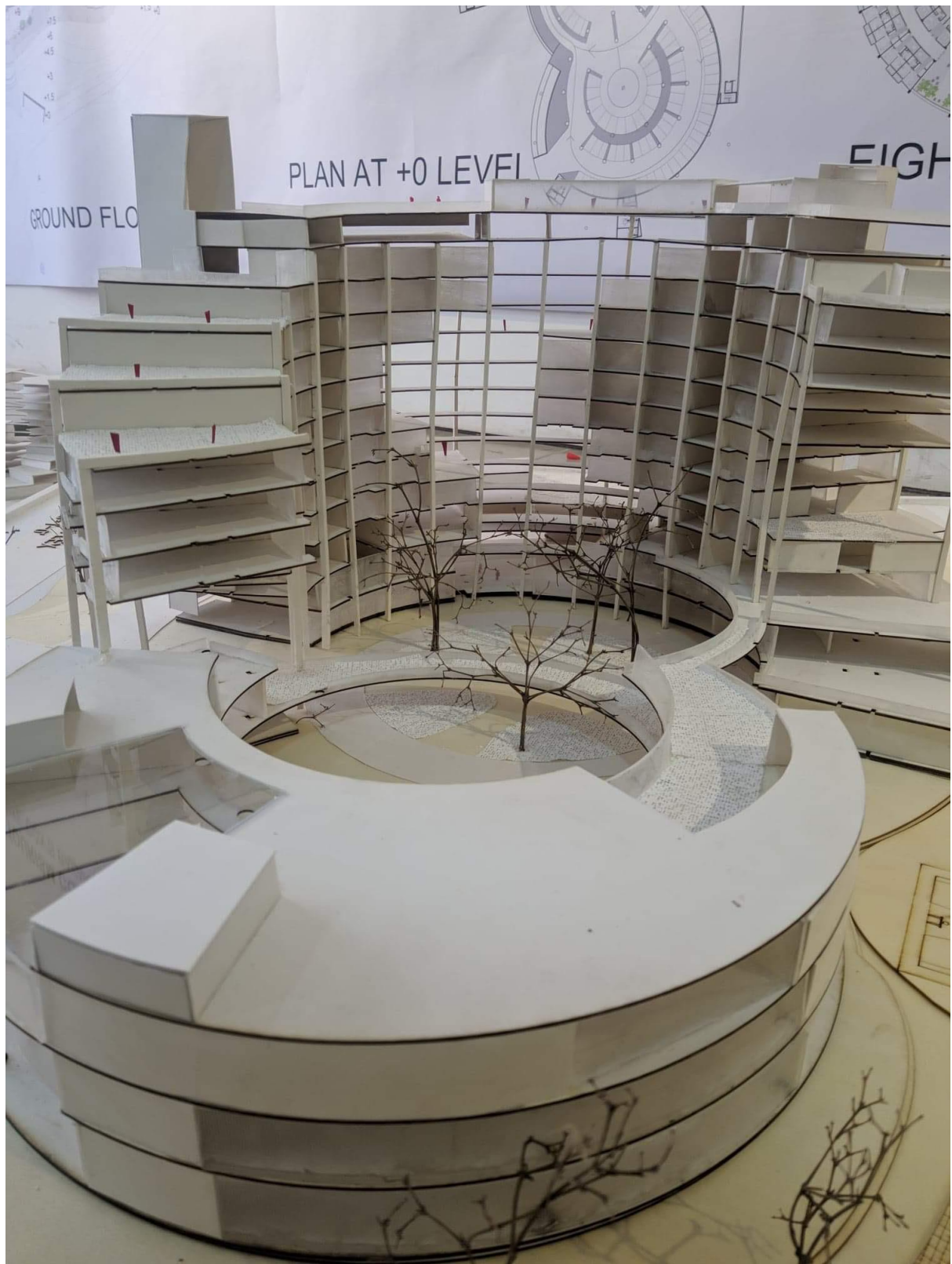


Figure 45:Source:Author, 2019

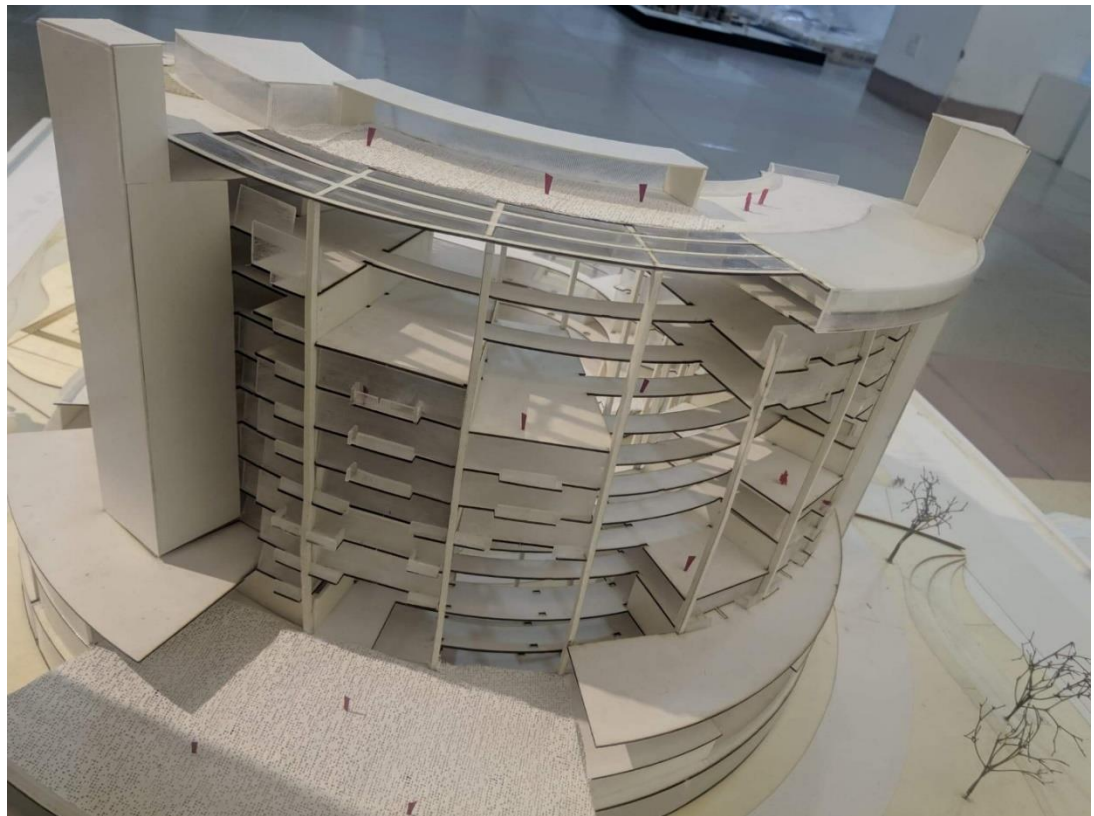


Figure 46:Source:Author, 2019

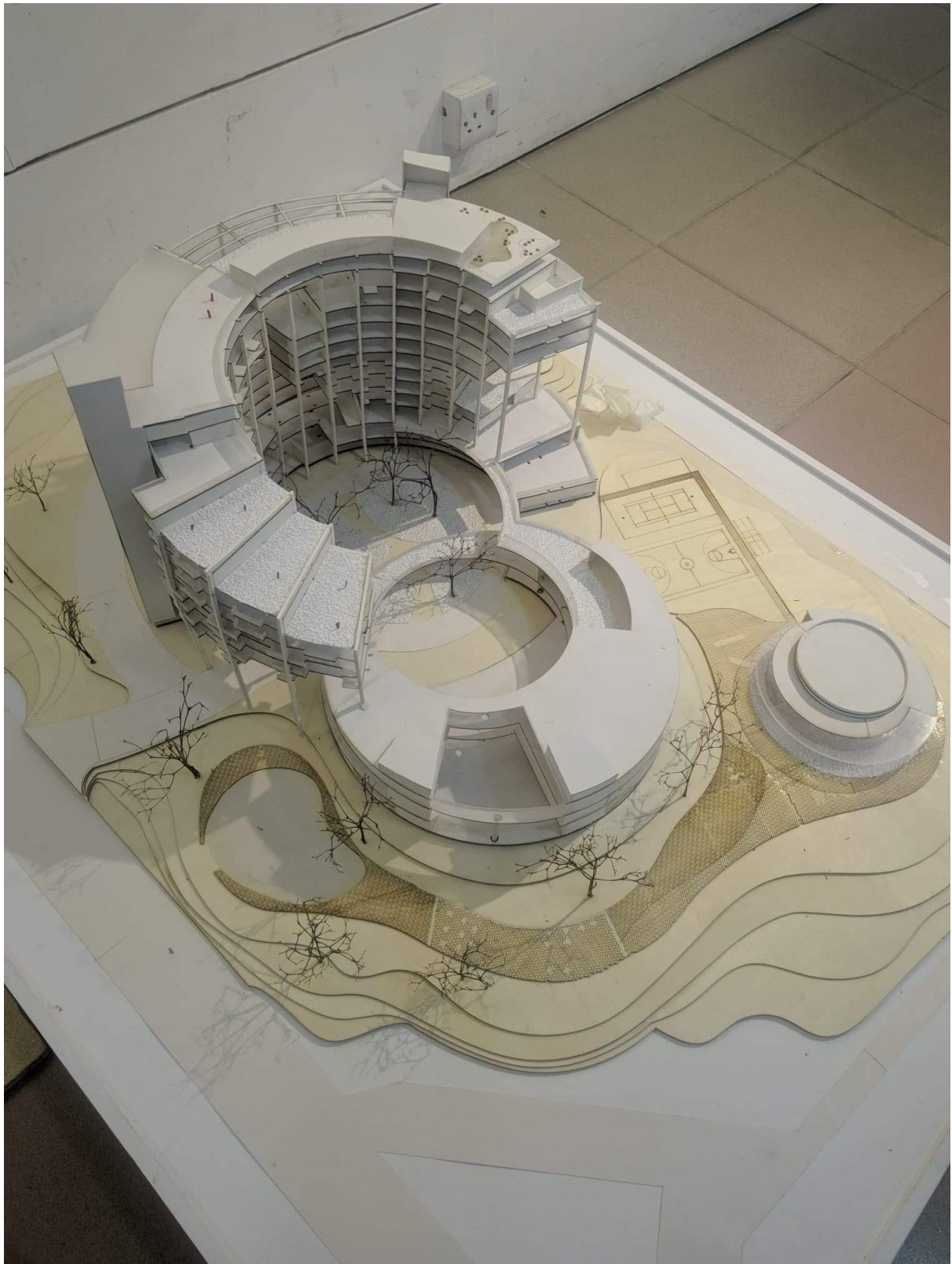


Figure 47:Source:Author, 2019



Figure 48:Source:Author, 2019

Chapter 7: Design Suggestions

This project examines architectural and urban design issues relating to architectural form and design within the context of coxs bazaar town.

Since the project is intended to create a paradigm of place responsive architecture with particular reference to the city of coxs bazaar and the factors of tourism that enhance the contribution of tourism in the GDP growth, the design attempted to create a viable and efficient compact form that could be emulated by the future researchers and policymakers to validate the neediness of tourism development resolution

The design also experiments with geometry, shapes and forms and their complex juxtaposition to show how an architectural project would respond to the complexity of the merging of the versatile functions that fits the psychology of international tourists from all over the world. This project in coxs bazar finally becomes a paradigm of iconic building development suited to the context of a city that have growing tourism needs

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