

CULTIVATION OF AESTHETICISM

A HUB FOR PROMOTING THE CULTURE OF THE TEA GARDEN PEOPLE



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Abstract

The history of tea workers in Bangladesh goes way back 150 years into the British period and these indigenous people have a history of rich culture and rituals. But these workers, due to the flow of time and exploitation are losing their rich culture and norms. Tea workers are obviously socially excluded people who are ignored and socially treated as untouchables. As citizens of Bangladesh, they have the right to live anywhere in the country, but the reality is, most of the community have never stepped out of the garden. This type of isolation and social barricade has put a tremendous effect on their life and culture. As a result, they are being deprived and losing their rich cultures and norms. In order to protect their remaining cultures and preserve them, a culture exposure is a must.

The project is to design a cultural hub, which will be a bridge to preserve and bring these dying cultures into light. A cultural complex is proposed to attract tourists from around the country and world, where the cultures and rituals and handicrafts will be exhibited. A vocational training center is proposed where the diminishing cultures will be practiced so that they are preserved and practiced. Accommodation for tourists and guests are also provided. This project will be a bridge between the Outer world and the ethnic group of tea workers who have been living in isolation for generations.

Acknowledgement

This project have made a great impact in my life. If have come so close learning about the tremendous lifestyles of the tea garden people and their cultures, I've got to get close to them and learn about their pain and sufferings. After the completion of the project, I would like to thanks almighty Allah from deep of my heart for granting me courage and strength I needed to finish the project. I would also like to thank my parents who always been the motivators when I was in pain and struggle. Throughout the semester, I have faced many challenges and obstacles, but I am glad that, through these, I have come to learn so much and enhance my knowledge. These would not be possible without the help and guidance of some people to whom I grateful from deep of my heart. Firstly, I would like to thank my Faculties of architecture, without whom, I would not be able to learn architecture. Then I would like to thank my course instructors Abul Fazal Mahmudun Nobi, Dr Sajid-Bin-Doza, Tanzina Khan, S.M Kaikobad for showing my path and guide me till the end. I would also like to thank all those friends who have always been by my side and motivated me throughout the semester. The journey has given me so much that cannot be described in words. And finally, Thanks to BRAC University.

Chapter 1: Background of the project

1.6 Project Brief

1.7 Project introduction

1.8 Project rationale

1.9 Aims and objectives of the project

1.10 Methodology

1.1 Project Brief

This project involves to provide a solution to the problems and design a cultural hub for the tea garden labors to promote the diminishing cultures and rituals of these indigenous people. The site is situated in the Kulaura upazilla in Moulabhibazar district. The client of the project is Ha-Meem group and the Site is in Luayuni-Holichara tea garden with about 370acre=1500000Sqm area.

1.2 Project Introduction

Bangladesh is one of the largest tea contributors among the south Asian countries in the world as well as good consumers as well. The tea industry helps in the economy of the country through export earnings. At present there are 172 tea gardens are functioning in the country. Being an agro-based activity, the tea industry need a vast number of labors who are engaged in various activities like growing, cultivating, plucking etc. The tea workers, who are an integral part of the industry, were brought during the British Colonial period by the British Companies from different parts of India like Bihar, Madras, Orissa, Andhra Pradesh, Madhya Pradesh, West Bengal, Uttar Pradesh and other places about 150 years ago. Most of them are lower-caste tribal Hindu people. In the tea estate, they got new identity "Coolie" (Gain, 2009) These ethnic communities have their own indigenous language, lifestyle, culture- but unfortunately, due to centuries of exploitation and deprivation, these indigenous communities are losing their dignity and leading inhuman life.

When these "coolies" were brought to the tea estates, they became the properties of the tea companies and their destiny were tied to the huts in the "Labor Line" that were provided by the companies. They have been serving here for more than one and a half century, more than 4 generations since they first settled here in the labor lines. The life in the labor lines are unimaginable, specially their social, economical and cultural life (Gain, 2009) Most of the tea workers live below the poverty line which leads them to live without basic human rights (Ahmed, 2014; Majumder and Roy 2012) They are forced to live in small dilapidated house, sometimes with their pet animals, without proper sanitary facilities and healthcare (Das and Islam, 2006) Without any education, knowledge, history, unity and cultural exposure, they are seemed to be isolated from the majority Bengali communities which is a perfect conditions for the exploiters to continue their exploitation (Gain, 2009)

In order to improve the lifestyle of the labor line and revive their history, tradition, language, culture, proper steps must be taken. This thesis project will seek to create a sustainable solution to the problems faced in the labor line. It will attempt to design a sustainable community which will connect the indigenous people of the tea garden labor line with the outer world, let them aware of their rights, revive their lifestyle, language, culture and make them self reliable.

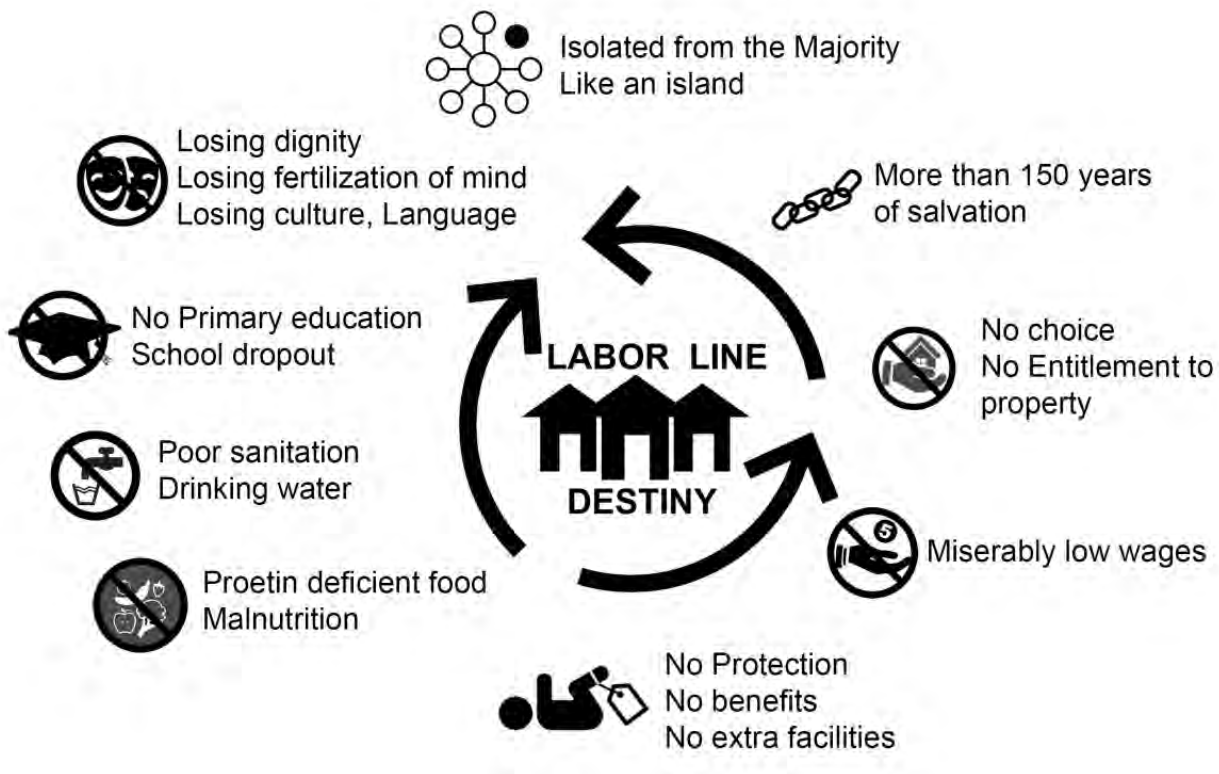


Figure 1: Life in a labor line diagram (Source: Author)

1.3 Project Rationale

The life of the people of the tea garden communities are inhumane. They are like living in an island cut off from the majority Bengali community. As a result, cut off from the outer world, they are being victim of greater exploitation as well as their custom and norms are getting diminished day by day. Their life style, living condition, cultural exposure is also of very poor level. That's why some mean to improve their condition and connect them and their rich indigenous culture with the majority community and get recognition is a crying need.

The idea of this project is to create a cultural exposure, so that the lifestyle and cultures of these people can come into highlight to the outer world. This would attract tourists from outside and enable them to add extra income to their economy as well as save their diminishing culture and customs.

1.4 Aims and objectives of the project

- To design a community which will provide better economy, social and political sustainability through architectural functionalism

- To overcome socio-economical difficulties and provide a better living condition to the tea garden community people.
- To propose a community which will connect the tea garden community with the outer world through indigenous cultural exposure.

1.5 Methodology

For the study, mainly reviewing of many relevant literature regarding this issue has been done. Such as Govt. and non Govt. official documents, reports, articles and books on the labors of the tea gardens, their history have been reviewed to get the proper situation and information. To analyze the situation, Some interviews are taken and surveys are done. Primary data sources are newspaper reports, interviews etc. And secondary data sources are relevant articles, books, reports from different organizations. Apart from quantitative research, some qualitative researches will be done to establish the reasons and the situation. The interviews and newspaper articles directly reflect the existing situation, where books and relevant articles helped to analyze the situation.

Chapter 2: Site Appraisal

2.1 Site Analysis

2.2 Site topography and surroundings

2.3 Site Photographs

2.4 Climate Situation

2.5 SOWT Analysis

Chapter 2: Site Appraisal

2.1 Site Analysis

The site is located in Kulaura Upazilla in Moulvibazar district. It is situated at the side of the Kulaura-Moulvibazar road away from the city. There are Bus and Train available from Dhaka to Kulaura Upazilla. After that, There's a 13km ride from auto or CNG.



Figure: Site location In reference to Bangladesh- In reference to Moulvibazar- In Reference to Kulaura. (Source: Author)

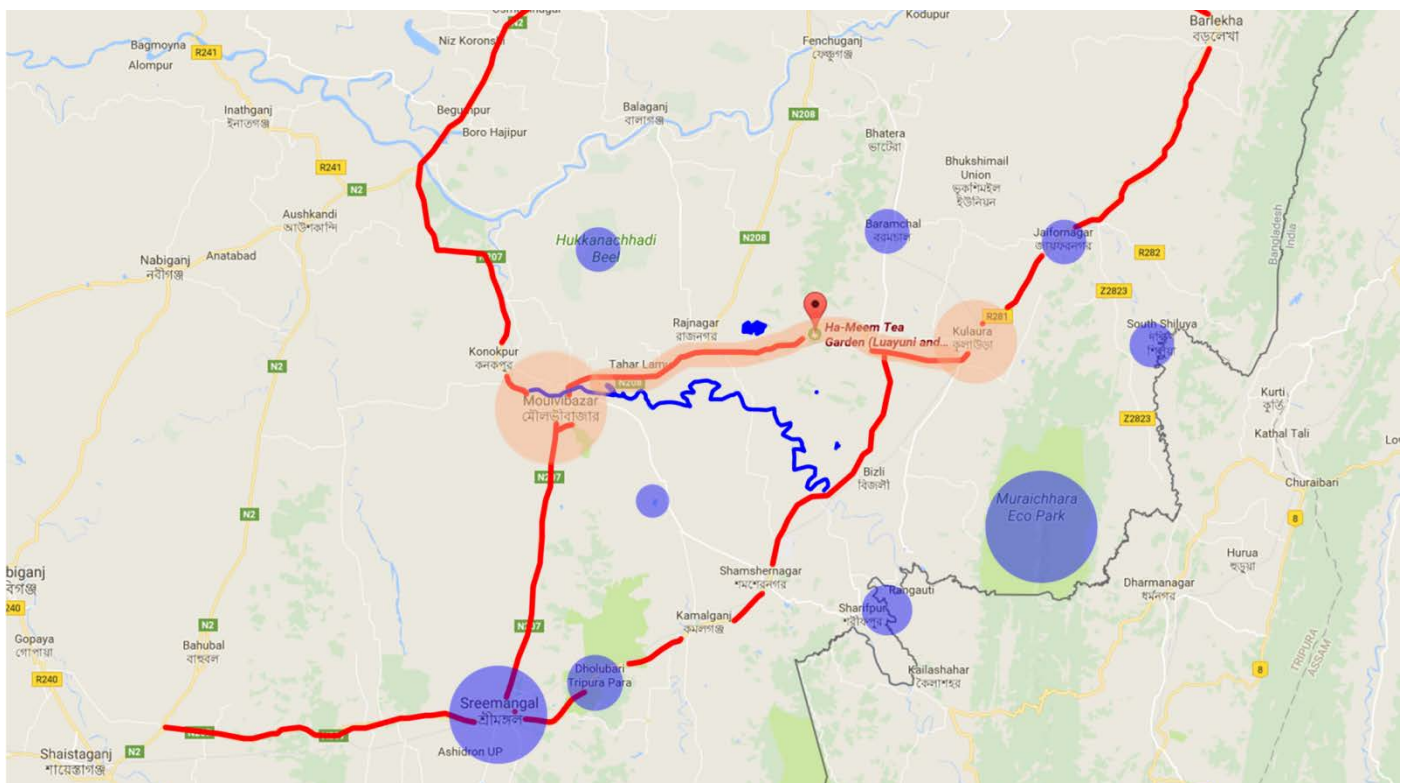


Figure: Location of the site, surroundings and points of interests. (Source: Google map, Edited)

2.2 Site topography and surroundings



Figure: Topographical mapping of the site (Source: Author)

The site is about 370 acres of land which is situated nearly 13km west of Kulaura upazilla. The site provides numerous hills and high grounds with spectacular experience of nature and wildlife.

There's a canal running throughout the site which can provide fresh drinking water supply. Also the hilly area provide natural view along with natural airflow. There are some small clusters of ethnic peoples living around the site. Also there are some Banglous and guest houses of the tea garden authority with modern facilities. Away from the pollutions of the city and surrounded by nature makes an ideal place for a sustainable community.

2.3 Site Photographs





Figure: Site Images (Source: Author)

2.4 Climate Situation

The site is located in a tropical climate area. Rainfall is significant most months of the year, and the short dry season has little effect. The Köppen-Geiger climate classification is Am. The average annual temperature is 24.8 °C in this region. The average annual rainfall is 3876 mm.

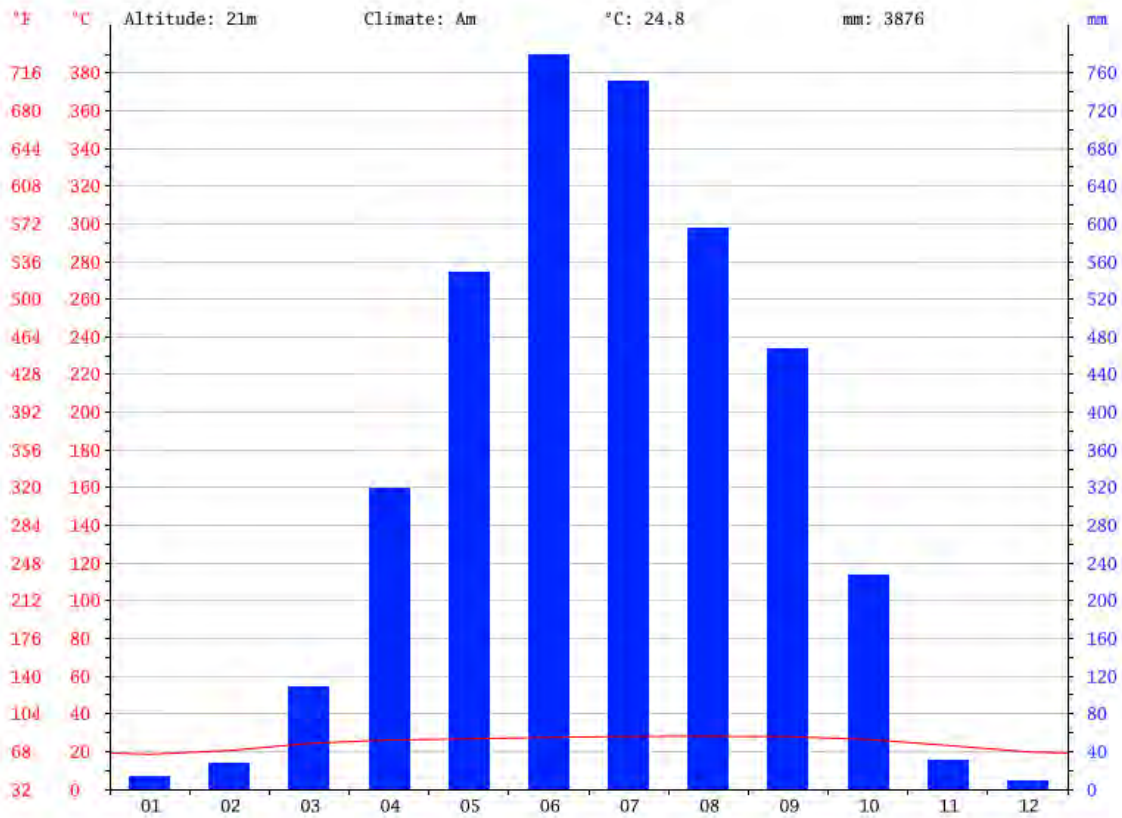


Figure: Climate graph (Source: <https://en.climate-data.org/location/3248/>)

Precipitation is the lowest in December, with an average of 8 mm. Most of the precipitation here falls in June, averaging 780 mm.

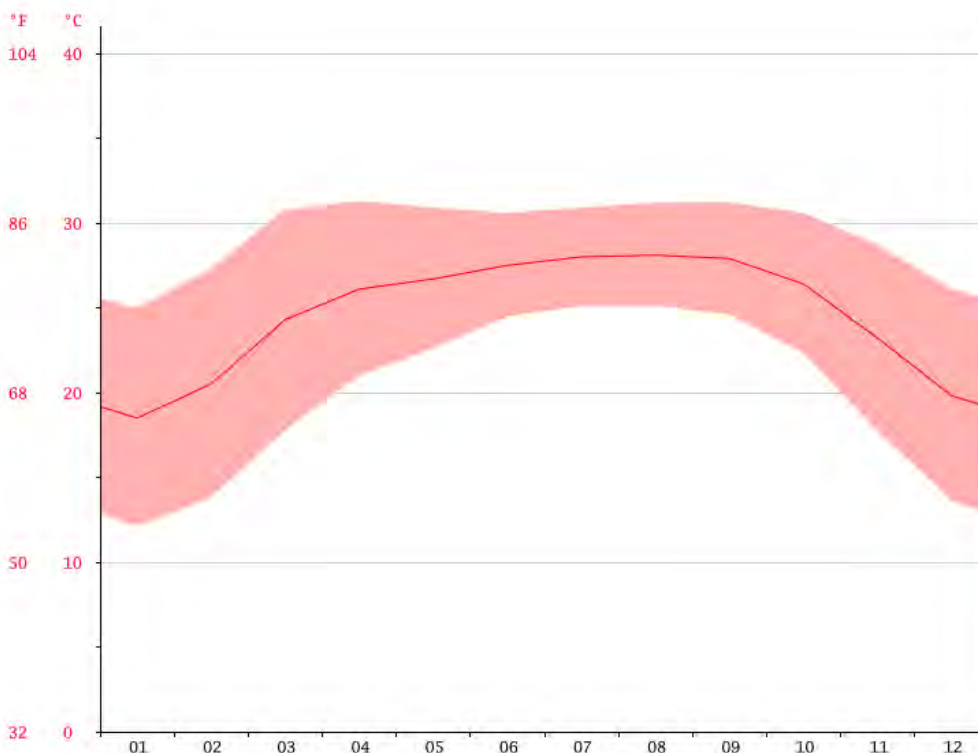


Figure: Temperature Graph (Source: <https://en.climate-data.org/location/3248/>)

At an average temperature of 28.1 °C, August is the hottest month of the year. January is the coldest month, with temperatures averaging 18.5 °C.

	January	February	March	April	May	June	July	August	September	October	November	December
Avg. Temperature (°C)	18.5	20.5	24.3	26.1	26.7	27.5	28	28.1	27.9	26.4	23.2	19.8
Min. Temperature (°C)	12.1	13.8	17.8	21	22.6	24.5	25.1	25.1	24.6	22.3	17.7	13.6
Max. Temperature (°C)	25	27.3	30.8	31.3	30.9	30.6	30.9	31.2	31.2	30.6	28.7	26.1
Avg. Temperature (°F)	65.3	68.9	75.7	79.0	80.1	81.5	82.4	82.6	82.2	79.5	73.8	67.6
Min. Temperature (°F)	53.8	56.8	64.0	69.8	72.7	76.1	77.2	77.2	76.3	72.1	63.9	56.5
Max. Temperature (°F)	77.0	81.1	87.4	88.3	87.6	87.1	87.6	88.2	88.2	87.1	83.7	79.0
Precipitation / Rainfall (mm)	13	27	108	319	549	780	751	595	468	227	31	8

Between the driest and wettest months, the difference in precipitation is 772 mm. Throughout the year, temperatures vary by 9.6 °C.

Figure: Climate table (Source: <https://en.climate-data.org/location/3248/>)

2.5 SOWT Analysis

Strength

- i) The site is only 13Km away from the Kulaura upazilla, with small transportation available always.
- ii) There's a fresh water canal running through the site providing with fresh water supply.
- iii) Being a tea garden, the site can attract many tourists and there are other tourists spots around such as CRP Guest House, Eco parks, Tea gardens, Lakes, Springs etc.
- iv) Primary school and local bazaar available nearby
- v) People have good skills at building structures with local materials.
- vi) Untouched by urbanization and away from pollution, the site provides natural air and breathing in nature.
- vii) Numerous wildlife and terrestrial can be observed.

Weakness

- i) Internal road networks are not very good.
- ii) Construction material which are not local, such as, Stone, concrete, steal are very costly.
- iii) Due to isolation from main community, crime and other unethical incidents may occur and emergency service is unavailable.

Opportunities

- i) Cheap and sustainable building materials easily available
- ii) Chance of attracting tourists and create secondary employment and cultural exposure.
- iii) Has the potential to make a sustainable community

Threats

- i) Being a hilly area and one of the highest recorded rainy areas of Bangladesh, landslide is probable.
- ii) Isolated from the city may cause criminal activities
- iii) Utility and emergency services are unavailable.

Chapter 3: Literature review

3.2 Tea plantation in Bangladesh

3.2 History of tea labors in Bangladesh

Background

Current situation

3.4 Culture

Definition of culture

Indigenous Culture

Definition of cultural center

Chapter 3: Literature review

3.1 Tea plantation in Bangladesh

Tea is an important export item in Bangladesh. Bangladesh ranks tenth among the ten largest tea-producing and exporting countries in the world. In the year 2000, the country's tea production was 1.80% of the 2,939.91 million kg produced worldwide. (Ahmed, Hossain, 2016)

The first experimental tea garden was established in Chittagong in 1840 and the first commercial-scale tea garden in Bangladesh was established in 1854. There are 163 tea estates in Bangladesh. Most of the 163 tea estates in Bangladesh are located in the North-eastern region of Bangladesh-Maulvi Bazar, Hobiganj, Sylhet, Brahmanbaria districts. There are a few number of tea estates in Panchagar District and in Chittagong South-eastern district.

Owners of tea gardens include both foreign and local companies. While four Sterling companies own 27 estate, Bangladeshi companies and individuals own the rest of the tea gardens. The four foreign companies are James Finlay, Duncan Brothers, Deundi Tea Company and The New Sylhet Tea Estate.

All the 163 tea estates are managed by five different categories of management:

- (i) Sterling companies
- (ii) National Tea company
- (iii) Bangladesh Tea Board
- (iv) Bangladeshi Private Limited Companies
- (v) Bangladeshi Proprietors

The estates are categorized into three according to their production capacities. They are:

1. Category A: All the 'A' category estates that have the highest productivity belong to the British companies (fully or partially).
2. Category B: The Bangladeshi government, Bangladeshi tea companies or Bangladeshi individuals own this category of estates.
3. Category C: The family owned small and low productive estates belong to this category. Wages and working conditions are at their worst in the tea estates under this category.

3.2 History of tea labors in Bangladesh

Background

Tea is a commodity with a colonial legacy. The British companies initiated its production in what is now, Bangladesh. Once it was predominately an export commodity, but now most of the tea produced in Bangladesh is consumed locally. But, what is least talked about discussion in tea production and its consumption is, the inhumane life of the labor force that keeps the industry running.

More than one and a half century back, the British companies brought those peoples from different states of India to work in the tea gardens in Sylhet region. As, the locals were unwilling for the job, the British Colonial rulers brought labors from the tribal's and Hindu low-caste or Dalit communities. (Gain, 2009) They brought labors from Bihar, Madras, Orissa, Andra Prades, Madhya Prades, West Bengal, Uttar Prades and other places to work in the tea gardens.(Jones, 1986) The journey of the migrants to the tea gardens was painful according to statements from different literatures. According to one account, in the early years, a third of the tea plantation workers died due to the long journey and tough working and living conditions. After arrival, these people got new identity, "Coolie" and turned into properties of the tea companies. (Gain, 2009) These coolies belonged to many ethnic identities, but their destiny were tied in the single rooms of the so called labor lines. They were told back home that, they would get "a lovely garden in the hill country, where they would look after trees with leaves of pure gold which would fall if you shook the." (Jones, 1986)

The workers came here with a four year contract with the companies. But, that was the beginning of their servitude while after one and a half century later, with four generation passed, the servitude continues.

Current situation

"Conditions on the tea gardens were grim. Companies used beatings, fines and imprisonment to keep their workers in line." (Jones, 1986)

More than a century and a half passed since the labor have settled in the labor lines. Now they are the citizens and voters of independent Bangladesh. But they remain as less talked and forgotten people. Most of them illiterate which makes perfect way to continue exploitation. They are so cornered, they solely depend on the tea companies for food, medicine, accommodations, education etc. They are totally cut of their origins in India and their life in Bangladesh is confined in the tea gardens. The do not share the same language and do not interact with other ethnic communities. They speak "A sort of bastard Hindi" that passes as a common language on the tea estates. (Jones, 1986)

They are alienated not just from their roots, they are also isolated from the present Bangladesh communities. The local peoples from the Northeastern districts consider them as foreigners. The Bengali workers also consider them as inferiors and keep distance from them. They treat them as untouchables. "The tea gardens are managed as an extreme hierarchy: the managers live like gods, distant, unapproachable, and

incomprehensible. Some even believe that they are Gods, that they can do exactly what they like” (Rolt, 1991)

The conditions of the tea workers reveal many kinds of abuse, discrimination and deprivation that are very difficult to overcome. Their conditions violate the maximum provisions of the Bangladesh Constitution, laws, rules that guarantee social, economic and human dignity.

3.4 Culture

Definition of culture

-Culture is the social behavior and norms found in human societies. Culture is considered a central concept in anthropology, encompassing the range of phenomena that are transmitted through social learning in human societies. Some aspects of human behavior, social practices such as culture, expressive forms such as art, music, dance, ritual, and religion, and technologies such as tool usage, cooking, shelter, and clothing are said to be cultural universals, found in all human societies. The concept of material culture covers the physical expressions of culture, such as technology, architecture and art, whereas the immaterial aspects of culture such as principles of social organization (including practices of political organization and social institutions), mythology, philosophy, literature (both written and oral), and science comprise the intangible cultural heritage of a society.

-The customary beliefs, social forms, and material traits of a racial, religious, or social group; also : the characteristic features of everyday existence (such as diversions or a way of life) shared by people in a place or time

- popular culture
- Southern culture

-The set of shared attitudes, values, goals, and practices that characterizes an institution or organization

-Culture is the set of values, conventions, or social practices associated with a particular field, activity, or societal characteristic

-It is the integrated pattern of human knowledge, belief, and behavior that depends upon the capacity for learning and transmitting knowledge to succeeding generations

- Culture is the act or process of cultivating living material (such as bacteria or viruses) in prepared nutrient media; also a product of such cultivation

-It is the act of developing the intellectual and moral faculties especially by education

Indigenous Culture

The term indigenous refers to any ethnic group that resides in its original location, practices a traditional culture, and speaks a minority language. However, this definition is not all encompassing. Some indigenous groups may have lost their traditional language, but are otherwise considered an indigenous ethnic group. Other ethnic groups may have been displaced from their original homeland but have retained most of their indigenous culture.

Definition of cultural center

A cultural centre is so space to participate in cultural activities. These centers aim to promote culture among the people of a community. The centre concept has its origin in the word Latin Centrum and can discuss various topics. One of the meanings refers to the place where people meet for a given purpose. Cultural, meanwhile, is an adjective that means belonging or which refers to the culture. This notion of the term Latin cultus, is linked to the intellectual faculties of man and the culture of the human spirit.

The cultural centre is often a meeting point in small communities where people come together to preserve traditions and develop cultural activities that include the participation of the whole family. As a general rule, the activities of the cultural centers are free or very affordable, so that nobody be dismissed for economic reasons. The property of cultural centre is usually State or cooperative, because it generally non-profit institutions.

Chapter 4: Contextual Analysis

4.1 Settlement pattern

4.2 Facilities in labor line

4.3 Housing Units in Labor lines

4.4 COMPARATIVE ANALYSIS

4.1 Settlement pattern

Labor line is a common housing pattern in most of the tea gardens developed by the British. In the labor line two rows of houses are arranged along both side of a linear circulation. The linear circulation helps to connect all the houses with common facilities. Labor lines are intentionally located in different parts of the garden to allow fast labor organization. Generally the labor lines are surrounded by the tea garden and hills. Sometimes lines are situated alongside a river, pond or a chhara (canals of fresh water from hills). There are cultivation lands seen by the side of the labor line which belong to the tea estate.

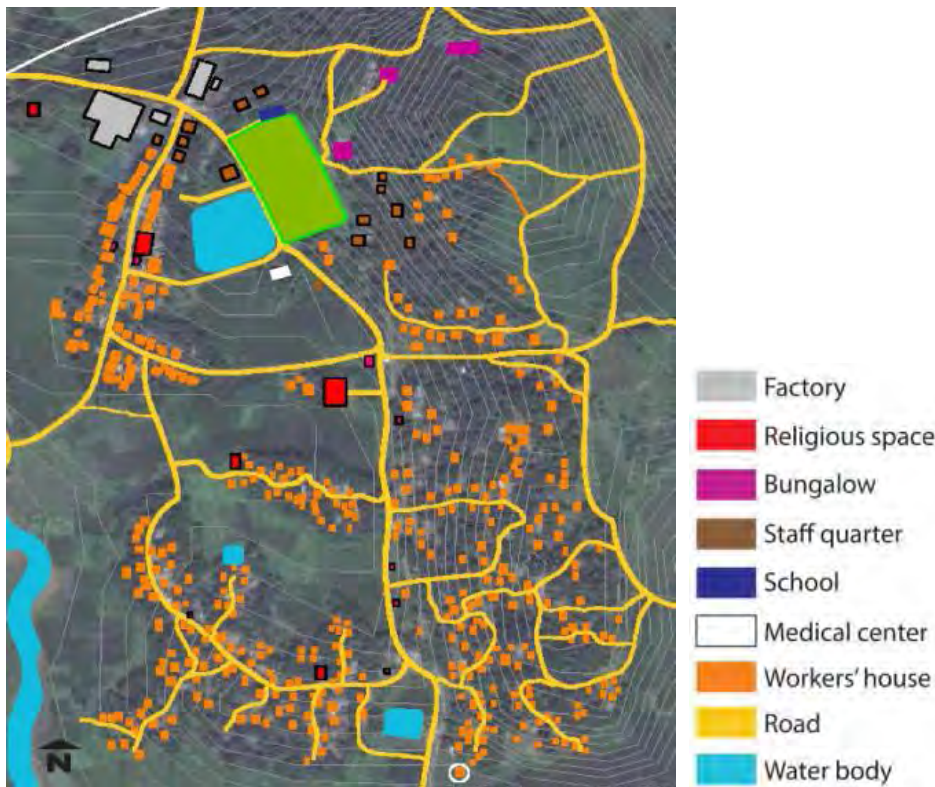


Figure: Satellite image of road network of Kodala tea estate, Chittagong (Source: IJEIT)

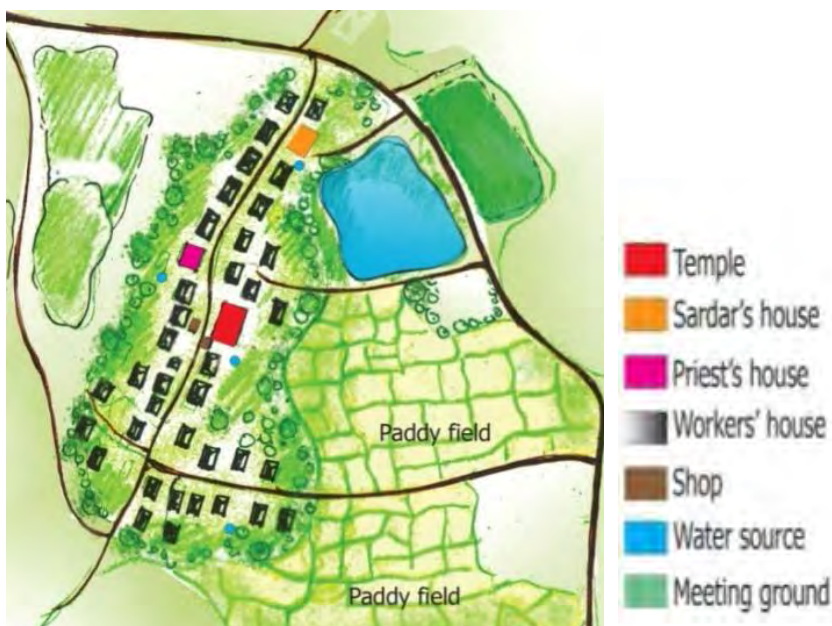


Figure: Settlement plan of a labor line (Source: IJEIT)

Each line is numbered and monitored by a line “Chokidar” and a “Saradar” who also reside in the same line. This arrangement helps the supervisors to control the manner of the workers in better order and bring them out to work in the morning timely. Settlement growth in the labor line is horizontal till now. When the number of family member increases, new dwelling is built adjacent to the old one.

4.2 Facilities in labor line

Road Network: In every tea estate the primary road connects the factory to the garden and the secondary roads link the residential quarters to the primary road . Usually the primary road is constructed with brick soling and other roads are unpaved. These unpaved roads become a big problem for both the workers and the management during the rainy season. In most of the tea gardens transportation facilities are in worst condition. In the tea estate there is no public transport. Most of the time workers have to walk a long distance to reach home.

Education and Health care Facility: According to the Tea Plantation Labor Rules, 1977, the employer has to establish a primary school in every tea estate to provide free education and the school should be within one mile from the labor line. From the field visit it is found that a few number of tea estates provide a primacy school which is usually built near the factory alongside the main road. In case of secondary education children have to go to the nearest village school. In almost all tea estates the company provides free medical services to workers and their dependents that are entitled to rations. Some of the tea estates establish small medical center at easily accessible location. If the authority is unable to provide medical facilities within the garden, they send them to the nearest outside medical center.

Figure: Education status of the workers (Source: JTSR)

Status	Frequency	Percentage
No Education	75	20%
Class 1-5	200	53.33%
Class 6-10	70	18.67%
Up to class 10	30	8%
Total	375	100%

Figure: Diseases in families (Source: JTSR)

Diseases	Frequency	Percentage (%)
Diarrhea	130	34.62
Dysentery	35	9.33
Fever	100	26.67
Tuberculosis	15	4
Typhoid	30	8
Hepatitis	25	6.67
Another	40	10.71
Total	375	100

Water supply and Sanitation: Previously well was the main source of drinking water located near the starting point of labor line. Nowadays hand pumps are the most common source of water supply in the tea garden which is provided to a cluster of family on the flatlands. Other water

sources like ponds, thin shallow canals are found close to the line. Sanitation condition of the workers is very poor in every tea estate. The majority of the workers use open space as toilet. Some of the workers use pit latrine at the back yard but in damaged situation due to improper construction and ill management.

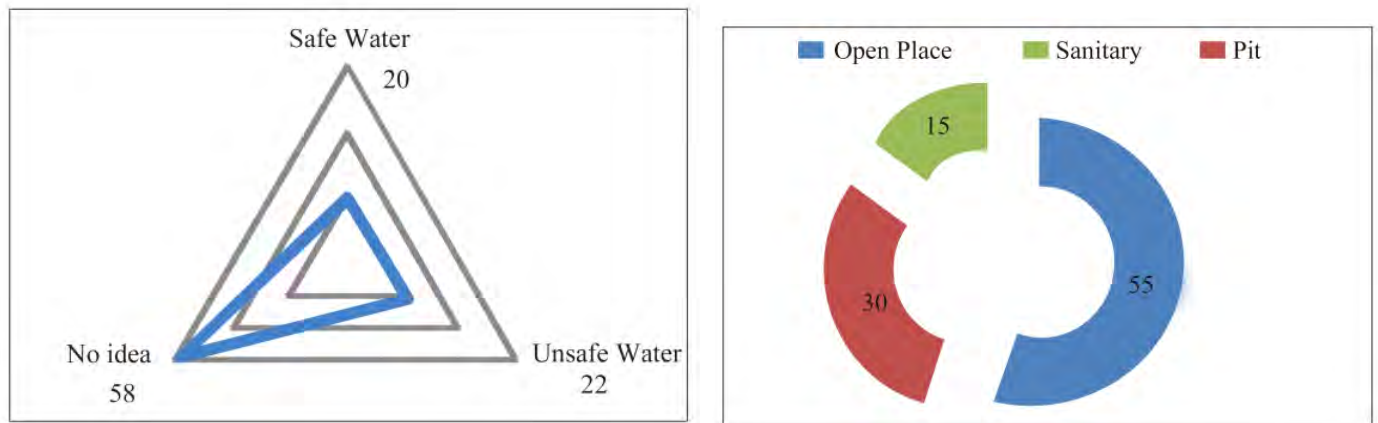


Figure: Safe water and Sanitary condition in labor lines

4.3 Housing Units in Labor lines

In the labor line when a new house is to be constructed, the priest of the locality decides the actual position of the house. Generally the houses are positioned in the east west direction according to their religious belief and every house has entrance through the front yard. Most of the houses of tea workers are single storey mud hut. The estate provides a 7'x14' room for each permanent worker which they call "Shat Chowddha". A room of 8'x12', 8'x8' is also seen in some of the tea estates. In order to maintain privacy the dwellers use vegetation or CI sheet barrier to isolate their house. Most of the houses are decorated with colorful mud plastering. Different types of decoration patterns like ohm, swastika, foliage, leaves, creepers, crescent etc. are seen on the exterior walls.

Generally the houses are rectangular in plan and have two rooms with a verandah. One room is used for worship space sharing with storage and the other is for sleeping area. The verandah which is the extension of the house has multipurpose use like living, cooking, dining, storage, laundry and sleeping space at different time. The open spaces around the housing unit hold the kitchen, toilet and cattle shed. Usually the rooms are partitioned by mud wall or bamboo mat wall.

The workers having better economic condition build a small family temple in their front yard. These temples are generally mud built or have bamboo mat wall with thatch roof or CI sheet roof. Other workers have a particular place for worship purpose in their house located at the north or east corner of the room which has no windows. There is a small 3" to 6" raised earthen surface on which the deity's picture and idols are placed.

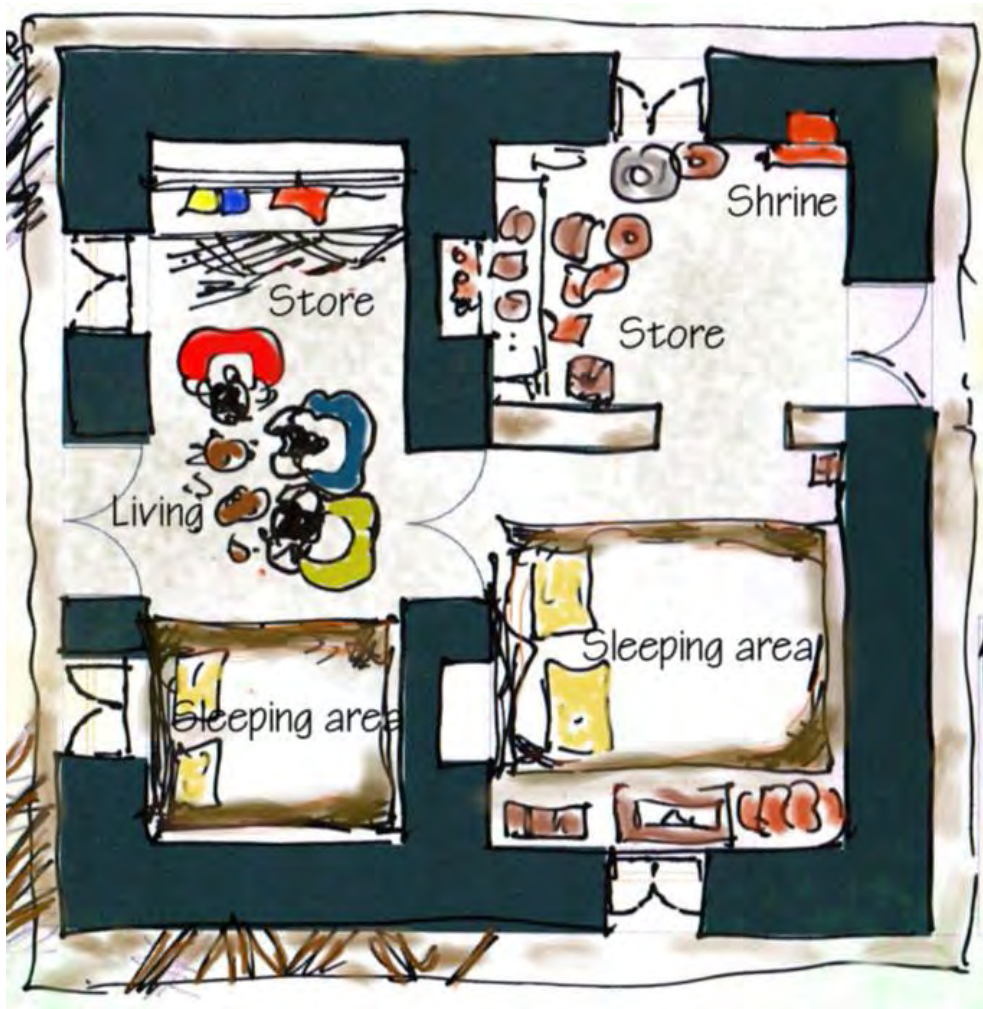


Figure: A typical plan of a Dwelling unit

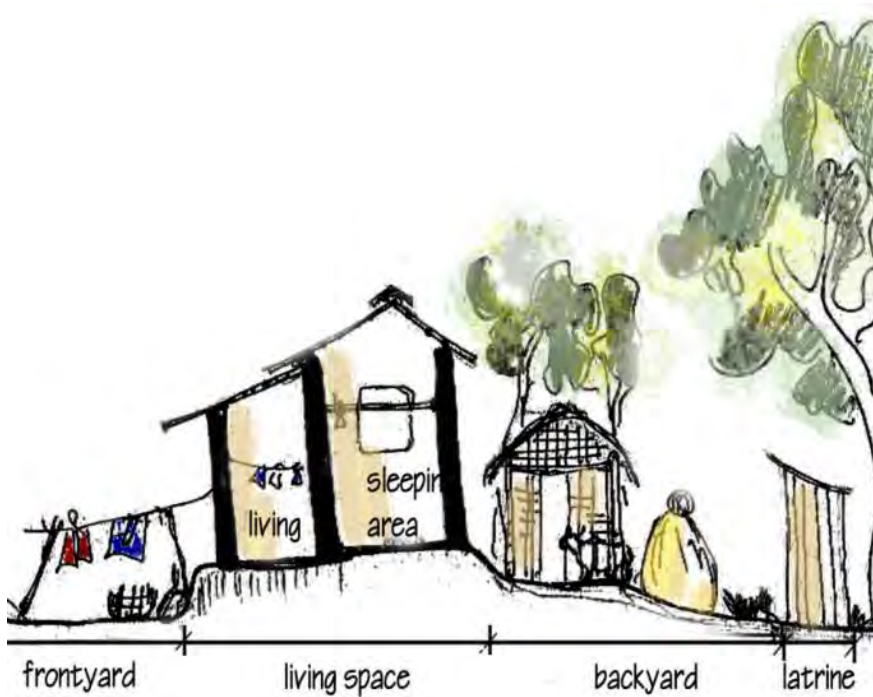


Figure: Typical section of a Dwelling unit (Source: IJEIT)

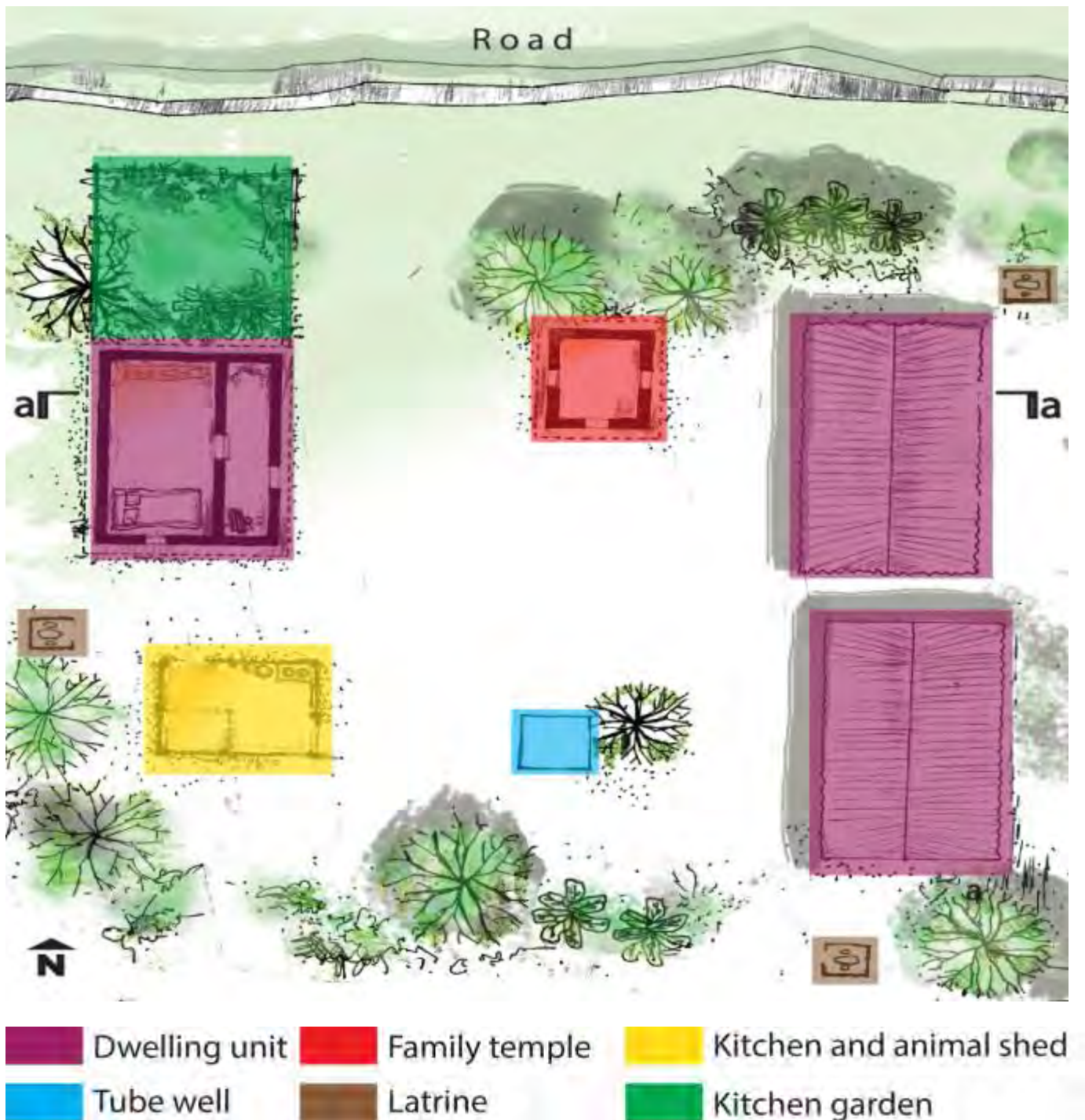


Figure: Use of spaces in a housing cluster (Source: IJEIT)

The tea workers are one of the most exploited and socially isolated peoples of Bangladesh. Originating from different socio-cultural background these ethnic communities have weakened their identity by practicing common culture and language. Moreover their settlement pattern has got new dimension due to imposed British rules and alter of topographic and climatic conditions. In present settlement pattern houses are arranged linearly where their original courtyard system has transformed into small open space in front of the house. These open spaces which are most active zones during celebrations and festivals are being occupied by new house construction and house

extension. In addition house decoration art of these ethnic communities which represents their age old culture is diluted due to the use of modern construction techniques and building materials. Contextual analysis of settlement pattern and dwelling system of the tea workers" community which will be helpful for proposing new policies regarding their settlement growth. Opportunity should be provided to the workers to retain their original art, culture and architecture for the sustainable development of the community.

Chapter 5: Case Study

5.1 Case Study : Kazi and Kazi Tea Estate

5.2 Case Study : Dusai Resort

5.2 Case Study : Jean-Marie Tjibaou Cultural Center

Chapter 5: Case Study

5.1 Case Study : Kazi and Kazi Tea Estate

Kazi & Kazi Tea Estate Ltd is the only substantial organic tea grower in Bangladesh. This garden is located in Tetulia, in the northernmost district of Panchagarh, only 50 km south of Darjeeling. They were inspired to produce high-quality organic teas to meet the growing demands of both local and foreign markets. Incorporated in the year 2000, they acquired virgin lands which had never before been used for cultivation. After extensive research and consultation with the Bangladesh Tea Board, plantation began on August 6, 2000.

This step for organic tea plantation has not only played a vital impact on economy and environment, but also paid a huge social impact. KKTE is serving for the population by creating employment opportunity, creating knowledge platform for organic farming, and ensuring eco-friendly farming activities. Women are getting job/work priority in KKTE at the same time disabled, ethnic and minority is getting special priority during selection of workers. KKTE is also performing lot of social activities reported by the respondents from all categories including financial support to the meritorious poor students, sport goods to the youth clubs, school, college and madrasa, Donation to the mosques, clubs, schools and colleges. KKTE is also playing great role in raising awareness on health & hygiene among the workers and community people through training and hardware support likely distribution of sanitary latrine among the community people free of cost and training on several issues. Community people are the major stakeholders of KKTE getting benefits both ways either directly or indirectly through employment, supplying various products including bamboo, straw, baskets, top soil etc.

One of the most significant pillar of Kazi's organic tea cultivation is its cattle with nearly 1000 cows in 13 farms. The cow are used in bio-gas plant and manufacture compost. As compost produced from own cows is not enough, the kazi group distributes cows as loans to the poor people of the area, who, instead of paying debt in cash, give the cow-dung and half of the milk the cow produce. Thus, the cow distribution program produce enough cow-dung for making organic tea production sustainable as well as creating extra source of income to the local people.

Small scale tea cultivation is another key aspect of the emerging tea industry of Panchagarh. The KKTE also supports these small tea growers through Kazi Saheed Foundation. The farmers willing to produce tea organically qualify for this foundation. The foundation provides training, loan for rearing cattle and poultry, seedlings and assist the small growers having registration and subsidies from the government. Thus the small grower get the opportunity for sustainable and pollution free tea production as well as support in the economy.

As compared to past, the population characteristic has tainted over time. Both KKTE people and outside people agreed that positive change has occurred after KKTE intervention. The noteworthy changes are listed down: Population has increased in numbers and density; Unwaged has engaged in several occupations; The education rate has increased (Especially adult education); Remarkable income has increased in the environs of KKTE; Less pollution due to organic farming activities; Women empowerment (women is getting preferences in the work; Few were switching occupation from agriculture to business; Livelihood improvement; Local market establish and development; Area development; Decreased rate of unemployment; Poverty reduction; Better communication & road infrastructure (Connecting road). Community people prefer present situation for community progress but they want more improvement in the near future. The local community people has participated in this progress willingly and accepted gladly. 25% respondents answered that it is an organic garden and produce organic products involving community people. 15% mentioned that environment friendly garden and good organization. Only 5% respondents were mentioned that they have no idea on it.

Women are getting preferences in KKTE during selection of workers and frontline staffs. Communities are welcoming such issues and gladly accepted it for empowering women and ethnic people. Everyone from community accepted it positively. As per survey result, 60% respondents were mentioned that KKTE has created employment opportunity for local community people directly and 25% respondents were mentioned that KKTE has engaged community people as workers or suppliers indirectly.

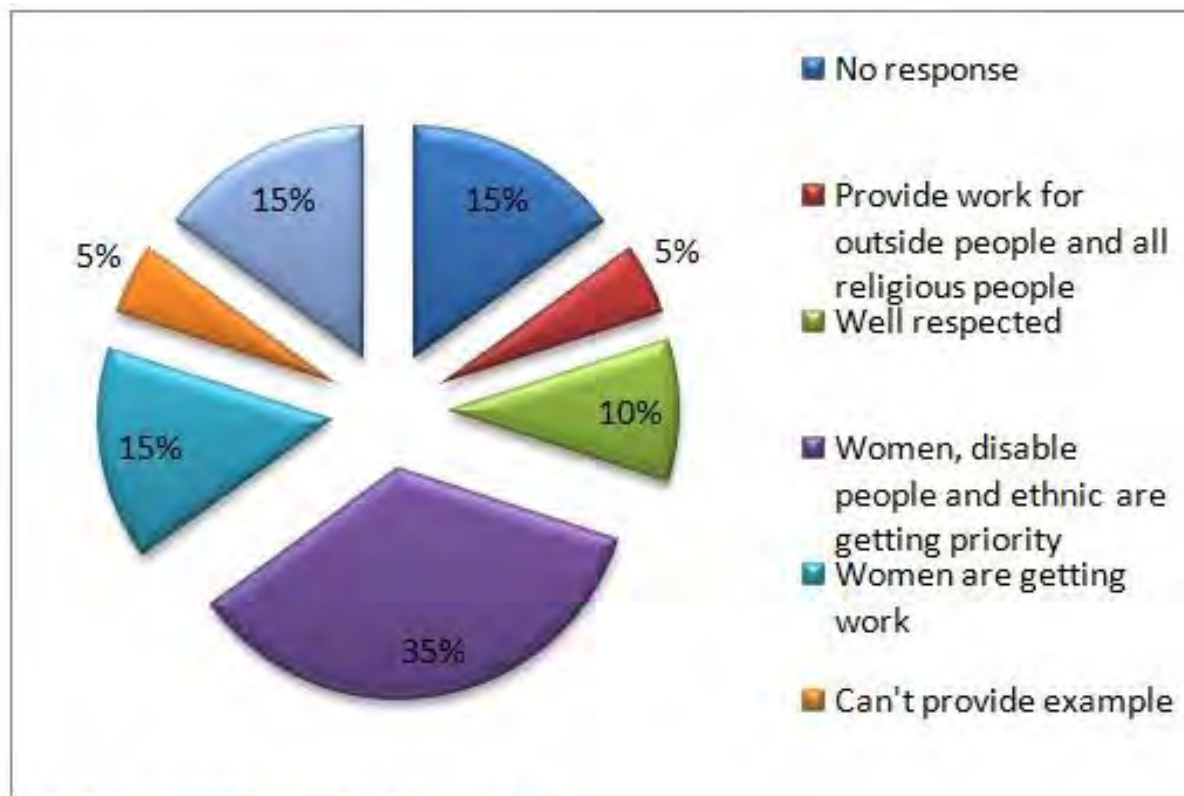


Fig 1: Role of KKTE perceived by workers

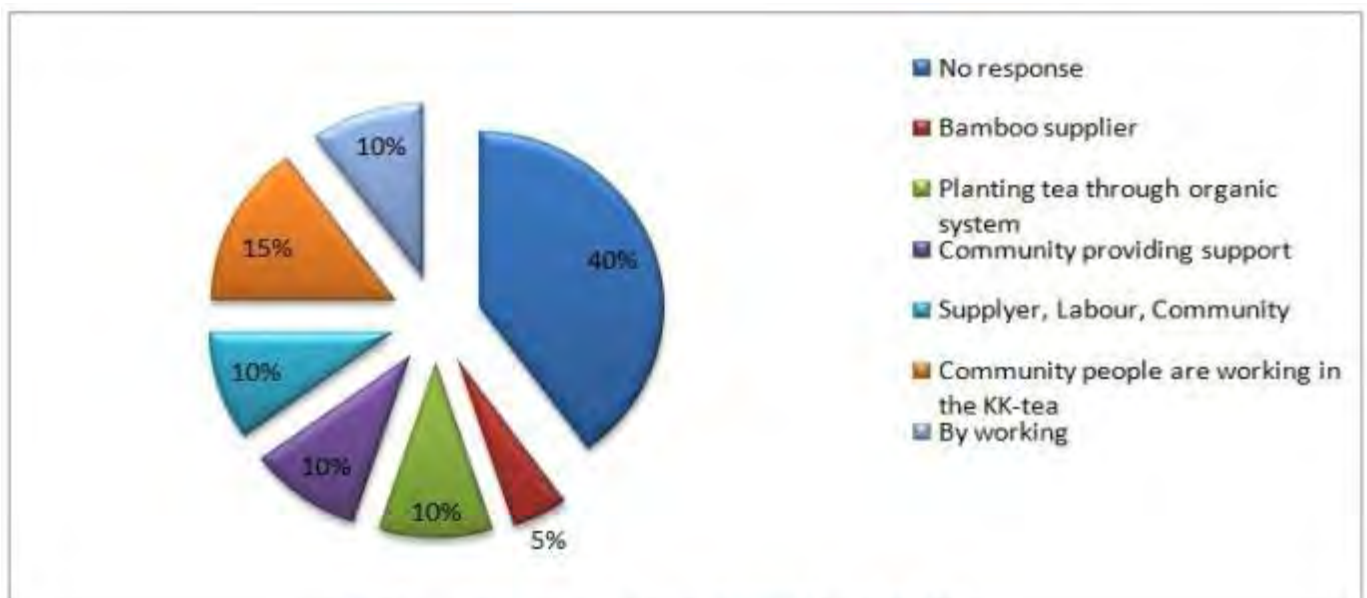


Fig 2: workers perception on KKTE's stakeholders

Greening was perceived as the prevalent cultivating practice in Panchagarh, Bangladesh. It was attributed to diverse and complex motivations that include: brought fallow lands under green cultivation; land conversion from unused to better utilizations; land conversion from traditional use to tea plantations. 90% respondents were mentioned that KKTE is playing great role in environmental conservation by planting trees, organic farming and using renewable energy. Community can take part in the environmental conservation by planting trees in their homesteads (30%), adopting organic farming practices (20%), and avoiding chemicals.

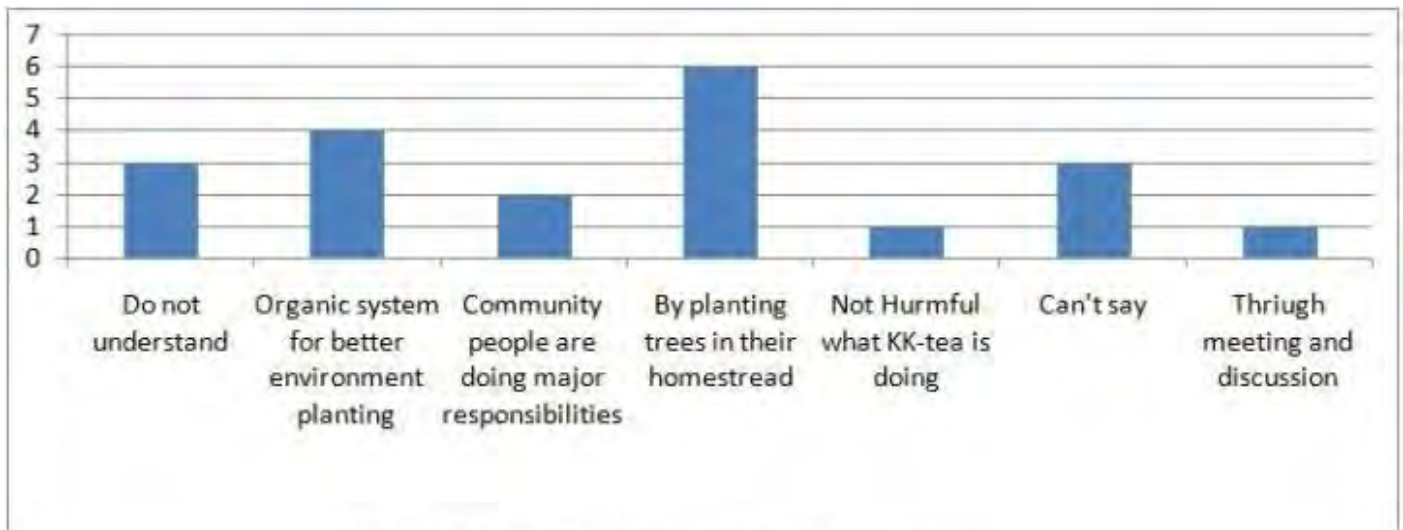


Fig 4: KKTE's role in environmental conservation

Impacts has been created by the KKTE in various ways including social, economic and environmental. KKTE is the key stone in rural sandy zone of Panchagarh district by creating green carpet on the vast and fallow sandy areas. It also working for the rural poor people through the creation of employment opportunity especially for women. The disables, minority and ethnic people were getting preferences for the employment. The overall socio-economic condition of common people is changing rapid in Panchagarh following a faster development of the tea sector. Local tea growers elected body and officials concerned opined that setting up of more tea processing industries, competitive markets at the grass roots for tea leaves, supply of natural gas and resolving problems like power crisis could accelerate the production of tea. At the same time, hundreds of Panchagarh females, who lived in utter miseries due to abject poverty for years together, are now changing their fate and achieving self-reliance by earning wages as plucking workers in the dozens of tea gardens at the officially recognized third Tea Zone of the country. The female workers are yet to get their just wages from the garden-owners as the growing tea-farming sector in the region has been facing manifold problems including present unfair prices of the tea leaves for the tea farmers.

5.2 Case Study : Dusai Resort



Dusai Resort & Spa, an award winning project by VITTI Sthapati Brindo Ltd. is a paragon of architectural sensitiveness, contextual response and cultural consideration. The project won 'Gold' in '9th International Design Award' competition contemplating architects' reputation.

Dusai Resort & Spa is a destination resort equipped to serve more than 180 guests at a time with guest living facilities of 80 rooms, 3 restaurants, children's playground facilities, swimming pool, spa, convention hall etc . Guestrooms are nested on top of the hillocks while the services and walkways are placed in the valleys.

Harbored in the serene green hillocks of tea plantations in northeast Bangladesh, “**Dusai Resort & Spa**” is the first destination resort of its kind in Bangladesh. The complex exudes the essence of a tribal village with its formation along the sloping hills. It includes residential, dining, swimming pool, spa, conference, and indoor and outdoor sports facilities. The site consists of three shallow hills and valleys. The public area with reception and convention hall is placed on the first hill and all the guest rooms are places on the slope of the hills for ease of movement. Other facilities are placed towards the valley. The vehicular circulation ends in public area and the journey towards guest area is starts by foot or electric car. The internal roads and walkways are placed in a round trip encompassing the complex allowing one to travel the whole area in circular motion. The guest facility features a main hotel block and stand-alone bungalows. There are two types of bungalows: cottages for families in a semi-private setting and deluxe cottages for couples in a more private setting, on the slopes of the south-facing hill. Service amenities blend semi private and private zones.

Sylhet is home to the “Khasiya” tribes. The project layout is inspired by their indigenous housing style to blend with the nature and hilly region. The local climate causes high rain with flash floods during the rainy seasons, therefore pitch roofs are incorporated. The structures sit on concrete frames anchored to ground allowing the villas hanging on the edge of slope without disturbing the natural contour. Existing trees shape out the setting of the villas, so that the wilderness is unharmed. The resort is designed by cautiously considering the natural setting and contour site. This resort allows the guests relish the essence of living within nature.

MATERIALS

The project construction materials comprise of locally available materials combined with indigenous construction techniques. Concrete structure infill's are comprised of brick walls. Outdoor facade rendered with fair face cement plaster and indoor facades comprises of regular cement mortar plaster rendered and painted. All floors are finished with homogenous matt finished tiles & Villas have wooden floors. General ceilings are cement plastered and finished with paint and some parts are dry gypsum plaster finished.

CONSTRAINTS AND SOLUTIONS ACHIEVED

Contour Site:

The contour site posed as a constraint as well as adding diversity to the project. The hilly site on the natural setting urged for the wilderness to be untouched whereas building on such setting with usual techniques could offset its natural setting. Following the indigenous construction style and technique; the longer structures were broken into smaller ones matching contour as opposed to following regular construction techniques that would have called for the contour site to be flattened to build a sizable structure.

Landslide:

The structures are built on slopes that posed the threat of landslide which was resolved by installing slender concrete columns deep into the earth and mimicking the floating structures of local indigenous “Khasiya” houses.

Woods:

The land was deep into the woods and populated with tall trunk trees. It was difficult to find any buildable space. The villas had to be placed in between trees. These trees actually governed to shape out the final layout of this resort.

This is the first of its kind spread out resort in the remote hilly region of Bangladesh. The project is a symbiotic and It employed local expertise and builders with appropriate local technology. It also embraces local culture and community. It contributed in local economy by acquiring the construction materials from local suppliers as well as daily fresh supply of grocery and vegetables from local community. In the resort regular cultural shows are arranged to foster the Sylhety and Khasiya culture.

5.2 Case Study : Jean-Marie Tjibaou Cultural Center



(Source:www.arch2o.com/jean-marie-tjibaou-cultural-center-renzo-piano-building-workshop/)

An understanding of the development of Kanak culture was a vital part of this project – becoming familiar with Kanak history, environment and beliefs made it possible to design a building that would fit within this context. Close working relationships with local people, Marie-Claude Tjibaou (Jean-Marie Tjibaou's widow), and anthropologist Alban Bensa were an essential part of this learning process.

Taking inspiration from the Kanak people's deep ties with nature, the project sought to meet two main objectives: one was to represent the Kanak's talent for building, and the other was the use of modern materials such as glass, aluminum, steel and modern light technologies along with the more traditional wood and stone.

The Center designed by RPBW is a cluster of 'huts', small pavilions and tree-filled spaces. It is located on a spit of land called the Tina Peninsula, surrounded by water on three sides. The site's lush vegetation is cut through with trails and paths, amongst which there are 'villages': clusters of buildings with strong ties to their context, their semicircular layout defining open communal areas.

The structure and above all, the functionality of New Caledonian huts were reproduced and adapted, architecturally as well as socially. There are ten huts, of three different sizes, from 20 to 28m in height, all interconnected by a footpath. Within the Cultural Center, these huts serve various functions. The first group comprises exhibition spaces, the second series of huts houses research areas, a conference room and a library. The last series of huts contains studios for music, dance, painting, and sculpture.

These buildings have a curved shape that references traditional Kanak constructions but here rather than the traditional woven vegetable fiber, these buildings are made of wooden ribs and slats: traditional exteriors inside of which all the benefits of modern technology are provided. Low-maintenance, termite-repellent iroko wood was chosen for the project.



(Source: www.arch2o.com/jean-marie-tjibaou-cultural-center-renzo-piano-building-workshop/)



(Source: www.arch2o.com/jean-marie-tjibaou-cultural-center-renzo-piano-building-workshop/)

Chapter 6: Program Development

6.1 Program layout and area

Cultural Zone

Requirements	Number	Area
Lobby	01	1000sft
Lounge	01	1700sft
Reception	01	200sft
Information	01	250sft
Multipurpose Hall	01	3500sft
Temporary Gallery	02	3000sft
Permanent Gallery	02	5000sft
Workshop	02	800 sft
Restaurant + Dining	01	5000sft
Guest House	08	400sft
Viewing Deck	01	3000sft
Amphitheater	01	9000sft
Total		43650sft
Including 30% Circulation		56745sft

Training Center

Classroom	08	600sft
Teachers Room	04	400sft
Staff Room	01	400sft
Office Room	01	400sft
Headmasters Room	01	150 Sft
Ass. Headmaster's Room	01	150sft
Total		7500sft
Including 30% Circulation		9750sft

Administration

Lobby	01	300sft
Reception	01	200sft
Lounge	01	600sft
Meeting room	01	600sft
Office	01	1200sft
Directors Room	01	250sft
Ass. Directors Room	01	150sft
Accountants	01	100sft
Registrar	01	100sft
Caretakers Room	01	100sft
Total		3600sft
Including 30% Circulation		4700sft

Chapter 7: Conceptual Stage and Design Development

7.1 Conceptualization

7.2 Programs Conceptualization

7.3 Conceptual Sketches

7.4 Form Derivation

7.5 Final Design

7.5.1 Floor Plans

7.5.2 Elevations and Section

7.5.3 Structure

7.5.4 Renders

Chapter 7: Conceptual Stage and Design Development

7.1 Conceptualization

“Real cultural diversity results from the interchange of ideas, products, and influences, not from the insular development of a single national style.” (T. Cowen)

Culture is a simultaneous interrelation among religion, language, nature, education, health, shelter, rituals, crafts and so on. These fades away when any interrelation is disrupted or disturbed. Due to generations of isolation from the local communities, exploitations from the land owners and no support from the government, these cultures of thousands years from the ethnic peoples are fading away. Thus the concept behind the project was culture exposure.



Diagram: Cultural Interrelation (Source: Author)

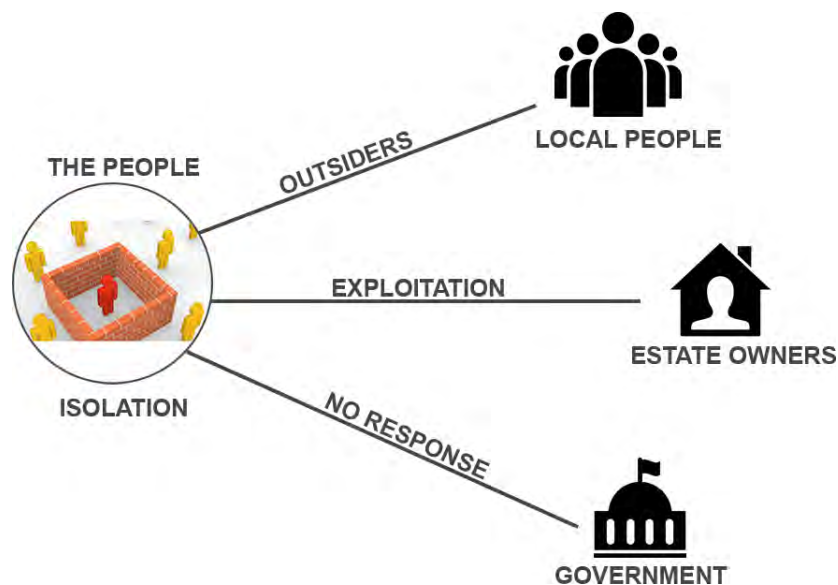


Diagram: Relationship with the outer world (Source: Author)

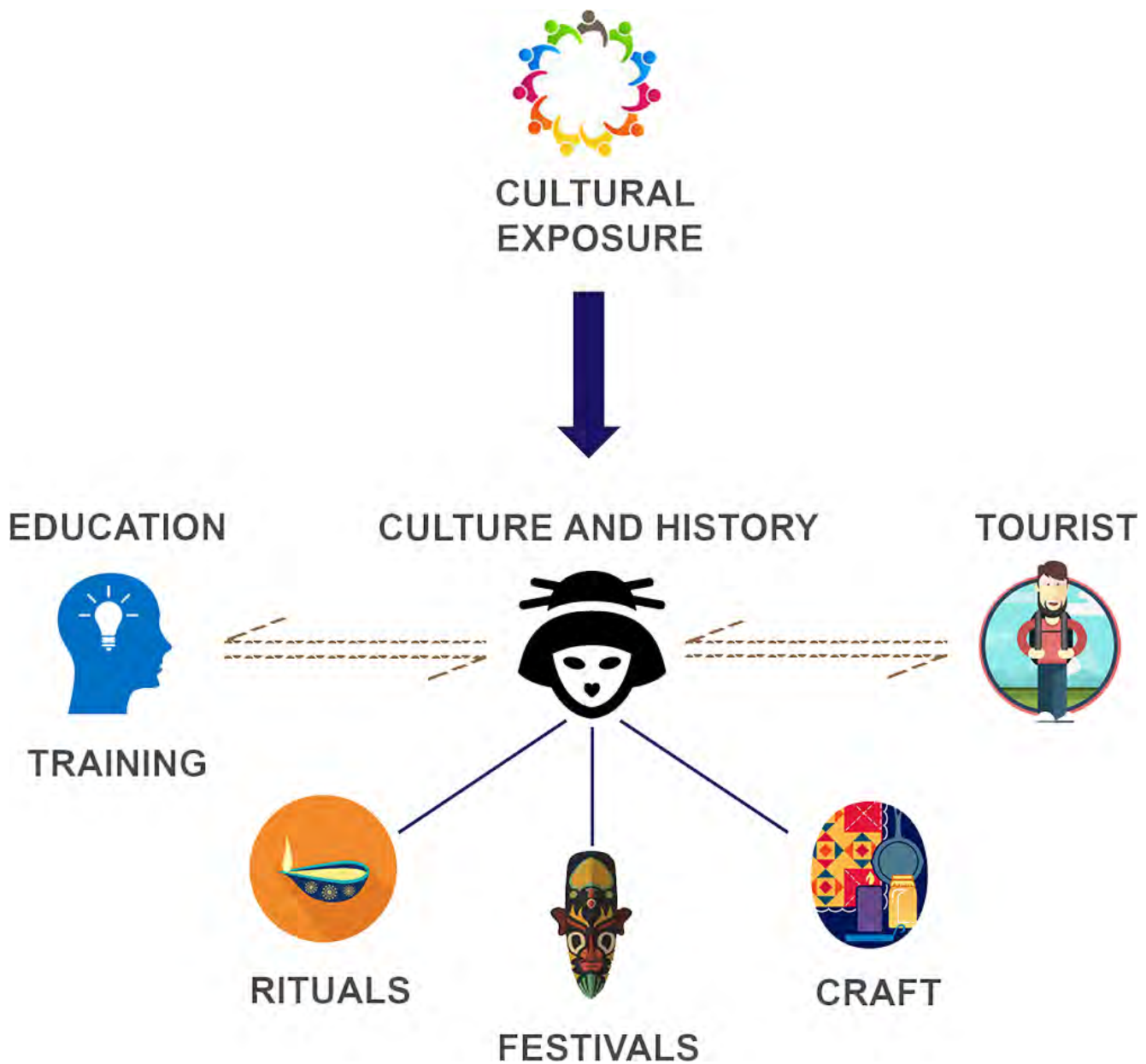


Diagram: Cultural exposure (Source: Author)

Through thorough observation, it was discovered that cultural exposure is possible through contextual education and training, culture and history, and tourist attraction. Thus, in the project, these aspects are to be highlighted. Vocational education and training is to be provided for preserving the diminishing cultures and rituals. Through rituals, festivals, and arts and crafts, the cultural history can be practiced. And through tourists' attractions, financial benefits as well as exposure to the outer world is possible. Thus, cultural exposure can be ensured.

7.2 Programs Conceptualization

Cultural center:



Diagram: Conceptual diagram of cultural part (Source: Author)

The cultural center of the complex will represent the cultures and customs of the tea garden people as well as represent the Ha-Meem group and their products. As the mainstream society and outer world have little idea of this community, it will be a tourist attraction spot and a culture exposure of the community. As a result people will interact with these community and learn and understand about their rich culture which are getting diminished day by day. Again, The community people can sell their products and handicrafts and add extra income to their economy.

Vocational Education and Training Center

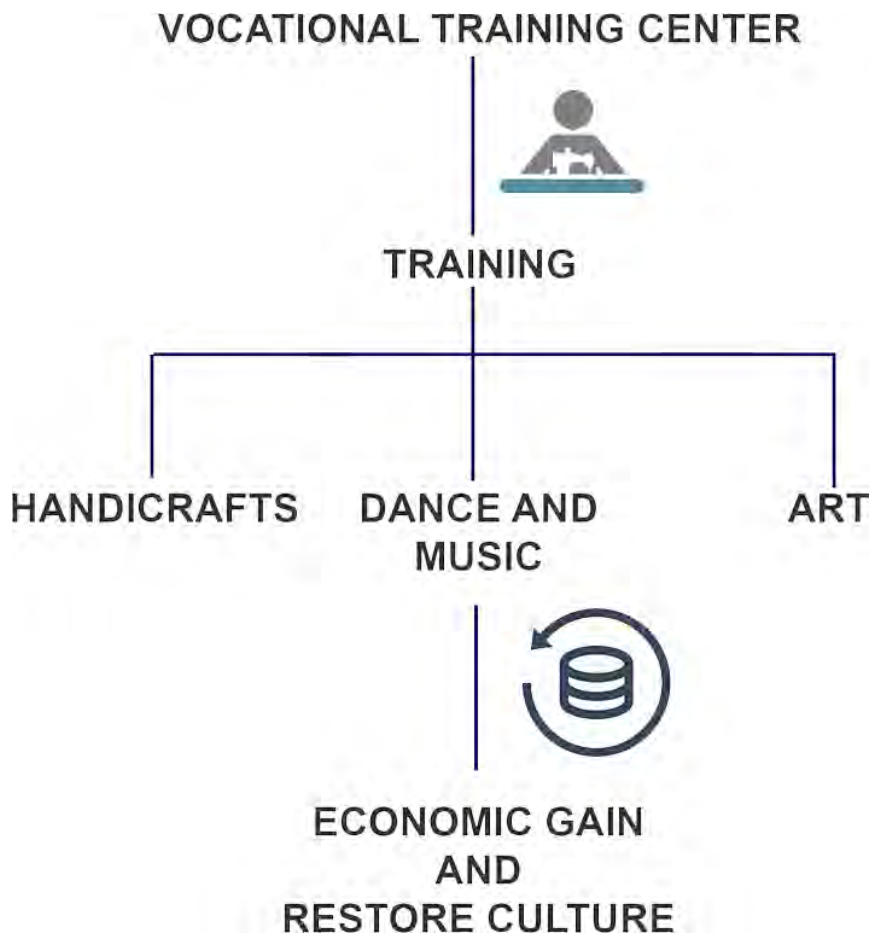


Diagram: Conceptual diagram of Vocational training center part (Source: Author)

The vocational training center will train them about their cultures like handicrafts, arts and dance, traditional music's and so on. This will help them protect their diminishing cultures and traditions as well as open a new source of income in their future.

7.3 Conceptual Sketches



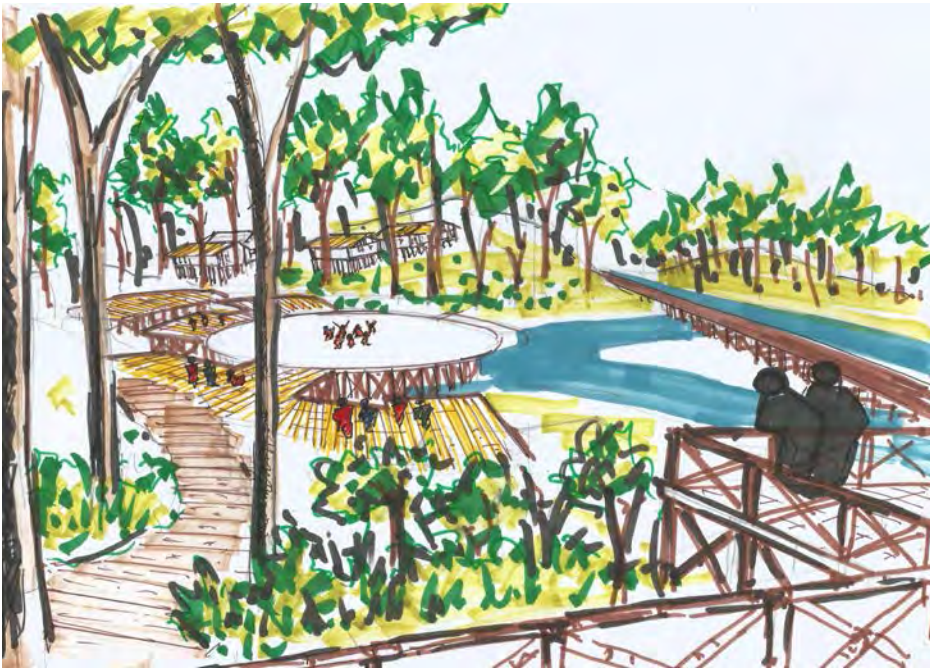


Figure: Conceptual Sketches and space design (Source: Author)

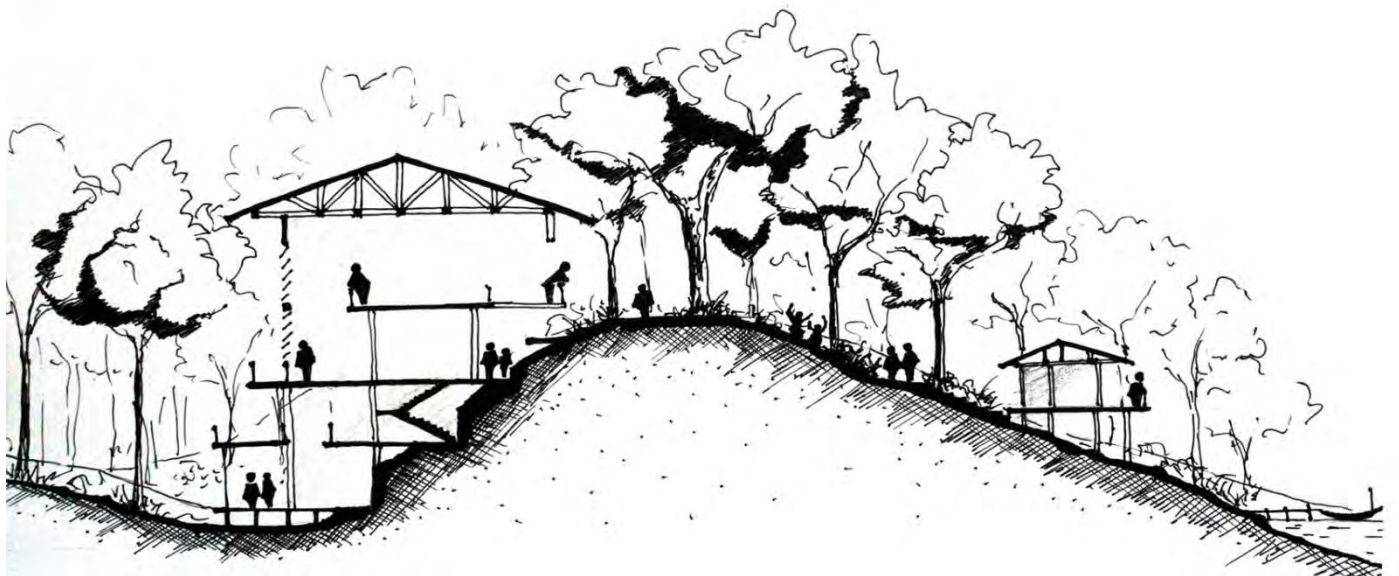
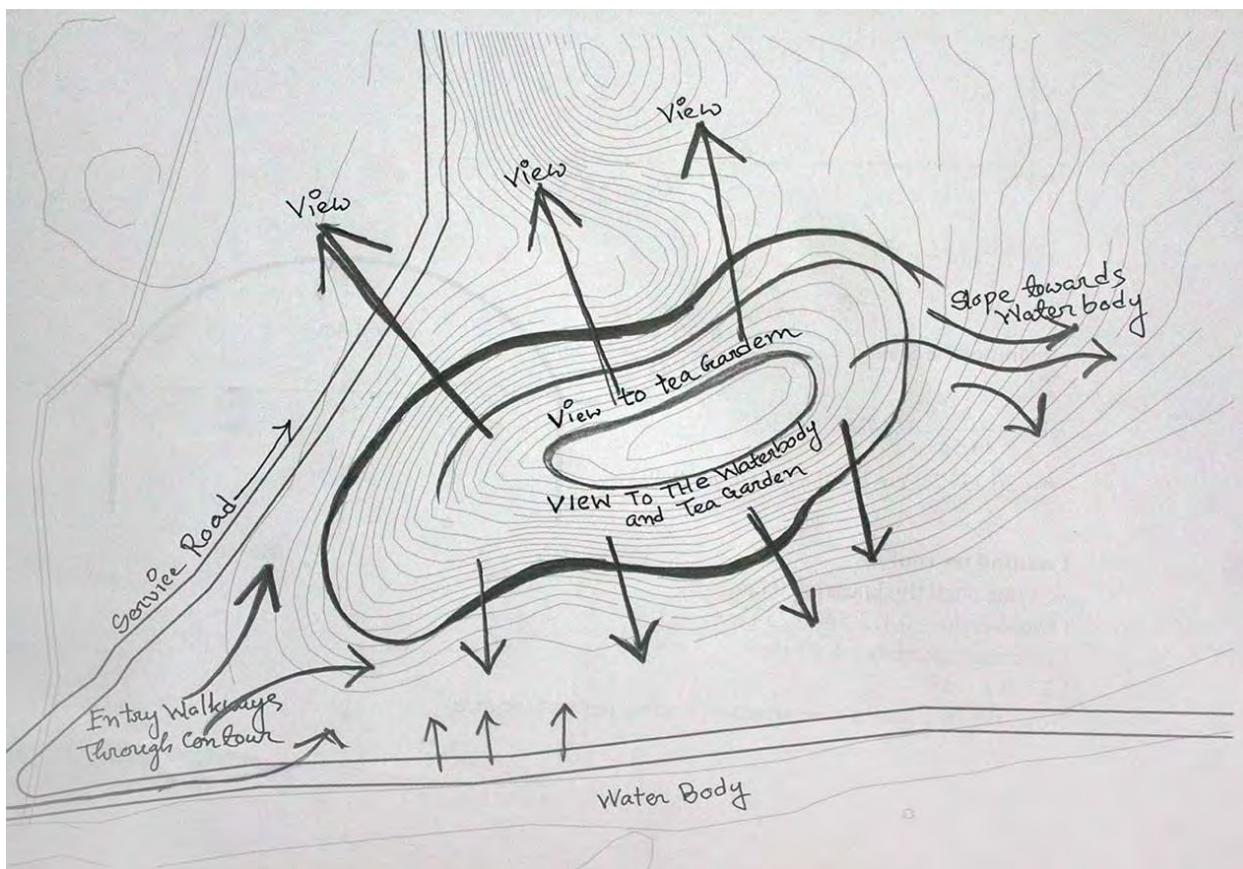


Figure: Conceptual section (Source: Author)

The idea of space designing for the project was to use the natural slopes and terrain to keep its natural balance intact. The slopes in the site was quite shallow, so these were used for connecting spaces and creating vista of the surroundings. Hill base was to be left open for natural flow of drainage water and keep natural domination.

7.4 Form derivation



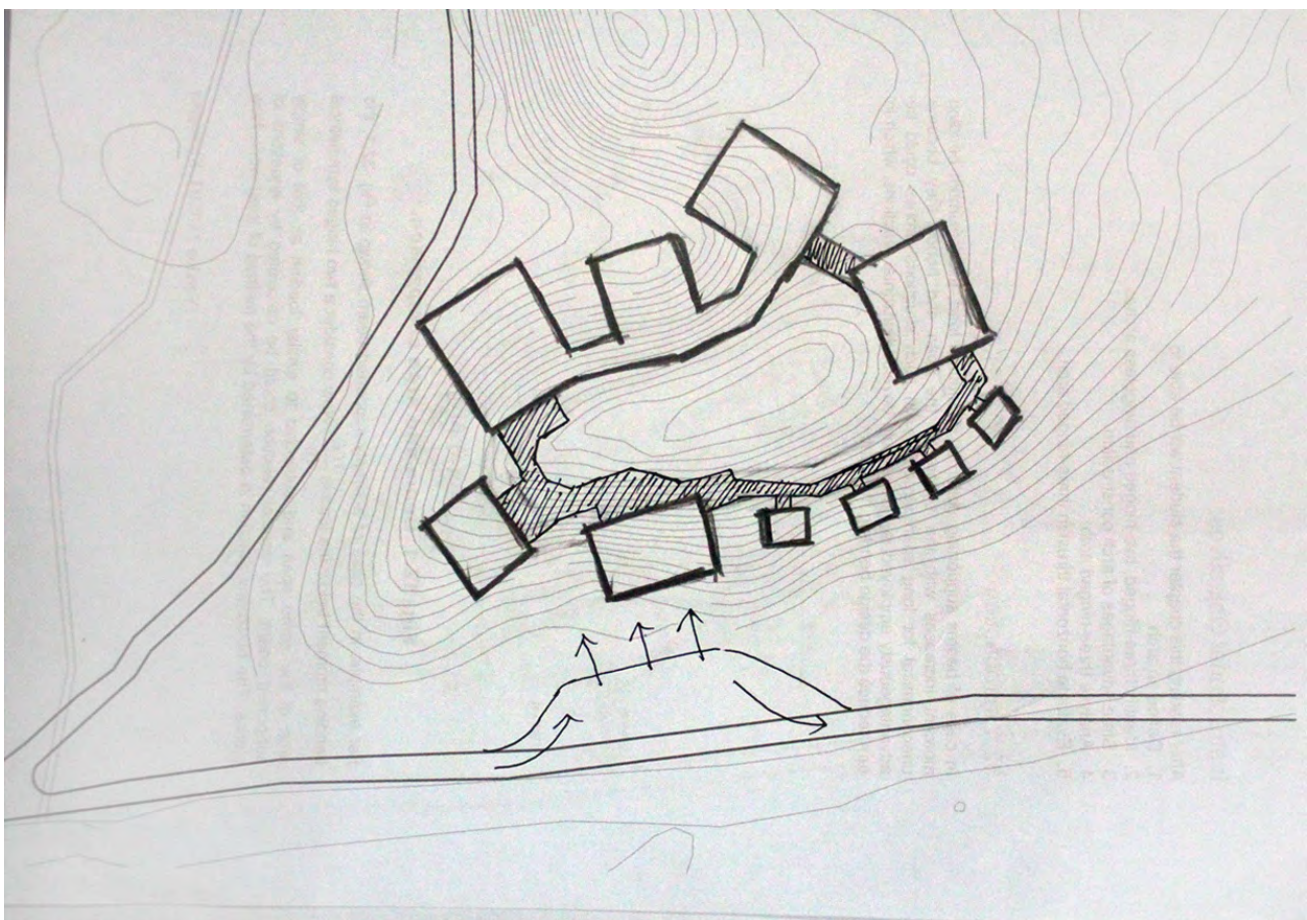
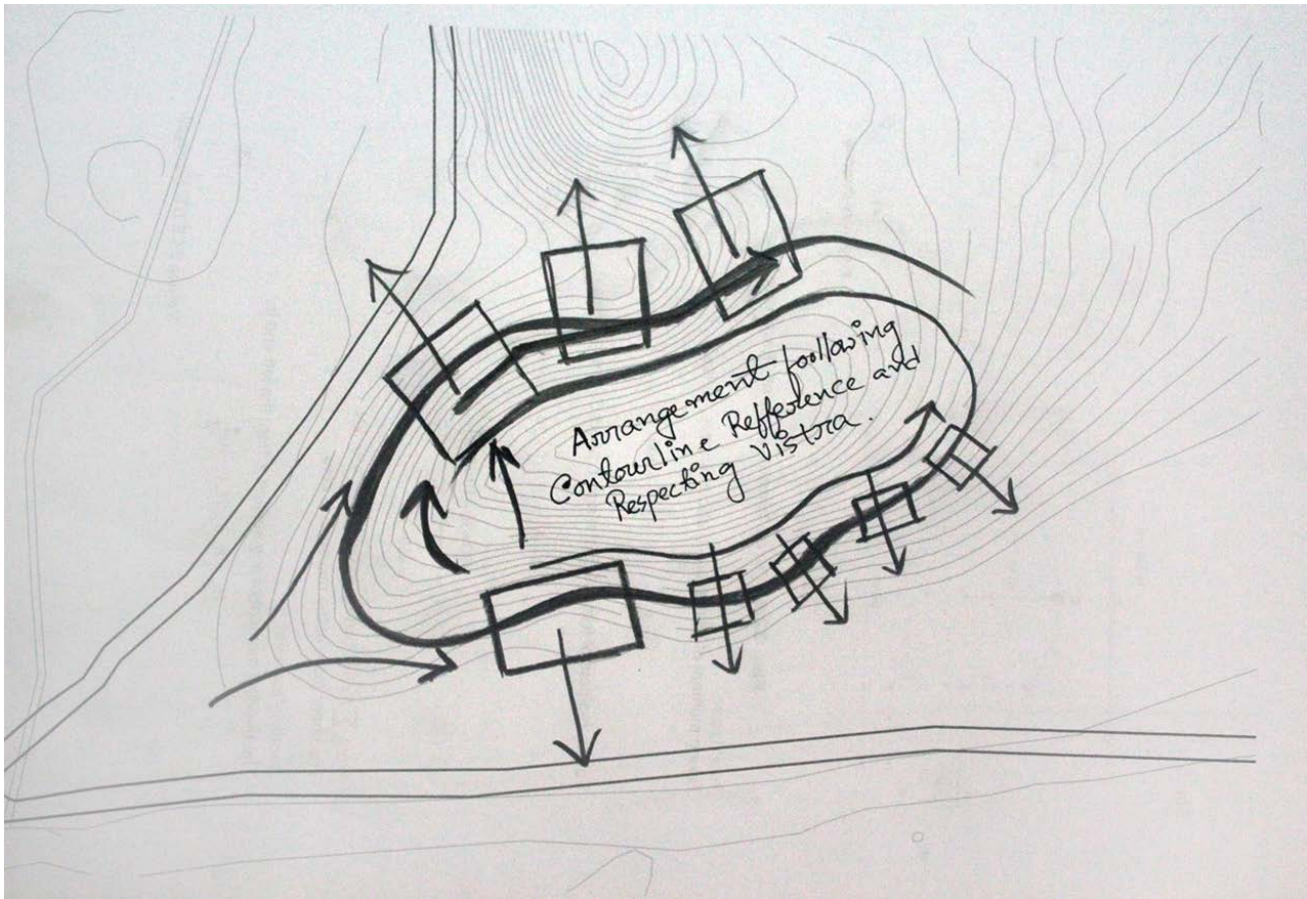


Figure: Form derivation (Source: Author)

7.5 Final Design

7.5.1 Floor Plans



Figure: Master Plan (Source: Author)



Figure: Cultural Floor Plan at 32' (Source: Author)



Figure: Cultural Floor Plan at 44' (Source: Author)

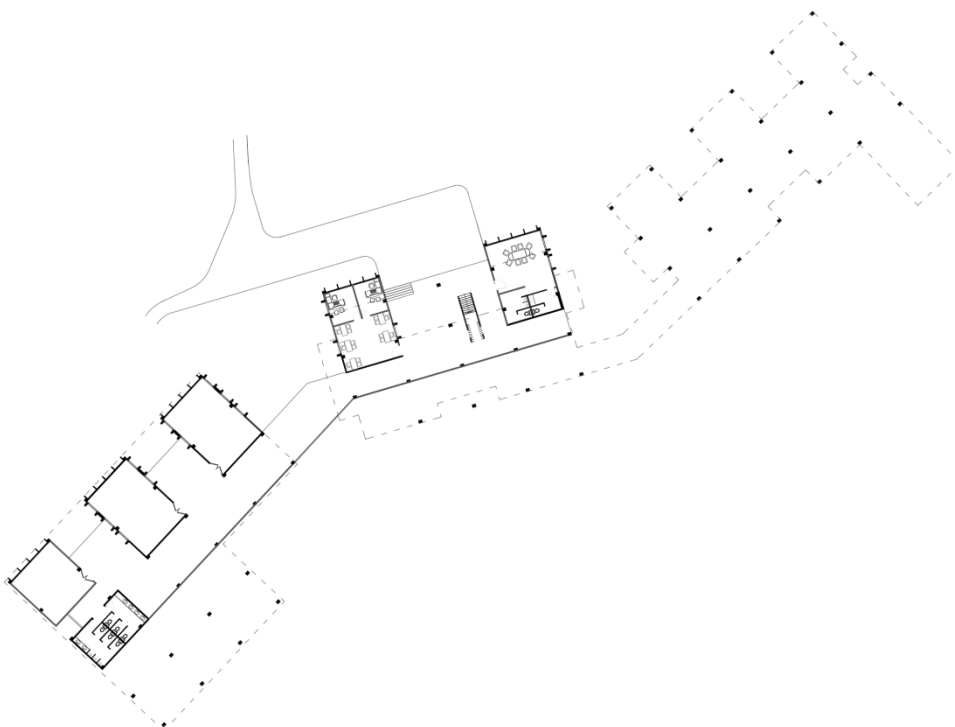


Figure: Training Center Floor Plan at 7' (Source: Author)

7.5.2 Elevations and Section



Figure: North Elevation (Source: Author)



Figure: South Elevation (Source: Author)



Figure: West Elevation (Source: Author)



Figure: AA' Section (Source: Author)

7.5.3 Structure

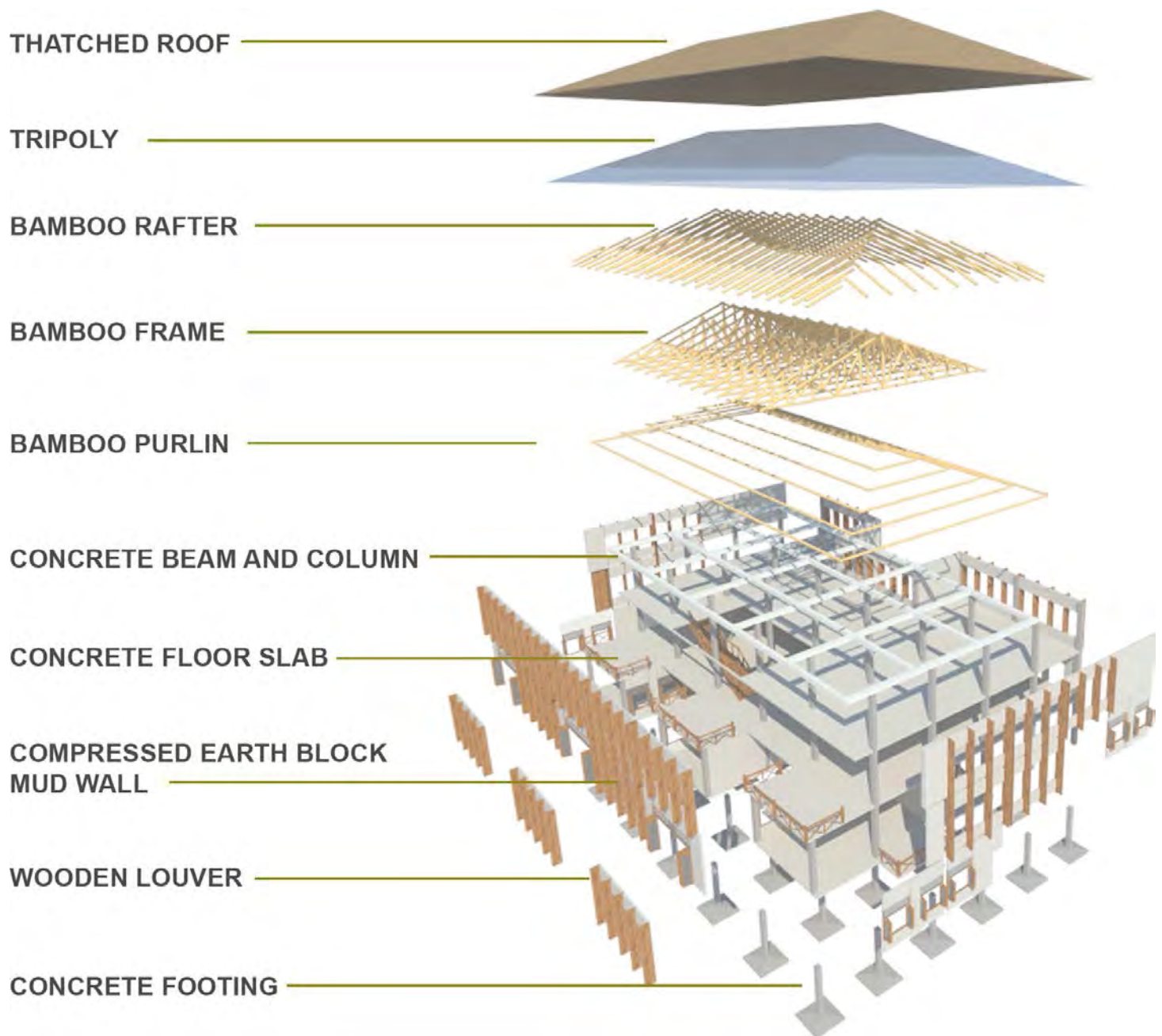


Figure: Structural analysis of form (Source: Author)

7.5.4 Renders







Conclusion

The project aims to bring the diminishing cultures and norms of the ethnic groups of the tea workers to the light and save whatever left of their cultures and rituals. Again, an attempt to make an improvement to their lifestyle through some extra income as well as create awareness in the outer communities of their miserable life. These oppressed, deprived and isolated community deserve a chance to be an equal part of the society and they are one of us. This cultural exposure through this project is an attempt to bring the light to the outside world so that all can stand beside them and support them against oppression and deprivation. This hub will be and inspiration for them to stand up and move forward with their life and culture.

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