

## ***THE EXPOSITION OF ASPIRATIONS***

*Embracing multiple ethnic groups within a smart replicable strategy  
that has the potential to transform into a specific matter.*

*New Standards for Contemporary Ideals*











Maya de Ridder | 4480430

July 5 2021

Architecture and the Built Environment,

Dwelling Graduation Studio MSc 4

Global Housing

Addis Ababa Living Lab

*New Standards for Contemporary Ideals*



Tutors

Dr. N.A. Mota

Ir. H. Mooij

Ir. S. Verkuijlen

Dr. V. Grossman

Delegate of the Board of Examiners:

Ir. R. Bokel

*How could we reach a design that implements the aspirations of the inhabitants of Ethiopia, while avoiding romanticization and introducing an innovative way of urban mix for Addis Ababa?*

---

This report is a presentation of the graduation project for Addis Ababa 'The exposition of aspirations'. In this report, I am reflecting on the design process and research methods that have been applied during the phases of this design project. Hereby, Ethiopians rural living, urban living and common grounds are analyzed. The objective is to reflect on the striking findings of the research that have been made throughout Ethiopia. By following the striking needs of Ethiopians, the goal of this design project is to realize a well-integrated design, which allows Ethiopian variety and differences of their lifestyle, aspirations, and needs.

this project. A combination of sketches, short writings, flashes of Ethiopian inspiration and common interests argue the choices that have been made. This report will lead you through the country until the new proposed urban design project for Addis Ababa, the capital city of Ethiopia.

The report will communicate my vision for

*Maya de Ridder*

# CONTENT

---

- Project description

01	Research Report	p.10
02	Final Design	p. 94
03	Reflection	p. 260



# RESEARCH REPORT



01

**I Background information**

**IV Research**

**II Problem Statement**

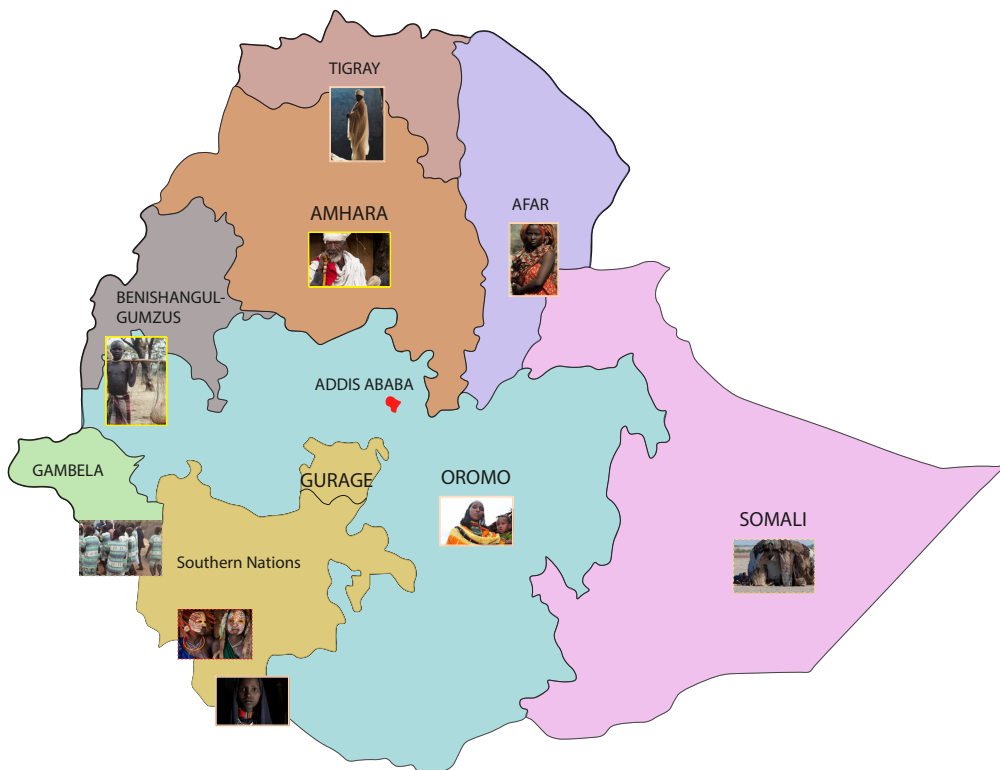
**V Results and summary**

**III Research Questions**



# I **BACKGROUND INFORMATION**

# THE STRIKING CONFIGURATION OF ETHIOPIA.



## BACKGROUND INFORMATION

---

Ethiopia, the country that can be seen as an powerful character followed by lots of historical influences. It is one of the few countries in Africa that has not been colonized, even though the Italians tried to do so in the 1930s (Bundervoet, 2018). Especially because of this independence, the country can be recognized as amazingly rich in culture. It is one of the most ethnically and culturally diverse countries in the world in which we can count 80 different distinct ethnicities and languages (Brittanica, 2020). The mosaic of ethnicities cannot be seen as one nation, it is made up of many nationalities. This makes the country rich in the relations between ethnic groups, livelihoods and identities, their strong cultural anthropology. Each of these societies have their own language,

ways of dressing, historical background, social organisation and territorial entity (Vaughen, 2003). Moreover, it results in an incredibly exceptional character of people with dozens of "Aspirations". Aspirations are defined as individual ambitions and preferences of their lifestyle and behaviour that they consider as important (Brittanica, 2020).

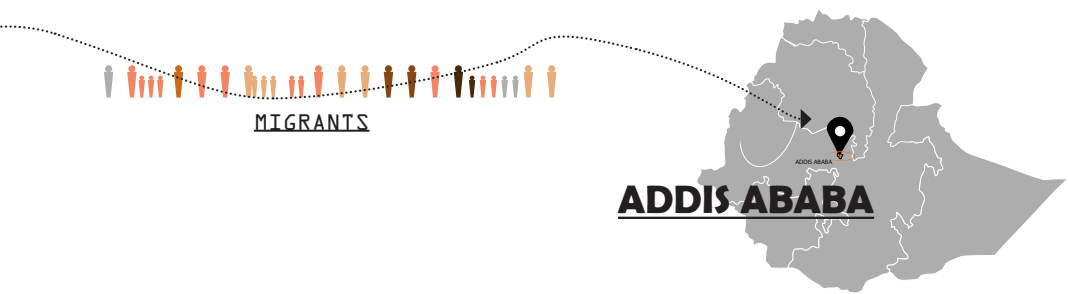


# INTERNAL MIGRATION

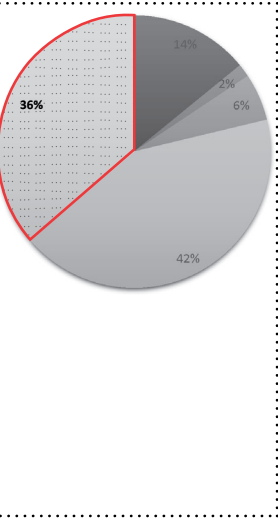
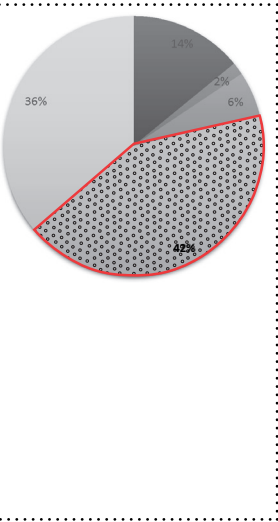
---

Next to the wide variety of ethnicities and cultures, Ethiopia can be identified as predominantly rural. Only 20% of its growing population (currently 150 million) is living in urban areas nowadays (Brittanica, 2020). However, despite the low rate of urbanisation nowadays, we recognize a huge upcoming internal migration flow towards capital city Addis Ababa (Yitbarek, 2018). The main reason of this migration flow in Ethiopia are future-oriented aspirations such as better economic perspective, living conditions, education and opportunities. Most internal migrants come from Western or Eastern provinces. Statistics show that almost 40% of the inhabitants in Addis Ababa are migrants, whereof 55,4% are originated from rural areas, 15,8% of smaller towns and the rest of the migrants originated from bigger towns (Bundervoet, 2018).





***What are the reasons that people are migrating to the city?***

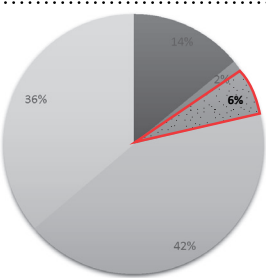






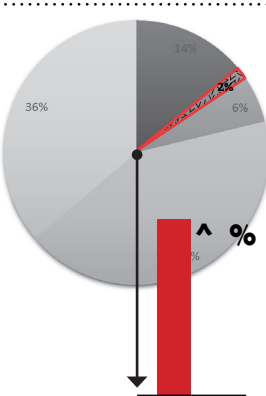
3

4. Climate migration (6%)



4

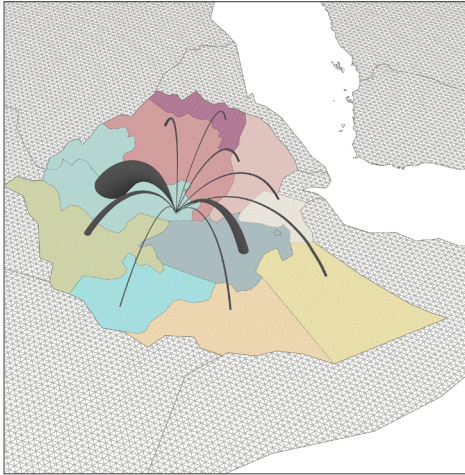
4. War / ethnic conflicts (2%)



with the current ethnic conflicts this amount is increasing with an unknown number of rural migrants.



## Who is migrating to the city?

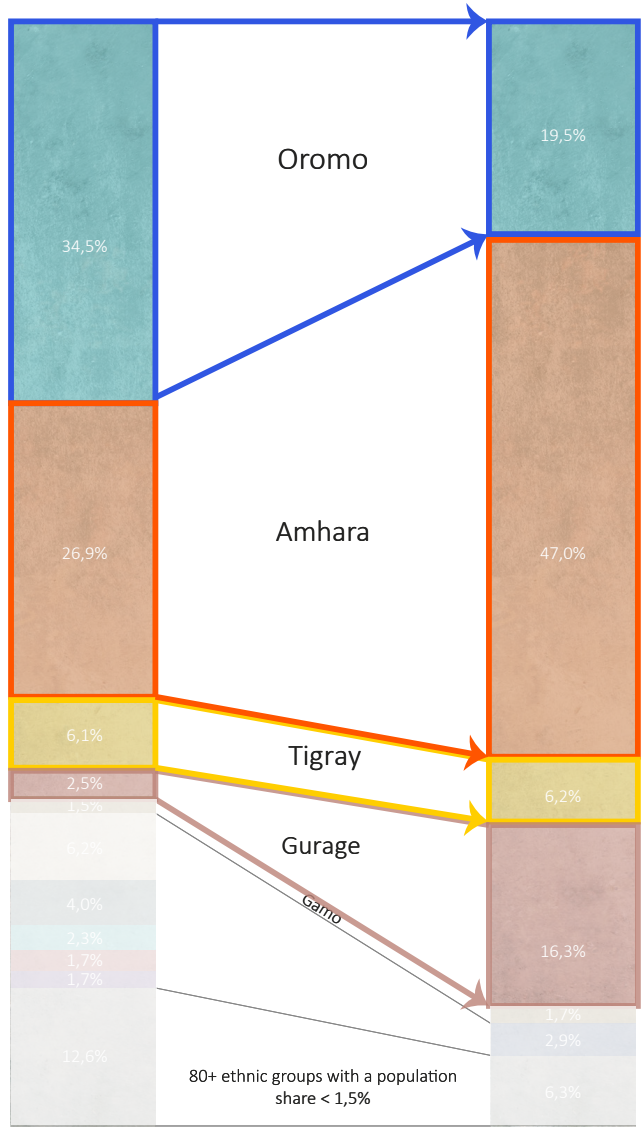


*Internal Migration Flows, WorldPop, 2008*

By combining a survey from 2008 and for 2018 the image on the next page is made. In Addis Ababa, the ethnic makeup is still largely made out of the Oromo, Amhara, and Tigray. Nowadays, the Amhara overtook the Oromo to be the largest ethnic group of the city. But still, Oromo constitute around a fifth of the population of the city. Furthermore, a striking amount of percentage is the Guragie, which makes up 16% of the city population, even though the percentage on the national level is quite low.

*(Federal democratic republic  
of Ethiopia population census commission,  
2008)*

ETHIOPIA .....> ADDIS ABABA



(Federal democratic republic of Ethiopia population census com

## *How has this affected the developments of Addis Ababa in the past 20 years?*

---

This inflow of rural-urban migration with decenniums of high growth rates created a prominent city with new challenges in terms of housing and infrastructure. The ongoing growth of the urban city generates a rising demand for labor and causes a further housing shortage for the population (Yitbarek, 2018). We can recognize two main responses that have emerged to the housing crisis: the development of informal settlements and the initiative of Condominiums.

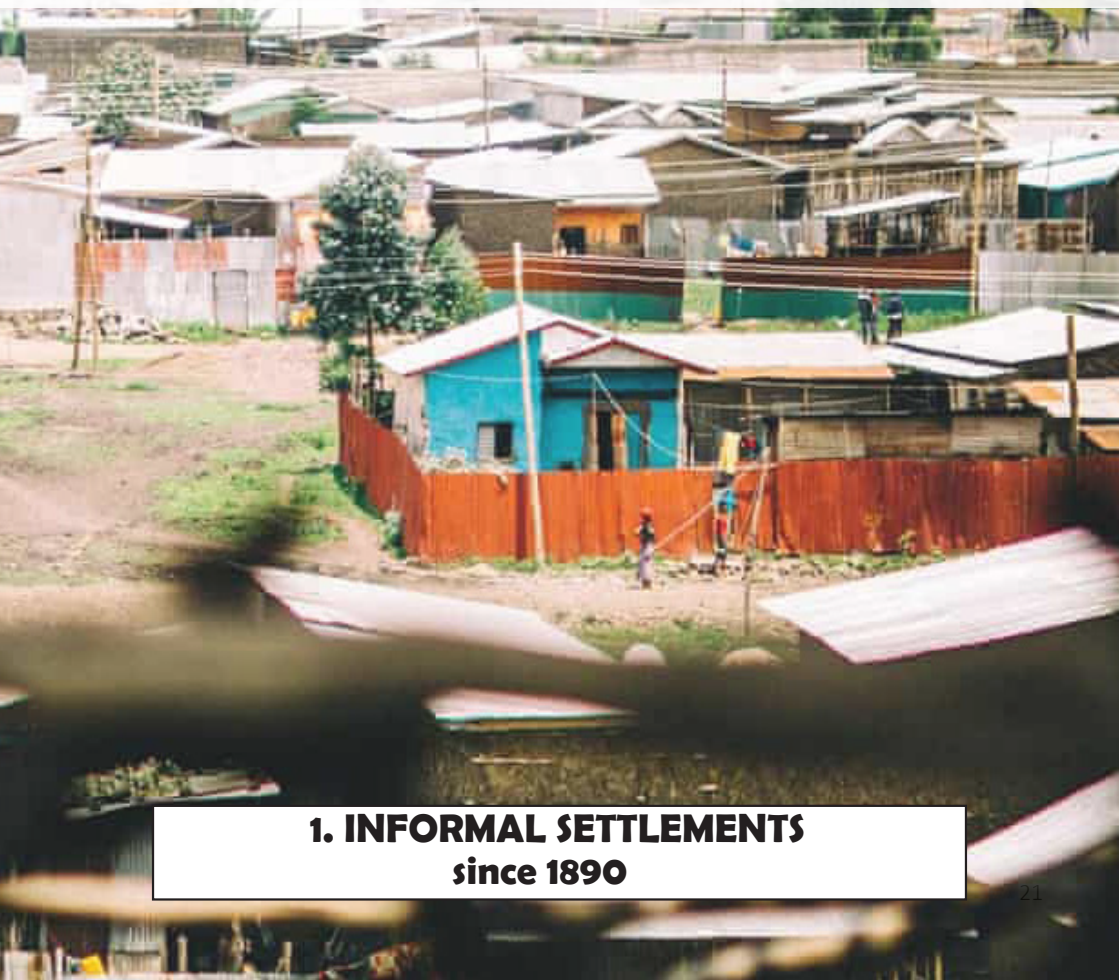
A primary response to the demand for housing were informal settlements, which is caused by the allowance of the erection of temporary dwellings since the founding in 1890. Although regional rulers tried to find a proper way to reach stable settlements, it resulted in many unplanned clusters of informal settlements that were dominated by ethnic groups and rural character (Tesfaye, 2012). Inhabitants, and mainly the migrants from rural areas, started to imply their own way of living and aspirations to find a smooth transition from rural to urban. Because of that, the informal settlements replicate their own way of configuration, circulation, reunification and consumption. This creates a fascinating composition where people made up their own spaces for generating interactions that operates as a “Local public space system” (Janches, 2012). Although inhabitants find their own way of living in an urban context, we can simultaneously acknowledge an unacceptable level of liveability. There is a lack of access to water supply and

sanitation, and there is no sufficient living space, no privacy, no proper housing quality and no security of tenure (Abagissa, 2019). Another response to the housing crisis is the officially initiated “Condominiums” by the Government. This initiative started in 2005, on the one hand, to tackle the housing shortage and on the other hand, to solve the unacceptable level of liveability in Addis Ababa. This Condominium approach has been realized through a Development-induced resettlement Program (DiRP) (Gardner, 2017). Until now, more than 250.000 subsidised condominiums were built (Tesfaye, 2012). The housing project was drawn up to realize a structured and planned policy in relocating the low-income urban population. The project was introduced with a lottery system, to give inhabitants the chance to shift from their current (temporary) dwelling into a more suitable and healthy condominium dwelling. Only the inhabitants who can afford the deposit are qualified to participate in the lottery, are eligible to live in a dwelling in the top-down, one-size-fits-all approach.

## RESPONSE 1

### ★ A SOCIAL MIX LIKE NO OTHER ★

*By Phillip, K. (2018)*



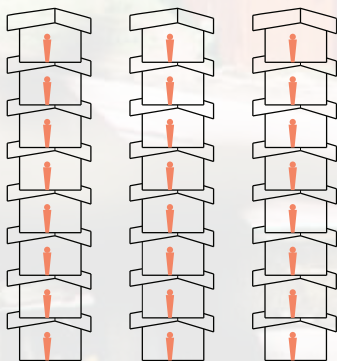
### **1. INFORMAL SETTLEMENTS since 1890**

## RESPONSE 2

### 2. CONDOMINIUMS since 2005

#### ★ A STACKED, ANONYMOUS WORLD ★

*Gardner, T. (2017)*



*by Charlie Rosser*

## ***TO CONCLUDE***

The multi-ethnic and culturally diverse character of Ethiopia led to a powerful and exceptional country, where Ethiopians have various lifestyles, behaviours and aspirations. Despite the beautiful places of origin, the trend to shift from rural to urban is striking. The mosaic of different ethnicities throughout Ethiopia led as well in Addis Ababa to a rich compound of influences. This also made it a hotspot for national and African administrative organisations as well as a source of abundant expressions of culture and art. The lack of liveability required an overarching response in order to adequately act on the inflow of migration. In this response, the Condominiums program were initiated. The building volumes have been completed on a large-scale throughout the entire city. All in all, taking the many needs and aspirations of different cultural directions of inhabitants into account might have been more important than the Architectural approach of the Condominiums performs.

# **I PROBLEM STATEMENT**



## **The initiated condominiums have caused a MISMATCH between the ARCHITECTURAL approach and the ANTHROPOLOGICAL FEATURES, LIFESTYLES and ASPIRATIONS of the inhabitant themselves.**

---

Addis Ababa, the capital city of Ethiopia, is challenged by the phenomenon of rapidly growing urbanization. The city is targeted at the risk that fast-tracked urbanization will cause loss of existing habitats and socioeconomic qualities (Tsfaye, 2012). The initiated condominiums have proved that there is a mismatch between the Architectural approach and the anthropological features, lifestyle and aspirations of the inhabitants themselves. This highly influences the quality of life in the urban context of Addis Ababa. To redress this mismatch, there is a need for more research regarding this topic.

In line with this general problem, a number of specific responses have arisen. These problems have led to a disorder

of Ethiopians. First of all, although the condominiums were a response to cope with the housing crisis, the occurrence of this Mass Housing is experienced as frightening.

Additionally, the mentioned mismatch led to the risk to lose their characteristic mosaic of ethnicities. Thirdly, the general problem does not give inhabitants the opportunity to express their wishes about lifestyles, aspirations.



# PROBLEM STATEMENT

---

## 1. The frightening occurrence of Mass Housing

As a response to the problems regarding sufficient housing in Addis Ababa, the government rapidly built high volumes of Condominiums within a one-size-fits-all approach. Unexpectedly, the approach led to various tensions. In spite of the obvious increase of liveability due to the quality of the buildings, people prefer to stay in their previous dwellings in their existing poor equipped communities. Ethiopians experience the initiated approach as too modern, too radical and unaffordable (Gardner, 2017). The inhabitants are disordered because of the initiated lottery system in which they are forced to shift from their domicile locations. Moreover, this makes it difficult to resume their daily social- and work activities. The strong community feeling and spatial configuration of their society are torn apart. The condominiums that should have been the solution for the low- and middle-income people have proven that these give no proper alternative in the new Addis Ababa.

## 2. The risk to lose their mosaic of ethnicities

The radical upswing of Governments initiated Condominiums has put many existing livelihoods at risk. Hereby, the government is not referring to ethnic, linguistic and religious diversity and is ignoring that this could be an issue (Bernard, 2011). "The building design fails to sustain people's ordinary, traditional way of life." (Bernard, 2007, p.2). Ejigu and

many others find that these European-style constructions deliver loneliness and segregation. Hereby, Ethiopians ethnically and culturally diverse character does not come across. It is of great importance to consider the aspirations, needs and lifestyle of ethnic groups in order to solve the risk to loneliness and stimulate the mix of social groups.

## 3. The risk to lose their aspirations

The further growing phenomenon of urbanization and unfamiliar developments leads to certain desperation and hopelessness of Ethiopians: "We have neither a dream nor an imagination." (Kidanu, 1999, p. 2). The move towards 'normalization' gives most African cities space to redevelop the everyday lifestyle in order to participate in the urban city (Tostenses, 2001). However, Ethiopians are frightened to lose their cultural identity and patterns.

But instead of resisting to this situation, the inhabitants seem to accept these circumstances (Bernard, 2011). The lack of proactive effort of Ethiopians as individuals due to their standard of living and circumstances implies the need to actively explore and reconsider their aspirations and possibly future-oriented preferences.



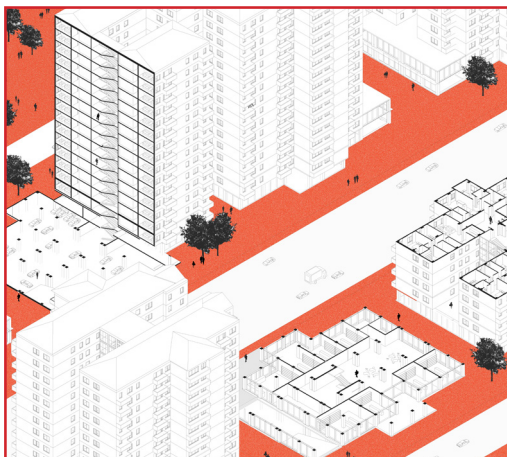
### 1. Ayat, Bole

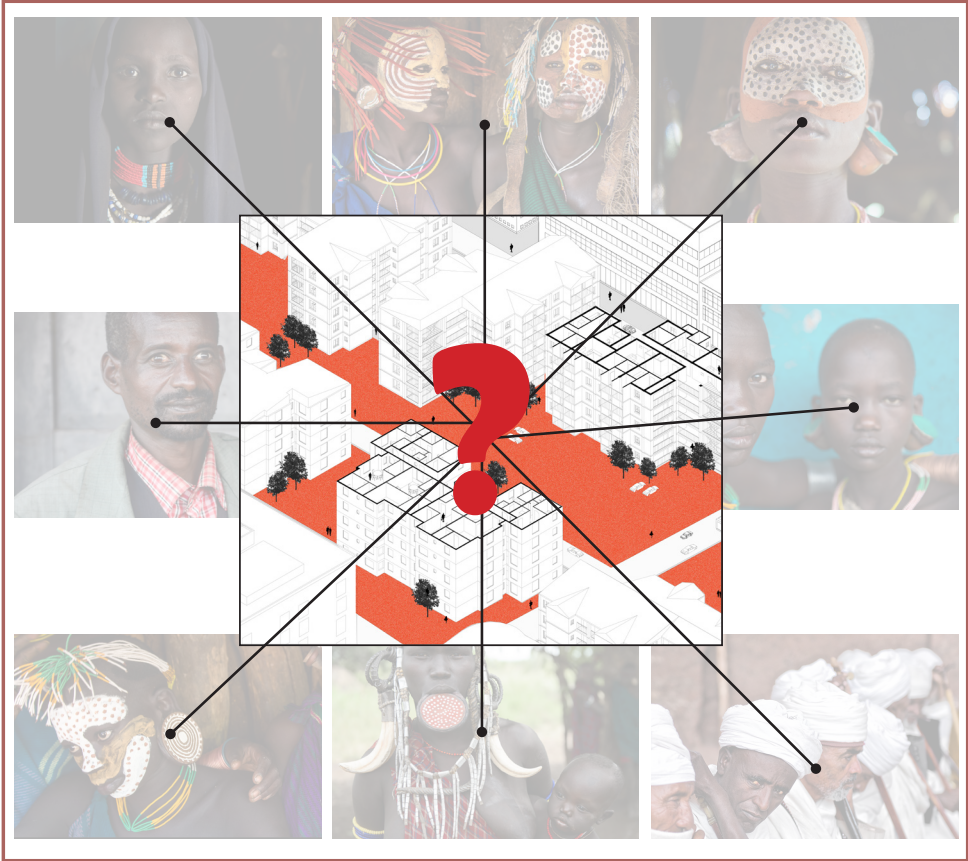
- Density: 156 dw/ha
- FSI: 0,28
- GSI: 2,67



### 2. Lideta

- Density: 160 dw/ha
- FSI:
- GSI: 0,16





## **ALTOGETHER**

The rapid urbanization and unfamiliar developments embodies a huge impact for the Ethiopians and led to a serious disorder in their everyday lifestyle and behaviour. In this way, Addis Ababa's radical development touch Ethiopians anxiety of losing their multi-ethnicity and aspirations. It is essential to take this problematic situation into account. The importance to decode people's behaviour may redress the wide range of tensions. Therefore, it could be stated that it is of great value to subsist and bring back aspirational thoughts while building up the urban-future city. The fascination derived from this evident problem makes it more than desirable to introduce (potential) Architectural tools to react to the aspirations of the Ethiopians.

### **III RESEARCH QUESTIONS**

**How could we reach a design that implements the aspirations of the inhabitants of Ethiopia, while avoiding romanticization and introducing an innovative way of urban mix for Addis Ababa?**

---

## RESEARCH QUESTIONS

---

**How could we reach a design that implements the aspirations of the inhabitants of Ethiopia, while avoiding romanticization and introducing an innovative way of urban mix for Addis Ababa?**

---

To address and respond to the issue of the mismatch between the Architectural approach and aspirations, that we divide in the occurrence of frightening Mass Housing, the risk to lose their multi-ethnicity and the danger to lose their aspirations, in other words, the need derives to unpack their real aspirations. The necessity to decode the aspirations derives in order to find a way that can operate as a workable solution for the mentioned problems. On the one hand, so that Ethiopians can (re) start in a new, in a fresh place and express themselves, on the other hand, to find a match with future-oriented aspirations to improve their quality of life. In line with this, the themes that need to be considered is the Ethnography and Anthropology to relate to the right lifestyles of Ethiopians. Altogether, the Research Questions will be answered though an innovative Housing Project approach for Addis Ababa.

The research will address the following Research- and sub-Questions:

- a) How can the interface between Anthropology and Architecture be described?*
- b) How has Anthropological Ethnography been used in the design of housing?*
- c) How can Architectural Ethnography be valuable in the context of housing in Addis Ababa?*
- d) What are the converging lifestyles, aspirations of Ethiopians within their multi-ethnic character?*
- e) How can Architectural Ethnography be the tool to interface the aspirations of inhabitants in the urban context of Addis Ababa?*

## [def.] Ethnographical research

1. This methodology explores humans culture and expression in depth. It could be described as an approach to examining the real behaviour of people in their everyday environment, in order to find the legit direction through which the analysis should be occur (Walcott, 1999).
2. Ethnography is often referred to “culture writing”, which implies the documentation by anthropologists in their fieldwork.

---

This study will implement the methodology known as “Ethnographical research”. This methodology explores humans culture and expression in depth. It could be described as an approach to examining the real behaviour of people in their everyday environment, in order to find the legit direction through which the analysis should be done (Walcott, 1999). As already mentioned before, Ethnography is often referred to “culture writing”, which implies the documentation by anthropologists in their fieldwork. Within culture writing, the anthropologist is challenged to the distinction between hard- and soft sciences (Walcott, 1999). In addition, the Ethnographical methodology can be used as an overarching theme in both types of sciences.

The distinction between “Hard Science Methods” and “Soft Science Methods” is important in this particular research. The me-

thods of illuminating hard science will be fulfilled with the use of Literature Review. This offers the possibility to find the right directions regarding relevant theories and specific literature in line with this research. Besides that, the method of soft science is important to come closer to site-specific relevancy, individuals, culture and aspirational expressions. This branch of the research will engage multiple collections of Ethnographic Interviews, Participation Observation and analyses to collect a contextual inquiry. Altogether, the use of Hard- and Soft Science Methods will realize the right balance between fixed theories, existing literature and the direction that can be characterized as a further ‘sensible’ route to grasp people’s insights.



# Hard Science Methods

---

The Literature Review will give a better understanding of the connection of engaging information of Historical Precedents, Socio-spatial relations and site-specificity, followed by the decryption of aspirations.

## THEORETICAL FRAMEWORK DIAGRAM

### 1. Contextual Research

[def.] Contextual Research will gather to reach natural insights from users' environment, rather than bring the use into our own environment.

- The Contextual Analysis Booklet 'Addis Ababa as A Palimpsest' (2020);  
The booklet is compiled by the graduation studio during the preparation phase of our design research.

### 2. Historical Precedents

- Odhams Walk;
- Morrocan Habitat;
- Matteotti neighbourhood;

The Soft Science methods will cover site-specific relevancy are the use of Ethnographic Interviews, Participation Observation and Contextual Research. This offers the route to grasp people's thoughts and aspirations. It will contribute to uncover and decode (un)expected insights.

*Along with these two directions, on the one hand, fixed theories and site-specific studies will gather for a correct compound of existing information, while on the other hand, the research will elaborate more on native's perspectives and viewpoint to grasp site specific relevance. All prospects considered, it brings together the information that strives to the right answer on the Research Questions, in which we can come up with an innovative way of urban mix, that is based on aspirations, anthropology and ethnography.*

### 3. Participation Observation

[def.] Kutsche (1998) defines that culture also includes rhythms, music, architecture, and dance.

- Recycling Spaces – a day in Addis Ababa's merkato:
  - Diébédo Francis Kéré:
- The City of Joy. Documentary, 2018:
  - Difret

### 4. Ethnographic Interviews, 'Unstructured Interviews'

[def.] Ethnographic interviews make it possible to gain a relevant compilation of peoples' perspectives (Maanen, 2011).

- Interview Diego Ariza:
- Interview Lyongo Juliana:
- Interview Maheder Haileselassie:
- Interview Alexandre Juan:
- Interview Marie Joesah:
- Interview Edlawit Saka:

## **IV RESEARCH**

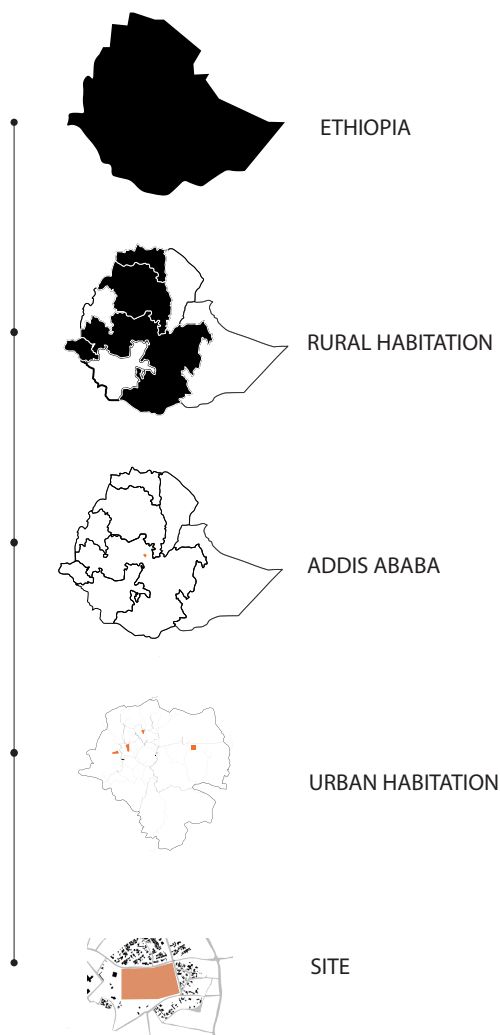
# FROM THE BIGGER PICTURE ALL THE WAY TO SPECIFIC SPATIAL AND SOCIAL PATTERNS.

---

*In this chapter, I will explain all the scales that have been analyzed in order to unpack possibly needs and elements that may unpack and/or redefine important components to react to the current problematic housing crisis.*

First of all, I will start with historical precedents. All these projects have been realized from an anthropological point of view. This will give the first insights that might be interesting to build on and elaborate on.

Afterward, the scheme on this page gives an overview of all scales and topics that have been addressed in this research. These topics will be explained in the following paragraphs.



# HISTORICAL PRECEDENTS

---

*This research will focus on historical precedents that have similar approaches to reach the intersection of anthropology and Architecture. This investigation is meant to explore ways how others anticipate on anthropological circumstances and aspirations of people. As a result, the possibility to set up an overview of un- and successful components that has been appropriated by architects within these case studies is meaningful. The chosen projects are “Odhams Walk”, “Moroccan Habitat” and “Team X”.*

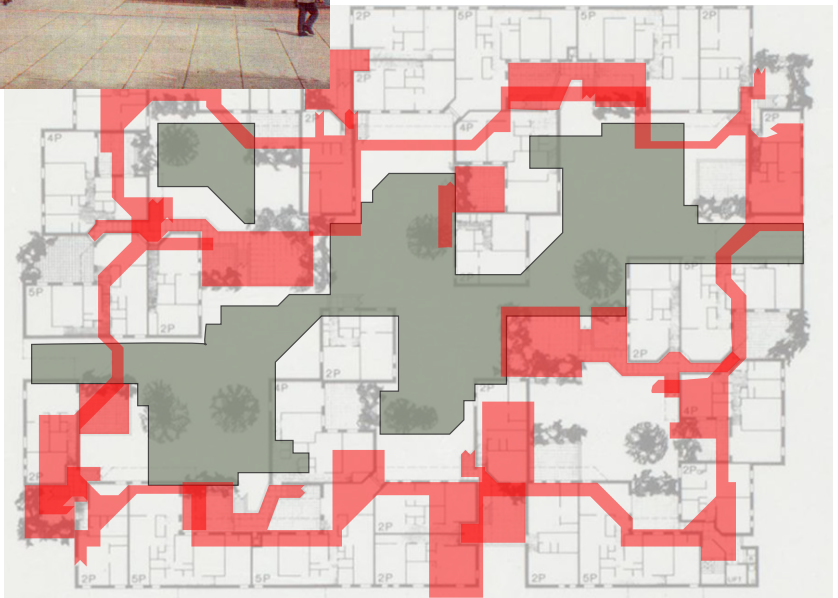
## 1. Odhams Walk

---

London, UK, 1979  
Architect: Donald Ball



Odhams Walk, located in London, can be seen as an inspiring design project where the entanglement between neighbors is extremely successful. Even though its location is in the centre of London, the circulation route through the cluster has become the basis for interaction. Moreover, the collective space in the inner courtyard of the urban block gives a high value between public and private.



## 2. Morrocan Habitat

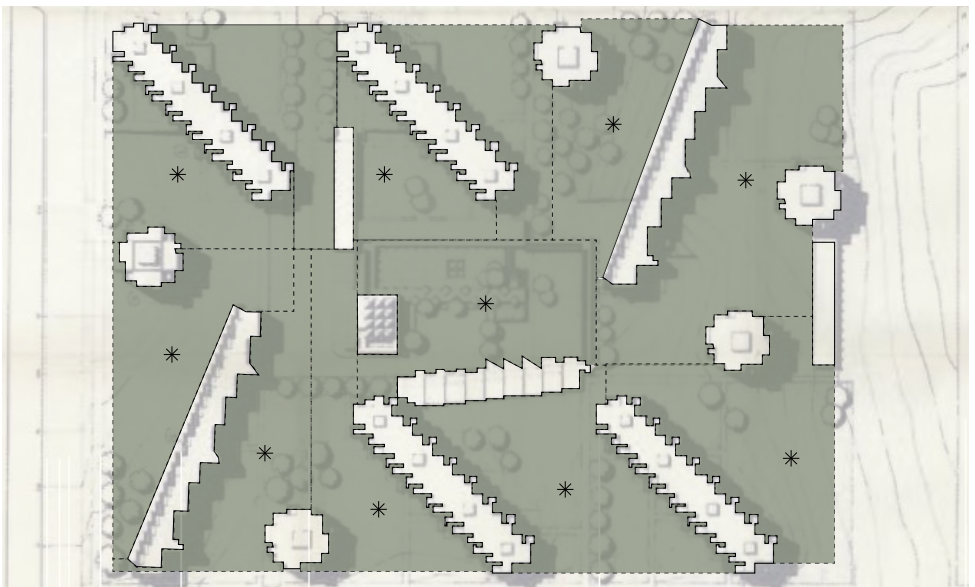
Research // Historical precedents

Casablanca, Marocco, 1954

Architect: André Studer and Jean Hentsch



“Moroccan Habitat”, was commissioned to devise a masterplan during the period of colonial rallies and acts of sabotage (Weiss, 2010). They started planning a design, particularly for locals. The design exists of Atrium apartments, which would be grouped around small open squares to produce denser and safe settlements. However, it has led to a project full of nooks and grisly spaces that made the project difficult to control. Although this project aimed to reach safety, community feeling and opportunities, it became an unsafe place of dominant volumes and unsuitable circumstances for the inhabitants. This case study research sheds light on the importance of carefully defining spaces during the design process. Undefined places can lead to unpleasant zones that have a frightful influence on peoples interaction, movement and aspirational active attitude.



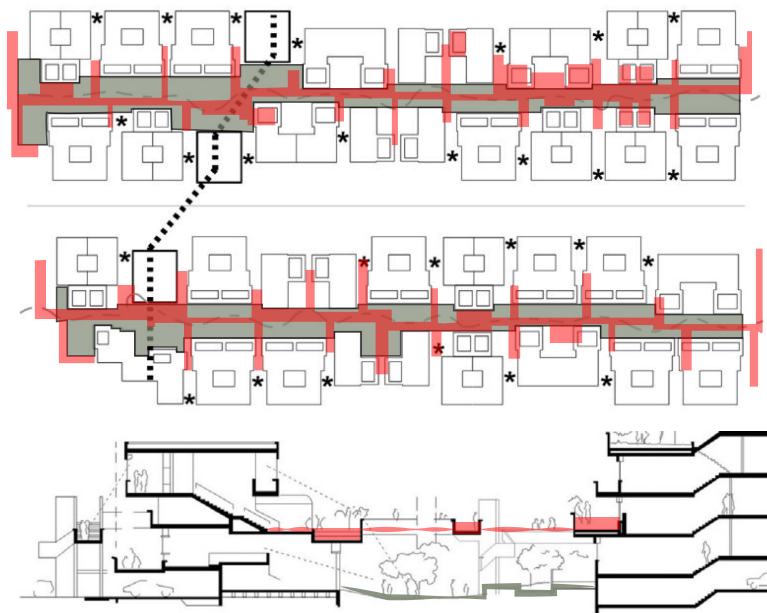
### 3. Matteotti social housing neighborhood

Terni, Italy, 1969

Architect: Giancarlo de Carlo, *One of the founding members of Team X, a group of architects.*



In contrast to the model of 'Morrocan Habitat', the housing project 'Team X' succeeded to reach a translation of the structure of the community within the design process (Baía, 2010). In this project, they used more viewpoints by implementing insights of various architects from different origins. Together with additional invited participants within the design process, it resulted in a deep critical reflection that gave them the possibility to supplant the strictly functionalist character. Their approach was based on the alliance between collective architectural typologies and the use of biology, linguistics and anthropology. The attention to integrate architecture and urbanism into a single system of new forms of habitat and structures such as streets, galleries, squares and courtyards, inspired by historical and vernacular tradition, is useful for this particular research.





The research of the historical precedents gives a great overview of essential components of the building, by taking into account the goal to attain a community within the building. By reflecting on these projects, the following aspect came to the front. An inspiring route through the building might achieve the right interaction between inhabitants. Moreover, to elaborate more on this aspiring route, the need to create clear distinctions of spaces is valuable. Valuable for the inhabitant to recognize their own spaces and more public-related spaces. To conclude, this transition of spaces is an important step to achieve a successful approach regarding this topic. To even enlarge this in the building, introducing platforms of activities on higher levels might be as well interesting.

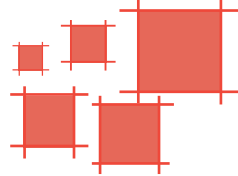
## 1 The entanglement of families:



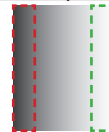
## 2 Inspiring route through the building



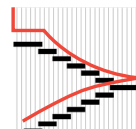
## 3 Frame every space in the project to avoid too open and unsafe spaces



## 4 Attention to the transition from private sphere to public sphere



## 5 Lift public activity to heigher level





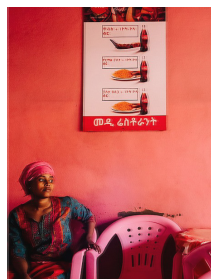
**SCALE 1:**  
ETHIOPIA

Even though the variety of ethnicity is enormous, they all share some common values. For instance, respect for elders is deeply rooted in the culture and is expected of every individual throughout the country. Simple things such as not getting up and offering one's seat to elders (or even someone slightly older) are highly frowned upon. Parents are regarded as nurturers of the younger generation – people might even discipline a neighbor's child if the parents are not around to do so – and there is great pride in childbearing.

Furthermore, Ethiopians are widely known for being hospitable, friendly, and respectful of others.

*(Grenestedt, A., et al, 2021, p. 164)*

In this chapter, the most striking common ground will be explained attentively. This in order to unpack relevant activities and characteristics that might be relevant to introduce and brick back in the future urban scheme.







# COFFEE

---

## THE PASSION FOR COFFEE

"By walking down the street, you will get blasted by intense smoky clouds of freshly roasting beans"

[ADDIS ABABA, Wiens, M.]



As one of the largest coffee producers in the world, Ethiopia is a country proud of its coffee heritage. "According to legend, an Ethiopian goat herder discovered the wonders of coffee when his flock grew restless and wouldn't go to sleep at night. Curious, he discovered that his flock had been eating the cherries of coffee trees." Coffee, locally known as buna, is a common beverage throughout the country. After every meal, a coffee ceremony is enacted and coffee is served by normally, the youngest female of the house.

## THE COFFEE CEREMONY



The coffee ceremony ritual consists of several elaborate steps and can take up to two hours. First, fresh grass is laid on the floor and the raw coffee beans are washed with warm water to remove the thin skin. Then the peeled beans are roasted on a charcoal stove. Once they are roasted, the beans are grounded in a wooden mortar with a pestle. Finally, the coffee is brewed in the traditional black clay kettle called jebena, and once ready, it is served in small ceramic cups – sini – to family and friends.

(Grenestedt, A., et al, 2021, p. 169)

Spices are an essential element in the Ethiopian cuisine. Indeed, mixes of spices, such as berbere, a combination of powdered chili pepper, coriander, garlic and others, and mitmita, are commonly used in many traditional dishes.

Women typically prepare spices at home, with the help of cardamom seeds, cloves and salt. Raw ingredients are first dried outside, usually in the proximity of the house, the grounded and mixed, and finally either used or sold<sup>106</sup>.

Cooking is mainly a female activity, thus women traditionally push girl to learn how to cook this dish encouraging comments such as “You will never find a husband if you cannot cook doro wot!”<sup>107</sup>.

Dorowot is the main dish served to guests and during holidays, as a sign of respect, and the preparation is normally laborious. In general, cooking can be done outside or inside, depending on the specific cultural context and on the availability of space and income.

*(Grenestedt, A., et al, 2021, p. 168)*



“In Ethiopia, where I was born, all the cooks are woman. It is almost a rule of eating traditional food. Culture really is the factor I keep coming back in Ethiopia.”

*[Diego Ariza, Interview]*



# MUSIC

---

Music has always been a big part of the Ethiopian culture, history, and daily life. Traditional songs and performances are still common in Ethiopia, even in the highly urbanized city of Addis Ababa.

Music play a social and entertaining role in the communal life. Among the traditional instruments we can find the single-stringed masenko, used by minstrels who sing of life experiences improvising verses on the spot, and the krar, a lyre-like plucked instrument with five or six strings , and the begenna a portable harp.

Each ethnic group has its distinct singing and dancing style which is seen as self-expression and used as a way to display the rich variety of cultures.

Orchestra Ethiopia was the first popular music band formed in 1963 with the aim of preserving the folk music from the different ethnic groups. “It was the first ensemble of its type, as these diverse instruments and ethnic groups previously had never played together.” The band was dissolved after the Derg Revolution Music plays also a significant role in religious rituals, for instance in any church it is likely to find decorated drums and a traditional sistra, used to accompany the priests’ chantings.

*(Grenestedt, A., et al, 2021, p. 171)*



## THE BEAUTY OF MUSIC . . .

“Music is the tool to express life – and all that makes a difference.”

*[ Herbie Hancock]*

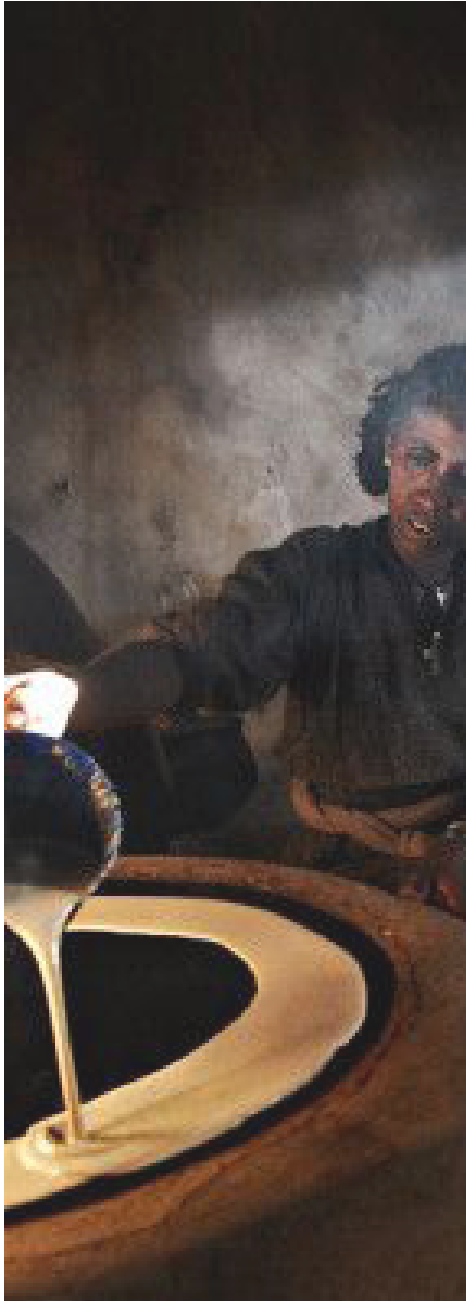


... AND DANCE

"It's like every ethnic group is dancing their own style. It was like a therapy, to get a feeling of togetherness with each other."

*[ City of Joy, Documentary ]*





"In Ethiopia, where I was born, all the cooks are woman. It is almost a rule of eating traditional food. Culture really is the factor I keep coming back in Ethiopia."

---

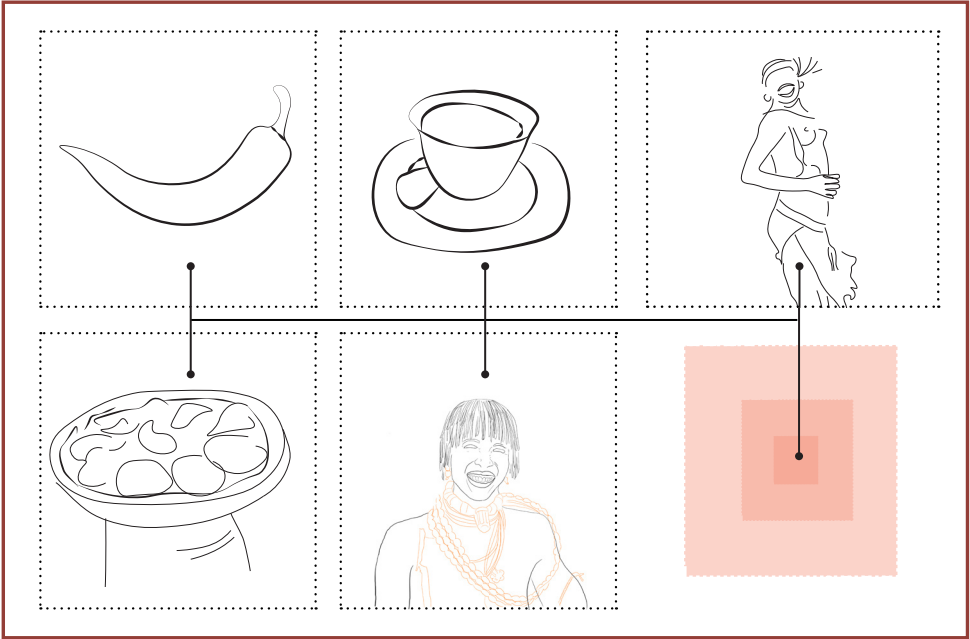
*(Ariza, D., Interview)*

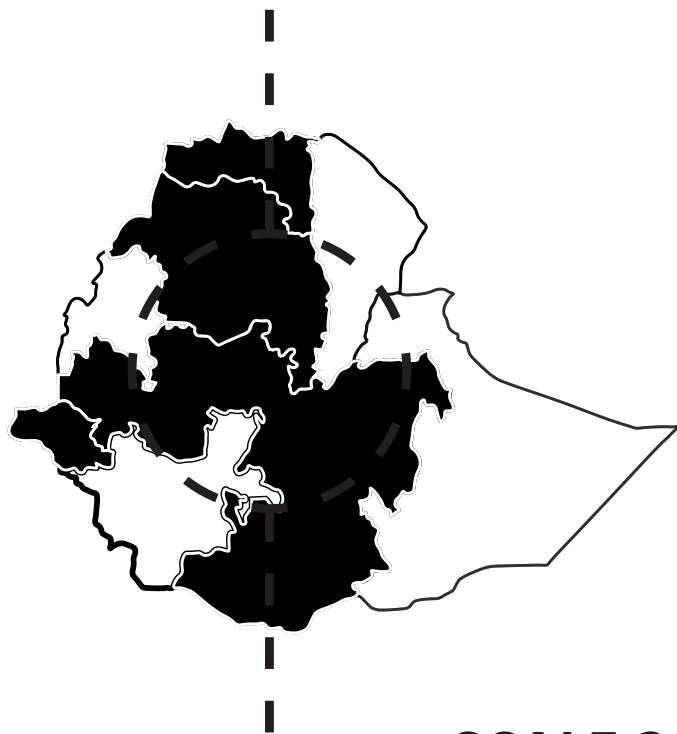
Traditionally eating is regarded as a highly communal activity in Ethiopia. The meal is shared by all the diners gathered around a large circular metal tray – typically posed over a woven tablelike basket called mesob – containing the injera and a great variety of toppings, generally known as wot. The meal is consumed by hands: "hands go back and forth scooping up from the various piles of dishes with strips of injera torn from the edges."

### Injera

Injera - a spongy sourdough flatbread about 50 centimetres in diameter made out of fermented teff flour – can be regarded as the basic element of the Ethiopian cuisine, since it represents the foundation of the vast majority of the local dishes. Injera is typically baked in a special clay pan – mitad – with a diameter of about 45-60 centimetres.

These common grounds are recognizable throughout Ethiopia. Perhaps each with a different type, but everywhere it can be characterized as typical activities. This can be included to make the right entanglement between the people and activity. Moreover, this can be seen as the activities that can bring different people together, precisely to share how each has their specific version of that activity.





**SCALE 2:**

RURAL HABITATION

The multi-ethnic journey through Ethiopia.

- [Own identity ]
- [Own language]
- [Own way of dressing]
- [Own historical background]
- [Own social organisation]
- [Own territorial entity]

As previously mentioned, Ethiopian culture is diverse and is structured along the ethnolinguistic lines. Each ethnic group can be recognized with his own specific identity, language, culture, customs, traditions, social organisation and territorial entity.

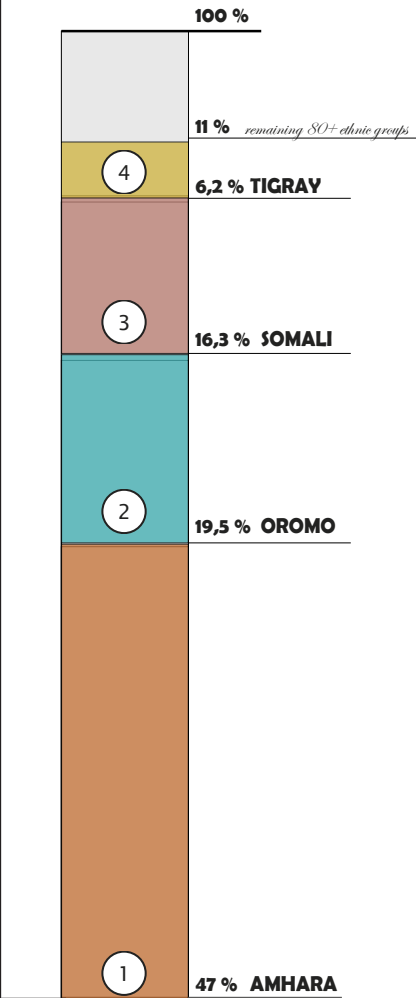
Alltogether, Ethiopia counts about 85 different Ethnic groups. Most of them represents small-scaled compositions within the country. The most common ethnicities are Oromo, Amhara, Somali, Tigray, Sidamo, Gurage, Afar and Anuak.

Within all those variety, about 100 different languages are spoken troughout the entire country. Amharic can be seen as the offical working language. In addition, all the other languages are classified into four categories: Semitic, Cushtic, Omotic and Nilotic.

Since the internal migration data is basically based on the most common internal migrated patterns, the focus of this research is based on the following main migrated ethnicity types:

- 1. Amhara
- 2. Oromo
- 3. Somali
- 4. Tigray

RESEARCH



## Method

*This part of the research is based on unpacking spatial- and social patterns regarding anthropological features, aspirations and lifestyles of particular ethnicities. The research will follow the sequence of scales, from the bigger image of the community into specific indoor activities in the dwelling. This will provide an overview of crucial characteristics that we can expose in the design.*

### **IN SCALE.**



**Sight**

#### **1. LIFE**



**Religion**

#### **2. SPACE**

#### **3. BUILDING**



**Activities**



**Entertainment**



**Income generation**



**Drinks**

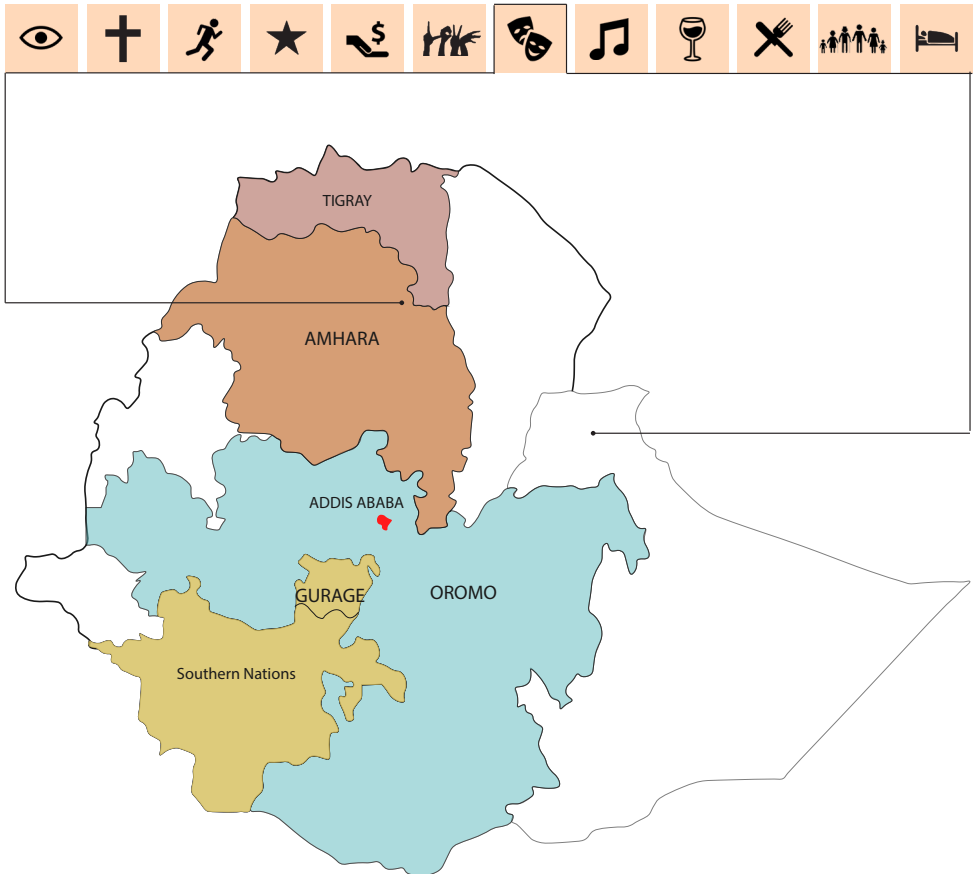


**Eating**



**Sleeping**





# AMHARA

---



Amhara people are the second largest ethnolinguistic group in Ethiopia. They predominantly live in the highlands of the Amhara region.

**LIFE** in Amhara regions.



## Sight

Amhara people predominantly live in the highlands of the Amhara region in the north-central part of the country. The harsh climate - sunny days and cold nights - brings upon different traditions.

Along with religion, land tenure of kinfolk and traditional feudalism constitute the base of the social structure of the Amharic community.



## Agriculture

Agriculture represents the main productive activity for this group. About 90% of the Amhara people are rural, and make their living through farming. In particular corn, wheat, barley, teff, along with beans, peppers, chickpeas are the most important crops.



## Religion

80 % Orthodox Christians

Women in the countryside still braid their hair daily and wear the traditional thin, white cotton dresses with intricate designs. Colourfull designs are placed on the habesha kemis usually around cuffs, the bottom, down the middle.

## Tattooing

Hand, neck and at times face tattooing and marking also have a long tradition in these regions. They are considered as a rite of passage for women entering adulthood.



## Eating

Amharas cuisine consists of various vegetable or meat side dishes, most of the time served atop injera, the sourdough flatbread made out of teff.

## **BUILDING**

In the Amhara region, Amhara people would love to live in a two storeys apartment. This is related to their activities. On ground floor their activities are more based on living and partly working. On first floor they are sleeping. The configuration of the building is made with the use of a core and heighest part exactly in the middle.

*(Grenestedt, A., et al, 2021, p. 171)*





## DWELLING

### The core

Low partitions organize the interior space, where a fireplace is located in the centre, representing the core of the household.

### **LIFE** in Oromo regions.

Oromo is the most represented ethnicity in Ethiopia, counting about 35% of the country population. Although they are native to the western, southwestern, southern, and eastern areas of the country, the Oromo people are currently mostly concentrated in the Oromia region.

The Oromo people traditionally adopted a governance system known as the Gada system, an age-based system used to classify the male groups and their roles in society. Its core values concern moral conduct, unity, and equality. Indeed, one of the founding principles of the Oromo culture is the tokuma – identification with the group –, every aspect of the Oromo's life revolves around it. Indeed, cooperation is at the base of their social, economic, religious, and political system.

The male leaders are chosen democratically with a general assembly; in the absence of a built structure, the meetings take place under a sycamore tree, which has since become a strong

symbol of the Gada community<sup>116</sup>.

Oromo are historically a pastoral society but, since the 16th century, when a series of predatory

expansions and raids of neighboring pastures known as the Great Oromo migration took place, bringing them into contact with the neighboring kingdoms, most of them adopted sedentary agriculture as their primary activity<sup>92</sup>.

Traditional Oromo clothing widely varies based on the area as well. Normally they are mainly made of white cotton cloth and of leather. Due to their pastoral tradition, leather represents an integral part of their wardrobe<sup>117</sup>. Even though most of the traditional clothing is not widely used in the more urbanized areas of the region, more and more

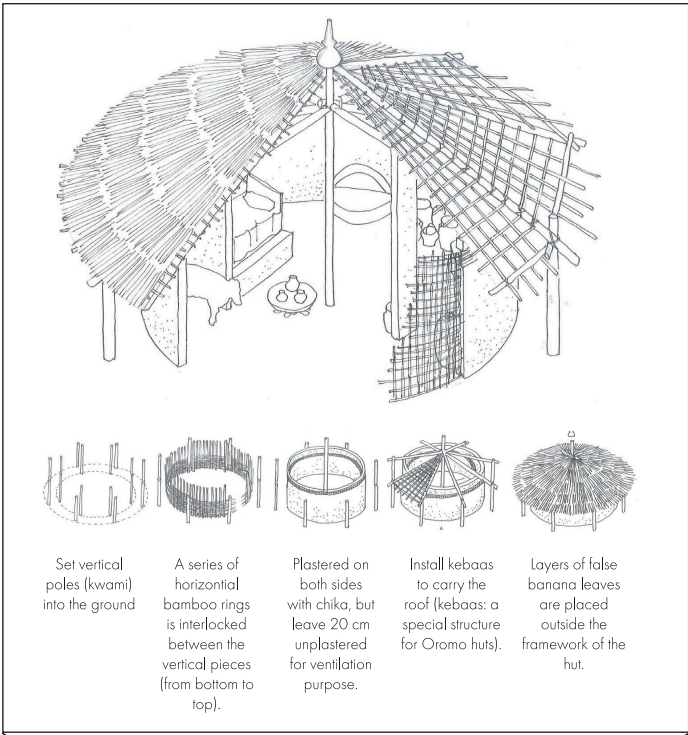
young Oromo have started wearing traditional clothing as it is seen as pride in one's identity and self-expression.

## BUILDING

The Chicka House Due to the diverse climatic conditions in the territories in which Oromo have settled, traditional housing construction methods vary upon local necessities. In general, the typical Oromo house, also known as chicka house, consists of a circular space defined by chicka walls and covered by a conical roof made of herbs and ropes arranged over a wooden structure. Low partitions organize the interior space, where a fireplace is located in the centre, representing the core of the household. On the first floor they are sleeping. The configuration of the building is made with the use of a core and the highest part exactly in the middle.

*(Grenestedt, A., et al, 2021, p. 173)*





## VILLAGE

The Tigrayans are the main group of Tigray and the speakers of Tigrinya. Rural life is closely related to the Ethiopia Orthodox Church, and the basis of the family ceremony of the farmers is the cattle plowing of cereal crops, including wheat, barley, sorghum, corn, tef, and cattle, goat and sheep grazing. The area is prone to drought and famine. Hidmo is a mud-built stone walled house with a flat eathen roof, a character of vernacular architecture in the northern highlands.

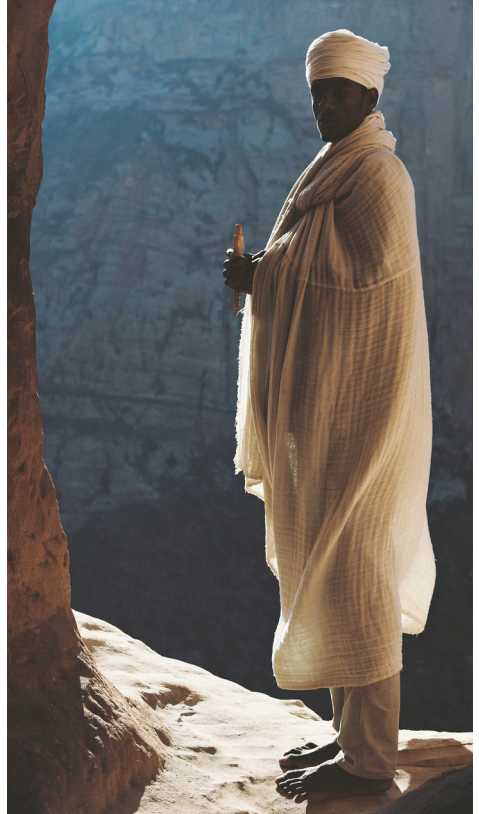
## SPACE

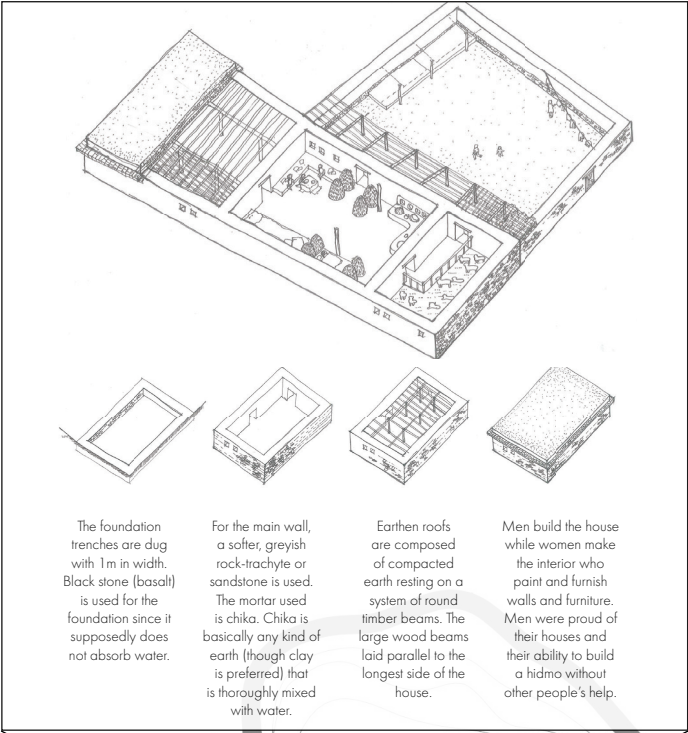
The Hidmo compound consists of buildings arranged around a linear courtyard surrounded by high stone walls. Part of the courtyard is covered by a flat eathen roof, which is supported by strong bark trunks.

## BUILDING

Although traight lines are considered the most prestigious, Hidmo's construction uses straight, circular and sub-circular plans.

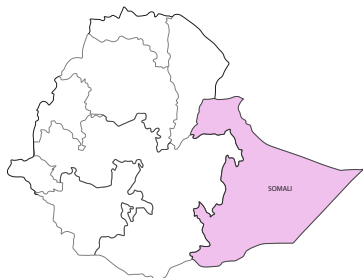
*(Grenestedt, A., et al, 2021, p. 171)*







# SOMALI



## VILLAGE

Somalis live in desert or semi desert areas. Nomads spend almost all their time outdoors. The activities of nomads depend on the food supply of cattle and other livestock. Camels are very suitable for these areas and are greatly used for the transportation of construction materials. Therefore, seasonal migration affects the types of building structures in the area and the materials used in construction.

Most commonly, there are 30 to 50 houses in a settlement.

## SPACE

A nomadic camp may be surrounded by a fence of thorn bushes to avoid predators. Animals are also kept in corrals made of thorn bushes. The prayer area in the camp is separated by a circle of stones.

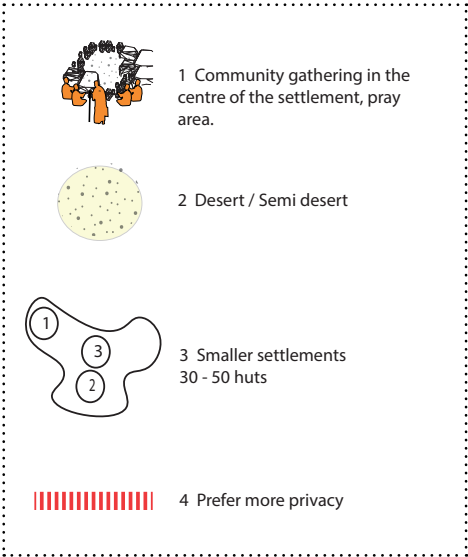
Every married woman or widow owns a house built for her on the day of her wedding. All houses are placed so that their doors face the west point outside the circular fence. The houses are placed clockwise in order of descent.

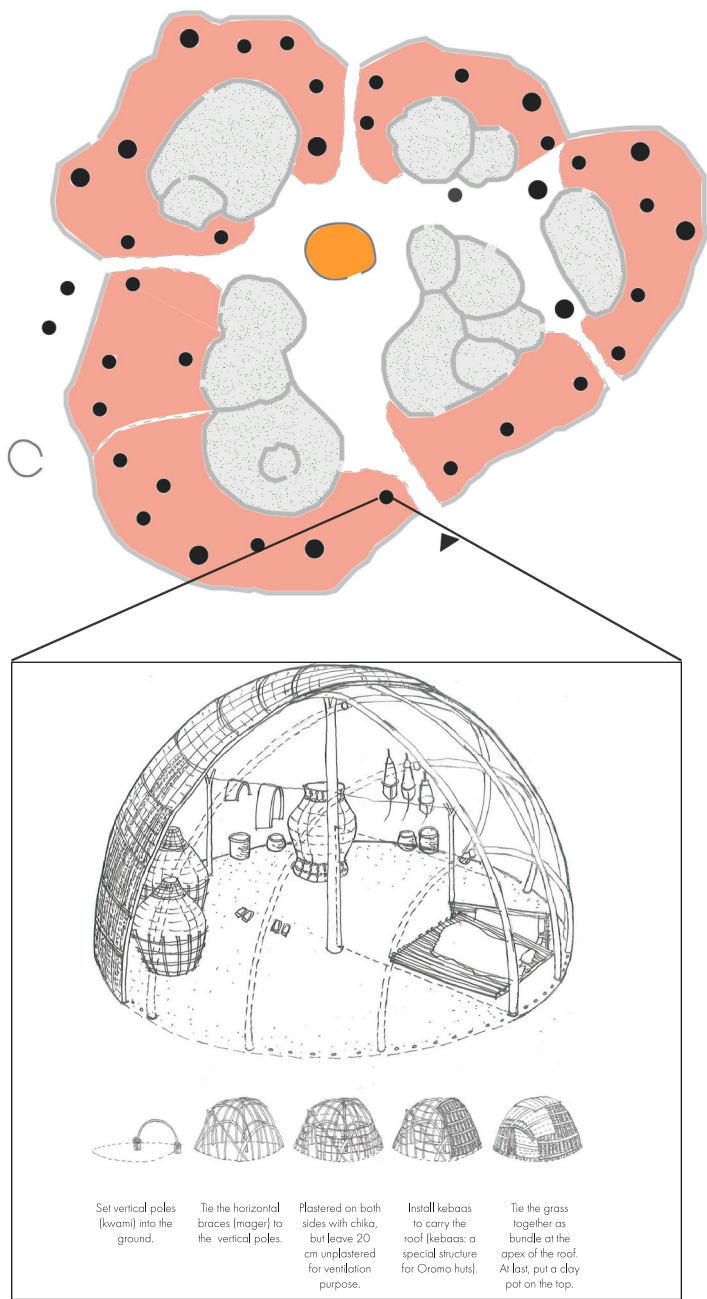
## BUILDING

The Aqal, a dome-shaped, foldable hut made of electric poles covered with leather, woven fiber mats or sometimes cloth or tin. The Aqal, which is easy to disassemble and reassemble, is carried on the back of a camel. Once a new camp is established, it is set up by the women in the family. Nomads have very little possessions, and every item has a particular purpose. Cooking utensils, storage boxes, stools, woven mats and water bags are the only household items in the family.

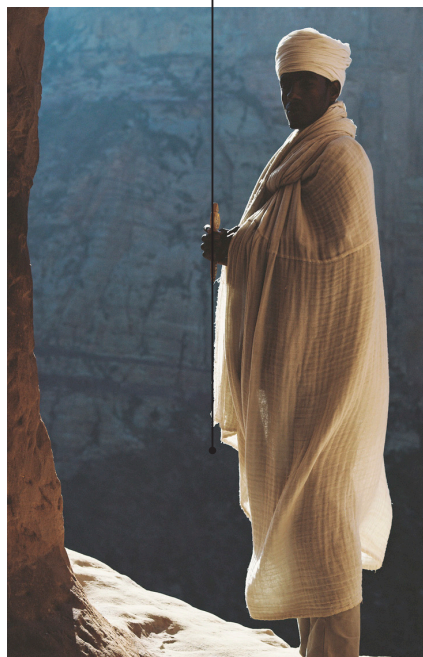
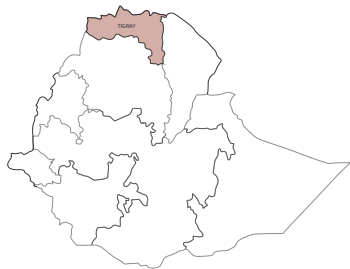
The Aqal house is built and executed by women. Every woman is responsible for moving and dismantling the house at every step, maintaining and repairing its components, and ultimately providing additional houses for their daughters or female residents.

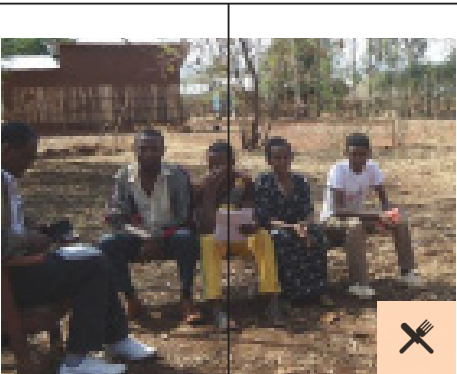
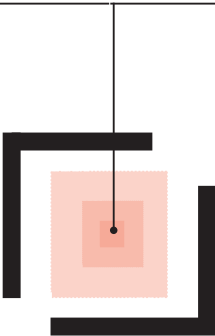
(Grenestedt, A., et al, 2021, p. 171)





# CONCLUSION





# SUMMARY OF OPPORTUNITIES

## TIGRAY

### VILLAGE

#### Amenities

- Orthodox Christian (Lalibela inspired) pray area
- Cattle lowing
- Communal activities

#### Safety

- Visible separation between introduced courtyard and public amenities for the community

### SPACE

#### Space

Inner Courtyard <150 m<sup>2</sup>

- Enclosed spot with the building and shading elements

#### In-between communal amenities

Primarily based on women presence

- Domestic activities
- Celebration and rituals
- Institutional space
- Small scale agricultural activities
- Football/ sports

#### Encounters between the residents:

- Taking care of eachothers children
- In-between safety

### BUILDING

#### Typologies

- Dwelling sizes suitable for families: 52 m<sup>2</sup> - 104 m<sup>2</sup>

#### Dwelling layout:

- Enclosed by other dwellings
- View access from the kitchen to the courtyard and communal gallery
- Flexible in layout, level heights

Private - collective space of 10 m<sup>2</sup> per household  
Entanglement work and living

## AMHARA

### VILLAGE

#### Amenities

- Orthodox Christian (Lalibela inspired) pray area
- Community center
- Agricultural activities

#### Safety

- Visible separation between public and more collective areas
- Permeable, pleasant borders, not closed off.

#### Mix of ethnicities

- Different types of social- ethnic groups grouped together

### SPACE

#### Space

Inner Courtyard <100 m<sup>2</sup>

- Safety
- Enclosed playground

#### In-between communal amenities

Primarily based on women presence

- Hair salon
- Convenient shop
- Coffee shop
- Institutional space
- Small scale agricultural activities
- Hobby/ workshop room

#### Encounters between the residents:

- Taking care of eachothers children
- Tresholds

Min 30 family units (overview through compound)

### BUILDING

#### Typologies

- Dwelling sizes suitable for families: 52 m<sup>2</sup> - 104 m<sup>2</sup>

#### Dwelling layout:

- Central, important space in the dwelling
- View access from the kitchen to the courtyard and communal gallery
- Flexible in layout, level heights

Private - collective space of 10 m<sup>2</sup> per household  
Entanglement work and living

# OROMO

## VILLAGE

### Amenities

- Education
- Community center
- Agricultural activities

### Safety

- Visible separation between public and more collective areas
- Permeable borders, not closed off.

### Mix of ethnicities

- Different types of social- ethnic groups grouped together

## SPACE

### Space

Inner Courtyard <100 m<sup>2</sup>

- Safety
- Enclosed playground
- Sun during the day in courtyard

### In-between communal amenities

- Dinner space
- Communal cooking area
- General assembly space around greenery
- Small scale agricultural activities

### Encounters between the residents:

- Taking care of eachothers children
- Tresholds

Min 30 family units (overview through compound)

## BUILDING

### Typologies

- Dwelling sizes suitable for families: 52 m<sup>2</sup> - 104 m<sup>2</sup>

### Dwelling layout:

- Central, important space in the dwelling
- Fast access to communal cooking
- Low partitions, temporary layout

Private - collective space of 10 m<sup>2</sup> per household  
Entanglement work and living

# SOMALI

## VILLAGE

### Amenities

- Community center
- Pray area (Islam)
- Agricultural activities

### Safety

- Clear separation between public and collective areas
- Visibly closed off.

## SPACE

### Space

Enclosed space for coming together

- 2- 3 volumes that has one anchor point
- Enclosed playground
- Preferred shadow in compound

### In-between communal amenities

- Pray area
- Women assembly and workshop furniture and maintainnce home
- Small scale agricultural activities

### Outer facade activities

- Tresholds to sell
- Hard appearance facade

### Encounters between the residents:

- In the anchor area
- Neighbors

## BUILDING

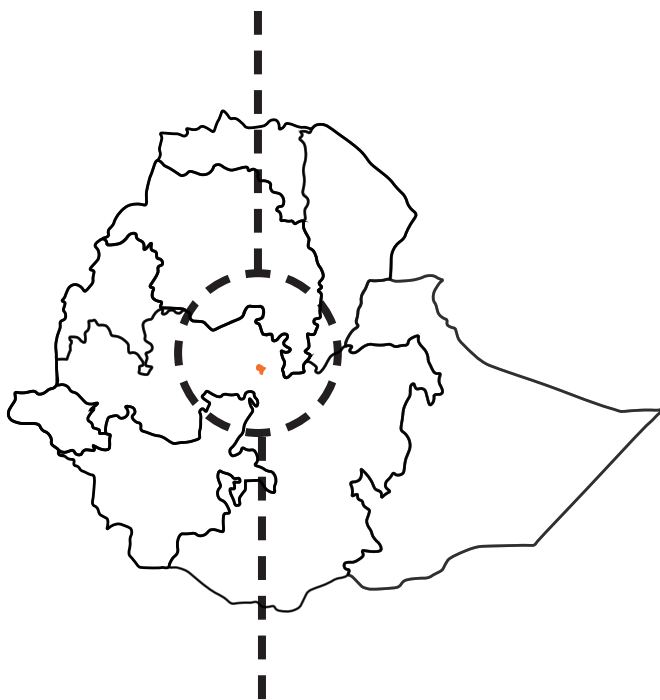
### Typologies

- Max 40 units (small assembles in the compound)
- Units 26m<sup>2</sup> - 102m<sup>2</sup>

### Dwelling layout:

- Internal living space,
- Sleeping on outer facade
- Low partitions, temporary layout

	COMMON GROUND
	FRICTION
	INSPIRING FOR BOTH



**SCALE 3:**  
CAPITAL CITY ADDIS ABABA



## THE BUSTLING ADDIS

*After every corner, a different  
experience*

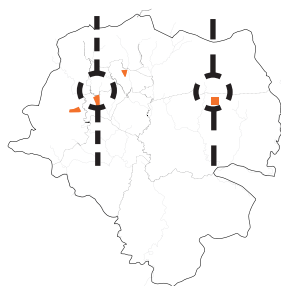
Today, Addis Ababa is characterized by a significant ethnic and socio-economic diversity among its inhabitants. Almost half of the population belongs to the Amhara group, while the remaining people belong to Oromo, Gurage, Tigrinya and others. While most of the population is Ethiopian Orthodox, other religions including Muslim, Protestant and Catholic are present as well.

In terms of socio-economic background and income, there is no strict division between people in the city. The rich and the poor live in a symbiosis in which the lower-income residents provide services and products to the wealthier neighbors. Although gated communities and inaccessible 'ghettos' are not yet very present in the city, the recent development strategies are starting to disrupt this integrity. Today, Addis Ababa is characterized by a significant ethnic and socio-economic diversity among its inhabitants. Almost half of the population belongs to the Amhara group, while the remaining people belong to Oromo, Gurage, Tigrinya and others. While most of the populations is Ethiopian Orthodox, other religion including Muslim, Protestant and Catholic are present as well.

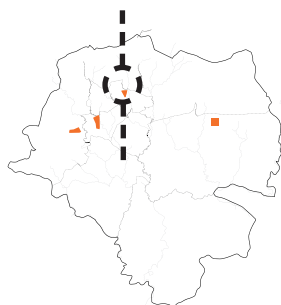
In terms of socio-economic background an income, there is no strict division between people in the city. The rich and the poor live

in a symbiosis in which the lower-income residents provide services and products to the wealthier neighbors. Although gated communities and inaccessible 'ghettos' are not yet very present in the city, the recent development strategies are starting to disrupt this integrity.

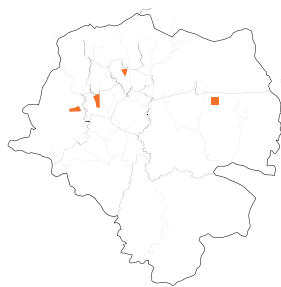
*(Grenestedt, A., et al, 2021, p. 171)*



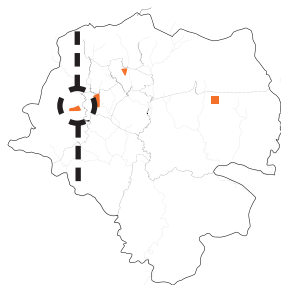
I. MASS-HOUSING SCHEME



II. INFORMAL SETTLEMENTS



III. THE FORMAL CITY

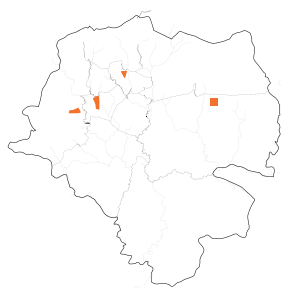


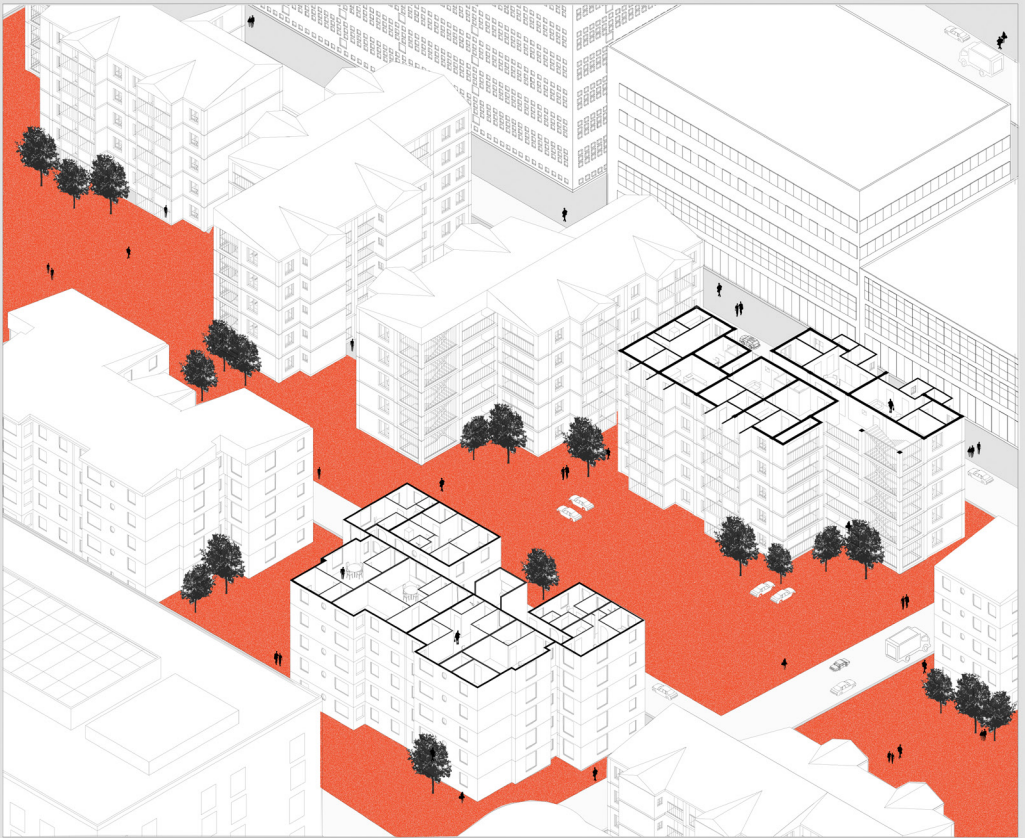
IV. SITE



# I. THE MASS-HOUSE SCHEME

---





## Lideta, Lideta

Addis Ababa  
Living Lab

**2ALL**

Graduation Studio  
Global Housing  
2020-21

### Typological Research

Addis Ababa Living Lab: Global Housing Graduation Studio  
Autumn Semester (AR3AD105)

#### Tutors:

Dr. Neilson Mota  
Ir. Harald Klooij  
Prof. ir. Dick van Garmeren

#### Student:

Maya de Bolder  
Bartosz

# I. THE MASS-HOUSE SCHEME

---

## ***Random relocation***

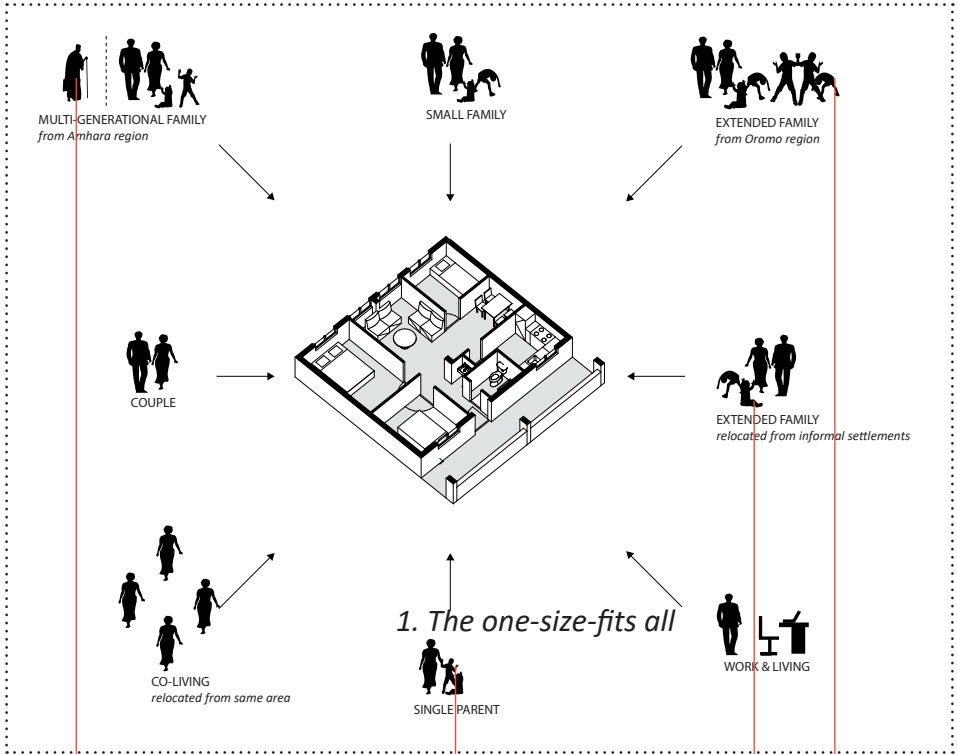
Although the plan was ambitious and in the long run managed to realize an impressive number of units, the housing demand has been so elevated that a computer-based lottery system was set to allocate the available apartments. When registering, applicants choose which condominium site, sub city and unit type they prefer. In case of relocation, though, people are not entering the lottery system and are supposed to be compensated or moved to another place in the inner city. Also, the first 30% of the vacant places are available only for women and their children. The planned policies were proved sometimes to be ineffective. First, the system forces people to become homeowners or leave the place where they were living. Indeed, in order to enter the condo and receive the loans from the bank, each dweller has to pay a down payment which is not affordable for all. Hence, the low-low income people are forced to move

directly or to rent the condo to wealthier groups. Also, many dwellers who agreed to move were given a 45-day time to leave their apartment while according to the law they should have 90 days.

Furthermore, Addis Ababa's residents have been complaining about the amount of the compensation since it only takes into account the cost of the house at the time of the construction, thus not considering further investments. Finally, regarding affordability, the fact that low-income families can be numerous was overseen by a policy that has been making more affordable smaller apartments.

*(Grenestedt, A., et al, 2021, p. 397-390)*



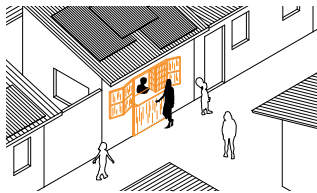


Locations of condominiums Addis Ababa





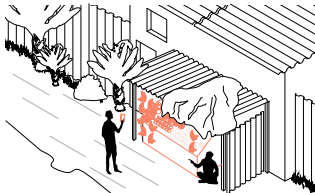
# OVERVIEW Income generation



Window Shop

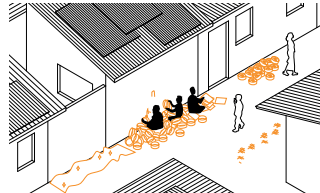
Manifestation of a private business into the public realm.

Food and beverage sale



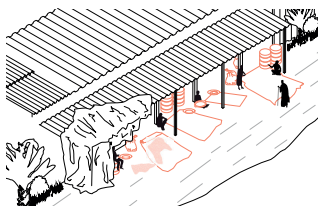
House extension (own built) Menen. p.146

Make an simple extension of your home.



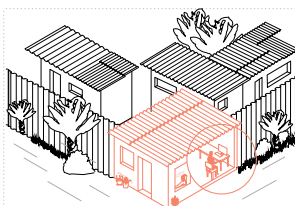
Recycling. Geja Sefer. p. 56

Recycling process on the inner street  
Oil containers into round sieves.



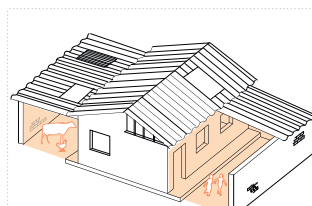
Drying Spices. Menen, p. 144

Women dry and refine the product  
A wide amount of spices, mainly to sell to restaurants



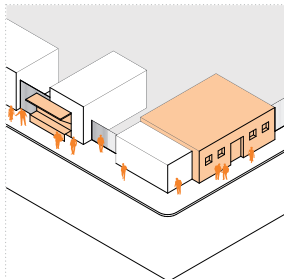
Rented Shop. Menen, p. 145

Renting a room  
1000 Birr per month



Convenient Shop. Basha Wolde. p. 79

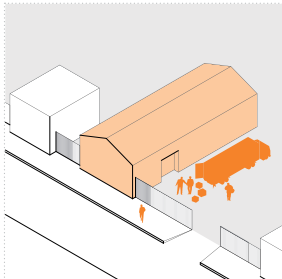
Next to their home. Informally  
Look after for childrens around  
Consumables that fits to the day



Fixed Retail, Dejach Wube, p. 82  
Own modification

Fixed Space

Combination of Dwelling and Shop in front

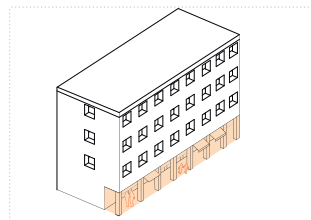


Factory, Dejach Wube, p. 85  
Workshops

Several types of factory

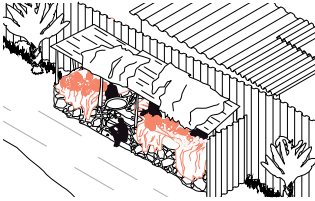
Interesting relation with the existing building stock

A demand for manpower, so an increasing number of work activities



Formal Shop. Basha Wolde. p. 78

Ground floor of apartment block  
Small shopping malls



Woman street market. Menen. p.147

Vegetable gardens

Keep part for the family and sell remaining pieces



Nomadic Vendor

Movable component of economy

Hotspot and easily disassembled at the end of the day

Movable wooden structures



Vegetable Garden. Basha Wolde. p. 79

Family or a few families

Generate extra income

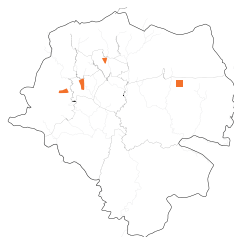
False banana plant

Local alcoholic beverage: make tej



# THE INFORMAL SETTLEMENTS

---



**“A social mix like no other.”**

Own configuration of the compound visible in informal settlements.

The informal settlements in Addis Ababa can be recognized as the ‘mixture’ of Ethiopia. Basically people of different socio-economic background are living side by side.

1



2



3



4







# THE IN-BETWEEN SPACE

---

## **The desired intimacy.**

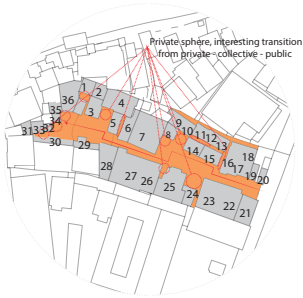
Own configuration of the compound visible in informal settlements.

---

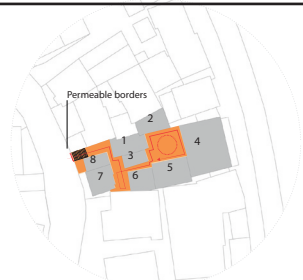
The informal settlements in Addis Ababa can be recognized as the 'mixity' of Ethiopia

The striking configurations of informal settlement show the preference with how many people want to live, how many neighbors are sharing one area, but as well as saying something about the preference for narrow spaces. Spaces that can be made as collective and/or private. Ethiopians prefer to have domestic activities that take place in these kind of areas. This is a fascinating way of living that should be considered by building for Ethiopians.

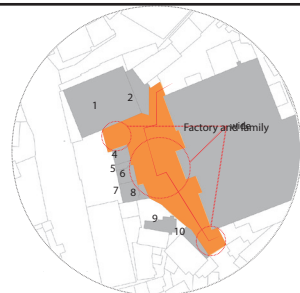
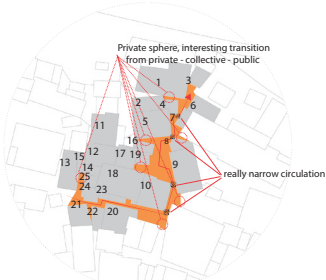




36 households  
Measurements public space: +/- 295 m<sup>2</sup>



8 households  
Measurements public space: +/- 60 m<sup>2</sup>



## SCALE.

### RESULTS

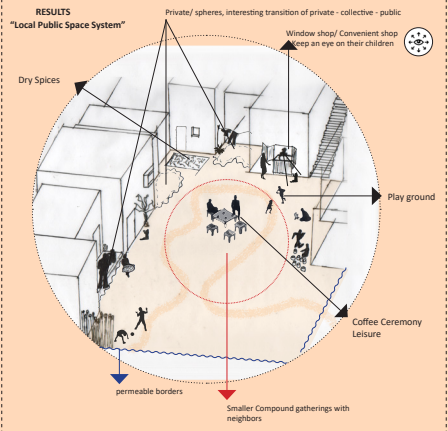
	Amount of households	Amount of m <sup>2</sup> of the public space of the compound	Amount of m <sup>2</sup> per household in the compound
1	36	295 m <sup>2</sup>	8,2 m <sup>2</sup>
2	8	60 m <sup>2</sup>	7,5 m <sup>2</sup>
3	32	200 m <sup>2</sup>	6,25 m <sup>2</sup>
4	25	200 m <sup>2</sup>	8 m <sup>2</sup>
5	10	190 m <sup>2</sup>	19 m <sup>2</sup>
<b>Result AVERAGE</b>			<b>9,8 m<sup>2</sup> per household</b>

9,8 m<sup>2</sup> of public space (/ threshold) in the small compound.

## ACTIVITIES.

### RESULTS

#### "Local Public Space System"



# THE INTERMEDIATE SPACE AND BORDERS

From intermediate to activation

We can recognize a lot of borders and non-active spaces in Addis Ababa. The essential part to make a safe and security valuable space, all matters whether there is happening something or not. However, in the images, we can perceive a lot of borders that may secure safety. On the other hand, the clear separations in-between spaces is striking. It may affect an overview of peoples activity. For instance, the images on the right page show a big separation between the spaces. This makes the streets empty and really activates a minimum amount of space. In order to attain an overview and the right level of activity in every space, this aspect needs to change.

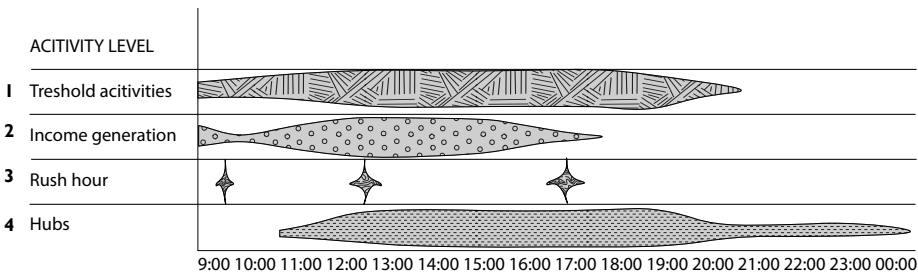
So why not using the ‘intermediate’ space and translate it into an active space with the right flow of people?

## 1. Activate the remaining space

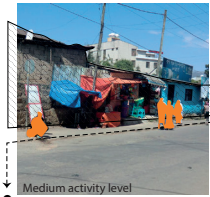
*To make the entire design safe, the level of activity needs to be as high as possible. A mix of activities will provide a continuous flow of people, which is helpful to achieve activity at every moment of the day. A configuration of this space can be for instance the combination of activities creates out of tresholds, schools, hubs, and commercial areas.*

## 2. Activate the remaining space in the streets

*We can recognize a lot of ‘dead’ street ends in Addis Ababa. This makes it interesting to emphasize the ability to as well activate these kind of spaces. An interesting pedestrian route through the cluster, combined with permeable entrances, collective spaces, and the beginning of another type of experience can be one of the solutions.*



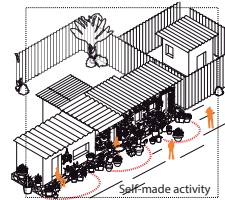




1 ? Ongoing space



2



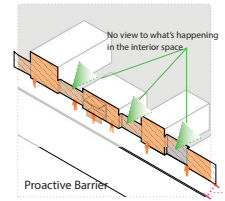
3



4 Street ends



5



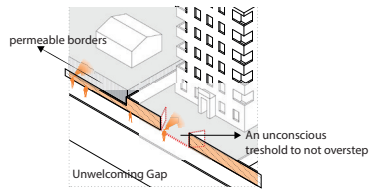
6



7



8



9

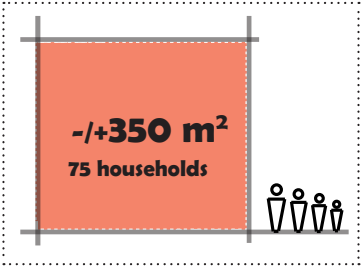
# THE 'EDER'

## THE 'EDER'

The smaller communities meet each other in the Eder, with approximately 200 people (on monthly basis).

[def]

A space that is quite common in Addis Ababa is the 'Eder'. The 'Eder' can be defined as a space where a neighborhood or cluster can come together for many different activities. Especially to strengthen the communal feeling. It is mainly based on approximately 200 people that meet each other in a semi collective area.



*The "Iddir" in Ethiopia: Historical Development, Social Function, and Potential Role in HIV/AIDS Prevention and Control on JSTOR. (2000). Jstor. <https://www.jstor.org/stable/41931342>*



Peak Hour



Space to introduce something



Daily assembles



Indoor configuration



Host ceremonies



A man preaches every morning around

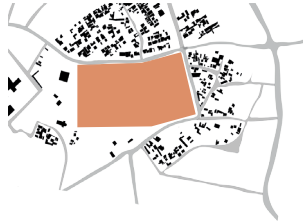


Daily social meetings



Peak Hour

ACTIVITIES IN EDER.

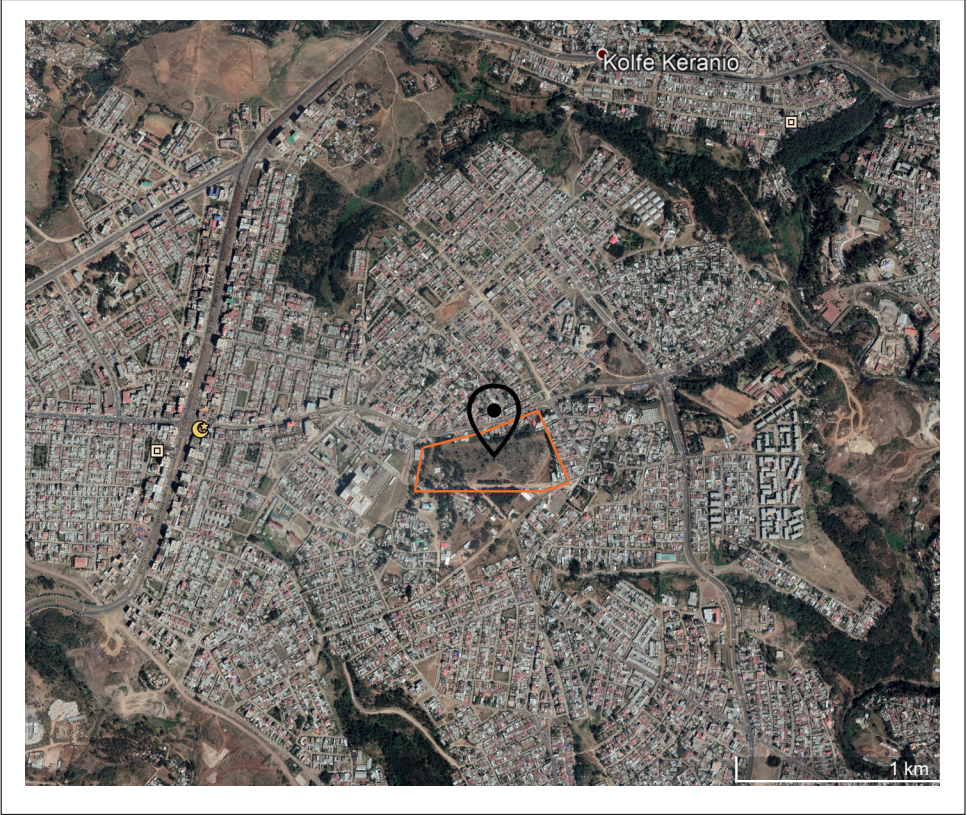


## 4. THE CHOSEN SITE

---

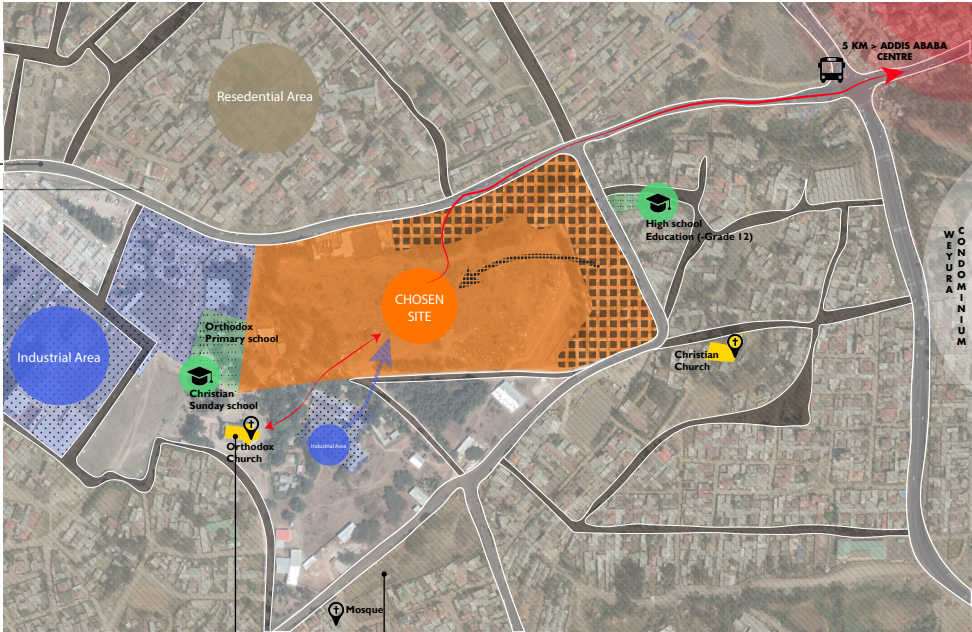
I chose this site because of the really central spot in Addis Ababa. The site has a special character because it is surrounded by everything. The centre, the condominium scheme and lots of informal settlements. This makes it an opportunity to propose a new scheme for this brown-field. Only a couple of informal settlements are situated over here. That makes it easy to relocate those people and attain a new proposed scheme.











# CONCLUSION

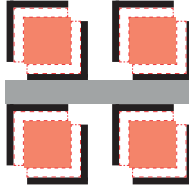
---



1. The 'bordered private outdoor space



2. Compound space



3. The intermediate space



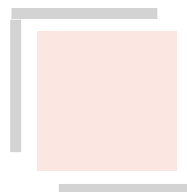
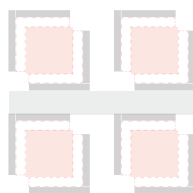
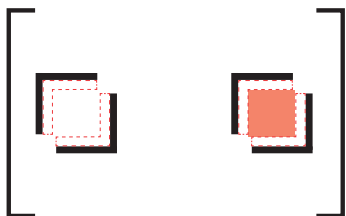
4. The 'Eder' gathering

## A PATTERN OF SPACES

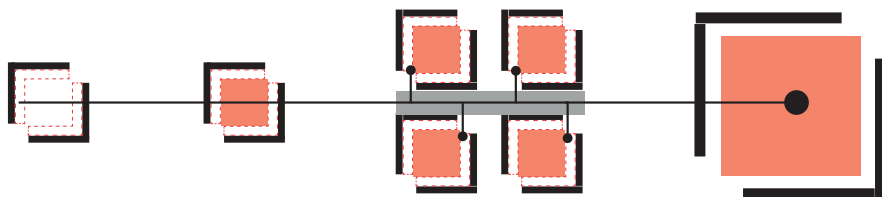
During the research about Urban living, we can define a striking pattern. A pattern of spaces. From the beginning on, the intimate space surrounded by people their dwellings, which they mostly share with a couple of households, all the way to the 'Eder', the space where they come together most of the time with the entire informal settlement. It is shaped in such a way that it is suitable for a group of approximately 200 people. But before the entire informal settlement arrives there, they have a pattern of leaving their own closed-off small compound, to the intermediate space. The space that results in a closed-off empty and bordered street. This may already be an opportunity to transform into an active space where the different compounds meet each other. Altogether, they will arrive at the Eder, the place where they can share, interact and have particular activities.

***... So as long as they have small-scale areas that can be shaped to their recognition...***

***They are willing to meet and share a bigger scale...***



*SO AS LONG AS THEY HAVE SMALL SCALE AREAS  
THAT CAN BE SHAPED TO THEIR RECOGNITION...*



*THEY ARE WILLING TO MEET AND SHARE  
A BIGGER SCALE.*



## SUMMARY & CONCLUSION

By combining the rural living and urban living, we have seen a couple of striking patterns. Patterns that we can tie to a couple of components that may solve the current housing crisis and problematic approach that we have experienced by the initiated condominiums.

***In my approach, it is all about trying to find a clear way of filling in the spaces more attentively to avoid dead ends and empty plots and to promote an active neighborhood which allow social differences.***

First of all, we have seen that there is an enormous variety of activities. Ethiopian people have different scales where those activities happen. For instance, the smaller compound always shares small scale activities that connect the people on the smallest scale with each other, the connection with the neighbors. Most of the time, every inhabitant of such a space is a member of an Iddir, a bigger scale community where people meet a couple of times a month, with a particular goal or theme where the Iddir is about.

This gave me the opportunity to see a particular way to attentively shape a

compound with a maximum size of 210 households. By scaling the city into such a scale, we have the opportunity to start an Iddir for each compound. The iddir will be shaped as a financial- and communal trust, in this design framed as the 'Leading Community of Trust System'. Moreover, In order to promote social mixing, the scale of the community is even reduced by creating building blocks that are designed in such a way that they have inner courtyard that can be shaped to a particular group of people. In this way, they are willing to share the bigger scale as an overall community, safety, and financial trust reasons.

# FINAL DESIGN



02



**I** **Urban strategy**  
Managerial strategy

**IV** **The infill**  
Urban village I  
Urban village II

**II** **The building system**  
Building components  
Space matrix

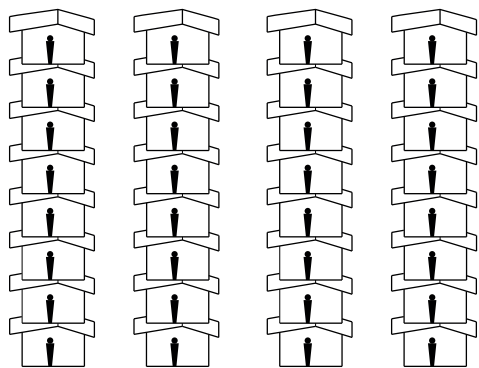
**V** **Masterplan**

**III** **Building technology**  
Construction  
Structure  
Climate design

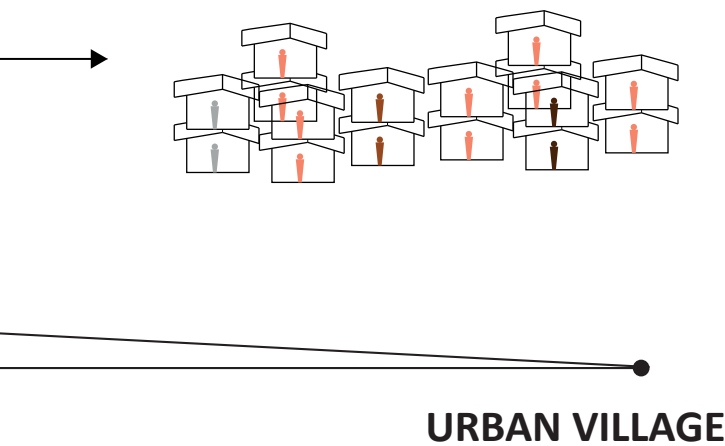
# I URBAN STRATEGY

**A SYSTEMATIC APPROACH  
THAT CAN ADAPT TO  
CULTURAL AND LIFESTYLE  
DIFFERENCES.**

---



CITY



# WHAT IS AN URBAN VILLAGE?

---

## Scientific definition

---

[def]

1. Urban villages are **walkable**, bicycle friendly, transit-oriented, **mixed-use neighborhoods** that can **provide both housing and jobs**, environmental benefits, and quality of life improvements. *(Beasley, M, 2016)*

2. An urban village is an urban development typically characterized by **medium-density housing**, mixed use zoning, good public transit and an **emphasis on pedestrianization and public space**. *(Wikipedia contributors, 2020)*

3. An urban village is an area occupied by the **urban community** that lives as resides in the urban environment **as a group** or in a certain groups which was formed naturally due to urbanization. *(Samsurijan, S. (2017)*



## My definition

---

***A vision for liveability, independency and spatial character.***

[def]

***A framework for liveability, independency and spatial identity.***

### **1. Liveability**

The urban village aims to reach a liveable, friendly and safe environment. Within the urban village, the village only includes pedestrian roads. Moreover, shared facilities and community spaces give access to the needs on a daily basis and will take care of a thriving community. In order to accomplish this, the scale and density should be defined beforehand to a maximum.

### **2. Independency**

The urban village has the intention to be self-reliant. Every village has a leading theme of trust, that will gather for the affordability and communal responsibility to run as a distinct village. It aims to provide both, housing and jobs.

### **3. Communal identity**

The urban village signifies the strong need of attaining people's identity and in particular, their activity. By including a participatory approach, a stronger sense of space and community will arise. In the urban village, the people are proactively engaged with shaping the spaces they inhabit, which allows a strong sense of expression in the village.

# THE DENSITY RULES

---

## DENSITY RULES

### 1. Size of the village

min 1,2 - max. 0,5 ha

### 2. Amount of households

min. 75 - max. 200 households

### 3. Ground Space Index (GSI)

*The total area of the building layers including structural elements, warehouses, service spaces, storages etc.*

-/+ 0,45

### 4. Floor Space Index (FSI)

*The ratio of total floor area of a building to the total plot area.*

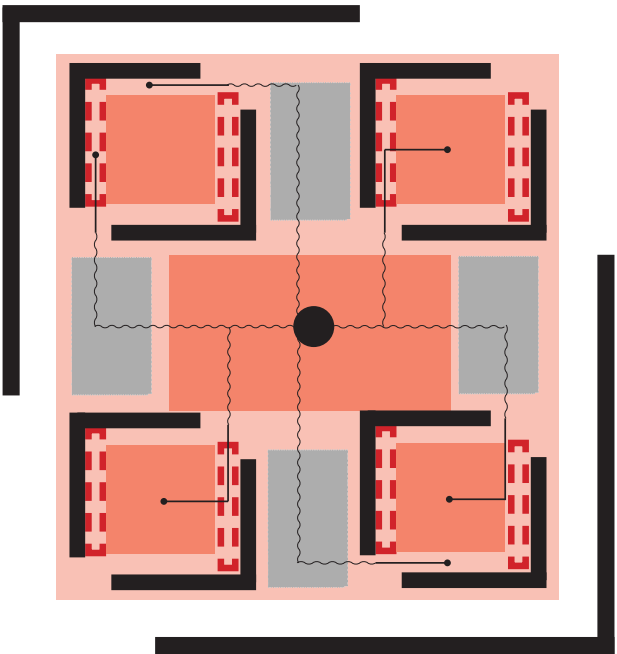
-/+ 1,35

### 5. Dwellings/ha

150 - max. 200 dw/ha

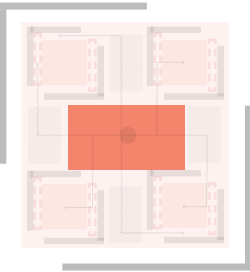
### 6. Population/ha

*Calculation average per household = 3*  
450 to max. 600



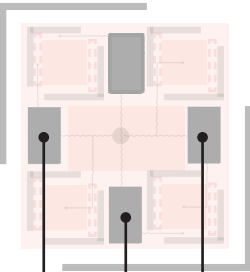
# MANDATORY INGREDIENTS PER VILLAGE

## 1.THE PUBLIC AMENITY and related lifestyle



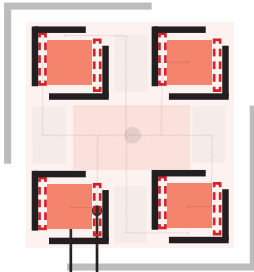
*The public amenity serves as the theme for the urban village. The leading trust that will bring all the people from the village together, where everyone plays a particular role in or where the entire village can share a similar interest. This amenity is chosen by the architect, based on preliminary research on the people.*

## 2. THE INTERMEDIATE ACTIVE SPACE



*As mentioned in the research (p. 82), the intermediate space nowadays in Ethiopia can be seen as a remaining empty space. So in stead of resisting this space, the chance to activate those intermediate spaces is valuable. These intermediate spaces between the different compounds in the urban village will now play a certain role with a particular infill. Mandatory elements for each village such parking, the pedestrian road, and greenery, can be placed in those intermediate spaces.*

## 2. BUILDING BLOCKS



***The in-between space infill***



***The intime and private spheres infill***

*The building block per village will be defined with the use of the toolbox shown in the Building Component chapter. The rule for the number of building blocks depends on the measurements of the village. For instance, a village configuration may have a combination of less dense buildings and more dense building blocks. The beauty of more compounds in each village made it possible to promote social mix.*

*The proposed in-between space from the supervisor team is based on preliminary research. This infill of the project will be carefully chosen in consultation with the residents, within the second phase of decision-making. Hereby the future inhabitants can participate while building up the infill. This will achieve a collective aspiration beforehand. It applies to the in-between space and the small scale collective to private infill.*

# Phasing the development of the urban scheme

*Who designs, who decides and who builds?*

The urban development of the design can be divided into three layers. The first layer is a team of supervisors that will design the urban scheme for the project. Secondly, their decisions will continue locally by introducing a local team per village. This local theme is set up to pick and specific elements from the toolbox that fits the best to the entering group. In participation with the inhabitants, urban and architectural differentiations can be proposed. After the agreement of the supervisors, this step can be completed. In addition, step 3 is based on possibly individual wishes which are not included in the given toolbox. If these choices are approved within your community, it can it be implemented by residents themselves.

*In the upcoming pages, a detailed version of these phases is written down*

**PHASE 1.**  
FIRST LEVEL OF DECISION-MAKING

**TEAM OF SUPERVISORS**

- **STEP I.** Subdivide the site into 10 urban villages.
- **STEP II.** Introducing the public amenities
- **STEP III** Set up the urban rules
- **STEP IV.** Developing the toolbox

From generic urban design - to local a



## PHASE 2.

### SECOND LEVEL OF DECISION-MAKING

#### LOCAL TEAM VILLAGE

- **STEP I.** Organising events with groups of people
- **STEP II.** Define the community of trust for the village
- **STEP III.** Appointing a local team per village
- **STEP IV.** Define the urban configuration
- **STEP V.** Pick the matching components from the toolbox

## PHASE 3.

### THIRD LEVEL OF CONSTUMIZING

#### INHABITANTS ADDITIONS

- **STEP I.** The possibly individual additions

## PHASE 4.

### READY TO BUILD UP THE VILLAGE

#### TEAM DEVELOPER

- **STEP I.** The permanent part of the building
- **STEP I.** The convertible choices partly in participations with the inhabitants.

announcement - to a well-defined, participatory adapted urban village

# Design team

## PHASE 1.

### FIRST LEVEL OF DECISION-MAKING

#### TEAM OF SUPERVISORS

- **STEP I.** Subdivide the site into 10 urban villages.
- **STEP II.** Introducing the public amenities
- **STEP III** Set up the urban rules
- **STEP IV.** Developing the toolbox

A team of supervisors is set up: the architect in the centre of the project, with the support of the project manager and the city's planning department. The first level of decision-making consists of four phases:

- I. Subdividing the site into the size of 10 urban villages
- II. Introducing the public amenities
- III. Set up the urban rules
- IV. Developing the toolbox the building components

In all these steps the main value of the urban scheme is kept in mind, to create variety, but at the same time a leading, and before-hand decided unity. So by introducing a toolbox, the ability to vary in heights, volumes and skin makes it possible to allow differentiation.

## DESIGN TEAM THE SUPERVISORS



ARCHITECT



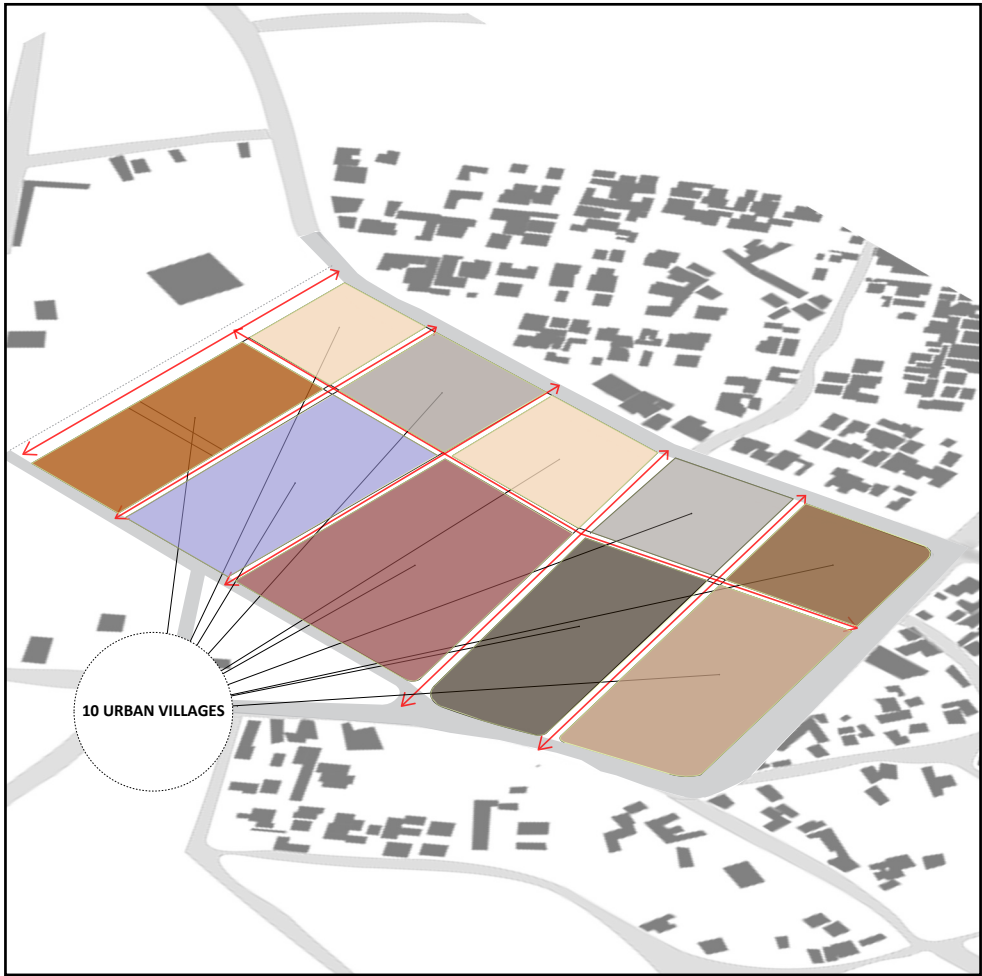
PROJECT MANAGER



CITY'S PLANNER DEVELOPMENT -  
ENGINEER OF THE MUNICIPALITY

# STEP I. Subdivide the site into 10 urban villages

*According to the generic concept of the design, the first step is about breaking down the site into 10 smaller urban villages. Depending on the particular site, this phase will be developed in collaboration with the engineer of the municipality in order to respond correctly to site-specific needs and the existing network of roads.*

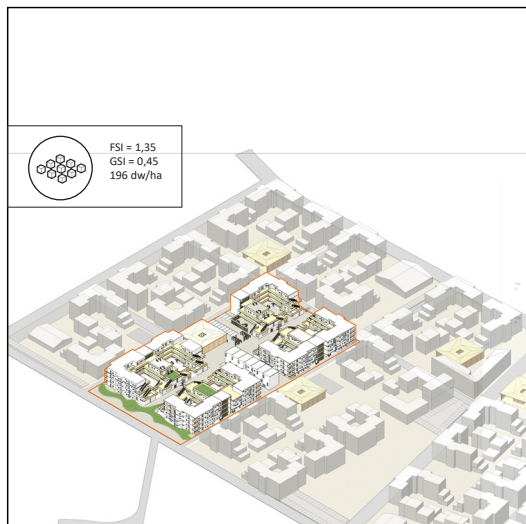


## STEP II. Introducing the public amenities

*To make the urban scheme liveable from the start of the design, the public amenities will be placed in the first phase of the design. Even though the villages are not entirely done at that time, the villages that are already built have the opportunity and liveability that the urban scheme aims to give the people from the beginning.*

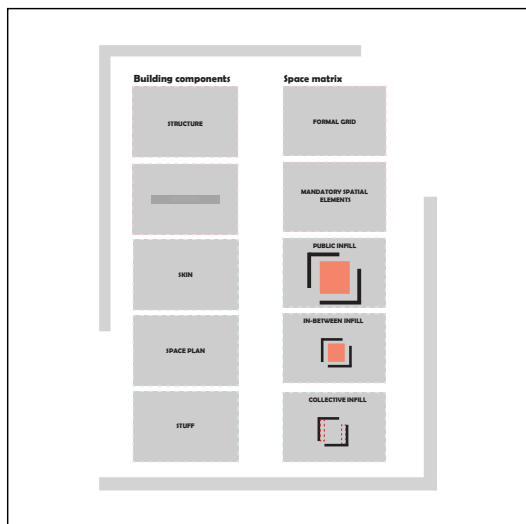


### STEP III. The catalog of urban rules



*A catalog of urban rules will be made. These rules will have to comply in every village. The guidelines establish particular conditions that improve the overall quality of the urban plan, mostly in terms of topography, diversity and availability of public spaces.*

### STEP IV. Developing the toolbox for the urban village



*To meet and answer the different needs and social groups that may enter the urban scheme, the architect has decided to introduce a toolbox, a toolbox that has the potential to adapt to cultural and lifestyle differences.*

# PHASE 2

---

**PHASE 2.**  
SECOND LEVEL OF DECISION-MAKING

**LOCAL TEAM VILLAGE**

- **STEP I.** Organising events with groups of people
- **STEP II.** Define the community of trust for the village
- **STEP III.** Appointing a local team per village
- **STEP IV.** Define the urban configuration
- **STEP V.** Pick the matching components from the toolbox

In dialogue with 10 different clients that were to build the +/- 1200 apartments and houses, a selection of ten architectural companies for the apartment buildings was made. Ten fresh and young architects are invited to design the ten different villages. The supervising team follows the developments of the individual choices very closely. Just like the involvement of the inhabitants. In each step of design in decision-making phase 2, the aim to have several moments to meet up and reflect gives the possibility to interact and steer.

***The supervisors***

For quality assurance, the proposed plans of the local team must be tested by the supervisor at the urban planning plan.

The supervisor is responsible for the task of achieving high quality and consistent design quality. The following aspects are discussed: the design quality of the publicly accessible space between the building blocks, the design quality of the building blocks and a good alignment between the building blocks, the publicly accessible space between the blocks and the public space directly around the plan area. The supervisor rates the architects’ designs with keeping the urban rules in mind. During the design process there will be two key moments of supervision: namely the preliminary draft building plan and the final design plan.

**The local team**

The local team is responsible for the particular village. This team exists of a local architect, local experts, an possibly additional investor and future inhabitants. In this phase, this team will finalize the choices, depending on the entering group.

**LOCAL TEAM**  
**DEFINED PER VILLAGE**



LOCAL ARCHITECT



LOCAL EXPERTS



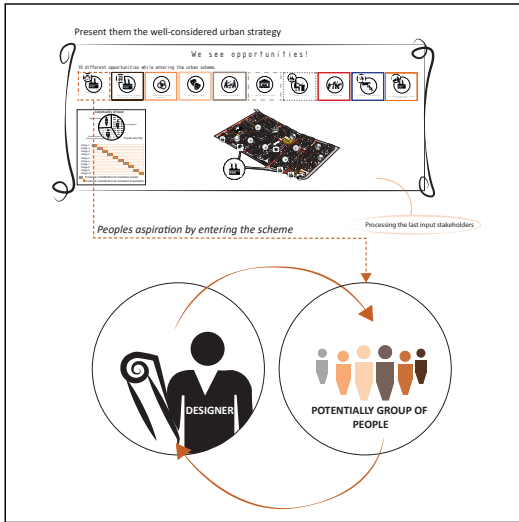
INVESTOR



LOCAL EMPLOYEES / FUTURE INHABITANTS

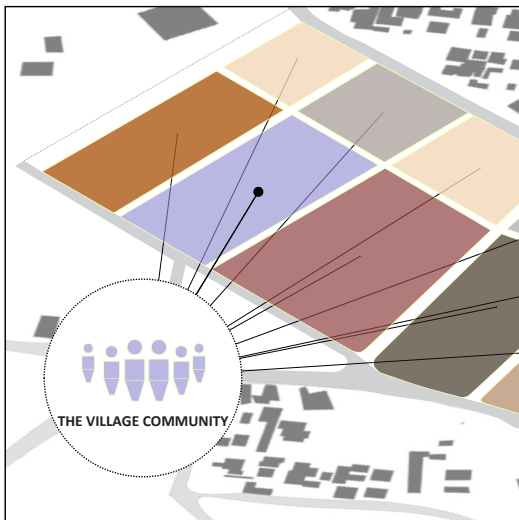


## STEP I. Organising events with groups of people



*This phase is about investigating groups of people that are interested in the urban scheme. By organizing this event, we can start to define the communities. A community that will enter one of the villages plot.*

## STEP II. Defining the community of trust of the village



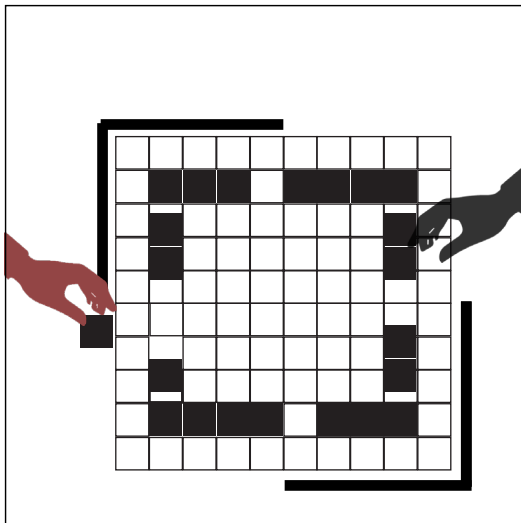
*By organising this event, we can start to define the communities per village. Each community that will enter one of the villages plot. The community has a maximum size of 190 households.*

### STEP III. Appointing the local team per village



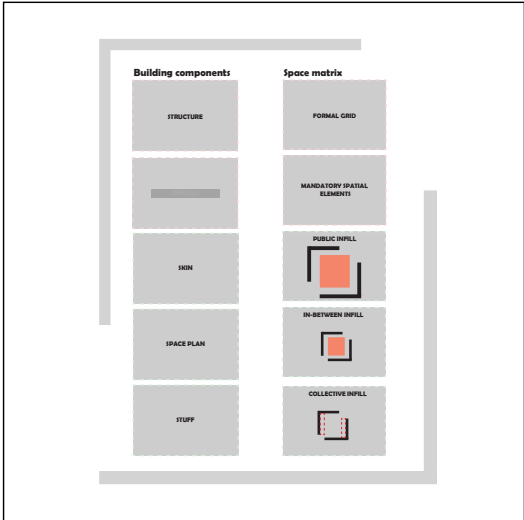
*Related to the resulted communities of phase II and their aspirations, needs and lifestyle, the supervisor team will choose a matching local architect, local expert and investor. This team will decide the particular outcome by following the steps related to the designed toolbox of the architect. The supervising team will always stay involved and informed about the possibly outcome. Hereby, they have the ability to reflect on the decisions that are picked from the toolbox to give their final consent. The supervisors will always keep the role of being the mediator.*

### STEP IV. Define the urban configuration



*Depending on the wishes and site-specific characteristics where we need to respond at, the urban configuration can be set up. This a participatory process in order to find the right scale in the entire compound. Hereby, the local architect will make a proposal beforehand. By having a peer teaching moment, the inhabitants are involved during this process.*

## STEP IV. Picking the elements from the toolbox



*This team will decide the particular outcome by following the steps related to the designed toolbox of the architect. The supervising team will always stay involved and informed about the possible outcome. Hereby, they can reflect on the decisions that are picked from the toolbox to give their final consent. The supervisors will always keep the role of being the mediator.*

**PHASE 3.**  
THIRD LEVEL OF CONSTUMIZING

**INHABITANTS ADDITIONS**

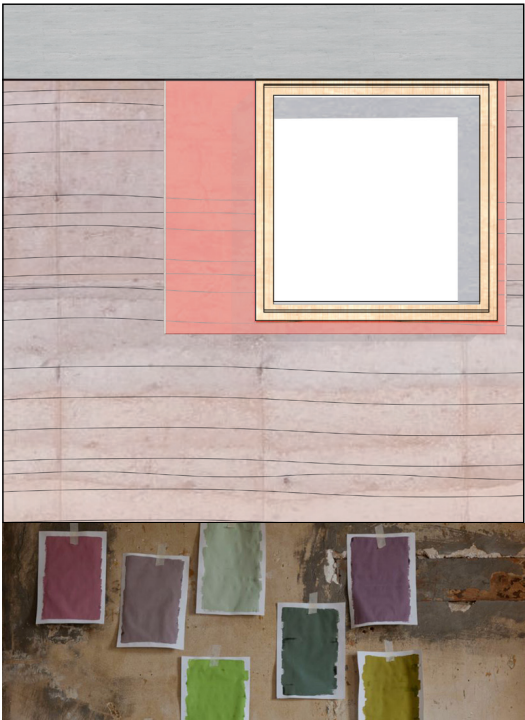
- **PHASE I.** The possibly individual additions

**INDIVIDUALS**  
**DEFINED INDIVIDUALLY**



THE INHABITANTS

• **STEP I. Building up the permanent**



*This phase is set up to allow individual chances and the possible transformation to personal preferences, next to the supervisors and collective choices in Phase 1 and Phase 2 that are made. This phase is mainly based on the choice of colors, painting, furniture and thresholds transformations. The small differences that will make it their way of living and their type of recognition. In addition to this, it will give the skin of the building the expression of the inhabitants, exactly what we would like to achieve in this design project called 'The expositions of aspirations'. However, because of the size of these individual interventions, the skin will always keep the overall hierarchy.*

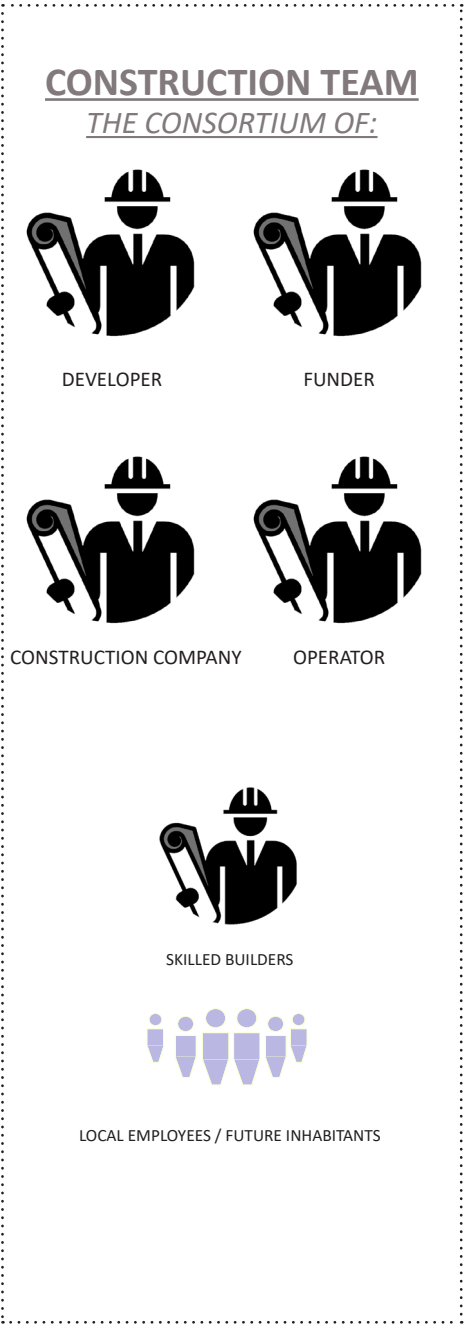
# PHASE 4

## PHASE 4.

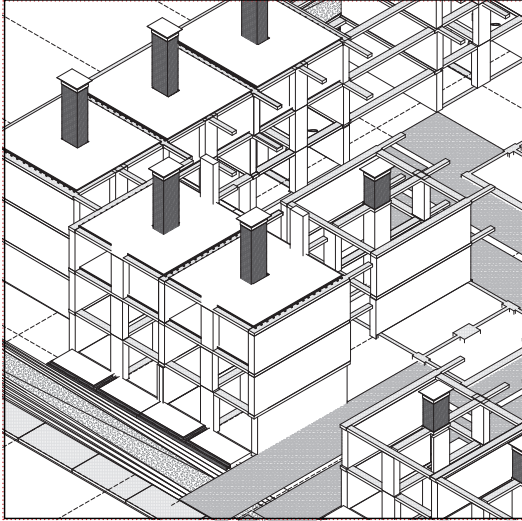
### READY TO BUILD UP THE VILLAGE

- **STEP I.** Building up the permanent
- **STEP II.** Building up the convertible choices

After supervisors approval, the village can be built. Therefore, the permanent part of the toolbox will be developed by skilled builders and their local employees. This part of the building process will be developed with the same guidelines for each village. In addition to this permanent strategy, the convertible infill and choices made by the local team can be implied differently. In most cases, this is the step where future inhabitants may get the chance to participate and labor from the beginning.

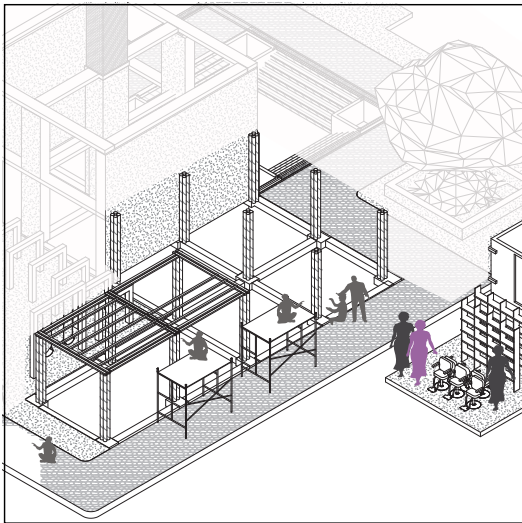


## STEP I. Building up the permanent



*This step will be implemented in the same way in each of the villages. With the already known type of materials and building process before-hand, this step will be build up with a group of skilled builders, and their local employees. The step is mostly based on the structure and services.*

## STEP II. Building up the covertible choices



*As explained in Phase 2 and 3, the specific choices per village is fundamental in order to respond on specific needs and lifestyles. Since these choices are made in collaboration with a local architect, and the future inhabitants, this phase will be implemented in participation with the inhabitants. Firstly, to obtain the right level of work from the beginning. Secondly, too promote their type of choices and reach the right well-being.*

# THE FUNDERS

---

## INTERNAL INPUT

### **Community Managed Fund**

*Inspired by the Iddir*

[def] Association made up by a group of persons united by ties of family and friendship, by living in the same district, by jobs, or by belonging of the same ethnic group, and has an object

## EXTERNAL INPUT

### **INTERNATIONAL SUPPORT**

1. IMF; International Monetary Fund
2. United Nations
3. World Bank
4. International donors development aid

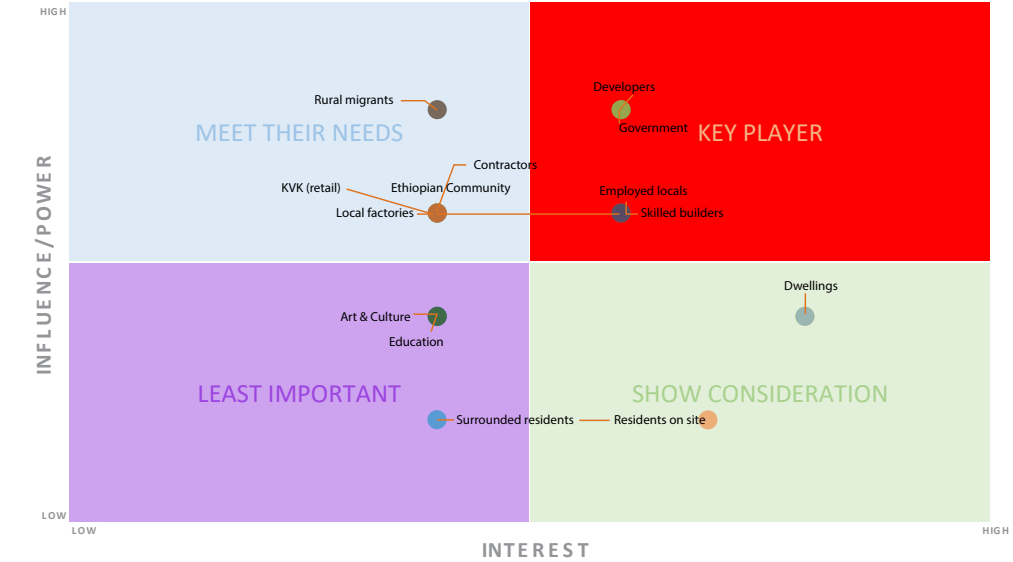
### **FHC Financial Holding Company** (*Hargrave, M., 2019*)

[def] Financial holding company (FHC) is a bank holding company that can offer non-banking financial services, such as insurance underwriting and investment advisory services. The Federal Reserve oversees all FHCs. Bank holding companies can become an FHC by meeting capital and management standards.

*You can find the managerial scheme on page 122*



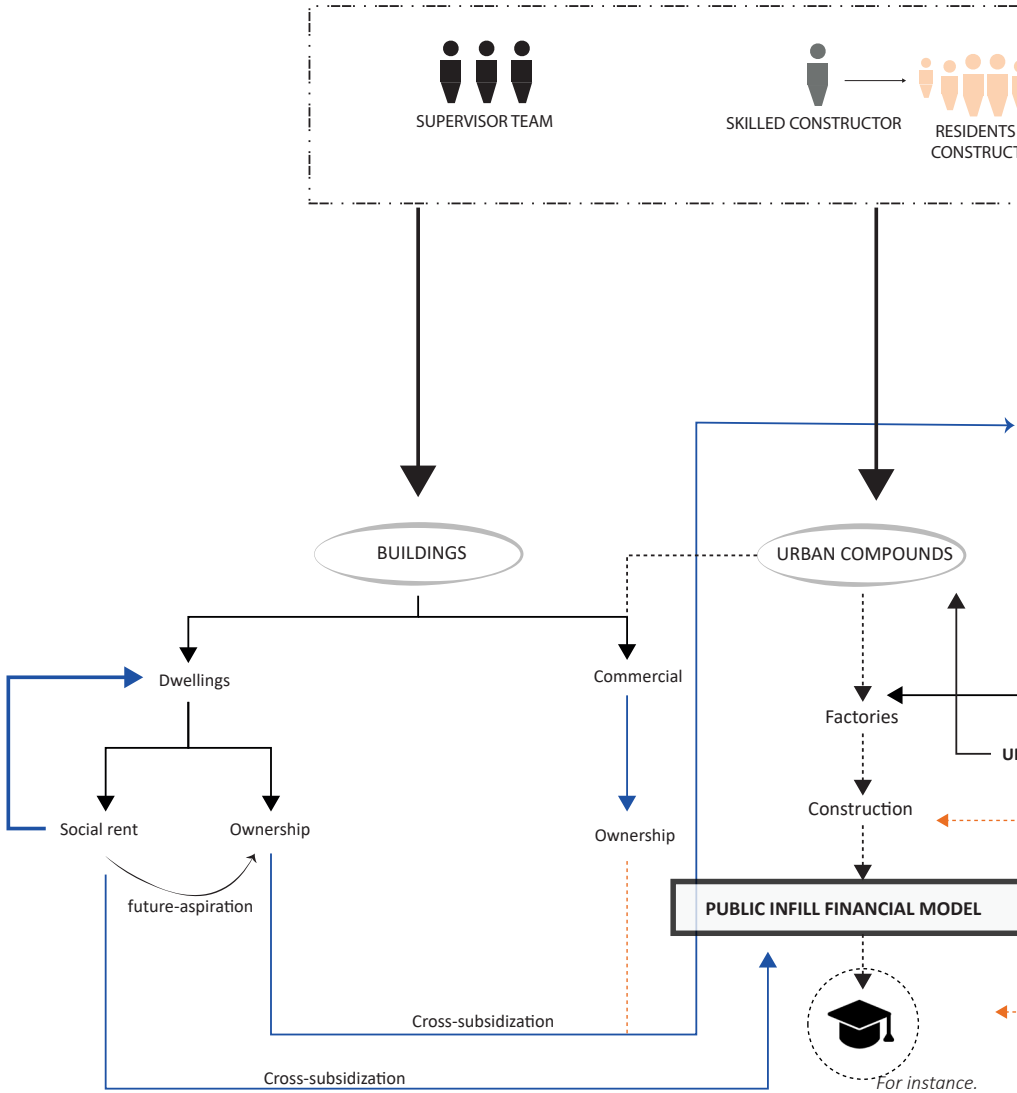
# STAKEHOLDERS ANALYSIS - POWER X INTEREST MATRIX

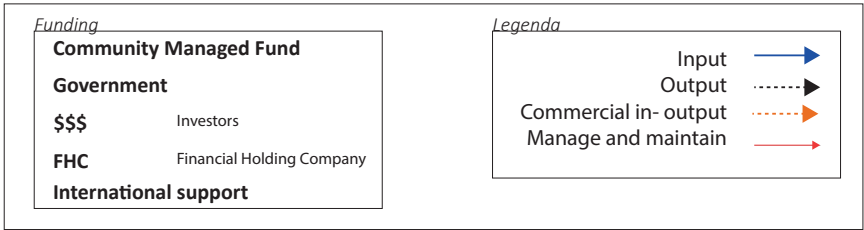
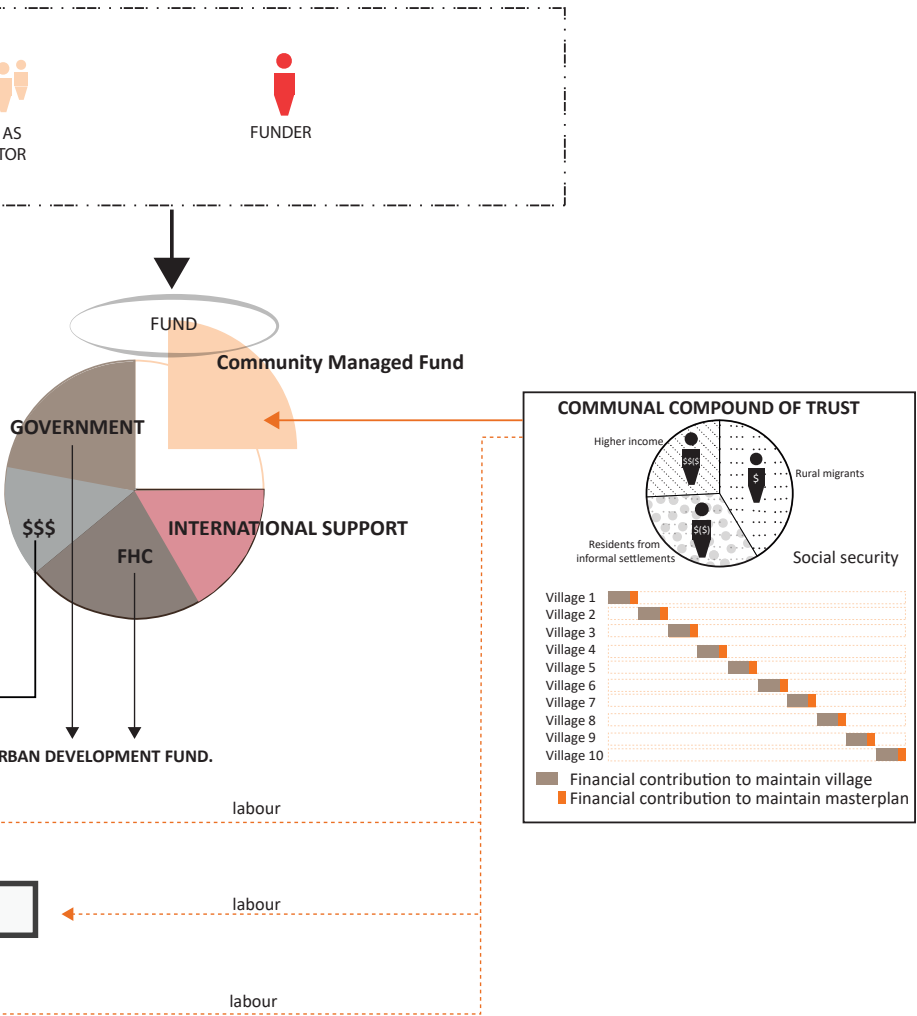


TOTAL STAKEHOLDERS:

Stakeholder	Engagement	↑	→	Expectation
		Power	Interest	
Government	Supportive	6.0	6.0	
Contractors	Supportive	6.0	4.0	
Developers	Leading-aware	8.0	8.0	
Art and culture	Supportive	4.0	4.0	
Local factories	Supportive	6.0	4.0	
KVK (retail)	Neutral	6.0	4.0	
Rural migrants	Supportive	8.0	4.0	
Skilled builders	Leading-aware	6.0	6.0	
Resident on site	Neutral	6.0	4.0	
Ethiopians community	Leading-aware	4.0	4.0	
Surrounded residents	Neutral	6.0	6.0	
Employed locals	Leading-aware	4.0	4.0	
Education	Neutral	4.0	4.0	

## MANAGERIAL STRATEGY





## **II THE BUILDING SYSTEM**

# A SYSTEMATIC APPROACH THAT CAN ADAPT TO CULTURAL AND LIFESTYLE DIFFERENCES.

---

*In this chapter, I will explain the design of the building system. It consists of a permanent system that has the potential to be applied in different ways by adding the convertible layer.*

In order to allow different outcomes for the urban villages, the building system is build up as a systematic approach that can adapt to the cultural and lifestyle differences. The toolbox is build up to achieve urban- and architectural differentiation.

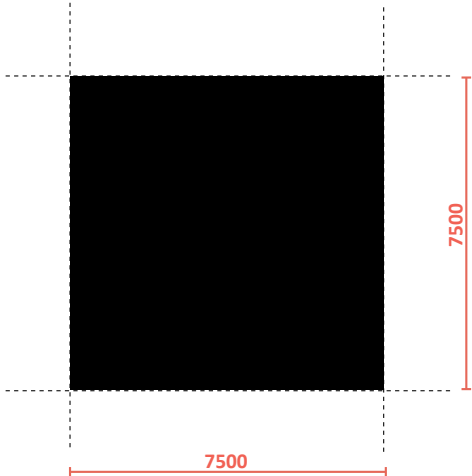
First of all, the building system is designed in such a way that it can be repeated in different types of building volumes. This makes it possible to respond to peoples needs and to the specific urban condition where we are dealing with. All in all, in order to attain the replicability of the design. Secondly, in these different urban

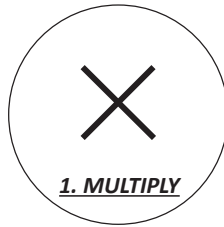
typologies, the resulted in-between spaces will complete the toolbox with a 'space matrix'. This matrix is designed in order to include peoples social - and work activities.

In final, the toolbox consisting of the building components and space matrix will build up the village. With the use of this building system, the entanglement of living, work and social life is taking into consideration attentively.

# FORMAL GRID

---





**A**

$$6x \begin{array}{|c|} \hline \blacksquare \\ \hline 7,5 \end{array}$$



**B**

$$14x \begin{array}{|c|} \hline \blacksquare \\ \hline 7,5 \end{array}$$

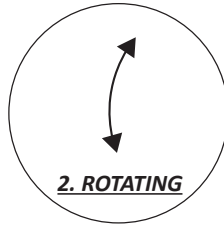


**C**

$$12x \begin{array}{|c|} \hline \blacksquare \\ \hline 7,5 \end{array}$$








**A**

6x  7.5




**B**

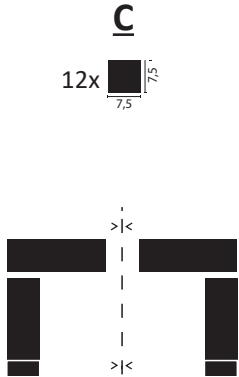
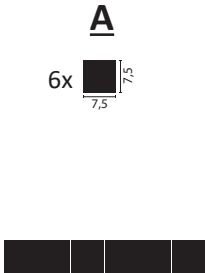
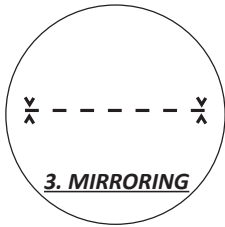
14x  7.5

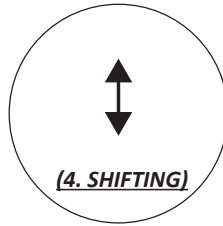



**C**

12x  7.5




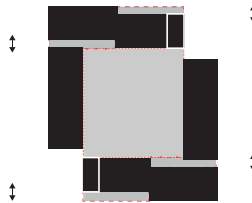





**A**  
6x 

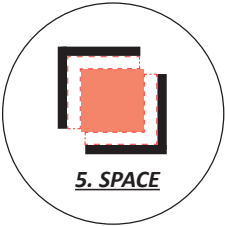


**B**  
14x 



**C**  
12x 





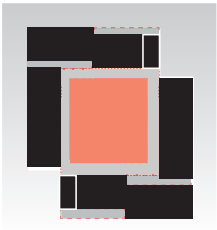
**A**

6x  7.5




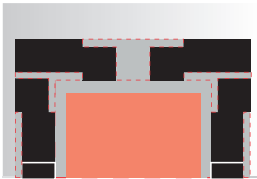
**B**

14x  7.5



**C**

12x  7.5

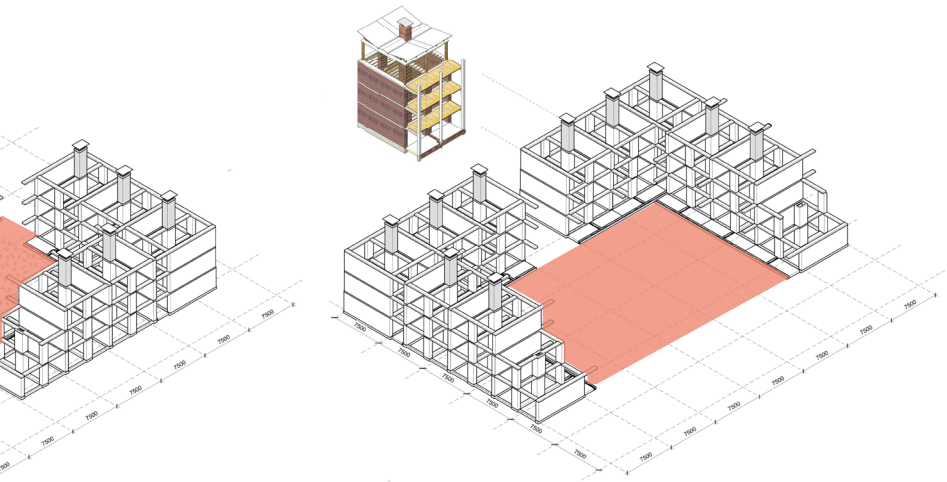
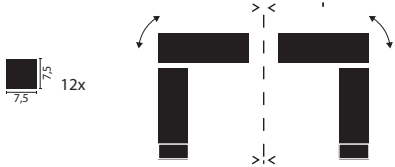




OUND typology

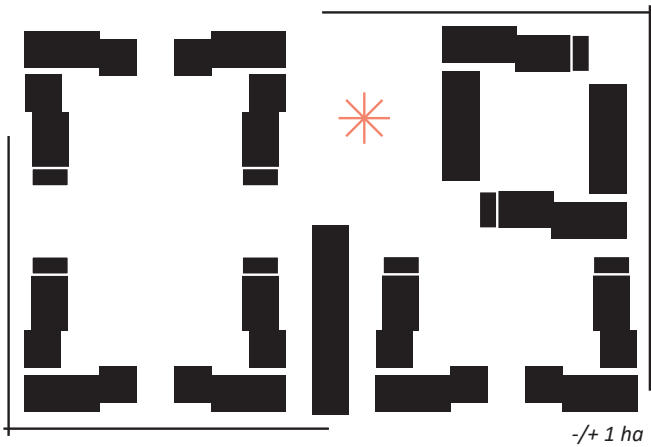
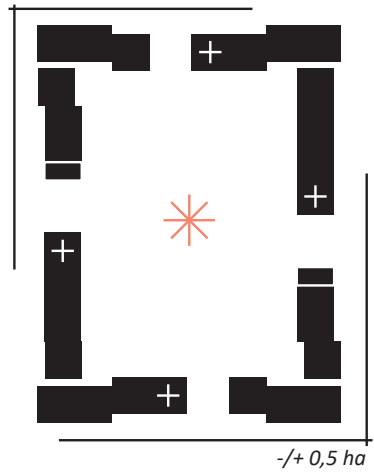
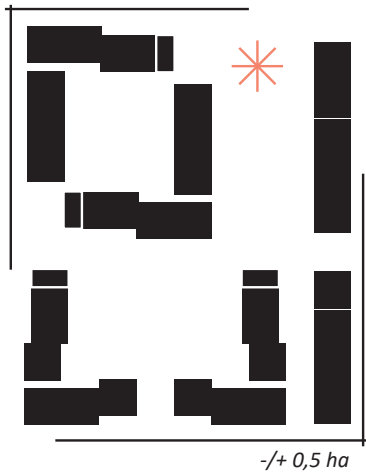







C. SMALLER COMPOUND typology

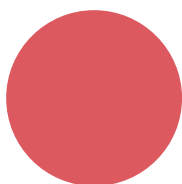








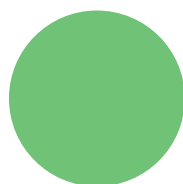
-  Public space + infill
-  Additions to fit in the urban conditions
-  Rotating
-  Shifting
-  Mirroring



### *1. PERMANENT*

#### The replicability of the design

- The load bearing structure
- The necessary climate



### *2. CONVERTIBLE*

#### Enabling flexibility

- The particular lifestyle and leading theme
  - The in-between infill
- The collective to private infill

**BUILDING COMPONENTS**



**STRUCTURE**

**SERVICES**

**SPACE PLAN**

**SKIN**

**STUFF**

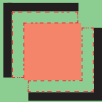
**SPACE MATRIX**



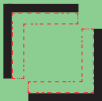
**FORMAL GRID**

**MANDATORY SPATIAL  
ELEMENTS**

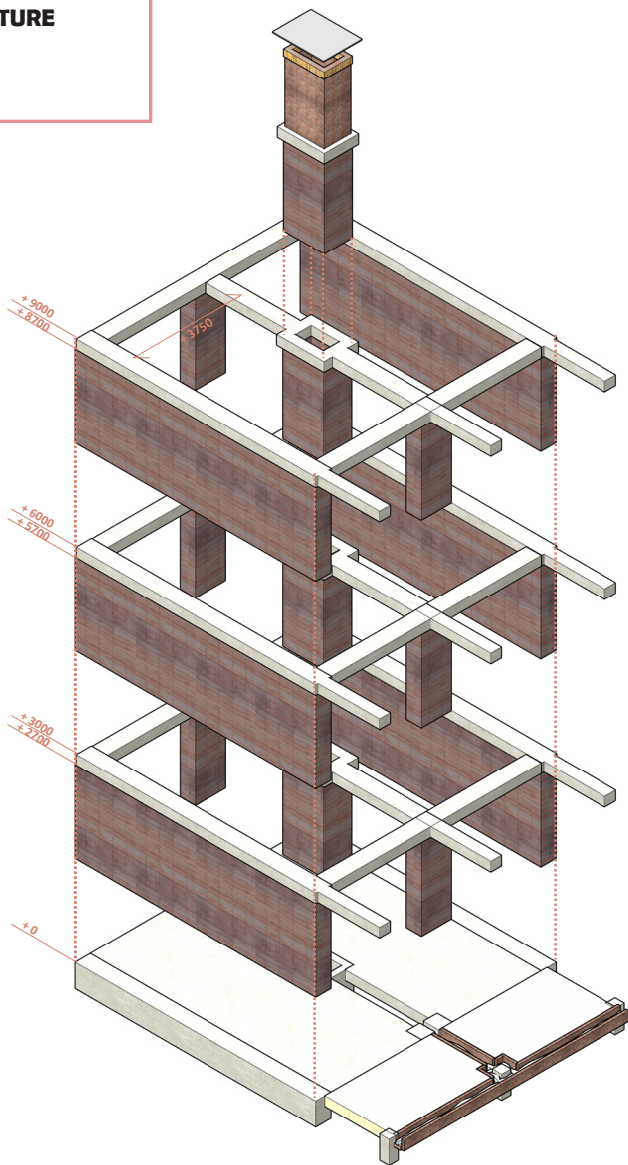
**IN-BETWEEN INFILL**

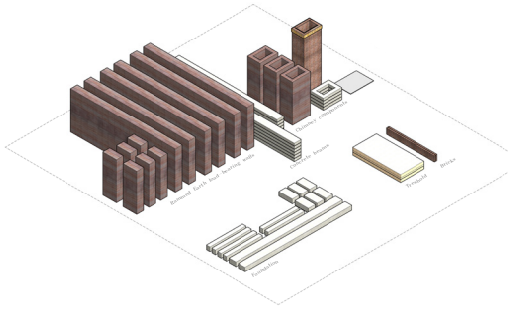


**COLLECTIVE INFILL**



STRUCTURE



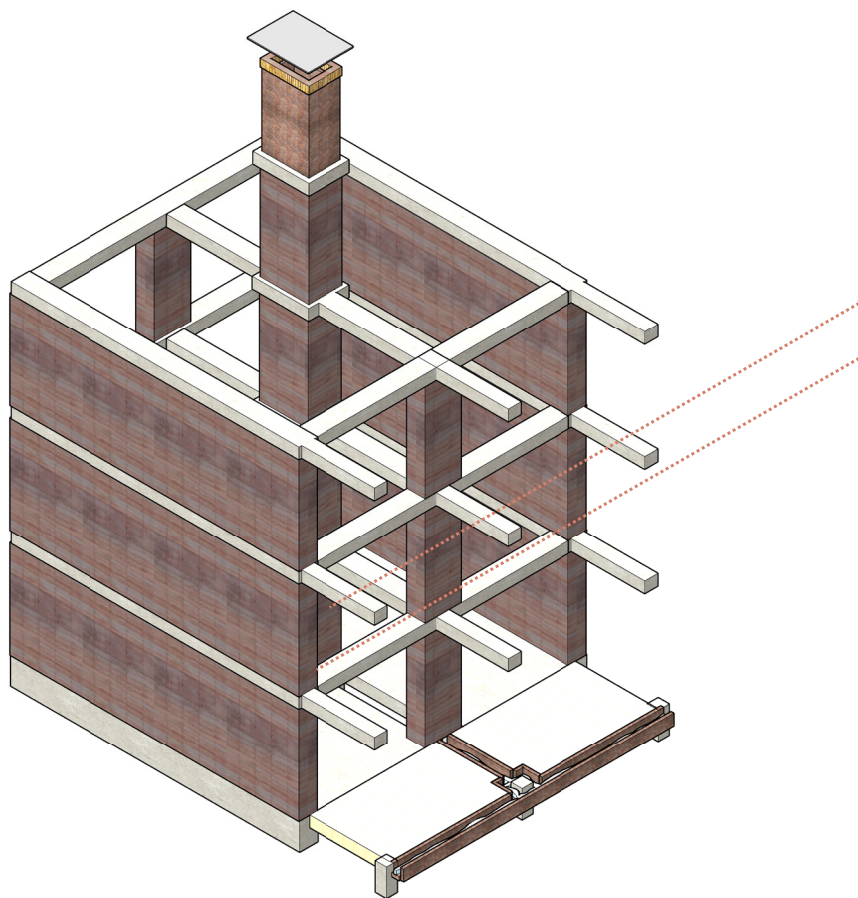


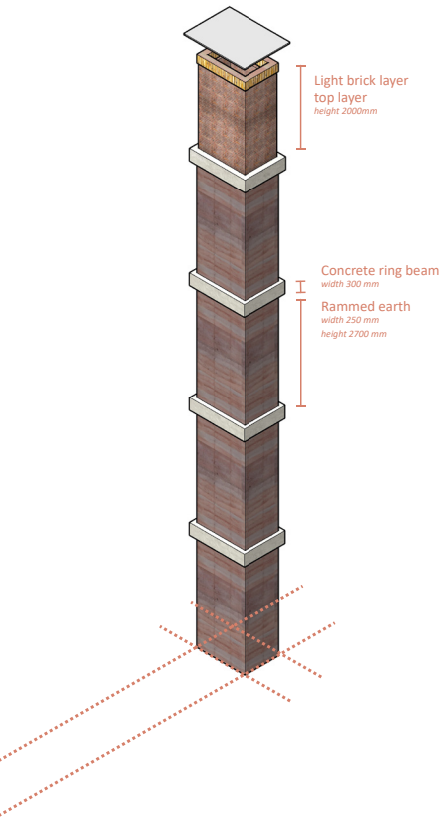
The **permanent** load-bearing structure, that has the ability to be repeated in every building volume, is mainly build up out of Rammed Earth and concrete beams. The choice for Rammed Earth is based on environmental, social and economic sustainability. See as well additional information in the Building Technology chapter.

The construction contains two permanent load-bearing walls, with a beech size of 7500 mm. To achieve a correct span, the chimney and concrete beams are introduced in-between this grid. In this way, the chimney and the concrete beams are carrying the forces in the middle, which resulted in a new and reduced span of 3750mm. With this structure, the floors will be carried by the concrete beams and the supported primary span made out of bamboo joists (40 cm). In addition, to create the secondary span, the surface on top of the primary span is performed as thinner bamboo slats.

By the use of a bamboo floor structure, the floors can easily be placed on top of the beams which enables a flexible floorplan. When a double-height apartment is preferred, the floor can be left out. The flexible character of this permanent structure is further enhanced with the free space for the skin. This makes it possible to fulfill the wishes of the inhabitants.

SERVICES





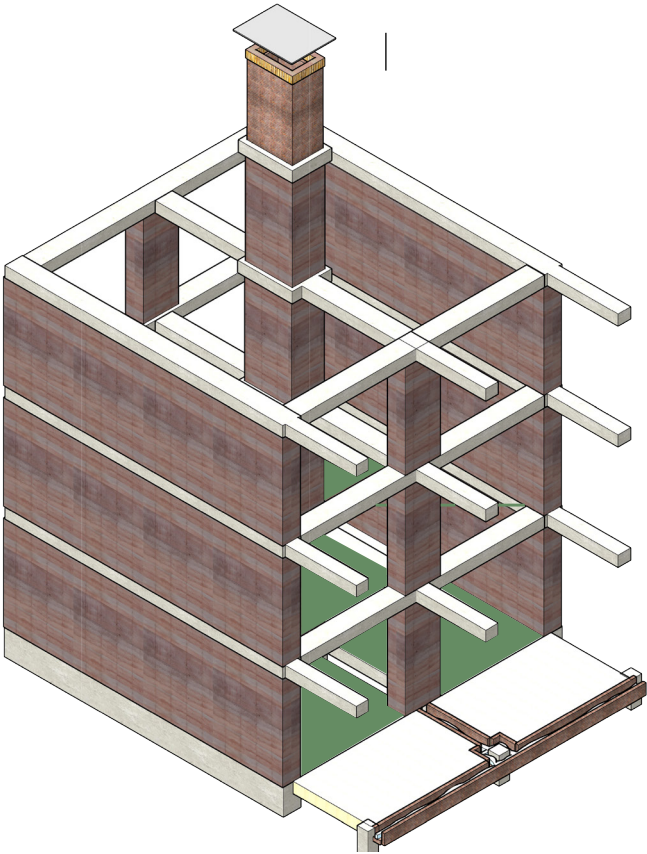
## THE CORE THROUGH THE BUILDING

The chimney can be seen as the **central core of the building**. The core where everything comes together; the climate, the structure, and the liveability. Firstly, the chimney is equipped with all the necessary climate services through the building, which is divided into 'The water network' and the 'Ventilation system' (See *Building Technology chapter*).

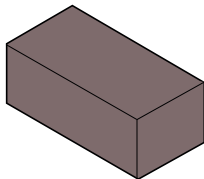
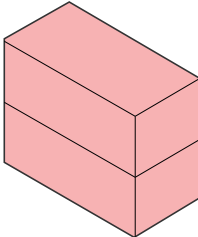
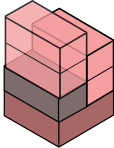

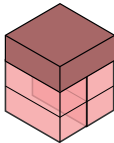
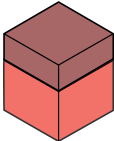
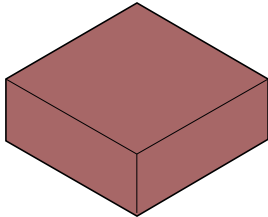
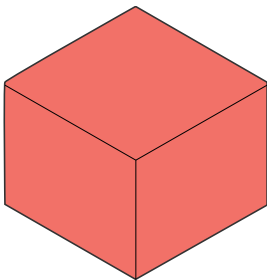
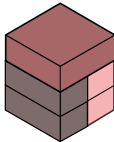
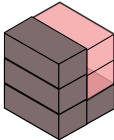
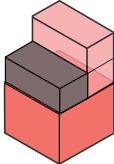
Secondly, as already mentioned its function as a structural element to reduce the span of 7,5 meters between the load-bearing walls. With the use of a concrete ring on top of the rammed earth on each storey, a new span of 3.75 is proposed.

Altogether, this low-tech and sufficient solution will function properly and reduces the amount of concrete by replacing it with a smart solution for rammed earth.

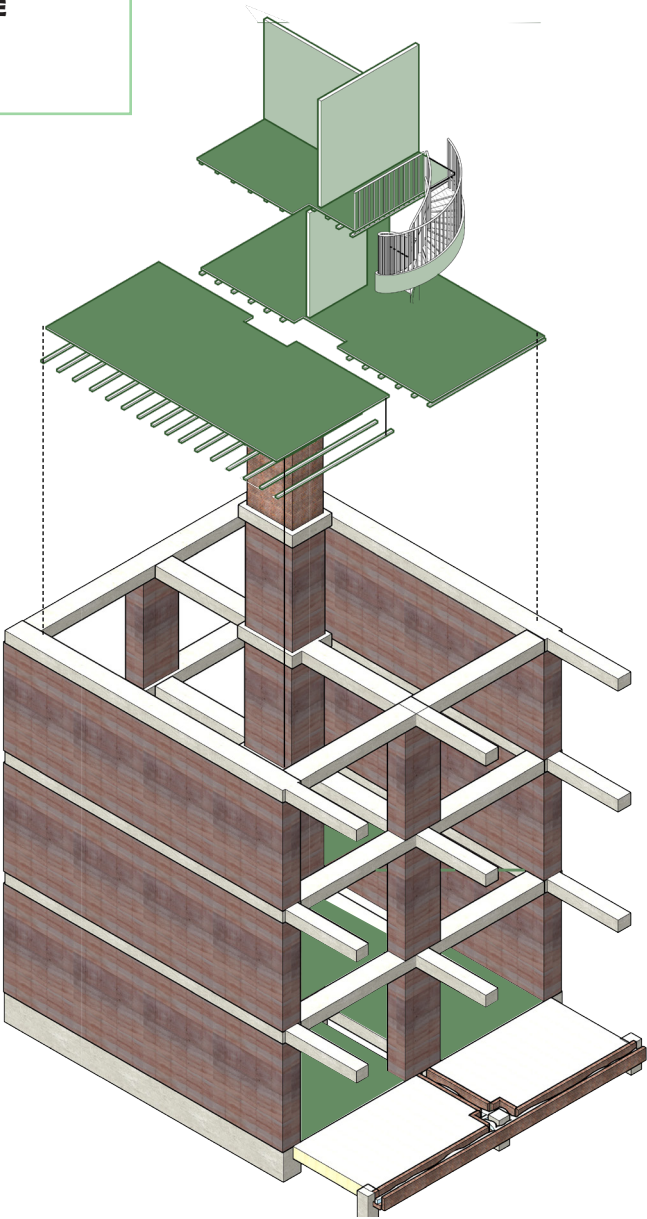
SPACE PLAN



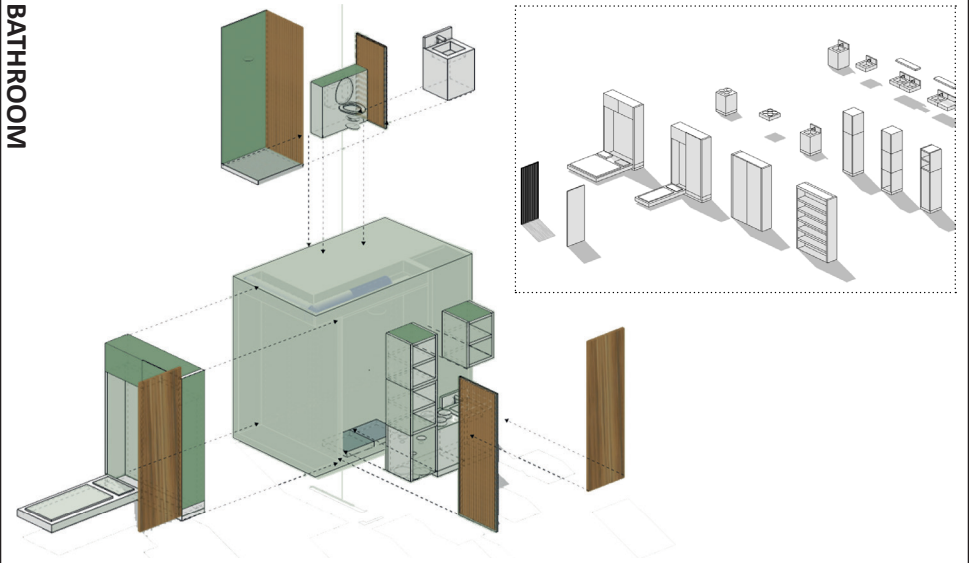


		
<p>TYPOLOGY A. One floor apartment, 28 m<sup>2</sup></p>	<p>TYPOLOGY B. Two storeys 56 m<sup>2</sup></p>	
		
		
		
<p>TYPOLOGY C. One floor apartment, 56 m<sup>2</sup></p>	<p>TYPOLOGY A. Two storeys apartment, 112 m<sup>2</sup></p>	
		

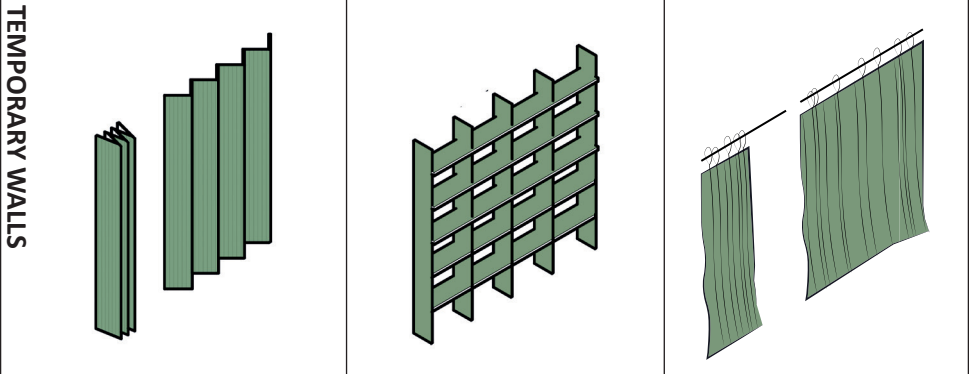
SPACE



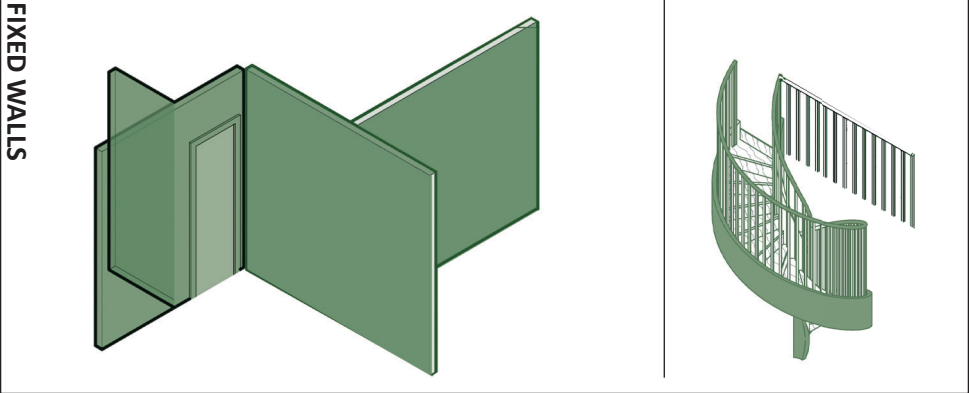
BATHROOM



TEMPORARY WALLS



FIXED WALLS

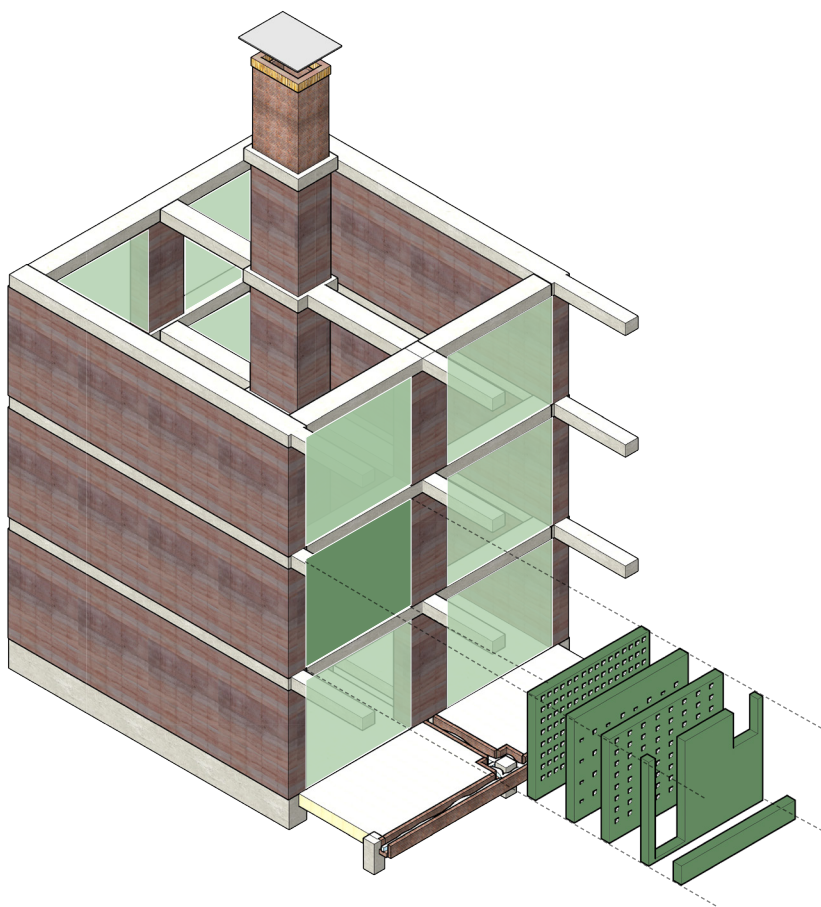


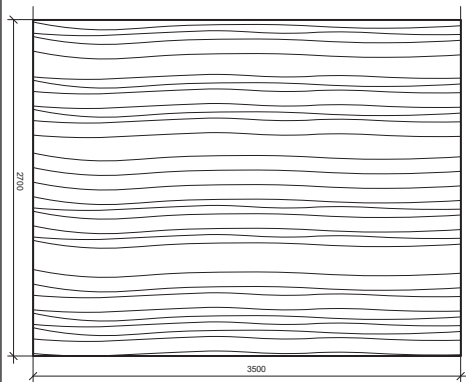
## TOOLBOX

---

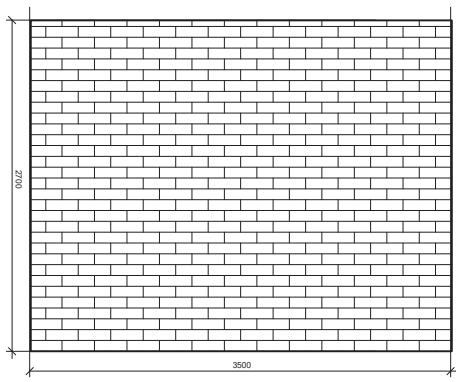
**SKIN**

- The exterior walls are not load-bearing which makes it possible to be chosen according to individual needs.

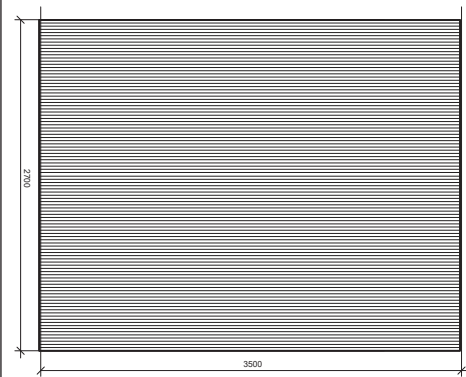




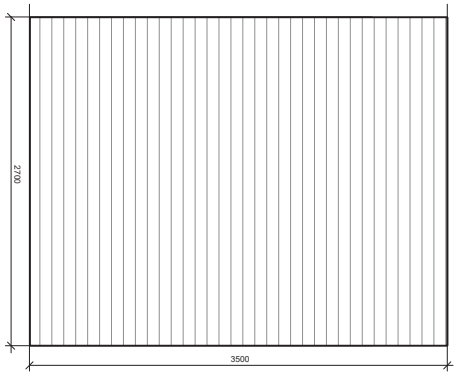
1. RAMMED EARTH



2. BRICK



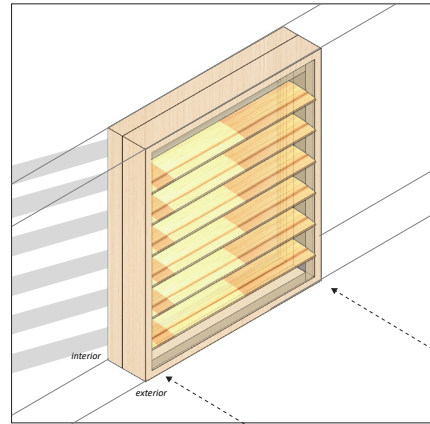
3. BAMBOO SLATS \$



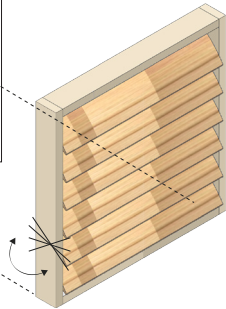
4. BAMBOO VERTICAL SLATS \$\$\$



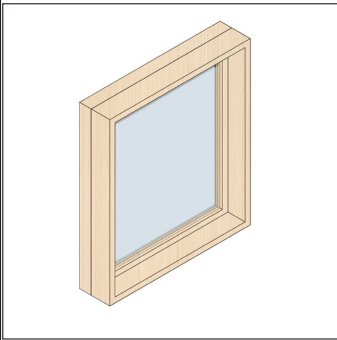
**1. The protecting window shutters**



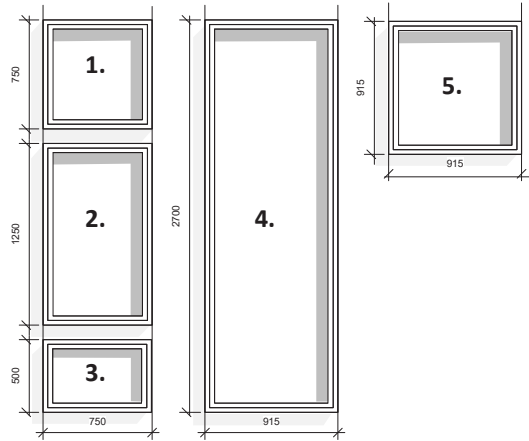
*The window shutters will be build up locally with the use of local material bamboo and migrants from bamboo regions.*



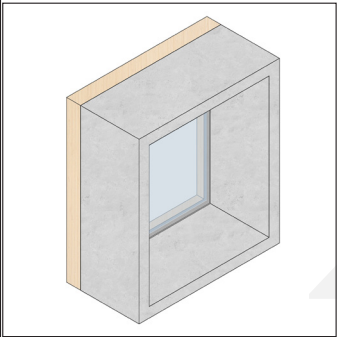
2. The fitting window frame



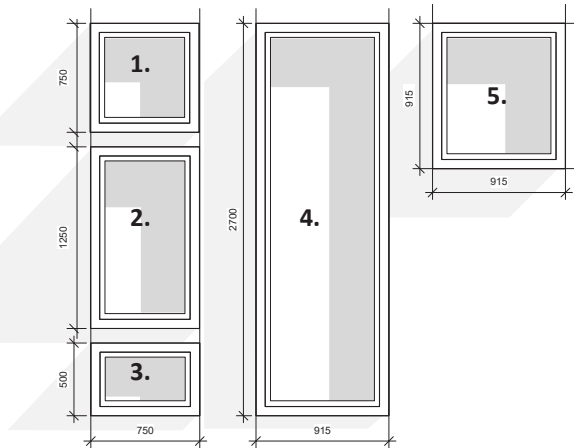
*This regular wooden window frame is introduced as an open character which will reach a soft and thin transition from interior and exterior. These windows will fit within the 250 mm thick facades.*



3. The protuding window frame



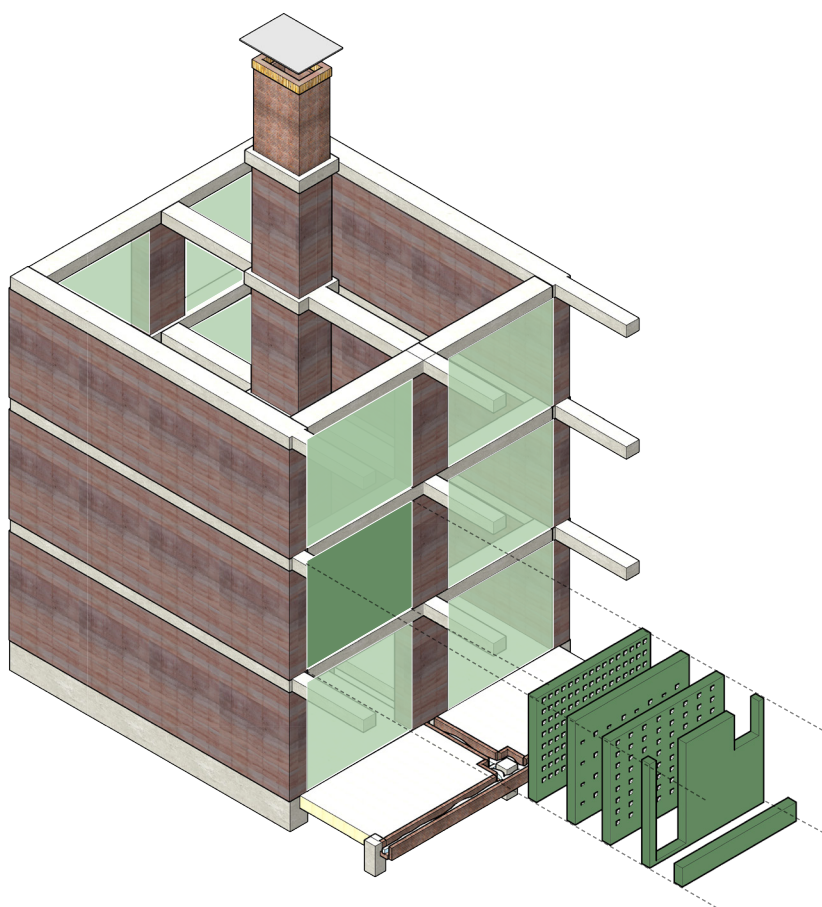
*The protuding window is mainly designed for the south facades, in order to reach passive sunlight. This type of window frame reaches a variety of shadows throughout the day, which will lead to an eye-catcher in the facade upon arrival. Lastly, it will function as a closed facade in which the difference between inside and outside must remain large.*



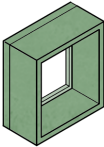
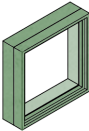
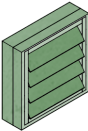
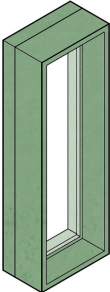
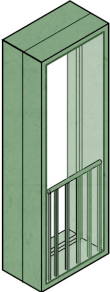
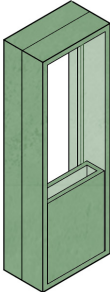


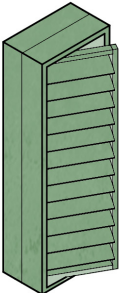
*The windows can be supplied in five different sizes in the building.*

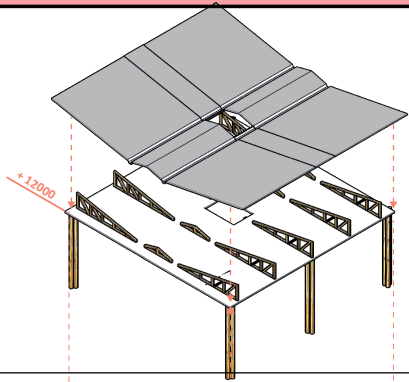
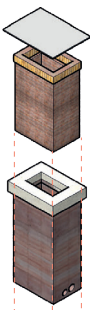
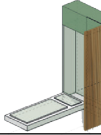
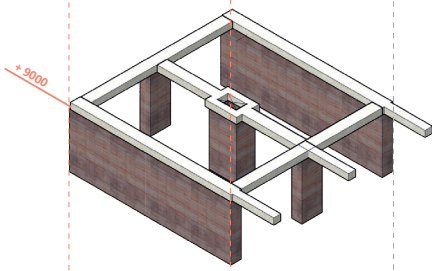
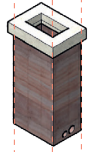
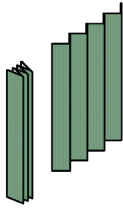
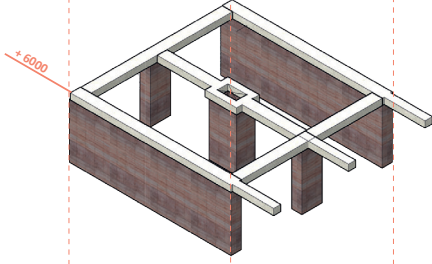
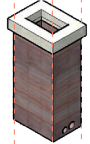
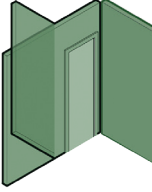
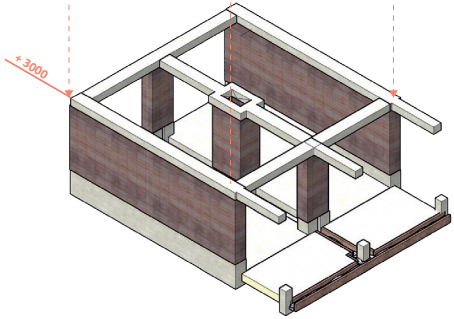
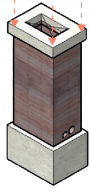
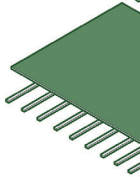
## SKIN

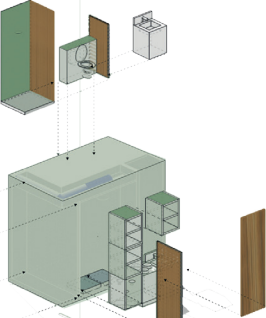



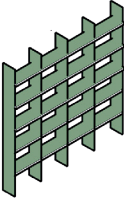
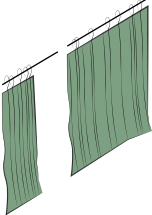





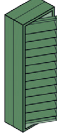



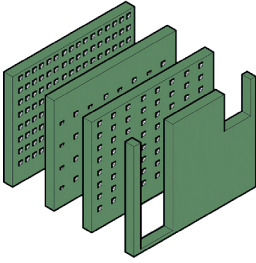
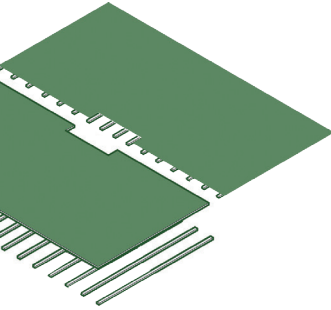
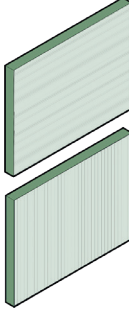
- The wall can be either completely closed, with different levels of permeability or completely open. Depending on the wishes, the skin material can be chosen.





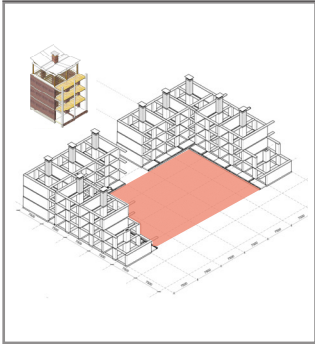
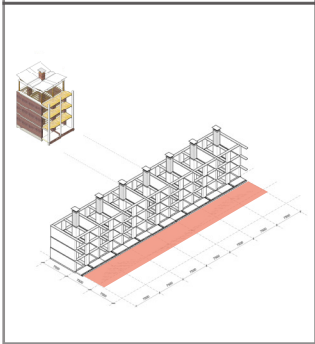
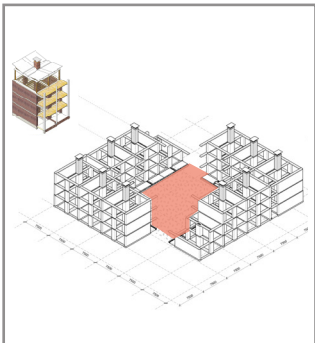
OPENINGS	 <p>A. Protuding concrete window frame</p>	 <p>B. Wooden window frame</p>	 <p>C. Bamboo shutters</p>
BIGGER FRAME + EXTENSIONS	 <p>A. Protuding concrete frame big size</p>	 <p>B. Balcony</p>	 <p>C. Planter</p>
DOORS	 <p>D. Door</p>	 <p>E. Protuding frame + door</p>	 <p>F. Door + shutters</p>

STRUCTURE	SERVICES	
 <p>+12000</p>		
 <p>+9000</p>		
 <p>+6000</p>		 <p>PERM</p>
 <p>+3000</p>		

SPACE PLAN		SKIN		
 <p>BATHROOM AND KITCHEN</p>				
	 <p>TEMPORARY WALLS</p>			 <p>WINDOW FRAMES</p>
				 <p>DOORS</p>
 <p>PERMANENT INDOOR WALLS</p>	 <p>SPIRAL CIRCULATION</p>	 <p>SHADING</p>  <p>INLETS</p>		
 <p>FLOORS</p>		 <p>FACADE</p>		

# THE IN-BETWEEN SPACE

## IN-BETWEEN INFILL



As defined during the research, the need to strive for entanglement between living and work is essential for the inhabitants of Ethiopia. This led to the outcome to design and take into account possible activities that will take place in the in-between space of the building. By introducing a grid for the in-between space, with several opportunities as the infill, this phase of the project plays an important role to collectively choose what kind of activity the building will adopt.

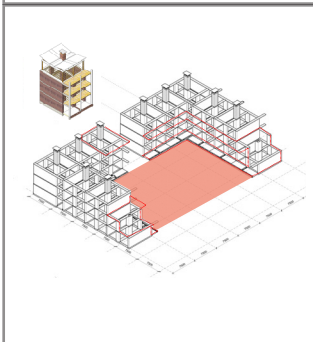
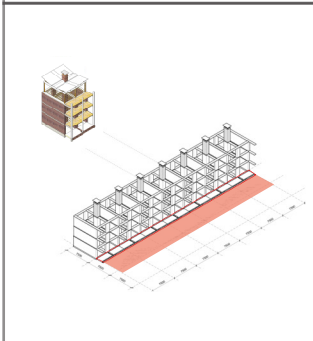
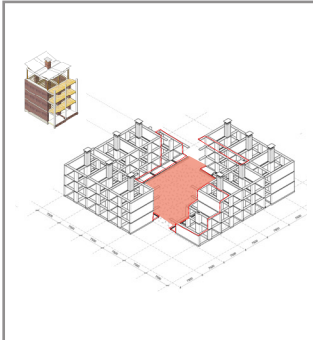
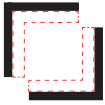
This infill of the project will be carefully chosen in consultation with the residents, within the second phase of decision-making. Hereby the future inhabitants can participate while building up the infill. As well this will achieve a collective aspiration beforehand.

 <p>1.Farming / vegetable garden</p>	 <p>2. Playground</p>	 <p>3. Mini market</p>
 <p>4. Coffee / caf�</p>	 <p>5. Institutional / Learning</p>	 <p>6. Pray area</p>
 <p>7.Office / co-working</p>	 <p>8. Restaurant</p>	 <p>9. Communal meeting space</p>
 <p>8.Beer (brewery) / event</p>	 <p>9. Inhabitants input</p>	

# THE COLLECTIVE AND PRIVATE SPHERES

---

## COLLECTIVE INFILL




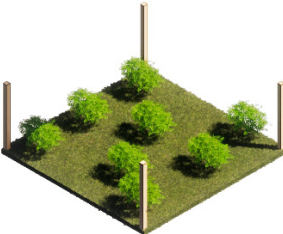
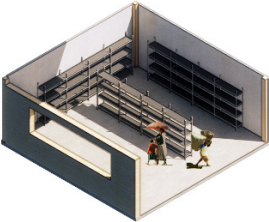
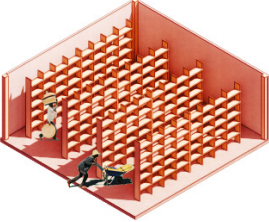
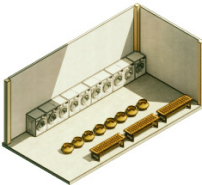
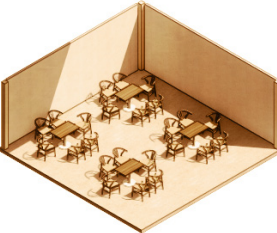
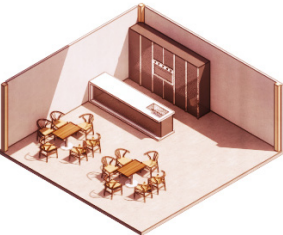
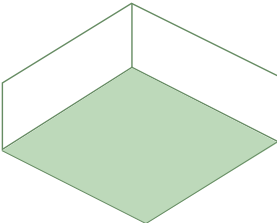


As one of the results of the research:

*As long as they have small-scale areas that can be shaped to their recognition, they are willing to meet and share a bigger scale.*

According to this, allowing collective and private spheres activities through the building is relevant. Hereby, it is more based on sharing with a couple of families the amenities that fit to their need and aspirations.

The proposed toolbox from the supervisor team is based on the preliminary research. The potential to come up with individual or group preferences is embedded.

 <p>1. Farming / vegetable garden</p>	 <p>2. Playground</p>	 <p>3. Dry spices / agricultural activities</p>
 <p>4. Green roofs</p>	 <p>5. Window shop</p>	 <p>6. Storage</p>
 <p>7. Laundry</p>	 <p>8. Communal dining</p>	 <p>10. Shared kitchen</p>
 <p>9. Inhabitants input</p>		

# **III BUILDING TECHNOLOGY**



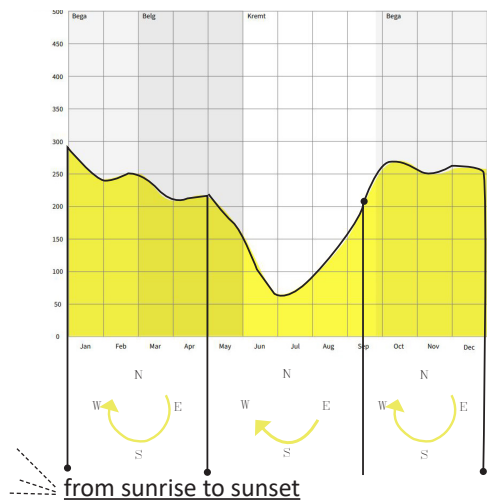
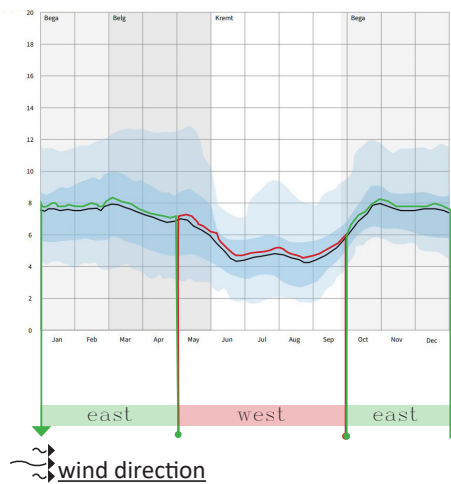
# EXPOSING THE CLIMATE AND STRUCTURE AS A CORE THROUGH THE ENTIRE BUILDING.

---

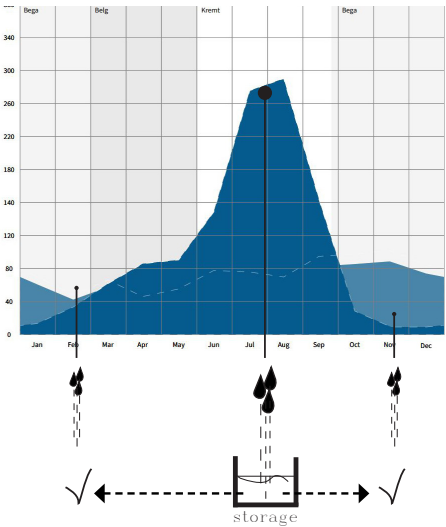


In this chapter, I will explain the design of the building technology of this urban proposal. It is a further elaboration on the components that have been introduced in the Building Component chapter. This chapter is based on the low- to middle-income choices. This because the population where off 50-70% of the urban scheme will be intended for low to middle-income inhabitants.

# CLIMATE ADDIS ABABA

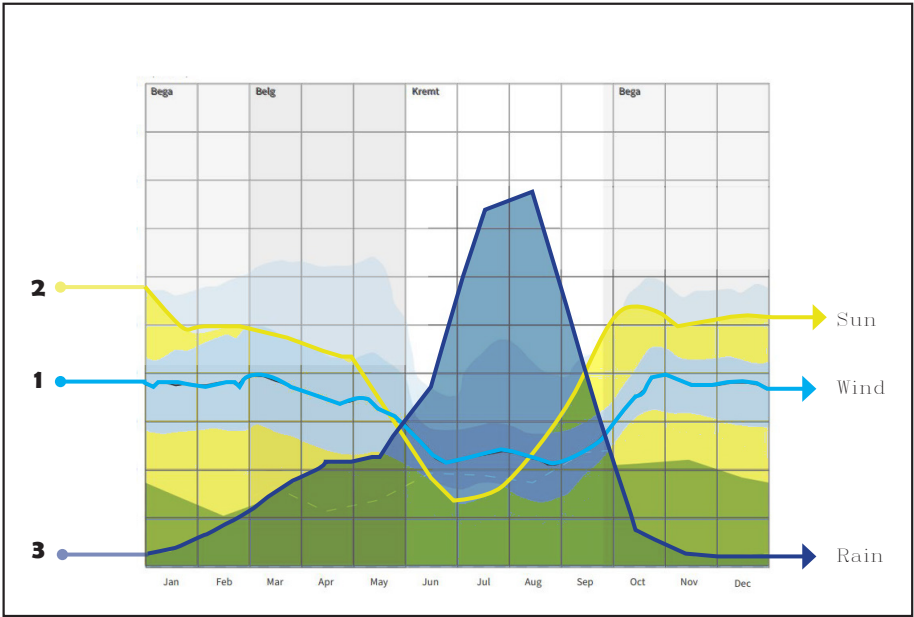


WINTER: 58°  
SPRING/ AUTUMN: 81°  
SUMMER: 104°

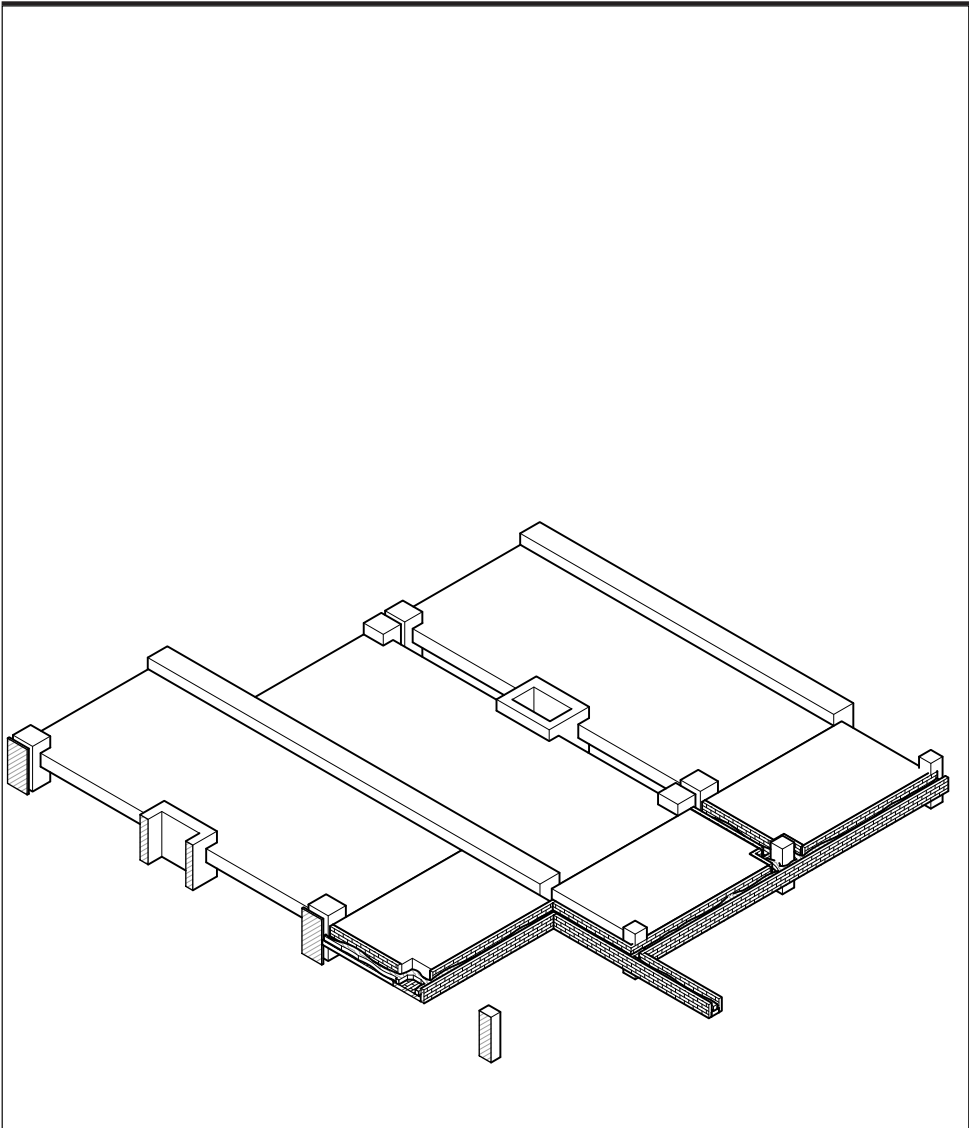


The response to the specific climate and culture.

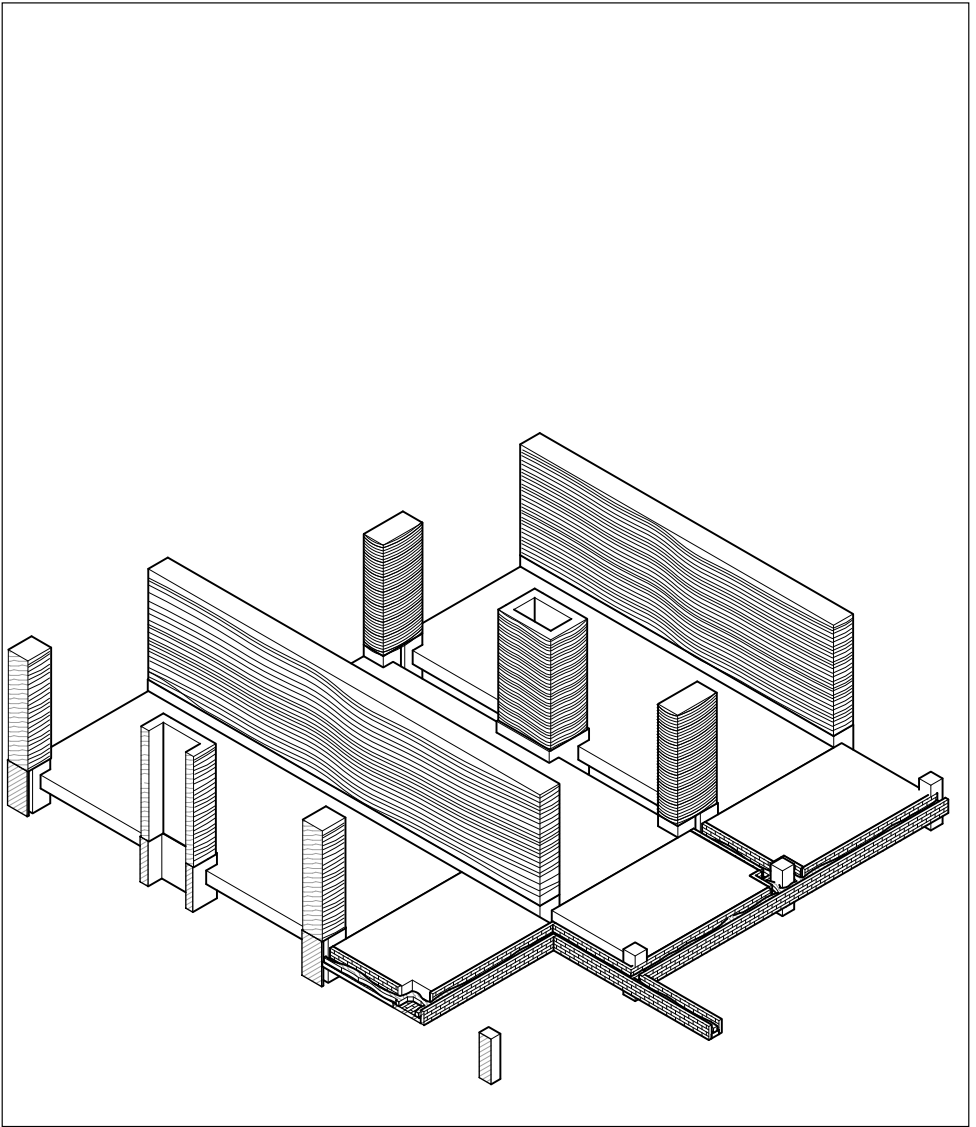
Addis Ababa is located at a height of 2.355 meters. At this height, there is a subtropical highland climate. In the diagram below the climate conditions of Addis Ababa are shown. I have combined the three climate diagrams that we have made in the Contextual Research that you can see on the left, we can see the important components and peak that we need to take into account. Moreover, the diagrams on the left shows the wind directions that we need to tackle during the winter periods in Addis Ababa, as well as the sun and shading where we need to response on.



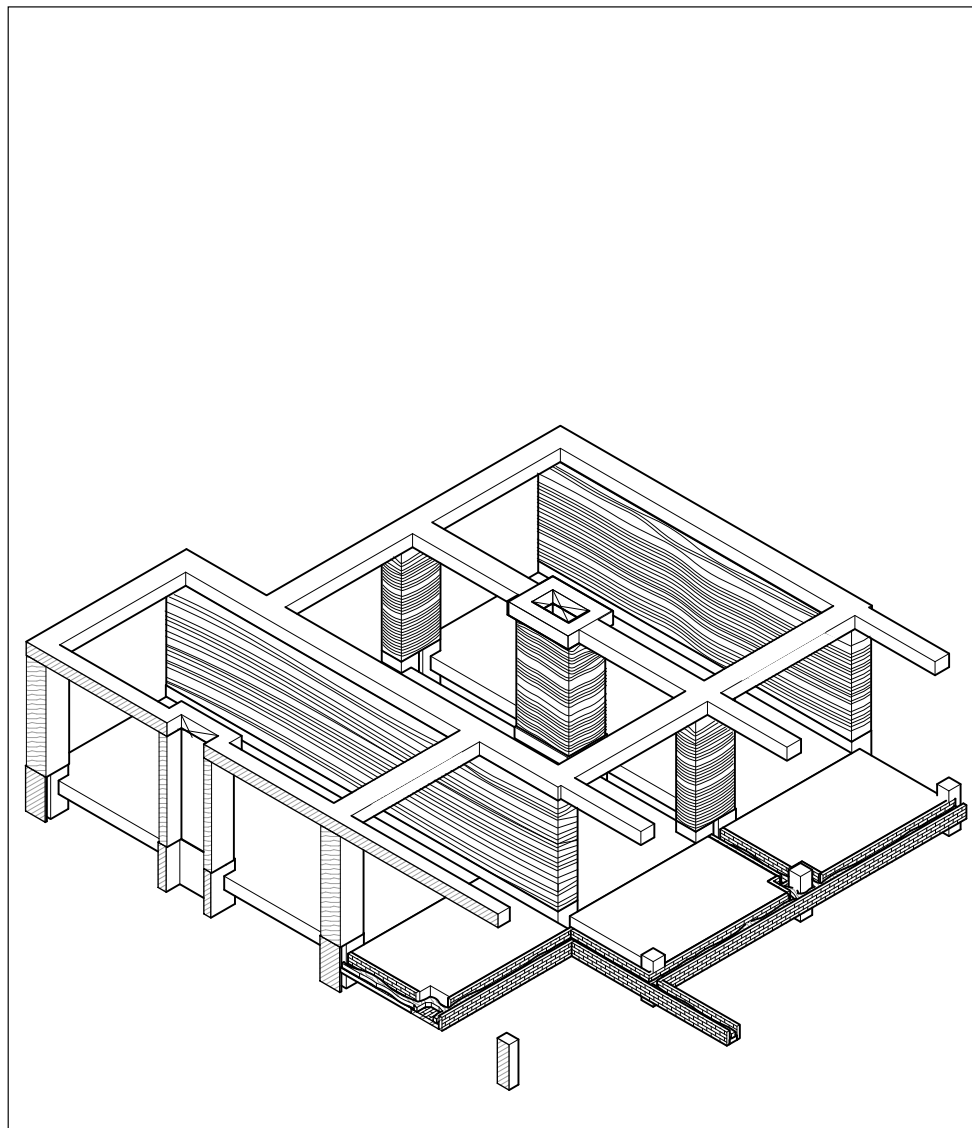
# CONSTRUCTION PROCESS



**STEP 1 - CONCRETE FOUNDATION AND FLOOR**

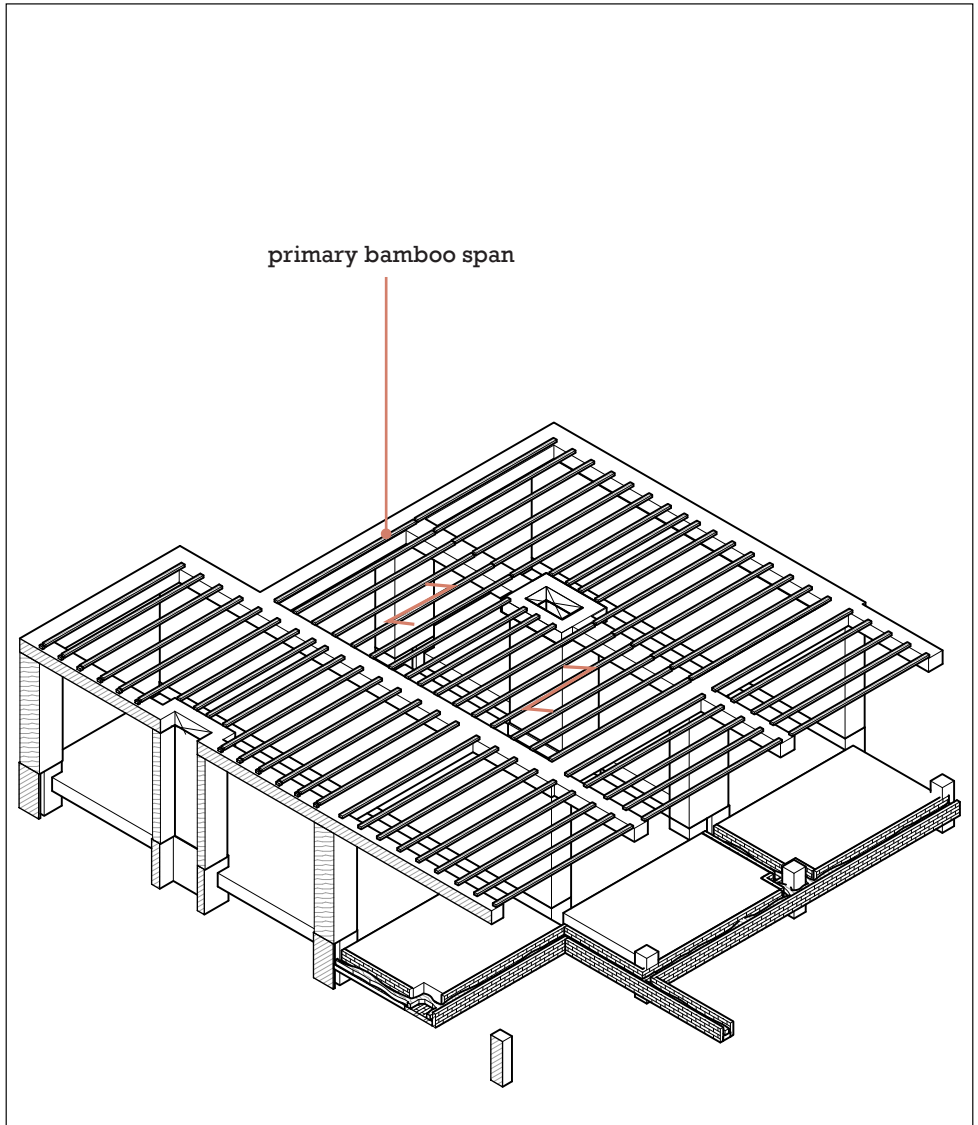


**STEP 2 - RAMMED EARTH**

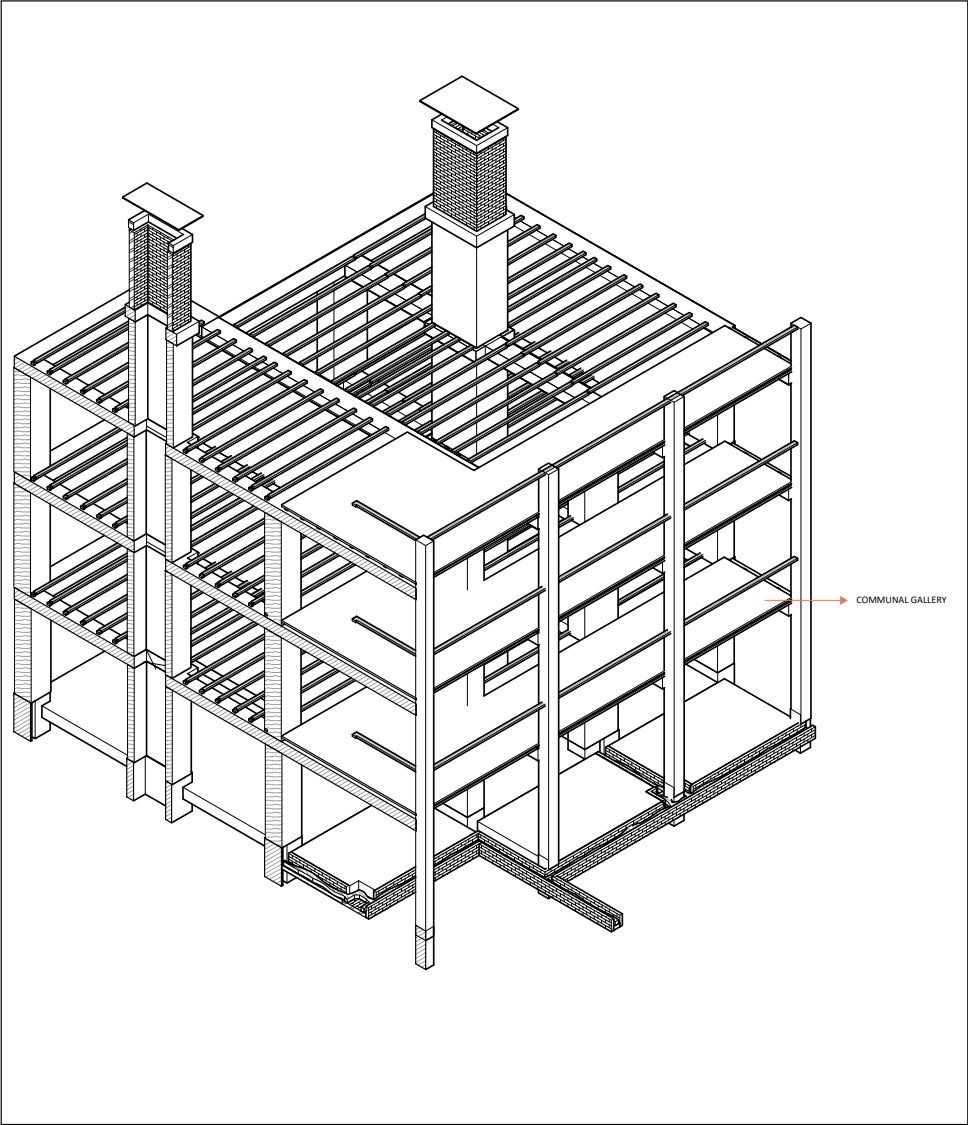


**STEP 3 - PLACING THE CONCRETE BEAMS**

---

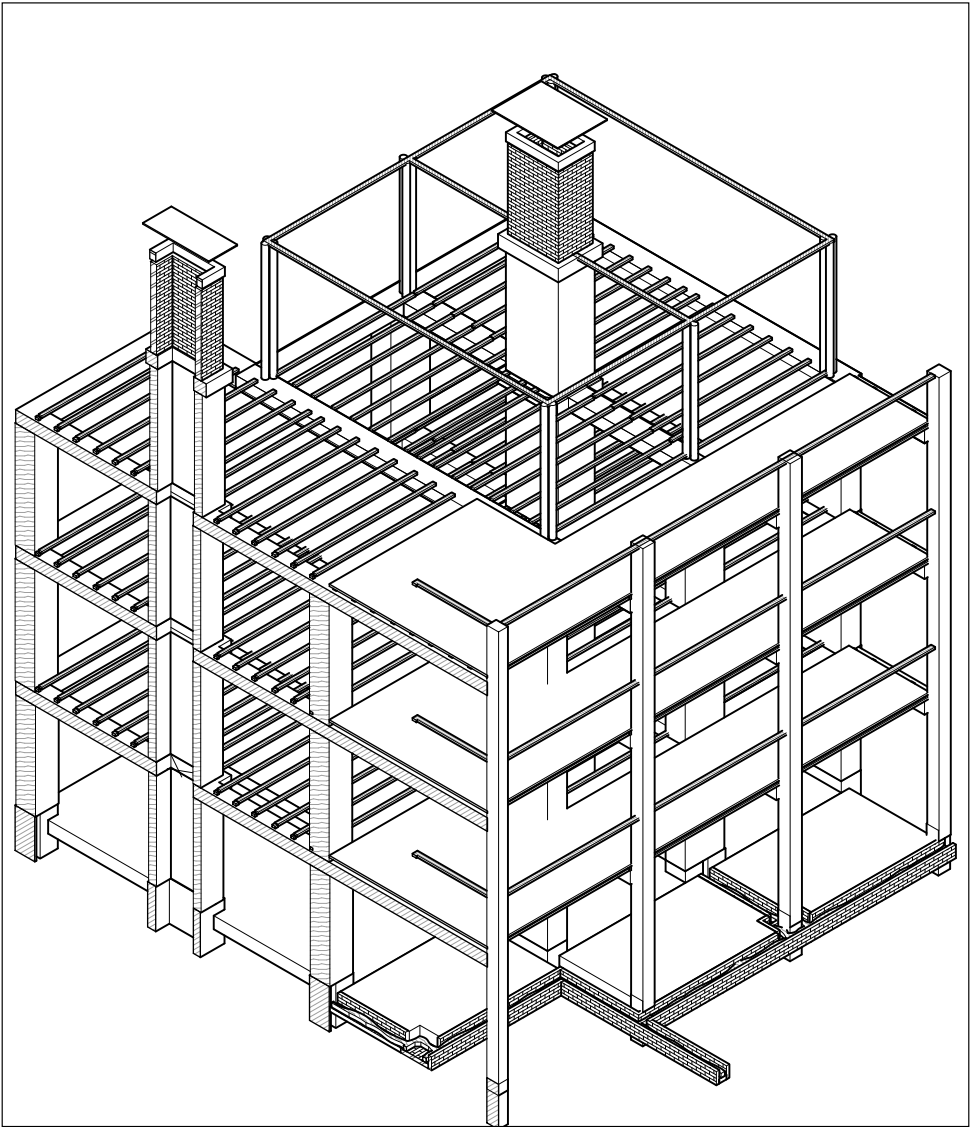


**STEP 4 - BAMBOO PRIMARY SPAN**

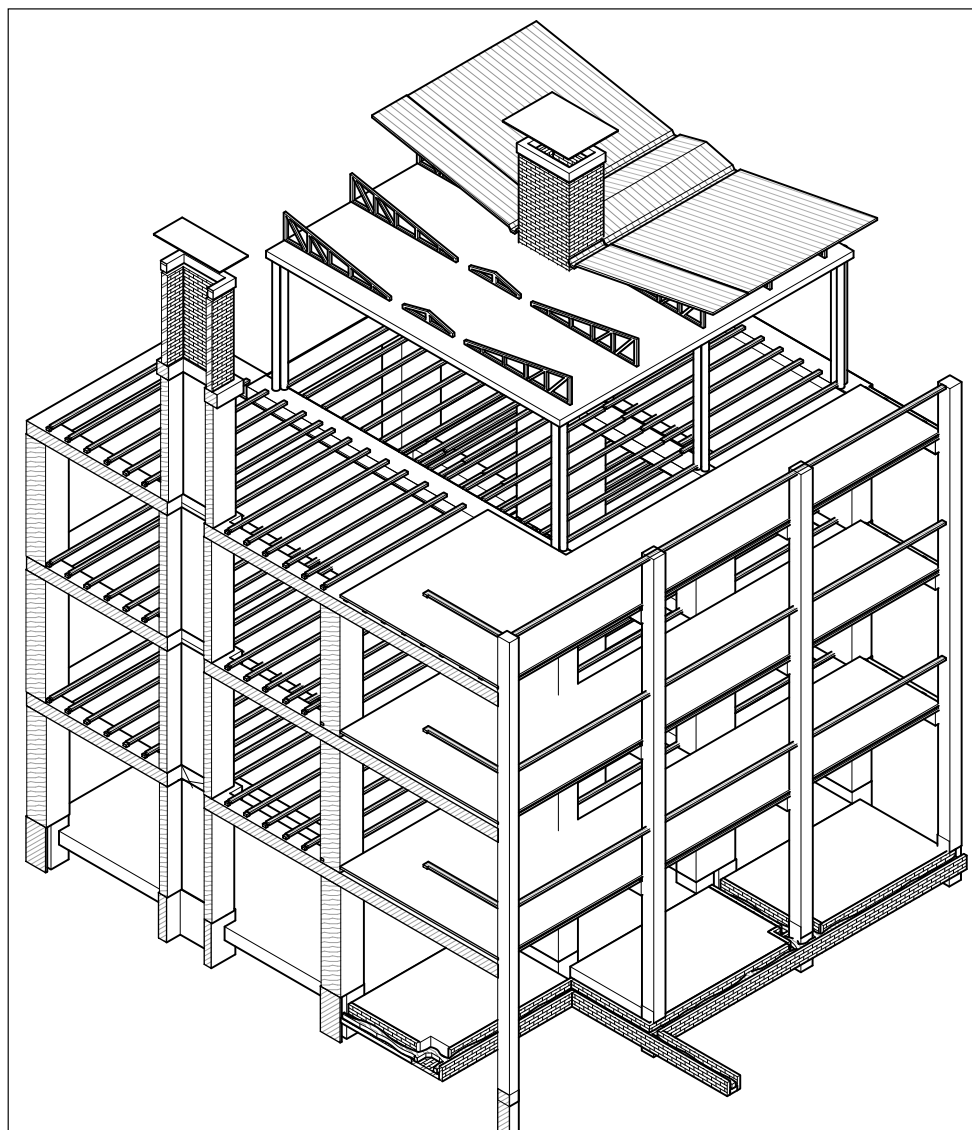


**STEP 5 - REPEATING STEPS THREE TIMES**

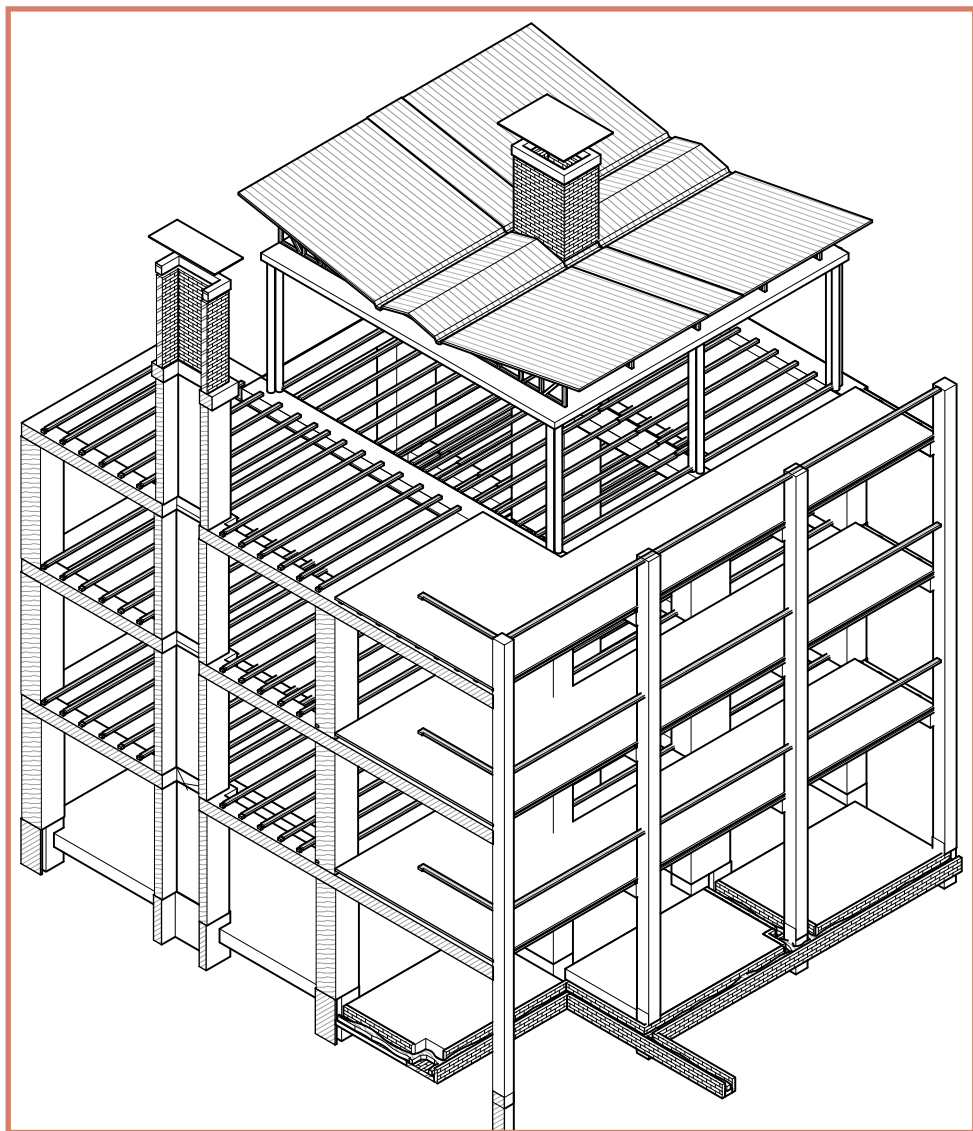




**STEP 6 - ADDITIONAL LAYER ON TOP**



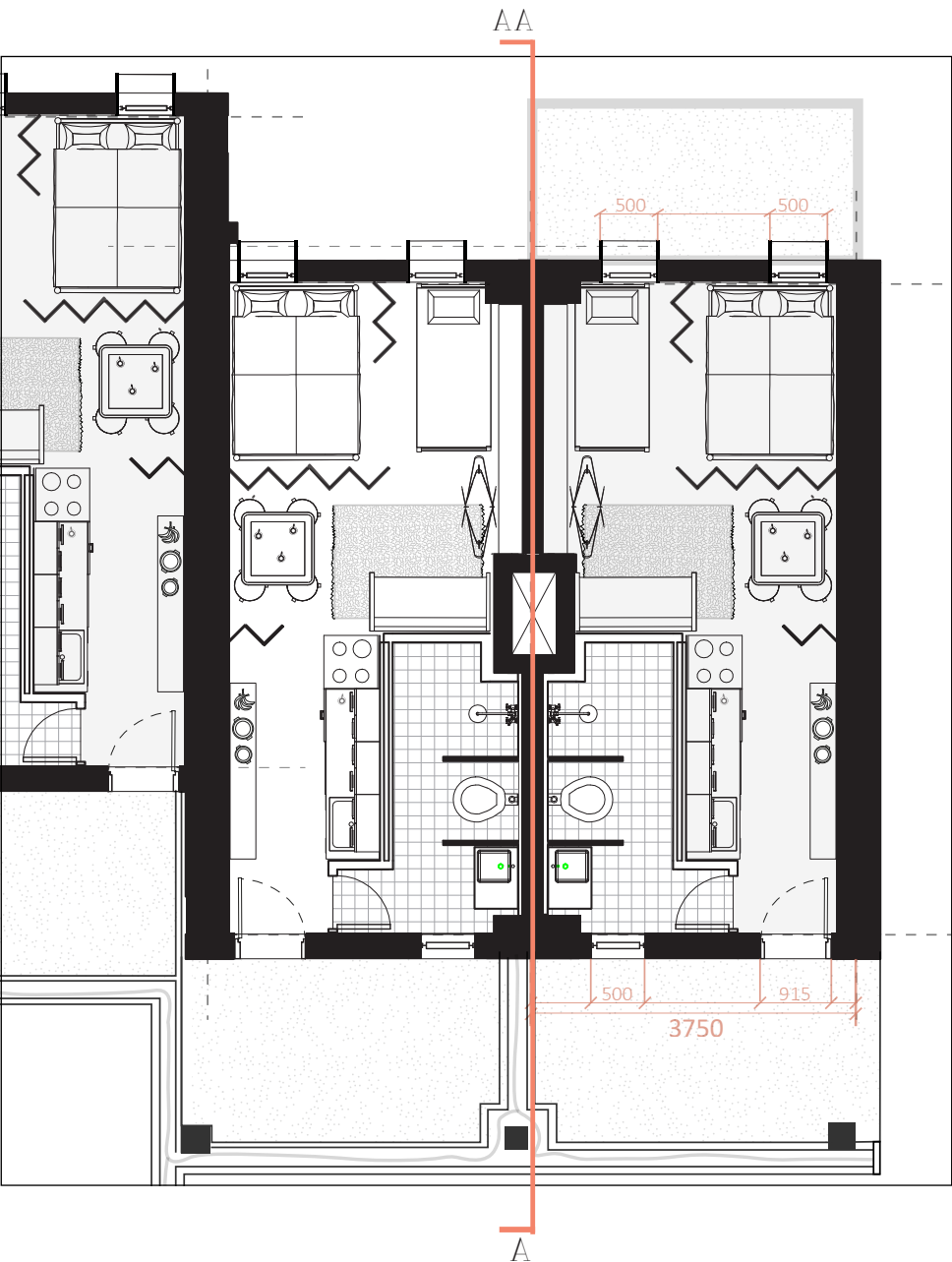
**STEP 7 - ROOF FINISHING**

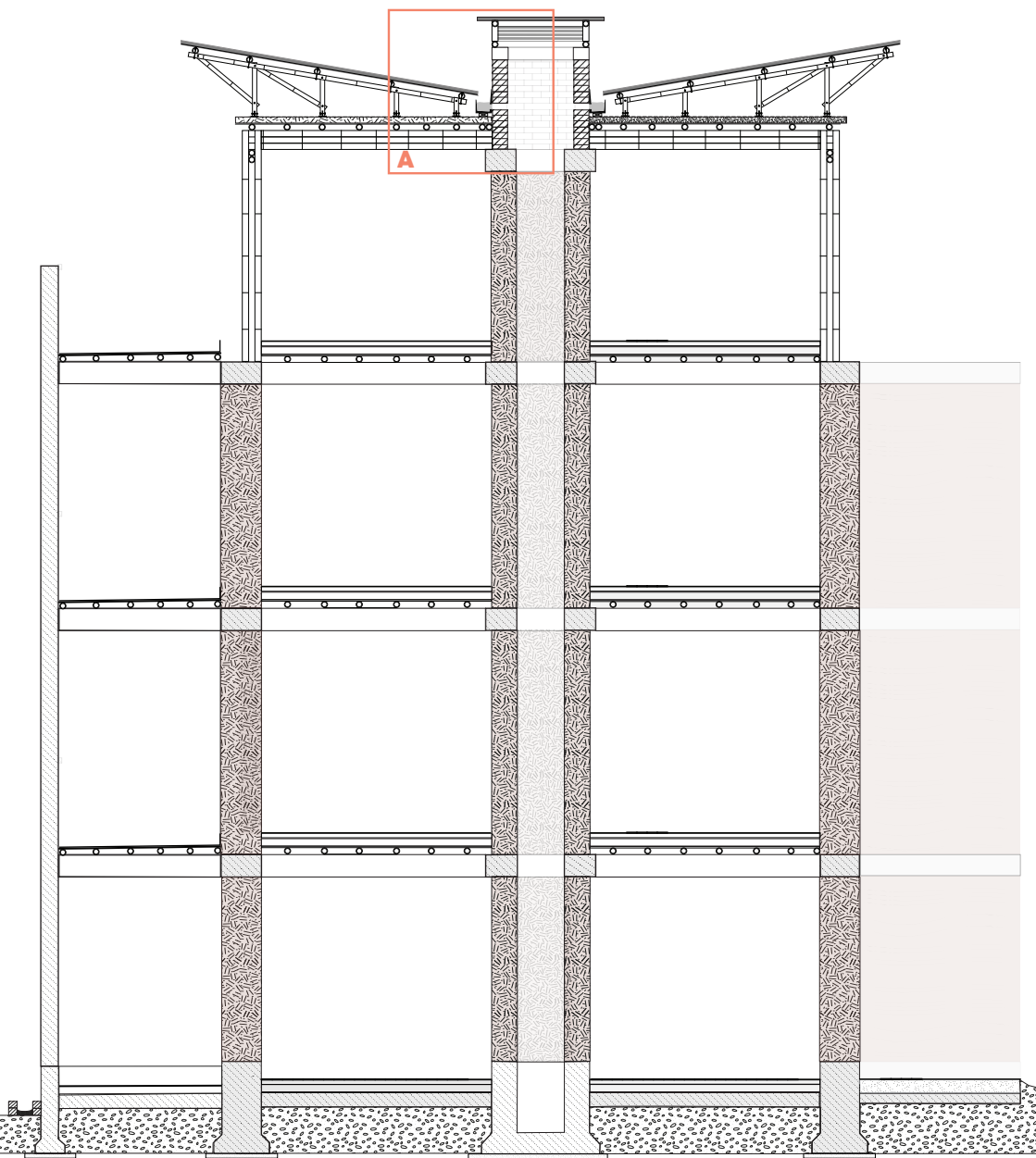


**STEP 8 - FINAL BUILDING COMPONENT**

FRAGMENT - Construction section

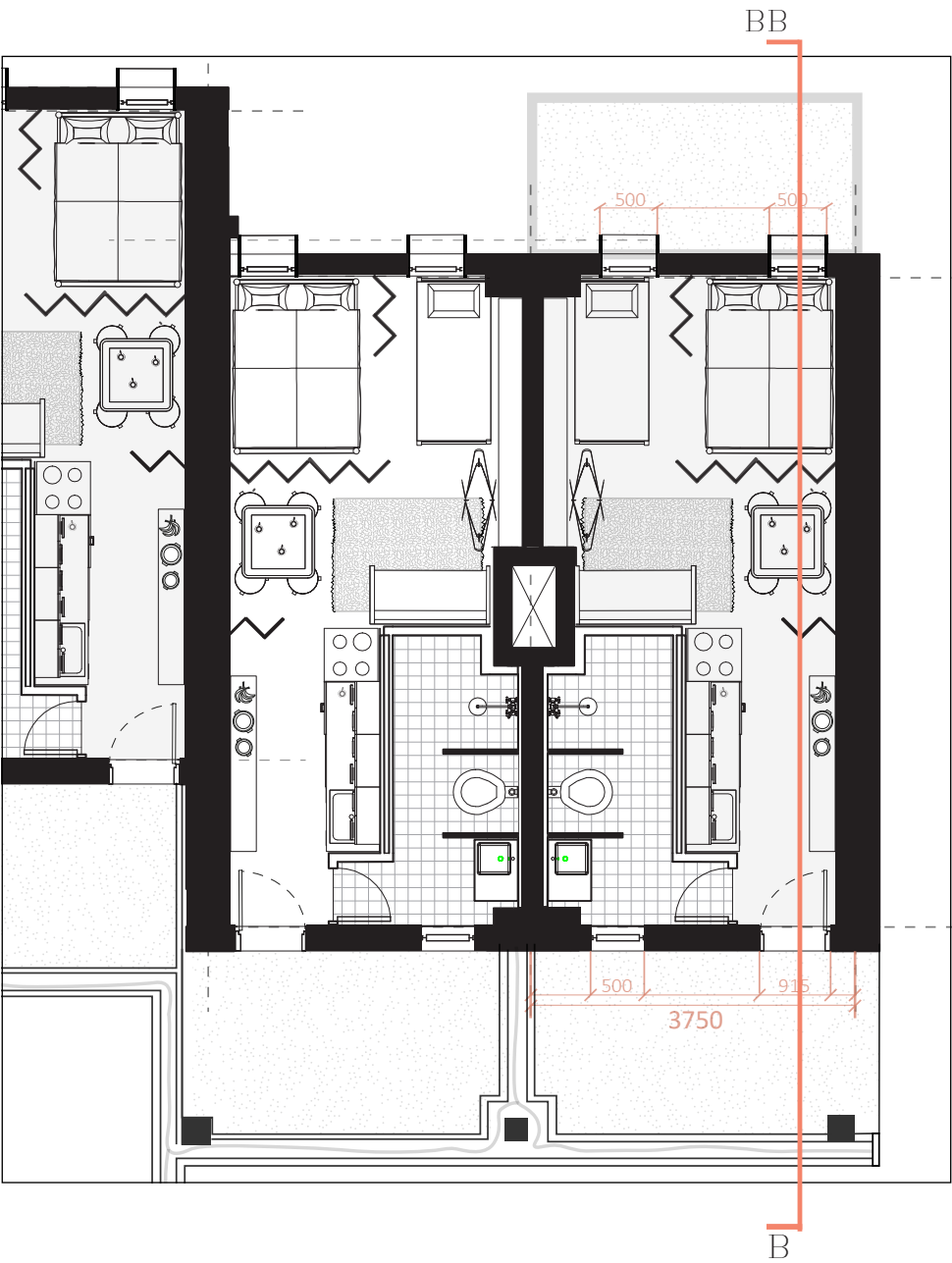
1:75

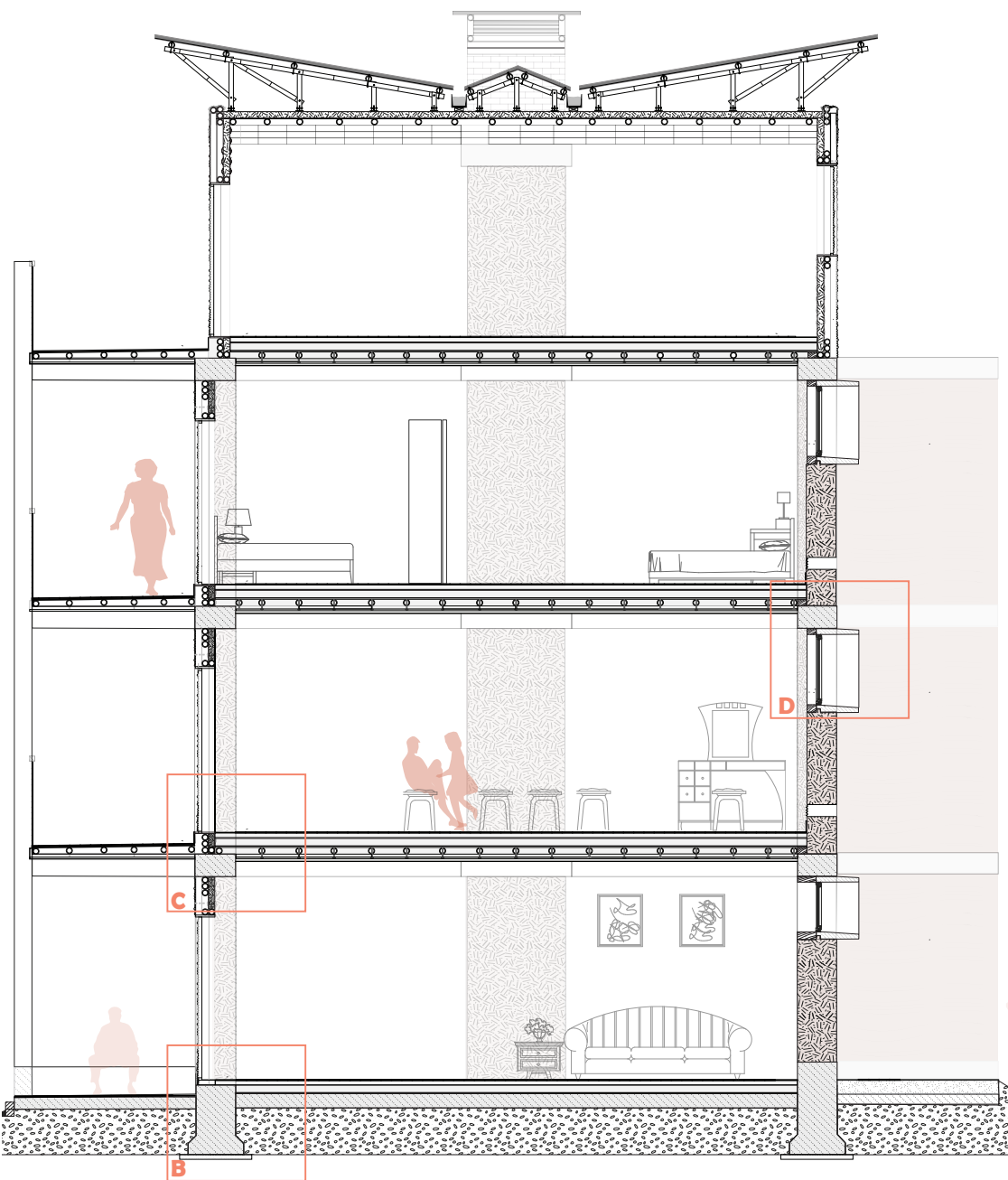




FRAGMENT - Liveable section

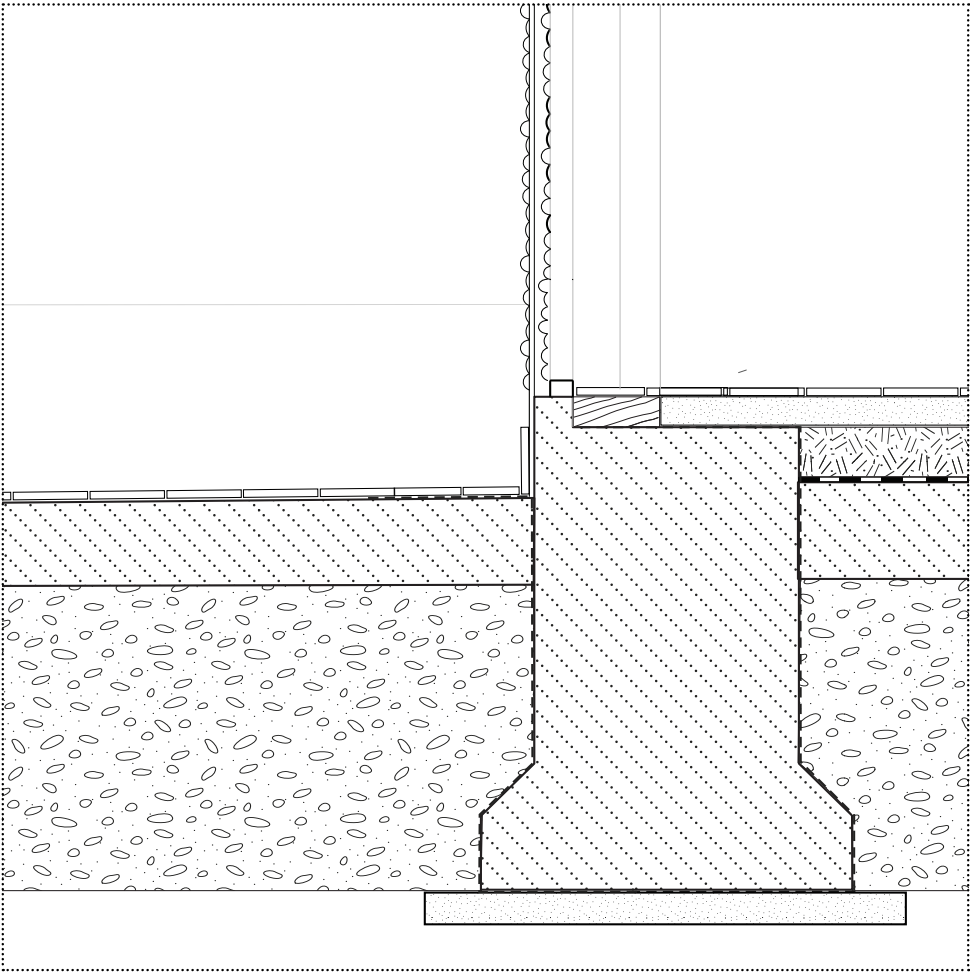
1:75





# DETAIL A - inner facade courtyard

1:10



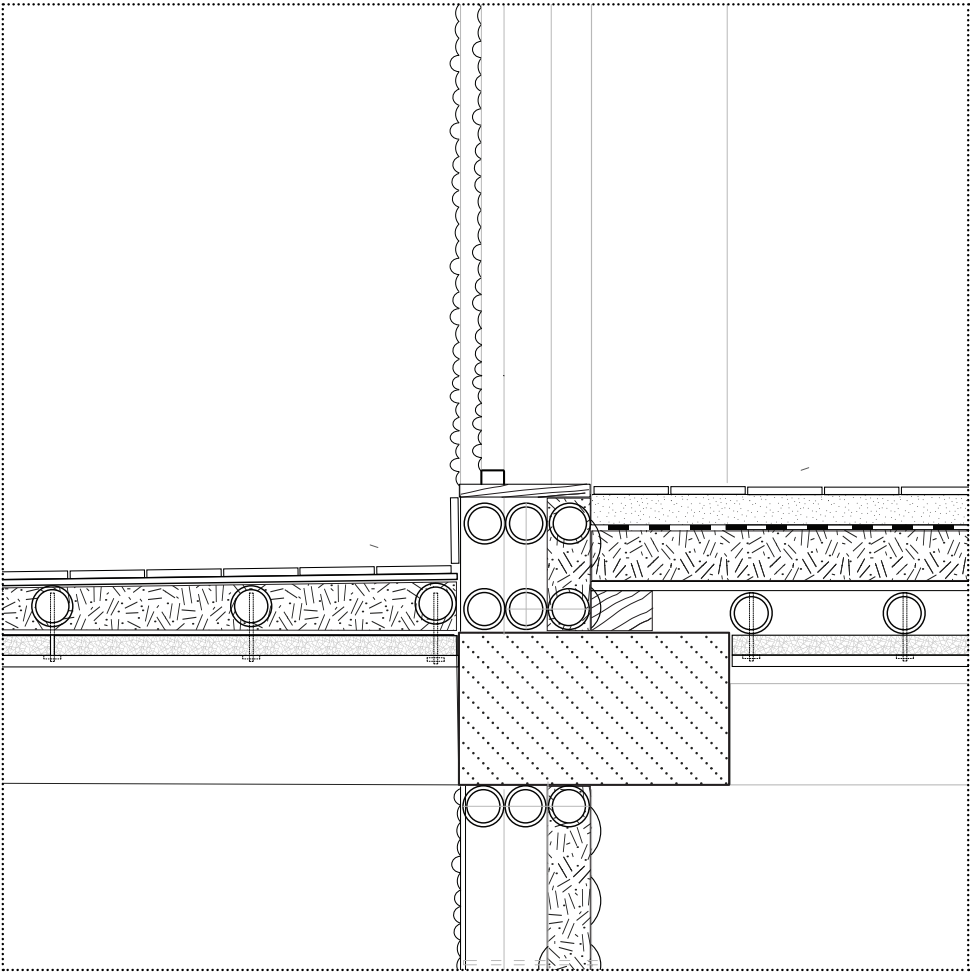
**Foundation:**  
Reinforced concrete foundation  
Waterproof membrane

**Floor:**  
Compacted Earth 20 cm  
Clay floor 13 cm  
Waterproof membrane  
Screed 5 cm  
Floor finishing (tile)

**Wall:**  
Bamboo columns and frame structure  
Straw earth layer (inside)  
Bamboo strip layer (outside)



1:10



Gallery:

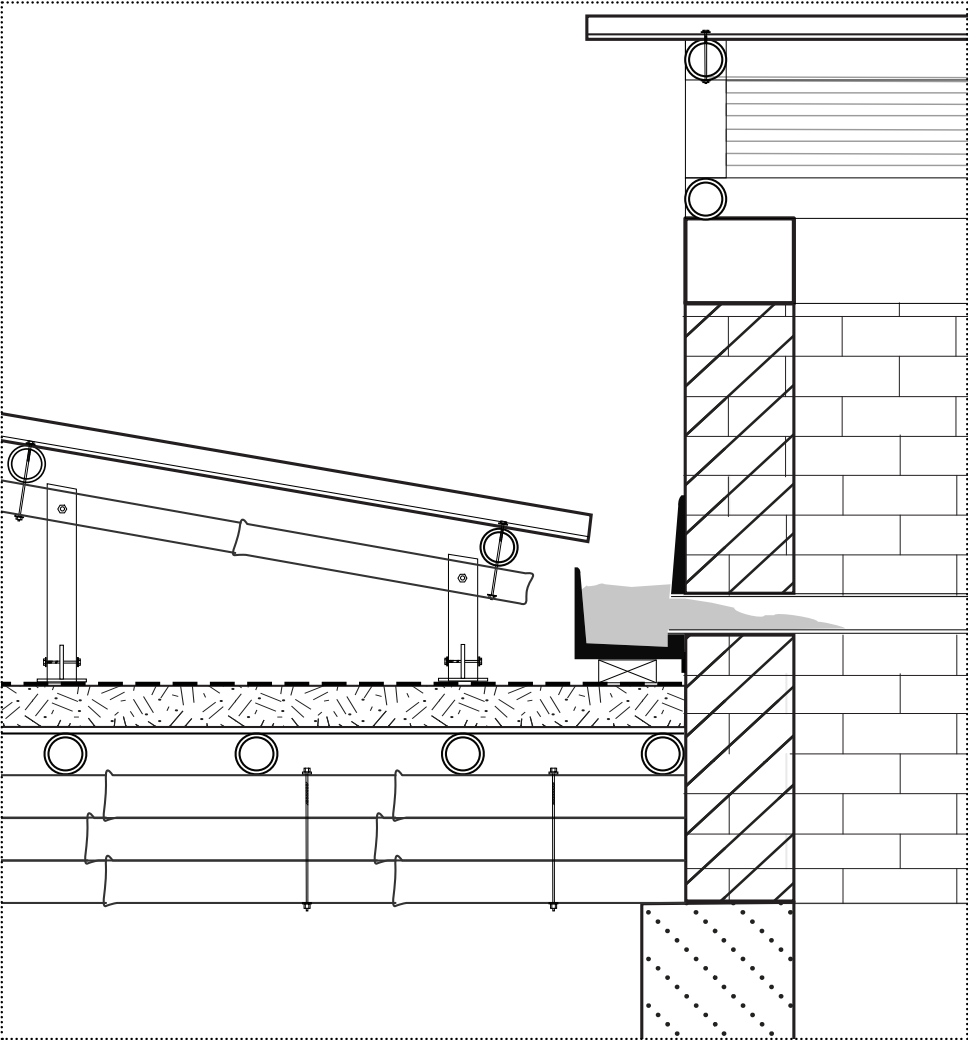
Lime plaster stuck  
Wood wool cement board 1800x800x-  
35mm fixed with screws  
One layer of bamboo (primary span)  
Bamboo slats (secondary span)  
Structural earth base 8 cm  
Floor finishing (tile/ wooden floor)

Floor interior:

Lime plaster stuck  
Wood wool cement board 1800x800x-  
35mm fixed with screws  
One layer of bamboo (primary span)  
Bamboo slats (secondary span)  
Structural earth base 8 cm  
Screed 5 cm  
Floor finishing (tile/ wooden floor)

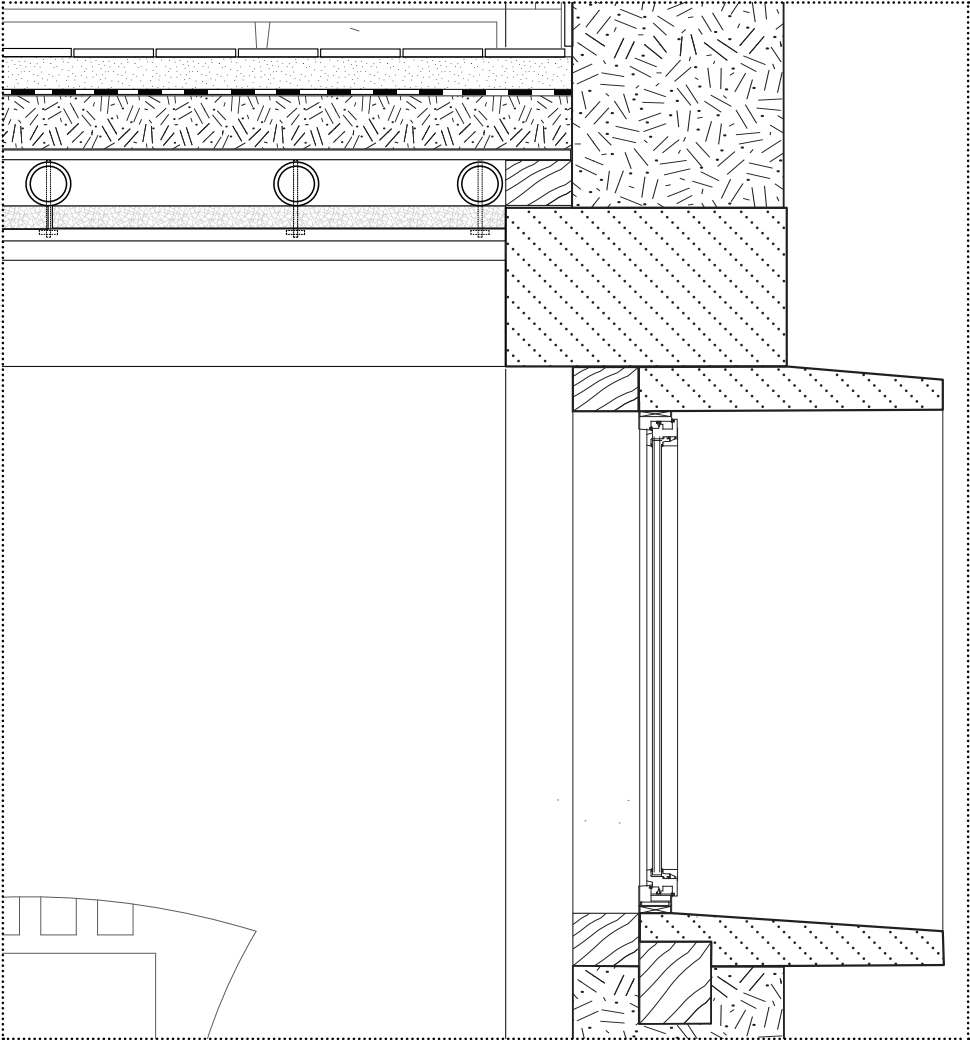
# DETAIL C - roof and chimney

1:10



- Roof
- 2 layers of bamboo structure
- Bamboo wattle
- Structural base 8 cm
- Bamboo roof structure
- Corrugated iron sheet

1:10

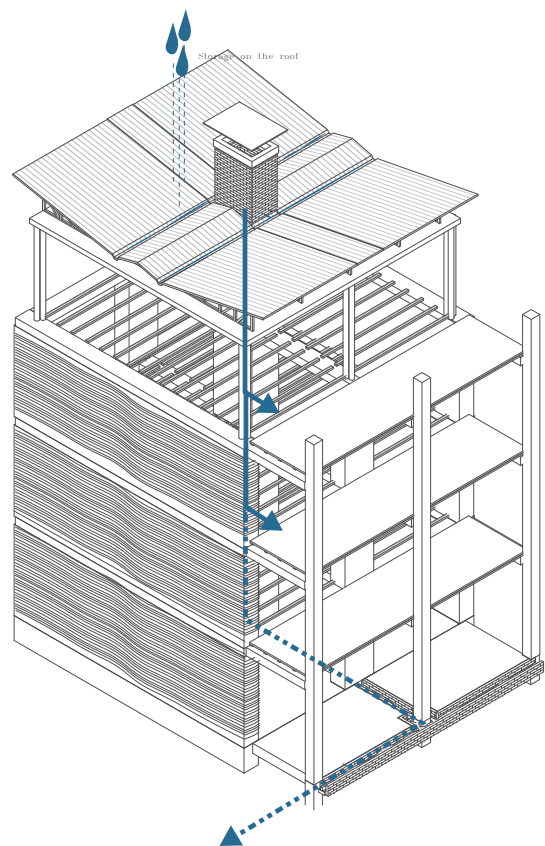


Window  
Concrete frame  
Single glazed window

Wall (convertible):  
Rammed Earth 250 cm

# RAIN WATER COLLECTION

## GREY-WATER

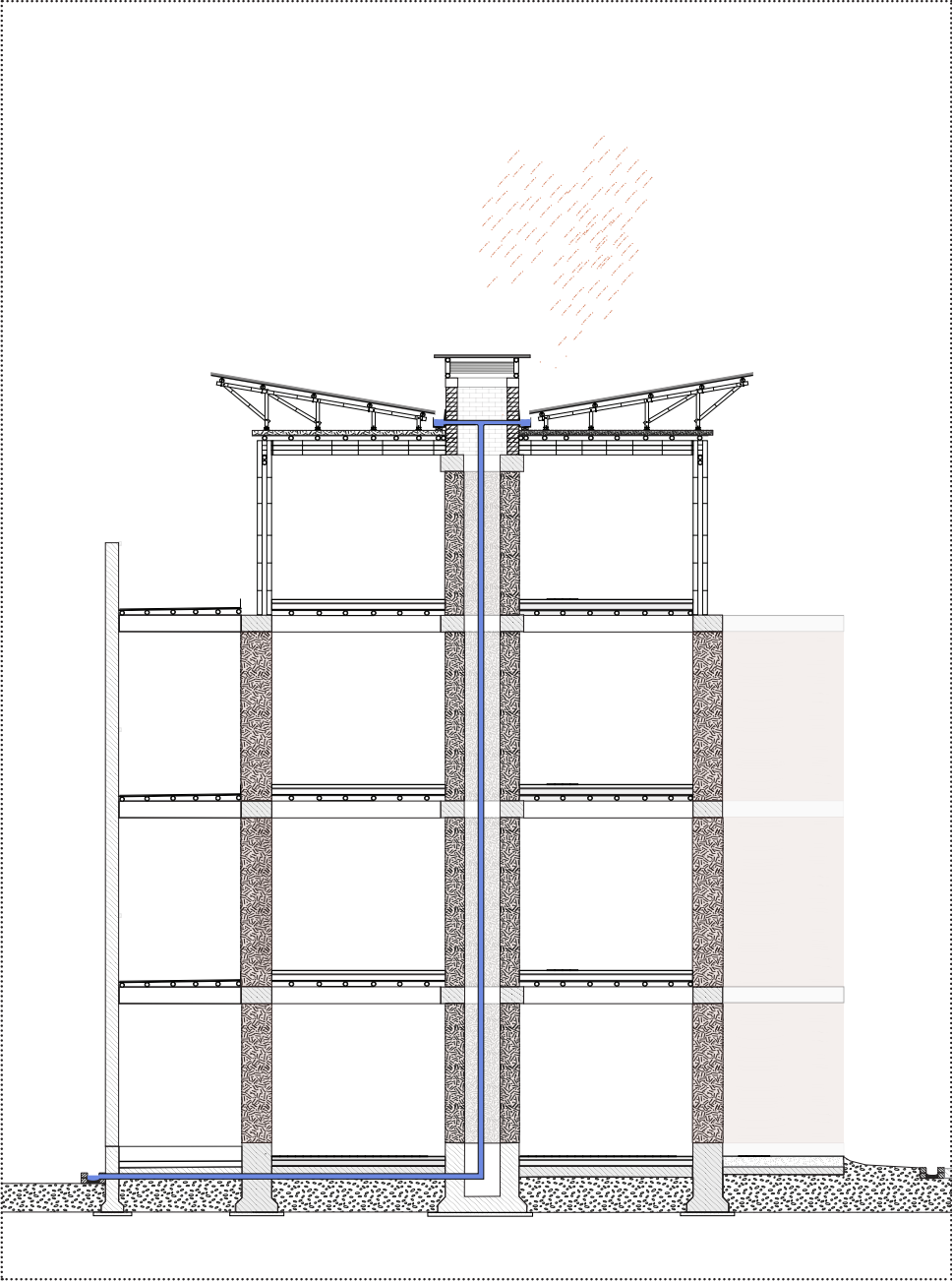


**1. FIRST PRIORITY, through building**

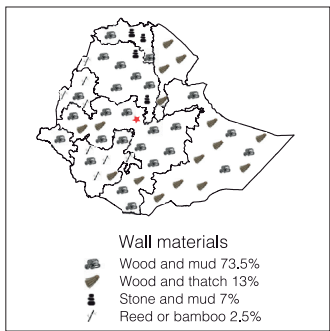
 Laundry	 Flushing the toilets	 Shower
------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------

**2. REMAINING WATER and storages**

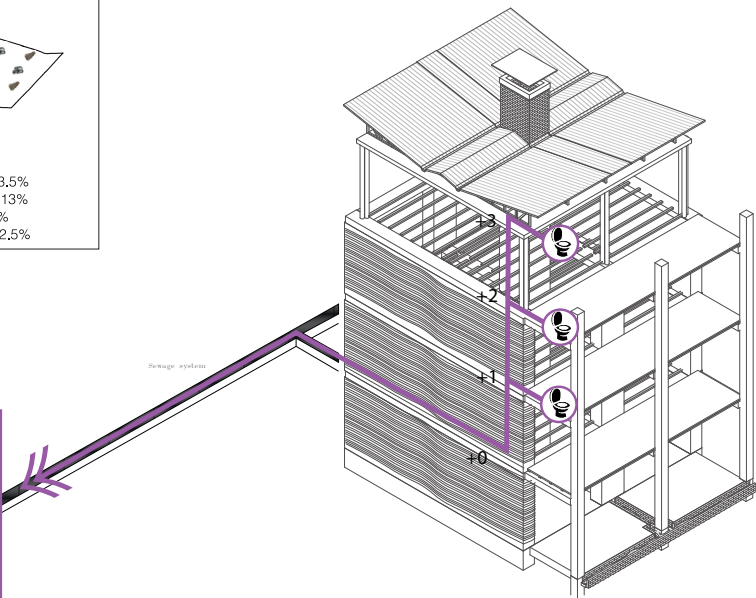
 Waterpark	 Local laundry	 Park
--------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------

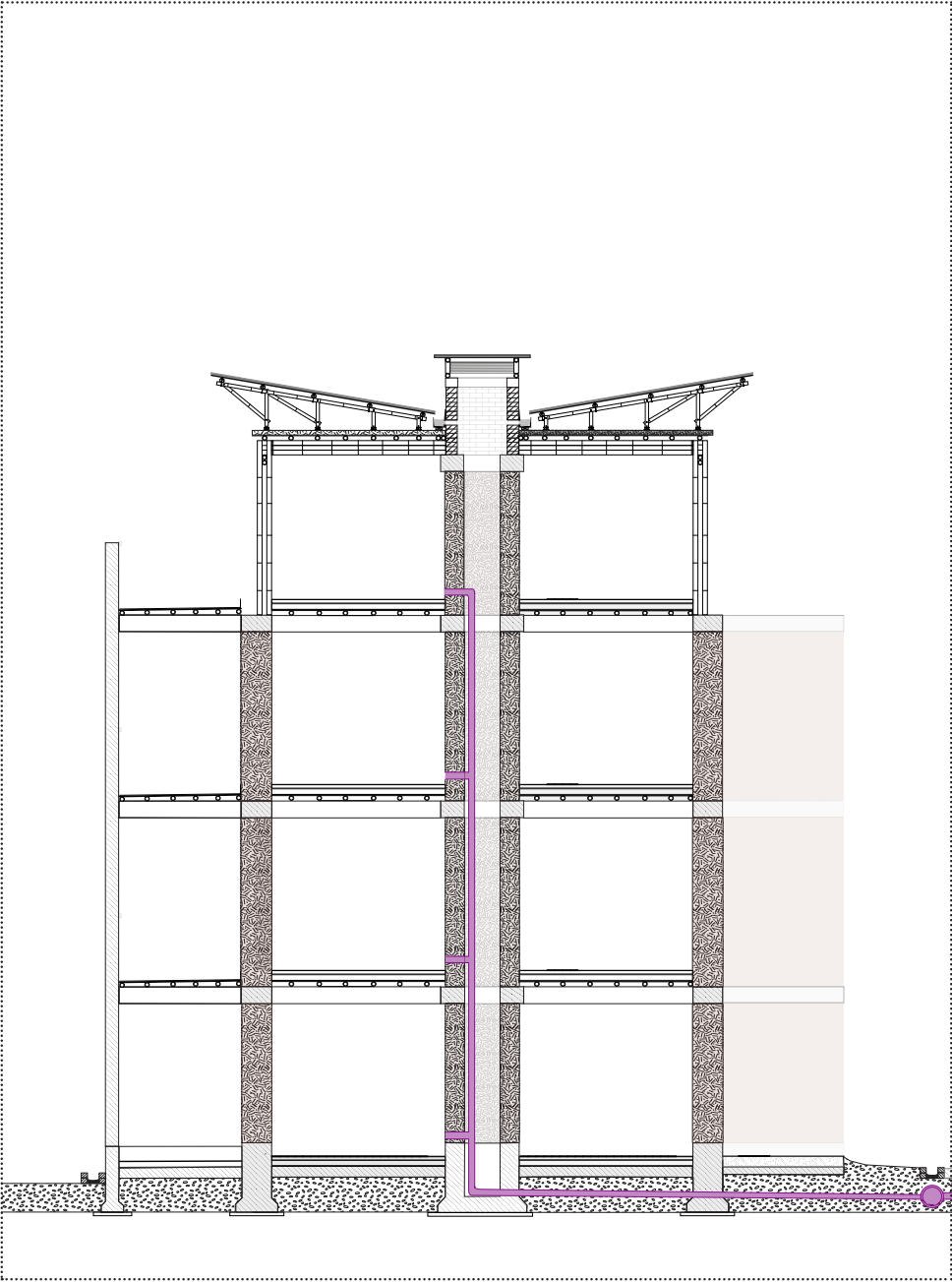


# SEWAGE SYSTEM



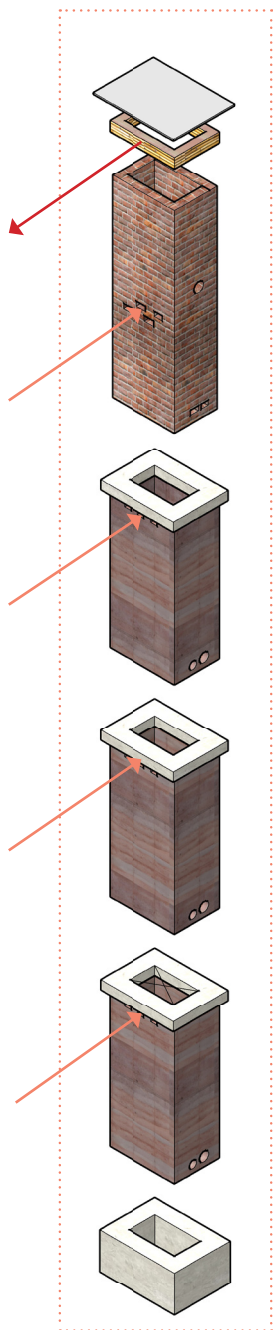
YELLOW-BROWN WATER



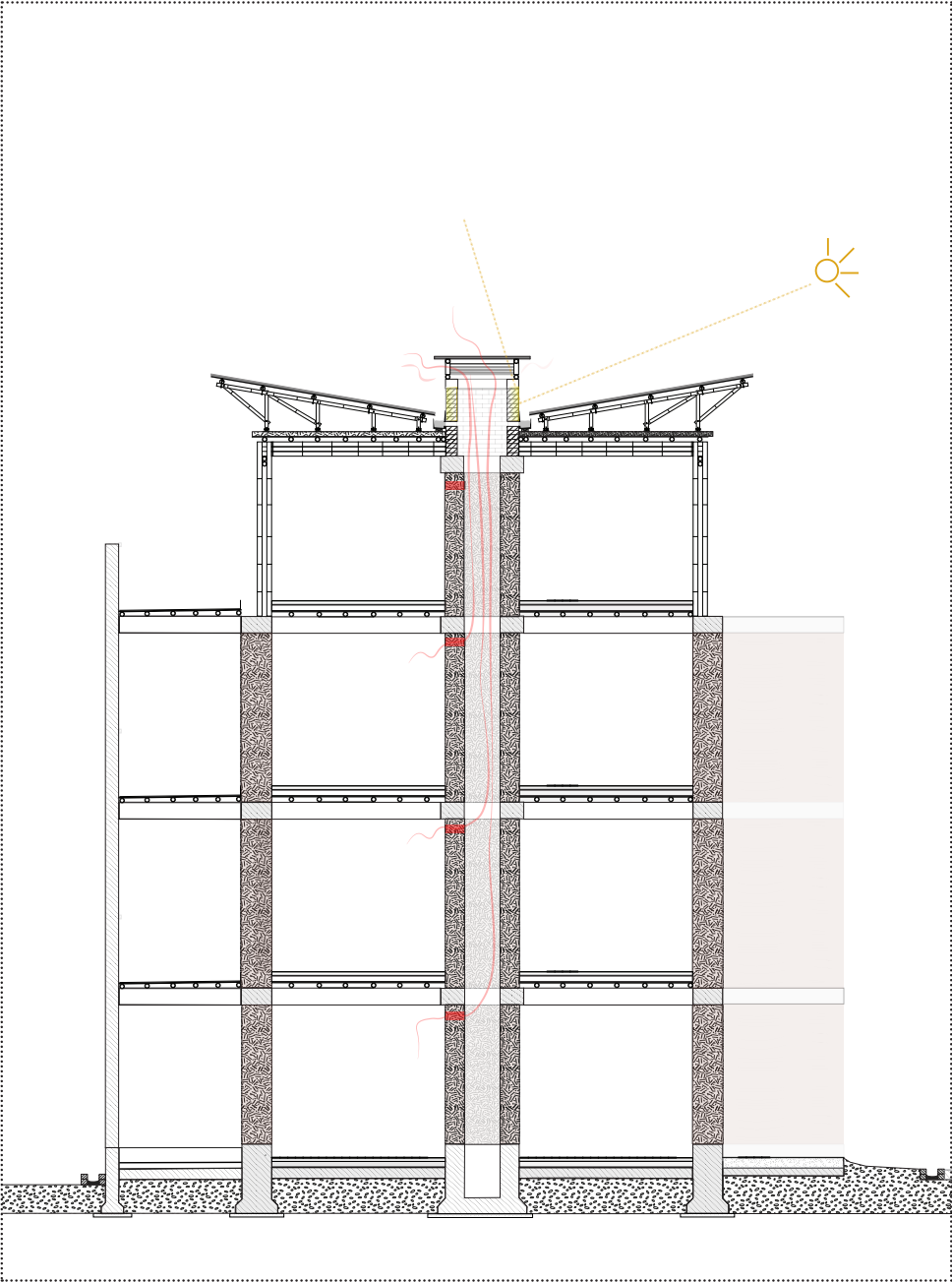


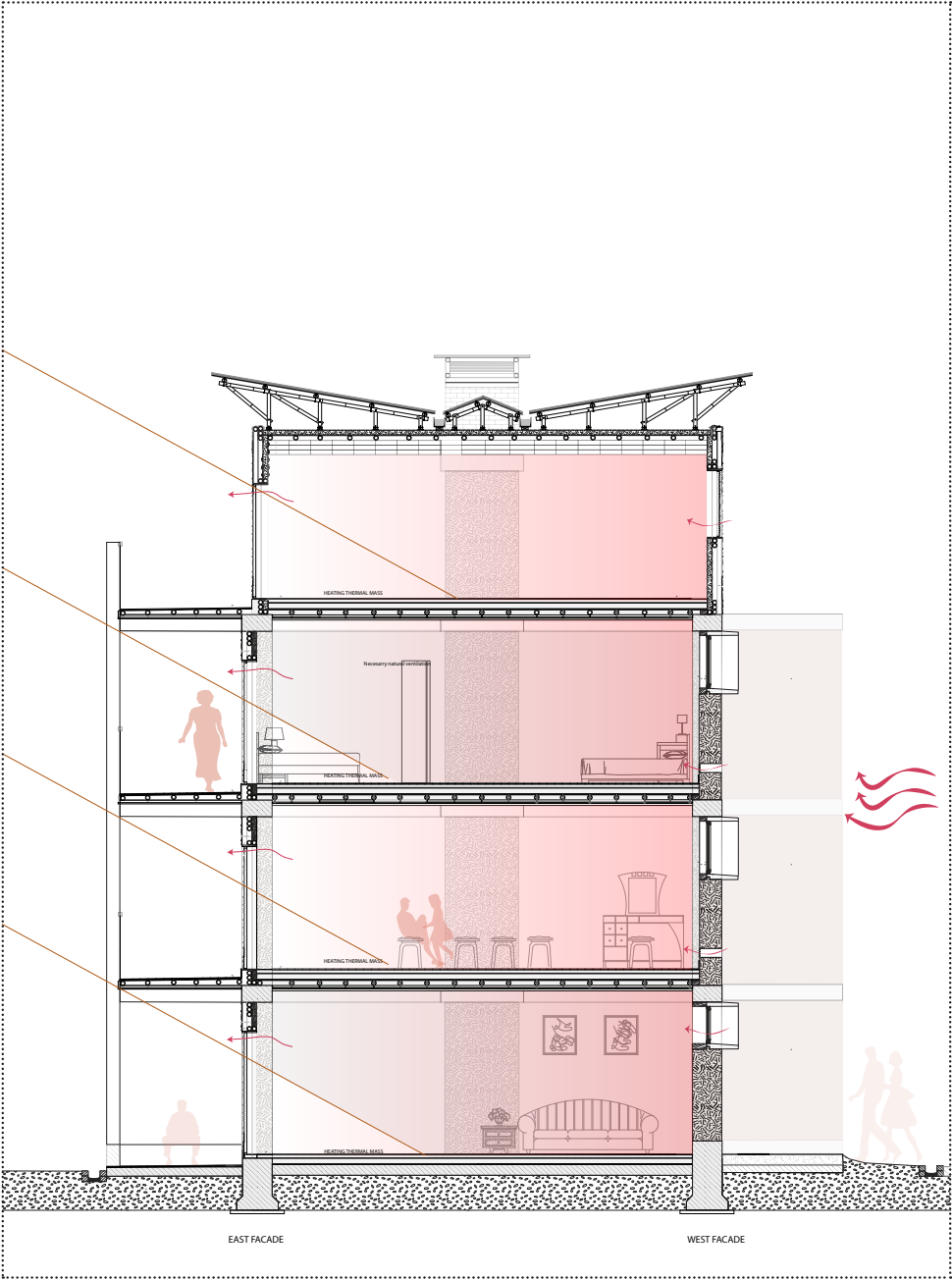
# CROSS-VENTILATION

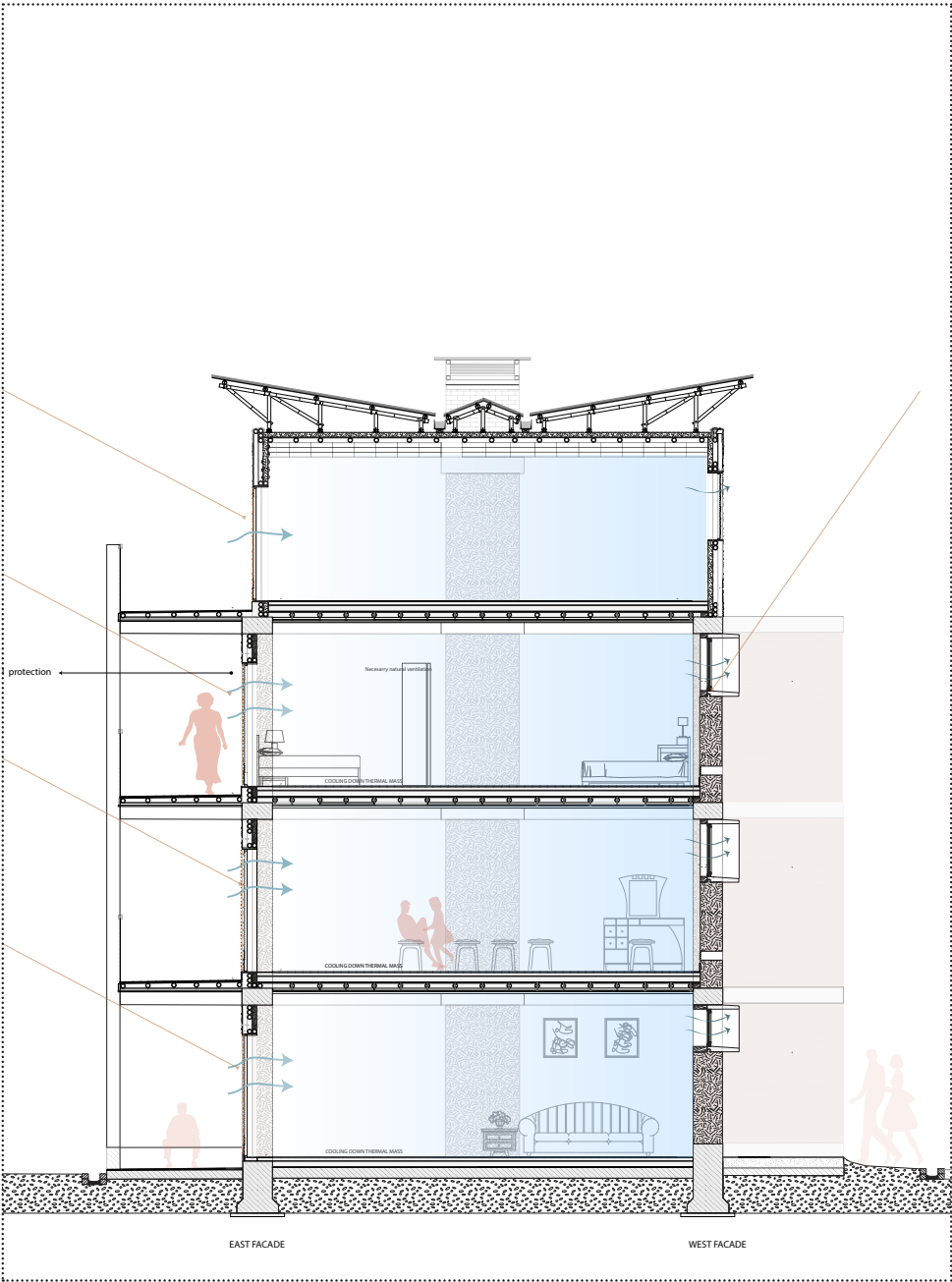
---











## **IV THE INFILL**

# **CALIBRATING THE PERMANENT DNA INTO SOMETHING SPECIFIC.**

---

In this chapter, I will explain the infill of the proposed toolbox. With the use of two totally different social groups and incomes. This will show two different outcomes, that are quite extreme in a way. I made this decision to test if the Building System of the project allows the differences where we aim to gather for in this project.

I will attentively explain the two villages.

# URBAN VILLAGE I

*From uncertainties to possibly grow*



## URBAN VILLAGE I IN SHORT.

**The village activated by agricultural activities, social mix and living.**

The village aims to reach a social mix, a mix of people that all have a similar trust, working in the reed purification or having small agricultural activities through the village. Since the Amhara and Oromo people are coming from a region where they had similar activities, these people would like to join the village in particular. Moreover, the Somali or Tigray may also be interested cause of the new introduced way of living. For that reason, the village will gather for a social mix.



*Hi! My name is Kia. Me and my family want to come to Addis Ababa. We have lived in a Borana village our entire lives. However, since I have children and a husband, the need for us to own more money in the future is starting to get quite important. The future in our village is not that promising for my children then I would wish. I want more chances for my children. For that reason, we decided to move to Addis Ababa. I would like to get acquainted with this urban development plan.*

# DEFINITIVE INFILL FROM SUPERVISORS

## DENSITY of the village

### 1. Size of the village

1 ha

### 2. Amount of households

204 households

### Ground Space Index (GSI)

The total area of the building layers including structural elements, warehouses, service spaces, storages etc.

0,45

### 3. Floor Space Index (FSI)

The ratio of total floor area of a building to the total plot area.

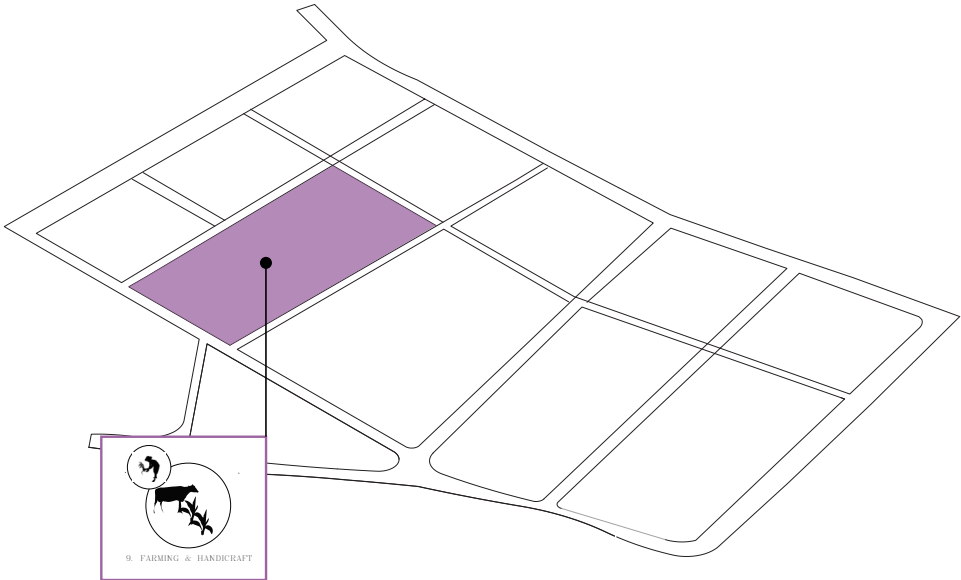
1,35

### 4. Dwellings/ha

205 dw/ha

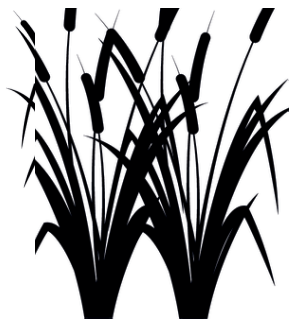
### 5. Population/ha

-/+ 3 per household = 615 inhabitants





WORKING IN THE  
REED PURIFICATION



HANDICRAFT



SMALL SCALE FARMING



# Getting to know the people

## VILLAGE

### Amenities

- Orthodox Christian (Lalibela inspired) pray area
- Community center
- Agricultural activities

### Safety

- Visible separation between public and more collective areas
- Permeable, pleasant borders, not closed off.

### Mix of ethnicities

- Different types of social- ethnic groups grouped together

## SPACE

### Space

Inner Courtyard <100 m<sup>2</sup>

- Safety
- Enclosed playground

### In-between communal amenities

Primarily based on women presence

- Hair salon
- Convenient shop
- Coffee shop
- Institutional space
- Small scale agricultural activities
- Hobby/ workshop room

### Encounters between the residents:

- Taking care of eachothers children
- Tresholds

Min 30 family units (overview through compound)

## BUILDING

### Typologies

- Dwelling sizes suitable for families: 52 m<sup>2</sup> - 104 m<sup>2</sup>

### Dwelling layout:

- Central, important space in the dwelling
- View access from the kitchen to the courtyard and communal gallery
- Flexible in layout, level heights

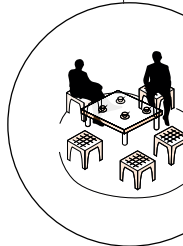
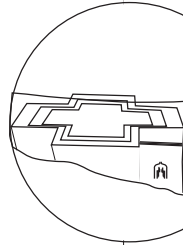
Private - collective space of 10 m<sup>2</sup> per household  
Entanglement work and living

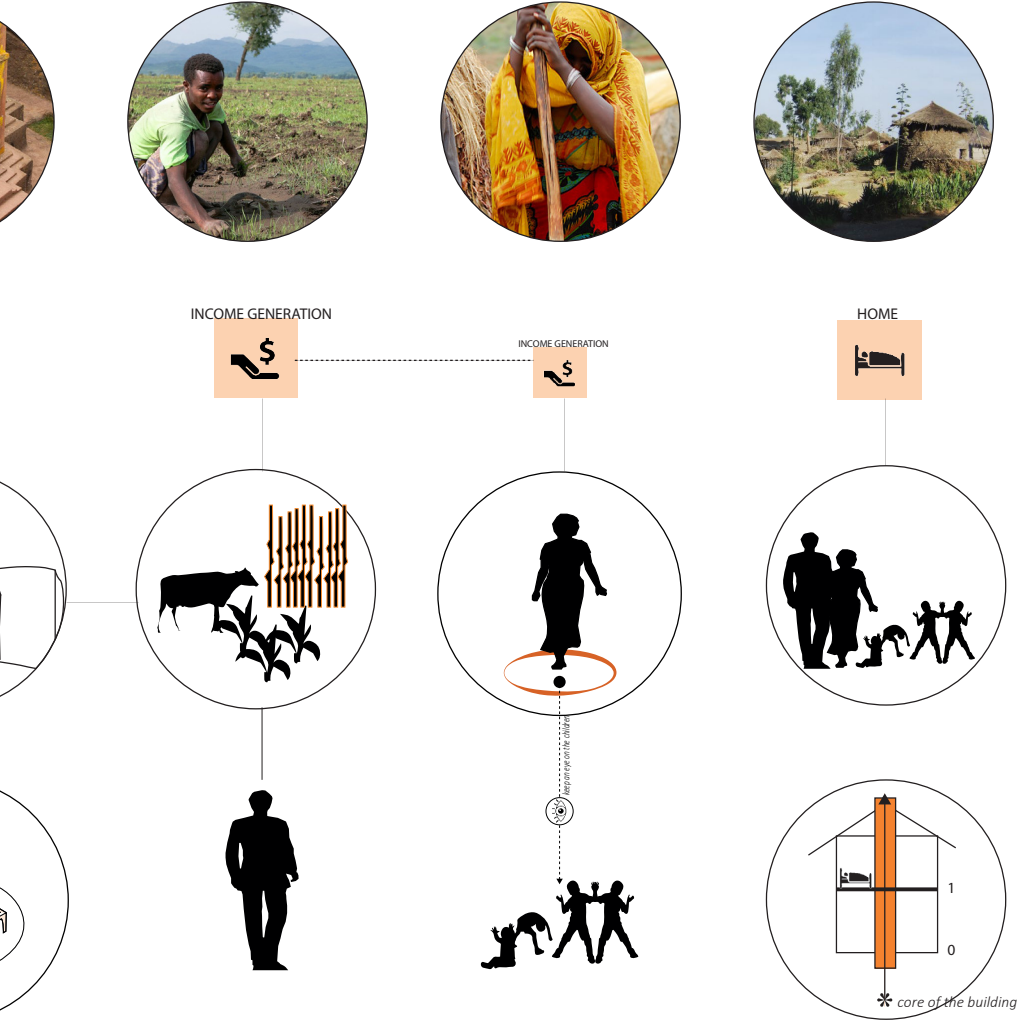


SIGHT



ACTIVITIES





# DEFINING THE URBAN VILLAGE

PHASE 1


BEFORE-HAND DECIDED

I.


53 x

To attain the mandatory density

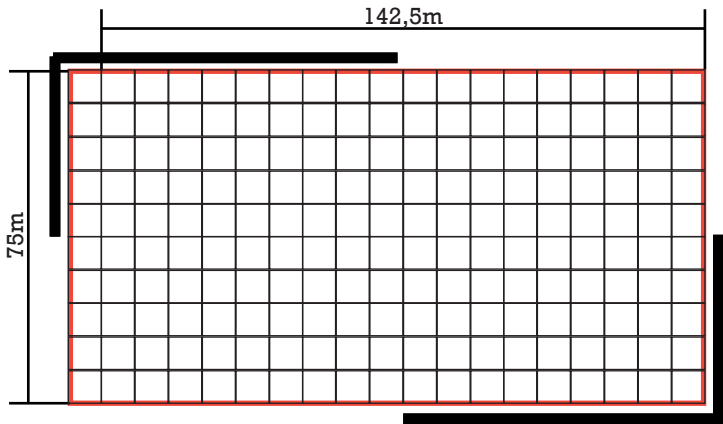
II.



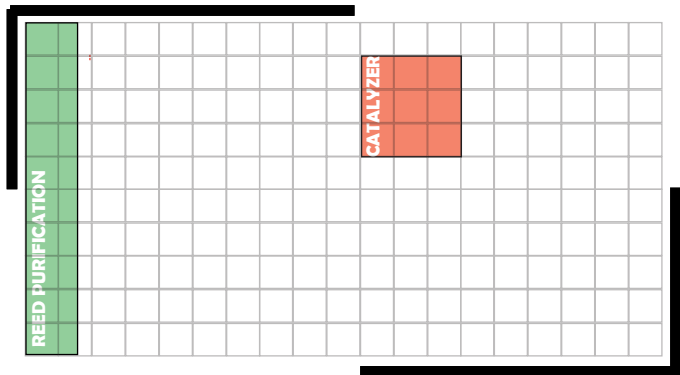
1. Working in the reed purification



2. The Catalyzer; a place for sharing, meetings and interact.



A grid map representing a rectangular area with dimensions 142,5m by 75m. The grid is 15 units wide and 10 units high. A red border highlights the perimeter of the grid. Thick black lines indicate the boundaries of the site.



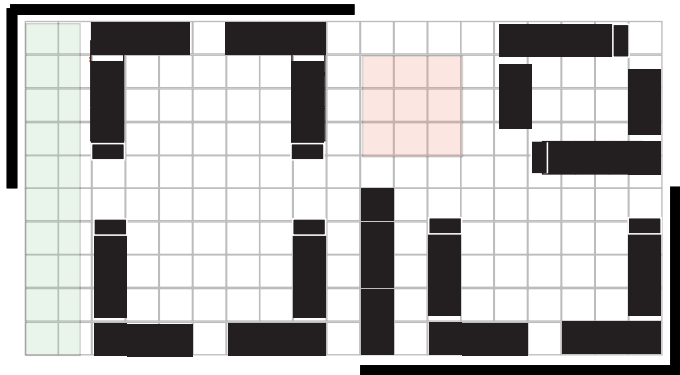
A grid map showing the layout for Phase 2. The grid is 15 units wide and 10 units high. A green vertical strip on the left side is labeled 'REED PURIFICATION'. A red square area in the upper right is labeled 'CATALYZER'. Thick black lines indicate the boundaries of the site.

PHASE 2.

LOCAL ARCHITECT IN COLLABORATION WITH THE FUTURE INHABITANTS

IV.

The choice of urban differentiation

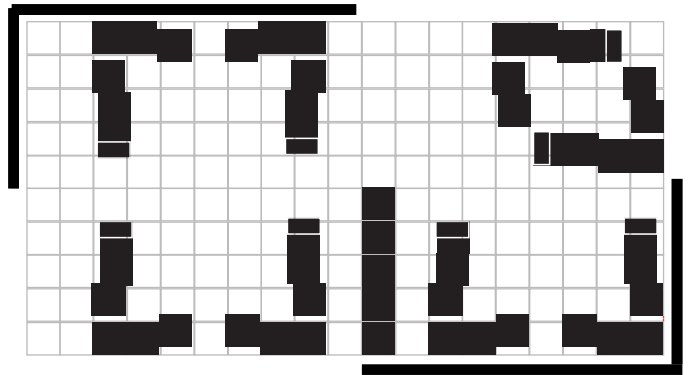


A grid map showing the layout for Phase 2, including building footprints. The grid is 15 units wide and 10 units high. A green vertical strip on the left side is labeled 'REED PURIFICATION'. A red square area in the upper right is labeled 'CATALYZER'. Black shapes represent building footprints. Thick black lines indicate the boundaries of the site.

194

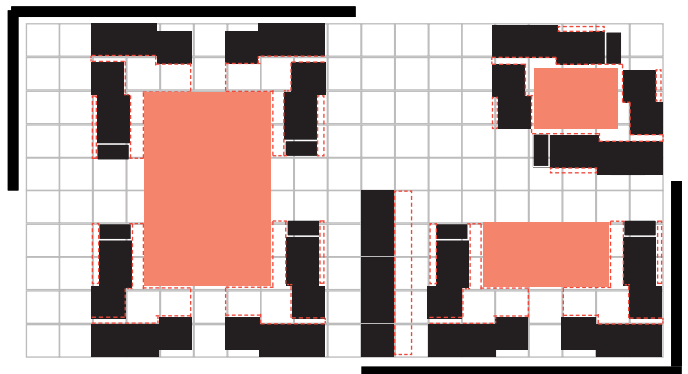
#### IV.

*The choice to shift the formal grid.*



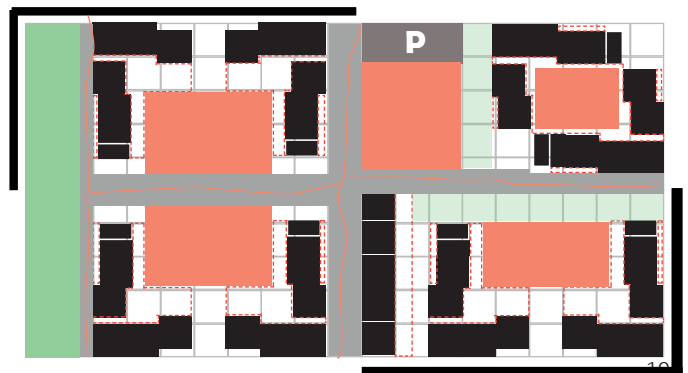
#### V.

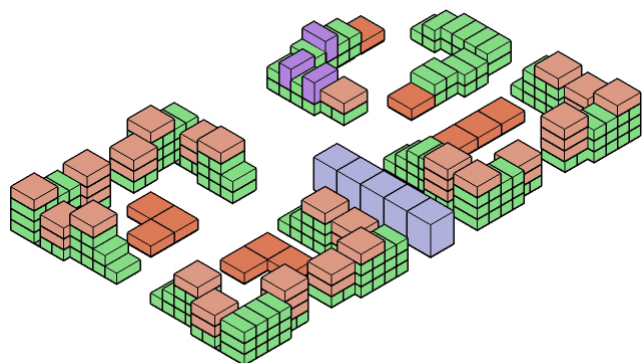
*The preferred space and infill/*



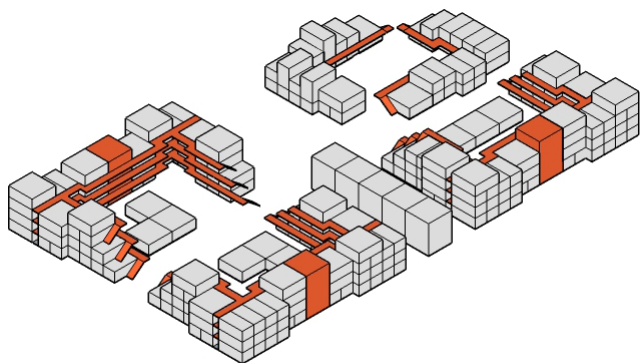
#### V.

*The remaining space infill*

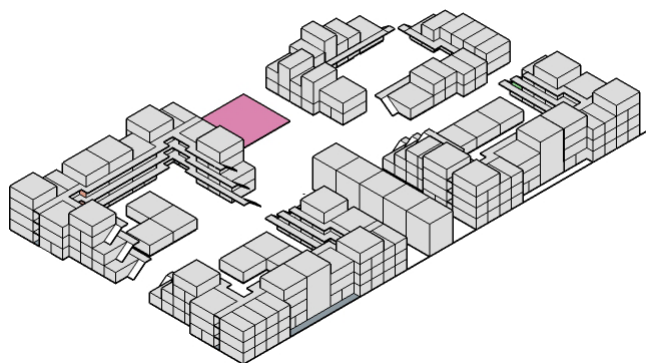




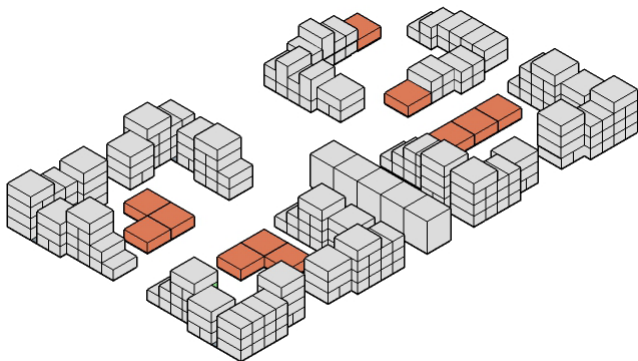
HOUSEHOLD CONFIGURATION



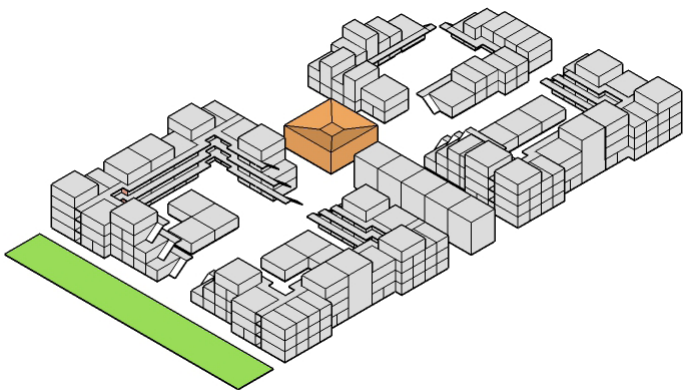
CIRCULATION



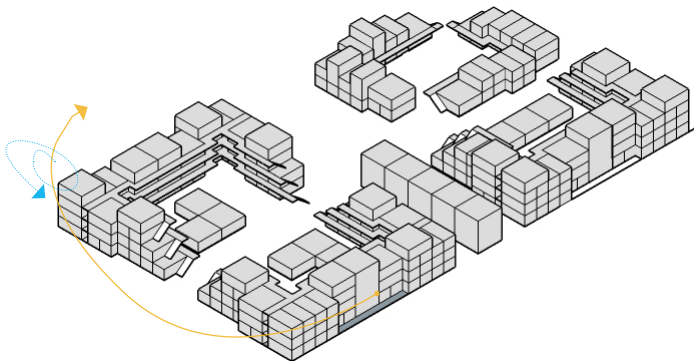
PARKING



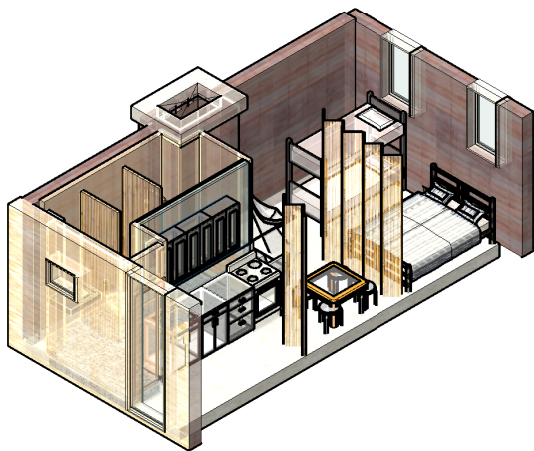
COMMUNAL AMENITIES *in the in-between*



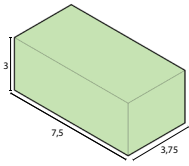
PUBLIC AMENIITIES



SUN/ WIND

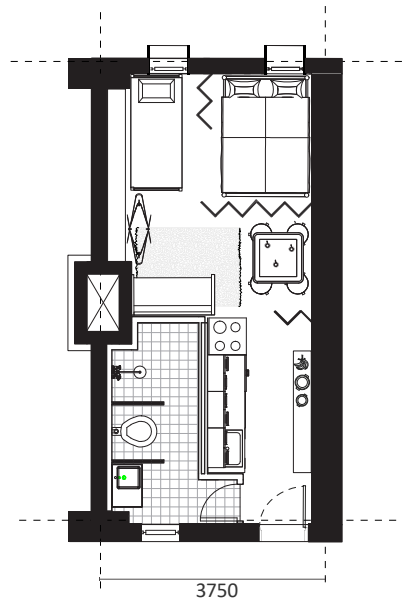




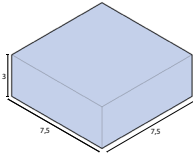


### **TYPE A**

- One level
- Apartment: 28 m<sup>2</sup>
- Suitable for: (small) and low income y / couple

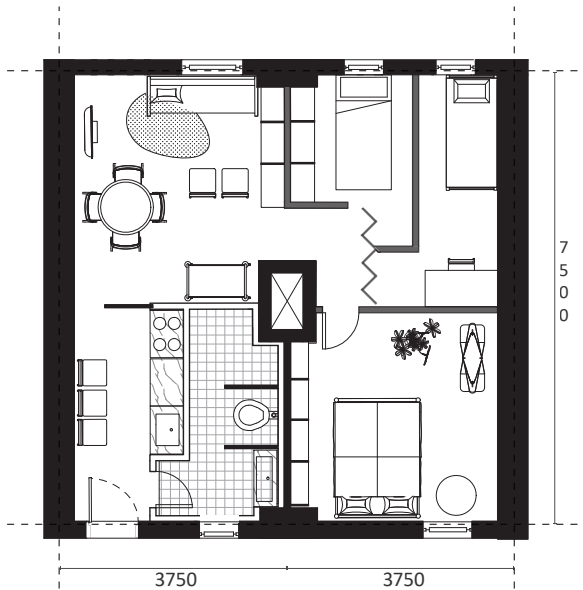
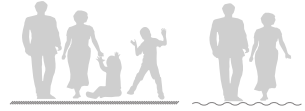


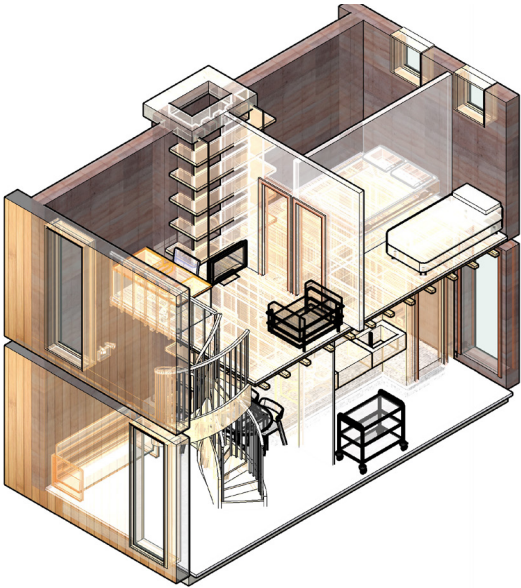


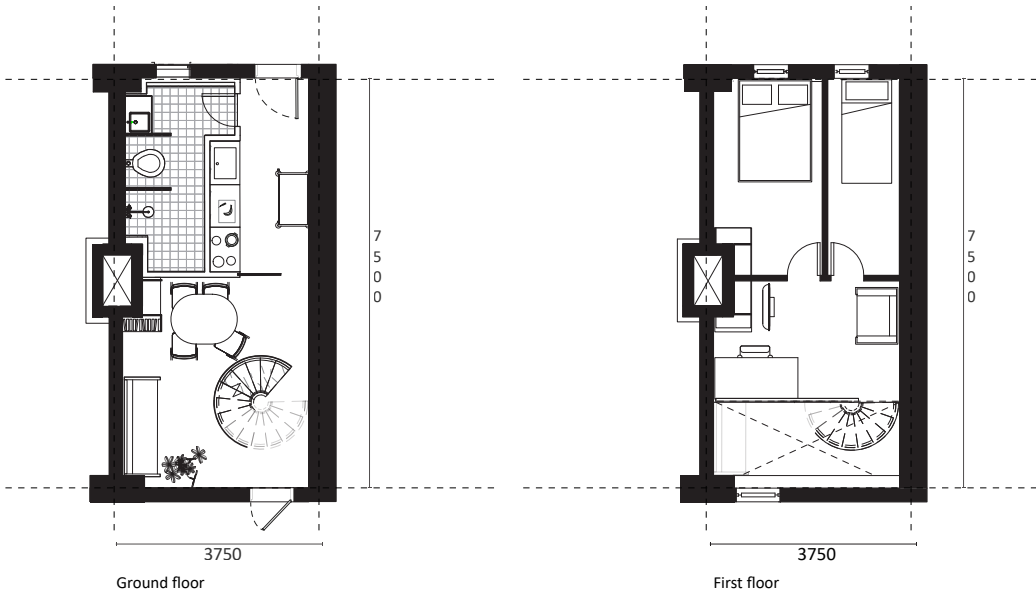
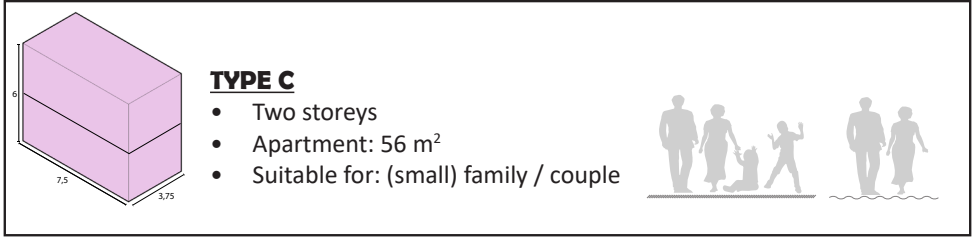


### **TYPE B**

- One level
- Apartment: 56 m<sup>2</sup>
- Suitable for: (small) family / couple

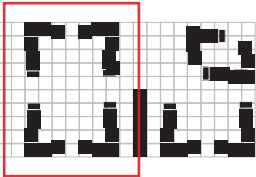






# FLOOR PLAN / ground floor

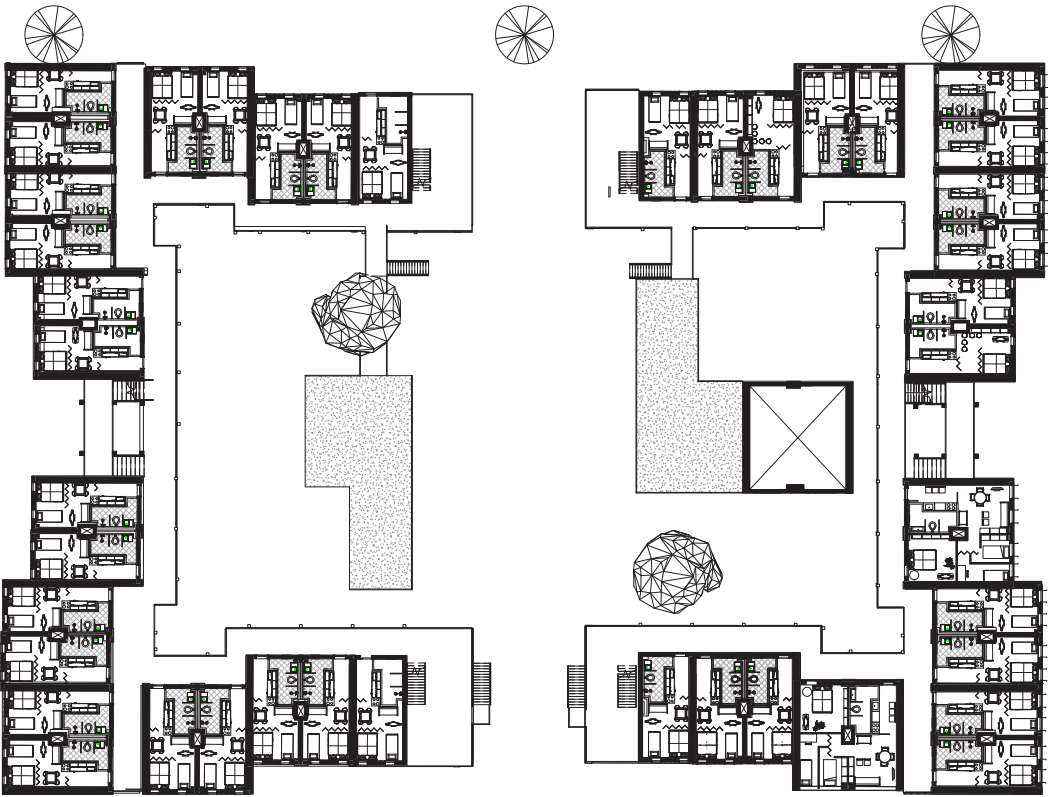
1:500



# FLOOR PLAN / first floor

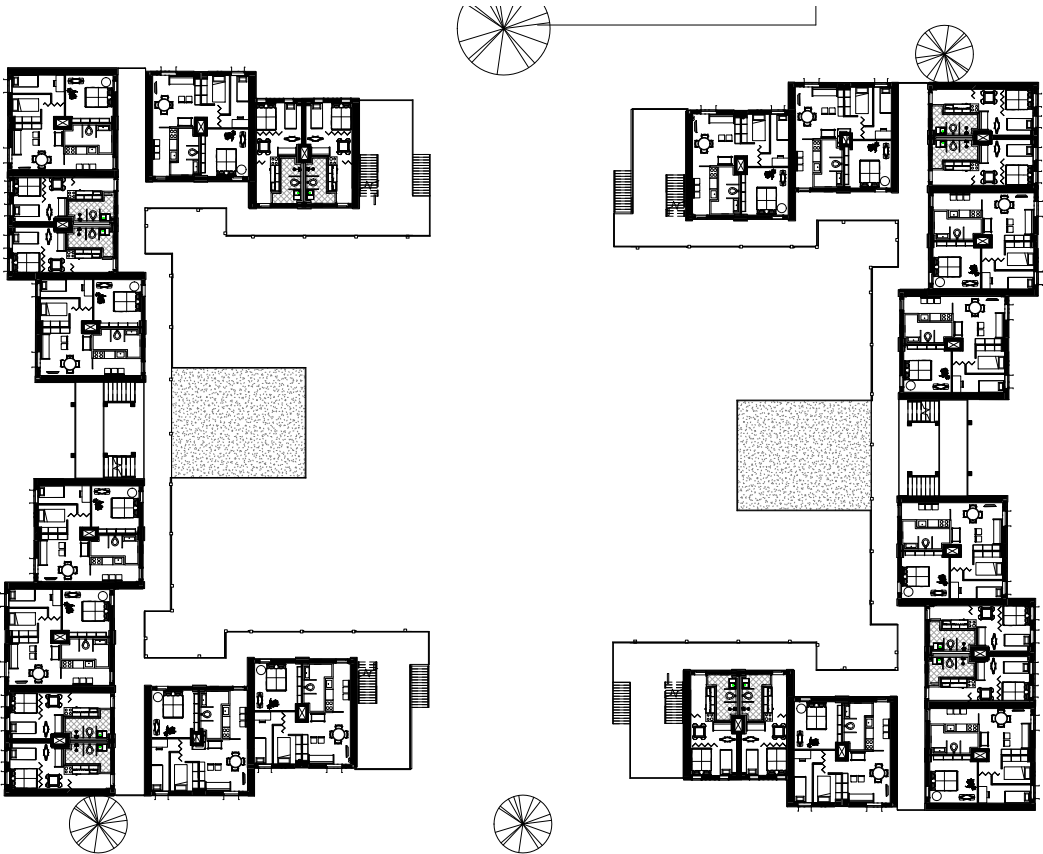
Final Design // Urban Village 1

1:500



# FLOOR PLAN / second floor

1:500

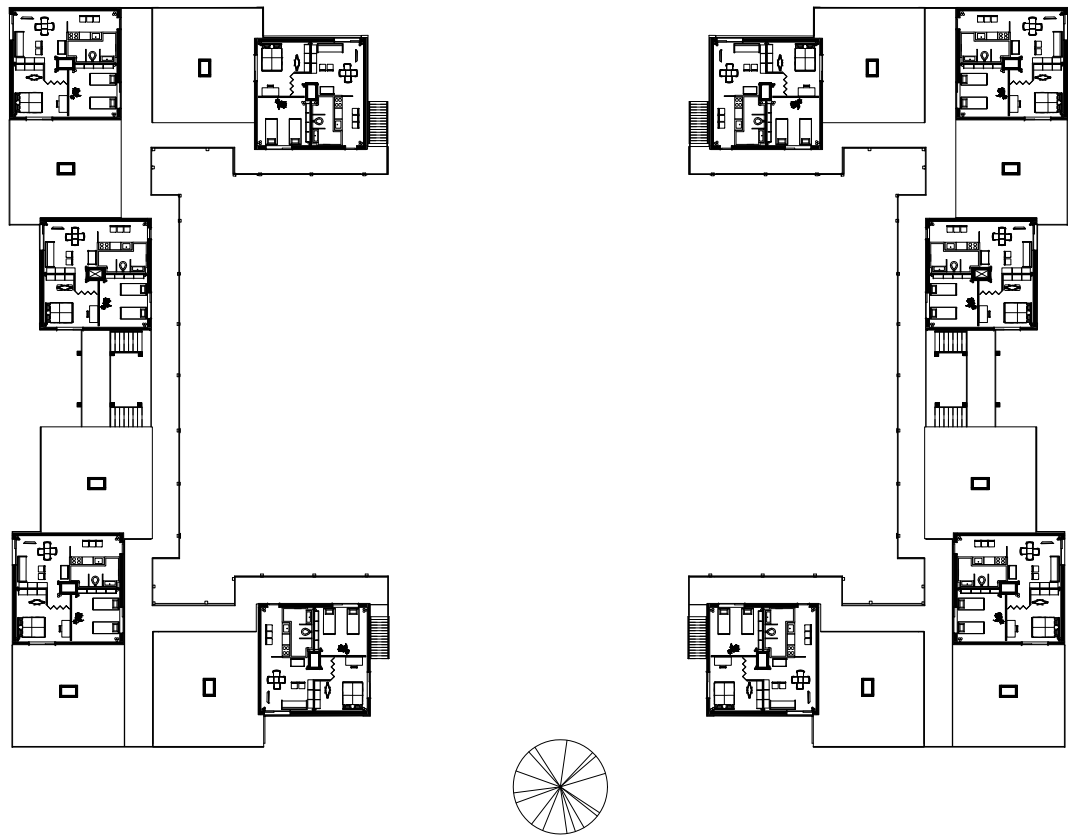




# FLOOR PLAN / third floor

Final Design // Urban Village 1

1:500



# ELEVATIONS

1:200

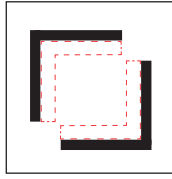


## SOUTH FACADE

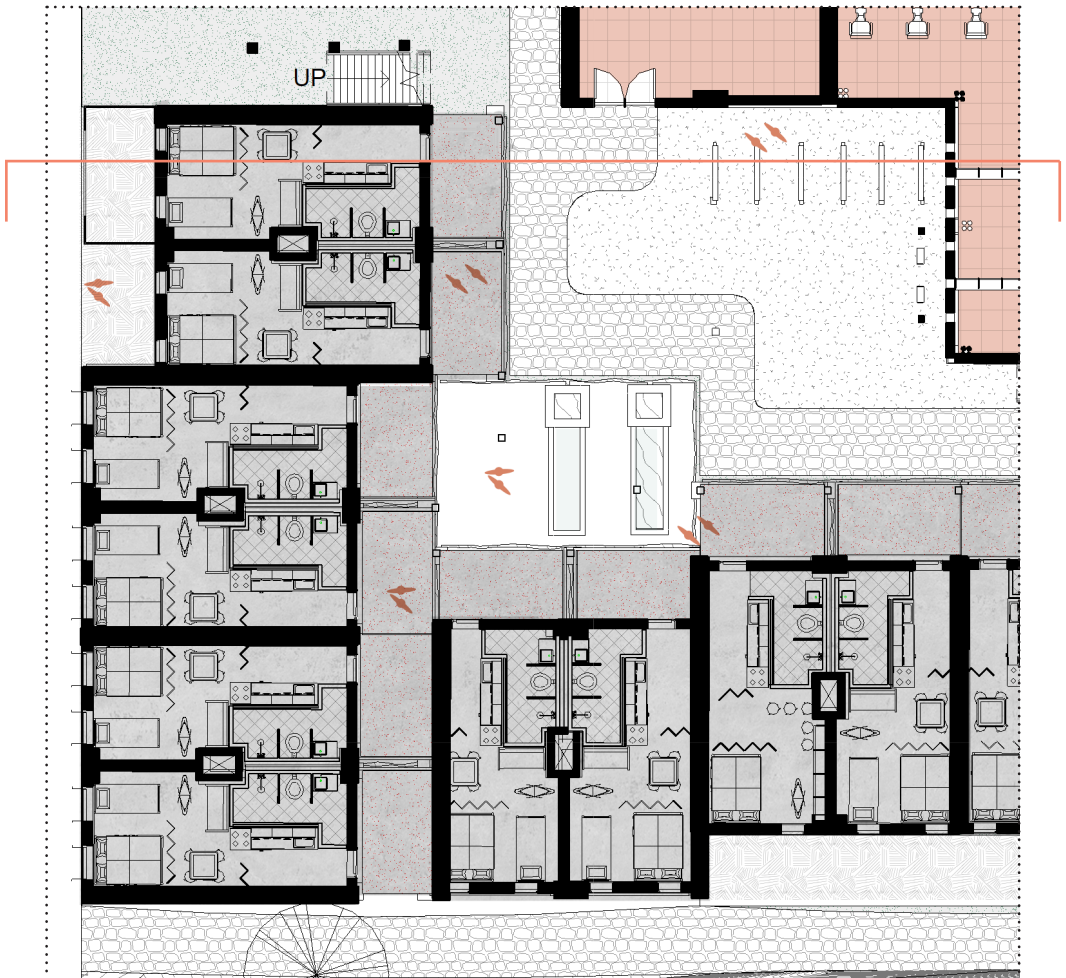


WEST FACADE



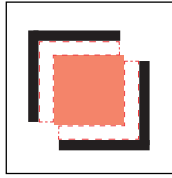


## **THE INTIME, PRIVATE SPHERES**

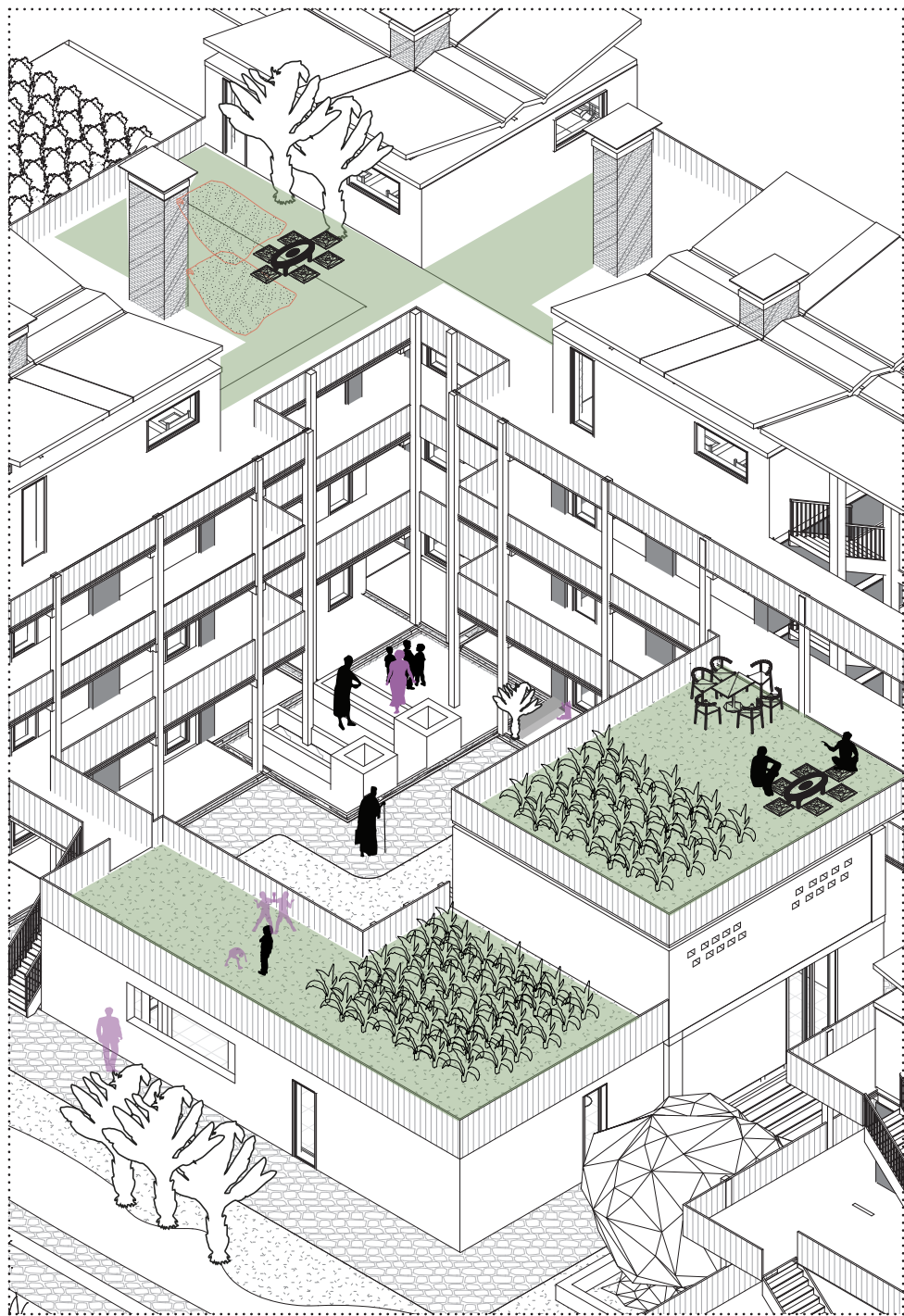


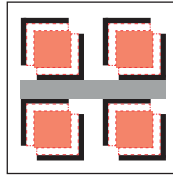




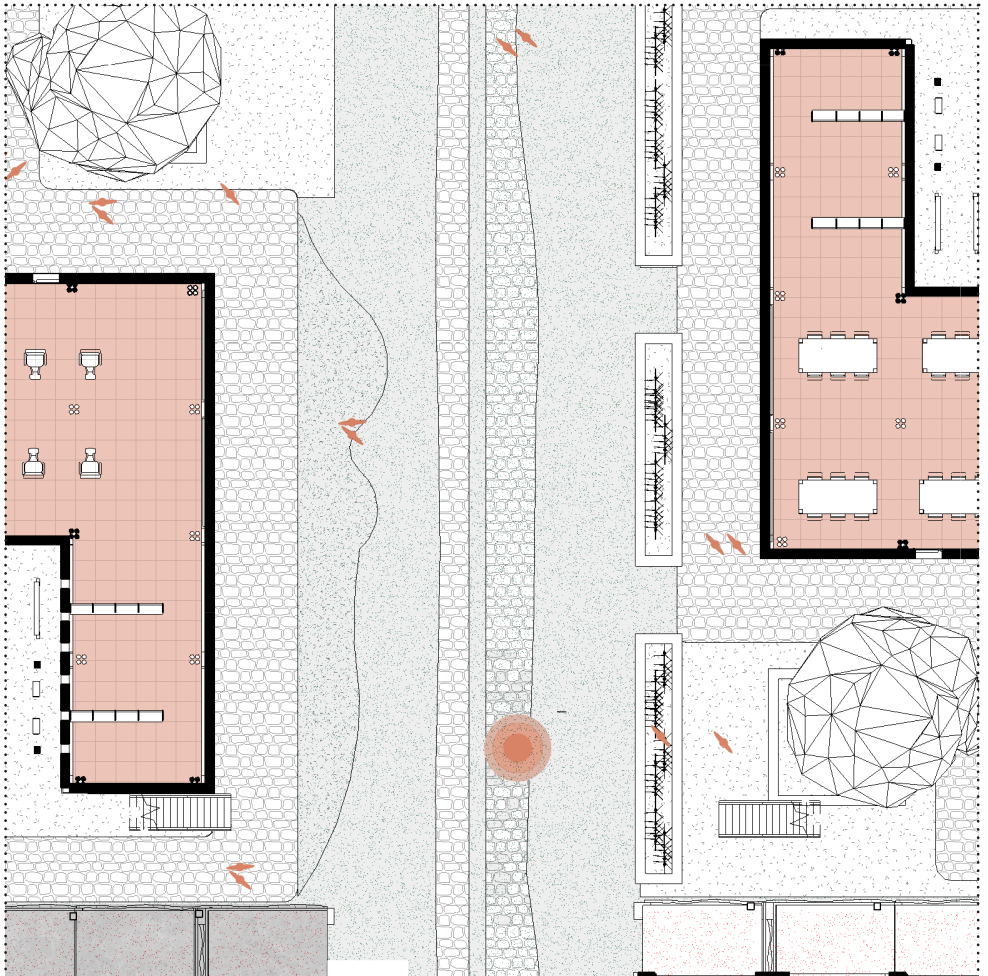


**THE IN-BETWEEN INFILL**





## **THE ACTIVE INTERMEDIATE**







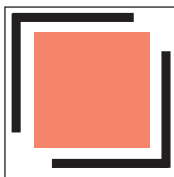




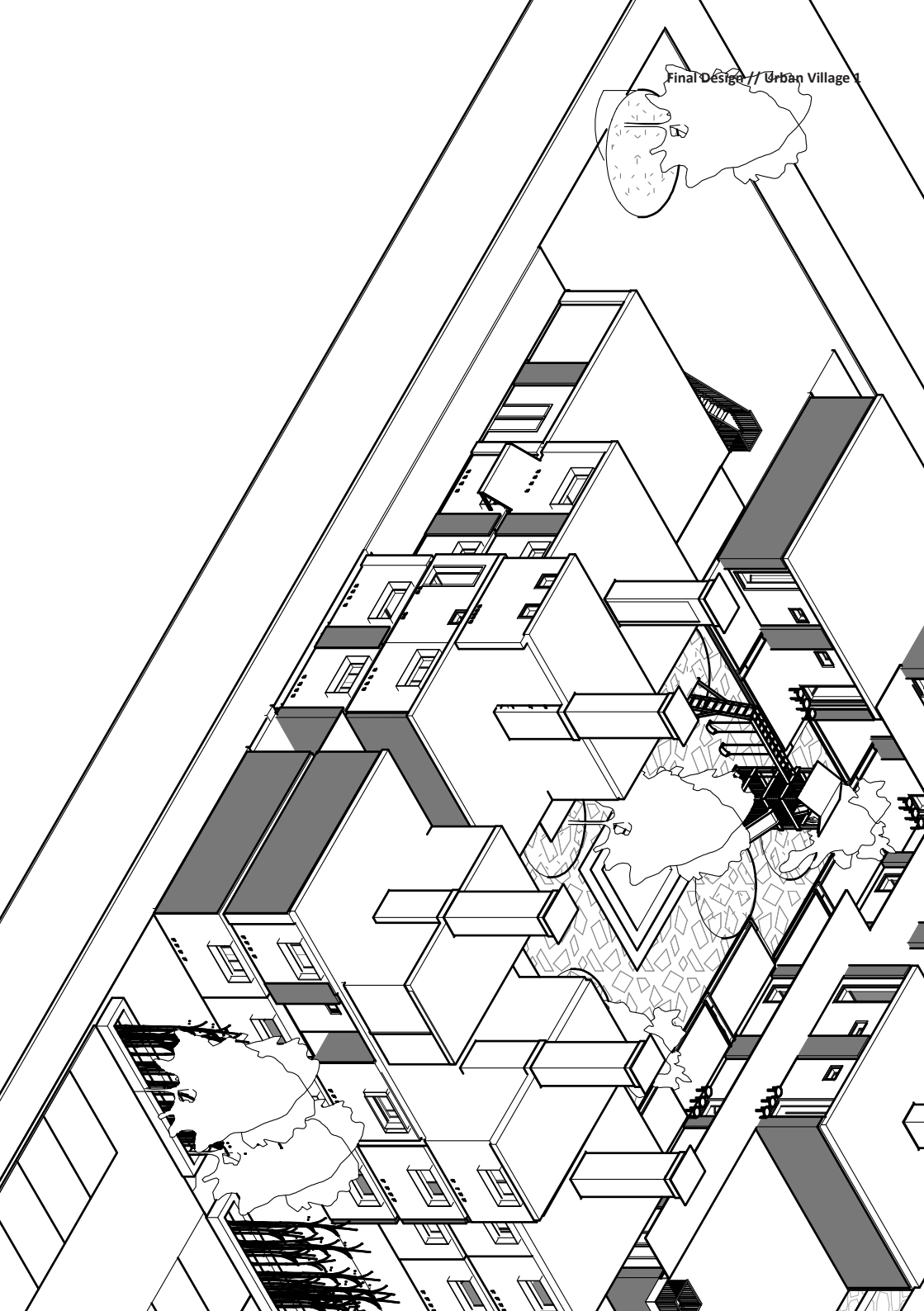








**THE ENTIRE VILLAGE**



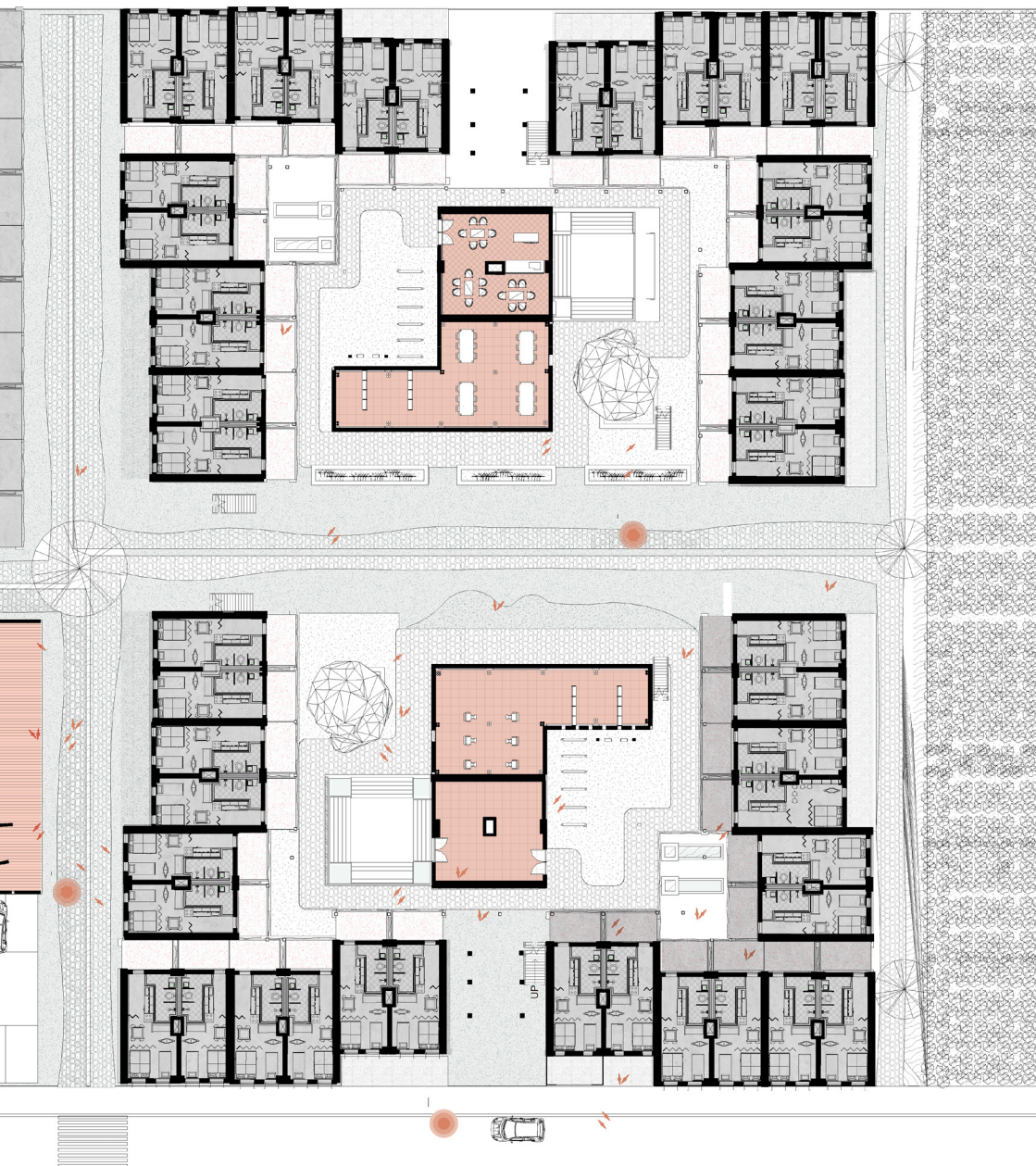


# Urban Village plan

1:750













# URBAN VILLAGE II

*From a secluded living towards joint efforts*



## URBAN VILLAGE II IN SHORT.

**The village activated by work and living spheres.**

The village is build up as a community of trust by mixing middle-income people and high-income people. Since the higher-income people own a factory for producing modular bathrooms, the communal spheres are based on co-working. Middle-income people can employ for a job in the factory or in the bar or street shops in the village. Since they all have an aspiration to work from home or within the village itself, on the ground floor the double-height apartments give the opportunity to work pleasant from home. Moreover, a double-height communal gallery is designed to create a pleasant small-scale environment.



*Hi! My name is Desta. At this moment, I live in a Fenced off residential Complex in Addis. Previously, I had great contact with my surroundings. Especially Addis can be seen as a city in which there is no strict division between people in the city. However, because of the newly built network of roads, I lost contact with my surroundings. I'm unfortunately disconnected from the social mix that I just like the most about Addis. So I would like to promote social mix, I would like to invest in developments such as this one.*

# Defining the village

## PHASE 1

BEFORE-HAND DECIDED

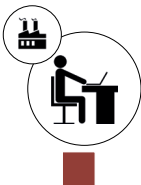
I. Subdivide the site into 10 urban villages



20 x

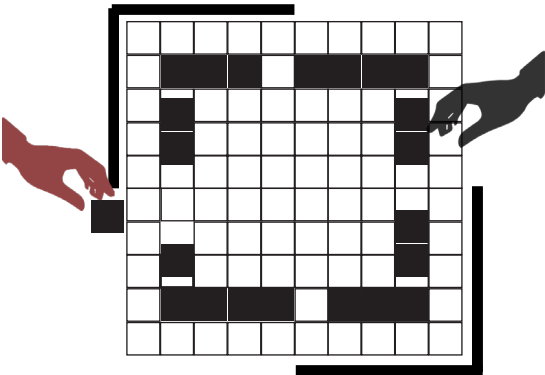
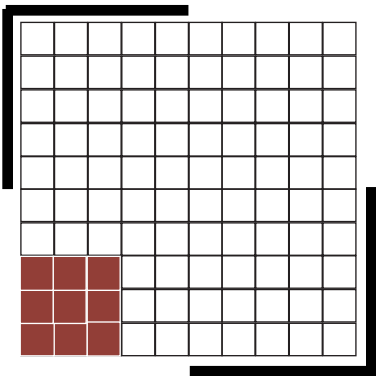
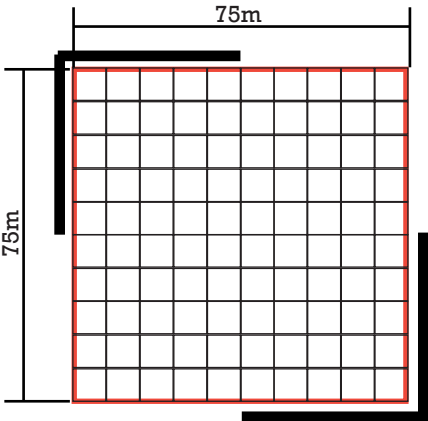
To attain the  
mandatory density

II. The public amenities and activity



9 x

co-working and  
office space



## PHASE 2.

LOCAL ARCHITECT IN COLLABORATION WITH THE  
FUTURE INHABITANTS

IV. Define the urban configuration

Arrange the building  
components to the  
preferred setting

#### IV. Define the urban configuration

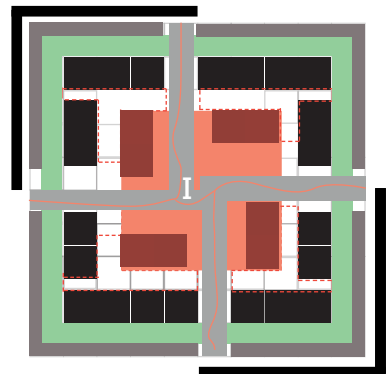
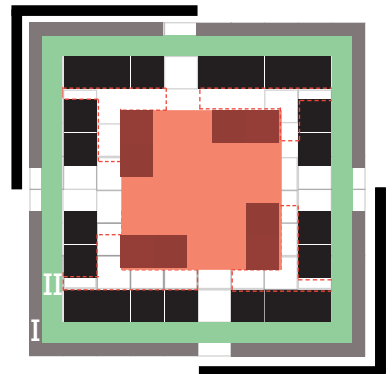
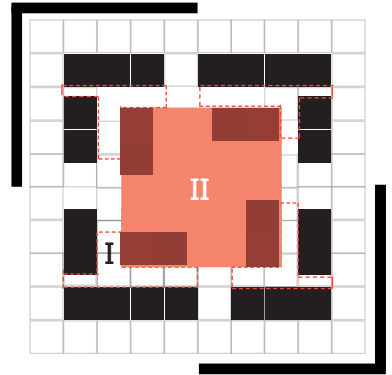
- I. The defined intime space
- II. The defined public space

#### V. Pick the matching components from the toolbox

- I. Parking
- II. The green visible boundary to attain a pleasant living environment

#### V. Pick the matching components from the toolbox

- I. The intermediate space filled with a pedestrian route through an active plint of workshops, co-working and offices.





## **DENSITY of the village**

### **1. Size of the village**

0,5 ha

### **2. Amount of households**

67 households

### **Ground Space Index (GSI)**

*The total area of the building layers including structural elements, warehouses, service spaces, storages etc.*

0,45

### **3. Floor Space Index (FSI)**

*The ratio of total floor area of a building to the total plot area.*

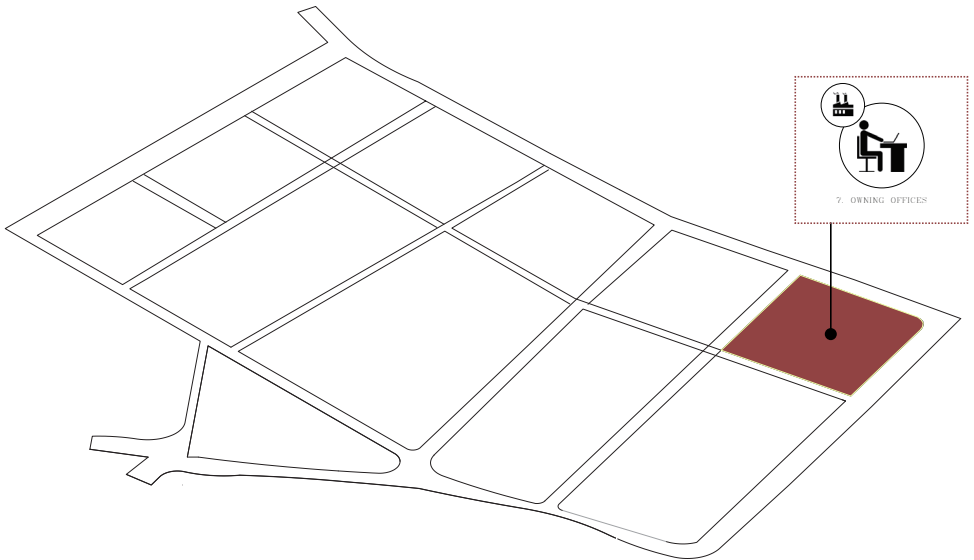
1,35

### **4. Dwellings/ha**

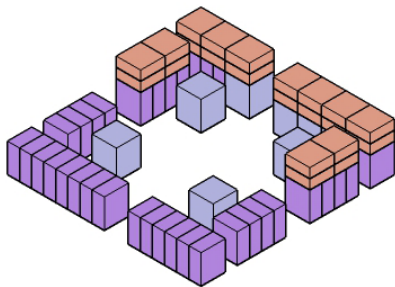
134 dw/ha

### **5. Population/ha**

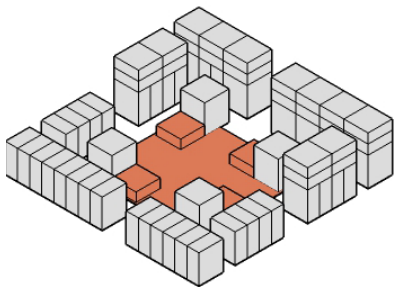
-/+ 3 per household = 201 inhabitants



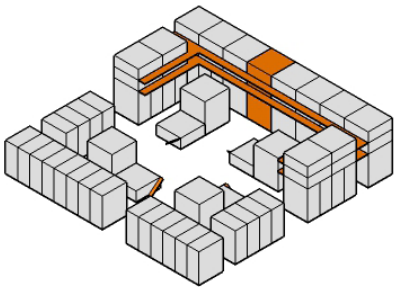




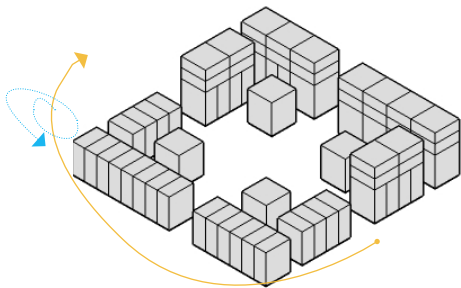
HOUSEHOLD CONFIGURATION



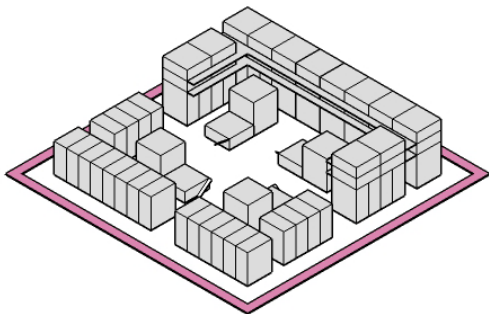
COMMUNAL AMENITIES *in the in-between*



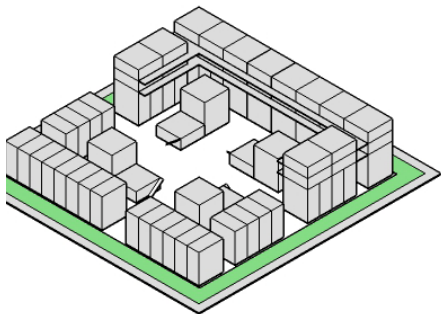
CIRCULATION



SUN/ WIND

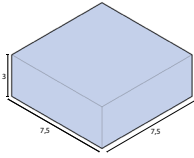


PARKING



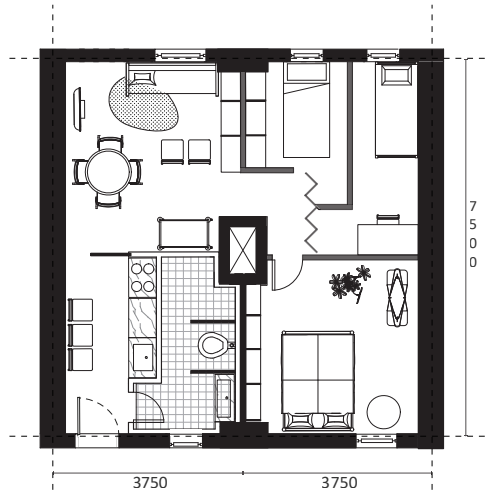
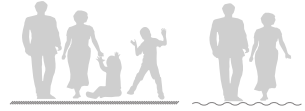
GREEN BORDER

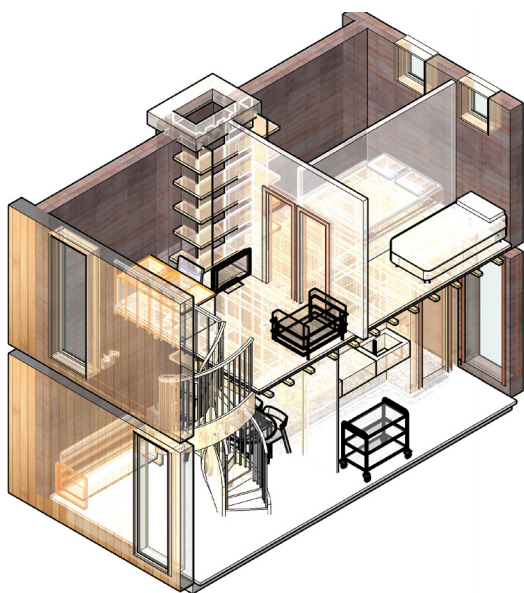


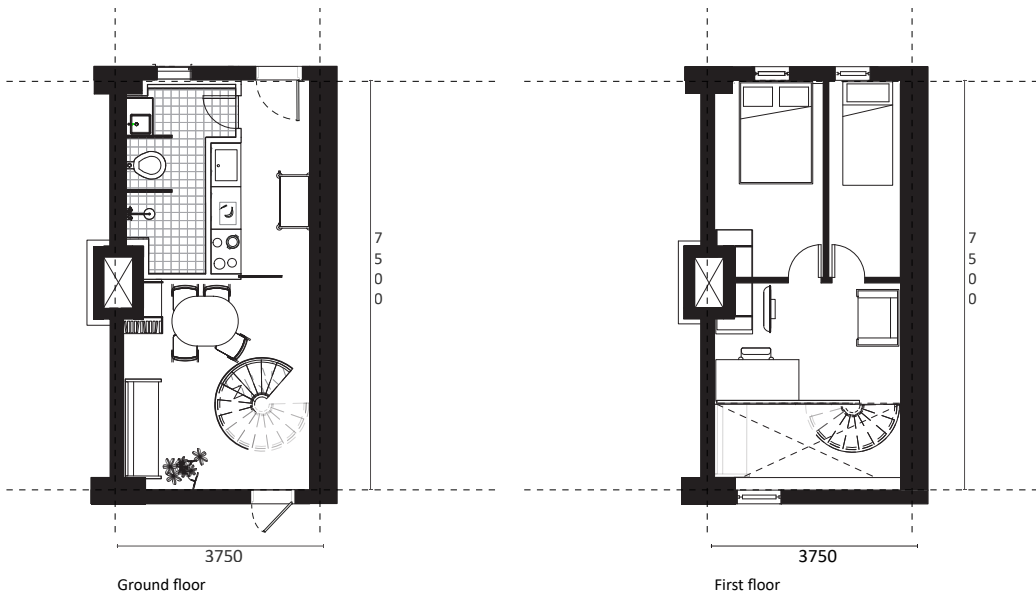
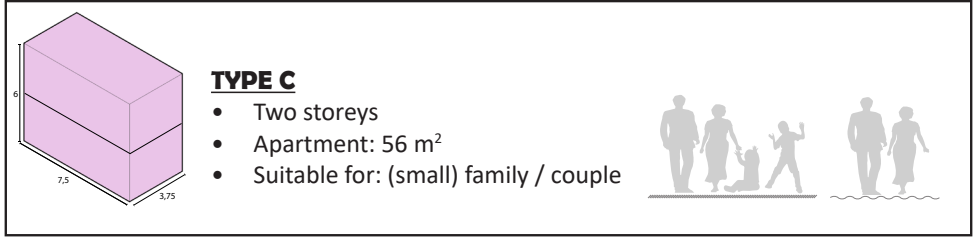


### **TYPE B**

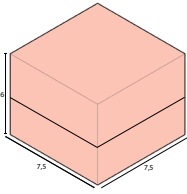
- One level
- Apartment: 56 m<sup>2</sup>
- Suitable for: (small) family / couple





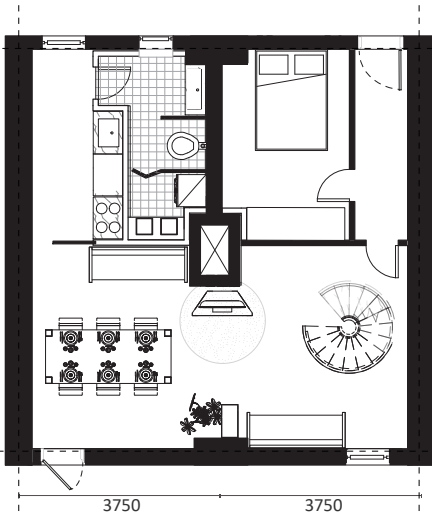
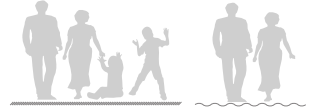




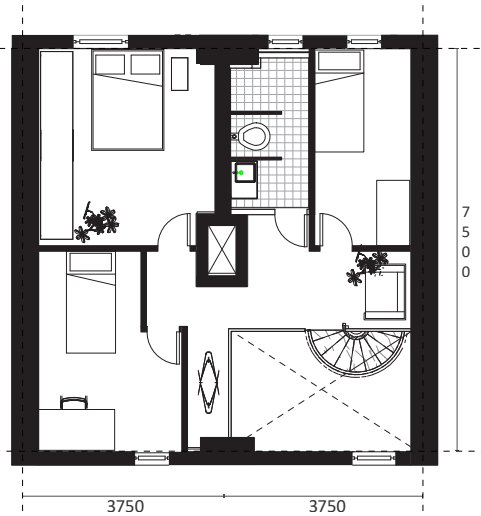


### **TYPE D**

- Two storeys
- Apartment: 112 m<sup>2</sup>
- Suitable for: Big families / high income



Ground floor



First floor

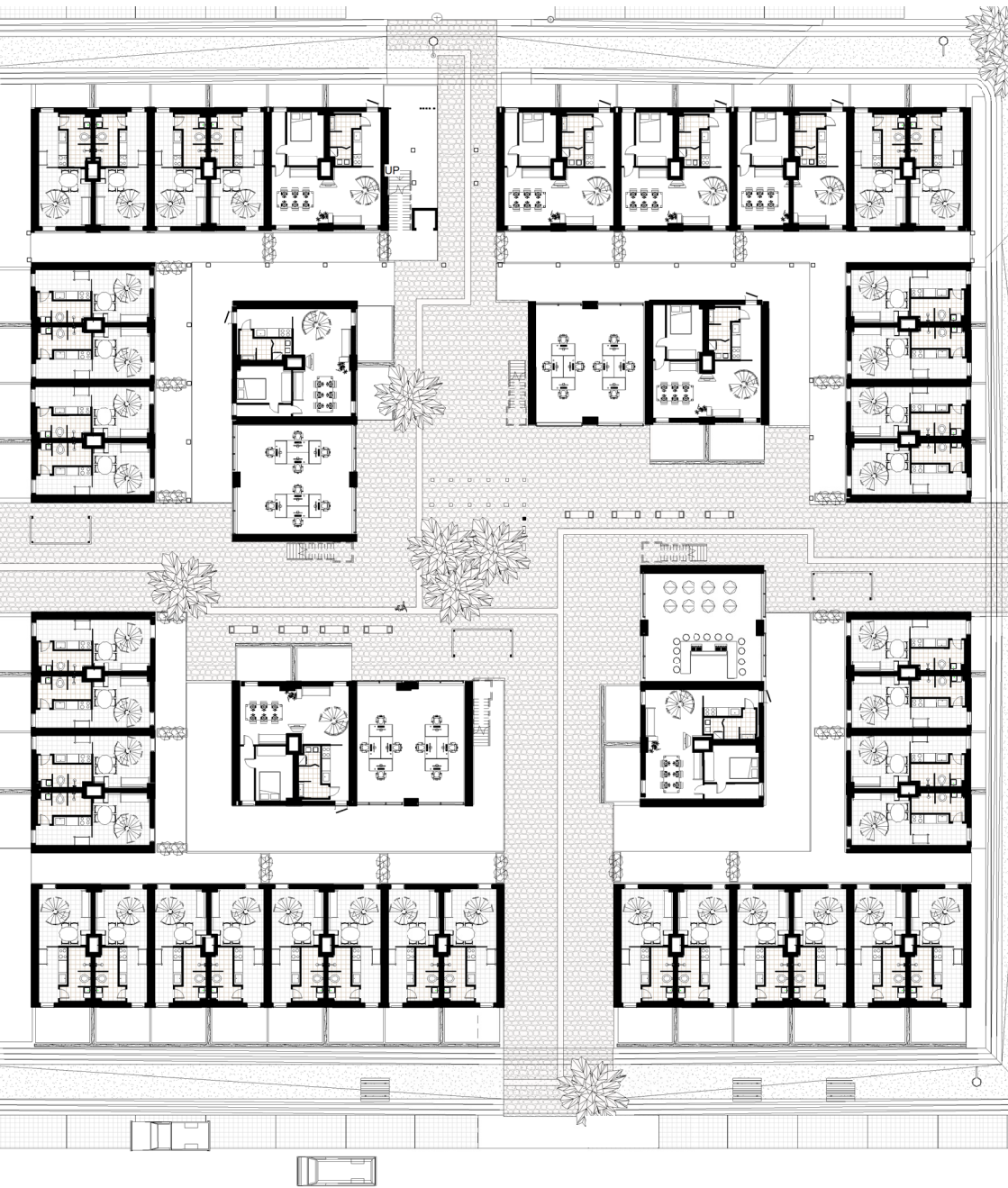




# FLOOR PLAN / ground floor

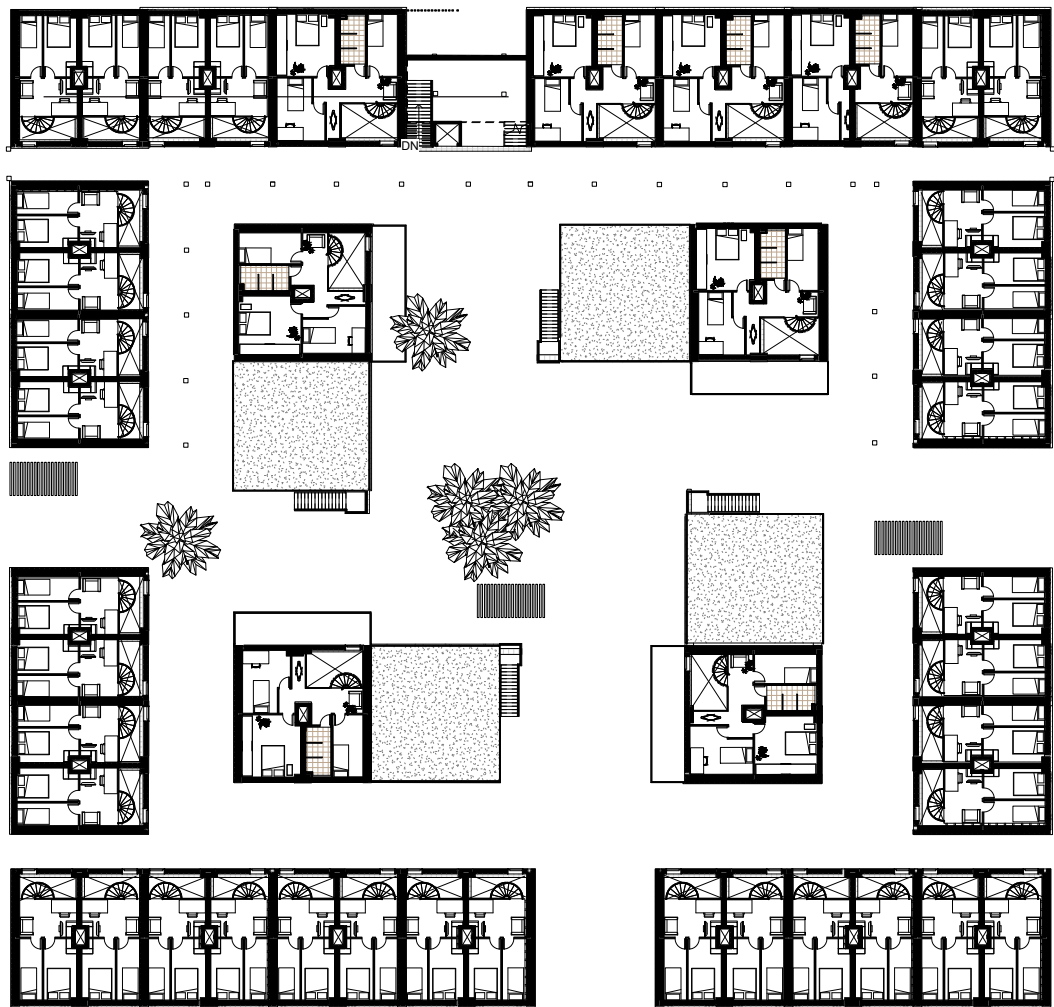
Final Design // Urban Village 2

1:400



# FLOOR PLAN / second floor

1:400



# FLOOR PLAN / third and fourth floor

Final Design // Urban Village 2

1:400

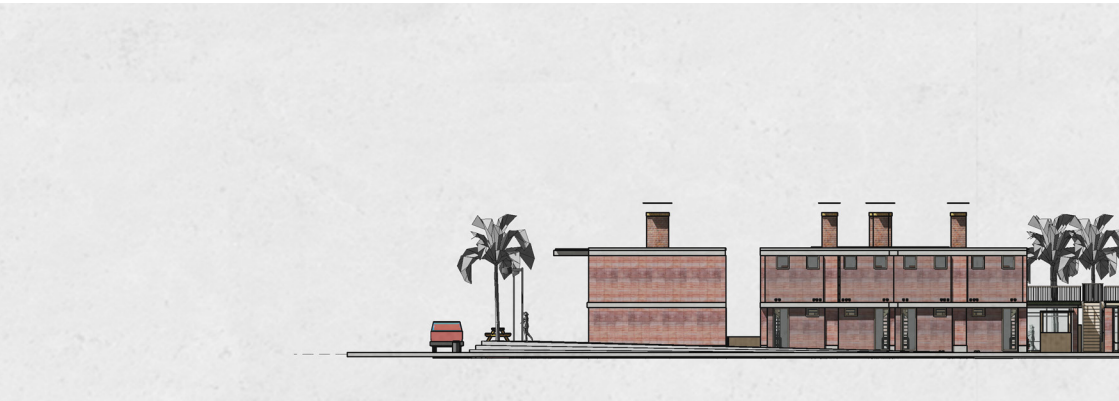


# ELEVATIONS

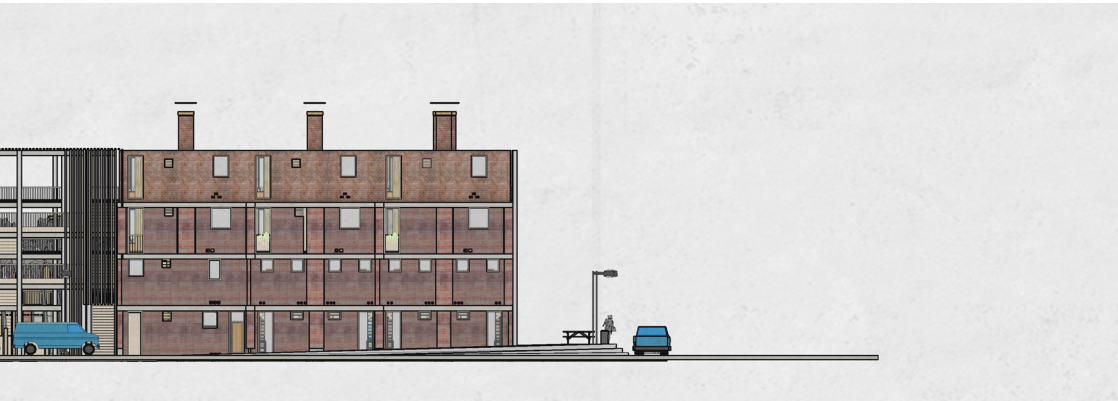
1:400



## EAST FACADE



## NORTH FACADE



# ELEVATIONS

---

1:400

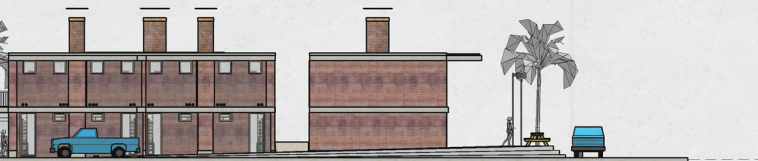


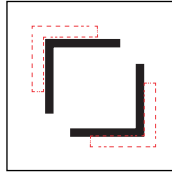
## WEST FACADE



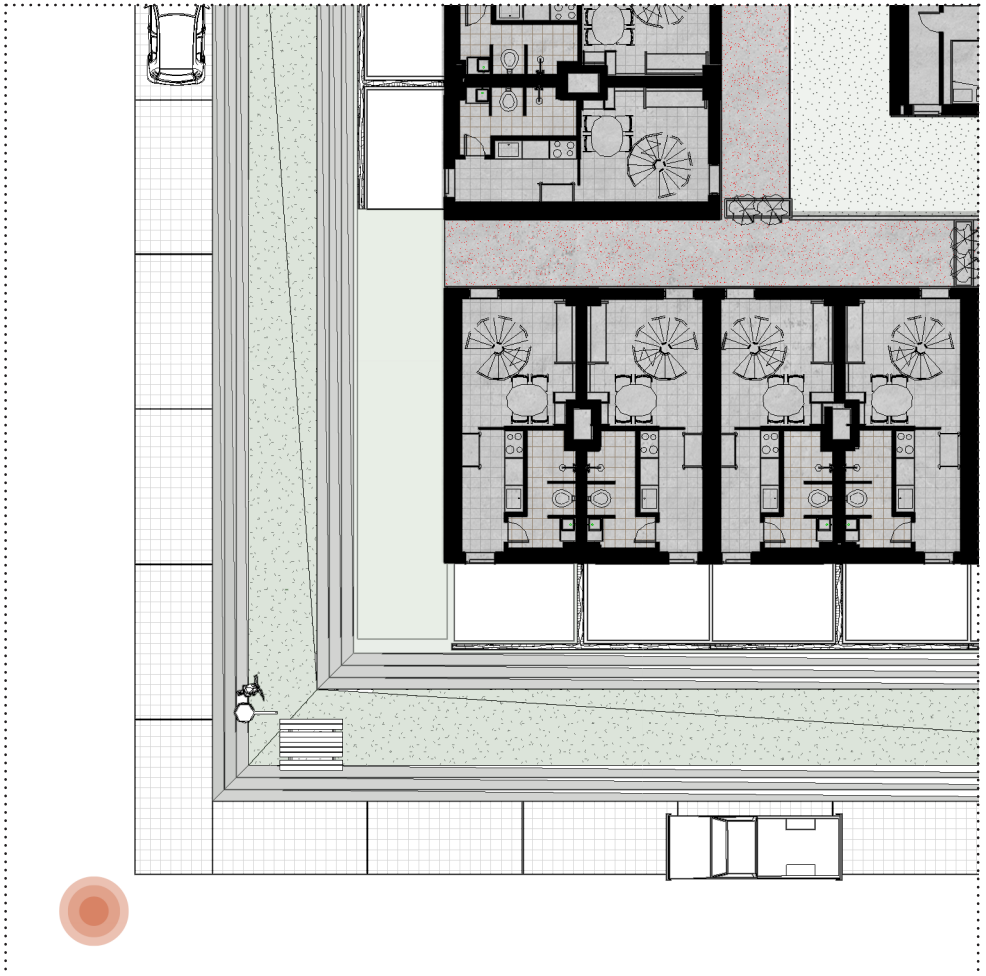


## SOUTH FACADE

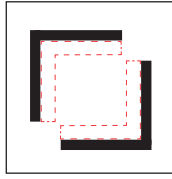




## **THE PLEASANT BORDER**







**THE INTIME, PRIVATE SPHERES**



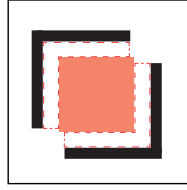




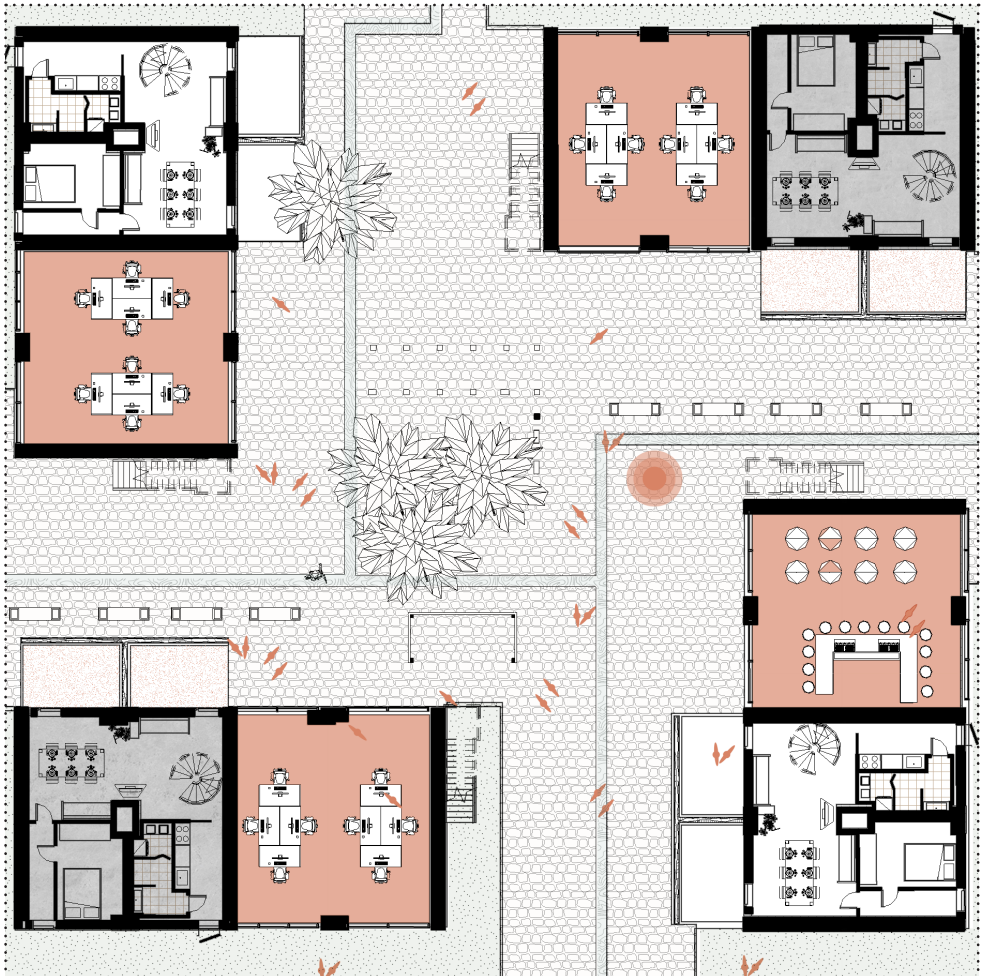








## ***THE IN-BETWEEN INFILL***

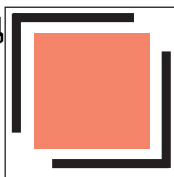
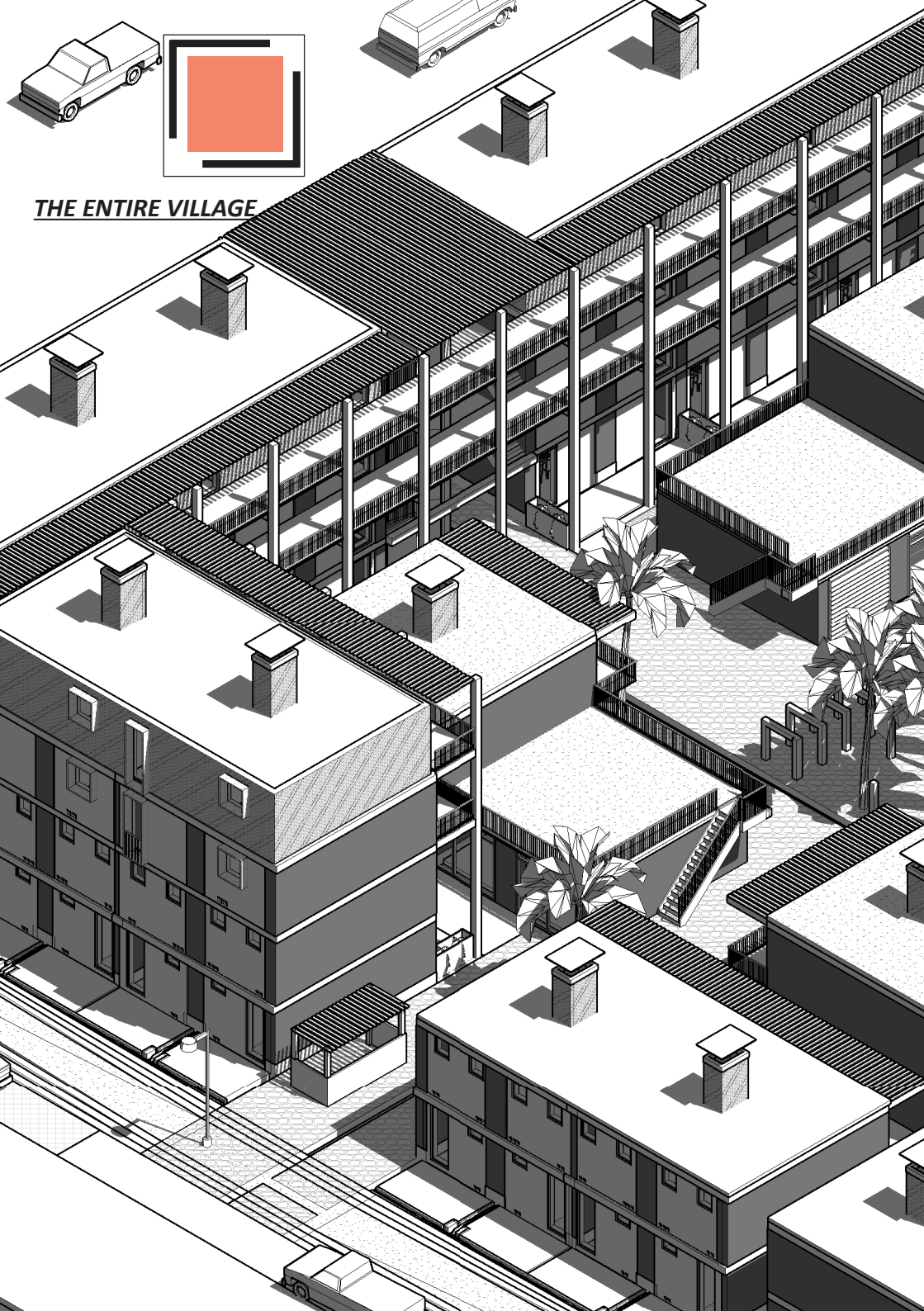








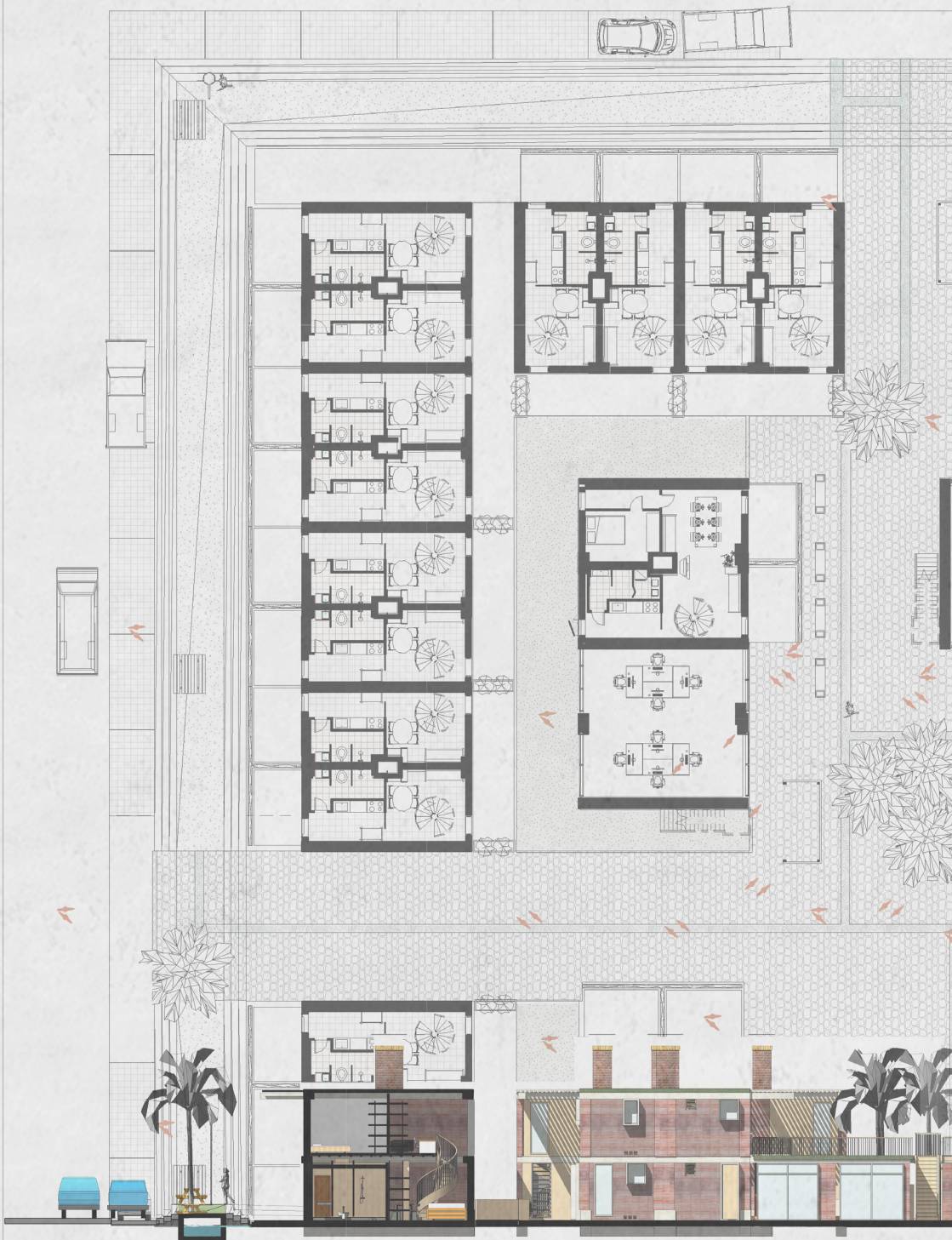




**THE ENTIRE VILLAGE**

















---

---

## **V MASTERPLAN**

## 10 OPPORTUNITIES TO FUEL UP THE PARTICULAR NEEDS AND ASPIRATIONS OF THE INHABITANTS.

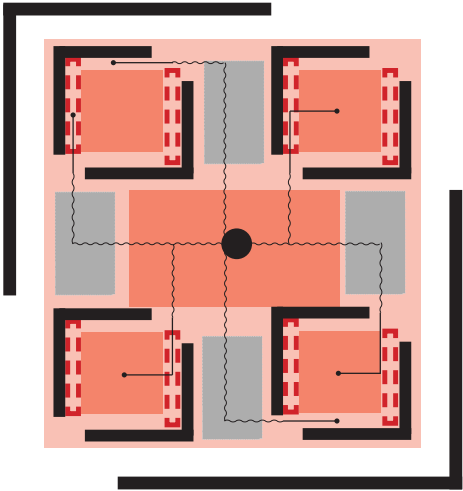
---

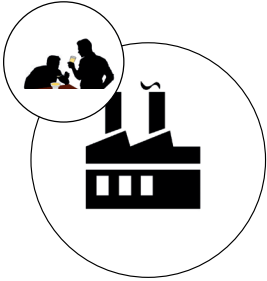
*While having tested the building components approach on two different Urban Villages, we still have to introduce the 8 remaining villages that are proposed.*

Hereby, phase 2 of the design is not yet elaborated. For now, the supervisor team has made a decision to test the design on two villages, which shows two totally different lifestyles and character. By picking two extreme variants, the in-between can probably as well be configured in a particular outcome. The 8 remaining villages do already have the permanent proposed public amenity, to fuel up all the necessary amenities to live in the urban scheme. For that reason, a couple of proposed estimations are featured in this chapter,

derived from the research. This would be a possible configuration based on estimated entering groups and needs.

# 10 DIFFERENT LEADING THEMES

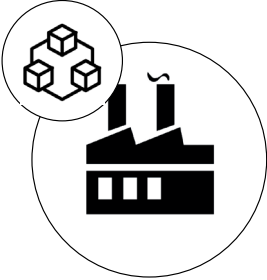




2. CEREAL AND LOCAL BEER PRODUCTION



3. STRENGHTEN PREVIOUS COMMUNITY



1. INNOVATIVE MODULAR FACTORY



4. ART, MUSIC, DANCE



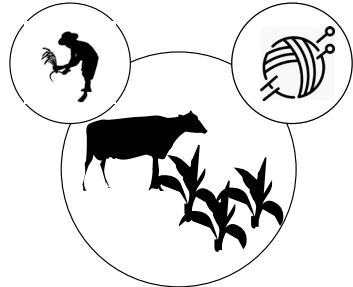
5. COFFEE & RELIGIOUS



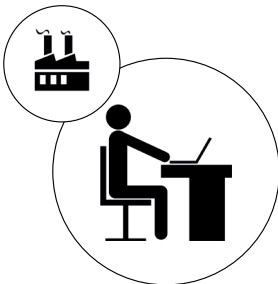
8. INSTITUTIONAL



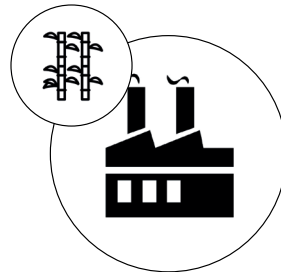
6. INDOOR MARKET INFILL



9. FARMING & HANDICRAFT



7. OWNING OFFICES

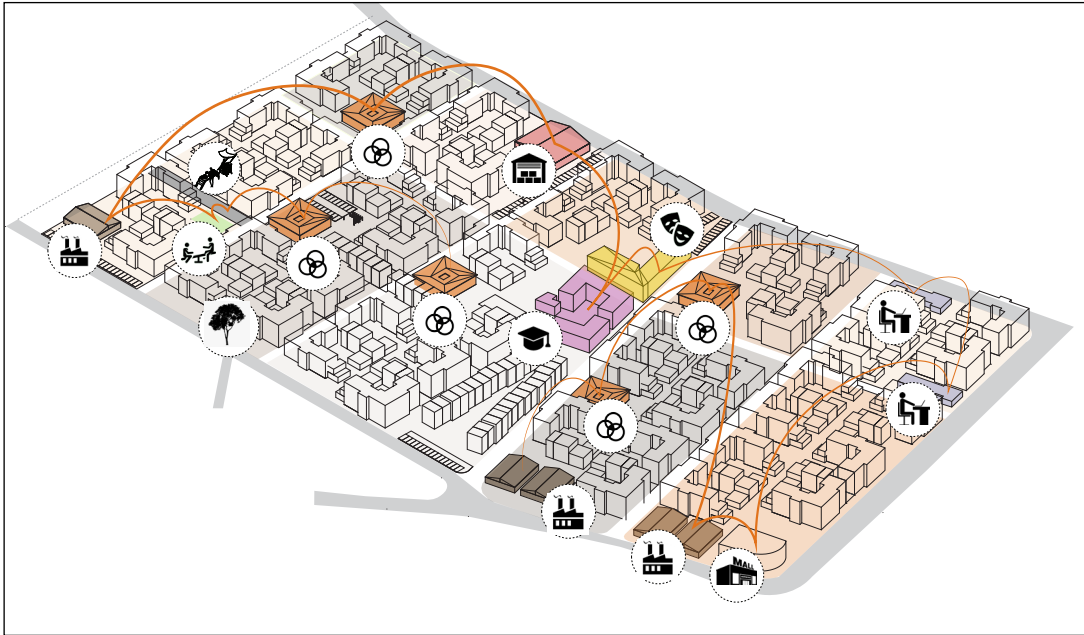


10. JOB SECURITY IN BAMBOO  
PRODUCTION FACTORY

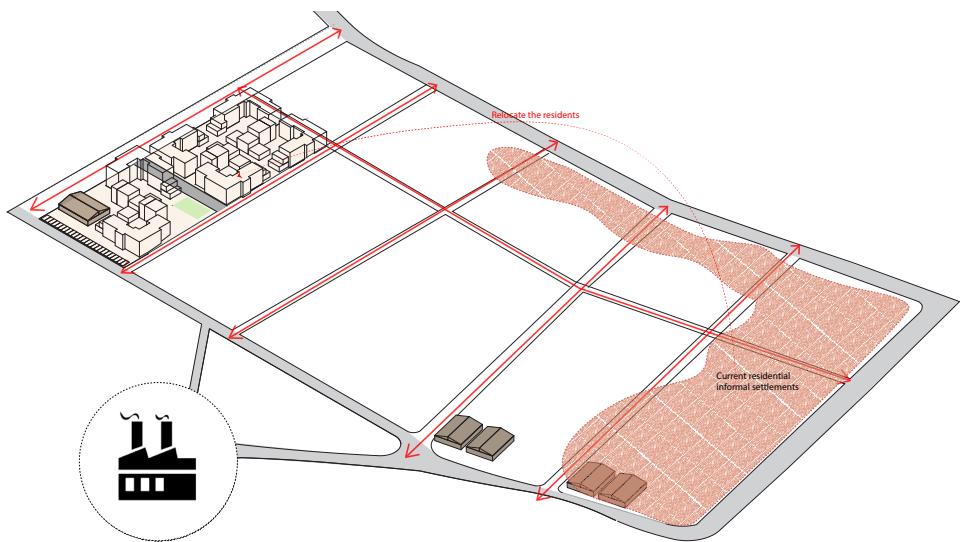


### THE 8 REMANING VILLAGES

*The following villages are proposed until phase one, the team in charge of the first decisions of the project. For that reason, the scheme for the remaining eight villages is still schematic. In this stage, the second phase of decisions has not started yet. While building up this phase, in collaboration with the local architect and future inhabitants, the villages really will start to get detailed. However, in this stage of the graduation studio, the villages will stay in the first phase of the design.*



# Proposed village 3 ingredients



## 1. ENTERING SOCIAL GROUP

- \$: Residents from Addis Ababa
- \$\$\$: Residents from Addis Ababa

## 2. STAKEHOLDERS

- \$: The relocated informal settlements
- \$\$\$: High income residents
- Skilled builders

## 3. RENTAL/ OWNERSHIP

- \$: 10% labour, 90% down payment
- \$\$\$: High income ownership of factory and dwellings

## 4. COMMUNITY OF TRUST THEME



Factory: modular bathroom and kitchen

## 5. FINANCIAL CONTRIBUTION



Factory



Local outdoor market



Factory



Local outdoor market



Soccer field

## 7. INCLUSIVE COLLECTIVE SPACES



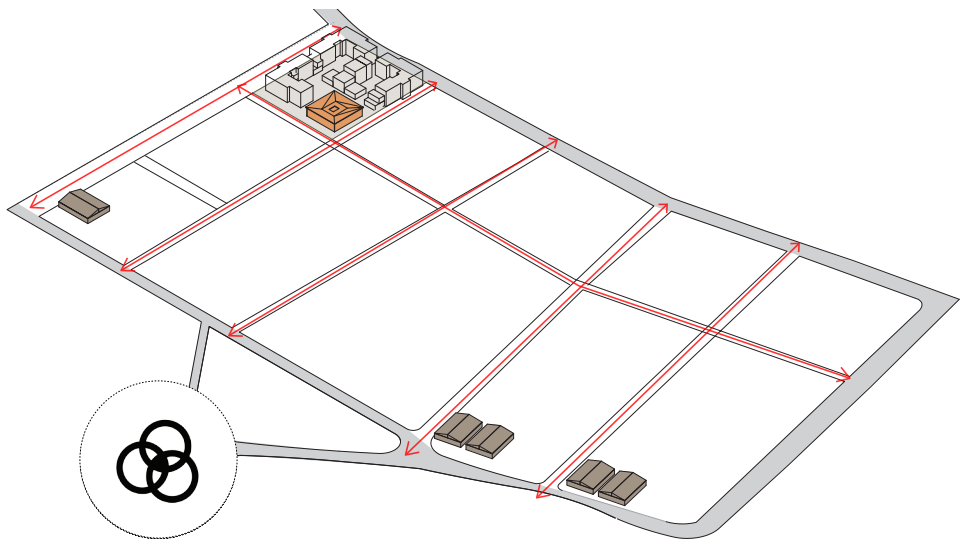
Playground



Soccer field

## 8. DENSITY

- Cluster: 1 ha
- 150 dw/ha



1. ENTERING SOCIAL GROUP

- \$: Residents from Addis Ababa

2. STAKEHOLDERS

- \$: The relocated informal settlements
- \$\$\$: High income residents

3. RENTAL/ OWNERSHIP

- Rental to future ownership
- \$: 10% labour, 90% down payment

4. COMMUNITY OF TRUST THEME



*Continuation of previous community*

5. FINANCIAL CONTRIBUTION



*Factory*



*Local outdoor market*

6. IN-BETWEEN INFILL



*Factory*



*Local outdoor market*

7. INCLUSIVE PUBLIC SPACES

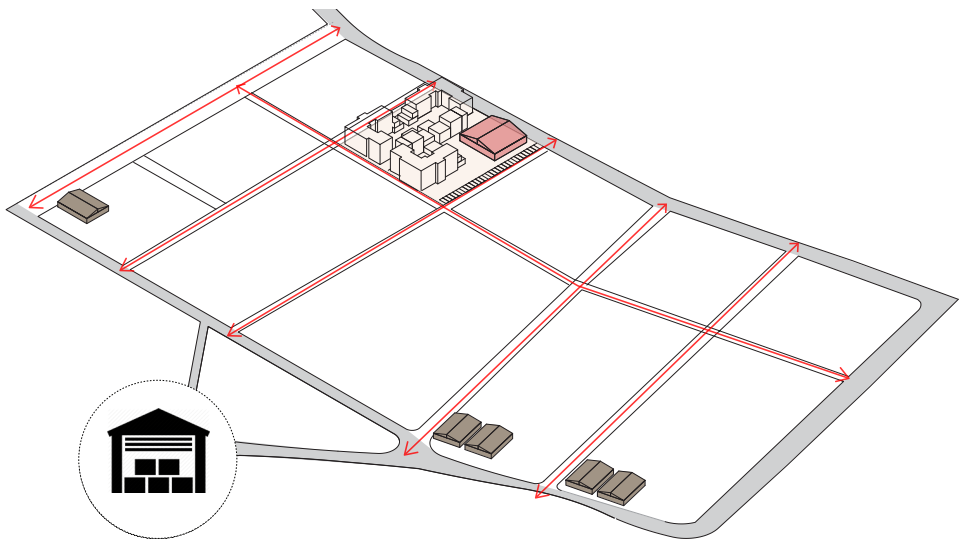


*Playground*

8. DENSITY

- Cluster: 0,4 ha
- 150 dw/ha

# Proposed village 5 ingredients



## 1. ENTERING SOCIAL GROUP

- Rural migrants MIX

## 2. STAKEHOLDERS

- \$: The relocated informal settlements
- \$\$\$: Investors that sells the indoor market

## 3. RENTAL/ OWNERSHIP

- \$: 20% labour, 80% down payment
- \$\$\$: Profit in +/- 20 years

## 4. COMMUNITY OF TRUST THEME



Job in indoor market

## 5. FINANCIAL CONTRIBUTION



Indoor market



Indoor market

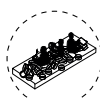
## 7. COLLECTIVE SPACES



Playground



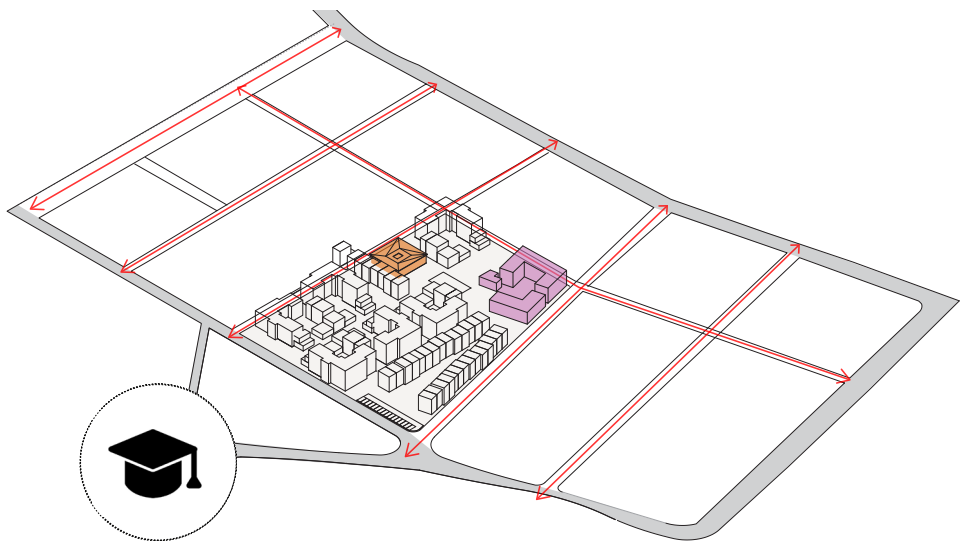
Window shops



Thresholds

## 8. DENSITY

- Cluster: 0,4 ha
- 175 dw/ha



1. ENTERING SOCIAL GROUP

- \$: Rural migrants
- 
- \$\$\$: Amhara from Addis Ababa

2. STAKEHOLDERS

- \$ - \$\$\$, Amhara
- FHC: investing in school

3. RENTAL/ OWNERSHIP

- \$: 10% labour, 90% down payment
- \$\$\$: High income ownership of factory and dwellings

4. COMMUNITY OF TRUST THEME



Institutional

5. FINANCIAL CONTRIBUTION



School

6. IN-BETWEEN INFILL



Catalyzer to strenghten ethnic communal feeling



7. INCLUSIVE COLLECTIVE SPACES



Playground



Leisure

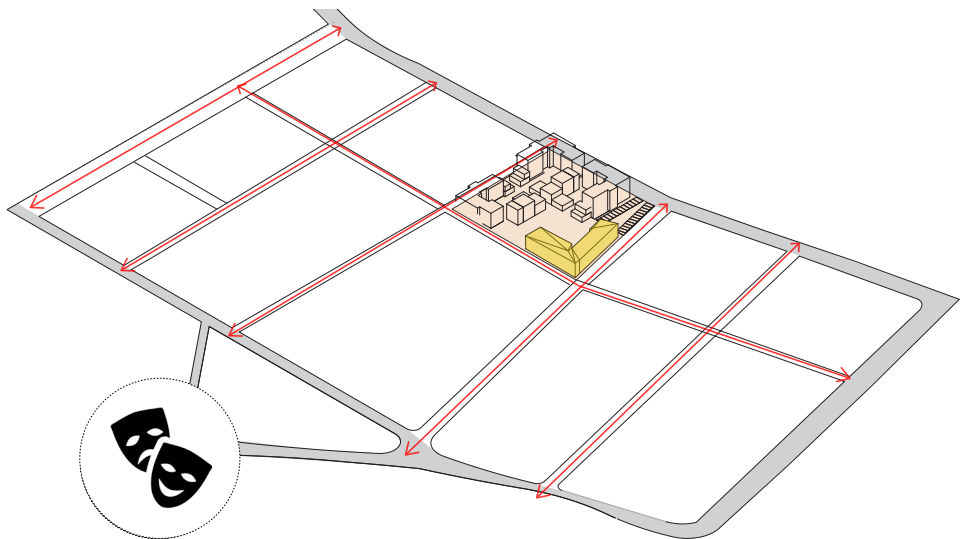


Soccer field

8. DENSITY

- Cluster: 1 ha
- 150 dw/ha

# Proposed village 7 ingredients



## 1. ENTERING SOCIAL GROUP

- \$: Rural migrants MIX
- \$\$\$: Residents from Addis Ababa

## 3. RENTAL/ OWNERSHIP

- \$: 10% labour, 90% down payment
- \$\$\$: High income ownership of factory and dwellings

## 5. FINANCIAL CONTRIBUTION



Theatre centre



Restaurant

## 7. INCLUSIVE COLLECTIVE SPACES



Park



Women cooking

## 2. STAKEHOLDERS

- \$: The relocated informal settlements
- \$\$\$: High income residents
- Skilled builders

## 4. COMMUNITY OF TRUST THEME



Theatre centre

## 6. IN-BETWEEN INFILL



Park



Theatre centre

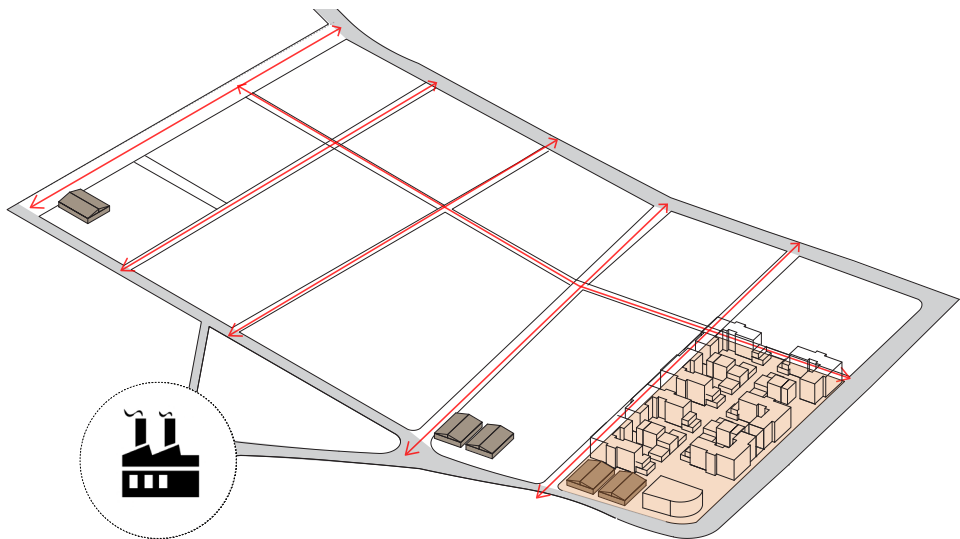


Leisure, seats

## 8. DENSITY

- Cluster: 0,5 ha
- 140 dw/ha





1. ENTERING SOCIAL GROUP

- Strive for 50 % Oromo
- Strive for 50 % Amhara

3. RENTAL/ OWNERSHIP

- \$: 20% labour, 80% down payment
- \$\$\$: High income ownership of factory and dwellings

5. FINANCIAL CONTRIBUTION



Factory



Local handicraft

7. INCLUSIVE COLLECTIVE SPACES



Playground

2. STAKEHOLDERS

- \$/ \$\$: Oromo and Amhara inhabitants
- High income residents of cluster 9

4. COMMUNITY OF TRUST THEME



Factory: bamboo

6. IN-BETWEEN INFILL



Factory

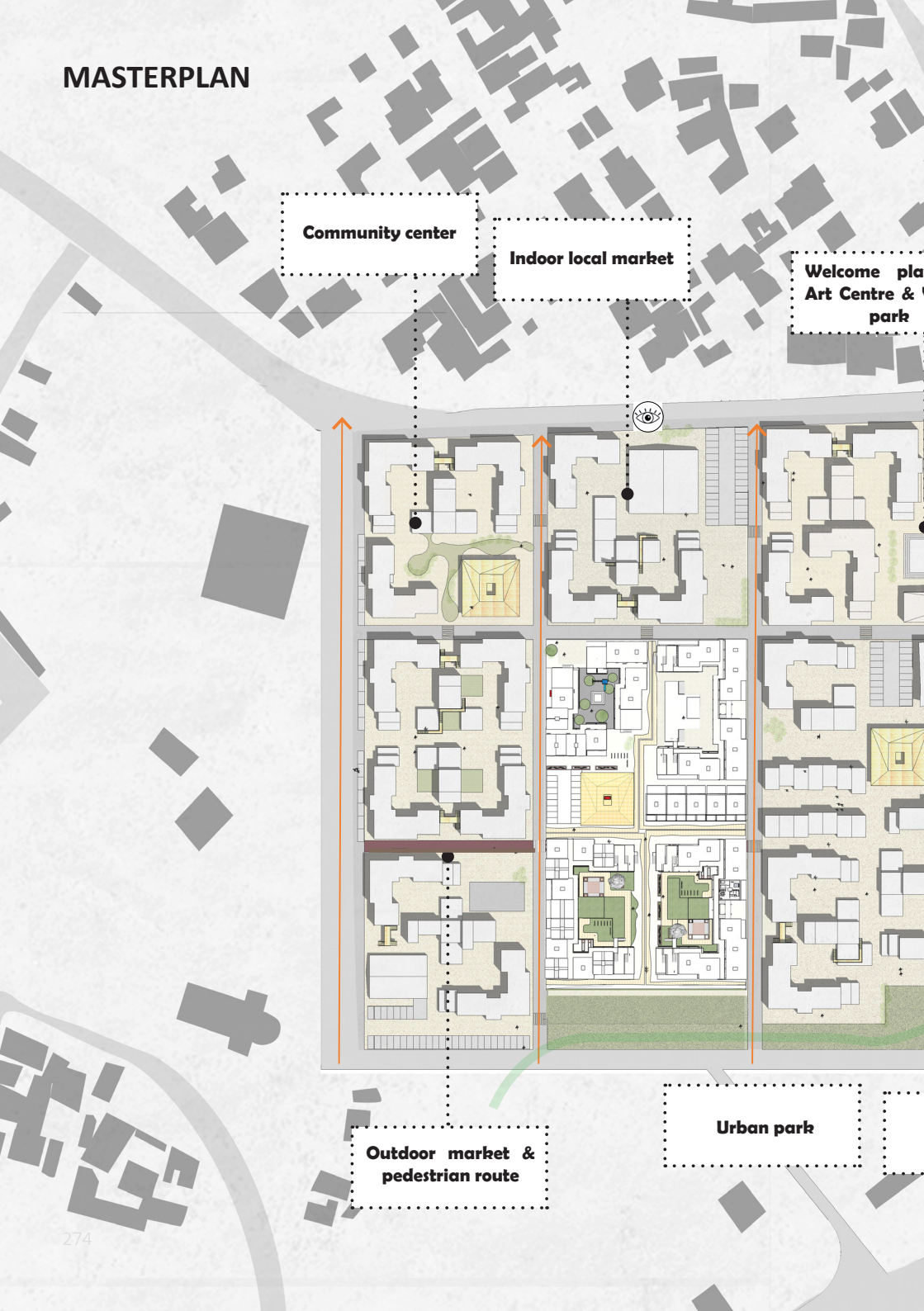


Shopping mall

8. DENSITY

- Cluster: 1 ha
- 150 dw/ha

MASTERPLAN



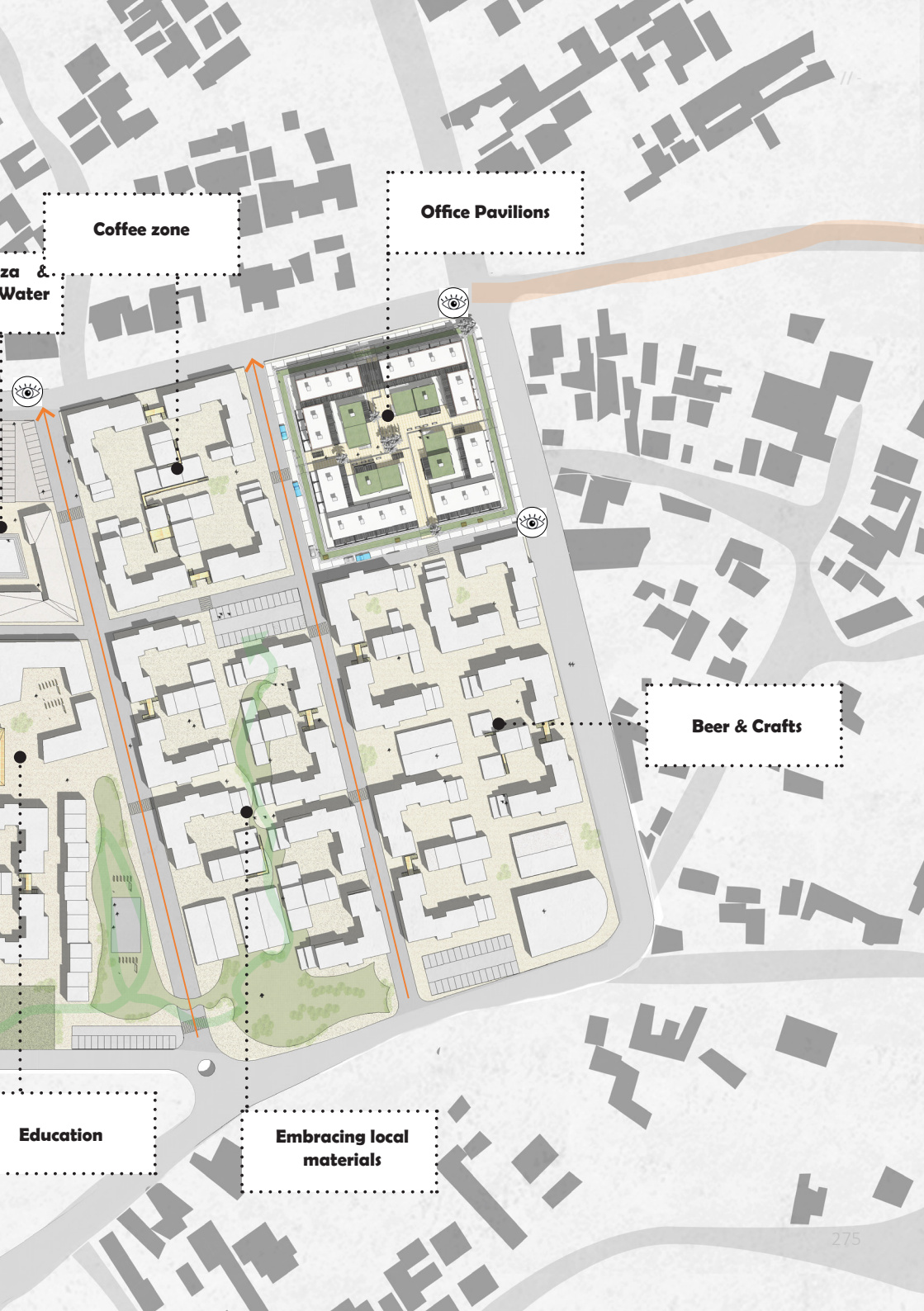
Community center

Indoor local market

Welcome plaza  
Art Centre &  
park

Outdoor market &  
pedestrian route

Urban park



**Coffee zone**

**Office Pavilions**

**Piazza & Water**

**Beer & Crafts**

**Education**

**Embracing local materials**

# REFLECTION



03

# PHASES OF THE PROJECT

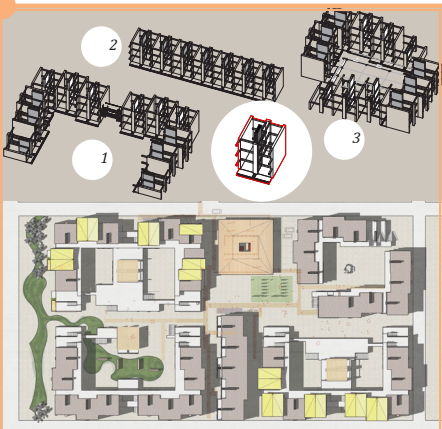


P1  
Problem statment

PHASE 1&2  
Site research



P3  
Design in process



P2  
design concept



P5  
Final Design



P4  
Final Design





## INTRODUCTION

---

The graduation studio that I chose in order to complete my master's program at the Technical University of Delft is part of the Global Housing Graduation Studio. The final project is called *The expositions of aspirations, embracing multiple ethnic groups within a smart replicable strategy that has the potential to transform into a specific matter*. The assignment of the Global Housing Studio this year is to come up with New Stands for Contemporary Ideals in Addis Ababa. The central question in this Studio is: "How can we improve the livelihood of Addis Ababa's urban dwellers?"

In order to answer this question, several challenges in the capital city Addis Ababa have been identified, with future-oriented challenges in mind. From the striking recognized issues, a relevant topic is chosen which forms the foundation for the project. My attempt is to contribute to the development of tackling the one-size-fits-all approach into a participation society that potentially can be calibrated into something specific. In order to tackle this challenge, the topic 'The exposition of aspirations' is chosen.

Within the first half year of the design project, a 'Contextual Booklet' and 'Research Report' has been made, which includes findings of the research on the topic to unpack peoples aspirations, to be able to respond correctly on them. Moreover, a plan analysis of existing

habitats has been made in order to create the first conceptual ideas. The second half of the year existed mainly of the design process, with the final design as the result.

## PROCESS DESCRIPTION

---

Within this chapter, I will reflect upon the relationship between research and design. Hereby, the research reflects on the first half of the year and design on the second half.

The first phase of the Graduation Studio, was entirely scheduled as a period for research. Two parallel assignments took place, the "Graphic Anatomy of Home" and "Design precedents". Combining those research methods with the task to read chapters from Richard Sennet's book *Building and Dwelling*, we were challenged to look back, from an ethnographical point of view to peoples experiences and ways of living, and in particular, to our own.

Firstly, the individual assignment, "Graphic Anatomy of Home", was based on the attempt to look back to my own experiences and identify interesting themes from the different types of dwellings where I have lived. Hereby, the topic that caught my attention the most, was the relation of different senses. Having had the opportunity to have lived in different places around the world, I noticed that the role of sound was very impactful and intriguing. This triggered me to research senses more in depth. During the investigation of this theme through-

hout each dwelling, one of the results attains the need to pay attention to space, and the meaning of space. The space that has the ability to play an essential role in peoples well-being, where the question arrives: How does the space play a role?

Secondly, the “Design precedents’ assignment was based on researching design precedents, in groups of three students. In line with different geopolitical contexts, this assignment mainly introduced the diverse circumstances and how they influences the architecture in cities. Sennet’s book *Building and Dwelling* even increased this interest with his position about the importance of mixing the ville, how the cities are built, and the way how the people live in them, the cite. My inspiration among our location, Ethiopia, began to increase. The main question that I formulated after this phase was: *How can architecture facilitate the identity of inhabitants?*

The second phase was a follow up of phase 1. In this continuation of the research, we began to focus on Ethiopia, the country for which we were to design a new standard of urban living. In my opinion, this first experience with Ethiopia, was quite exciting. The first moment that we got introduced by Ethiopia was in collaboration with graduated students from previous years. They presented their experiences and real-life discoveries. It fascinated me to continue and explore the country even more.

After being introduced to the country, the two assignments of this phase, “The Condominium ... Explained”, and “Research Booklet” were announced. Through this phase, as a group, we researched several topics relating to Ethiopia. From the contemporary dwelling typologies, up until the historical habitations. We became acquainted with a lot of striking patterns that fit to Ethiopia. After this phase, our tutor Nelson came with his striking quote “Right now, you can call yourselves the experts of Ethiopia”. The comprehensive “Contextual Booklet” became a basis for ourselves to explore our interest.

After having finalized the research phase, it behoves me to reflect on the matters that occurred. Hereby, the challenge to develop a proposal for a new housing standard started. Despite the fact that the Covid-circumstances made it impossible to travel to Ethiopia this year, I started to get interested to resume the research with my personal fascination about the existing social- and ethnic groups in Ethiopia. By choosing a rather intangible idea as a base for my design, the main question arose in my mind: How could we reach a design that implements the aspirations of the inhabitants of Ethiopia, while avoiding romanticization and introducing an innovative way of urban mix for Addis Ababa? The question formulation drove me further in the design- and research process and settled my position in the Global Housing world.

## RESEARCH QUESTION ANSWER

---

To answer the posed research question of the project: How could we reach a design that implements the aspirations of the inhabitants of Ethiopia, while avoiding romanticization and introducing an innovative way of urban mix for Addis Ababa?, several aspects were of great importance to be analysed.

First of all, after the analysis we made as a group, site-specific characteristics and the broader essence became clear on which the following design choices are mainly based. Hereby, in particular the rural- and urban patterns together, and the decryption of their common ground, influenced several decisions. The outcome of the research influenced the spatial, social, and financial development of the design.

In the entire process, literature research became a predominant role in the design phase. Especially during the retake of my P2, I used this time to further elaborate my research. The retake was mainly formulated as a lack of relation between research and design. Although the period has been complicated and uncertain, the requested research that was seen as vague and unreadable in advance, helped me to become more clear. With great attention, I developed additional research

about Ethiopian inhabitants, in line with my research question. In this phase, the period led to design outcomes where I was not aware of beforehand. Numerous articles, books and interviews on the subject were studied in order to create an site-specific narrative about the project.

Thereupon, I had the opportunity to propose a better-substantiated strategy. A building system consisting of a permanent part, to be replicable through the city and a convertible part, to enable flexibility for the inhabitants in which the building system can calibrate into something specific.

Something which I will take into practice for myself is the importance to be really attentive with site-specific needs. The need to response intently to the people, their use of the space, and their use of the city became an eye-opener in order to continue my Graduation project.

Researching this anthropological point of view is particularly useful for Global Housing. Thinking in a way like an anthropologist would optimize the success of a housing project. The current housing in Addis Ababa is often inadequate for the well-being of the inhabitants. By repositioning the role of architects in this matter, their aspiration should shift from

## POSITION IN GLOBAL HOUSING

---

producing Mass Housing into making well-considered ethnographical decisions regarding the quality of dwellings. Ensuring the residents feel comfortable. By doing this in a sensible way, the participation and role of inhabitants during the design process attains a higher value. This innovative way of designing urban mix housing could function as a new strategy that might have more success, in comparison to current mass housing approaches that fail to match its architectural design with the needs of inhabitants.

Furthermore, this particular research in housing design within the capital city Addis Ababa aims to assemble various ethnic groups, features and aspirations into one Innovative Housing Strategy for the city. These topic have not been analyzed in great detail at this point in time, while they are of great importance for the wellbeing of the inhabitants. Sennet (2018) research showed that mixing those two natures is beneficial to decode the expansion of this topic, which is in line with approaches of historical precedents that integrates social groups. Additionally, the historical precedents “Morrocan Habitat” and “Team X” tried to find new architectural and ethnographical tools to implement in urban cities to increase the social role of inhabitants. The contribution of this research in finding new insights how to transform an anonymous way of living in urban cities to sensible developed designs of communities is of great importance to

enhance the quality of life for the people in the city of Addis Ababa.

To conclude, adding a new chapter to Addis Ababa’s urban dwellers with this project “The exposition of aspirations’ aims to re-purpose the possibility to promote urban mixing, which may be the addition of contemporary social and spatial landscapes, but then transformed into a liveable environment.

## DILEMMA'S

---

The ethnographical method that I used to give an answer on the Research Question, resulted in a challenging method that was quite difficult to implement with the current circumstances. Although we had a wide range of findings from students from previous years, the task of the Global Housing Studio still became hard sometimes. Without travelling to the country, the goal to really decode people's expression and identity was sometimes intangible.

In order to solve these circumstances, I planned several interviews to expand my knowledge. Unfortunately, it remained at a limited number of interviews, in which I would have wanted to reach a much greater number beforehand. My intention to become part of a different society for a moment, and response on those real-life findings, led to a different outcome. I suspect that there may have been other striking findings from the research in Ethiopia which are not taken into account now. With that in mind, I can only endorse what Diego Ariza told me: "You really have to step into their bubble let's say in order to understand their beauty." (Interview, September 2020)

Although the design results are not as explicit as I wanted them to be, the re-

search has still brought interesting findings to the table. As far as my research is concerned, I can say that my attempt to achieve a valuable understanding of the people has been performed. The attention on enabling flexibility, in order to have a diverse number of Architectural outcomes, led to valuable insights that need to become a new chapter in developing the cities. However, maybe even more important, I find the fact that my interest in exploring and designing foreign countries has only grown throughout this year. I hope to be able to apply my fascination and motivation for this direction in the future. And by then, capturing the area not only from photos and analysis, but stirred from the genuine.

*Maya de Ridder*

July 2021



# BIBLIOGRAPHY

---

- Abagissa, J. (2019). Informal settlements in Addis Ababa: extend, challenges and measures taken. Addis Ababa University.
- Abbink, J. (1999). *New Configurations of Ethiopian Ethnicity*. African Studies Centre Leiden.
- Abbink, J. (2016). Rethinking the anthropology of Ethiopia through culture and ritual. African Studies Centre Leiden.
- Ammann, C. (2018). *African Cities and the Development Conundrum* (International Development Policy) (Illustrated ed.). Brill | Nijhoff.
- Askland, H., Awad, R., Chambers, J., & Chapman, M. (2014). Anthropological quests in architecture: pursuing the human subject. 8(3), 184–295. [https://www.researchgate.net/publication/287027216\\_Anthropological\\_Quests\\_in\\_Architecture\\_Pursuing\\_the\\_Human\\_Subject](https://www.researchgate.net/publication/287027216_Anthropological_Quests_in_Architecture_Pursuing_the_Human_Subject)
- Baía, P. (2011). Appropriating Modernism: From the Reception of Team 10 in Portuguese Architectural Culture to the SAAL programme (1959-74). The European Welfare State Project
- Beasley, M. (2016, April 20). What Is an Urban Village? Greenbelt Alliance. <https://www.greenbelt.org/blog/what-is-an-urban-village/>
- Bernard, T., Dercon, S., & Seyoum, T. (2011). Beyond Fatalism – an empirical exploration of self-efficacy and aspirations failure in Ethiopia. UK Department for International Development (DFID).
- Bernard, T., Dercon, S., & Tafesse, A. (2014). The future in mind: aspirations and forward-looking behaviour in rural Ethiopia. UK Department for International Development (DFID).
- (n.d.). Ethiopia - Ethnic groups and languages. Encyclopedia Britannica. Retrieved October 23, 2020, from <https://www.britannica.com/place/Ethiopia/Ethnic-groups-and-languages>
- Bundervoet, T. (2018). *Internal Migration in Ethiopia Evidence from a Quantitative and Qualitative Research Study* (1st ed.). Public Disclosure Authorized.
- Davis, I. (2020, February 27). Choosing an Interview Type for Qualitative Research. Statistics Solutions. <https://www.statisticssolutions.com/choosing-an-interview-type-for-qualitative-research/#:%7E:text=There%20are%20three%20types%20of,%2C%20if%20any%2C%20interview%20questions.>
- Gardner, T. (2020, February 3). “Addis has run out of space”: Ethiopia’s radical redesign. The Guardian. <https://www.theguardian.com/cities/2017/dec/04/addis-ababa-ethiopia-redesign-housing-project>
- Graduation students enrolled in 2020. (2020). Addis Ababa As A Palimpsest. Global Housing 2020/21.
- Hargrave, M. (2019). Understanding Financial Holding Companies (FHCs). Investopedia. <https://www.investopedia.com/terms/f/financial-holding-company-fhc.asp>
- Hart, C. S. (2016). How Do Aspirations Matter? Journal of Human Development and Capabilities, 17(3), 324–341. <https://doi.org/10.1080/19452829.2016.1199540>
- Howell, S. (2020, October 21). Ethnography. Cambridge Encyclopedia of Anthropology. <https://www.anthroencyclopedia.com/entry/ethnography>
- Janches, F., & Rohm, M. (2012). Urban Interrelations. Piedra, Papel & Tijera.
- Leube, M. (2015). Back to the Roots: On The
- The Editors of Encyclopaedia Britannica. 286



Positive Feedback Between Design Thinking And The Anthropological Sciences. Back to the Roots: On The Positive Feedback Between Design Thinking And The Anthropological Sciences, 2–15.

M, H., Kajima, M., & Tsukamoto, Y. (2017). Architectural Ethnography. The incidents (1st ed.). Harvard University.

Kutsche, Paul (1998). Field ethnography: a manual for doing cultural anthropology. Upper Saddle River, NJ: Prentice Hall.

Malinowski, B. 1922. Argonauts of the Western Pacific. London: Routledge & Kegan Paul. Oxford English Dictionary. (1989). Aspiration. <https://www.oed.com/Oed2/00013149>. <https://www.oed.com/oed2/00013149>

Ray, D. (2002). Aspirations, Poverty and Economic Change. New York University and Instituto de Analisis Economico (CSIC). <https://www.nyu.edu/econ/user/debraj/Courses/Readings/povasp01.pdf>  
Samsurijan, M. (2017). A Review of the “Urban Village” Concept: An Operational Definition in Malaysia Tinjauan Konsep “Kampung Bandar”: Satu Definisi Operasi di Malaysia. Urban Villages Study. Published.

–Sennett, R. (2018) Building and Dwelling: ethics for the city, Penguin Books.

Sfintes, A.-I. (2019). Architecture and Anthropology. Working in between Concepts. IOP Conference Series: Materials Science and Engineering, 471, 072027. <https://doi.org/10.1088/1757-899x/471/7/072027>

Van Maanen, J. (2010). Ethnography as Work: Some Rules of Engagement. Journal of Management Studies, 48(1), 218–234. <https://doi.org/10.1111/j.1467-6486.2010.00980.x>

Wikipedia contributors. (2020, December 15). Urban village. Wikipedia. [https://en.wikipedia.org/wiki/Urban\\_village](https://en.wikipedia.org/wiki/Urban_village)

[org/wiki/Urban\\_village](https://en.wikipedia.org/wiki/Urban_village)

Tesfaye, A., Teklehaimanot, B. (2012) Addis Ababa’s Sefers: Communities in Transformation.

The “Iddir” in Ethiopia: Historical Development, Social Function, and Potential Role in HIV/AIDS Prevention and Control on JSTOR. (2000). Jstor. <https://www.jstor.org/stable/41931342>

Tostenses, A., Tvedten, I., Vaa, M. (2001). Associational Life in African Cities.

Vaughen, S. (2003). Ethnicity and Power in Ethiopia. <https://era.ed.ac.uk/bitstream/id/1299/vaughanphd.pdf>

Walcott. (1999) Ethnography & Ethnology. Lumen.

Weiss, D. (2010). A Moroccan Habitat: Building within a Colonial Context. <https://courses.lumenlearning.com/culturalanthropology/chapter/ethnography>

Yitbarek, E. (2018). Addis Ababa: A Collage of cities. In The Transformation of Addis Ababa : A Multiform African City (pp. 22–76). Cambridge Scholars.

