

EXPERIENCING THE WATERSCAPES: A TOURIST RESORT

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Abstract

This paper is an attempt to understand the context of tourism in Cox's Bazar and concludes design of a tourist resort in Shaibal Motel Complex, Cox's Bazar. Cox's Bazar, located along Bay of Bengal in South Eastern Bangladesh, is one of the most pristine tourism destinations of South East Asia. The town is known for its 125 km long unbroken shore, which is believed to be world's longest natural sandy sea beach. However, despite major growth in tourism sector especially in hotels and motels, Cox's Bazar lacks a place of entertainment for the tourists and the locals. The development of the tourism places does not respect the context and source of entertainment, relaxation and environment is very limited. Bangladesh Parjatan Corporation has realized this fact and planned to build a tourist complex in Cox's Bazar. This resort and complex can work as a transitional space with proper accommodation and relaxation facilities for the tourists travelling Cox's Bazar. The aim of the study is to help design a tourist resort within the complex along the well-known Shaibal Beach and Motel Road. The aim of the resort is to complement with the landscape of Cox's Bazar with minimal disruption to the ecological balance of the area and to provide relaxation among the existing water and landscapes.

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Chapter 1: Introduction

1.1 Background of the Project

The aim of the project was to create an environmentally responsive resort in place of the already existing government guesthouse in the site. The existing guesthouse is not commercially viable since it doesn't have any vacation flavor and its income generation is low. Moreover, due to the growing accommodation demand and hotel business during the tourist seasons in Cox's Bazaar, the guesthouse is facing commercial pressure from other relative sources. The main objective of the project hence is to create a vacation retreat where people will perceive the essence of living in nature through built form and landscaping as a contrast to the city life.

1.2 Project Brief

1.2.1 Name of the Project: EXPERIENCING THE WATERSCAPES: A TOURIST RESORT

1.2.2 Client: Bangladesh Parjatan Corporation.

1.2.3 Location: Shaibal Complex, Motel Road, Cox's Bazar.

1.2.4 Site Area: 17 Acres

1.3 Rationale of the Project

Bangladesh, a very rich tourist spot, lacks comfortable hotels, resorts and other hospitality facilities which play a very critical role in promoting any tourist destination and advocating the economy of a country. In this case, comfort is not only bound by the parameters of physical wellbeing but also includes a sense of relaxation to the soul. Unfortunately, the tourism sector is not being exploited to the maximum in Bangladesh unlike other countries and as a result, it's not being able to contribute as much to the

economy of the country as it could have due to the lack of the presence of the holiday enthusiasm in most of the hotels and resorts existing. Cox's Bazar, having the longest stretch of natural beach, demands to have hotels and resorts which not just serve the purpose of "bread and breakfast" but also provide tourists with an expression of the natural setting of our country and engaging them with activities which might give them the sense of freedom that comes with living in the wild and creating an experience which they can take back with them. Moreover, Cox's Bazar lacks public entertainment facilities since a very long time. Therefore, a resort with such facilities is inevitable for the tourists as well as local people.

- The attractive location of the project
- The project will be built adjacent to the airport of Cox's Bazar
- The main beach is adjacent to the project location
- Inadequate relaxation resorts in Cox's Bazar area
- Lack of many entertainment facilities (Villa, Golf Course, Club House and Restaurants, Multipurpose Halls)
- Fine quality services

1.4 Aims and Objectives of the Project

The aim of the project was to create an environmentally responsive resort in place of the already existing government motel in the site. The existing motel is not commercially viable since it doesn't have any vacation flavor and its income generation is low. Moreover, due to the growing accommodation demand and hotel business during the tourist seasons in Cox's Bazaar, the motel is facing commercial pressure from other relative sources. The main objective of the project hence is to create a vacation retreat where people will perceive the essence of living in nature through architecture and landscaping as a contrast to the city life. The project also focuses on relaxation facilities of Cox's Bazar, which is absent in present days.

Chapter 2: Literature Review

2.1 Tourism

Tourism assumes an extremely essential part in the financial dynamism of a nation. It not just contributes enormously to the economy of a nation additionally pitches the regular assets of the nation which thus advance more sightseers.

In this manner, it is a relationship which can significantly swivel the financial status of a nation. In this way, it is just obvious that each nation intensely needs to build up a viable arrangement to pull in worldwide sightseers on the legislative level. Tourism, for example, showcasing, occasion improvement, fascination operations, and guest gathering projects will extraordinarily be influenced by different sorts of financial dynamism of a nation. It a nation as well as plugs the regular passage. All exercises of tourism, for example, promoting, occasion any an interrelated all exercises of improvement, fascination operations, and guest gathering projects will incredibly be

influenced by different sorts of tourism arrangements, for example, the part of tourism inside the general financial advancement of the goal, financing for the tourism area, ecological limitations, transportation get to and foundation, and so on.

An arrangement is alluded to as an arrangement of guidelines and controls, targets and limited time systems which gives a structure to managing and impacting the choices taken to advance any marvel of a nation. Tourism strategy is a comparable arrangement of laws which involves choices, both group and on an individual premise, which influences long haul tourism improvement of a nation. Hence, strategies should be created in the administration level to guarantee the amplification of benefit to the nation while minimizing the antagonistic impacts. The pertinence of such tourism arrangements is essentially subject to the topographical area of the nation and the regular assets or vacationer spots accessible. The productivity of any tourism arrangement likewise relies on upon the climate, atmosphere, social differences, and availability, time of year, yet more vitally the planning and circumstance of the nation. Tourism can be tended to as a noteworthy resource and capability of a nation and in this manner can be characterized as "science, craftsmanship and business of pulling in and transporting guests, obliging them, and charitably taking into account their requirements and needs" rather than simply being viewed as a business. Ahmed, M. (1995)

2.1.1 Aim of Tourism Policy

The national tourism approach in our nation has been presented with specific targets which have been talked about underneath:

- Increasing abroad trade profit by pulling in outside traveler.
- Increasing enthusiasm for tourism exercises among the general population and making ease voyager's offices for them.
- Development, safeguarding and support of tourism assets of the nation.

- Taking ventures for lightening of neediness by making work open doors for more prominent number of individuals.
- Creating a great picture of Bangladesh abroad. Opening up a perceived field of speculation for capital.
- Creating recreational offices for outside vacationer and individuals.
- Development the painstaking work and cabin enterprises union of national solidarity and accord through cultivating and improvement of culture, legacy and of the nation.

Albeit each one of those destinations are yet to be accomplished by the tourism business of Bangladesh however I would unquestionably be thinking about these elements while creating compositional ideas for my venture. BTB Policies (2010, June 21)

2.1.2 Tourism Industry in Bangladesh

In spite of more noteworthy conceivable outcomes Bangladesh is still one of the nations in the South Asian locale with minimal number of visitor landings and with the most reduced income earned from the tourism business. Because of the capability of quick extension in the tourism segment, it was distinguished as the pushed Sector by the administration. The Lonely Planet Guide, world's driving distributed travel direct chose Bangladesh as one of the main ten intriguing travel goals of the world in 2009. In Bangladesh, genuine GDP development for travel and tourism economy is required to be 1.7 percent in 2010 and to normal 6.4Yoper annum over the coming 10 years. As per the World Travel and Tourism Council gauge, the GDP commitment is 3.9% (BDT 265.9bn) in 2010. Development pattern of tourism in current decade demonstrates a sharp increment in both local and remote travelers in marvelous common stores of Cox's Bazar, the Islands in Teknaf and St.Martin, the biggest mangroves of the Sundarbans, the Chittagong Hill Tracts, and wetlands of the Sylhet region. Other than these nature

holds, numerous social and legacy destinations situated the nation over have been steadily drawing in local and remote vacationers. As indicated by Bangladesh Parjatan Corporation, there are no less than 43 traveler goals in Bangladesh with characteristic, social and Archeological interests. As indicated by WTTC, Bangladesh Travel and Tourism economy is positioned AS: 82 in supreme size around the world; 173 in relative commitments to national economies; 23 in long haul (10-year) development. BTB Act (2009)

Tourism in Bangladesh is basically portrayed by open air and nature tourism cresting amid the winter months and short open occasions. In 2005-2006 periods, a sum of 757,640 guests ventured out to various regular stores and national parks. Crest period, recorded as November-March was 76oh of aggregate guests in 2006. This is fundamentally an end of the week tourism advertise, with explorers dropping by overnight transport from Dhaka on Thursday night and coming back to Dhaka on Saturday night. A case of increment of tourism in St. Martin's Island demonstrates that 83,000 voyagers went by in 2007 and 123,390 in 2008. Bengali nature significant others keen on these attractions speak to generally not as much as 1% of the guests to Cox's Bazar and 50/0 of the guests going to St. Martin's Island in 2008. Thus, capability of incomes from tourism alone open up another catalyst to the nation's economy.

2.2 Rural Architectural patterns and built form in Bangladesh

Architecture has its unmistakable qualities as respects arranging, utilization of materials and areas. Like urban engineering, provincial design is additionally subject to change, however in Bangladesh; all in all, country engineering has clung to custom. For quite a long time, it has been utilizing locally accessible materials. It is just from the late nineteenth century that provincial design started to change both fundamentally and in its utilization of lodging materials. Most rustic settlements in Bangladesh can be portrayed

as 'common', rather than "arranged" settlements; they have created without formal expert arranging information and settlements have developed there to a great extent as per conceivable outcomes offered and requirements forced by the territorial geology, atmosphere, normal components, and accessibility of nearby assets. The various leveled design inside rustic settlements in Bangladesh starts with a gram (town) generally settled on raised land, and made out of various padas (settlements or neighborhoods). Each pada comprises of various baris (estates), which thusly are involved a few ghars (abiding units of individual families inside a more distant family) and auxiliary structures (Islam, 2003).

In the event that shoreline establishments got proper design consideration, the entire 120 km marine drive could have changed the visitor face of the area. There is another arrangement to interface Cox's Bazar from Chittagong through another marine drive with a proposed length of 150 km. In the event that it is associated, it will be one of the longest marine drives of the whole predominance in constructed exercises would unquestionably open new windows to a more supportable tourism advancement where individuals would discover consistency between establishments, both common and man-made. In this procedure vernacular design could assume a compelling part to guarantee that Cox's Bazar may understand its potential while minimizing its effect.

2.3 Sustainable Tourism

Sustainable tourism, likewise named as ecotourism is characterized as "dependable go to normal zones that preserves the earth and enhances the prosperity of neighborhood individuals." The idea and beginning of ecotourism advanced from an innovative key view for preservation, advancement and insurance into a monstrous far reaching efficient attempt. Its prominence is step by step picking up the tourism business more than some other sort of travel. Ecotourism was initially presented in Africa in the 1950's with the

legitimization of chasing. This requirement for recreational chasing zones prompted to the production of secured territories, national stops, and diversion holds. In the 1980s, the idea of ecotourism turned out to be a great deal more broadly known and examined. Dissimilar to different types of tourism, the more instructed individuals have turned into, the quicker ecotourism develops as a sub industry of tourism.

Ecotourism is likely the quickest developing sub part of the tourism business. Before, individuals did not comprehend or esteem the significance of saving normal assets. On the off chance that they had, then the historical backdrop of ecotourism would have augmented further into the past. Eco-tourism concentrates on nearby societies, wild enterprises, volunteering, self-awareness and adapting better approaches to live on our powerless planet. It is commonly characterized as go to goals where the vegetation, fauna, and social legacy are the essential attractions. Mindful Eco-tourism incorporates programs that minimize the unfavorable impacts of conventional tourism on the indigenous habitat, and upgrade the social respectability of neighborhood individuals.

Hence, notwithstanding assessing ecological and social components, activities by cordiality suppliers to advance reusing, vitality productivity, water reuse, and the formation of monetary open doors for nearby groups are an indispensable piece of Eco-tourism. Throughout the years, ecotourism has turned out to be increasingly mainstream since individuals have started to understand the significance of saving nature. More individuals know and frightened of what may happen when the world's normal assets run out or run low. With information, individuals are more inquisitive about investigating indigenous habitat and doing great deeds in the meantime. Khan, M.A. (2003, July 7)

2.4 Ecotourism

- Help in the protection of the encompassing flora and fauna.
- Endeavour to cooperate with the neighborhood group.
- Offer interpretative program to instruct both its representatives and voyagers about the encompassing characteristic and social situations.
- Use elective, manageable method for water securing and decrease water utilization.
- Provide for watchful taking care of and transfer of strong waste and sewage.
- Meet its vitality needs through uninvolved outline and renewable vitality sources.
- Use customary building innovation and material at whatever point conceivable and join these with their advanced partners for more noteworthy maintainability.
- Have negligible effect on the normal surroundings amid development.
- Fit into particular physical and normal settings through cautious thoughtfulness regarding structure, finishing and shading, and in addition the utilization of vernacular design.
- Contribute to economical nearby group improvement through training project and research.

Do's

- Carry back all non-degradable litter, for example, empty bottles, tins, plastic packs and so on. These must not litter the earth or be covered. They should be arranged in metropolitan dustbins as it were.
- Observe the sacredness of blessed destinations, sanctuaries and nearby societies.
- Cut commotion contamination. Try not to boom so anyone might hear radios, recording devices or other electronic diversion gear in nature resorts, asylums and untamed life parks.

- In case impermanent toilets are set-up close campgrounds, after poo, cover with mud or sand. Ensure that the spot is no less than 30 meters far from the water source.
- Respect individuals' security while taking photos. Take earlier consent before taking a photo.

Don'ts

- Do not take away greenery and illicit, particularly in district and the bio
- Do not utilize poisons, for example, cleanser, in streams or springs while washing and showering.
- Do not utilize wood as fuel to cook nourishment at the campground.
- Do not leave cigarettes butts or make open flames in the woods.
- Do not devour circulated air through beverages, liquor, drugs or whatever other intoxicant and toss bottles in nature.
- Do not entice local people, particularly youngsters by offering them foodstuff or desserts. Regard nearby customs.
- Polythene and plastics are non-biodegradable environment and must not be utilized and littered.

Chapter 3: Site Appraisal and Contextual Analysis

3.1 Background of the Site

The site is attractive due to its closeness to the beach and direct accessibility from the road. Moreover, the site is well connected to the main road, restaurants, Jhinuk markets, bus counters, ticket counters of cruises and ships, banks, ATM booths, and many other facilities.

3.1.1 Geographical

Nature in Cox's Bazar relies on upon its nearness to the ocean. The ocean lies along the entire western shore of Cox's Bazar towards the amplified north-south zone. It has 510000 sq. km of developed shore place that is known for shallow profundity with a vast assortment of ocean fish and bio-differing qualities. Saline water empowers the nearby coastland and correspondingly it additionally made a mangrove backwoods in a few spots. Among the unlimited endowments of the ocean are 475 sorts of fish, including age-old fish, crabs, snails, shellfish and green growth. The general population of Cox's Bazar lives near the ocean and it is associated with whatever remains of the national and universal conduits: consequently, travelers from various parts come to visit it.

Cox's Bazar's ocean shoreline has a delicate slant and in this manner, in low tide, the water does not spread as much as in high tide. The shoreline is wide with plain land. In high tide, it approaches 200-300 meters towards the ocean. The shoreline is loaded with excellence inhering in the sand rises, shaded stones, stone-chips, and rocks which are discovered all over the place and is ringed by mountains and woodland. Trees arranged on sand ridges give shade and additionally an alluring component and turtles lay their eggs in the rises. The inborn magnificence of nature draws in both neighborhood and remote sightseers.

3.1.2 Socio-Cultural

Notwithstanding the larger part of Muslims, with pockets of Hindus and Buddhists, there are little quantities of ethnic minorities specifically the Rakhain, Chakma, Marma, Murung, Chakma tribes. According to the most recent statistics taken in 1991, this population is 22168 in number and is partitioned between Hindus, Buddhists and

Christians. They have their own particular social life, a different town government, alongside their own particular tribal trade arrangement of products and items. Hand crafted articles of clothing and cultivating are their principle wellsprings of wage.

Aggmedha Khaung Monastery is a attractive place in Cox's Bazar. It has a big Buddhist monastery, and a residence admired by around 400,000 Buddhist people of Cox's Bazar; and the Chittagong Hill Tracts. In the same way lucubrate in plan, advancement and decoration is the Aggameda Khyang near the appearance to the Cox's Bazar town, which cuddle up at the foot of a hill under weighty cover of a standpoint of big trees. The chief sanctuary cum monastery is voted for on a sequence of round timber columns, which away from each other from accommodating the prayer chamber and an assemblage hall, also is the storehouse of a big of minor bronze Buddha images typically of Burmese origin and some old documents. Beyond the focal Khyang to the south, there is an encouraged made of wood pavilion and a smaller brick place of worship with a timber and crenelated metal roof. At a distance from bearing an engraving in Burmese over its appearance, the place of worship encompasses some big stucco and bronze Buddha pictures.

Himchari National Park: Himchari is located just south of the Cox's Bazar town. It consists of lush tropical rain forest, grasslands and trees, and features a number of waterfalls, the biggest of which cascades down toward the sandy, sun-drenched beach. The National Park was established in 1980 by the Government of Bangladesh as a conservation area for research, education and recreation. Once it was the stomping grounds of herds of Asian elephant. It is still home to a limited number of these mammals. Aggmeda Khyang: a large Buddhist monastery, and a place revered by around 400,000 Buddhist people of Cox's Bazar; and the Chittagong Hill Tracts. The

main sanctuary is posted on a series of round timber columns. It has a prayer chamber and an assembly hall along with a repository of large and small bronze Buddha images and a number of old manuscripts.

Ramu: about 10 km from Cox's Bazar,[22] is a village with a sizeable Buddhist population. The village is famous for its handicrafts and homemade cigars. There are monasteries, khyangs and pagodas containing images of Buddha in bronze, gold and other metals with precious stones. One of the most interesting of these temples is on the bank of the Baghkhali river. It houses not only relics and Burmese handicrafts but also a large bronze statue of Buddha measuring thirteen feet high which rests on a six feet high pedestal. Weavers ply their trade in open workshops and craftsmen make handmade cigars in their pagoda like houses.

Bangabandhu Sheikh Mujib Safari Park: Bangabandhu Sheikh Mujib Safari Park is the first Safari Park in Bangladesh. The nature of the forest is tropical evergreen and rich with Garjan, Boilam, Telsur and Chapalish along with herbs, shrubs and creepers. Safari Park is a declared protected area where the animals are kept in fairly large area with natural environment and visitors can easily see the animal whenever they visit by bus, jeep or on foot. This park was established on the basis of South Asian model. This safari park is an extension of an animal sanctuary located along the Chittagong-Cox's Bazar road about 50 km from Cox's Bazar town. The sanctuary itself protects a large number of wild elephants which are native to the area. In the safari park there are domesticated elephants which are available for a ride. Other animal attractions include lions, Bengal tigers, Crocodiles, Bears, Chitals and lots of different types of birds and monkeys. Which is wonder full project to attract the tourist. Inani Beach Inani is a stony beach near Cox's Bazar.

Rakhaine is a small ethnic community of Bangladesh. Their total population is about 17 thousands according to the census report 1991; of them 80% live in Cox's Bazar area. Rakhaine has a colorful culture and distinguish history and Bangladesh. They have own song, marriage ritual, birth related practices and funeral functions which is different from the other communities of Bangladesh

Figure 1 Source: Author (2016)

impressions on cox's bazar

Investigating the local architecture. This is an important element of the design as the type of buildings, or villas, designed need to reflect the local culture and heritage of the area so that tourists can experience it firsthand.



aggamedha kyaung and rakhine houses

traditional building techniques and material for appropriate for the context

3.1.3 Climatic

As Cox's Bazar is arranged in the tropical zone, it is doubtlessly subject to a tropical atmosphere. All things considered it must be commented that its topographical position with the ocean toward the west and a scope of slopes toward the east has enormously killed the extremes of atmosphere. There are three primary seasons: the rainstorm (blustery) season ranges from May to October, amid which it is warm and damp

encountering more than 90% of the aggregate yearly precipitation; the dry (Winter) season is from November to February, with almost no precipitation and the most reduced temperature and dampness of the year; the pre-storm season from March to May has the most noteworthy temperature and dissipation rates of the year with intermittent thunder storms. Cox's Bazar locale is known as a zone of common debacles. Violent winds and tempest surges cause the stream to surge its banks prompting to extreme disintegration of the encompassing area so that the dirt water saltiness and surges are distinguished as the primary natural issues of this range. Feasibility Report (2013)

3.1.4 Design Considerations

Relatively smaller groups of populations in Cox's Bazar and Teknaf build houses with timber walls. Generally, these houses are built on raised wooden platforms for safety from snakes and other animals. The lower parts of the houses are also used for various purposes like storage, domestic animals, and different family activities. The walls are generally permeable allowing for ventilation another motivation behind this wooden construction is the availability of wood in the forest areas. The hilly areas of Chittagong are characterized by a third house typology based on raised platforms built with bamboo or timber. Among the tribal people, the larger versions of these houses are built with wooden platforms while simpler versions are of bamboo. Half the portion of the platform is used as a living room and the rest as a veranda for multipurpose family outdoor activities. Walls comprise of wooden lattices allowing for cross-ventilation. A ladder made with bamboo approaches this platform or veranda. The lower part of the platform is used for domestic animals though it can also be seen as protection from wild animals from the hilly forest areas.

Like most of Bangladesh, the architectural character of Teknaf is related to its topographic location. Local building is tied directly to the realities of construction characterized by topography with the vernacular architecture centering on the locally available building materials such as bamboo, brick and mud from the clay rich soil. In the Teknaf area we can identify three house types based on location either on flat plain, higher dry land or on the forested low hills typical of the tribal Chittagong Hill Tracts to the east.

The first group is the mud walled houses of sun dried earthen blocks of one to two feet thickness. These mud walled houses are generally oblong in shape and covered with roofs of clay tiles, thatch or corrugated iron sheets. The application of these construction materials depends on their availability and the resources of the residents. In these regions land tends to be normally above flood level with relatively less rainfall, dry climate and lateritic soil which becomes very hard when dry being the primary rationale behind the mud constructions.

Typically the vernacular architecture of these villages consists of groupings of houses based on extended family relationships. They can either be in clusters or linear. Those in clusters tend to have communal courtyards, uthan, which provide centers for formal and private gatherings and work areas. In Bangladesh for public buildings the architectural character can vary based on the size of the community and the practical dictates of available material, budget and scope. From brick to reinforced concrete, public buildings in especially remote areas of Bangladesh are built using a wide variety of building techniques. There is no dominant motif or architectural language as simplified and crude reinforced concrete architecture with brick infill and basic detailing being the most common. Residential housing can sometimes be also be of this reinforced concrete

systems in more well-off communities. The plans of these houses vary but are noteworthy for halls that allow for cross ventilation.

Formal Paths

Paths in a formal garden are almost always straight. When standing at the origin of a walkway, one should be able to see all the way to the destination. This type of path design leads the eye and the visitor directly to the focal point of the garden, which may be a fountain, statue, or even a gazebo. In a formal garden design two paths often intersect at a ninety degree angle to form a cross or "T" pattern. To emphasize the straight edges of path tidy boxed hedges can be grown as a border.

Informal Paths

Curved paths work best in informal gardens because of their natural, casual appearance. Curves beckon visitors to come on a journey to discover what lies around the bend. The natural, flowing shape of a curved walkway also evokes a feeling of relaxation. A small garden can be made to appear larger by hiding the end of a curved path behind a structure or plants. This will trick the eye into thinking that more lies ahead. However, you have to be careful to not overdo the amount of curves; if you do people will be apt to take shortcuts through your garden. To emphasize a path's organic shape grow a variety of plants along its edge and allow them to spill over onto the path.

Cultural events celebrated in Bangladesh as recognized by native people

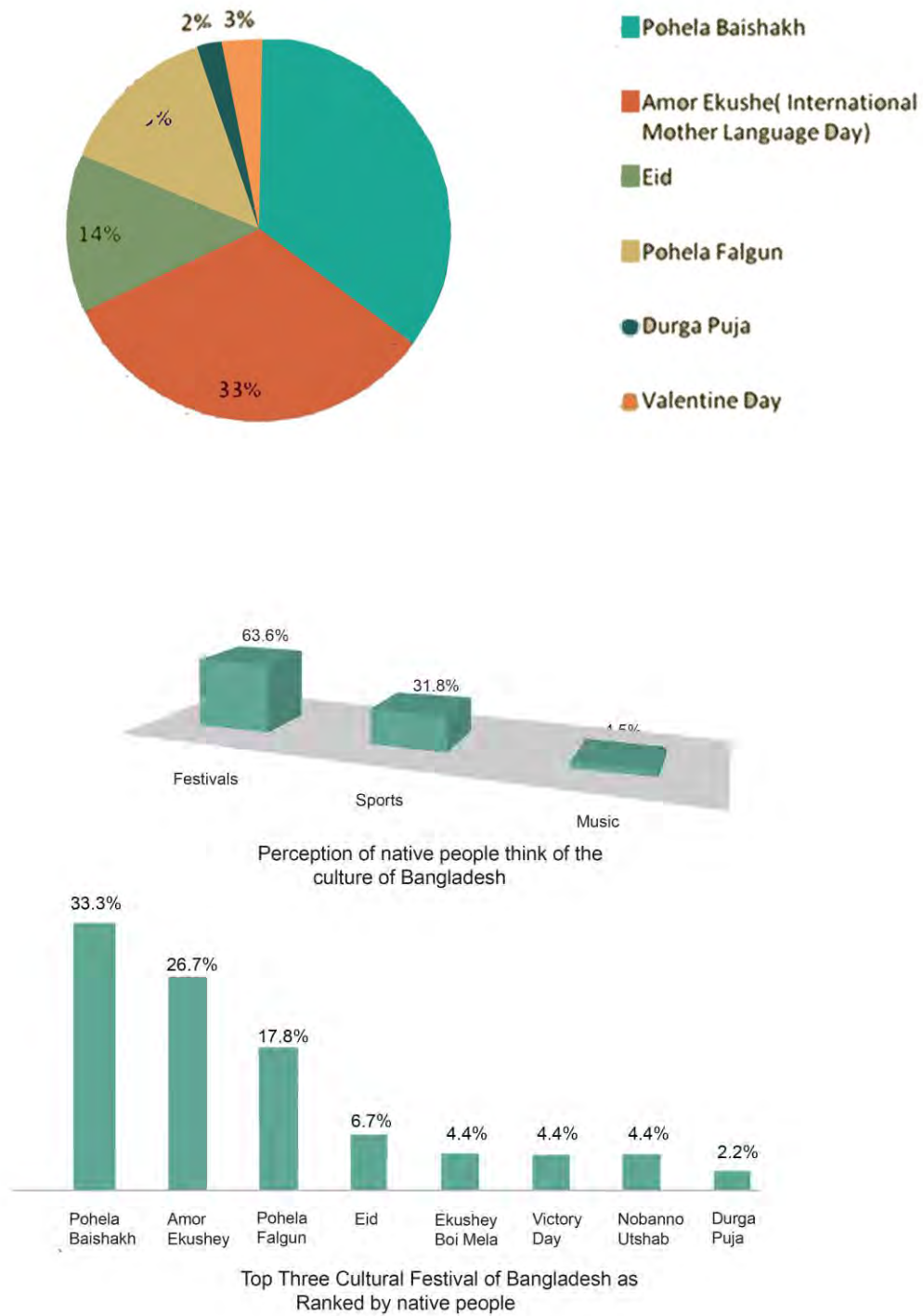


Figure 1 Source: Author (2016)

3.2 Site at a Glance

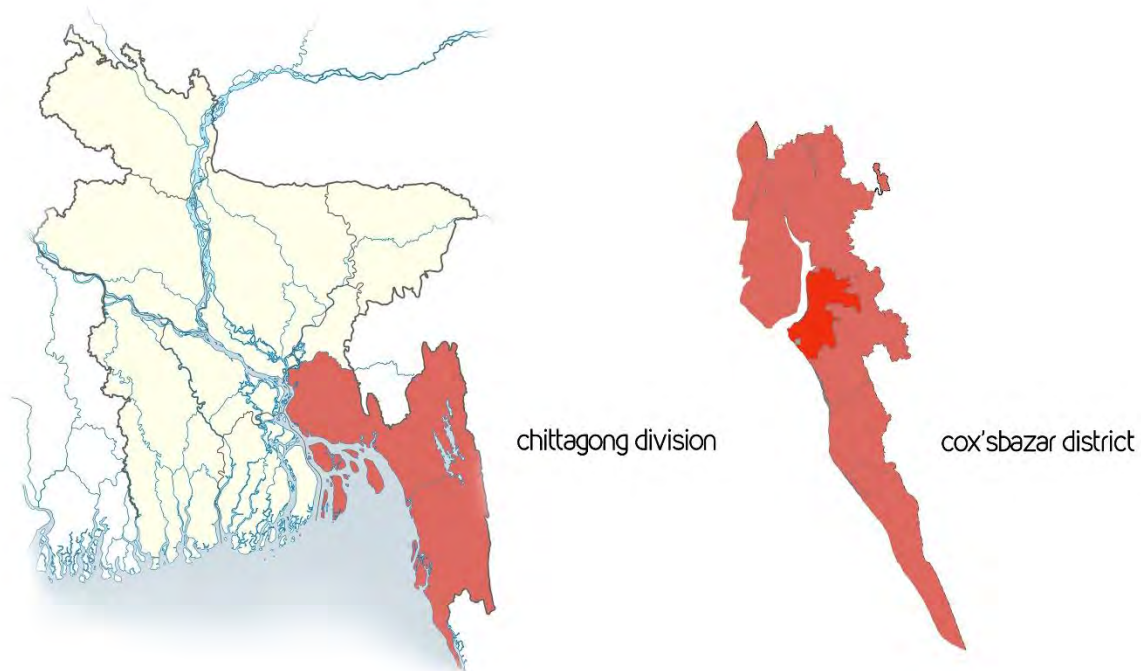


Figure 3 Source: Author (2016)



mode of entry
airport 2.3km
bus terminal 5.2 km
kastura ghat 5.2 km

Figure 4 Source: Google Earth (2016)

3.2.1 Location of the Site

The site is located in the motel road, one of the vital main roads of Cox's Bazar City. City center is located 2km from the location.



Figure 5 Source: Google Earth (2016)

3.2.2 Size of the Site

Site Area: 17 acres

3.2.3 Site Surroundings

Motel road, government buildings on the East and Shaibal beach on the west. Laboni Point is located South and the motel road ends in airport connecting road on the North. Bangladesh Air Force quarters, Baharchara Residential Area, Motel Upal and Cox's Bazar International Stadium are a few important surrounding of the site.

3.3 Site Images



Figure 6 Source: Author (2016)



Figure 7 Source: Author (2016)

3.4 Site Analysis

inappropriate development of cox'sbazar
tourism
sector. not respecting local demand and context.
high impact on environment
lack of public places



3.4.1 Important tourist places



Figure 8 Source: Author (2016)

3.4.2 Building usage, connections and constraints

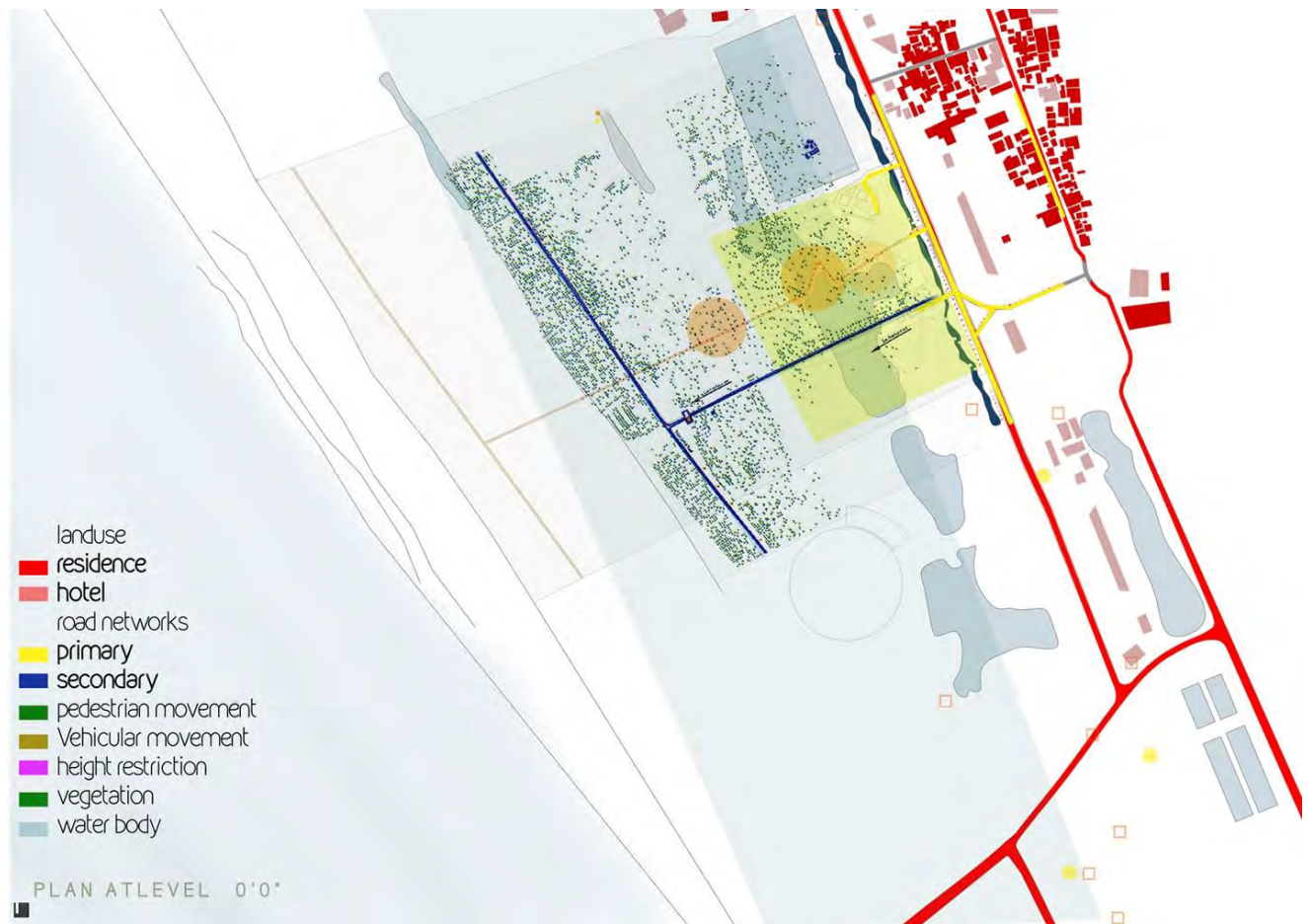


Figure 9 Source: Author (2016)

3.4.3 Pedestrian and Vehicular Movement



Figure 10 Source: Author (2016)

3.4.4 Topography and Vegetation



Figure 11 Source: Author (2016)

3.5 SWOT Analysis

3.5.1 Strengths

- Being found just 700 ft from the ocean, the site has a full perspective of the shoreline and ocean just impeded by the woods of tamarisks constituting the green belt, the saved Jhauban (Tamarisk) Forest.
- The site is all around associated with the neighborhood markets, shops, eateries, transportation offices, banks, travel offices, ATM stalls, and so on.
- The site is associated with the primary dissemination street of Cox's Bazaar by an optional street and in this way, the activity weight is very low.
- The temperature variety is immaterial and during the time the climate stays entirely agreeable.

3.5.2 Weaknesses

- The south-west side of the site notwithstanding being interested in the real site quality, the shoreline, is additionally presented to warm.
- The thick backwoods of tamarisks arranged in the site is a shortcoming of the site as they square the shoreline sees over 25ft stature and the tamarisks neither effectively prevent soil disintegration nor do they have any financial esteem.

3.5.3 Threats

- The site confronts the risk of getting submerged amid tempests and typhoons and storm.

3.5.4 Opportunities

- The other business developments in the region can upgrade the prominence of the site.

Chapter 4: Case Studies

4.1 Local Case Study

4.1.1 Mermaid Eco Resort, Cox's Bazar

Architect Ziauddin Khan

Site Location: Pechar Dip, Cox's Bazar

Site Area: 15 Acres

Project Completion: 2009

15 Villas in Vernacular construction

Mermaid Eco Resort is derived from an idea of maintainable eco-tourism which has been actualized continuously and effectively coming about into an extravagant eco-accommodating shoreline resort. The resort presently holds settlement of nineteen reused wooden homes, for an estimate of fifty four individuals which is partitioned in seven unique classes: Water Bungalows, Ocean View Villas, Lagoon Front, Ashram Island Beach Villas, Coconut Garden Villas, Hill and Pond View Bungalows and Fishing Port View Bungalows.



Figure 12 Mermaid Resort Zoning

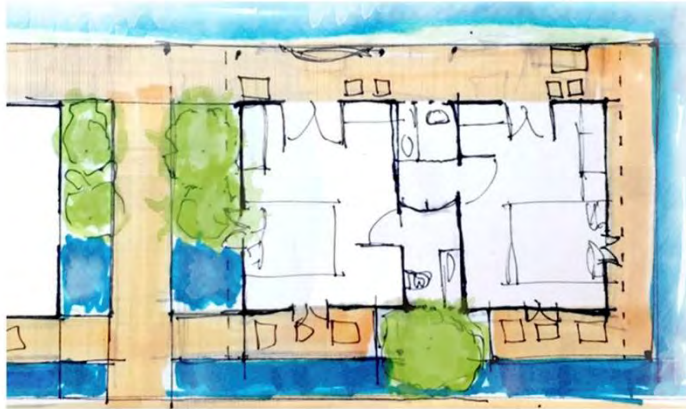


Figure 13 Mermaid Eco-Resort

4.2 International Case Study

4.2.1 DilliHaat, Delhi, India

Architects Archohm Consults

Location: Janakpuri, New Delhi, Delhi, India

Area: 16000.0sqm

Project Year 2014

Client: Delhi Tourism and Transportation Development Corporation



Figure 14 DilliHaatMasterplan



Figure 15 Section AA

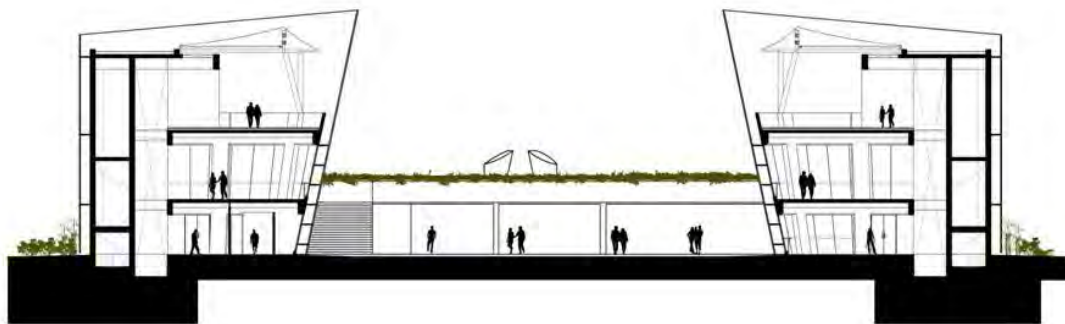


Figure 16 Section BB

The site was an extensive six-section of land northwest confronting adjacent piece that turns southeast towards the end. The plot is bound by the fundamental transport end on one side, the Tihar imprison (a national jail) greens on the opposite side and a substantial business street in the front. The complex is arranged with two passageways; an essential face with vehicular and person on foot zones and an auxiliary back section for people on foot into the specialty just zone. The last usefulness found an indoor, all around prepared, 800-limit assembly hall for formal shows and a casual comparable limit outdoors amphitheater that works at the same time with autonomous spaces and bolster administrations. A multipurpose, multi-scaled work lobby for displays and workshops is proposed. An arrangement of four crate houses a music historical center, a music store

and music workshop space alongside tourism workplaces and bistros. A huge, ventilated nourishment court stretches out into shaded yards and extensive greens for the fundamental need of overflow. Formal, casual and open shop spaces are made to get the required delicate adjustments of shopping centers, markets and bazaars into this haat. An autonomous fine eating with a stretched out feast office is made to strengthen the marketable strategy of this complex social complex. A best in class assembly hall that can hold substantial music shows, an amphitheater, a music place for deals and presentation of melodic instruments alongside welcoming overflowing social events of growing artists and music partners. Open air shops with material coverings and art shops to hold artisans' workshops are necessary to the Dillihaat topic.

Aerated and cooled shops are added to make it a more feasible shopping background. There is additionally a kids' play zone tucked into a little green fix. The sustenance court with storm cellar stopping offices entwines everything to manage it as an endeavor. The composition lobbies are three straight vaults of rising widths in plan, shaping one huge space that can be separated into three as required. Vivid blossoming creepers that diminish the scale and help temperature control additionally cover the steel sheeting on top. The sustenance court will house 48 slows down from better places and commend the essence of India. Breaking free of the routine look and feel of its other two partners with their block vocabulary, Dilli Haat, Janakpuri investigates the material palette as requested by the multifaceted program that it houses. The material range is a diverse blend of cutting edge and conventional. Utilizing the immortal red Agra stone, kota stone, slate and the nearby Delhi quartz stone workmanship on exteriors and scenes sets a perfect and characteristic typology to this transcendently green complex.

4.2.2 Alila Villas Uluwatu, Bali, Indonesia

Program: 50 suite hotel with 35 residential villas

Architect: WOHA Architects

Site Area: 14, 4642 m²

Built-up Area: 58,635 m²

Gross Floor Area: 26,595 m²

Completion Year: 1 June 2009

This hotel and villa advancement is composed as an environmentally feasible improvement. Situated on the dry savannah scene of the Bukit Peninsular on the sensational southern bluffs of the Indonesian island of Bali, it includes a 50 suite lodging with 35 private estates. The resort opens its entryways on 1 June 2009. The plan explores the capability of the combination of vernacular engineering with innovator outline. The plan joins the enjoyments of customary Balinese structure design and provincial scenes with current element treatment of space and frame. The outline is based from first standards around the delights possessing the specific site, as opposed to collecting cliché pictures of Bali or non-specific resorts.

A one of a kind outline dialect was produced for the venture. As opposed to the average soak pitched Balinese structures, which would have hindered the perspectives on the tender inclines, and which are not nearby to the territory, the structures are rather motivated by the neighborhood agriculturists patios of free heaped limestone rocks. A terraced low pitched rooftop was produced utilizing Balinese volcanic pumice shake, which is a characteristic protecting material and can likewise bolster neighborhood plants

and succulents. These terraced rooftops mix with the scene, keeping the first totally open displays that make the site so exceptional.



Figure 17 Alila Villas Master plan



Figure 18 Alila Villas Section



Figure 19 Alila Villas



Figure 20 Alila Villas

4.2.3 Bentota Beach Hotel, Bentota, Sri Lanka

Program: 90 guest rooms

Architect: Geoffrey Bawa

Site Area: 25, 4642 m²

Built-up Area: 80,635 m²

Gross Floor Area: 26,595 m²

Completion Year: 1969

The Bentota Beach Hotel was arguably the first in Asia to offer an alternative to the banalities of international hospitality architecture and proposed a building which responded to site, climate and tradition - a building which was 'of its place'. The hotel was set on a mound between the river and the sea on the site of a former Dutch fort. The ground floor entrance area and service wings were contained within a massive stone rampart while the reception rooms were arranged around a courtyard at first floor level with two levels of bedrooms above them. The Bentota Beach Hotel is one of architect Geoffrey Bawa's most important works. It is an iconic example of Bawa's architectural style during the 1960s, as well as the critical model for hotel design in tropical climates during the decades following its construction.



Figure 21 Source: Author (2016)



Figure 22 Source: Author (2016)

5.1 Program Rationale

Proposed programs by BPC are:
Resort villas and cottages, resort ancillary functions, public area and an amphitheater.

In a tourist resort, tourists relax and experience various body and mind pampering activities. The center is created for the preservation of such traditions as well as source of livelihood for the people native to that region. Thus it is based upon mutual benefit of tourism and preservation of culture. Hospitality forms the base of tourism and can be clubbed with other drivers of tourism to provide tourists with a wholesome experience. Hospitality industry mainly constitute of an establishment that provides paid lodging on a short-term basis along with additional features such as fitness centre, multipurpose hall, restaurants, outdoor games facilities etc. The hospitality industry has grown over decades by adapting to the changing social and economic conditions.

Luxury resort is mainly an accommodation facility that is developed away from the city limits in locations which provide serenity, has resulted in attracting tourists as they offer a congestion free and serene environment. Also, they provide an element of exclusivity and privacy to tourists. Body pampering centers like, fitness center, meditation spaces and spa allows one to relax rather than conventional gyms in hotels. These also helps to reduce stress and improve health conditions of the tourists. Multipurpose halls and outdoor games area invites interaction with local people, thus promoting a co-relative experience between the tourist and the locals. Feasibility Report (2013)

5.2 Functional Flow and Analysis

site and program analysis

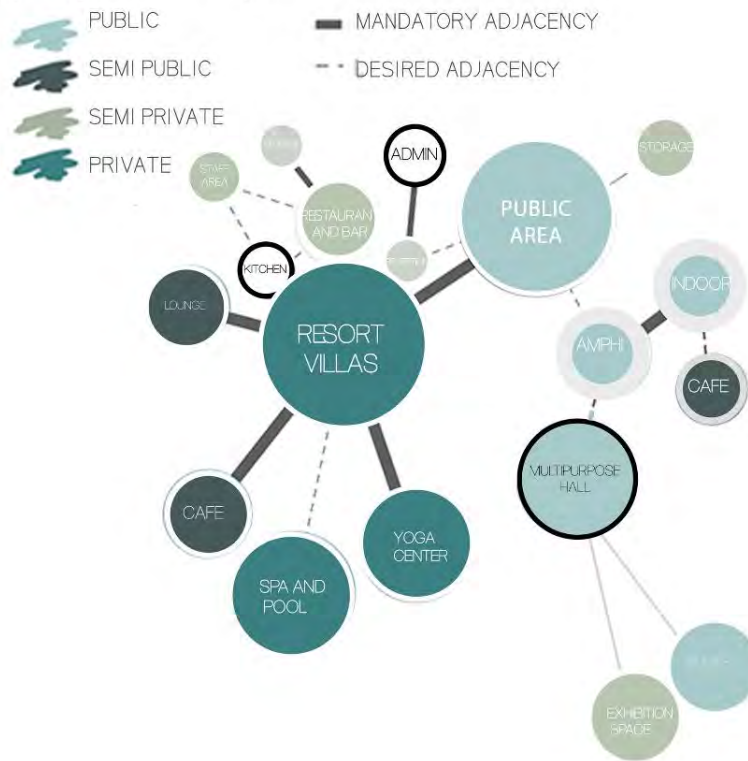


Figure 23 Functional flow diagram

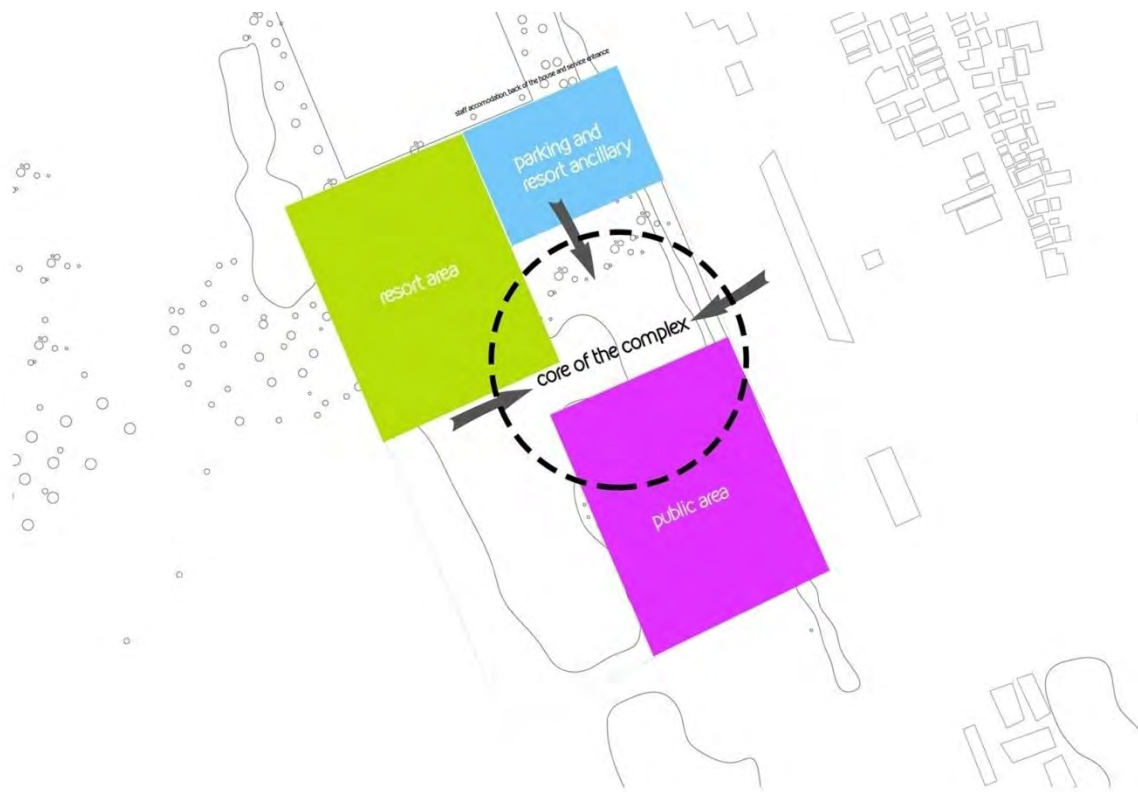


Figure 24 Functional analysis

5.3 Square Feet and Area for Proposed Program

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FUNCTIONS	REQUIREMENT	NUMBER OF ELEMENTS	MINIMUM SQFT
	RESORT:		
PRIMARY AMENITIES	SPA	1	500
	POOL	1	2000
	INDOOR AND OUTDOOR YOGA AND MEDITATION PAVILLIONS	1	1500
ACCOMODATION GARDEN AND WATER VILLAS	TWIN DELUXE	10	15000
	SUITE	10	
	FAMILY TWO-STORIED	5	
BACK OF THE HOUSE	MAIN KITCHEN	1	1000
	MAIN KITCHEN STORAGE	1	500
	STAFF AREA -LOCKER ROOM+CHANGING ROOM+TOILET+STAFF CANTEEN(20 EMPLOYEE)	3	1000
	STORAGE(LINEN+CLEANING MATERIAL+GLASS)	4	500
	ENGINEER'S OFFICE	1	150
	GENERAL MANAGER'S OFFICE		150
	CONFERENCE ROOM	1	300
FRONT OF THE HOUSE	LOBBY	1	400
	RESTAURANT	1	2500
	LOBBY BAR	1	300
	PUBLIC TOILETS	3	1200
	FIRE CONTROL ROOM	2	60
	GENERAL MANAGER	1	150
	FOOD AND BEVERAGE MANAGER	1	150
	SECRETARY	1	150
	ACCOUNTANT OFFICE	1	150
SUB TOTAL			27810
30% CIRCULATION SPACE			8343
TOTAL			36153
ENTERTAINMENT ZONE			
EXHIBITION SPACE		1	1500
MULTIPURPOSE HALL		1	3000
MULTIPURPOSE			

ADMINISTRATION			
	RECEPTION	1	400
	MANAGER'S OFFICE	1	150
	AUDIO-VISUAL ROOM	1	1000
SPORTS			
	TENNIS	2	12000
	INDOOR GAMES	1	1000
	BOAT STATION	1	200
WORKSHOP	STORAGE	3	600
	WORKSHOP	1	600
	SOUVENIR SHOP	1	300
ADMINISTRATION			
	CURATOR'S OFFICE AND TOILET	1	150
	SECRETARY	1	75
	ACCOUNT'S MANAGER'S OFFICE AND TOILET	1	75
	PROGRAM MANAGER	1	150
	ART DIRECTOR	1	150
	ENGINEER'S OFFICE	1	75
	TECHNICIAN	1	50
SUB TOTAL			21475
30% CIRCULATION SPACE			6142
TOTAL			27617
CULTURAL ARENA			
PERFORMANCE ARENA	AMPHITHEATRE	1	7500
	SHOPS	8	1200
	CAFE	1	1500
	TOILET	4	1500
SUB TOTAL			11700
30% CIRCULATION SPACE			3510
TOTAL			15210
GRAND TOTAL			78980

Chapter 6: Conceptual Stage and Design Development

6.1 Introduction

Cox's Bazar city area lacks an interactive resort or hotel near the beach. The shoreline is piled up of concrete jungles which conflicts with the beautiful rendezvous of the hills and the sea. Hence, a resort with minimum interventions to the nature and context was envisioned. Moreover, such considerations could help tourists and locals to experience serenity of the site and surrounding. Tourism, local demands and most importantly the climatic conditions of the Cox's Bazar area were of primary concern throughout the design process.



Figure 35 Source: Author (2016)

6.1.1 Concept Development

The idea for the project was to create spaces that stimulate senses and allows one to indulge into contemplation. This tourist resort is an attempt to create some experiences along the existing waterscapes present in the site. The water bodies also act as unifying object for the various levels of form. Moreover, Undulated ground surface is sensitively utilized to generate multiple layers of space and views of different waterscapes. Waterscape is an extension of a form onto its own, exclusive waterfront space.

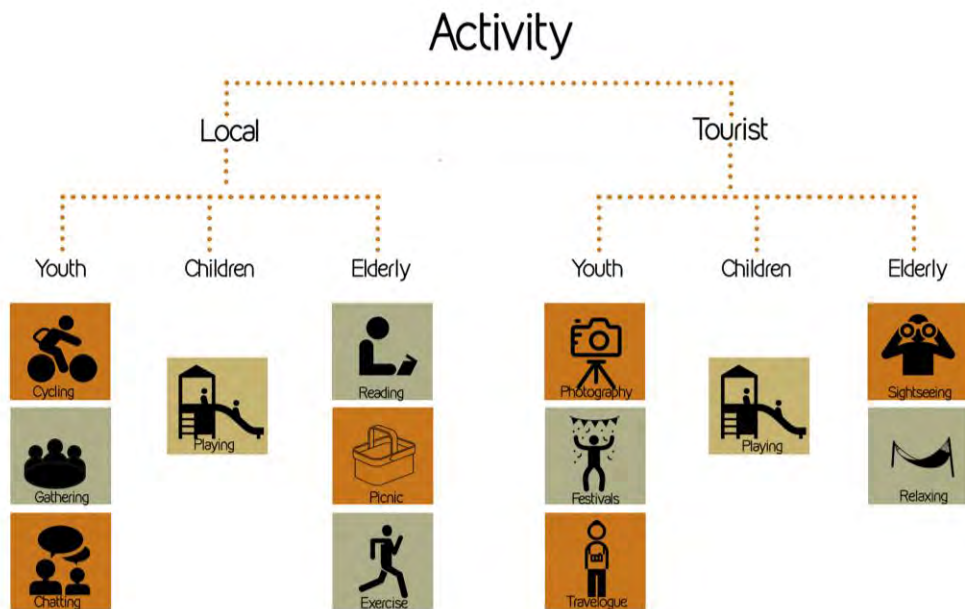


Figure 46 Source: Author (2016)

Activity of the tourist and local people were surveyed to allocate functions which are needed by them. Various group of people were found to have demand of different types of spaces for relaxing, playing or sight-seeing.

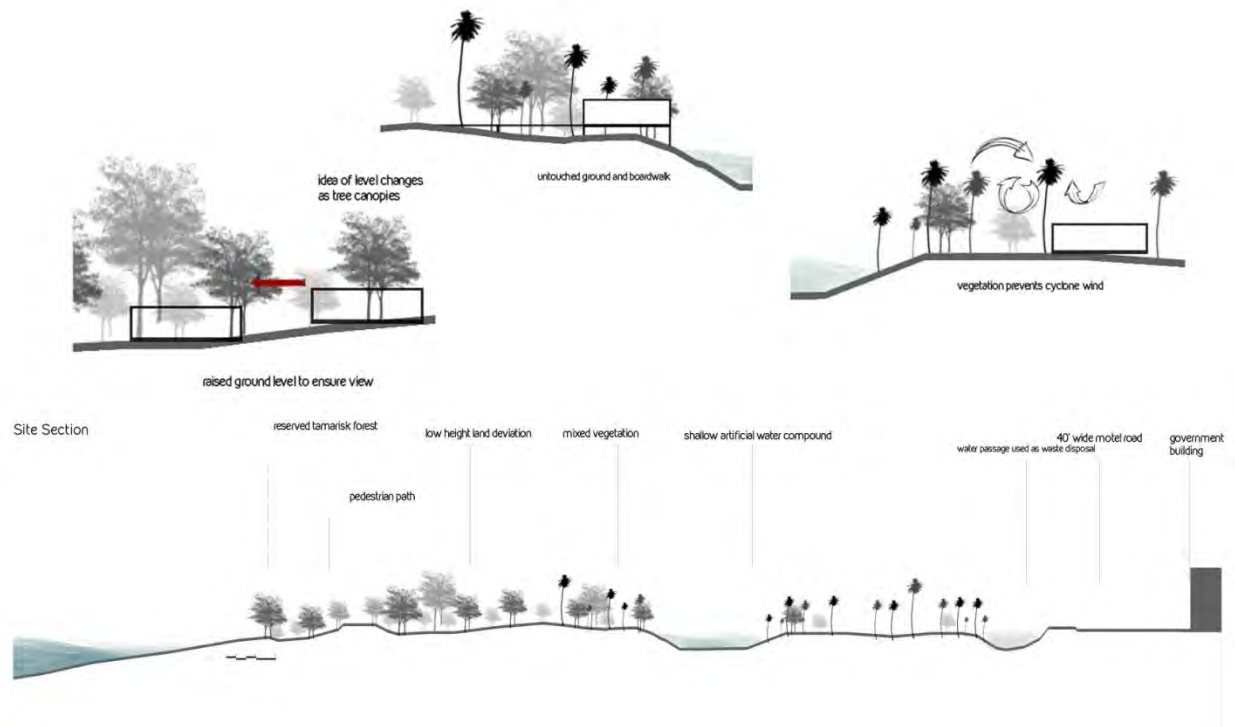


Figure 57 Source: Author (2016)

The site was surrounded by dense Tamarisk forest on the South-West. Therefore, strong tidal winds were reduced by the vegetation. Moreover, being a golf course previously, the site had subtle undulation as well. This situation allowed to take advantage for placing the forms along the dense vegetation and mound area. Forms on the lower ground level were placed on stilts.

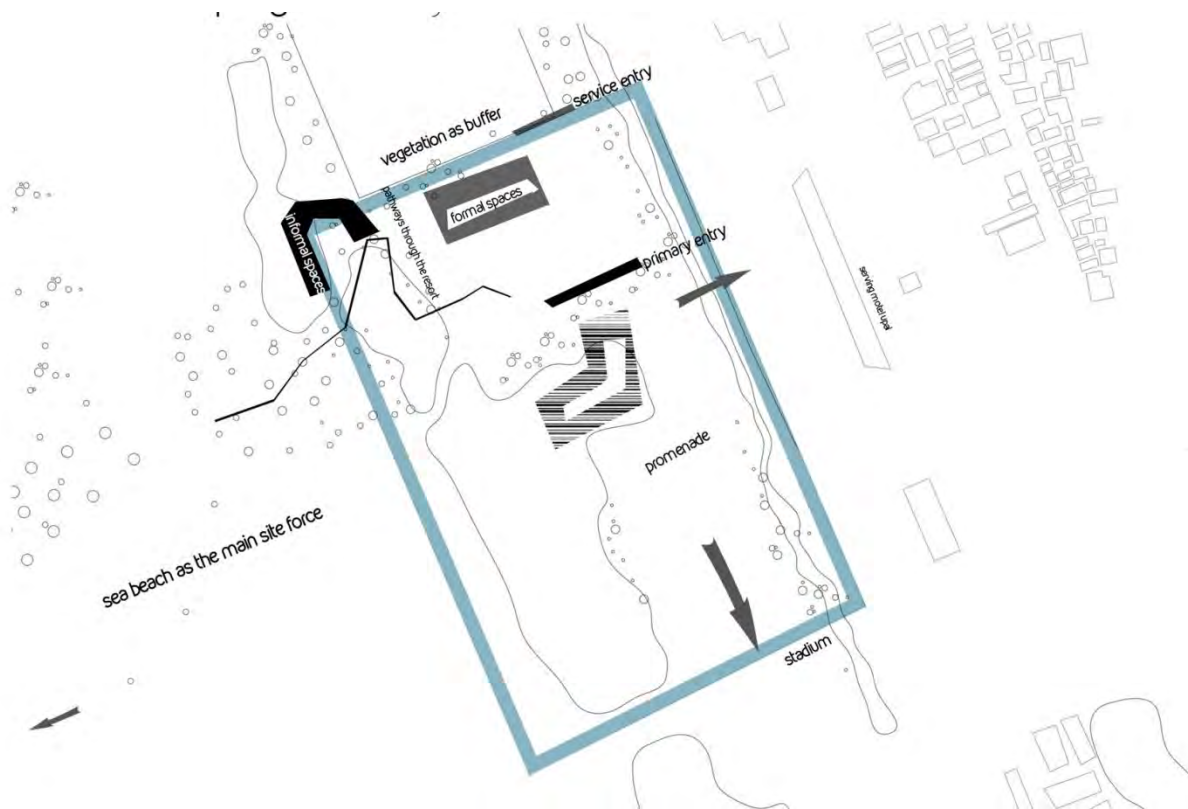


Figure 68 Source: Author (2016)

Existing entry points are used to allocate primary and service entry. The site surrounding considerations such as built forms, usage, and natural environment to create formal and informal space.

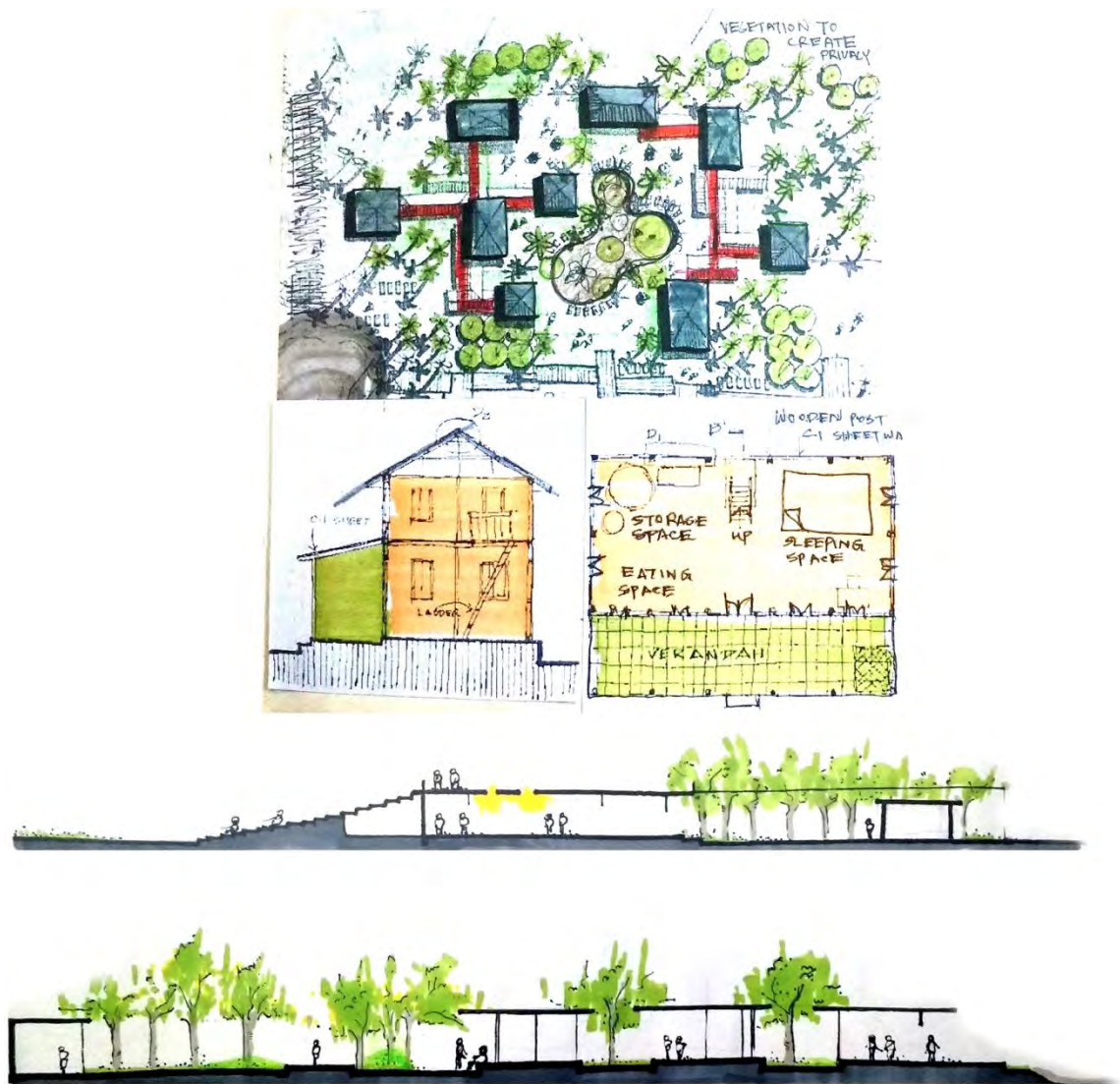


Figure 79 Source: Author (2016)

Local homesteads were taken as reference to create hospitality areas as introverted as possible. The layout of the villas and cottages were inspired from bungalows and hut style houses of Bengal.

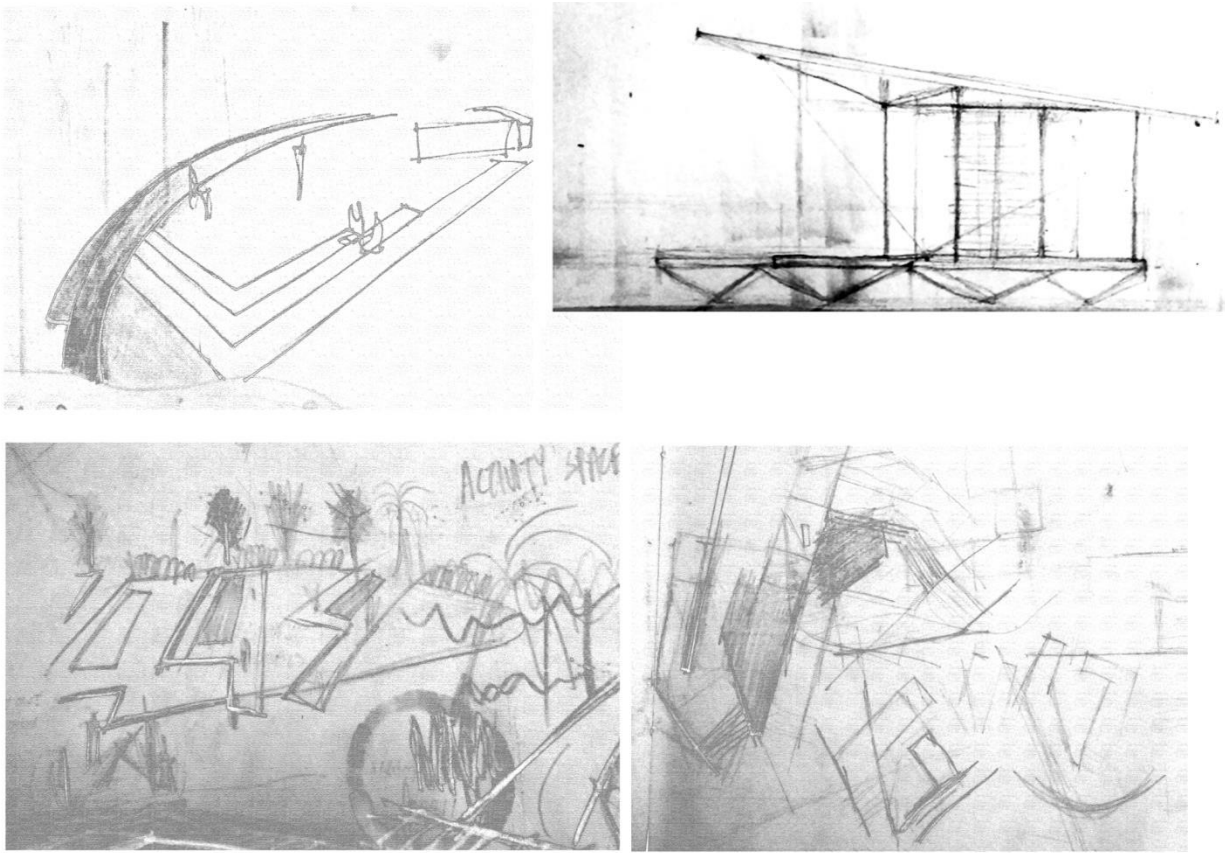


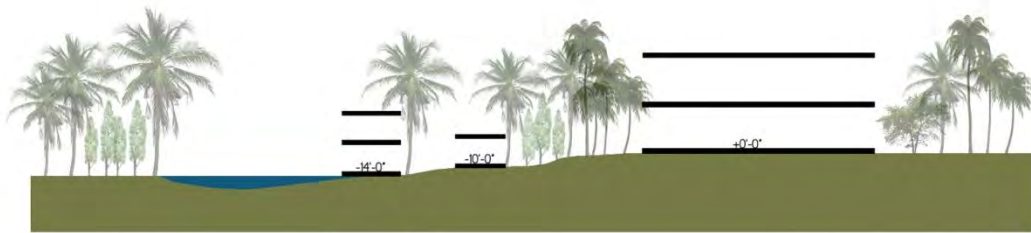
Figure 30 Source: Author (2016)

Initial ideas for the public areas, villas/cottages and pathways. The structural members were studied from local houses to withstand strong cyclonic winds.

6.1.2 Form Development and Programmatic Layout



Figure 31 Source: Author (2016)



Initially airport funnel made height restriction while the landscape also favored low height built form. The hill to sea uniformity was to be kept as well. Therefore, built forms were spread horizontally along the site.

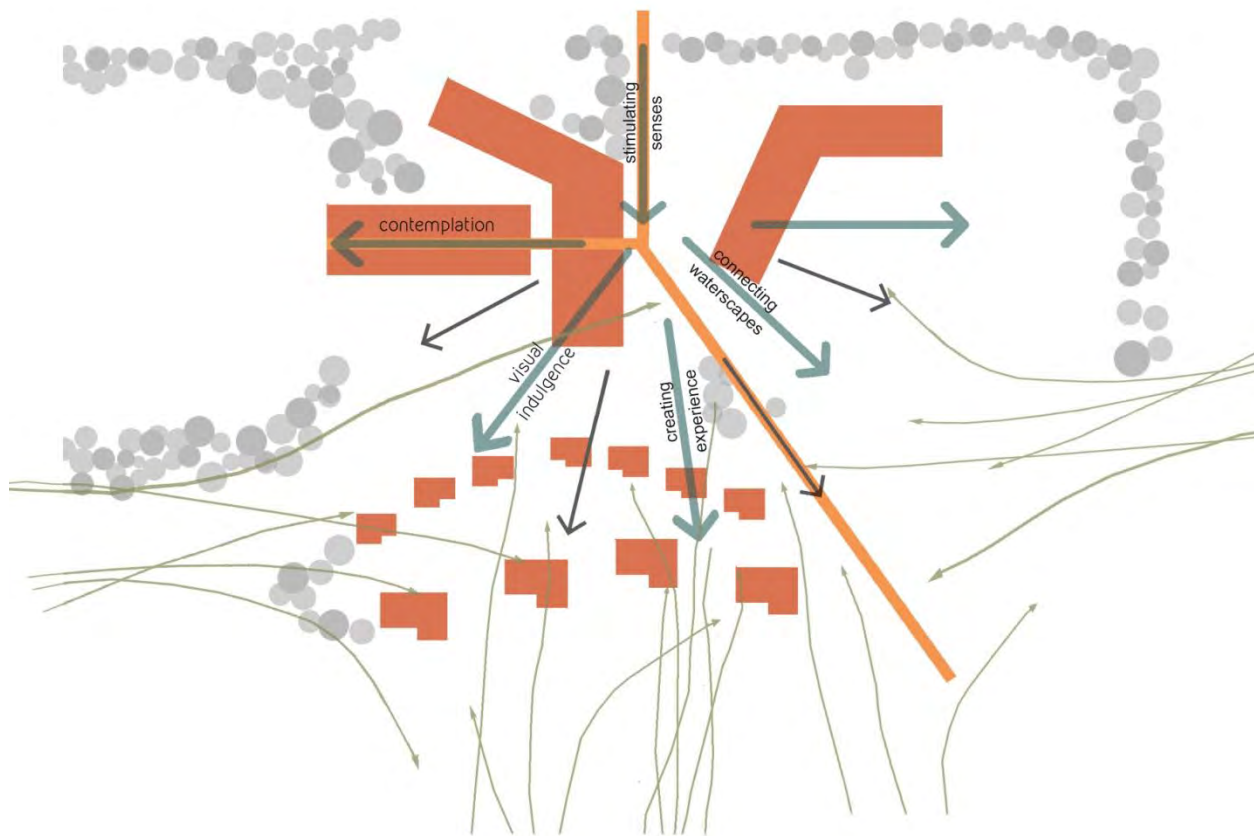


Figure 32 Source: Author (2016)

CREATING EXPERIENCES

Contemplation

One of the key points of the resort was the 'Shagorika' pond. Entry to the resort was made through this view point of the pond, which is a contemplation area for the tourists.

Visual Indulgence

As a tourist walks in, the informal paths will lead to various experiences of the landscape, waterscape and vegetation. The entire path is made to create a journey for the users offering visual indulgence.

Connecting waterscapes

The Bay of Bengal, the pond, water bodies and lakes are connected physically or visually to make one feel surrounded by water.

Stimulating senses

Finally, all the functions are placed in harmony along the entire site to stimulate senses and generate relaxation among the tourists.

The figures below illustrate how the existing landscape is considered critically throughout the design.



Figure 33 Source: Author (2016)



Figure 34 Source: Author (2016)

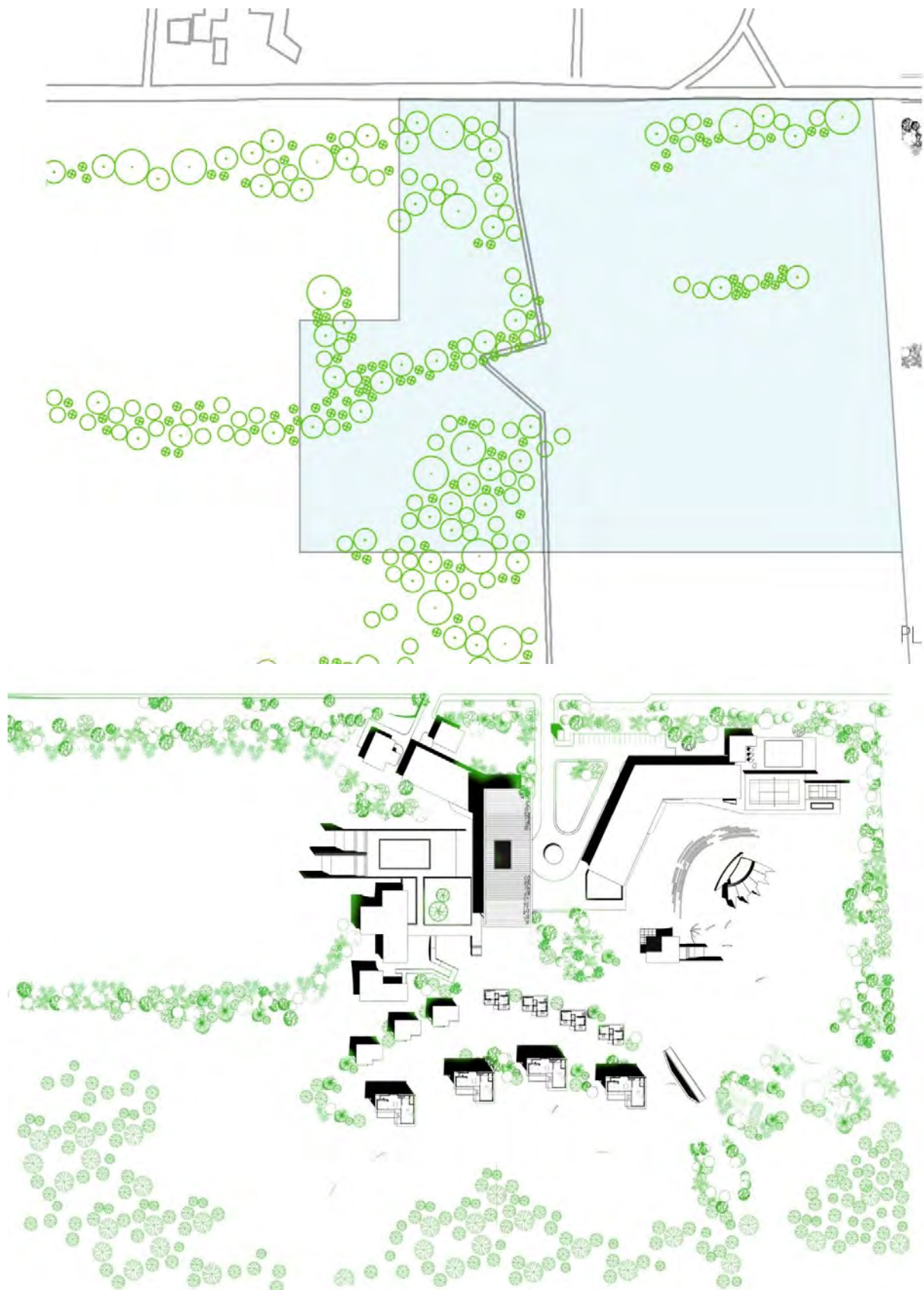


Figure 35 Source: Author (2016)

Amphitheatre: form generation

Selection of site is a critical point. topographical, meteorological and acoustical properties should be taken into consideration.

The initial reference of the shape of the amphitheater was take from the curvilinear shape of the lake.

Slope of seating should not be less than 12 degrees, for better audability and visibility.

Noise level should not exceed 40 decible

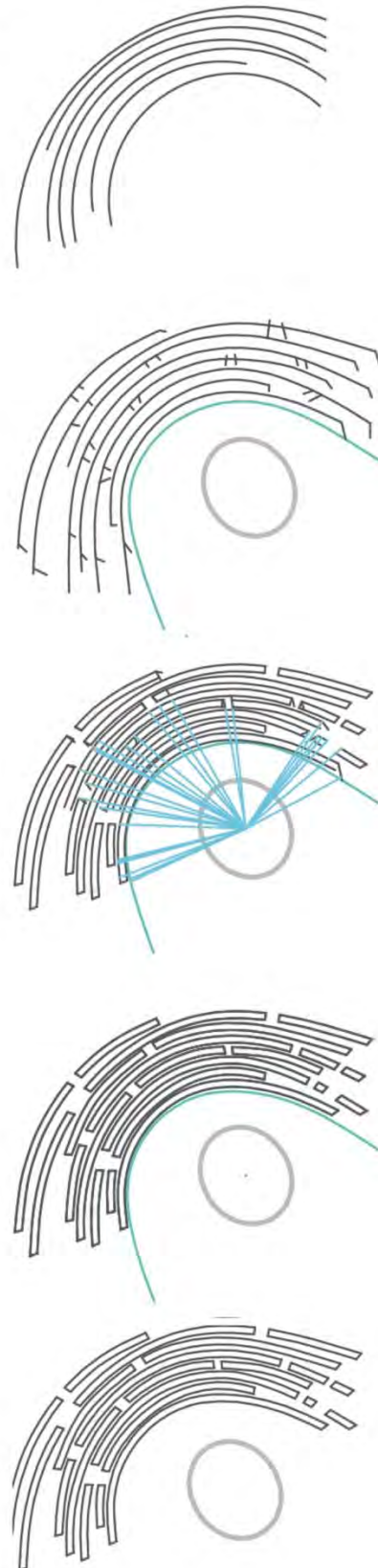
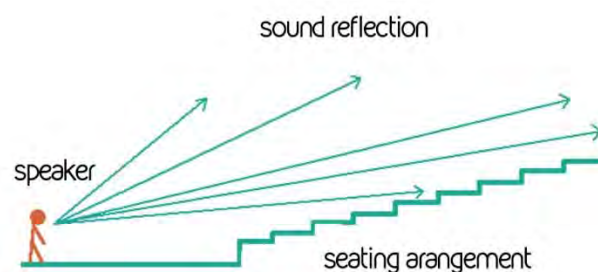
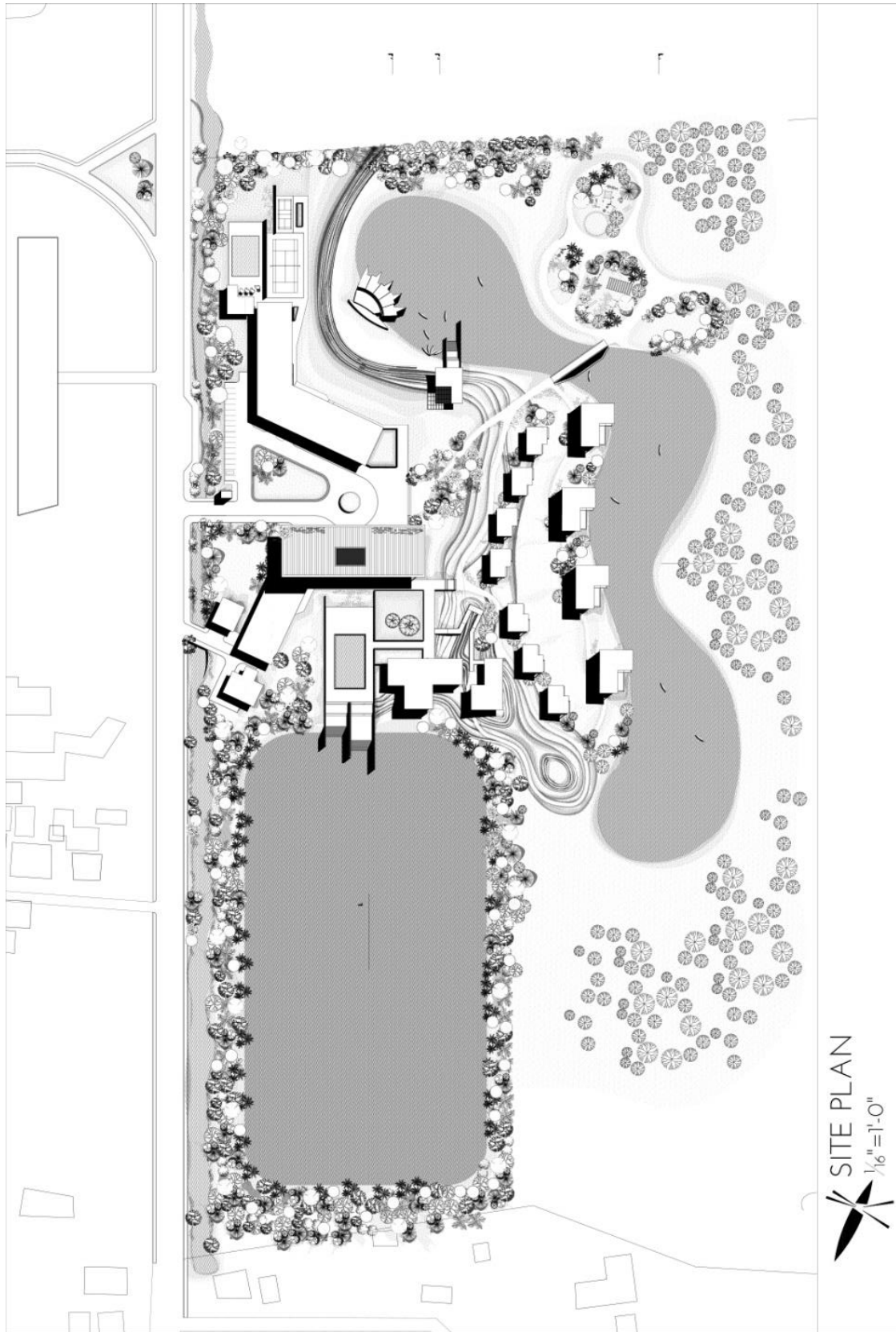
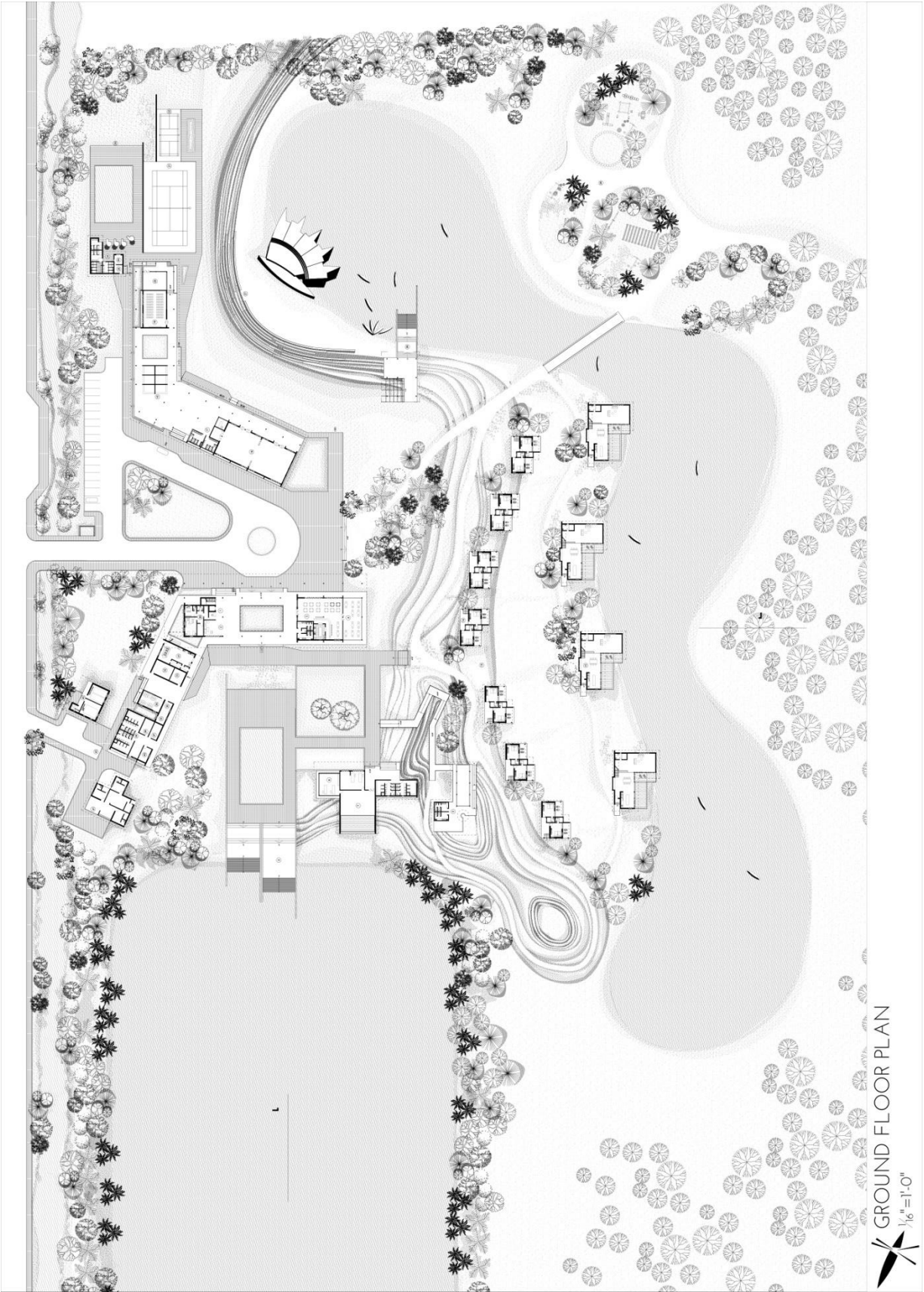


Figure 36 Source: Author (2016)

6.2 Design Drawings





FRONT OF THE HOUSE

- 1 RECEPTION
- 2 FRONT LOBBY
- 3 CAFE
- 4 OUTDOOR CAFE
- 5 CONTEMPLATION WATERFRONT
- 6 BODY PAMPERING CENTER
- 7 SPA
- 8 MEDITATION AREA

- 9 CASHIER
- 10 MAIN RESTAURANT
- 11 RESTAURANT KITCHEN
- 12 TOILET

13 ACCOMODATION BLOCK

- 14 COTTAGES
- 15 VILLAS

BACK OF THE HOUSE

30 ADMINISTRATIVE OFFICES

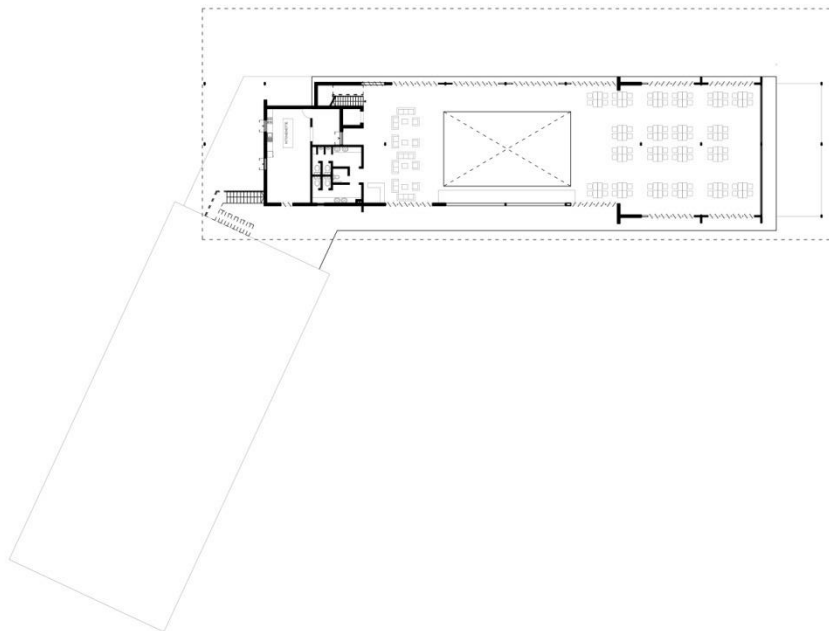
- 31 MAIN KITCHEN
- 32 MAIN STORAGE
- 33 DRY STORAGE
- 34 STAFF DINING
- 35 SERVICE ROOM
- 36 MEDICAL ROOM
- 37 STAFF UNIFORM
- 38 STAFF CHANGE ROOM
- 39 LINEN STORAGE
- 40 LAUNDRY

- 41 STAFF RESIDENCE
- 42 MAINTENANCE AREA
- 43 SERVICE ENTRY

PUBLIC AREA

- 16 SOUVENIR SHOPS
- 17 PUBLIC TOILETS
- 18 MULTIPURPOSE HALL
- 19 AUDIO VISUAL ROOM
- 20 INDOOR GAMES AREA
- 21 TENNIS COURT
- 22 BADMINTON COURT
- 23 SWIMMING POOL
- 24 CHANGE ROOM
- 25 POOLSIDE CAFE
- 26 PANTRY

- 27 AMPHITHEATRE
- 28 BOAT JETTY
- 29 CHILDREN'S PLAY AREA



restaurant 1st floor plan
scale: 1/4"=1'-0"



Section AA'



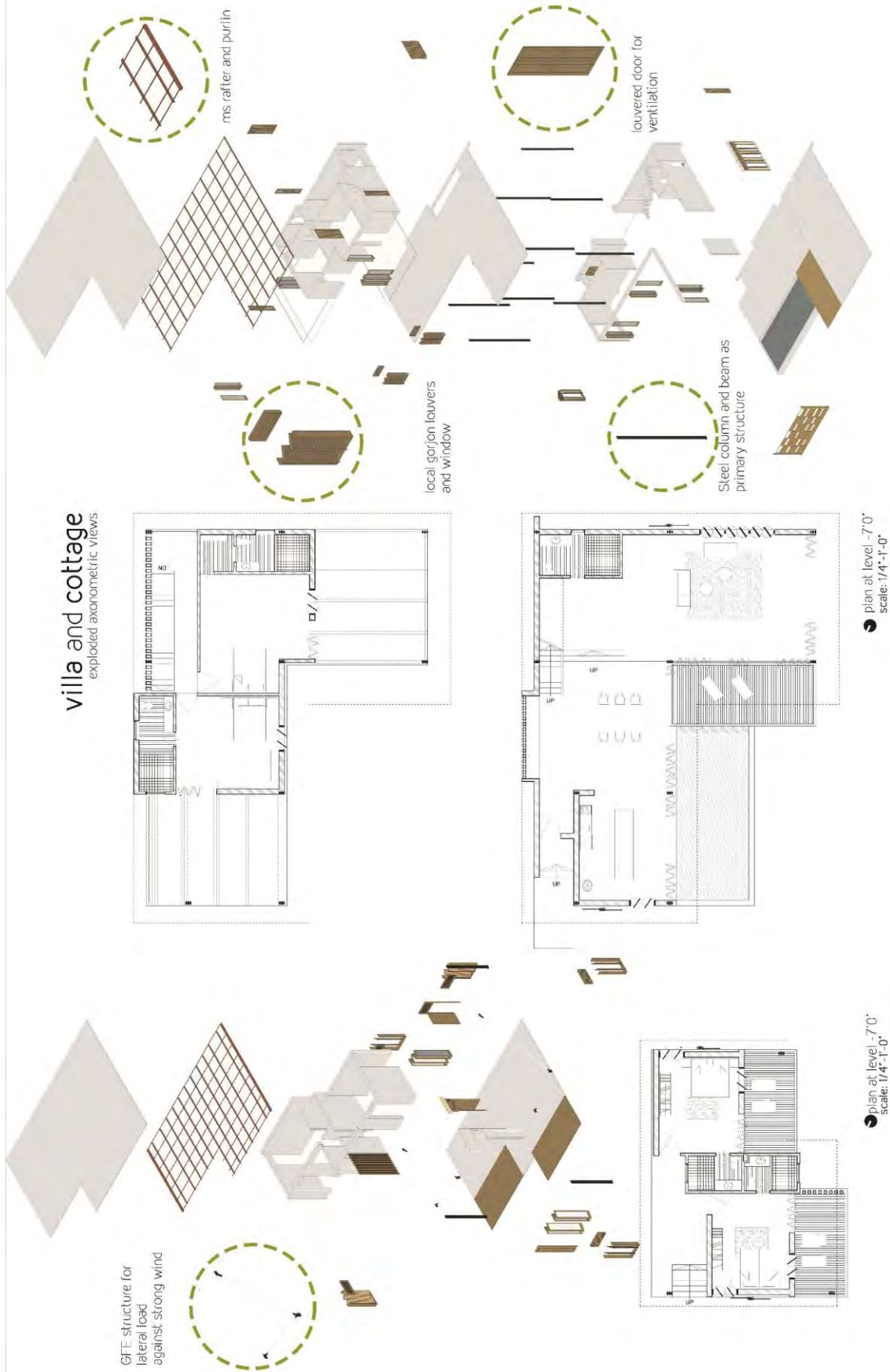
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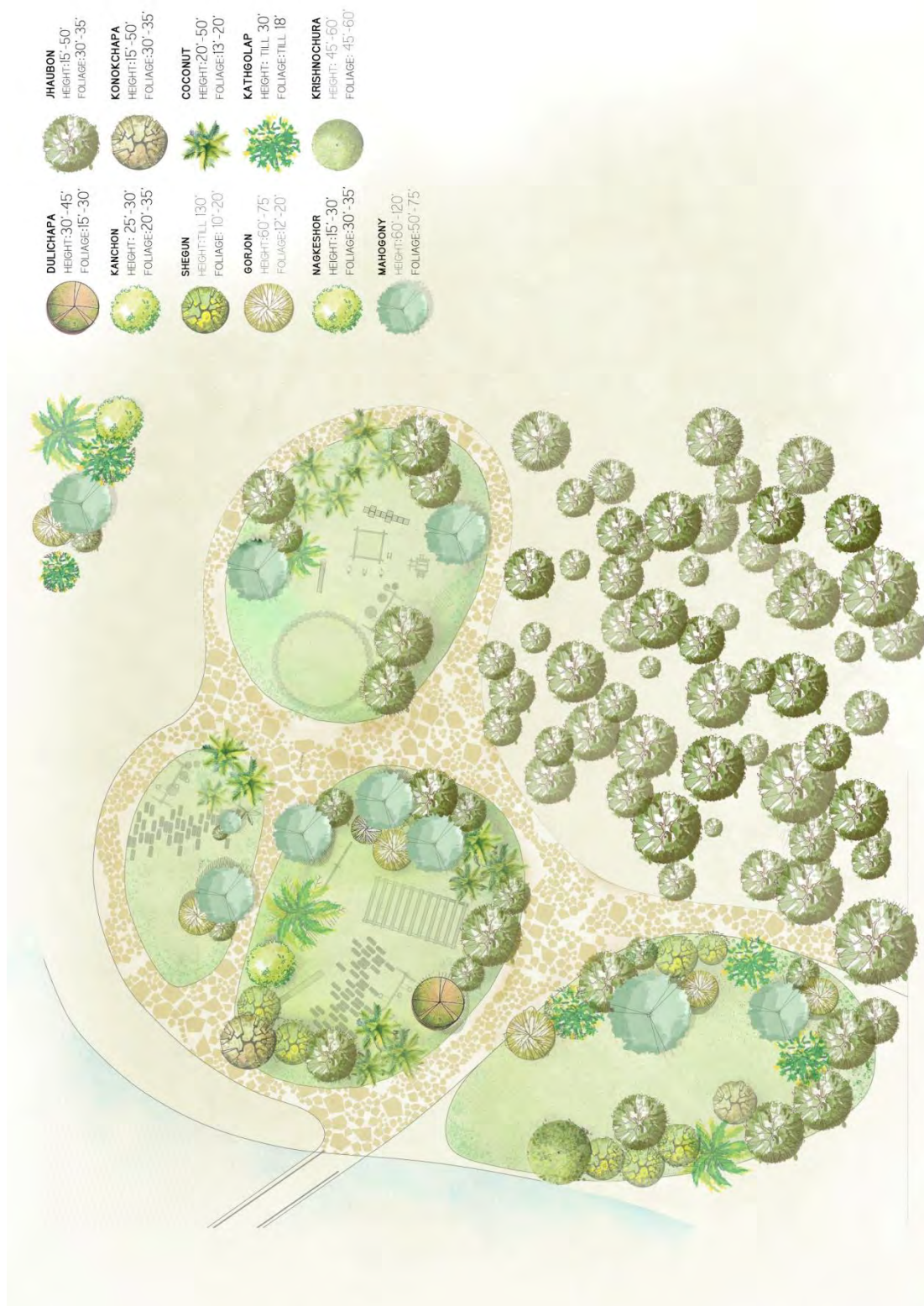


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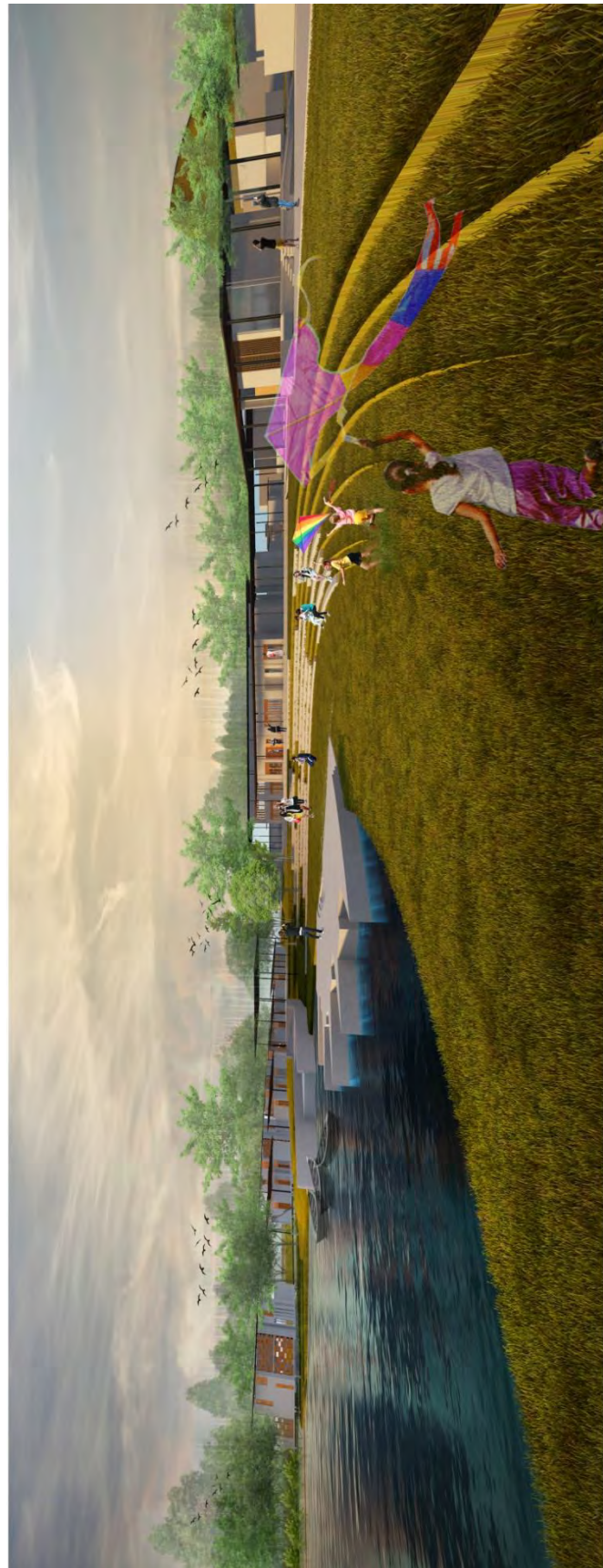
Section CC'





Children's Play Area and Landscape Detail

Figure 37 Source: Author (2016)



Perspective Views Figure 38 Source: Author (2016)



Figure 39 Source: Author (2016)



Figure 39 Source: Author (2016)

6.3 Presentation Models

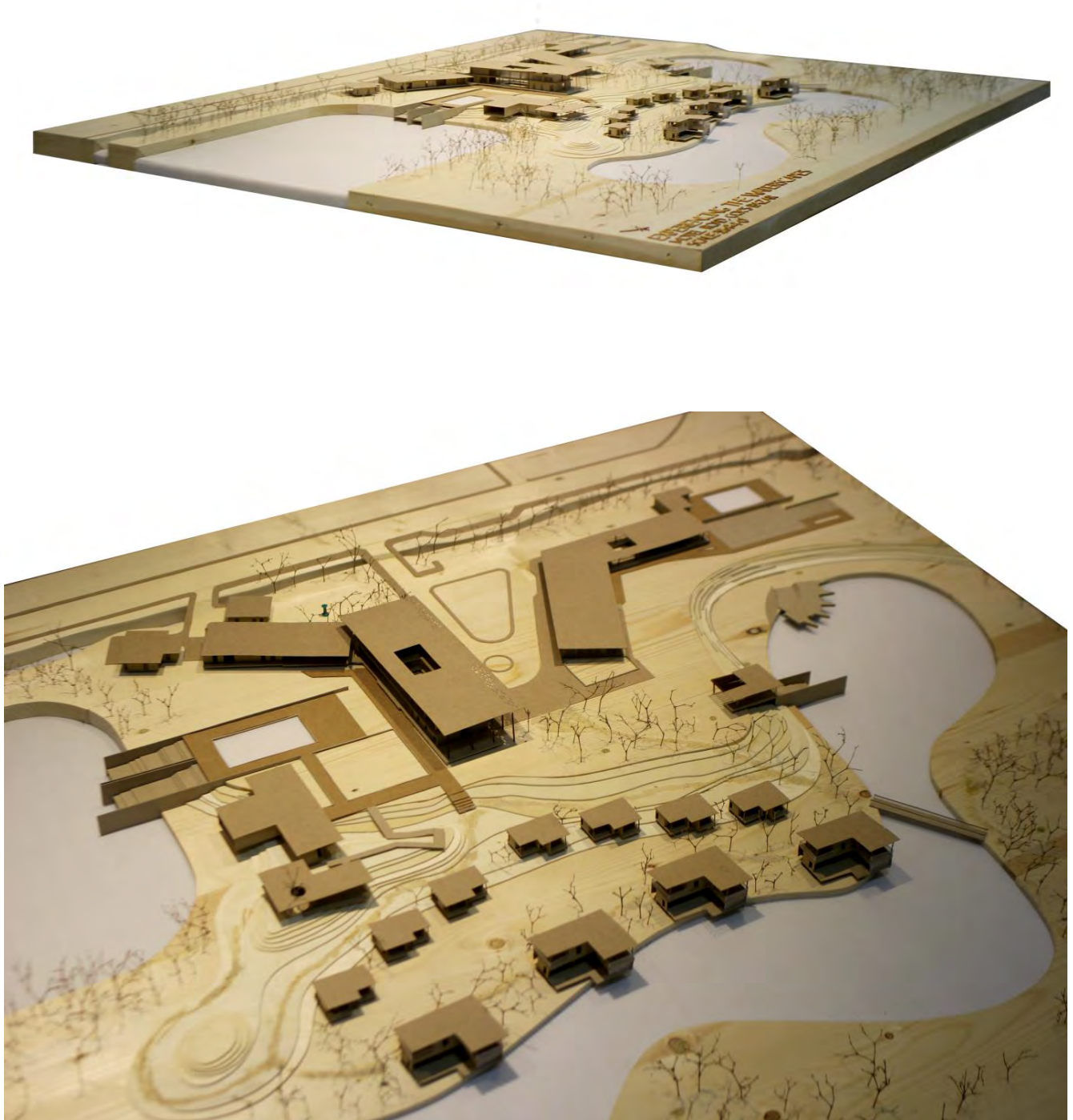
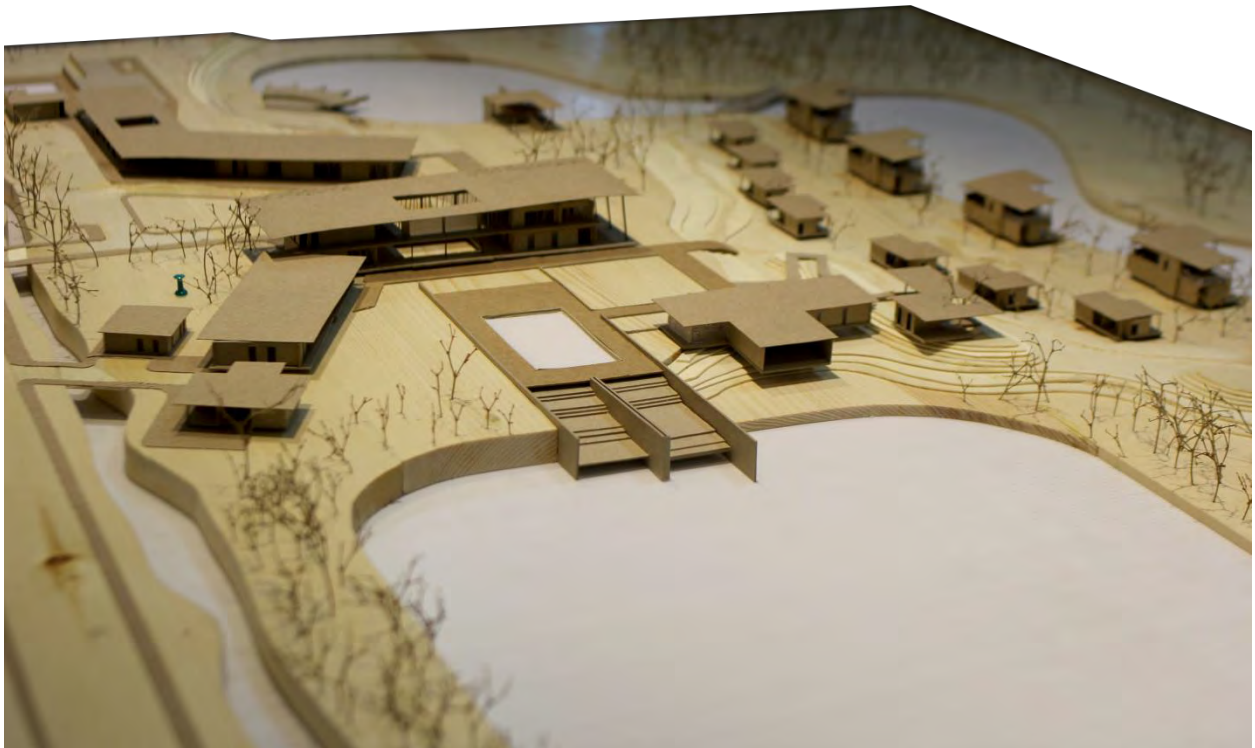
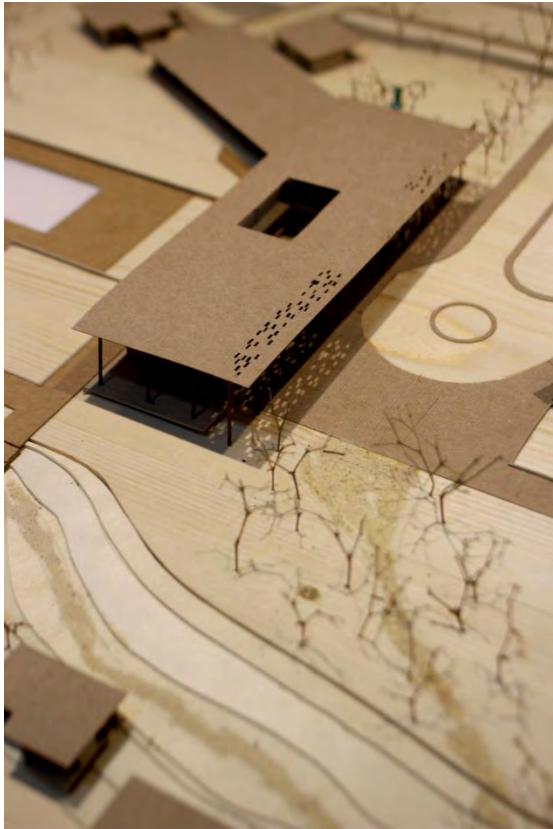


Figure 40 Source: Author (2016)



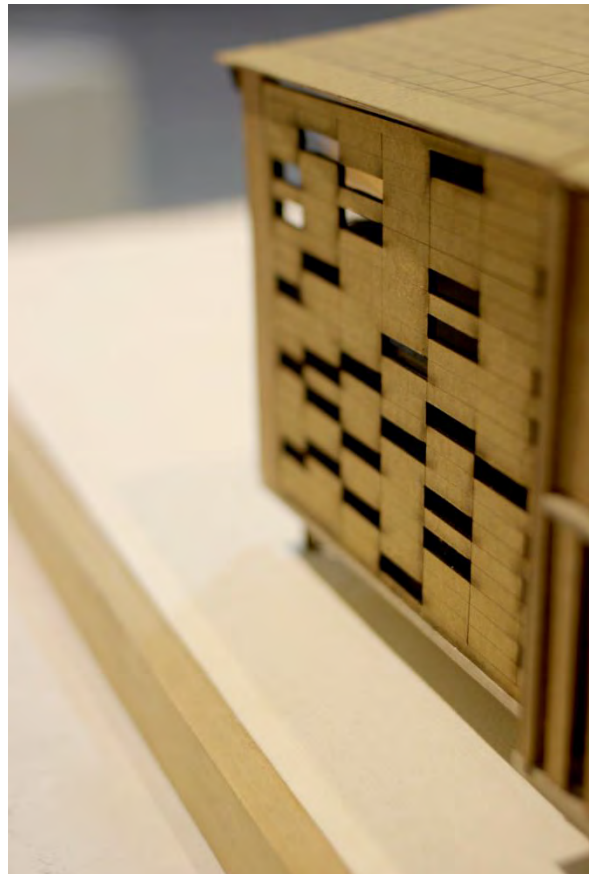


Figure 41 Source: Author (2016)

References

BTB Database, 1998-2010 Tourism and Civil Aviation Policies, Bangladesh,

S.M. Sohel Mahmud, Cox's Bazar: Tourism scopes, existing facilities and required strategies in the context of Cox's Bazar City, Bangladesh Parjatan Corporation (BPC), Mohakhali, Dhaka-1000, Bangladesh.

Hossain, M.M..(2016, May) G.M.- PTS (on PRL), Bangladesh Parjatan Corporation, Mohakhali, Dhaka-1000, Bangladesh.

Integrated Tourism and Entertainment Destination at Cox's Bazaar Feasibility Report 2013. Feedback Infra (P) Limited.

Khan, M.A.. (2003, July 7). Eco-Tourism in Bangladesh. The Daily Star, Retrieved from <http://archive.thedailystar.net/2003/07/07/d40707250179.htm>

Hasan, I. (2010, May 5). An eco-resort that stands apart. The Daily Star, Retrieved from <http://www.thedailystar.net/news-detail-170165>

Alila Villas Uluwatu / WOHA (2010, May 12) . Retrieved from <http://www.archdaily.com/59740/alila-villas-uluwatu-woha>

DilliHaat / Archohm Consults (2015, November 23) . Retrieved from <http://www.archdaily.com/777641/dilli-haat-archohm-consults>

Bentota Beach Hotel / Geoffrey Bawa (2015, November 5) . Retrieved from <http://archnet.org/collections/10/sites/3011>