

TRAINING CENTER AND ACCOMODATION FACILITY
FOR
UNDERPRIVILEGED WOMEN
ZIRABO, SAVAR

By

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

Department of Architecture
Brac University
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Declaration

It is hereby declared that

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

Every woman in the world have faced some sort of harassment in some point of their life. It gets worse when someone is a victim of severe tortures due to verbal abuse, sexual abuse, domestic violence, psychological trauma, etc. There is no doubt that even now we belong to a patriarchal society, specially when a girl is born in a family in a rural area, it is obvious that she is brought up with a lot more difficulties, challenges and restrictions. In the light of these tragic incidents that these women or girls have to face everyday and can not do anything about it due to lack of knowledge and education, makes them fall under the category of ‘Underprivileged’. An attempt was taken to design a training center and accommodation facility dedicating to them as my final undergrad project. This center focuses on how the architectural elements and design interventions can be made to make a breathable and safe environment for these women. The center acts as an opportunity centre where they develop skills, heal their trauma and become confident. Furthermore, the design emphasizes on how the interactive spaces can be designed merging the whole thing with landscapes promoting positivity, safe and home like environment.

Keywords: Underprivileged Women, Training Facility, Accommodation Facility, Skill Development, Productive Landscape

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List of Acronyms

VAW	Violence Against Women
WHO	World Health Organization
SHG	Self Help Groups

Chapter 1: Introduction

1.1 Introduction to the Project

Right of power and position and authority over women were always accorded to men, whereas living freely with equal living standards for both the gender is a part of human right. Unfortunately, women throughout the world are always given a lower status in the society. Traditionally, women were given an inferior role, as the socio economic and external conditions followed in ancient times, were always against women going out freely outside their houses. In the 21st century, even though the literacy rate of women is increasing, also women are now equally participating in employment and leadership in various sectors with men, still the social conventions, traditions and restrictions are more challenging in the life of women.

The vulnerability of women in Bangladesh is endangered and endemic. For over centuries male domination and the associated female inferiority pervade all sections of society, irrespective of ethnicity, religion or socio economic status. Practices of early marriage, dowry, polygamy and the domestic violence revolving around these practices are a common scenario. Many women are strictly not allowed to step out from their houses. This scenario is still famous in many rural areas of Bangladesh, where man is still dominating on the women of the house as these women have no status given by these men in the society. This male dominating society is resulting in a situation where women are falling into trap of poverty or becoming economic and social liabilities to their families. Hence, becoming a victim of everyday abuse and oppression. A study by CARE states, an international report by the United Nations in 2000 ranked Bangladesh first in terms of prevalence of marital domestic violence. Also, a report of world health organization

(WHO) stated, after a multiple study on women around the world, it was found that 53% of the women in Bangladesh had experienced at least an act of physical or sexual violence or both. Even worse, a report published by Naripokkho Pilot study on violence against women found that 63% of the women admitted to Dhaka medical hospital sustained their injuries within home. Alarming, domestic violence and female subordination are not considered to be a major issue by a large portion of the male group in Bangladesh.

Hence, ministry of women and children are working with few other NGO's to work on the issues discussed above and problems associated with it. Hence they are making projects such as training centers in different parts all over Bangladesh, where the destitute and underprivileged women can come for shelter and get trainings on agriculture and all other modern trades becoming self-reliant and self-sufficient.

1.2 Aim and Objectives of the Project

The aim is to provide technical training in modern trades such as handicrafts, tailoring, improvement of management skills besides agro based training to help them become self-reliant and confident. It aims to provide them with proper accommodation and a day care facility for their children. This project will help to uphold the identity of a woman who is deprived, disadvantaged and underprivileged. This center will create an opportunity for women to understand the unique strengths as a woman, involving themselves into various trainings provided in this center. Hence, it will help the women to peruse their education, get jobs in various sectors. It will further help them to gain self-sufficiency and improve their mental and physical health in the whole process of training in a safe and friendly environment.

1.3 Project Summary

Name of the Project: **TRANING CENTER AND ACCOMODATION FACILITY FOR THE UNDERPRIVILEGED WOMEN**

Implementer of the Project: Ministry of women and children

Location: Zirabo, Sazar, Narashingapur

Site area available for the Project Development: 7 acres

Proposed built-up area of the Project: 1,28,000sqft

Proposed Program of the Project:

- Administrative
 - Office building
 - Medical and counselling center
- Educational and Skill development
 - Classroom
 - Practical training room
 - Seminar rooms
 - Library
 - Workshop
- Residential Facility
 - Trainee dorm
 - Trainer dorm
 - Admin dorm
 - Staff dorm
- Recreational
 - Dining
 - Multipurpose
 - Garden
 - Semi open spaces
 - Horticulture filed

Chapter 2: Literature Review

2.1 Underprivileged Women

According to Oxford English dictionary, the word ‘Underprivileged’ refers to a person not enjoying the same standard of living or rights as the majority of people in a society. Similarly, Cambridge dictionary refers to this word to someone without money, possessions, education, opportunity and any basic needs.

According to ((Peer, 2002), around 1.89 billion people, or nearly 36% of the world’s population, live in extreme poverty. After researching a reading, a number of article on the matter, it is exceptionally disastrous to that a more prominent rate of female gender around the world lies under the category of underprivileged. It is evaluated that 60% chronically hungry individuals are women and girls (WFP, Gender Policy and Strategy).

2.2 Underprivileged Women around the world

Gender inequality is one of the oldest and most inescapable shapes of imbalance in the world. It denies women their voices, debases their work and make women’s position unequal to men’s from the family to the national and worldwide levels. Despite, some important progress to change this scenario in the recent years, in no country have women achieved economic equality with men, and women are still more likely than men to live in poverty and remain underprivileged. Women constitute a majority of the poor are often the poorest of poor (Gupta, 2013). Gupta (2013) adds on stating on this matter that the societal disadvantage and inequality women face compared to men is too extreme, which makes to more challenging for them to climb out of poverty. A report by OXFAM International highlights the causes of the

vulnerabilities faced by women, specially the underprivileged ones around in world. The causes mentioned by OXFAM International are stated below:

Low wages- across the world, women are in the lowest paid work. Globally, they earn 24 percent less than men and at the current rate of progress, it will take 170 years to close the gap. 700 million fewer women than men are in paid work.

Lack of decent work- 75% of women in developing regions are in the informal economy- where they are less likely to have employment contracts, legal rights or social protection, and are often not paid enough to escape poverty. 600 million are in the most insecure and precarious forms of work.

Unpaid care work- women do at least twice as much care work, such as childcare and household chores, as men – sometimes 10 times as much, often on top of their paid work. The value of this work each year is estimated \$10-8 trillion more than three times the size of the global tech industry.

Longer workdays- women work longer days than men when paid and unpaid work is counted together. That means globally, a young woman today will work on average the equivalent of four years more than a man over her life time.

(OXFAM, International)



Fig 1 (Image): Tabitha Mwikali, 36, is a domestic worker. She lives in Mukuru, one of Nairobi's biggest informal settlements. She is from Matuu in southeastern Kenya, where she has sent her children to live as she can't afford to feed them or send them to school on her weekly wage of 200 - 250 shillings (approx. \$2.50). Photo: Allan Gichigi/Oxfam



Fig 2(Image): Pakistani women are paid about US\$2 for every 1,000 bricks they make at this brick kiln in Multan, Pakistan.

The above list of causes explains very important causes due to which women in the job sectors fall behind men. But there are even worse issues that needs to be addressed that women face all the time, which is domestic violence, humiliation, not getting proper education and all other basic needs in the society. Domestic violence is a global issue that affects 35% women worldwide in every corner (Zafar. M, 2020). Zafar. M (2020) also states, globally around 137 women are killed by their partner or a family member every day.

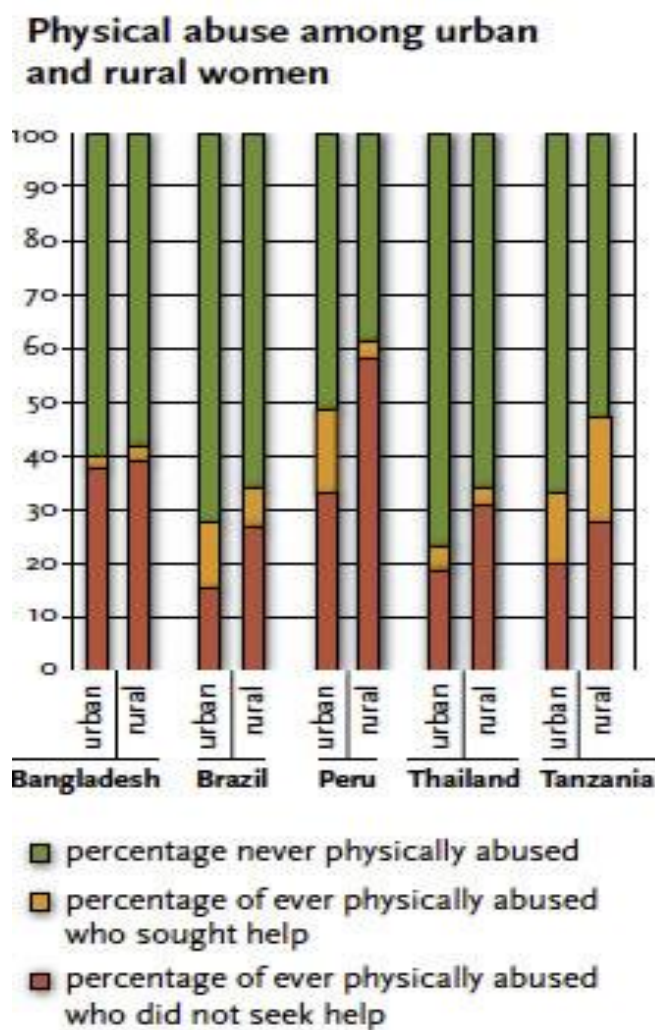


Fig 3(bar chart): Physical abuse among urban and rural areas

Source: WHO, 2005

2.3 Underprivileged women in context of Bangladesh

Bangladesh incorporates a well-known history of women being abused, victimized and underprivileged. Bangladesh is a densely populated country and It is referred as to be one of the poorest countries in the world, and Bangladeshi women are the poorest of the poor (Mannan, 2000). The patriarchal capitalism set up with in the exceptionally roots of the nation puts women in such conditions that women are bound to accept the subordinate roles under male domination. Similar to other countries, there is no doubt that women in Bangladesh is also a victim of domestic violence, physical assault, not getting the education, deprived of basic need, social status in society, verbal abuse and even worse girls and women are being raped every day.

Especially in rural areas where women are below poverty line, has no access to legal aid, medical facilities and right to live with dignity. Since female were always deprived of education and were always set boundaries to work only inside the houses, they always lacked confidence in coming out and talk for themselves and for their rights. Ahmed. N, 2015 states, in a patriarchal society like Bangladesh, especially in rural areas husbands are considered as women's guardians, and a woman without male guardians is considered to be of lower social status. Social negligence and ill treatment becomes part of their everyday life, as if they brought the status willingly and should be punished and tortured by perpetrators (Ahmed. N, 2015).

Such negligence places these women in vulnerable positions that leads to low status in the family and society. these issues results in creating extreme insecurities in these women such as having enough money to for food, physical insecurities and harassment and most importantly shelter over their head. Hence all these leads to severe trauma for the victims and they often take end their life thinking it as the easiest and only option for them.

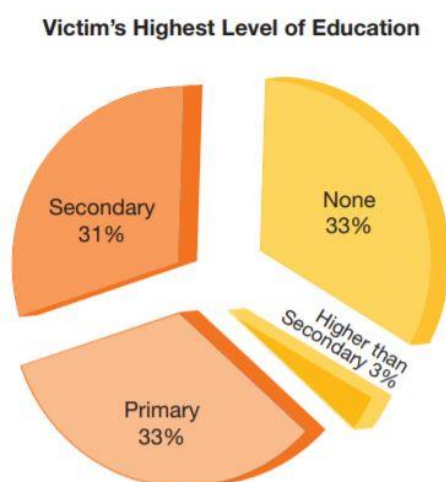


Fig 4: the percentage of girls going to school in rural areas in Bangladesh

Source: CARE, Bangladesh

Level of Education	Total	Percent
No education	159	32.9%
Primary level	161	33.3%
Secondary	148	30.6%
Higher than Secondary	15	3.1%
Total	483	100.0%

Table 1: The percentage of girls getting education

Source: CARE, Bangladesh

The two figures above show the clearly that the girls are nor send to school properly which is the main source of all problems. Government must impose rules on the parents which would force them to send their girls at school so that they educate themselves and knowledge about their rights.

2.3.1 Socio-economic condition of women in rural areas of Bangladesh

According to Ahmed. N (2015), in Bangladesh, females are economically dependent upon male breadwinners for their support along with their children. The socio economic factors, religion and a patriarchal society makes implementing an egalitarian legislation extremely difficult for the society to accept. The women of the house have the duty to take care of the children and has the burden of all of the household chores all day long. The practice of early marriage for girls is a very common phenomenon in the rural areas because the rural people are always very anxious getting their girls married. Early marriage is a sign of low status of women and their low educational attainment. Hence, these girls, women giving up their aspirations most of the girls have to stop their education forcefully by their family. Most of them are thereafter subjected to domestic violence, and become victims of disastrous acts. Hence, this leads to physical and mental torture that results in depression which they are uncertain to and lock themselves up in the same scenario for the rest for the rest of the lives. As they are deprived of the all the rights, social standards, has no access to any resources they lack confidence and self-esteem.

2.4 Empowerment among underprivileged women

According to Oxford dictionary ‘empowerment’ refers to the process of becoming stronger and more confident, especially in controlling one's life and claiming one's rights. Empowerment of women is a holistic concept. It is a multi-dimensional way and it refers to factors such as social, political, and economic aspects (Islam. M. S,2015). The term refers to strengthen the identity of a woman, which is a dynamic and multidimensional approach. The third Millennium Development Goal (MDG 3) – to promote gender equality and empower women – has been a catalyst in galvanizing new resources for gender equality and women’s rights. Over the years in every country, government has been trying their level best in order to decrease the

vulnerabilities faced by women. They are reaching out to these women in the remotest corner of a country to help women with difficulties. Government and NGO's have been providing opportunity centers, they are even going door to door to create awareness through various programs and sessions in order to create a positive impact in the lives of these underprivileged women.

2.4.1 Empowerment of underprivileged women in the World's context

Women are the most prevalent factor of the rural society who have long been bypassed or overlooked in the process of empowerment (K. Latha, Sequeira. AH, 2008). The empowerment of women is one of the prominent issues in the process of development of countries all over the world. The disempowerment of women often leads from poverty. Government and Ngo's are implementing macro and micro level strategies to overcome these issues. The term economic empowerment has come to everyone's attention in the development studies of both developed and developing nations in the 21st century. In India government is introducing the microfinance revolution through the SHGs is expected to build up the capacity of the women for the purpose of wiping out the different dimensions of poverty, namely income poverty, basic needs poverty, capacity poverty, and knowledge and information poverty (Sultana, H. Y., Jamal, M. A., & Najaf, D. E, 2017). Others are helping by promoting various programs, practical learning sessions, skill development trainings and encouraging them to take part in job sectors so that they no longer have to depend on someone.

2.4.2 Empowerment of underprivileged women in the local context of

Bangladesh

Surprisingly, Bangladesh has been playing a great role in strengthening women's empowerment and the country is encountering a calculable alter in society since its endeavors in this regard. The concept of women's strengthening and endeavors on the issues has made the country attain positive change in gender equality, which helped Bangladesh to secure the primary spot in gender uniformity (among south Asian nations) for the second consecutive year of the Gender Index of 2017. The Bangladeshi Ministry for Women and Children's Affairs Ministry states that "Violence against women in Bangladesh (VAW) has largely been aggravated by certain socio-cultural factors such as lack of gender equality, lack of awareness and knowledge about rights, poverty, low educational level, women's position in the family and cultural taboos regarding violence and rape." It also states that knowing one's rights is the first real step to empowerment, and an empowered and informed citizenry is the pillars a strong position in the society. Hence, government officials and NGO's have been taking a lot of steps in making these women's better. Government has already built a lot of training centres dedicated to the women to are in vulnerable positions. NGO's are reaching out to them introducing various programs, creating awareness among women and making them understand the value of their life.

2.4.3 Government's Initiatives for underprivileged women in Bangladesh

The Government has undertaken various steps to ensure women and children development in Bangladesh. The Vision 2021 and 2041 a momentum has been created for taking forward Bangladesh to a middle and high income level respectively. Bangladesh has been working

relentlessly to ensure women's overall development by ensuring their equal and active 34 participations in the mainstream socio-economic activities and removing the various impediments to their empowerment. Economic Empowerment of Women:

- 4 million women are contributing a lot in Readymade Garments (RMG) sector.
- Ministry of Labor and Employment trained 10,800 female garments workers.
- Bangladesh Bank is providing collateral free loan up to Tk. 2.5 million for women entrepreneurs.
- Small and Medium Enterprises (SME) disbursed taka 3939 crore to the women entrepreneurs.
- Bangladesh Bank allocated 15% of the funds of the refinancing scheme for women.
- Micro Credit Disbursement Policy facilitated women entrepreneurs to borrow take 50 thousand.
- 10% Industrial plots and 10% of small entrepreneur's fund are preserved for women entrepreneurs by the Bangladesh Bank.
- Women entrepreneurs having a small capital are getting support through distributing loan among the volunteer Women Associations.
- To promote women entrepreneurship an initiative called "Joyeeta" has been established in 2011. Now it is established as Joyeeta Foundation.
- Cafe Joyeeta rehabilitated the women victims of trafficking.
- Searching Joyeeta (victorious) in five categories initiated to award successful women throughout the country.
- Sonar Tory, Angona and Unmesh are established as sales and display centers to promote women entrepreneurs. 35

(The above information's are supplied by the officials of Women and Children Affairs.)

2.4.4 NGO's Initiatives for underprivileged women in Bangladesh

A number of non-governmental organizations and private sectors such as BRAC, ASA, TARANGO, Shakti Foundation for disadvantaged women, HOPE Foundation, CARE Bangladesh and a number a NGO's are helping out to shape the lives of underprivileged women in the best way possible. The NGO's have their own programs and curriculums through which they reach out these women in the rural areas, to create awareness and teach them their values of life and living.

Women who are at vulnerable positions thinking they are worth nothing in the society needs to be changes through beliefs. One to one conversations and showing then the opportunities that they have can make them confident to step out of their bubble and shine in their own way. Economic empowerment increments women organizations to get into formal government programs, mobility outside the home and financial freedom. The change makers are given proposal to create opportunities to help women to enter in to the formal market. One such proposal is too supply more formal job sectors for women helping them to achieve higher power and dignity in family. Also, they would have larger access to higher wages in various job sectors outside home. These initiatives will definitely result in positive impact in the lives and in the society.

Chapter 3: Site Appraisal

The Site is located near Narashingapur, at Savar, at a distance of 24 km from Dhaka. It takes around one hour and forty-five minutes to reach during moderate traffic on road. Savar is located at 23.9-degree North and 90.3-degree East. It is bounded by Kaliakair and Gazipur sadar upazilas on the north, keraniganj upazila on the south, Mirpur, mohammadpur, pallabi and Uttara thanas of Dhaka city corporation on the east, dhamrai and singair upazilas on the west. The reason for choosing this site for the project is because the area is surrounded by a number of garments and factories where majority of the workers are female. Unfortunately, the accommodation facility for females is not enough compared to the number of female workers who work in Savar areas. So government has implemented a decision to make proper accommodation facilities for females besides providing trainings on multiple courses all over Bangladesh. Hence, this site is considered as a choice for a project proposal of a training center and hostel facilities for

3.1 Site surroundings

The site has two adjacent road, one on the south and another on the east side. The main entry to the site is from the secondary road from the south. On the east and west side of the site, there are a number garments, warehouse and workshops. There is a big chunk of open field on the north. There are few temporary shelters made for the worker who has the responsibility to maintain the site.



Fig 5- Site Location

Source: Author

3.2 Historical Development of the Site

Initially the site belonged to a Japanese NGO, OISCA who also provides trainings to the youth to help them become self-sufficient. They have training center for male o the west side of the site. OISCA owns a total area of 15 acres. They have agreed to share 7 acres of land with the government for building a training center for the underprivileged women. They have been taking care of these place since the very beginning and promoting horticulture.

HISTORICAL DEVELOPMENT OF THE SITE

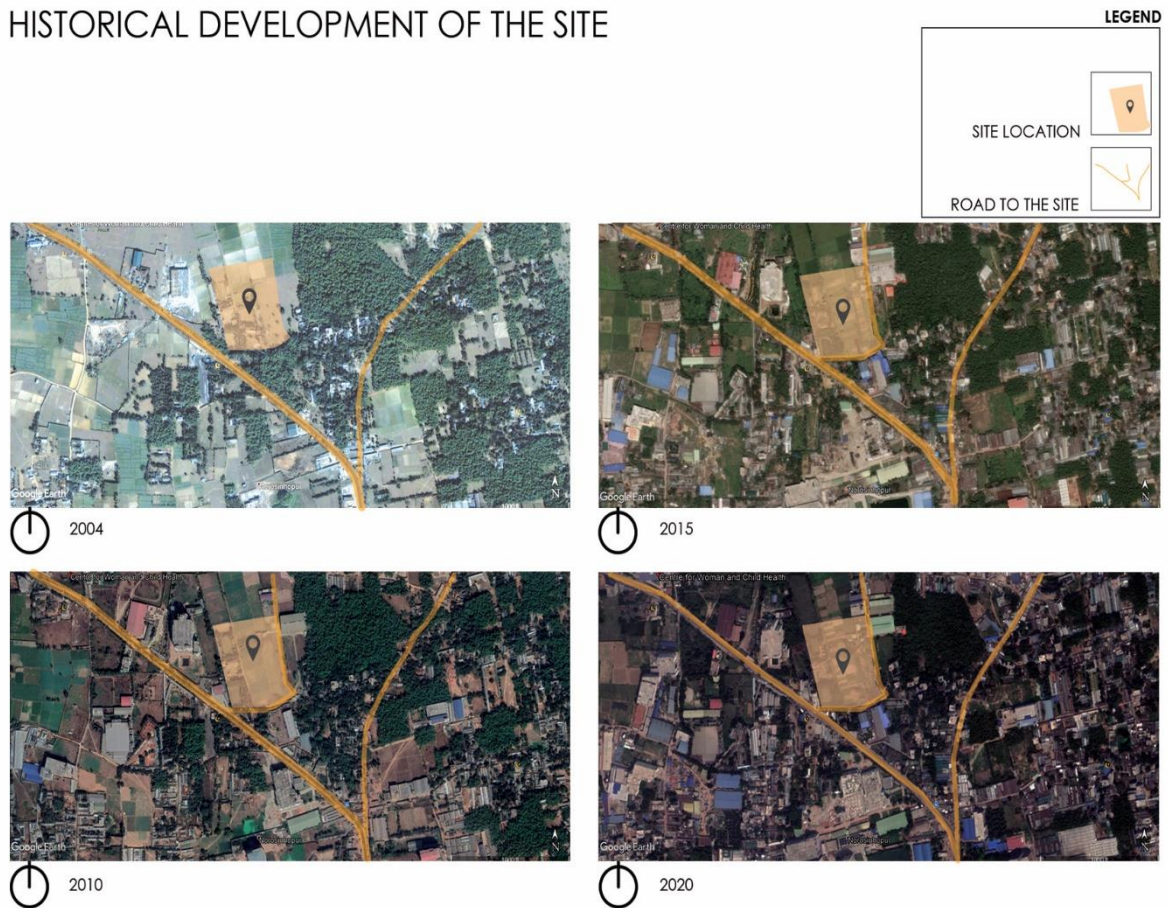


Fig 06- historical development of the site

Source: Author

3.3 Geographical Characteristics of the Site

The site is a flat land. The land is mainly composed of alluvium soil of the Bangshi and Dhalashwari river. The site consists of lot of variety of trees such as jackfruit tree, mango tree, meheguni tree, and many more.

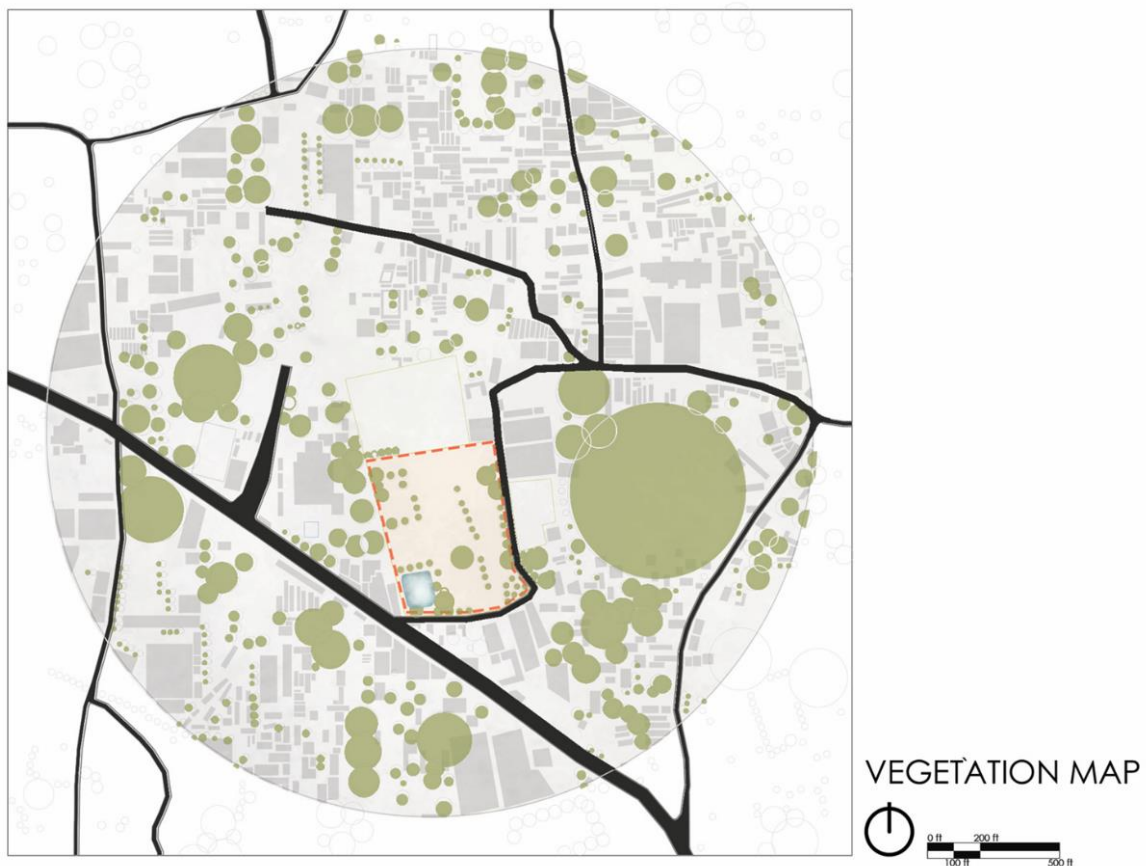


Fig 7- Vegetation and water body map

Source: Author

3.4 Land use Pattern of the Surroundings

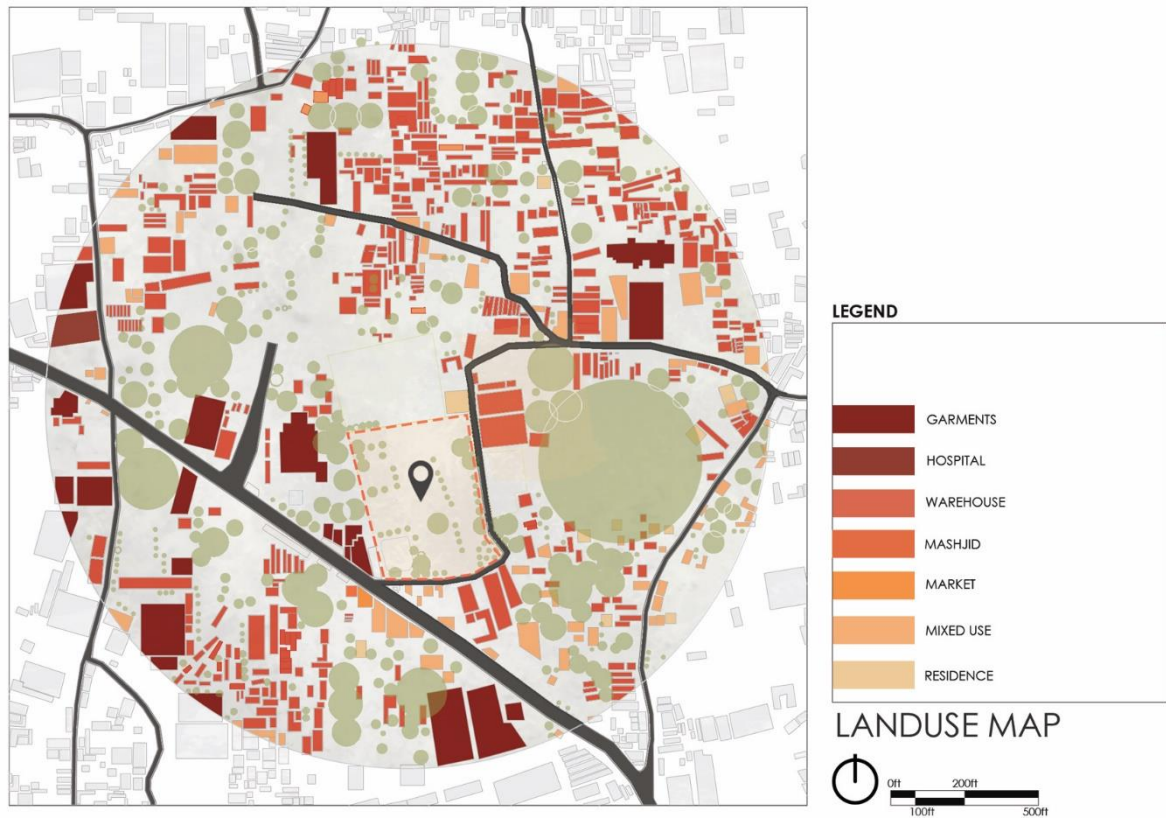


Fig 8- land use pattern of the site

Source: Author

3.5 Accessibility and Connectivity

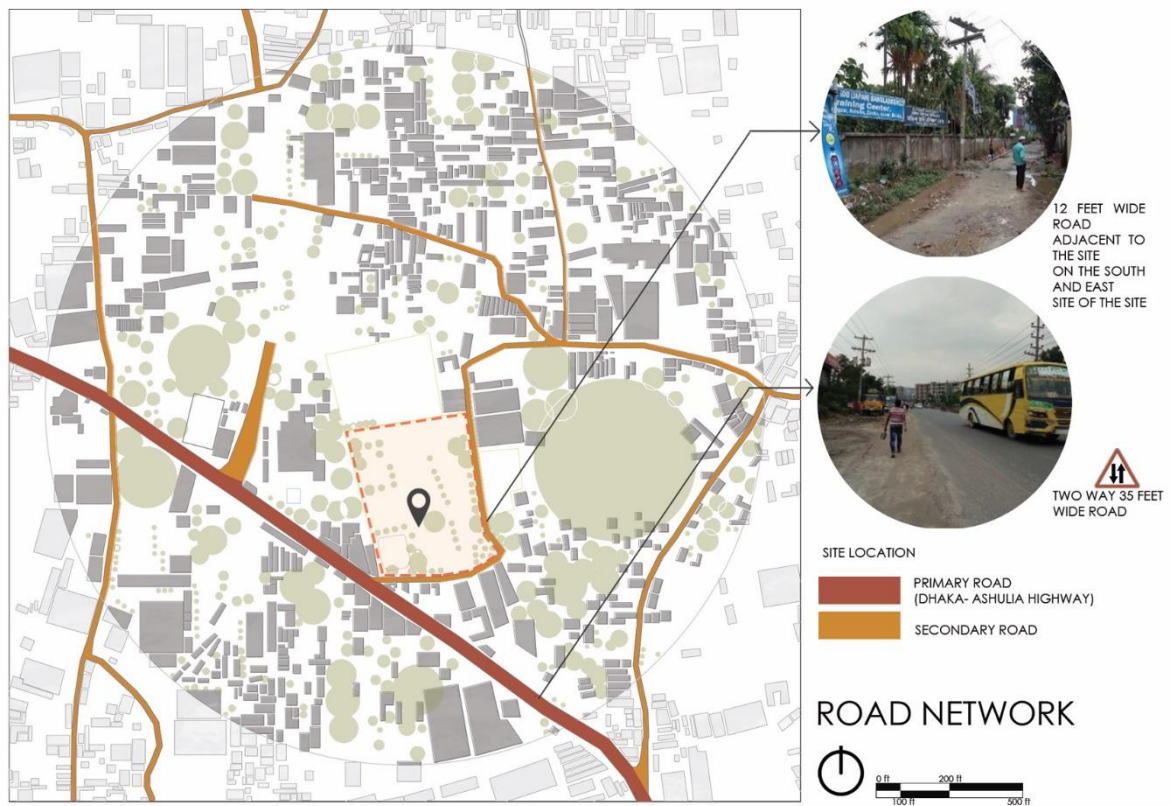


Fig 9- Accessibility and Connectivity map of site

Source: author

3.6 Climatic Conditions

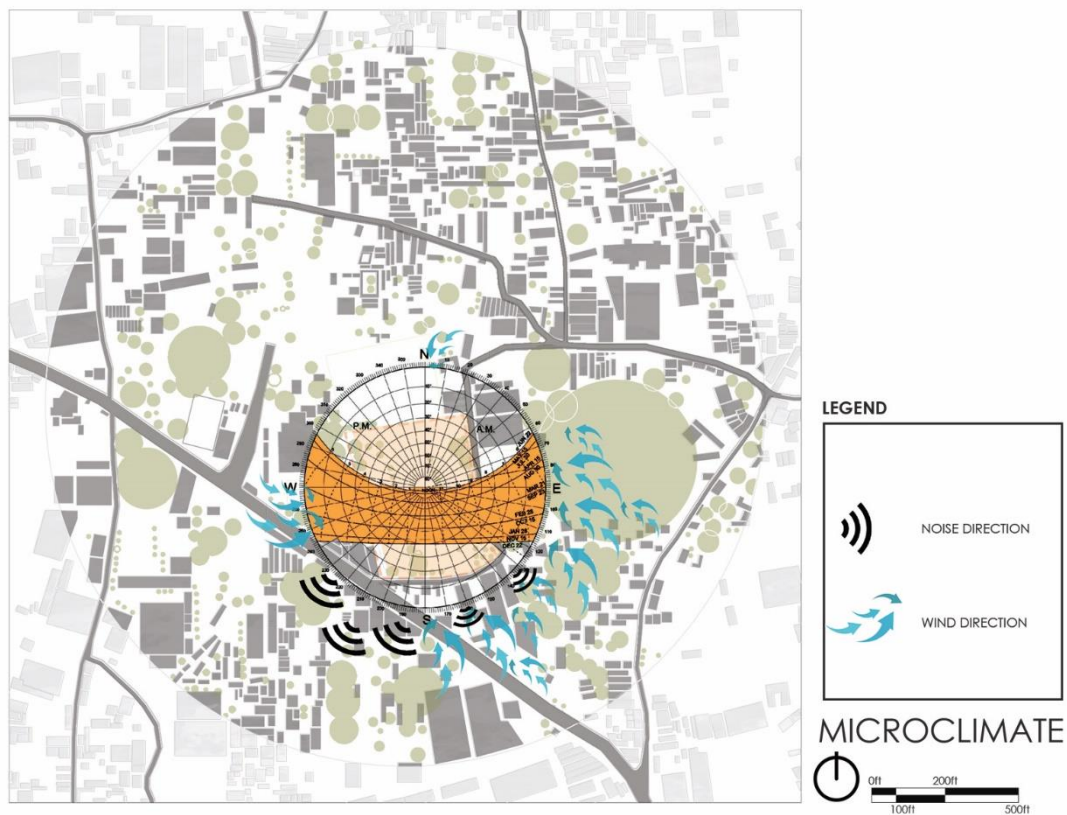


Fig-10: Climatic Conditions

Source: Author

This is an information stating the average temperature in the Savar area in Dhaka city. At an average temperature of 28.9 °C | 84.0 °F, May, is the hottest month of the year. In January, the average temperature is 18.8 °C | 65.8 °F. It is the lowest average temperature of the whole year. (climate data org)

3.7 Images of Existing Site Condition




VIEW MAP

Fig 11- Existing site images

Source: author

Chapter 4: Case Study Appraisal

4.1 Project name: Women's opportunity center

Project location: Kayonza, Rwanda

Project architect: Sharon Davis, Sharon Devis Design



Fig 12- center for women by Sharon Davis

The women's opportunity center designed by Sharon Davis Design is located in Kayonza, Rwanda. The site area is around 2200 sqm. The center was made to provide education to the women who faced extreme poverty and help them to become self-sufficient and self-reliant. The center also provided accommodation facilities where women had the chance to improve their mental health.

4.1.1 Environment and micro-climate

Rwanda has a tropical highland climate with low temperatures because of the high elevation. Daily temperature ranges between 12 degrees Celsius to 27 degrees Celsius with little variation through the year.

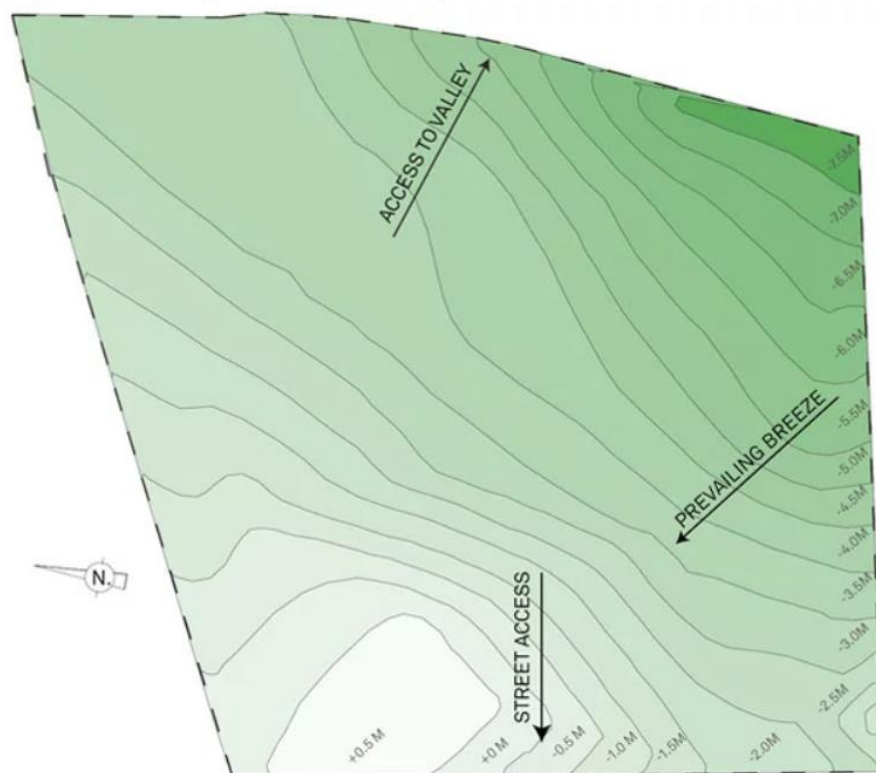


Figure13- Site images and condition for the project center for women by Sharon Davis

Source: designboom

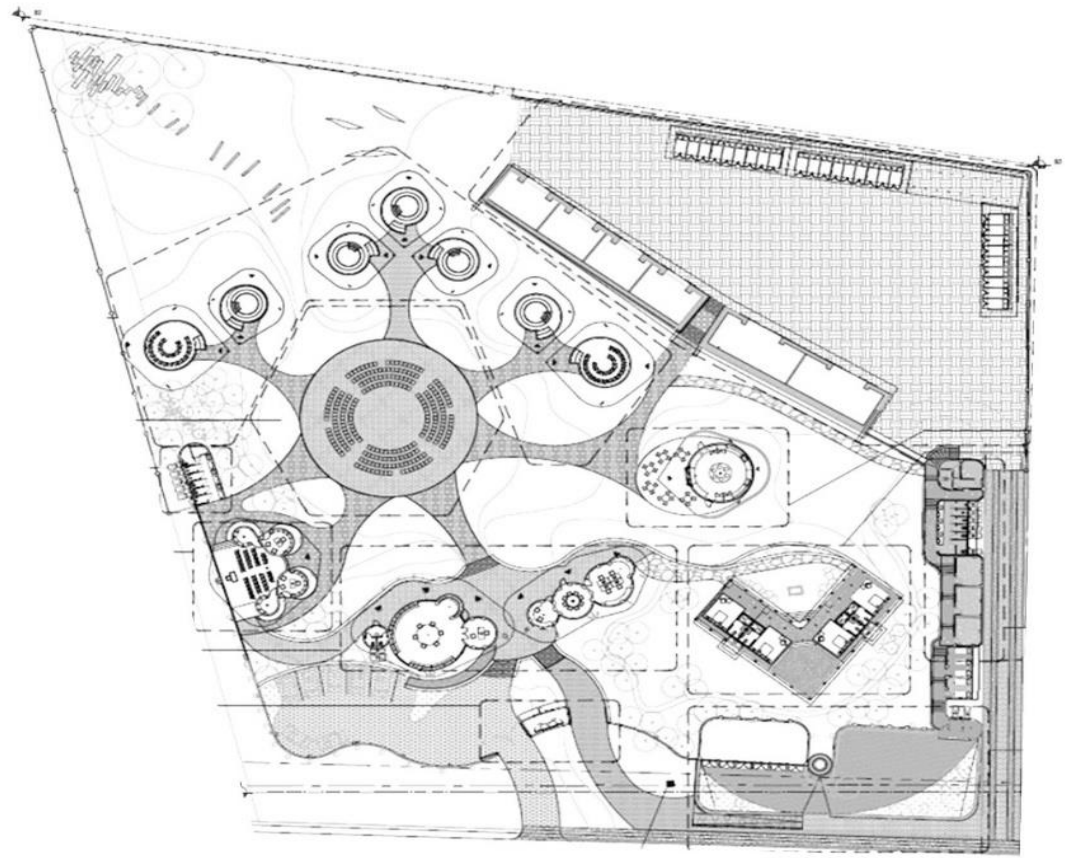


Fig 12- Roof plan of center for women by Sharon Davis

Source: Arch daily

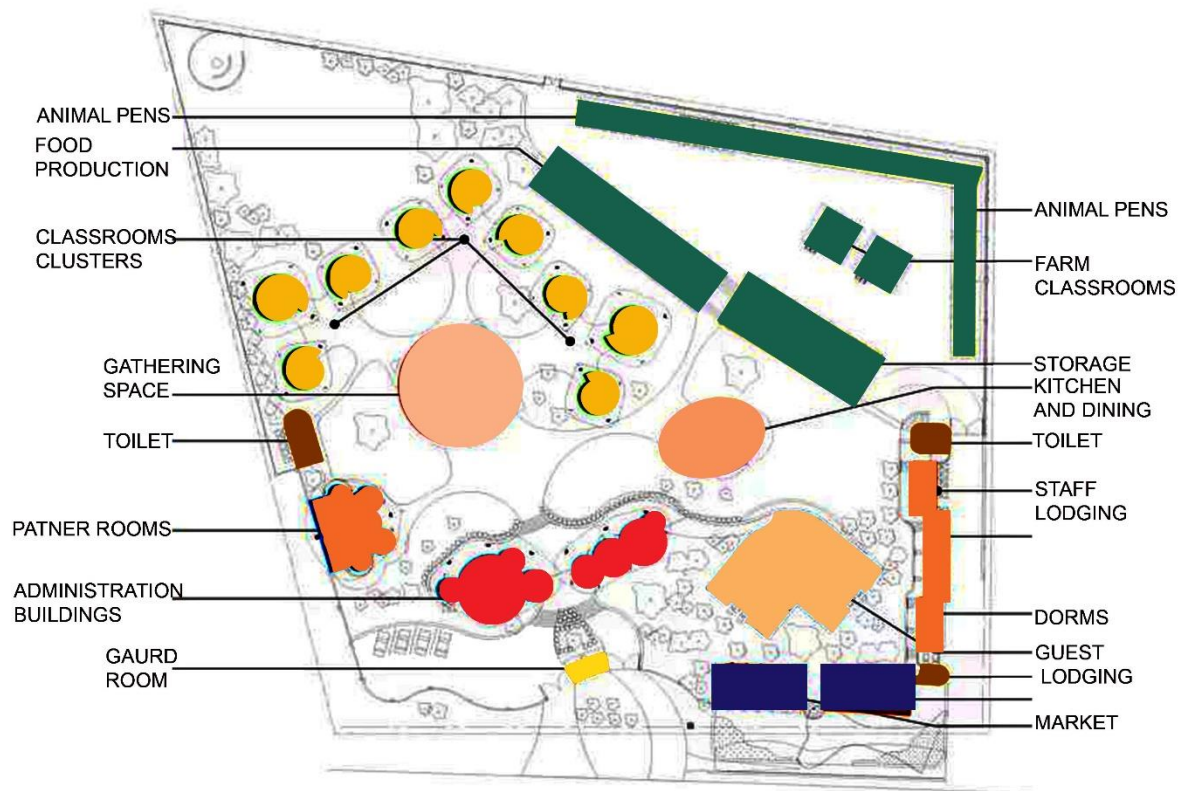
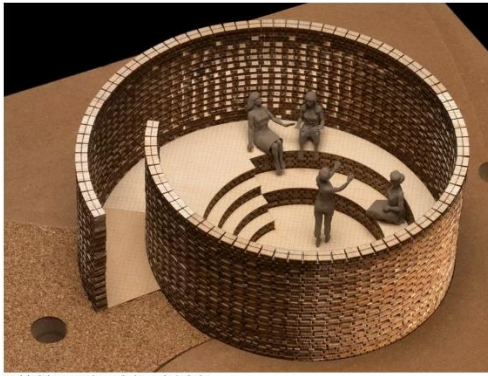


Fig 15- zoning of the functions

Source: Arch Daily

Typology of spaces

The center includes, training classrooms, workshops, animal pens, administrative buildings, dining, dorms, guest lodging, staff lodging, market, farms and gathering spaces.



model of classrooms image © sharon davis design



open air civic space image © sharon davis design



marketplace image © sharon davis design

Fig-16 : Images of Center for women by Sharon Davis

4.1.2 Horizontal and vertical circulation

All the functions are places on the site in an organic approach horizontally merging with the landscape. All the classrooms are places in the clustered manner. The horizontal circulation dominates all over the site connecting the different functions.

4.1.3 Site Planning and Landscape detailing



Fig- 16 – Landscape elements

Source- Arch Daily

4.1.4 Structural details

diagram of classroom structure image © sharon davis design

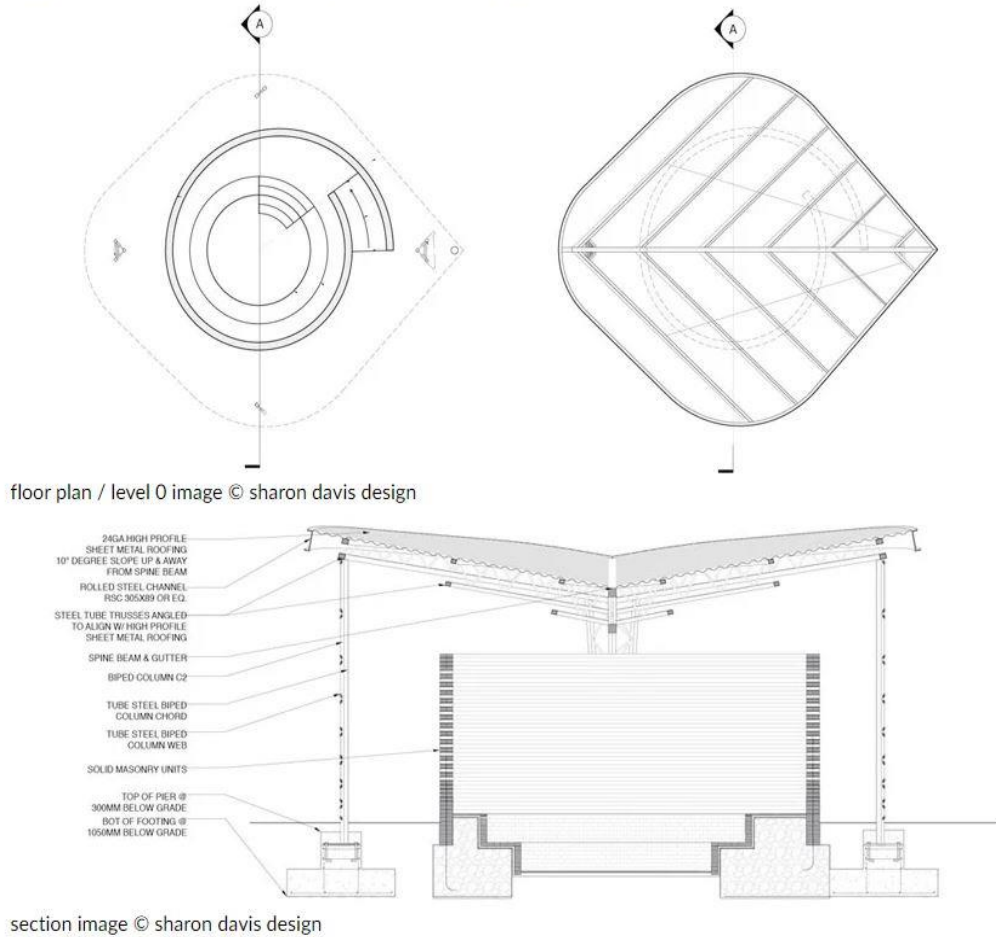


Fig-17- Structural Detail

Source- Arch Daily

4.1.9 Design detailing

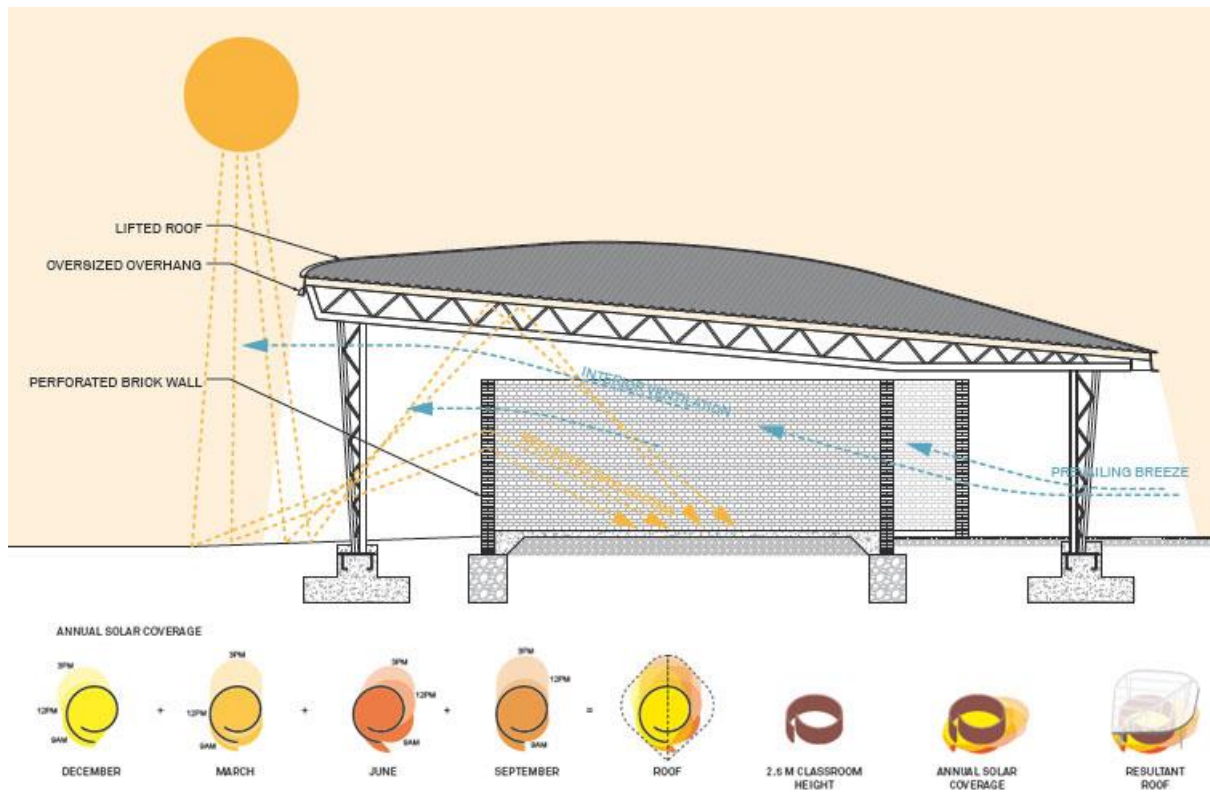


Fig-17- Structural Detail

Source- Arch Daily

4.2 Project name: Women's Center

Project location: Senegal, Africa

**Project architect: Architect Hollmen Reuter-Sandman Architects,
Hollmen Reuter-Sandman Architects**

The women's center is built in a suburb area, that facilitates for the activities of the various of the various organizations formed by the women.



Fig- 19 – Image of Women's Center in Senegal, Africa

Source: Arch Daily

4.2.1 Environment and micro-climate

According to the west African custom and considering its climate, the building forms are grouped around an internal courtyard allowing air to enter in maximum ways.

4.2.2 User behavior and requirements

The simplicity of the street façade adapts the building to its surrounding, the corner facing a road crossing forms a small public square where the facilities reserved for trading are located.

4.2.3 Form and Function

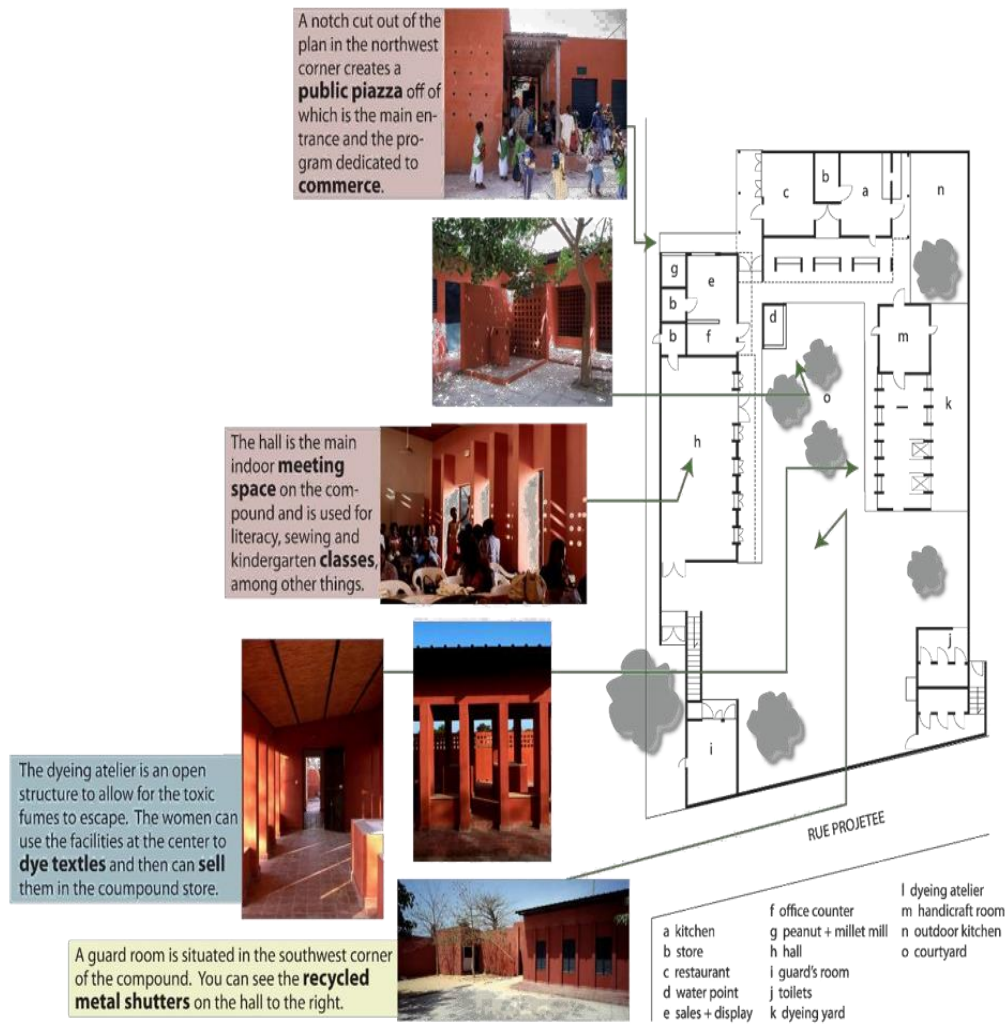


Fig- 20 – Zoning and Space of Women's Center in Senegal, Africa

Source: Arch Daily

4.2.4 Horizontal and vertical circulation

The structure is a one storey structure so the horizontal circulation dominates connecting the functions on the site.



Fig- 21 – Central courtyard space of Women's Center in Senegal, Africa

Source: Arch Daily

4.2.5 Site Planning and Landscape detailing

The building forms are seen to be places respecting the site. landscape for this project was not much of a concern so the open spaces were left as it is respecting the trees that were already planted on the site.

The building frame is a caste in place column and frame structure with walls made of concrete blocks cast in a mould and dried on steel beams. The ceiling is made in a way that includes thick woven matting forming an insulating ceiling structure. The space between is ventilated which guarantees the air indoors is kept pleasantly cool.

4.2.6 Design detailing

The choice of materials emphasizes localness and recycling; for instance, wood is used only in places where no other material is used. In detailing old car wheel rims are used as ventilations holes and the bottoms of the old glass bottles for windows. The reinforcement irons in the concrete are made of recycled iron.



Fig- 22 – Image of Women’s Center in Senegal, Africa

Source: Arch Daily

4.3 Project name: Friendship center

Project location: Gaibandha, Bangladesh

Project architect: Architect Kashef Mahbub Chowdhury, Urbana



Fig- 23 – Image of Friendship Center, Gaibandha

Source: Arch Daily

The friendship center in Gaibandha, Bangladesh is training centre for both male and female which consists of learning and education through practical training. The client of the project is friendship NGO, Bangladesh.

4.3.1 Environment and micro-climate

Considering the climate of Bangladesh that is mostly hot, humid and rainy, Ar. Kashef Mahbub made sure the to build a training with a number of courtyard in between forms and placing water bodies to keep the whole indoor environment cool and calm.

4.3.2 Form and Function



Fig- 24 – Image of functional diagram of Friendship Center, Gaibandha

Source: Arch Daily

4.3.4 Horizontal and vertical circulation

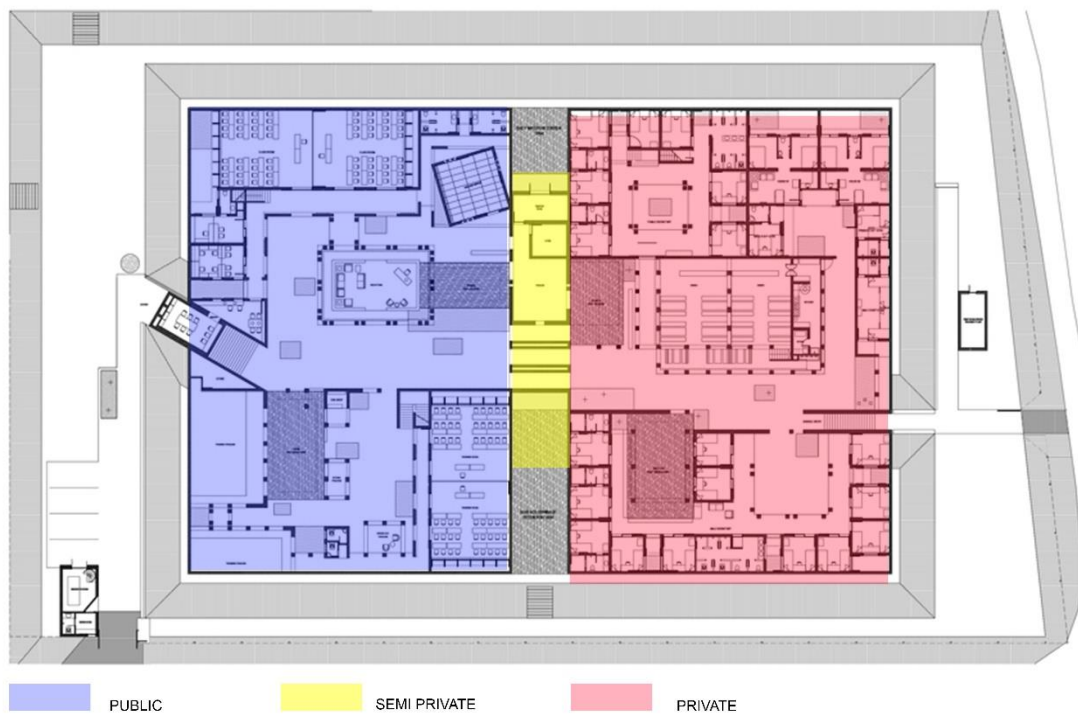


Fig- 25 – Image of Zoning of Friendship Center, Gaibandha

Source: Arch Daily

4.3.5 Site Planning and Landscape detailing

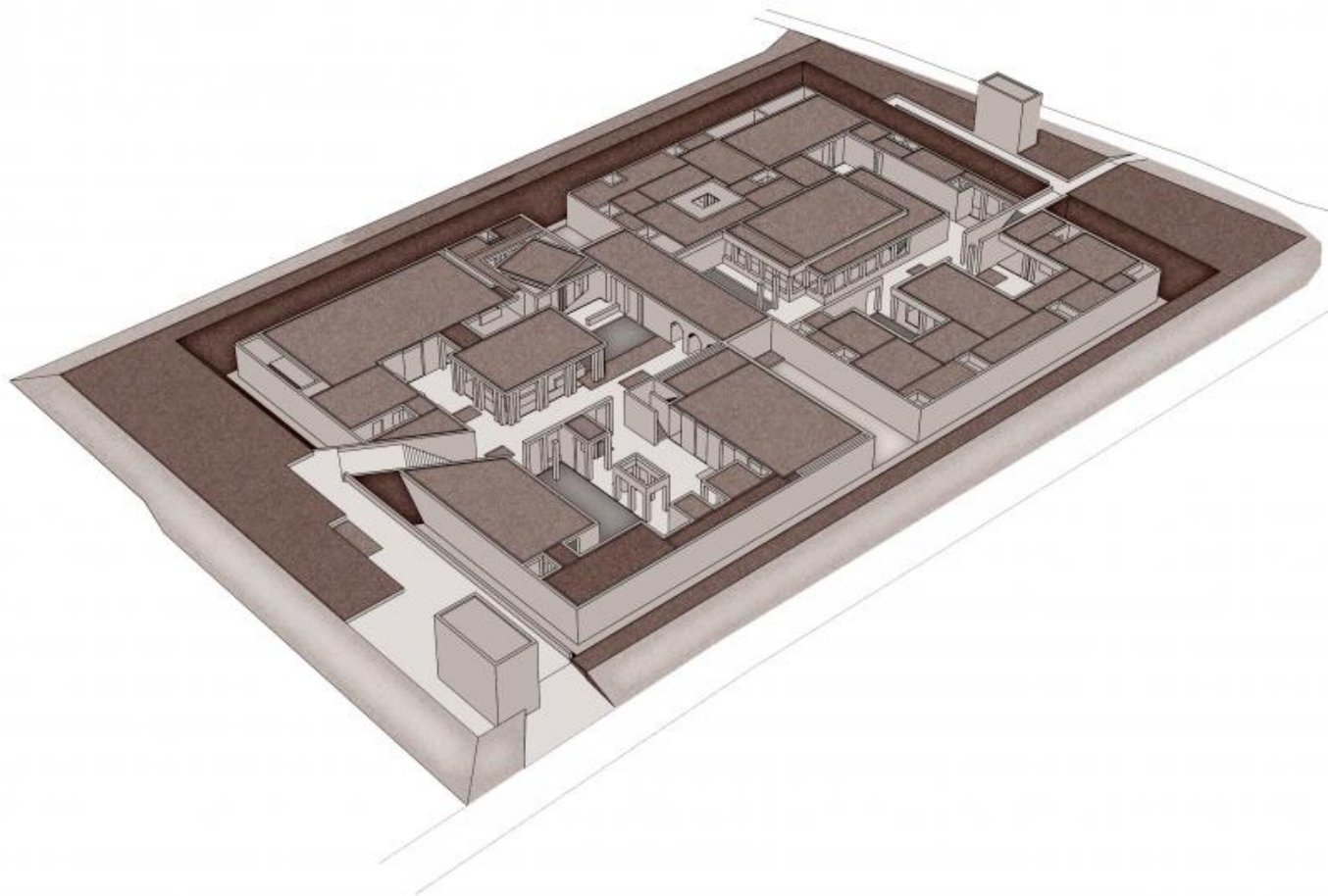


Fig- 26 – Axonometric View of the whole Friendship Center, Gaibandha

Source: Arch Daily

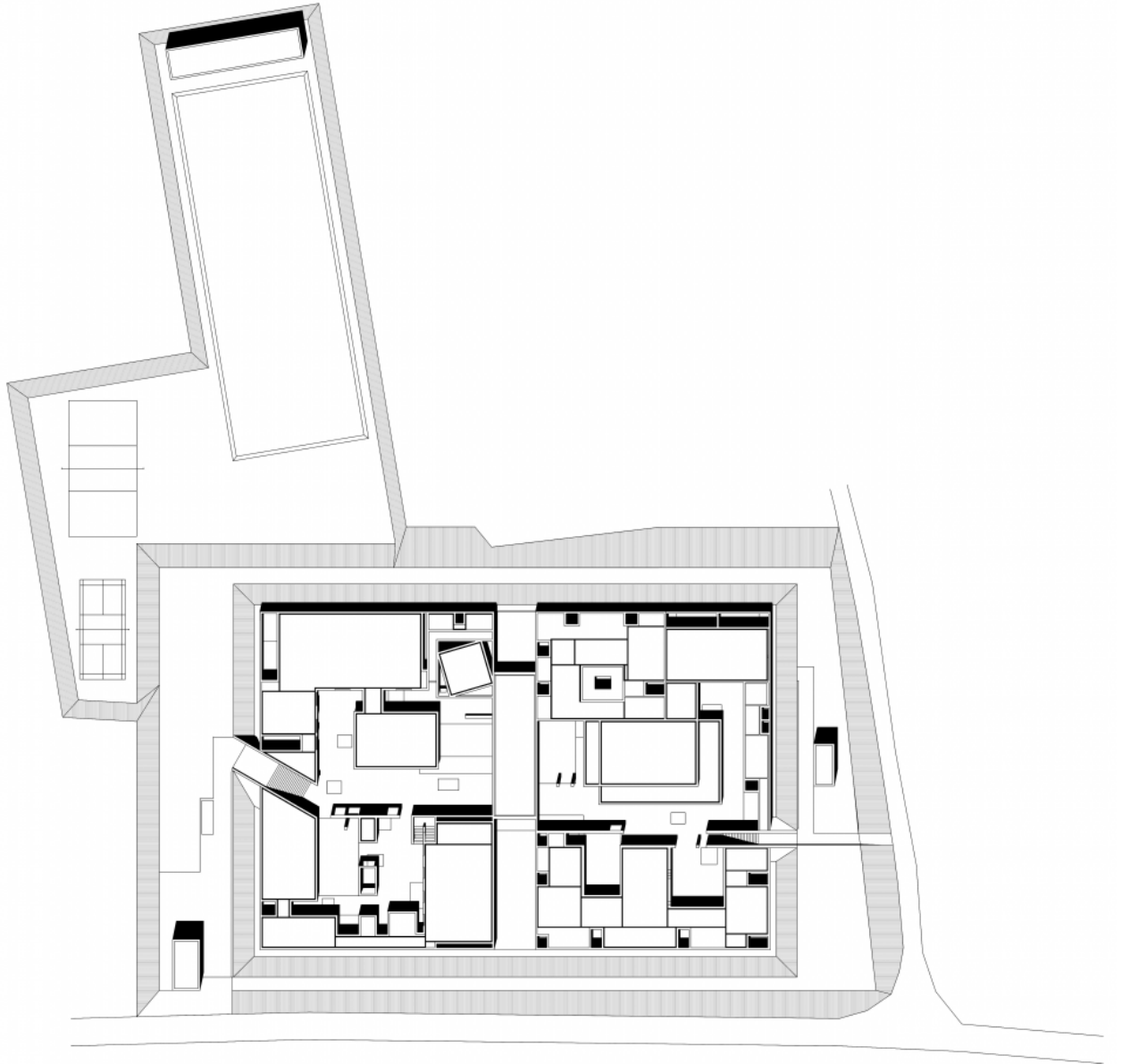


Fig- 27 –Roof plan of the Friendship Center, Gaibandha

Source: Arch Daily

4.3.6 Structural details

Brick is used a dominant material in the whole process of this training center. The inspiration was taken from the Buddhist Viharas in our country.



Fig- 28 Image showing Design element of Friendship center, Gaibandha

Source: Arch Daily

Chapter 5: Program Appraisal

The training center proposed for female who are underprivileged has been conceptualized as such that it will help women who were deprived earlier to become self-sufficient. The center will provide various trainings and run activities through which women can develop their skills and improve their mental health.

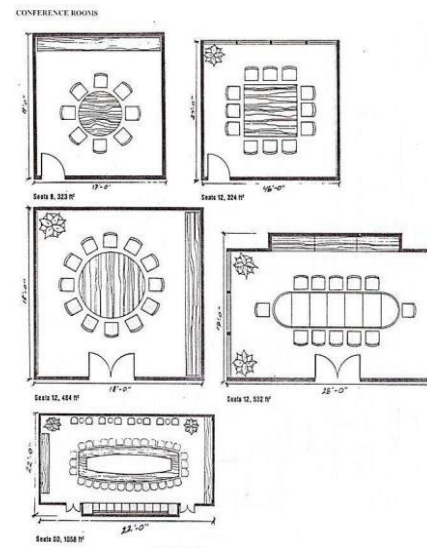
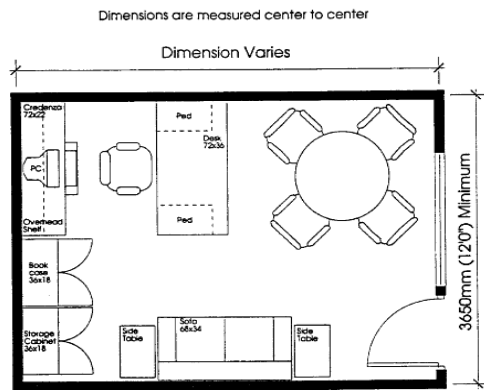
As mentioned, the aim for the training center, an attempt has been made to categorise the different types of activities that would be taking place in this center.

5.1 [Type of facility]

FUNCTIONAL SPACE	NUMBER OF UNITS	NUMBER OF USERS	AREA PER UNIT (SQFT)	TOTAL AREA (SQFT)
<u>1.ADMINISTRATIVE FACILITIES</u>				
DIRECTOR'S ROOM	1	1	240	240
TOILET	1	1	40	40
PERSONAL ASSISTANT	1	1	90	90
ASSISTANT DIRECTOR ROOM	1	1	240	240
TOILET	1	1	40	40
ADMINISTRATIVE OFFICER	1	3	120	360
COMPUTER OPERATOR	1	1	120	120
ACCOUNTS OFFICER	1	2	120	240
PROGRMME / PLANNING OFFICER	1	4	120	480
TEACHER'S ROOM	1	10	10.5	105
LOUNGE				168
TOILET		2(1 MALE AND 1 FEMALE)	38	76
<u>TOTAL</u>				<u>2199</u>

Table 2- Admin functional area calculation, source: Author

Workstation Space Type A - Closed, 22.5 m² (240 ft²)



Workstation Space Type B - Closed, 13.9 m² (150 ft²)

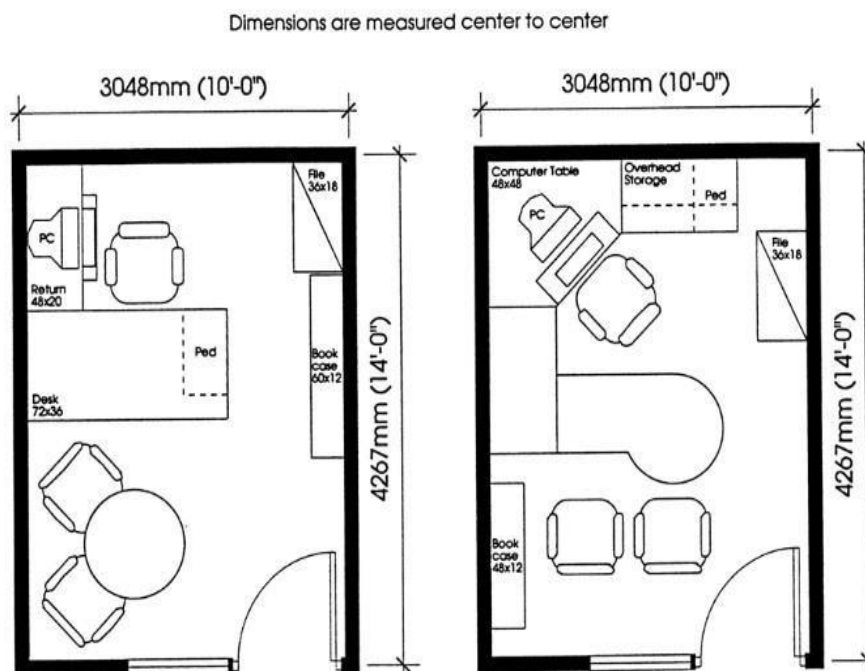
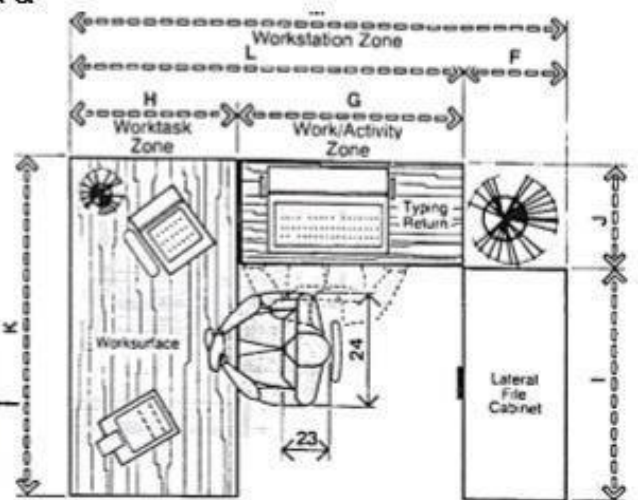
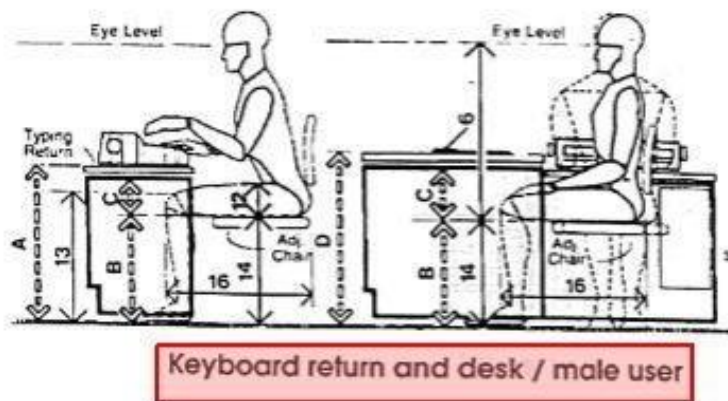


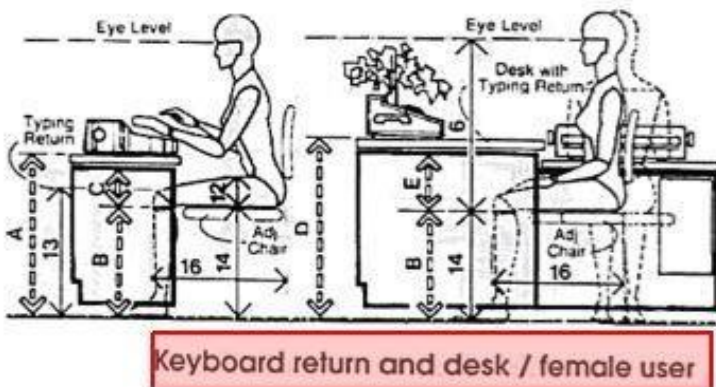
Fig 29- Office layout dimension

Source: Time Saver

Standard measurement of administrative office area & work area



Basic U-shaped workstation



	in	cm
A	26-27	66.0-68.6
B	14-20	35.6-50.8
C	7.5 min.	19.1 min.
D	29-30	73.7-76.2
E	7 min.	17.8 min.
F	18-24	45.7-61.0
G	46-58	116.8-147.3
H	30-36	76.2-91.4
I	42-50	106.7-127.0
J	18-22	45.7-55.9
K	60-72	152.4-182.9
L	76-94	193.0-238.8
M	94-118	238.8-299.7

Fig 30- Office layout dimension

Source: Time Saver

3.CLASSROOM				
FUNCTIONAL SPACE	UNIT	NUMBER OF USERS	AREA PER UNIT (SQFT)	TOTAL AREA (SQFT)
CLASSROOM	10		(35'-0" X 25'-0")	8750
SITTING AREA		20	8	160
REMANING				715
COMPUTER LAB		20	(45'-0" X 25'-0")	1125
TOILET	4		38	152
STORAGE	1			120
<u>TOTAL</u>				<u>10862</u>

Table 3- Classroom functional area calculation, source: Author

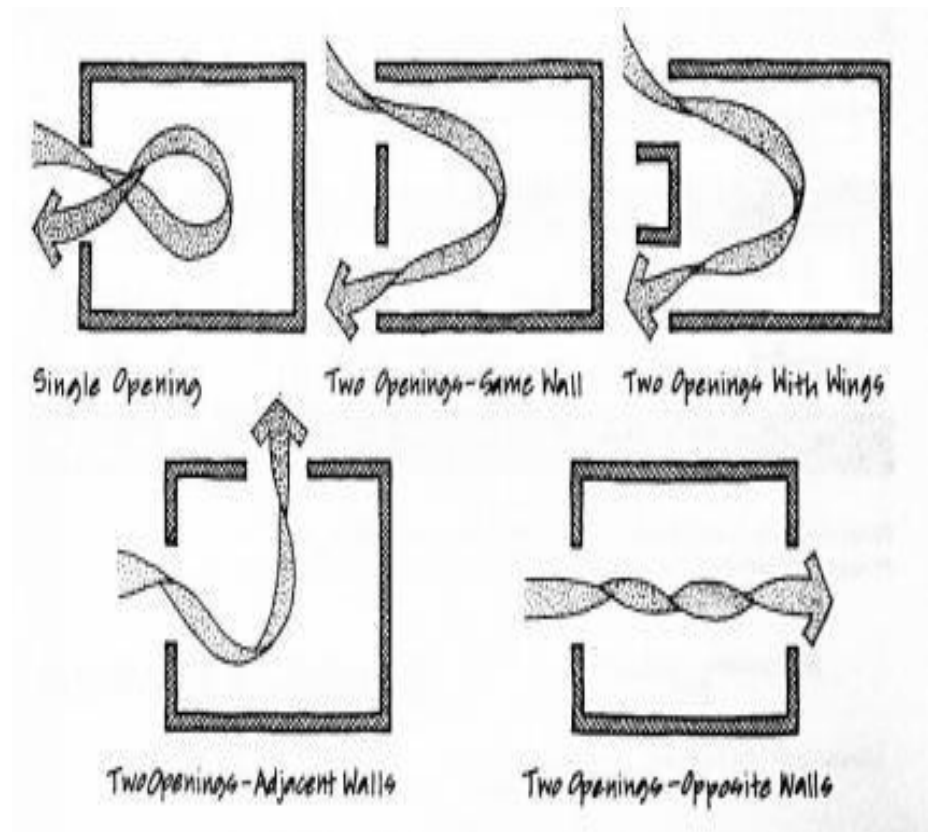
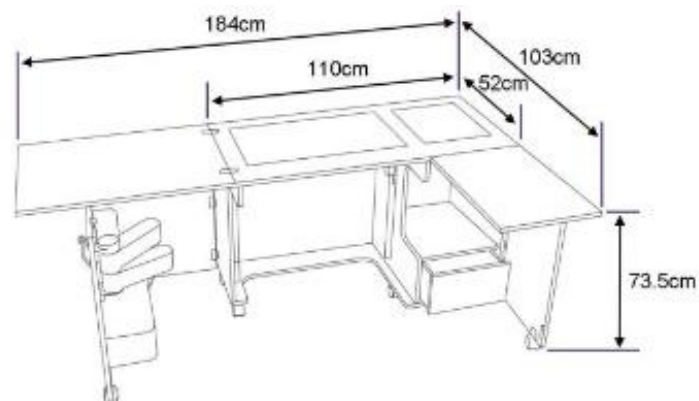


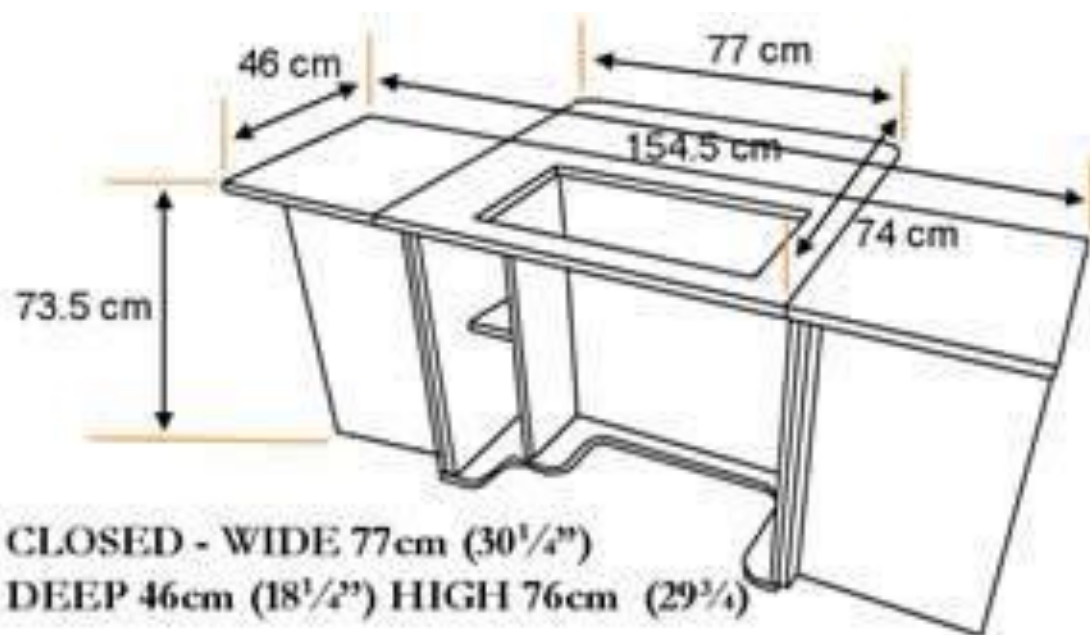
Fig 31- Classroom opening ideas

Fig 32- Sweing machine dimension

Source: Google



CLOSED - WIDE 110cm (43½") DEEP 52cm (20") HIGH 76cm (29¾)



**CLOSED - WIDE 77cm (30¼")
DEEP 46cm (18¼") HIGH 76cm (29¾)**

4.DINING				
FUNCTIONAL SPACES	UNIT	NUMBER OF USERS	AREA PER UNIT (SQFT)	TOTAL AREA (SQFT)
SITTING AREA	15	60	81	4860
KITCHEN			(34'-0" X 28'-0")	952
WASH BASIN	5			88
TOILET	2(1M , 1F)			76
STORAGE	1			144
<u>TOTAL</u>				<u>6120</u>

Table 4- Dining functional area calculation, source: Author

6.DISPLAY AND SALE CENTRE				
FUNCTIONAL SPACES	UNIT	NUMBER OF USERS	AREA PER UNIT (SQFT)	TOTAL AREA (SQFT)
GALLERY AND SHOP	2 (45'-0" X 30'=0")			2700
STORAGE	1			144
<u>TOTAL</u>				<u>2844</u>

Table 5- Display and Sale center functional area calculation, source: Author

<u>2. DORMITORY</u>				
FUNCTIONAL SPACE	NUMBER OF UNITS	NUMBER OF USERS	AREA PER UNIT (SQFT)	TOTAL AREA (SQFT)
ROOM (2 SINGLE BED ROOM WITH TOILET)		150	208	31200
LOBBY				600
COMMON ROOM				600
KITCHEN				88
STORAGE				80
STAFF ROOM				168
<u>TOTAL</u>				<u>32736</u>

Table 6- Dorm functional area calculation, source: Author

<u>7.LIBRARY</u>				
FUNCTIONAL SPACES	UNIT	NUMBER OF USERS	AREA PER UNIT (SQFT)	TOTAL AREA (SQFT)
BAG KEEPING AREA				150
READING AREA		25	25	750
STACK AREA	30 STACK			128
LIBRARIAN ROOM	1			120
ASSISTANT ROOM	1			120
SILENT ROOM	10	10	35	350
STORAGE	1			144
TOILET	2			76
<u>TOTAL</u>				<u>1838</u>

Table 7- Library functional area calculation, source: Author

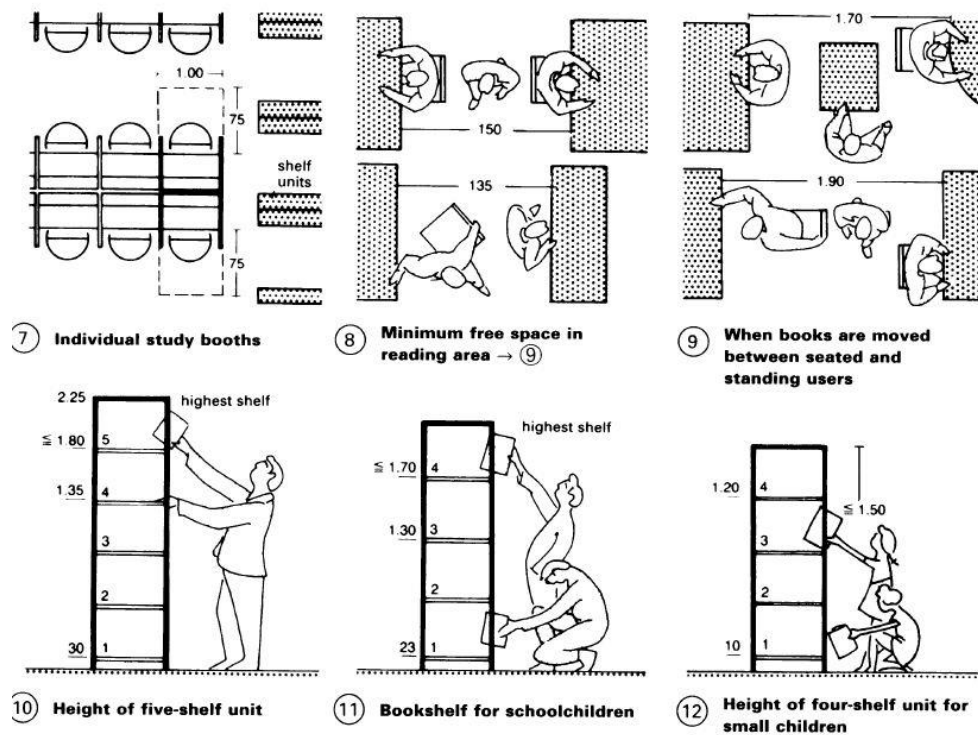


Fig 33- library layout dimension

Source: Neufert

8. MULTIPURPOSE				
FUNCTIONAL SPACES	UNIT	NUMBER OF USERS	AREA PER UNIT (SQFT)	TOTAL AREA (SQFT)
MAIN HALL				4500
SITTING	200 SEAT	200	4.2	840
STAGE AREA				120
SPILL OVER SPACE				450
BACKSTAGE				1000
TOILET	6		36	288
TOTAL				6238

Table 8- Multipurpose functional area calculation, source: Author

TRAINING ROOMS

(Stitching techniques, Dress measurements & techniques, Calculation & drafting patterns, Method of fold the fabric for pattern, Terms used in tailoring) ➤ Cutter ➤ hand sewers ➤ Markers ➤ pattern maker ➤ sewing machine operator Tailoring & Embroidery: ➤ Tailors ➤ Trimmer ➤ Workspace	20	8	280	2240
Block Batik ➤ Wet zone (common) ➤ Indoor class room ➤ Semi outdoor space (common)	15	6	135 678 300	4938
Handicrafts: (Wood, paper, Clay, Textile, Jute) ➤ Workspace ➤ Storage ➤ Instructors space	20	6	400	2400
<u>TOTAL</u>				<u>9578</u>
<u>TOTAL +30% CIRCULATION OF TOTAL</u>				<u>73950+22185</u>

GRAND TOTAL SQFT = Approximately 1, 28,5000 sqft

Table9 – Table showing total sqft of the whole center, source: Author

Chapter 6: Design Considerations

On basis of the site analysis, study and research on the needs of spaces required in a training center for the underprivileged women, few design considerations are derived. This part of the paper talks about the three main considerations that will be taken in account when designing this center for women. The considerations are mentioned below.

6.1 Taking measures on the entry roads to the site

The entry to the site is from a secondary road connected with the Dhaka-Ashulia highway. At present the secondary road has a width of 12 ft-0” by which heavy load carrier vehicles such as trucks are seen to be travelling using this road frequently. Due to the narrow lane, it causes a traffic congestion when two vehicles are passing parallel at the same time. In situations like this it leaves no spaces for the pedestrians to walk. The entry road to the side also lacks proper drainage system which might be a problem during heavy rain. So increasing the width of the both road adjacent to the site is a necessity. According to standards and recent rules, a road must be at least 6m wide. In case of an industrial area such as this site where mostly trucks and van are to be observed on a regular basis, the roads should be made at least 8m wide.

HEAVY LOAD CARRIER VEHICLES ARE FREQUENTLY SEEN PASSING BY THE SITE. IT OFTEN BECOMES A COGESTION WHEN TWO VEHICLES TRY TO PASS SIDE BY SIDE BEACUSE THE ROAD WIDTH IS NOT APPROPRIATE.



Fig 34- Design consideration 1

Source: Author

6.2 Layering of functions

On the basis of spaces required after understanding the need for various in a training center for the underprivileged, the functions can be divided into three part. Firstly, the public zones which includes the administration, training classrooms, seminar halls, multipurpose hall, exhibition and sale center. Secondly, semi private spaces that includes some special training sessions where the women get to interact with one another in order to heal through interaction. This part also includes courtyards and recreational spaces. Lastly, the private zone will consist of the dorm for the trainers, trainees and staff. There will be some gathering spaces for personal healing spaces, work spaces and women will be closer to nature as nature plays a great role in healing mind and sole for many.



Fig 35- design consideration 2

6.3 Productive landscape

Since, the site for the project was almost empty with only few trees in the boundaries, one of the important design considerations while designing was to include as many green as possible. The idea was to merge the architecture with green landscapes to the maximum level. Hence, a part of the site was left untouched that horticulture practice in those areas and allowing vegetation's to grow. To maximize the green. Besides planting trees on the ground, almost all the roofs were designed as green roofs and spaces for gardening as gardening is considered to be healing process for people in trauma.

Chapter 7: Design Suggestions

7.1 [Type sub-headings]

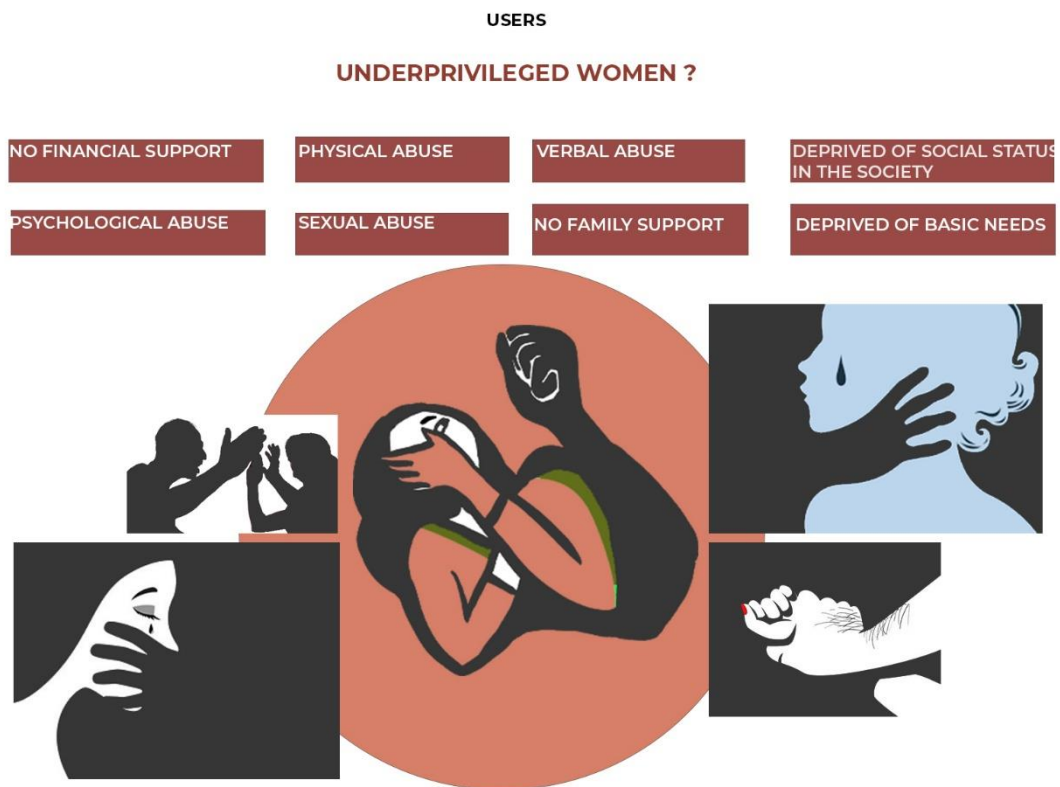


Fig 36- underprivileged women

Source: Author

CONCEPT

ARRANGE THE BLOCKS IN SUCH A WAY THAT IT HELPS TO
CREATE A **DIALOGUE** BETWEEN THE BUILDING, USERS AND
NATURE, AND A BUILDING THAT IS **CLIMATE RESPONSIVE**
UNDERSTANDING THE **CONTEXT** OF OUR COUNTRY.

IDEA OF THE SPACES

THE SPACES WOULD ENSURE THAT THE USERS CAN RELATE TO IT HAVING A FEELING OF SAFE ENVIRONMENT SUCH AS HOME TO HELP THEM RECOVER THEIR TRAUMA FASTER. THE MASSING OF THE DIFFERENT FUNCTIONAL BLOCK SHOULD BE LEGIBLE AND EASY TO NAVIGATE, GIVING DIRECTION TO EACH INDIVIDUAL TO THEIR DESIRED DESTINATION. WHILE THE INTERNAL SPACES SHOULD BE WELL PROPORTIONED AND HAVE PROPER VENTILATION FOR THE MAXIMUM UTILIZATION OF THE DAYLIGHT.

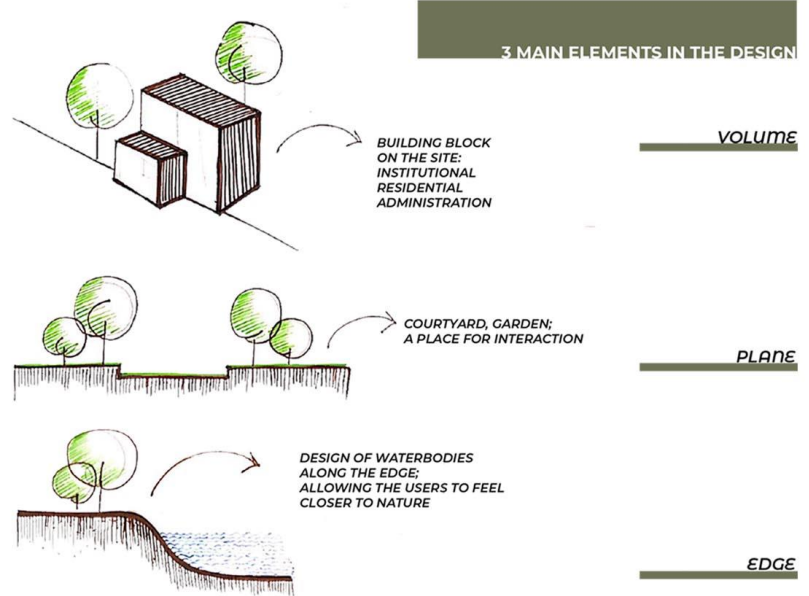


Fig 37- concept

Source: Author

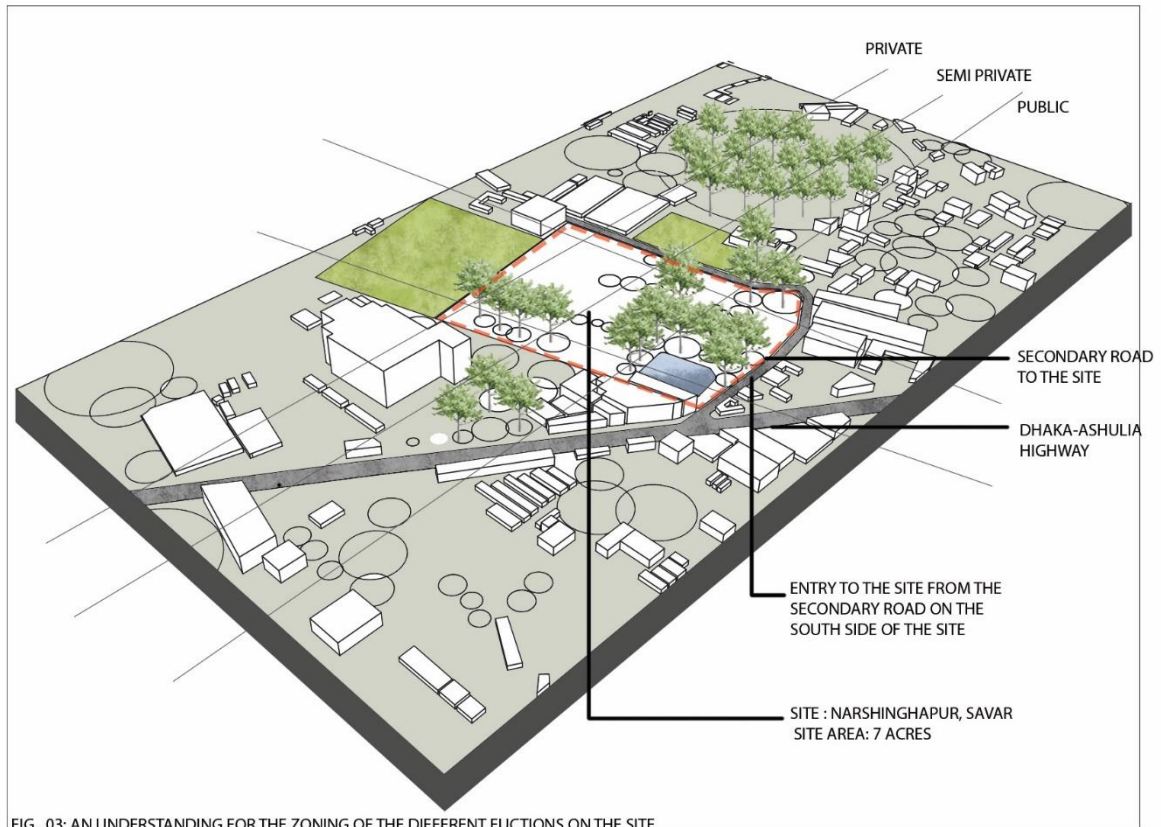


FIG . 03: AN UNDERSTANDING FOR THE ZONING OF THE DIFFERENT FUCTIONS ON THE SITE

Fig 38- site 3d

Source: Author

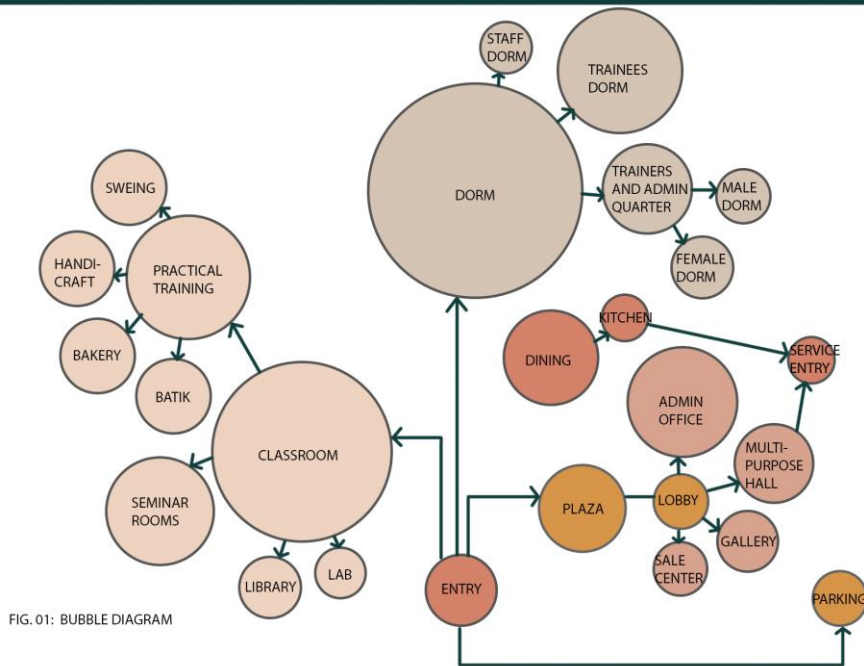


FIG. 01: BUBBLE DIAGRAM

Fig 39- bubble diagram

A DIALOGUE BETWEEN THE ARCHITECTURE AND ITS USER

IT IS CRUCIAL TO EXPLORE THE ROLE OF ARCHITECTURE IN THE CREATION OF REHABILITATION SPACE WHICH WOULD MEET THE ENDS; THE REASON BEING ARCHITECTURE HAVING THE ABILITY TO MANIPULATE SPACE IN A MANNER THAT ALLOWS ITS USERS TO FIND SAFETY, UTILITY AND COMFORT WITHIN ONE DESIGNATED AREA.

BESIDES, NATURE PLAYS A GREAT ROLE IN HEALING MANY SORTS OF MENTAL ILLNESSES ACCORDING TO A LOT OF PROFESSIONALS. SO, LANDSCAPE PLAYS A GREAT ROLE TOO IN ALLOWING AN INTERACTION AND IS RESPONSIBLE IN ADDING A PERSON TO FIND PEACE WITHIN ITSELF.

HENCE, EVEN A SMALL DETAIL OR AN INTERVENTION TO MAKE MAKE A POSITIVE DIALOGUE BETWEEN THE USERS AND BUILDING IS SOMETHING WHICH NEED TO BE EMHAISED ON.

AGGREGATION OF PERCEPTIONS HUMAN SENSE IN ARCHITECTURE

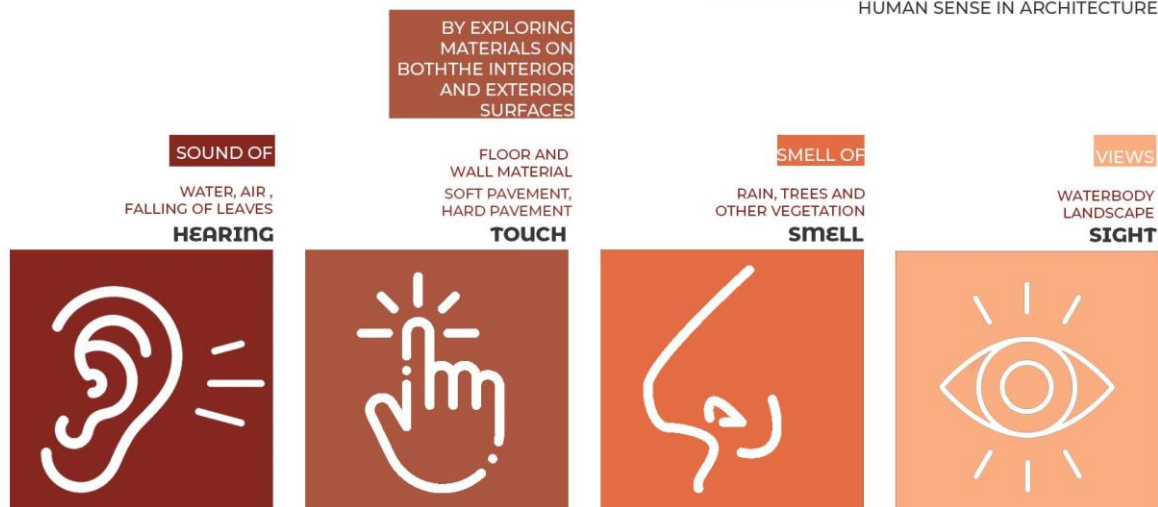
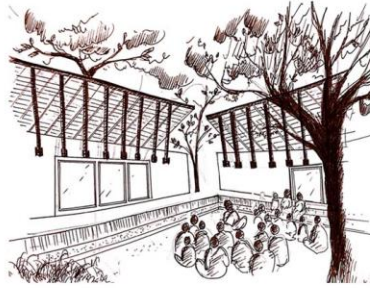


Fig 40-concept elements, Source: Author

HEALING THROUGH ACTIVITIES
AND INTERACTIONS

CLASSROOMS
PRACTICAL TRAINING
SKILL DEVELOPMENT
SEMINAR
HORTICULTURE



HEALING THROUGH
NATURE

REVIVE
REJUVENATE GARDENS
NATURESCAPE
WATERSCAPE
REFRESH

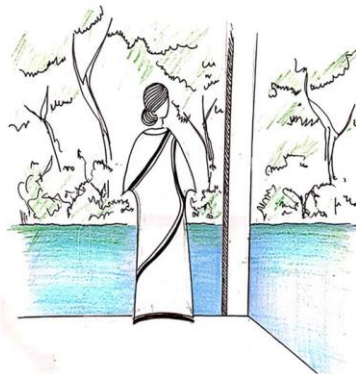




Fig 41- ideas of spaces

Source: Author

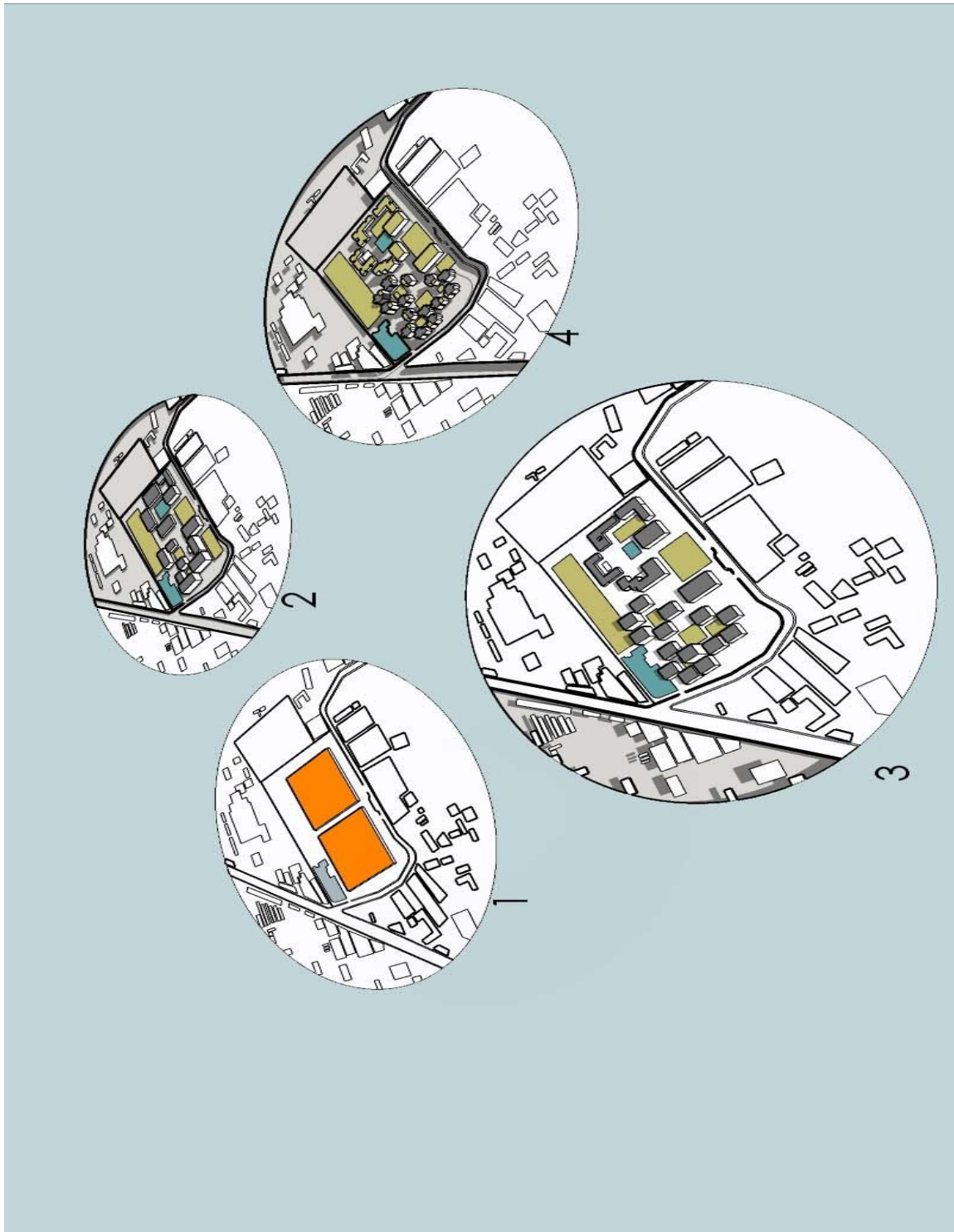


Fig 42- zoning idea, Source: Author



Fig 43- Master plan

Source: Author

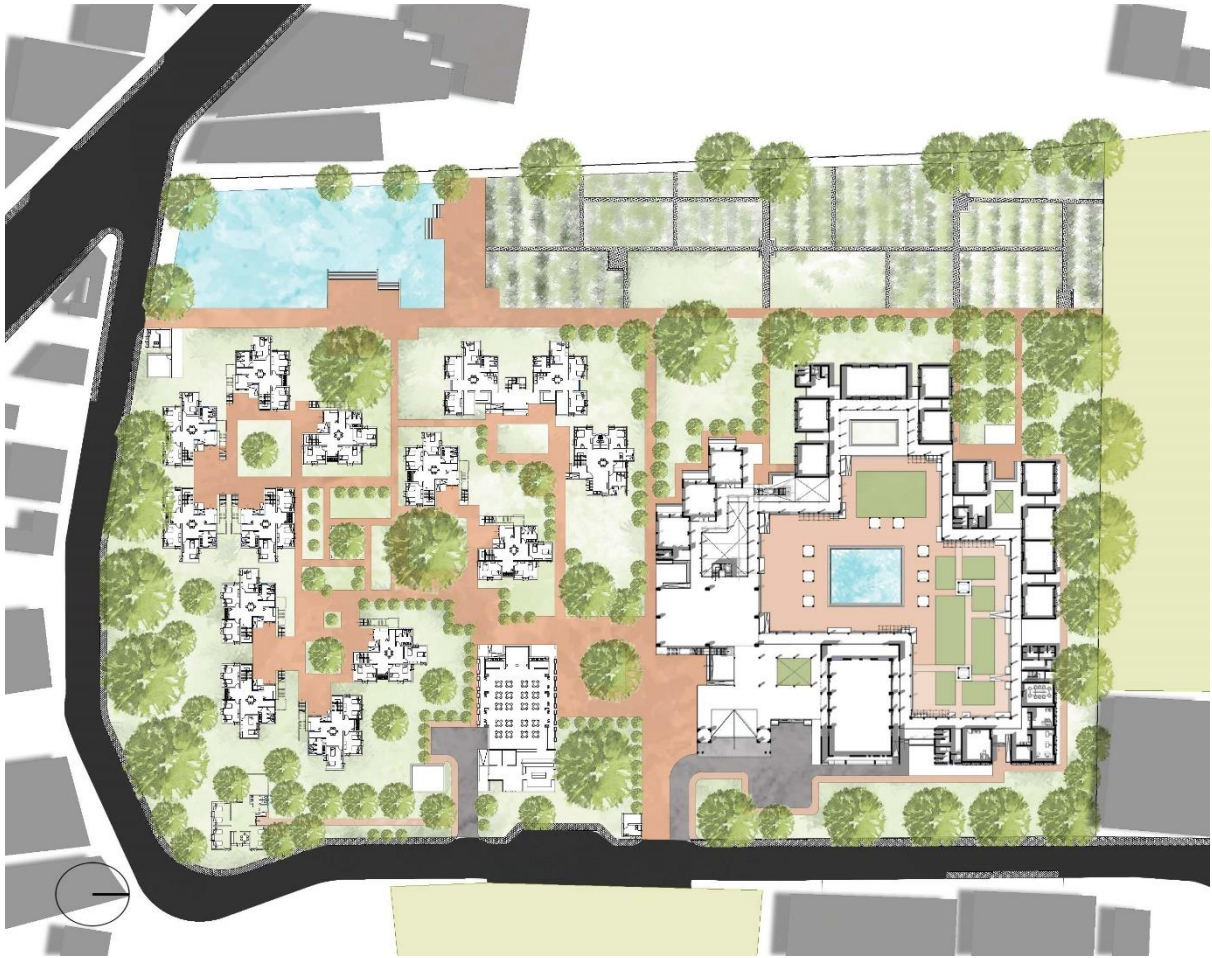


Fig 44- ground floor plan with site surroundings

Source: Author

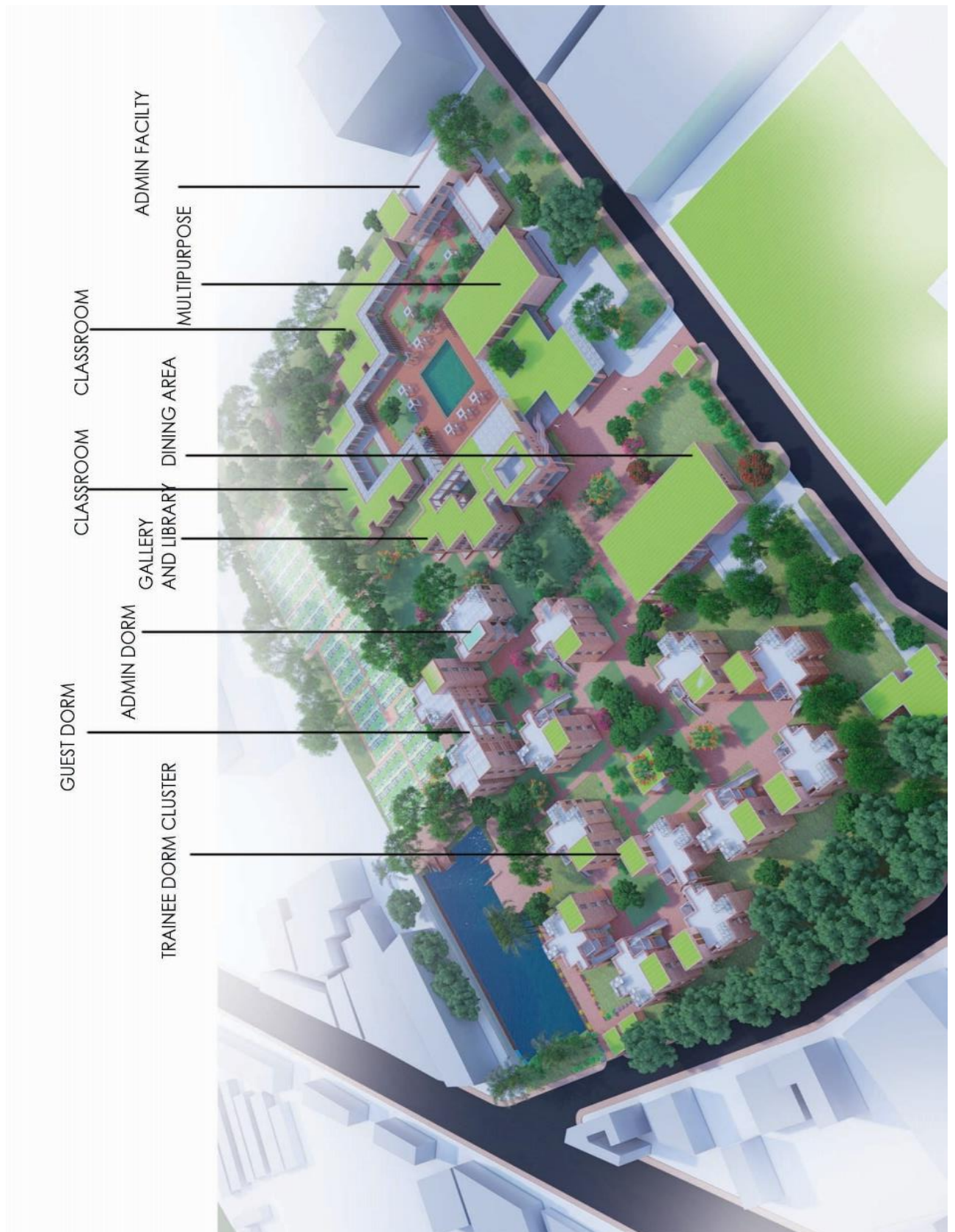


Fig 45- 3d Zoning

Source: Author

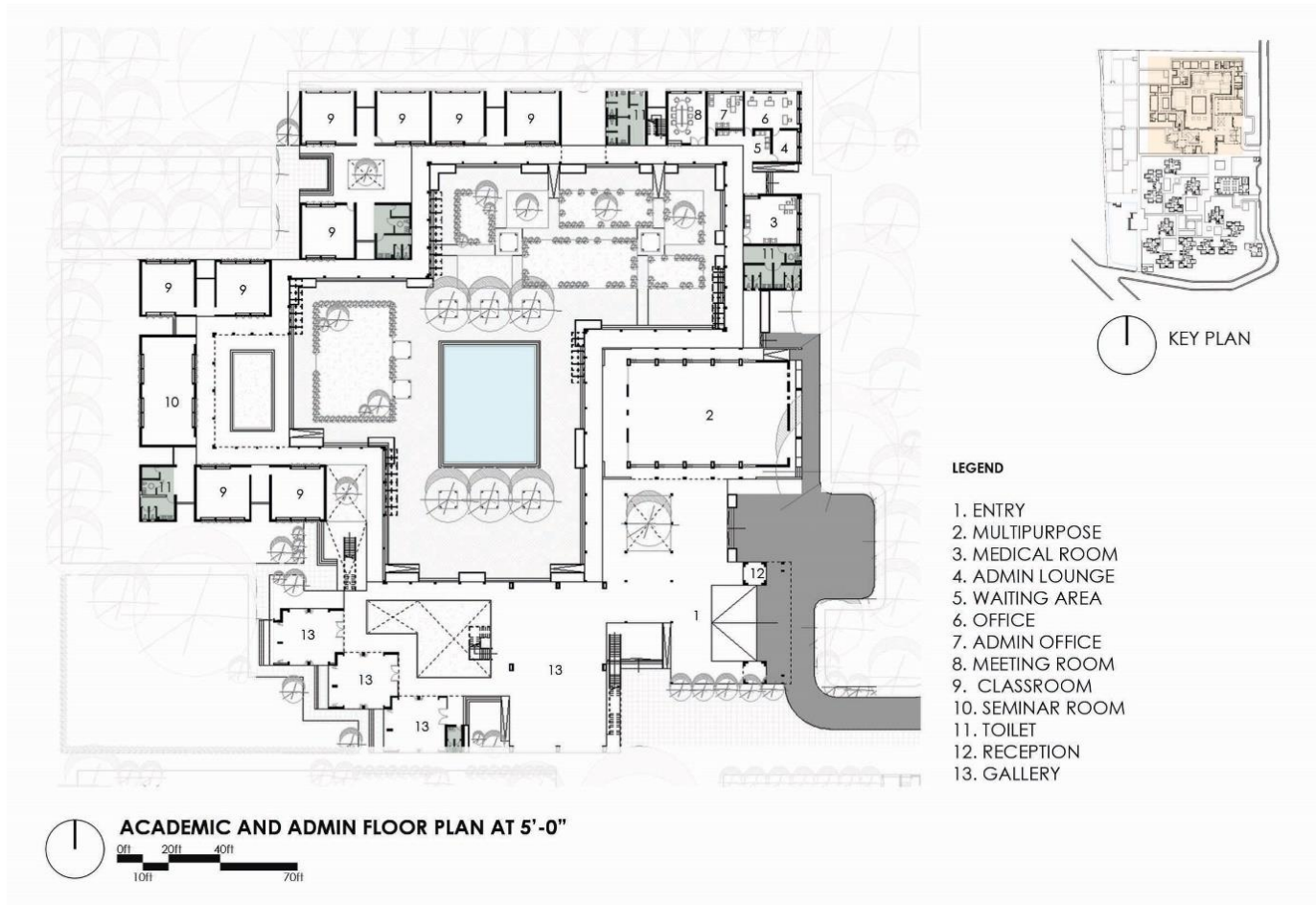


Fig 46- academic zoomed in plan

Source: Author

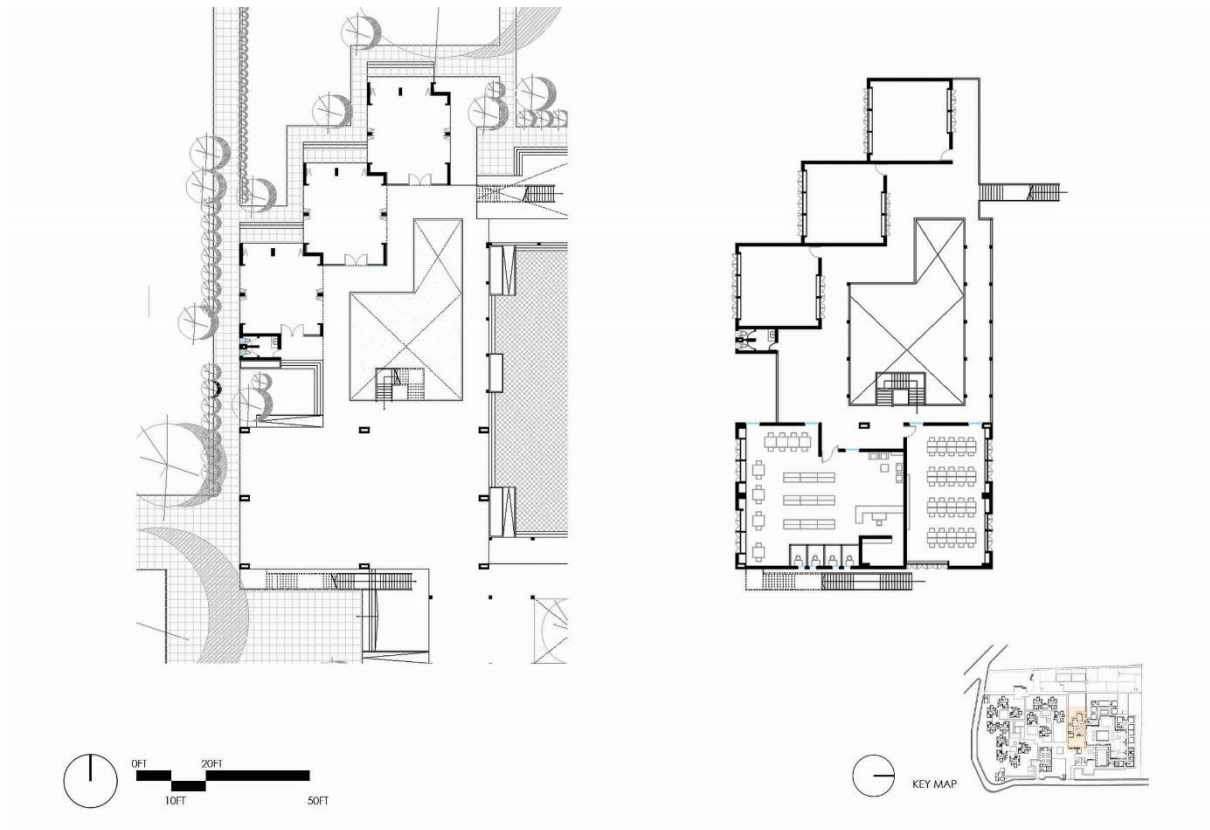


Fig 47- classroom and library zoomed in plan

Source: Author

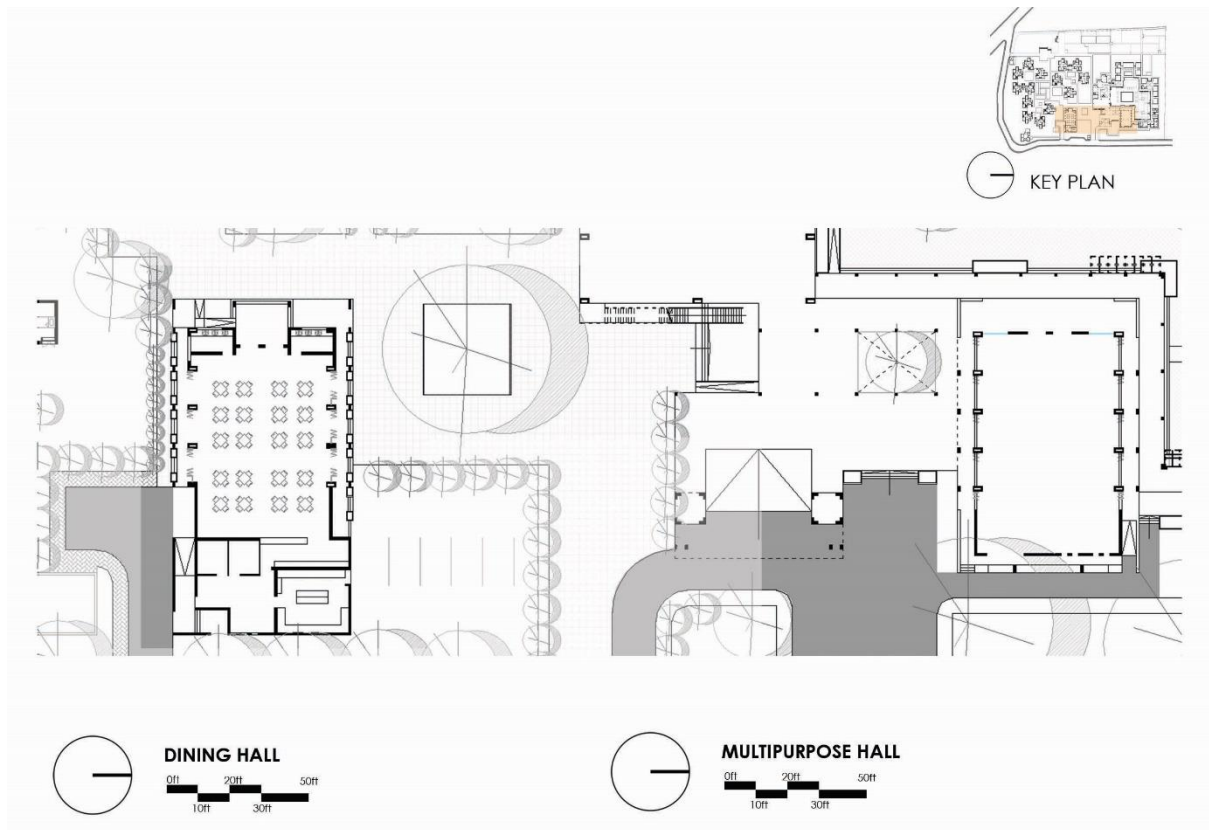


Fig 48- dining and multipurpose zoomed in plan

Source: Author



Fig 49- dorm clusters

Source: Author



Fig 50-trainee dorm layout, Source: Author



Fig 51-trainee dorm north elevation, Source: Author



Fig 52- trainee dorm east elevation

Source: Author

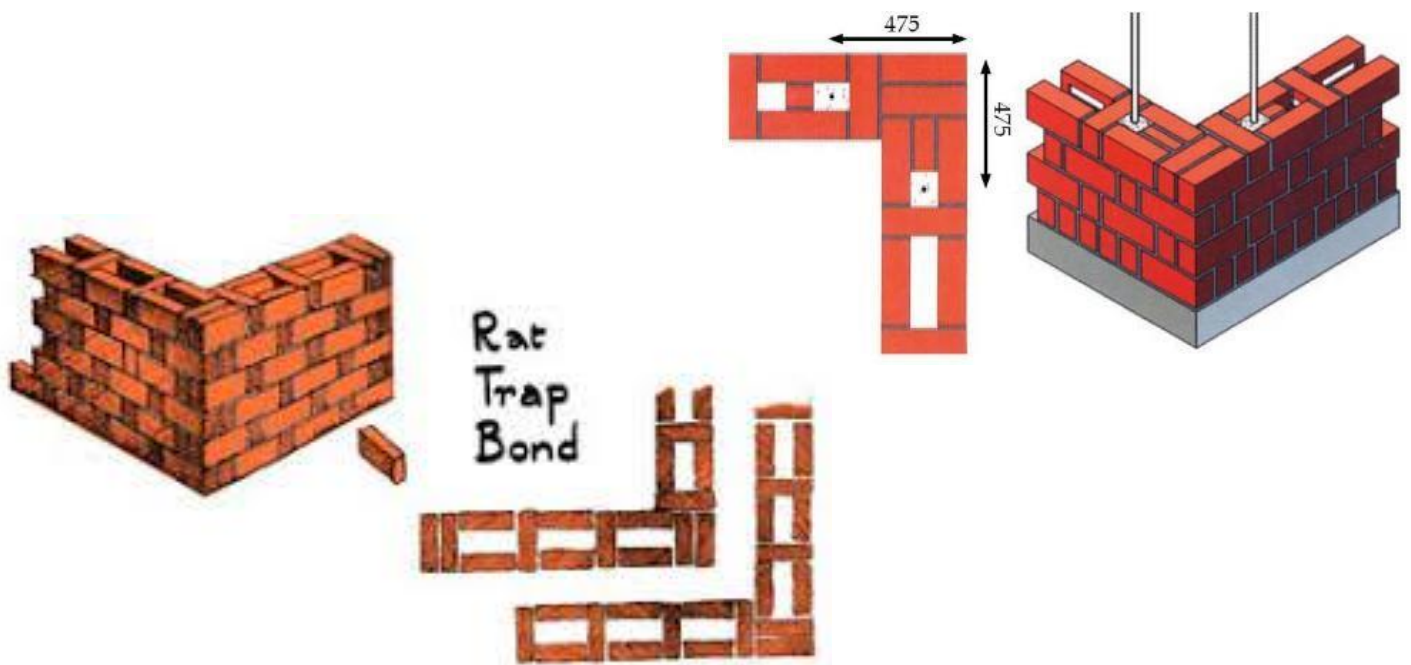


Fig 53- brick bonding detail

Source: Author



Fig 54- trainer dorm layout

Source: Author



Fig 55- admin dorm layout

Source: Author

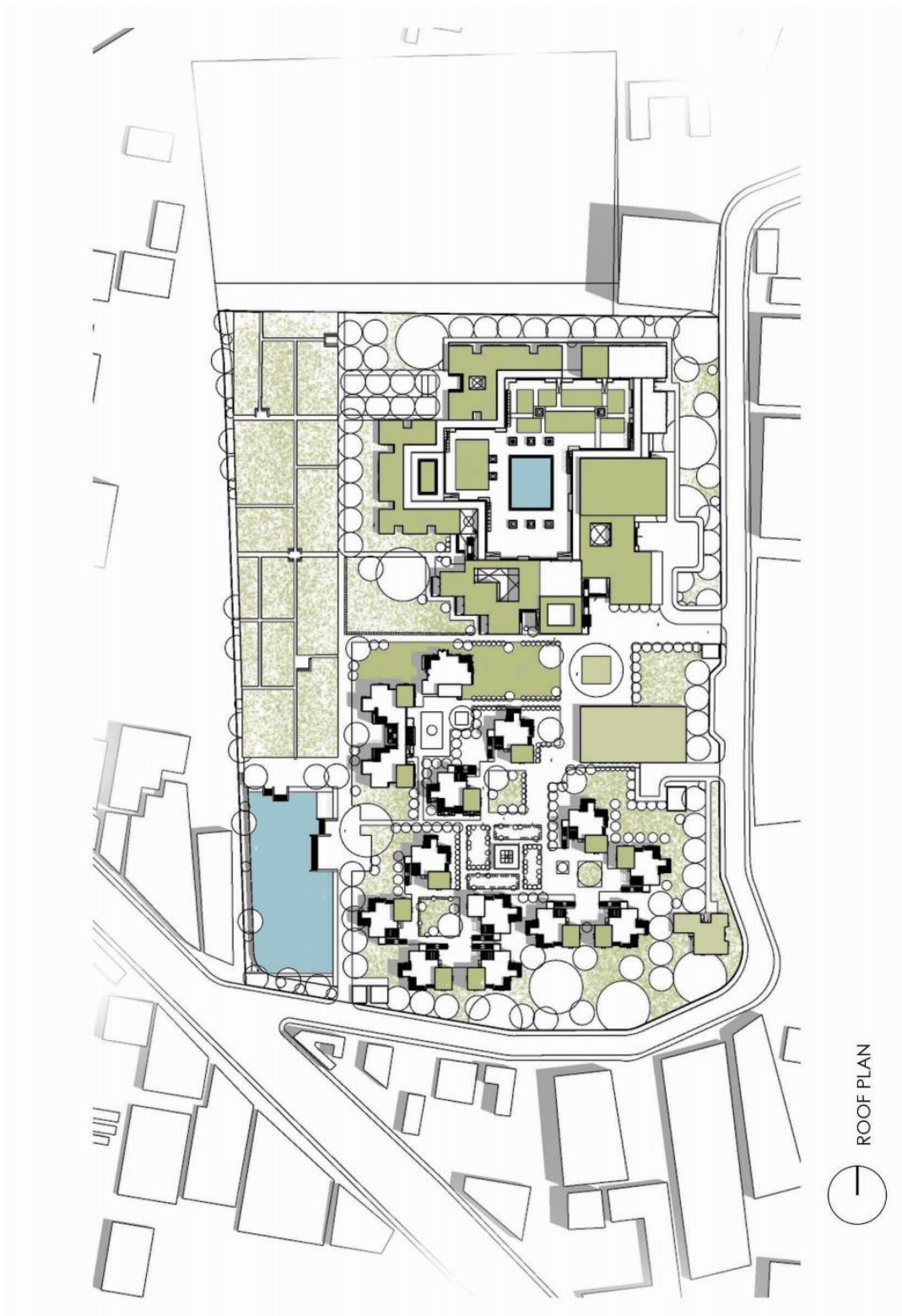


Fig 56- roof plan, Source: Author

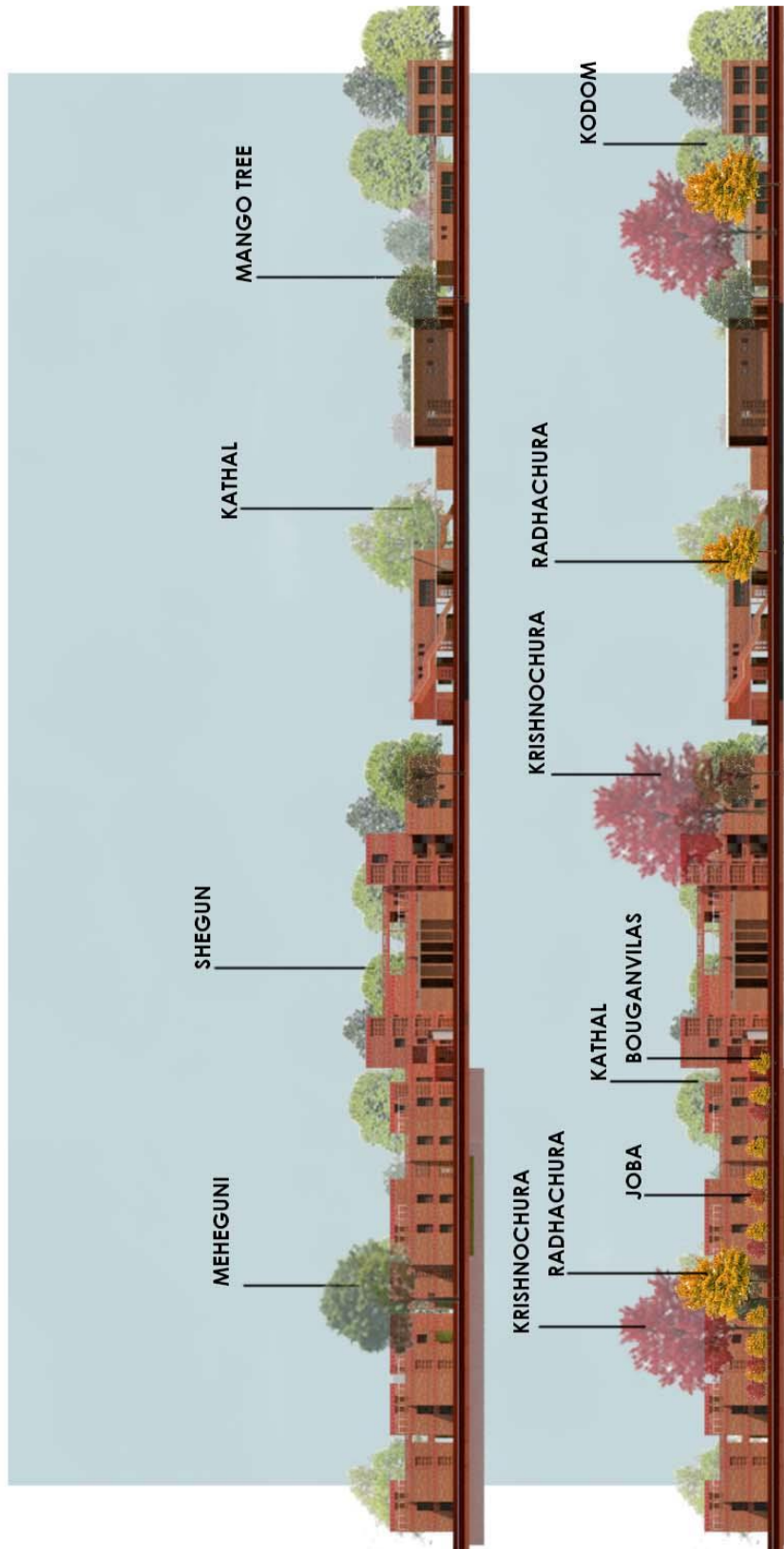


Fig 57- elevations showing trees planted later in the design. Source: Author

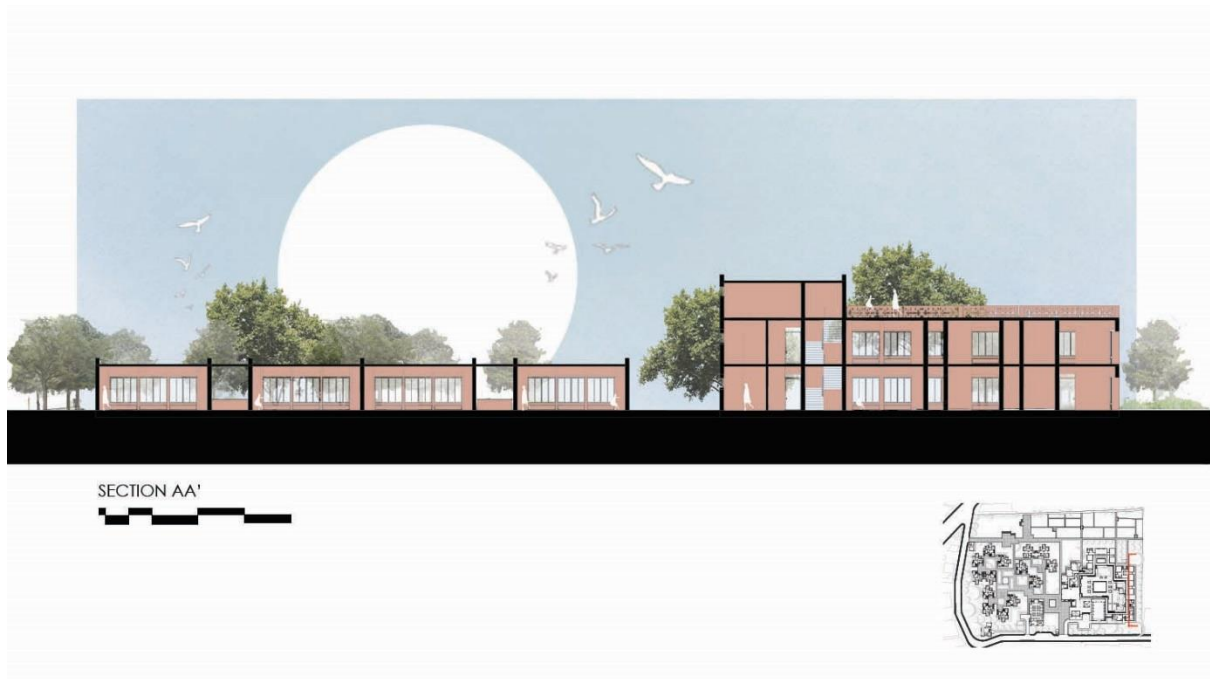


Fig 58- Section AA through classroom and admin

Source: Author



Fig 59- Section BB through library block and multipurpose block

Source: Author



Fig 60- Section cc through entry and library block , Source: Author



Fig 61- Section cc through entry and library block

Source: Author



Fig 62- Landscape and sitting elements

Source: Author



Fig 63- Render Image 1 showing the courtyard space in front of classroom, Source: Author



Fig 64-Render Image 2 show a space of multipurpose, Source: Author



Fig 65-Render Image 3 showing space in front of the multipurpose, Source: Author



Fig 66-Render Image 4 showing a top view of the dorm clusters, Source: Author



Fig 67-Render image 05 showing a proposed ghat with the existing water body on the siteSource: Author



Fig 68-Render image 06 show a central courtyard in the dorm area, Source: Author

To conclude, each spaces were designed considering the issues discussed in the whole paper. Keeping in mind of the mental condition of the women coming to this center I tried incorporating greens as possible and I tried to design spaces that would maximize light coming in the interior spaces with proper cross ventilation in every rooms, create a pathway around the center through different sizes of open spaces such as courtyards and semi open spaces. The whole center will not only provide them an opportunity to develop skill but also help them realize their worth in the society.

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