

Design a Women Center in Nepal

LM-4 SUSTAINABLE ARCHITECTURE AND LANDSCAPE DESIGN

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## 01 INTRODUCTION

Introduced how women in history fight for their rights step by step and the relationships between women and architectures.

# 02 SITE SELECTION

Why we choose our site and how our design will influence this area.

# 03 SITE ANALYSIS

Analyze the site from large to small scale and how do Nepalese woman use the space indoor and outdoor.

# 04 DESIGN PROJECT

According to the analysis and topic research, we propose our concept how to connect the site and the city as well as women and society.

## PREFACE

"'A woman's place is in the home' has been one of the most important principles in architectural design and urban planning in the United States for the last century,"

------ Dolores Hayden, an urban planning historian wrote in her 1980s essay.

We continue building and planning our cities falling patriarchal norms and behaviors that do not consider the needs the rights of specific groups of our society, including women.

Every public space has been designed thinking about what men needed and used to do when participating in the public sphere. In reality, what is 'gender-neutral' usually has a male perspective and is in men's interest. Women's issues and perspectives are not taken into account and they are affected differently, and also disproportionately, by urban problems. Our societies have changed, our cities not.

Women in our society constantly pursuing their rights, empower, gender equality, and women's status has been greatly improved compared with last century, but the urban planning and architecture also need to focus on women, make our cities are more friendly and safely to women. Designing a city with half the popu-lation in mind will create a better environment in the slow crawl toward equality.

What's good for women is good for everyone.

## ---- 01. INTRODUCTION -----

- $\rightarrow$  THE HISTORY OF WOMEN'S EQUAL RIGHTS
- $\rightarrow$  WOMEN'S REQUIREMENTS
- $\rightarrow$  QUESTIONNAIRE SURVEY RESULT ANALYSIS
- $\rightarrow$  CONCLUSION

NEN'S EQUAL RIGHTS ENTS

## Introduction

The second Industrial Revolution (1870-1914) affected women uniquely, and their involvement and contributions were distinctive as well. The second Industrial Revolution lead to many advantages and disadvantages for women, it changed the types of work women performed, changed their attitudes about working, men's attitudes towards them working, and their status and function in the family structure was transformed as well. Along with the technical and economic advancements during the Industrial Revolution was a social change that occurred for women, being the impetus for more progressive movements, empowerment, and the fight for equality in a patriarchal society.

"Posters mirror society, poster styles change when society changes. They reflect the society for which they are produced. We choose to use Poster to reflect how women's status change from the second Industrial Revolution until now. As women's consciousness rises, some particular types of buildings were designed for women in different years. From these buildings, we can see how women social status changed influenced architecture, although not too much.

Most of case studies are from Western countries, but we believe that we are live on the same planet, some things happened in one place will affect the other places.

## The History Of Women's Equal Rights

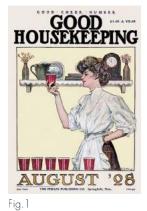
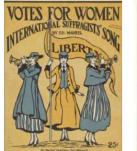




Fig.2

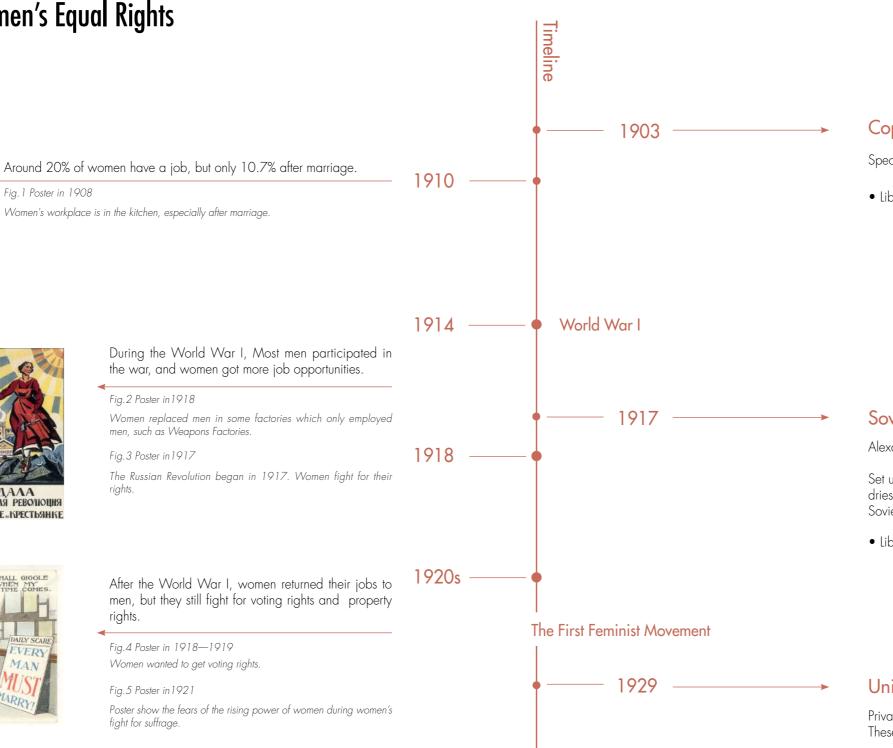


In sure I shall ologe when MY The cores.

Fig.4

Fig.5

Fig.3



### Copenhagen

Special Housing Facilities for Employed Women

• Liberated from domestic.

### Soviet Union

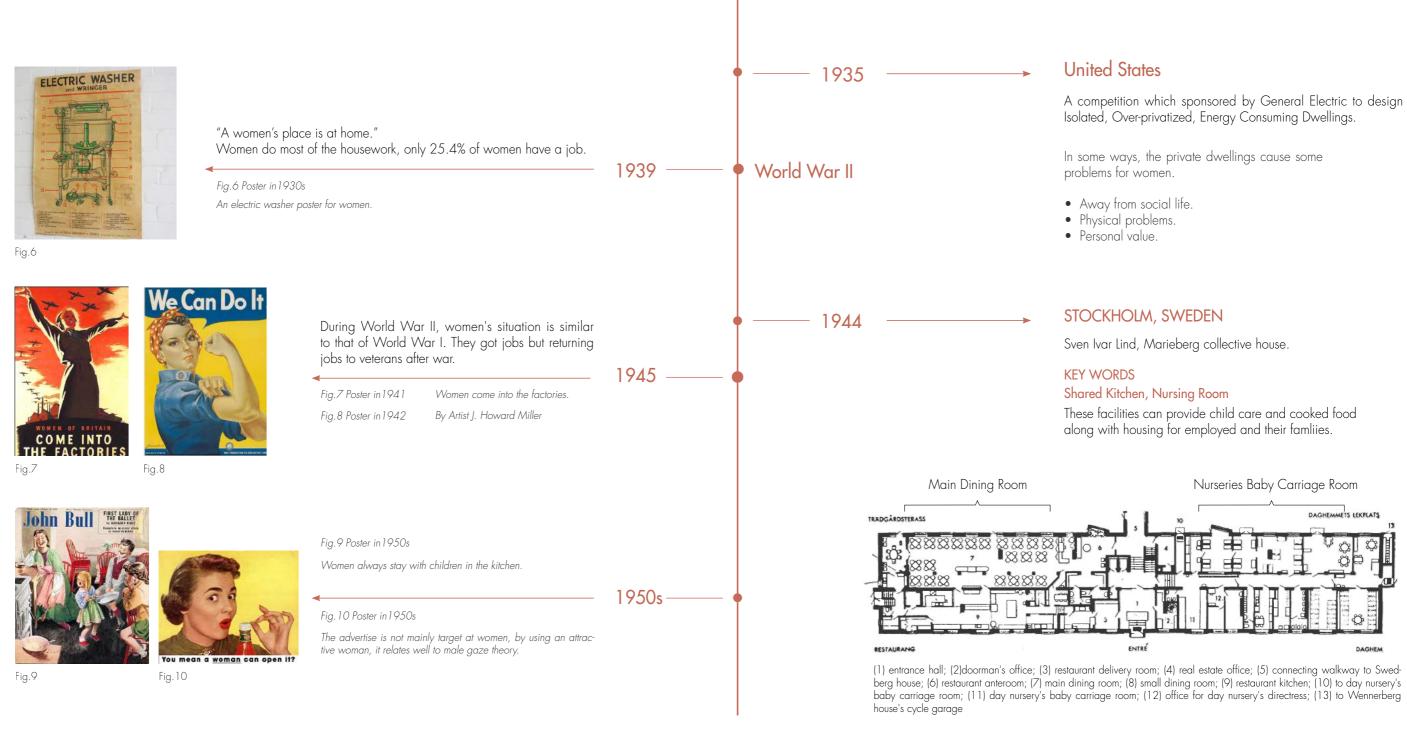
Alexandra Kollontai

Set up a large network of services (i.e. shared dining areas, laundries and nurseries), encouraging them to work on behalf of the Soviet society .

• Liberated from domestic.

### United States

Private Suburban Dwellings These houses contain private kitchen, dining room.





WOMEN

RECLAI

THE NIGHT

A Women's Celebration

ALL WOMEN WELCOME

Fig.12

Second-wave feminism focus on sexuality, family, the workplace, reproductive rights and sexuality, family, the workplace, reproductive rights. It also drew attention to the issues of domestic violence and marital rape.

39% of families are two-worker family and another 13% 🚽 🚽 are single parents.

Fig. 11 Poster in 1960s

riage for them is the most important thing.

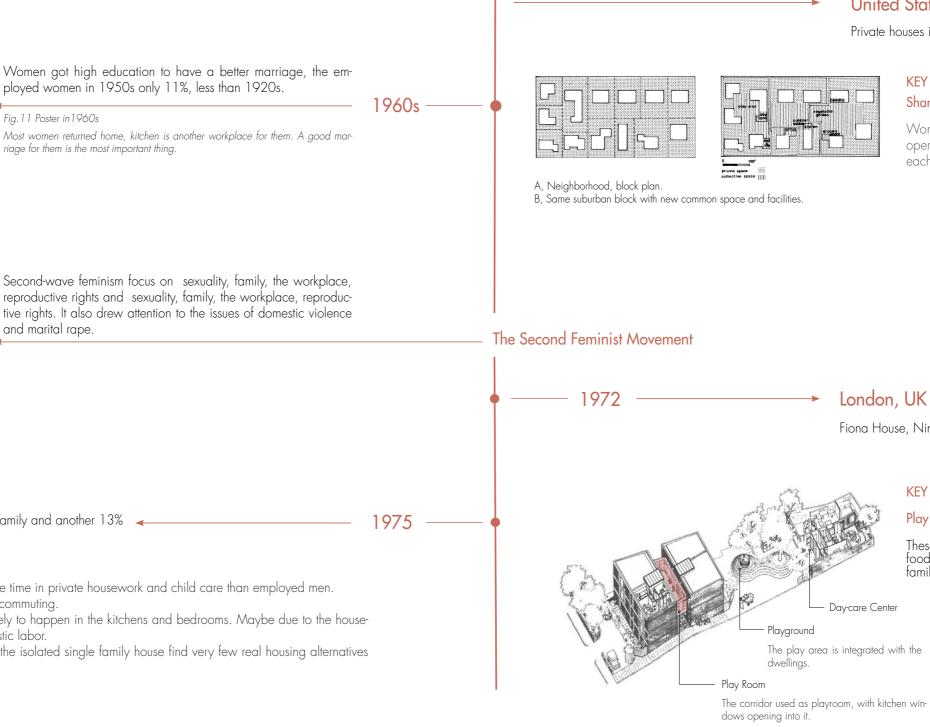
1975

• Employed mothers spend more time in private housework and child care than employed men.

• Women spend more time on commuting.

• Domestic violence is more likely to happen in the kitchens and bedrooms. Maybe due to the household isolation and unpaid domestic labor.

• The women who does leave the isolated single family house find very few real housing alternatives available to them.



### United States

Private houses in the suburban

#### **KEY WORDS** Shared Space, Communication

Women have a strong sense of neighbourly cooperation, they like to share experience, support each other.

### London, UK

Fiona House, Nina West Homes

#### **KEY WORDS**

Play Area, Day-care Center

These facilities can provide child care and cooked food along with housing for employed and their families.

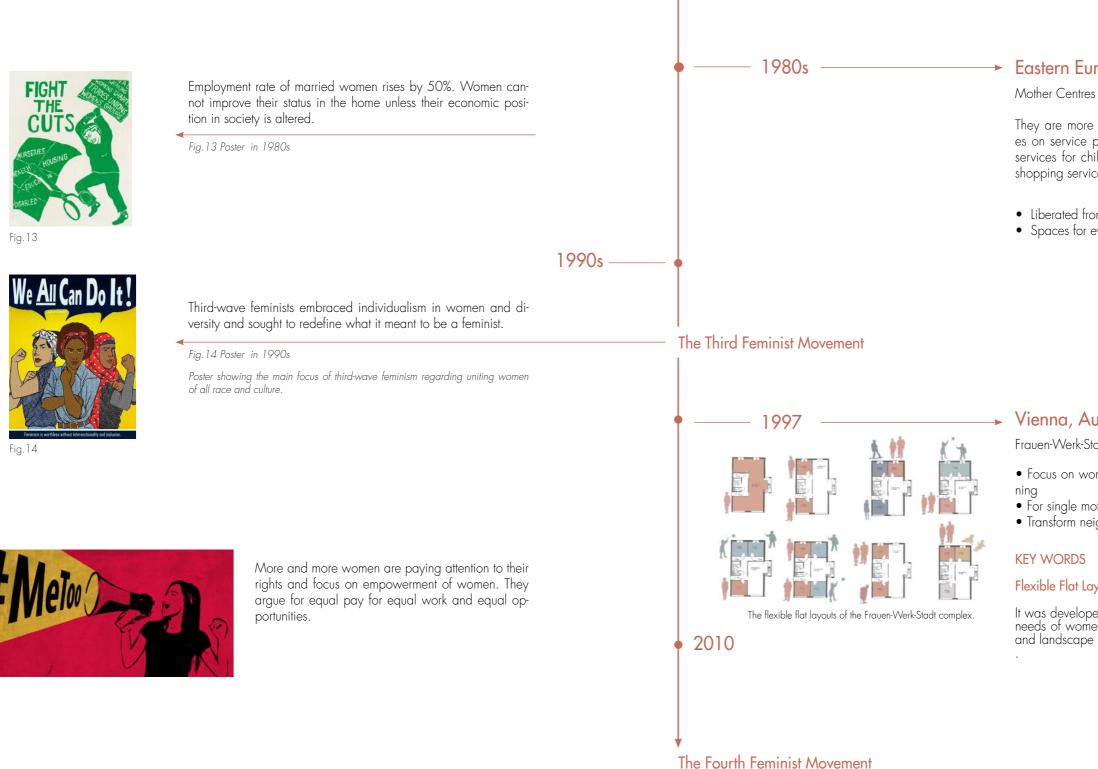


Fig.15

### Eastern Europe

They are more of an expanded community centre which focuses on service provision to families. Such as Pick-up and escort services for children and elderly, Cleaning services, Meal and shopping services.

• Liberated from domestic. • Spaces for evolving stable and supportive relationships.

### Vienna, Austria

Frauen-Werk-Stadt

• Focus on women's interests within the context of urban plan-

• For single mother • Transform neighbouhood into social space

#### Flexible Flat Layout, Social Space

It was developed with great attention and consideration to the needs of women with respect to architecture, urbanism, traffic and landscape planning.

### Women's Requirements - Urban Infrastructure

Transportation and public space are the main places for women. Most women usually use public transportation, so they have a higher demand for the public transportation system and public space. Compared with other problems, they pay more attention to privacy and safety.

#### PUBLIC TRANSPORTATION



#### Desire

Compared with men, more women use public transportation. A good transportation system can make women's travel more convenient.



#### COMMUNITY SERVICE





#### Requirements



#### SANITATION SERVICE



Desire

Desire

Women are more vulnerable due to physiological reasons, so they need better hygiene care.



#### STREETSCAPE



Desire

Invisible streets are always dangerous for women, especially at night.

#### PEDESTRIAN PRIORITY



Desire

For short travel, women tend to go there on foot, so pedestrian friendly can reduce their anxiety.

#### OPEN SPACE



Desire

Desire

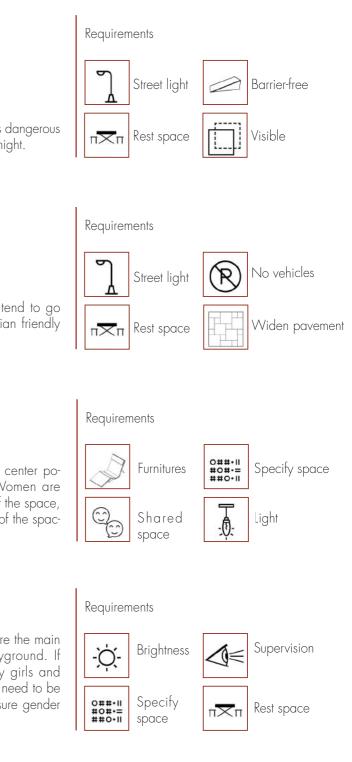
Men always occupy the center position in open space. Women are more like the boundary of the space, they need different types of the spaces.

#### CHILDREN'S PLAY



After 9 years old, boys are the main players in the most playground. If parks are to be used by girls and boys on equal terms they need to be planned in ways that ensure gender equality.





### Women's Requirements----Housing

Although women's social status changed significantly, they still spend much time on housing work and taking care of children. Home is one of the most important workplaces for them. How the houses make them feel safe and belong to be able to stay in the house comfortable is essential.

#### **AFFORDABILITY**



Desire

Some women usually work for their home, and they have no income, especially for those who become single mothers, they need affordable apartments.

#### BUILDING ENTRANCE



Desire

Women need a safety environment when they back home in the evening. Open and transparent space is better, as well as an "escape route".

#### PARTICIPATION



#### Desire

be.'

Creating belonging atmosphere is very important. "Belonging for me is that it is my own space and that i decide what it will

녌

Requirements

Requirements

ow cost

Easy to build

Transparent

Rest place

Visible

\$\$\$

Requirements

π×г



he design









# Decoration

nvolved in

# Variable



.ight

### FLAT LAYOUT



Desire

Desire

Flexible layout which can adapt to changing needs as families evolved.

#### SPACE REACHABILITY



The spaces which women always work in have a better connection. Women can reach every room directly.

#### SOCIAL SPACE



Women tend to stay together and ex-

SIGHT



Desire

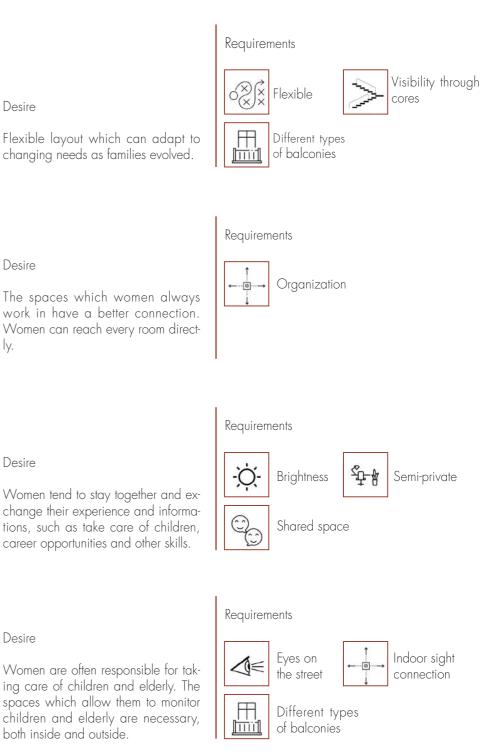
Desire

Women are often responsible for taking care of children and elderly. The spaces which allow them to monitor children and elderly are necessary, both inside and outside.



22

Surveillance

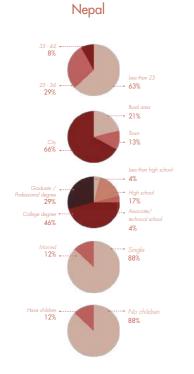


### **Questionnaire Survey Result Analysis**

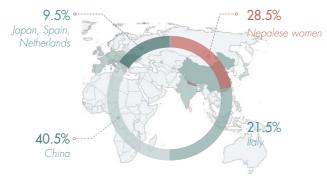
#### TESTEE INFORMATION

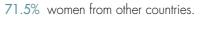
We did a guestionnaire about how women use outdoor and indoor spaces and if they are satisfied with the current environment. There are 84 women from worldwide participated our survey, including 24 Nepalese. They are from 25 to 64 years old and they have educational backgrounds.

After analyzing the result, we found that Nepal women have different requirements in some aspects from women from other countries.



We surveyed 84 women, including 24 from Nepal and 60 from other countries.

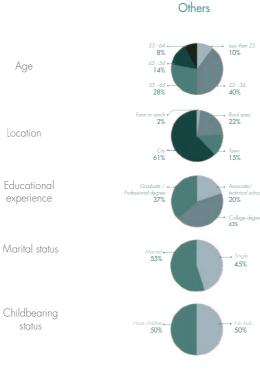




Age

Location

status



#### EXISTING PROBLEMS





- The problems that all testees faced when using urban space are: In addition, the problems unique to Nepali women are insufficient children space [63%] unsafe outdoor spaces [38%] insufficient public transportation [38%]
- 74% of testees use urban space less because of the problems 33%

Nepalese women rated

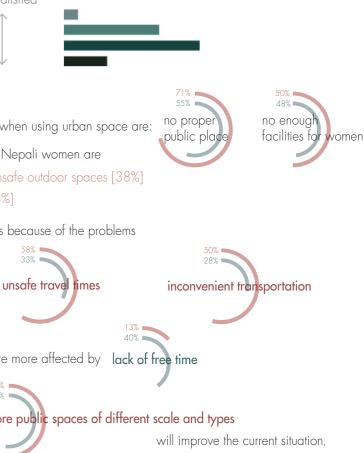
40%

While women in other countries were more affected by lack of free time

52% • All of testees think that creating more public spaces of different scale and types

besides, improve transportation system is chosen by most of Nepalese women.

while others chose to add more urban furniture.



### SPACE USE PREFERENCE

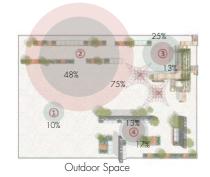
Nepalese women have very different preferences for the priority when choosing a place to live from women in other countries.

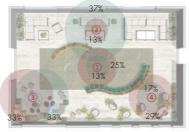


All women have similar preferences about the community facilities



All women prefer Outdoor Semi-open Space.





37%

Indoor Space

While Nepalese women prefer Indoor Adaptable Space & Private Space

and others prefer Indoor Semi-private Space.

about 96% of testees would like to get involved in improving the surrounding living environment



- $\rightarrow$  WHY WE CHOOSE NEPAL?
- $\rightarrow$  WHY WE CHOOSE KATHMANDU?
- → WHY WE CHOOSE THANKOT?

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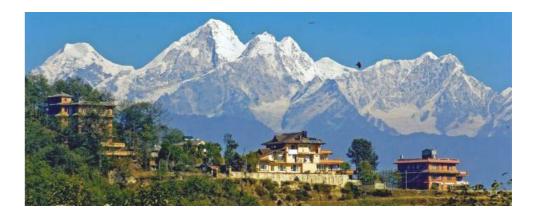
## Why We Choose Nepal ?



Historically, Nepal has been a predominantly male society, with women usually subordinate to men. Men were considered the head of the family and superior to women. Social norms and values favor men, and there is a strong bias in favor of boys.

Over the past century, the role and status of women in Nepal have changed dramatically and positively, reducing gender inequality. The 1990 Constitution guaranteed the fundamental rights of all citizens, and numerous acts were subsequently enacted to supplement the protection of women's basic rights. Social modernization and improved education for the general population have also played an essential role in promoting gender equality. In addition, international organizations and the public began to pay attention to the issue of women's rights.

Nepali women are becoming aware and actively involved in relevant activities. The role of women in modern Nepali society is changing. Nepal has the potential and sufficient conditions to improve these issues.







## **Policy Progress Time-line**

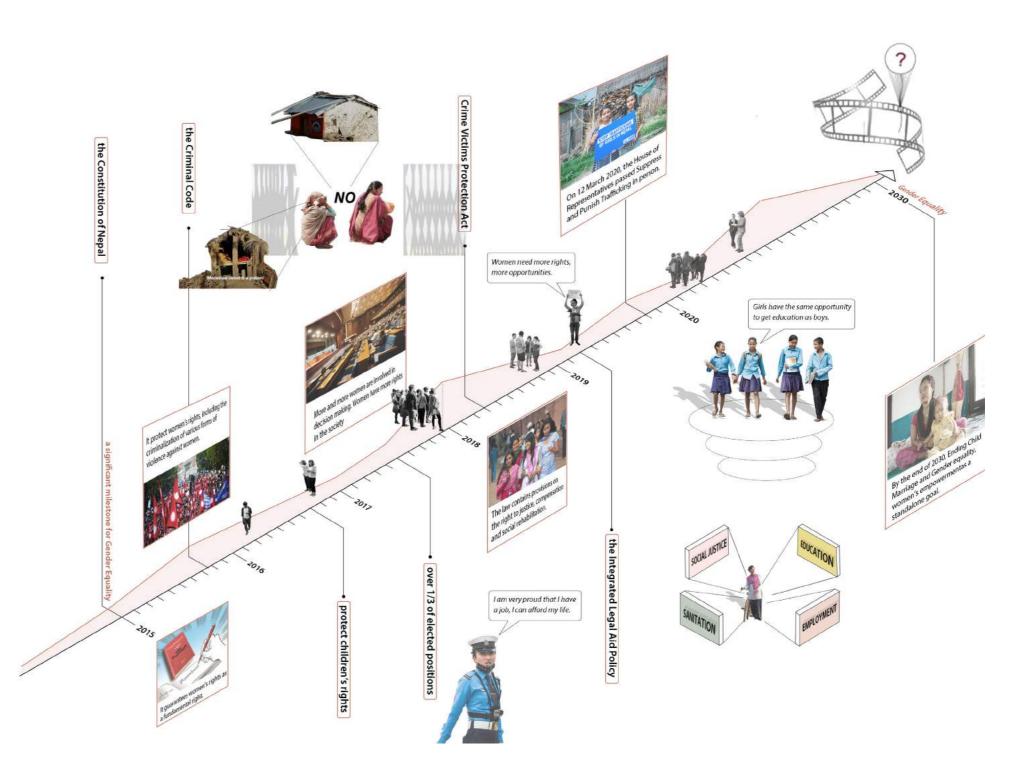
The policy in Nepal is in processing. Nepal's Constitution (2015) enshrines several key international frameworks to address women's rights, and the government makes considerable efforts to ensure that all laws and policies conform to the constitution's provisions on gender equality.

The government is implementing the Women's Empowerment Program, and gender-responsive budgeting has improved. The current five-year development plan reflects gender concerns, and the population and housing census now reflects gender-disaggregated data, a major step in promoting and monitoring gender equity.

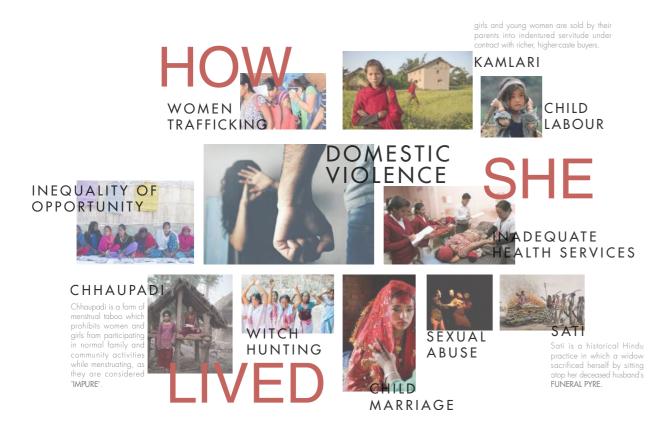
Other relevant legislation includes the following: The Gender Equality Act, 2006; The Human Trafficking and Transportation (Control) Act, 2007 and Regulation, 2008; Domestic Violence (Crime and Punishment) Act, 2009 and Regulation 2010.

Programmes such as Making Politics Work with Women have led to stronger leadership skills of women leaders and increased exposure of Constituent Assembly members to gender equality and women's human rights issues.

Nepal government want to reach gender equality in 2030.



### **Policy Progress Time-line**





INEQUALITY OF OPPORTUNITY Although the constitution offers women equal educational opportunities, many social, economic, and cultural factors ntributed to lower enrollment and aher dropout rates for girls.



MARRIAGE



## What Nepalese Women Experienced

Despite the legal framework, women in Nepal still face discrimination and multiple challenges.

Women and girls face violence, sexual harassment and abuse in all areas of the city, including their homes. Fear of this violence severely restricts their access to the city's amenities.

Public transport, streets and streetlights, electricity, public toilets, market, education and employment opportunities, safety and security are of great concern for different categories.





25% of women live below the poverty line



25% of women have experienced violence



**34%** of seats in the national parlimament are held by women

34% of women own property in their names





## Why We Choose Kathmandu ?



Kathmandu is the capital city of Nepal, has been for many years the center of Nepal's history, art, culture, and economy. It has the most social contact with the outside world and with the highest modernization and urbanization.

Kathmandu has the country's only airport, so it is the first stop for foreign tourists visiting Nepal. With the historic buildings with local style and welcoming residents, Kathmandu has developed a prosperous tourism industry, attracting tourists and contributing significantly to the economic growth of the tertiary industry of the country. As a modern city, Many enterprises and companies have settled in Kathmandu, which provides more job opportunities. The popularization of modern education also reduces local prejudice against women and gives women more equal employment opportunities.

These conditions are conducive to the development of projects that provide help and support to women in Nepal.





Why We Choose Thankot ?



Thankot is a large village west of Kathmandu and also the only entry point to Kathmandu Valley. The traditional settlement of Thankot lies on the foot of Chandragiri hill and is primarily inhabited by Newars. It is located on a high elevated sloping site possibly built for security reasons and as a marketing center.

Thankot has service facilities for women. Since it is located at the main west entrance of the public transport network in Kathmandu, almost all migrating people use it to reach public transport. There is a Transit Home that intercepts potential victims of trafficking. Besides, NGOs have set up a handicraft studio in local areas to encourage and develop the skills and lifestyle of the poor local women and provide employment opportunities for women with lower economic levels and women in remote villages.

In addition, Thankot is rich in natural resources. It enjoys beautiful mountain scenery and rich forest resources. The site can attract tourists as a scenic spot and take advantage of the good ecological environment.





## --- 03. SITE ANALYSIS ----

- $\rightarrow$  SITE INTRODUCTION
- $\rightarrow$  STAKEHOLDER ANALYSIS
- $\rightarrow$  [L] SITE ANALYSIS URBAN SCALE
- $\rightarrow$  [M] SITE ANALYSIS COMMUNITY SCALE
- $\rightarrow$  [S] SITE ANALYSIS DESIGN SITE

IS AN SCALE DMMUNITY SCALE SIGN SITE

## Kathmandu Valley

Kathmandu Valley is the center of Nepal and forms the core of the nation's most populous urban region. The area has been important economically, administratively, and politically for hundreds of years.

Kathmandu valley is bowl-shaped. It is central lower part stands at 1425 meters above sea level. Four mountain ranges surround Kathmandu valley: Shivapuri hills (at an elevation of 2732m), Phulchowki (2695m), Nagarjun (2095m), and Chandragiri (2551m). The major river flowing through the Kathmandu Valley is the Bagmati. The valley covers an area of 570 km2, consisting of the municipal regions of Kathmandu, Patan, Bhaktapur, Kirtipur, and Madhyapur Thimi; the remaining area is made up of municipalities and rural municipalities.

The Kathmandu Valley lies at the crossroads of ancient civilizations of the Indian subcontinent and the broader Asian continent, serving as Nepal's cultural and political hub. A mixture of cultures, Newar culture still exists vibrantly. The valley has at least 130 important monuments, including several pilgrimage sites for Hindus and Buddhists. The Kathmandu valley was accorded the status of a World Heritage Site by UNESCO in 1979.

With its ancient monuments scattered around, Kathmandu is an emerging city where several plans and concepts have been implemented for its development. It is home to an estimated 2.5 million people with one of the highest population growth rates in Asia of over 4%. Like many cities of the developing world, it has been facing rapid urbanization and daunting socio-economic problems. There are issues of the inadequate urban management of the city's expansion, including insufficient infrastructure and squatter settlements, with severe environmental consequences including air, water, and other forms of pollution.

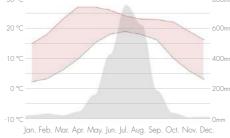


## **Geographical Setting**

#### CLIMATE

Kathmandu Valley is in the Warm Temperate Zone (elevation ranging from 1200 to 2300 meters), where the climate is fairly temperate, atypical for the region.

In general, the annual maximum and minimum temperatures were between 29.7 °C in May and 2 °C in January. Heavy concentration of precipitation occurs in June to August as a result of southeast monsoon winds. Rainfall at about 1400 millimeters, with average humidity is 75%.



Average temperatures and precipitation

#### EARTHQUAKE

The Himalayan Region is the youngest mountain region in the world. Formed by the plate collision of the Indian subcontinent and the Eurasian plate, it is prone to frequent earthquakes, flash floods and landslides.

Historically the urbanization in the region has been limited to a few broad valley areas such as Kathmandu in Nepal. As the first region in Nepal to face the unprecedented challenges of rapid urbanization and modernization at a metropolitan scale, the Kathmandu Valley's risk of earthquakes and other geo-hazards is an increasingly urgent problem.

Some areas of Kathmandu Valley were severely damaged by a 7.8 magnitude earthquake in April 2015, leading to a rethink of the architecture used today in Nepal.



### Resource

#### WATER

Although Nepal is one of the richest countries in the world in terms of water resources, Kathmandu Valley is in shortage of drinkable water. Available supplies are insufficient in quantity and quality for the city's needs. Piped water supply covers only a small portion of urban residents, and there is a high rate of water loss caused by leakage and illegal connections. One-third of the city households lack access to safe drinking water. Inadequate sewerage inevitably leads to water contamination and disease.

#### SOLAR ENERGY

Solar energy is by far the largest and most sustainable energy resource in Nepal. There are about 300 days of sunshine in a year, with an average of 6.8 sunshine hours each day. Nepal has high solar potential, moderate hydro resources, and minor wind and bioenergy resources.

Small-scale solar systems for individual households or villages provide electricity for lighting, telecommunications, water pumping, grain grinding, and refrigeration. Small amounts of solar electricity cost relatively little but make a significant difference to living standards.

#### FOREST COVER

So far, no commercial deposits of oil, coal, or gas have been found in Nepal. Thus, fuelwood from forests and private lands is the primary source of energy for domestic consumption. Almost 90% of the people of Nepal are estimated to depend on forest resources for their livelihoods.

Forest resources are critical to sustaining farming systems that provide fodder, fertilizer, energy supplies, building materials, medicinal plants, other income-earning opportunities, and indirect benefits such as soil and conservation and eco-tourism.

But forests have been deforested and degraded for the last 50 years or so. The major causes are over-cutting for fuelwood and heavy harvesting for fodder.

### Women's rights in Nepal

Nepal is often characterized as a country caught in two different worlds, having one leg in the sixteenth century and another in the twentieth century. Entrenched in a feudalistic social structure, the deeply tradition-bound Nepal society is experiencing the pervasive influence of modern democratic thought. Nowhere was this juxtaposition of local traditional values and modern culture more pronounced than in the Kathmandu Valley-the country's most urbanized region.

Historically, Nepal has superstitious beliefs, and there are high levels of gender discrimination. It has been a predominantly patriarchal society where women are generally subordinate to men. Social norms and values were biased in favor of men. This strong bias in favor of sons in society meant that daughters were discriminated against from birth and did not have equal opportunities to achieve all aspects of development.

Although the roles and status of women in modern Nepalese society have undergone a massive transformation and their rights have been secured by the constitution, the status of women in Nepal remains very poor in terms of health, education, income, decision-making, and access to policymaking. Women face systematic discrimination, literacy rates are substantially lower than men's, and women work longer hours. Violence against women is still common, and there are not enough women in professions. Women's equal participation in all state mechanisms is far from ideal.

Despite the limitations of tradition and social structure on women in Nepal, the efforts of the outside world and women themselves make women's rights in Nepal reach a positive turning point. With the modernization of society, the promoting legal protection, awakening Nepalese women's awareness, and the increased education of the general population, women have a stronger approach to many aspects. And the Kathmandu Valley, the most urbanized of all, is the perfect place to grow at this turning point.



## Stakeholder Analysis

Stakeholder	Туре	Scale	Interest	Power
1. Non-governmental organization(NGO)	Bureaucratical actors	International	8	7
2. The municipality	Bureaucratical actors	Regional	7	9
3. Investors	Bureaucratical actors	International	6	8
4. Department of urban planning	Political actors	Regional	7	7
5. Local women	Special	Regional	9	8
6. Visitors	Special	International	3	2
7. Local businesses	Special	Local	4	5
8. Neighbourhood	Special	Local	6	4
9. Women Human Rights Defenders (WHRDs)	General	National	8	5
10. Citizens	General	Regional	4	3
11. Media	General	International	5	5
12. Sociologist	Expert	International	8	6
13. Architect's association	Expert	National	8	6

#### INVESTORS

Power

LOCAL BUSINESS

#### NEIGHBOURHOOD

The neighbors are important to keep informed, so they can engage in the project.

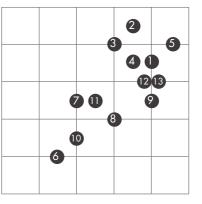
### VISITORS

These people can get information through tourism websites or brochure etc, and are not so important in the project

CITIZENS Citizens who are interested in this issue may pay atten-

tion to the project, but their impact will be limited.

The 13 stakeholders are arranged after power and interest in the scheme on the left. The diagram shows a distribution of how important each stakeholder is, they are organized after four categories - key players, who to keep satisfied, who to keep informed, and who to give minimal effort. The size of the circle describes the scale of their opinions can reach.



#### MUNICIPALITY

The municipality are key players and decision making bodies in the project. Their opinions shape the development and final result.

#### LOCAL WOMEN

They should play an import ant role in the project. Th project exists for them, thei opinions can be decisive.

#### DEPARTMENT OF URBAN PLANNING

#### NGOs

NGOs focus on protecting women's department also have the power to mote projects.

The department of urban plannin want the area to develop an become more socially friendly. The decide on projects.

#### SOCIOLOGIST

### **RIGHT DEFENDERS**

#### ARCHITECTS' ASSOCIATION

Interest



Key Players

LARGE international

national

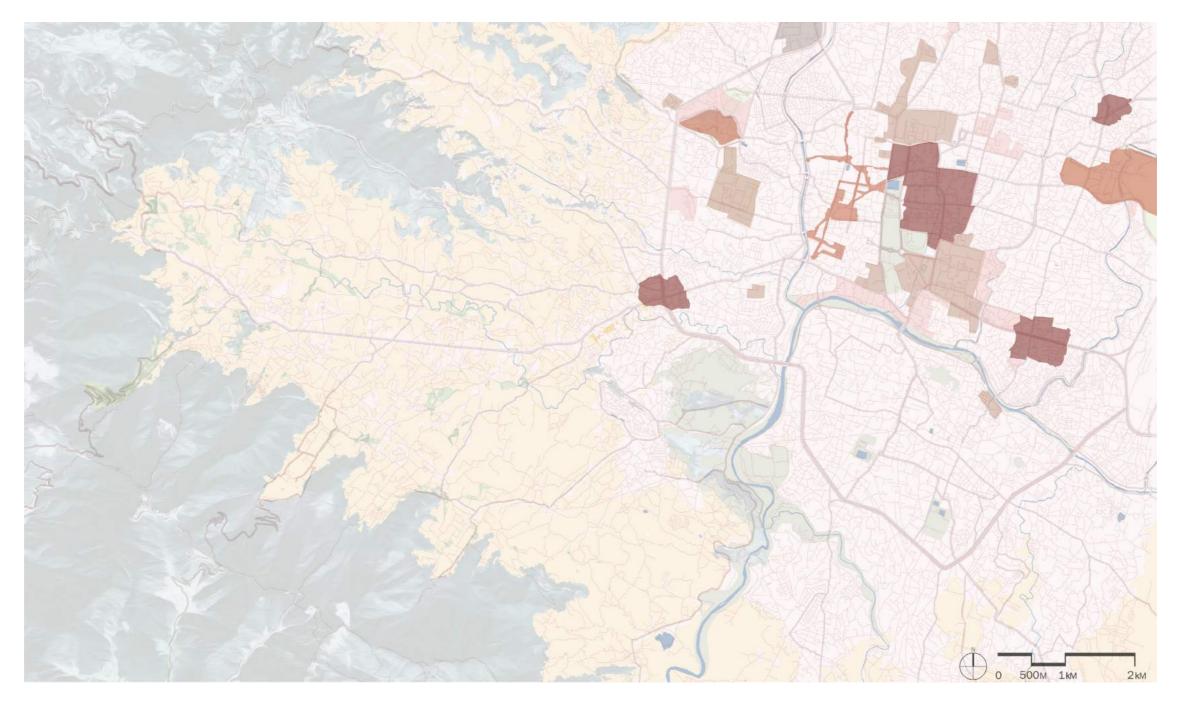
regional

Minimal Effort SMALL local

# [L] Land Use

The commercial district, government, and other important facilities are concentrated in the city center of Kathmandu, and the residential density decreases as it moves away from the city.

The site is located on the city's edge, surrounded by farmland at the junction of mountains and city.

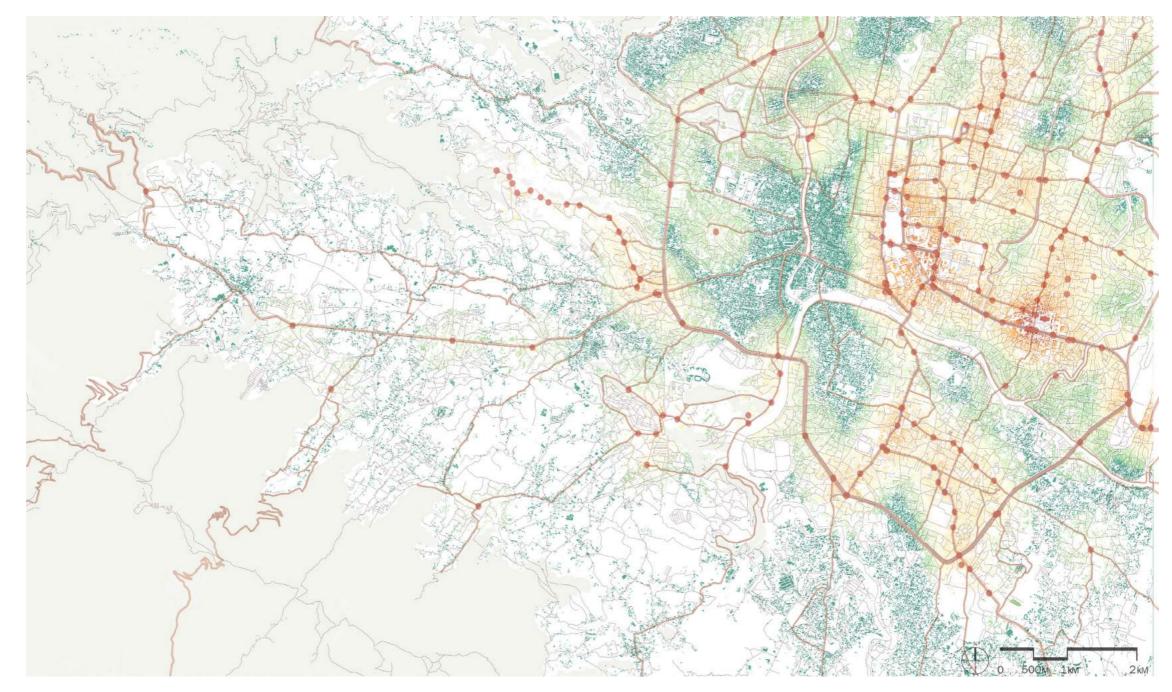


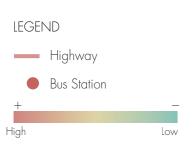
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# [L] Accessibility

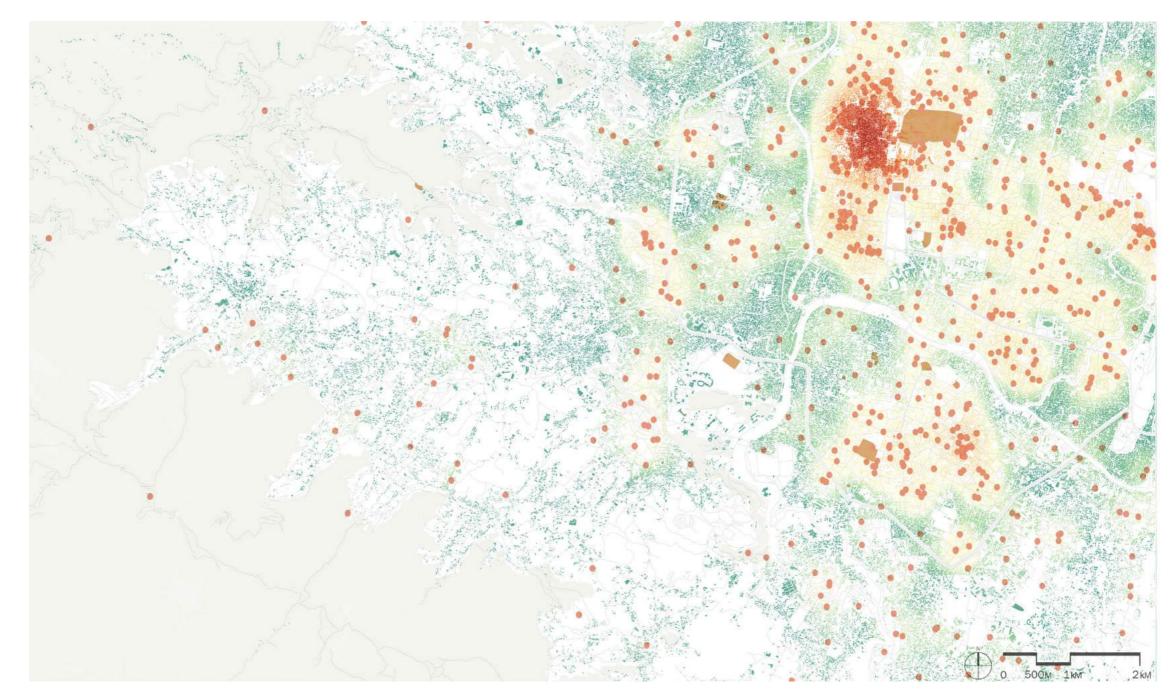
The design site is located in the southwest of Kathmandu, near a highway that is the only entrance to and from Kathmandu. Due to the underdeveloped public transportation network in Kathmandu, there is no public transportation to reach the site, making it difficult for people to get there.





# [L] Tourist Attraction

There are many tourist attractions in the city center of Kathmandu, attracting a large number of tourists, as well as the mountains on the west of the site. However, the area among the mountain and city center have very few tourist attractions, making the design site less attractive in terms of tourism.





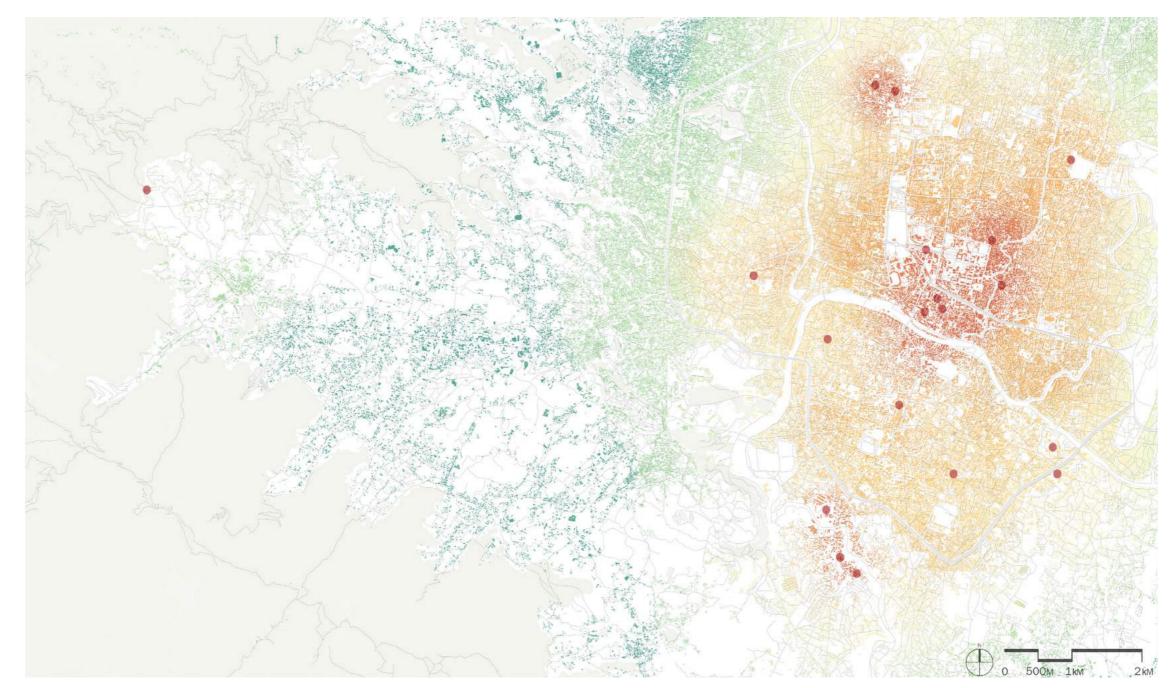
Tourism Attraction



# [L] Women Support Facilities

Women's support facilities such as NGOs, women organizations, shelter homes, training centers, etc., are all concentrated in the center of Kathmandu. Near the site there is only one Transit Home to prevent women's trafficking.

Although these facilities have a broader impact, they are of limited benefit to the local women around the site.





Women Support Facilities



# [L] Kathmandu Valley Development Goals

The site is located in High Alert Zone, which means it needs to follow stringent building bylaws. The area also restricts to high-rise apartments and is not allowed to have large scale industries.

This means the design project needs to pay more attention to decreasing the impact of the building on the surrounding environment.

#### legend

#### Residential Promotion Area

Priority to Land Pooling, Organized Housing Few High Rise Buildings in South Large & Medium Scale Industries Low Permit fee/ Land Transaction Tax

#### Agricultural Area Promotion Zone

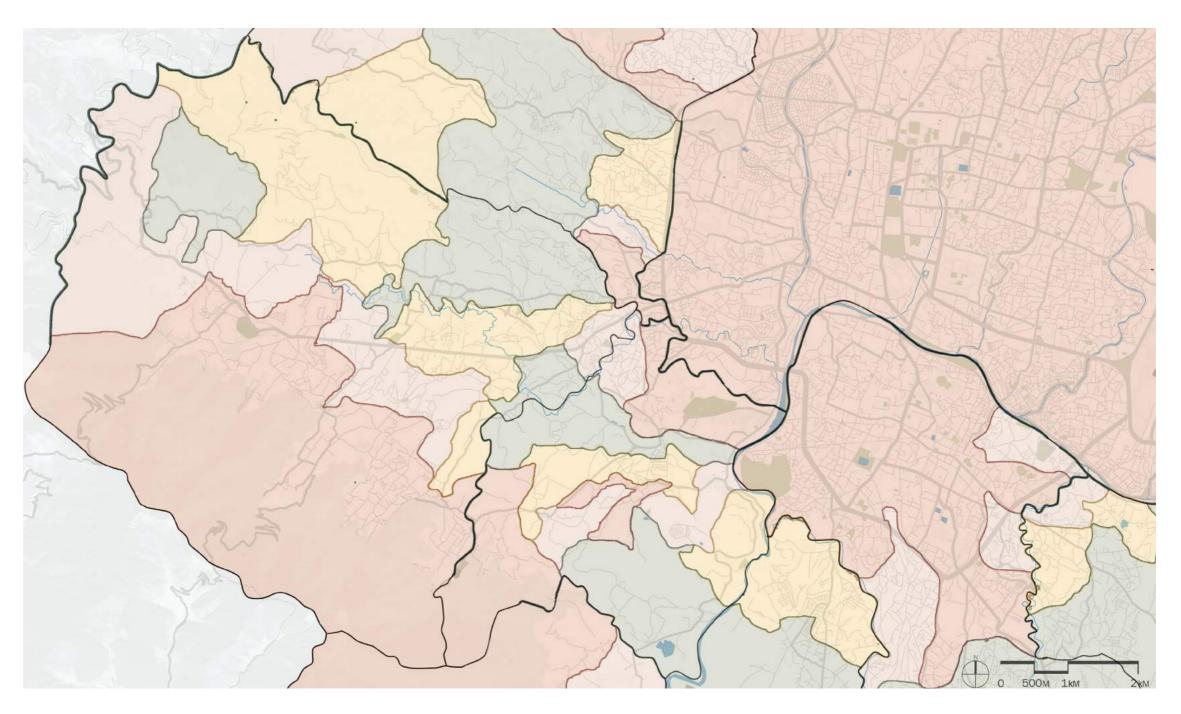
Restriction of Buildings on Agricultural Land High rise apartments on South East Promotion of Non-Polluting Industries Low Permit fee/ Land Transaction Tax

#### Medium Alert Zone

Stringent Building Bylaws Few High rise Buildings on selected area No large scale Industries Medium permit fee/ Land Transaction Tax

#### High Alert Zone

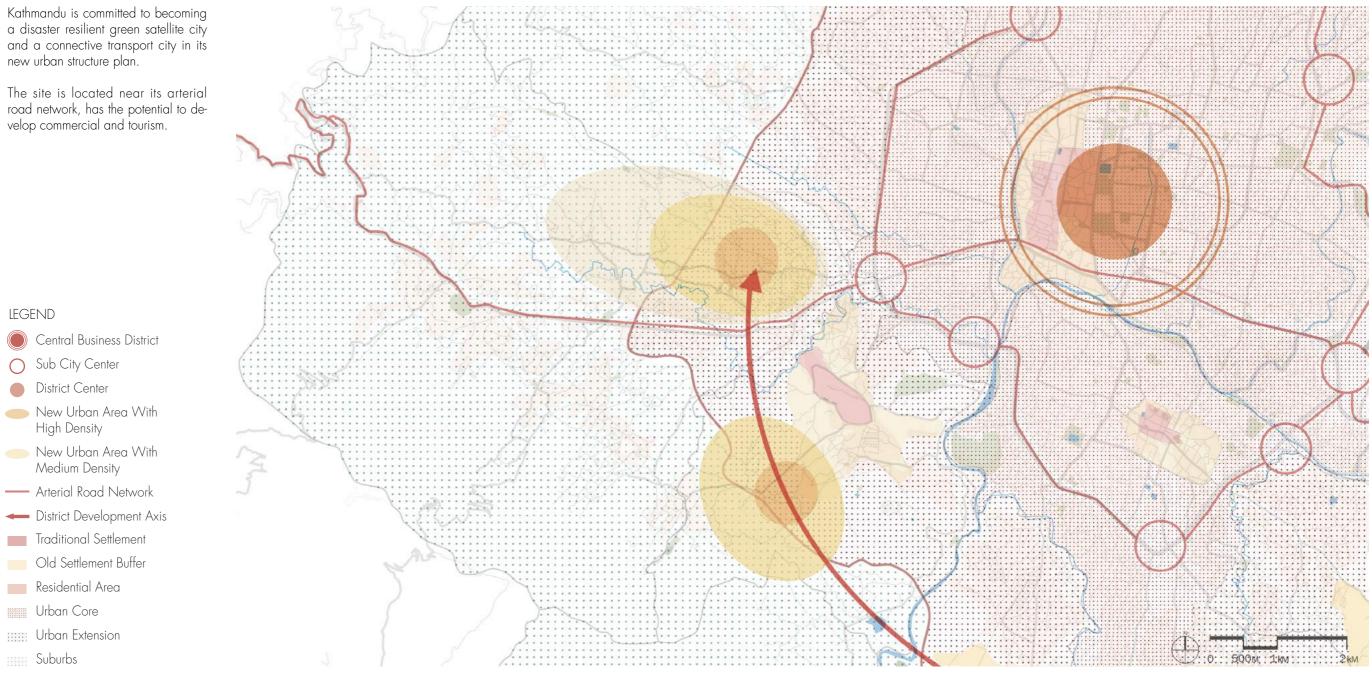
Stringent Building Bylaws Restriction to High Rise Apartments No Large Scale Industries Heavy Permit fee / Land Transaction Tax



# [L] Kathmandu Valley Development Goals

Kathmandu is committed to becoming a disaster resilient green satellite city and a connective transport city in its new urban structure plan.

The site is located near its arterial road network, has the potential to develop commercial and tourism.



Traditional Settlement

High Density

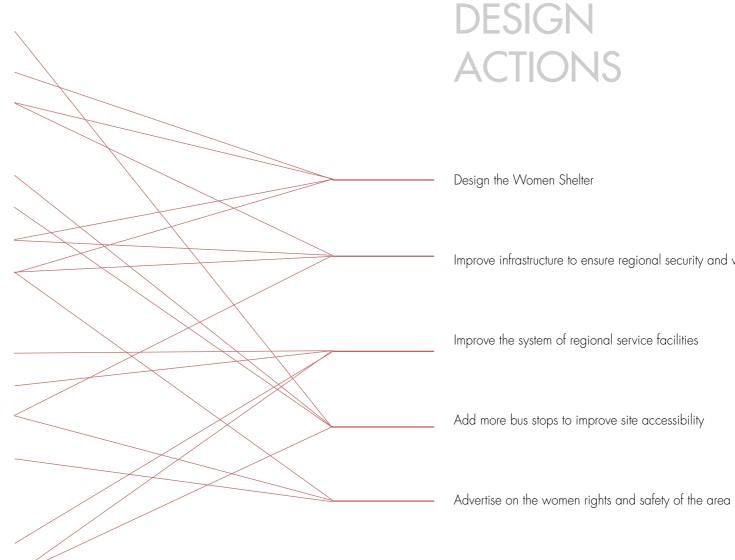
- Old Settlement Buffer
- Residential Area
- Urban Core
- Urban Extension
- Suburbs

legend

• Being on the main road connecting with the central circulation of the city, have the potential to enhance site accessibility

• Possibility to create women support facilities and commercial areas

- Existing laws and policies to provide protection and support
- No public transportation
- Far from the city center
- Lack of women support and commercial facilities
- Laws and policies are inadequate and in poor execution
- Potential to provide more job opportunities
- Potential to attract tourists and locals, and thus increase economic income
- Nepal's female consciousness began to awaken and strengthen
- Organizations, politicians and media are working on changing legislation and laws to protect women
- Located in a high alert zone with stringent building by laws
- Low interest in visiting the site
- Increasing pollution



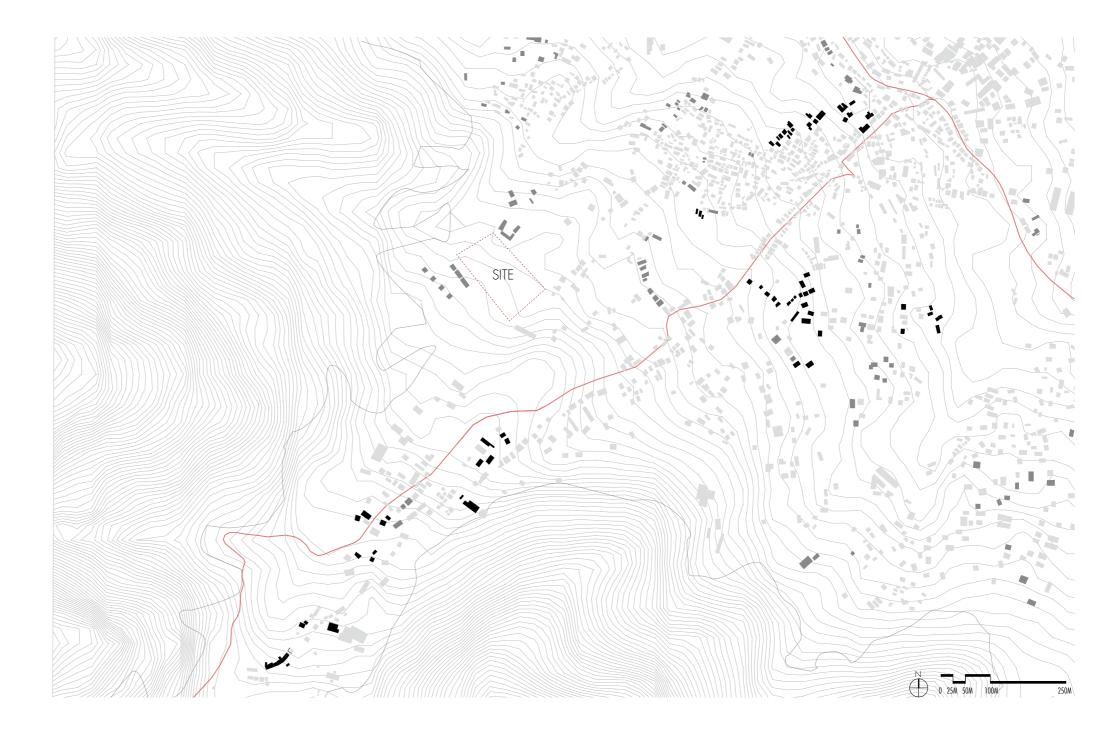
Improve infrastructure to ensure regional security and women's safety

## [M] Urbanization Development in Thankot

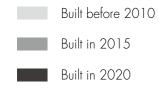
There is no specific urban planning scheme in Nepal, so the new buildings are built up scattered in the last decade. The housing policy in Nepal is very lenient, Nepal's land is privately owned. The contemporary urban environment of Kathmandu is dominated by individual piecemeal housing developments. Individuals only need to pay taxes to state for building and transactions. Therefore the buildings do not have unified plan.

With the rise in land price, housing plots became smaller as the residences rose in height disregarding the bye-laws. The new evolving landscape was marked by the reinforcement steel bars protruding form the top slab of buildings, in anticipation of future addition.

Our site is located at the foot of the Chandragiri hill. It is a vacant space, so we are able to use the land for our design.



legend



# [M] Land Use

The main residential area is in the northeast of the site, it is a high density village. Other buildings are scatted. Most of the land are covered by crops and agriculture are the main income in this area. There are also some woodland, because of this area near the Chandragiri hill. The nature resource is very rich and have a beautiful nature scenery.





Woodland

Main Residential Area

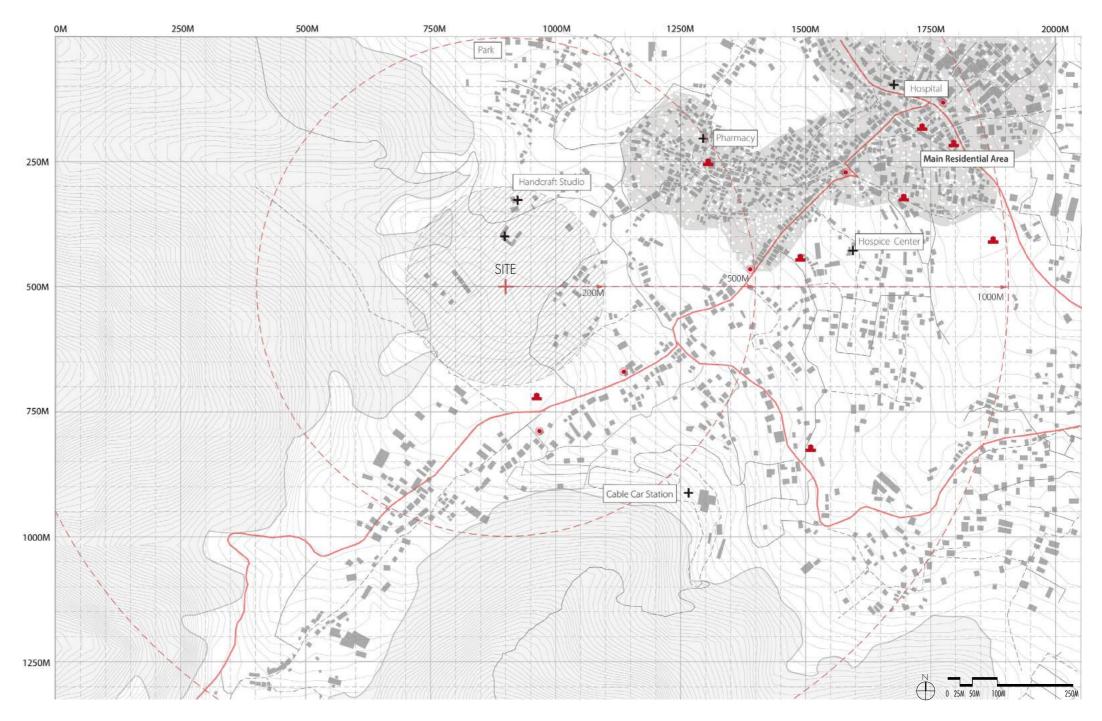


## [M] Impact Range

The map shows the public space, service facilities and villages within 1000 meters, 500 meters and 200 meters.

Data shows that 60% of outdoor rapes happen within 2km from the victim's residence. More than half of cases happen within 1km from the victim's residence. So all day vibrant neighborhood is very important for women's safety.

There are few public services near our site, also few sanitate services near the village.



legend



# [M] Types of Buildings and Spaces

### Traditional buildings

Due to lack of protect the old buildings and the earthquake in 2015, only a few traditional buildings in this area.



# Traditional buildings with Pati

Pati is a type of traditional public space in Nepal. It has different types, some Patis are independent, some combine with buildings.

### Modern buildings

Introduction of reinforced concrete in the 1950s was instrumental in changing the traditional brick-walled residential houses into bungalow type structures.



🔒 Temple

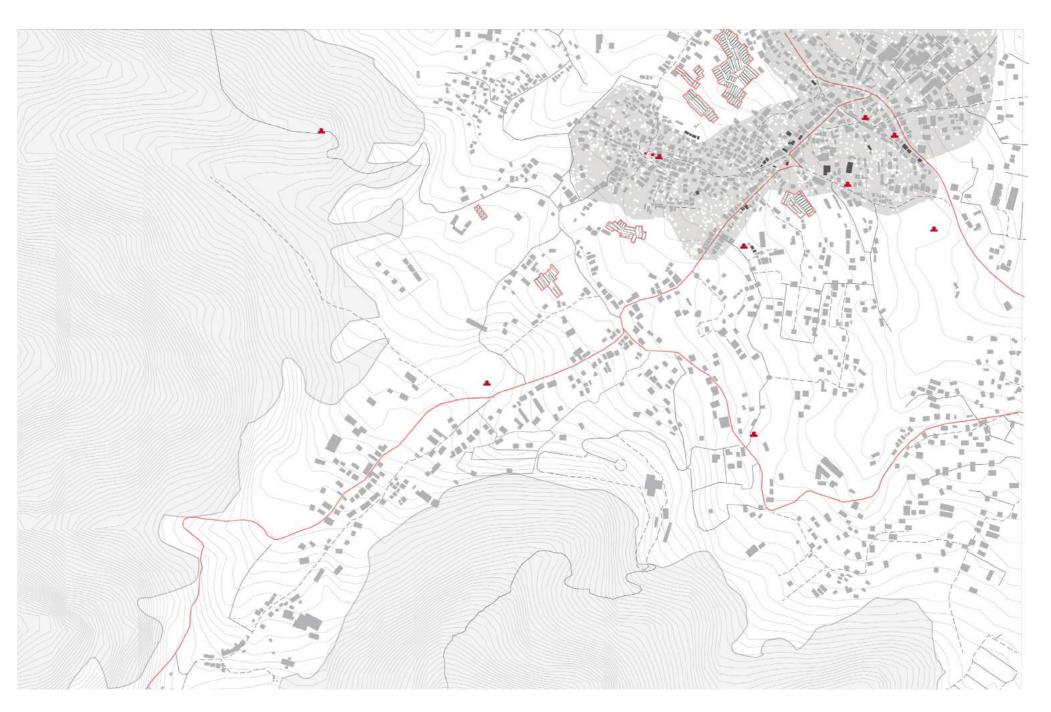
Temple is a very common public space in Nepal. Many temples are on the streets.



# Planting sheds

Agriculture is the important economy income in this area, so there are a lot of planting sheds, they are form an artificial landscape and texture in this area.





# [M] Types of Buildings

# TRADITIONAL HOUSE



# Chat, Work

Pati always build up with the traditional house. It is an important space for local, people are like to chat and work in Pati.

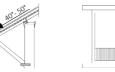
Entertainment, Work

Traditional House has an overhang. Local usually host friends or do some housework here.





Detail of Roof Traditional Windows



• Two steep pitches of about 40°-50° in order to make full use of the available space.

• The windows vary in design and importance according to particular building and to the floor level.

# MODERN HOUSE

Dry Clothes, Garden

Terraces are common in new buildings. Locals are usually use the terraces as roof garden or drying clothes. Sometimes they have meals on the terraces.

Outside Corridor, Solar Panels, Water Tank

They like to use outside corridor to connect different parts of the building and some houses have solar panels and water tank on the top of the buildings.

## TRADITIONAL HOUSE AND MODERN HOUSE









New and Old Comparison

More and more modern houses are built up. Some of them are next to traditional houses. The new building has a similar height to the traditional one and it remains the threshold that is always in the traditional houses. Compare with traditional houses, the new ones used concrete and most of them have balconies.

# [M] Types of Buildings - Newar House

Nawar houses can be found in urban areas of Kathmandu Valley. The traditional newar house is usually of rectangular plan shape and developed over three stories. The depth of the plan is usually about 6 meters with facades of various widths but most commonly between 4 to 8 meters.

The staircase is usually a single flight to one side of the plan. The typical inter story height is between 2.20 and 2.50m. The bathroom is on the ground floor, while the kitchen on the top floor, usually directly under the roof. The first floor is traditionally used as bedrooms, while the second floor is used as a living room and for visitors' reception. There are essentially two types of clusters of houses, either in long arrays or around a court. In some cases, the two types of clusters are adjacent with some units in common. In the arrays, each house has a front and back facade free. The construction of each unit is usually independent so that the facades are not continuum over party walls, but each unit forms a separate cell.

The buildings apply timber frames. In some cases, the masonry only forms the outer shell, while the internal structure is made of timber.



### MATERIAL

### BRICK WALL

Brick in the Kathmandu Valley have distinguished the architecture for centuries. Bricks are used for different parts of the building to create different patterns.

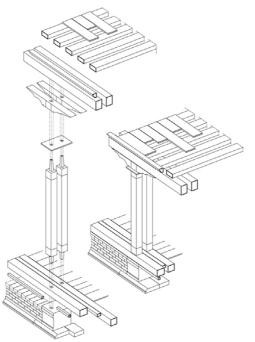


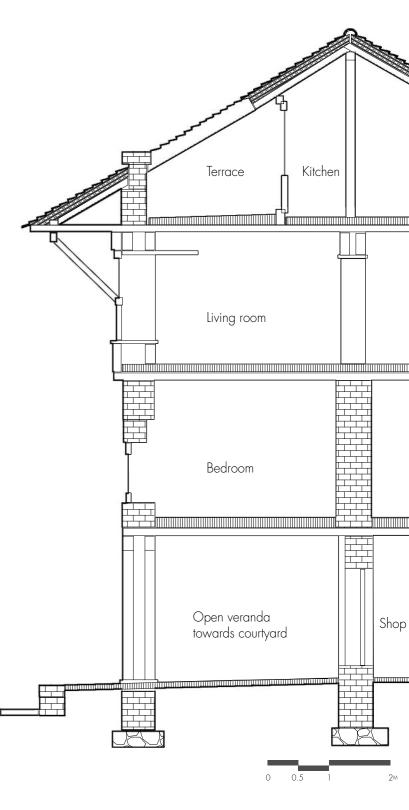


### TIMBER FRAME

Nepal's wood construction uses special joints for each element, avoiding the use of fixing devices made from other materials.







# [M] Types of Space

Within traditional settlements, there were lots of public spaces where people met, markets were held, agricultural products were thrashed and dried, and various festivities were carried out. These activities spilled out from the private spaces of the house to the semi-private spaces of the courtyards to the public spaces such as, neighbourhood squares and streets, with very little demarcation between private and public spaces.

PATI	CHOWK	DHARA
PATI is a traditional type of public space in Nepal. The typical Pati design has an open post and lintel front façade or a 60cm stone plinth above the ground.	CHOWK is an open market area at the junction of two streets, sometimes it is an open public space for people to gather.	DHARA is a traditional type of stone drinking fountain in Nepal. People can drink and wash themselves or their laundry in it, or take the water home for washing, drinking and cooking.
USAGE	USAGE	USAGE
Emergency Shelter, Religious Place Social Space, Storage	Commercial Space, Social Space, Shelter	Water Reservoir, Religious and Cultural Place, Social Space

### TEMPLE

TEMPLE is a very common space on the street. Although it is the religious place, people always stay there as public space. Many housework happened there. It's not superior, but part of people's daily lives.

USAGE

Religious Place, Festival, Social Space





### STREET

STREET is a very important space for Nepalese. Many agricultural chores carried out in the street and some social activities also have their locale in the streets, particular in the adjoining open space shelters,

Agricultural activities,

such as Pati.

USAGE

Festival,

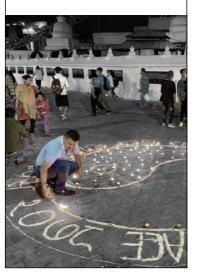
Games for children,

# SQUARE

SQUARE plays an important role in Nepal. Many religion activities happened in the square, but with the urbanization, some public squares are occupied by developers.

### USAGE

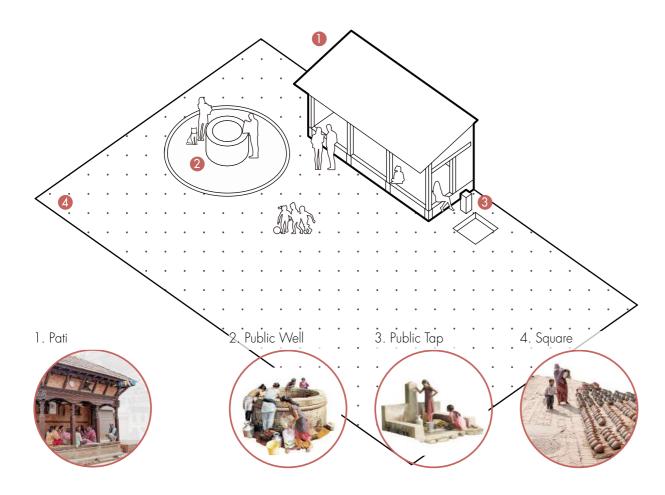
Festival, Religous activities, Event



# [M] Types of Space - Pati

As a typology, Patis are quite flexible and appear in both freestanding versions as well as attached to a house or any existing building. Brick, stone, mud and timber are widely used building materials and there is always a sloped roof with Jhingati tiles on top. Newari construction techniques are used for post, lintel, beam, wooden joinery.

Patis are generally rectangular in plan and one-storey high. The layout of each pati are practically identical and consists of a rectangular brick platform raised about 60 cm and covered with wooden floorboards, with open planning in ground floor where a typical size may be 3×5 meters. The front façade is always an open post and lintel construction. The rear wall is of solid brickwork, returning along each side for about 30 cm, to act as a brace for the rear wall. The roof of a freestanding Pati is a pitched saddle roof, or simple hipped roof.

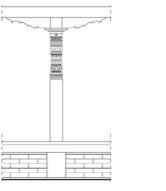


## MATERIAL

### WOOD COLUMN

The columns have structural as well as aesthetic function. Decorative features enhance the characteristics of the Newar style.





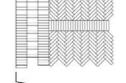
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### BRICK PAVING

The universal use of fair-faced bricks with their intense colour, visually unifies and gives character to the urban spaces of Nepal. Bricks are used for the construction of walls, roofs, and also pavements.

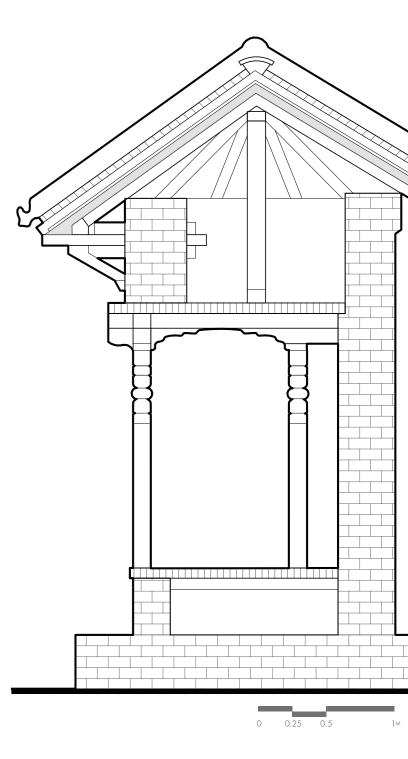


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# [M] Types of Space

# CHOWK

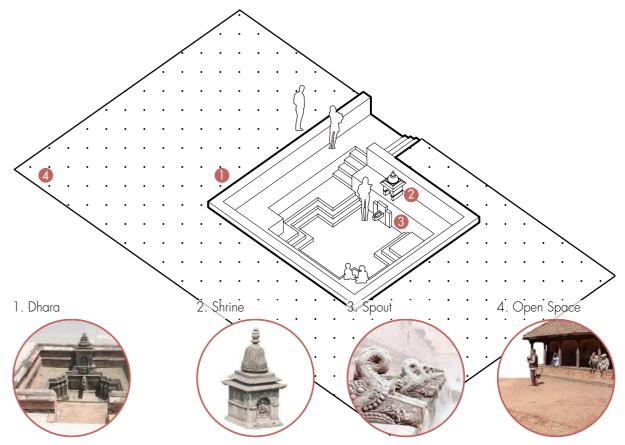
A Chowk is usually a space in the middle of a roundabout where two roads meet. In Nepal, people typically build a pavilion and de-velop an open-air market around it. There is usually a temple next to the pavilion.

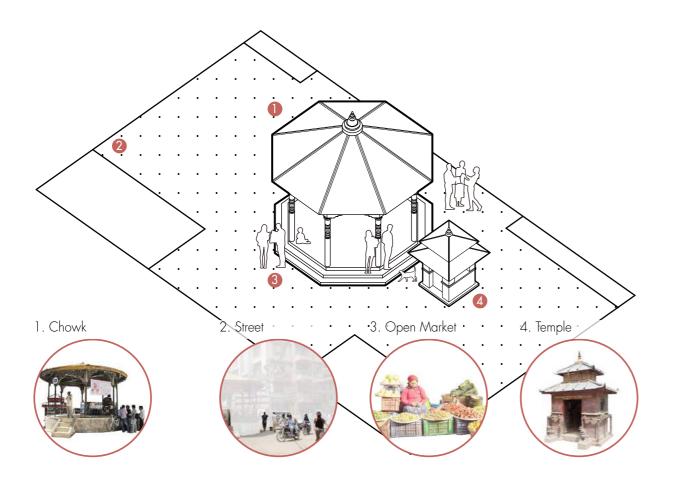
This kind of public space is made possible by Nepal's slow speed and pedestrian-vehicle mixed-use roads, attracting merchants and customers to trade and interact.

### DHARA

A dhunge dhara (Nepali) or hiti (Newari) is a traditional stone drinking fountain found in Nepal. It is an intricately carved stone waterway through which water flows uninterrupted from underground sources.

Dhunge dharas are part of a comprehensive drinking water supply system. The system is supported by numerous ponds and canals that form an elaborate network of water bodies, created as a water resource during the dry season and to help alleviate the water pressure caused by the monsoon rains. Even today, with modern piped water systems, many people of Nepal still rely on the old dharas on a daily basis.





# [M] Types of Material

BRICK		вамвоо
CLAY is one of the basic mate- rial in Nepal. There are many types of clay found in the Kath- mandu Valley, all with different colours ranging from white to black, and from yellow, red to brown.	ADOBE is very common in agricultural and rural contexts. Adobe bricks are usually sun- dried and made with earth found near the building site, constructed on a foundation of stones.	BAMBOO are distribute wide- ly throughout Nepal. Many furnitures are made of bam- boos and some buildings are built up by bamboos. They are low price, easy to transport.
USAGE	USAGE	USAGE
Wall, Decoration	Structure, Wall	Structure Decoration

# METAL

### METAL, including gold, silver, copper, brass and bronze, are used by Newar craftsmen to produce masterpieces in the different artistic fields, always been used in religious urban architecture to emphasize the gods.

USAGE

Decoration

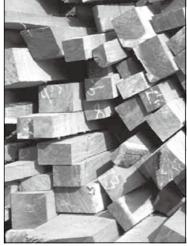
# has a

WOOD has aesthetic and structural values. The architecture of the Valley typically consists of a combination of a structural wooden frame and brick walls, and there is intricate carving work on the woods.

USAGE

Structure, Wall, Decoration





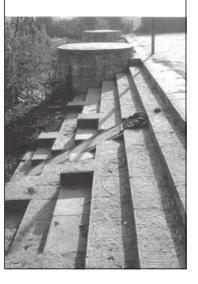
# WOOD

# STONE

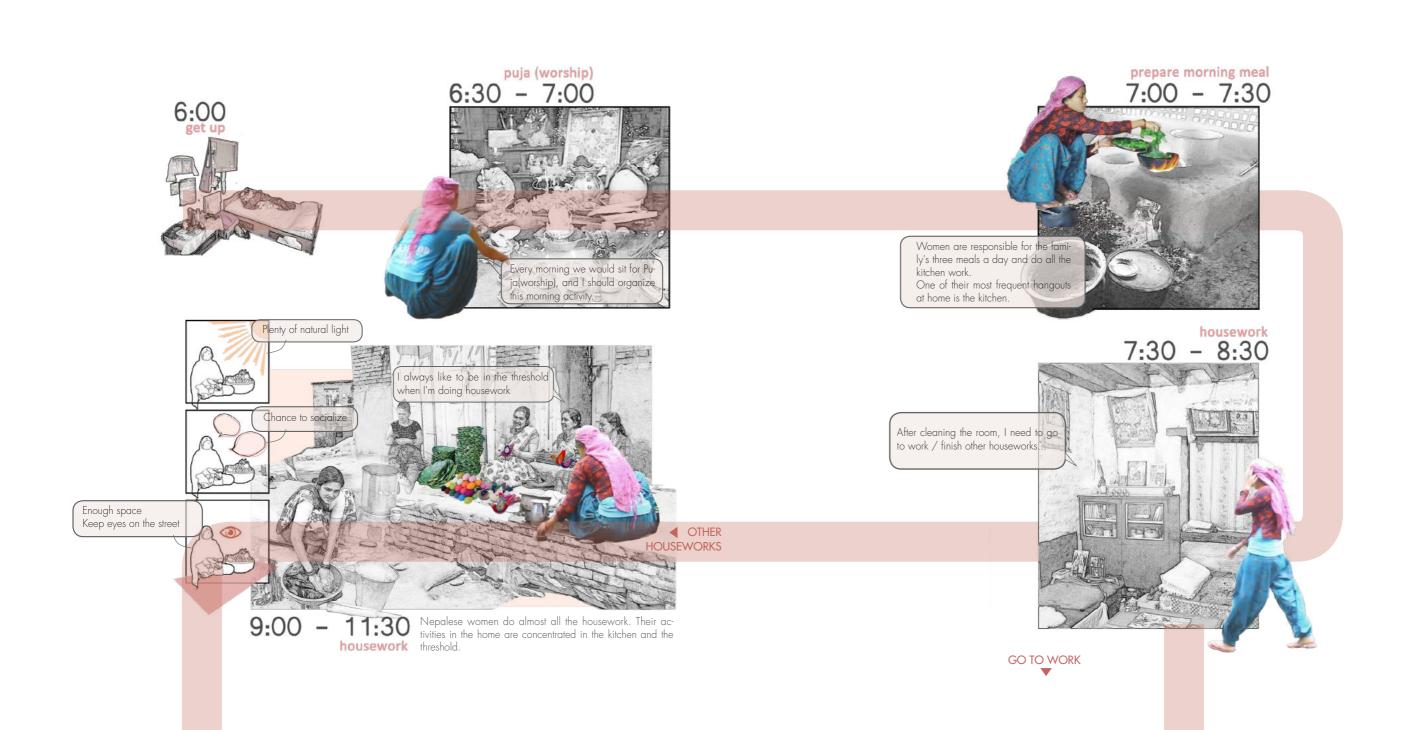
STONE in Nepal has scarce use in buildings but is mainly used for carving religious sculptures. Stone is also widely used for the construction of many of the temples, public works and fountains.

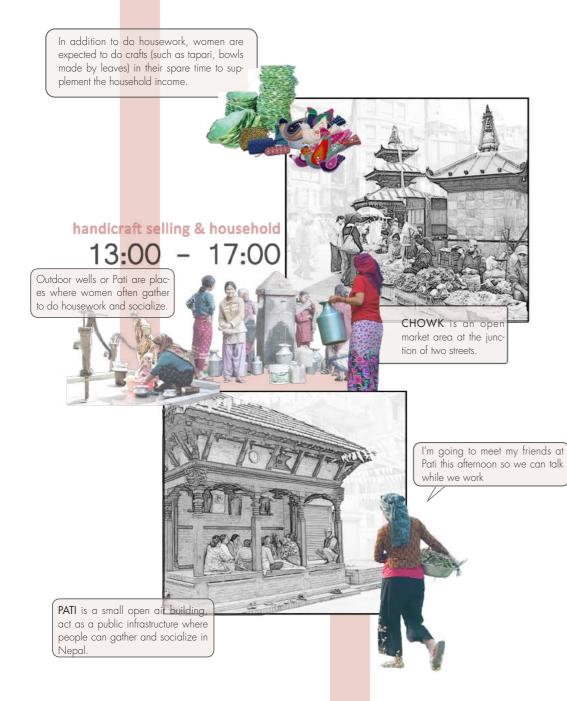
### USAGE

Wall, Paving, Decoration



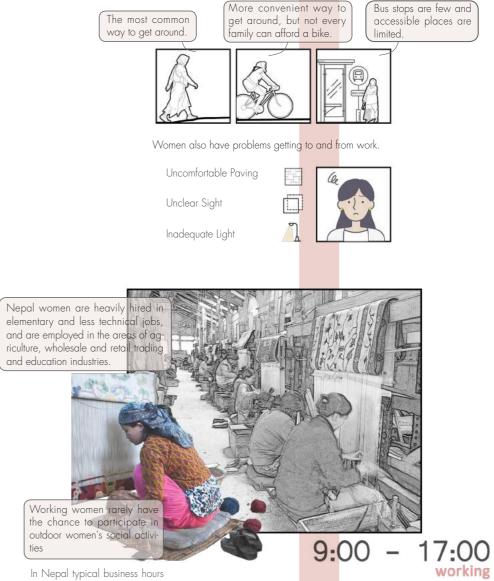
What is a woman's day in Nepal like? How do they use buildings and public space?



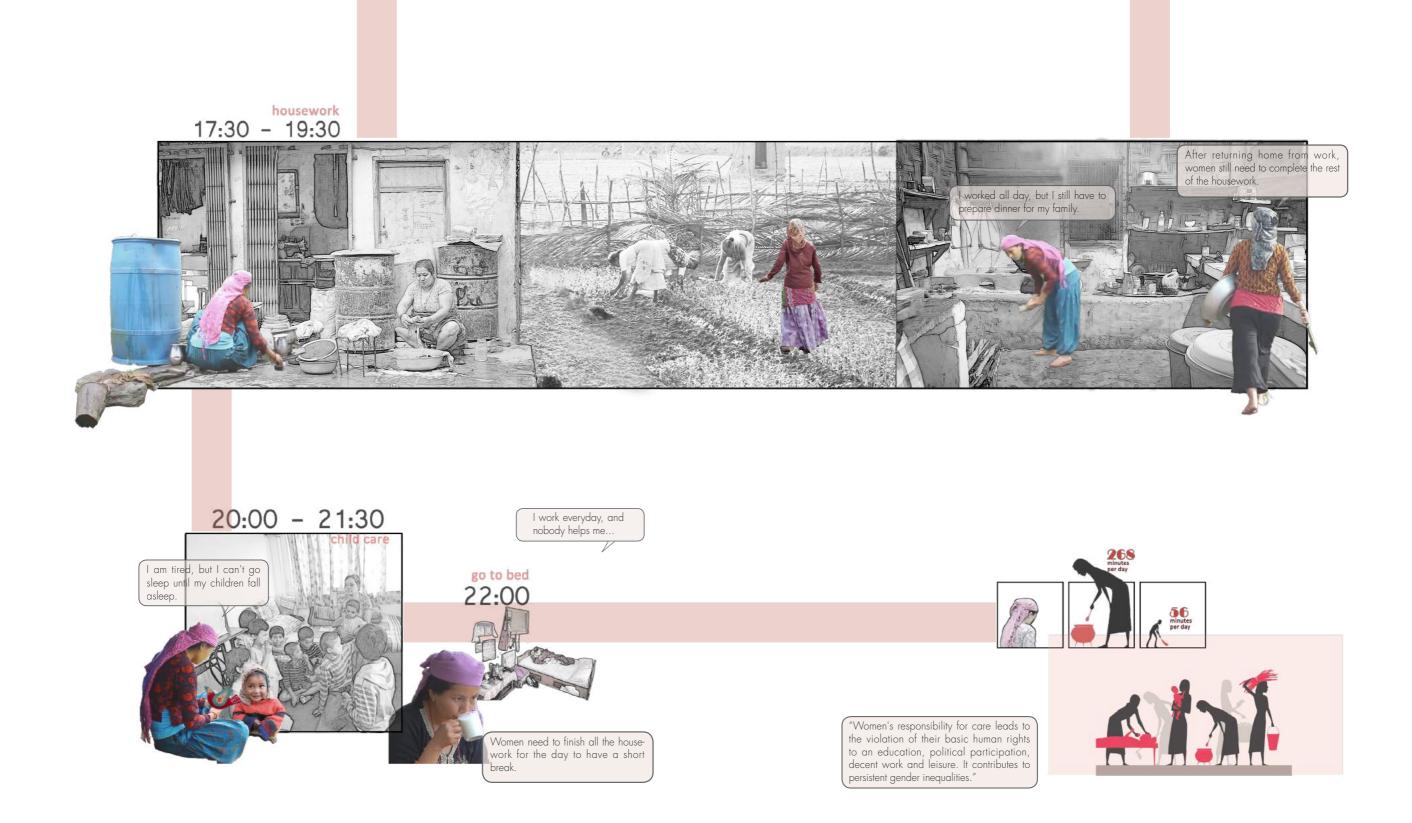


If women have a job, she needs to finish her housework before leaving for the work place, doing multi-task at a time.

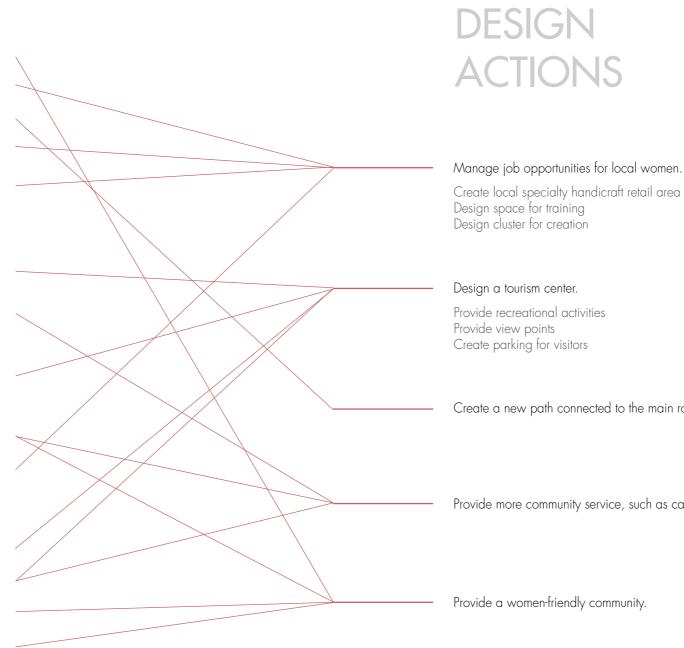




In Nepal typical business hours are 9 am – 5 pm.



- Having a transit home near the site to prevent trafficking in women.
- Having a handicraft studio to provide job opportunities for women.
- Connected to the main road with the main transportation network.
- Presence of large areas of agricultural land with close attention from NGOs and support from local governments.
- Lack of services and facilities with local characteristics to enhance attractiveness.
- Lack of social events and community activities.
- Having traditional public spaces but do not get proper use.
- No attractive points in the areas surround the site.
- Possibility to enhance safety through community spaces and activities.
- Opportunities to work with local businesses.
- Consequent states of abandonment and degradation.
- Rapid urbanization.
- Traditional values about women contain prejudices and unfairness.
- Deep-rooted in patriarchy.





Create a new path connected to the main road as an entrance to the design site.

Provide more community service, such as care center, nursery, meeting space.

# [S] Site Overview





# [S] Site Photos



The design site is located at the foot of Chandragiri Mountain, surrounded by mountains on the north, south, and west sides. A small hill on the south side is the highest point in the site, with the height descending along the slope to the east and north. There is a Hindu temple on the hillside. Woods extends from the hill along the west to the north, providing the site with a beautiful background of woods and mountains. 1. Views of Hindu Temple Looks Over the Hills



2. Views of Existing Building in the Site



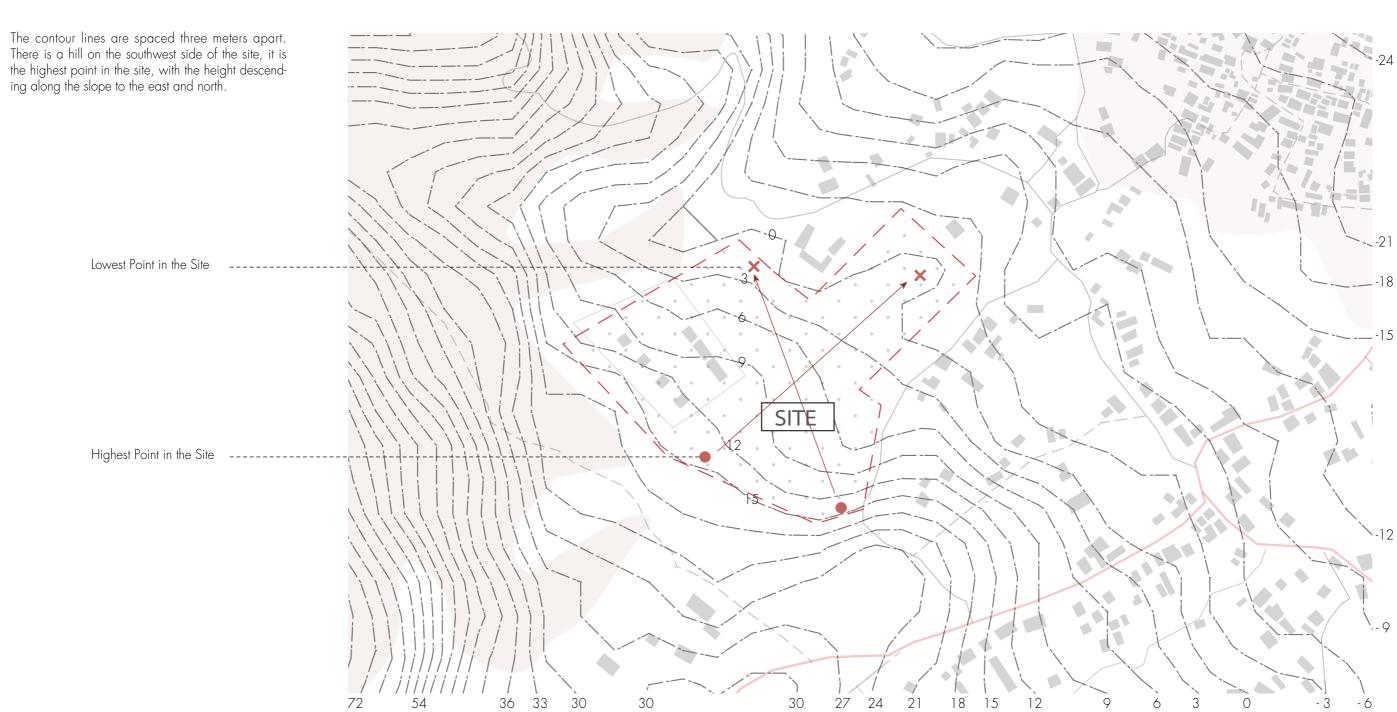
4. Views of Hindu Temple Looks Over the Village



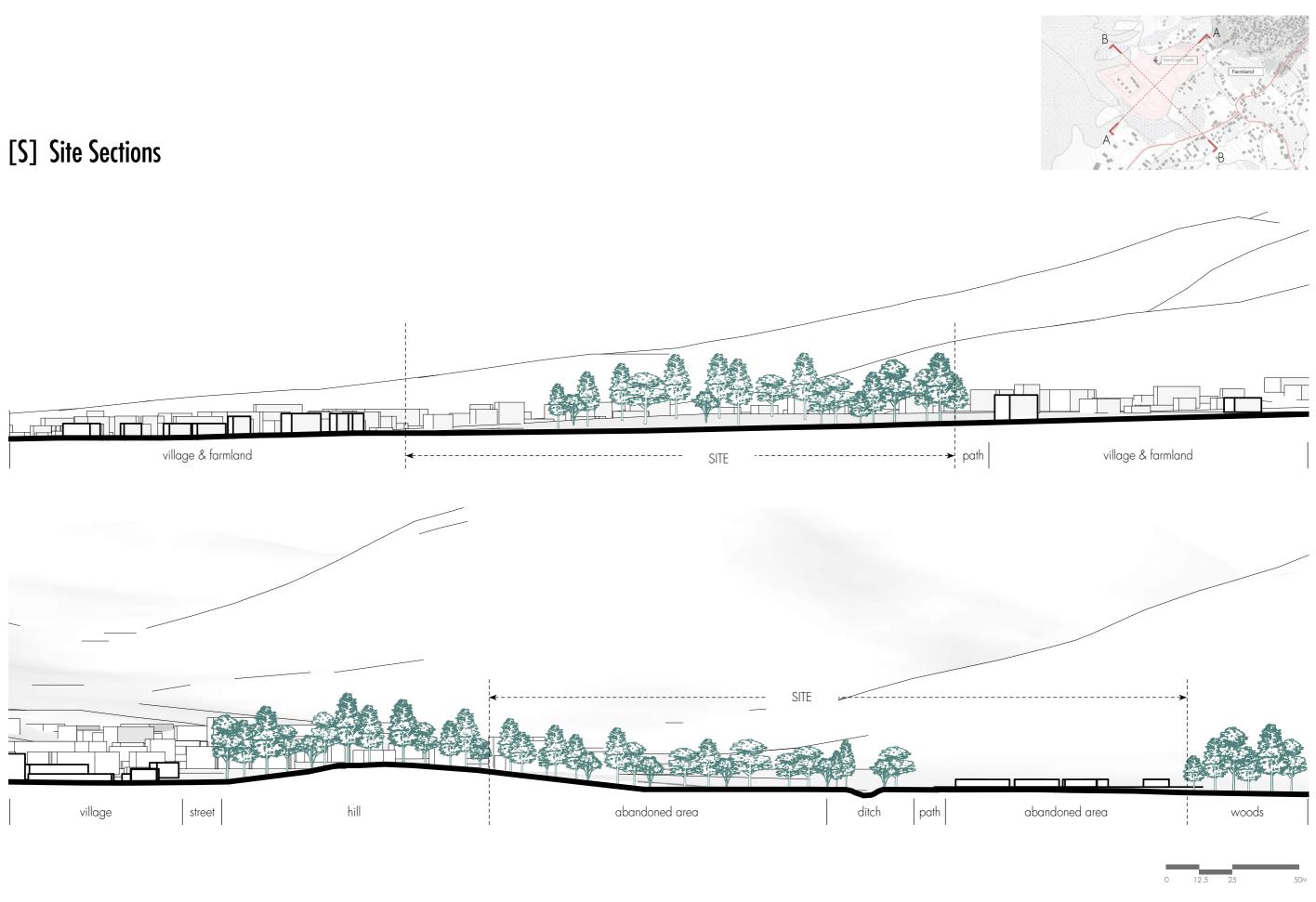
3. Views of Main Road Access to the Site







[S] Site Topography





# [S] Ecology

Kathmandu valley is located in the country's central region, wherein the southern slopes of the Himalayas and characterized by broad valleys crossed by numerous rivers. It has rich natural resources and ecological diversity.



# TREE SPECIES





Abies pindrow

Pinus wallichiana





Quercus glauca

Betula utilis

# SHURB SPECIES





Bambusa nepalensis Rhododendron arboreum

# CROP SPECIES





Rice

Maize



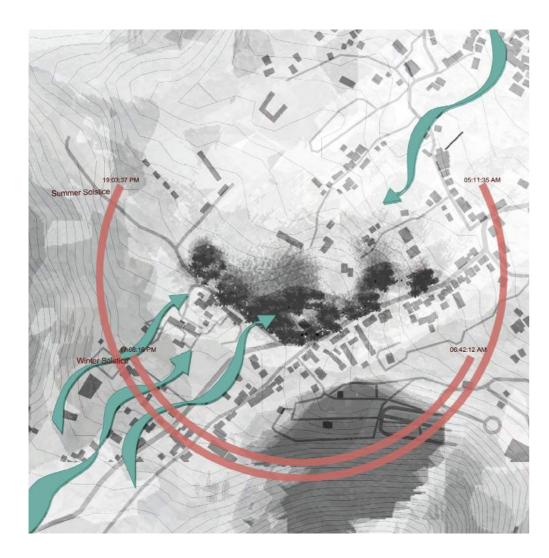
Eucalyptus citriodora



Acer pectinatum



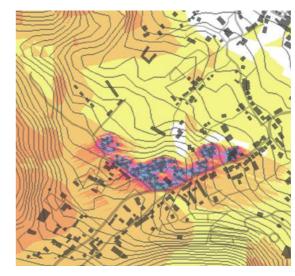
# [S] Climate Analysis



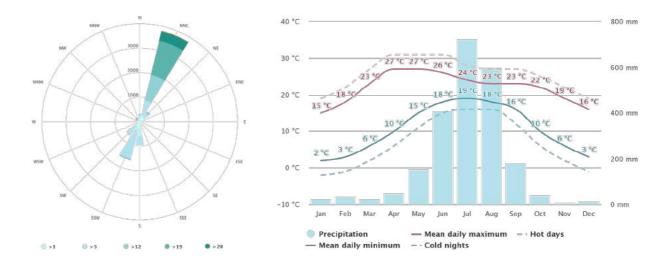
The design site has a warm climate with dry winters and warm summers. Due to the mountainous terrain, wind blows from valley, mainly from the southwest, and in a few cases from the northeast. Despite being located at the foot of mountains, the site is less affected by the mountain's shadow and has abundant sunlight.

The woods on the southwest side of the site provide shade and shelter from the wind.

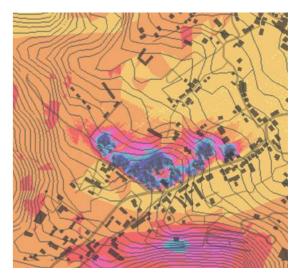
Summer Solstice (21nd Jun.)



0 1 2 3 4 5 6 7 8 9 10 Shading time [h]



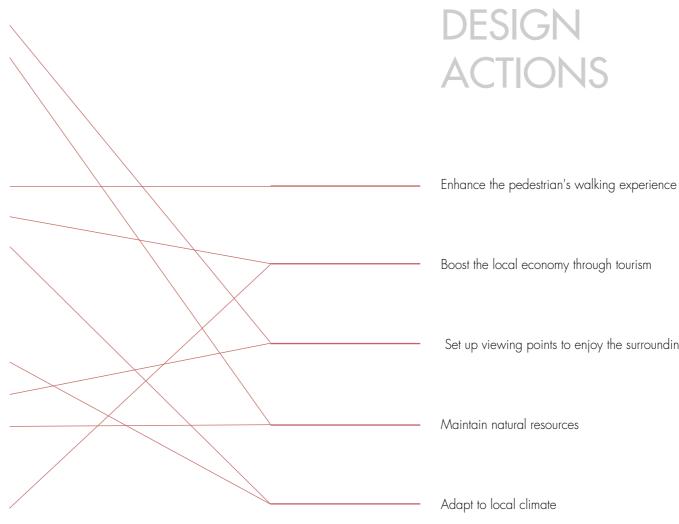
### Winter Solstice (21nd Dec.)



• Presence of plenty of green space and great mountain view.

• Existing lots of green spaces with dense vegetation, and hence biodiversity.

- Poor road quality and conditions.
- Act as a low economic income area.
- Having a long rainy season but lacks corresponding coping infrastructure.
- Poor sanitation, such as the lack of toilets.
- Possibility to develop sustainable energy resources such as solar energy.
- Having great mountain view.
- Having rich plant species and high biodiversity.
- High rate of poverty and deployment.



Using solar energy. Providing appropriate shading in outdoor spaces.

Set up viewing points to enjoy the surrounding landscape and mountain views

# ------ 04. DESIGN PROJECT $\longrightarrow$

- $\rightarrow$  proposal
- $\rightarrow$  Masterplan
- $\rightarrow$  DESIGN PROGRAMS
  - Shelter Home
  - Affordable Housing
  - Public Service

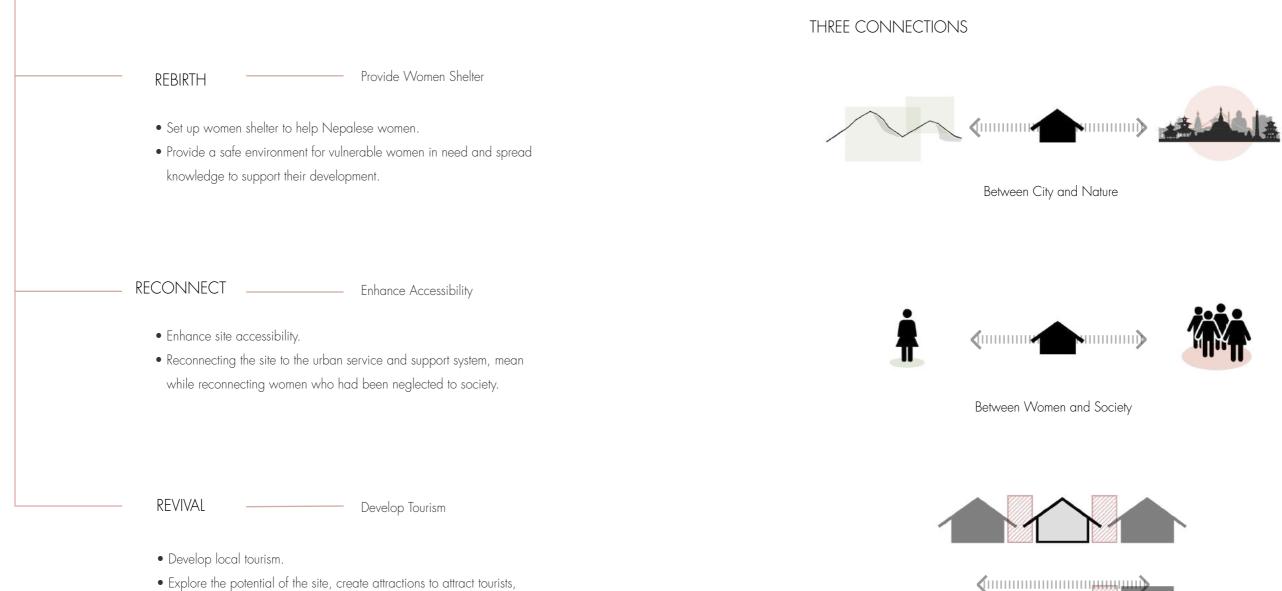
Proposal



# Growth

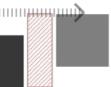
# relaxation

# Her Place



raise income through the tertiary industry and revitalize local economy.

Between Private and Shared



# **Proposed Connections**

### CONNECT CITY AND NATURE

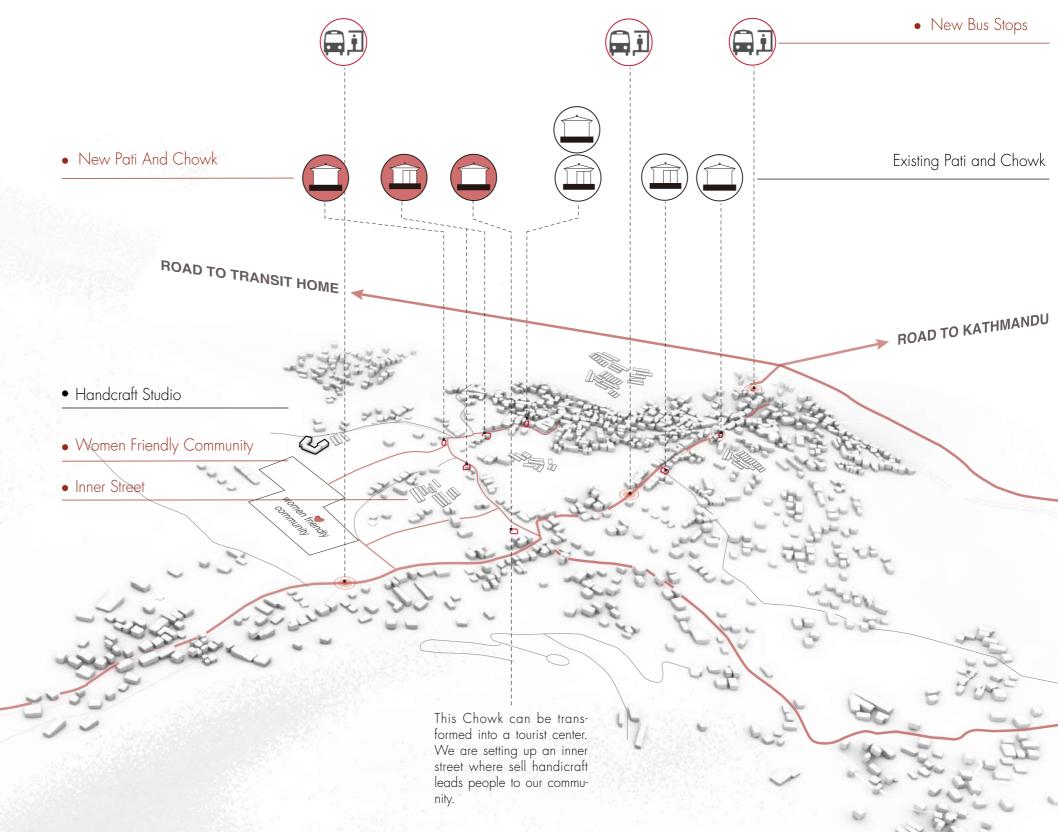
1. Add new bus stops in this area, women and other visitors can go to the community easily through public transportations.

2. The community will build up some new Patis and Chowks, which can activate the public space. More and more people joining in the neighborhoods can make public space more safety and these points can lead people to our site.

### CONNECT WOMEN AND SOCIETY

1. Women friendly community welcome all the women in need to join our community, and they will get any help they need.

2. In our community women can learn some new skills to improve their income and participate in social activities. We are not only providing skills training but also legal service, psychological counseling, restore their faith in lifa



Masterplan

# **Proposed Functions**

PUBLIC SPACE	$\approx 5000 \text{ M}_2$	
• Squares	2000 m <sup>2</sup>	Provide flexible and changeable space for various scenar
• Gardens	2500 m <sup>2</sup>	Provide more gathering and public spaces of different typ
• Dhara	250 m <sup>2</sup>	Provide space for water storage, water use and climate c
<ul> <li>Internal streets</li> </ul>	-	Provide convenient and comfortable walking environment
Parking area	400 m <sup>2</sup>	Provide adequate parking space for visitors and employed
FACILITIES & SERVICES	≈ 1500 M <sup>2</sup>	
• Tourism center	100 m <sup>2</sup>	To attract tourists and provide tourism services
Rehabilitation center	150 m <sup>2</sup>	Provide physical and psychological treatment for injured v
<ul> <li>Nursery</li> </ul>	150 m <sup>2</sup>	Provide common child-care facilities for women and make
• Clinic for women and children	300 m <sup>2</sup>	Provide specialized clinic for women and children so that
Training center	350 m <sup>2</sup>	Provide income-generating skill training to all women in ne
• Workshop	100 m <sup>2</sup>	Provide working space for women
Canteen	200 m <sup>2</sup>	Provide healthy and affordable food for the public

HOUSING	≈ 2000 M2	
Shelter home	1300 m <sup>2</sup>	Provide rehabilitation and shelter for women who have be
Affordable housing	1700 m <sup>2</sup>	Provide female-friendly social housing (serves about 30-6
Staff residence	100 m <sup>2</sup>	Provide temporary accommodation for staff (serves about

narios

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e control

ent in the site

oyees (about 30 parking spots)

women

ake it easier for them to go out to work

hat they can receive timely treatment

n need (not just for those living in the community)

been harmed (serves about 25-40 people) D-60 families) out 4-8 people)

# Masterplan



1. Tourist Center

2. Retails

- 3. Information Point
- 4. Affordable Housing
- 5. Community Center

6. Training Center

- 7. Health Center
- 8. Rehabilitation / Nursery

9. Shelter Home

10. Parking

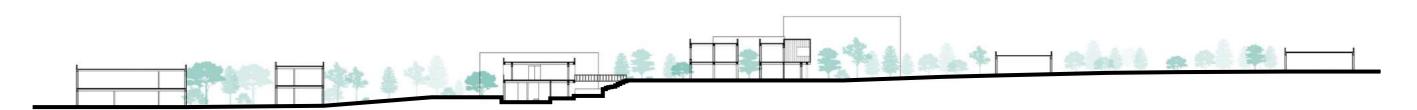
11. Handcraft Studio

12. Dhara

# Site Sections



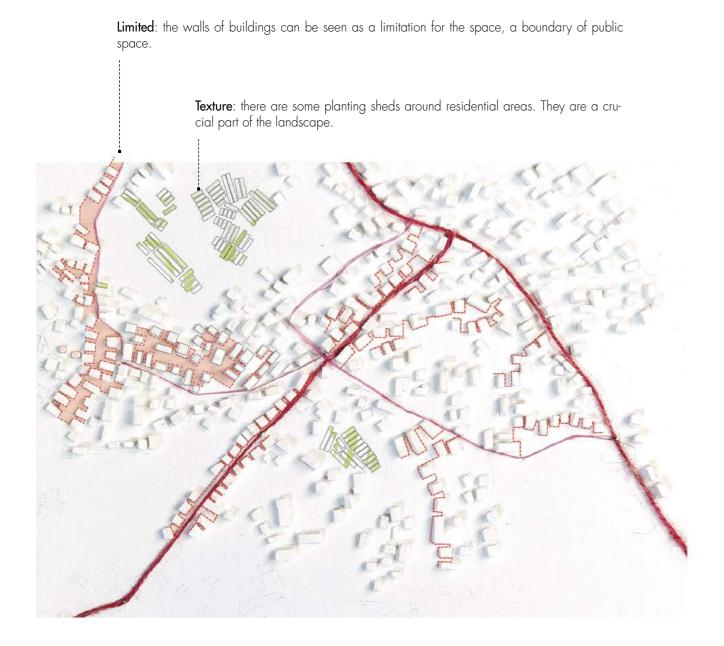
SECTION A-A'



SECTION B-B'



# Concept



Traditional Urban Texture

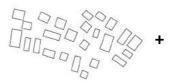




Independent houses

Enclose space

# Flip Blocks and Space





Merge into Surroundings



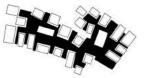
Dimension reference





Existing texture



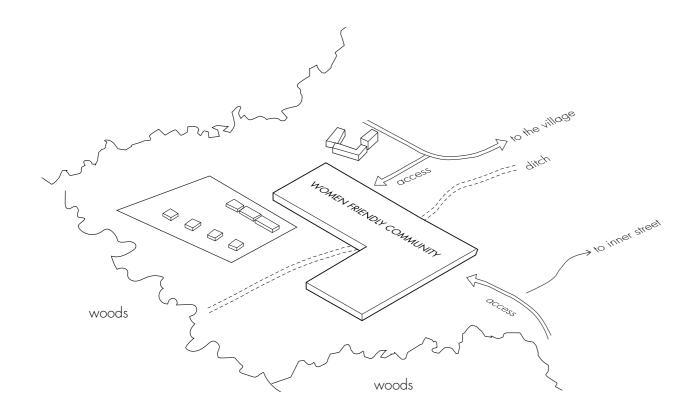


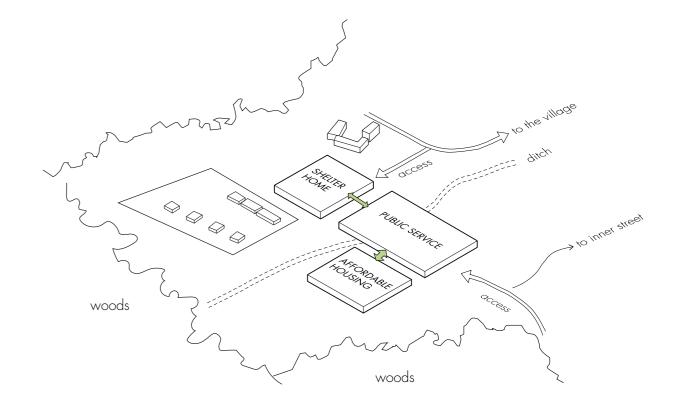




New texture

# Generation

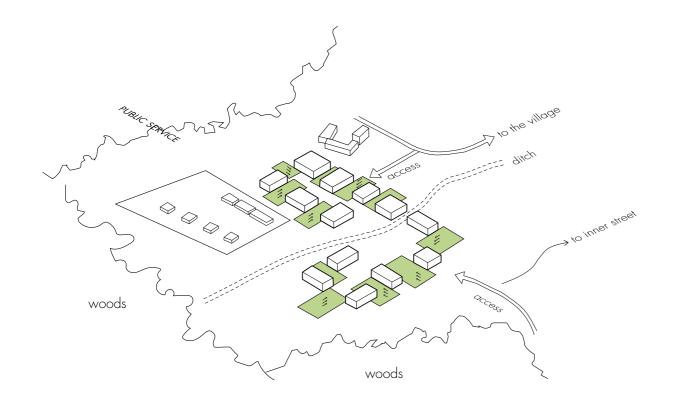


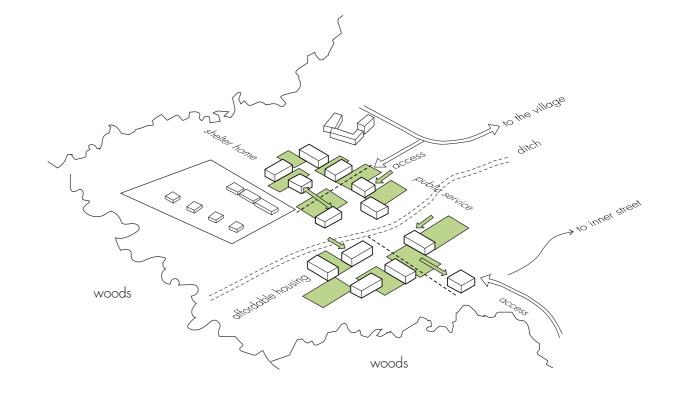


1. Identify the site and boundary.

2. Organize in response to topography and privacy.

# Generation

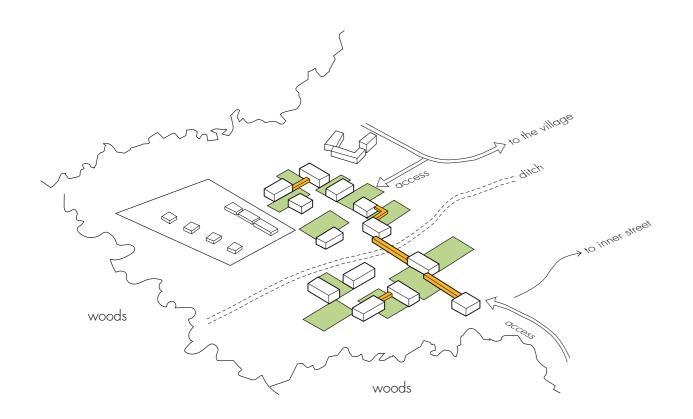




3. Insert small gardens to divide the volume.

4. Shift to form the inner landscape, and enclose independent courtyards for each part.

# Generation





5. Connect the buildings which have similar functions.

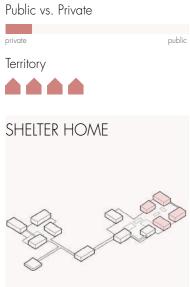
5. Engage the landscape with windows and climate control.

# **User Analysis**



### ABUSED WOMEN

Survivors of violence and abuse are provided with physical space and emotional, relational space. They will recover in a safe environment to get a chance to reclaim their ability to trust and rediscover their belief in themselves.





### WOMEN IN NEED

Women with financial or living difficulties, such as single mothers, poor women, homeless women and girls.

They will live in a supportive community to improve the quality of their lives.





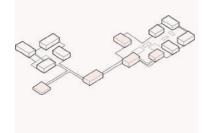
# LOCAL WOMEN

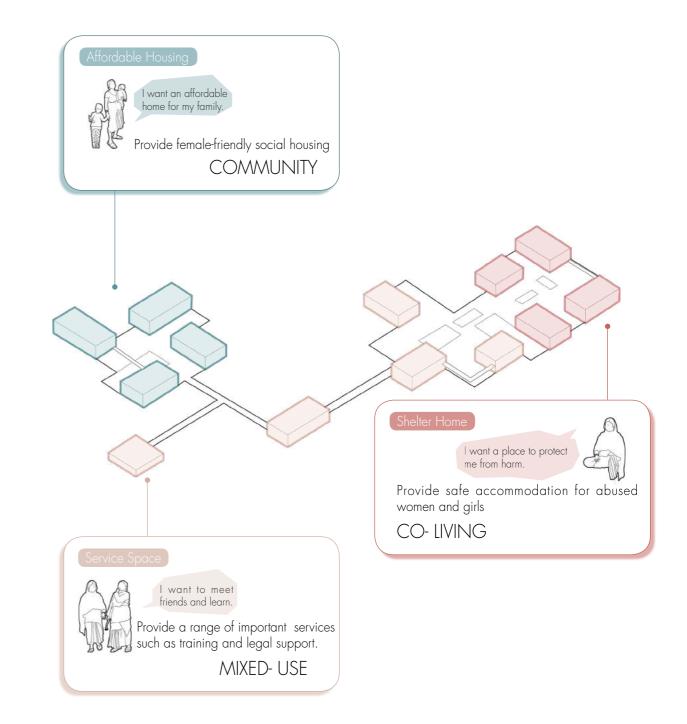
Local women who want help and support will also be welcome. They will be provided with counseling service, legal and medical supports. They will also receive income-generating skill training and be encouraged to assert their rights.

### Public vs. Private



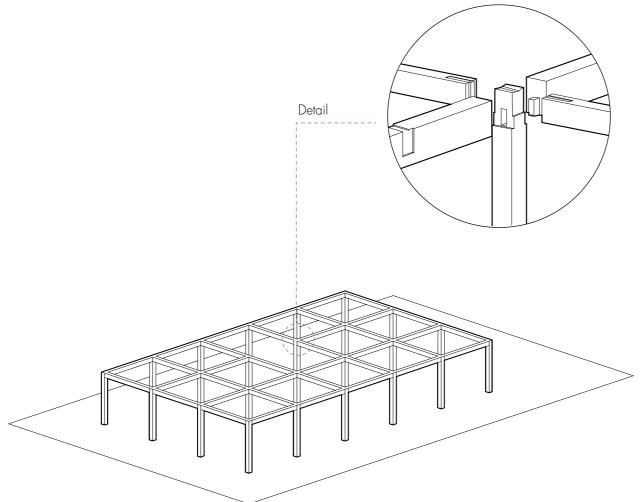
SERVICE SPACE

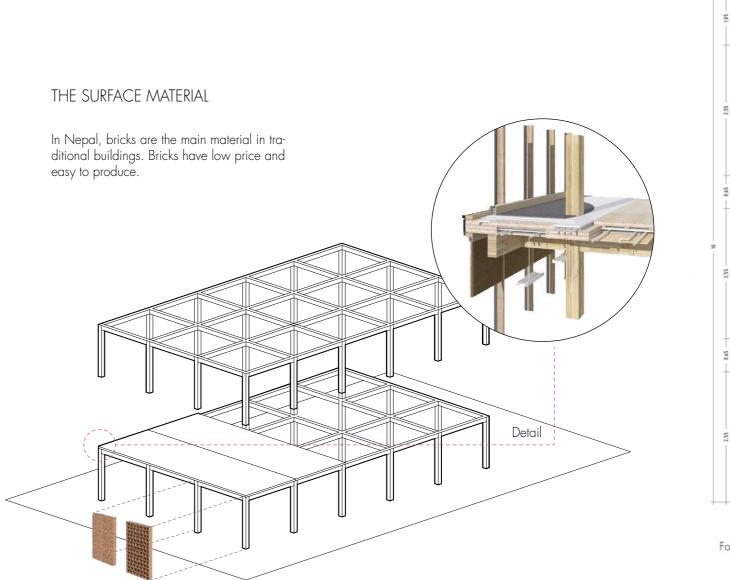




# Structure and Material

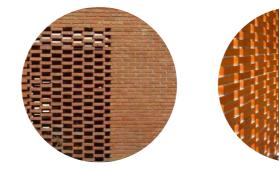
# FRAMEWORK AND STRUCTURE MATERIAL







In 2005, the earthquake damaged many local buildings, locals start to doubt robustness of the traditional buildings and start to use concrete as the main material. We want to use local materials to show the potential of the local materials, so we use wood as our framework, the wooden structure is elastic and resistant to earthquake damage.

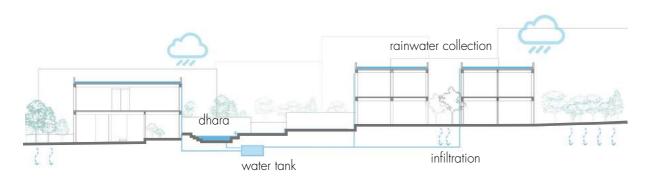




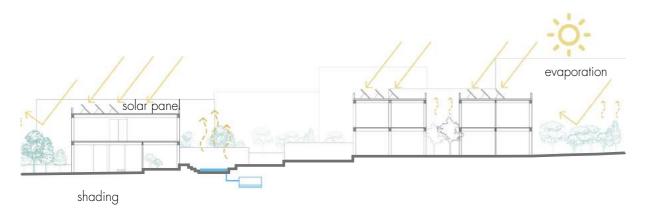
Bricks can be built into dif-ferent pattern and good for lighting and ventilation.

# **Climate Control Analysis**

rain season



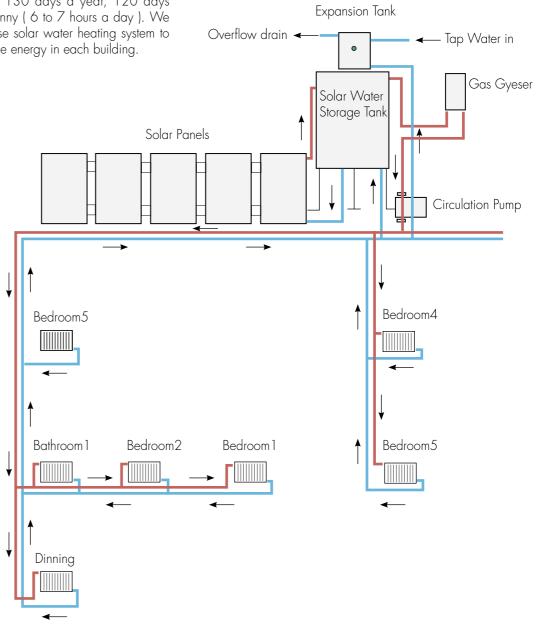
# DRY SEASON



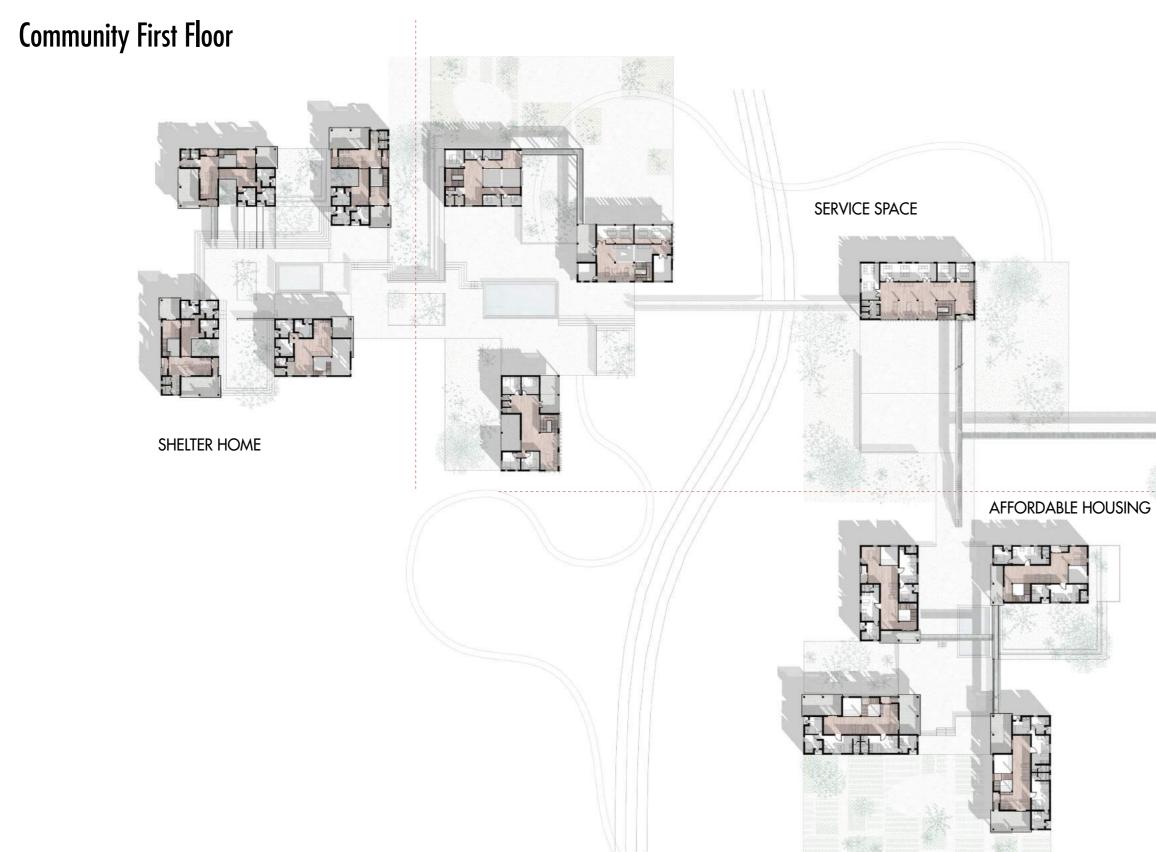
# Heating System

In Kathmandu, winter always lasts about 130 days a year, 120 days are sunny ( 6 to 7 hours a day ). We can use solar water heating system to provide energy in each building.



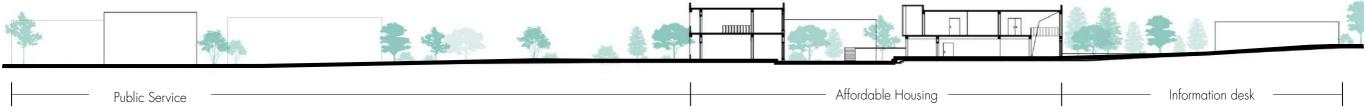








Section

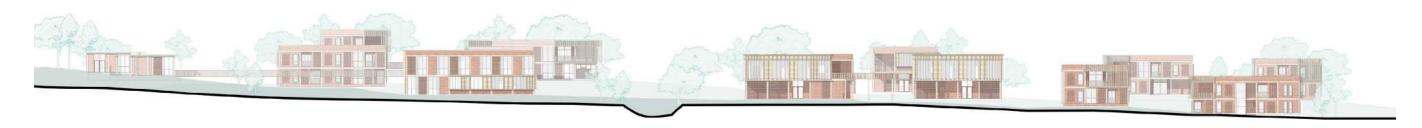


SECTION C-C'

# Facade



SOUTH FACADE



NORTH FACADE



Shelter Home

## Design Approach

### USERS: ABUSED WOMEN



REQUIREMENT

### PARTICIPATION



Involved in the design

[6] Decoration



Ţ

SIGHT

3. Sense of Belonging

1. Safe

2. Shared



We need a safe and comfortable living places.

It should be a safe therapeutic environment with autonomy, choice and empathy. We will have the opportunity to regain our ability to trust and

rediscover our belief in ourselves.

The qualities that the place needs are:

SOCIAL SPACE

Ņ. Brightness 00 Shared space Ŝ₽-₽

Semi-private

### BUILDING ENTRANCE



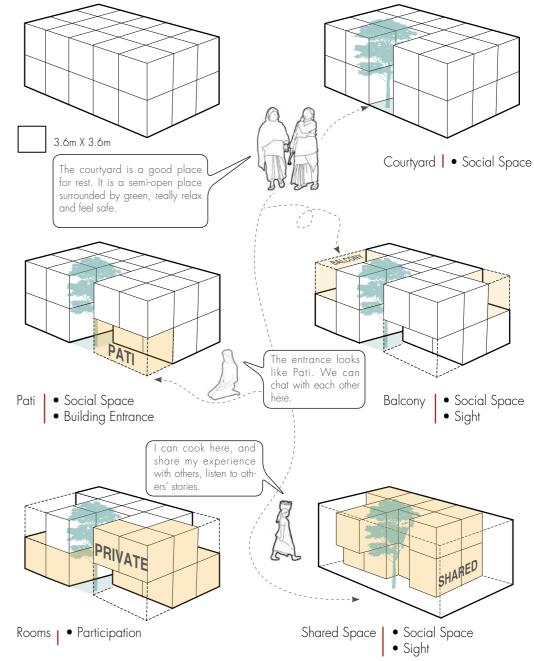
Ē Transparent Visible

Rest place n<del>×</del>n

Light

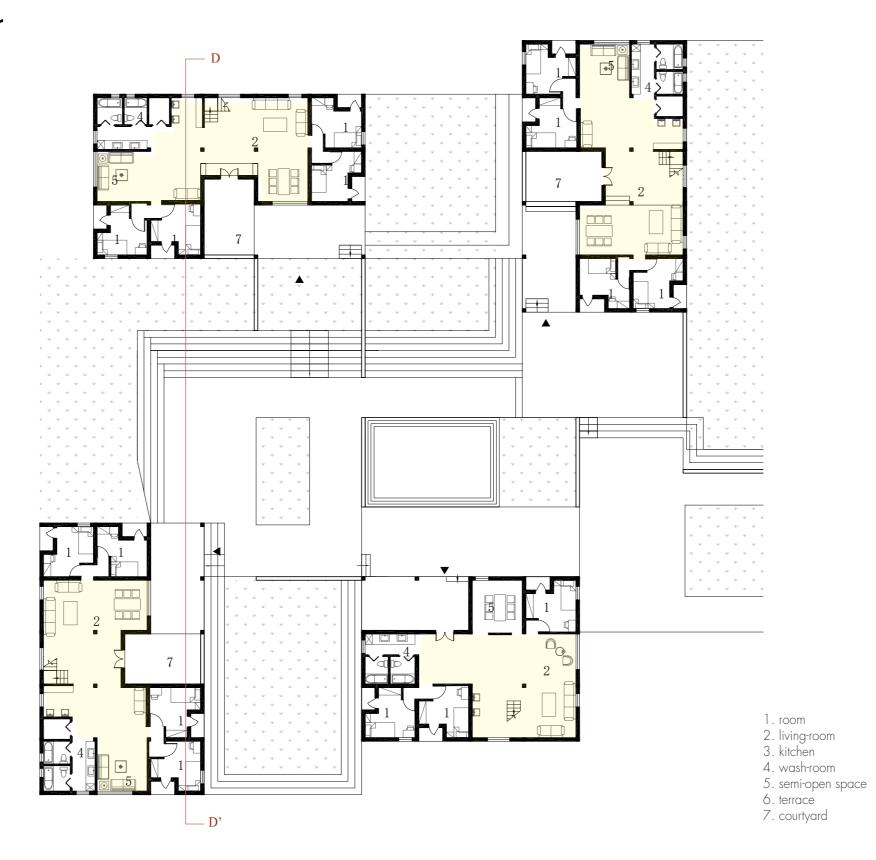


Eyes on the street  $\langle | \in \rangle$ Different types of balconies Indoor sight connection





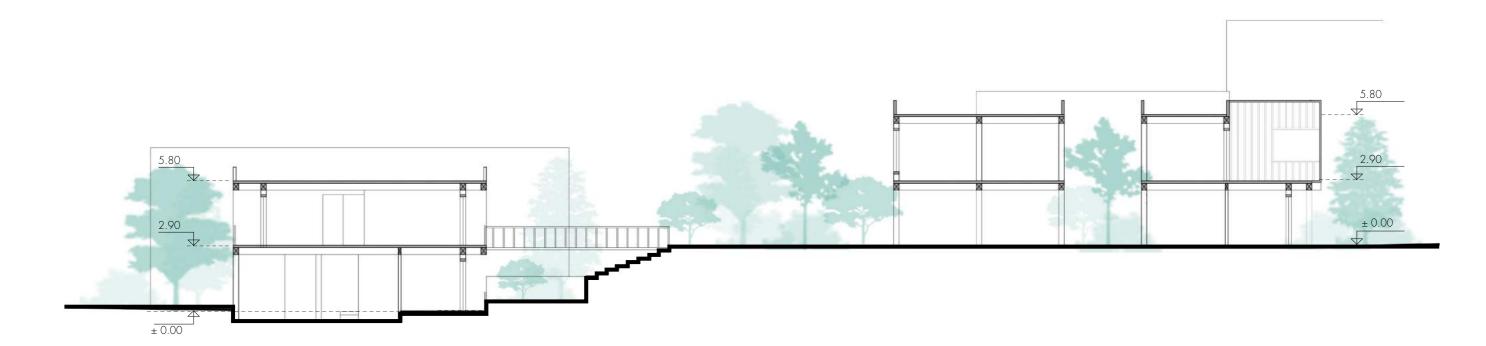
# Shelter Home Ground Floor



## Shelter Home First Floor

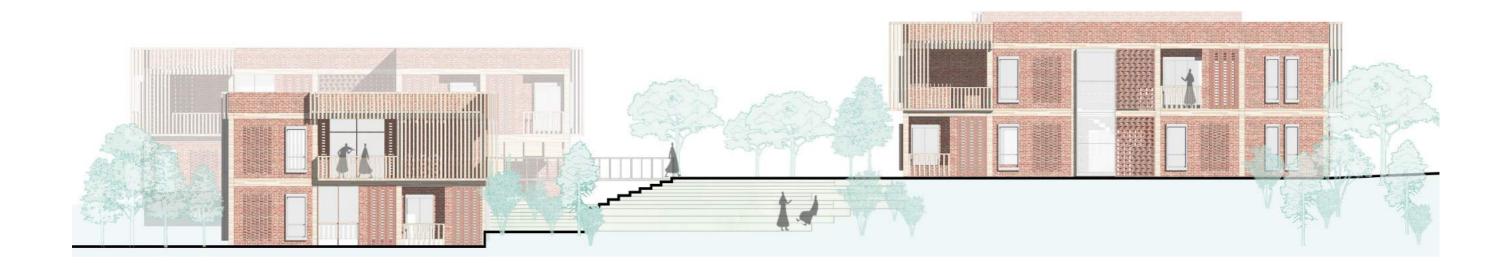


Shelter Home Section

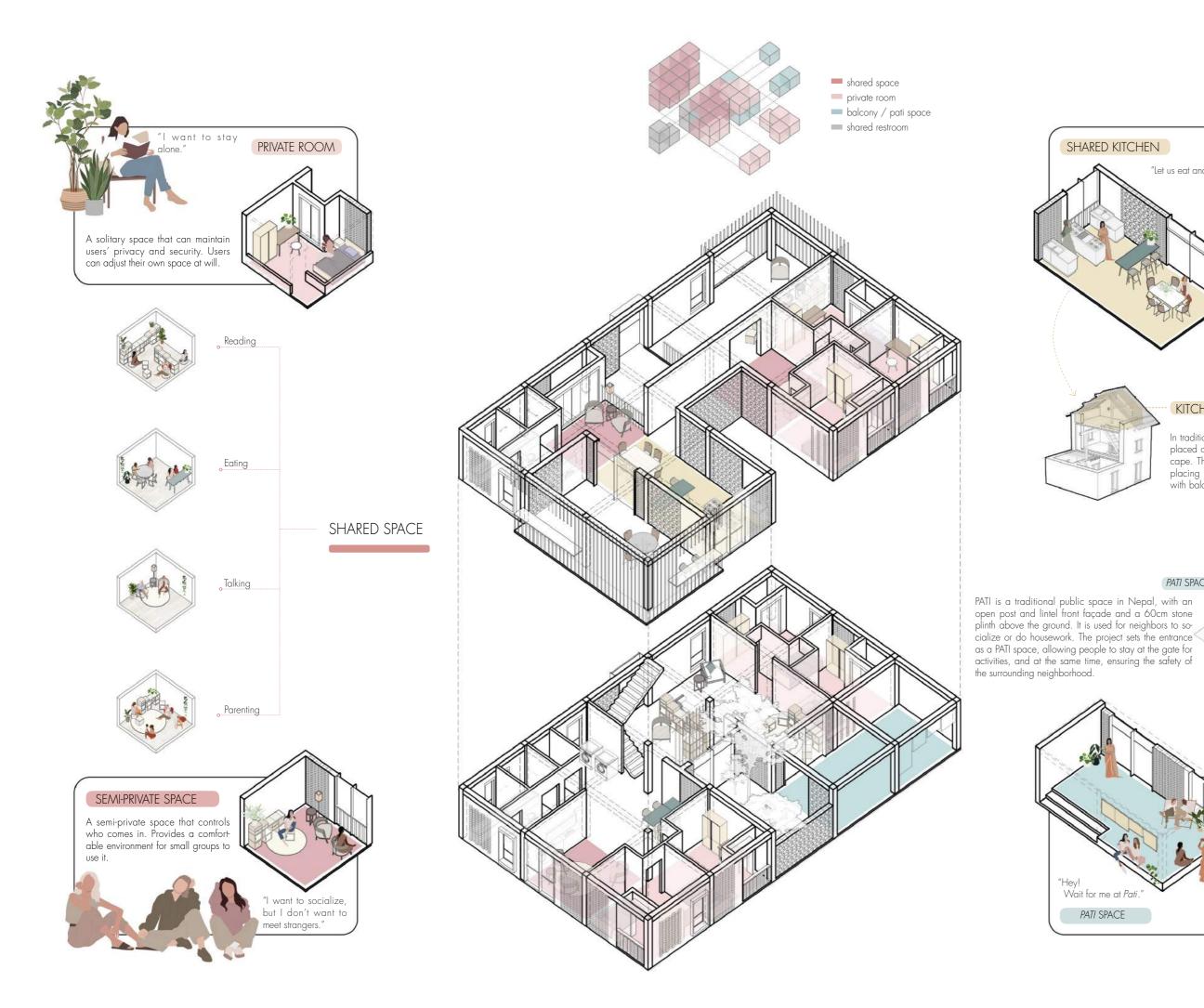


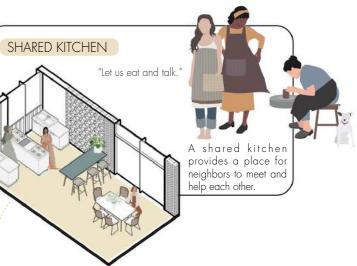
SECTION D-D'

Shelter Home Facade



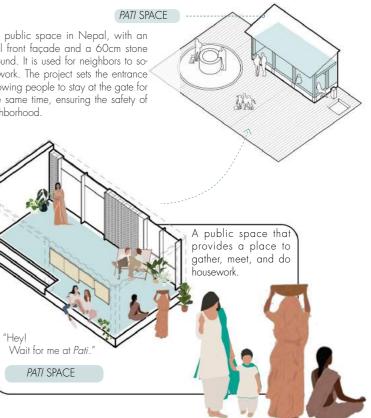
NORTH FACADE





### KITCHEN SPACE

In traditional Nawar houses, the kitchen is usually placed on the top floor to allow the smoke to escape. This approach is also used in the project, placing the kitchen on the first floor, connecting with balcony.





Affordable Housing

### Design Approach

### USERS: WOMEN IN NEED



### REQUIREMENT

### FLAT LAYOUT



Flexible Visibility through cores Different types of



### SOCIAL SPACE

I live with 2 children after divorce. I do not have stable income, i need a place for me to live temporarily.

Affordable Housing provides sanctuary, support and resources. It face to all the people who in need, re-

gardless of gender. It is a perfect place for me .

The qualities that the place needs are:

1. Flexible

2. Variety of uses

3. User-friendly

### Ņ. Brightness 00 \$₽\$ Semi-private

Shared space

### SPACE REACHABILITY



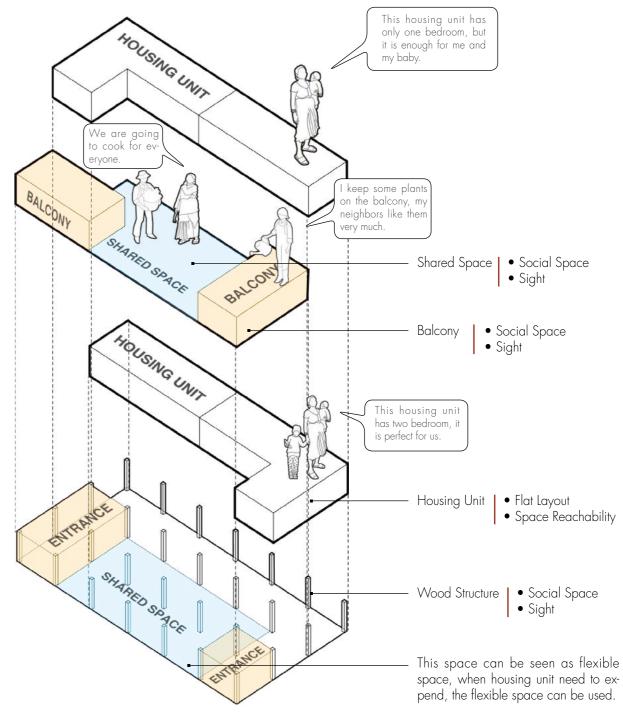
Organization

balconies

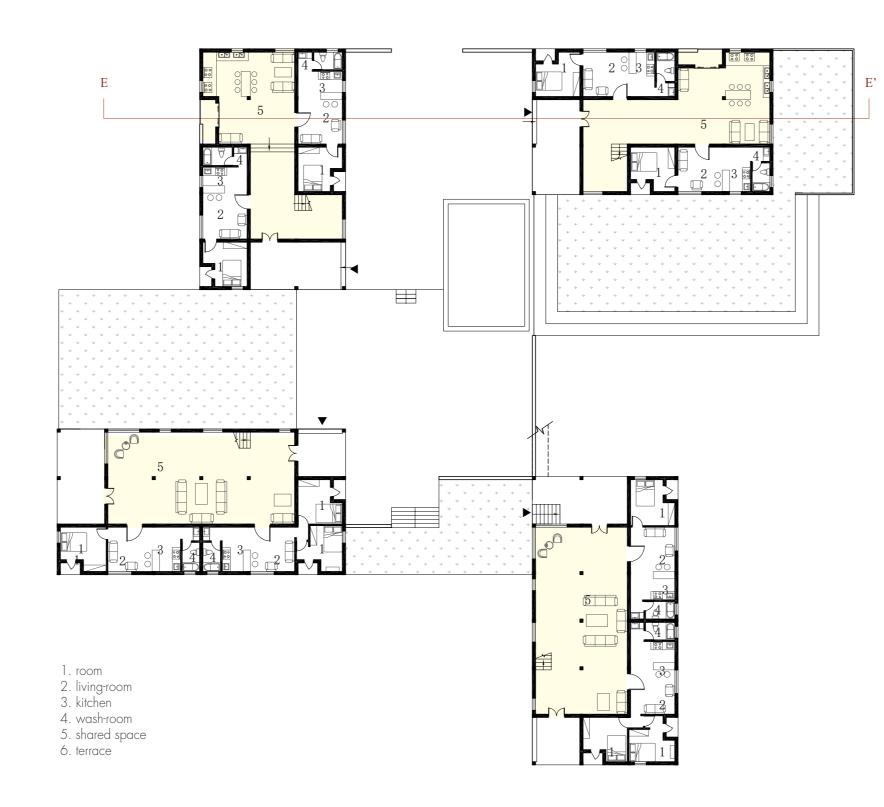


SIGHT

Eyes on the street  $\langle | \in$ Different types of balconies ndoor sight connection



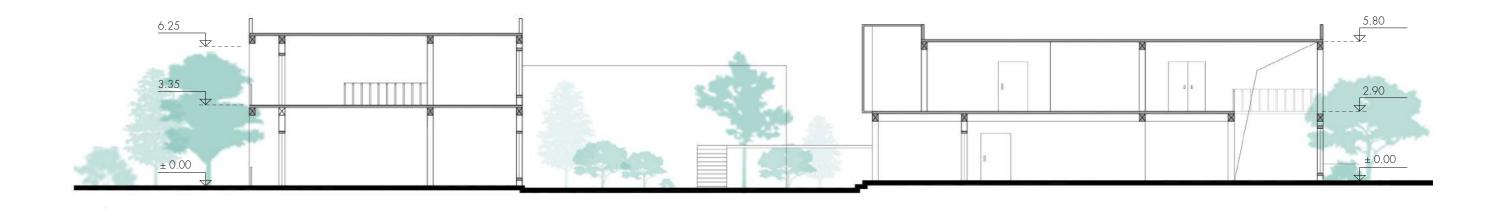
# Affordable Housing Ground Floor



# Affordable Housing First Floor

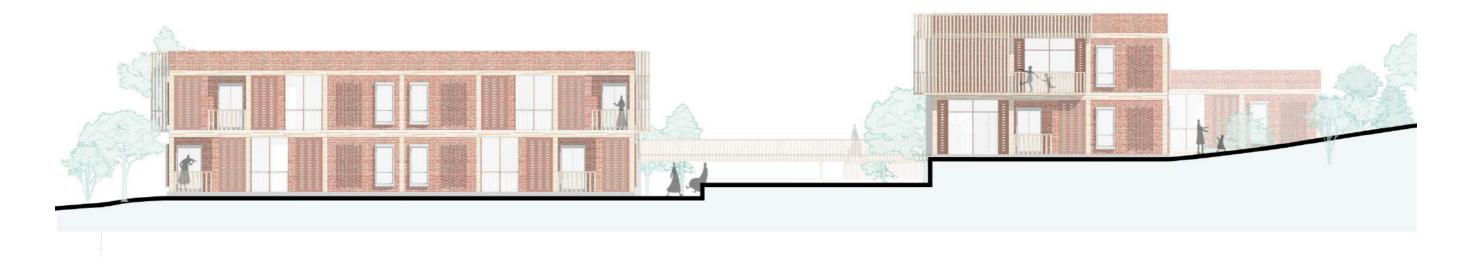


Affordable Housing Section

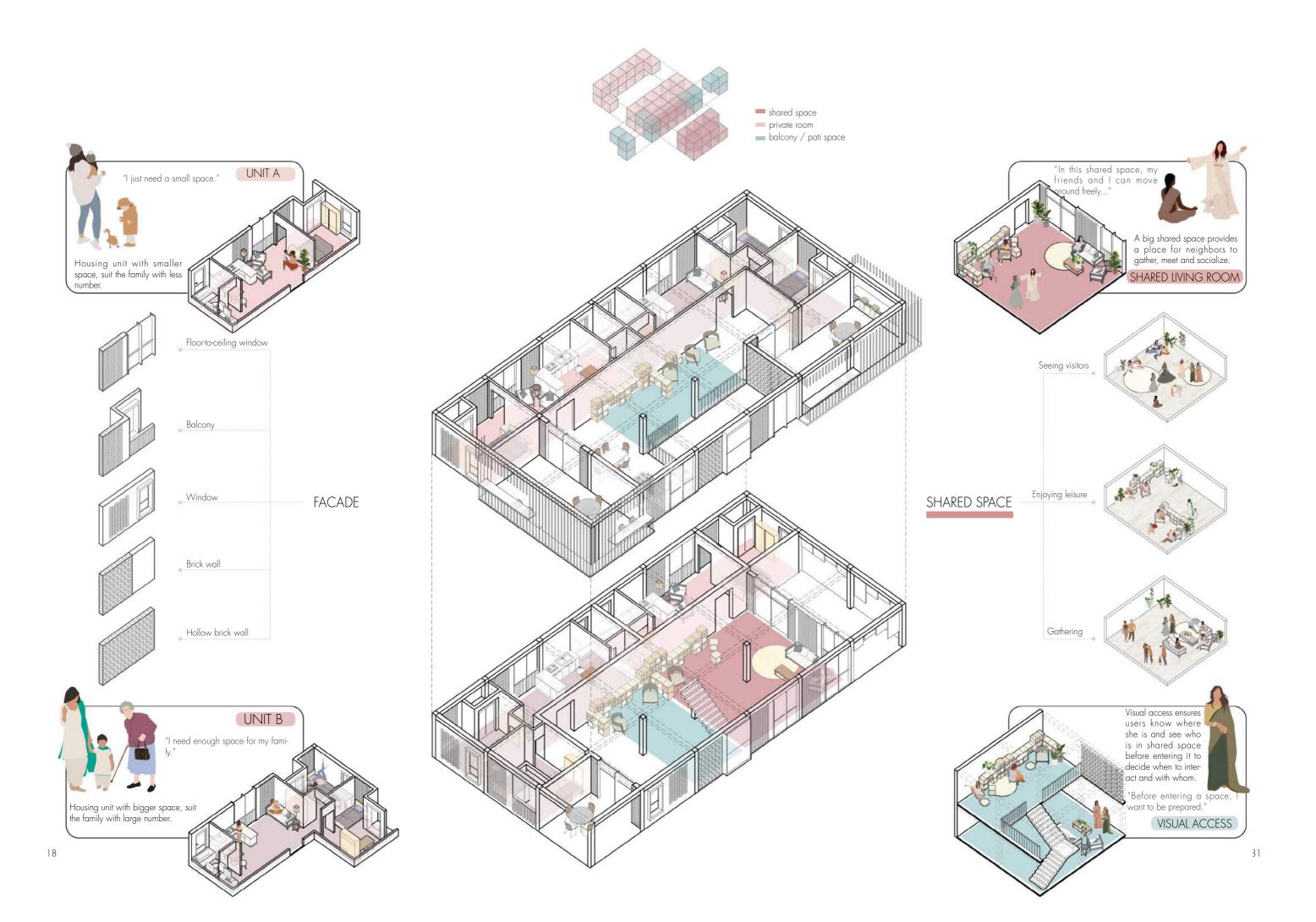


SECTION E-E'

Affordable Housing Facade



NORTH FACADE

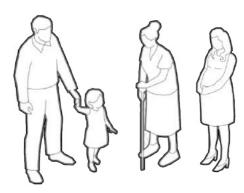




**Public Service** 

### Design Approach

### USERS: ALL THE PEOPLE



### REQUIREMENT

### COMMUNITY SERVICE



Care center Job opportunities

Meeting place

### Education

00

Ē

### SANITATION SERVICE



- 9|Ô Public toilet
  - Hygiene supplies
  - Clean water
- Ô Healthy care

The public service part face to all the people, especially to the people who live in the near by village.

The clinic provide sanitation service for everyone and training center which connect to the clinic also have speech for women. The other training center focus on teaching women some skills in order to improve their abilities.

The qualities that the place needs are:

- 1. Easy to find 2. Clear routes
- 3. User-friendly

#### OPEN SPACE



Furnitures 9 Specify space 088-11 808-2 880-11 Shared space Ţ Light

### CHILDREN'S PLAY

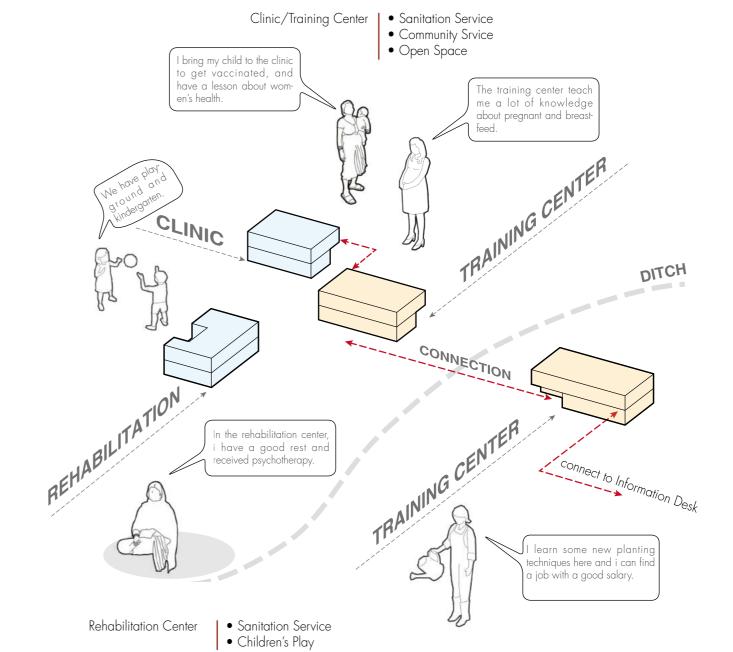


÷Ò. 0##-II #0#+= ##0-II Specify space

Brightness

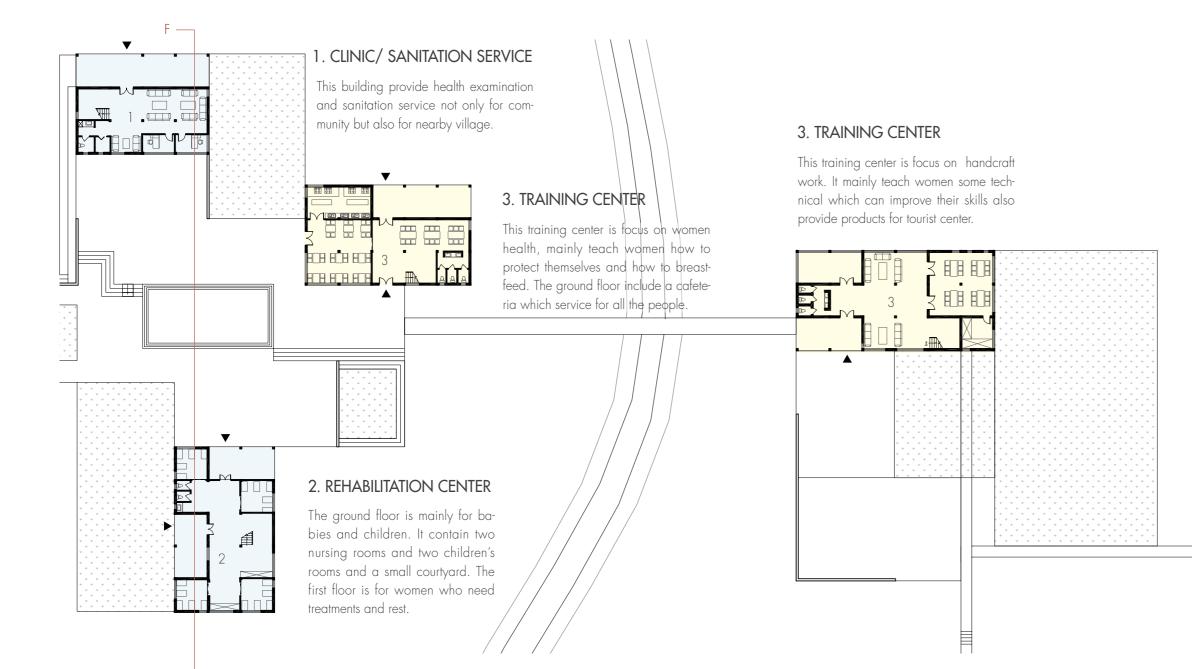
#### Supervision

π<del>×</del>π Rest space





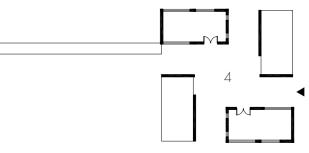




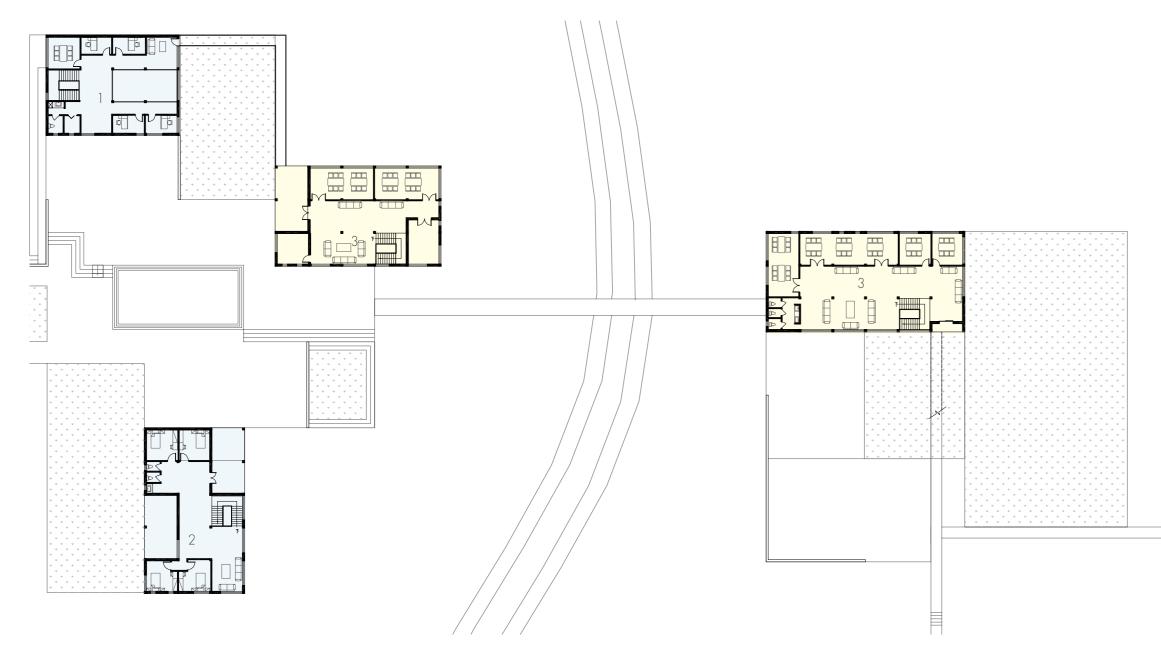
F' —

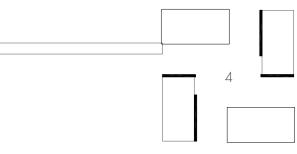
### 4. INFORMATION DESK

The Information Desk provide guide book for tourist. Staffs will introduce the women shelter to visitors, also show the handcraft products.

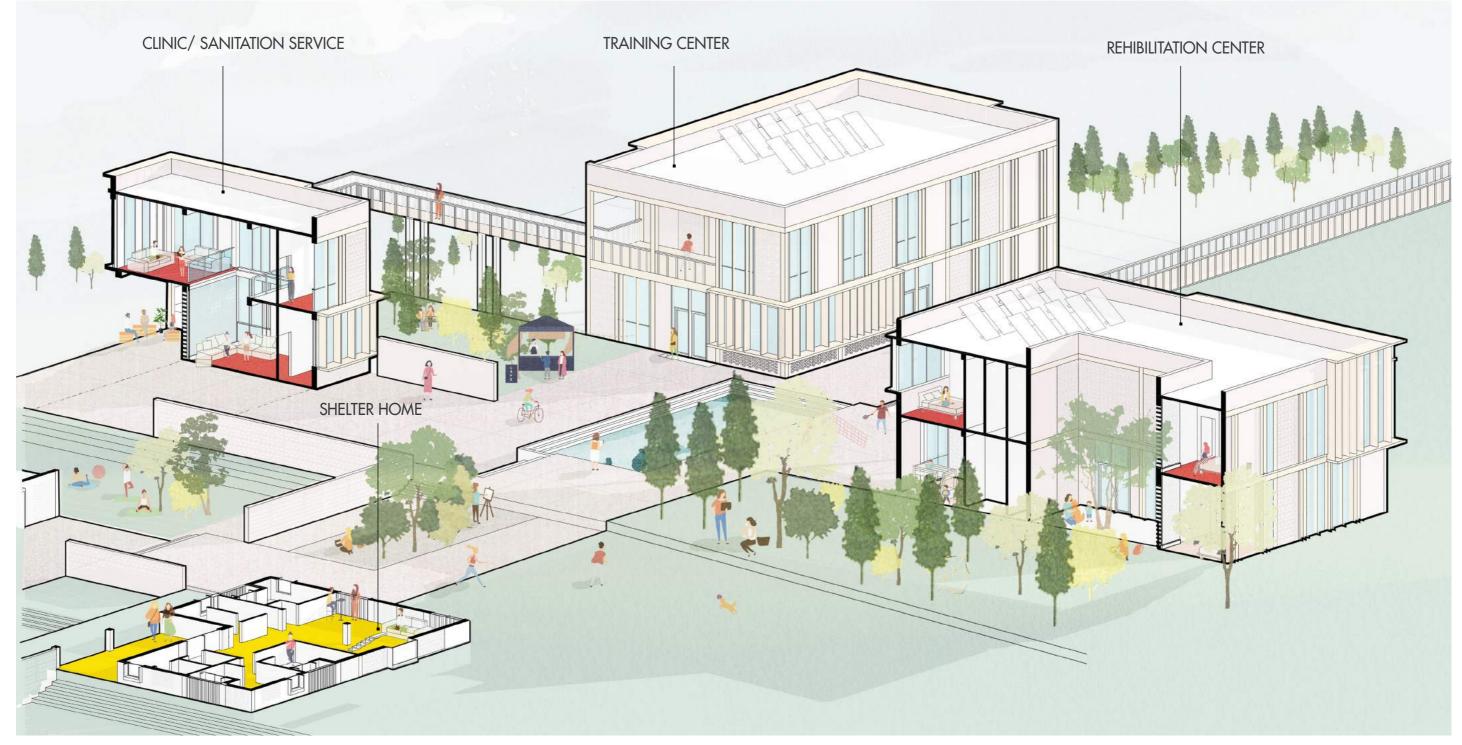


## Public Service First Floor



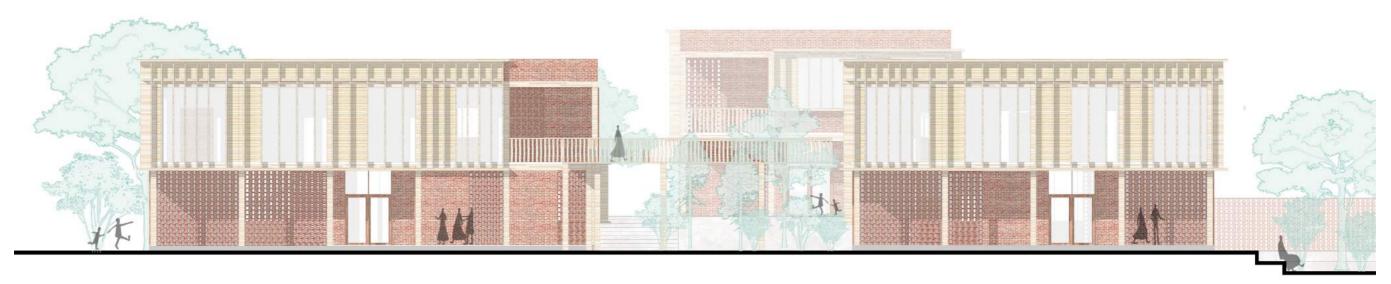


# Perspective Section





## Public Service Facade



EAST FACADE



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### **GIRLS ARE NOT THE PROBLEMS,**

### THEY CAN BE PROBLEM SOLVERS.