Antonio Paoletti

ARCHITECTURES IN MOTION

reconfiguring Addis Abeba's narratives



Addis Ababa Living Lab

Graduation Studio Report
2019-2020

Main Tutors

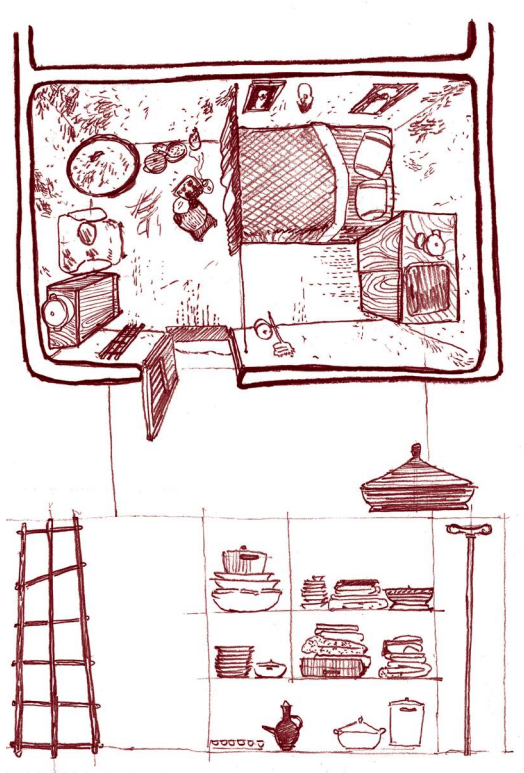
Nelson Mota
Harald Mooij
Frank Schnater

Guest Professor
Dick Van Gameren

Co-Supervisore
Ing. Francesco Steffinlongo

U N R A V E L I N G
A D D I S

research



Curated by Antonio Paoletti and Ludovica Cassina

Even though the design is an individual outcome, throughout the entire year the research has been carried out in collaboration with Ludovica Cassina. The material presented in the research booklet, unless differently stated is owned by both authors.

Right
Historical Image of Addis Ababa [Ditigal image]. Retrivied from Historic Ethiopia Through The Camera Lens: 1860s - 1990s.



E X O D U S

P R O L O G U E

S t o r i e s o f g l o b a l m i g r a t i o n s - p . 7

R E S E A R C H
M E T H O D S
p . 6 0

P R O B L E M
S T A T E M E N T S
p . 9 0

R E S E A R C H
Q U E S T I O N S
p . 9 2



T A L E S F R O M A N
O L D S E F E R

I N T R O D U C T I O N

p l a c e a n d i d e n t i t y - p . 2 9

Stories of global migrations

EXODUS

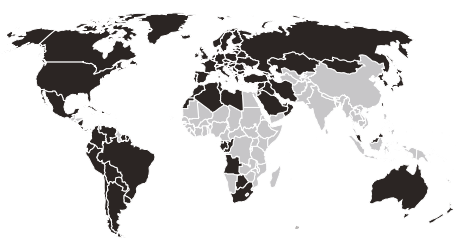


Prologue

URBAN POPULATION GROWTH

We are currently witnessing the insane speed of urbanization of many cities around the world, which want to become up-to-date with the requirements of a 21st century city.

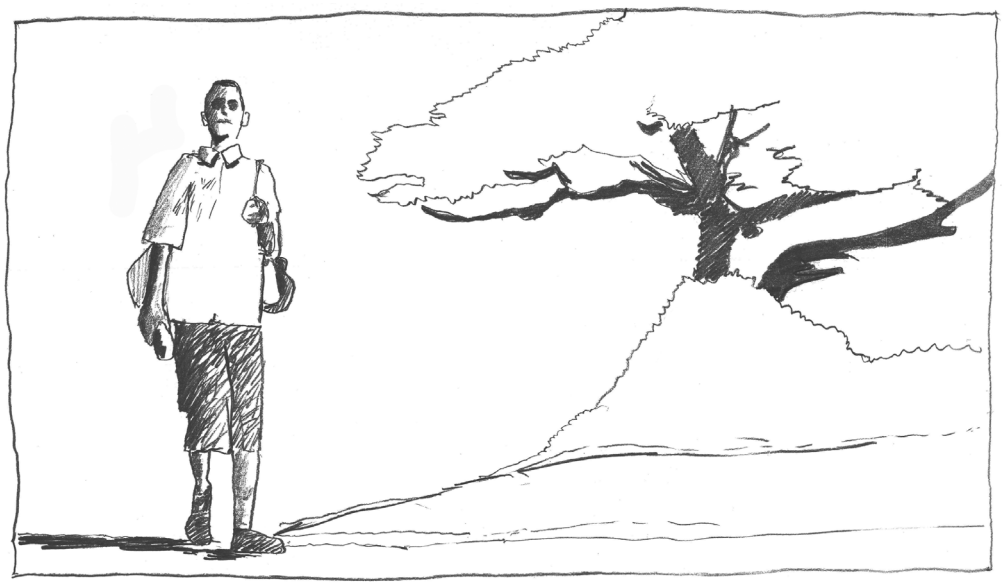
Urbanization is not even close to being a new concept. Since the first civilizations, hundreds of thousands of people have gathered in a relatively concentrated space to operate their activities and find the resources for livelihood. However, in the last centuries the phenomenon has been characterized by an increasingly rapid and whirling growth, especially in the Global South. Between 1950 and 2010, general urbanization in Africa has increased from 16% to 32%.

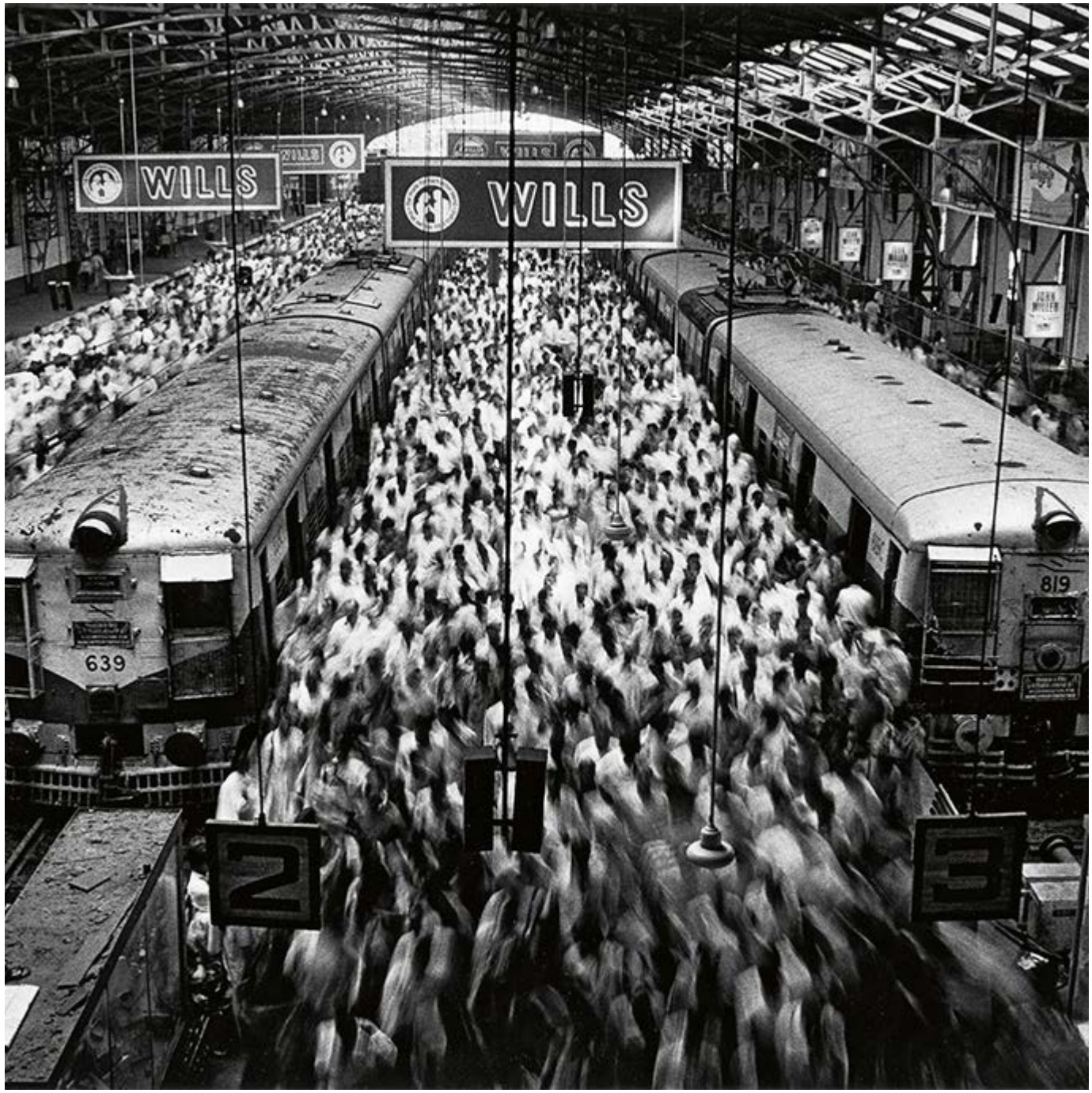


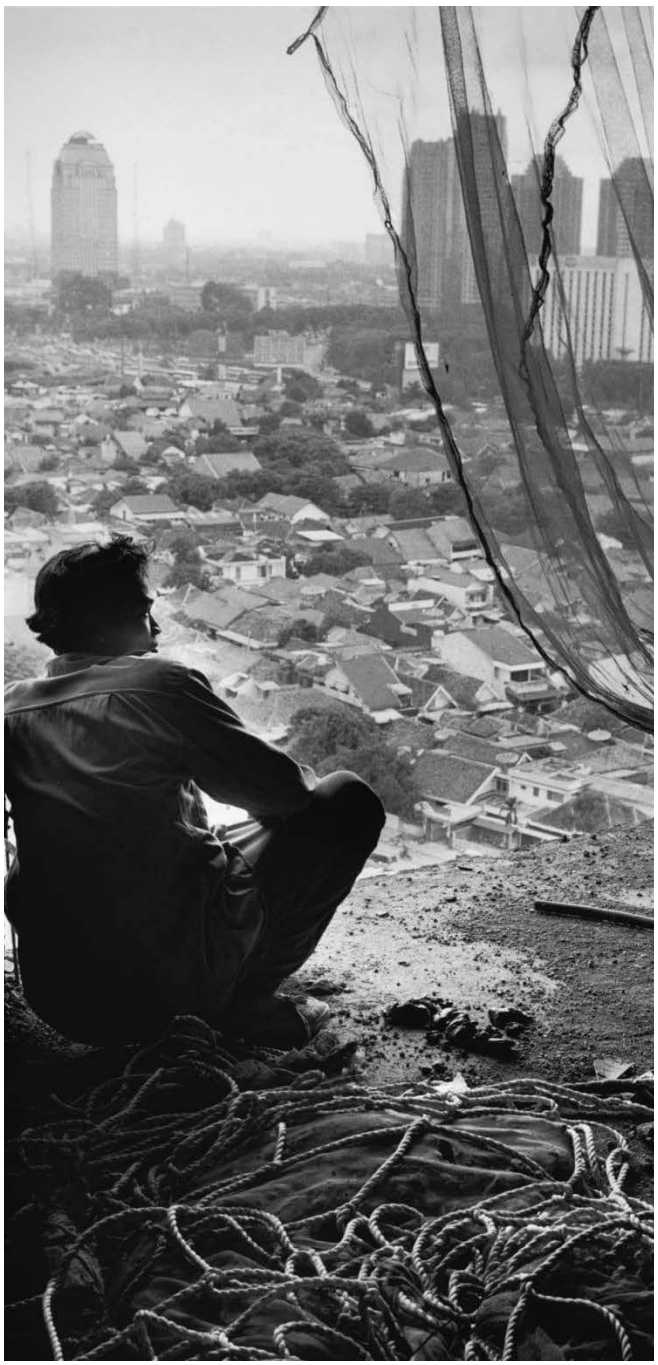
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Above
Photograph by Sebastião Salgado

Left
Excerpt from graphic novel ‘Mengeste’, by authors

Far left
Photograph by Sebastião Salgado

RURAL ETHIOPIA

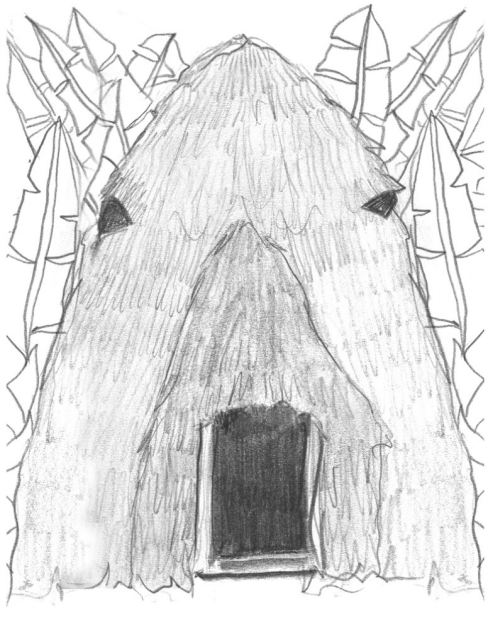
SLOW BECOMING

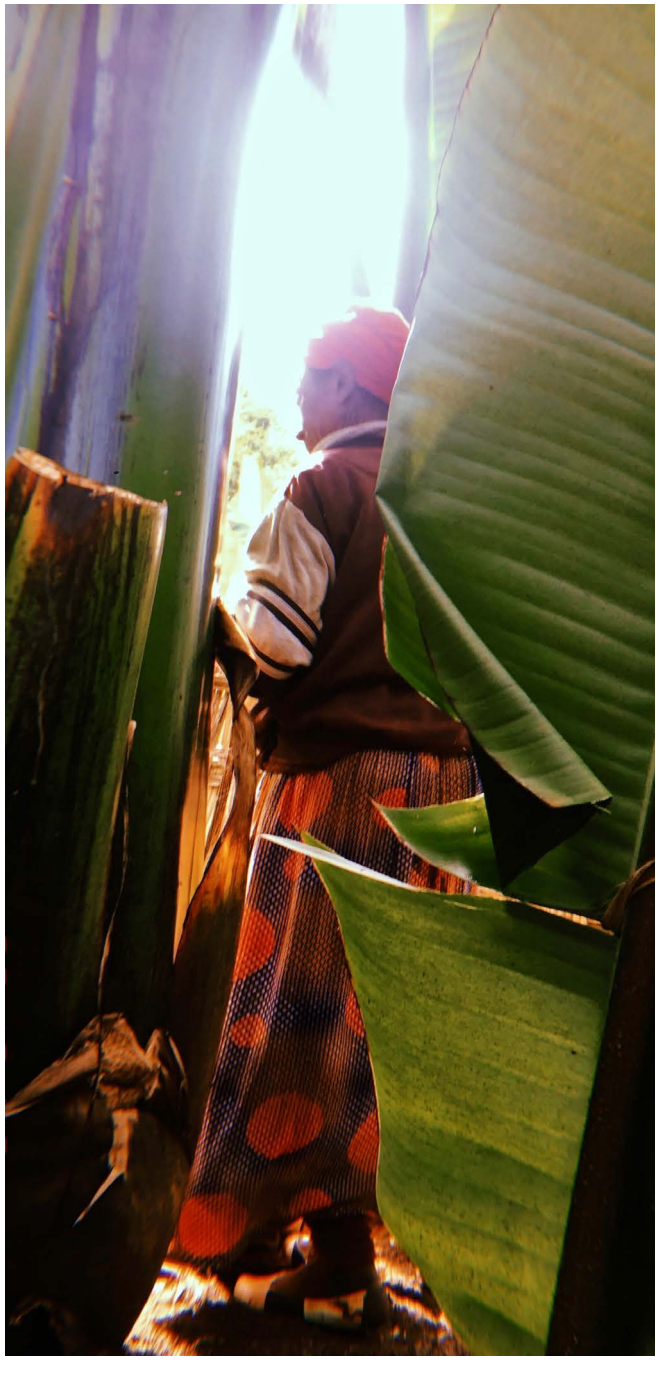
Round tukuls in Ethiopia are spread all over the country and they differ mainly for the material of which the walls are built. This of course depends on the topography and on the climate of each
region. Vernacular housing in Ethiopia can be classified into four categories depending on wall types: timber structure with earth and fibres filling, mainly adopted in the central area of the country, load bearing stone masonry walls with earthen mortar, used in particular in the northern area of Ethiopia, bamboo and thatch walls, in the southern area and wood



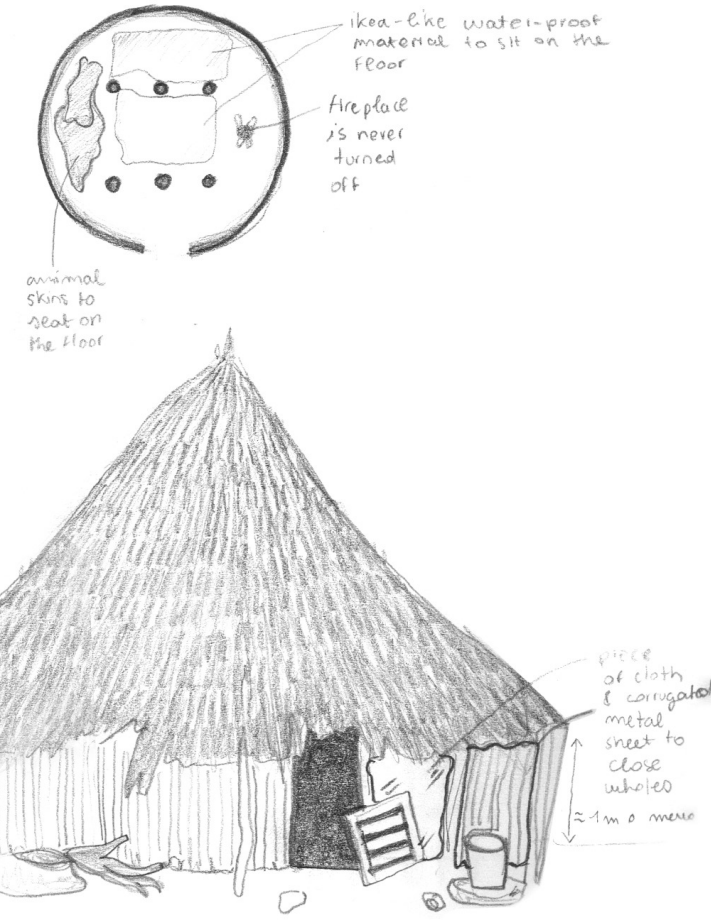


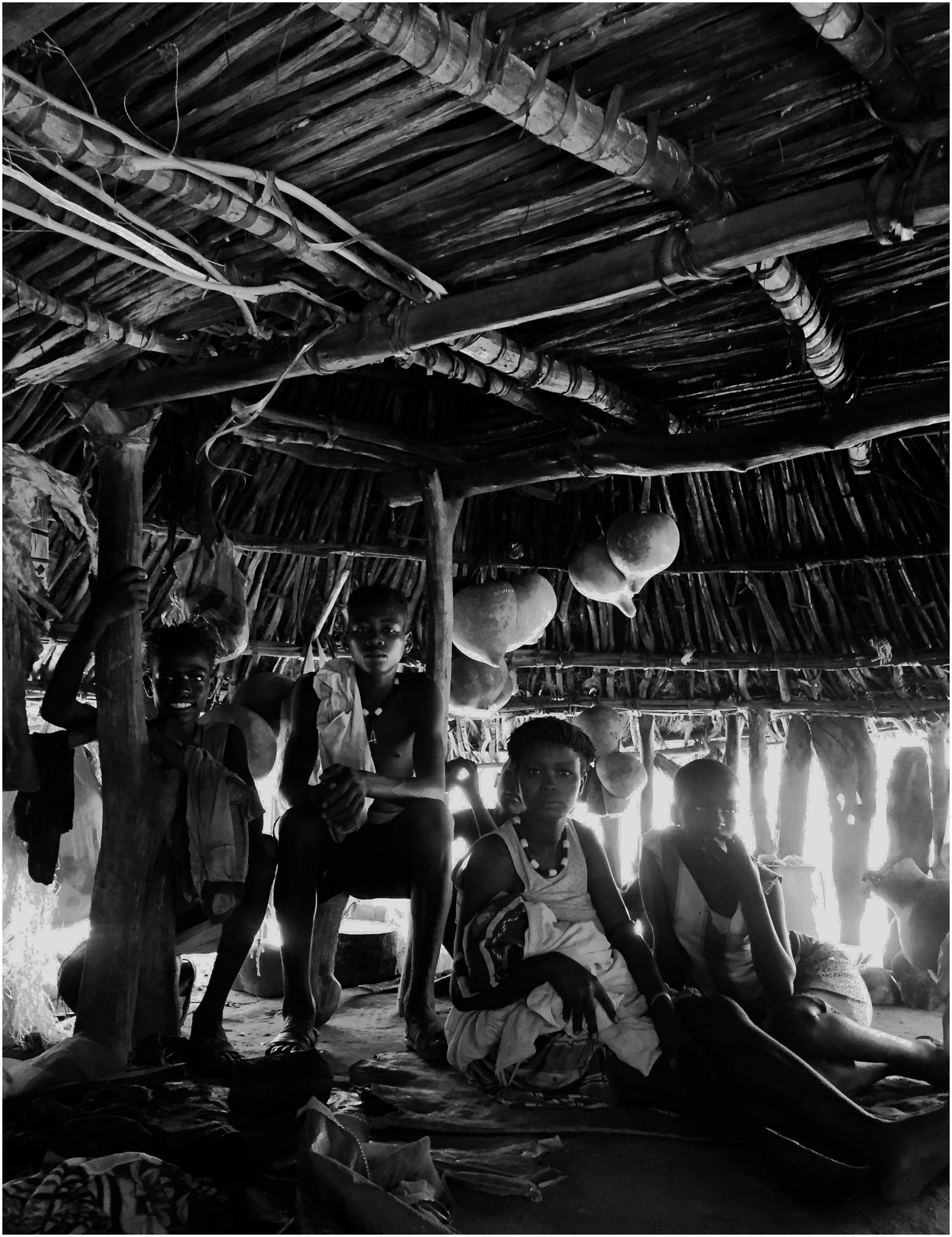


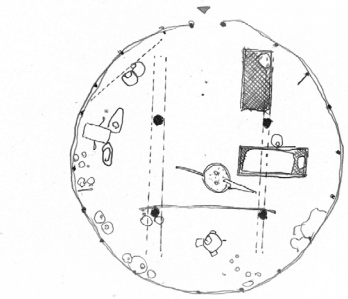




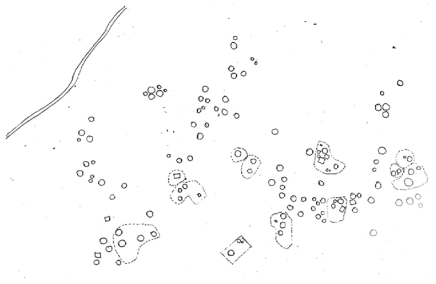
LIFE IN THE VILLAGE







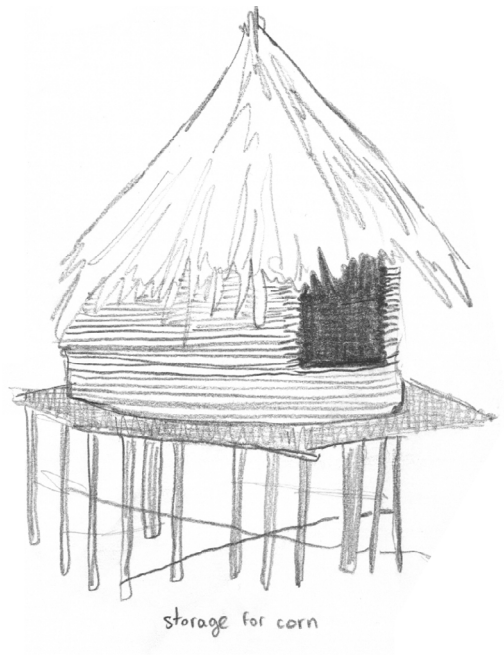











storage for corn

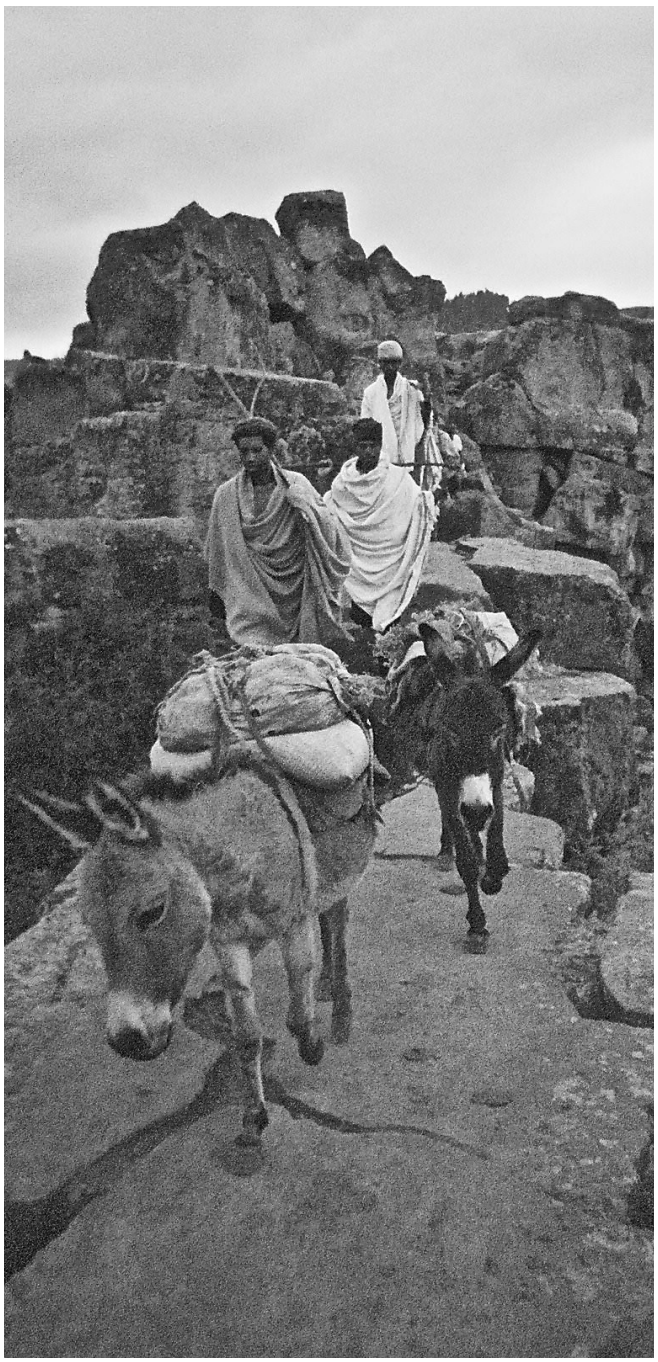
MIGRATION TO THE CITY

Ethiopia, and in particular Addis Ababa, are experiencing the phenomenon of this rapid urbanization first-hand: the urban population alone is annually growing at a pace of 4%.

Walking around the city, there is an atmosphere of constant crave for development, and one cannot avoid noticing the invasive amount of construction sites. However, the quality of life remains far below decent and it has a deficit of at least 300.000 housing units and counting.

In contexts such as this one, one cannot avoid wondering where these units will be built. Of course, the most appealing location is the central one, where there is easy access to income generation opportunities. In this area of Addis Ababa, just like in most cities of the world, the center is characterized by historic neighborhoods, the so-called Old Sefers. The term "historic" is a tricky one, as these neighborhoods are often time a "red light" for businessmen and developers. Hence, when a under-developed city wants to develop, it will most probably erase all of the traces of historic sites to make space for modernization and improvement of the quality of life, disregarding the assets that such neighborhoods possess intrinsically.













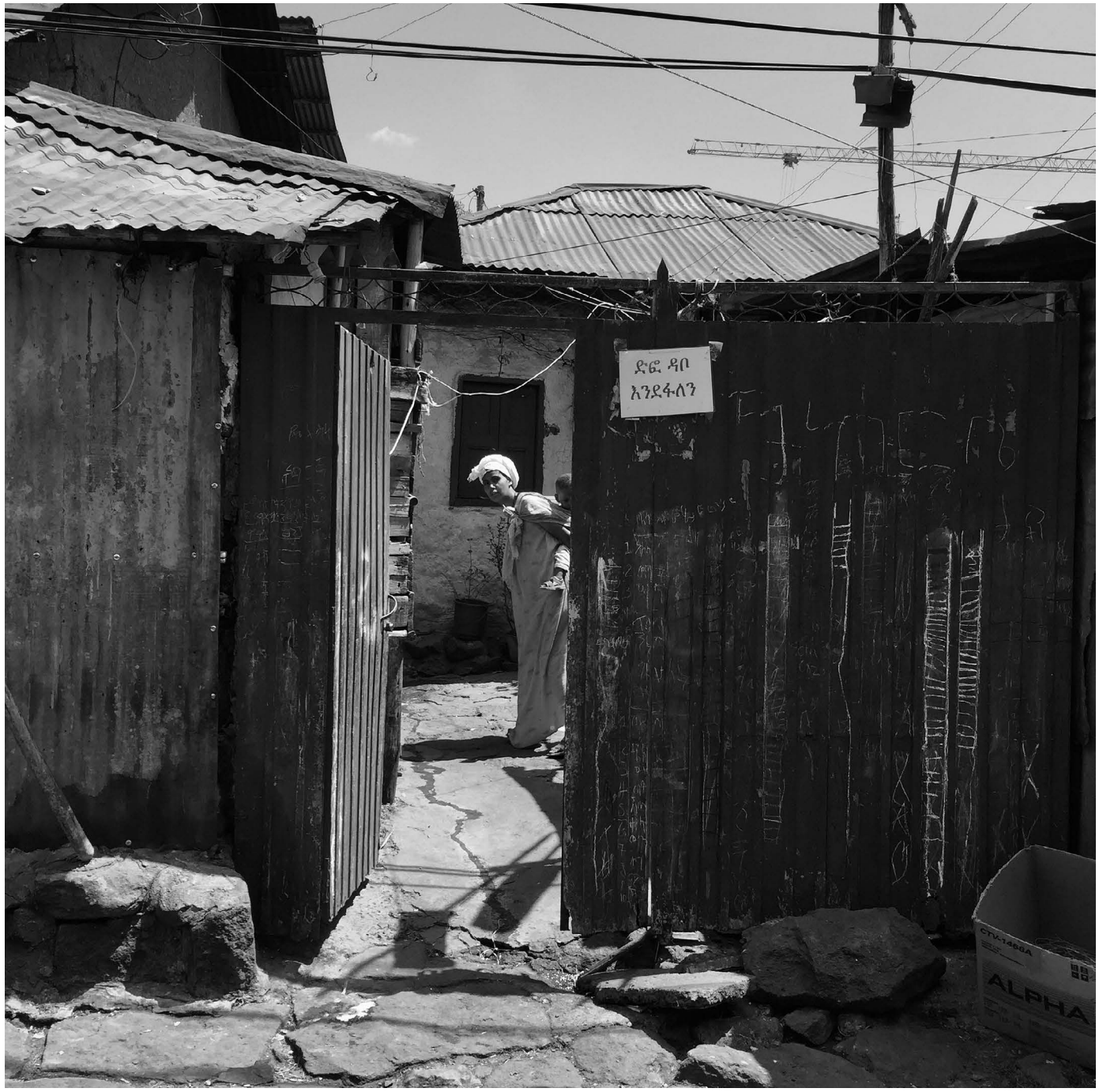


Other page
Fasil Ghiorgis,
"The City and
its Architectural Heitage"

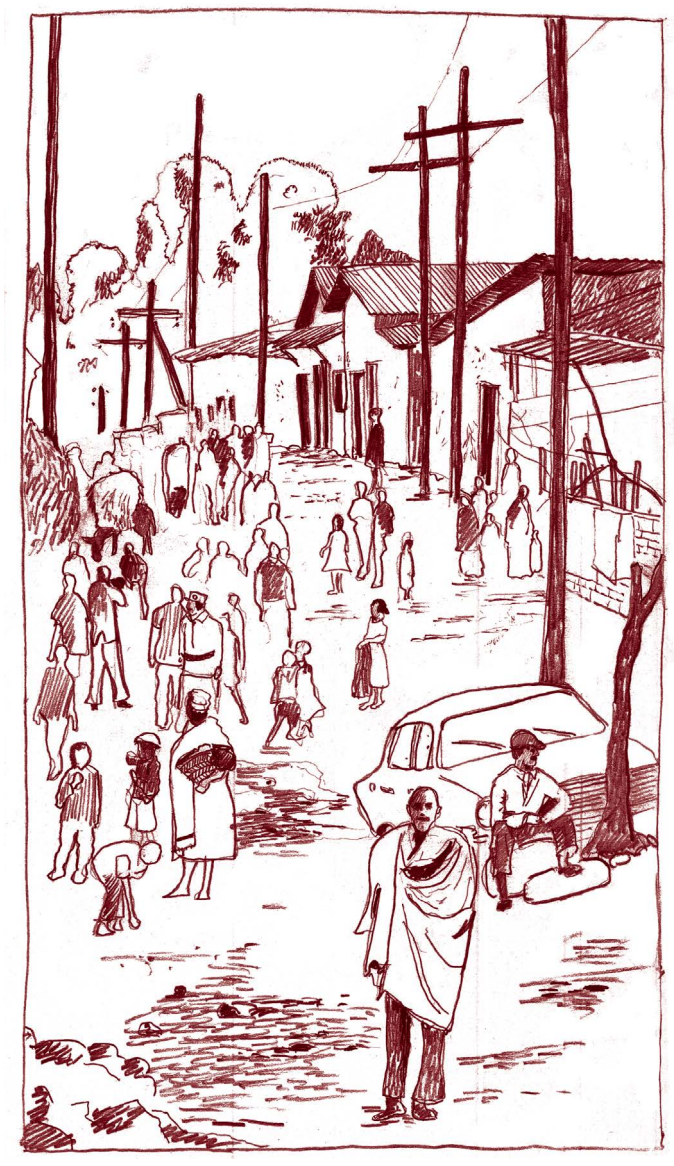
Above
Google Satellite

URBAN POPULATION IN ADDIS

As previously mentioned, the population of Addis Ababa qill triplicate in the next 15 years. There are no housing units nor jobs for the amount of people flowing into the city every day. However, people come to the city in search for a job: for this reason, 60% of the labor market is considered to be informal.


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ALPHA





Addis. November 11, 2019

Elias Yitbarek Alemayehu



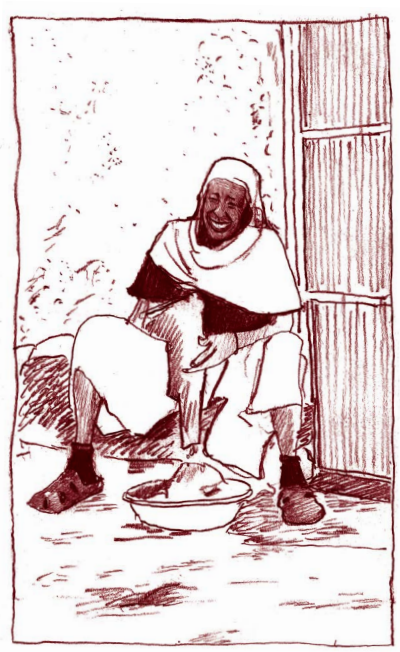
“I would say that what is on the ground in Addis Ababa is a collusion or a juxtaposition, as we like to say, between the traces of the masterplan and the spontaneity or the forces from the ground, the action of people of day to day activities.”

Cities are often the result of a slow cumulative process of social and spatial structures. Addis Ababa is not only growing at an incredibly fast pace, but is also a rather recently founded city. Charles Correa would say that often megalopolis try to chase a generic image of modernity characterized by high-rise buildings and development driven by economical pursuits: "There is little vision, they are rather hallucinations." Do you think such a reflection is close to Addis's reality?

Partly, yes. In a way what is happening now in Addis is driven by economic forces. But I would also add two things. The first one is that the current development is linked to the geopolitical condition of Addis Ababa. Because the city is surrounded by another regional state and it is, therefore, limited by its boundaries. So, in addition to the economic force, this focus on densifing with vertical growth and creating a very compact city is driven by political forces because it cannot expand towards the outside. The other factor is the speed of urbanization: the time factor. As you know, Ethiopian cities are one of the fastest-growing cities in the world. Basically, we are a rural country, 80%, but now the rate of urbanisation is so fast that we want to do things as quickly as possible and there is no time for thinking. We want to deliver. We want to do faster, quicker and in a huge quantity. So, generally yes, there is an economic force, but also a political force and this speed of urbanisation.

"Human societies are very much like lava flows and human-made structures (mineralized cities and institutions) are very much like mountains and rocks: accumulations of materials hardened and shake by historical processes." (M. DeLanda) In this parallel with mineral life, Addis Ababa is a volcanic explosion of gas e fluids. And yet, you can observe order taking form out of chaos. Patterns in everyday interactions between human and environment seems to be a part of a spontaneous self-organizing process that sets synchrony in turbulence. Could you reflect on this theme? Is there something to learn from informal settlements that we can bring in our visions for the city?





I would like to start to reflect upon the second question: whether we can learn from informal settlements, which has been a theme in our master program for quite a long time. We tend to document which lessons we can learn from informal settlements. Then, maybe I would emphasize two main things. First, there is a need for horizontal density as opposed to vertical growth. Most of our informal settlements are characterized by single stories or double stories, but not more than that. **What we can learn from here is that most of the houses in informal settlements are connected to the ground so that their livelihood is so much attached to what**





happens on the ground.

I would say that when we develop new housing, much focus should be given to this question: How do we create new housing developments in such a way that still the housing units are connected to the ground, that they continue what they were doing in the informal settlements. That is a lesson from informal settlements that I think is possible to realize through design. The second one is the issue that you mentioned in a beautiful way to characterize this spontaneity as volcanic ashes erupting. However, I would say that it is not fully like that. We have as you may know 10 masterplans for Addis Ababa, the last one is now from 2017 up to 2027. Maybe not all of them but some of them, particularly the masterplan of 2002, have left many traces on the ground. Like the construction of roads in Addis Ababa follow more or less what has been designed for the structure of Addis Ababa. **I would say that what is on the ground in Addis Ababa is a collusion or a juxtaposition, as we like to say, between the traces of the masterplan and the spontaneity or the forces from the ground, the action of people of day to day activities.** Maybe, the actions are so much that while walking on the street you might not notice the traces of a masterplan because of the vibrancy of people and their activities. However, if you look carefully there are some parts of the city shaped by the traces of the masterplan too.

Talian Sefer is one of the oldest neighborhoods in Addis Ababa. Despite often the conditions of

life are miserable, the consolidated community and the richness of his heritage makes it a foundamental part of the city. What do you think one should prioritize while designing its redevelopment? How could we open new doors to new aspirations while drawing on existing values?

This is an interesting question, because I live, myself, in one of the city centres, in Piazza. Where there are a number of interesting buildings and activities. So, I would say that **in places like Talian Sefer, I could guess there is a number of what we call 'urban traces' or 'intangible heritage' or 'heritage based on activities', so, not necessarily a building or a house.** The physical aspect itself may not be heritage but what happens inside —the activity— could be considered as heritage because of its long existence and the association of people with those activities. So, I think we can exploit or capitalize on these aspects of places like Talian Sefe and their intangible heritage. It could be as simple as recreating the story of a certain building. If we could spot such urban traces it can easily turn into a touristic attraction. Not only foreign ones but also locals. They could be students or anybody who could be interested to learn or to be informed of how the city developed through time. I believe that by small interventions we can recreate these areas into economically vibrant sefers.

If housing is to be regarded as a right, rather then as a commodity. How can we build an inclusive environment that could reach even the milions who lie on the pavements and in the shanty towns?

Well, if we could answer this question then there would not be any problem! However, as you rightly said there are a number of people living on the streets and it is well known that the majority of low-income people cannot afford the houses that so far are being sponsored or constructed by the government. So, I would say that instead of looking for a blanket solution for everybody, I would say: housing by all, for all. Meaning, if the government could only play a role of a facilitator for the provision of land, infrastructures, housing finance and affordable building materials and creating a level field by providing legal framework then I think that the construction of houses can be left to other actors and the people themselves. Only then we can create various options where people can fit according to their income. Let me put it in another way. Right now there is Kebele housing, which is very cheap, the amount of rent is so small that is almost nothing, on average is around 10 birr. The next step if you want a decent house is condominium housing, where the monthly payment is in thousands.

So the jump from the Kebele housing to the next available type of housing is so huge that the low-income people cannot afford it. Instead, if we create in-between options realized by different actors. ***Creating an affordability ladder where the riser or the steps are smaller, then people can gradually climb as their income increases.*** What I am saying is that there is a general tendency to say: "For Addis, there are 4 or 6 strategies to solve the housing crisis. But why do we say that? Instead of creating these 4,5 or 6 the policymakers, as I said earlier, could enable other actors to create several options, including rental housing, then anybody can fit into the available options according to their income.



place and identity

TALES
FROM AN OLD SEFER



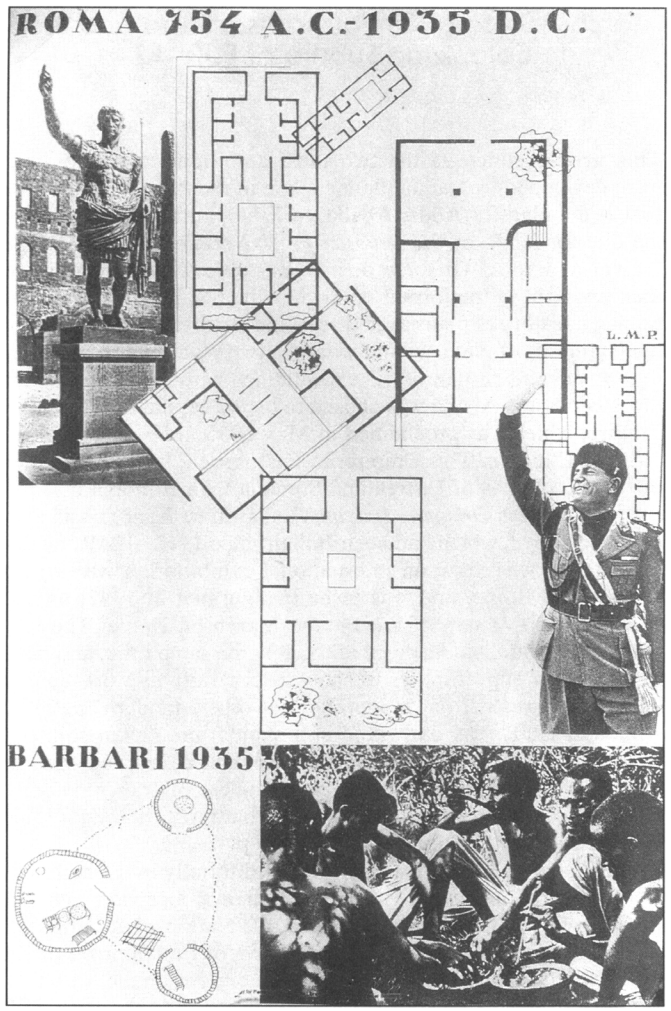
Introduction





ETYMOLOGY OF TALIAN

The neighborhood has been growing informally since 1886, when Addis Ababa was founded. Between 1889 and 1891, Addis Ababa became Ethiopia's capital, right after the ending of the first Italo-Ethiopian War. The latter ended with the Battle of Adwa in 1896: the fighting lasted only a few hours before the proud Italian army was annihilated. Most of the prisoners were locked in jail within Talian Sefer, according to the locals' recalling. When King Menelik II realized that within these group there were capable engineers and architects he allowed them to buy their freedom in exchange for the construction of houses and infrastructures.
Fourty years later, when the Italian army under Benito Mussolini invaded Addis for the second time, many generals decided to reside in the neighborhood once again.



Previous Pages
Fasil Ghiorgis,
"The City and
its Architectural Heitage"

Above
Civilta editorial. Source: Domus, vol. 9

Right
Retrivied from Historic Ethiopia Through The
Camera Lens: 1860s - 1990s.



Picture from the 1930s

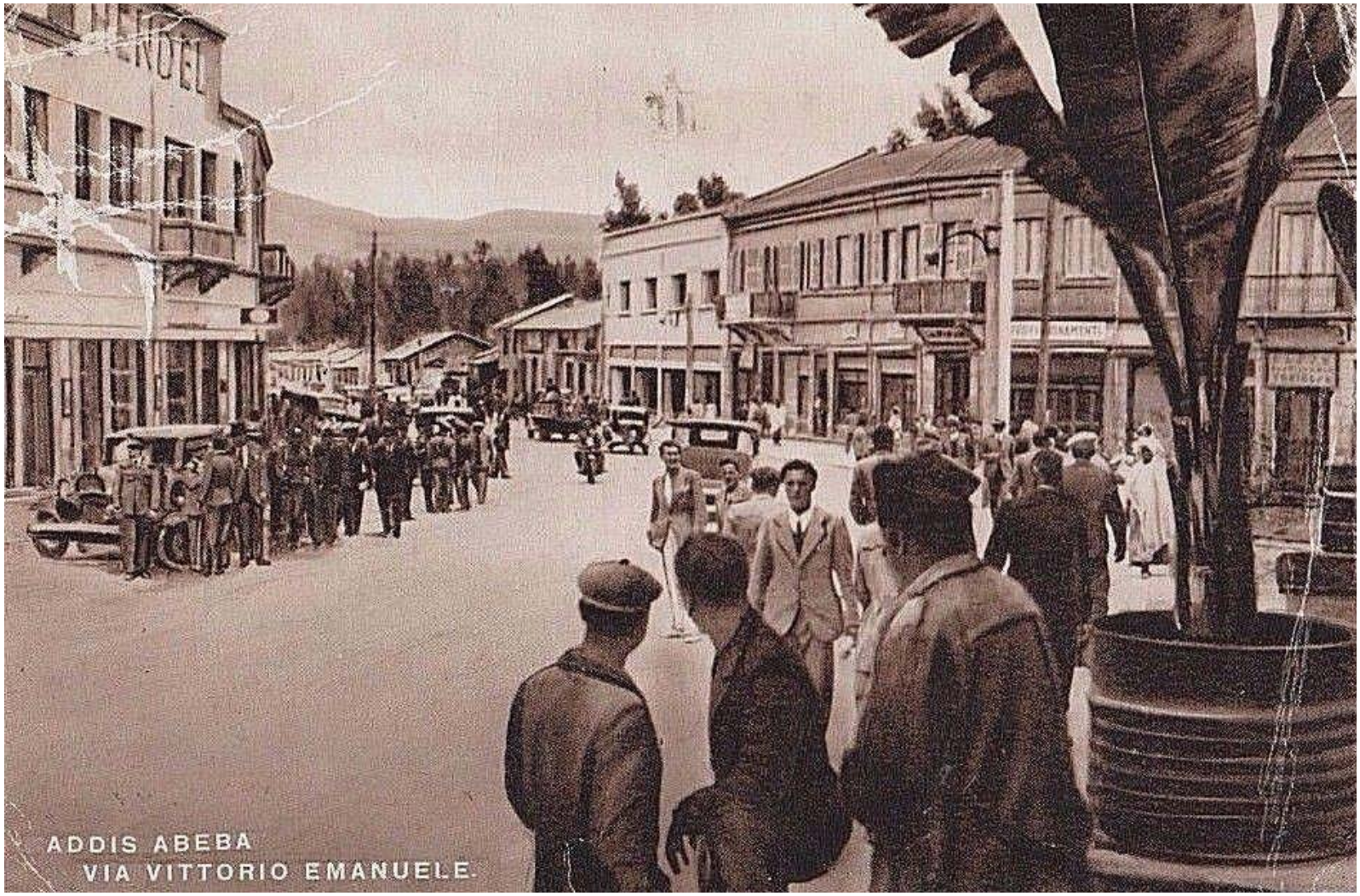
Hereby is reported the radio speech that Mussolini made in 1935 to the Italian Population.

"Blackshirts of revolution, men and women of all Italy, Italians all over the world, beyond the mountains, beyond the seas, listen. A solemn hour is about to strike in the history of the country. Twenty million Italians are at this moment gathered in the squares of all Italy. It is the greatest demonstration that human history records. Twenty million, one heart alone, one will alone, one decision.This manifestation signifies that the tie between Italy and fascism is perfect, absolute, unalterable. Only brains softened by puerile illusions, by sheer ignorance, can think differently, because they do not know what exactly is the Fascist Italy of 1935.
For many months the wheel of destiny and of the impulse of our calm determination moves toward the goal. In these last hours the rhythm has increased and nothing can stop it now. It is not only an army marching towards its goal, but it is forty-four million Italians marching in unity behind this army. Because the blackest of injustices is being attempted against them, that of taking from them their place in the sun. When in 1915 Italy threw in her fate with that of the Allies, how many cries of admiration, how many promises were heard? But after the common victory, which cost Italy six hundred thousand dead, four hundred thousand lost, one million wounded, when peace was being discussed around the table only the crumbs of a rich colonial booty were left for us to pick up. For thirteen years we have been patient while the circle tightened around us at the hands of those who wish to suffocate us.We have been patient with Ethiopia for forty years. It is enough now.The League of Nations, instead of recognizing the rights of Italy, dares talk of sanctions, but until there is proof of the contrary, I refuse to believe that the authentic people of France will join in supporting sanctions against Italy. Six hundred thousand dead whose devotion was so heroic that the enemy commander justly admired them—those fallen would now turn in their graves.
To economic sanctions, we shall answer with our discipline, our spirit of sacrifice, our obedience. To military sanctions, we shall answer with military measures. To acts of war, we shall answer with acts of war. A people worthy of their past and their name cannot and never will take a different stand. (...) The Italy of the blackshirt fascist revolution, rise to your feet; let the cry of your determination rise to the skies and reach our soldiers in East Africa. (...) It is the cry of Italy which goes beyond the mountains and the seas out into the great world. It is the cry of justice and of victory".



Map showing the Italian occupations before WWII

Right
Retrivied from Historic Ethiopia Through The Camera Lens: 1860s - 1990s.


ADDIS ABEBA
VIA VITTORIO EMANUELE





ABUNE PETROS

"My countrymen, do not believe the fascists telling you that the Patriots are bandits, the Patriots are people who are fighting to free us from the terror of fascism. Bandits are the soldiers who are in front of me and you, who have come from far, terrorize and violently occupy a weak and peaceful country: our Ethiopia. God gives to the people of Ethiopia the strength to resist and never bow to the Fascist army and its violence. An Ethiopian land can never accept the orders of the invading army. Land of Ethiopia; I condemn you if you accept such an invasion." (Abune Petros)

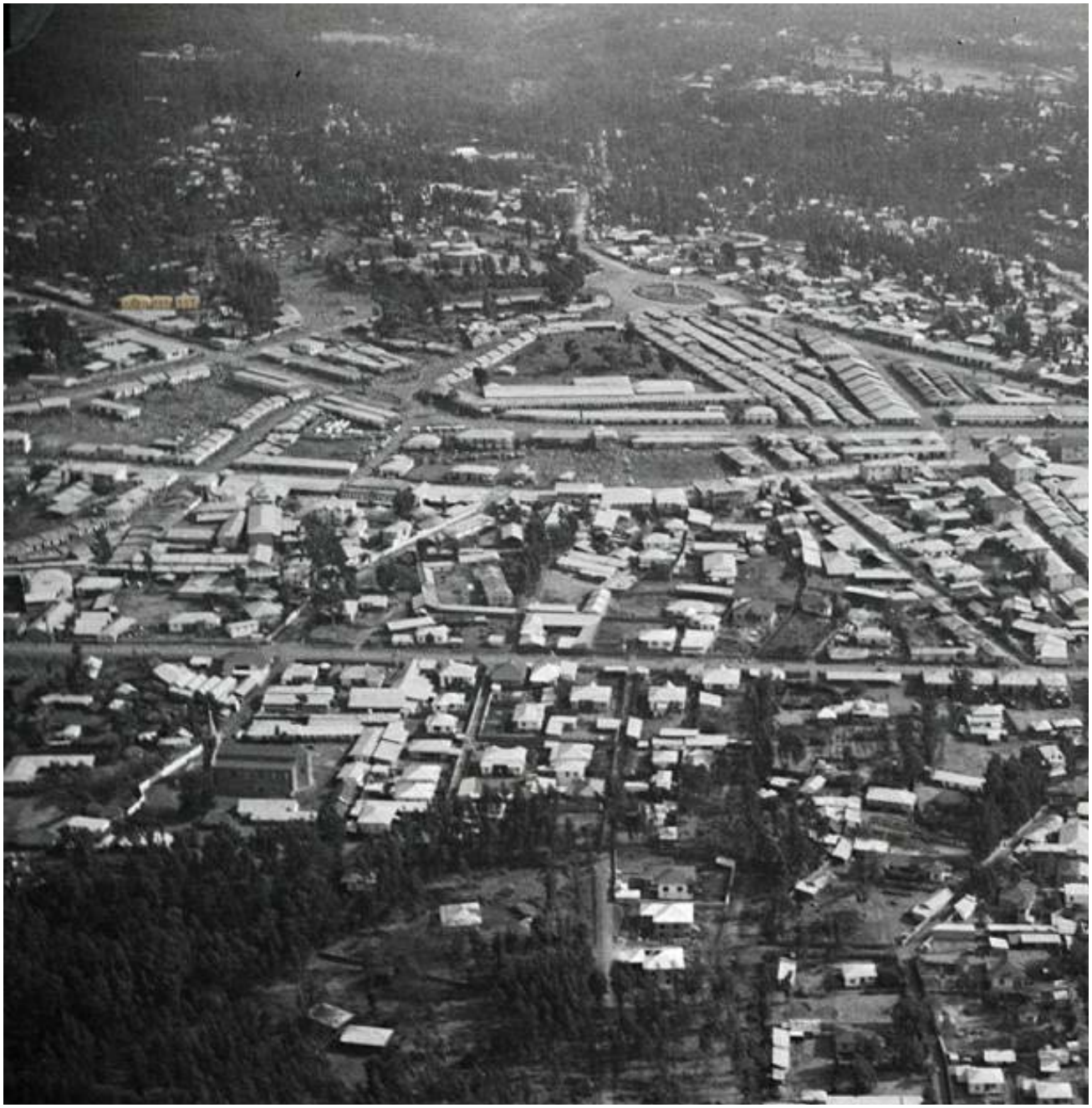
After making him seat on a chair, Italian soldiers shot him dead. He became a martyr and was sanctified. His last days were spent in a prison that is still present in Talian.



Right

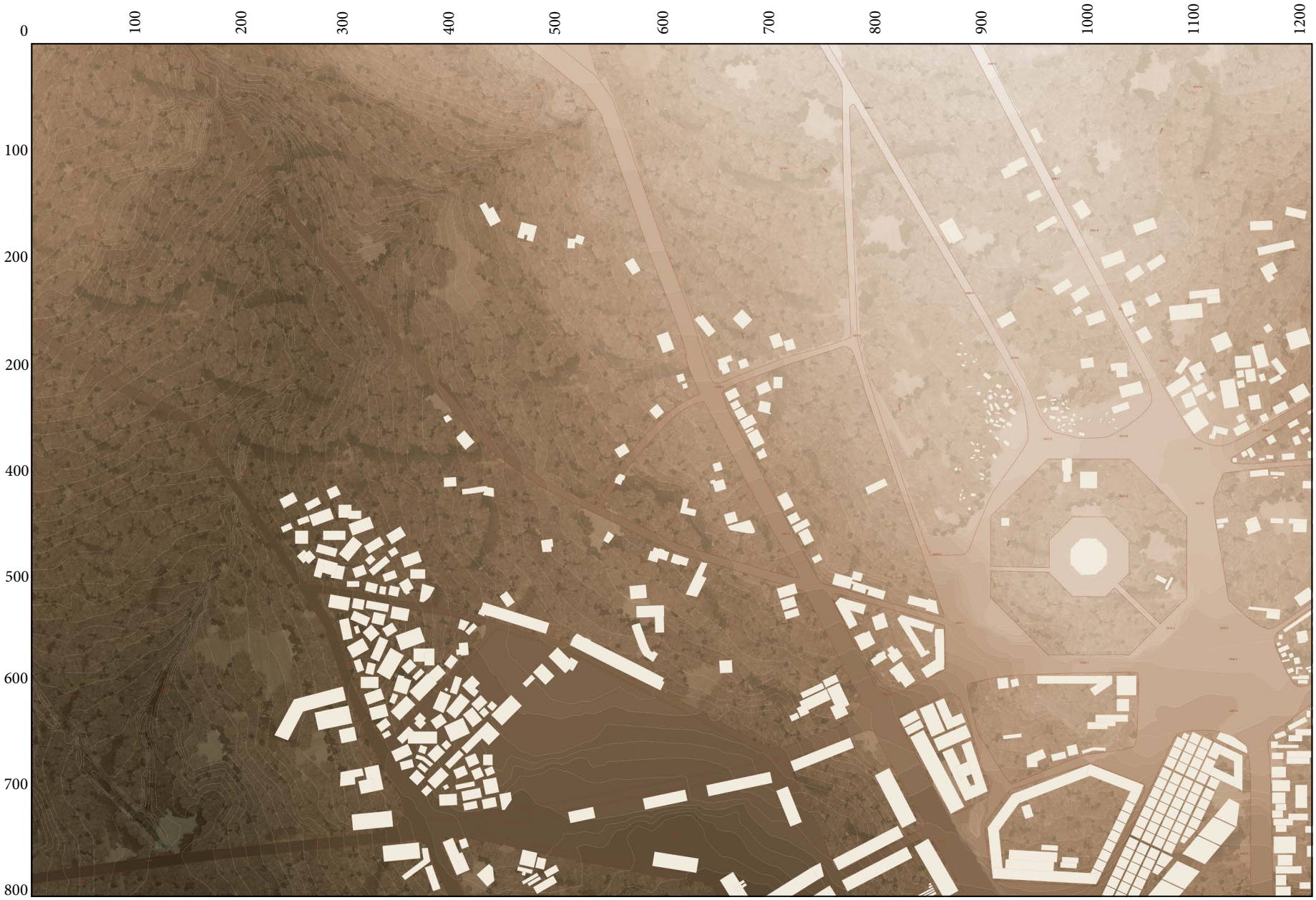
Retrivied from Historic Ethiopia Through The Camera Lens: 1860s - 1990s.



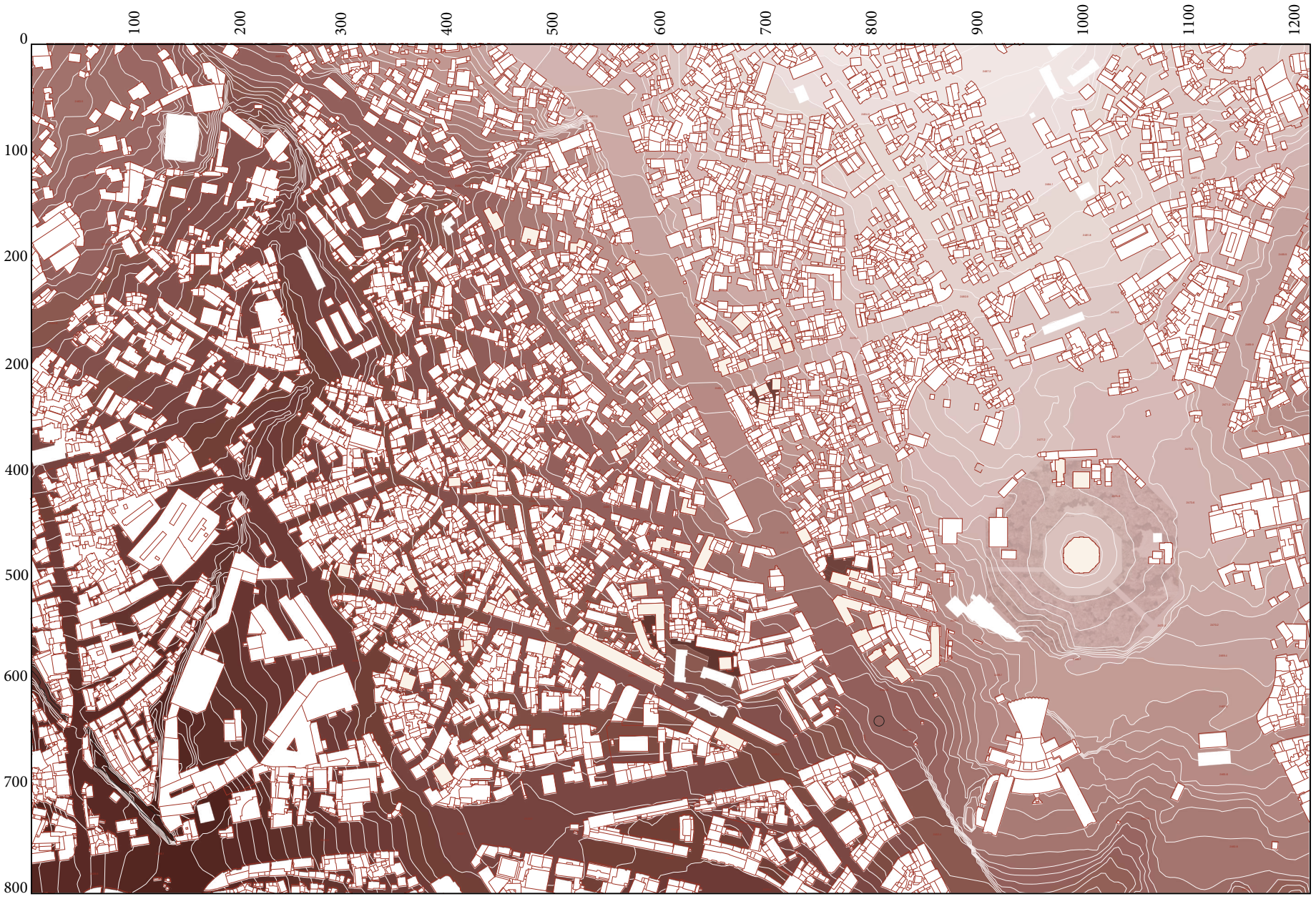




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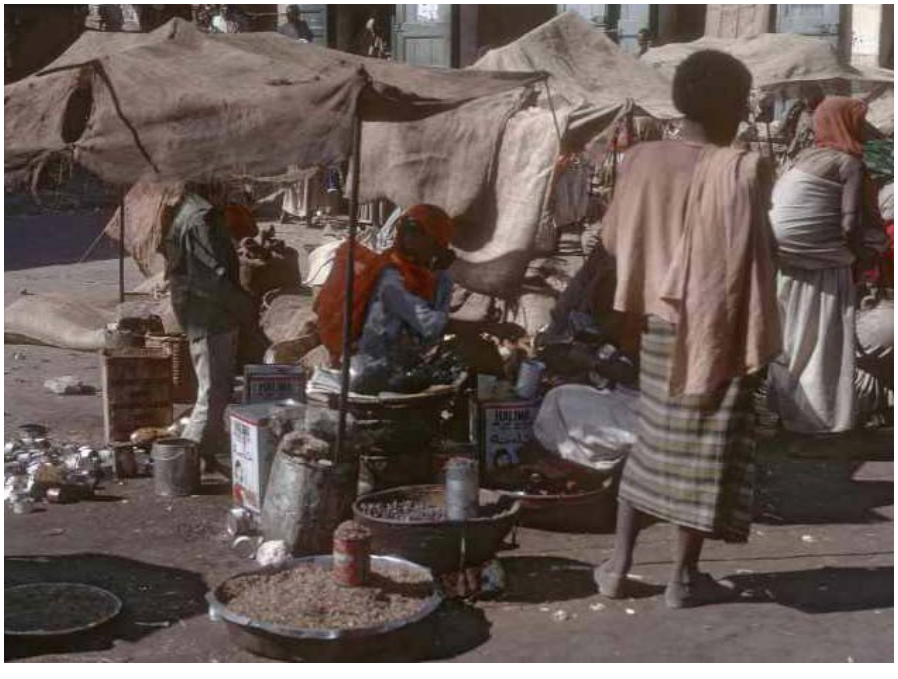

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images retrivied from
Historic Ethiopia Through The Camera
Lens: 1860s - 1990s.

INVESTIGATING ORDINARY LIFE IN TAILIAN


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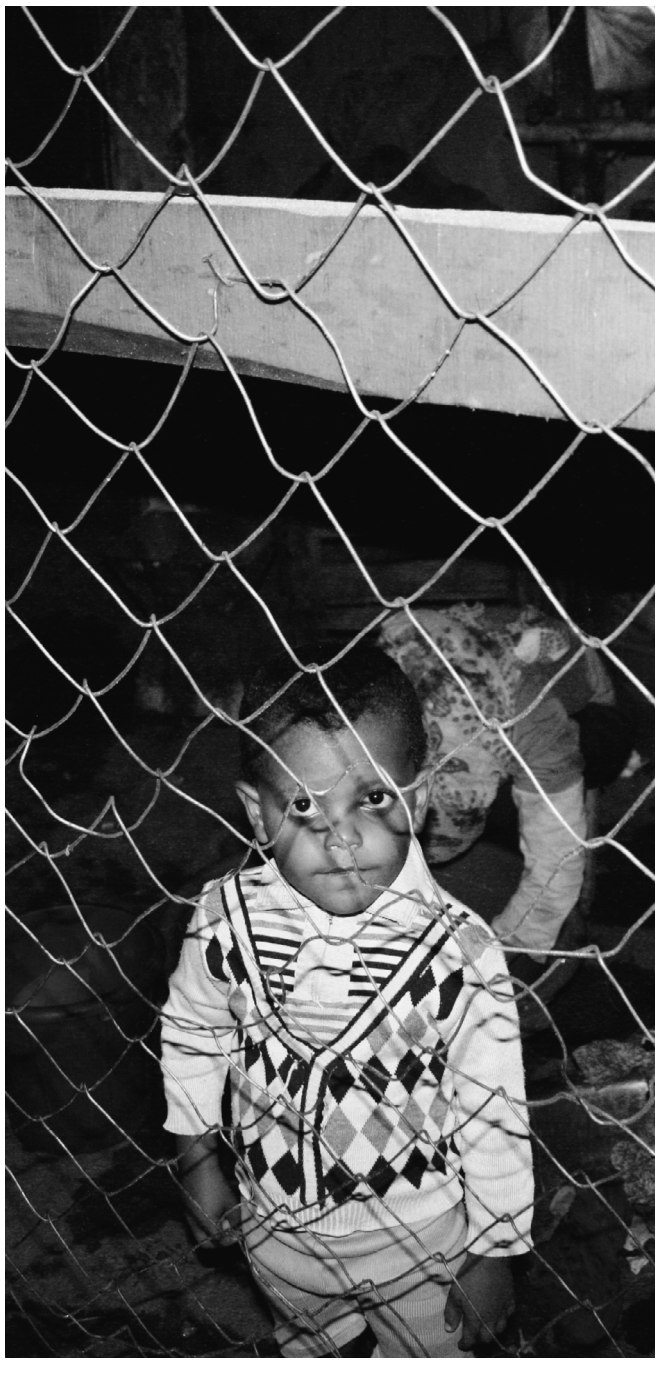





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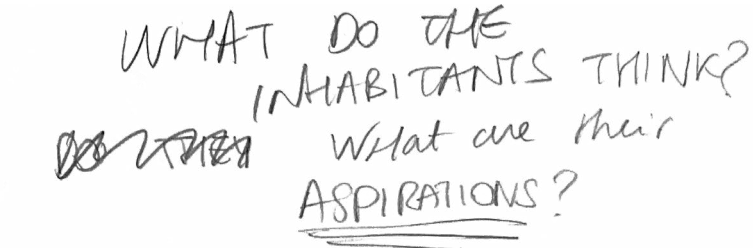










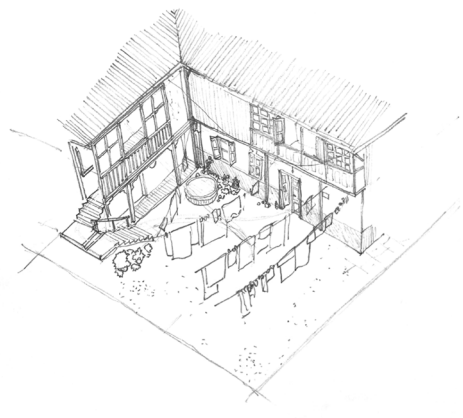

WHAT DO THE
INHABITANTS THINK?
What are their
ASPIRATIONS?

Addis. 10th of November, 2019

Mengeste



“No one passes the night without eating! If you don’t have anything to eat your share with people and people share with you! but if you go to Bole where the wealthy families live... They don’t give a damn shit about their neighbor! They are on their own.”





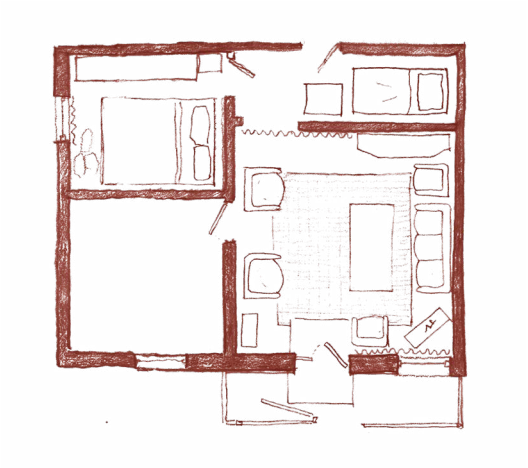
Addis. 10th of November, 2019

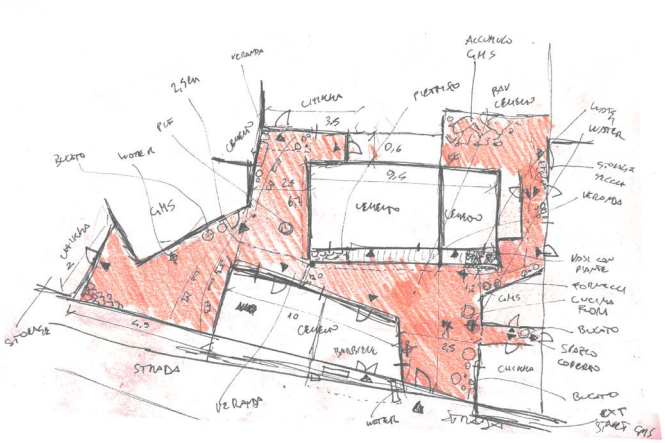
Demege bre Gelan



“I joined Haileselassies army and travelled to Korea. The war was very difficult. We carried out our mission successfully, we were very heroic; we killed and captured.
We were never caught by the enemy because emperor Haileselassie instructed us not to get caught.”


SUBWAY
DEPT




ACCUMULO GAS
VERANDA
2,5cm
CUCINA
PIANTERRENO
BAV CELESTE
WATER
PVC
BUCATO
GAS
CEMENTO
VERANDA
STRADA
BARBECUE
CUCINA
BUCATO
WATER

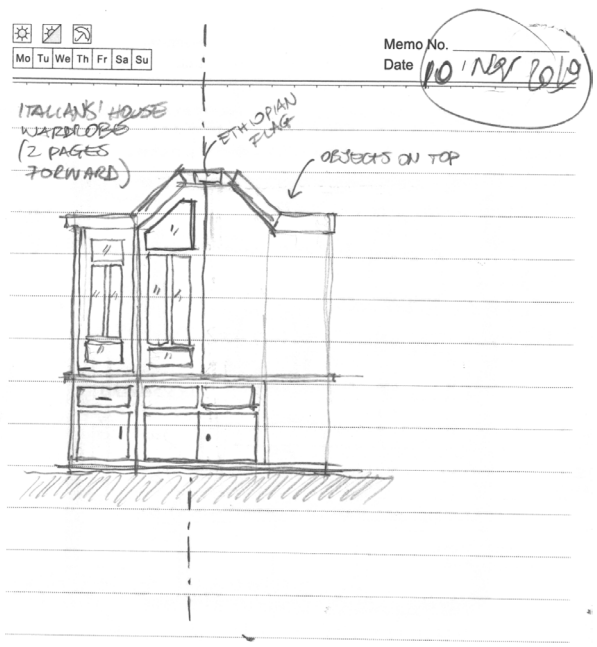
Addis.10th of November, 2019

Interview with Mekides ketema



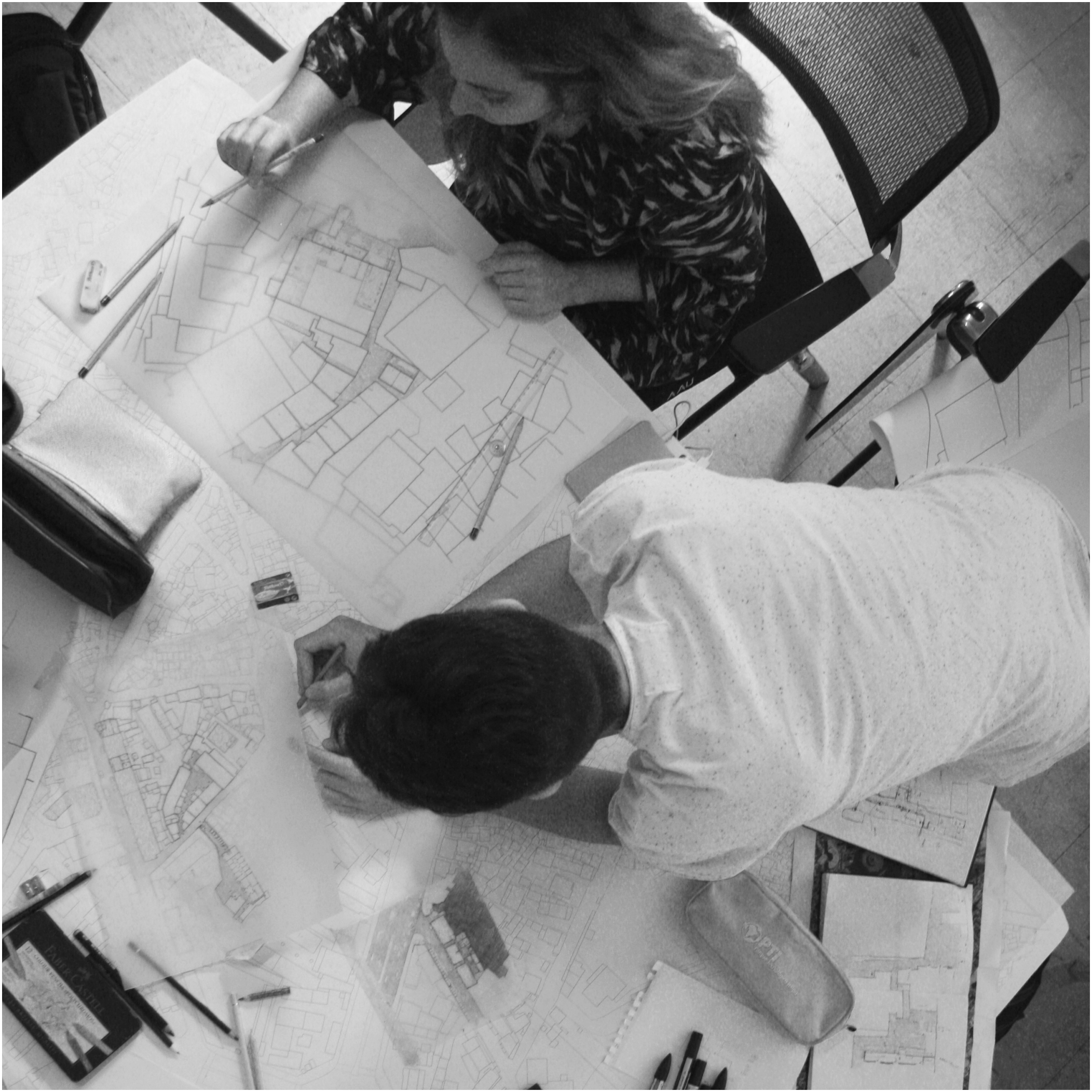
"Talian sefer is still the same. I wish that this area is retained and not demolished. It should stay intact and serve as a museum
This is history. Brining new layers would make us forget what is in here."




Mo Tu We Th Fr Sa Su
Memo No.
Date 10 Nov 2019
ITALIANS' HOUSE
WARDROBE
(2 PAGES
FORWARD)
ETHIOPIAN
FLAG
OBJECTS ON TOP



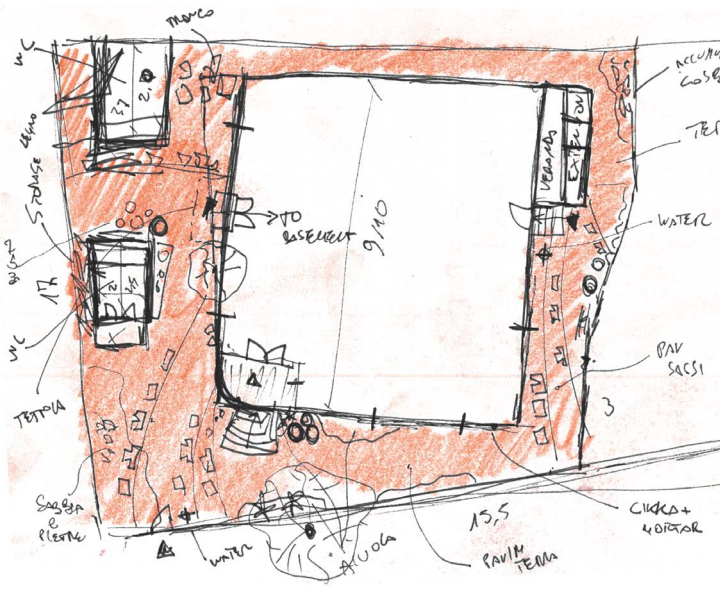
Picture by Fabio Buondoono

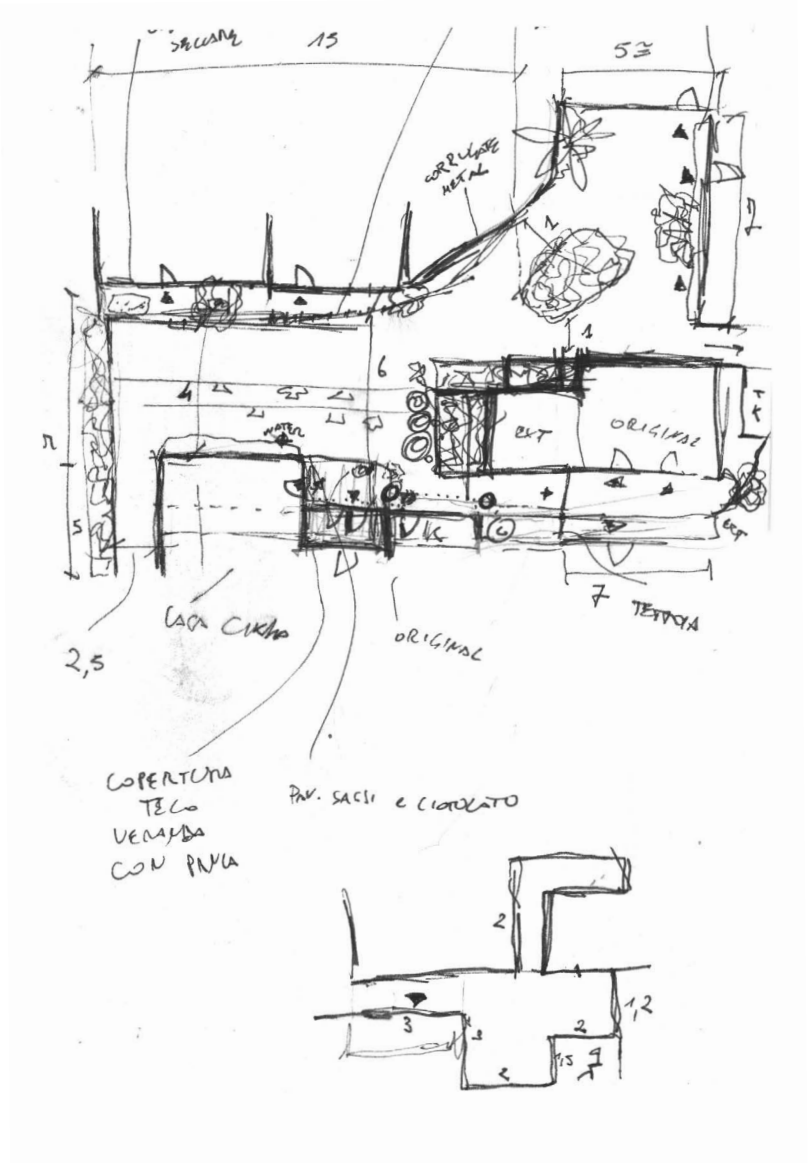


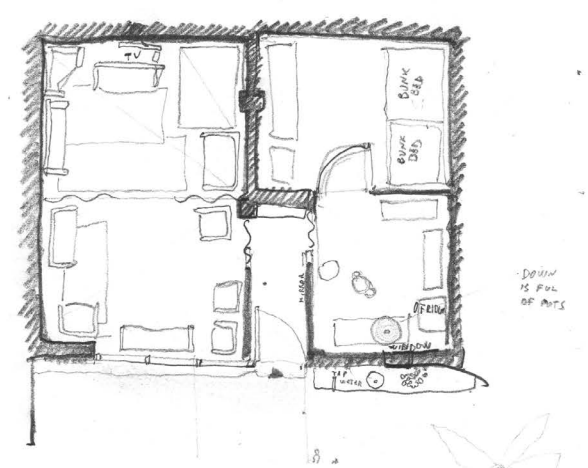
Picture by Antonio Paoletti

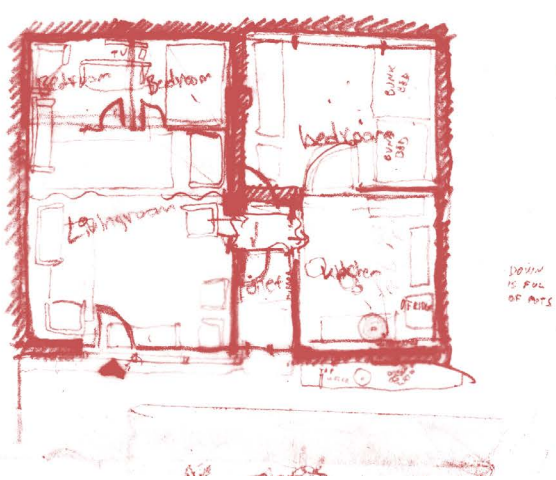





WC
STORAGE LEGNO
WC
TETTOIA
WATER
PAV SACCI
CUCINA + MORTAR
WATER
AIUOLA
PAVIM TERRA
15,5
9/10


15
5
COPERTURA METAL
ORIGINAL
EXT
WATER
2,5
CASA CUCINA
ORIGINAL
7 TETTOIA
COPERTURA TELO VERNICIATO CON PAVIA
PAV. SACCI E CIOTOLATO
2
1,2
3


TV
BUNK BED
BUNK BED
OFFICE
DOWN IS FULL OF ARTS


TV
bedroom
bedroom
BUNK BED
BUNK BED
bedroom
bedroom
OFFICE
DOWN IS FULL OF ARTS

RESEARCH METHODS

Antonio Paoletti

Autophagia

How we build is informed by how we understand the world, and how we understand the world is framed by what we have built there.

With such a straightforward statement Ray Lucas situates the architect in a position of great responsibility, defining the relevant role that architecture holds in shaping human subjects and stressing a dynamic relationship of interdependency. A responsibility that urges us to assume a critical attitude in design practice, constantly formulate questions to challenge established positions related to different historical contexts and to understand our world. In such a way, one might escape blind imitations resulting from dogmatic positions. However, an inquisitive attitude requires discipline and a constructive framework to articulate valid questions. After all, as Lucas puts it, "research isn't so much to do with answers so much as having interesting questions."

According to Jorge Mejía Hernández, architecture, too, should be regarded as a series of historically contingent "interesting questions" tackled by architects employing a chosen body of methods.Thecrucial topic here is that it is a matter of choice, something that implies a certain degree of freedom. Sure, the work of an architect is strongly dictated by a historical context, as well as many other determining factors. However, there is an element of vagueness and ambiguity that gives space, and even demands, for a personal position. This is particularly relevant when we are confronted with multifaceted issues and we need to articulate defined questions to cut our way into their intricate complexity, asking ourselves "what is my take on this?".

This is the case for the rapidly developing city of Addis Ababa, capital of Ethiopia, both one of the fastest-growing economies and one of the poorest countries in the world. Due to constant demographic growth, the city becomes the place of arrival of endless flows of internal migrants that struggle to find affordable dwellings. Facing a challenging housing shortage within a context of great haste, Addis Ababa cannot hesitate. There is a need to deliver quickly, in great quantities and as efficiently as possible! Correa's comment about the plans for Mumbai might be partly applicable Addis Ababa's development driven by economic and political pursuits: "There's very little vision. No one really knows. They're more like hallucinations."



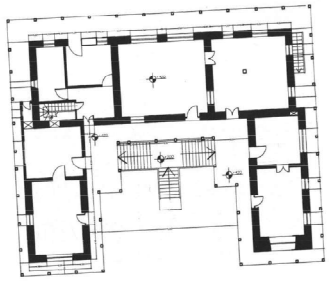
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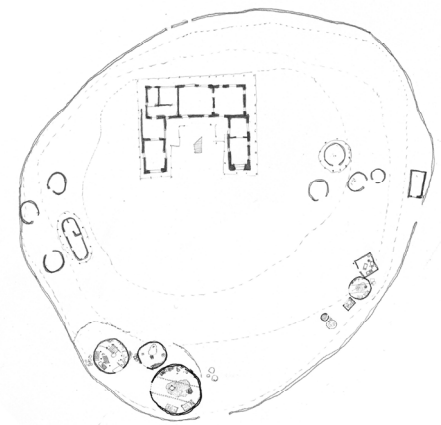
MORPHOGENESIS

In places like Talian Sefer, I could guess there is a number of what we call 'urban traces' or 'intangible heritage' or 'heritage based on activities', so, not necessarily a building or a house. The physical aspect itself may not be heritage but what happens inside —the activity— could be considered as heritage because of its long existence and the association of people with those activities.

Talian Sefer is one of the oldest districts of Addis Ababa. It was born as a series of independent villas scattered in the landscape and evolved in one of the most vibrant areas in the city. Therefore, it seemed a rather urgent matter the evaluation of what specifically was worth identifying before it could be swept away by a disruptive masterplan and the reason why it could be considered valuable. However, to get a better understanding of the tangible, comprised of alleyways and historical architectures, and the intangible heritage, represented by social practices repeated through time, one cannot begin from the given. According to Deleuze, indeed, the given is the result of a process, and as Levy Bryant puts "it does not explain but must be explained."Therefore, it appeared appropriate for a deeper study of the complex urban ecology of the capital to take two parallel ways: on the one hand, to investigate the morphogenetic processes driving the emergence of Addis Ababa. On the other hand, to account for the transformations of the patterns of inhabitation and the social structures that co-evolved with that habitat. The first one employs a typo-morphological analysis whilst the second one an ethnographical approach.

The typo-morphological analysis is derived from the formulation of Muratori, who strived to reconcile an understanding of the city by identifying elementary types that constitute the urban fabric with the orographic dimension of the territory in a continuous variation of scale. Our analysis explores the evolutionary processes of the Ethiopian dwelling culture with a similar method, observing the most prominent housing figures in different historical phases. Yet, being Addis Ababa a recently founded city,the examination of housing typologies goes beyond the foundation, analyzing several rural settlements in different geographical and climatic conditions as well as the itinerant royal court that in 1886 slowly mineralized into a permanent capital. Each urban type is examined in three scales, 1:50, 1:200, 1:1000, to allow a more precise understanding of how a certain urban fabric has been generated by clustering systems of several units.



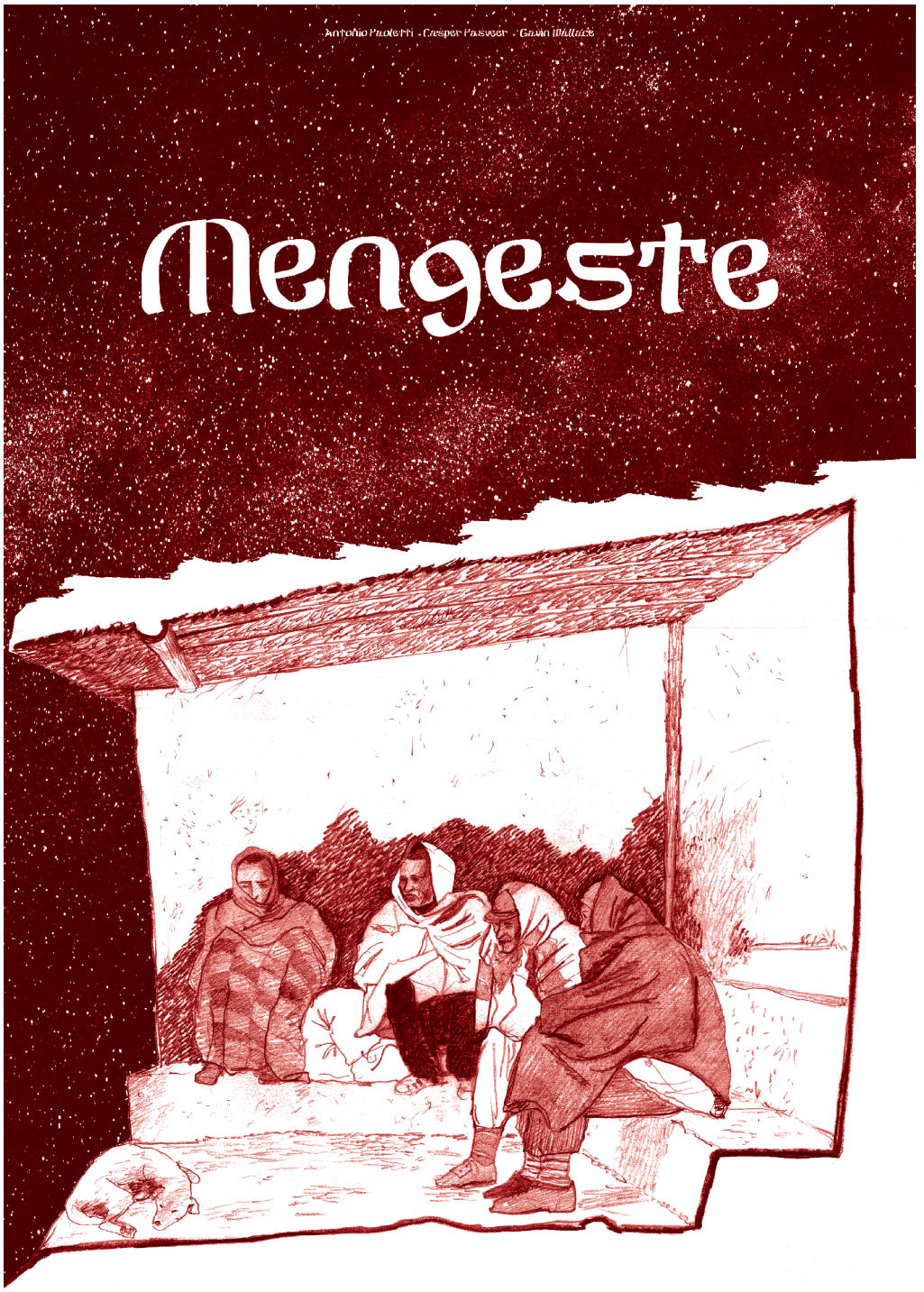




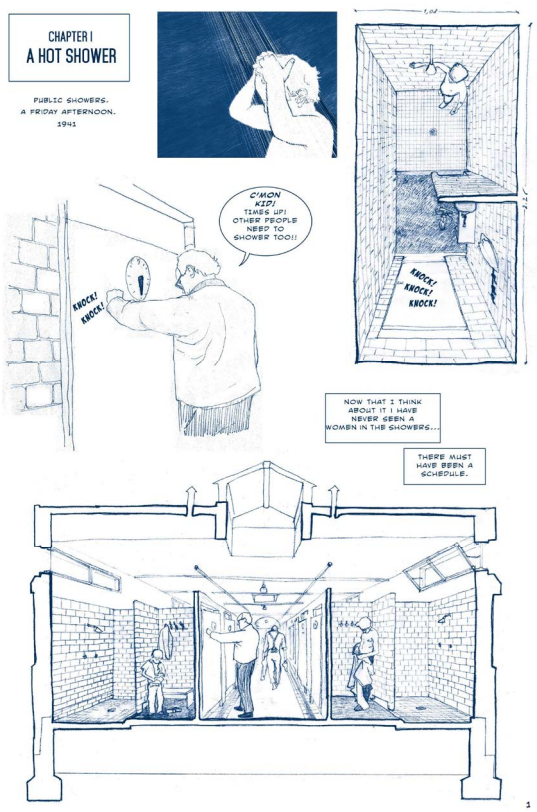
The palace of a nobleman surrounded by his retinue and other families scattered in the highlands. Addis Ababa began as a collection of nomadic military camps, the 'sefers', that later evolved in urban districts. Even if in the small scale the transformation of a type might give the impression of linearity, in the larger view the non-linear causality becomes evident: different speeds of becoming coexist and bring complexity in the mineralization of the city: what drives the morphogenesis of a cluster of tukuls cannot be the same fuel generating variations of the palace type.

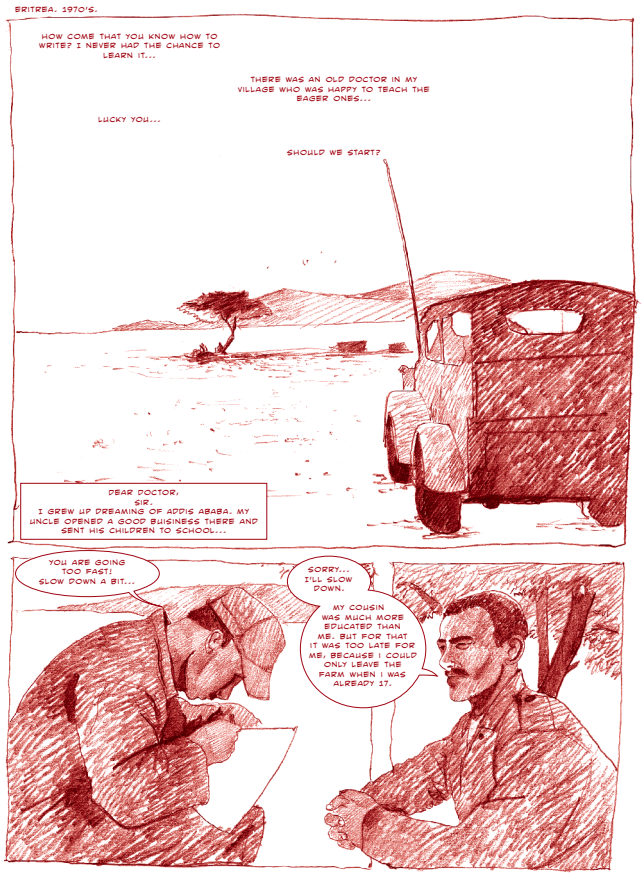


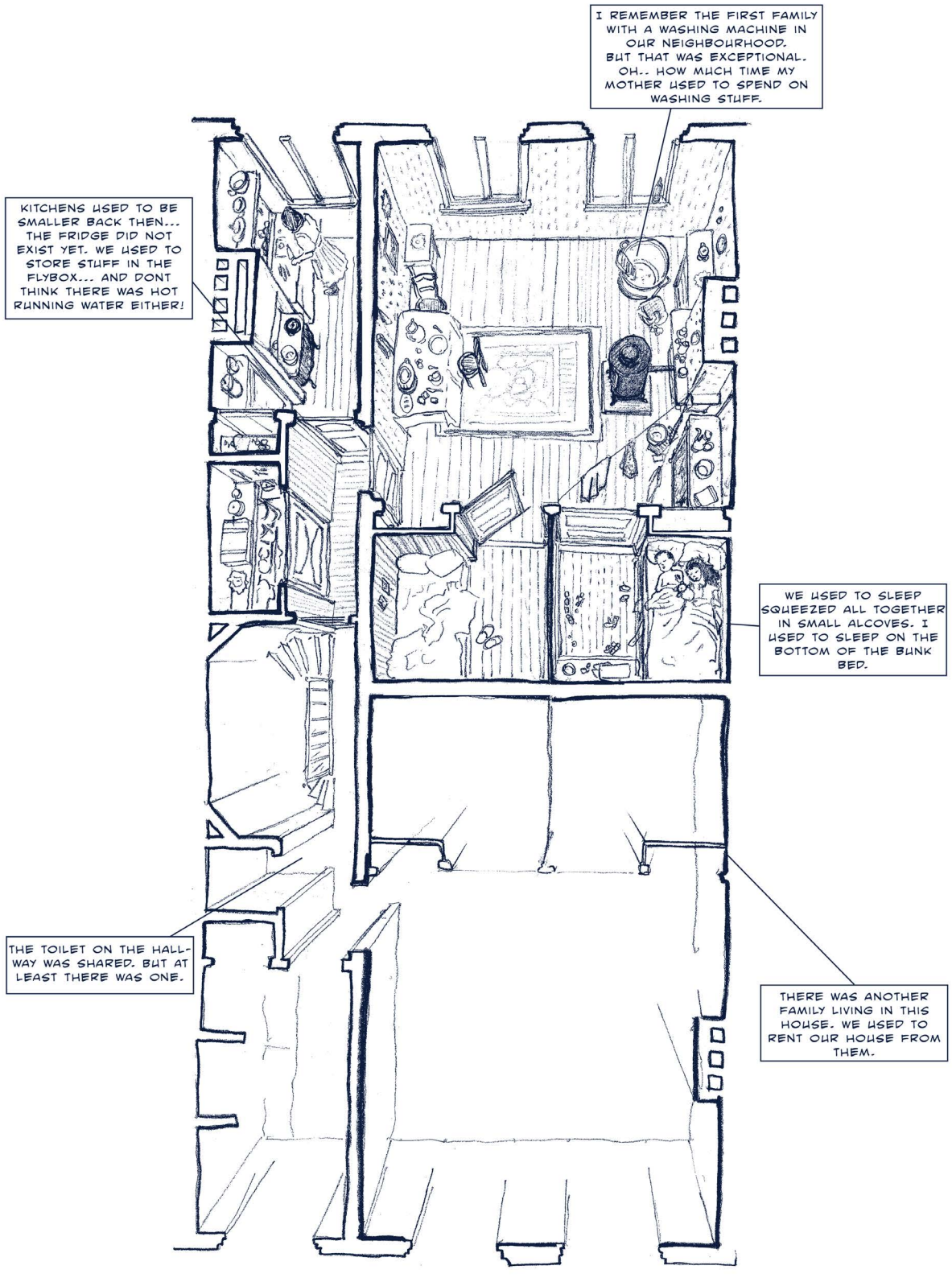
Antonio Paoletti . Casper Pasveer . Gavin Wallace



'Architectural Ethnography' is a term introduced by Momoyo Kaijima, who, after a series of studies about the production of space by individual dwellers, found herself "interested in exploring a method of observing and drawing architecture and urban space from the viewpoint of the people who use it, rather than the architects and planners who are involved in its construction." In our analysis we displayed our studies in the form of a graphic novel built up in a combination of architectural drawings animated by human activities depicting daily life in a selected neighbourhood. These methods require interviews with inhabitants as well as sketches of the city to build up a narrative of space and people. The presented method has been tested in the analysis of a neighbourhood in Rotterdam as a first exercise to be later adopted in Ethiopia, providing us, furthermore, with the possibility to draw conclusions based on a comparative analysis.






I REMEMBER THE FIRST FAMILY WITH A WASHING MACHINE IN OUR NEIGHBOURHOOD. BUT THAT WAS EXCEPTIONAL. OH.. HOW MUCH TIME MY MOTHER USED TO SPEND ON WASHING STUFF.
KITCHENS USED TO BE SMALLER BACK THEN... THE FRIDGE DID NOT EXIST YET. WE USED TO STORE STUFF IN THE FLYBOX... AND DONT THINK THERE WAS HOT RUNNING WATER EITHER!
WE USED TO SLEEP SQUEEZED ALL TOGETHER IN SMALL ALCOVES. I USED TO SLEEP ON THE BOTTOM OF THE BUNK BED.
THE TOILET ON THE HALL-WAY WAS SHARED. BUT AT LEAST THERE WAS ONE.
THERE WAS ANOTHER FAMILY LIVING IN THIS HOUSE. WE USED TO RENT OUR HOUSE FROM THEM.

CHAOSMOS

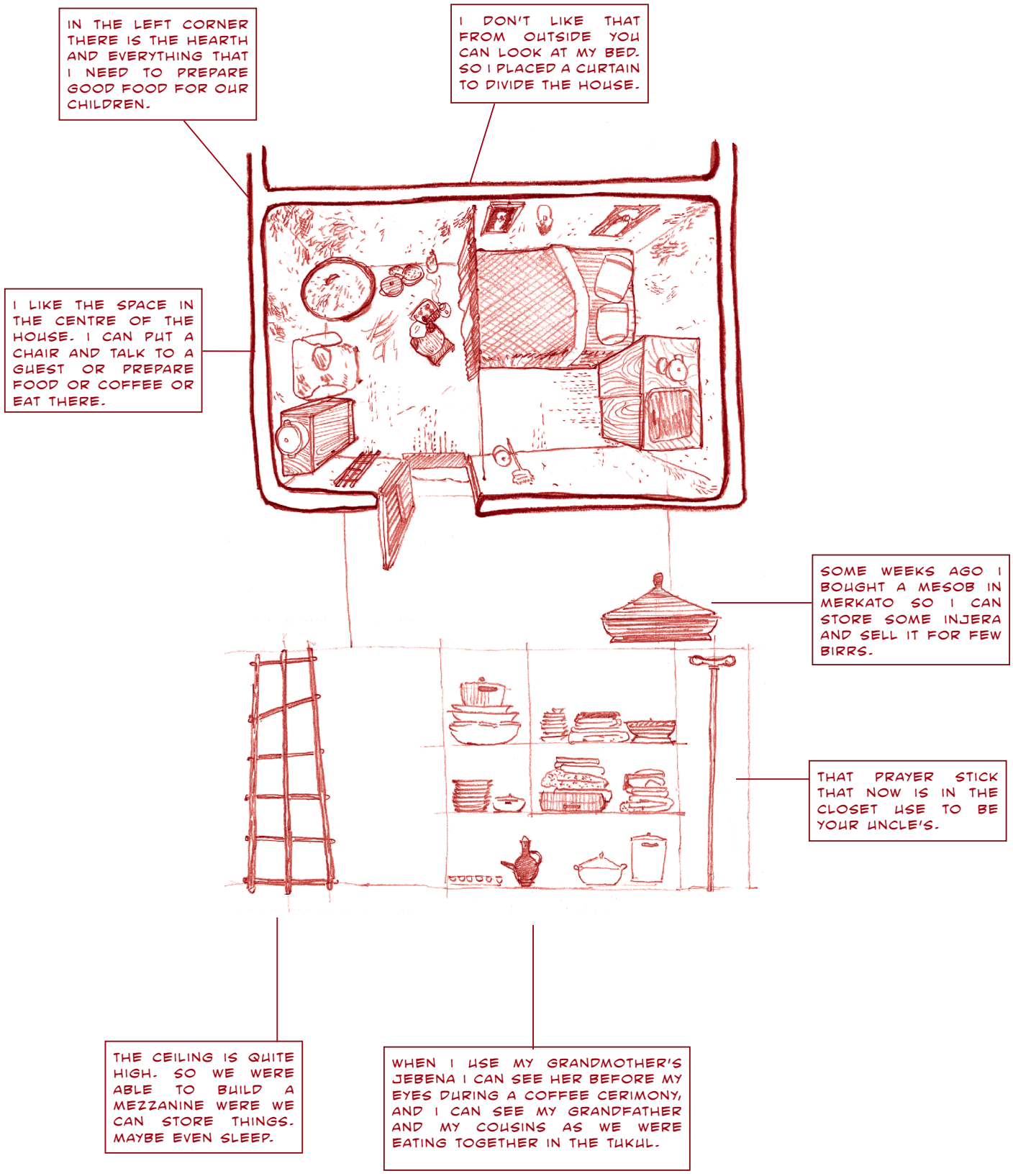
Even if, from a strictly analytical point of view, our typo-morphological researches provided a rich starting point to make sense of the transformation of Addis Ababa, I will continue my reflection focusing on the ethnographical methods since they represent a less traditional approach in architectural practice and might require a deeper discussion.

Let us never cease from thinking-what is this 'civilization' in which we find ourselves? What are these ceremonies and why should we take part in them? What are these professions and why should we make money out of them? Where in short is it leading us, the procession of the sons of educated men?

Virginia Woolf urges us to assume a critical attitude towards the most common practices of the everyday life, to question the banal and the ordinary. Indeed, an ethnographer is precisely someone that "makes the familiar strange, the exotic quotidian."Kon Wajirō, a Japanese architect born in the late nineteenthcentury, might represent one of the first figures introducing methods for surveying everyday life into an architectural research characterized by an "enthusiastic recording of the details of commoners' lifestyle." Despite the fact that Wajirō showed interest in the observation of life through sketching techniques since an early age, it was only after the devastating earthquake of 1923 that he began to systematize it by drawing each and every detail of the daily life of the inhabitants recovering from the destruction of Tokyo. In these years he formulated the concept of 'modernology' (kōgengaku) as a polemic answer to the absence of a methodological discipline that observed "the things of today"as opposed to the richness of the studies of the ones of the past in archaeology. As it often happens in historical moments characterized by rapid change when even the present seems to be vanishing, it appeared urgent to record every detail of the urban life and Wajirō sketched it, "from the signs drawn on pieces of scrap wood to the kinds of clothes worn by people passing through the town, he made sketches of whatever he saw."

Uzō Nishiyama, a generation younger than Wajirō, "is a descendant of these figures in that he recorded human life in detail". However, while Wajirō's narrative follows the movements of a methodical figure that investigates the space step by step, Nishiyama's drawings are characterized by synthetic perspectives planes cutting through a construction in which every detail is registered from a distant view.

Yet, the medium of the graphic novel, for as much as it might have to do with these thorough analytical drawings, brings about the complexity of the most traditional means of expression of ethnography: writing. Even though in the Japanese school of Architectural Ethnography we can find text as a complementary element, it appears more as a form of scientific notation. Before starting the fieldwork in Rotterdam, my team agreed that instead of registering a day in the neighbourhood, we should have tried to include somehow its historical



The compound in 2019

transformations since Liskwartier is one of the oldest districts of the city. However, as Lucas puts it, an ethnographical approach involves "an openness to serendipity and happenstance."

The story, indeed, is shaped by our encounter with an old couple in which we saw the opportunity of a pars pro toto approach to narrate Rotterdam since he worked as a sailor and lived his entire life in Liskwartier, while she migrated looking for a job: two main features of a maritime city. Thanks to the richness of material offered in Rotterdam City Archives, we were able to reconstruct the places of his childhood during WWII to slowly arrive to the present day. Moreover, we came across the work of Gérald-Bloncourt, a French photographer that recorded the conditions of life in Lisbon in the 60s and the Portuguese migration to Paris, in which she recognized her own story.

Even if at first we were satisfied by the impressive material collected, as soon as everything was in front of us we understood that we had to face a chaotic collection of fragmented memories and old detailed drawings of vanished buildings: how could we compose those disconnected fragments into a story? Italo Calvino's If on a Winter's Night a Traveler gave us the inspiration for a fragmented structure of incipits of unrelated stories that do not go further than the first chapter so as to reflect into the narrative the way it came to us. Calvino's narrative is "not chaos but a composition of chaos, that yields the vision or sensation, so that it constitutes, as Joyce says, a chaosmos, , a composed chaos--neither foreseen nor preconceived."Moreover, we saw in Nishiyama's detached perspectives the opportunity to introduce moments of pause and transform his scientific notations into a collection of memories and anecdotes revealing details of life.

Poiesis

In Writing Culture, James Clifford and George Marcus questioned the scientific authority of ethnographical accounts that strived to address as objectively as possible the result of subjective encounters. Something that Clifford deems as a paradox that "was masked by marginalizing the intersubjective foundations of fieldwork, by excluding them from serious ethnographic texts, relegating them to prefaces, memoirs, anecdotes, confessions, and so forth."I tend to agree with Clifford when he states that cultural studies are inventions rather than representations, in the sense that researcher and informant cooperate in re writing a contingent and partial truth. In similar contexts, this impossibility to attain a scientific truth should not be regarded as a discouragement, instead, the very notion of a research aiming for factual truth should be deemed as a bizarre pursuit that can only obstruct our thinking.

The rigorous partiality I have been stressing here may be a source of pessimism for some readers. But is there not a liberation, too, in recognizing that no one can write about others any longer as if they were discrete objects or texts? And may not the vision of a complex, problematic, partial ethnography lead, not to its abandonment, but to more subtle, concrete ways of writing and reading, to new conceptions of culture as interactive and historical?

In a similar way, by asking ourselves what architecture is after it leaves the pen of its 'authors', we might challenge the notion of the architect as a demiurge imposing shape to inert matter. Instead, with these subtle methods, we could learn how form emerged from the way people dwell. Thus, the architect might become a craftsman with a sensual knowledge and the ability "to track the machinic effects created by nonlinear phenomena in nature" and "to help social hybrid structures to evolve." In Open Architecture as Radical Democracy, Esra Ackan, too, refuses the traditional authority of the ethnographer and adopts the role of a storyteller that wanders in Berlin's urban landscape acting as a mediator for a plurality of individuals who offered their voices. The keyword here is offer. In a conference, Ackan, inquired about the methods employed in the selection of the interviewees, replied that there was no a priori decision leading the selection, but that it was something derived by the very nature of the social interactions with the inhabitants: indeed, a method open to serendipity and collaboration allowing a story to be shaped by the encounters on the field.














পকেট
পকেট


Werner Herzog is undoubtedly a storyteller for whom "intuition is more important than planning". Far from meaning improvisation, its intuition lies in a capability of harmonizing his visionary fervour and a sensibility towards happenstance, seeking what he defines 'ecstatic truth' in opposition to the factual 'truth of accountants.' In his documentaries, Herzog often adopts a technique that I believe synthetizes this position in-between individual vision and openness: he stages parts of interviews but keeps the camera rolling after the end of his instructions. In those instants when the characters are frozen and stare in the camera nobody knows what can happen. This not only makes the audience sympathize with a person that seems to have dropped a mask, but also allows the character to re-invent his role in the scene creating beautiful moments of 'ecstatic truth'.

A position of openness that I adopted not only in the production of the graphic novel but also during my personal research as a filmmaker. Since an early age, I began to develop an interest in video making, but only recently I could bring this into architectural research, first, during a field trip in Dhaka and now in Addis Ababa while exploring Talian Sefer. I believe that both shooting documentaries and writing graphic novels are forms of storytelling that demand for active thinking and collaboration with the other: we cannot be silent like a 'fly on the wall' patiently waiting for action and neither a "justified intruder
observing the most intimate lives." The camera is for me an instrument to navigate through different spaces and follow the movements of ordinary activities, revealing the indissoluble bond between built forms and social structures.

Through the exploration of the current situation, complemented with oral fragments of memories and historical footages, I began to familiarize with the processes of becoming of the patterns of everyday life in the neighbourhood. The present research came to constitute my proposal for an environment with an improved quality of life open to the re-creation of their styles of life and the ambitions for modernization.

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What are the issues?

LACK OF HOUSING

This Sefer presents issues at all scales. In fact, there is a total lack of transparency between public and private spaces: all of the slum-like dwellings face an interior courtyard that is often locked away with a fence. The reason is the high rate of criminality and total lack of security present in the area. The effect is that people do not have ownership over public spaces, which are in indecent conditions and mainly inhabited by unemployed alcoholics. The need for a separation between public and private is certainly cultural, deriving from the ancient Ethiopian tradition of building fenced *tukuls*, but also caused by the presence of criminal activity in the area. Young girls and women are particularly terrorized to leave their compounds after 6 p.m.. While I was conducting research on site, the inhabitants would force me to call a taxi as soon as the sun was setting, expressing their concern for my well-being. The sense of insecurity within the Sefer is aggravated by the fact that there are no lights: this makes it so that someone who is not familiar with the context might easily get lost in its informal urban fabric.





LACK OF SECURITY

This Sefer presents issues at all scales. In fact, there is a total lack of transparency between public and private spaces: all of the slum-like dwellings face an interior courtyard that is often locked away with a fence. The reason is the high rate of criminality and total lack of security present in the area. The effect is that people do not have ownership over public spaces, which are in indecent conditions and mainly inhabited by unemployed alcoholics. The need for a separation between public and private is certainly cultural, deriving from the ancient Ethiopian tradition of building fenced *tukuls*, but also caused by the presence of criminal activity in the area. Young girls and women are particularly terrorized to leave their compounds after 6 p.m.. While I was conducting research on site, the inhabitants would force me to call a taxi as soon as the sun was setting, expressing their concern for my well-being. The sense of insecurity within the Sefer is aggravated by the fact that there



A collage trying to evoke the feeling of walking at night in Talian Sefer



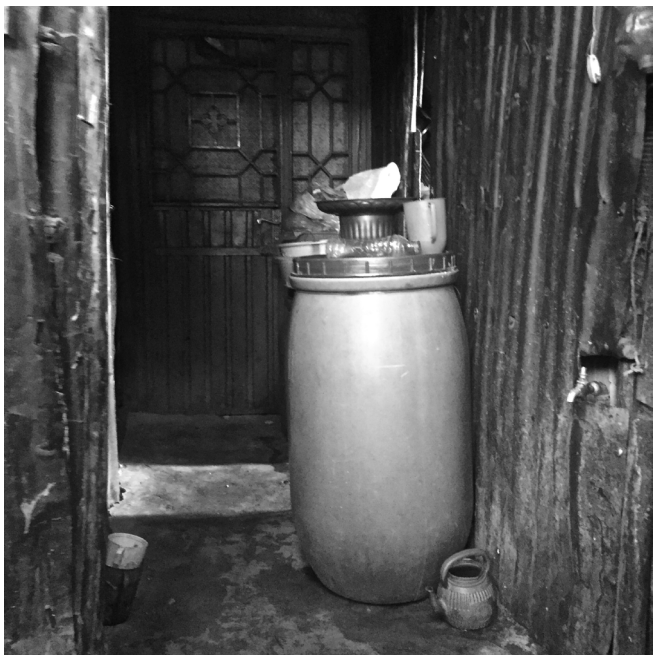
LACK OF WATER

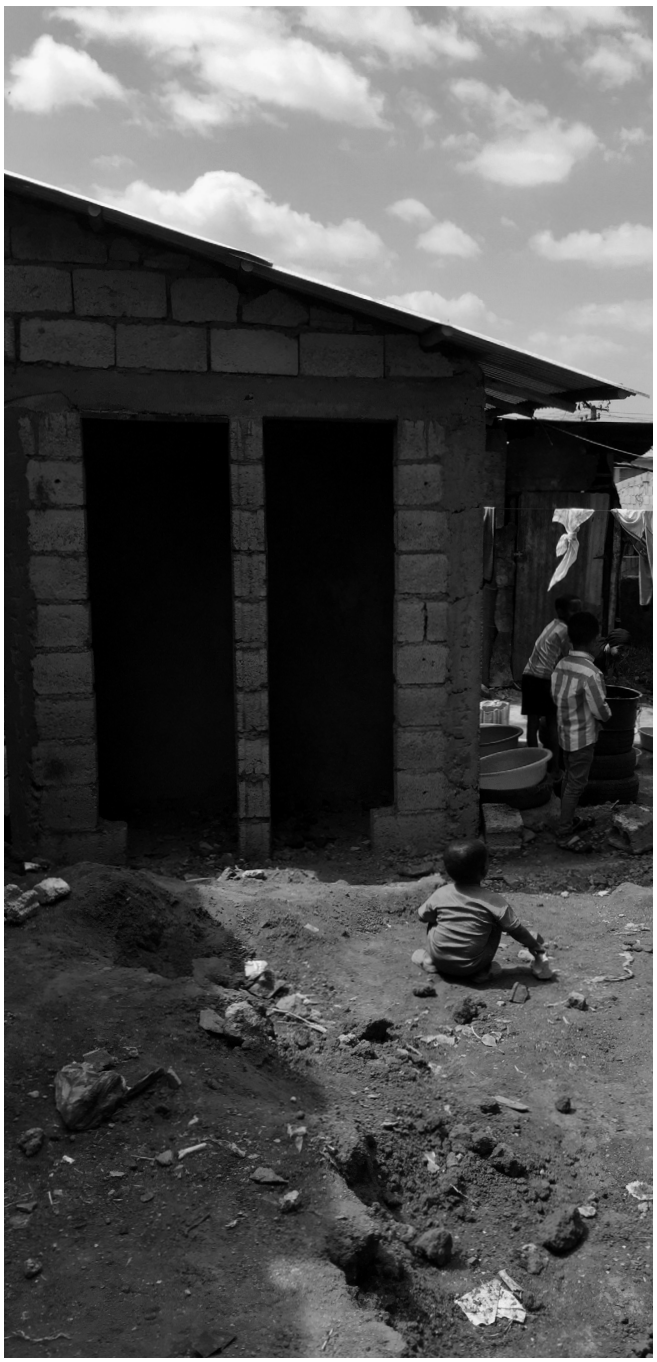
The hygienic conditions of the neighborhood are against any conception of human rights. Dwellings lack sanitary services and access to water in almost all cases. The water crisis is a mainly silent one. These water and sanitation problems disproportionately affect women and children.
In Talian, a compound is usually generated around two toilet stalls that are supposed to serve between 25 and 35 people, on average. In a couple of analyzed cases, hoewever, the number of people sharing two toilet stall reached 124. Not to mention the lack of showers and the intermittent access to drinking water. People have expressed their need to store water from communal sinks whenever they have the chance, as these can stop working for up to a week. This is the reaosn why in many dwellings you will find big plastic tanks as a back-up plan.



A collage trying to evoke the feeling of walking at night in Talian Sefer







UNEMPLOYMENT

This incessant flow of people, coming from the villages in the country-side and seeking a job in the city, results in the constant increase of housing and jobs demand. While that of dwelling exceeds the 300.000 units, the unmet demand for new jobs is around 1 million. This creates a precarious social condition in which 20% of the population is unemployed.



LACK OF HYGIENE

Talian Sefer's society relies strongly on family bonds. The average family consists of a father, a mother, and 2 to 3 children. These families most often sleep in the same bed, and share a small room where all of the indoor activities take place. As a general rule, women are in charge of the house-hold chores and activities. Because they do not have enough space within the one-room dwelling, they usually collectively perform activities such as cooking and cleaning in the courtyard of their compound or on the street. During the day, one can see them making the typical *injera* or practicing the Ethiopian coffee ceremony. However, when the sun starts setting, they quickly collect their utensils and lock themselves within the fences of their compound

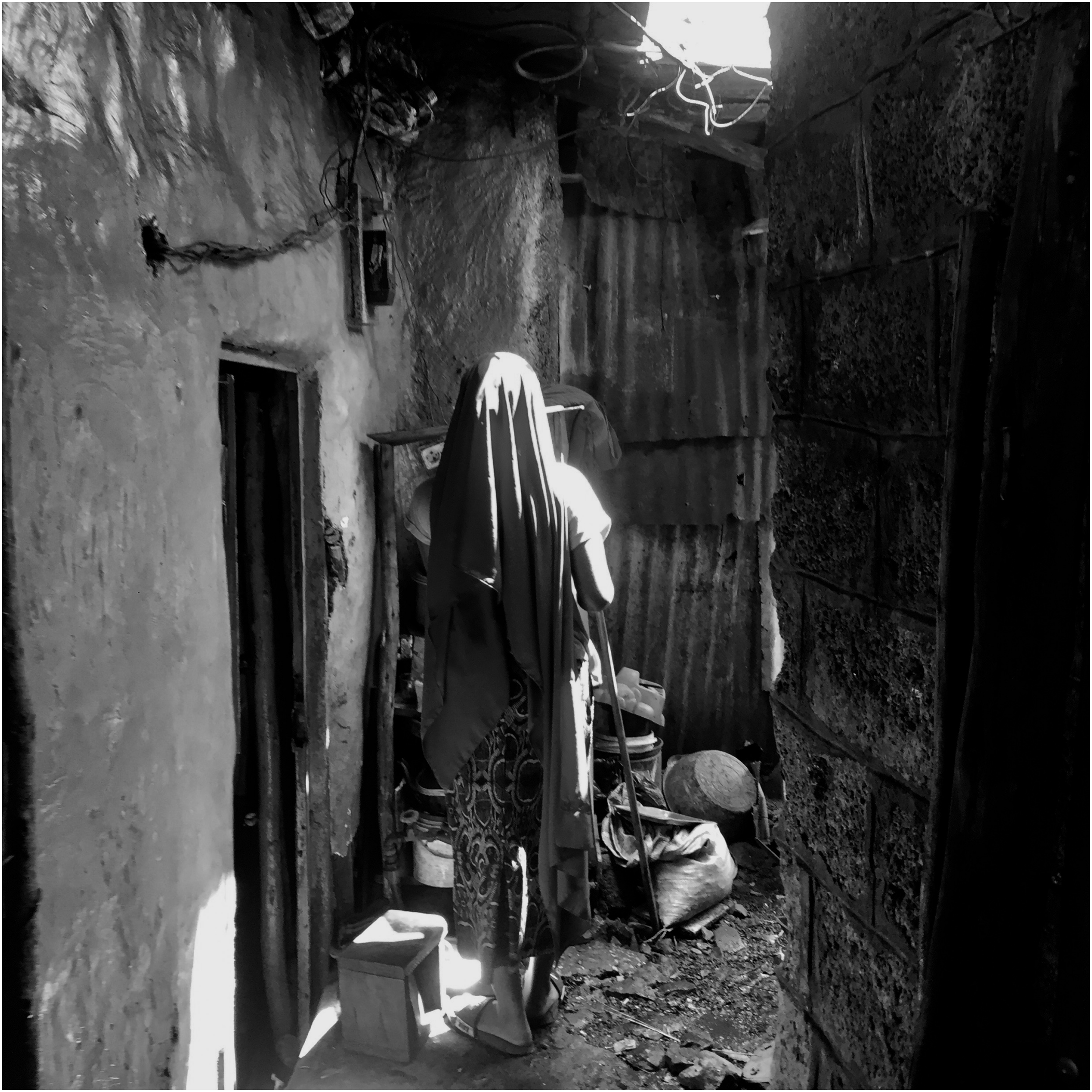
0 %
leave home
after sunset

1/27
chances to die
giving birth

0sqm
of appropriate
cooking space

1
avg toilet per 60
women

Being a pregnant woman in such a neighborhood, one has 1 out of 27 chances to die, according to the WHO. Out of those who survive, 94% give birth alone at home.



Picture by Author

"Where I used to work, they never let me wash myself and they wouldn't give me food. Because I was not able to wash, I had sores. I didn't have anywhere to shut myself away and be alone and I used to starve. Most of the time the son (who was thirteen, two years older than me) beat me for no reason. When I asked him why he was doing it, he beat me again. I will go to Sheromeda, the cotton district, where children from rural areas are sent to work."

Getache*



Problem Statement

Ethiopia is both one of the fastest-growing economies and one of the poorest countries in the world. As its population grows exorbitantly, waves of migrants are flowing endlessly into the capital city. Addis Ababa with its rapidly transforming skyline epitomises the great mirage, "the surreal mythic image of the city, which they yearn for."[1] Such a fast pace of development brings about a hallucinated future constituted by processes driven by economic and political forces pursuing efficient outcomes. Addis Ababa wants to deliver quickly, in great quantities and as cheap as possible: there is little time for thinking! Against this background, it seems a matter of great urgency to provide the city with alternative visions.

This is particularly relevant if we consider that being a federal city, Addis Ababa is geographically limited, and, therefore, it cannot expand outside its boundaries. As a result, such a self-destructive spiral tends to move forward while erasing its traces, threatening the most consolidated neighbourhoods that struggle to coexist with the explosive growth of the city. The inner city represents, indeed, a land of high value and the inhabitants who have been living there for more than a hundred years are now under threat of eviction. It appears that the old city and its style of life could be swept away at any moment by a masterplan that does not take into consideration its value.

It might be appropriate at this point to pause and ask ourselves what specifically is worth understanding before it passes away and why we deem it valuable enough to be preserved. In order to answer these questions, we need to investigate how the city came about. Manuel DeLanda, in a parallel with mineral life, describes urban transformations not as "a chronicle of 'man' and 'his' historical achievements", rather as a 'geological' narrative driven by "dynamical elements (energy flows, nonlinear causality) that we have in common with rocks and mountains and other non-living historical structures." [2]

The mineralization of humanity took forms that were the combined result of conscious manipulation of urban space by some central agency and of the activities of many individuals, without any central 'decider.' [...] On the one hand, there are bureaucracies, hierarchical structures with conscious goals and overt control mechanisms. On the other, there are [...] self-organized structures that arise spontaneously out of the activities of many individuals, whose interests only partially overlap.3

If we examine the morphogenetic process of Addis Ababa at the time of its foundation, we could observe a similar dichotomy. The city was the result of the mineralization of a nomadic royal camp, characterized by a central settlement where the king had his permanent residence, the Gebbi, surrounded by his retinue in circle of ever-decreasing importance; clusters of delimited settlements scattered in the landscape, the sefers, housing warlords and their soldiers; lower classes



1 Charles Correa, The New Landscape: Urbanisation in the Third World, (London: Butterworth Architecture, 1989), 117. https://www.nytimes.com/2005/05/18/world/asia/mumbai-wrangles-with-how-it-will-define-itself.html (accessed December 8, 2019).
2 Manuel DeLanda, A Thousand Years of Nonlinear History, (New York: Swerve Editions, 2000), 20-21. 3 Ibi, 55.
4 Marc Angélil & Dirk Hebel, Cities of Change, Addis Ababa: Transformation Strategies for Urban Territories of the 21st Century. (Basel: Birkhauser, 2016), 51.

dwelling in agglomerated formations on the highlands close to their kin. On the one hand, behind its foundation, there is a conscious political move that was aiming at "isolate nobles from their provincial bases of power"[4] and a system of land tenure based on a sort of feudal allegiance.[5] On the other hand, there is a process of mass migration due to a great famine that devasted many rural areas that brought traditional ways of living to the city.

Indeed, amongst these sefers, characterized by the same clustering structure that occurred in the army camp, "pockets of open space [...] allowed people to continue their traditional rural way of life, raising cattle and farming".[6] This condition allowed the coexistence of different speeds of becoming within the city itself, generating "a situation that has not substantially changed to this day, namely that the imperial Gebbi came to be surrounded by veritable slums, as the palace servants could not afford to erect imposing structures and their descendants have continued live in those hovels."[7] A coexistence that no longer appears possible. The old sefers have embedded the morphogenesis of Addis Ababa. Alongside such a tangible heritage comprised of streets, alleyways and historical architecture composing material narratives, there are human ones moulded through the structures of the longue durée.

In places like Talian Sefer, I could guess there is a number of what we call 'urban traces' or 'intangible heritage' or 'heritage based on activities', so, not necessarily a building or a house. The physical aspect itself may not be heritage but what happens inside —the activity— could be considered as heritage because of its long existence and the association of people with those activities.[8]

In one of his early works, Nietzsche asserts: "We wish to serve history only insofar as it serves living."[9] In his opinion, a certain reverence towards history brings about the possibility for a subject to merge with the history of the city, past the bizarre fragility of the Self, and to gain inevitably a strong sense of belonging and identity. Something that constitutes a resilient community that "do not collapse overnight."[10] So it emerged in Talian sefer a consolidated environment in which social habits co-evolved with their habitat in the gestures of the everyday life. Gestures that kept on happening grew into the spatial structures that came to constitute what we experience today.[11]

Everyday life consists of the little things one hardly notices in time and space. [...] The event is, or is taken to be, unique; the everyday happening is repeated, and the more often it is repeated the more likely it is to become a generality or rather a structure. It pervades society at all levels, and characterises ways of being and behaving which are perpetuated through



5 Richard Pankhurst, "Menelik and the Foundation of Addis Ababa." In R. A. Oliver & J. D. Fage (Eds.), The Journal of African History, Vol. 2, No. 1, (1961), 103-117.
6 Giorghis Fasil and Gérard Denis, The City & Its Architectural Heritage, Addis Ababa 1886–1941. (Addis Ababa: Shama Books, 2007), 122.
7 A. M. Simone & Abdelghani Abhouani, Urban Africa: Changing Contours of Survival in the City. (Dakar: Codesria Book, 2005), 125.
8 Elias Yitbarek Alemayehu, interview by author, November 11, 2019.
9 Friedrich Nietzsche, On the Use and Abuse of History for Life, (Vancouver: Richer Resources Publications 2010), 1.
10 "The history of his city becomes for him the history of his own self. [...] He says to himself, here one could live, for here one can live, and here one will be able to go on living, because we are tenacious and do not collapse overnight. Thus, with this "We" he looks back over the amazing past lives of individuals and feels himself as the spirit of the house, the family, and the city." Nietzsche, On the Use and Abuse of History for Life, 11-12.
11 Cristopher Alexander, The Timeless Way of Building, (New York: Oxford University Press, 1979), 75-99.

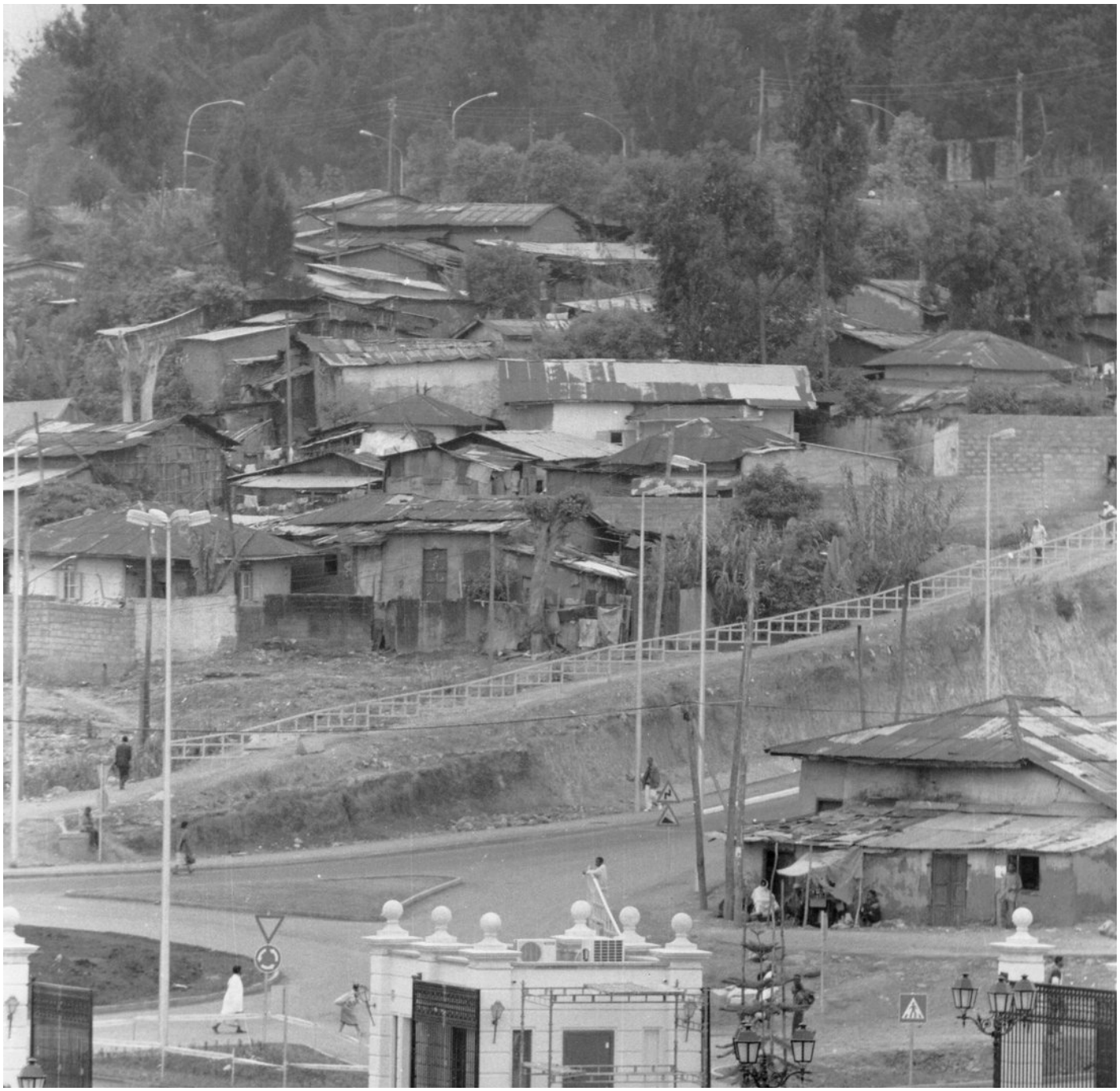
endless ages. Sometimes a few anecdotes are enough to set up a signal which points to a way of life.[12]

However, we must be cautious not to fall in the trap of cherishing and praising, indeed, the current situation for it is often characterized by miserable living conditions exemplified by overcrowded units and poor hygienic conditions. We need to recognize, instead, the dynamic essence of the city and create an architecture open enough to be capable to mutate with it, so that the new built environment could cater for the aspirations that its inhabitants are entitled to have. Umberto Eco writes that "every reception of a work of art is both an interpretation and a performance of it, because in every reception the work takes on a fresh perspective for itself."[13] In other words, every work is somehow open because for as much it can be a closed form in the sense that is finished, it will always be susceptible of interpretation. So too in architecture, where it becomes a dead-end mission the strive to over control certain aspects of a project providing a designed set of possibilities that would only statically frame life. However, Eco goes on to insist that there is a difference between this trivial conception of openness and the notion of an intentional poetic act that, as Pousseur puts it, "'produces in the interpreter acts of conscious freedom, putting him at the centre of a net of inexhaustible relations among which he inserts his own form."[14]

According to Richard Sennett, a craftsman confronted with a broken object can only perform three types of operations: restoration, remediation or reconfiguration. The first modus operandi strives very hard to annul the action of time by bringing back the object to the original material condition; the second one restores or even improves the original form —despite the sacrifice of material aspects, its function is kept; in the last one, the craftsman does the exact opposite: deeming only the materials as something worth preserving, he rearranges the fragments and generates a new form.[15] In the latter one, Sennett's craftsman is an "inventor of form."[16] And yet, there might be a fourth way. One in which the architect is not a demiurge imposing form and shaping inert matter. One in which the new form is still something other than the previous one but is derived by an understanding of what generated the existent one. He is indeed an artisan with a sensual knowledge and the ability "to track the machinic effects created by nonlinear phenomena in nature" and "to help social hybrid structures to evolve."[17] In such a way, indeed, "form will emerge from the way people dwell."[18]

In the transcendent picture form comes from the outside (god's mind) and is imposed on an inert material; in the immanent one, a human designer does not impose a form but teases it out of a morphogenetically pregnant material: humans and materials form a partnership in the production of form.[19]

As cities in the Global South grow at an extremely fast pace, how can we densify and reconfigure their historical districts without erasing their traces, interpret their styles of life while providing a dynamic structure that can cater for their dreams?



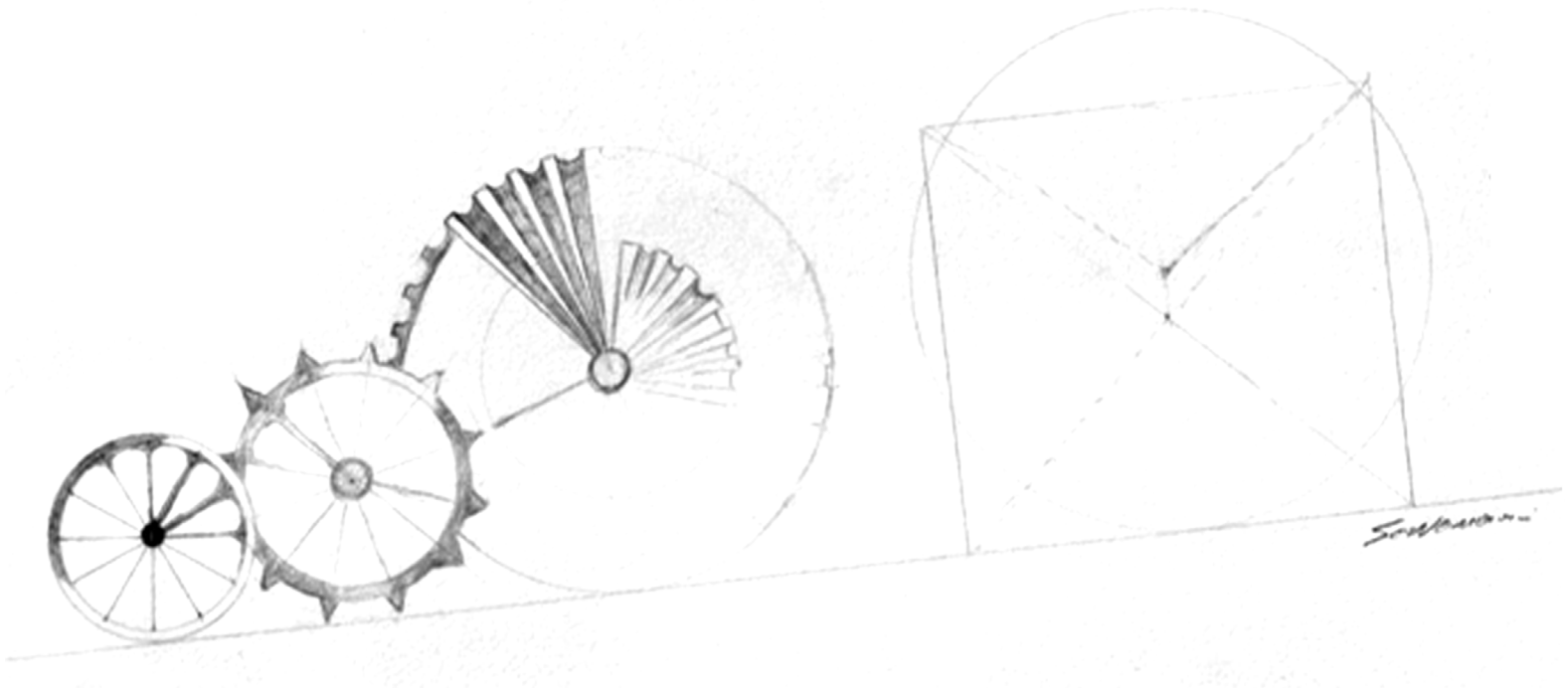
12 Fernand Braudel, The Structures Of Everyday Life, The Limits Of The Possible: Civilization And Capitalism, 15th - 18th Century, Vol. I, (New York: Harper & Row, 2985) 29.
13 Umberto Eco, The Open Work, (Cambridge: Harvard University Press, 1989), 4.
14 Ivi.
15 Richard Sennett, Building and Dwelling, (New York: Farrar, Straus and Giroux, 2018), 288-291. 16 Ivi.
17 Manuel DeLanda, "Nonorganic ife", in Collapse III, Urbanomic, Falmouth 2007, p.158.
18 Richard Sennett, Building and Dwelling, 81.
19 Manuel DeLanda, "Material(ism) for Architects: a Conversation with Manuel DeLanda", Interview by Corrado Curti for Cluster.eu, 8th October 2010. www.cluster.eu/2010/10/08/materialism-for-architects-a-conversation-with- manuel-delanda/. Web. 20 November 2019.
20 Charles Correa, The New Landscape: Urbanisation in the Third World, 113.

RESEARCH QUESTION

As cities in the Global South grow at an extremely fast pace, how can we densify and reconfigure their historical districts without erasing their traces, interpret their styles of life while providing a dynamic structure that can cater for their dreams?

In short, paraphrasing Charles Correa, “how can we open new doors to modern aspirations while drawing on existing values?’

Charles Correa, The New Landscape: Urbanisation in the Third World, (London: Butterworth Architecture, 1989), 113.



Reconfiguring addis abeba's narratives

glossary

reconfiguration: rearrenging fragments to generate a new form

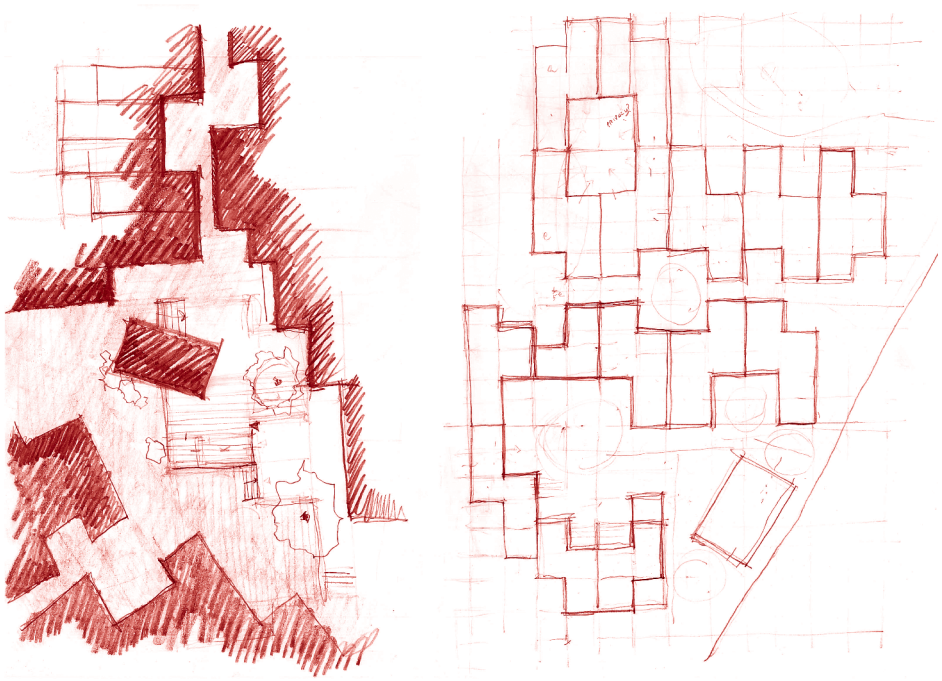
craftsman as an inventor of new forms
a demiurge who shapes inert matter
vs
craftsman as Deleuze's metallurgist
an artisan with the sensual knowledge to learn from self-organizing structures and non-linear processes

narrative: the interplay between social structures and built form in time

"Space is not simply the three-dimensional projection of a mental representation, but it is something that is heard, and is acted upon"
Bernard Tschumi

4 LEVELS OF RECONFIGURATION

1. Historical narratives
2. Practiced spaces
3. Material techniques
4. Urban morphology





URBAN MORPHOLOGY

CHAPTER 1

a matter of voids

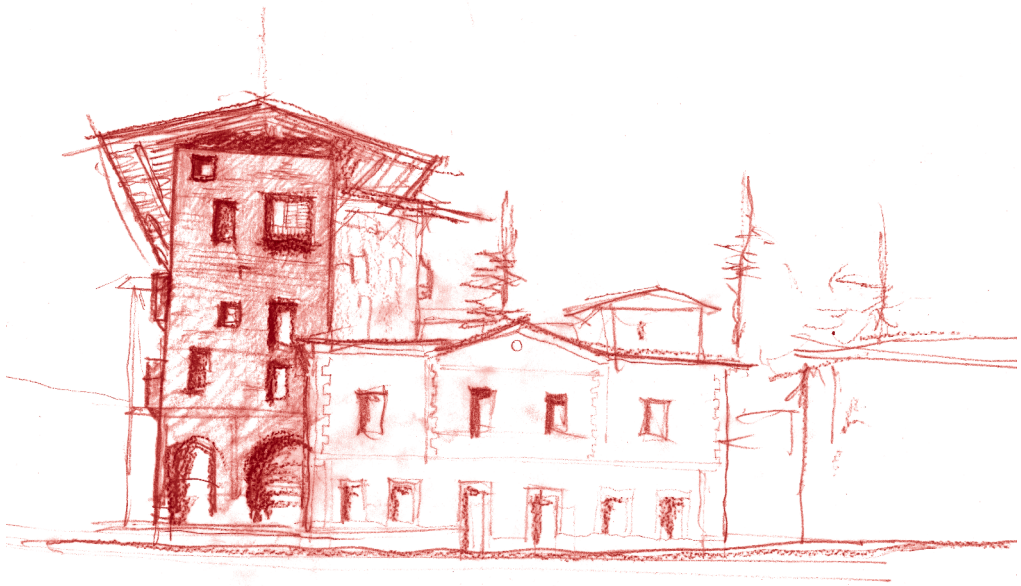
p.103

PRACTICED SPACE

CHAPTER 2

activities p.127





MATERIALS AND TECHNIQUES

CHAPTER 3

traditional and modern techniques p.175

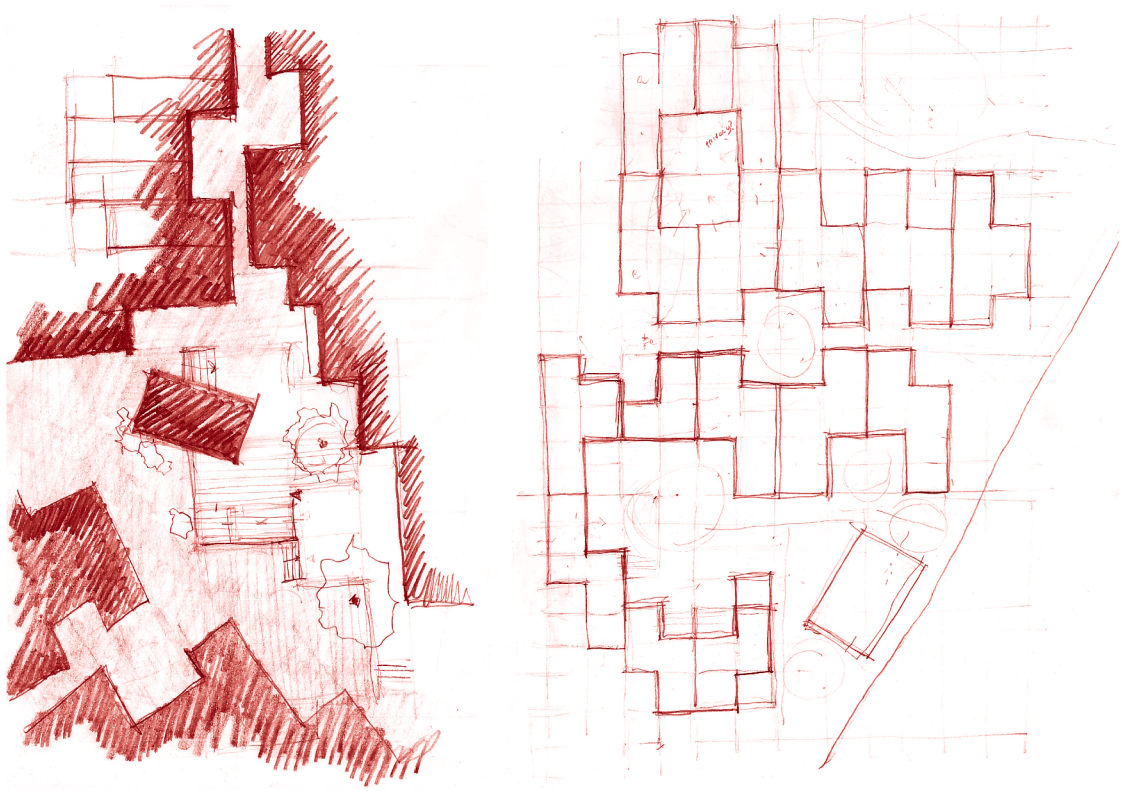
HISTORICAL NARRATIVES

CHAPTER 4

strategy for a modern sefer- p.239

a matter of voids

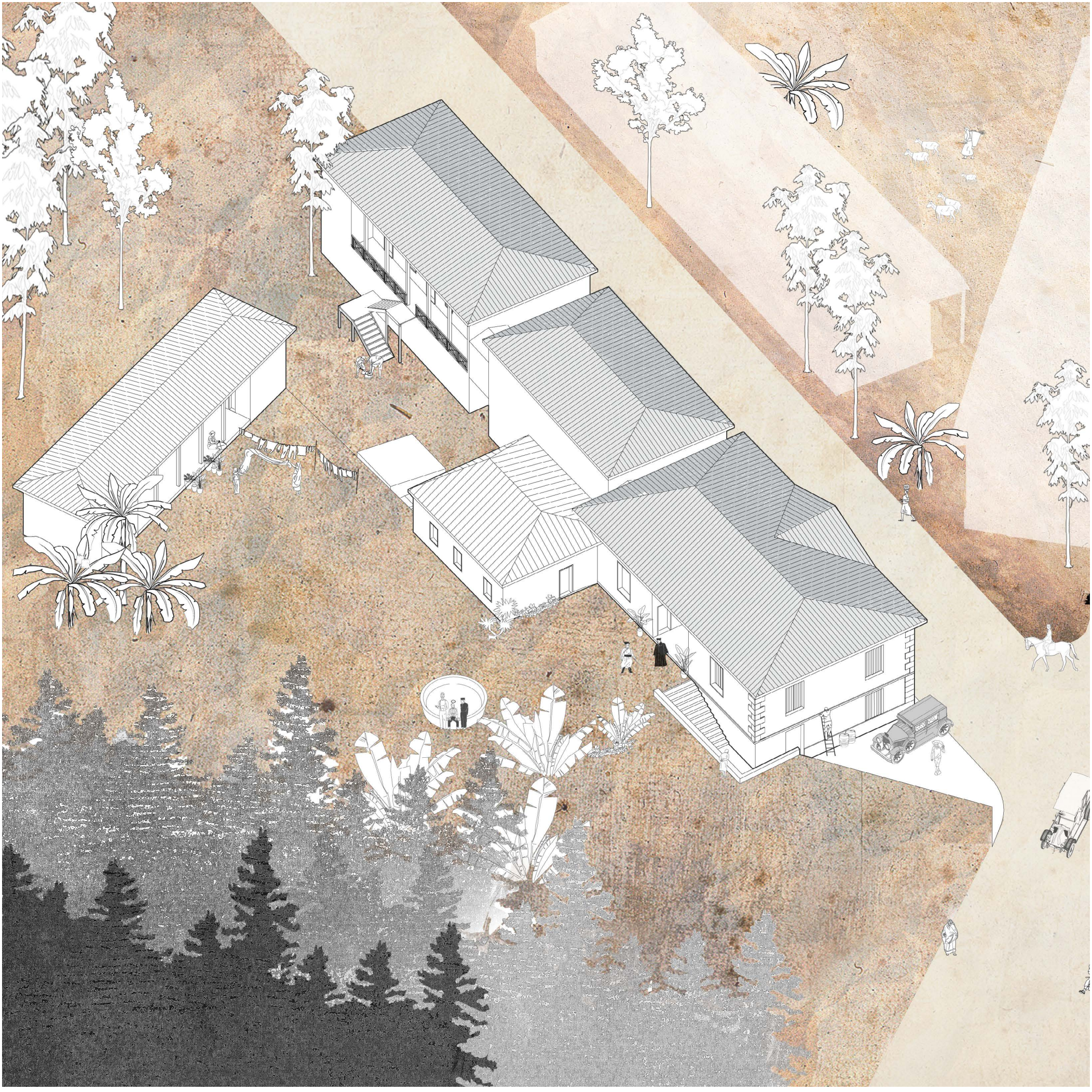
URBAN MORPHOLOGIES

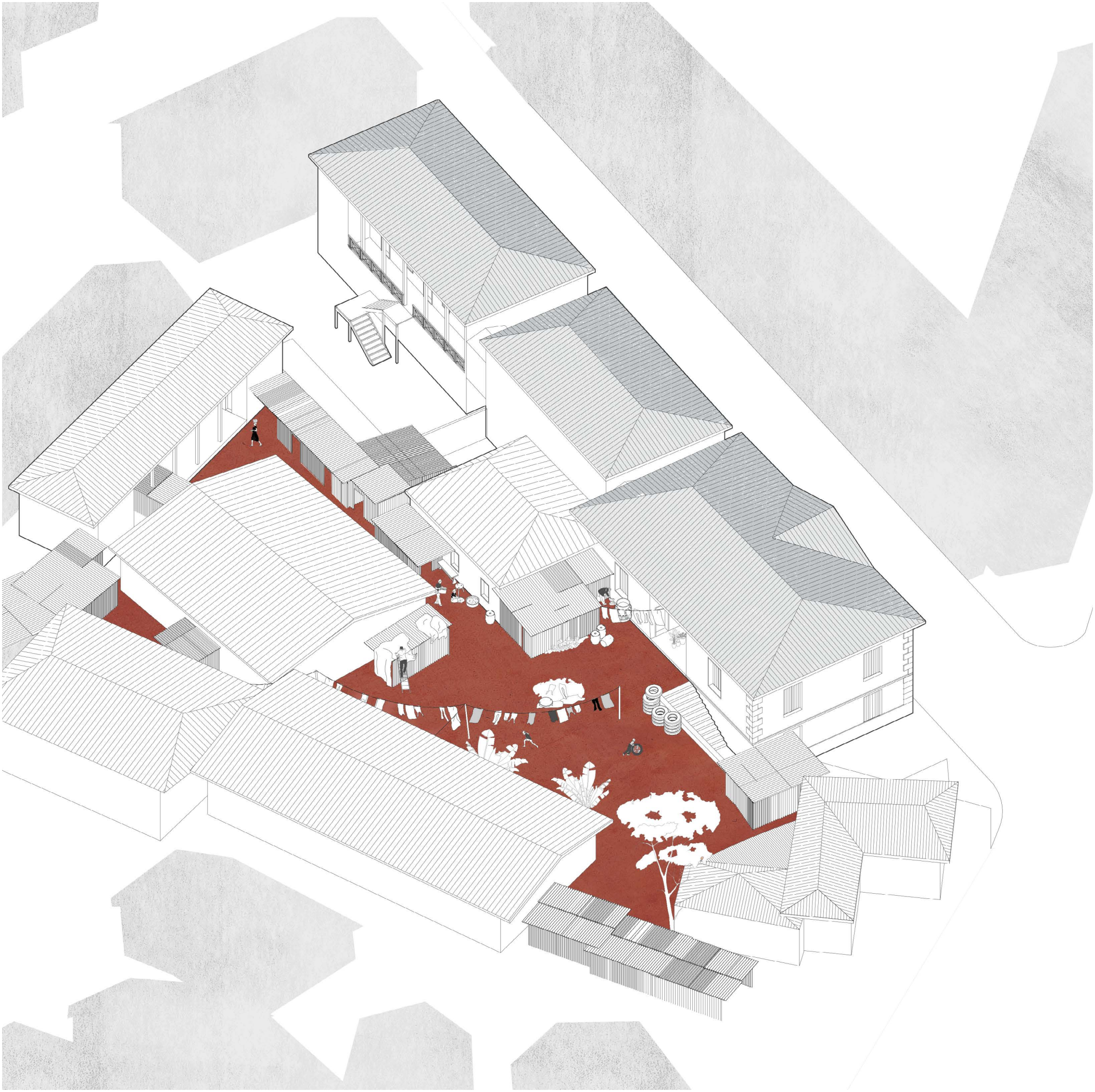


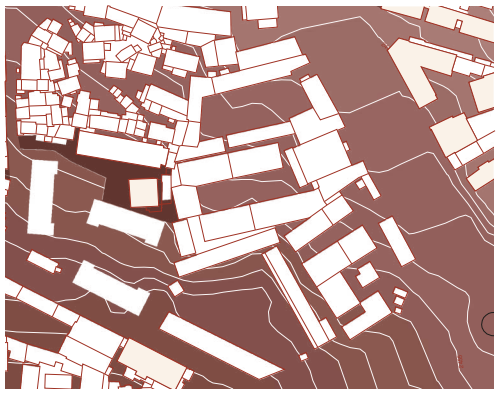
Chapter 1



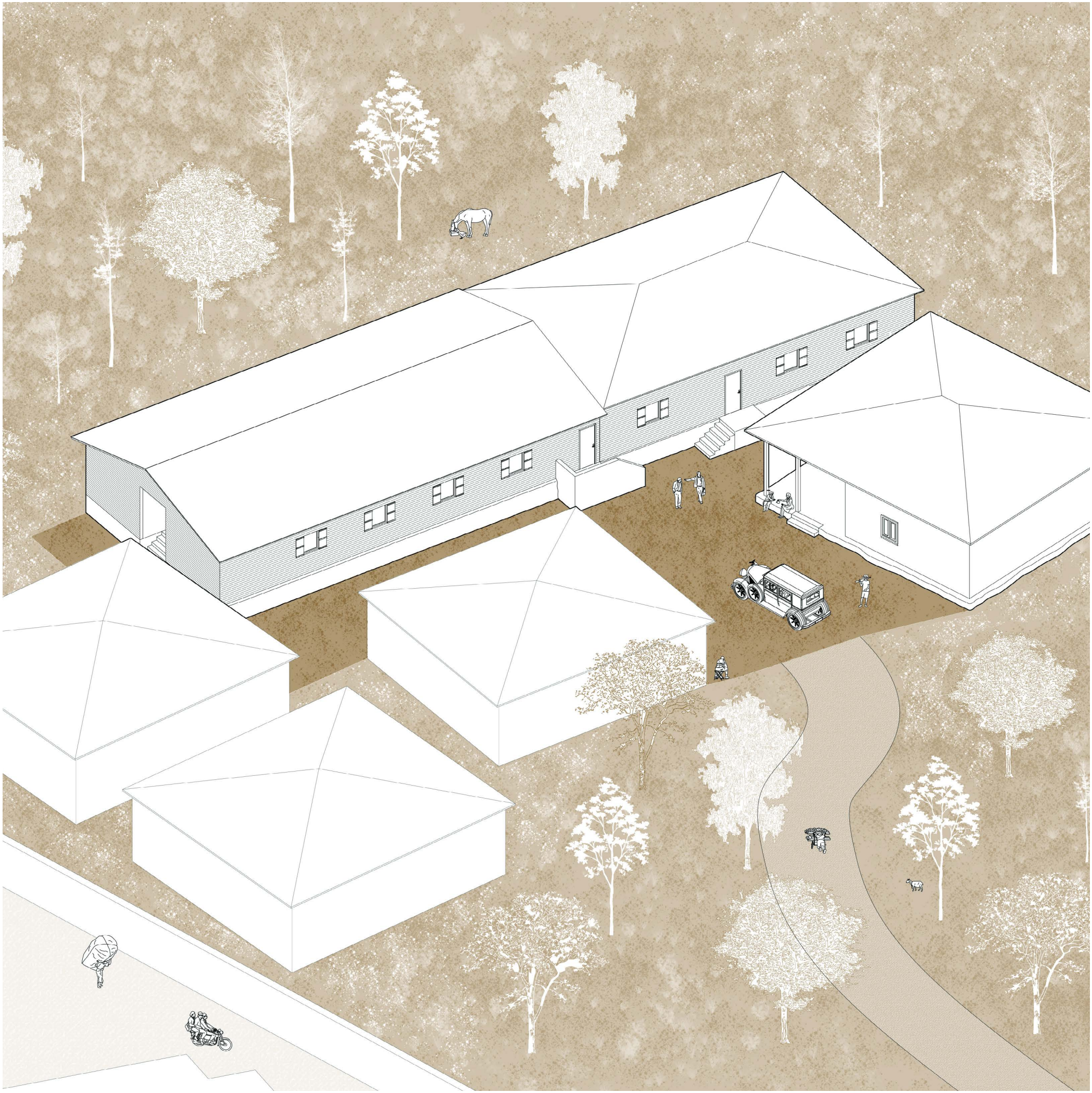

WASHING
WATER
TRADITIONAL KITCHEN
CAFETERIA
WASHING
DRYING FOOD
WATER

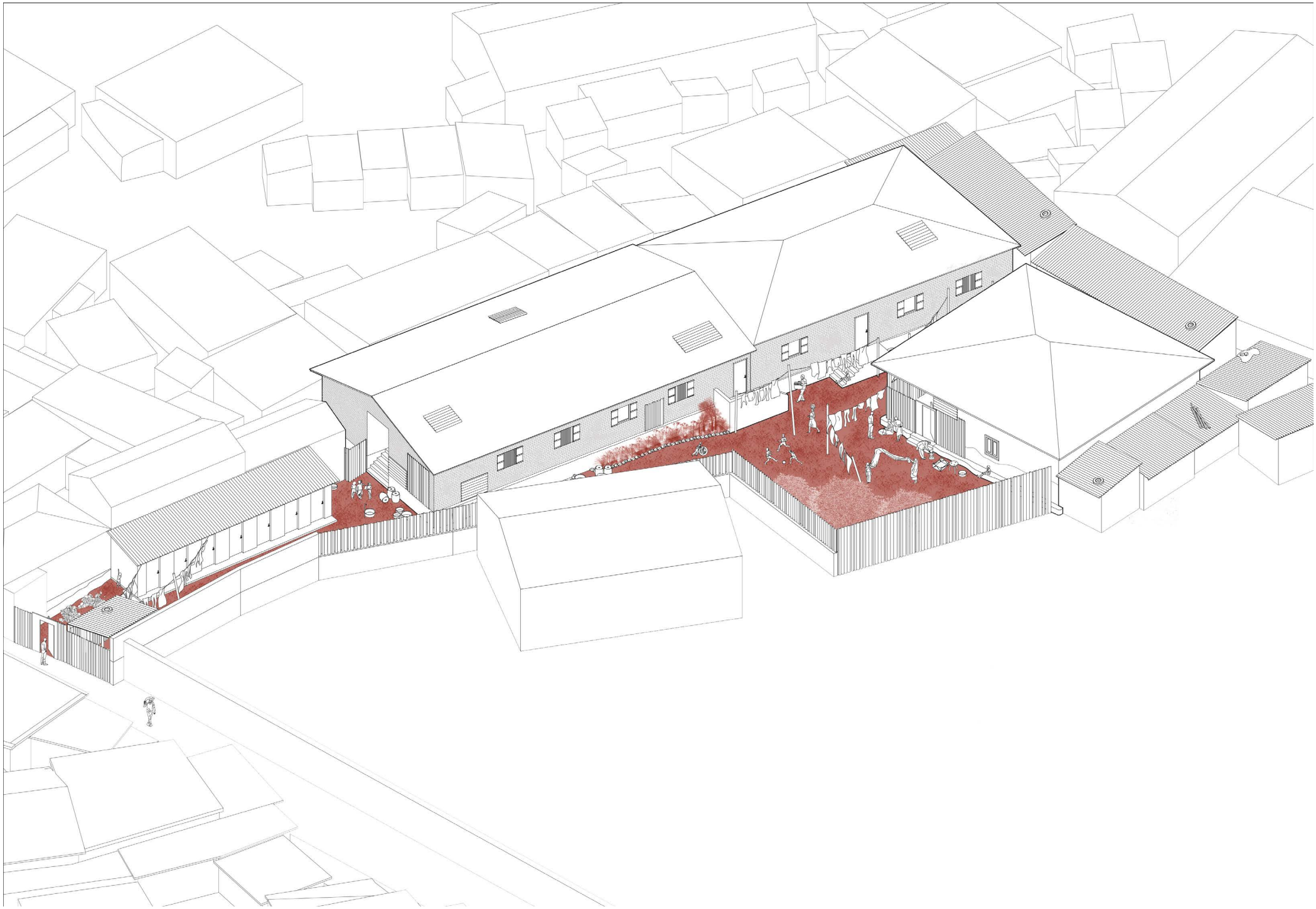


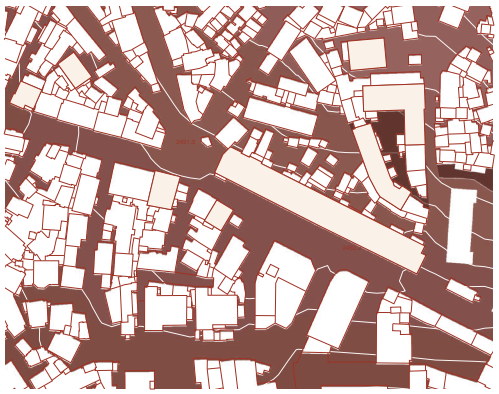




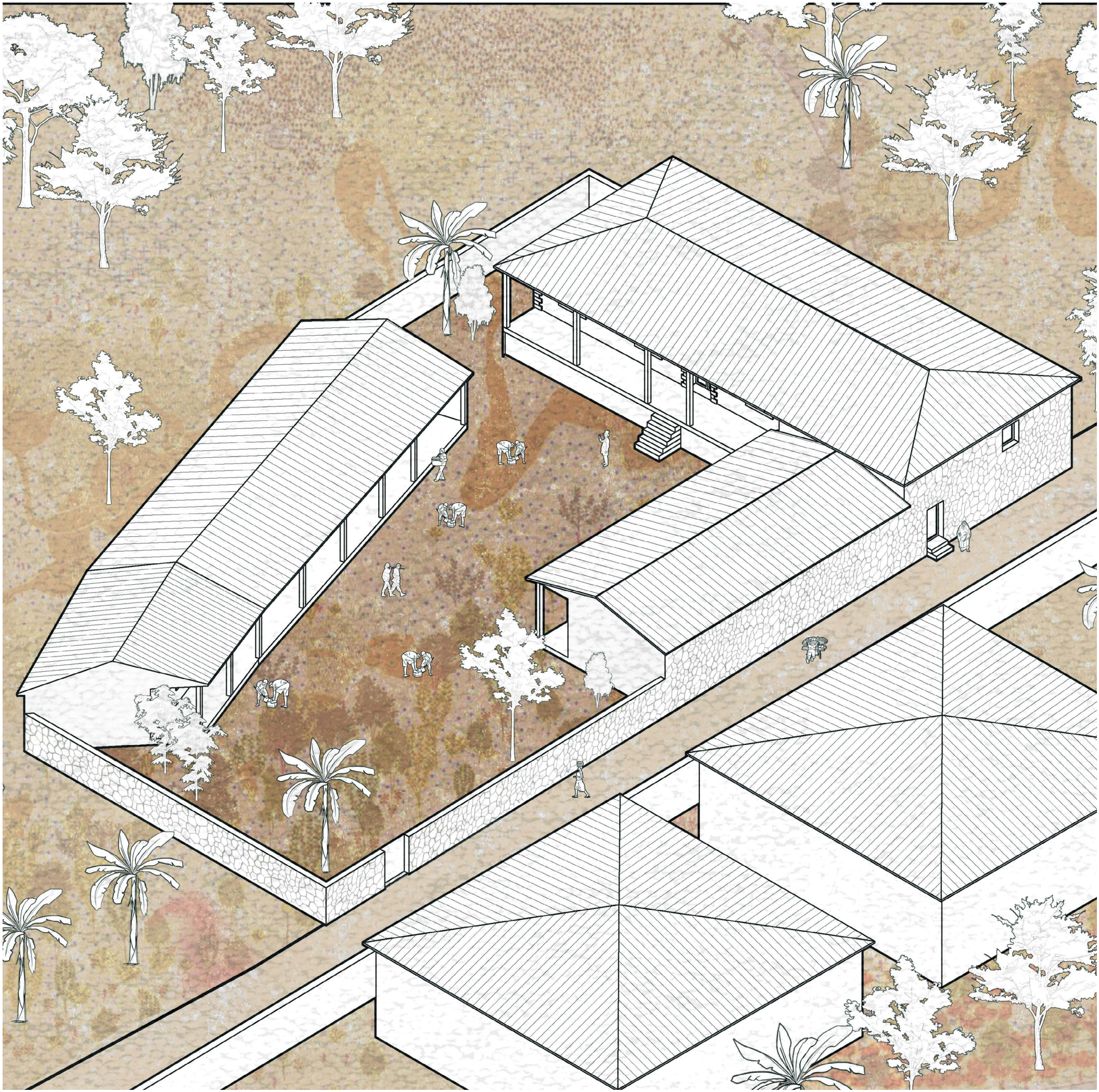

TRADITIONAL KITCHEN
WATER
WATER
KIDS PLAYING
KITCHEN

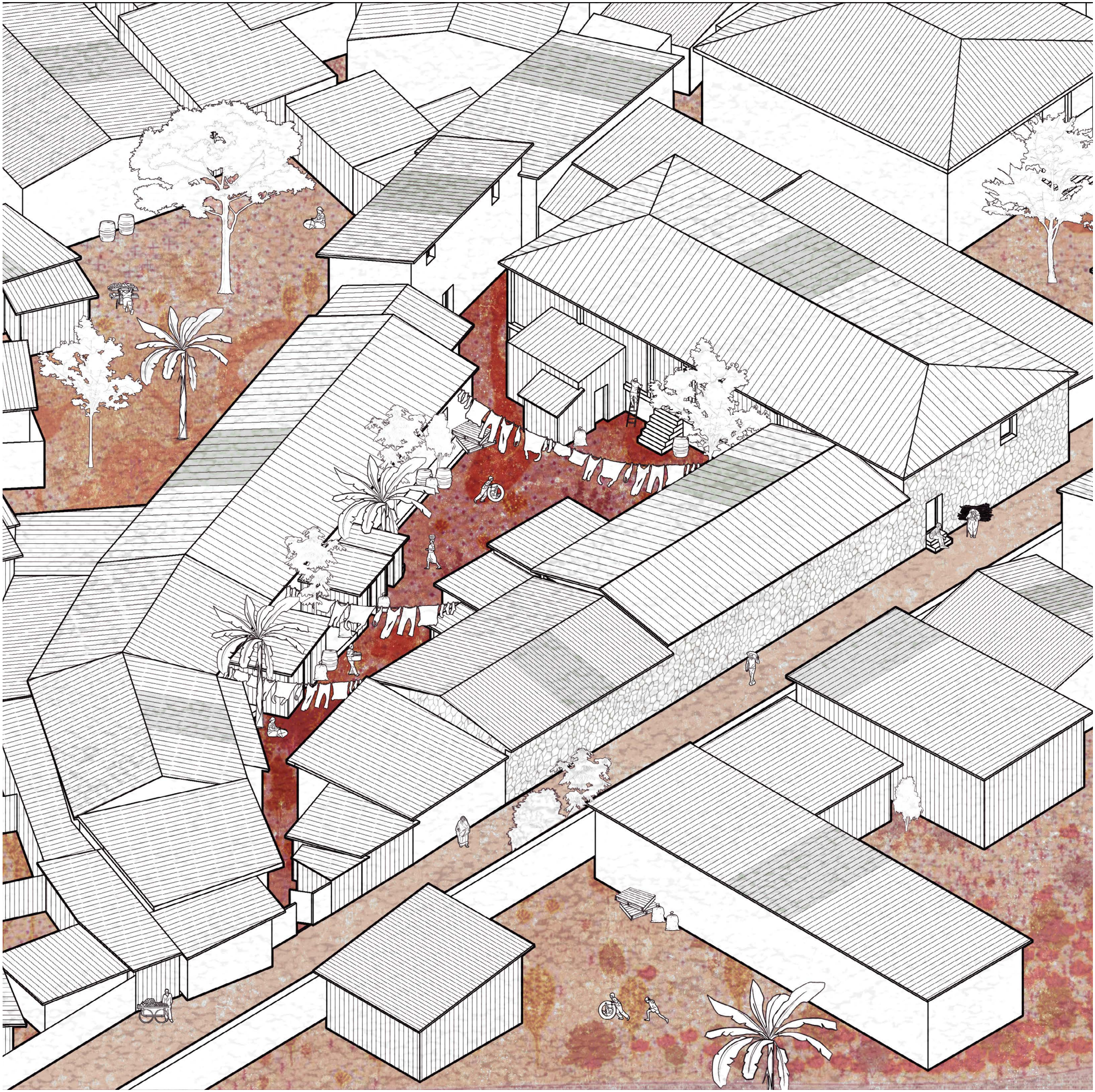







CEREMONIAL SPACE
WASHING
INJERA SELLER
TRADITIONAL KITCHEN

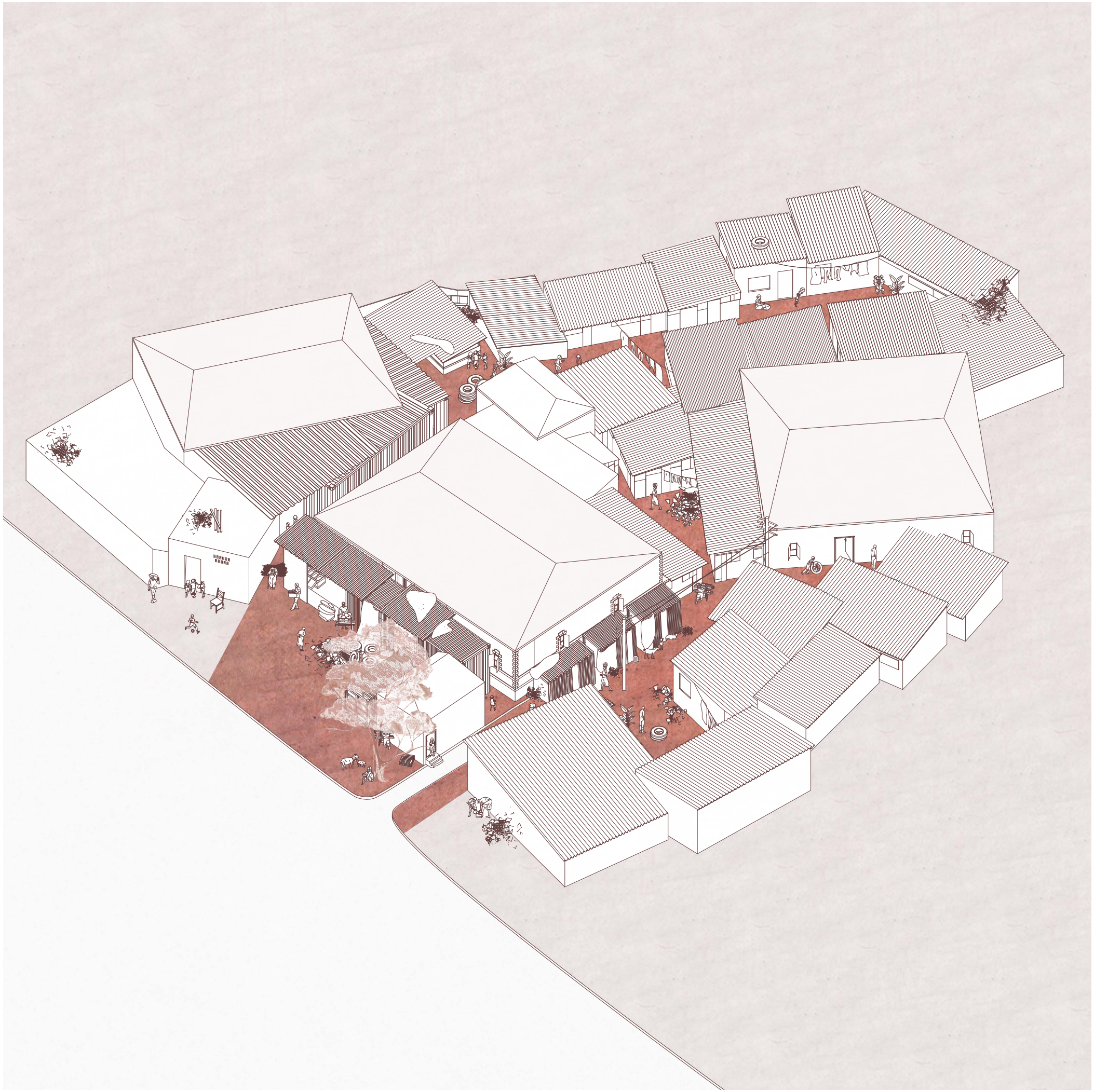







COMMON TOILET
CAFETERIA
TEJ ROOM
SECULAR TREE



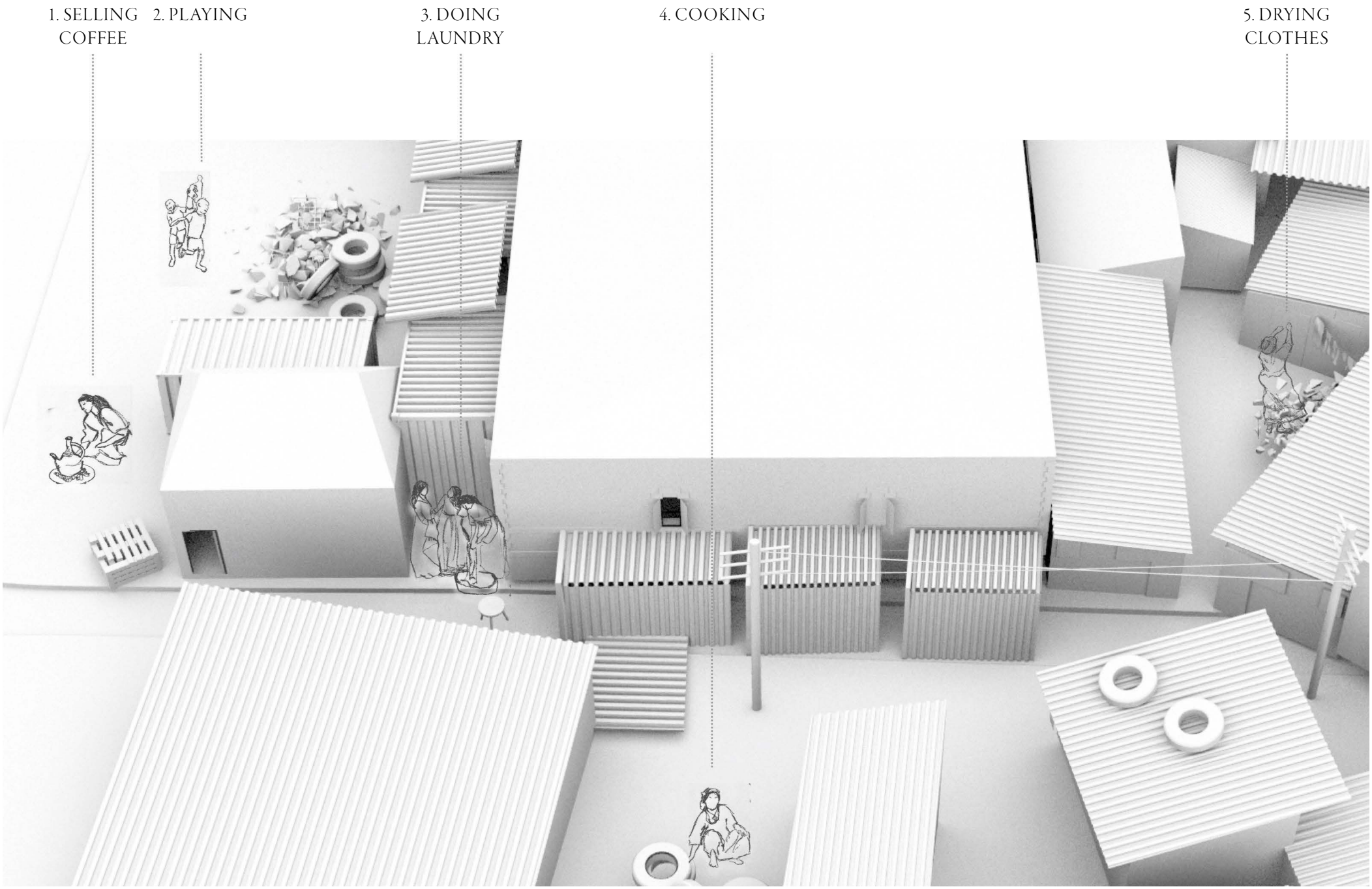


The heritage that has to be preserved in Talian is twofold: firstly, as I previously mentioned, preserving the value of the communities. Secondly, what has to be maintained are the synchronous spaces that the neighborhood naturally presents. A synchronous space is one where many things happen at once. Every street, cross-road and communal courtyard in Talian can be considered to be such space. Throughout a single day, dwellers can use the same physical space to cook traditional food, eat, play games, celebrate marriages, dance, pray and many more activities. In a sense, the compound itself can be defined as a synchronous stage, with the historical building within it playing the role of the main actor. Therefore, most of these buildings have to be kept alive and actively used as residential dwellings.

The following diagram is an attempt to synthetize how this communal synchronous space can be used throughout the day.

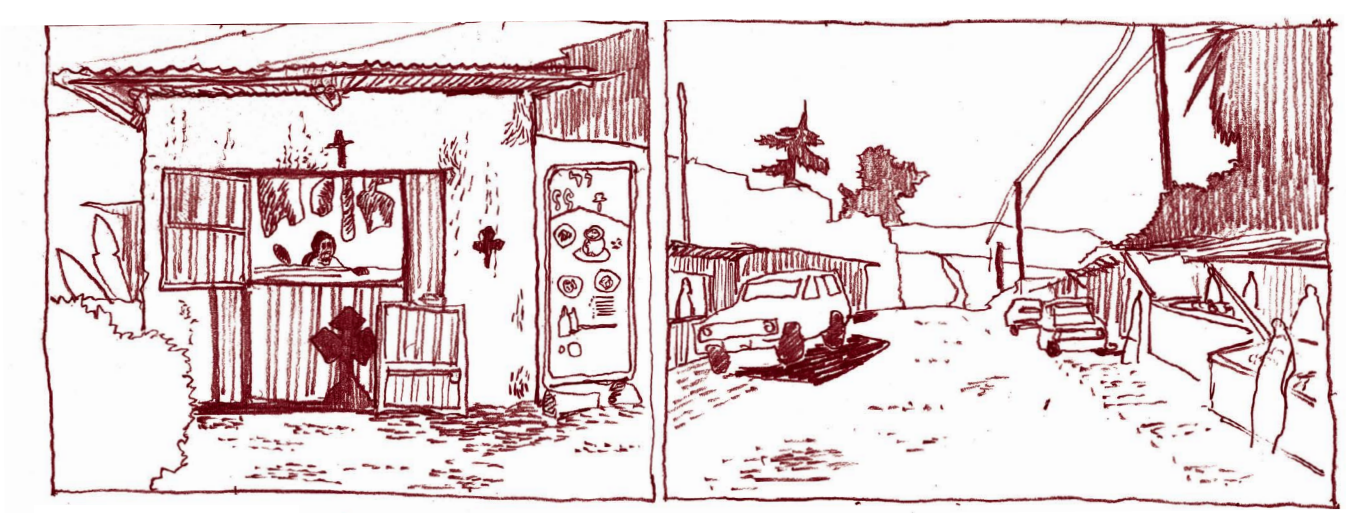
As you can observe, at the scale of the compound, there is a fundamental problem with ownership and maintenance. In general, people in Talian live happily for the strong sense of community that has been built throughout generations. The compounds are generally formed by 6/8 families that live partially in historical buildings and partially in the informal dwellings that have grown as parasites to the first ones. Therefore, a chunk of the population is able to legally rent a house from the government, while the rest is forced to survive illegally. In both cases though, there is a complete lack of maintenance, which causes most compounds to be highly at risk, in terms of personal security and historical preservation.

At the scale of the building, dwellings lack of sanitary services and access to water in almost all cases. In fact, a compound is usually generated around two toilet stalls that are meant to serve 25 to 35 people on average. Not to mention the lack of showers and the intermittent access to drinking water. People have expressed their need to store water from communal sinks whenever they have the chance, as communal sinks can stop working for up to a week.





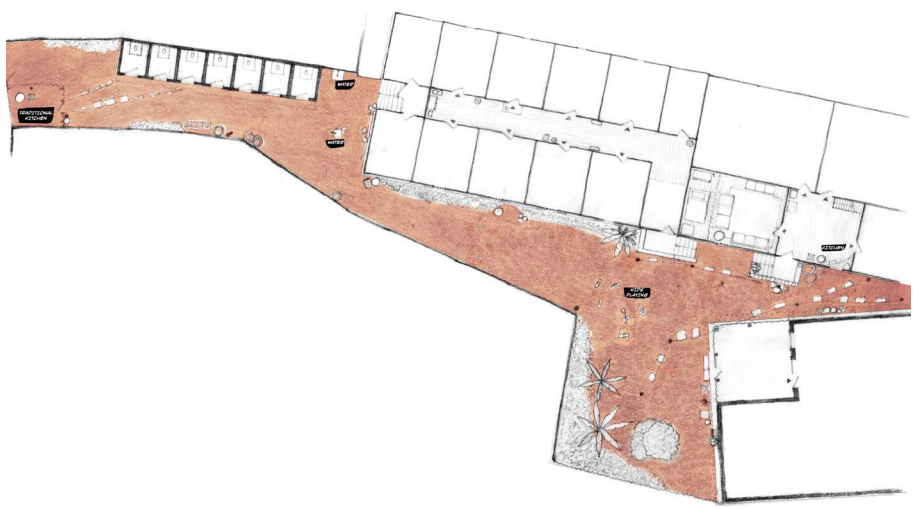




	Talian's Comp. 1	Talian's Comp. 2
Area	363 sqm	1130 sqm
Courtyard	82 sqm	431 sqm
Number of Households	14	16
Number of Dwellers	62	80
FSI	0,55	0,61
Toilet size	4sm	3sqm
Room size		15-25 sqm
Kitchen size	11sqm	9sqm
Commercial Activity	95 sqm	n/a


COMMON TOILET
CAFETERIA
TEA ROOM
REGULAR TREE

1


TRADITIONAL KITCHEN
WATER
WATER
TEA PLANTS
SECURITY

2


TRADITIONAL KITCHEN
STAFF ROOMS
PUBLIC AREAS
WASHING
WASHING

3


WASHING
WATER
CAFETERIA
TRADITIONAL KITCHEN
WASHING
WASHING
WATER
WATER

4

	Wereda 2	Talian
Area	58,02 hectars	27,2 hectars
Density	319 pph	319 pph
Number of Parcels	1.092	n/a
Number of Households	4.832	1.905
Number of Dwellers	22.010	8.677
*Minimum Rent L-I**	n/a	16 Birr
*Maximum Rent L-I**	n/a	232-520 Birr
*Median Rent L-I**	n/a	63-85 Birr
Commercial Activity per sqm	+80.000 Birr	+80.000 Birr
FSI	0,5/0,6	0,5/0,6

** All of the rent prices are indicated per month*
Monthly rent for 10/90 units cost up to 315 Birr per month

	10/90	20/80
Area	n/a	21 hectars
Density	n/a	175-300 pph
Number of Parcels	n/a	n/a
Number of Households	n/a	n/a
Number of Dwellers	n/a	n/a
*Studio Rent M-I**	315 Birr	3.500-4.500 Birr
Studio sqm	29	32
*1-bedroom Rent M-I**	n/a	4.500-5.500 Birr
1-bedroom sqm	n/a	50
*2-bedroom Rent M-I**	n/a	5.500-7.500 Birr
2-bedroom sqm	n/a	65
*3-bedroom Rent M-I**	n/a	>8.000 Birr
3-bedroom sqm	n/a	85
Costruction Cost	2.310 B/sqm	3.000 B/sqm
Commercial Activity	n/a	80.000 B/sqm
FSI	<1	1,03

** All of the rent prices are indicated per month*

activities and actors

PRACTICED SPACE



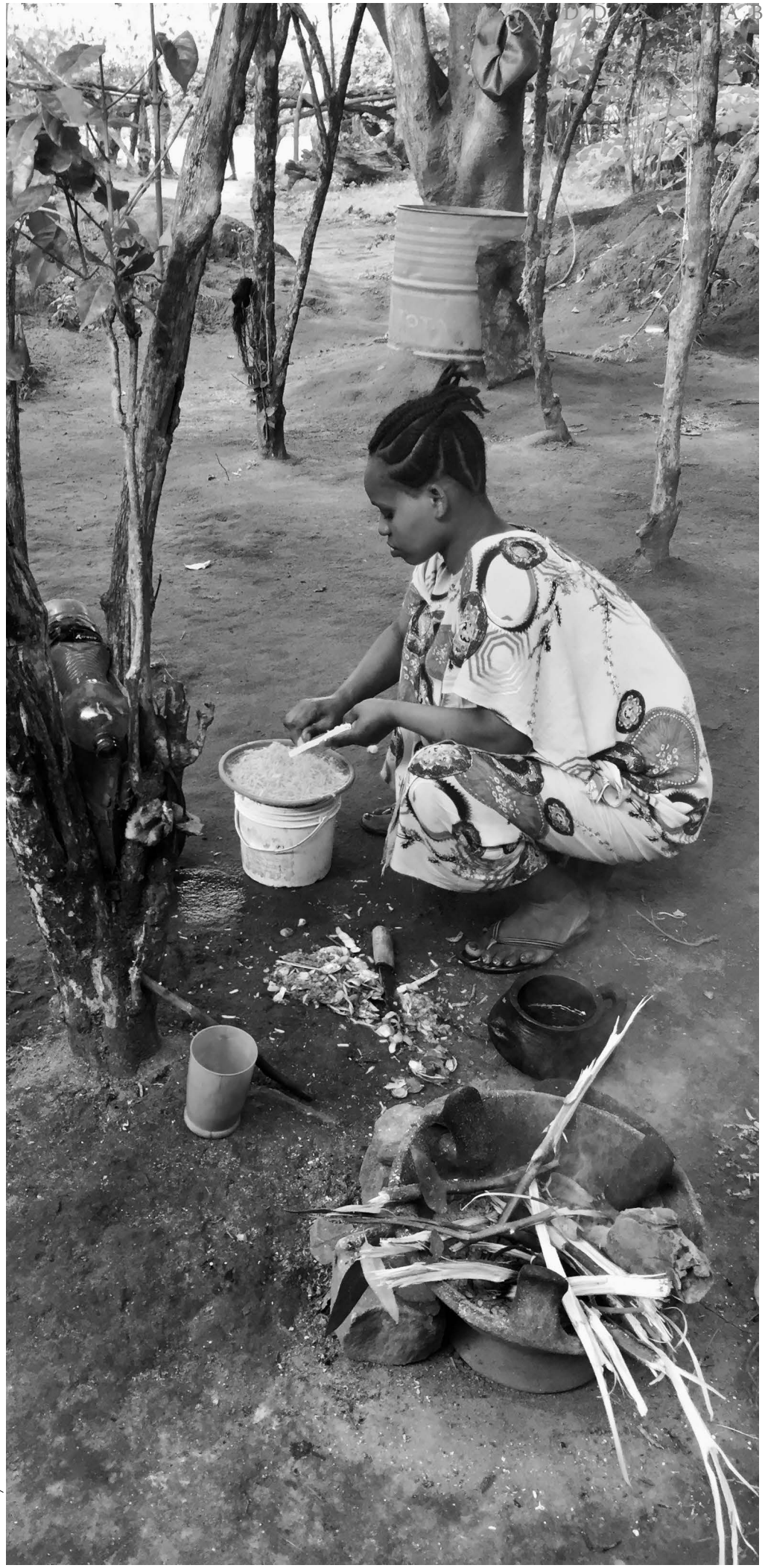
Chapter 2

COOKING



COOKING AS COMMUNAL?

From our and other researchers' interviews, it seems like people enjoy cooking traditional food in group. This makes it a prerogative to create a communal space for such activity.







Pictures by Author



Pictures by Author

"I can't cook traditional food in a condominium kitchen. (...) I have to use a smokeless stove and not charcoal. I cannot use electricity for injera baking, because it needs a higher voltage. I mustn't make noise at night and wouldn't be able to prepare food on time for my customers. Lastly, I won't have enough room for storage and food preparation."

Lubaba*





WHAT IS NEEDED FOR A TRADITIONAL ETHIOPIAN KITCHEN?

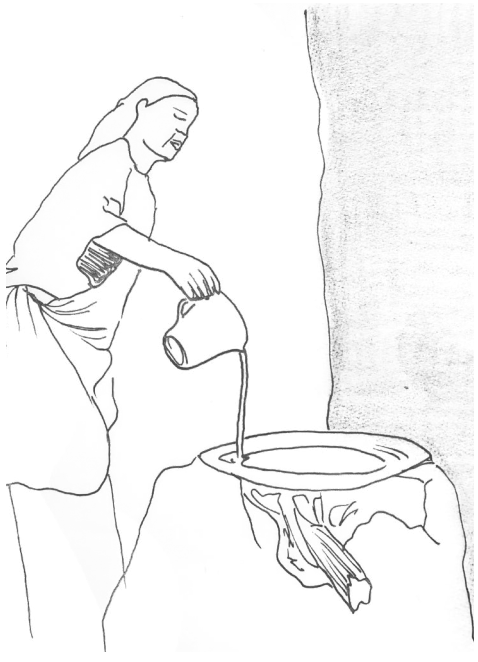
Walking around Talian Sefer, one cannot avoid encountering women that creatively find ways to cook injera. Whether it is sitting on the floor in the middle of the street, or building a small hut dedicated to such an activity, making traditional food is one of the prominent activities of Ethiopian daily practices. Many of these women end up selling the final product for an average of 6 Birr. An example is Lubaba:

"This is good enough for us, Especially the kitchen shelter. It is a space I use for working. I cook traditional food and sell it. The kitchen should be separate from the living area because of the smoke. If it is indoors the smoke causes serious health problems, such as eye, respiratory and skin problems. I start working at 3 a.m.".

For her the most difficult task was

"keeping the food preparation and storage clean and tidy. Cracks in the walls of floor can harbor insects and rodents. Leftover foods and dirt should be removed properly".

What is needed to allow people to keep cooking traditionally is not much:
1. space detached from the living one for smoke reasons
2. space for gulcha (traditional fireplace). Hence, somewhere that fire can be controlled and not become dangerous
3. a communal space where women (and dwellers in general) can be together
4. somewhere connected to selling space
5. gulchas attached to a vertical surface







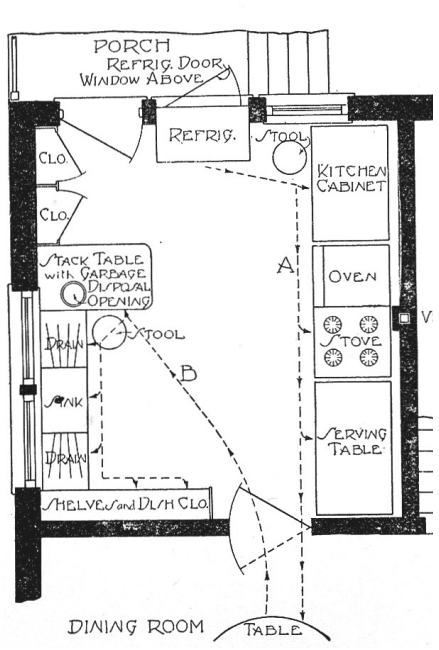
"THE GREAT LABORATORY OF EVERY HOUSEHOLD"

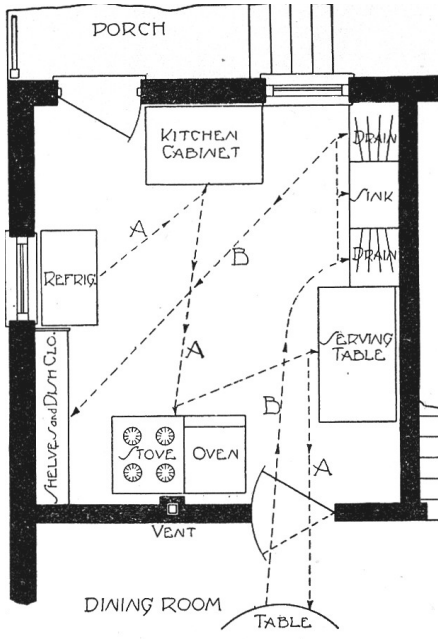
In 1861's England, Isabella Beeton wrote a book that became the Bible of every middle class woman, *Beeton's Book of Household Management*. In her work, she asserted that the kitchen is :the great laboratory of every household" and indicated five principles for kitchen design:

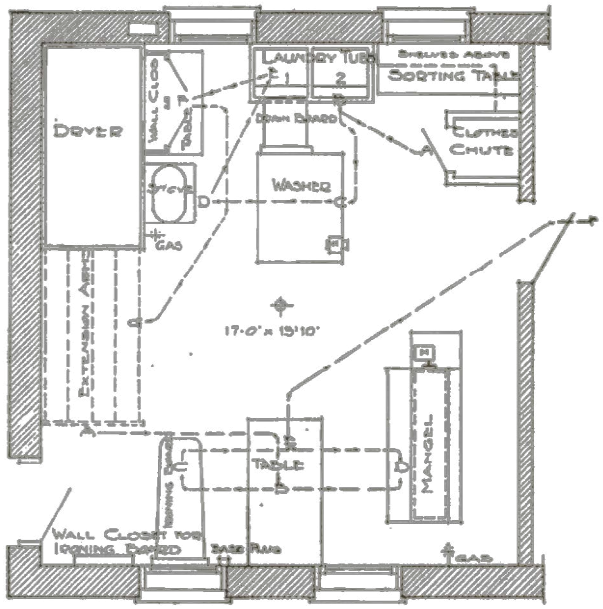
1. convenience of distribution in its parts
2. excellence of light and good ventilation
3. easiness of access
4. remote from apartments of the members
5. plenty of fuel and water

These principles, (along the lines of other important pieces of work such as Christine Frederick's 1919 book *Household Engineering)*, and although formulated in a completely different context and historical time, are still extremely relevant.

The sketches below are her attempt to explain how the movement inside of the kitchen space should be studied and organized sequentially. By understanding the patterns of movement inside of the kitchen, one can start dwelving into very specific matters. One I have taken in consideration was really dear to the Italian architect Piero Portaluppi, who designed the kitchen and serving area ot Villa Necchi Campiglio without any right angles, in order to avoid incidents while cooking. Another topic that is relevant to this discussion is that of the injera making process. Traditional Ethiopian kitchens, as previously discussed, are basically created by lighting a fire within three stones, and by placing on it the *mogogo*, which is the typical pan. How can we incorporate this composition in a communal kitchen?





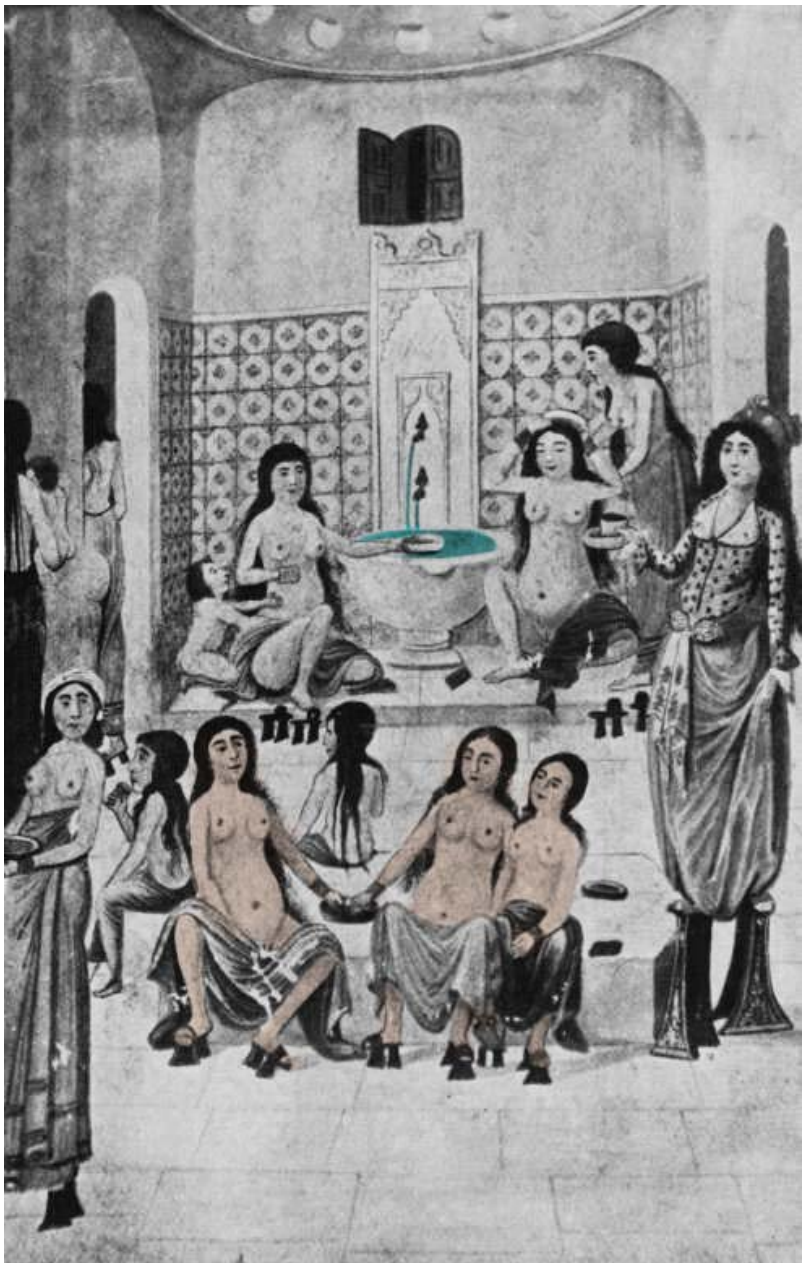

Dryer
Wall Cloth
Table
Laundry Tubs
Shelves Above
Sorting Table
Down Board
Clothes Chute
Washer
Gas
Extension Arm
17'-0" x 19'10"
Table
Mangel
Wall Closet for Ironing Board
Base Run
Gas

ADDIS ABABA LIVING LAB

WASH-PLACES

Supervised by Ing. Francesco Steffinlongo

Water sources have always represented a place of encounter for people. Creeks and canals petrified into fixed structures were meeting kept on happening.



LAVATORY AS PART OF PUBLIC LIFE

Up to our great-grandparents generations, washing clothes was a tiring, loud and "crowded" matter. It generally involved the women, who had to often spend a full day every 15 to 30 in their town's public washrooms or along a river. In the poorer families, due to the shortage of clothes and bed linen, it was necessary to do it much more frequently. For many women, this activity was also a way to create income.

The first step to rinse the most stubborn stains within the household to remove a first thick layer of dirt.

The second step was to pour boiling water over white ash, often coming from acacia trees (and many other species), over a large cloth and wrap the clothes inside of it. The boiling water poured on the ash dissolved the dirt components and helped making them white with a particular and inimitable perfume. It was fundamental to leave the textiles in the dissolved ash for the whole night, in order to give an extra degree of hygiene to the fabrics before immerging them in the communal lavatory. The latter was also considered to be the most social space for women to start conversations and keep eachother company throughout this tedious activity.

The situation must have been overwhelmingly fascinating: voices, screams, noises of all kinds, children playing with water, women chatting about the latest gossips.

In the countryside of Ehtiopia, this tradition is still present, as you can see from the picture to the right. Women walk for miles to reach the closest river in a group, and spend the day in company outdoors.

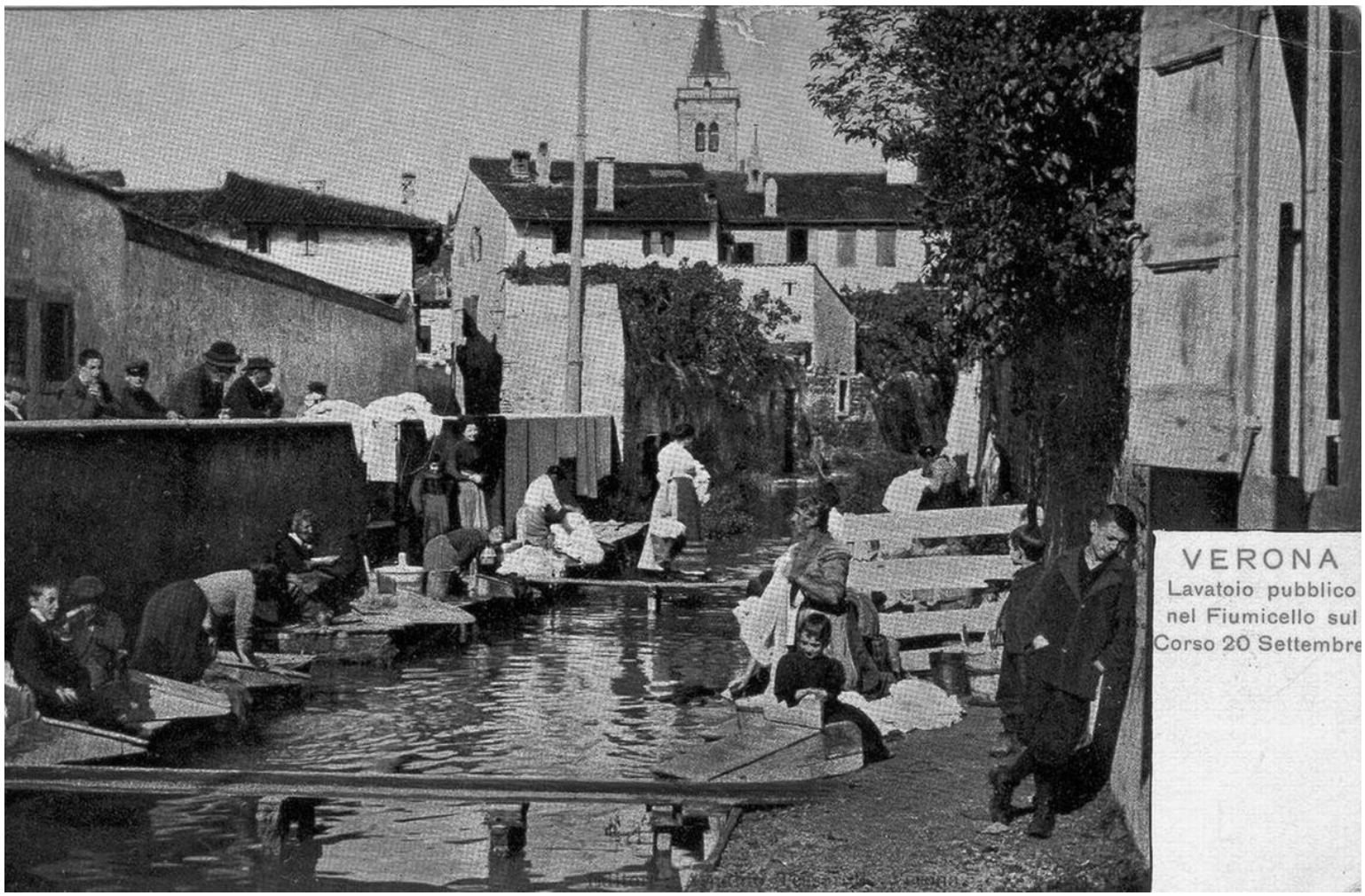




Women doing laundry at a river close to Arba Minch



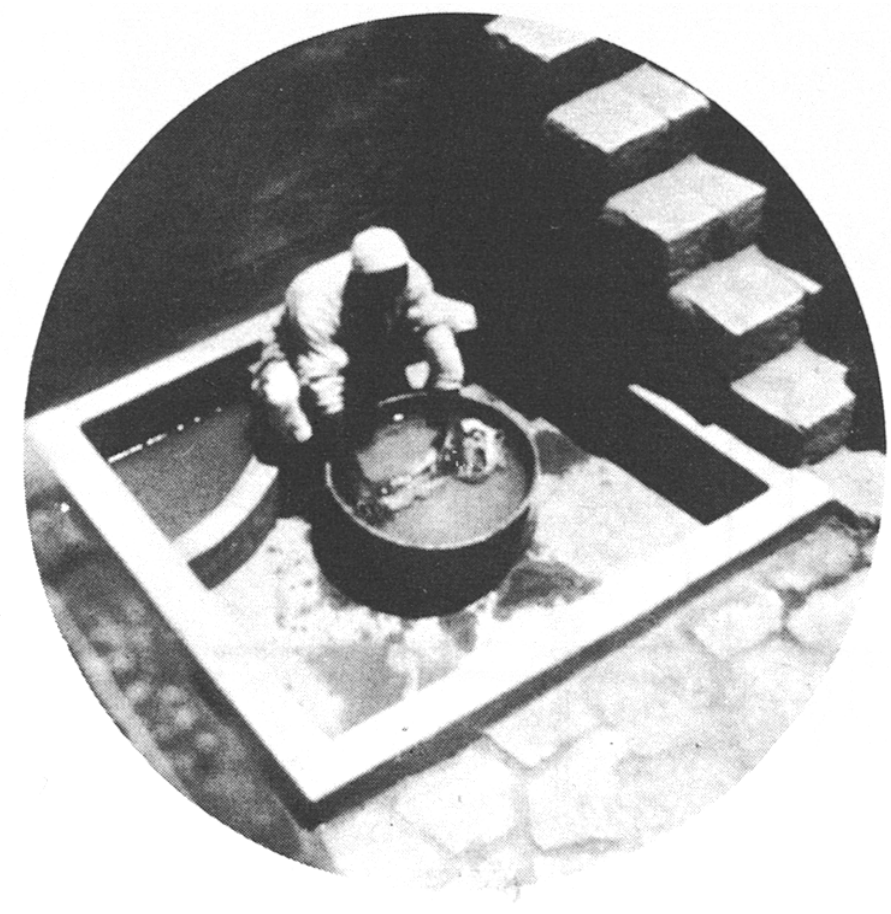
‘In the past, not such a remote one, there was no running water in the houses and the water needed for daily needs had to be drawn from public fountains. The women, to do the laundry, went either along the rivers or on the shores of the lake, carrying clothes in the panniers, both in summer and in winter. All this created considerable discomfort and required a lot of effort. To ease

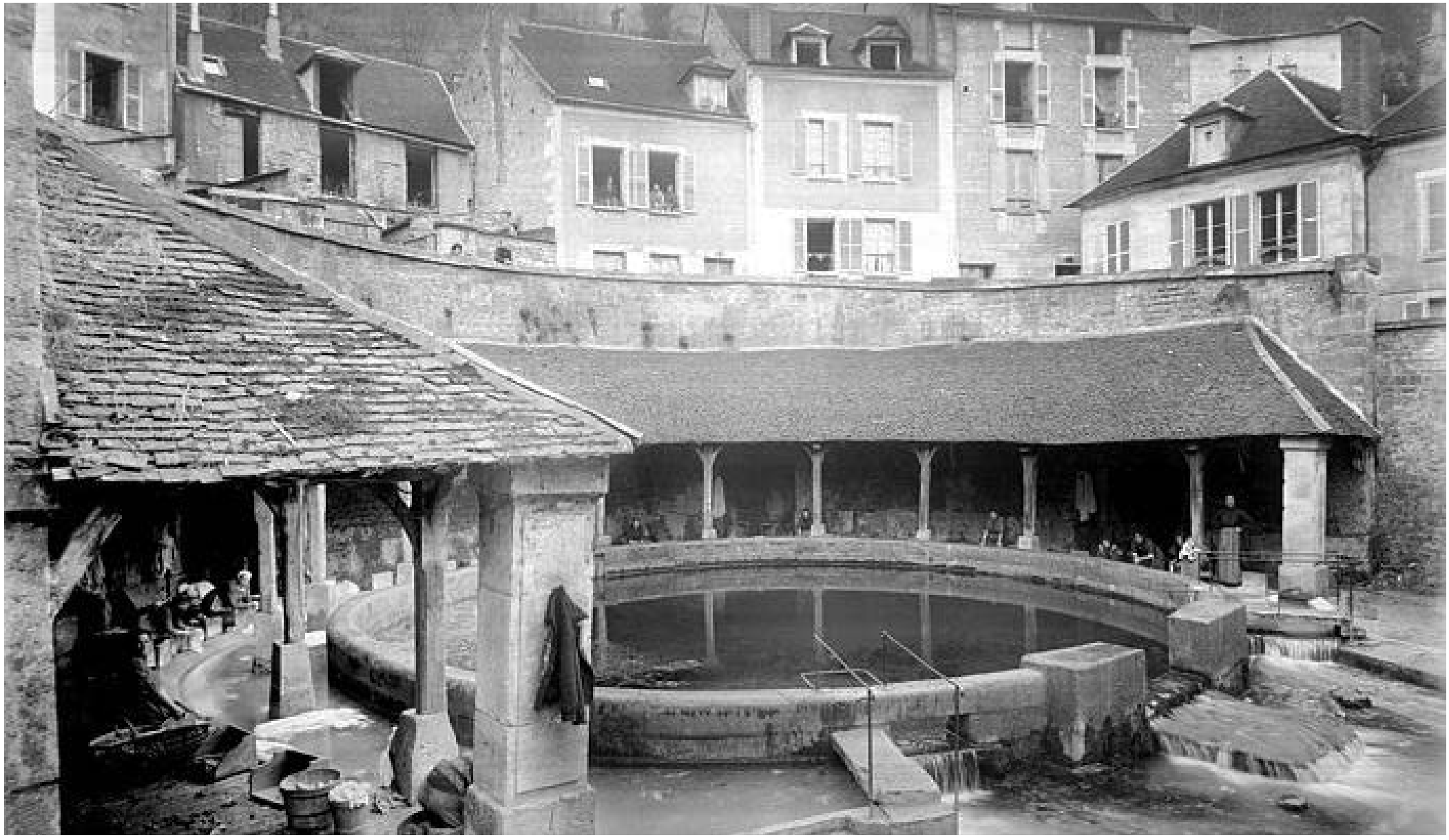


the women from this burdensome task, each country equipped itself with public washrooms. They were built in places close to natural sources and accessible by users. Some had shallow tubs and women had to kneel to wash. In this case the women used the "briela", a sort of wooden kneeler that allowed isolation from the floor. Others had higher tanks and washing operations

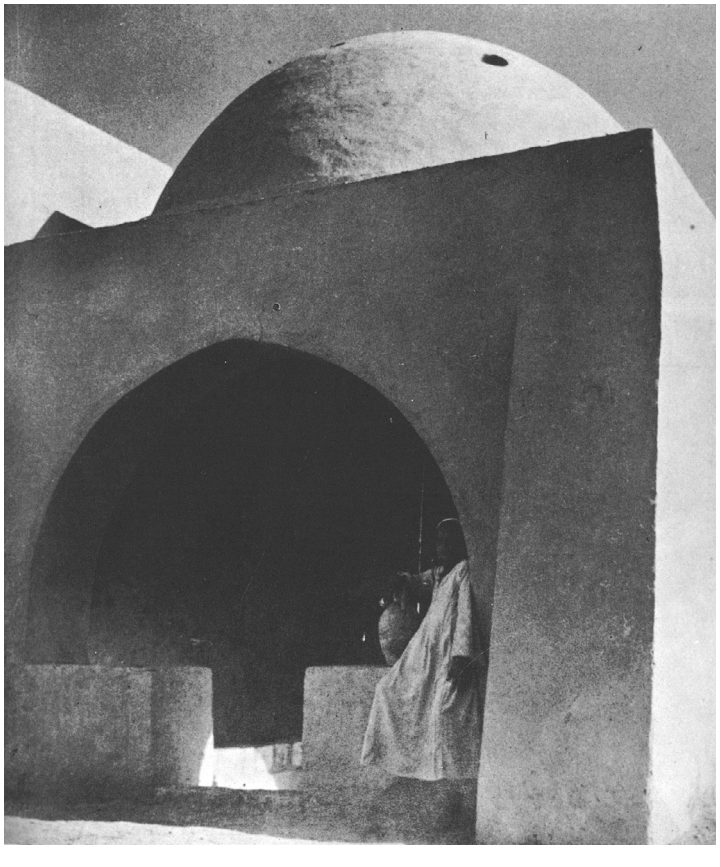
After making caferul observations and measurements on people actually doing laundry, and even trying the position myself, I designed a simple arrangment of a shallow pit with bricks walls and floor, plastered with cement, a circular stand in the center to carry the tesht, a seat conveniently close to the stand, and a trough in one corner.

Hassan Fathy (1973, p.101)





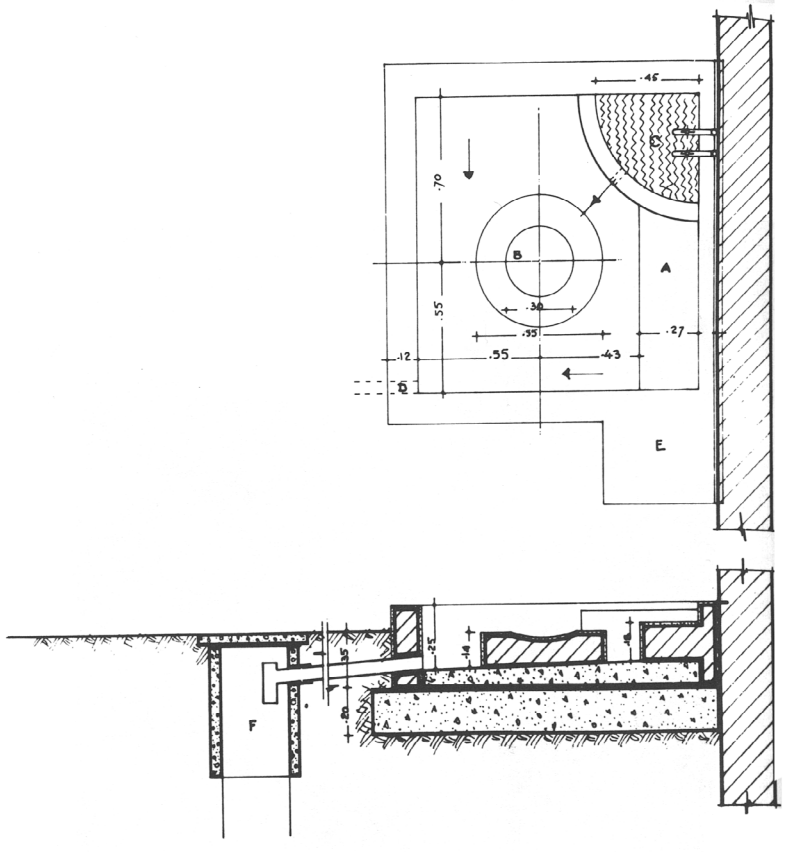




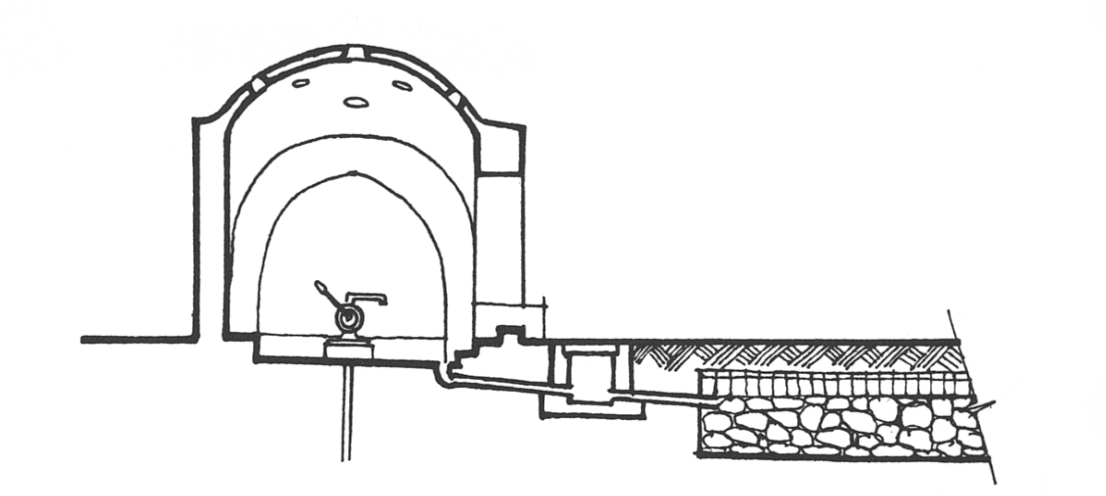
NEW GOURNA

Hassan Fathy recognizes that man and its tools are in a constant state of becoming, and to design a settlement means to trace these evolutions and to draw trajectories for the future. He believes that a great deal of the role of the architects lies in the observation of common practices. His critical studies on the peasant's way of life informed every decision he took in his project for New Gourna.
He observed that often in rural areas or in poor city quarters water supplies and wells are surrounded by vast muddy ground which results in unhealty proliferation of bacteria. Therefore, after careful analysis of the activities related to water supplies he designs a simple, yet beautiful, place to accomodate those in a cleaner environment.
Moreover, due to the new characteristics of the design several other activities begun to take place in those. The laundry pit became a bathroom. People could wash their babies in it and later on, when the design was expanded, adults could shower there with hot water. As a result, by transforming the tool, Fathy transformed the practice in a natural way.

The great advantage of these pits was that, like the one round the public pumps, they prevented the waste water from running all over the place or being tipped out into the courtyard or the street. While not upsetting the local laundering customs, they made the process neater and drier. (ivi)











crouching + river



sitting + basin

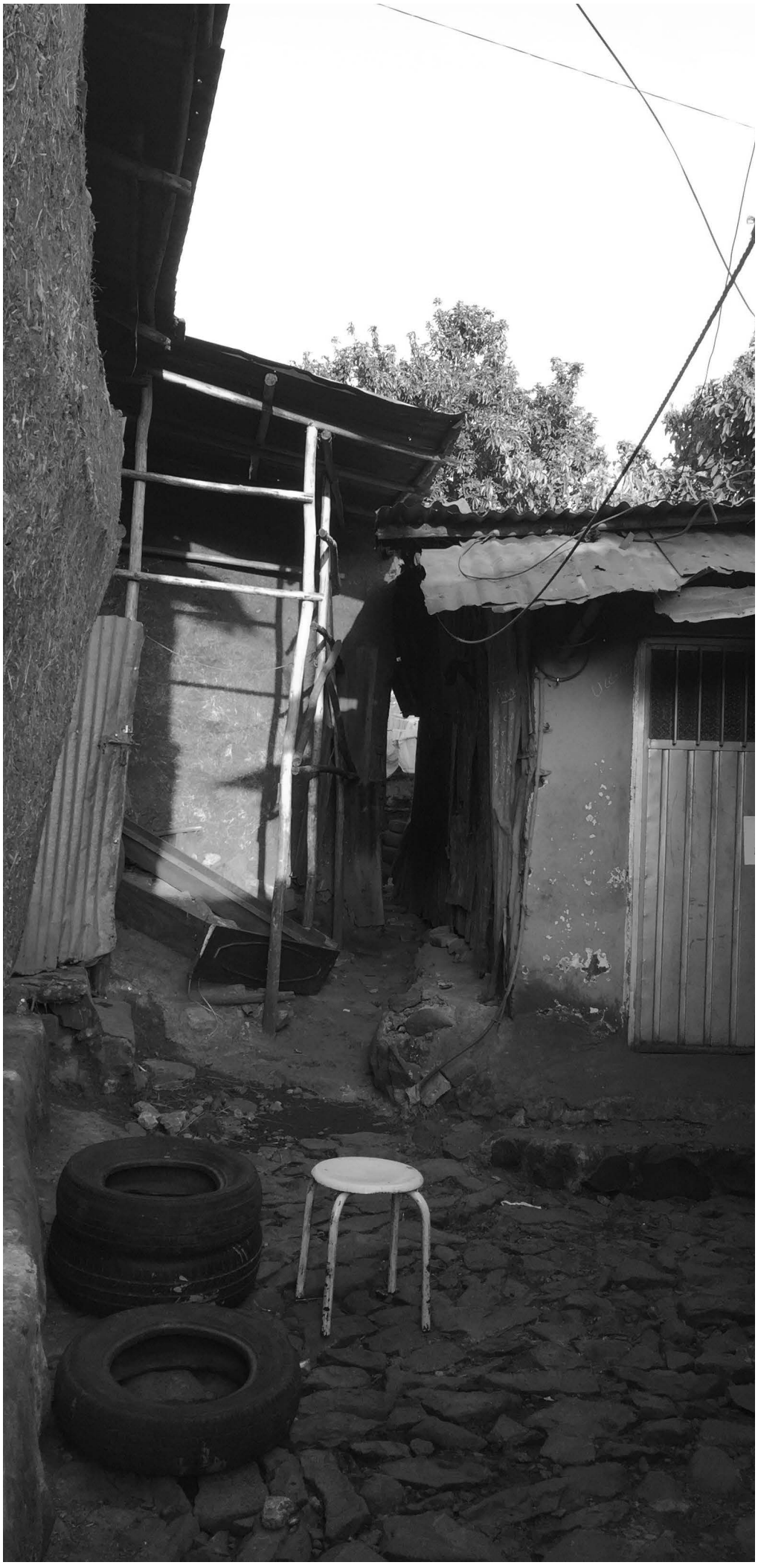


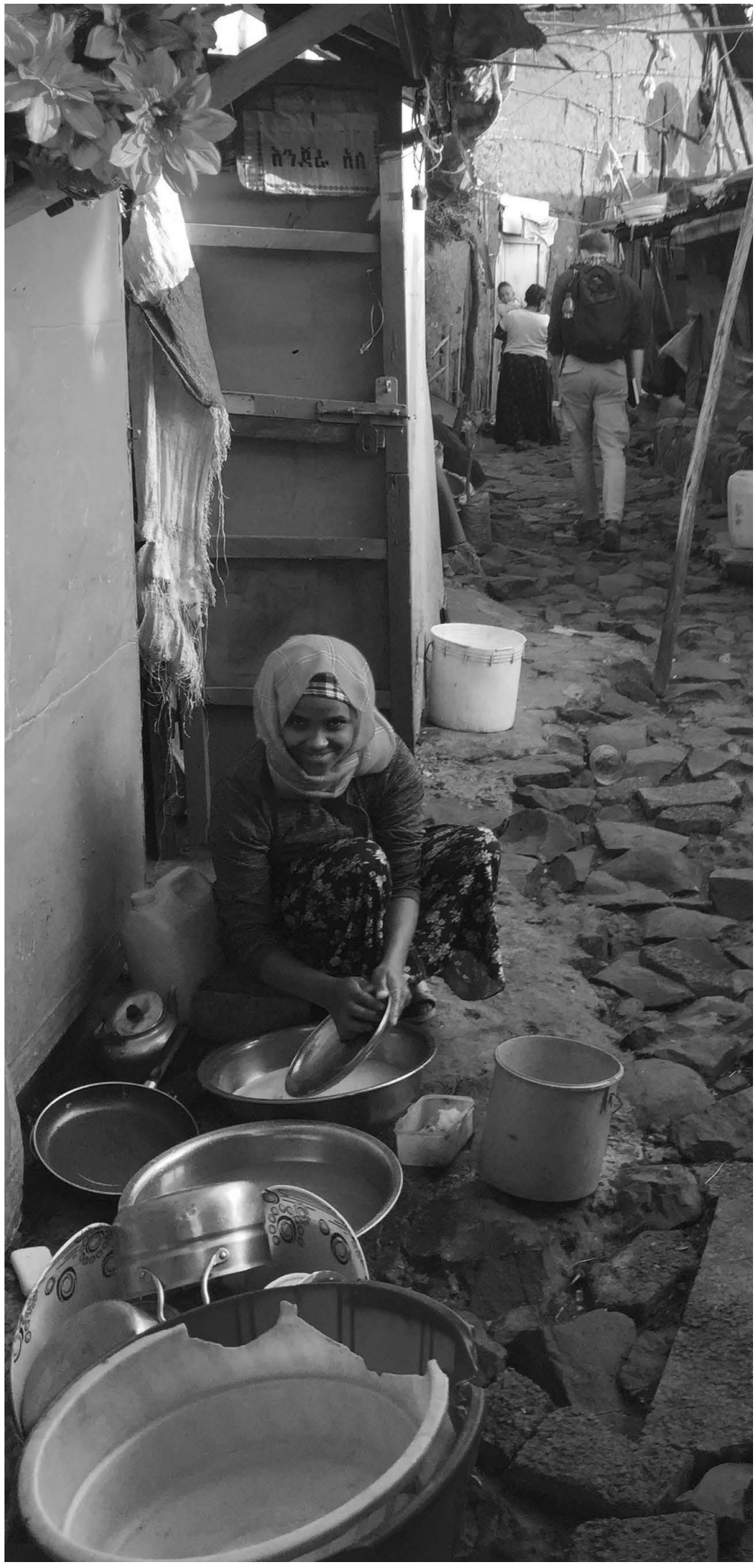
standing + barrel



Picture by Author







LAVATORY AS SPACE IN THE HOUSEHOLD

In her writing, Christine Frederick explains how water can be divided into two categories, depending on the amount of lime and magnesium salts it contains. "Rainwater is best for laundry work: it is "soft" because it will quickly form a good lather with common forms of soap". She continues by asserting that: "washing should be done in a room separate from the kitchen whenever possbile. This is for sanitary reasons, and also because nothing causes more confusion than to try and wash in the kitchen while carrying on the work of meal preparation three times a day. There is much to be said in favor of having the laundry situated on the first floor with sunny exposure (...)".

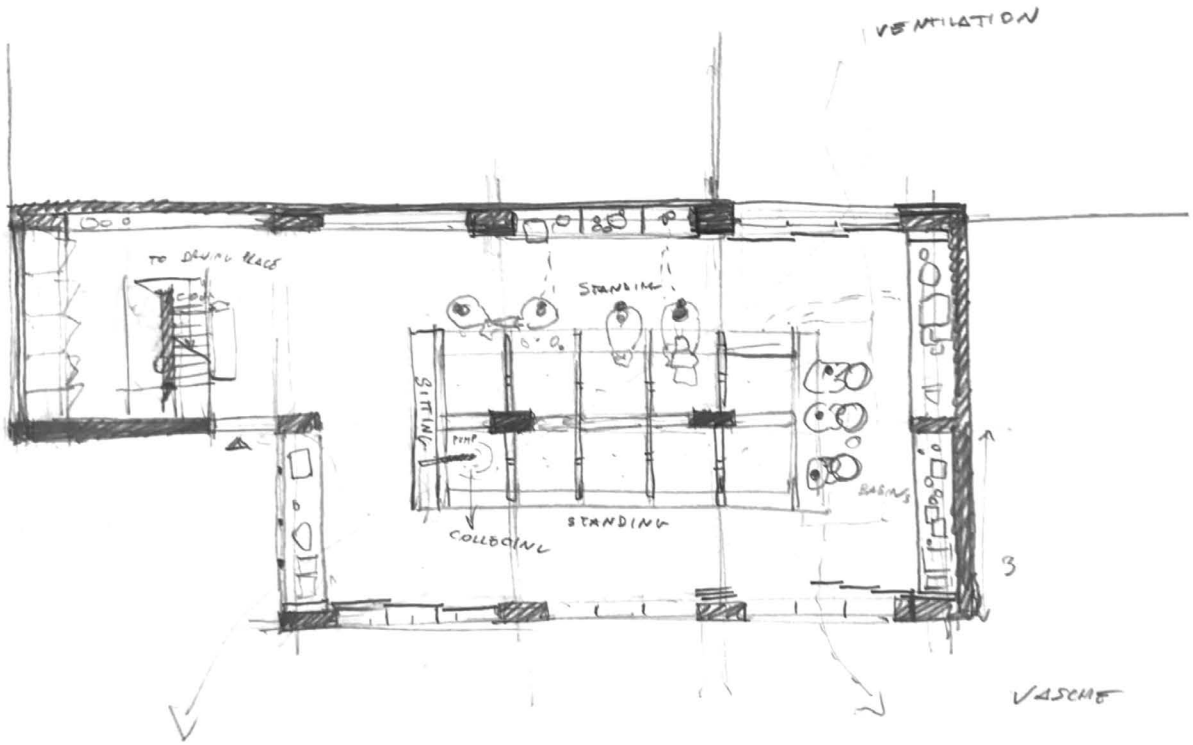
Again, even if this statements are formulated in the context of a 19th century Western society, they are still closely related to the nature of the activity itself.

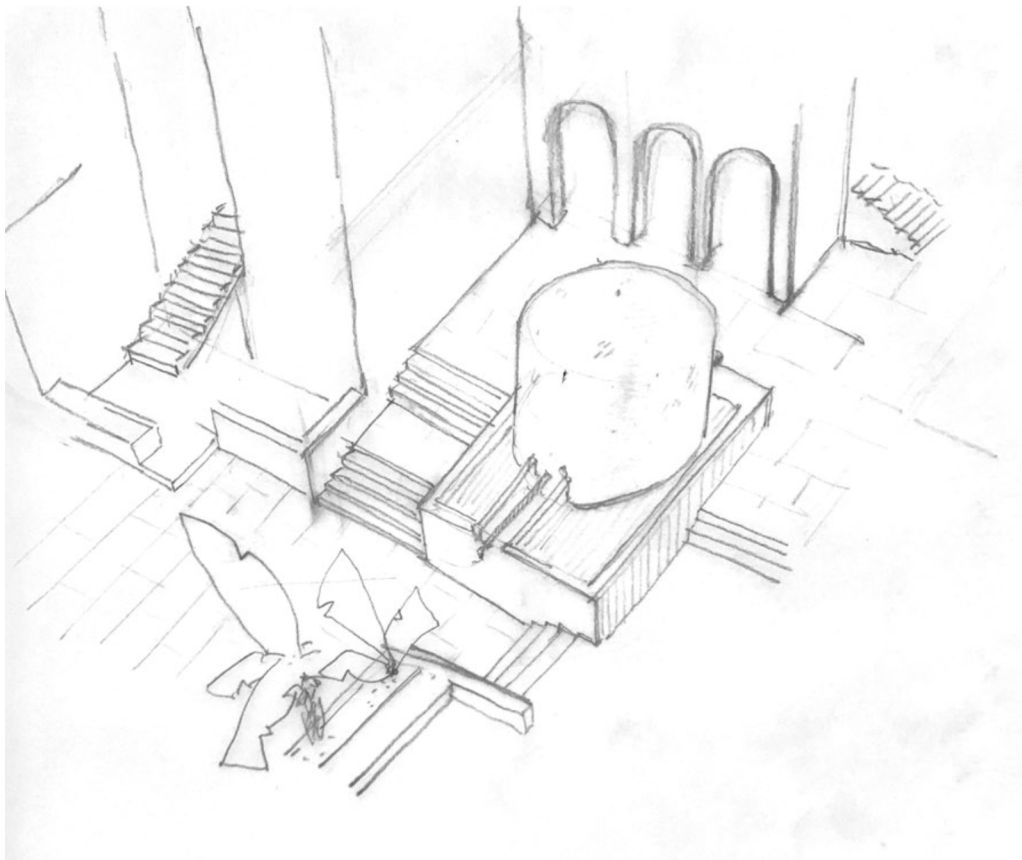
The idea could be to transform such a space into a proper public one, which could activate the space in

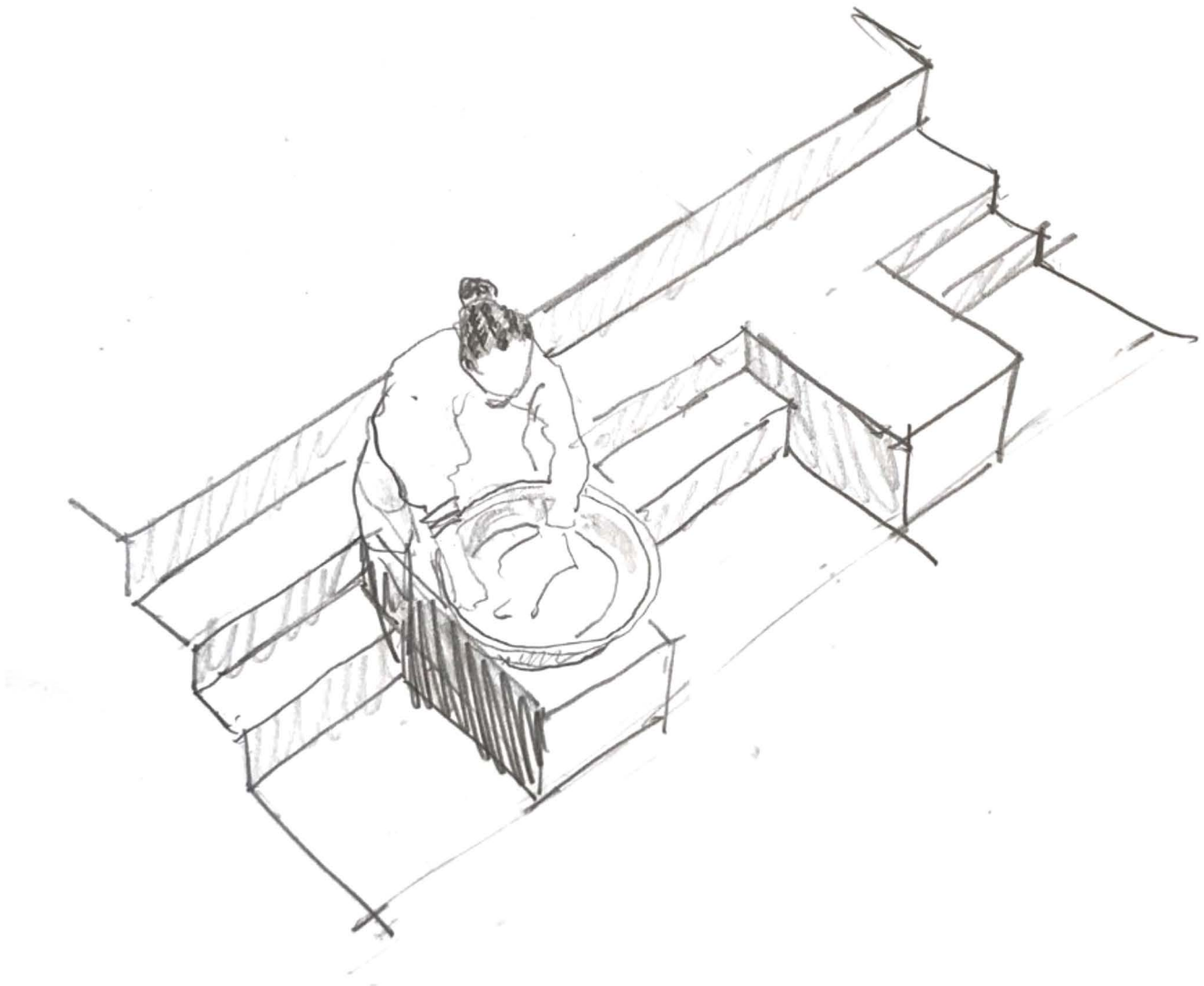


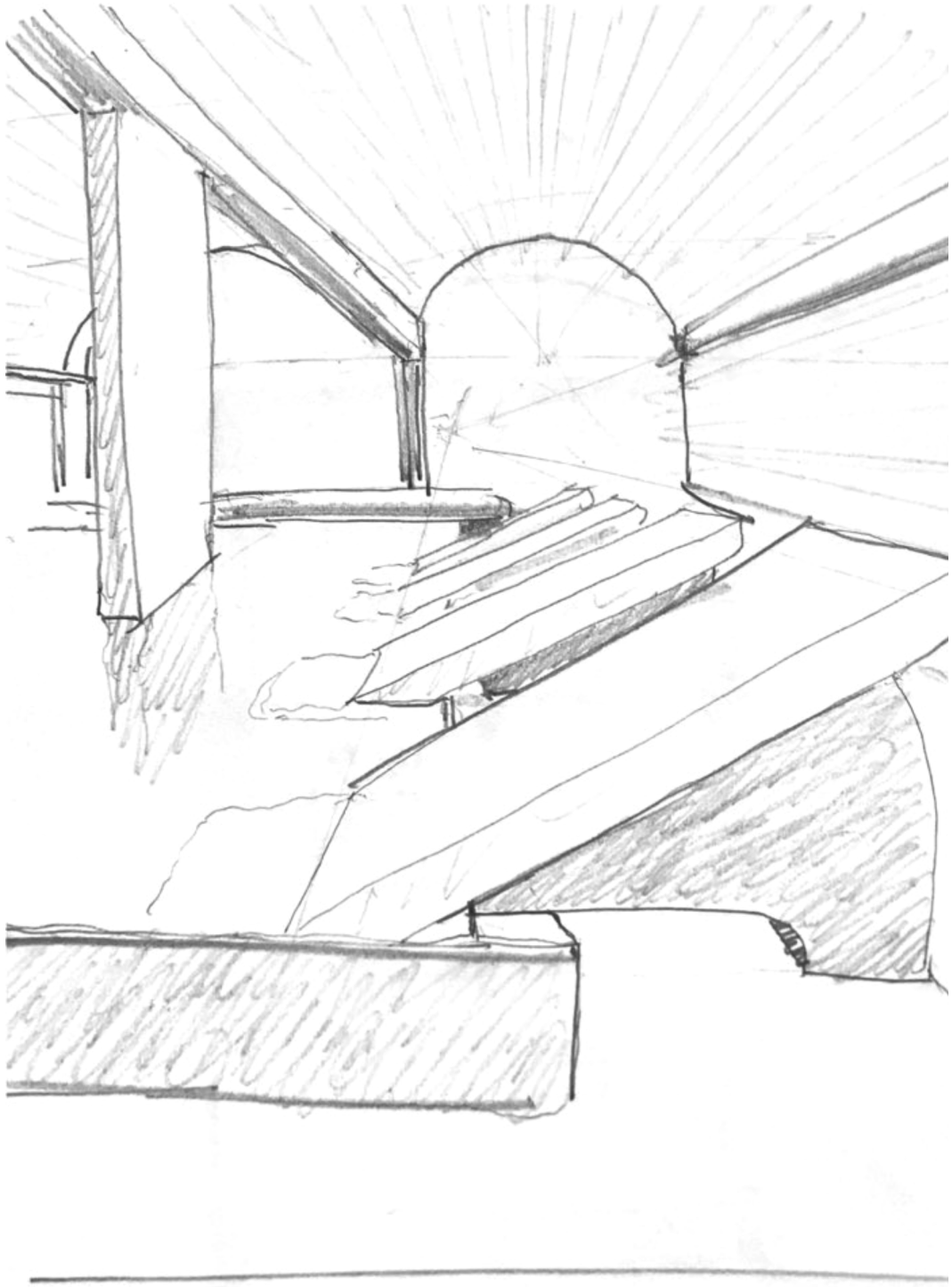





VENTILATION
TO DRYING PLACE
COOK
STANDING
SITING
PUMP
COLLECTING
STANDING
BASINS
3
VASCHE

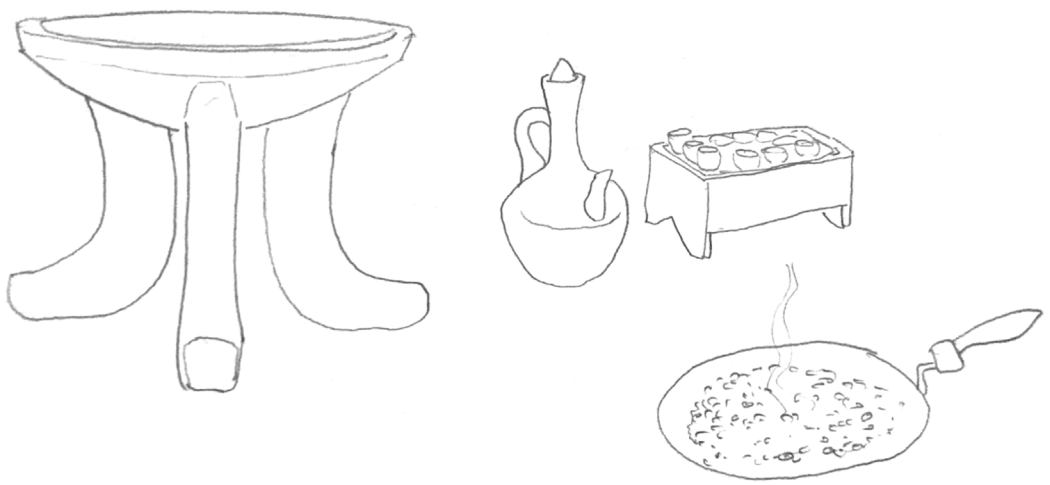






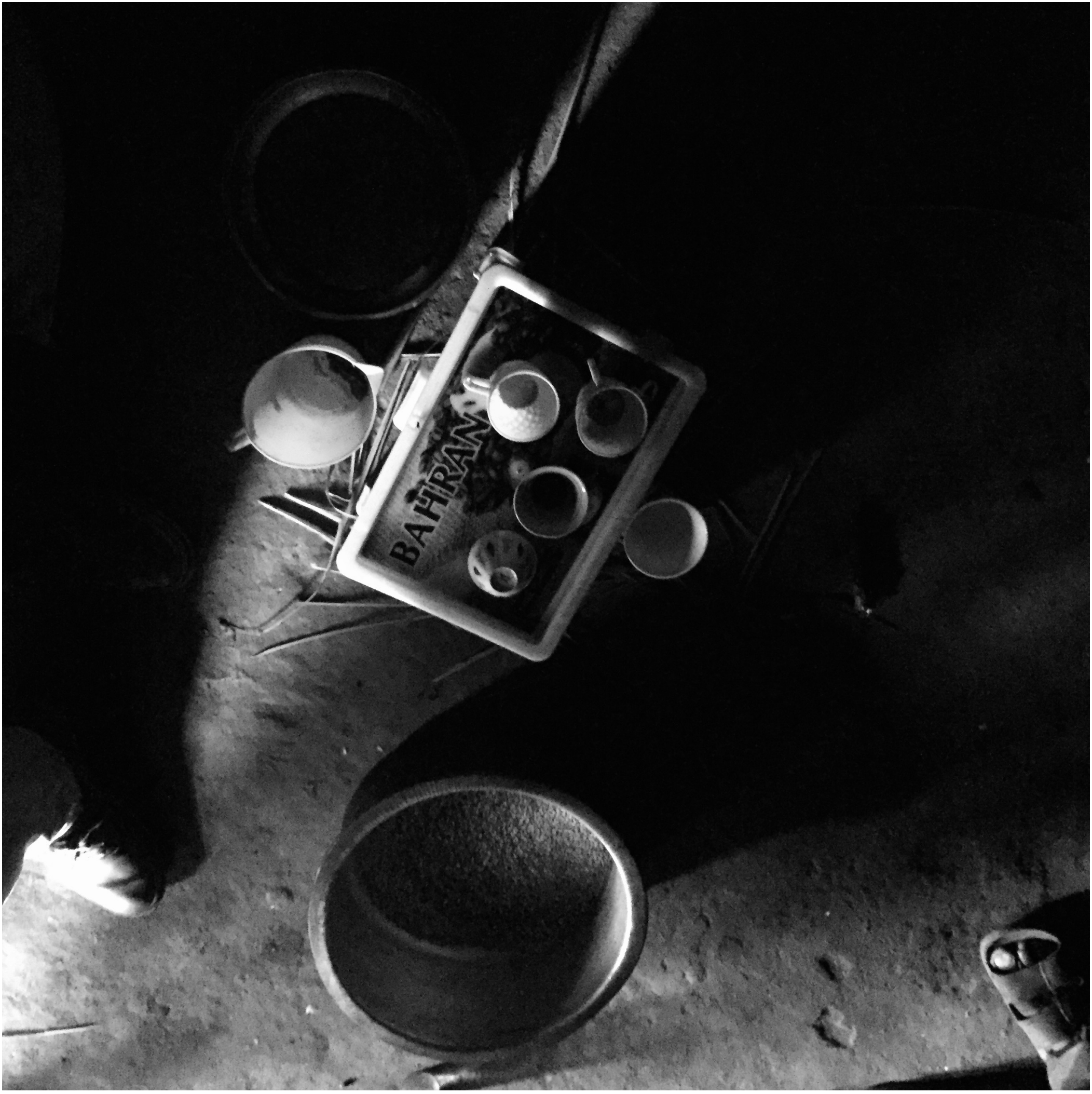


COFFEE CEREMONY



“I am a hard-working woman. God, wherever you are, help me! I only need 3,000 ETB to pay for and start a small business. People like coffee. I will sell it to my cuostomers and sit with them and chat. We will live like that. I will work from 4:30 am until 10 at night. My son will study. We will make ends meet. Some days we go to sleep without eating. I don’t know how we will managae to sleep when we have no bed! ”

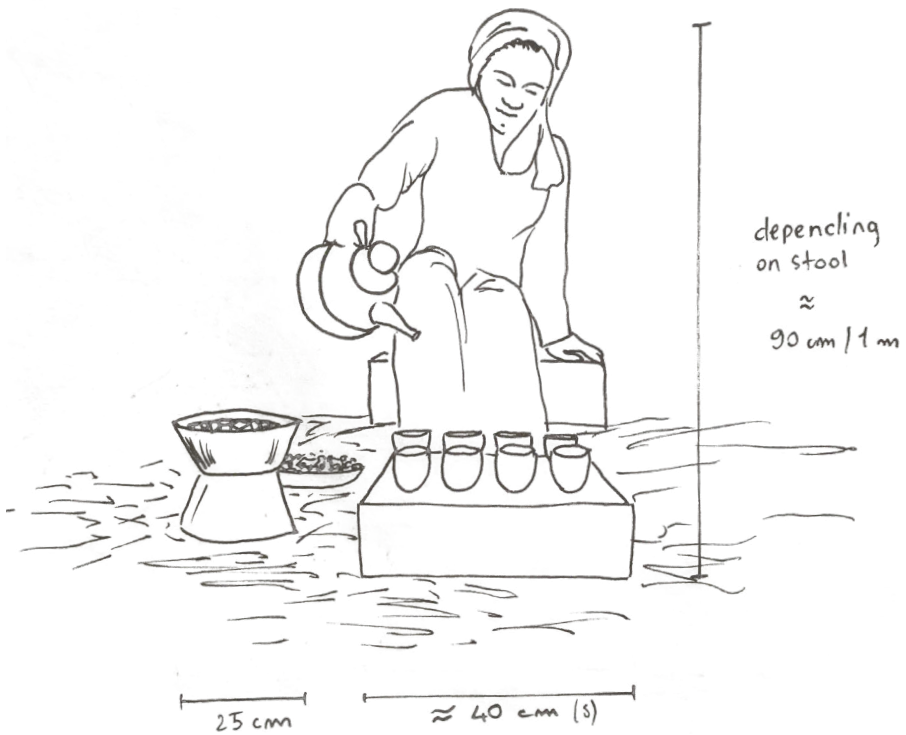
*Akelu**


BAHRAM

THE CEREMONY

A Ethiopian might argue that the coffee ceremony is one of the most important moments of the day. It is something that brings great pride to the person who is carrying it out, and it creates a moment of pause in the frenetic pace of everyday life. Usually, it is a woman who performs the ritual, even thought the activity is not strictly bound to gender.

According to Yoseph Metasebia, "the space of coffee drinking is not only for quenching thirst. It is a space of blessing where people pray for peace and affluence of the household and the whole society, as well as where people conduct various rites de passage. It is also a space of gathering where people of all social categories participate, and talk together about private to public topics". In fact, the preparation process is an opportunity for dialogue and interaction with the rest of the community that might sit around the stove and incense. It is also something that, as a ceremonial practive, we might struggle to fully understand. According to Metasebia "Coffee's role as an agent of social cohesion and fraternity, maybe hard to envision in the current Western understanding of the coffee shop, a far cry from its origins in Ethiopia".



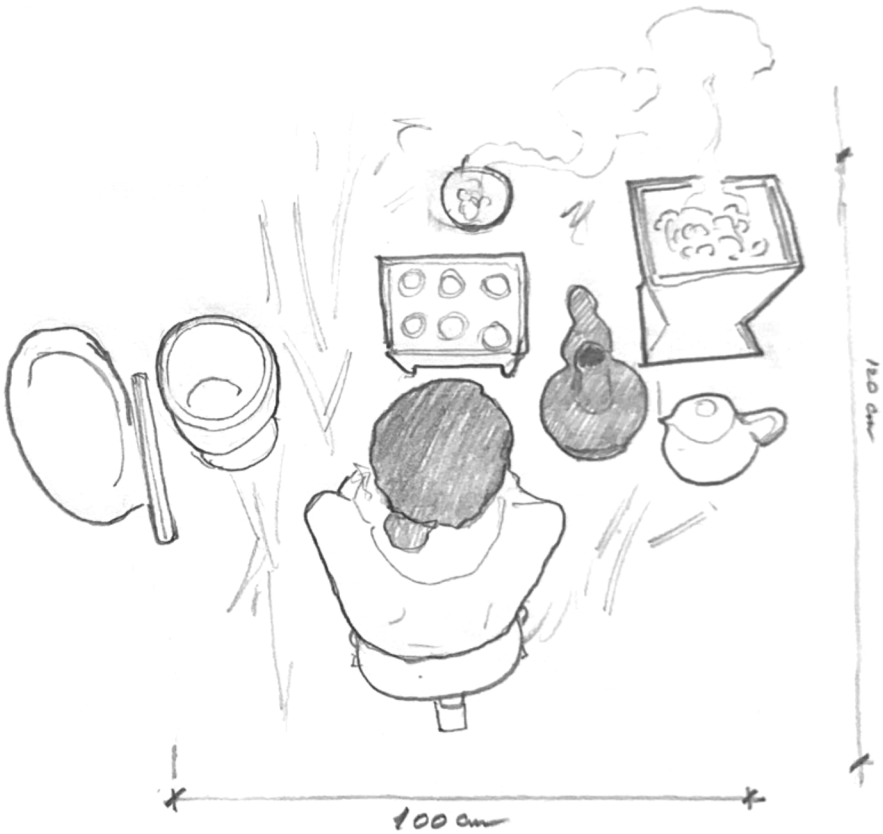


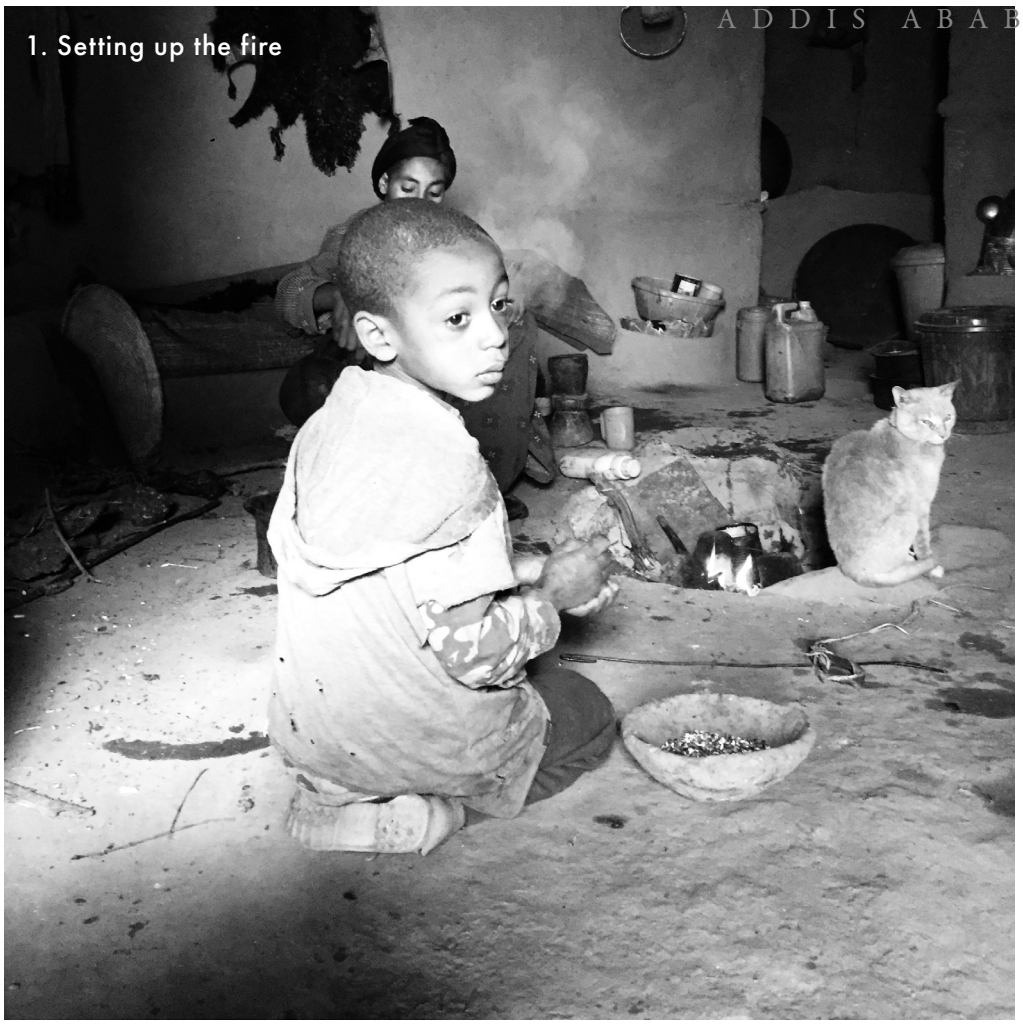








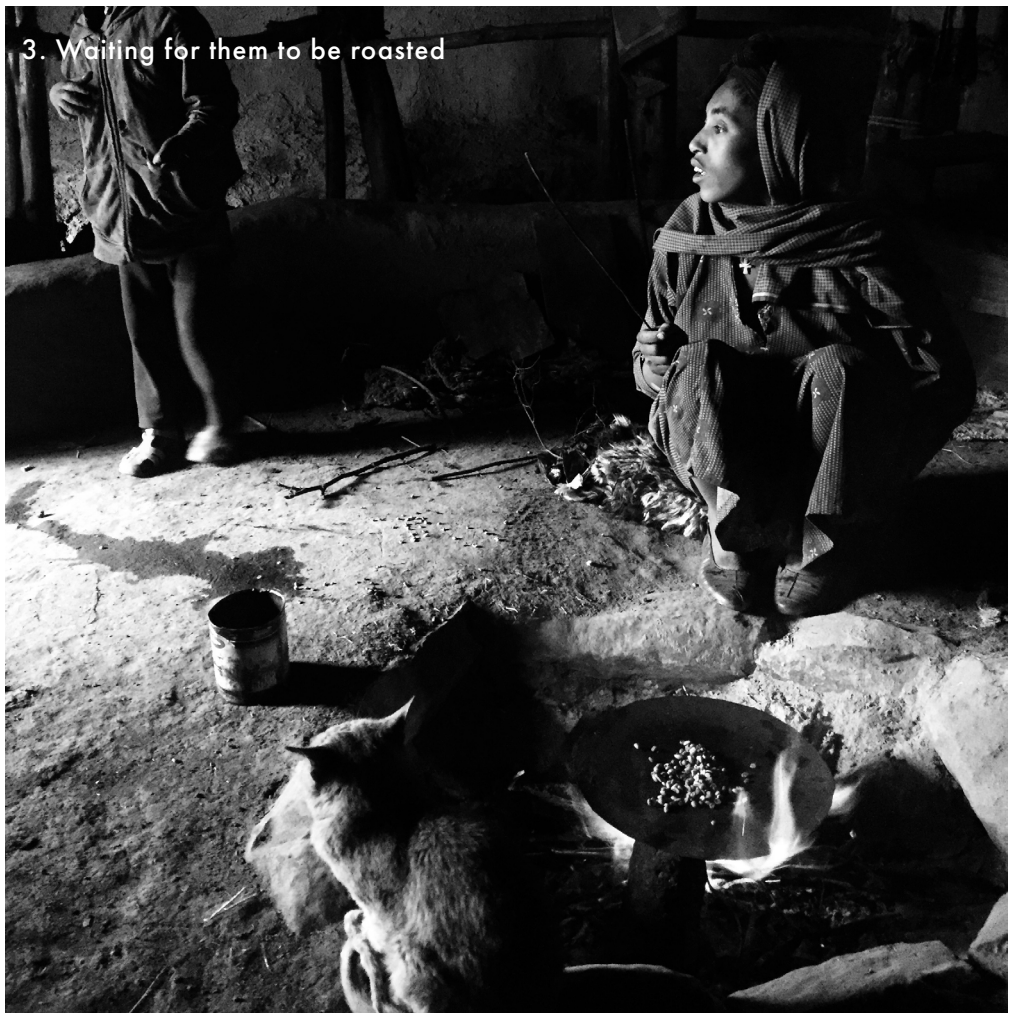

120 cm
100 cm



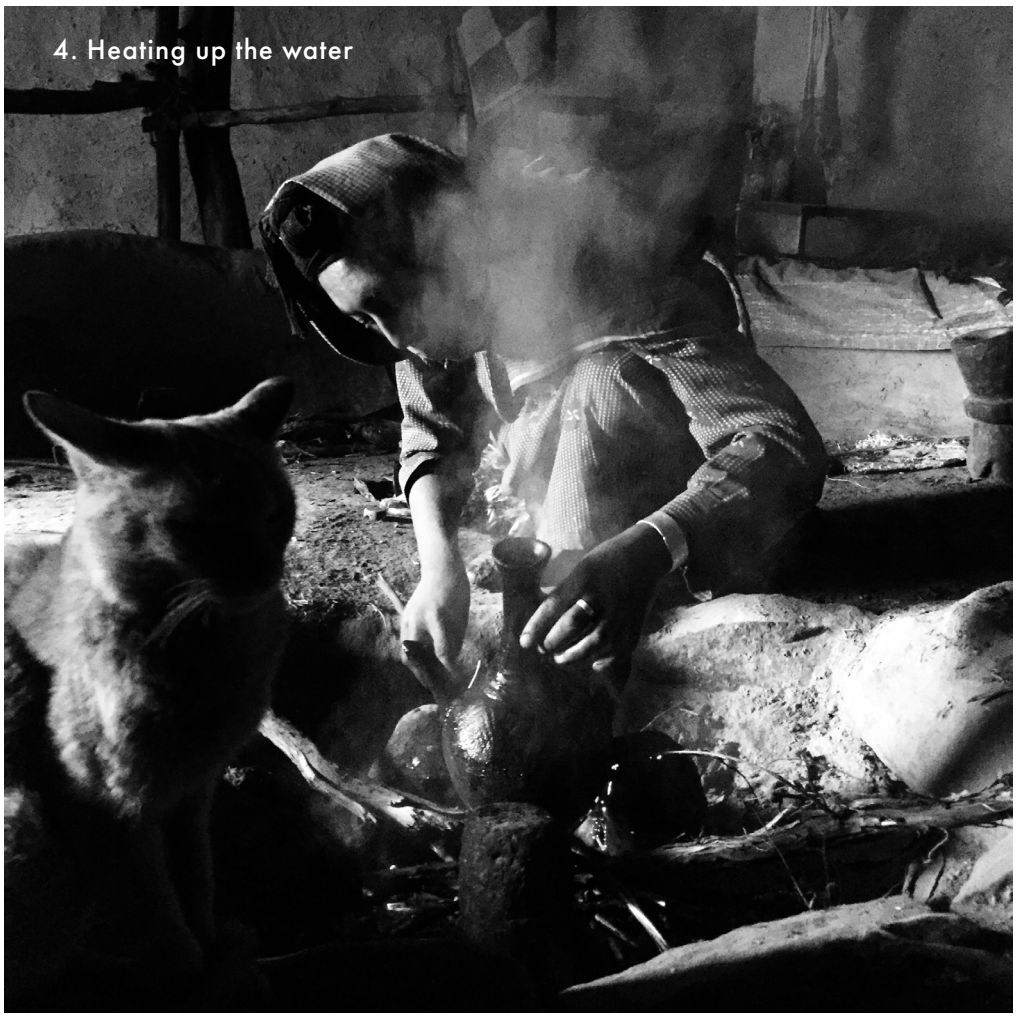
1. Setting up the fire



2. Placing coffee beans on the roasting plate

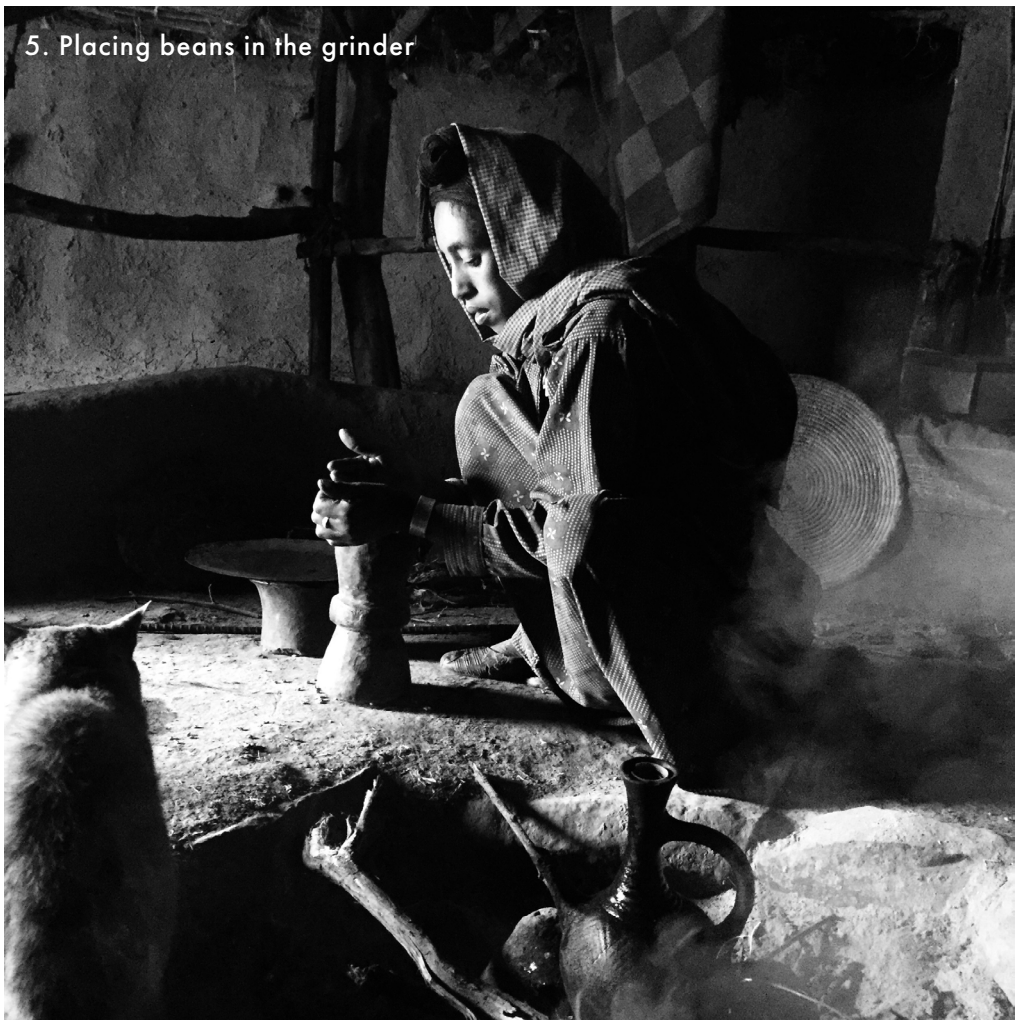


3. Waiting for them to be roasted

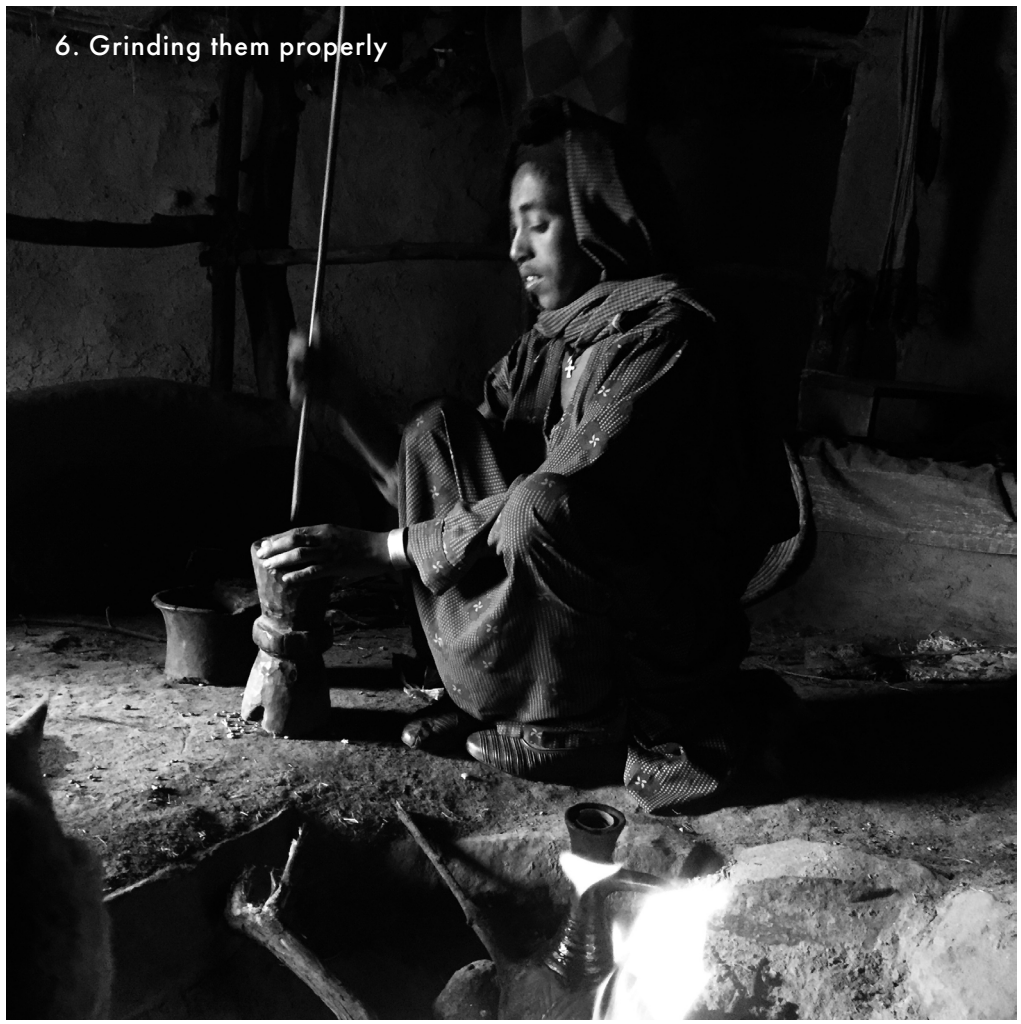


4. Heating up the water

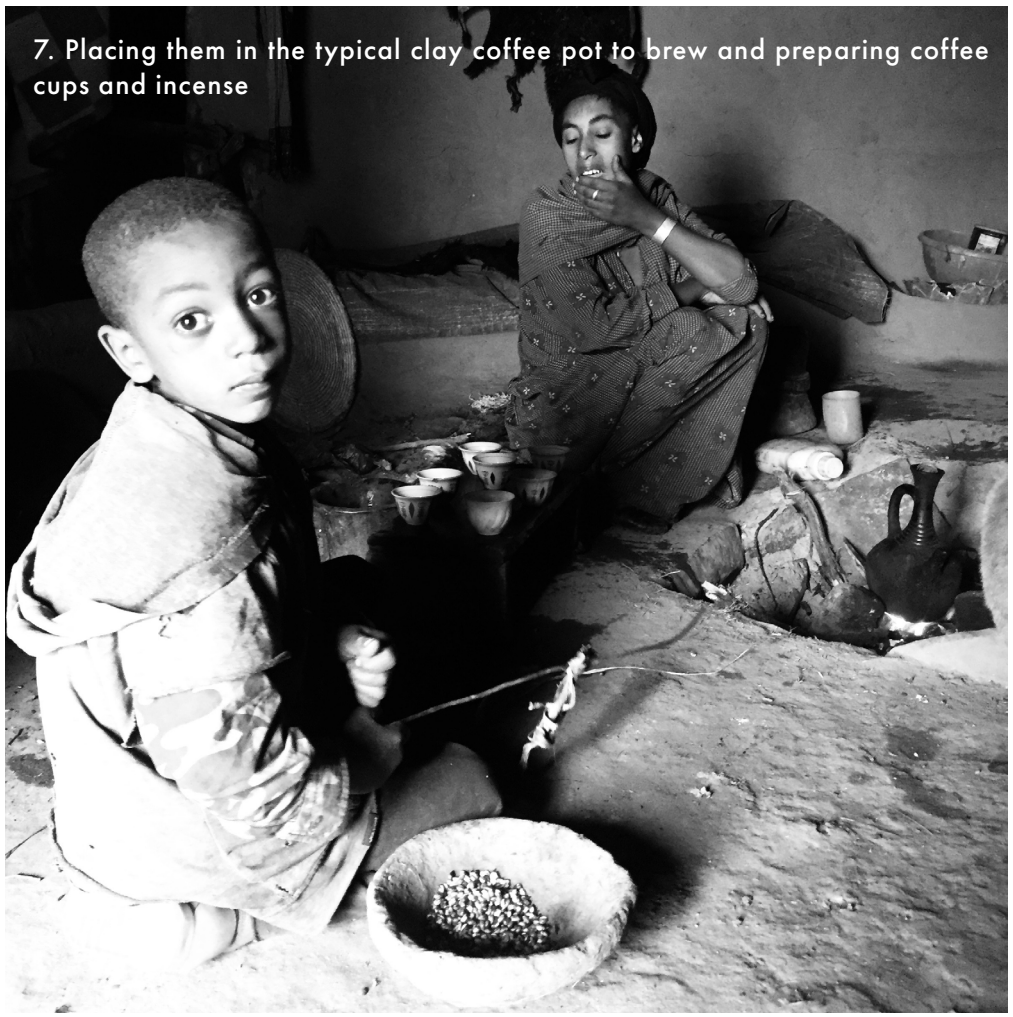
Pictures by Author



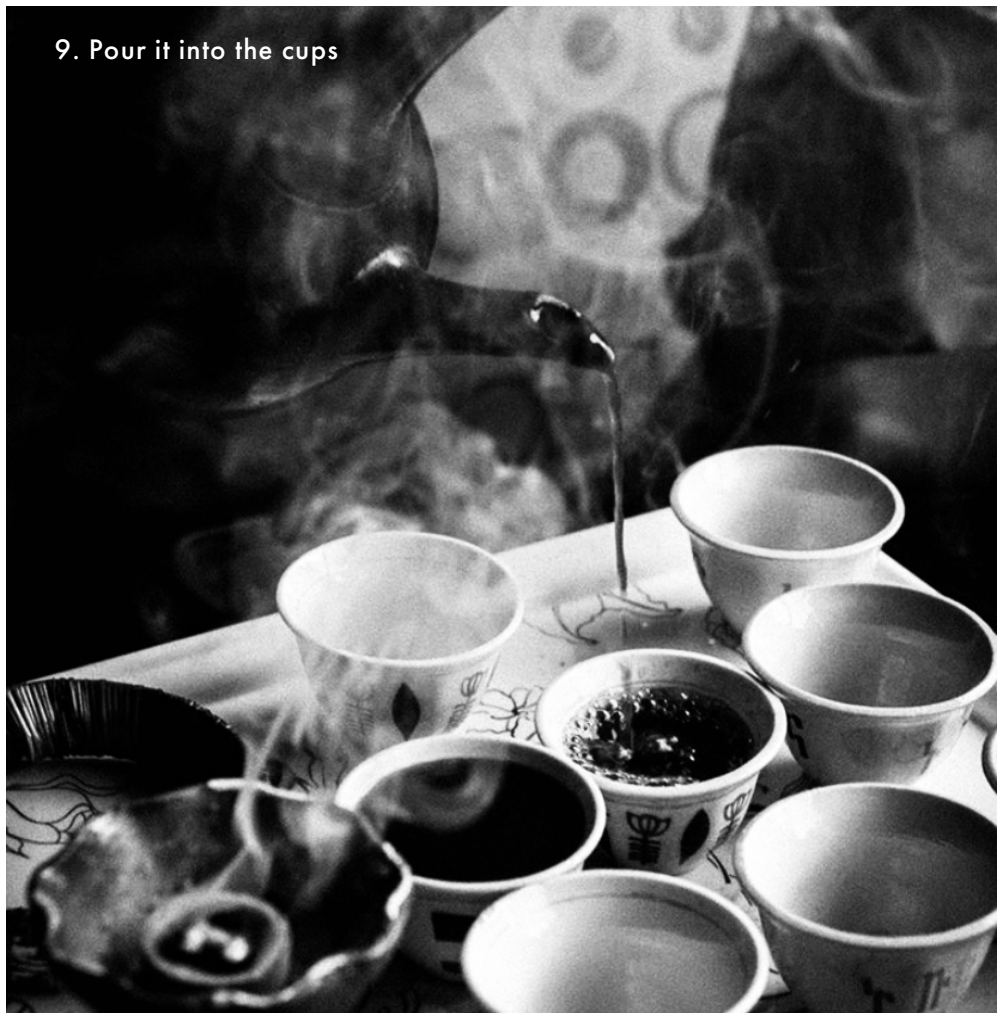
5. Placing beans in the grinder



6. Grinding them properly



7. Placing them in the typical clay coffee pot to brew and preparing coffee cups and incense



9. Pour it into the cups

WHAT IS NEEDED FOR COFFE-MAKING?

- cinis (traditional style, diminutive coffee cups without handles)

- jebenna or jabanah (traditional coffee pot)

- stove

- water

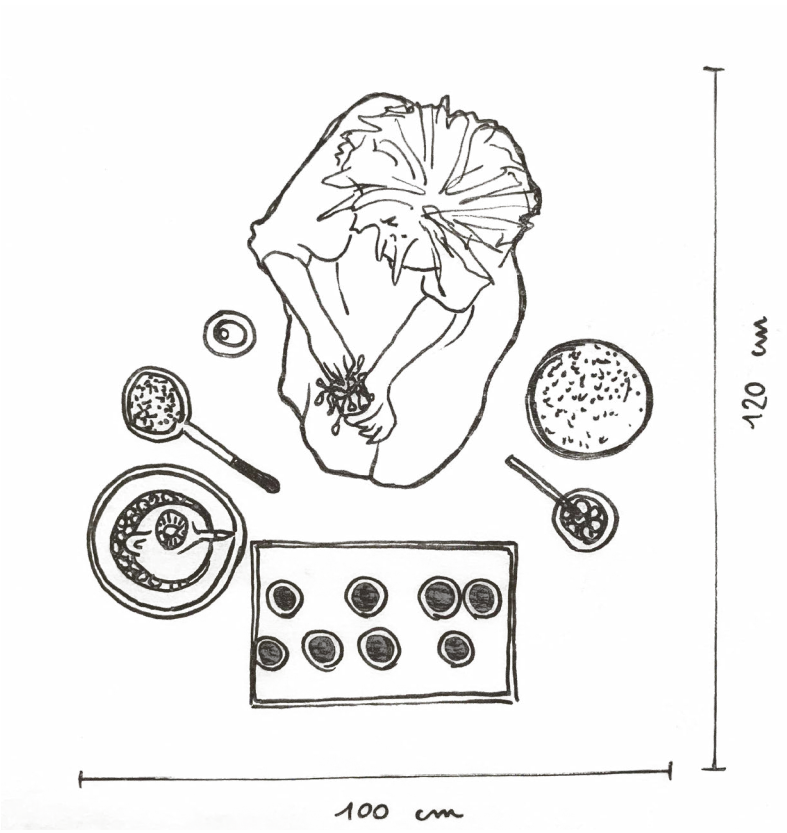
- mortar & pestle (for grinding coffee)

- qétéma (grass reeds or mat)

- ittan (incense)

- rak'boat (serving tray)

- berchuma (traditional style three


120 cm
100 cm

Building Technology

MATERIALS AND TECHNIQUES



Chapter 3

CURRENT STATE OF THE MARKET

Currently, large construction companies who are heavily subsidized by the government to build western concrete frame/ slab construction dominate low-cost government housing.

Low-cost housing is expensive because of the cost of imported materials. Compared to the Western paradigms they copy, the only improvement has been the use of precast ribbed beams and prefabricated concrete floor elements again, both produced by heavily government subsidized programs, resulting in less concrete and simplified formwork. 'Low-cost' for Ethiopia is classified as less than 1000 ETB /m2 (75 USD/m2). At the end, the cost of the housing provided by the government as 'low-cost' still costs the buyer 2500-3500 ETB/m2 (185-260 USD/ m2), and this after heavy subsidies on different levels. To summarize, these are the following reasons why concrete is neither a sustainable nor an appropriate building material:

1. **it is imported**. According to architect Rahel Shawl, "Sustainability also means to make construction more Ethiopian in terms of material: not transporting materials from all over the world"

2. Therefore, **it creates dependance on China**. When China finances roads, railways, and hydropower dams, he says, it stipulates that Chinese construction companies build them with Chinese concrete and steel, according to The Guardian. China's credit line to Africa has provoked criticism. Earlier this year, Rex Tillerson, then US Secretary of State, said that China's "predatory loan practices" in Africa "mire nations in debt and undercut their sovereignty, denying them their long-term, self-sustaining growth."

3. **it is expensive**. According to UN Habitat, "there is a pressing need for more cost efficient alternative materials, as teh current cost of construction materials is around 70%.

4. **It emulates foreign standards.** "Unfortunately, [...] people go to Dubai or to China where they see those and they say "I want that! I want the gold façade, I want the silver façade, etc." Rahel Shawl insists. None of the typical Ethiopian characteristics in terms of the organization of space or building materials are currenlty being pursued.

4. **Addis Ababa evidently lacks alternatives** in terms of building materials. The reasons for that are multi-faceted: forbidden natural building materials in Addis Ababa, a very limited formal building material market, and a **bias towards traditional construction methods as backwards.** Through our Ethiopian sources, we further discovered how limited budget, abilities, and knowledge further impede the implementation of sustainable building in contemporary Ethiopia.

Often, concrete accounts for 70% of the total construction cost



Picture by Author

EARTH AS SHELTERING MATERIAL

Contrary to concrete, earth ha many many advantages. It has high thermal mass is very energy-efficient in both summer and winter, and ideal for passive solar heating and cooling.
It is completely environmentally friendly, with its low carbon footprint and embodied energy. Even more importantly, it can be locally extracted. But it is also an ideal material for owner builders and unskilled labour. "The simple spans of around 3/4 m could be learned by ordinary people and, of course, larger spans can be built by master masons" (Khalili). The idea of creating workshops where loca people from Talian could be taught how to make mudbricks and build with them sounds feasible, according to the analysis of project undertaken by architects such as Fathy and Khalili.

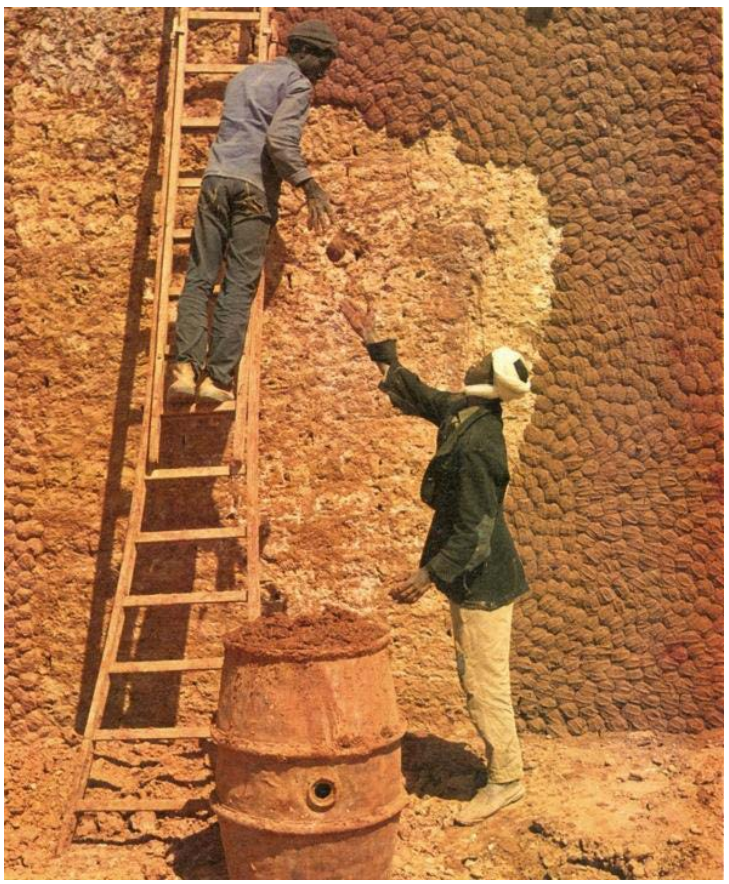
On the other side, earth construction also presents many problems. it is wuite hard for a dense project to make it sound structurally, unless there are massive walls (in the case of adobe bricks) or high quality machinery in the case of rammed earth, for instance.





Picture by Author



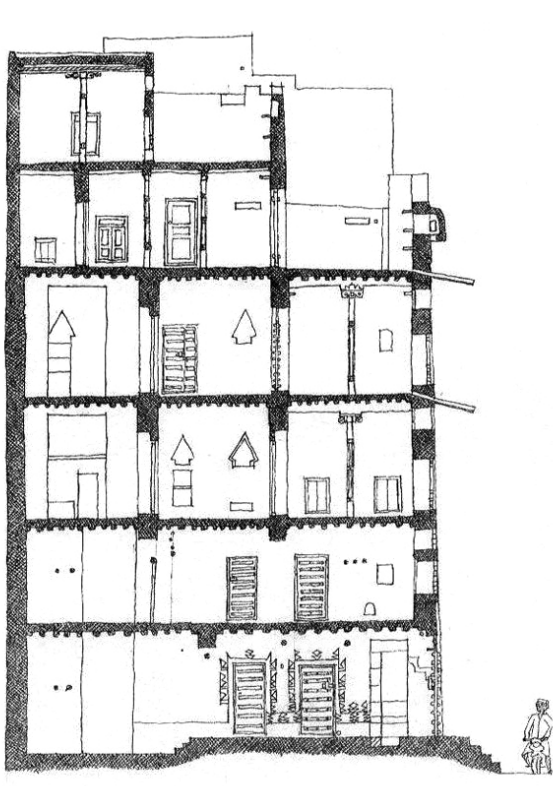


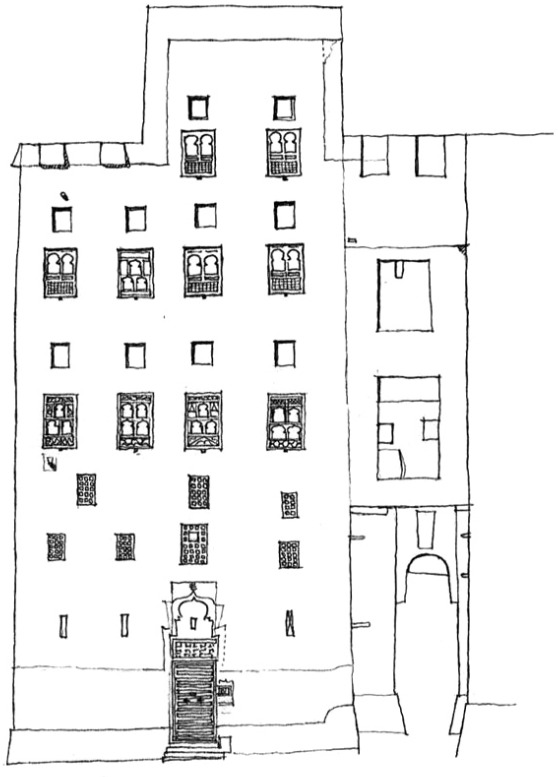




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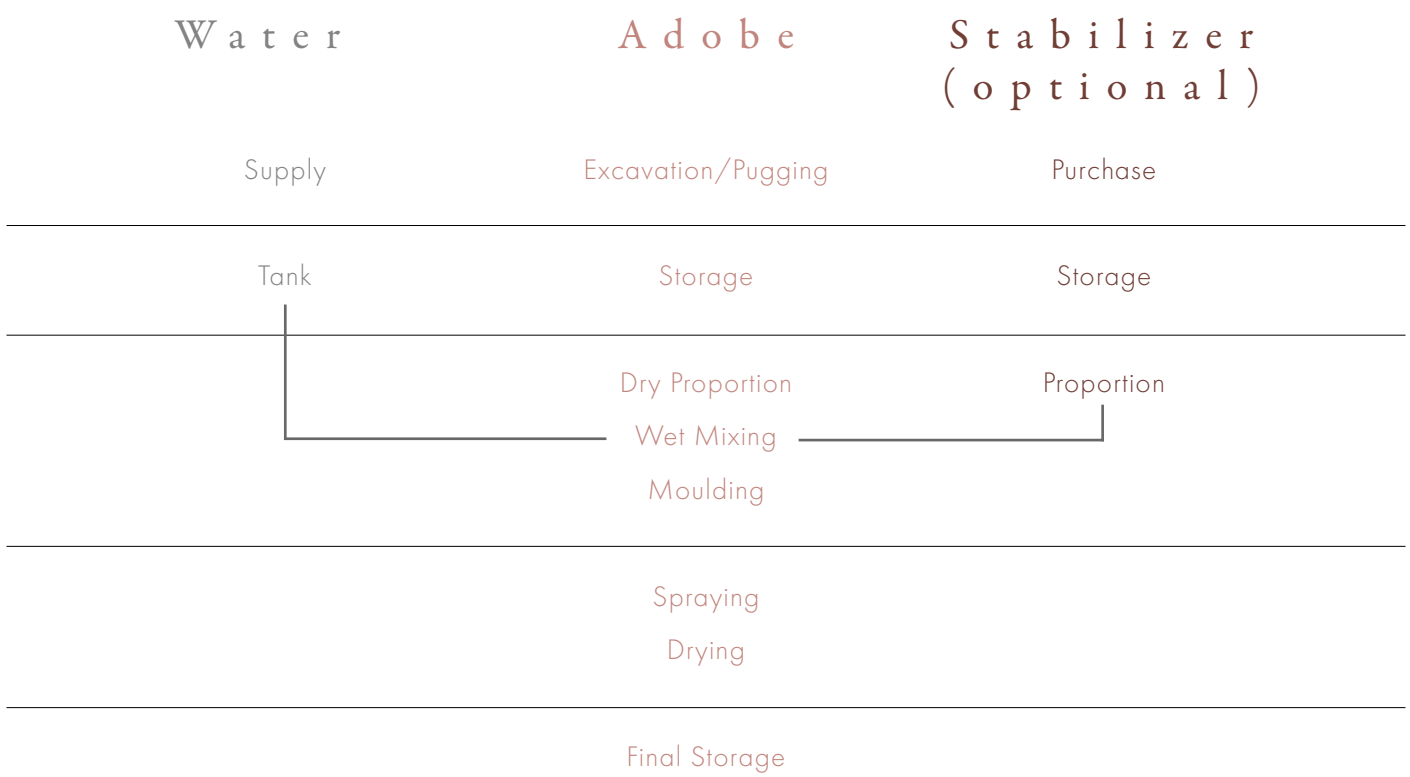





David Shepherd

ADOBE BRICKS PRODUCTION

Mud-bricks (or Adobe) or are one of the simplest building materials that can be used for a project. They have been widely used historically world-wide. In contrast to both Rammed Earth and Compressed blocks. mud-bricks are malleable but way more fragile. In addition, they need a very extensive production area, since they have to be dried individually. An advantage of using them is that they can be shaped in any form. they only have one fundamental limitation: unless it is done mechanically, they require pleasant weather to dry. If produced



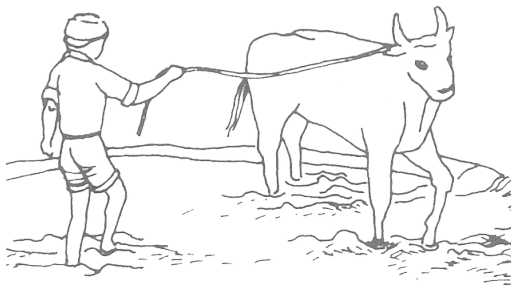
Pugging

Before excavating the earth, a long pugging operation has to be undertaken. Animals can be used, such as donkeys, cows, and horses. Otherwise, these

Mechanical

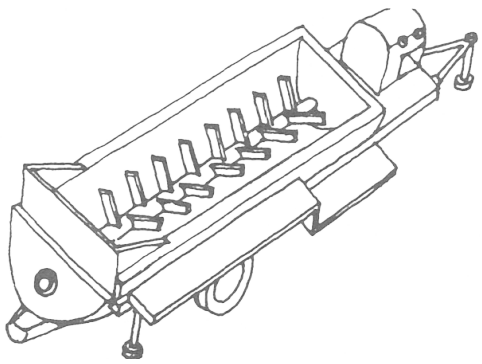


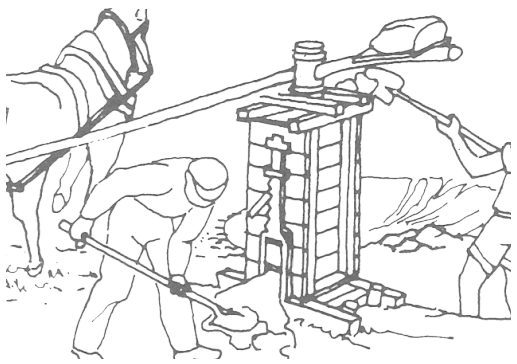
Manual



Mixing

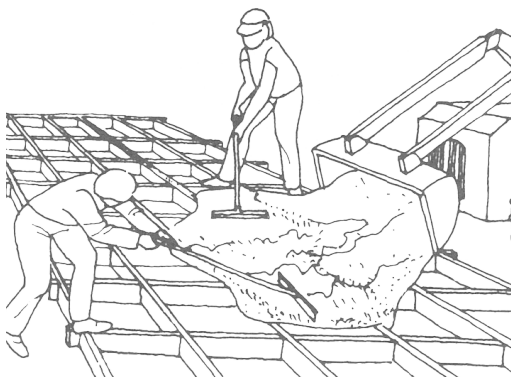
The type of mixer required to produce mud-bricks varies according to the budget of construction. There are rendering, linear, concrete, screw and planet wheel

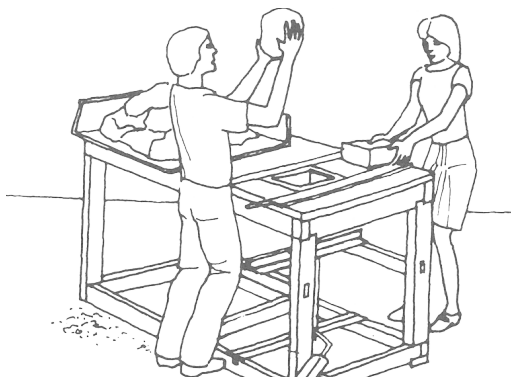




Moulding

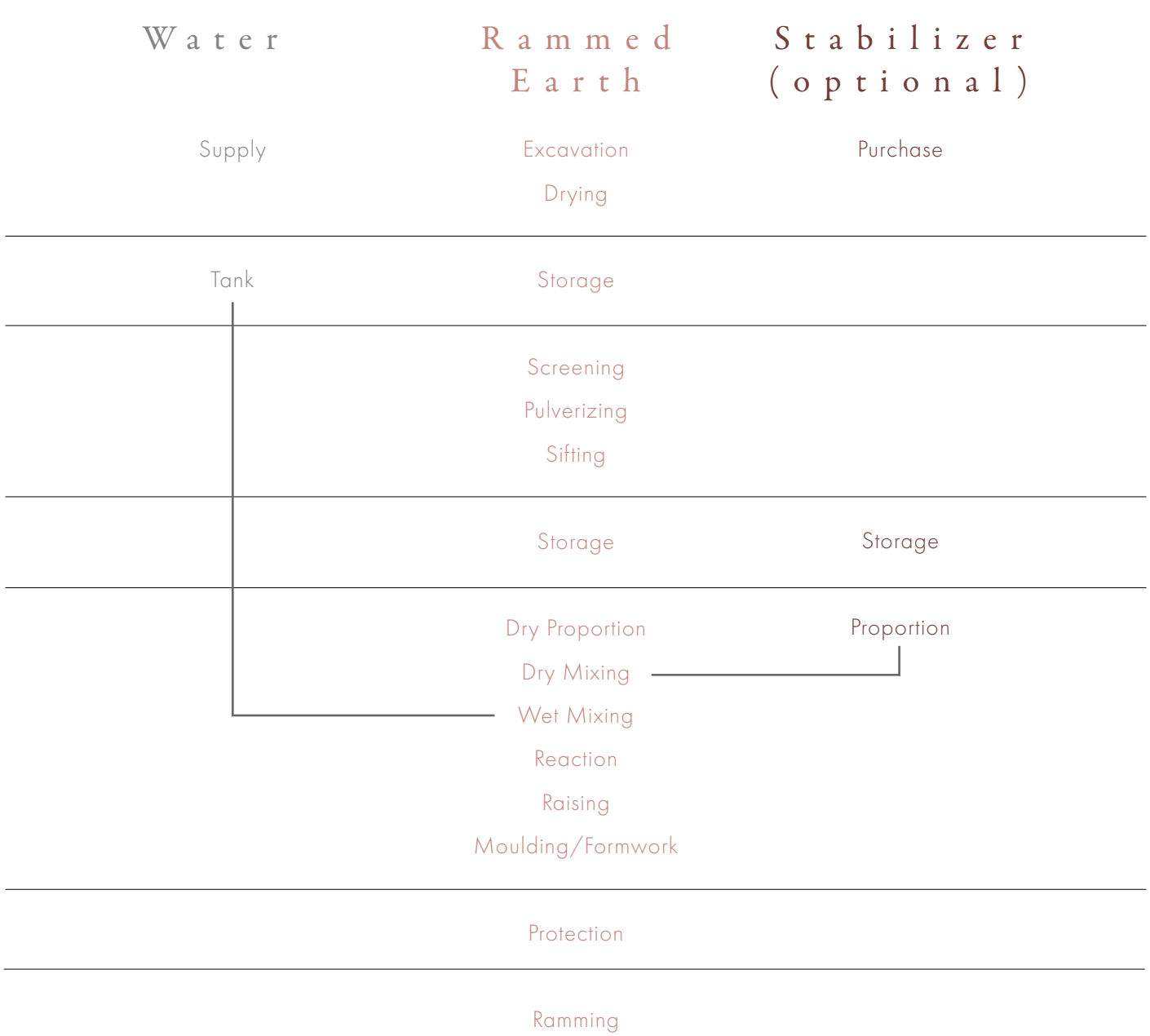
Safety is a fundamental problem in the phase of setting up formwork. The use and cost of formwork material can change according to the strategies





RAMMED EARTH PRODUCTION

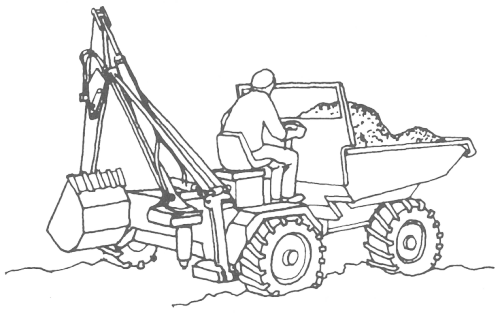
Before beginning to analyze the production processes of Rammed Earth there are two notes to bear in mind:
1. Usually whoever produces rammed earth is the same that builds.
2. Stabilization creates some problems and has to be done with a high degree of organization of a professional crew.
Below, I have summarized the steps for the production of this material. On the opposite page, there is a thorough explenation of the most



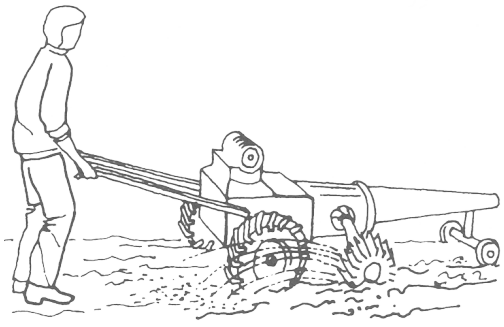
Excavation

The first phase of the production process, which includes excavation, screening and drying, can either be done manually or mechanically. This will create substantial change in the budget of the project.

Mechanical

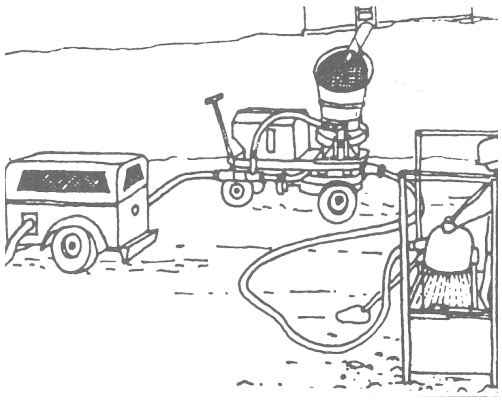


Manual



Transport

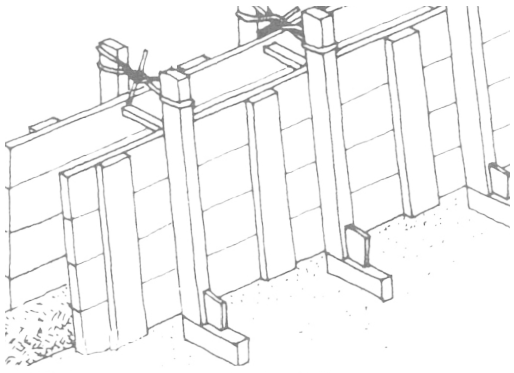
In this phase, the use of appropriate machinery is necessary and fundamental. One of the major problems to be faced is the transport of the pulverized material (if it is not already processed on site).

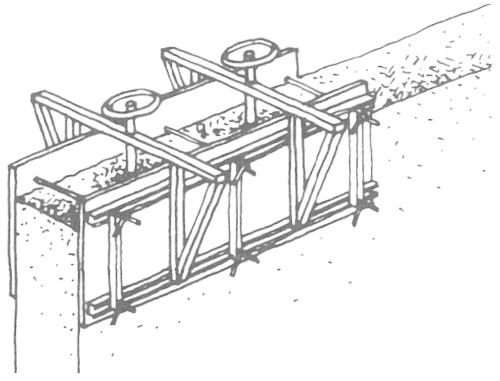




Formwork

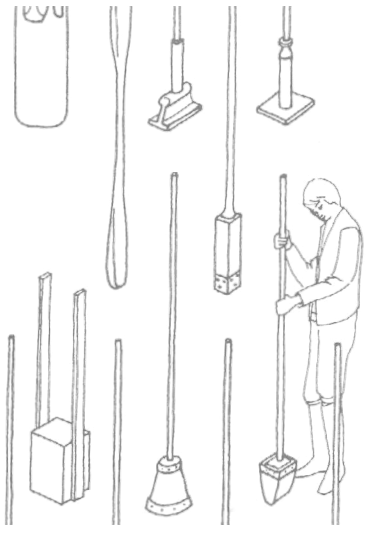
Safety is a fundamental problem in the phase of setting up formwork. The use and cost of formwork material can change according to the strategies used. For example, does the formwork have to be static?

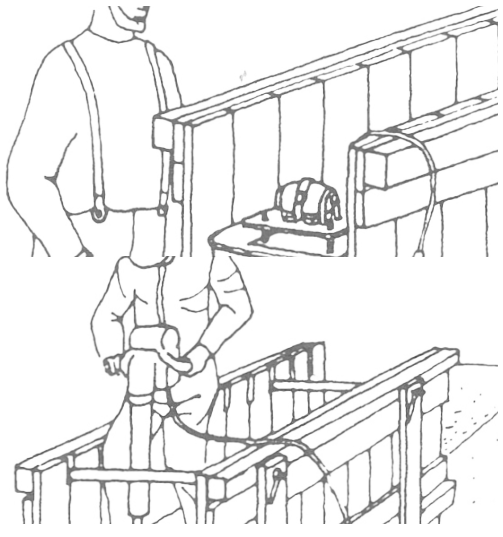




Ramming

The diversity in design of the tools that can be used for ramming is great. Ramming is a slow and tedious task, and can be done both with wooden or steel manual rammers. The recommended weight of a manual rammer goes between 5 and 9 kg. Otherwise, the cost of a mechanical ramming machine varies on average from $1500 to $3500. There are mainly two types of mechanical rammers, pneumatic or vibration. Pneumatic rammers imititate manual ones but with much higher frequency. The quality of earth they create is excellent. Vibration rammers, on the other hand, require





CEB PRODUCTION

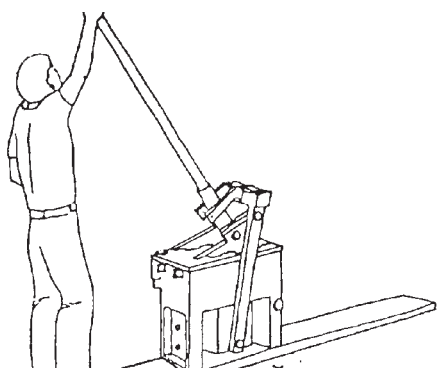
The table below applies to artisanal brickyards with a daily capacity of 10 tonnes of blocks and approximately 25 workers, for the production of 300 units. The amount of blocks that can be produced every day, however, strictly depends on such conditions. In fact, a proper plant can produce up to 60,000 u/d. There are virtually infinite types of compressed blocks: solid, hollow, interlocking, anti-seismic, customized, eperforated etc. An advantage of these blocks

Water	Block	Stabilizer (optional)
Supply	Pounding/Excavation	Purchase
	Drying	
Tank	Storage	
	Pulverizing	
	Sifting	
	Storage	Storage
	Dry Proportion	Proportion
	Dry Mixing	
	Wet Mixing	
	Reaction	
	Trituration	
	Moulding	
	Curing	
	Spraying	

TYPES OF MECHANICAL PRESSES

Cinva Ram

The advantage of Cinva-Ram type presses are that they are light, sturdy, low cost, and simple to manufacture and repair. Their main disadvantages are that they

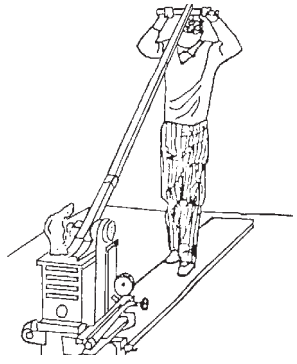


Output

The average output of a Cinva-Ram or similar press is 300 blocks/day, though this can be increased to 1200

Brepak

The Brepak is a small press which is considerably more productive than the Cinva-Ram. Pressures of up to 10MN/m2 can be achieved by replacing the swivel and rod system of the Cinva-Ram with a hydraulic piston. The resulting blocks have identical dimensions to

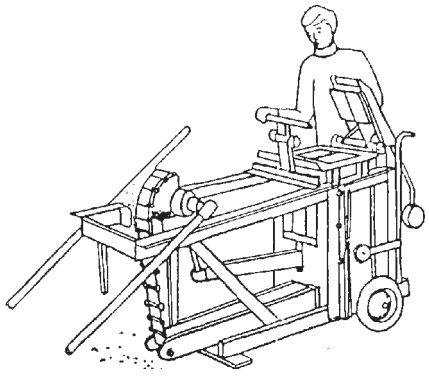


Output

Similar to Cinva Ram

Terstaram

These presses are sturdy and do not wear out easily. They can produce pressures greater than the minimum threshold of 2MN/m2. They are easy to use and maintain



Output

This press produces 90 bricks per hour per cycle and requires 5-7 men to complete the process of

ADOBE BRICKS

ADVANTAGES

- High thermal mass is very energy-efficient in both summer and winter
- Environmentally friendly: Low carbon footprint and embodied energy
- Local material
- Ideal material for owner builders and unskilled labour. "The simple spans of around 3/4 m could be learned by ordinary people and, of course, larger spans can be built by master masons" (Khalili).
- Relatively inexpensive for a long lasting building. "It is of great value to almost all Third World countries, because of the availability of cheap and relatively unskilled labour. But this applies only if the whole process is done by hand and with traditional methods" (Khalili).
- Lends itself to creative and free-form walls
- Rondavel (round) type Adobe buildings are capable of withstanding seismic activity
- Fireproof
- Excellent sound insulation
- Can easily be built up to 3/4 stories without ring beams
- Straw can reinforce it and help with insulation and repelling water
- Can be recycled
- Short construction time
- No imported material required
- No long-distance transport needed

- Simpler production method than any other material

DISADVANTAGES

- Fairly labour intensive
- Adobe cannot be laid during very wet or freezing weather
- Insects, notably termites and small rodents can burrow into the

RAMMED EARTH

ADVANTAGES

- Low carbon footprint and embodied energy
- The thermal mass is ideal for passive solar heating and cooling
- Rammed earth walls are extremely strong
- Excellent sound insulation
- Fire proof
- Insects and rodents are not a problem
- Does not need to be plastered
- Can withstand seismic activity providing it has a concrete ring beam
- "Promising for industrial countries, where labour is expensive and equipment relatively inexpensive" (Khalili)
- No imported material required
- No long-distance transport needed (if the soil is extracted on-site or close by)

DISADVANTAGES

- Rammed earth walls are very labour intensive.
- Building the walls is a slow and precise process.
- The formwork adds considerable

COMPRESSED EARTH BLOCKS

ADVANTAGES

• High thermal mass is very energy-efficient in both summer and winter, and ideal for passive solar heating and cooling. Indoor temperatures vary only about 5 degrees between summer and winter (17-22 degrees), making it naturally cool in summer and warm in winter.
• Environmentally friendly: Low carbon footprint and embodied energy
• Local material
• Ideal material for owner builders and unskilled labour. "The simple spans of around 3/4 m could be learned by ordinary people and, of course, larger spans can be built by master masons" (Khalili).
• Relatively inexpensive for a long lasting building. "It is of great value to almost all Third World countries, because of the availability of cheap and relatively unskilled labour. But this applies only if the whole process is done by hand and with traditional methods" (Khalili).
• Lends itself to creative and free-form walls
• Fireproof
• Excellent sound insulation
• Can easily be built up to 6/7 stories
• Can be pre-fabricated
• Reduced sensitivity to water
• Absoprtion of higher compression strenght then adobe bricks
• No imported material required
• No long-distance transport needed

DISADVANTAGES

• Fairly labour intensive
• Required skilled labour
• Heavier blocks than adobe, but this could be solved by designing

CONCLUSION

Due to the analysis mentioned above, the decision of verging towards Compressed Earth Blocks came naturally. They have all of the advantages of adobe bricks, but are more resistant (especially if stabilized with cement) and can allow for higher constructions. The

CEB PROPERTIES

According to Doctor E.A. Adam in "Compressed Stabilised Earth Block Manufacture in Sudan", to extend the use of compressed stablised earth building blocks to all types of housing, production techniques need to be further improved so as to achieve better quality and reduce production costs. This can be achieved by considering:

- optimal proportions between soil and stabiliser
- produce blocks that are

	Fired bricks	Stabilized CEBs	Concrete blocks
Wet Compressive strenght (MN/sqm)	5-60	1-40	7-50
Moisture Movement (%)	0.00-0.02	0.02-0.2	0.02-0.05
Density (kg/ cubic m)	1400-2400	1700-2200	1700-2200
Thermal Conductivity (W/mC)	0.70-1.30	0.81-1.04	1.00-1.70
Durability against rain	excellent to very poor	good to very poor	good to poor

CEB MANUFACTURE

Doctor E.A. Adam continues by asserting that "the potential scale for compressed stabilised earth block production depends on the degree of mechanisation of the manufacturing process used. Manually operated equipment may produce a few hundred units a day,

Type of production	CEBs/ day	Time
MANUAL	up to 400	1 week
MECHANICAL	400 to 4000	1 day to 1 week

STABILIZATION

The behaviour of CEBs change depending on the properties of the soil they are made with. The lack of such knowledge for this graduation project means that there is a need to account for stabilization in order to make the proposal of such material feasible. In fact, stabilizing the blocks with 5% cement will achieve the following goals:

- strength and cohesion of the soil will increase and permeability of the soil will be reduced
- the soil will be made water repellent
- the durability of the soil will increase

CREATION OF EMPLOYMENT OPPORTUNITIES

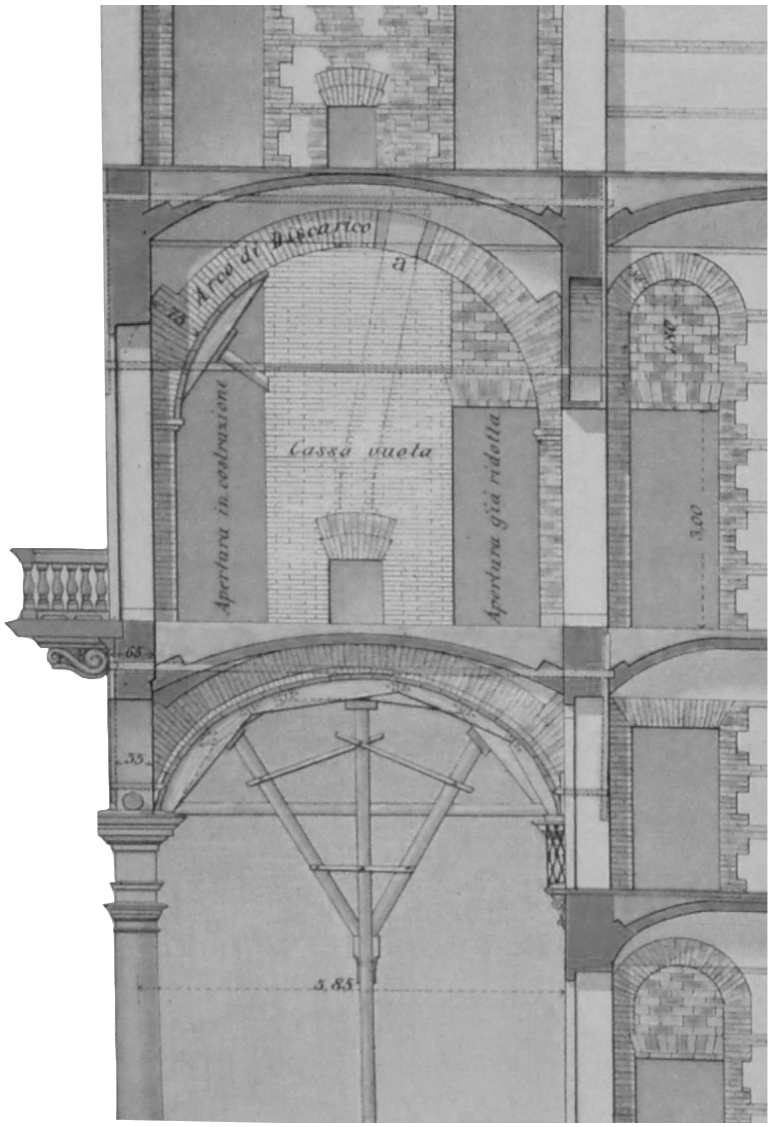
"The creation of productive employment is one of the most important aims of national development plans in developing countries. Hence, technologies which need more labour per unit of output than other technologies are preferable, providing that labour is used in an efficient and economical way. Experience has shown that in general, the small scale production of compressed stabilised earth blocks is much more labour intensive than that of other similar building materials such as fired clay bricks or concrete blocks (...) **Thus, the manufacture of compressed stablised earth blocks could create a great deal of both direct and indirect employment, more so than for other building materials.**

The Al Haj Yousif experimental prototype school, constructed in compressed stabilised earth blocks, was found to be very cost effective by Sudanese standards. **The total savings made, in cost per square metre, were approximately 40%.** Similar findings were also reported in Kenya where the average unit cost of compressed stabilised earth blocks is approximately 20% to 70% that of concrete blocks, depending on the method of production

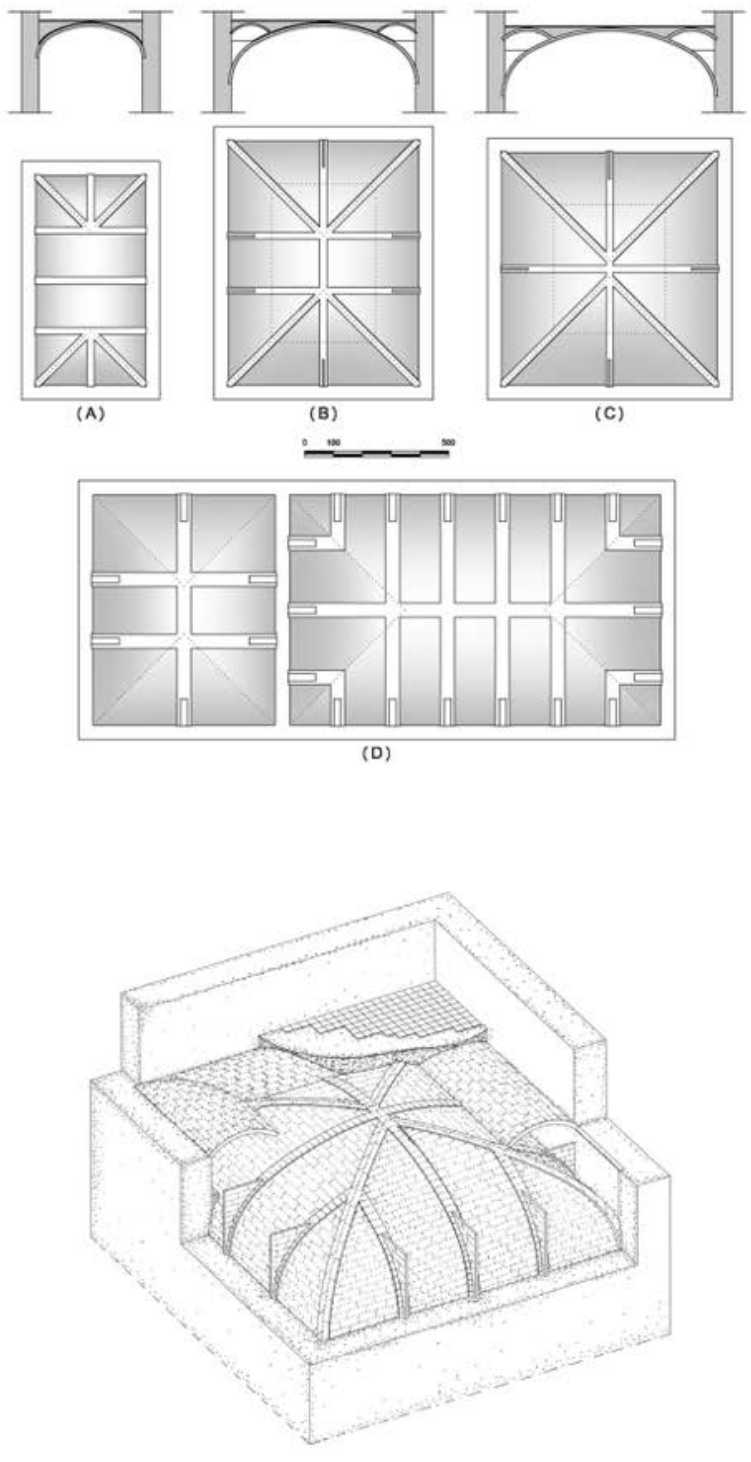
Labor	Number	Expertise
MASON	2	Highly Skilled
WORKMAN	2	Skilled - Unskilled
HELPER	2	Unskilled
TRAINEE	1	Unskilled

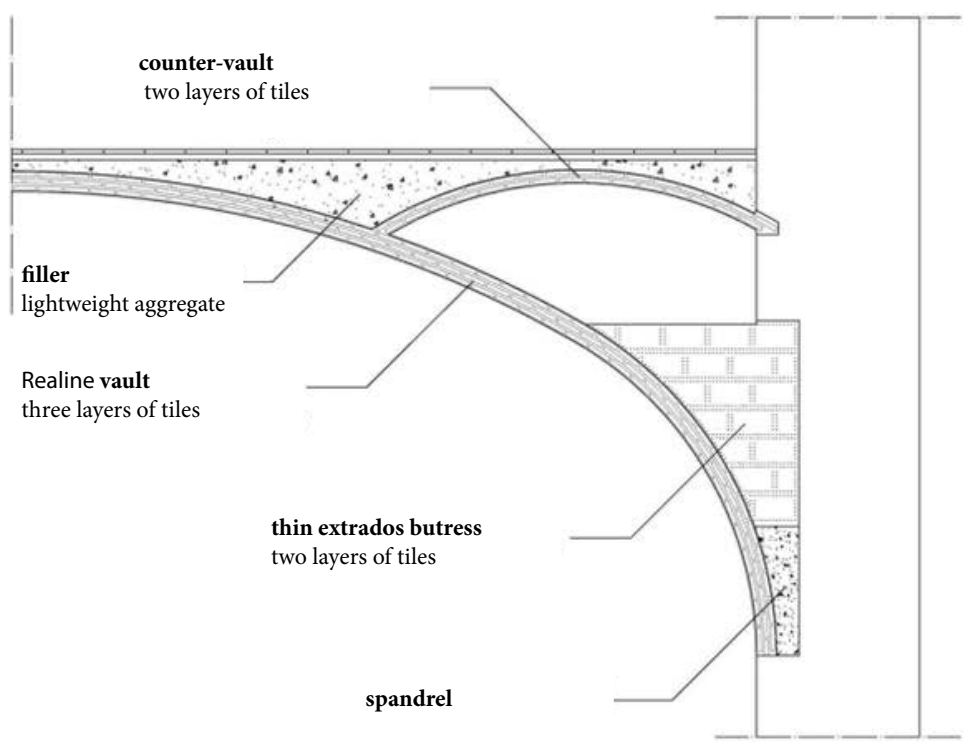


HOW DO VAULTS WORK?



Drawing by Musso and Copperi


(A)
(B)
(C)
0
500
(D)



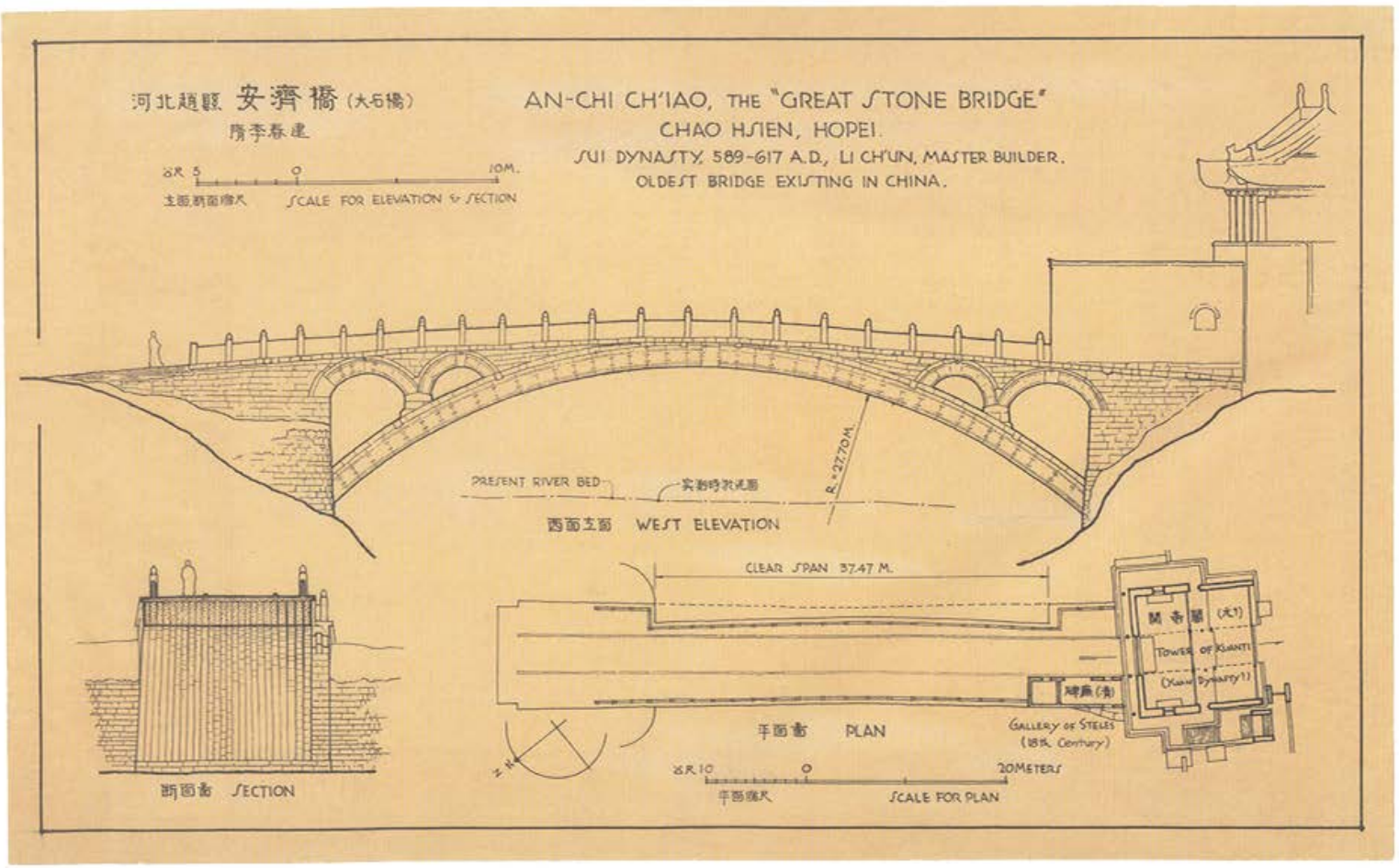




Villa of Prince Villarosa in Bagheria, Palermo, 1790 ca., architect Marvuglia. On the left: The void under a counter-vault and a thin butress. On the right: Exposed tile vault during restoration, diagonal strips, weight-reducing counter-vaults and thin buttresses.

Drawings and photographs by Giovanni fatta et al.


Verona - Ponte della Pietra


河北趙縣 安濟橋 (大石橋)
隋李春建
AN-CHI CH'IAO, THE "GREAT STONE BRIDGE"
CHAO HSIEN, HOPEI.
SUI DYNASTY, 589-617 A.D., LI CH'UN, MASTER BUILDER.
OLDEST BRIDGE EXISTING IN CHINA.
0R 5 0 10M.
主拱斜面標尺 SCALE FOR ELEVATION & SECTION
PRESENT RIVER BED
實測時水面
R=27.70M.
西面立面 WEST ELEVATION
CLEAR SPAN 37.47 M.
斷面圖 SECTION
平面圖 PLAN
Gallery of Steles (18th. Century)
0R 10 0 20METERS
平面標尺 SCALE FOR PLAN

THE VIKAS SETTLEMENT

A precedent built with CEBs



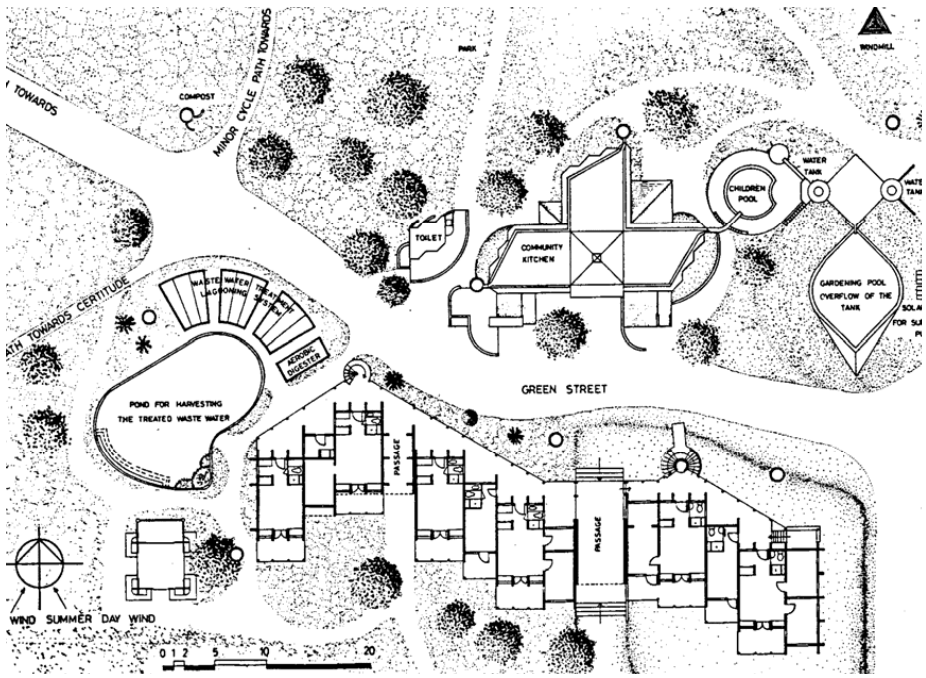
WHAT DOES SUSTAINABLE MEAN?

The Vikas Settlement is a project by Satprem Maïni in Auroville, South India.

The idea behind it is to create a collective sustainable project for a community of an initial count of 500 people. The number was not limited by a pre-established budget or strict building restrictions, but merely for social reasons: according to the commissioners, 'it seemed to be the maximum number that could allow a more complete and fraternal life and exchange to happen". The aim was to create housing for all members of the Vikas community and a series of shared facilities (such as a kindergarten, a school, a library, a laundry, a multi-purpose hall etc.) in an appropriately eco-friendly and resilient way.

This means that the building materials constitute maybe the most important aspect of the project, as they have been carefully selected with the aim of being both sustainable from an environmental point of view, as well as being functional, efficient and long-lasting.

The project was undertaken in three distinct phases: the first in 1992 with four apartment blocks and a collective kitchen built within a year from the beginning of construction, the second in 1996 with the construction of 6 apartment blocks also finished within a year of construction, and the third which started in 1997 and ended in 1999 with 13 apartment blocks and a



Layout for the First Phase, 1448 sqm carpet area for 50 dwellers + collective kitchen to the top right



Pictures and drawings by Satprem Maini

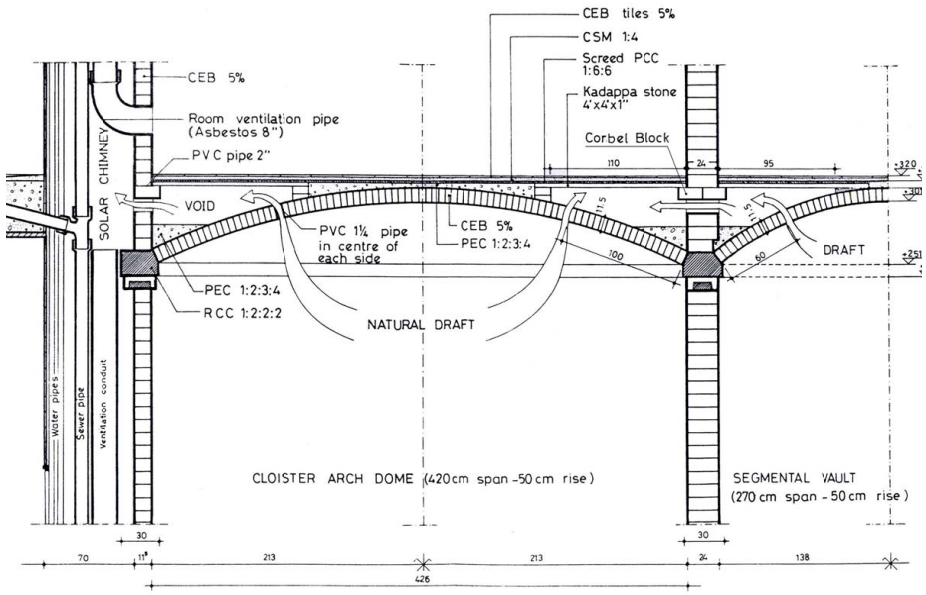
COMBINING BUILDING MATERIALS

As mentioned earlier, if a building does not last long enough, or if it does not match the aspirations and needs of its dwellers, even if it is made of fully recyclable and locally extracted materials, it cannot be defined as sustainable.

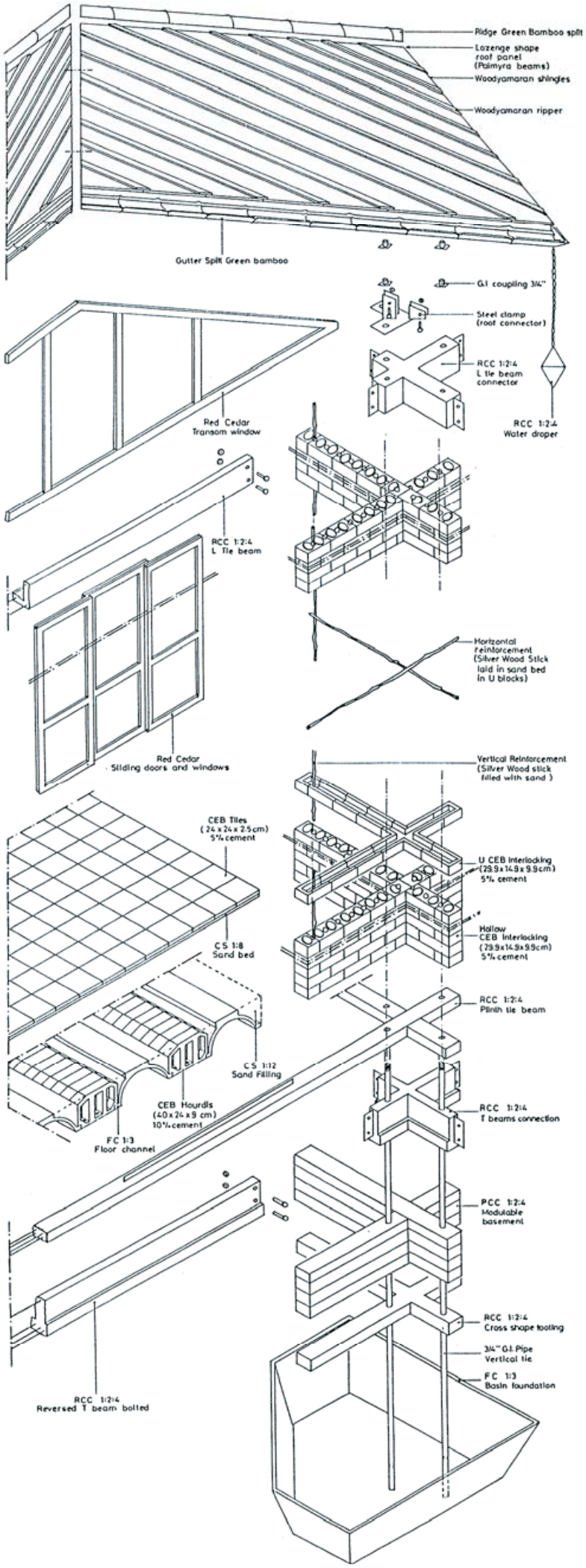
This is the reason why we here witness the combination of Earth and Ferro-cement.

The Earth-based category of materials comprises of: CEB with 5% cement (which greatly reduces CO2 emissions and consumes up to 15% less energy than fired bricks), stabilized rammed earth for foundations with 5% cement, and paints and plasters made of stabilized earth. In conjunction with the latter, the ferro-cement components are: 25mm channels for some floors and roofs, 12mm lost shuttering for the few reinforced concrete components, and waterproof plasters for the water tank.

It is extremely important to mention that all of the listed elements are designed to be easily produced by semi-skilled labor, in light of a training workshop (you can observe excerpts of the building process in the pictures to the right).



Construction detail of a CEB vault with ferro-cement supporting beam for a span of 426 cm



Pictures and drawings by Satprem Maini





Pictures and drawings by Satprem Maini

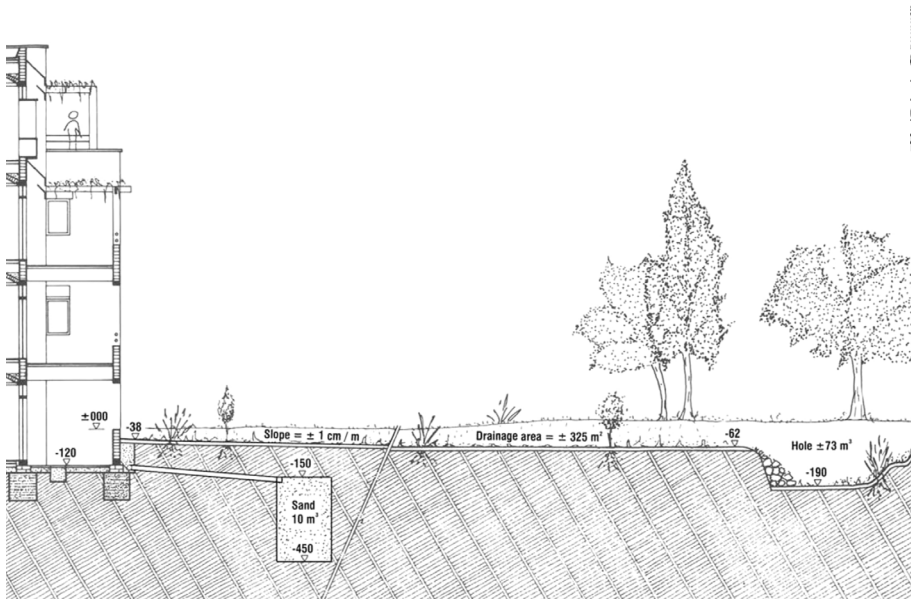
ENERGY-RELATED DESIGN DECISIONS

The energy-related principles that guided this project focused on three main ideas:

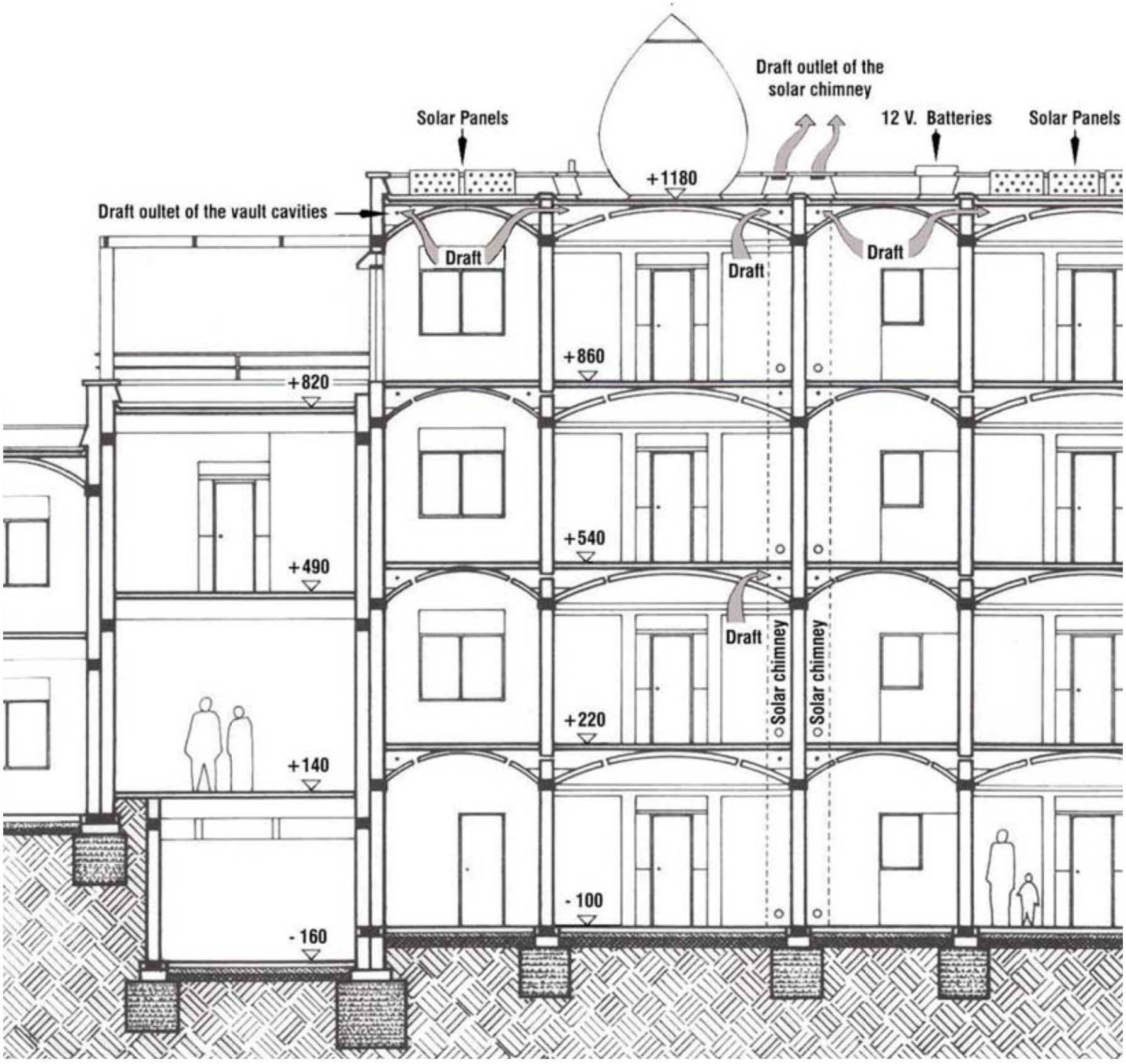
1. renewable energy sources
This means the implementation of PV panels, a solar water heater, and solar pumps. However, prior to that it is fundamental to take advantage of passive design strategies such as: proper building orientation, sun shading devices, cross-ventilation, a solar chimney, and thermal mass by the use of CEBs. One of the results of such environmental decisions was, for example, the much-desired complete lack of fans and air conditioners.

2. a method of rainwater harvesting and management
This has been done through landscaping the site in such a way that there is zero run off in Monsoon season, and by the creation of reservoirs and a biological wastewater treatment. The latter is a process through which dirty water is recycled in 8 days and is available for watering plants.

3. a thorough calculation of how much soil was needed in order to produce all of the earth building components
In fact, while for the first two phases the extracted water for the creation of the pond and garden tank were enough, this was not the case for the third and last batch of



To the left: Landscape section for the design of a water recyling system
To the right: Detailed section showing the underground basement level and the water tank reservoir



Pictures and drawings by Satprem Maini

SETTING UP A WORKSHOP

The point behind building with compressed earth blocks, other than all of the already mentioned advantages, is that it is a very easy material with which regular people can learn to build. However, understanding how to teach unskilled locals a construction technicque means organizing a series of workshops before starting to build the project. In order to understand how to do so, I have



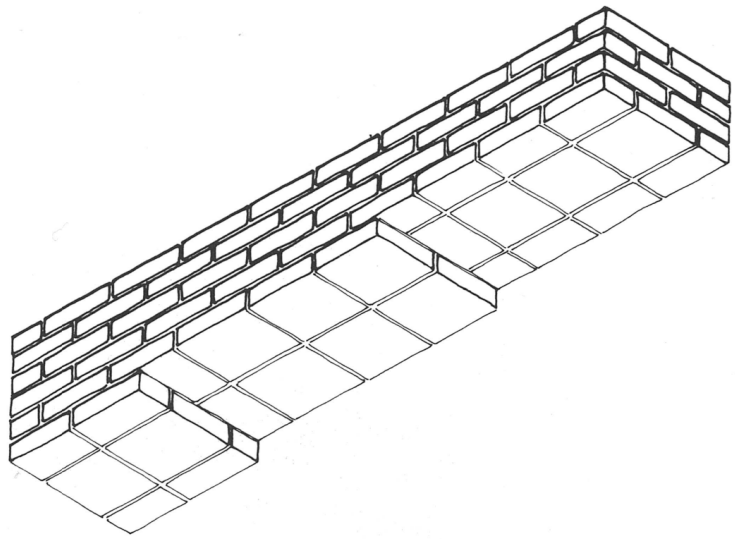


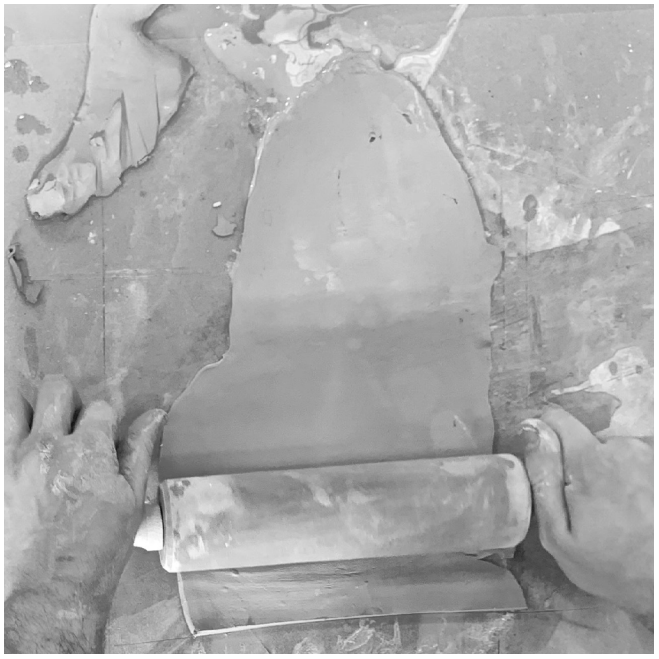
Picture by Author





Pictures by Nader Khalili

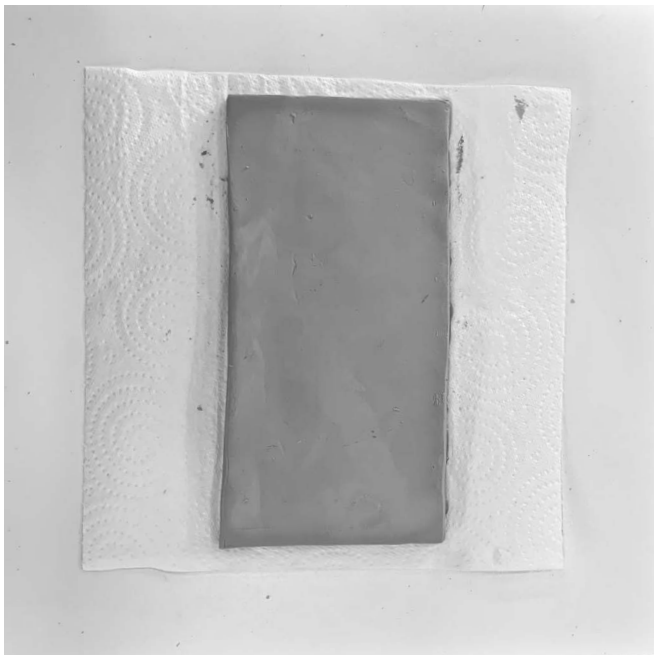


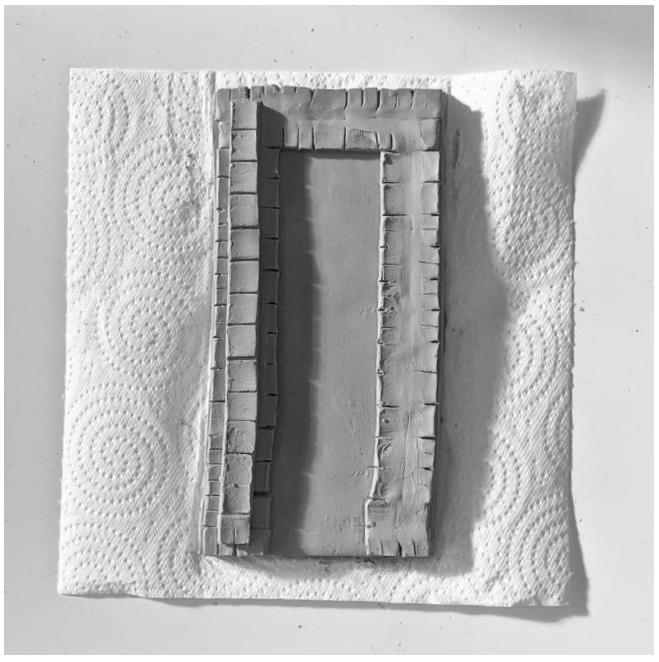




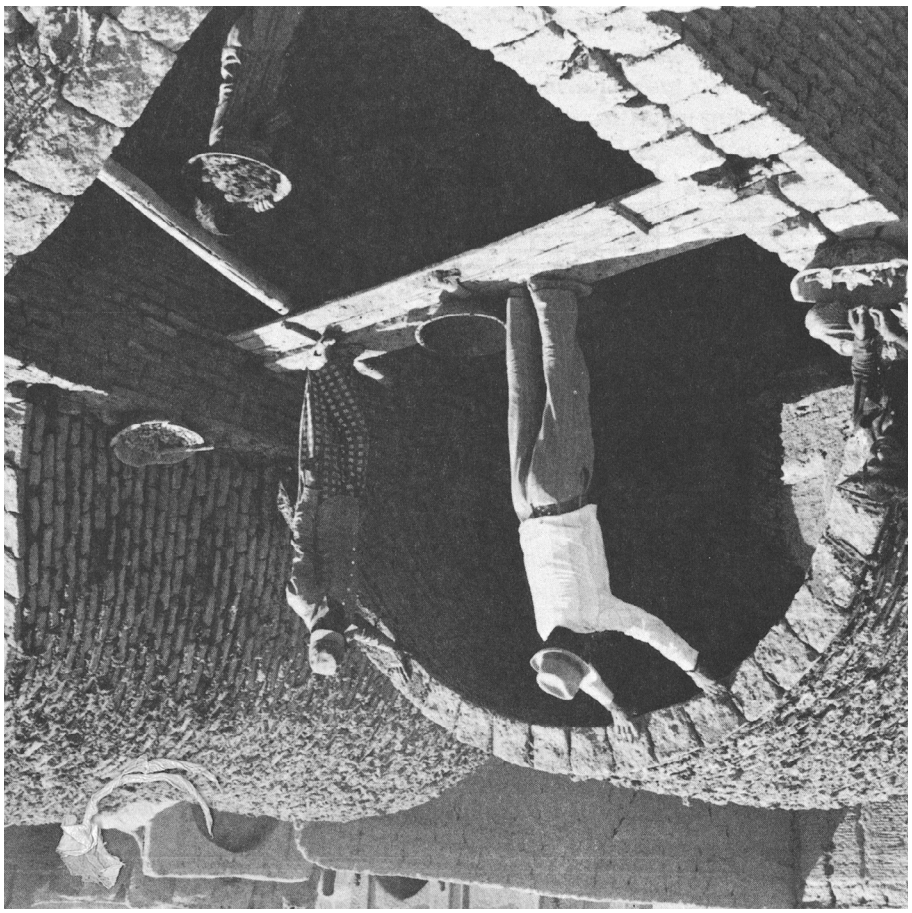


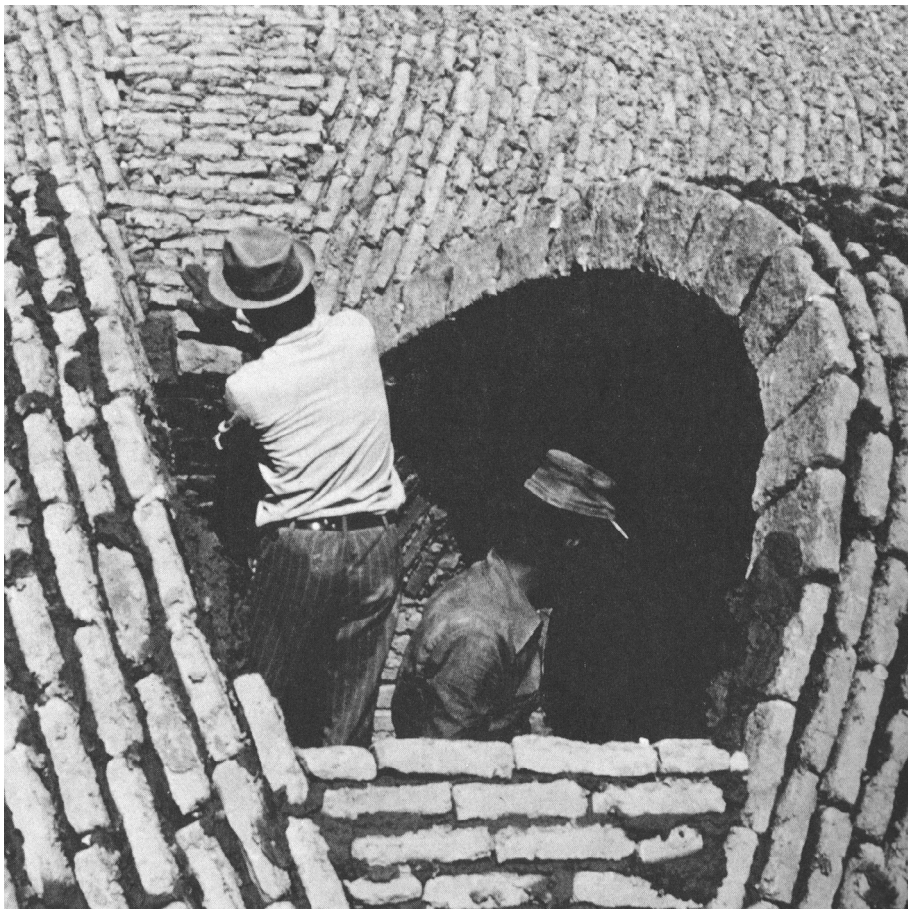




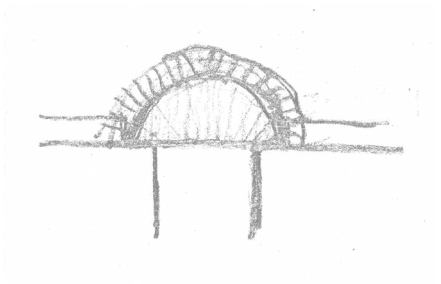


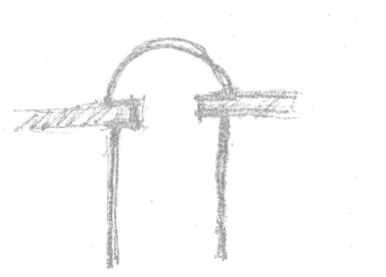
Pictures by Author

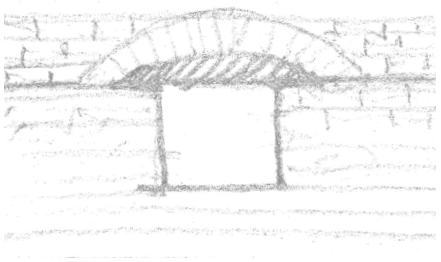


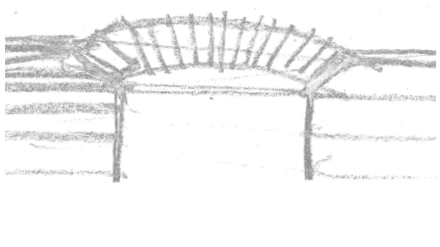


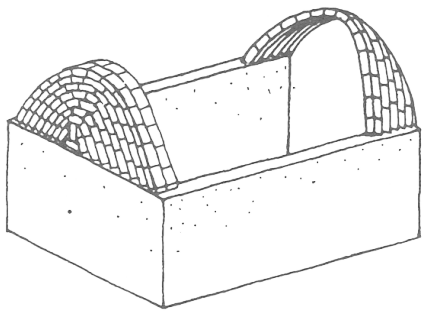
Pictures by Nader Khalili

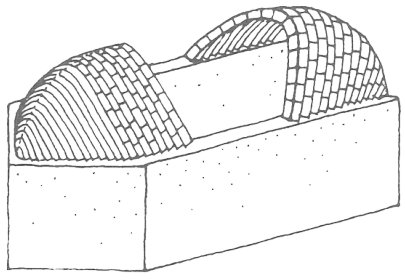


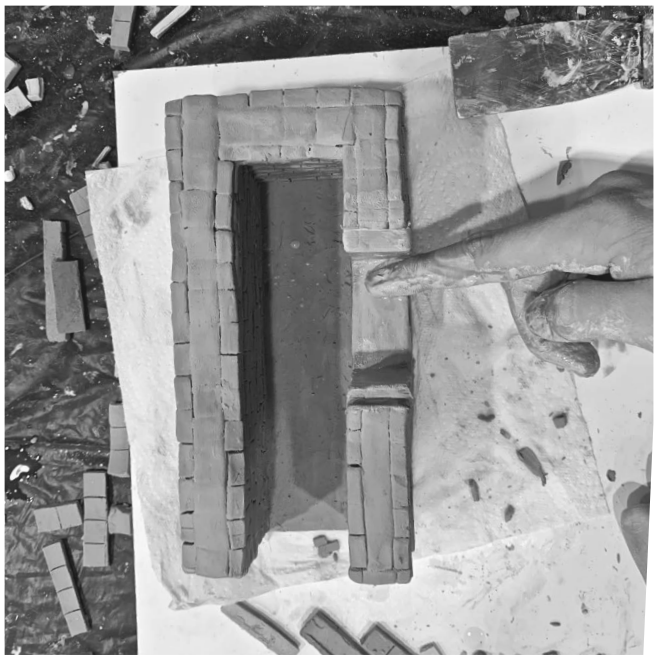


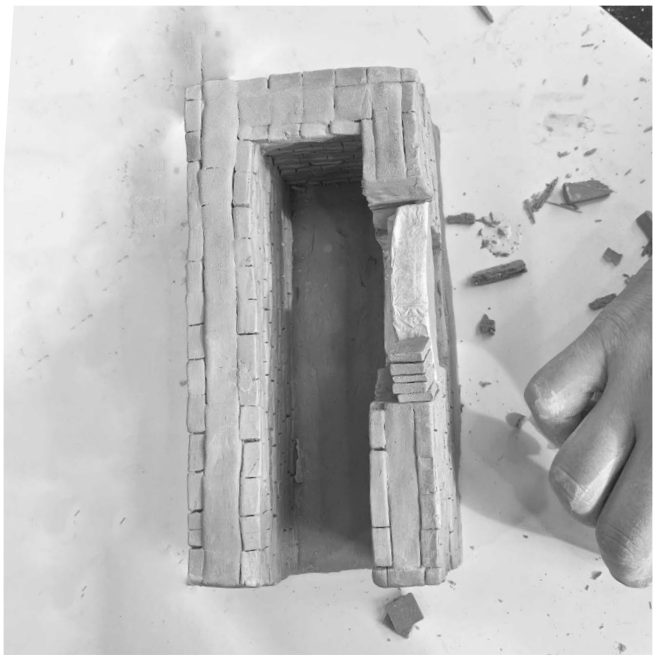






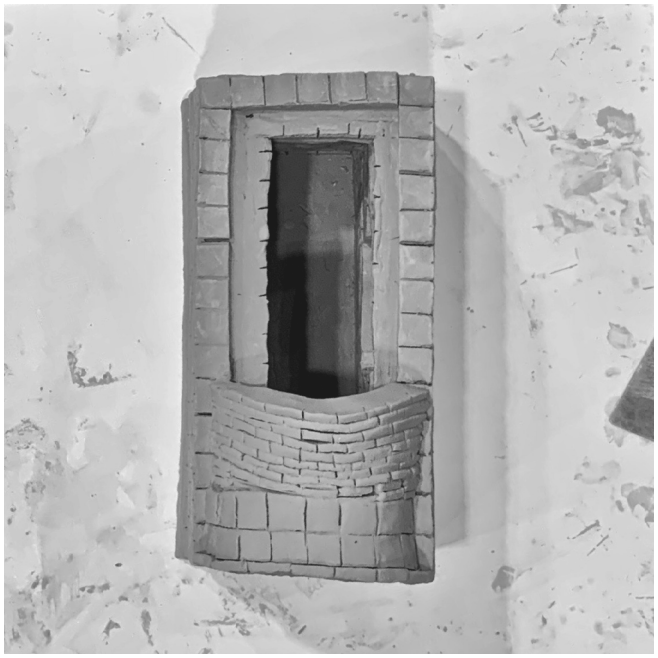












Pictures by Author

TIMBER


Cliché Vérascope Richard ABYSSINIE - Avenue d'Eucalyptus (Consulat de France, Addis-Abbaba)



PROTECTING EARTH WITH WOOD

Eucalyptus represents one of the greatest sources for timber production in East Africa. Ethiopia is one of the pioneer countries that introduced Eucalyptus in Africa for socio-economic reasons. Indeed, the fast-growth and adaptability of the species represented a significant potential for fuelwood, construction material, etc... Even though this tree proved to be a great resource for the fast urbanization of Ethiopia and has improved people's living conditions, Eucalyptus forests raised questions regarding their effects on the environment. The main arguments against regard:

1. drainage of water resources
2. erosion of soil
3. depletion of soil nutrients
4. allopathic effects
5. inhibition of undergrowth vegetation

Even if these concerns are valid and the effect of the species on the environment needs to be seriously considered, there is "no reason for banning eucalyptus all together" (FAO 2011). It seems that many of these detrimental effects can be minimized and the benefits optimized with careful silvicultural practices. Indeed, it has been indicated that most of these concerns are related to poor managerial decisions and uncontrolled plantation of the species. However, the country is experiencing a "huge deficit (84,2 million m3) between the supply (about 10.6 million m3) and demand for wood (94,8 million m3)" (EFAP 1994). On the one hand, to satisfy this need the country has been importing large quantities of material. On the other hand, according to different scholars, there are numerous plantations and potential species whose industrial and commercial benefits are not yet fully realized (Demel Teketeye et al., 2010).

ADVANTAGES

- high quality timber

Several Eucalyptus species are indicated as suitable material for light and heavy construction, representing a great potential as a substitute for endangered species in Ethiopia.

- decreasement of deforestation

By being a fast-growing species, Eucalyptus provides an alternative local source to meet domestic and international demand.
improvement of rural economies

- Diversification of local communities income, increasing farming system productivity and self-sufficiency.
- resiliency

It requires minimum care.

DISADVANTAGES

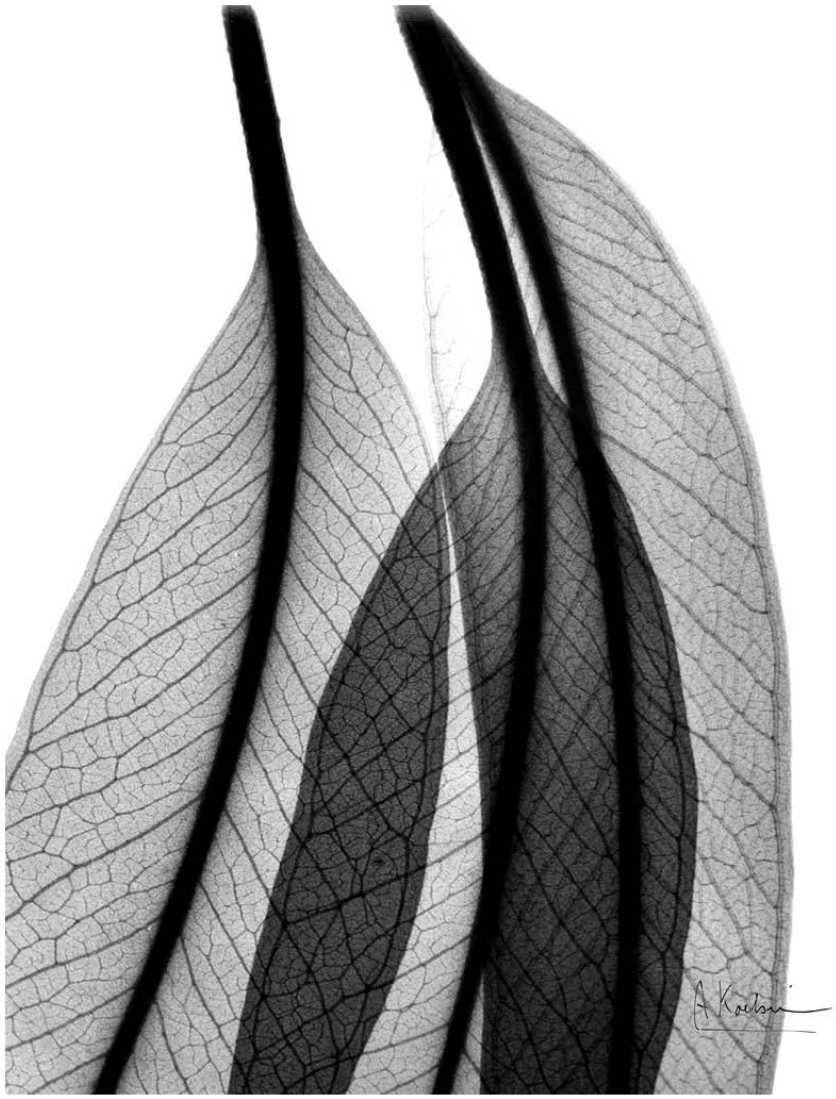
- aggressive water consumption

There is no doubt about the large use of water and nutrients in Eucalyptus plantations, however, this is not only due to the aggressivity of the genus as much as with poor silvicultural practices.
land degradation and soil erosion
Eucalyptus trees deplete soil nutrients needed by agricultural crops, but depletion can be controlled by forest management techniques, including fertilization and regulated harvesting.
inhibiting undergrowth vegetation
Eucalyptus leaves have been reported to contain chemicals that inhibit the germination or growth of other plant species. In dry regions, the impact might be severe.

- threat for biodiversity

Studies indicate that single species Eucalyptus plantations have the potential to alter biodiversity. Nevertheless, it has been observed how intercropping it with other species might avoid the risk.

- land degradation and soil erosion
- inhibiting undergrowth vegetation
- fire -safety



https://commons.



floristic regions

Ar: Arsi region; ba: Bale region; gg: Gamo Gofa region; Gj: Gojam region; Gd: Gonder region; Ha: Harerge region; il Ilubabior region; Kf: Kefa region; Su: Shewa region; sd Sidamo region; Tu Tigray region; WG Welega region; WU Welo region.

SUITABLE SPECIES FOR HEAVY CONSTRUCTION

Timber species	Distribution	Mechanical properties		
		modulus of elasticity	*compression*	*bending strenght*
Eucalyptus camaldulensis	GD HA KF SU TU (large-scale plantations)	*14177 N/mm²*	*71 N/mm²*	*131 N/mm²*
Eucalyptus fastigata	AR (trial plots)	*9872 N/mm²*	*53 N/mm²*	*102 N/mm²*
Eucalyptus globulus	(large-scale plantations)	*11655 N/mm²*	*52 N/mm²*	*124 N/mm²*
Eucalyptus grandis	AR HA KF SU (large scale plantations)	*10308 N/mm²*	*45 N/mm²*	*92 N/mm²*
Eucalyptus microcorys	AR, HA, SU (trial plots)	*17715 N/mm²*	*76 N/mm²*	*129 N/mm²*
Eucalyptus paniculata	AR, HA (trial plots)	*15453 N/mm²*	*55 N/mm²*	*147 N/mm²*
Eucalyptus regnans	AR KF SU (large-scale plantations)	*14254 N/mm²*	*51 N/mm²*	*88 N/mm²*
Manilkara butugi	IL KF SL WG	*14538 N/mm²*	*63 N/mm²*	*147 N/mm²*
Mimusops kummel	AR BA GG GJ GD HA IL KF SU SD TU	*14517 N/mm²*	*61 N/mm²*	*139 N/mm²*

ADVANTAGES

high quality timber

Several Eucalyptus species are indicated as suitable material for light and heavy construction, representing a great potential as a substitute for endangered species in Ethiopia.

decreasement of deforestation

By being a fast-growing species, Eucalyptus provides an alternative local source to meet domestic and international demand.

improvement of rural economies

Diversification of local communities income, increasing farming system productivity and self-sufficiency.

resiliency

It requires minimum care. Some species are fire-, drought-, and flood-resistant. It also proved to resists to pathogens and pests.

DISADVANTAGES

aggressive water consumption

There is no doubt about the large use of water and nutrients in Eucalyptus plantations, however, this is not only due to the aggressivity of the genus as much as with poor silvicultural practices.

land degradation and soil erosion

Eucalyptus trees deplete soil nutrients needed by agricultural crops, but depletion can be controlled by forest management techniques, including fertilization and regulated harvesting.

inhibiting undergrowth vegetation

Eucalyptus leaves have been reported to contain chemicals that inhibit the germination or growth of other plant species. In dry regions, the impact might be severe.

threat for biodiversity

Studies indicate that single species Eucalyptus plantations have the potential to alter biodiversity. Nevertheless, it has been observed how intercropping it with other species might avoid the risk.

how to use
wood? can we
re-interpret the
Adolf's style?
what is the importan
of the veranda?






MUNICIPALITE·ADDIS-ABEBA·

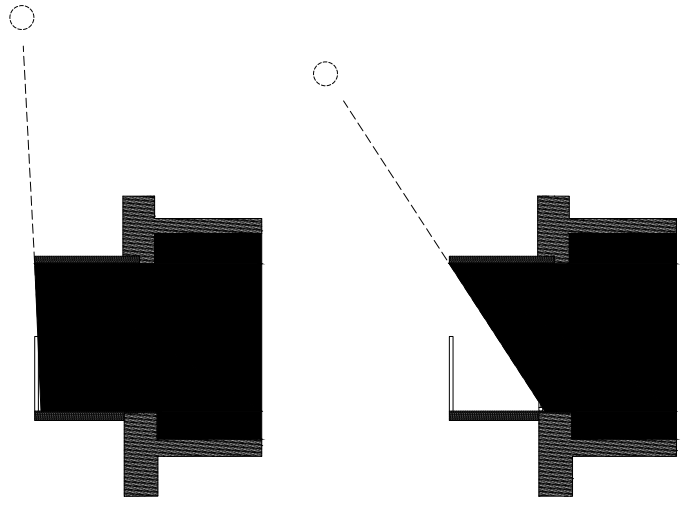
HARD CORE / LIGHT MEMBRANE





PASSIVE SOLUTION

A passively climate-controlling building is unchangeable, but the building and its spaces can be used in various ways over day and night or at the different seasons of the year in relation to the



Cost

The cost related to this type of verandah is **minimal** because mainly related to the use of a single-pane glass in the inner layer. The cost of the outer membrane depends on the choice of material, but can be kept low with local screens of bamboo or timber.

(+) low cost

(-) multiple types of verandahs have to be produced to deal with climate

Function

Such a solution means a **permanent disposition of spaces**: the verandah cannot be transformed according to the user's preferences because it is always exposed to weather conditions. However, proper operability of screens can still create variation in light exposure.

(+) indoor comfort always reaches average satisfaction

(-) indoor comfort is permanent and lacks flexibility

Climate

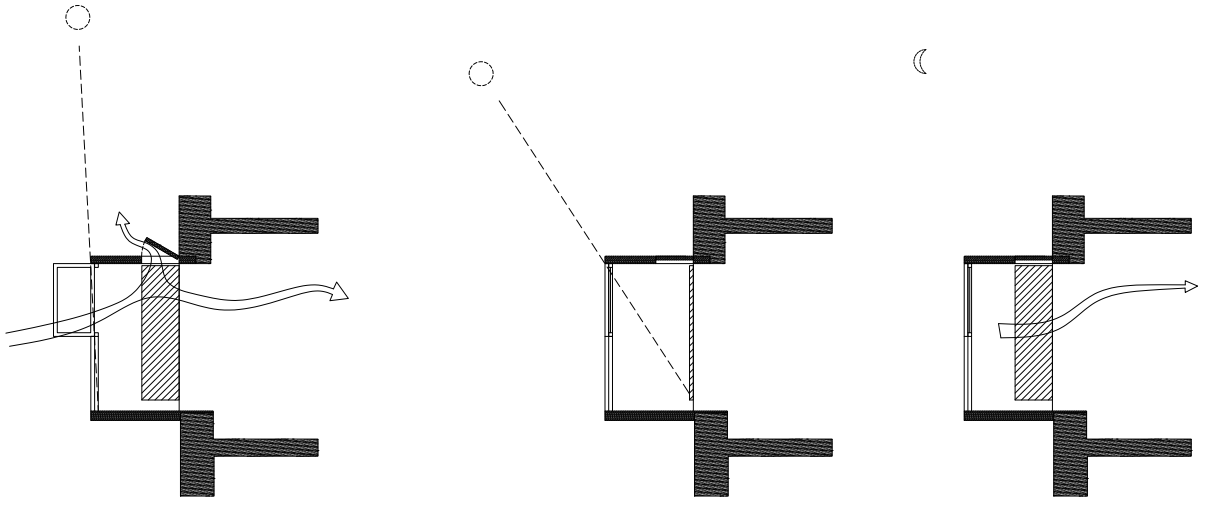
A passive strategy saves great amounts of energy and still guarantees a **stable climate**. This means that the design has to fully depend on the conditions in which it is located: every verandah will change depending on orientation, for instance, in order to provide the same result.

(+) climate is understood and dealt with permanently

(-) climate is understood as objective

ACTIVE SOLUTION

An actively climate-controlling building can change dynamically and adapt to changing climate conditions, meaning light, air and temperature by means of an intercative façade.



Cost

The cost of this strategy is surely **higher**, as it comprises of two well-designed and adaptive layers in the double skin façade. However, a solution to deal with this increase could be to pre-fabricate standardized panels in order to cut the cost of production.

(+) only one type of verandah to produce

(-) higher cost

Function

This strategy is able to **mutate to respond to the user's needs**. For instance, the verandah itself, can be transformed into a bedroom at night and an a living-room during the day, for example. This makes the design task even more difficult, as it has to forecast a broad number of options.

(+) indoor comfort always reaches each dweller's satisfaction and is flexible

(-) dweller needs to be active

Climate

In this solution, there is an idea about comfort not as a strict and permanent condition, but rather as a **subjective** one. Therefore, instead of stabilizing indoor climate dy the effect of mitigating the outdoor condition, the choice of result is in the hands of the occupant.

(+) climate is understood and dealt with subjectively

WATER MANAGEMENT

Supervised by Ing. Francesco Steffinlongo

Being water a major issue in Addis, harvesting and re-using water to compensate the lack of govermental provision has a great impact on the structure of the cluster.

Rooftop Rainwater Harvesting as an Alternative Approach of Sustainable Water Supply:

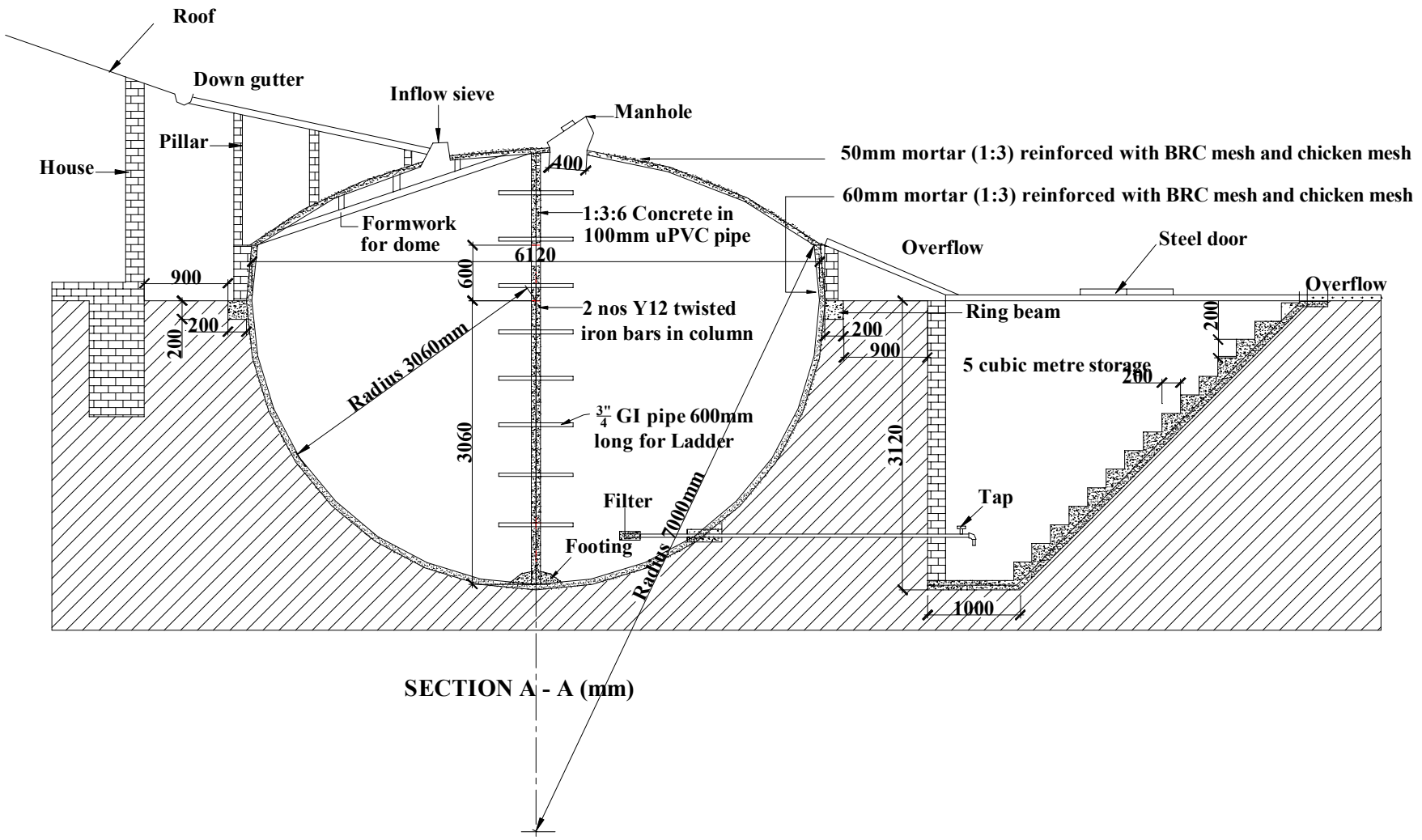
A Case Study of Addis Ababa Ethiopia

Due to rapid urbanization and ever increasing growth of population, fulfilling the demand of the safe water supply is always a challenge. All the countries are ensuring sustainable approaches to protect the available water resources and also to adopt newer technologies. Rainwater harvesting is one of the environmentally sound systems of gaining water. During rains, the portion of the water which falls on the roofs of buildings is collected directly from the roofs before it reaches the ground, which is called rooftop rainwater harvesting. The rationale of this research is to study about the potential of rooftop rainwater harvesting as an alternative approach to sustainable water supply in Addis Ababa, Ethiopia. Available 20 years daily rainfall data from five meteorological stations were collected and analyzed through SPSS and MS-Excel program to observe the variations and the trend in the amount of precipitation. In addition, AUTOCAD drawings and satellite images of buildings within the city of Addis Ababa were collected and Arc GIS software was used to calculate the roof areas. Exploratory research method has been applied. The study revealed that, adopting rooftop rainwater

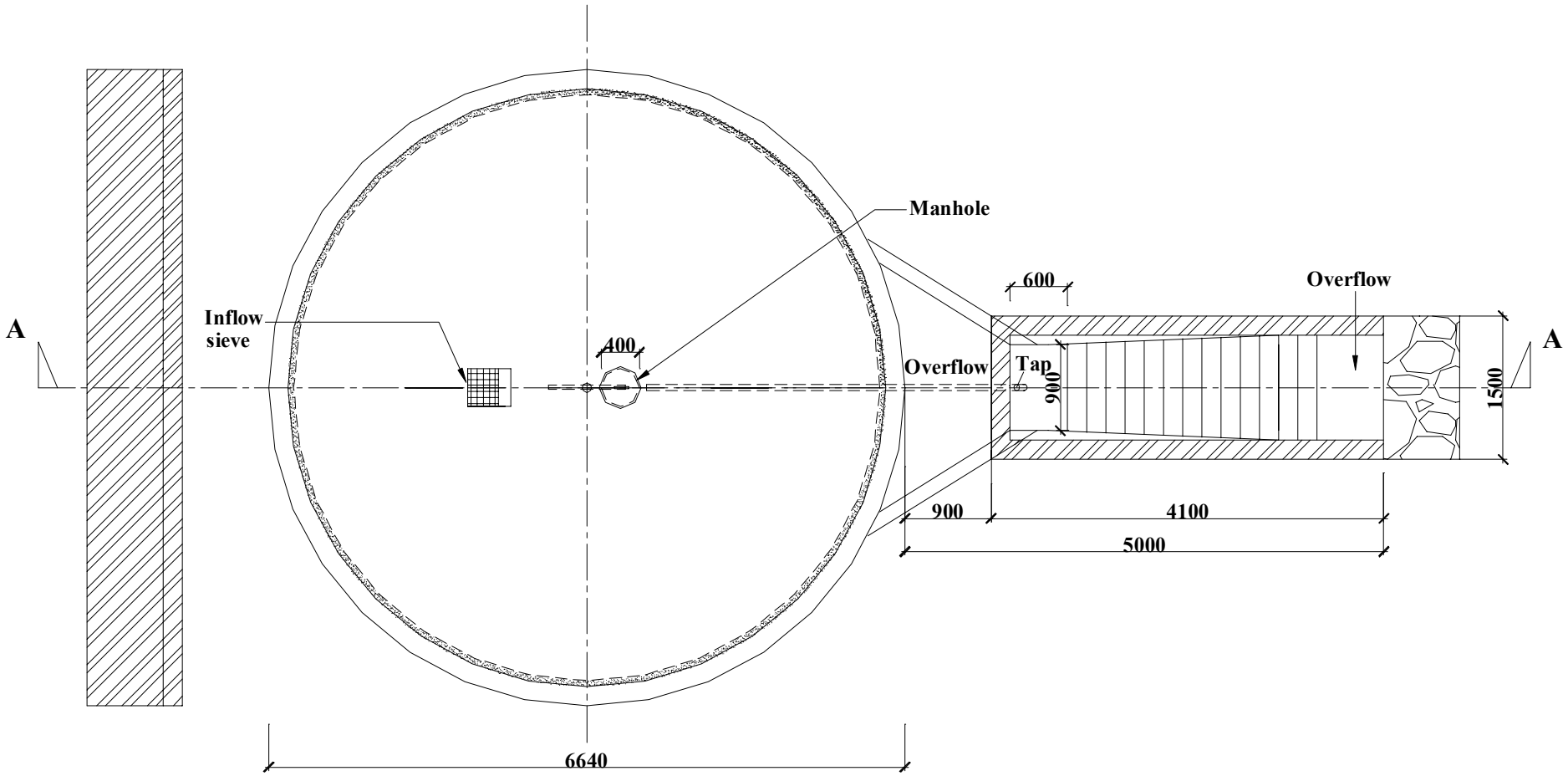
DATA

liters pro capite pro die	35 families + 4 members x 20l) = 2800l/die max: 50l pro capite = 7000l/die min in a year: 2800 x 365 = 1022 m3 max in a year: 7000 x 365 = 2555 m3
average rainfall	1100 mm/y
governmental contribution	68%
tank dimension	800 m3 -1800 m3

A water tank could be in the centre of the courtyard collecting water from an alluminium rooftop (0.9 runoff, hygenic material) with a common wash-place. The use of aluminum is fundamental, burns bacteria in rainwater.



SECTION A - A (mm)



PLAN OF A ROOF (mm)

Strategy for a Modern Sefer

HISTORICAL NARRATIVES



Chapter 4

THE PLAN OF THE GOVERNMENT FOR ADDIS

The action plan of the Government to solve this housing problem in the city is the construction of dense, cheap, and fast to build condomiunium blocks. While on the one hand these housing schemes do improve the hygenic conditions of a family, on the other one they annihilate completely the Ethiopian identity and community life. In fact, these condominium apartments do not present the possibility of having spaces for social interaction, other then a narrow gallery in front of the entrance, and a massive green space between one block and another. I believe that the scales of such spaces make them not interesting for a low income dweller in Addis Ababa. As you will understand in the next pages of this booklet, these communities have a really specific and fascinating way to use outdoor communal space, and, unfortunately, the condominiums do not take it into account. Another problem of this mass-housing strategy is that, in order to move in, people have to apply to a lottery system. This makes it so that a dweller might wait for years to get an apartment in the periphery of the city, which is where most of these condominium blocks are located. As a consequence, people have to commute for hours to get to their work-place. In order to understand all of the problems that the apartments in the Condominium presented, we have decided to analyze them first-hand. We have structured our work





Picture by Cristian Rancati

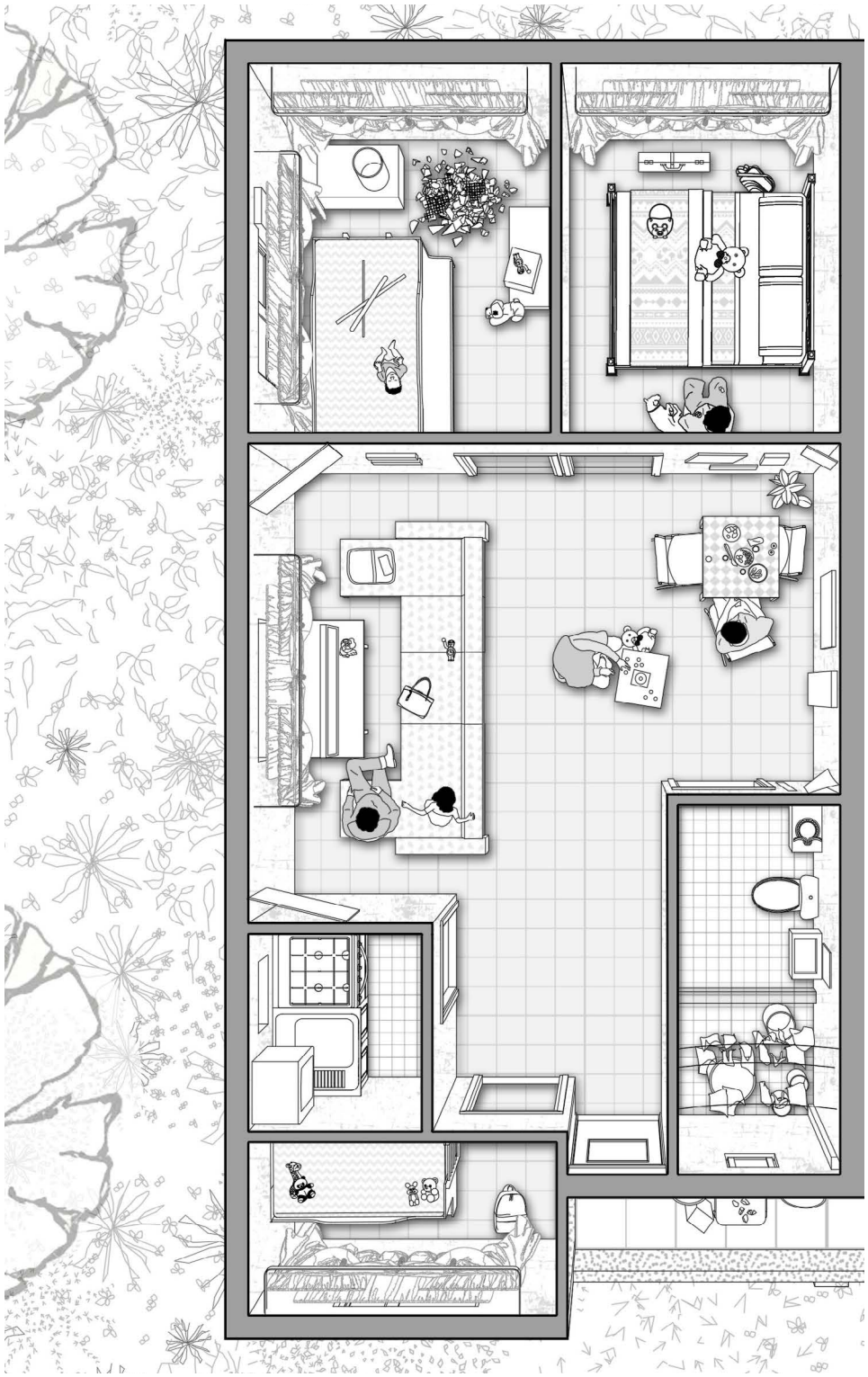



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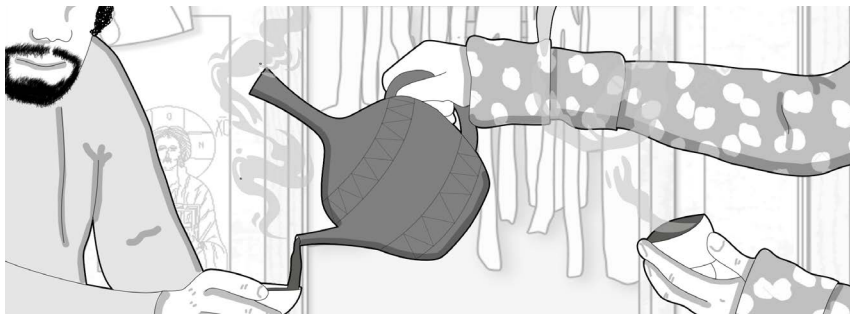
As you can observe, there are different typologies of apartments, which all have the commonality of presenting low levels of flexibility and no space for income generation opportunities. You will also notice that some dwellers had to re-create slum-like conditions within the Condominium to have a proper job. For example, in the next pages you will observe a hut, that an inhabitant used as a tailor shop. In fact, the design of such affordable housing greatly disregards both the commercial and social aspect of daily life.

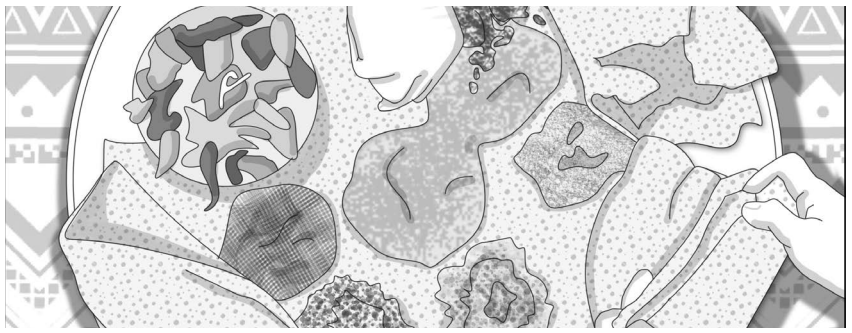
In such architecture, the lack of a proper space for interaction is another key issue. The buildings offer two kinds of communal spaces: the gallery and the central courtyard.
The gallery is too small and inconvenient for most activities: because of its use for circulation any type of human presence becomes an impediment for passersby. On the other hand, the courtyard is too big that no one ever takes ownership over it: people feel intimidated by its extension. The lack of something in between makes it so that people do not have an appropriate space for interacting with each other, even though Ethiopians, for example, are culturally more inclined to favor rich social networks.

However, this stiff architectural condition does not cause any changes in the way Ethiopians create culturally synchronous spaces, as Richard Sennett would define them. Every room, every unit, every chunk of space we have visited changes its program according to the hour of the day, shifting from one activity to the other. This will be a great lesson for the production of the Thesis project, which will require the

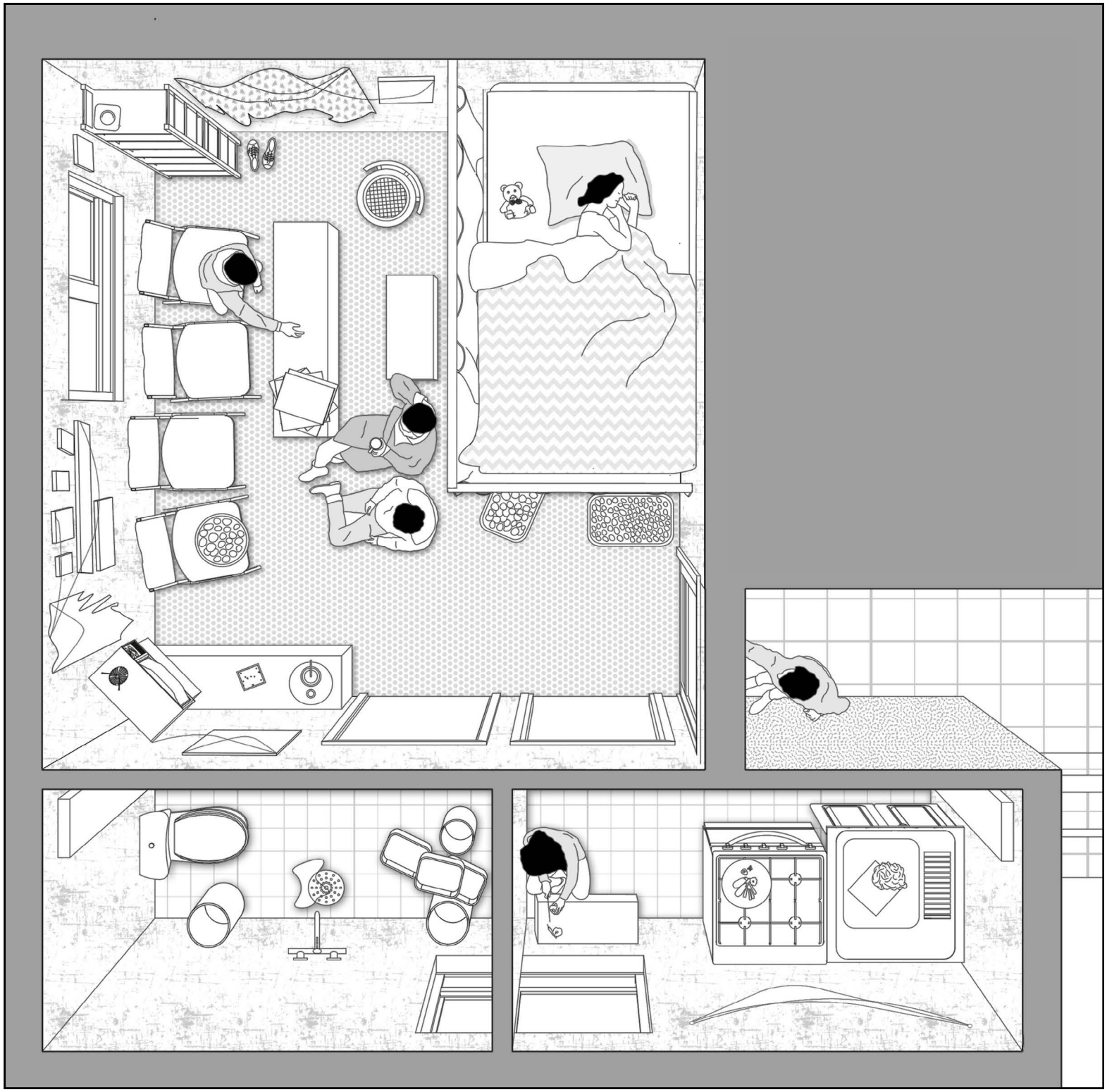


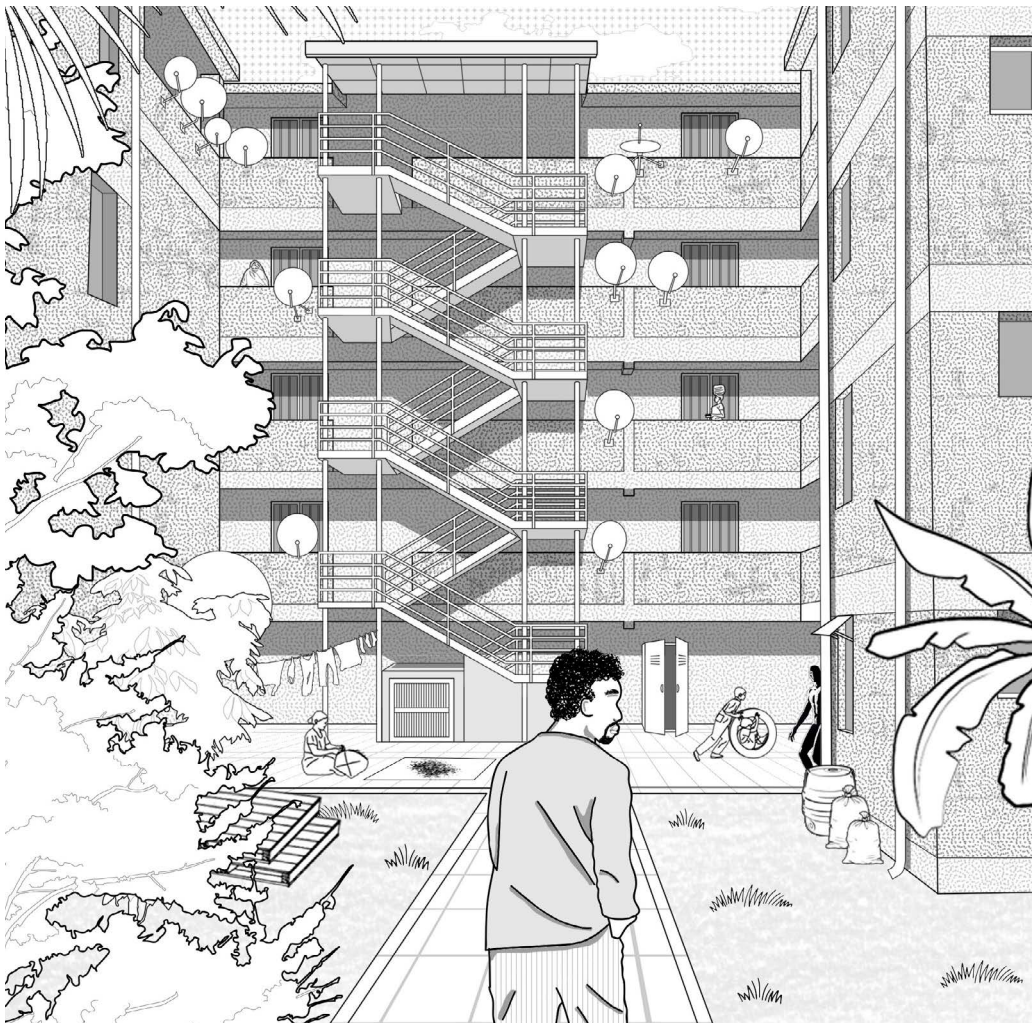


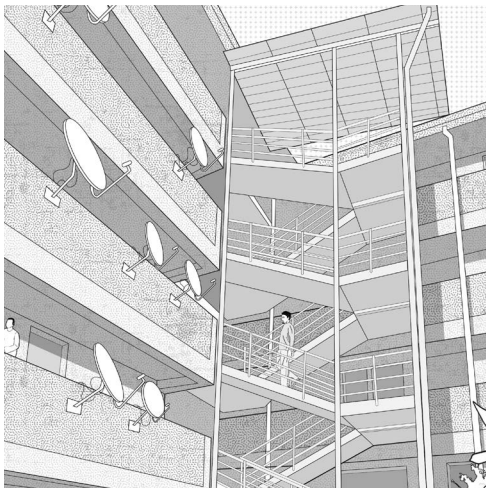












"Only people who could afford the down-payment were given a unit in a condominium. Everyone else was put out on the street. Secondly, those of us who paid were scattered all over the outskirts of Addis and not moved into a condominium in the next Kebele as promised. They never actually built the condominiums. It was a lottery: we were sent very far away from our jobs, our children's schools, our friends, our relatives, our associations. ***They managed to destroy 100-year-old neighborhood networks."***

*Nigusse**

WHAT IS THE PLAN FOR TALIAN?

NEW BUSINESS CENTER



VISION FOR A MODERN CITY

"The main idea for our city development plan is to create a livable place for all residents of Addis. We need to build more roads and more green spaces. As a city that represents African Union, our ambition is to create a modern city," said Haregot Alemu, Director of the Agency of urban renewal and land development.

(...)

The government plans to build about 700,000 homes in five years. For now, though, housing prices remain high. The government put an asking price tag of a minimum contribution valued at 10% of the total price of the apartment. A sum of between 5,000 and 25,000 dollars well beyond the minimum wage in Ethiopia which is 34 dollars a month.

(...)

AFP,Africanews.com

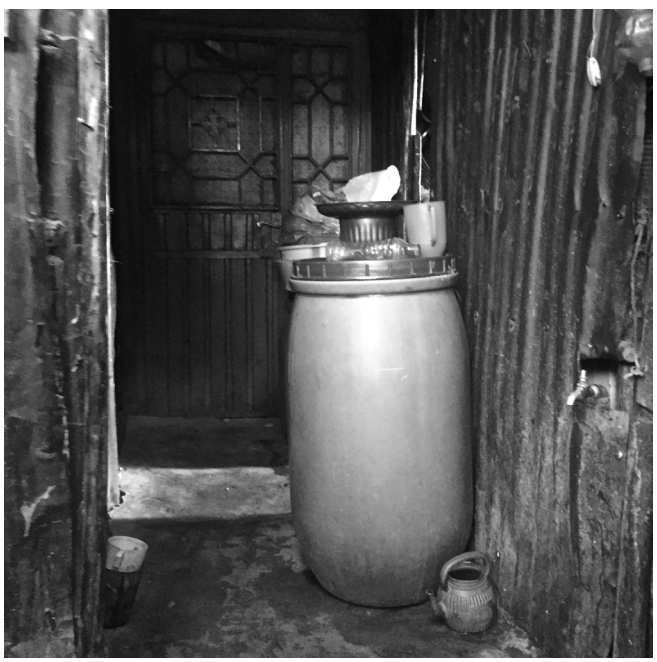



La Pizarra

is there any value
in what would be
destroyed ?







CASE STUDY

REVITALIZATION OF HISTORICAL CENTER IN CUENCA

"In conservation policies and practices, a monument or site is considered a cultural heritage, for the recognition and interest of the values of the community to which it belongs" according to a study conducted in Cuenca by Van Balen and Cardoso.

After a monument or site has been established as a cultural heritage, decisions and actions for its protection must be taken through intervention. A study that aims to protect, promote, or preserve a monument is based on the values that underpin it. In this field, "authenticity" plays an important role that should be seen as a layered concept of values.
According to the Nara document, authenticity and value are defined by the information source of cultural heritage in the following aspects: form and design, materials and substance, use and function, traditions and techniques, position and environment, position and environment, spirit and feeling, and other internal and external factors.

We believe that the historical buildings in Talian constitute a body of heritage not because of their outstanding or exceptional architectural characteristics, but because, as a whole, they represent the following:

1. the melting pot of different building techniques and architectural influences (Ethiopian, Indian, Italian etc.)

2. the spirit and identity of a neighborhood which has been present since the foundation of Addis Ababa

3. a community of people that bring forth the traditions of the historical center of the Ethiopian capital

UNESCO, on the "Operational Guidelines for the Implementation of the World Trade Convention," defines that if a building is recognized as heritage the following procedures can be set forth:


FOTO: Vicente Tell


2007 1 30


Mobil

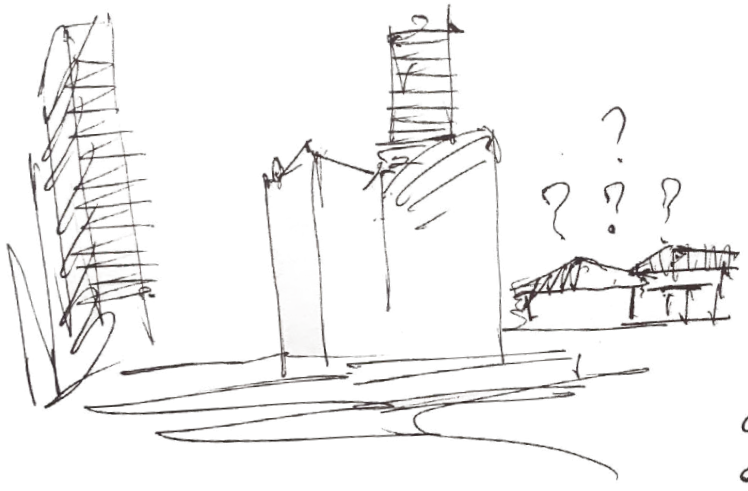




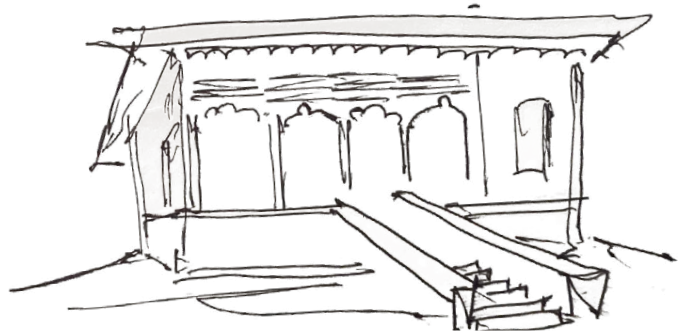



IO TECNICO JÚLIO M

Is it still possible to find a way to make [ordinary historical objects], coexist with the explosive growth of a modern city?



IS IT HERITAGE?
something that once was the local, JUST A BUNCH OF SCATTERED VILLAS?
Can they still be attractive?

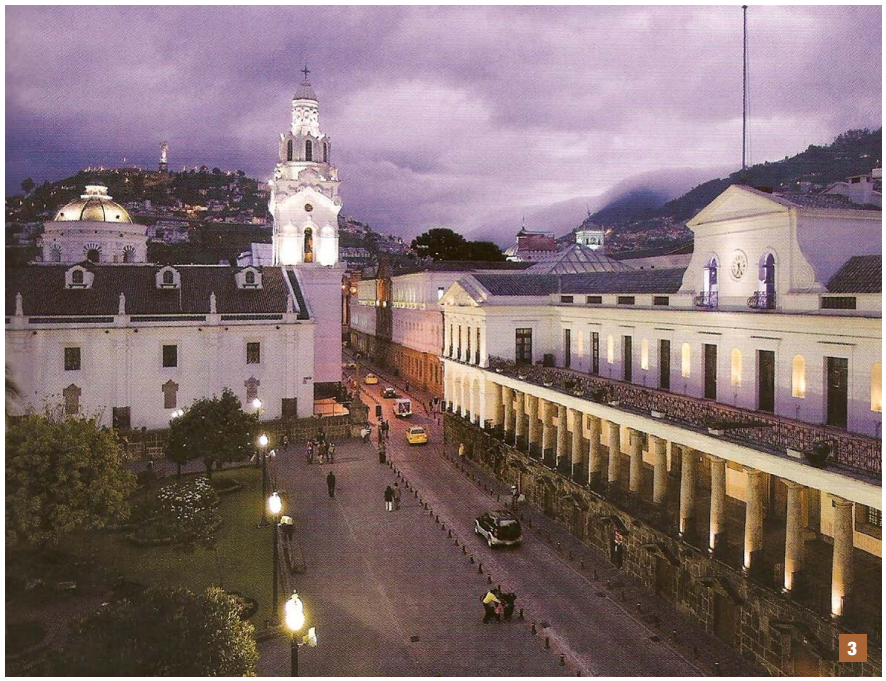


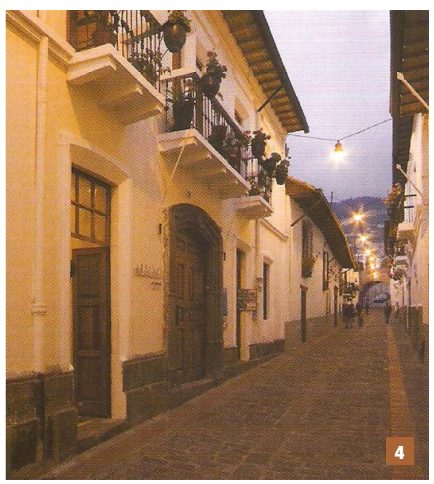


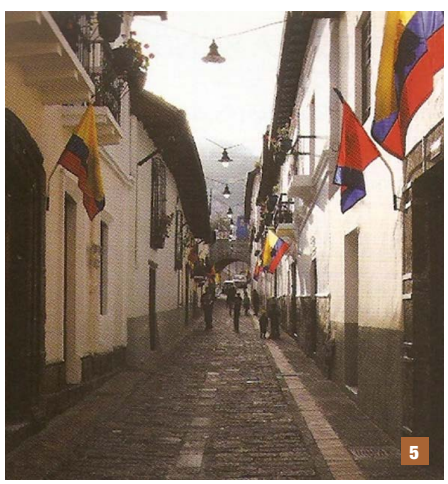



1


2


3


4


5



CASE STUDY
SOCIETY HILL, article by J. Brey

"he plan was in place before he came along — drawn up many years before by celebrated city planner Ed Bacon, with restored houses and modern apartments connected by an intricate web of walkways weaving through the sober street grid. The goal of urban renewal was nothing less than the salvation of American cities, which the upper crust had been fleeing in droves ever since trolley cars and railways and automobiles made the outlying areas a viable commute in the first half of the 20th century. Urban renewal meant bringing those people back, and in many cases it meant the wholesale demolition of slums.

(...)

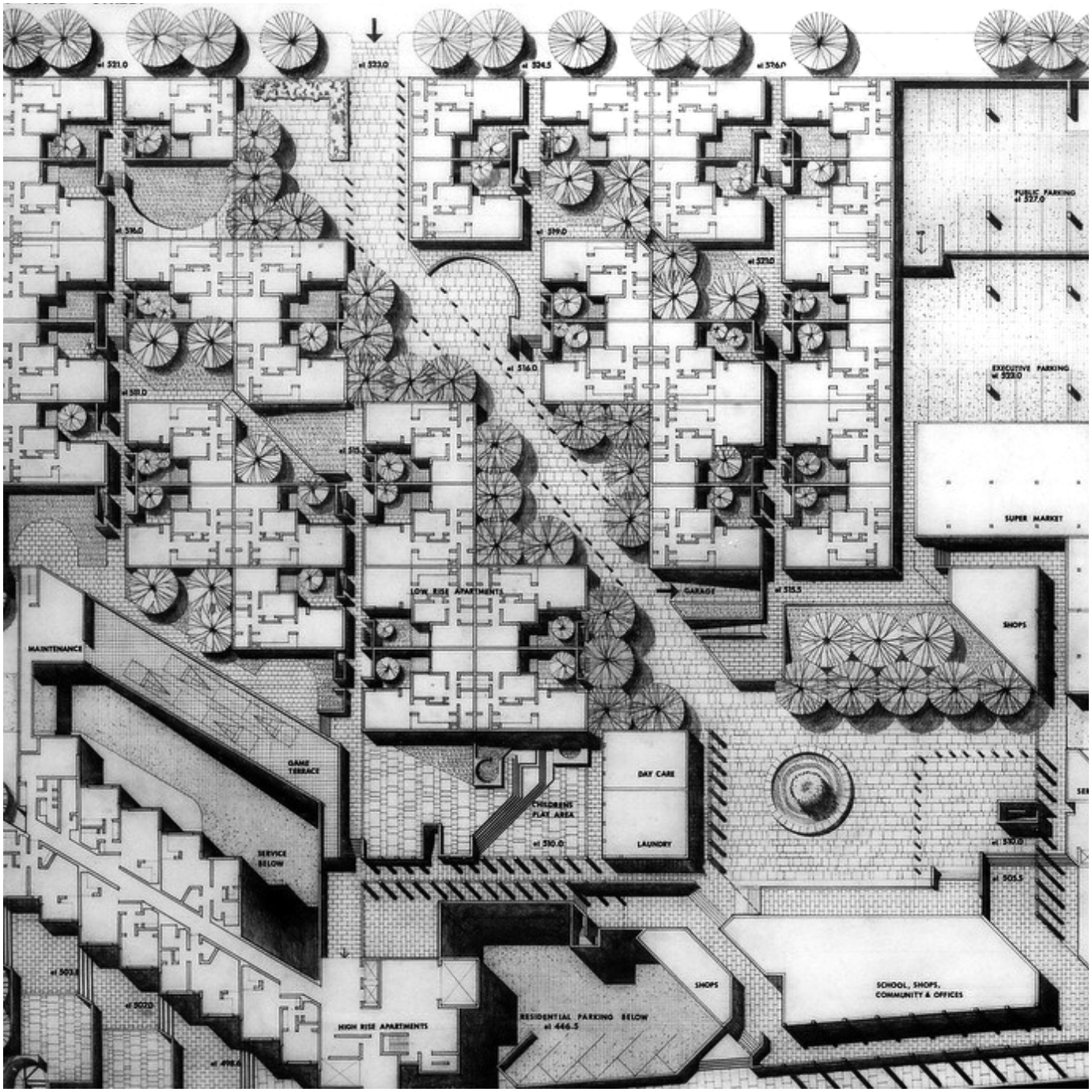
In those days, you could do a blanket condemnation," D'Alessio told me in his downtown office, where he still works as a principal at NorthMarq Advisors, a real estate development consultancy. "They just said, 'Okay, from 2nd Street to 6th Street and from Walnut to — zoom! It's yours.' A judge signed an order, and I said, 'You mean we own all this stuff? Those people in those properties are gonna be a little surprised. Just like that, the city, in the guise of Old Philadelphia Development Corp., owned the whole neighborhood. And in order to restore the earliest buildings, the ones deemed worthy of salvaging, it enacted a complicated scheme. Property owners who couldn't afford to carry out the rigorous and expensive historic-restoration plans the city had put together would be paid fair-market value — "plus a little bit for inconvenience," D'Alessio said — and sent packing, their renters included. But if owners could show they had enough steady income to restore their historic property, the city would not only deed it back; it would lend those owners the money to complete the restoration at a bargain-basement one percent interest rate. The restoration-worthy houses that had been vacated were sold to others who could afford the upgrades.

It was pure Robin Hood in reverse, a transfer of property from the poor to the rich.

Bacon later admitted to his biographer, Greg Heller, who's now the executive director of the Philadelphia Redevelopment Authority, that he knew the program was "cruel," but he didn't see any other way of revitalizing Center City."
The nomination that won Society Hill its protection as a historic district boasted of that heritage: "The buildings of Society Hill reflect the history of the heterogeneous mix of class, ethnicity and faith — wealthy, poor, middling, European, African, Protestant, Catholic, and Jewish — all within walking distance of each other, that characterized Philadelphia for at least the first two centuries of its history."

(...)

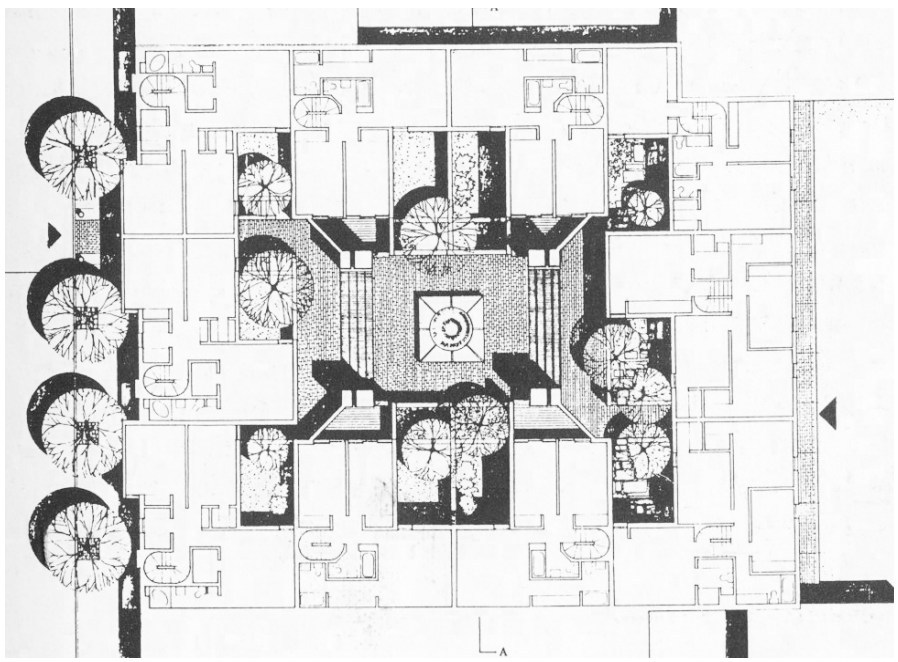
At the same time, in order to develop the character of the neighborhood, the city began installing brick sidewalks and replicas of 18th-century street lamps.



What went wrong in Society Hill?

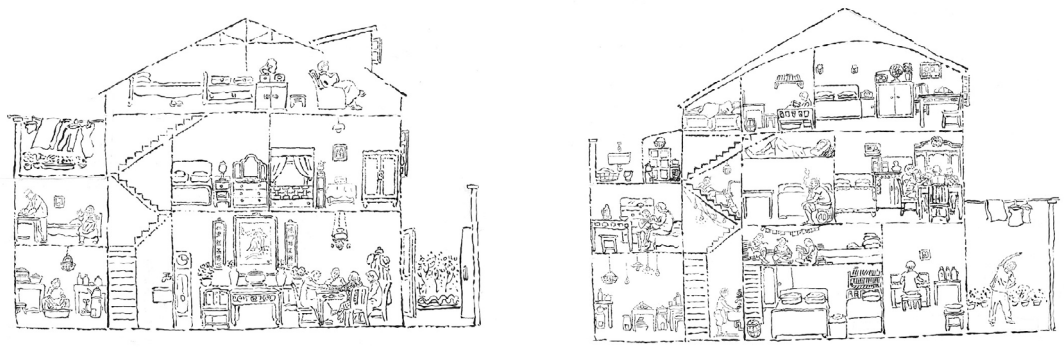
They reinterpreted the HISTORICAL FABRIC with a modern language and kept the historical heritage!





CASE STUDY
THE SHIKUMEN

In Shanghai, the annihilation of the *shikumen* was believed to be the only logical solution to the impelling pressures of developers. Destroying this heritage has turned out to be a huge mistake. In fact, the latter have been rebuilt to their original form, but they have changed in nature due to the removal of the original dwellers and the consequent gentrification that transformed it into an "hipster" middle-class neighborhood.



A cross-section view of an unmodified individual unit in No. 111 Alliance Lane in the 1940s. Courtesy of Jie Li.






ORENO

GENERAL STRATEGY

In light of what was discussed in the previous pages of this chapter, it is important to mention that the Government would probably not build new condominium blocks in Talian Sefer, but would actually rent it out.

However, designing a redevlopment project without the involment of the Government is also unfeasible, given that it owns all of the land on which the neighborhood should be rebuilt. Therefore, an efficient strategy of action would be that of finding a better masterplan both for the people of Talian and for the Government. Having acknowledged that the neighborhood does need denser housing, in order to accommodate for the thousands of people without a home, the challenge of such a redevelopment would be to integrate these new dwellings with the neighborhood's heritage. **In fact, what has to be preserved and protected in Talian are its tangible heritage (1), its intangible heritage (2), and its communities and social networks (3)**.

At this point of the conversation, you might be wondering why it is so important to preserve these buildings and these people's social networks and activities.

One could say that this preservation is necessary because of the uniqueness of the identity and cultural traditions that are intrinsic to Talian Sefer. The cultural mix between the Italian culture, which was abruptly imposed on the territory in the 30s, the Ethiopian one, and the Indian one, for instance, already make it a fascinating melting-pot. It is a neighborhood that does not resemble anything like it on the face of the African continent, and therefore, it should not be so easy to annihilate it.

However, from a more realistic and economic point of view, these special characteristics, if well exploited, could bring a substantial monetary profit. You should remember that Addis Ababa is only a century old, and does not have any cultural attraction that one can go visit. The restoration of Talian;s buildings, which are the oldest existing in the city, could not only tell the stories of the formation of the city ot the failed attempts of Western colonization, but could also become the heart of the Ethiopian urban identity. This is the reaosn why I envision a neighborhood that can both portray the memory of the violence emmbedded in it, and the immense cultural value that







Picture by Antonio Paoletti

UNESCO'S HERITAGE LIST

"In conservation policies and practices, a monument or site is considered a cultural heritage, for the recognition and interest of the values of the community to which it belongs" according to a study conducted in Cuenca by Van Balen and Cardoso.

After a monument or site has been established as a cultural heritage, decisions and actions for its protection must be taken through intervention. A study that aims to protect, promote, or preserve a monument is based on the values that underpin it. In this field, "authenticity" plays an important role that should be seen as a layered concept of values.
According to the Nara document, authenticity and value are defined by the information source of cultural heritage in the following aspects: form and design, materials and substance, use and function, traditions and techniques, position and environment, position and environment, spirit and feeling, and other internal and external factors.

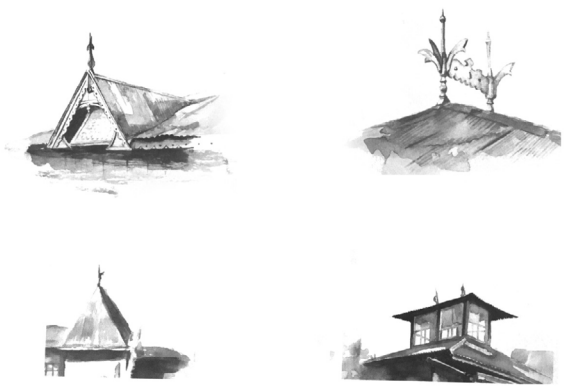
We believe that the historical buildings in Talian constitute a body of heritage not because of their outstanding or exceptional architectural characteristics, but because, as a whole, they represent the following:

1. the melting pot of different building techniques and architectural influences (Ethiopian, Indian, Italian etc.)

2. the spirit and identity of a neighborhood which has been present since the foundation of Addis Ababa

3. a community of people that bring forth the traditions of the historical center of the Ethiopian capital

UNESCO, on the "Operational Guidelines for the Implementation of the World Trade Convention," defines that if a building is recognized as heritage the following procedures can be set forth:



Watercolor drawings depicting details of an "Addis Style" construction by Fasil Giorghis



SHOULD ALL BUILDINGS BE INCLUDED?

Considering Talian's historical buildings as a unite body of heritage for the city is a fundamental step within this discussion. However, some of them were damaged to the extent of having to be fully rebuilt. Therefore, before starting such a discussion, and following Cuenca's heritage study, I have elaborated these following steps:

Step 1: ANALYSIS

One should identify the manifestation and characterize the effect of the damage; then, proceed with the identification by means of comparison based on examples and definitions.

Required information and procedure

- Composition of the used materials in the elements with damage or wear
- Type of damage
- Magnitude / dimensions
- Location of the damage

Step 2: DIAGNOSIS

The conservation of a historic building needs a careful selection of suitable treatments based on an accurate diagnosis (just as any medical treatment) and a determination of the causes of its deterioration. After acquiring a thorough knowledge of the historic building, the diagnosis of deterioration is the first task for the restorer.

Step 3: ASSESSMENT

Classyfing the buildings into these clear categories is at this point necessary to move forward.

Good = For a good maintenance of the monument are no immediate works to be carried out.

Mediocre = local defects were established. These need to be repaired in a timely manner.

Bad = the building is in such conditions that would have to be fully re-built

BAD



MEDIOCRE



GOOD

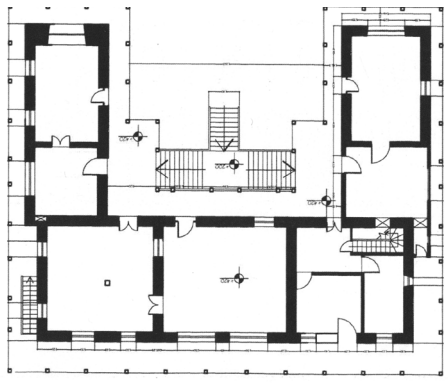


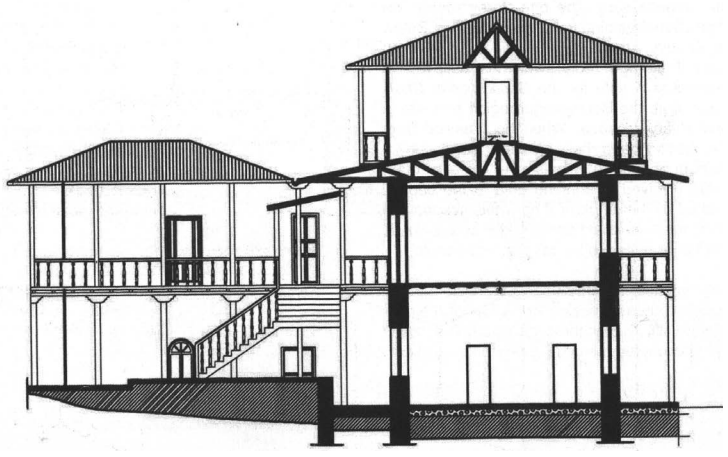
Pictures by Fabio Buondonno

"... rather than thinking about heritage as a set of objects, it may be more useful to think of it as a set of effects... What we might call 'the heritage effect" lies in edging us towards essentialised notions of culture and identity. Heritage weighs down on the side of reification. It places notions of culture and identity beyond critique"

African Keywords, Nick Shepherd















Can we make the historical centre an attractive area for the whole city, while we cater for the dreams of those who cannot afford an architect?

why is it valuable in an historical district where the land has such a high valve, to cater for the poor and mid-low income groups?

Strategy



Talian and Addis

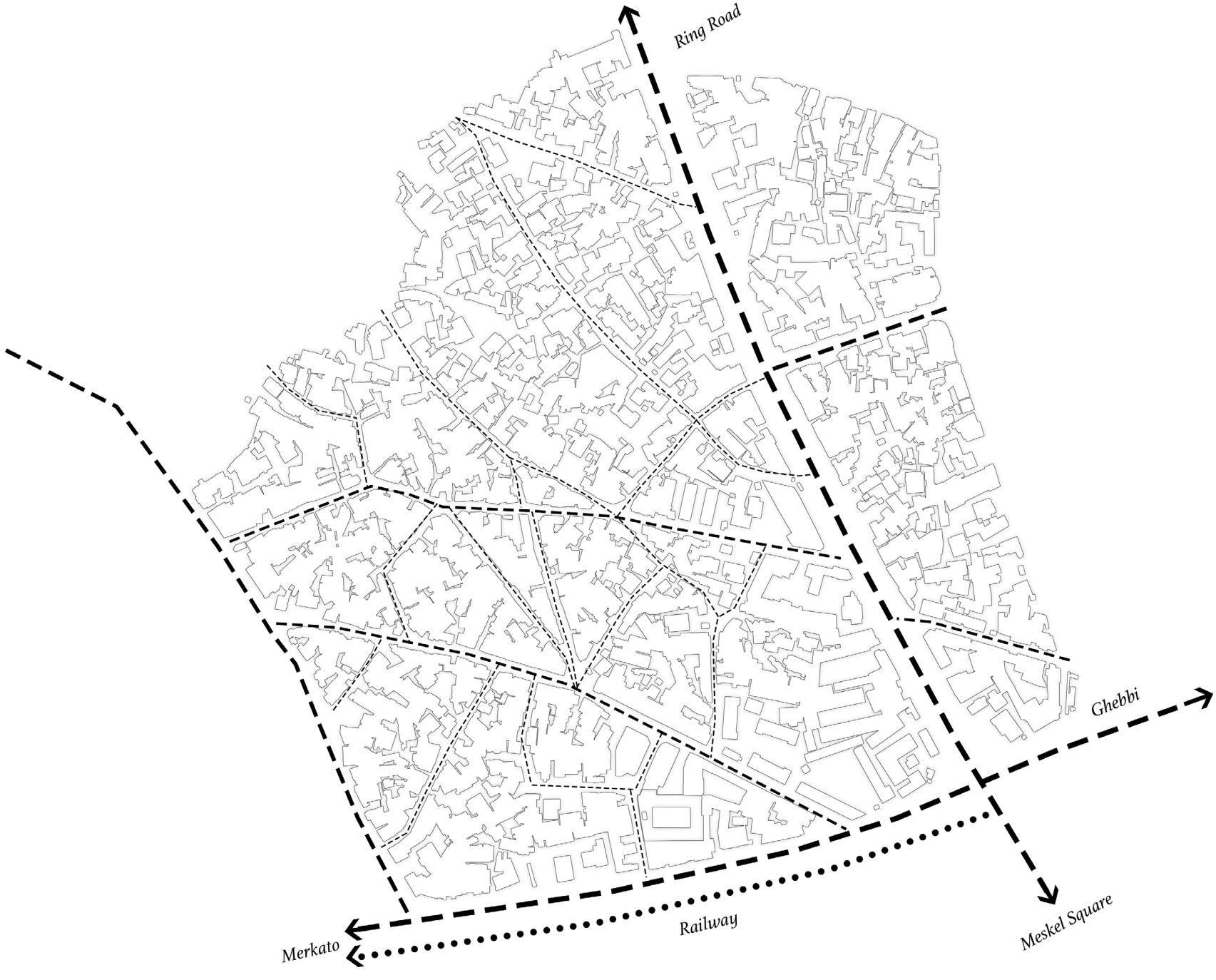


relvant places



historical buildings in Talian




Ring Road
Ghebbi
Railway
Meskel Square
Merkato
Railway
Main traffic rods
Secondary traffic roads
Neighborhood roads
Pedestrian roads



Site Topography
scale 1:2000



Section a-a¹
scale 1:2000



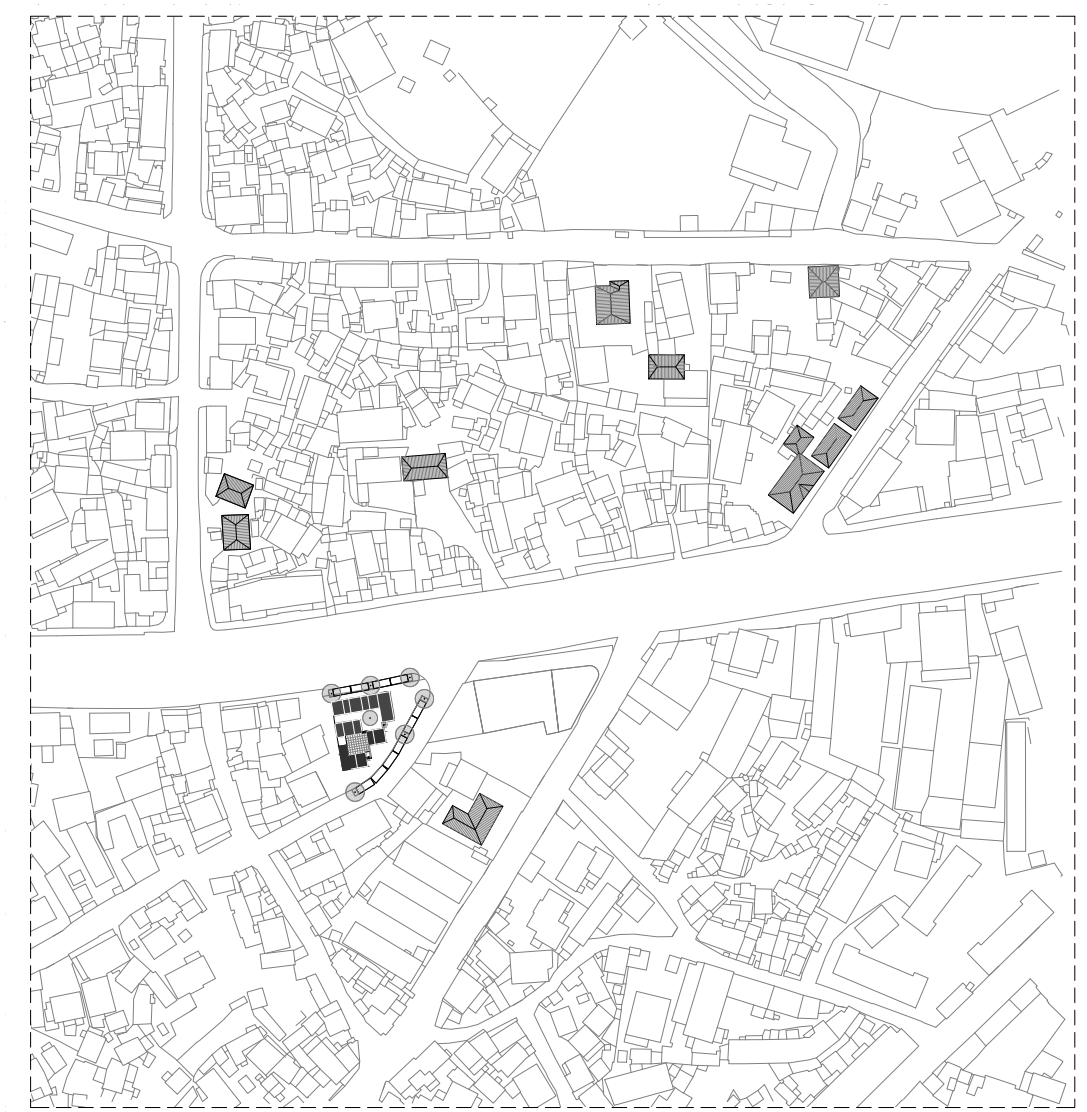
Section b-b¹
scale 1:2000

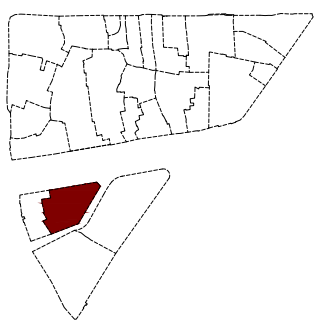


Recognition of indipendent fragments of compounds and individuation of historical heritage for adaptive reuse.

Density registered officialy: aprox. 80u/hac.

0

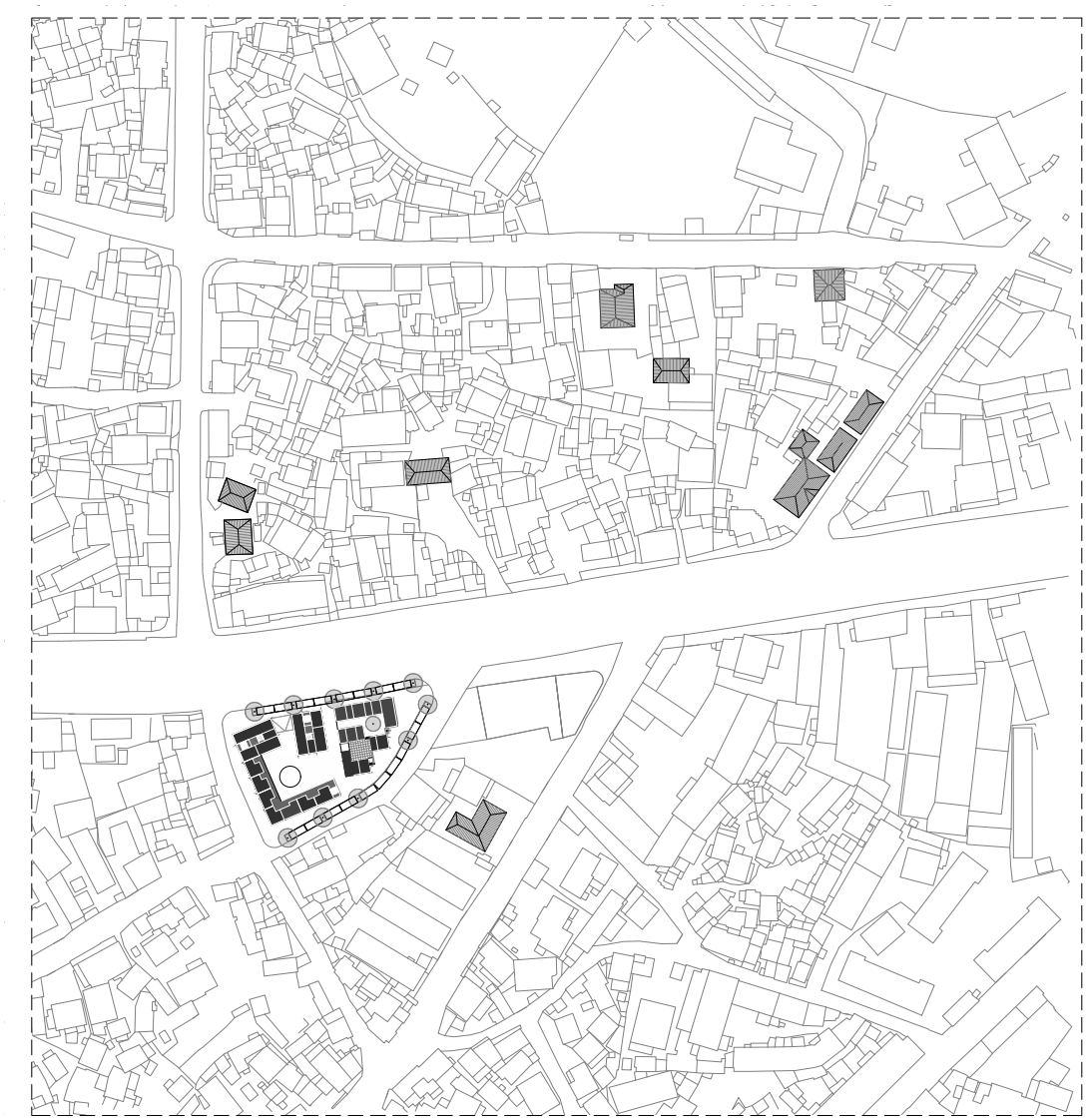


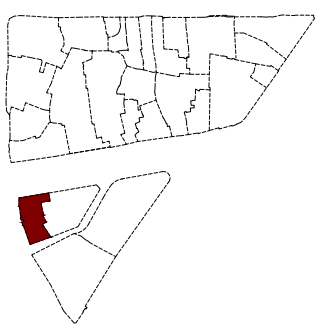


experimental prototype: educational centre

aprox. 15 units demolished

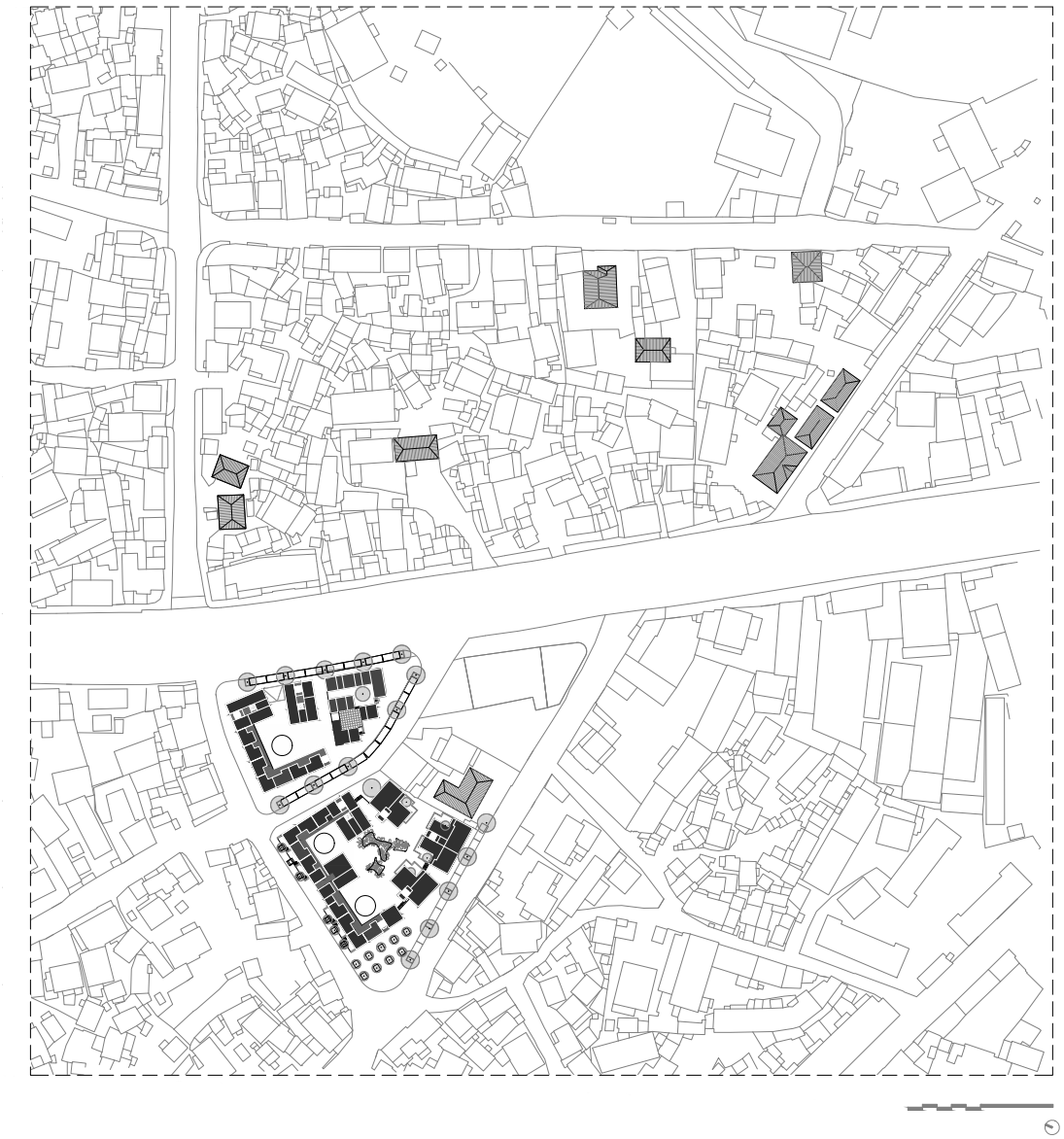
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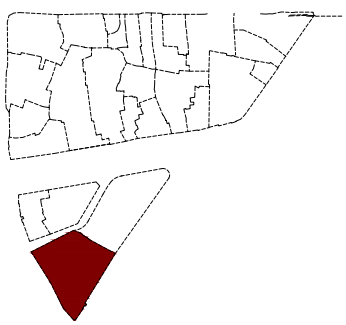




60 units provided
aprox. 10 units demolished

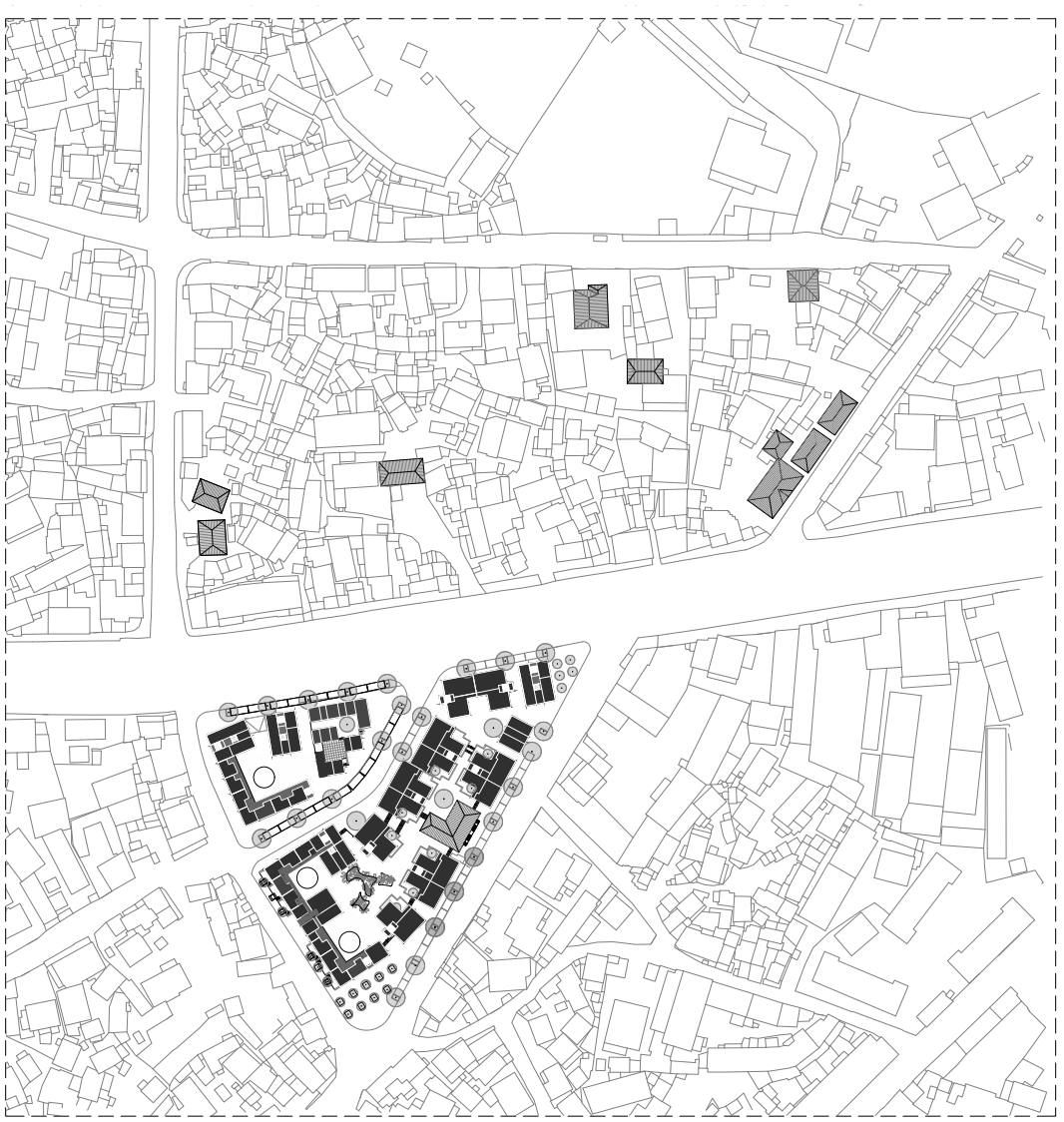
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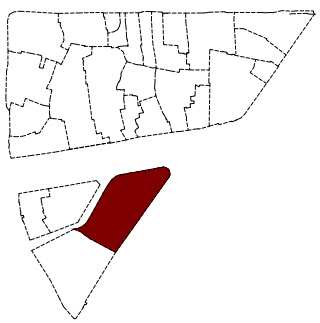




105 units provided
aprox. 25 units demolished

3

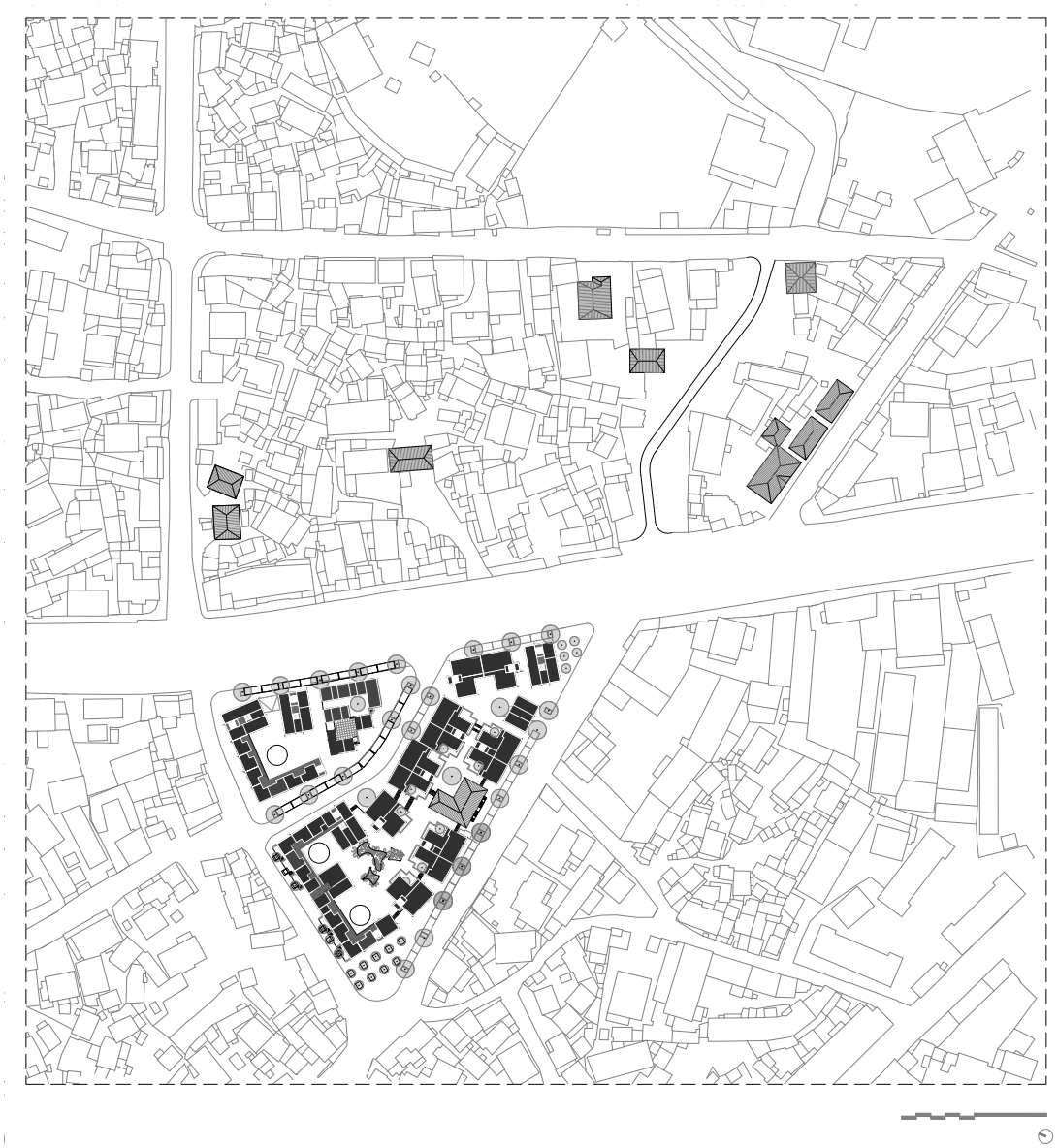


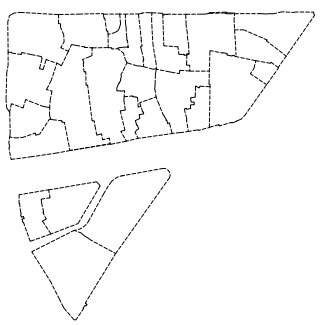


92 units provided
aprox. 15 units demolished

the fourth phase includes the first experiment of adaptive reuse of an Indian Villa

4





infrastructurs cut trhough the dense neighborhood and connect the sefer to Saint George Church



New public amenities: Abune Petros' Cultural Centre finally all the inhabitants can be relocated within the intervention itself

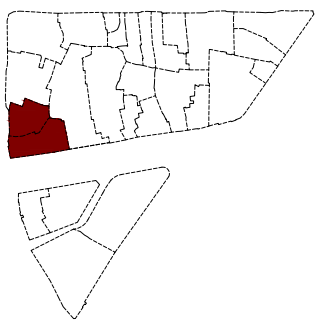


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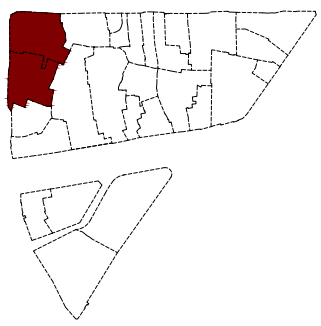
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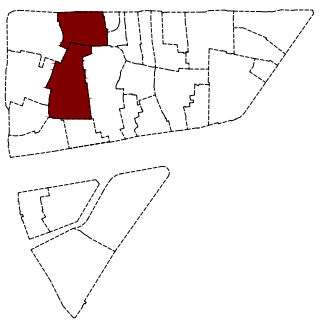
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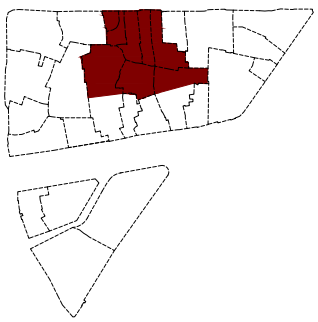
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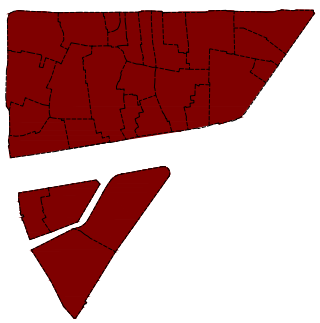
10





1 1





3,4 ha
total units: 732
Inhabitants: 3290
inhabitants/ha: 236 u/ha

12

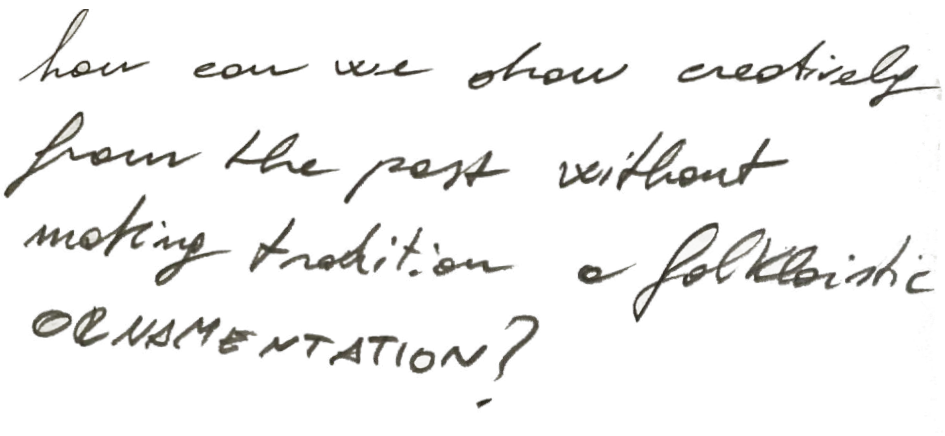




AMENITIES AND PUBLIC FACILITIES



COMMUNAL WASHPLACES



Cluster design

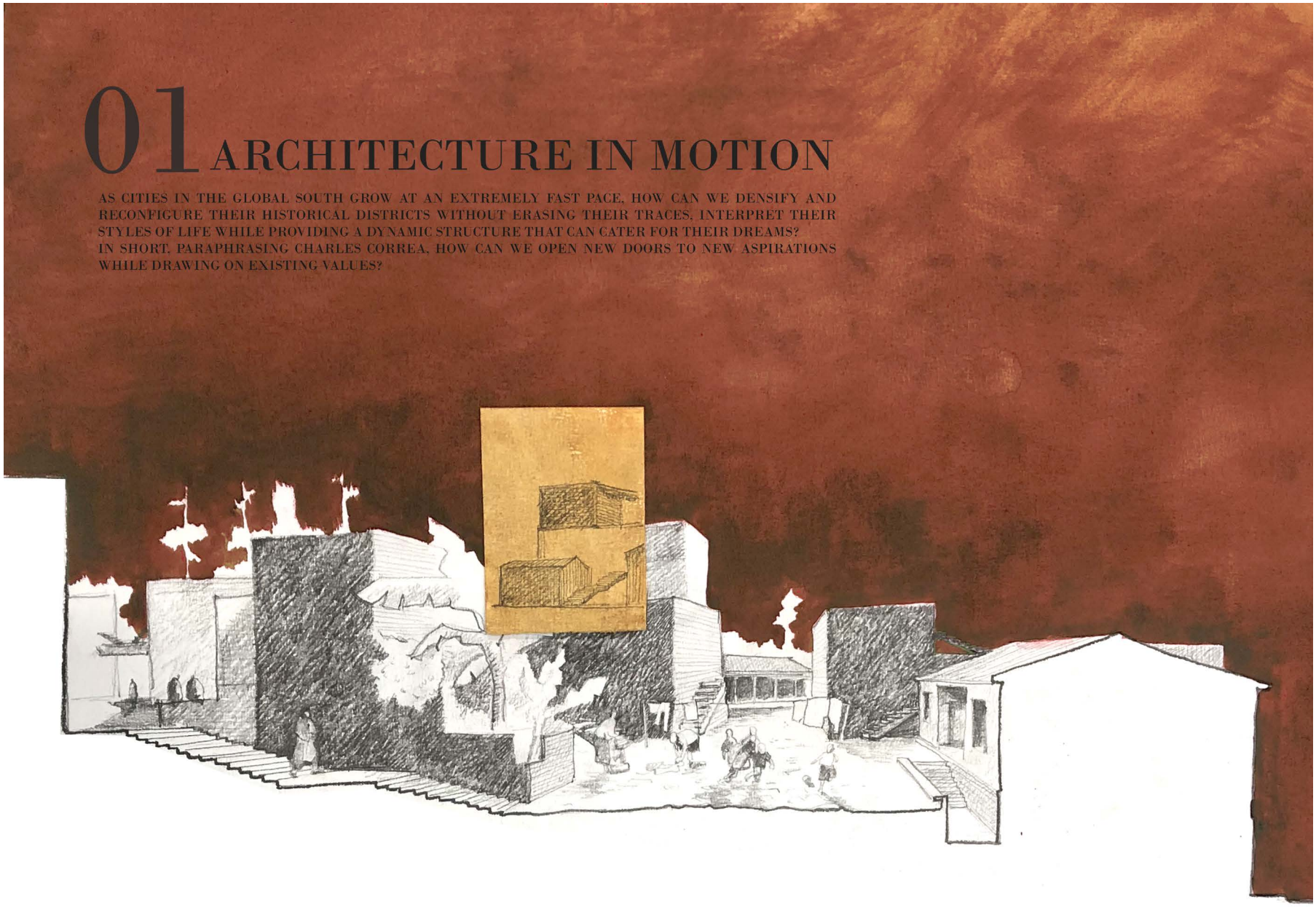
DESIGN HYPOTHESIS

In a context that urges for alternatives, I have found myself fascinated by a certain tendency of this modern African capital to move forward while erasing its traces in some form of autophagic behavior. In a forced march towards development it seems that there is no space for decentralized models of city: shape is imposed from above. Can we find, instead, the rules of change in these systems of self-organizing settlements that generated Addis up to now? Can we set the basis for a continous generative process while we reconceptualizing the social patterns of this city?

In January, the first time my pencil touched a piece of paper after months spent in drawing over and over again patterns of inhabitations in the sefer and its morphology, naturally my hand begun to wonder freely. A virtual compound clustered around an existing villa appeared and set up an important stepping stone that helped me moving from the research to the project in a intuitive way. I see here not only a fascination for the spontaneous growth of the city, but a strive to understand the styles of life and cultural context that co-evolved with its habitat.

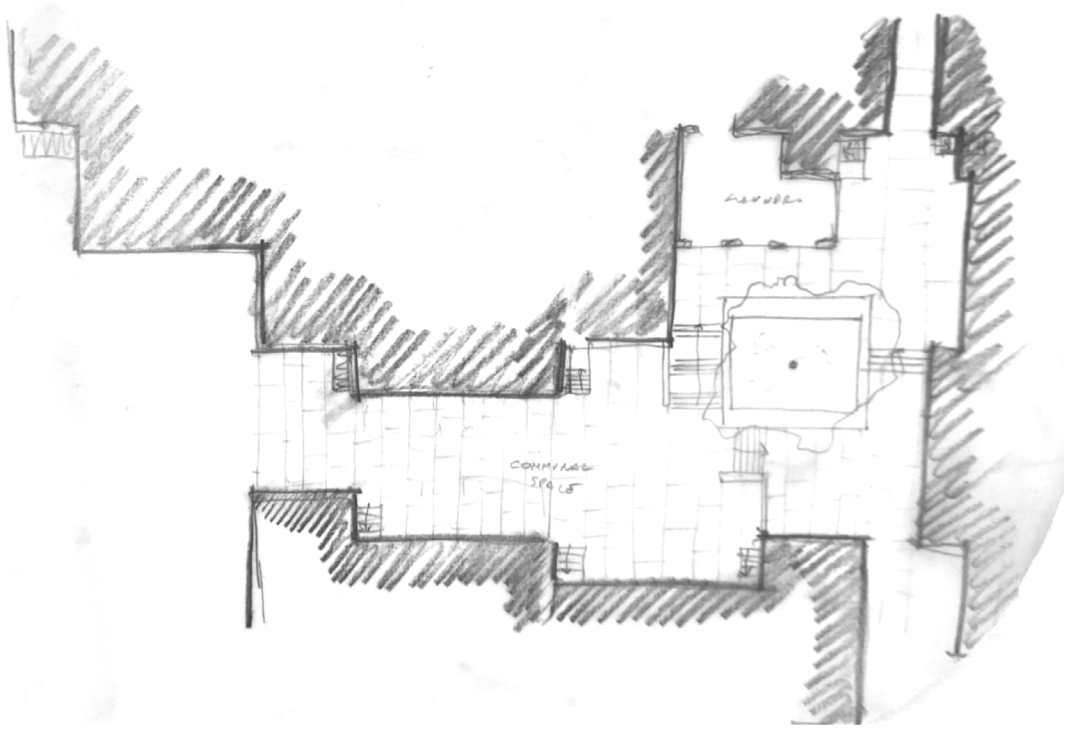
01 ARCHITECTURE IN MOTION

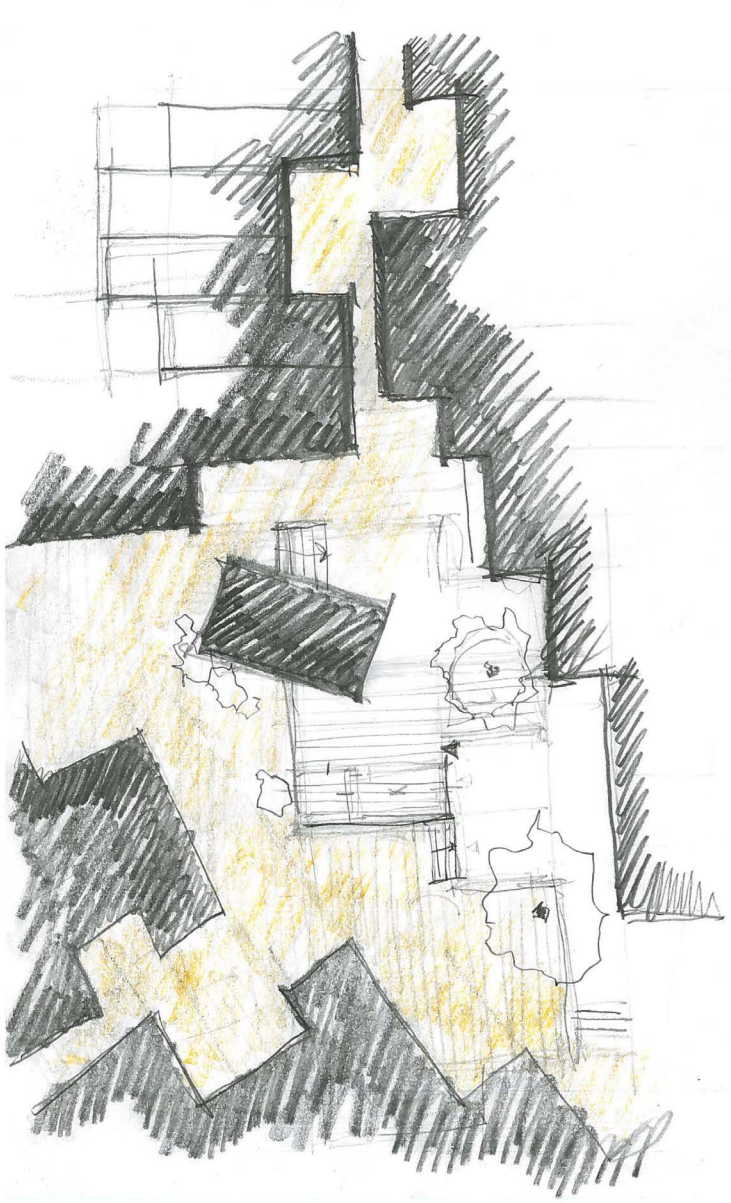
AS CITIES IN THE GLOBAL SOUTH GROW AT AN EXTREMELY FAST PACE, HOW CAN WE DENSIFY AND RECONFIGURE THEIR HISTORICAL DISTRICTS WITHOUT ERASING THEIR TRACES, INTERPRET THEIR STYLES OF LIFE WHILE PROVIDING A DYNAMIC STRUCTURE THAT CAN CATER FOR THEIR DREAMS?
IN SHORT, PARAPHRASING CHARLES CORREA, HOW CAN WE OPEN NEW DOORS TO NEW ASPIRATIONS WHILE DRAWING ON EXISTING VALUES?



A MATTER OF VOIDS

Studying closely the morphology of informal settlements in Addis, I tried to **take the spaces generated by human activities and make them systemic**. What are the characteristics of a positve space? How can we introduce a concept of porosity in the closed configuration of a compound? Can we open up to the city these introvert shape without disrupting the livelihood of their inhabitants?



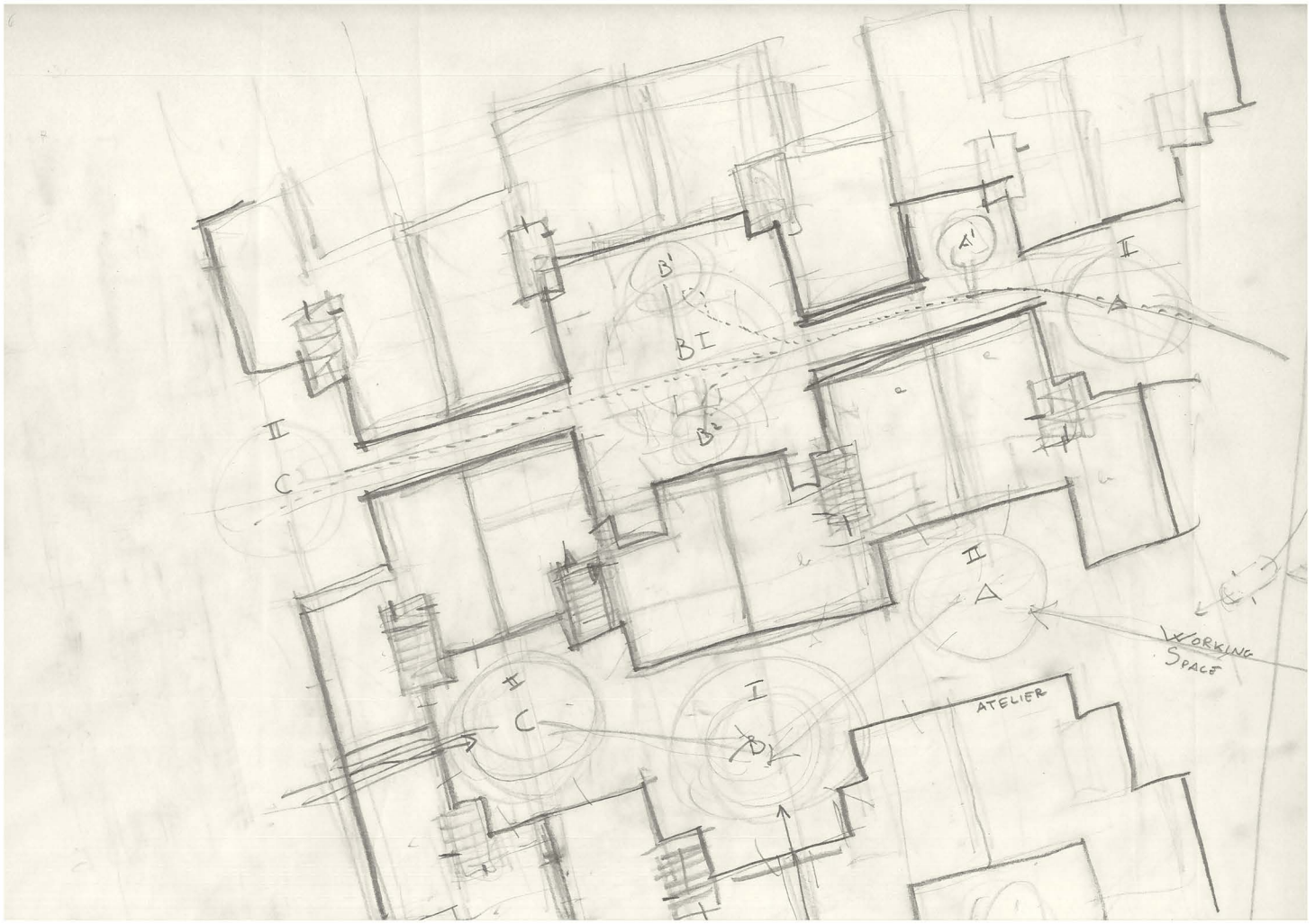




OPEN FRAGMENTS

"Buildings should be thought of from the beginning as fragments; containing within themselves a capacity to act with other buildings; be themselves links in systems of access and servicing. What is proposed is the abolition of planning as we know it . . . the disappearance of the 'master plan'."
Smithson, Peter, manuscript in: Baker, John (ed.), 'A Smithson File', Arena. The Architectural Association Journal, February 1966, p. 21.

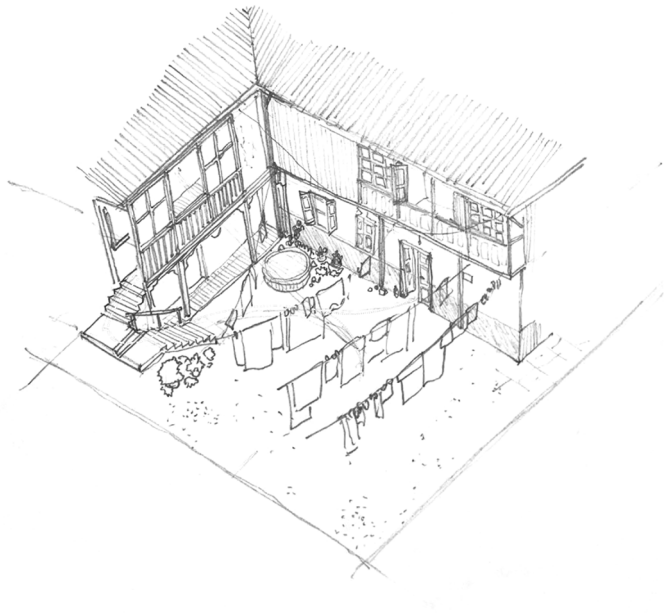



B'
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II
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B 2
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WORKING
SPACE
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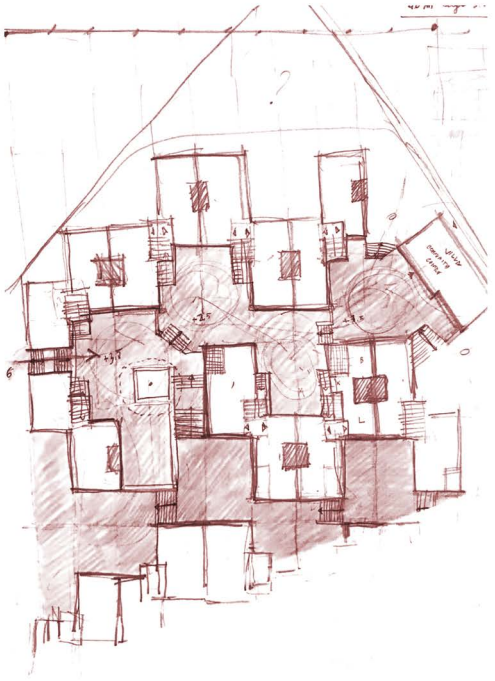
OPEN STAIRS

"Connect all autonomous households, public services, and workgroups on the upper floors of buildings directly to the ground. Do this by creating open stairs which are approached directly from the street. Keep the stair roofed or unroofed, according to climate, but at all events leave the stair open at ground level, without a door, so that the stair is functionally a continuation of the street. And build no upstairs corridors. Instead, make open landings or an open arcade where upstairs units share a single stair.

Alexander, Christopher, et al., "A Pattern Language: Towns, Buildings, Construction." Oxford University Press, pattern n.158, 1977.







Left
sketch of a villa in Sebara babur, by author

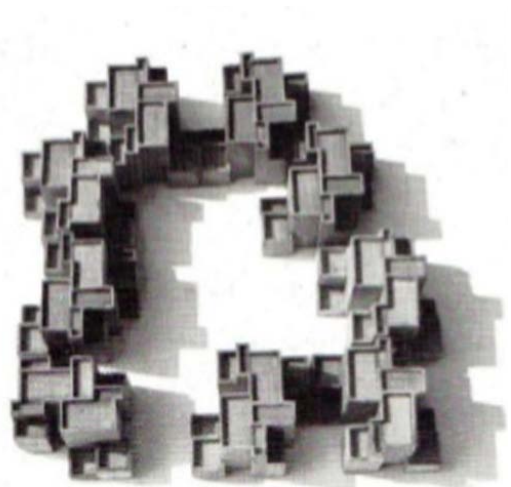
Above
sketch of Haarlemmer Houttouinen, by author

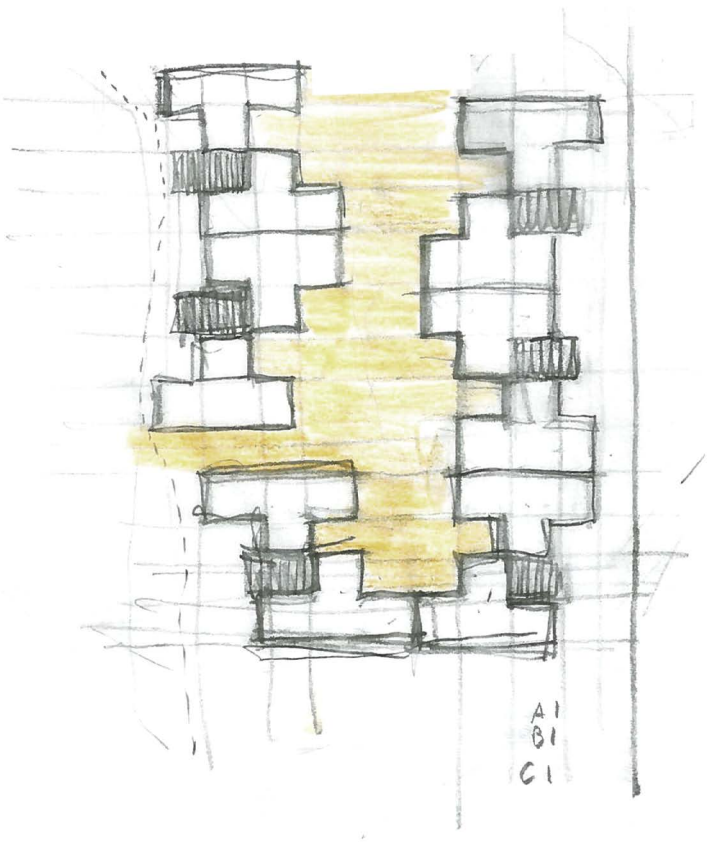
Upper right
design hypothesis, the stairs as a connector, by author

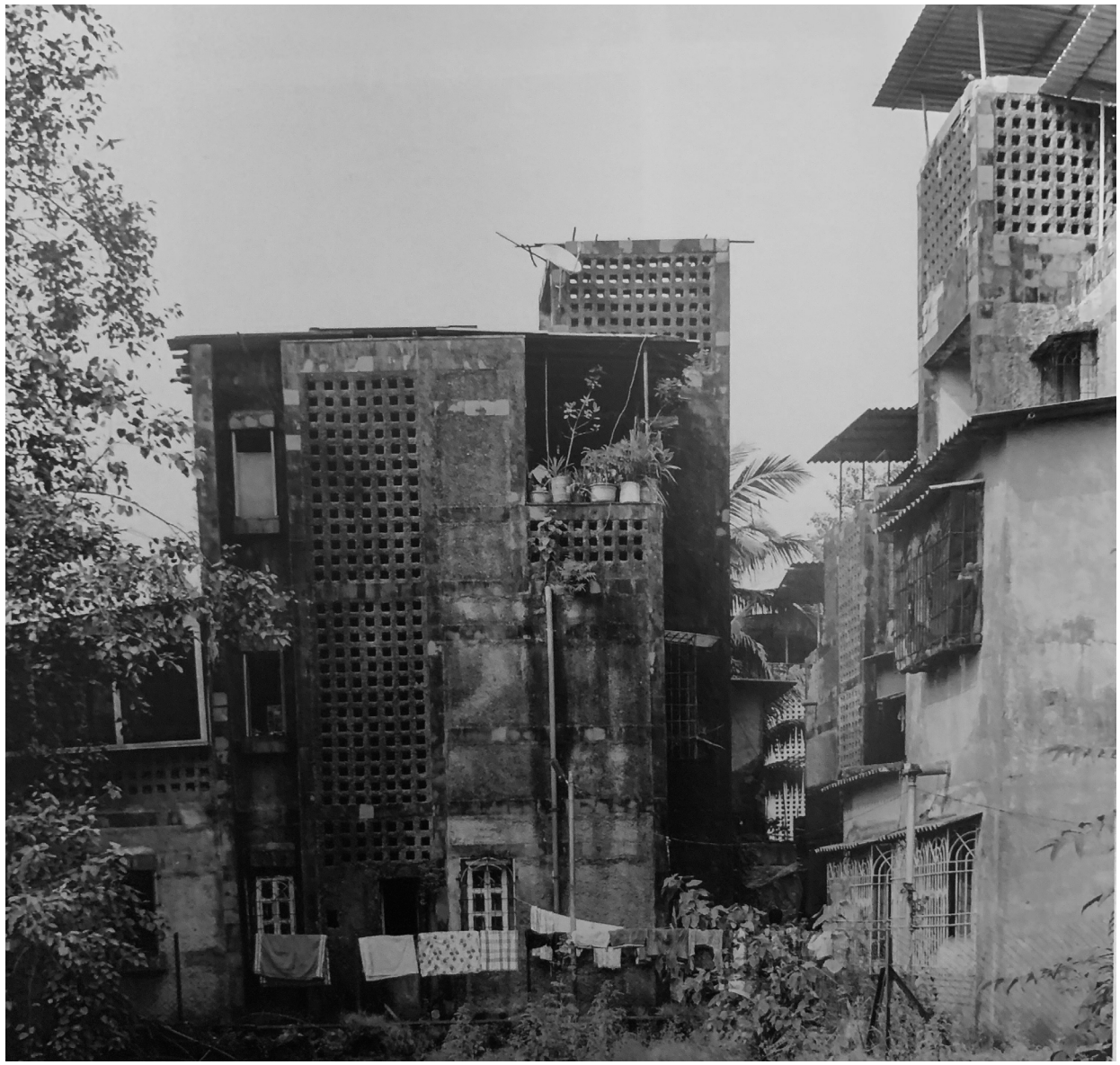
Lower Right
Taitu's palace, from The City and Its Architectural Heritage, Fasil Ghiorghis

CASE STUDY
CIDCO HOUSING, 1998, RAJ REWAL

Raj Rewal's schemes, inspired by vernacular urban morphologies, are characterized by clustering systems that shape outdoor areas. In particular, in cluster A1 B1 C1 of CIDCO housing complex, it is observable the clear **defininition of street fronts and community spaces.**



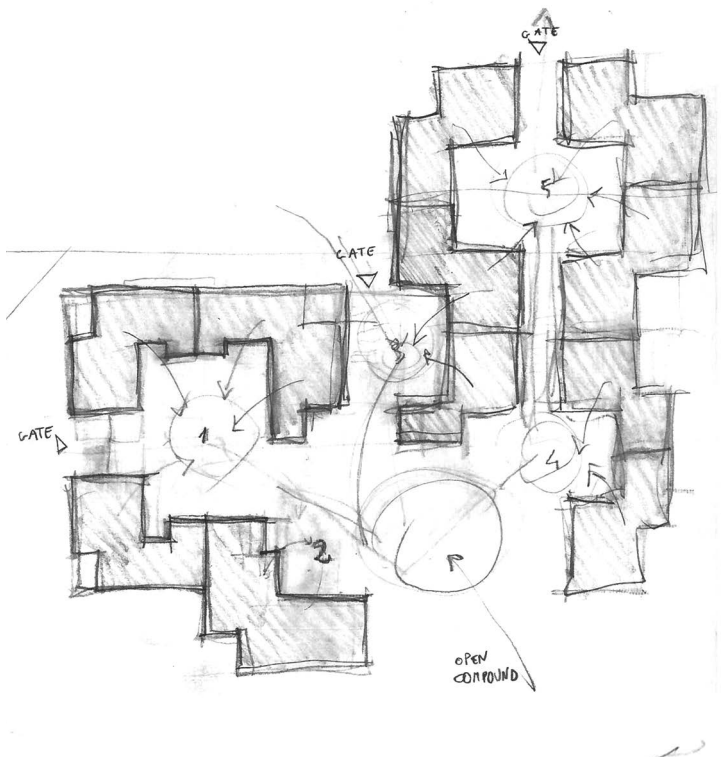


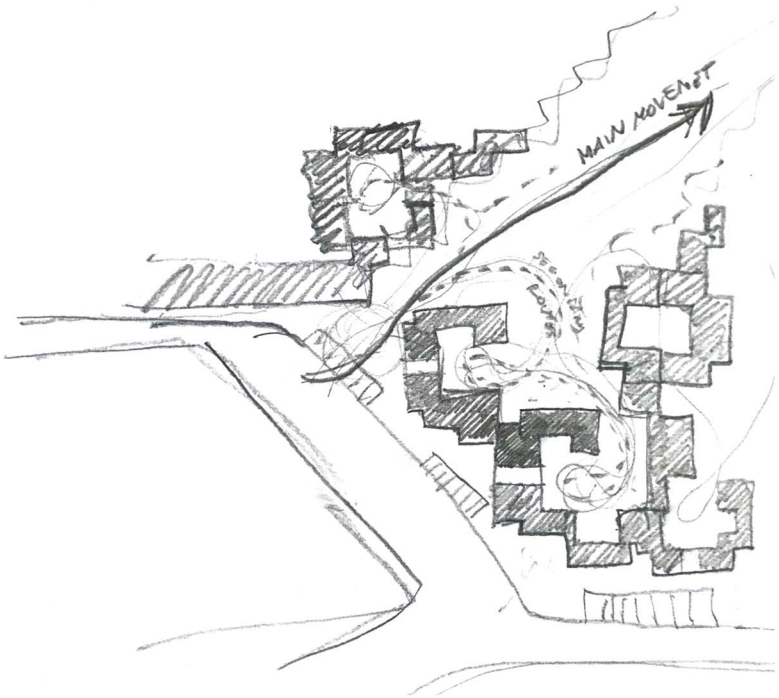




CASE STUDY
CIDCO HOUSING, 1998, RAJ REWAL

In cluster H1, diversity is brought into community spaces by means of ingenious rotations and juxtaposition of units, resulting in a composition defined by linear pathways and interlocked courtyards in rhytmical **expansions and compressions.** Movements along the settlement are choreographed by built masses that define main routes and gateways.




MAIN MOVEMENT



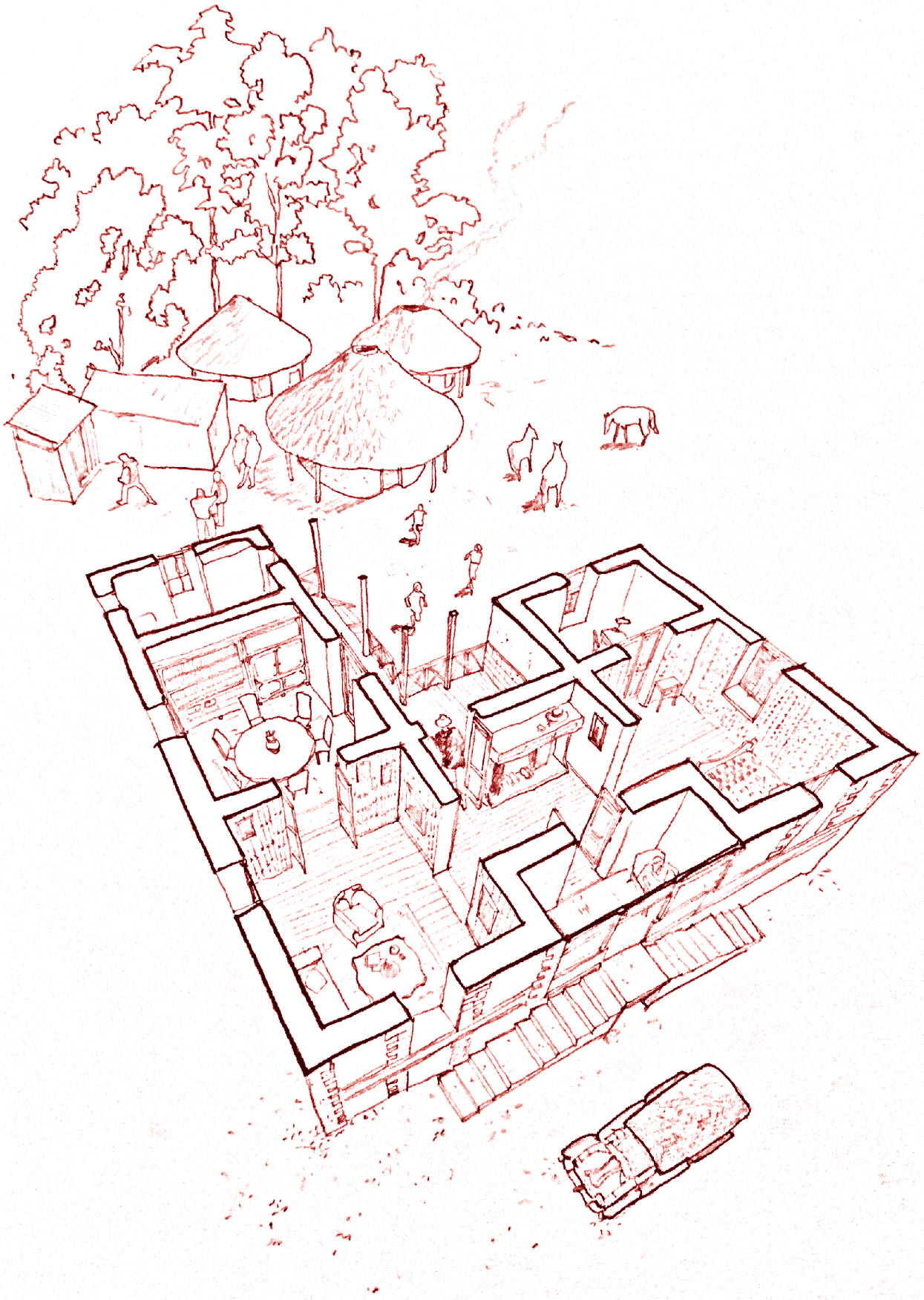


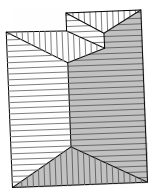
MORPHOGENESIS

CLUSTERING AROUND PERMANENCES

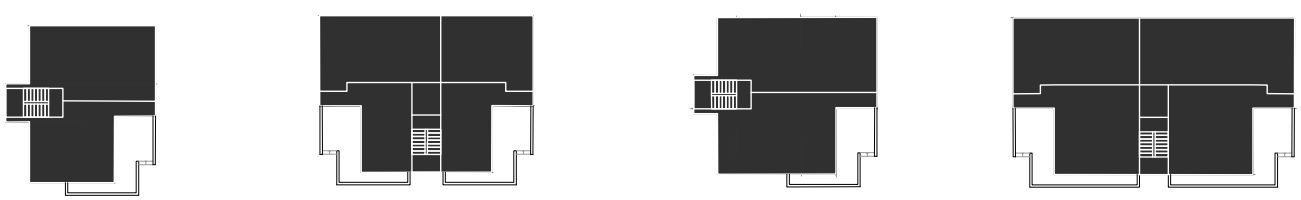
The condition of coexistence of different speeds of becoming within the city itself, generated "a situation that has not substantially changed to this day, namely that the imperial Gebbi came to be surrounded by veritable slums, as the palace servants could not afford to erect imposing structures and their descendants have continued live in those hovels."

A. M. Simone & Abdelghani Abhouani, Urban Africa: Changing Contours of Survival in the City. (Dakar: Codesria Book, 2005), 125.

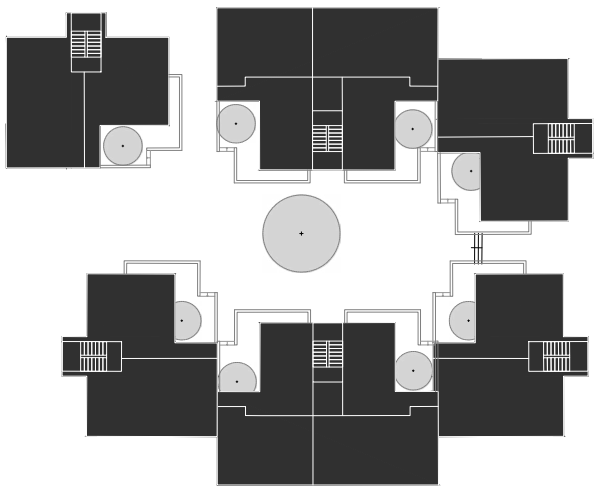




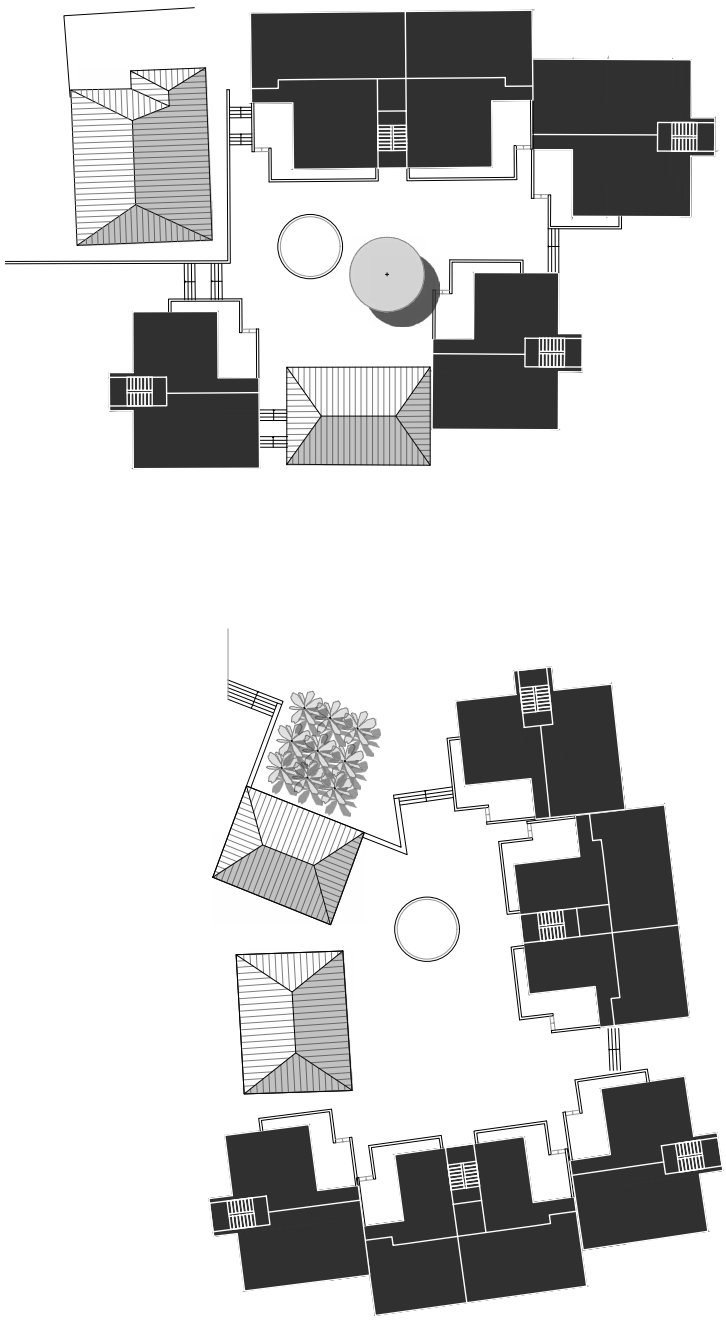
typical detached villa



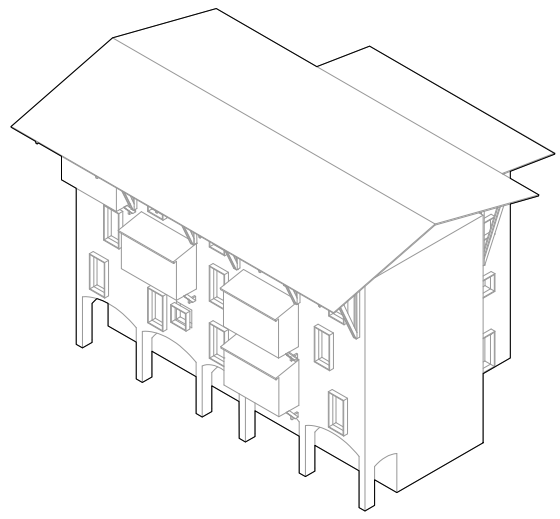
basic modules



cluster of 64 units

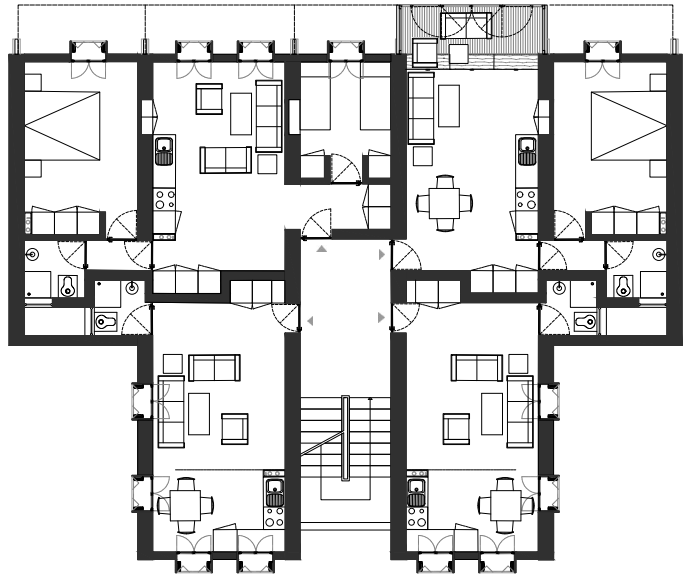


clustering around existing structures



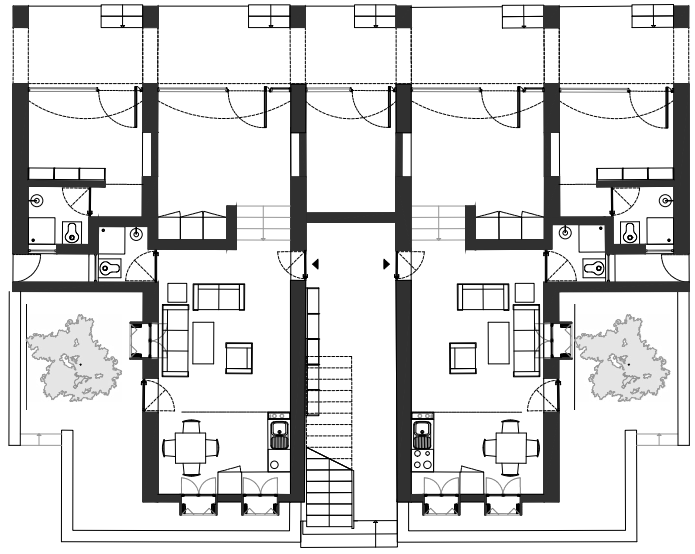
type A

52 sqm



40 sqm

26 sqm

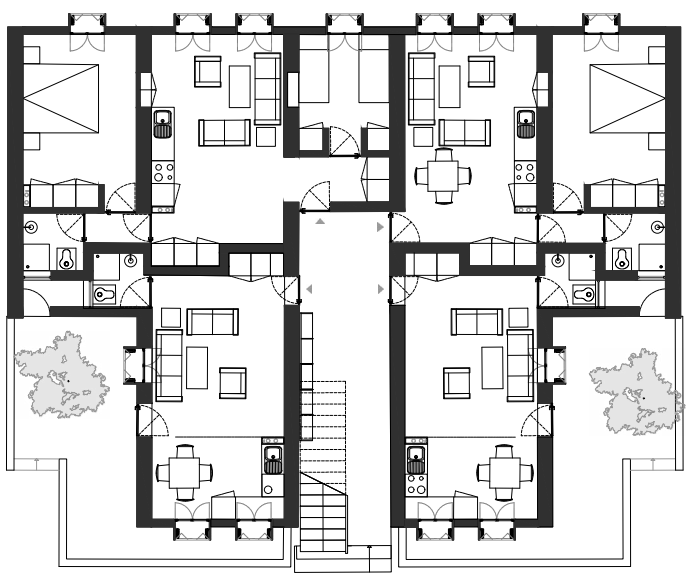


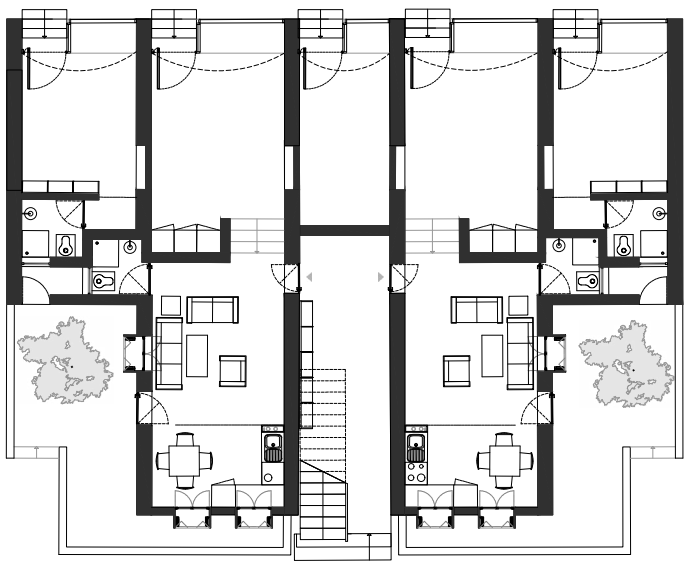
26+14 sqm

the position of the toilet allows a layout of the dwelling units that work indipendently along a horizontal axis. The result is two-fold:

1. live-work units on the gf / rentable shop
2. safe enclosure of the courtyard space. Moreover, the stone wall perimeter might facilitate expansions while assuring a certain degree of permanence

scale 1:200

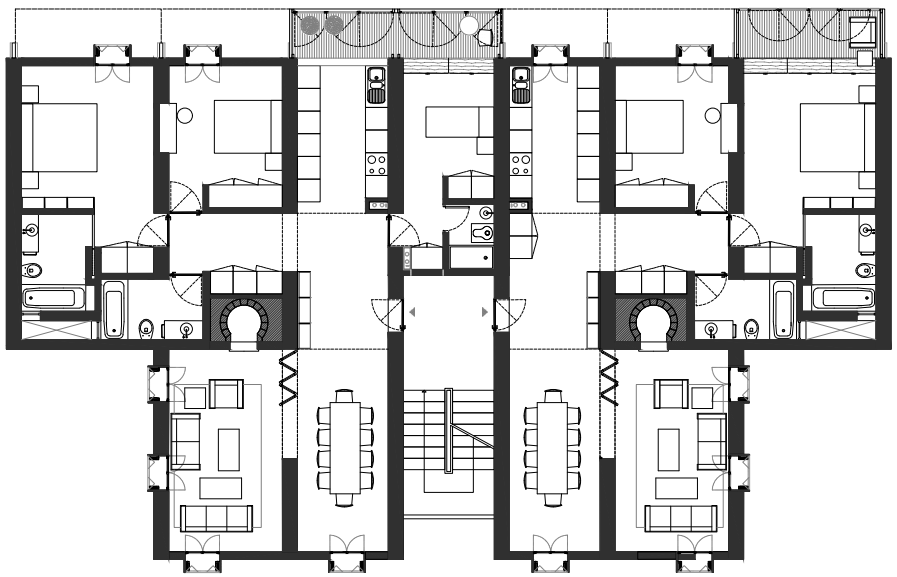




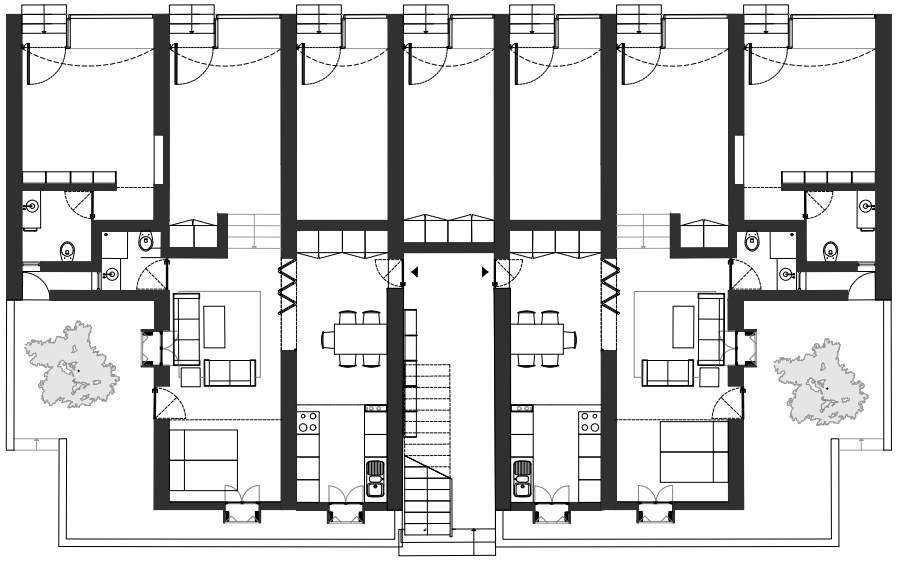
wherever a different urban condition requires it, the layout of the ground floor can be adapted. The workshops along the portico can be enlarged or the can turn into housing to adapt to the topography, if the 1-bedroom units are on a higher level than the studios.

scale 1:200

115 sqm



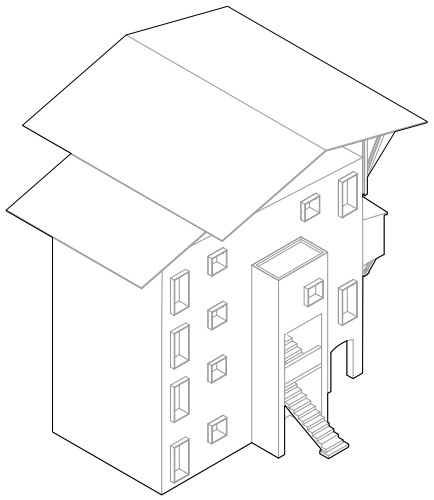
100 sqm



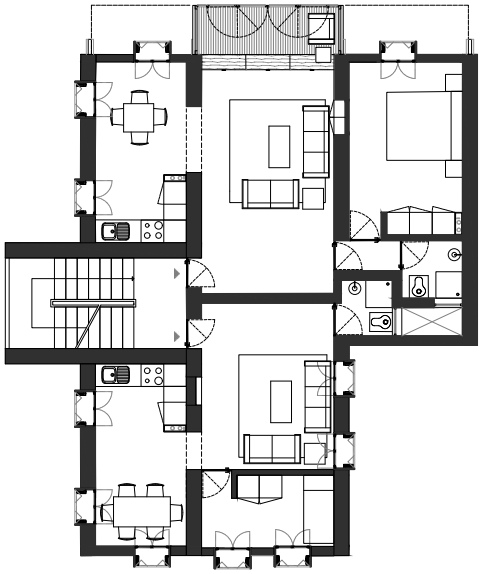
41+14 sqm

the units can also be adapted to higher income groups by adding one module in the system. By introducing a concrete beam larger openings can e created to design continous living areas. A fireplace is introduced in the dwellings as well as an indipendent room.
In the example above, it is noticeble how the addition of a veranda that connects the kitchen and this room could fit the presence of an housekeeper.

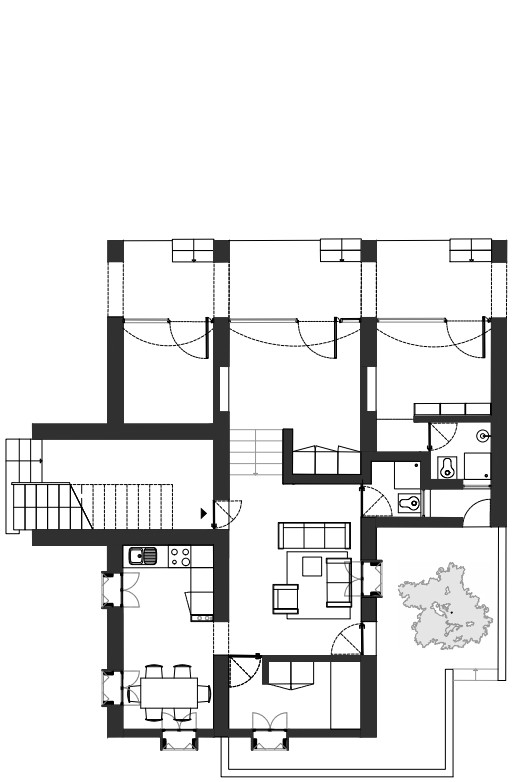
scale 1:200



type B



55 sqm

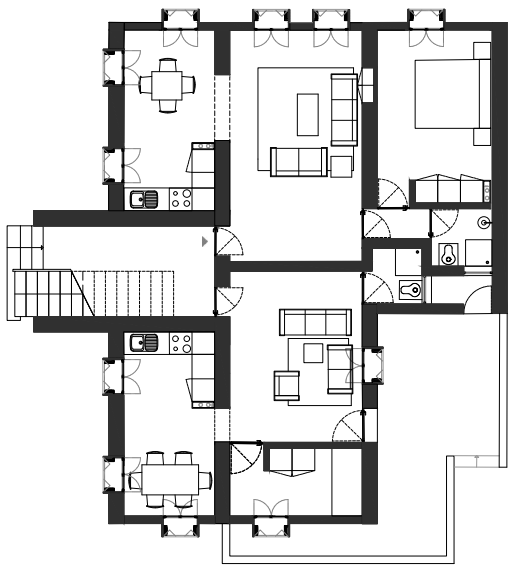


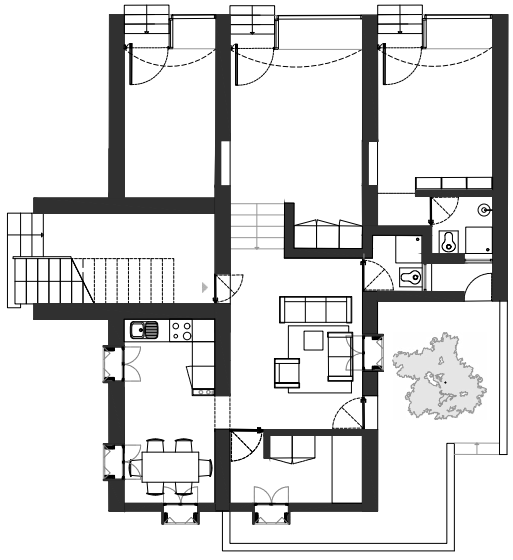
38 sqm

38+14 sqm

type B has been designed to assure a complete system
that can easily adapt to different plots and to
conclude the series established by clusters of type A

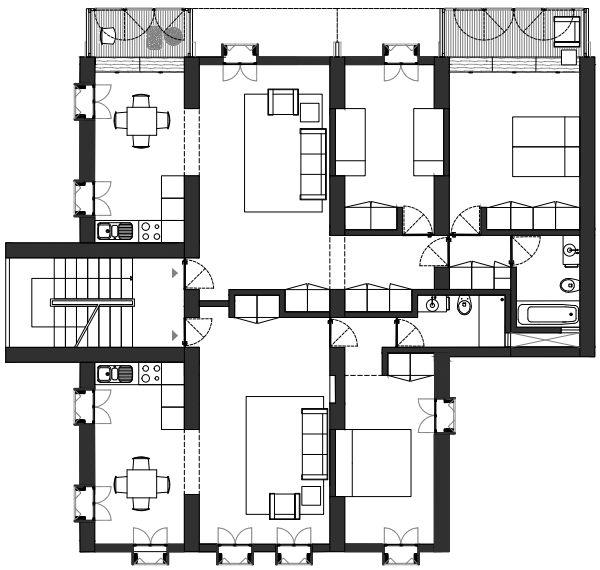
scale 1:200



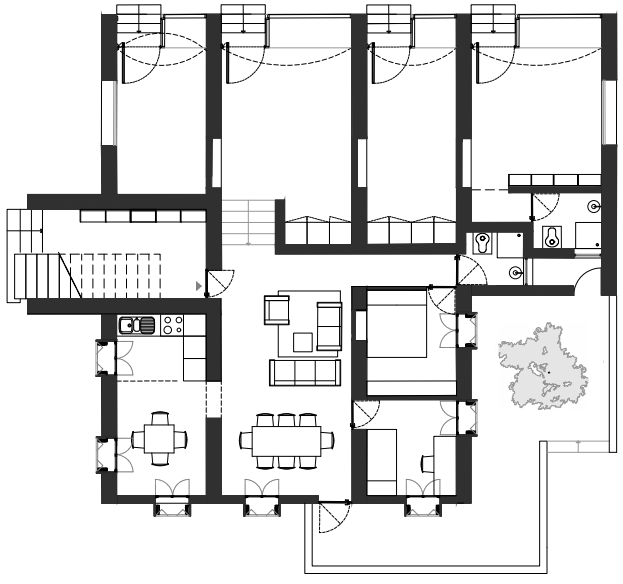


similarly type B can change to adapt to different site conditions

scale 1:200



78 sqm



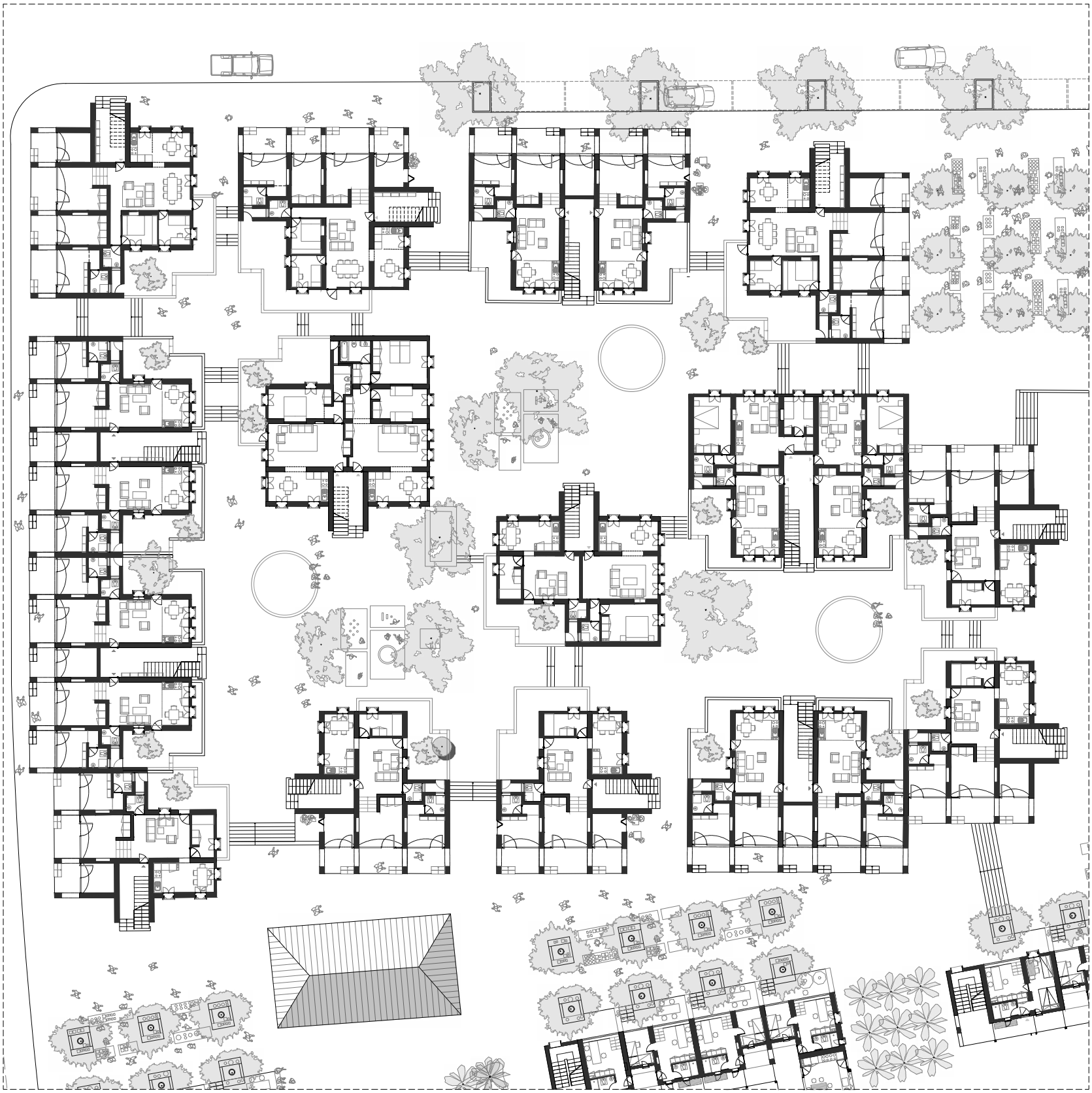
55 sqm

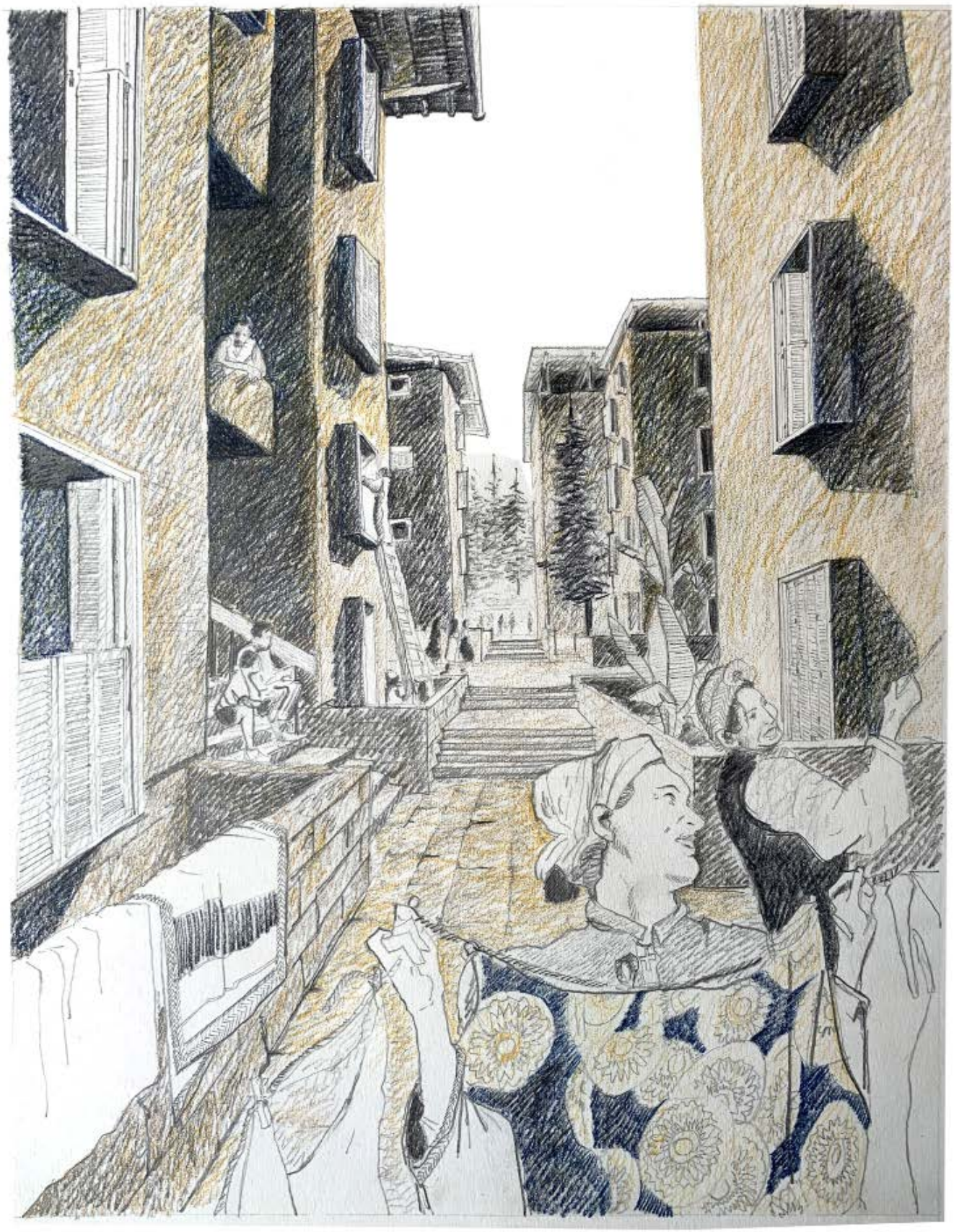
55+14 sqm

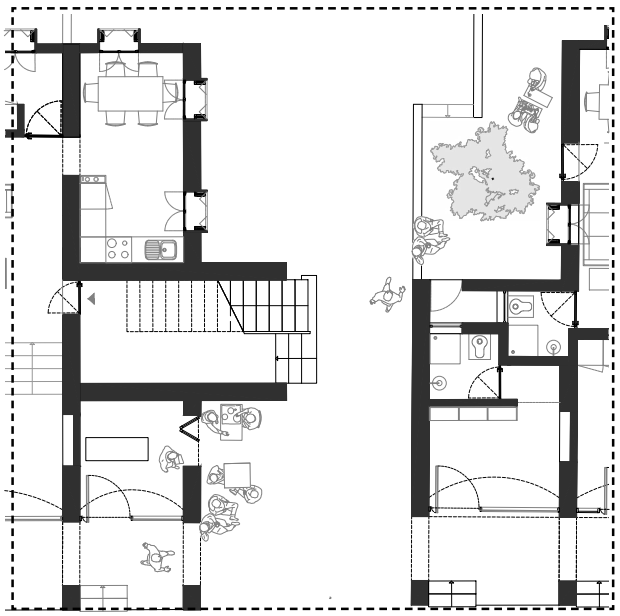
type B as well can variate to create diversity and attract other income groups

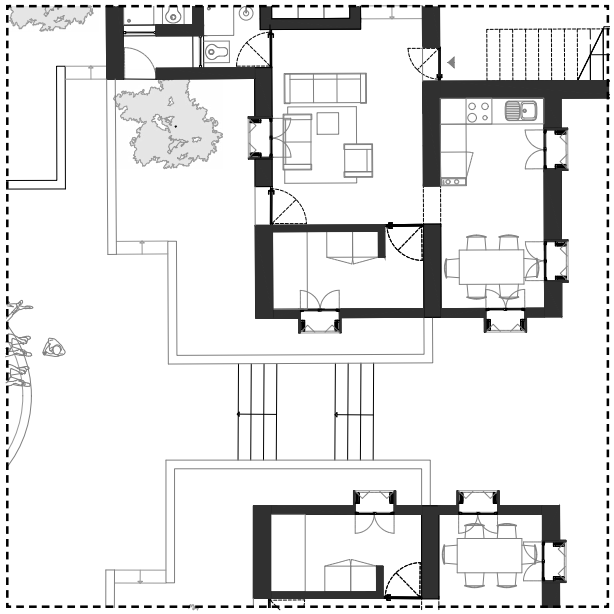
the load bearing walls are always designed in such a way that openings can be created in the units. For instance, workshop spaces can be joined and grow in larger entrepreneurial s places

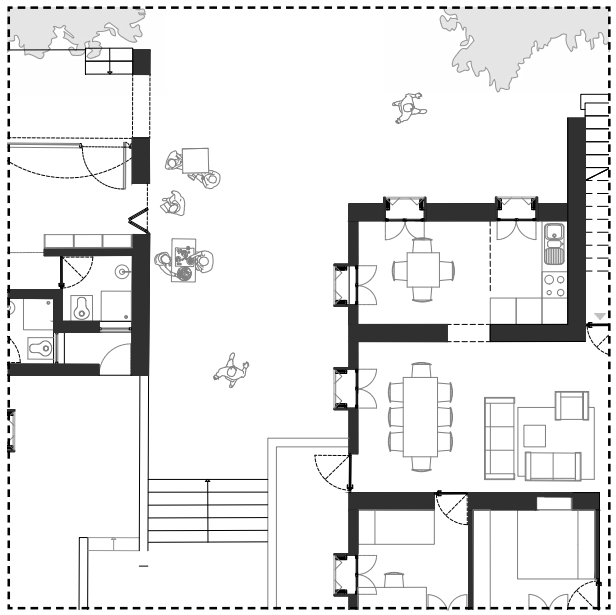
scale 1:200



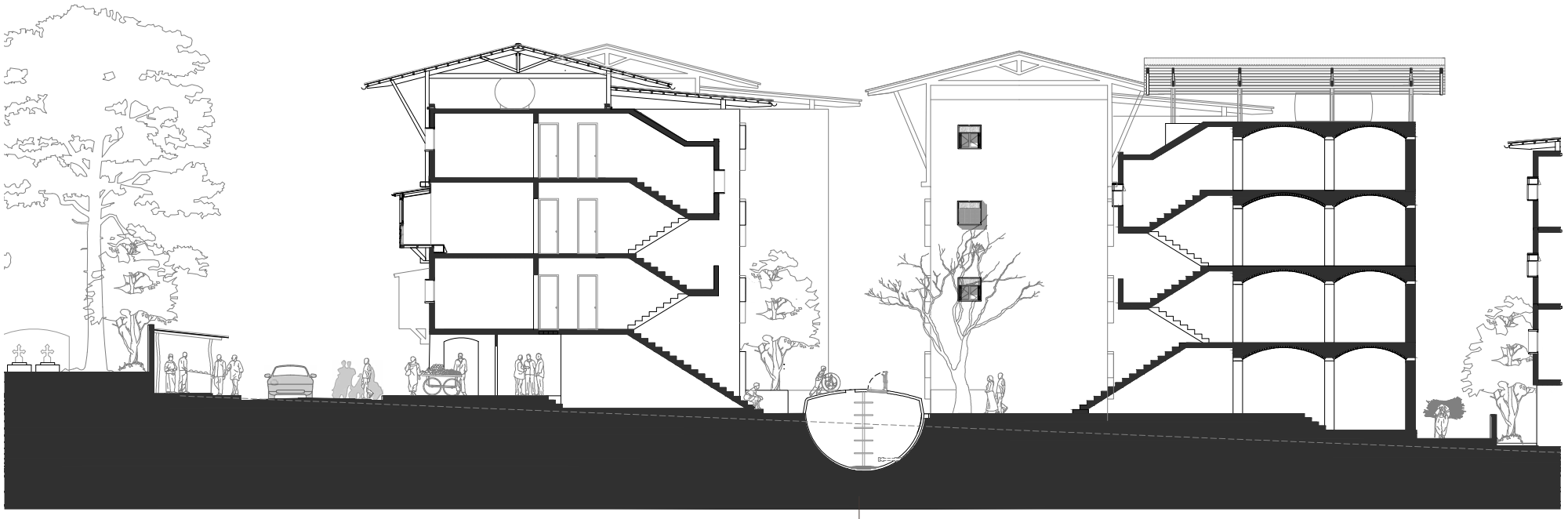








informal monitoring of point of access

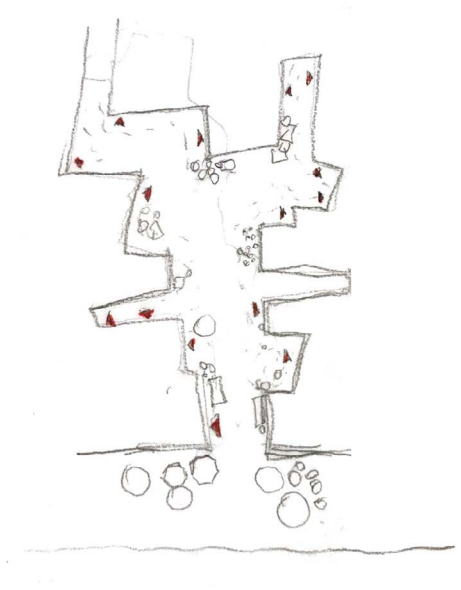


ferrocement water tank, 23 m^3
easily accessible + sculptural
element to define communal areas

MORPHOGENESIS
CLUSTERS OF WORKSHOPS

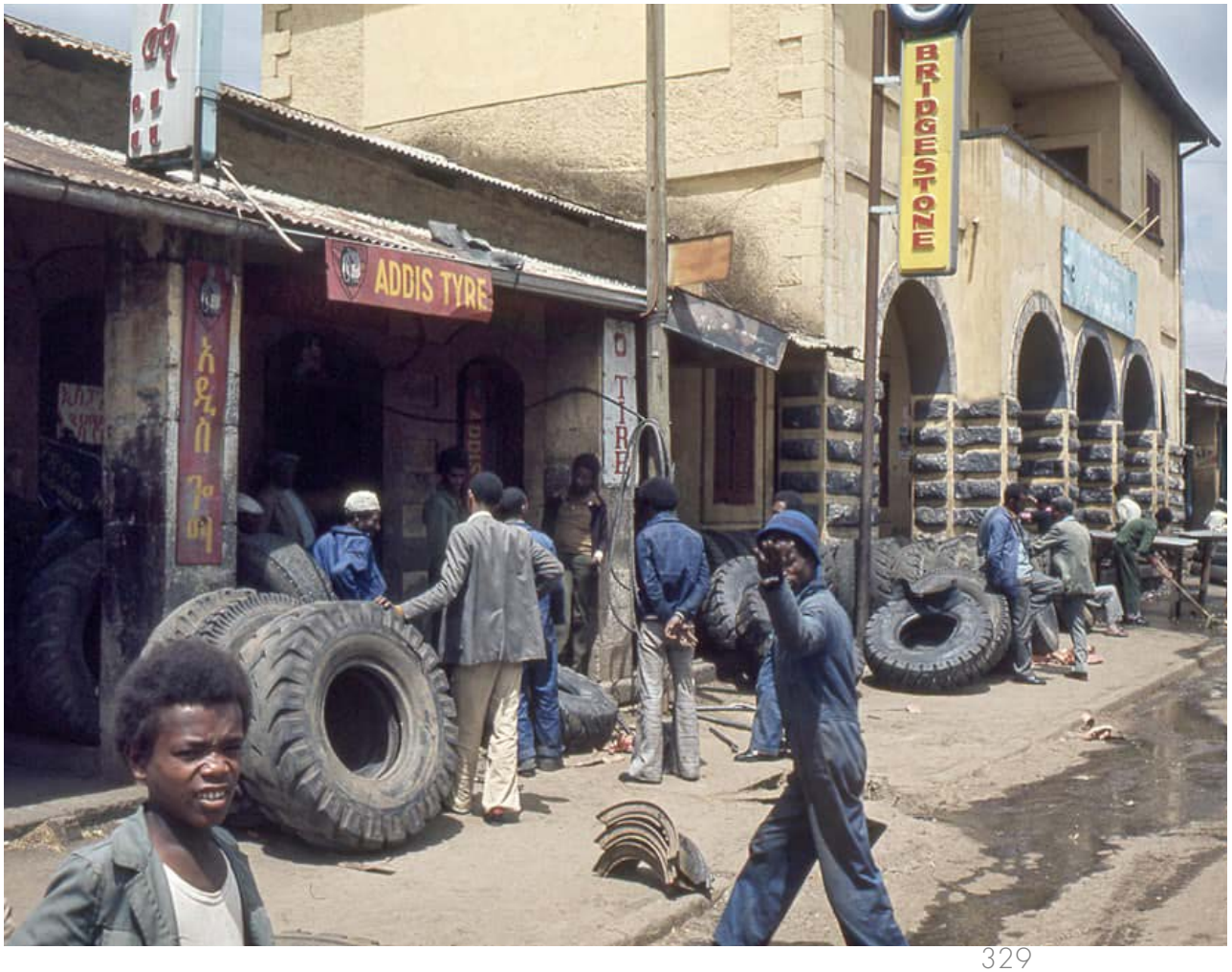
"[...] A father may be a craft maker, having learned the trade from a parent, while his wife is the merchant, with children and extended families assisting in various roles at home in childcare and elderly care, all working in the shop or learning the ways of the craft. This makes a l**ive-work environment an ideal type for preservation and development** as it combines work space with living quarters, an ideal condition for craft makers and family members with the necessary ease of support and fluid life-work balance."

"Live/Work Architecture An alternative to high-rise development in Addis Ababa", Melhik Gebremichael





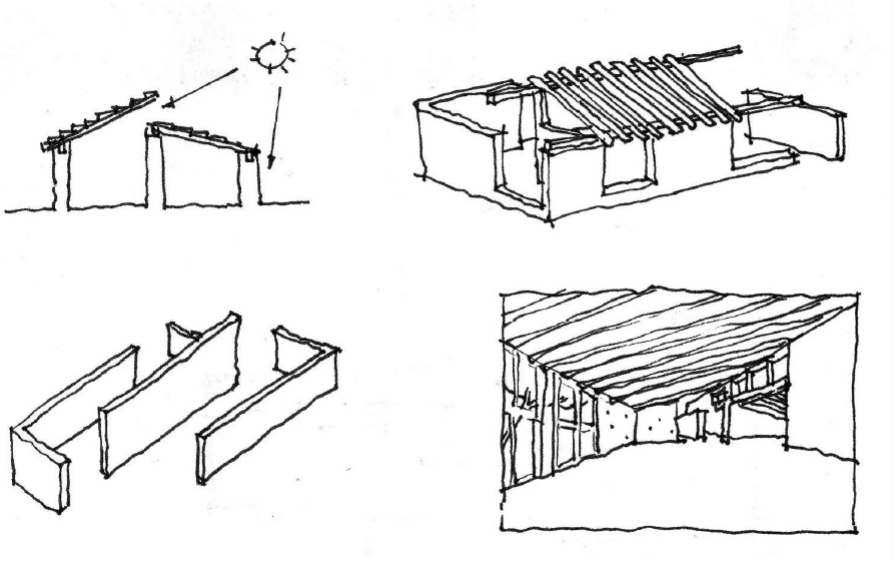


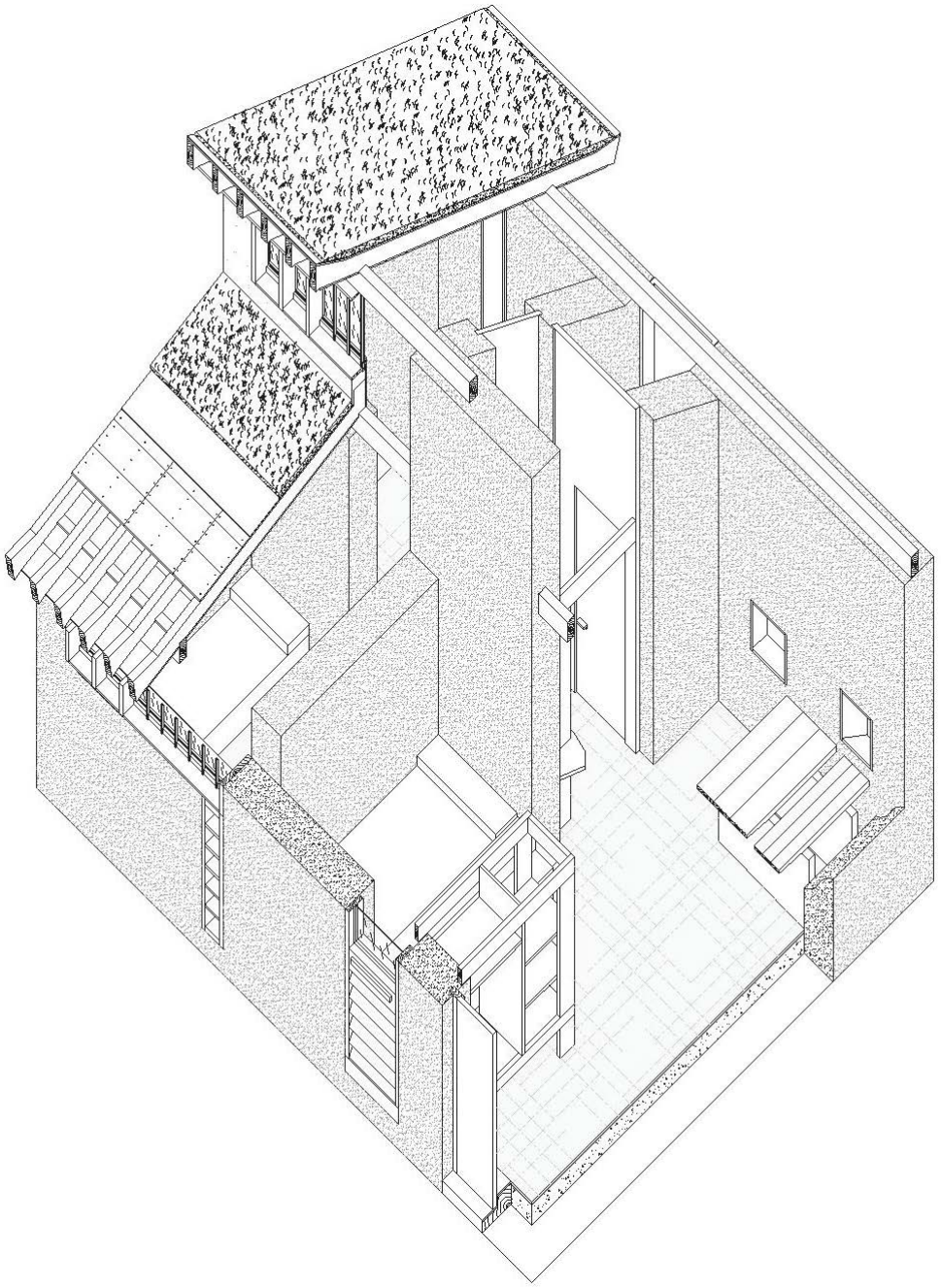

ADDIS TYRE
BRIDGESTONE
TIRE

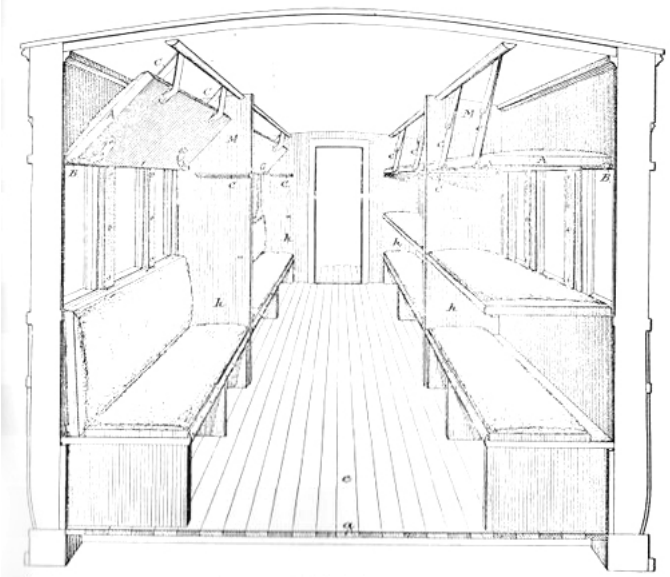
CASE STUDY
MAISON MURONDINS, 1945, LE CORBUSIER

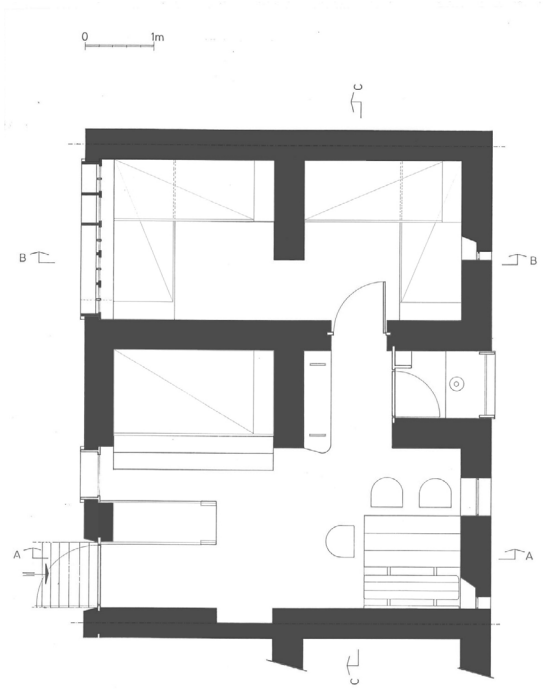
Le Corbusier in 1940's developed a scheme to house refuges in temporary earth units. Inspired by the design of means of transport, trains and boats, Le Corbusier teaches us the importance of **flexible layouts and polyfunctional spaces.**

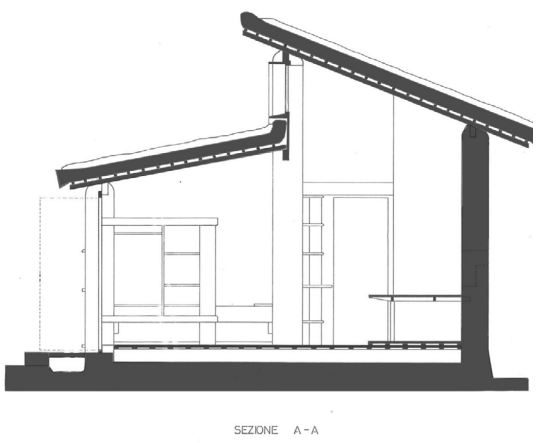
How can low-income families or groups of workers dwell in less than 20 sqm?











Left
sketch by Le Corbusier, Graham Foundation

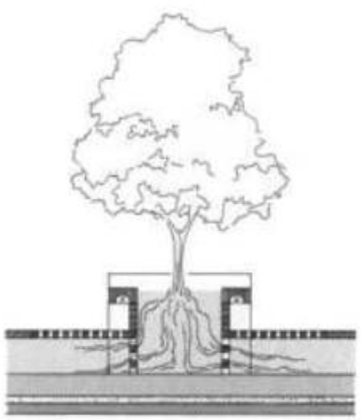
Above
drawing by students from ETSA Seville

Upper right
drawing by Cumberland Valley Railroad

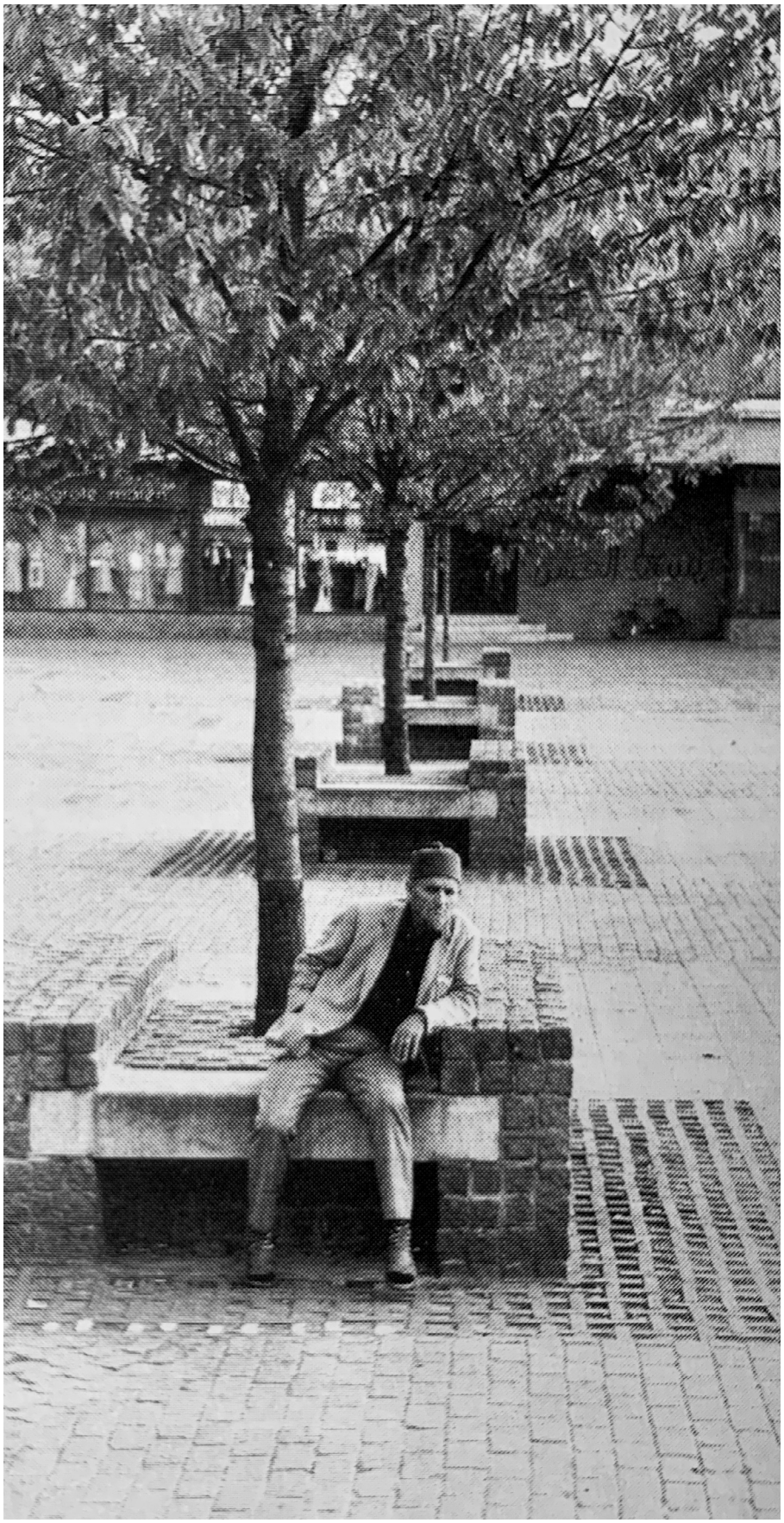
Lower Right
drawing by students from Politecnico di Milano

CASE STUDY
VREDENBURG SQUARE, HERMAN HERTZBERGER

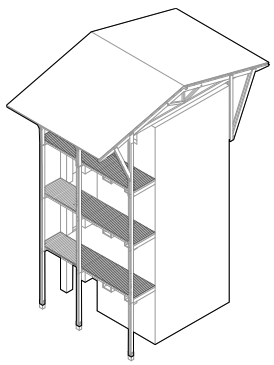
In Vredenburg Square, Hertzbeger re-configures he traditional market by offering a flexible structure. Boxes were installed to plant trees, provide shade to the vendors and electricity. When there is no market the **multi-purpose design** offers a place to sit in the shaede.



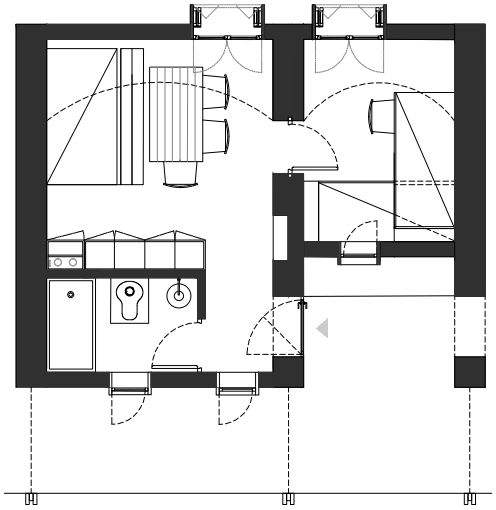


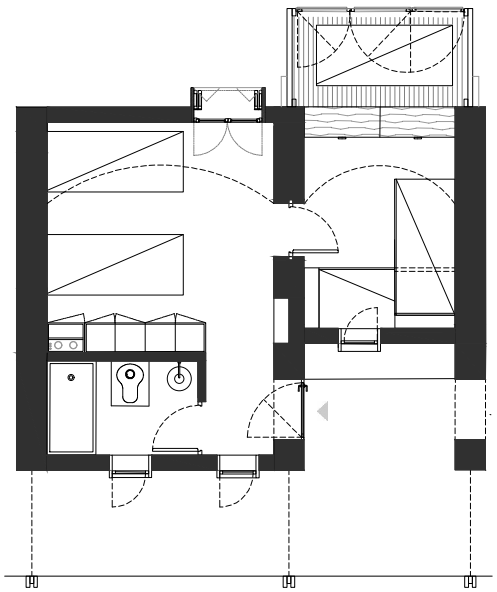


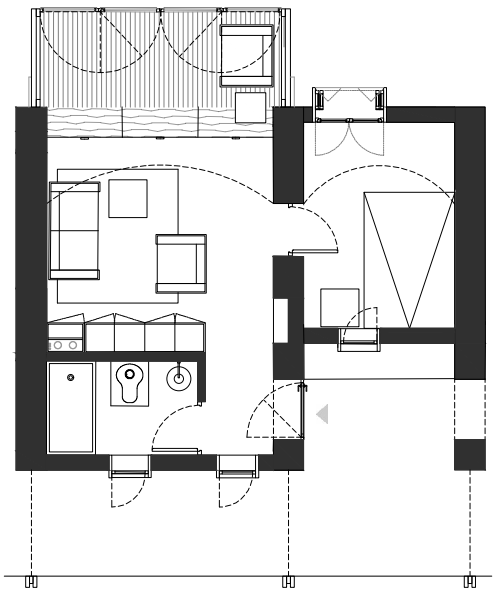
Images from Lessons for Student of Architecture

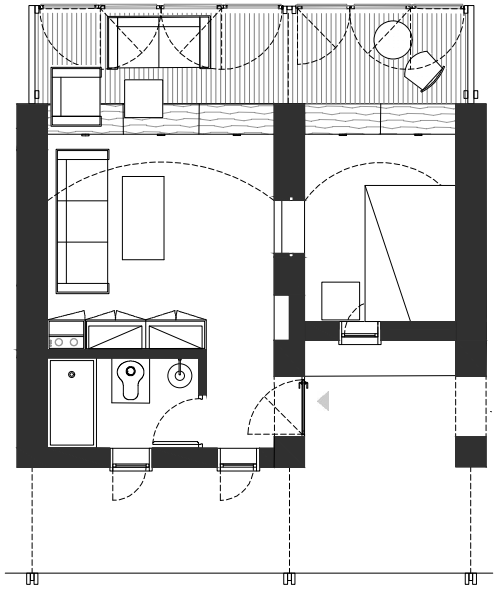


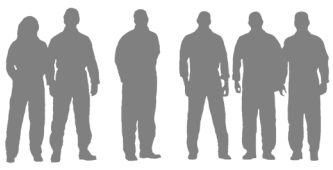
type B















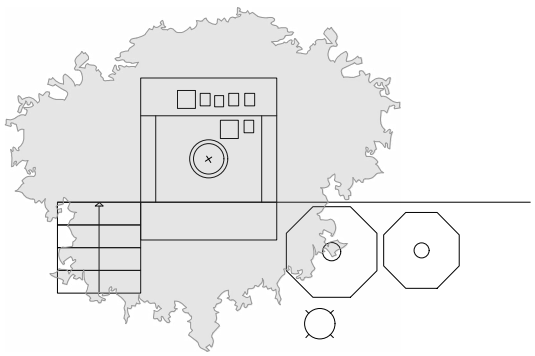
21 sqm

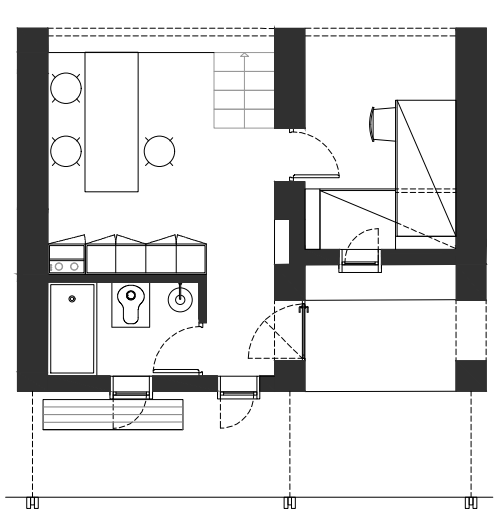
25 sqm

28 sqm

type C has been designed to accomodate low-income groups of migrants and families of crastmen. The layout of the units is composed by two different modules to provide a night/day or work/live configuration.

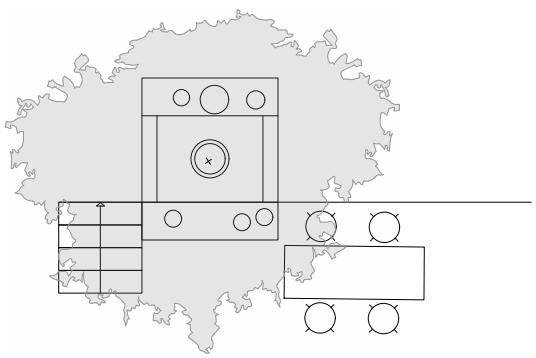
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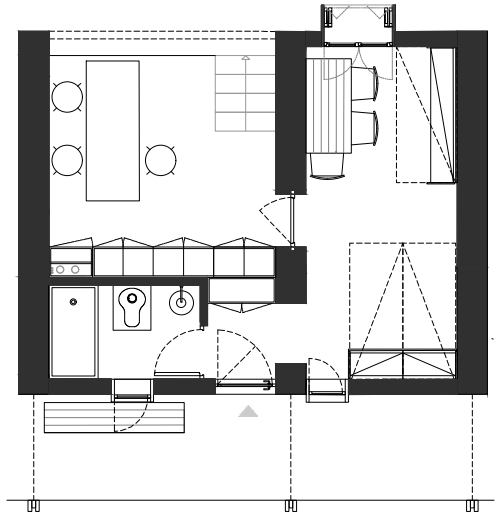






18 sqm



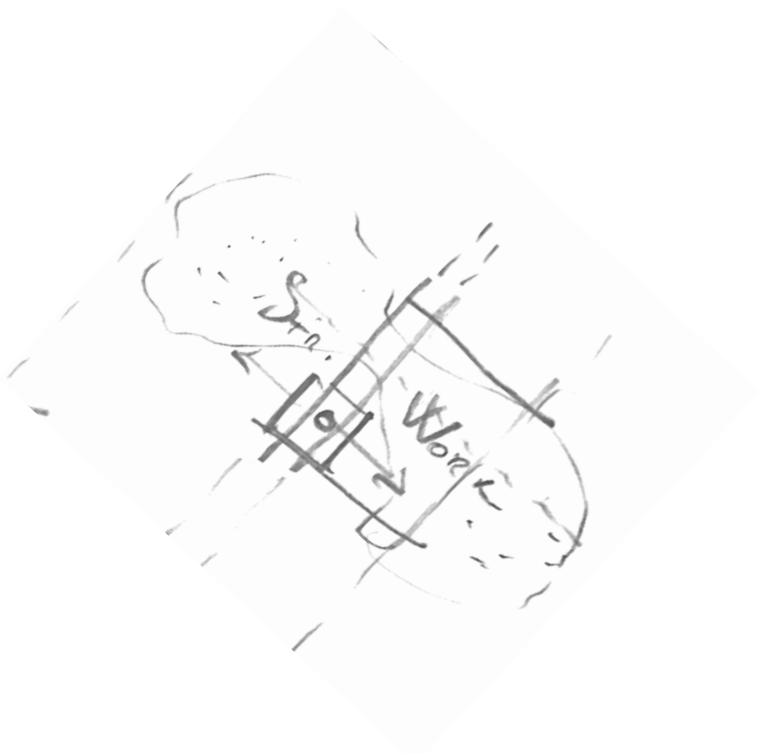


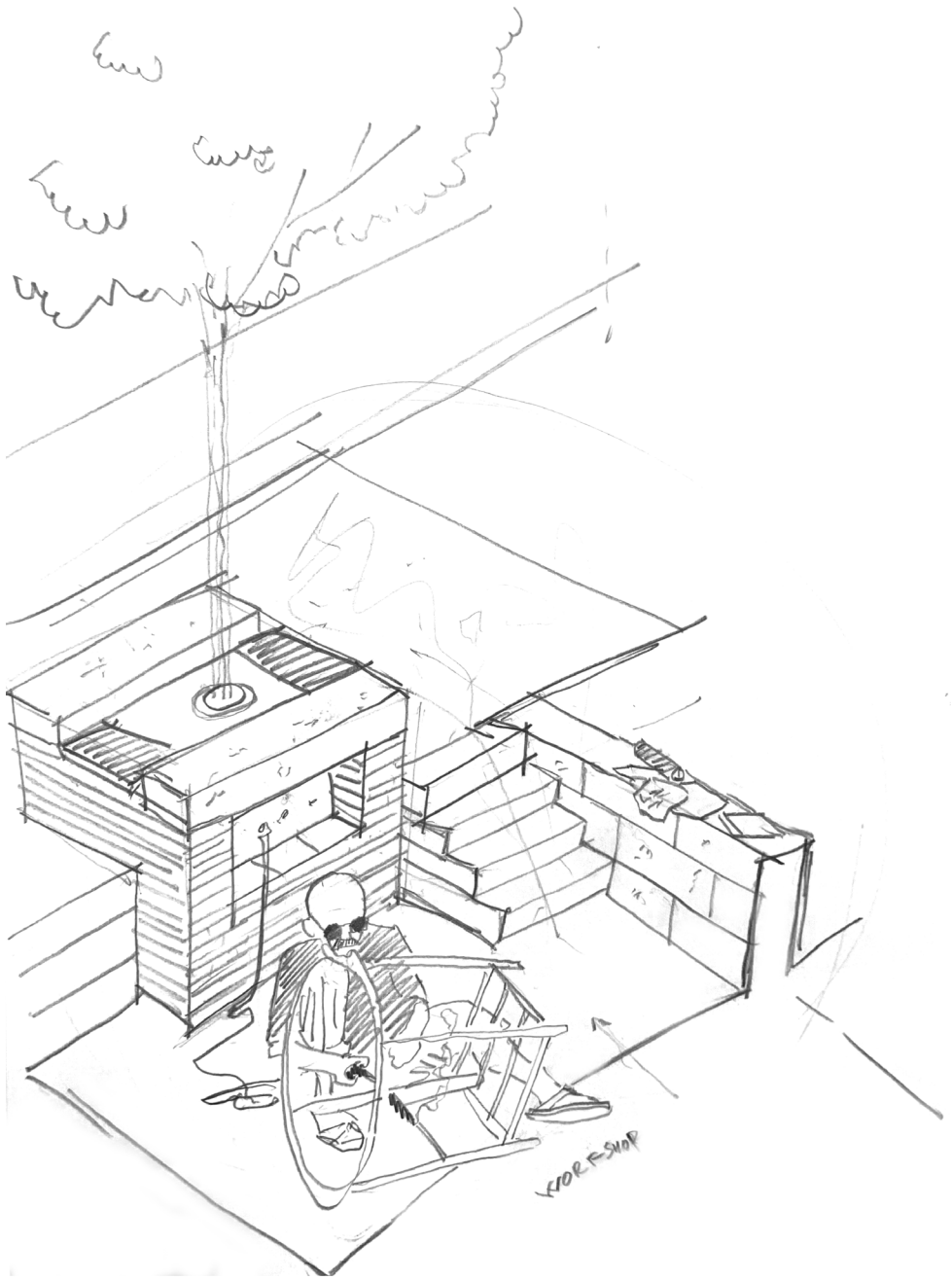


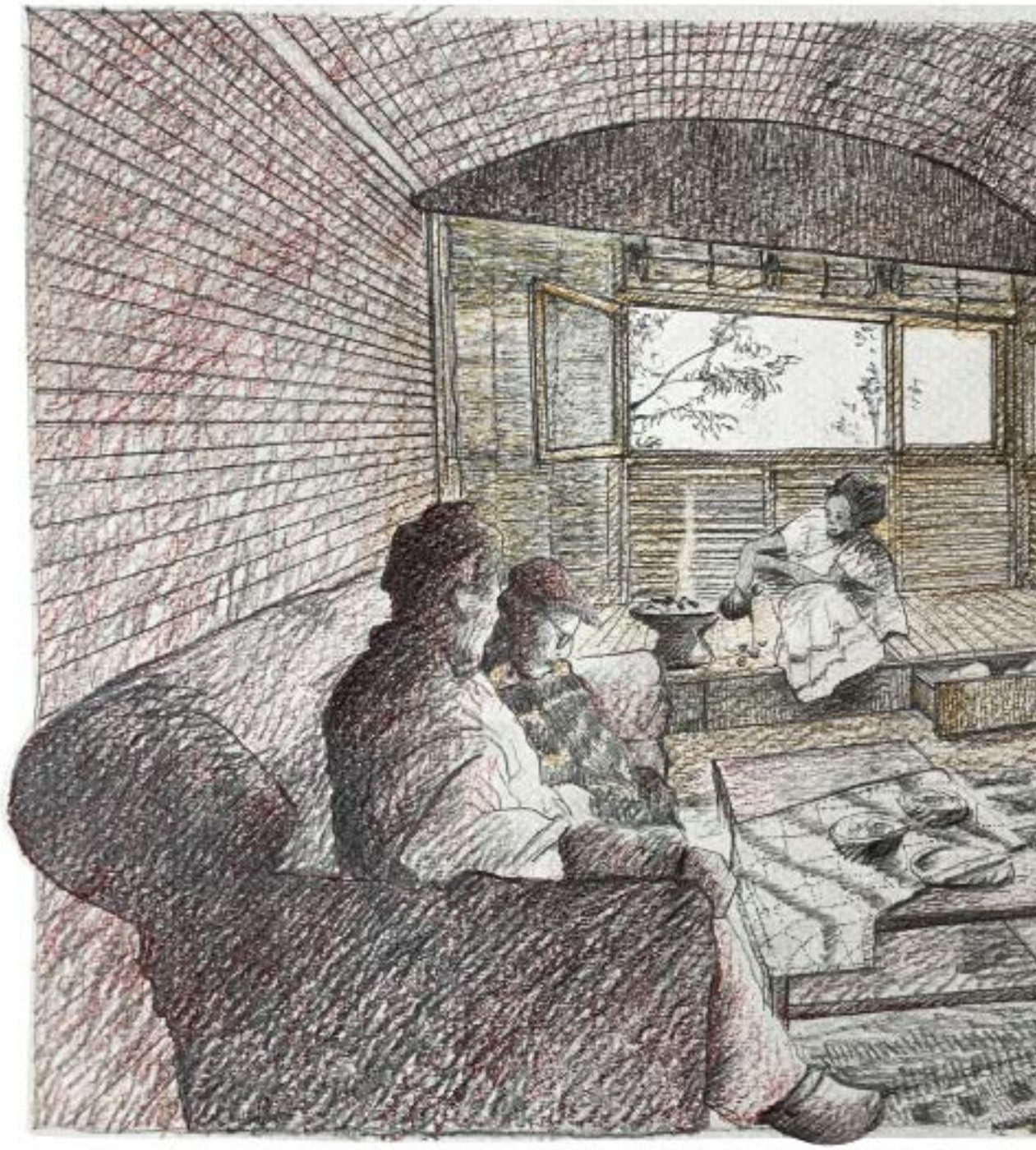
21 sqm

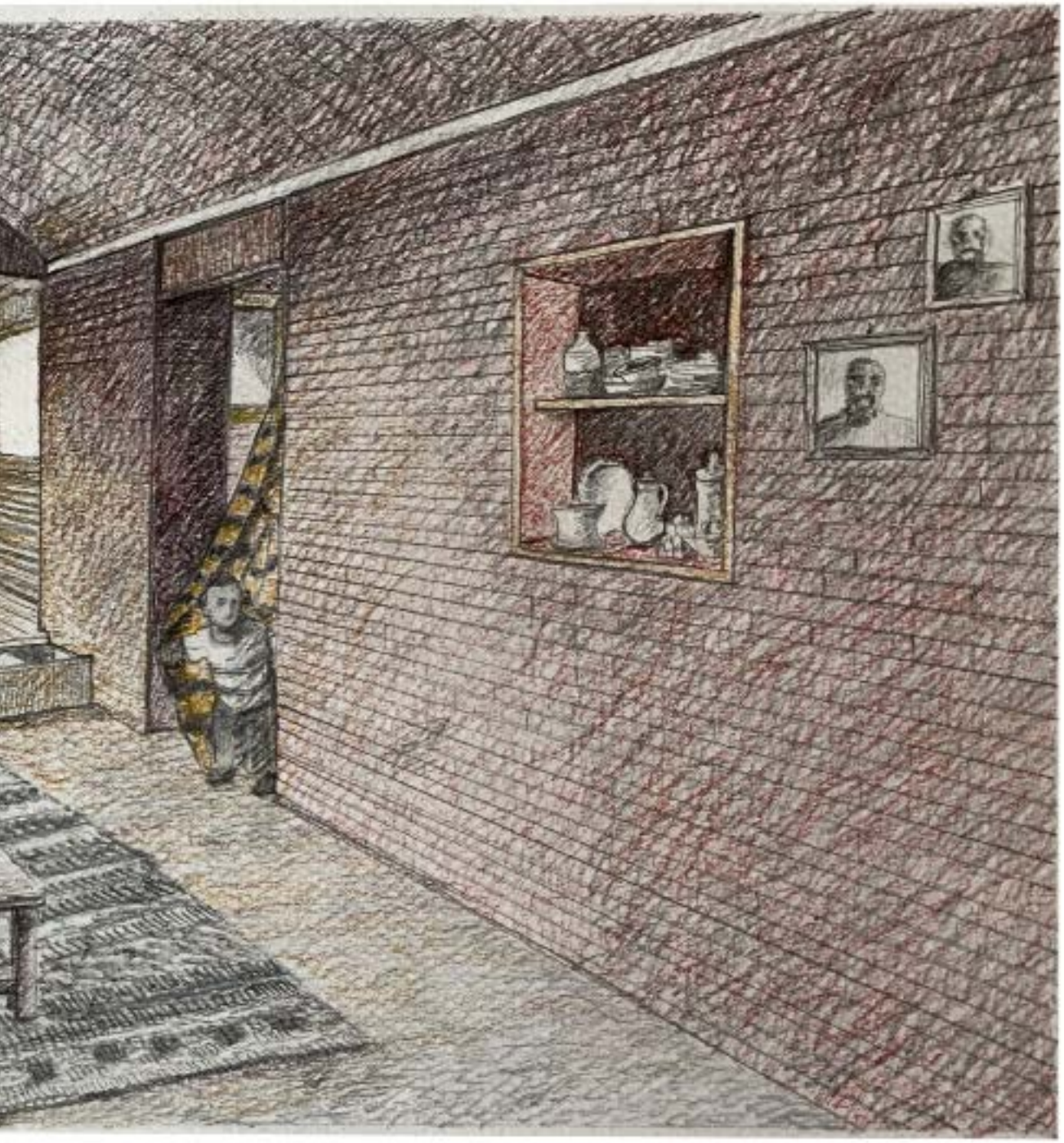
The niche designed in the entrance allows expansions and re-configuration of the units as well as outdoor space to cook and encourage casual encounter.

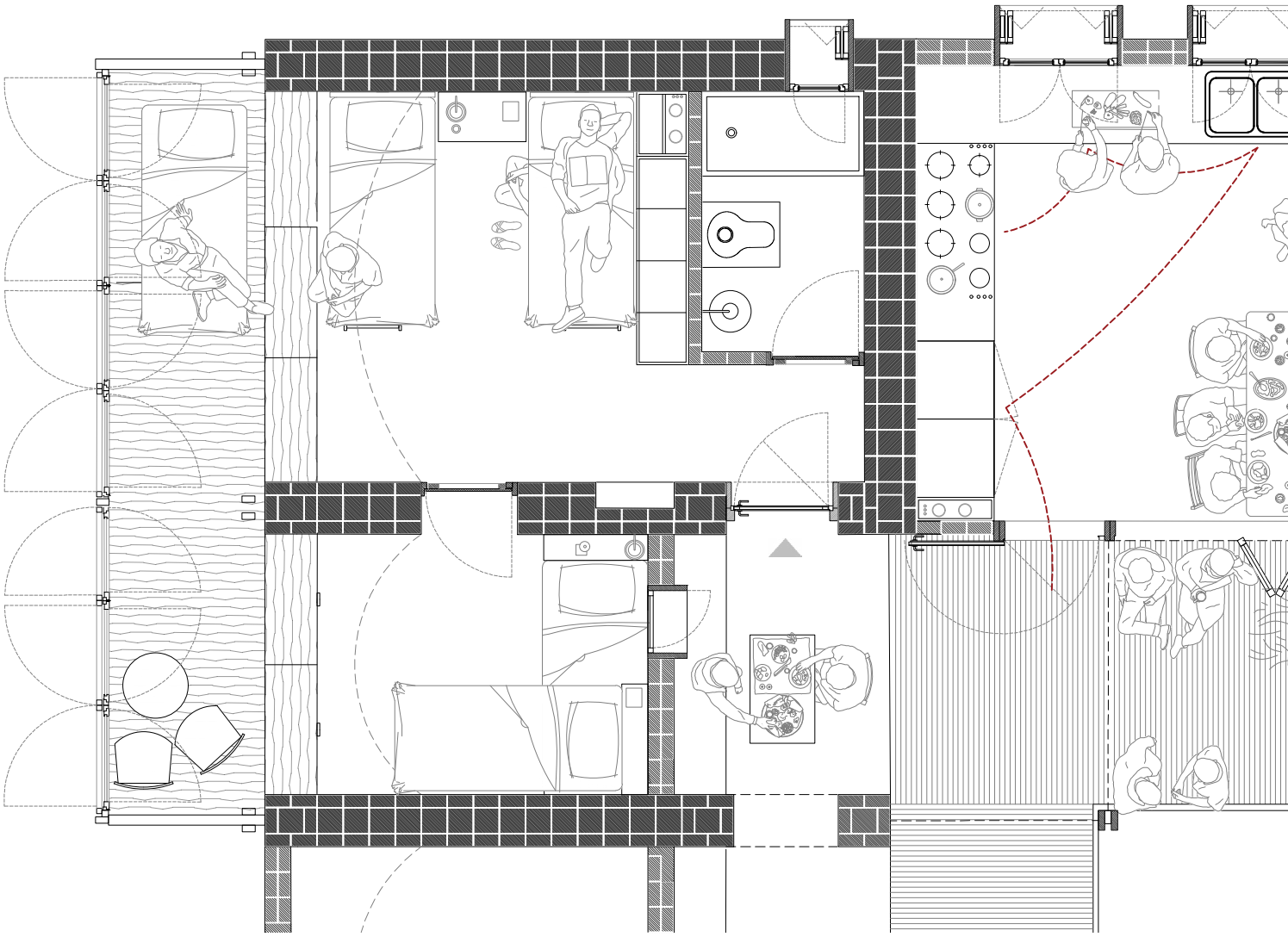
scale 1:100

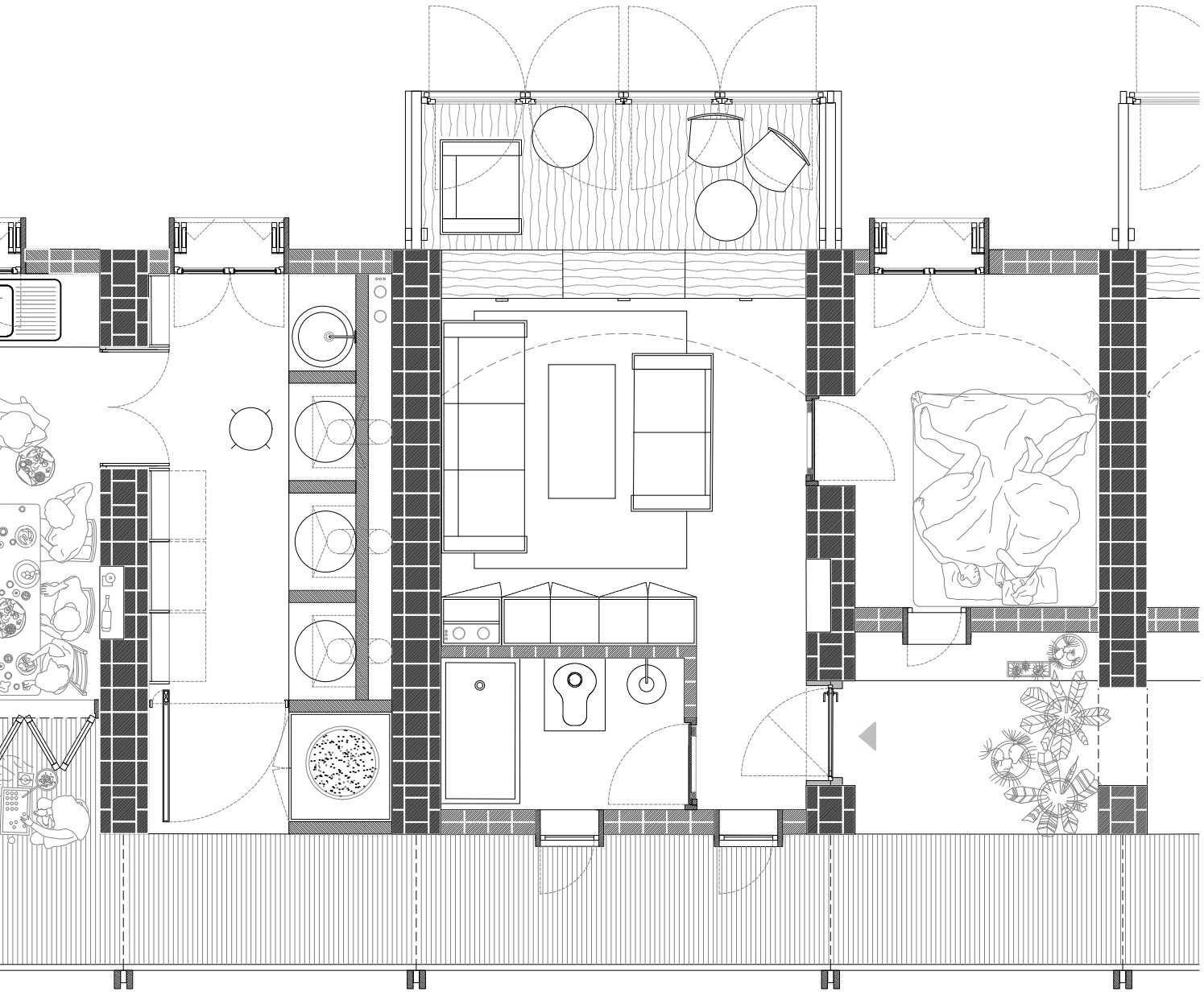

Work


WORKSHOP

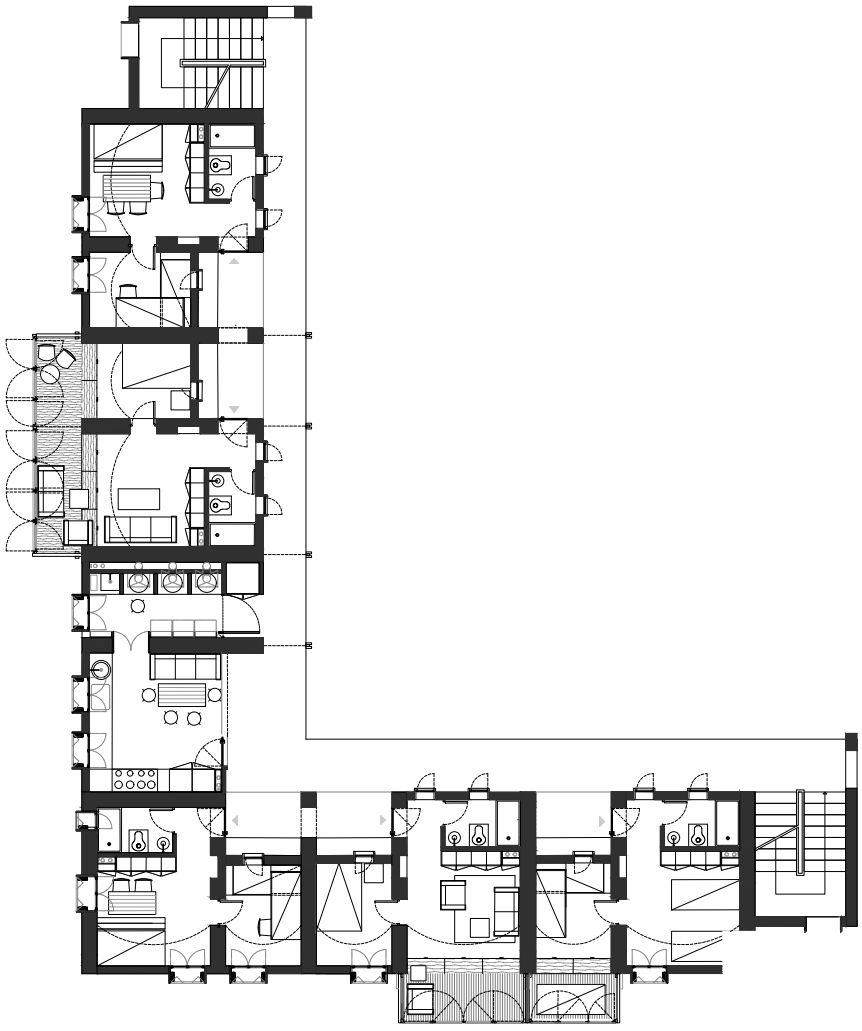






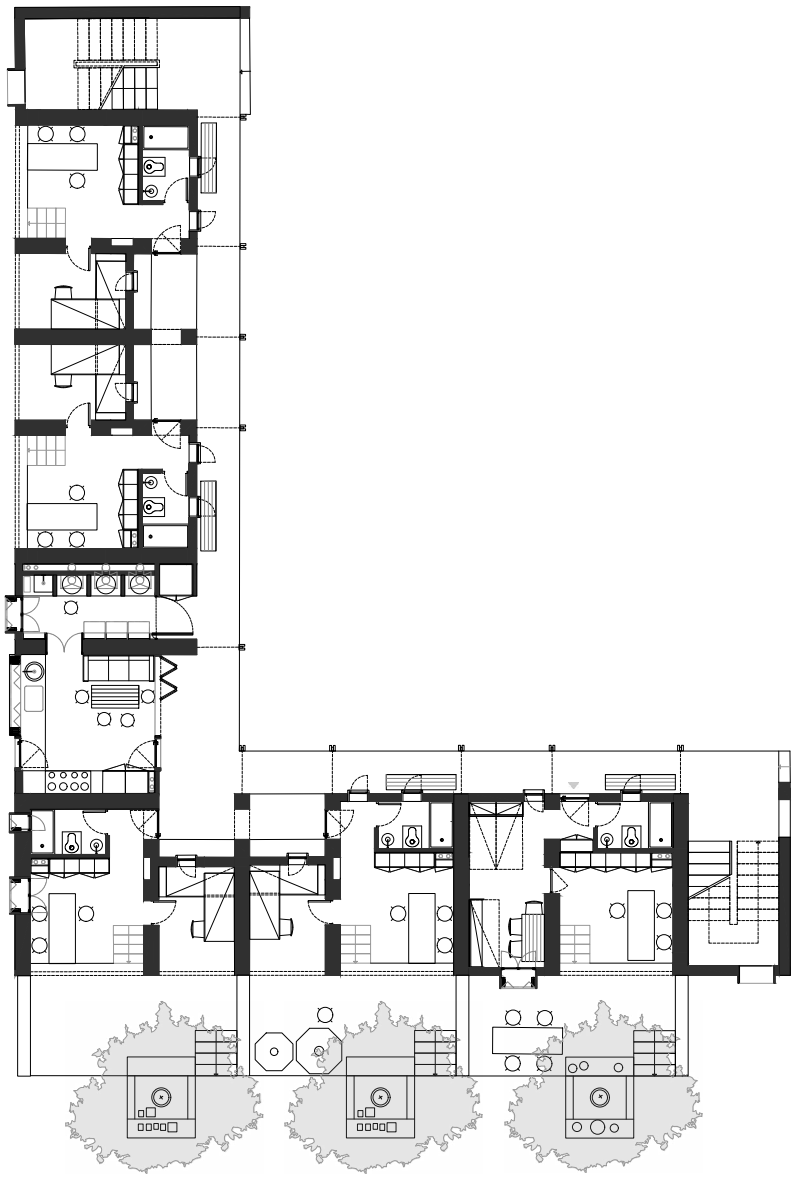


scale 1:50



units are clustered along a gallery to create L-shaped forms. A communal kitchen, shared by 5 families is designed in the corner. As a result, the system can easily rotate and the activities can spill in the larger area of the gallery

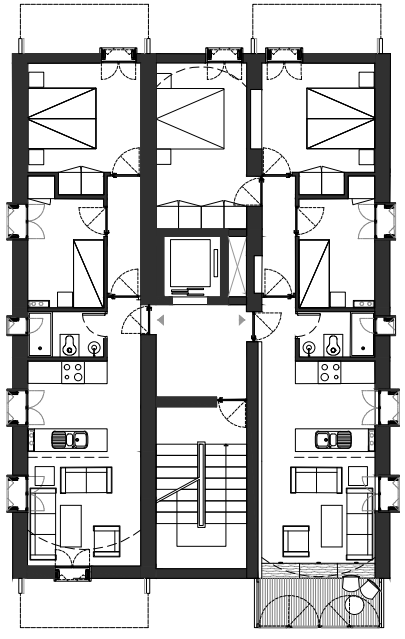
scale 1:200



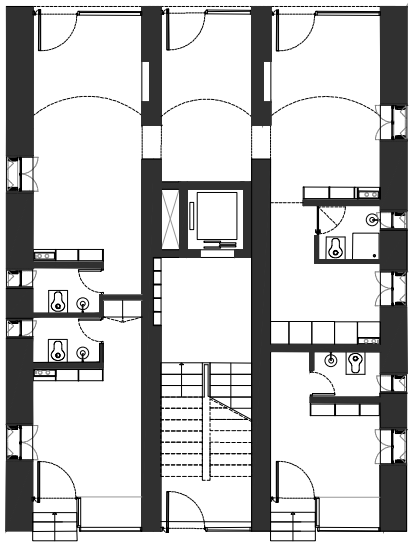
The sequence of wokshop enables craftmen and vendors to expand in the outdoor space, generating vibrant commercial streets.

scale 1:200

40 sqm

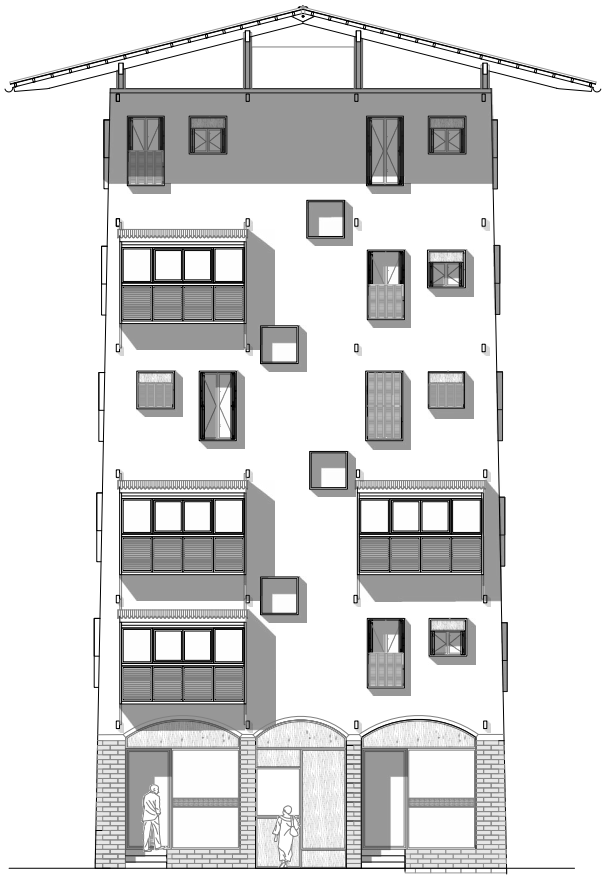


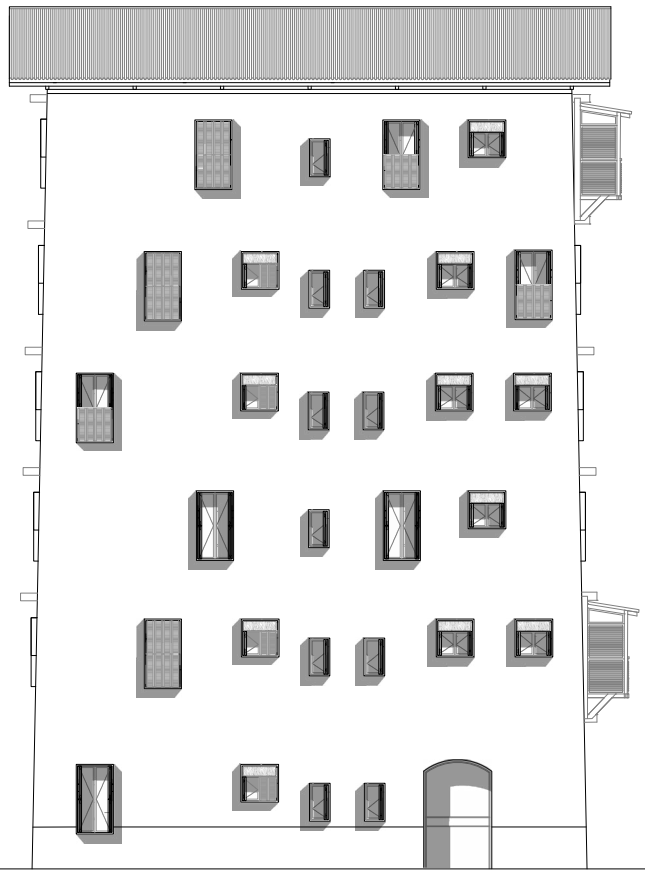
52 sqm



a free-standing block has been introduced to bring diversity and social mix within the low-income cluster.
Almost every type is characterized by an open kitchen that can be easily separated from the living area.

scale 1:200

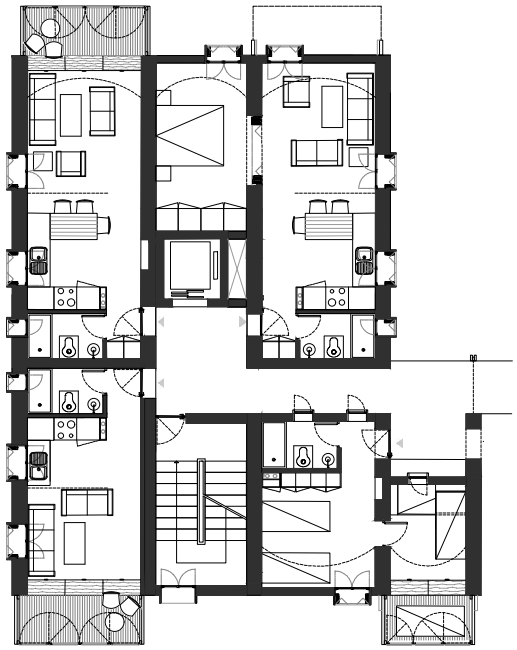




Similar clusters are designed to react to the condition of the large road that crosses the site. Therefore, they have been curated to become a **sign of identity** *in the neighborhood. An element that* ***celebrates the costruction technique*** *and presents its modernity. Afterall, modernity is not a matter of materials but a matter of language.*

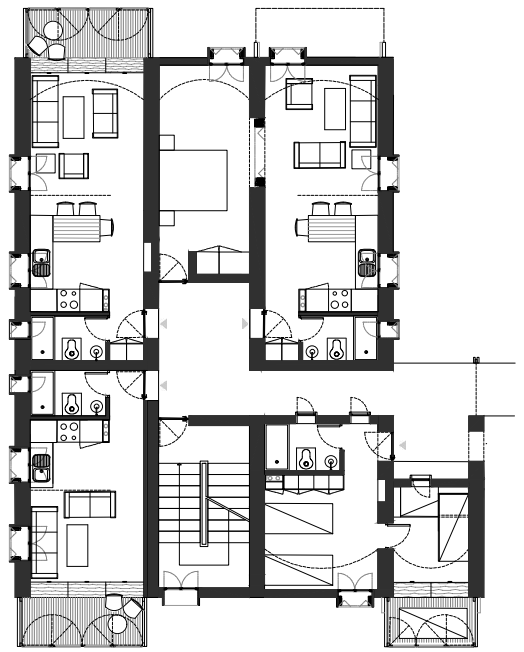
scale 1:200

24 sqm



17 sqm

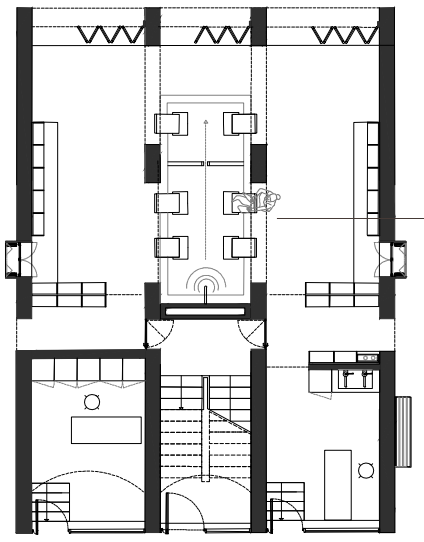
35 sqm

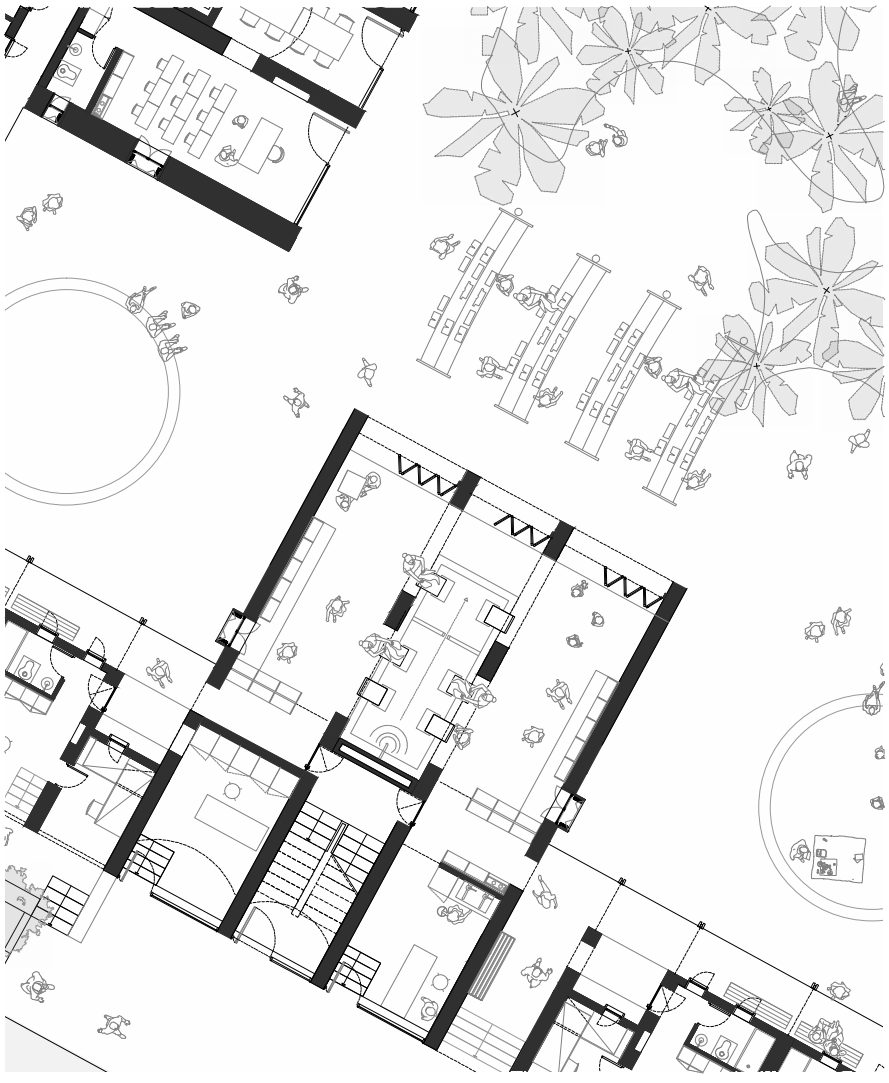


18 sqm

few variations allow to join the tower with the L-shaped cluster by bringing the gallery in the free-standing element.

scale 1:200

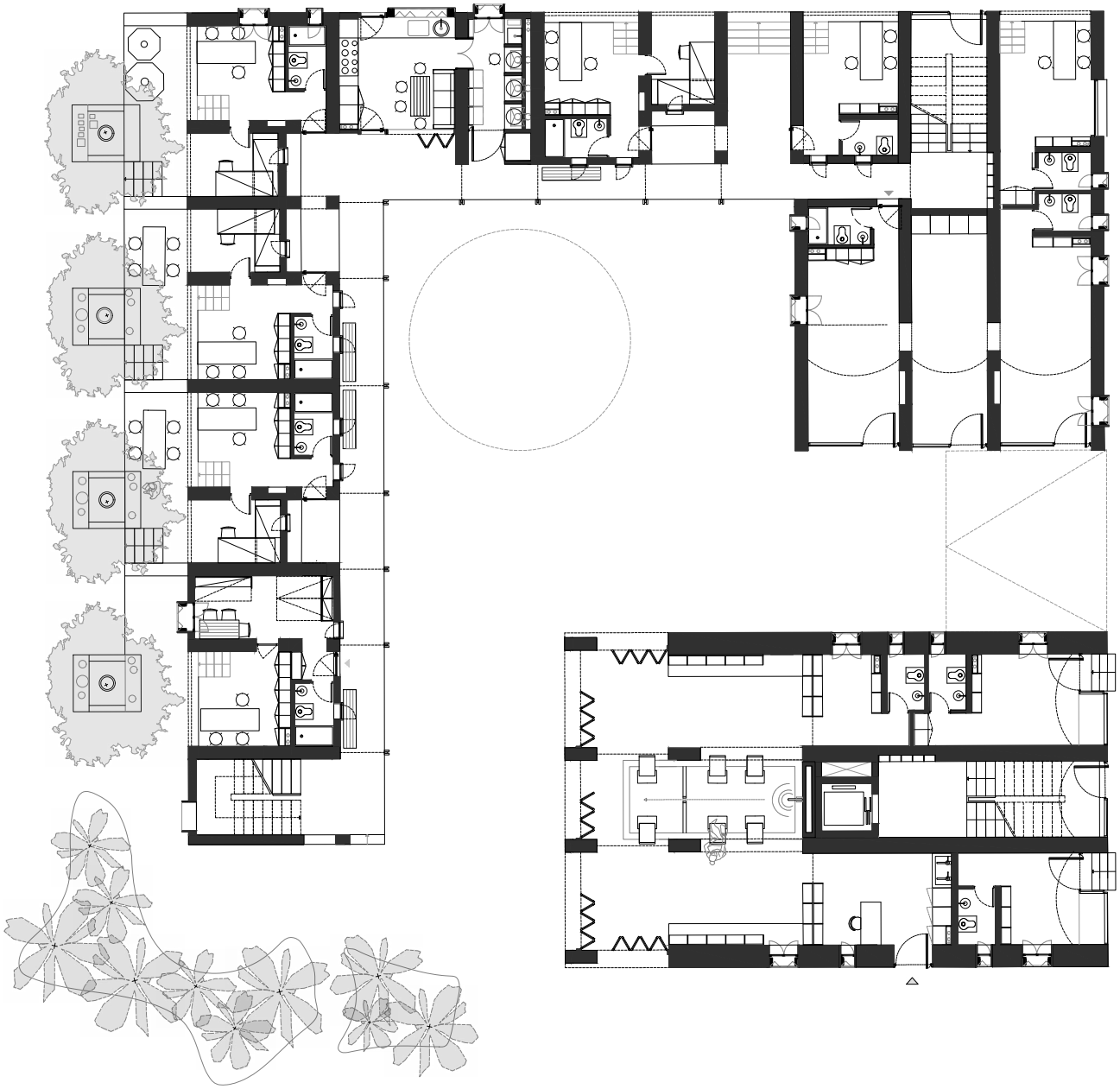




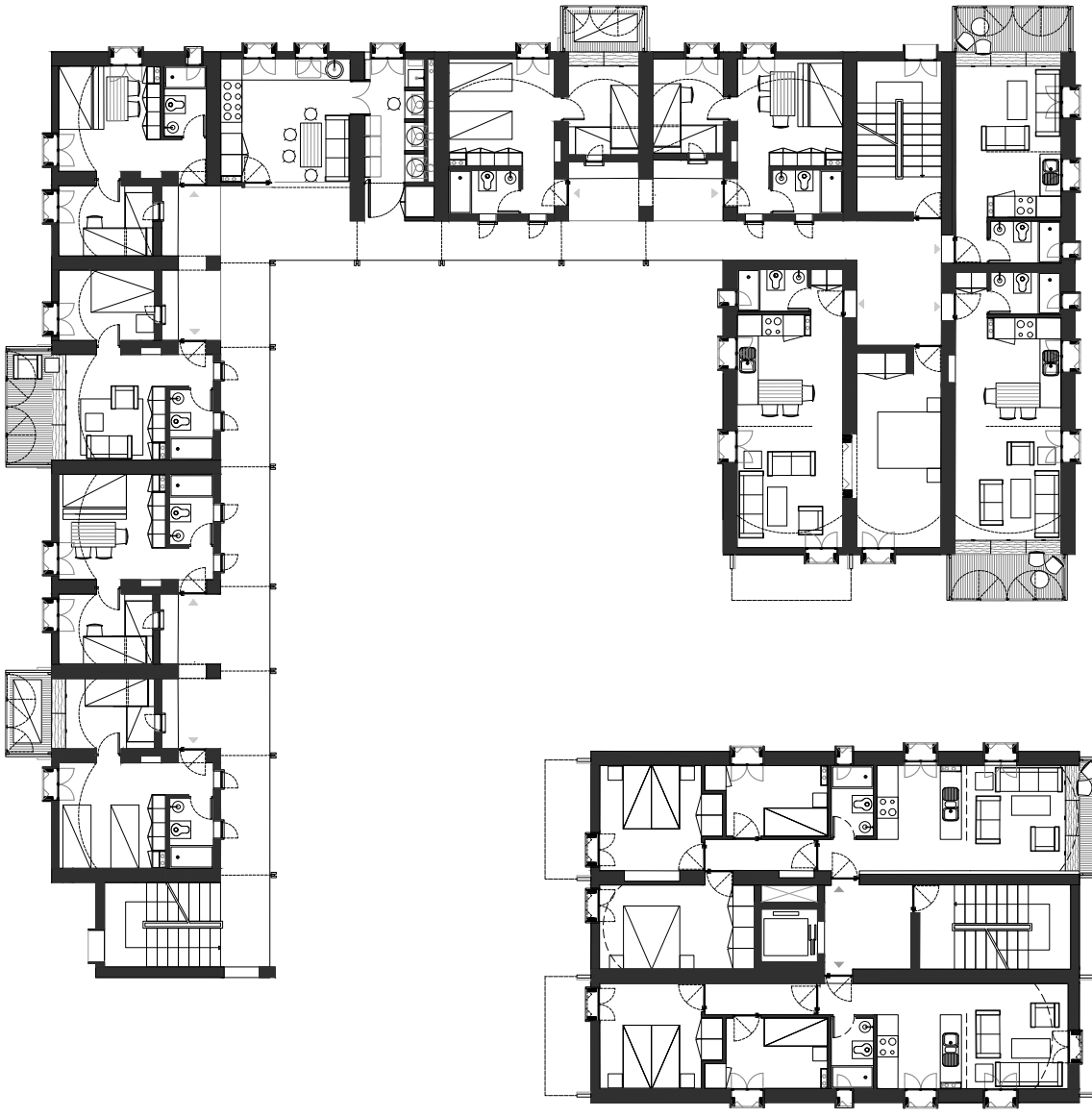
A communal washplace can be integrated within the system of courtyards, providing fresh and clean water to the inhabitants and to the neighoring communities in case of emergency.

water consumption: 30'000 litres/month

scale 1:200



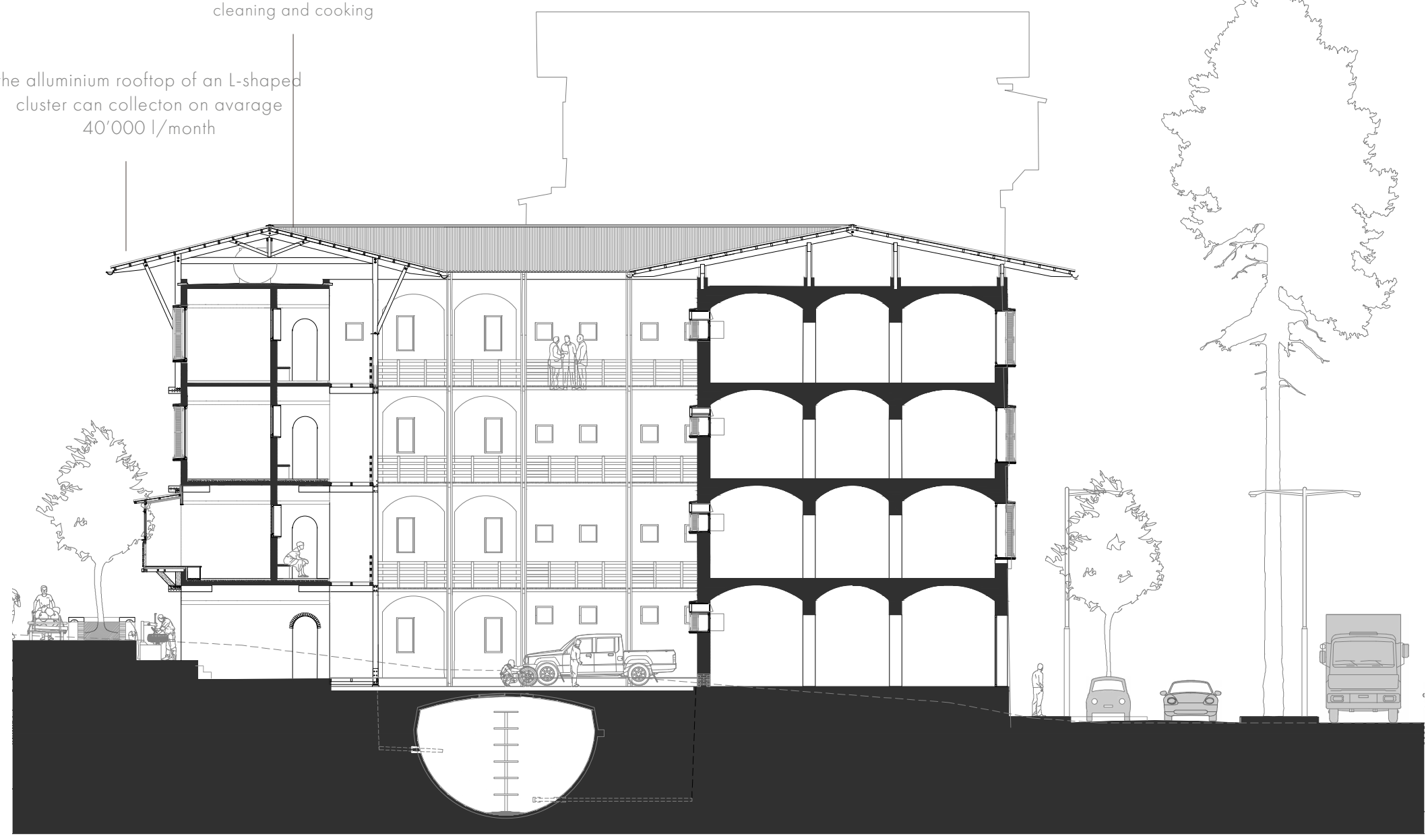
scale 1:200



scale 1:200

polietilene water tank, 3-5m^3
every morning an electrical
water pump brings rainwater to
the rooftop, providing water for
cleaning and cooking

the alluminium rooftop of an L-shaped
cluster can collecton on avarage
40'000 l/month

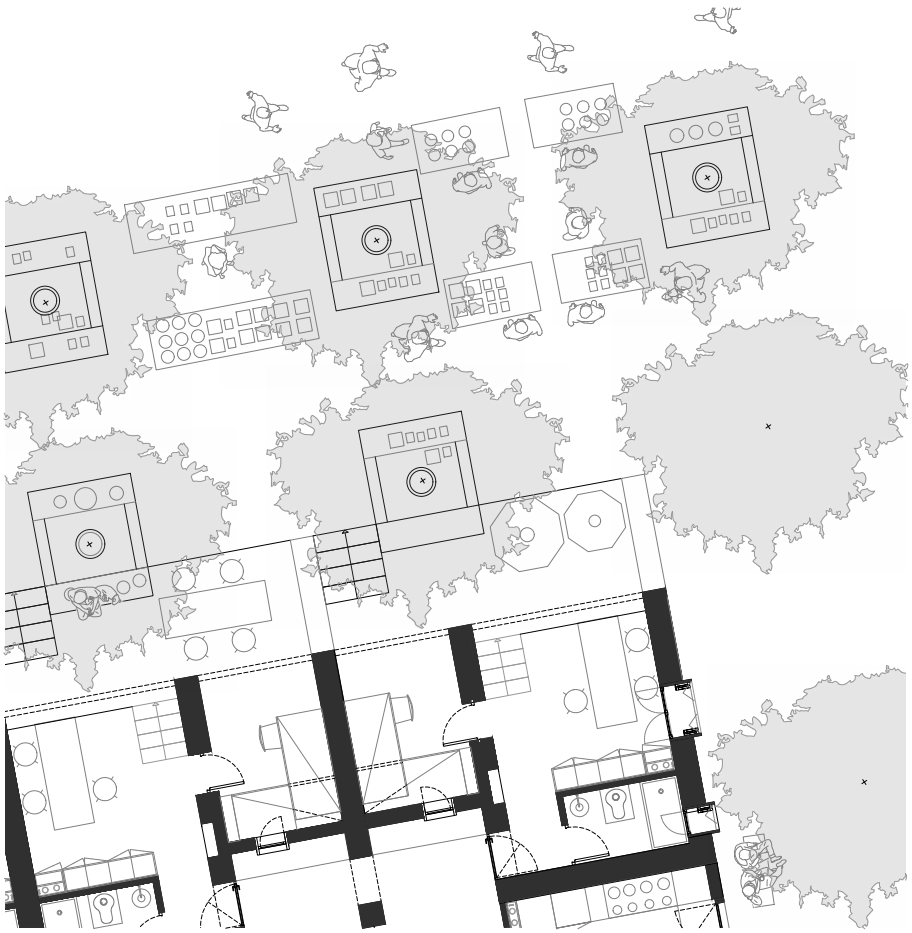


ferrocement water tank, 90m^3
provision of water for washplace +
emergency water for the community

Water harvesting and distribution
Hundreds of these hemispherical ground tanks with a storage capacity of 90 cu.m.have been constructed successfully in several African countries over the last 20 years. The tank was developed as a replica of a soft boiled egg cut in half during a breakfast at Kibwezi in 1986.



INCOME GENERATION
+
MULTI-PURPOSE DESIGN



As in Vredenburg square, the boxes that serves the workshops are repeated along the commercial street to facilitate informal markets to take place.

INCOME GENERATION
+
MULTI-PURPOSE DESIGN



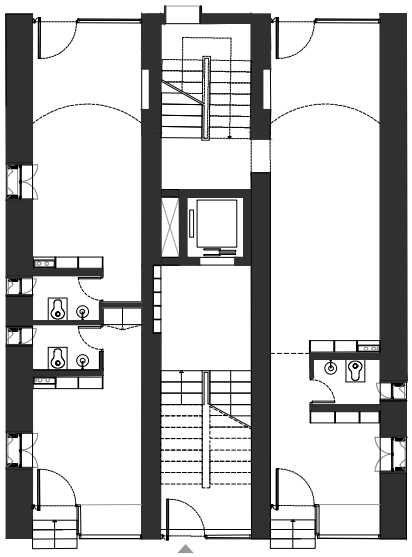
At the ground floor level, the communal kitchen is designed to accomodate the possibility to serve street food and continuing the socio-economic patterns that sustain the community.

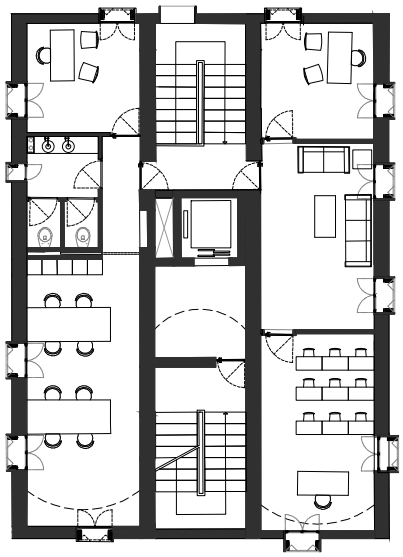
HOW CAN WE CREATE A MODERN NEIGHBORHOOD THAT ATTRACTS DIFFERENT INCOME GROUPS AND BUILDS UP AN INCLUSIVE CITY?

CAN WE PROVIDE AMENITIES THAT CONSTITUTE THE RIGHT TO THE CITY?

HOUSING + EDUCATION + HEALTH SERVICES + EMPLOYMENT
MUSEUMS + GARDENS

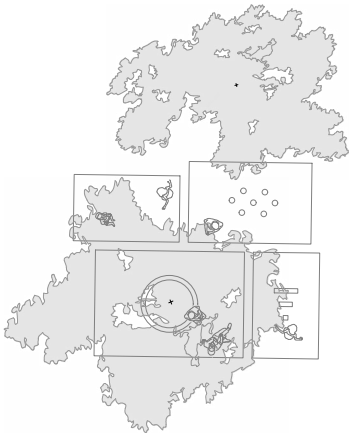
WHERE A DWELLER IN AN UNSCHEDULED MOMENT MAY MAKE A LIFE TURNING DECISION!

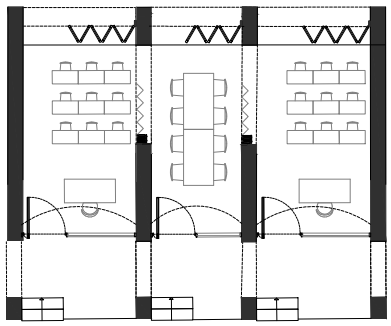


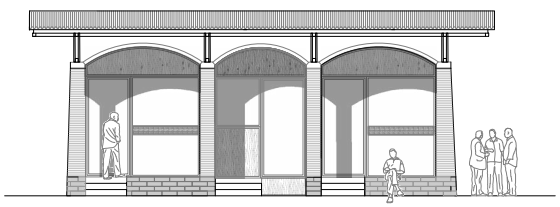


To integrate mixed functions to the residential tower, a separate access has been provided. The ground and first floor can easily provide ***office spaces or several other rentable spaces that can pay back the investment.***

scale 1:200





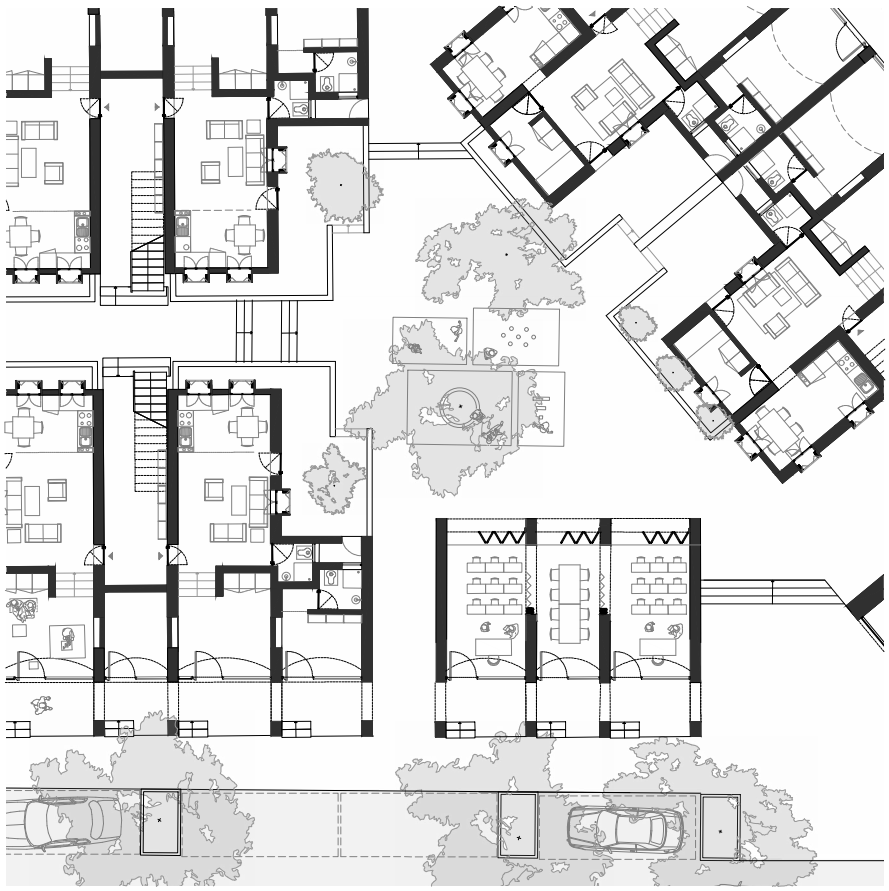


Slight adaptations allow the structure to create ***micro-architectures*** *that can provide amenities in the scale of a cluster such as: daycare, spaces for the community etc...*

scale 1:200



Along the mainroad, an educational centre has been designed to serve as a prototype of construction and to provide amentities to the neighborhood.The design takes advantage of the toolbox that the modular system of vaults provided and borrows the concept of interlocked courtyards developed in the housing scheme.



MICRO-ARCHIECTURE TO PROVIDE AMENITIES AT THE SCALE OF THE CLUSTER

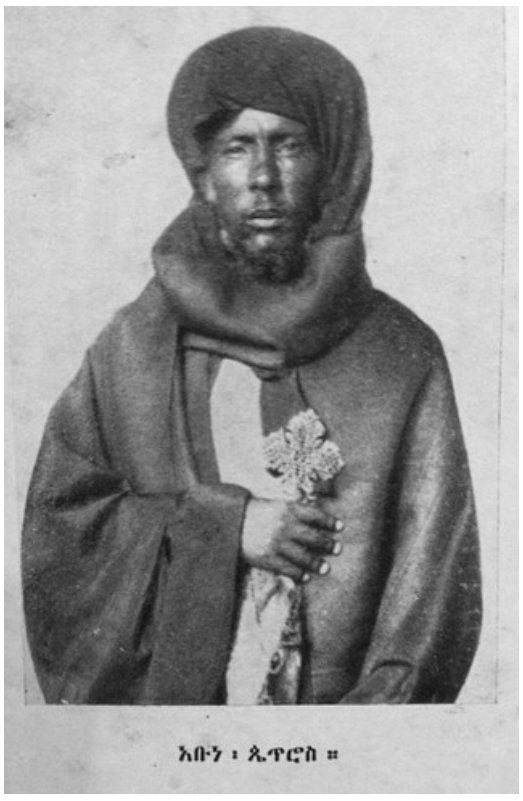


ABUNE PETROS' CULTURAL CENTRE

ADAPTIVE REUSE AS A SIGN OF IDENTITY

Addis Abeba still has the possibility to transform its delapidated historical centre into an attractive area. Capitalizing on the heritage does not only mean attract tourism and create economic growth, but mainly provides the city with places of culture and signs of identity. Similar interventions might help solving the paradox that Paul Ricoeur proposes: "how to become modern and to return to sources; how to revive an old, dormant civilization and take part in universal civilization?" Cultures can only benefit from the encounter with the other when "faithful the their origins".

Paul Ricoeur, "Universal Civilization and National Cultures", in Architectural Regionalism Collected Writings on Place, Identity, Modernity, and
Tradition, ed. Vincent B. Canizaro (New York: Princeton Architectural Press, 2007).















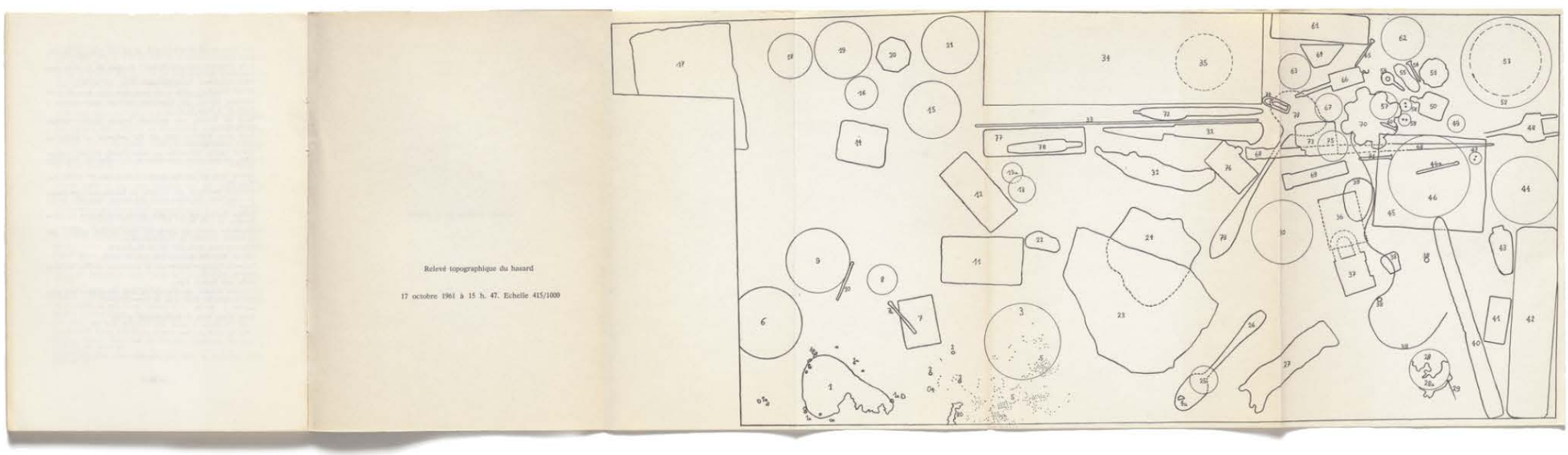




Left
drawing by Roberto Burle Marx

Above
Picture by authors

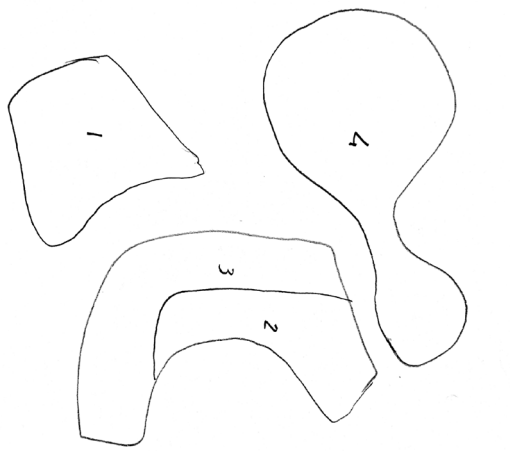
Bottom
Daniel Spoerri. Topographie anécdotée du hasard.



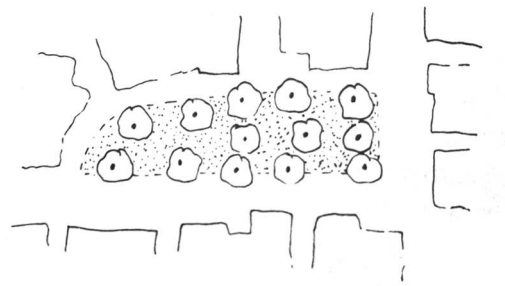










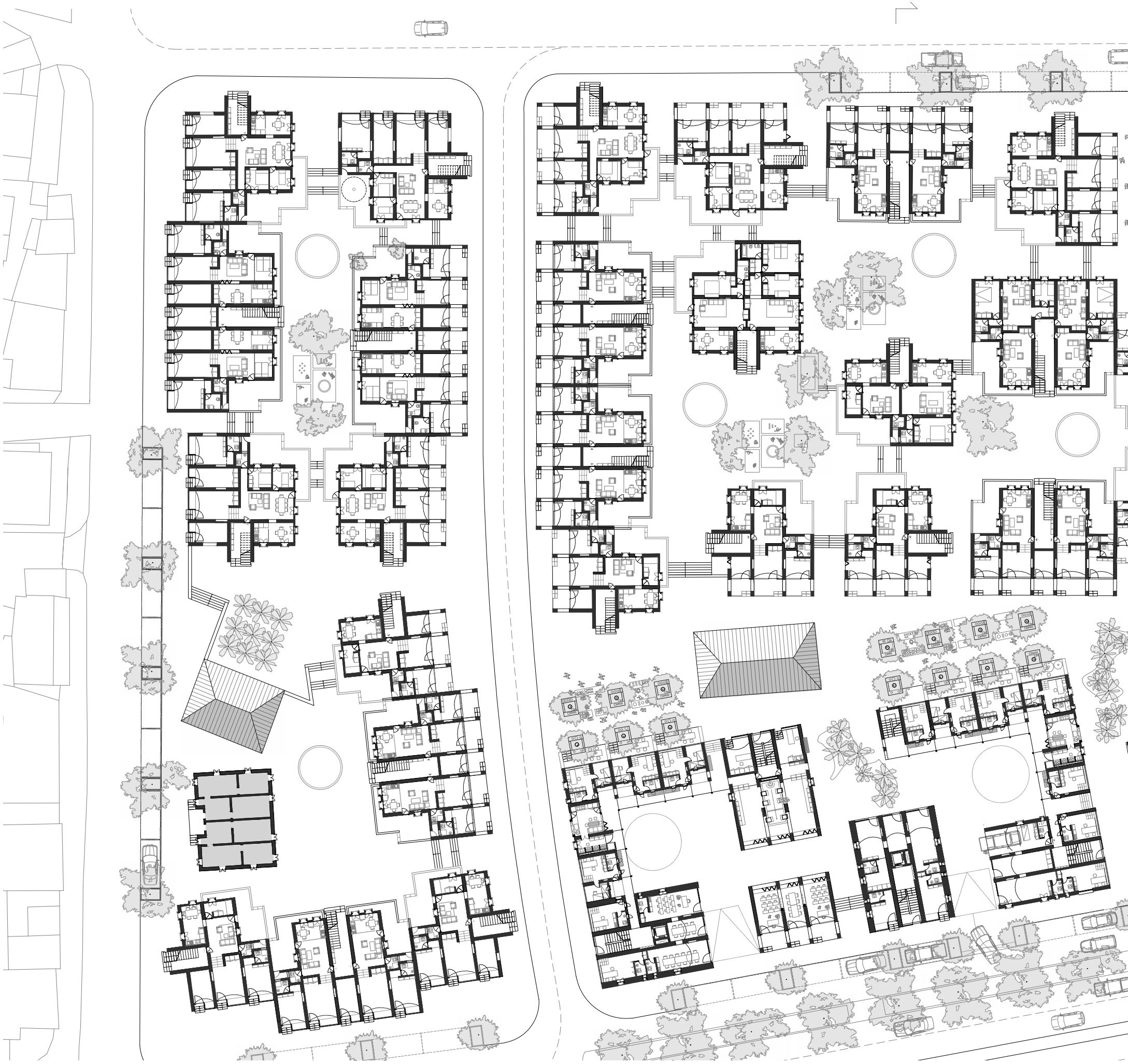


orchard as a communal activity
pattern 170 - fruit trees
C. Alexander

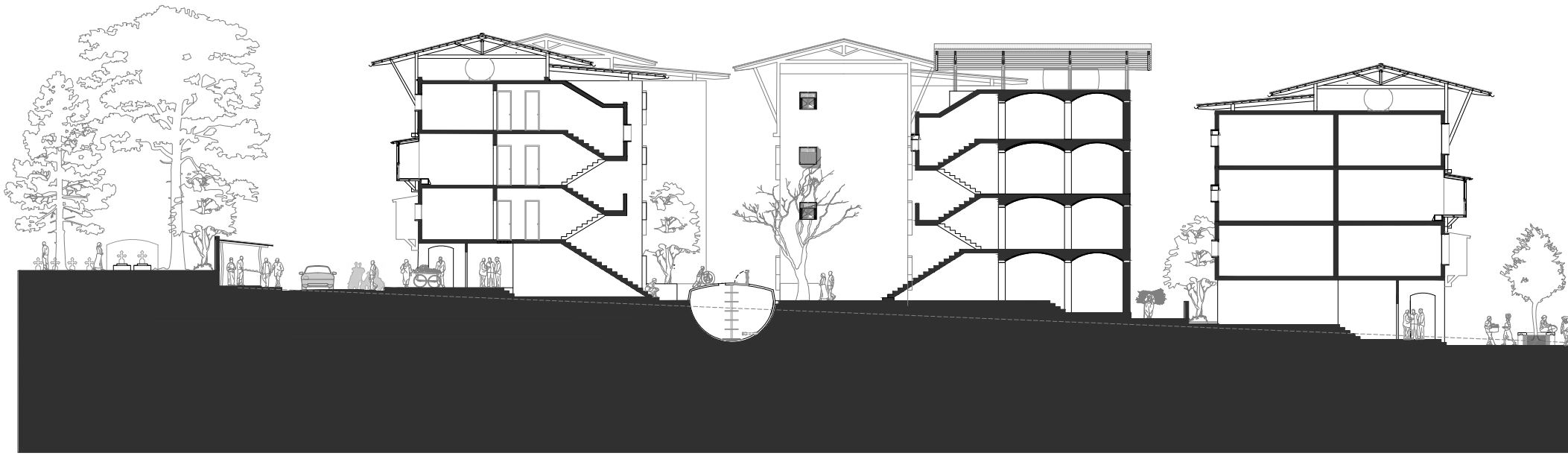


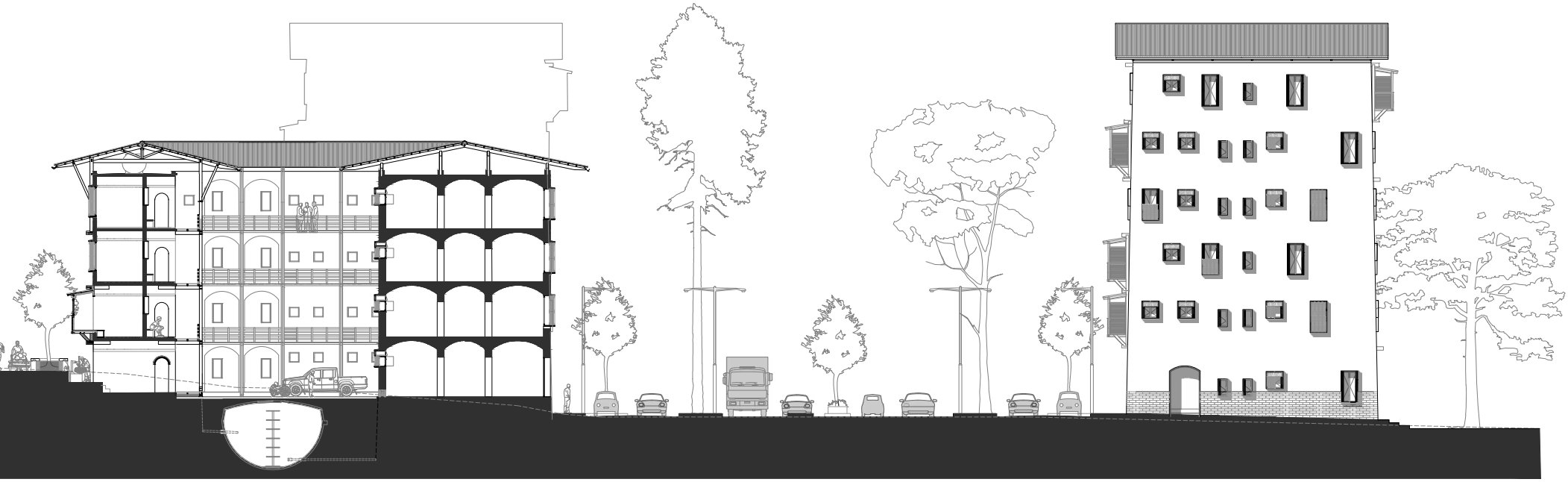
“not simply to repeat the past, but
rather to take root in it in order
to ceaselley invent.”
paul ricoeur




a





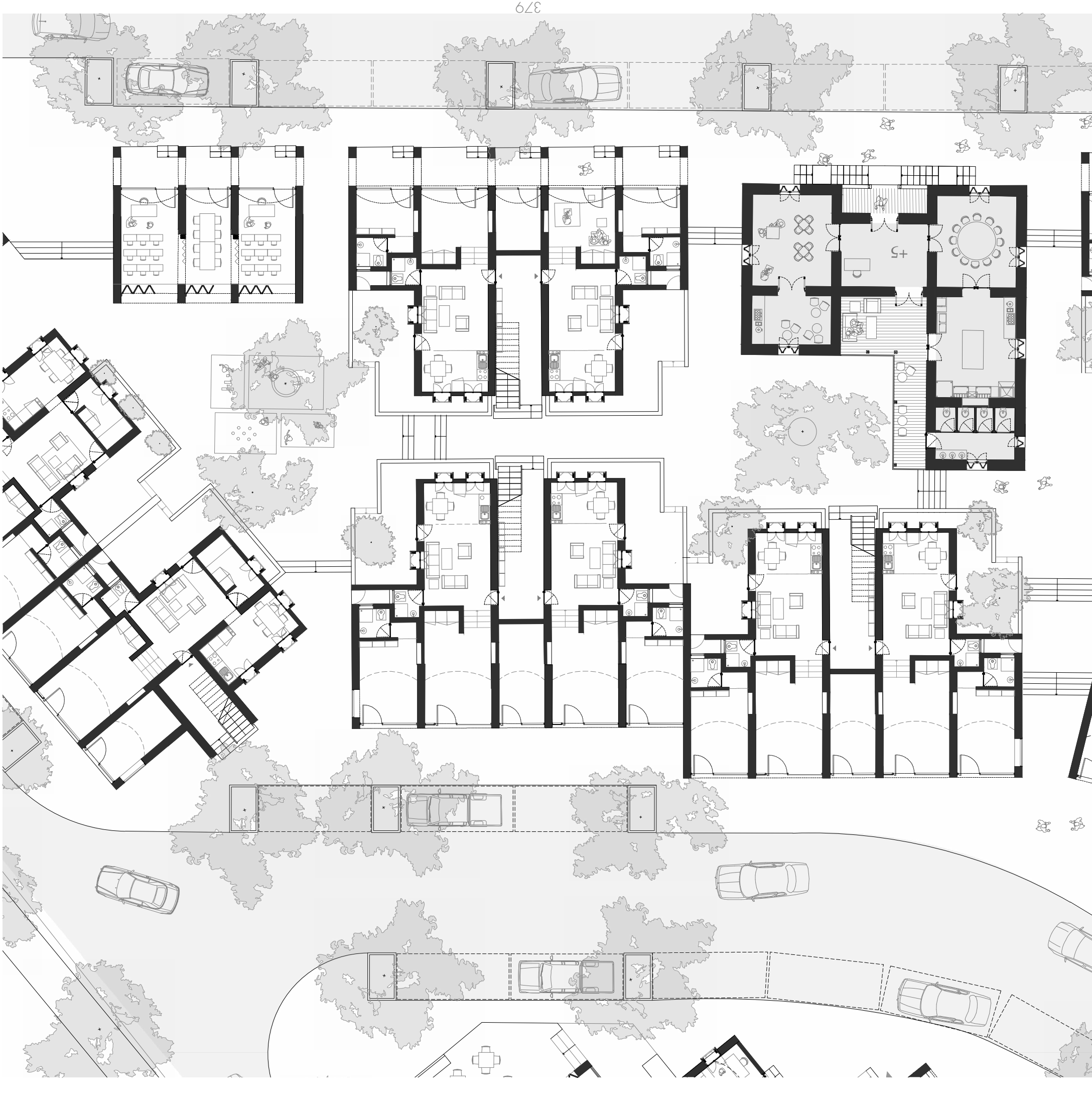


a-a’


+5.00
+9.00
+11.00
+5.00
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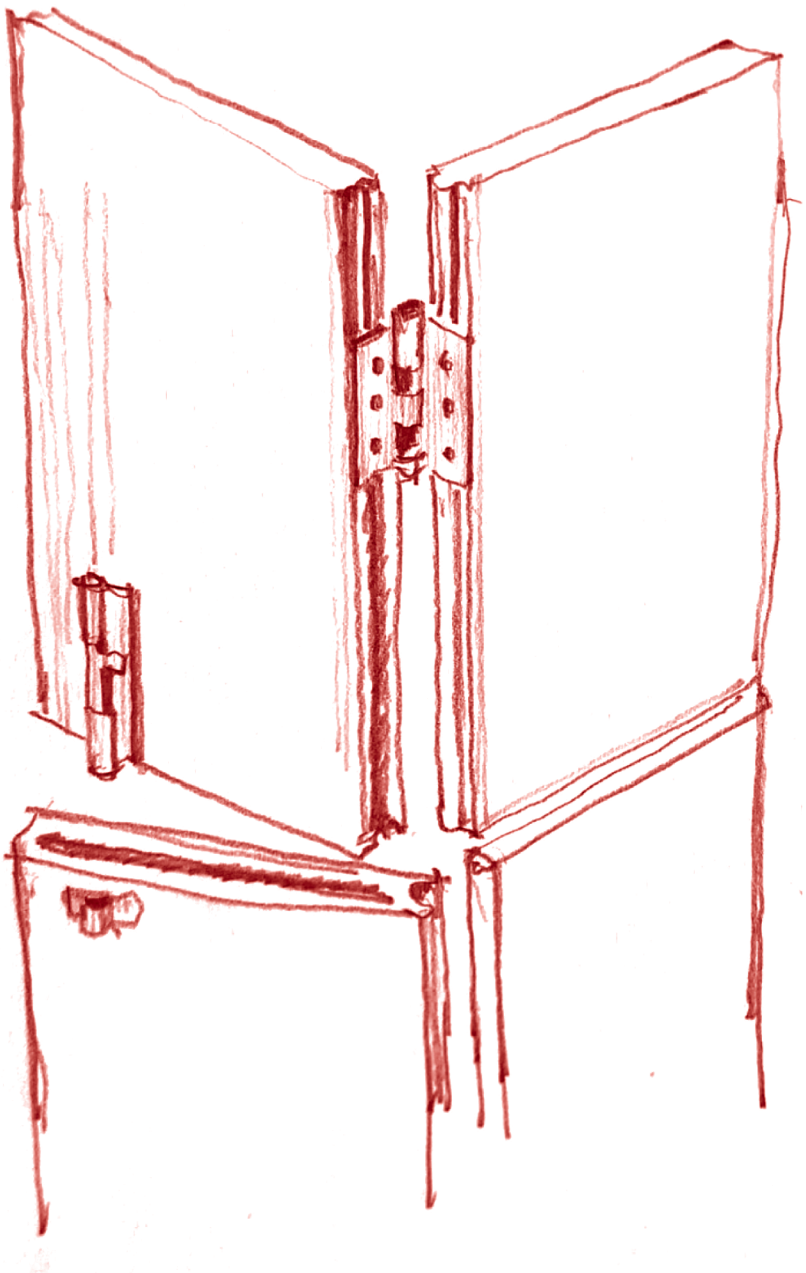


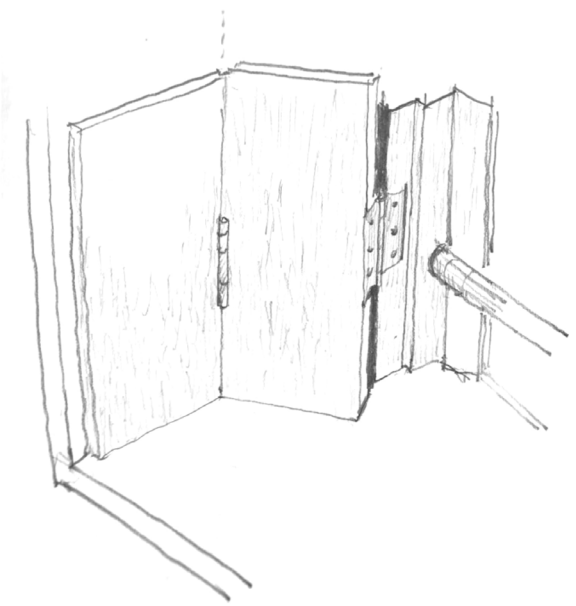

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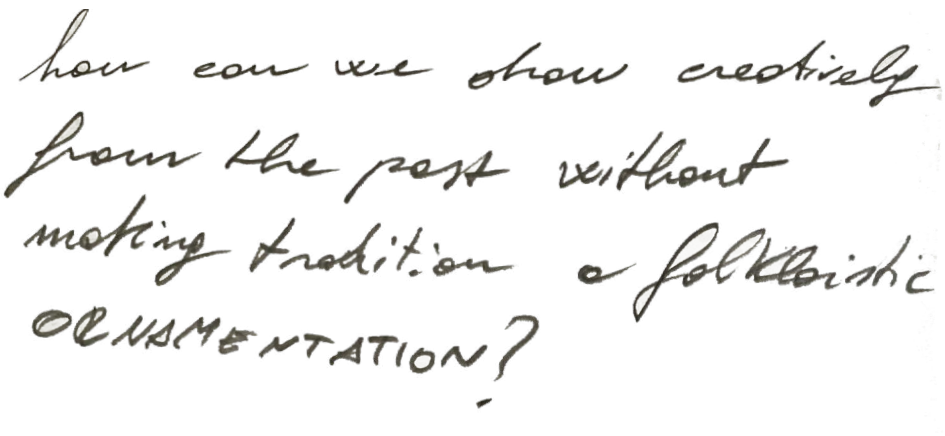






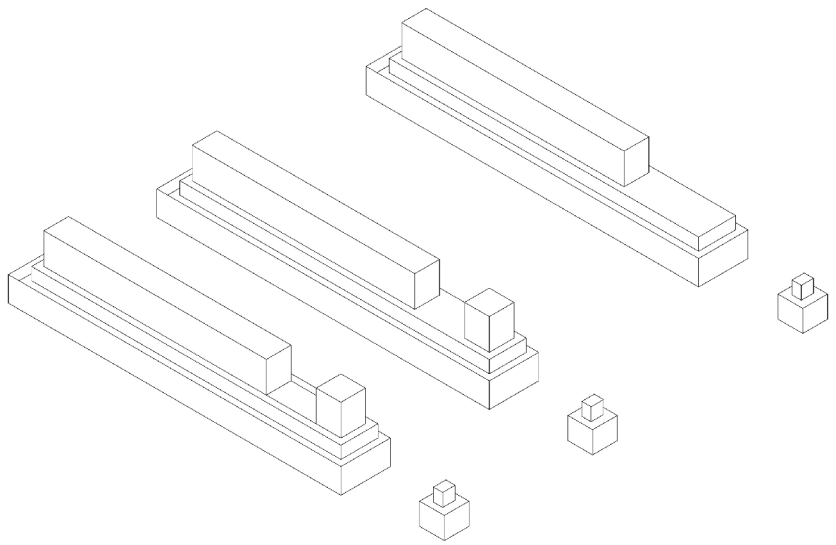




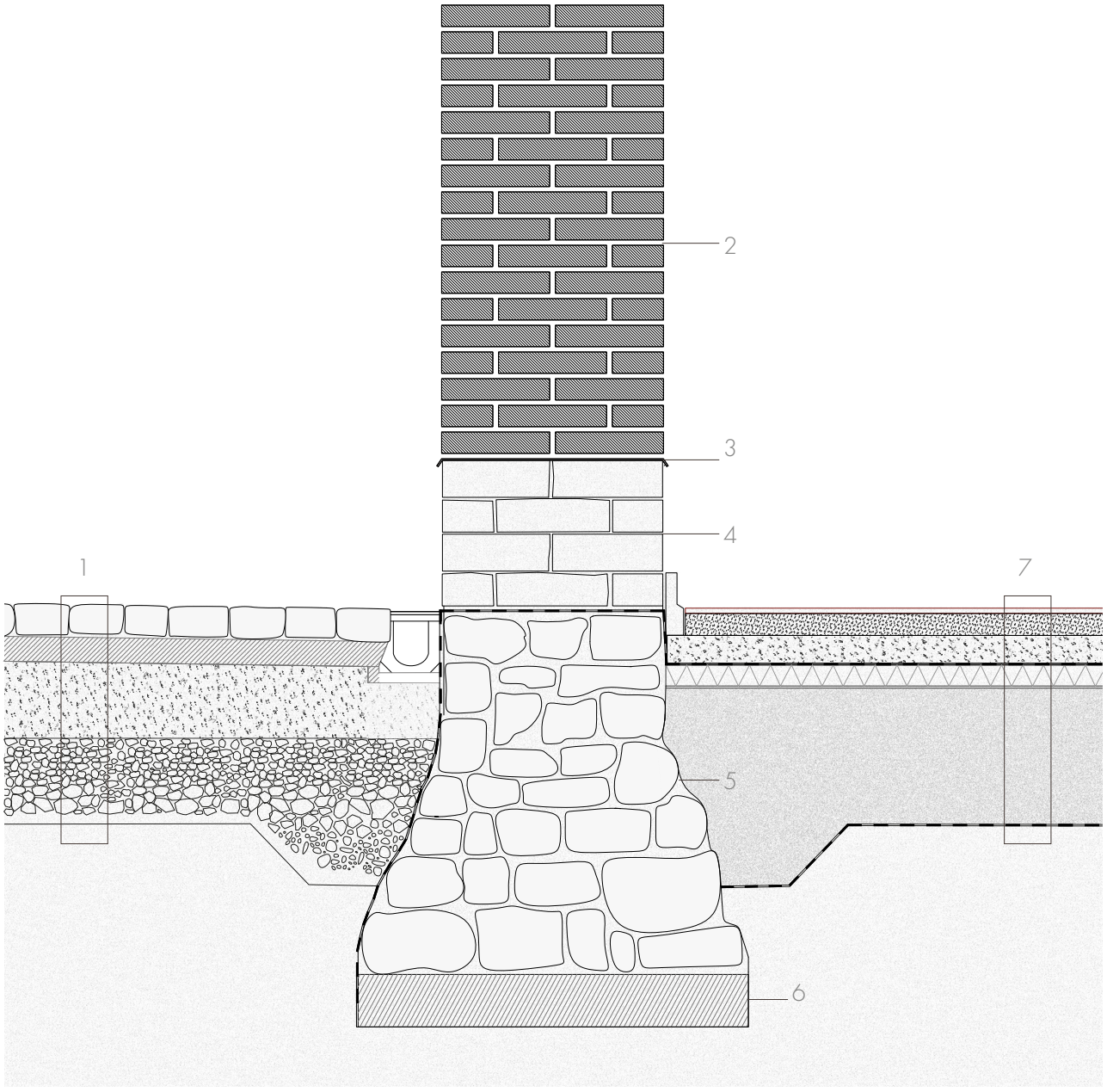


Materials and techniques

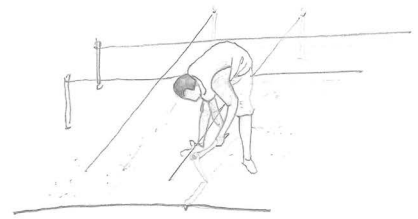
FOUNDATIONS



The entire housing scheme has been designed by using 4 spans: 2m, 2,4 m, 3m and 3,5 to allow a great variety of dwelling units and fit different purposes.

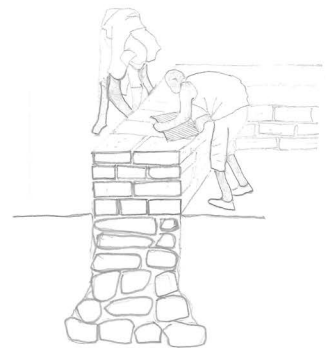


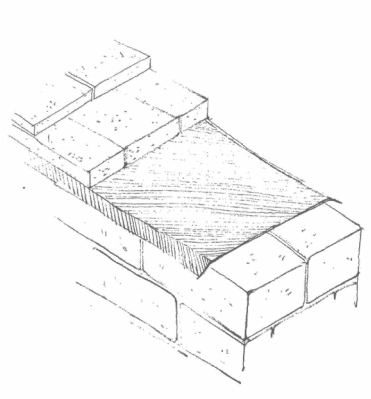
1. soil - gravel - compressed soil
- cement - stone paving
2. CEB 5% cement
3. zinc plate, (anti termite)
4. fine-cut natural stone
5. rough natural stone 800mm
6. cement, 15mm
7. soil - waterproofing - sand - insulation
- waterproofing - compacted earth screed
- fine earth screed - clay flooring



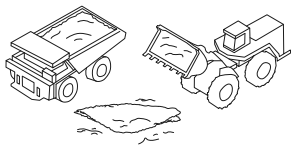


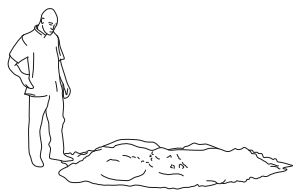




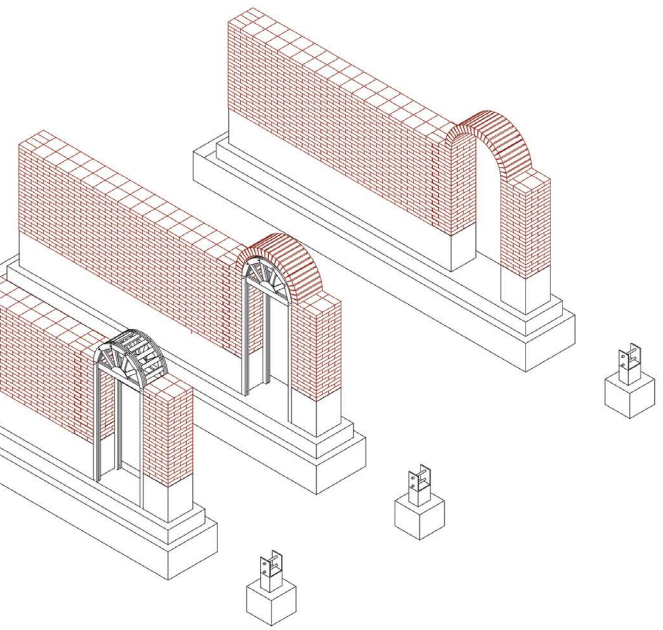


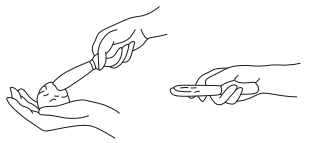
MASONRY

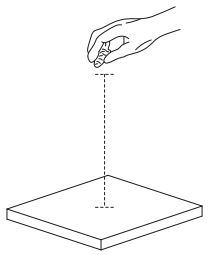


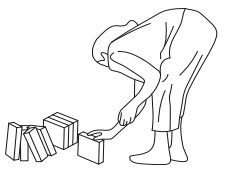


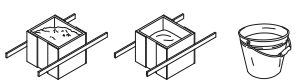


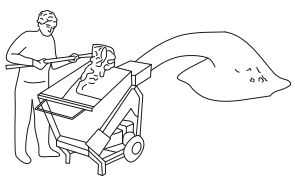








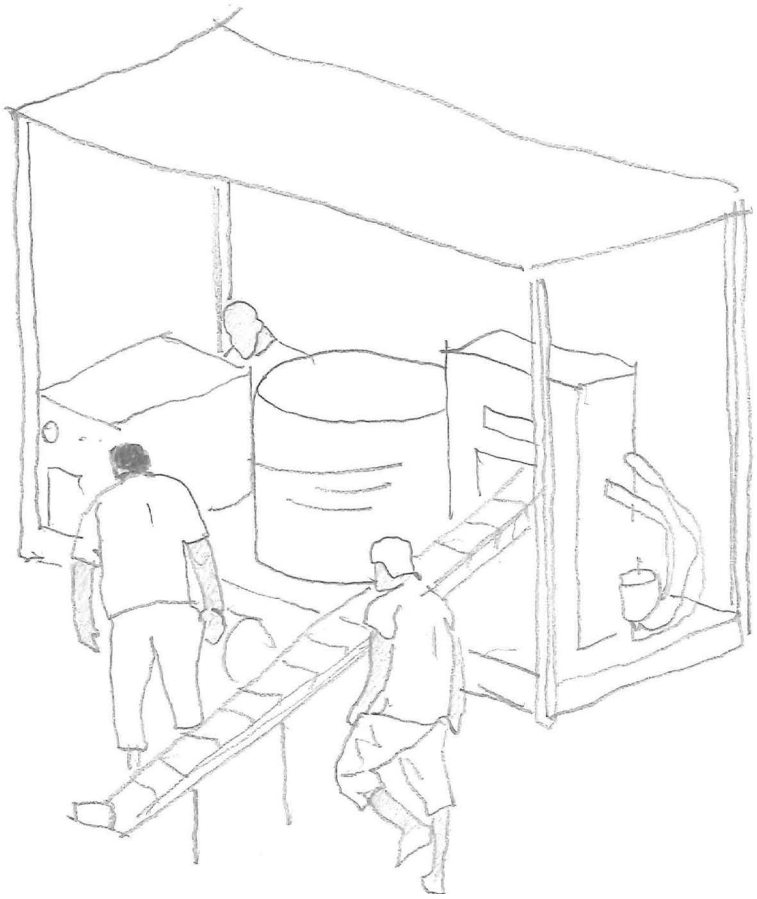


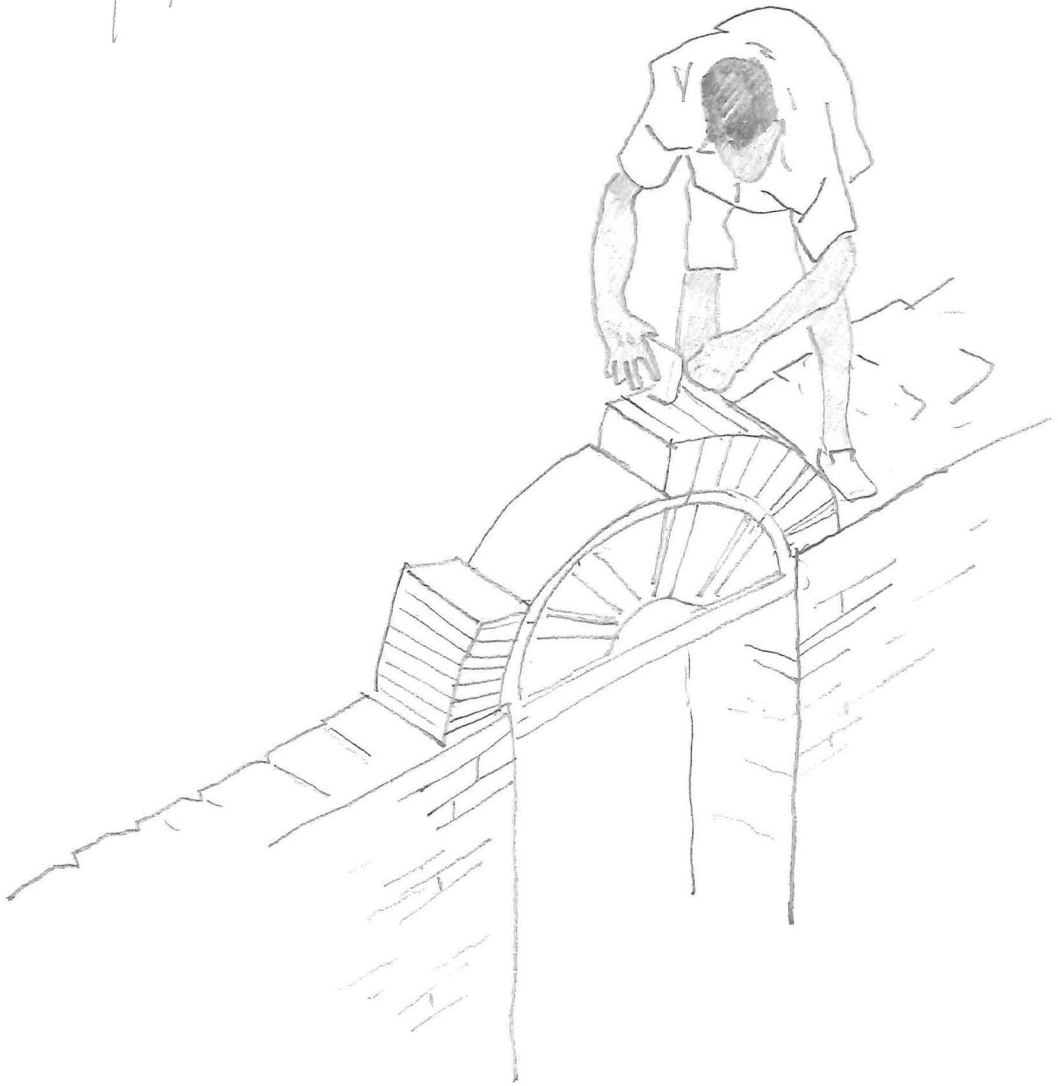


The finished blocks are either 20x20x5cm or 10x20x5cm in order to allow for a maximum weight of 6/7kg. This was designed to allow all workers, including women for example, to easily lift the single module and participate in the construction process.

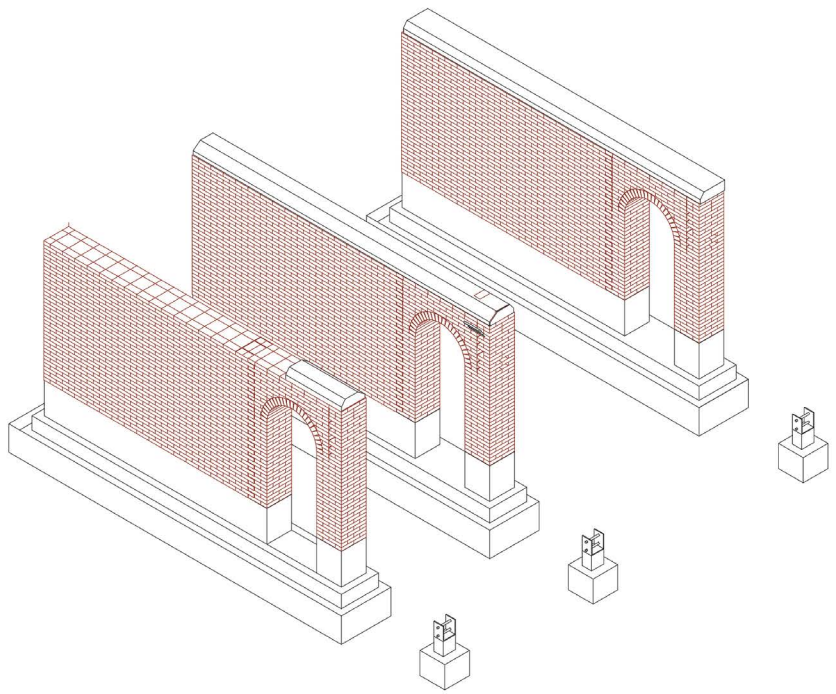




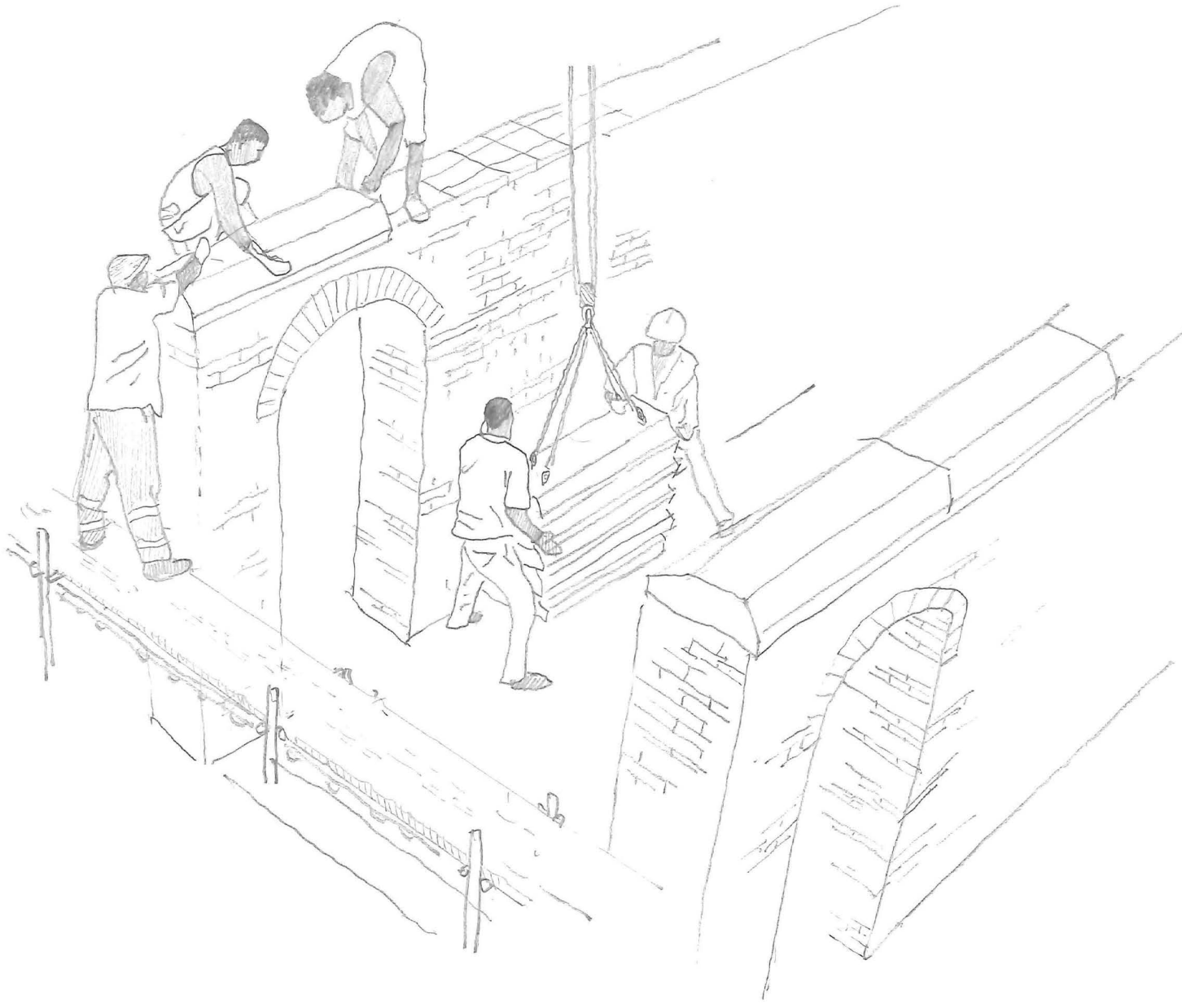




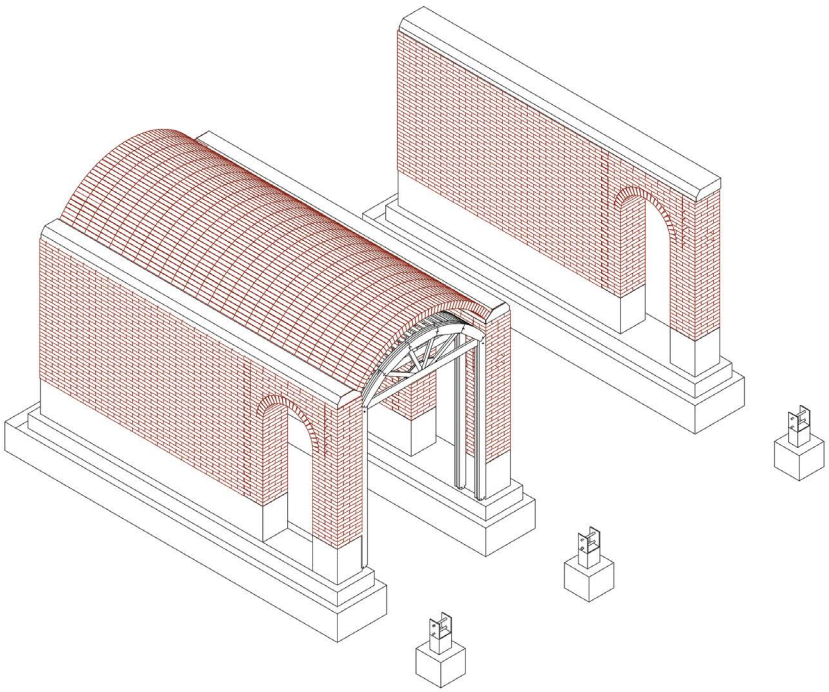
PRE-FAB CONCRETE IMPOST

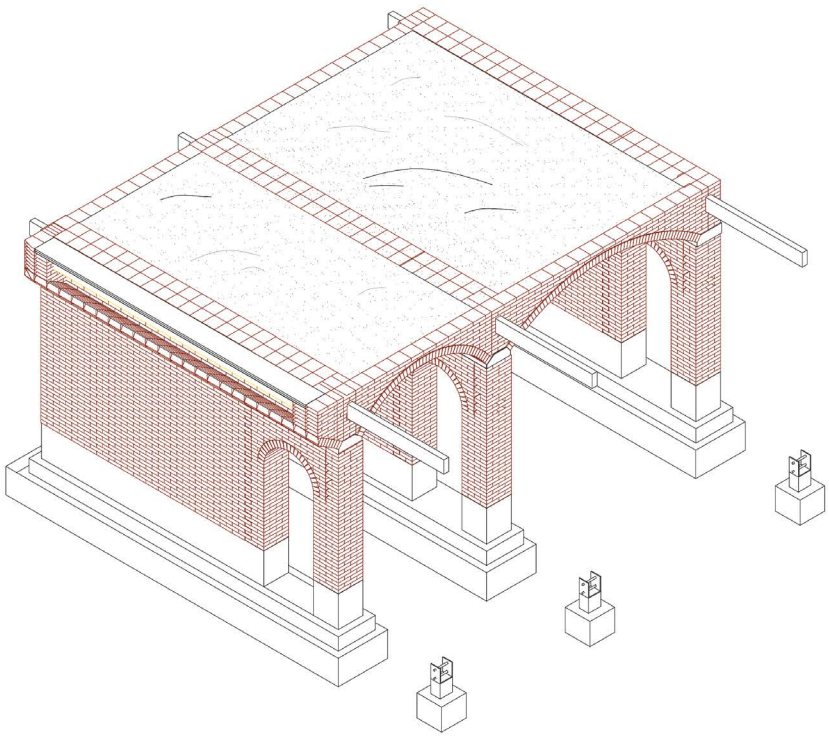


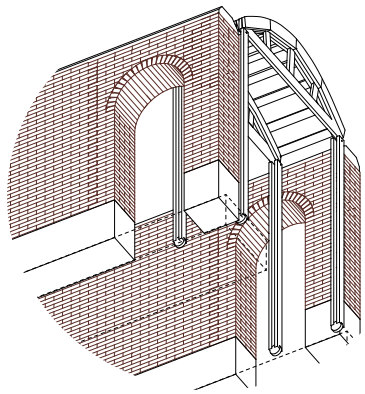
To support the vaults, a pre-fabricated concrete impost beam of 1m of span is located on top of the masonry walls. Each element weighs around 80 kg.

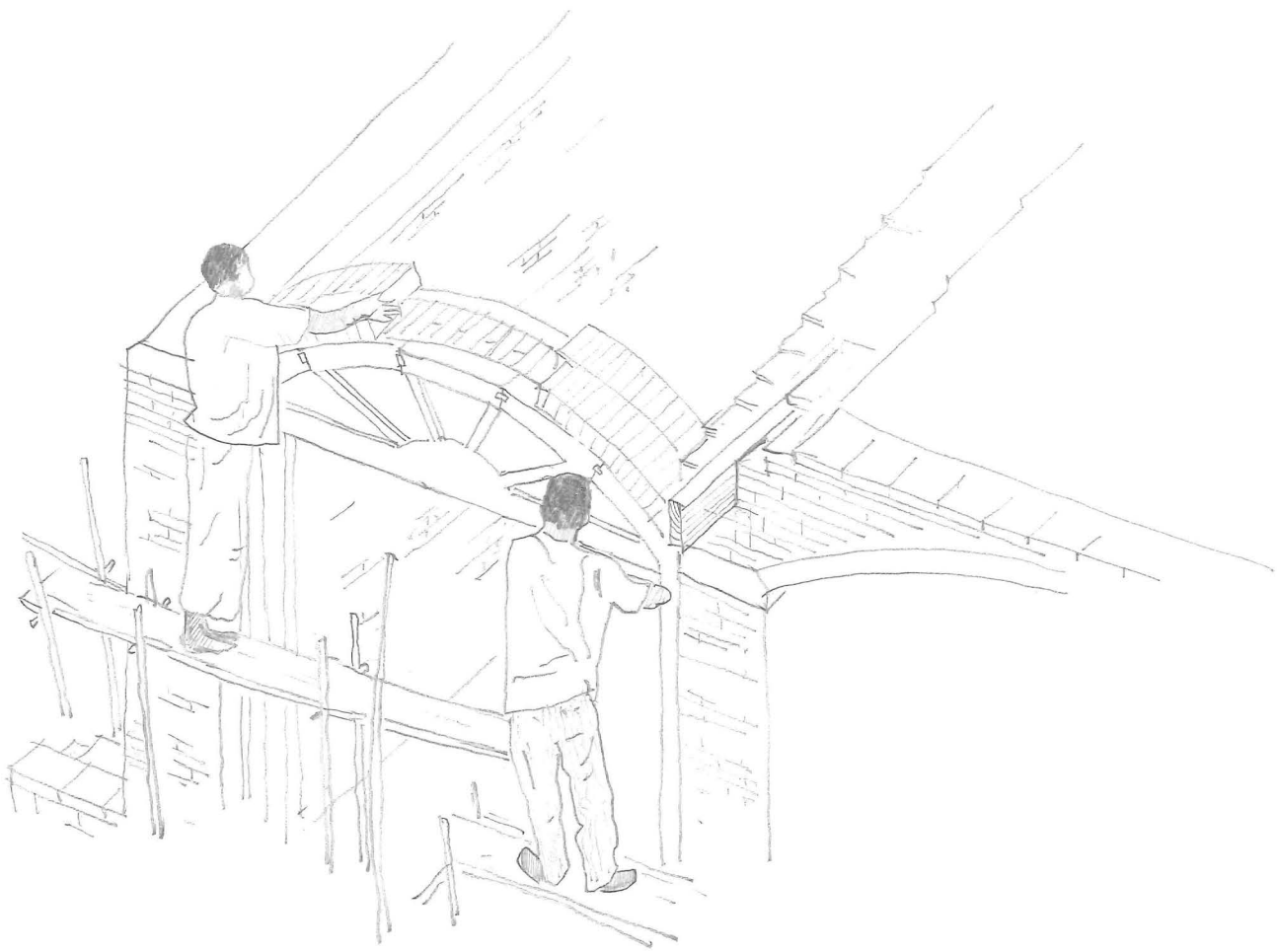


VAULTING AND FLOORING

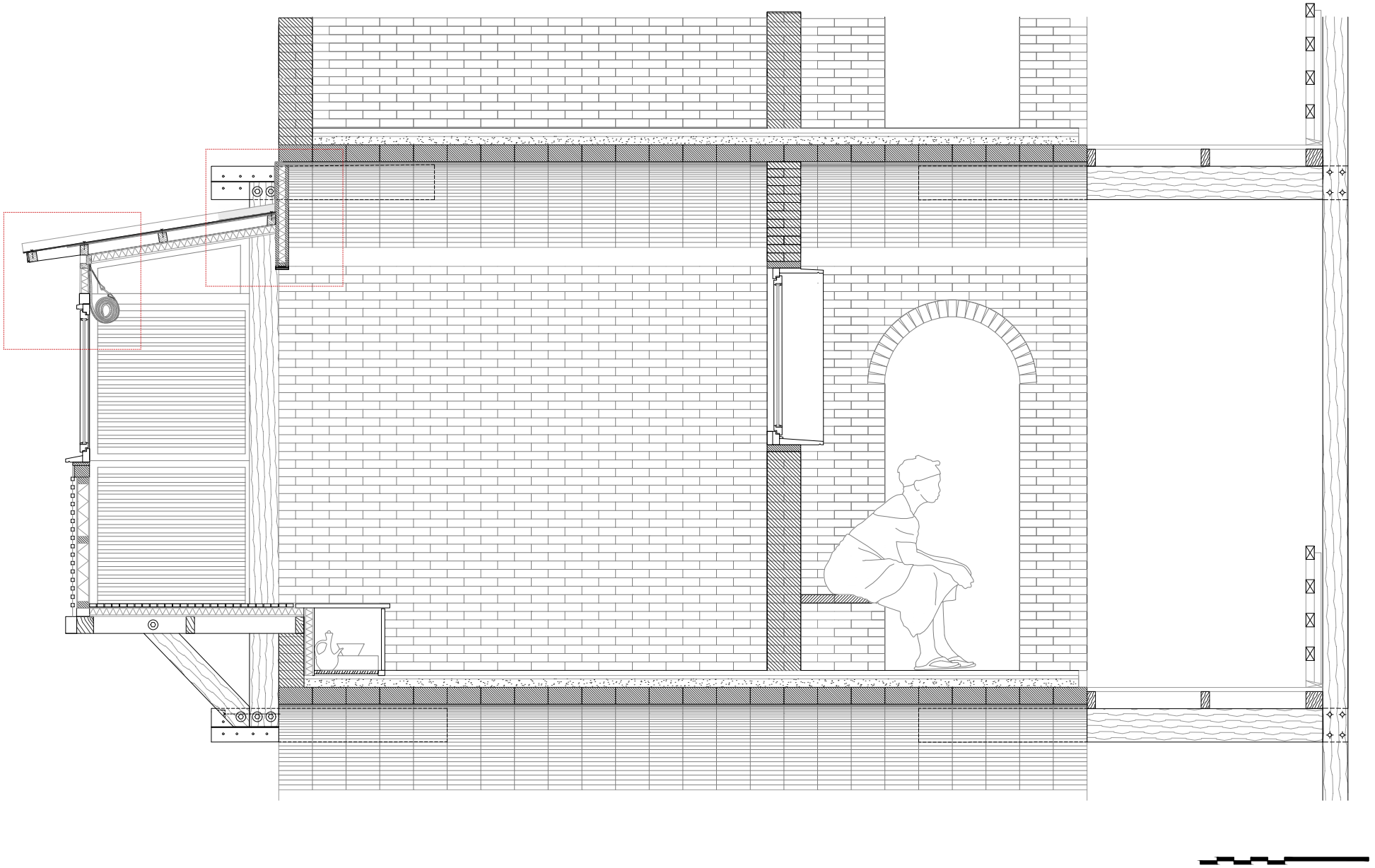


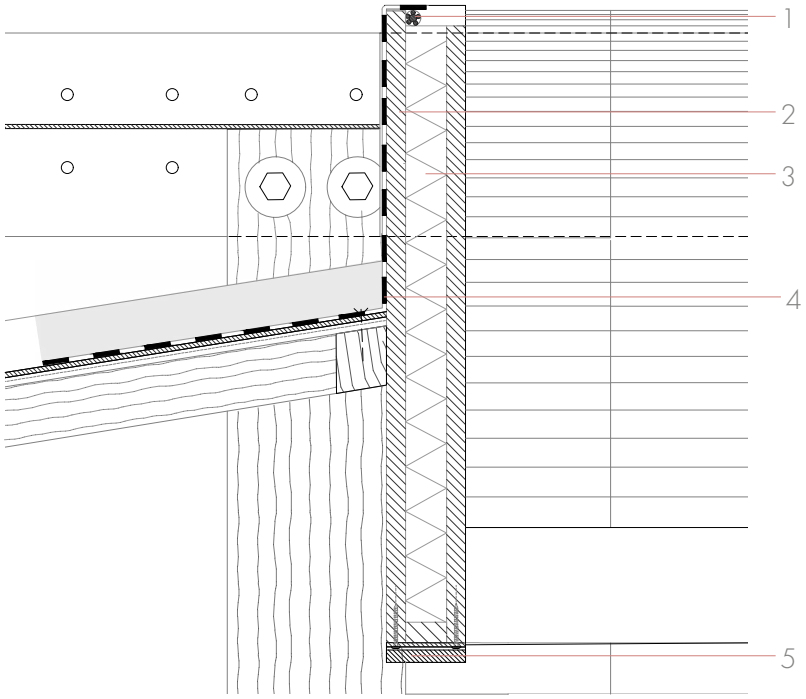


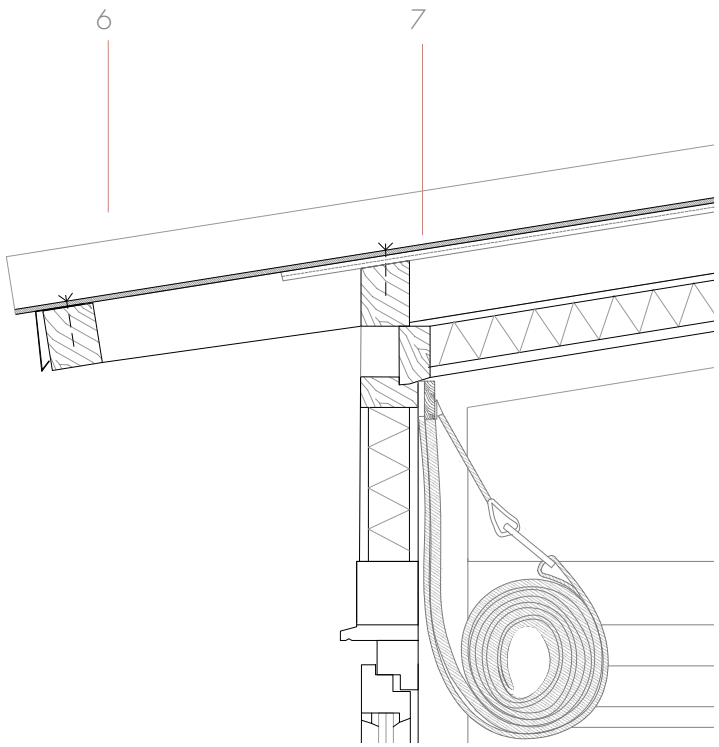


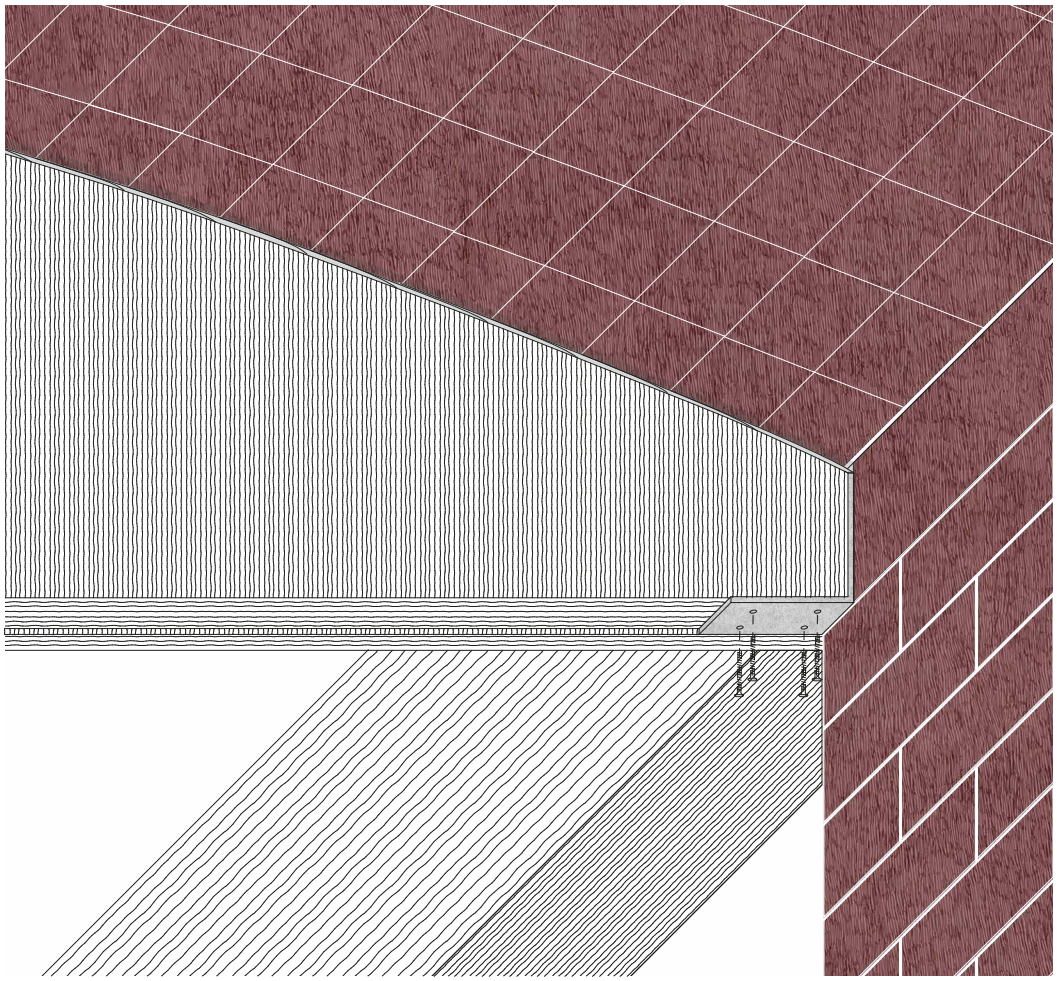


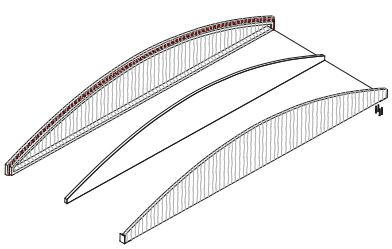
VERANDA



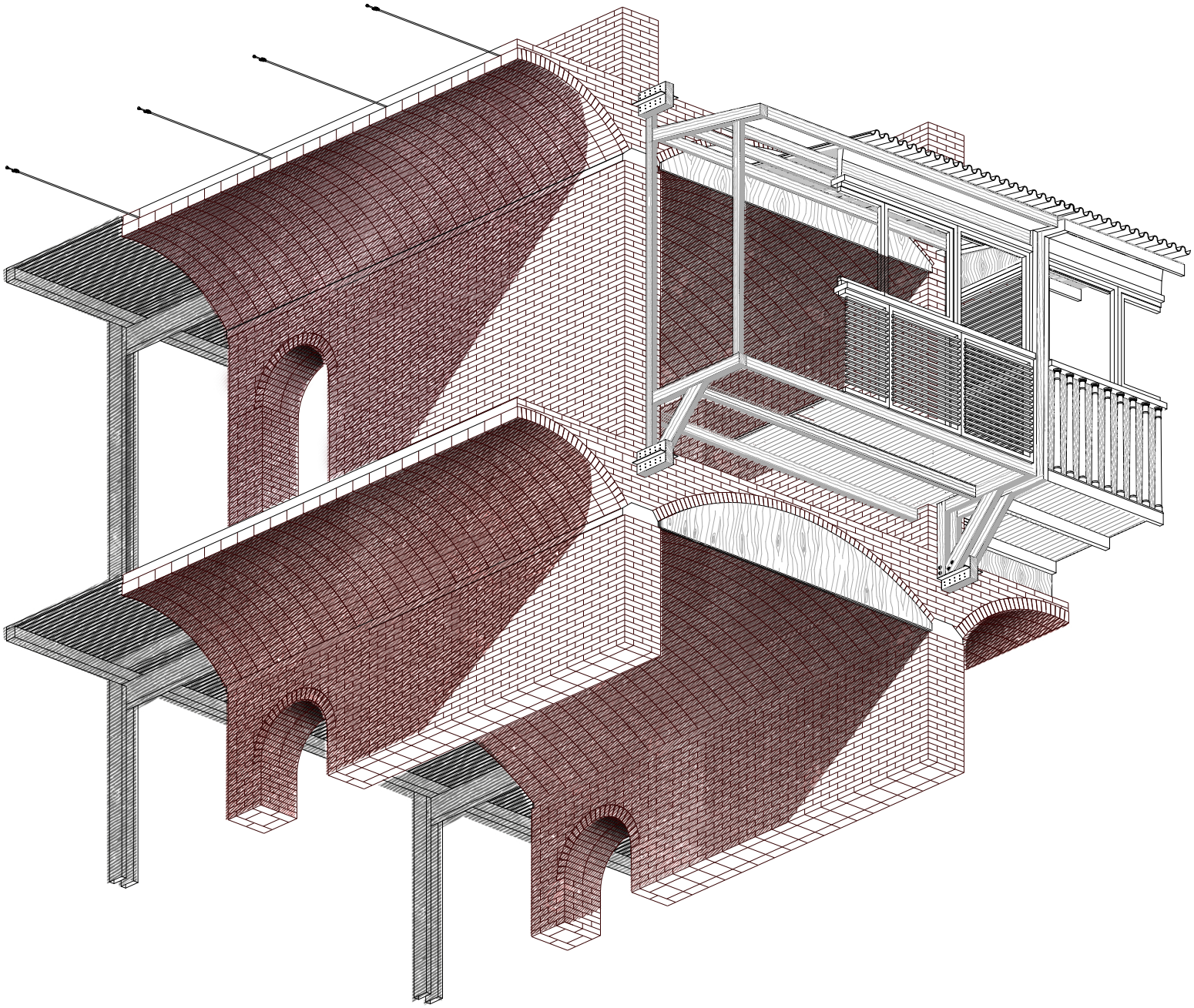


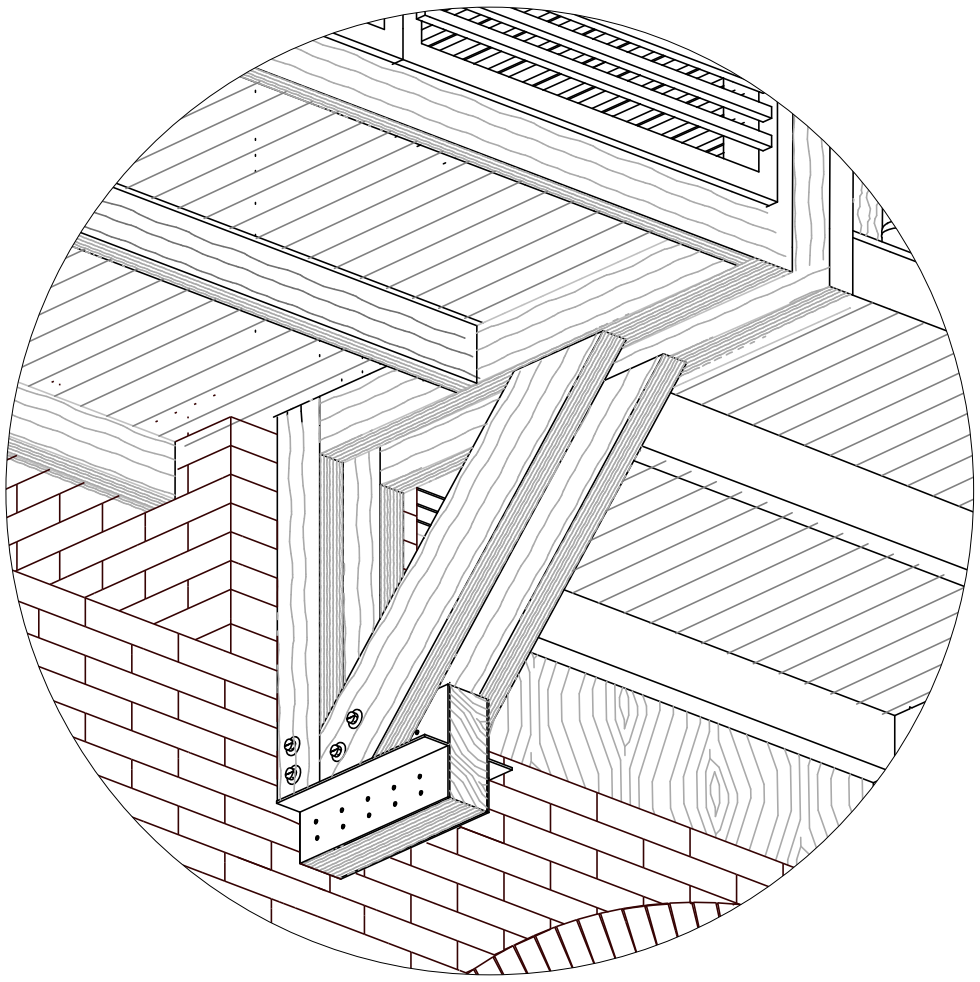


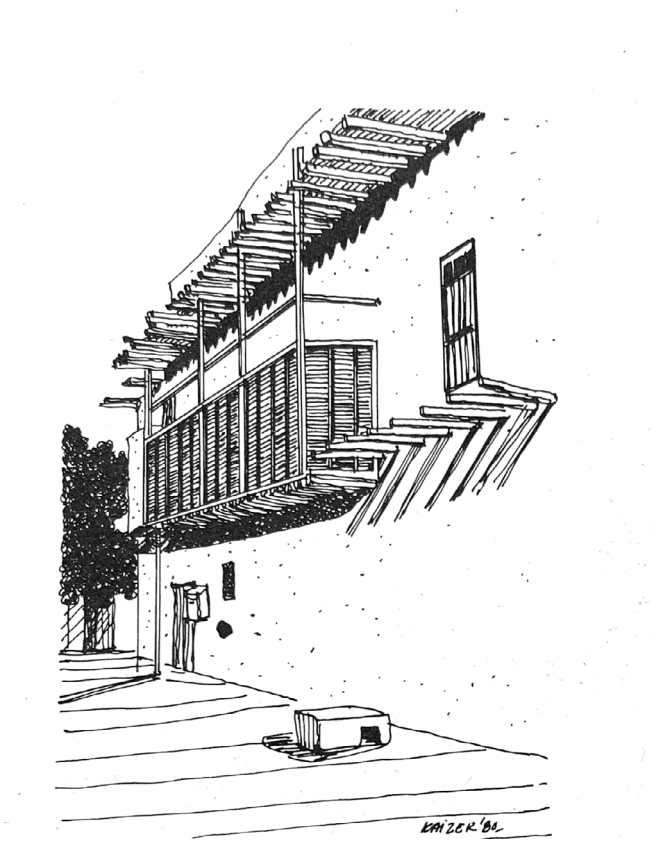




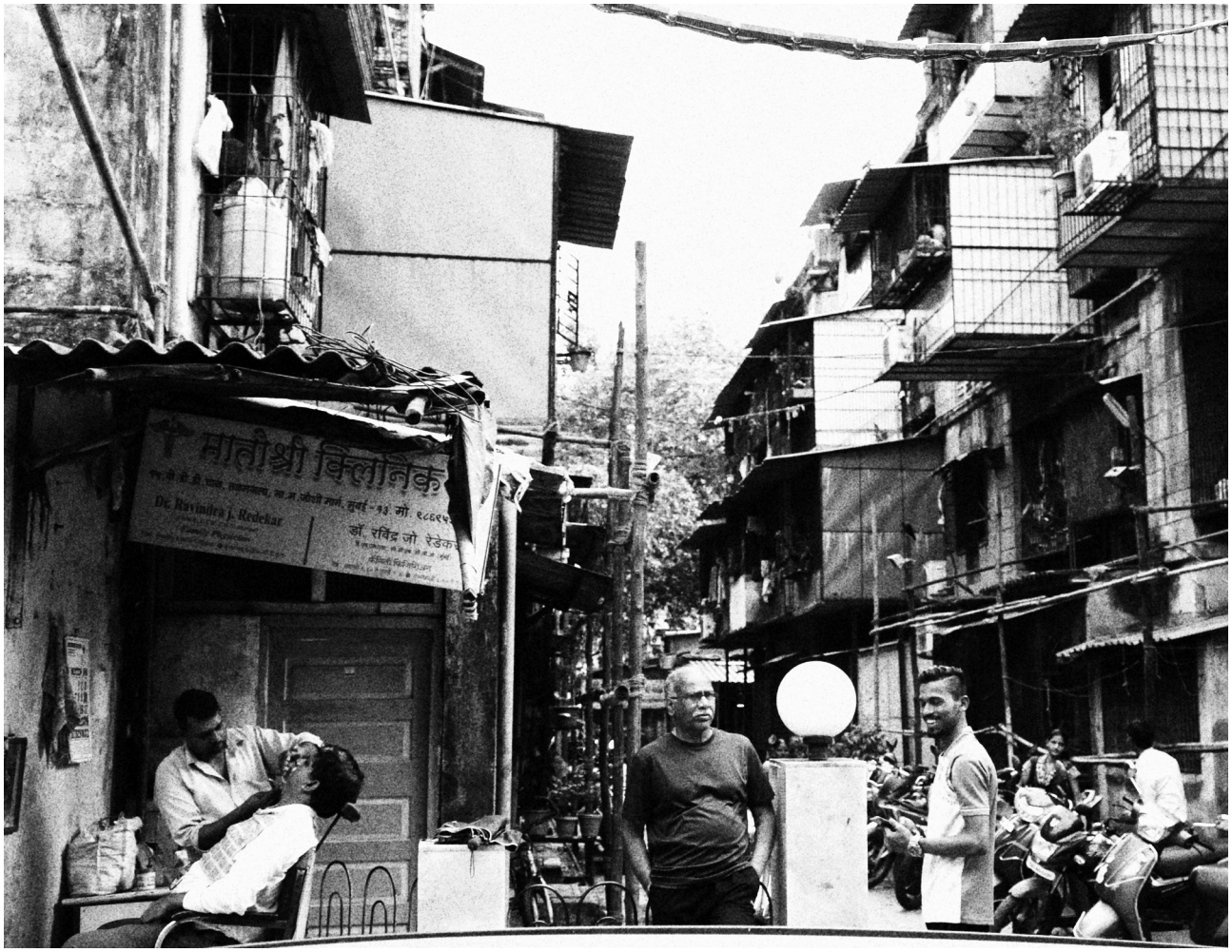
1. rope, (tollerance + air-tight)
2. timber panel
3. rock wool insulation - 4cm
4. water-proofing
5. metal L profile
6. corrugated metal roofing
7. bamboo mat



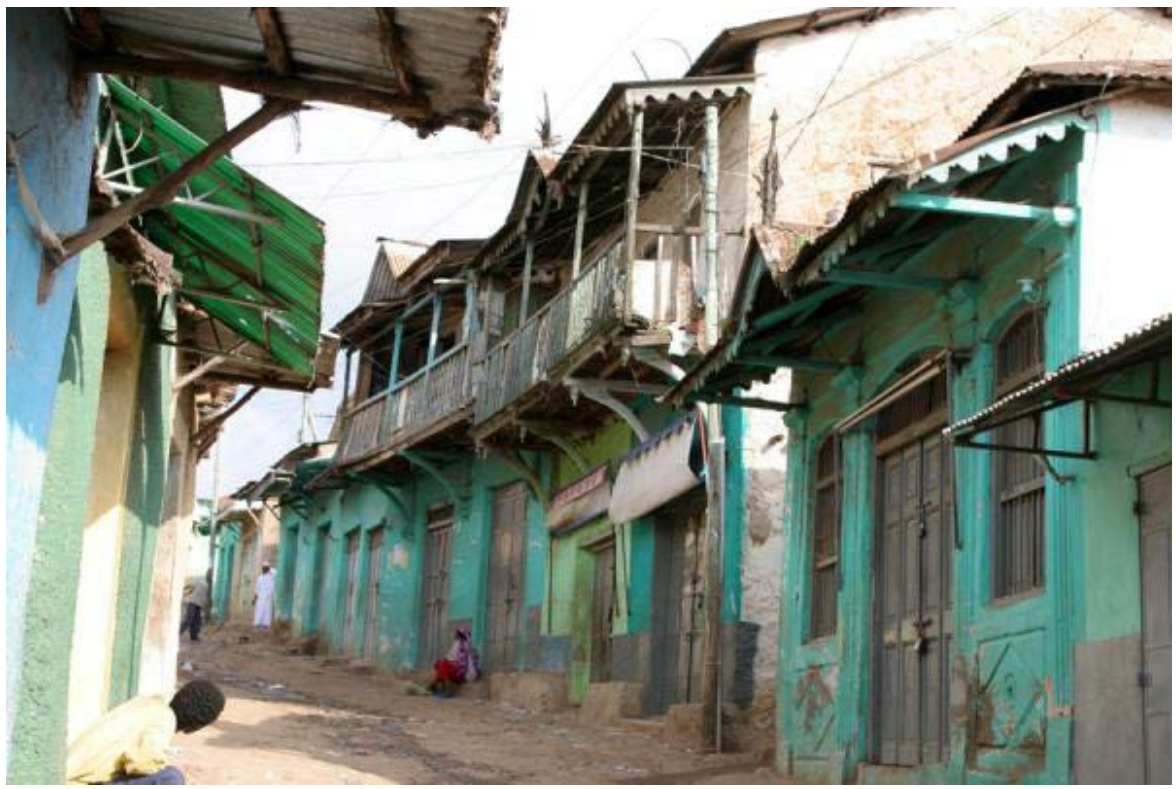


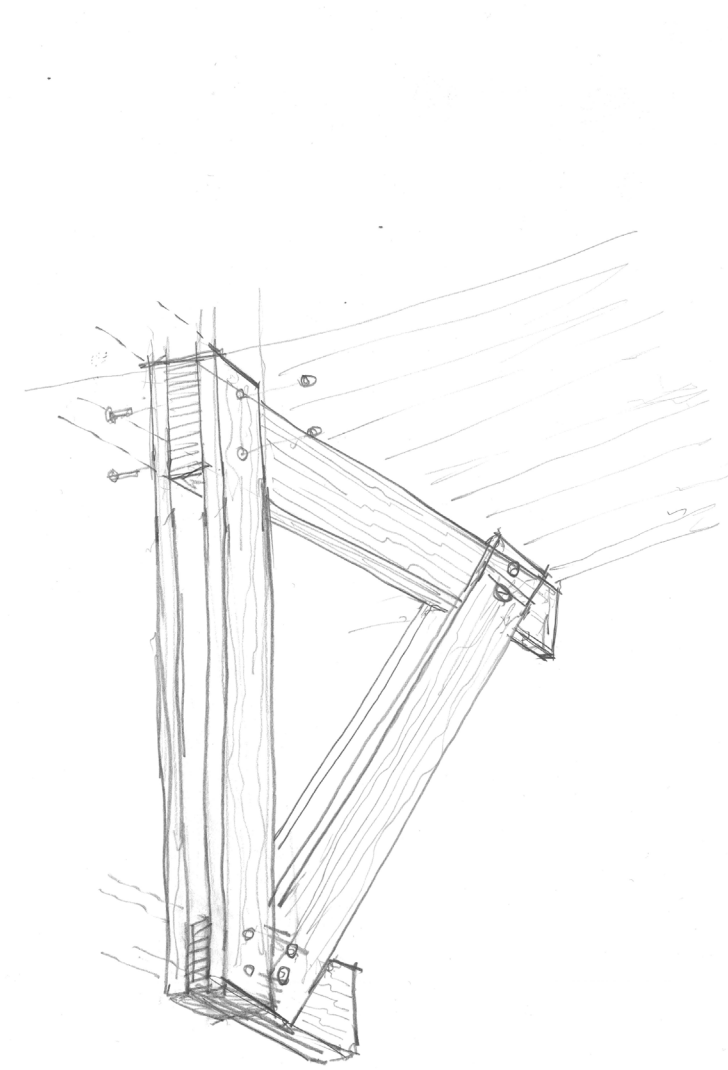


"making housing is like a bird building its nest. You have to start with the basic house but you have to let people change it"
Charles Correa


मातोश्री क्लिनिक
Dr. Ravindra j. Redekar
डॉ. रविंद्र जो रेडेक

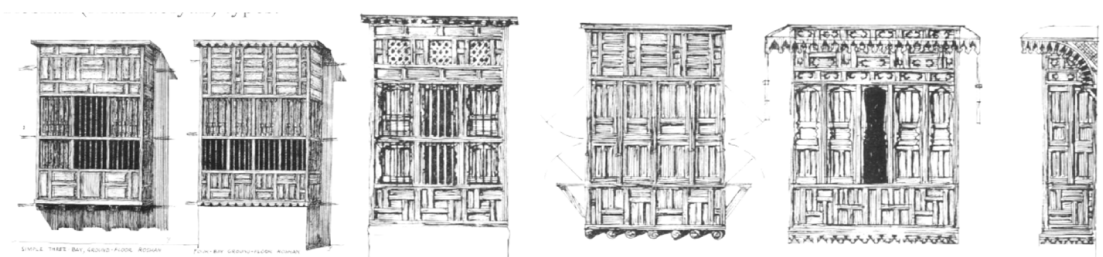


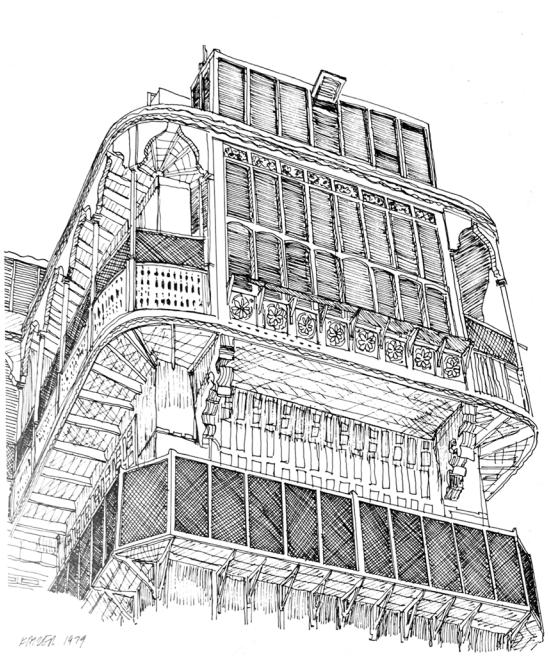


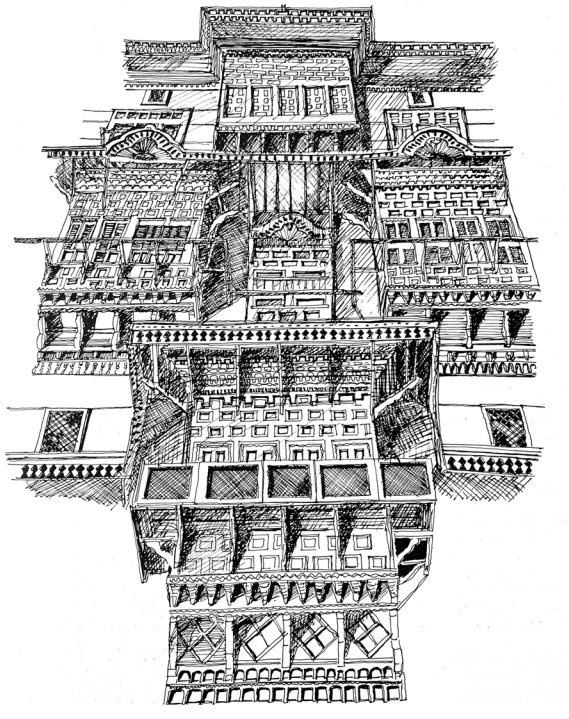


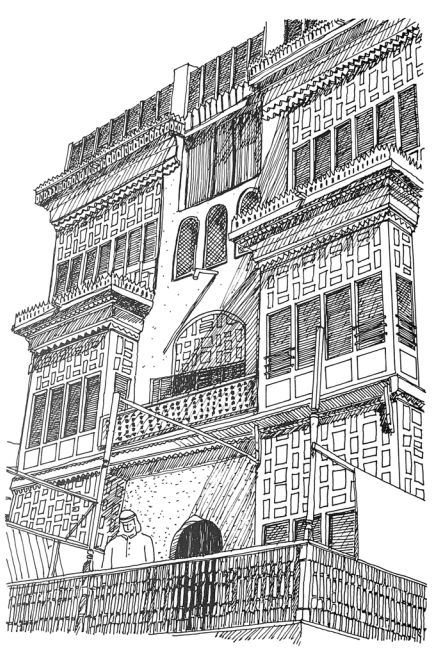


Perhaps, someday the expansions of the inhabitants of Talian could also end up in a taxonomy of types.

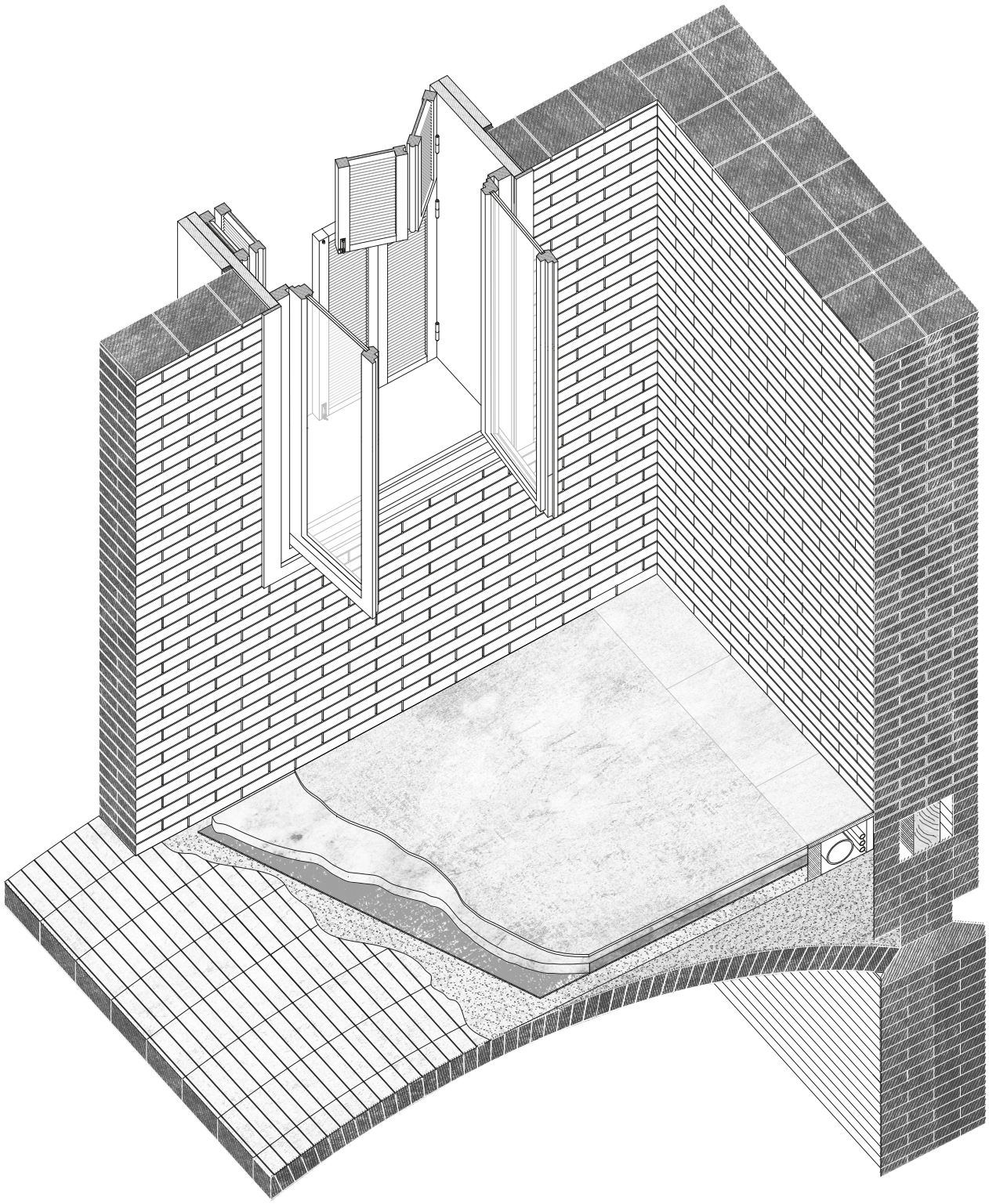




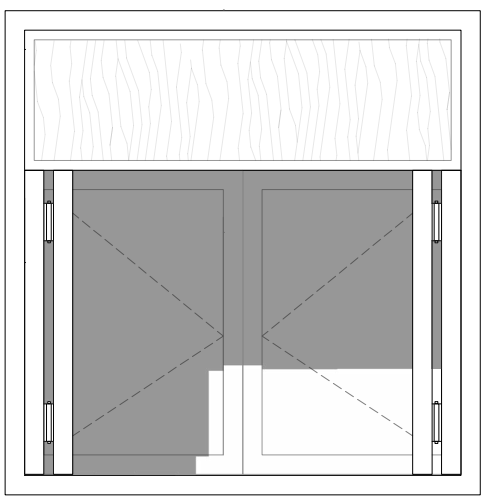




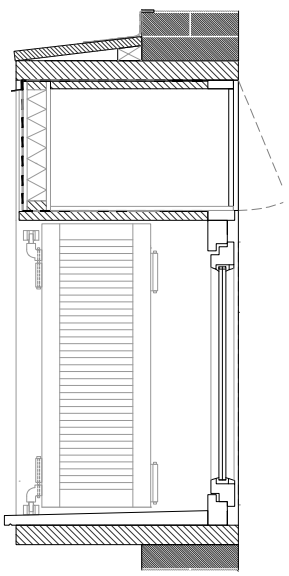
FINISHING AND OPENINGS



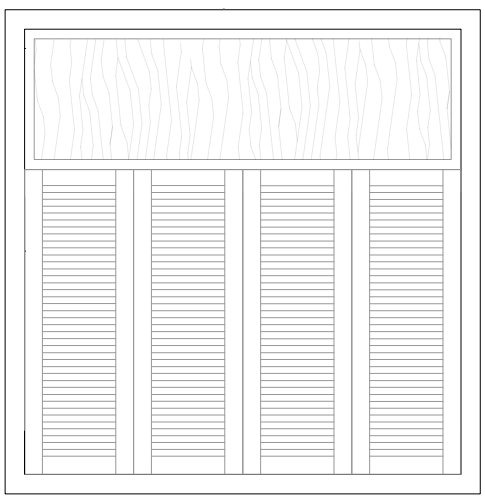




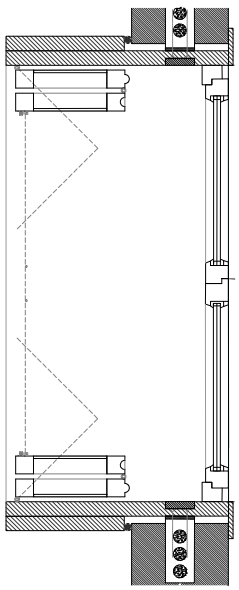
day-time



section

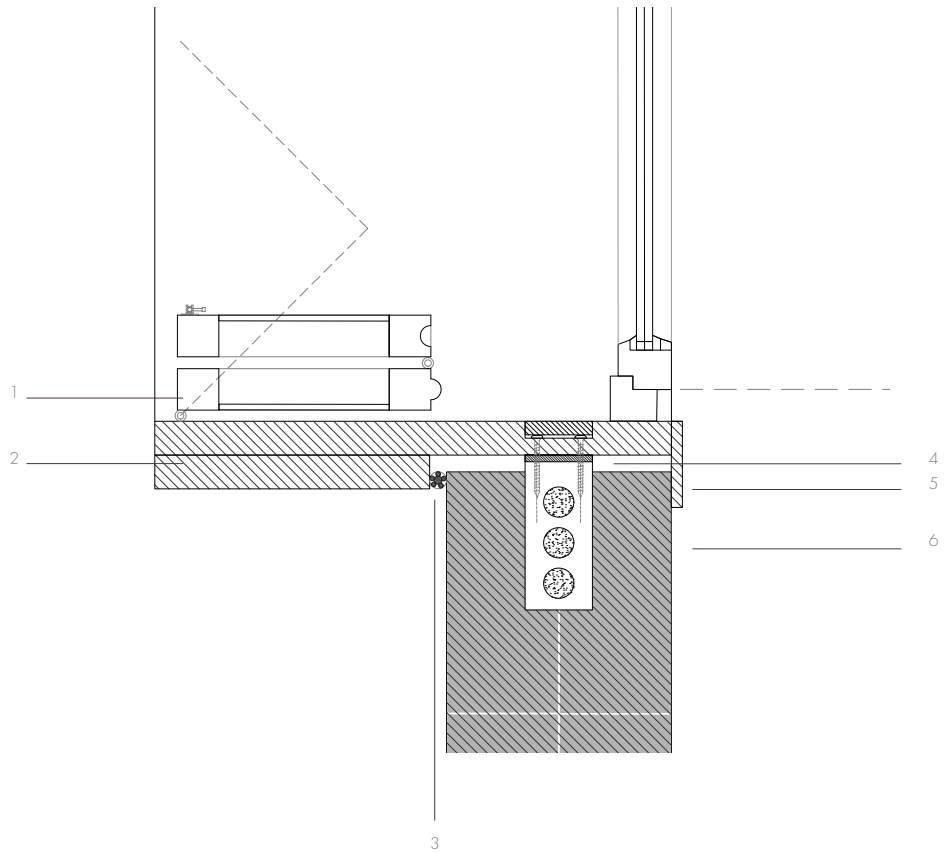


night-time



plan

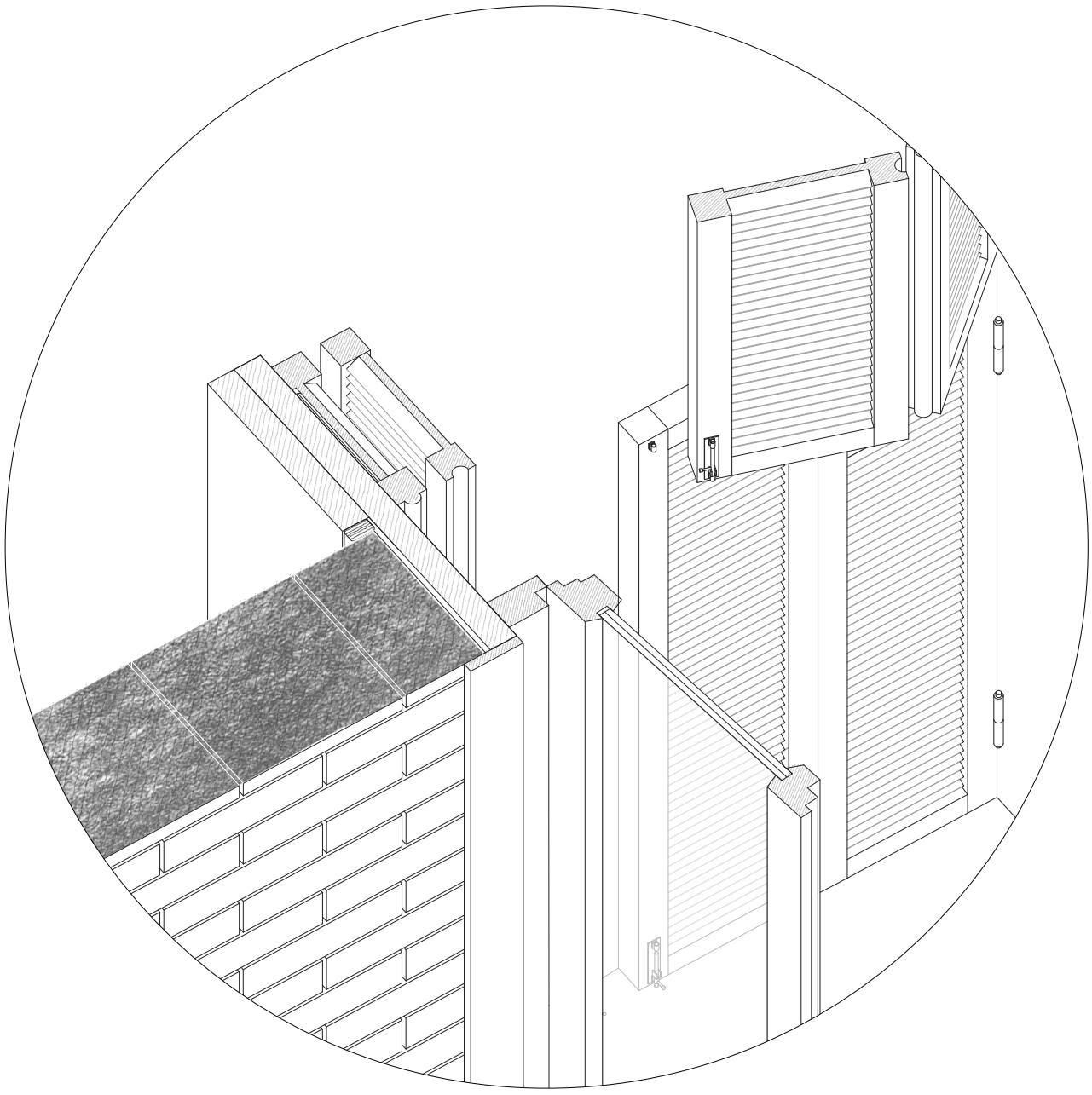
detail of a prefabricated window
scale 1:20



1. timber shutters
2. prefabricated timber box, 90x200 cm /90x100cm, 4mm + 4mm
3. rope (air-tight + tolerance)
4. metal L profile
6. CEB blocks (20x20x5 cm, 10x20x5cm)

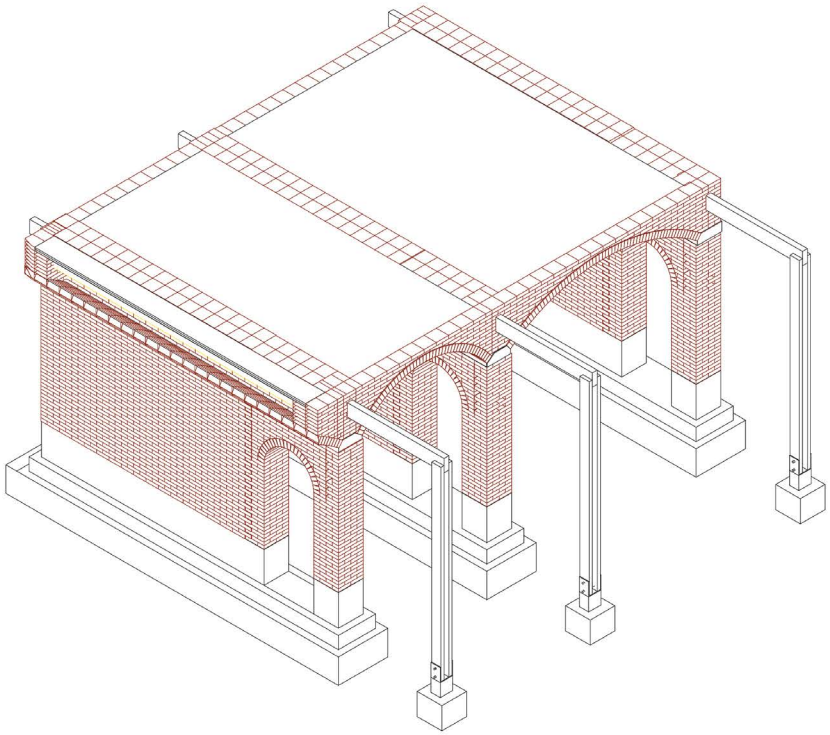
plan

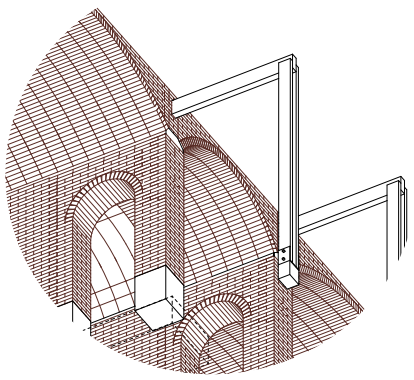
scale 1:5

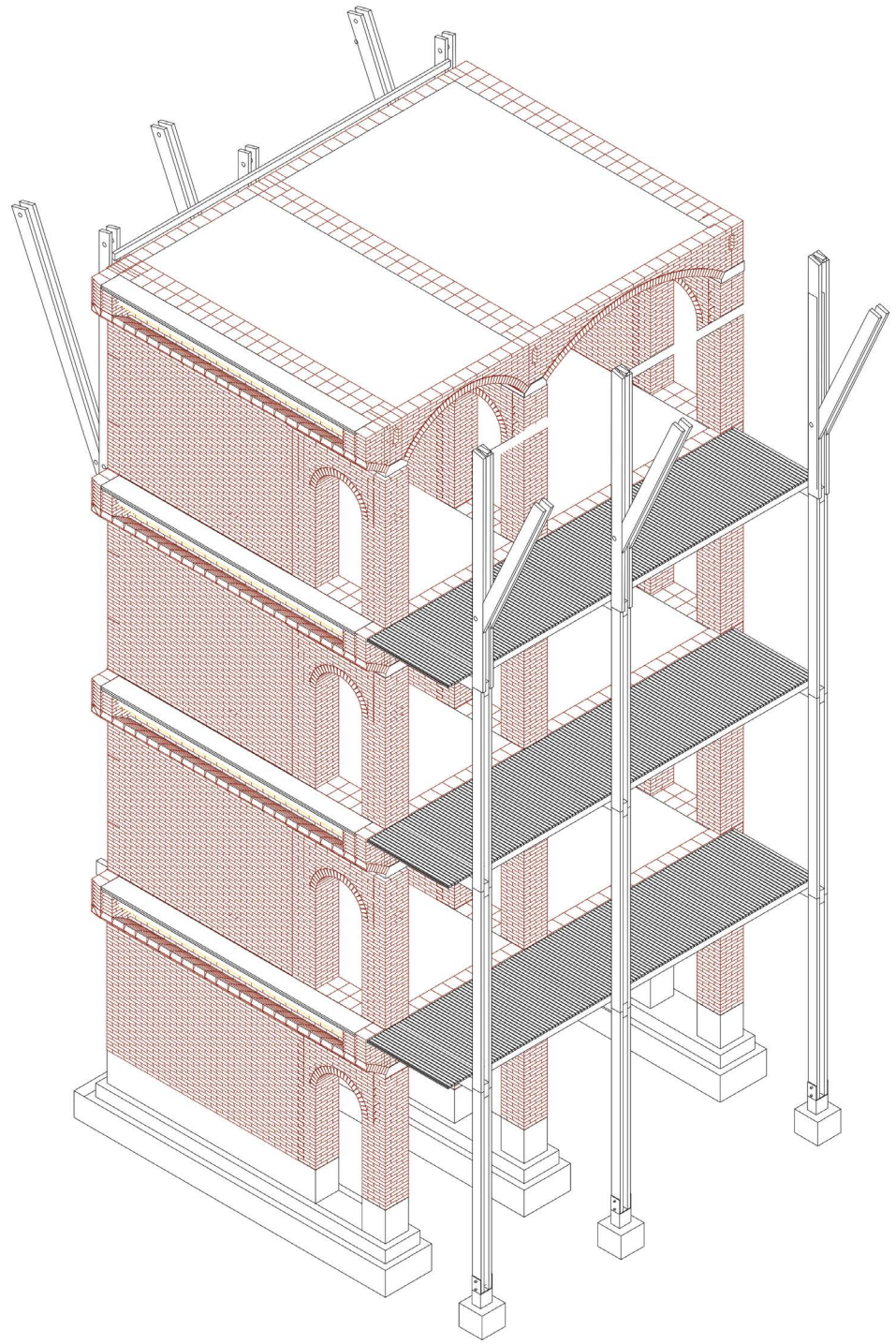


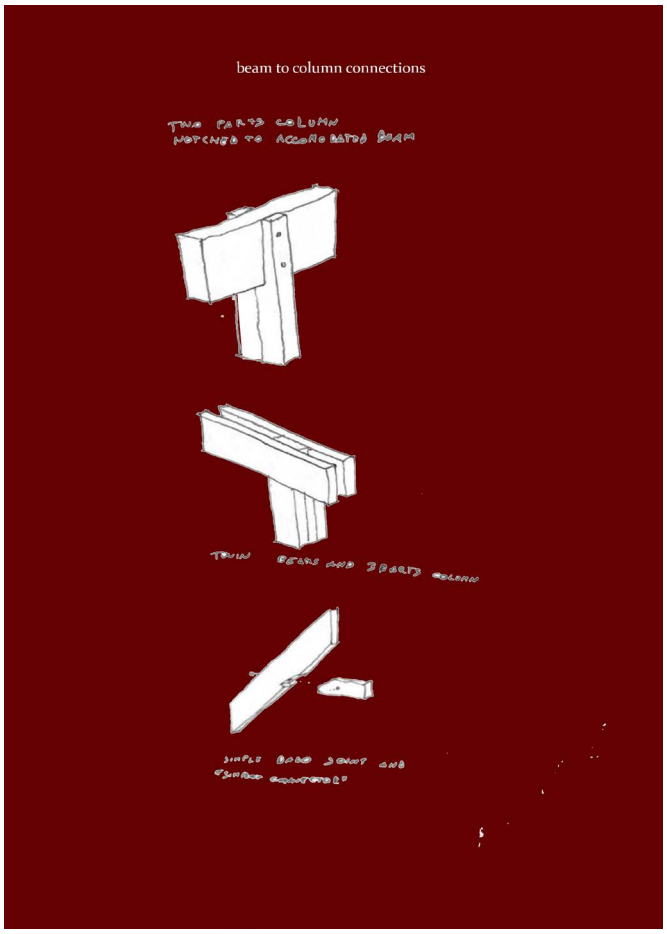
the shutter, inspired by the vernacular tradition, can be adjusted to several configuration to control light and natural ventilation

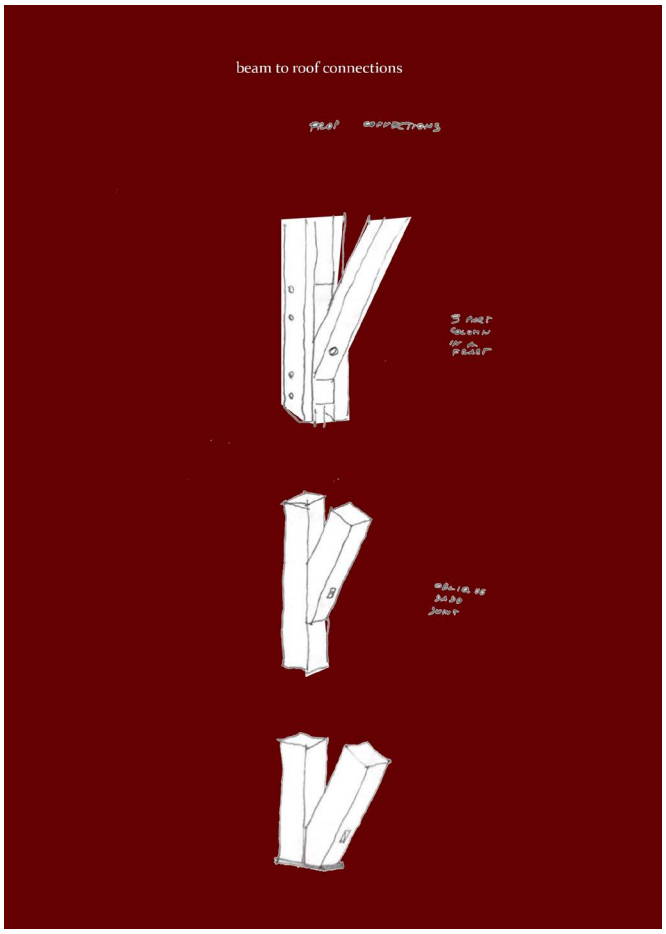
TIMBER STRUCTURE

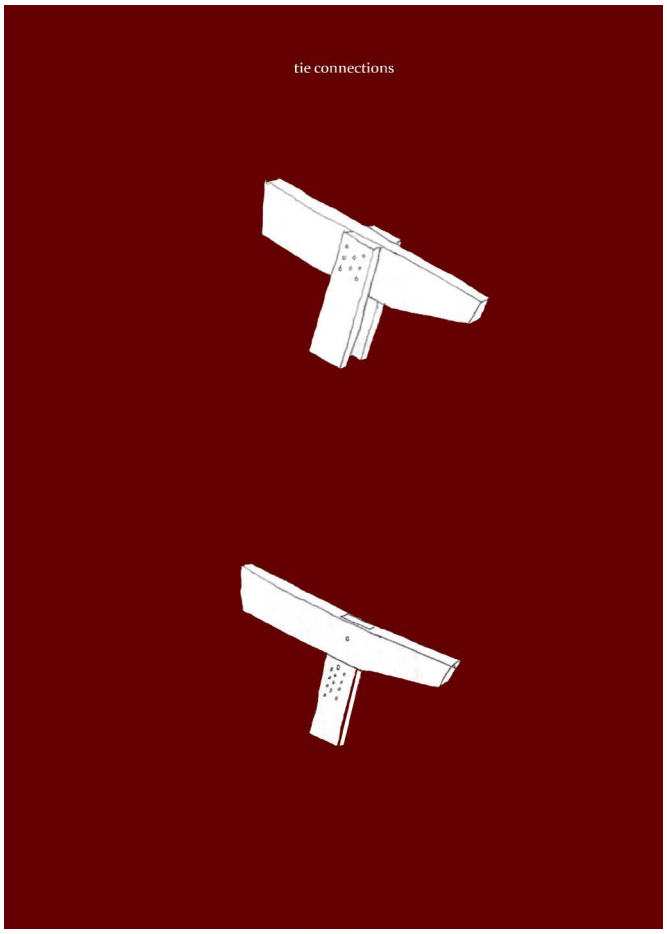






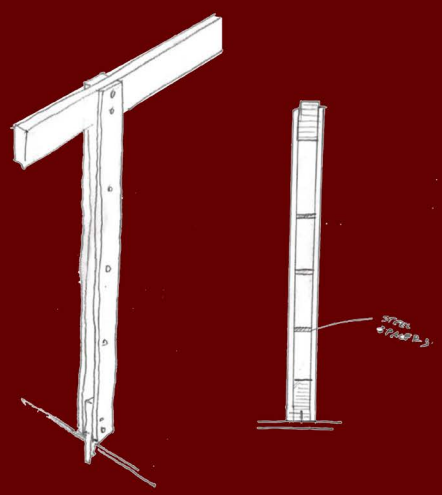




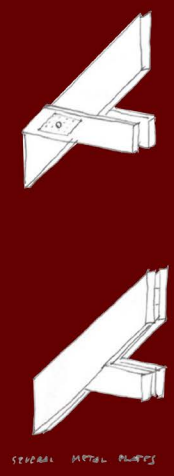


During the research several timber joints have been explored in order to create a toolbox that with the same principles could be applied to different levels of investments. The most sophisticated ones that could be used in the adaptive re-use of the historical buildings to enhance their aesthetical qualities.

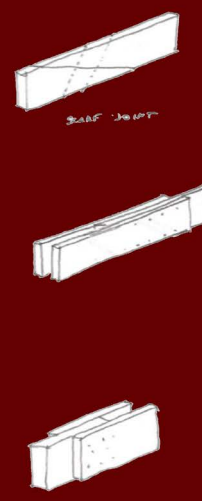
column to beam joint



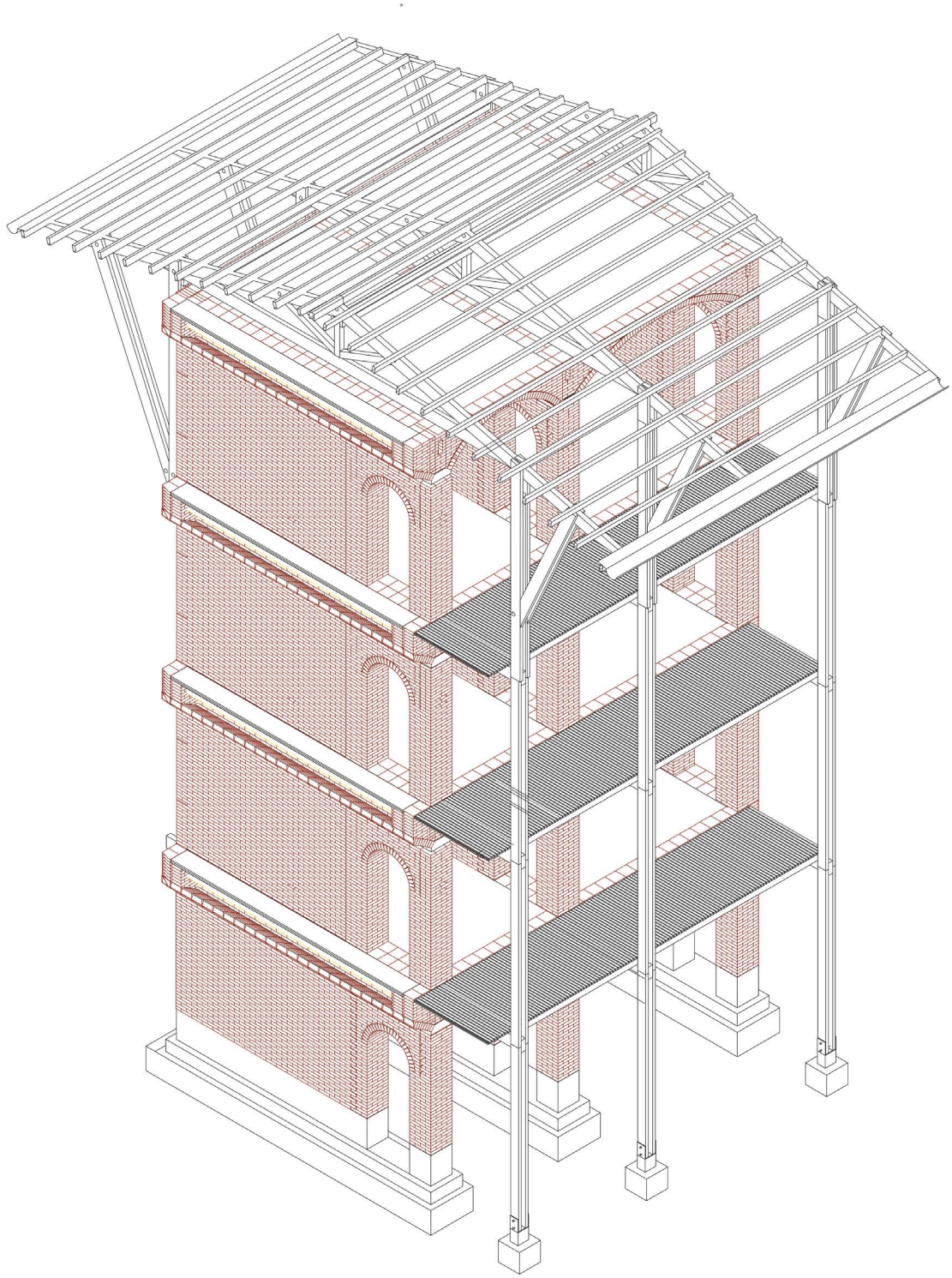
roof connections

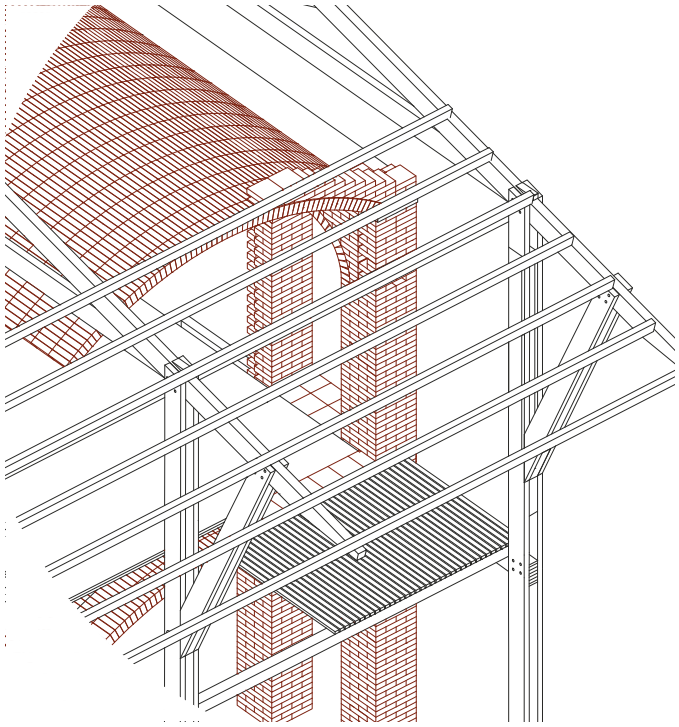


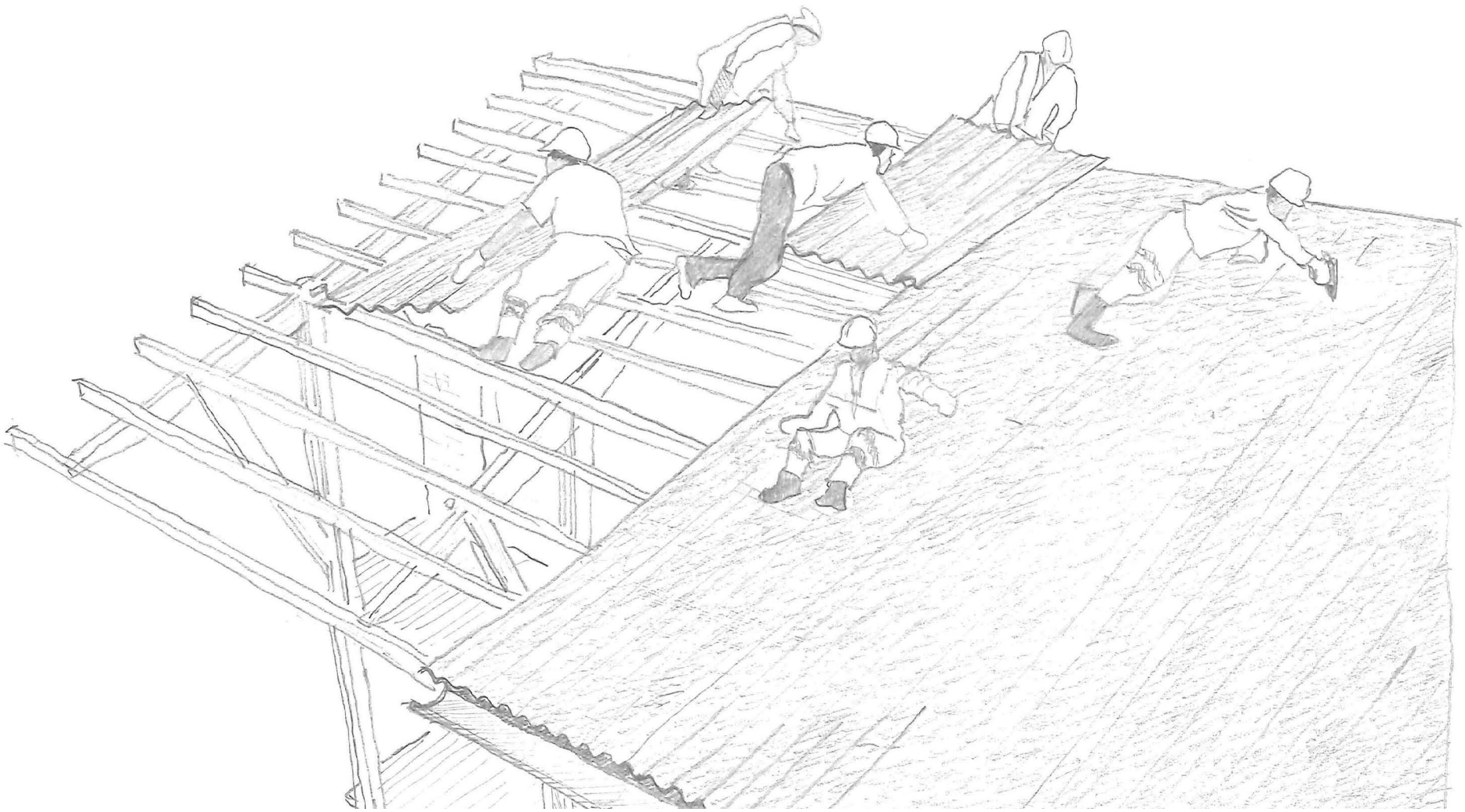
parallel connections



DUO-PITCHED ROOF





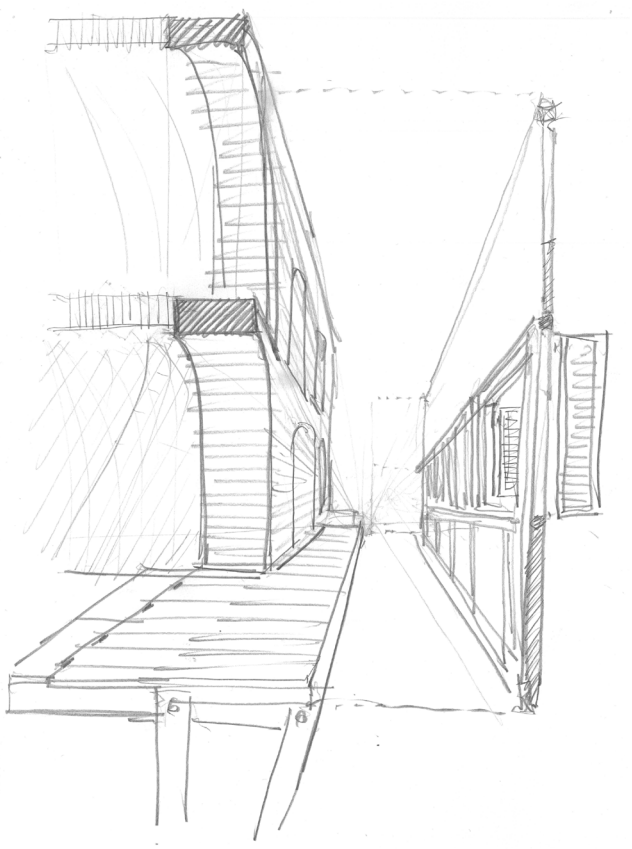


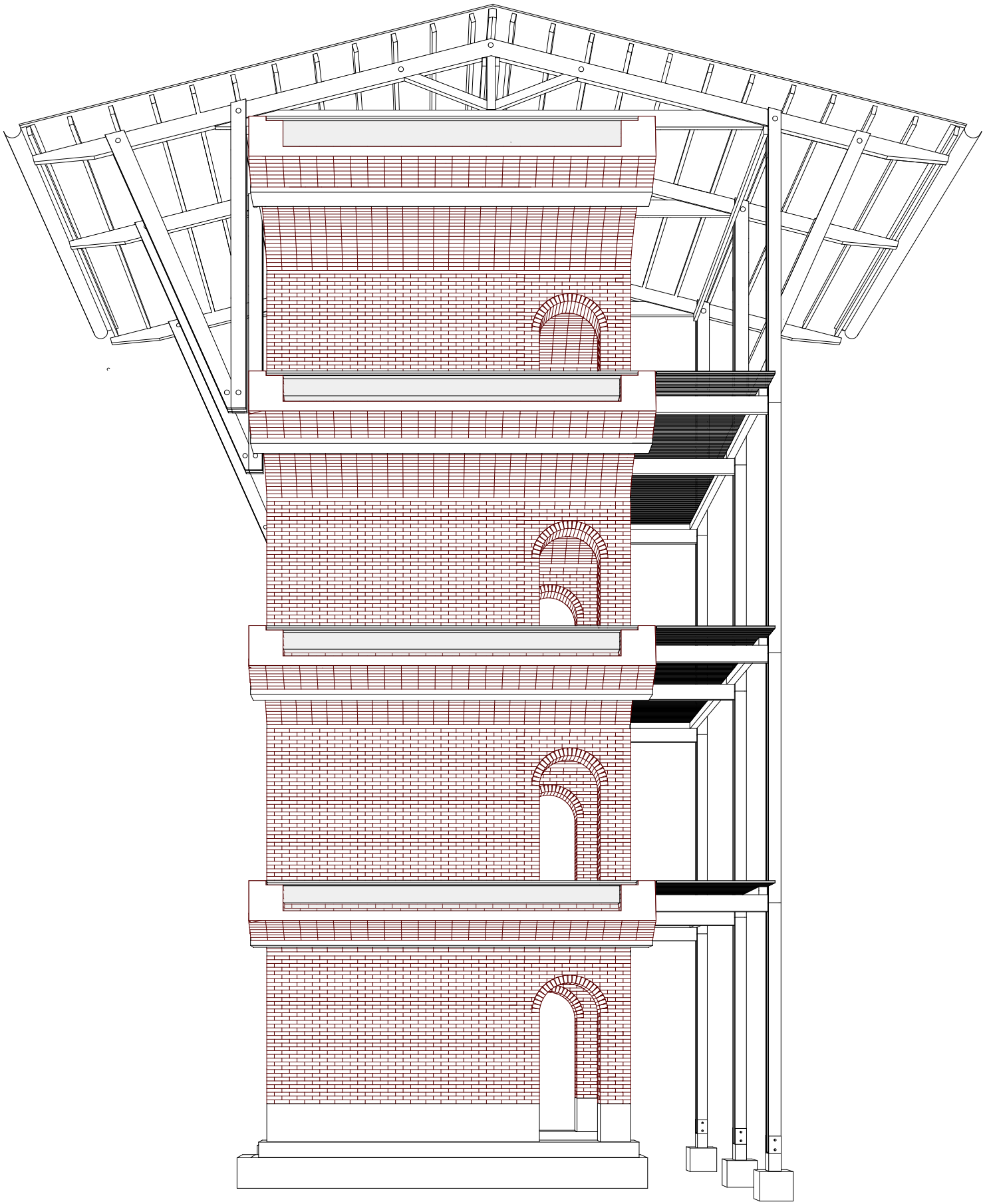
METAMORPHOSIS
TRADITION AND CHANGE



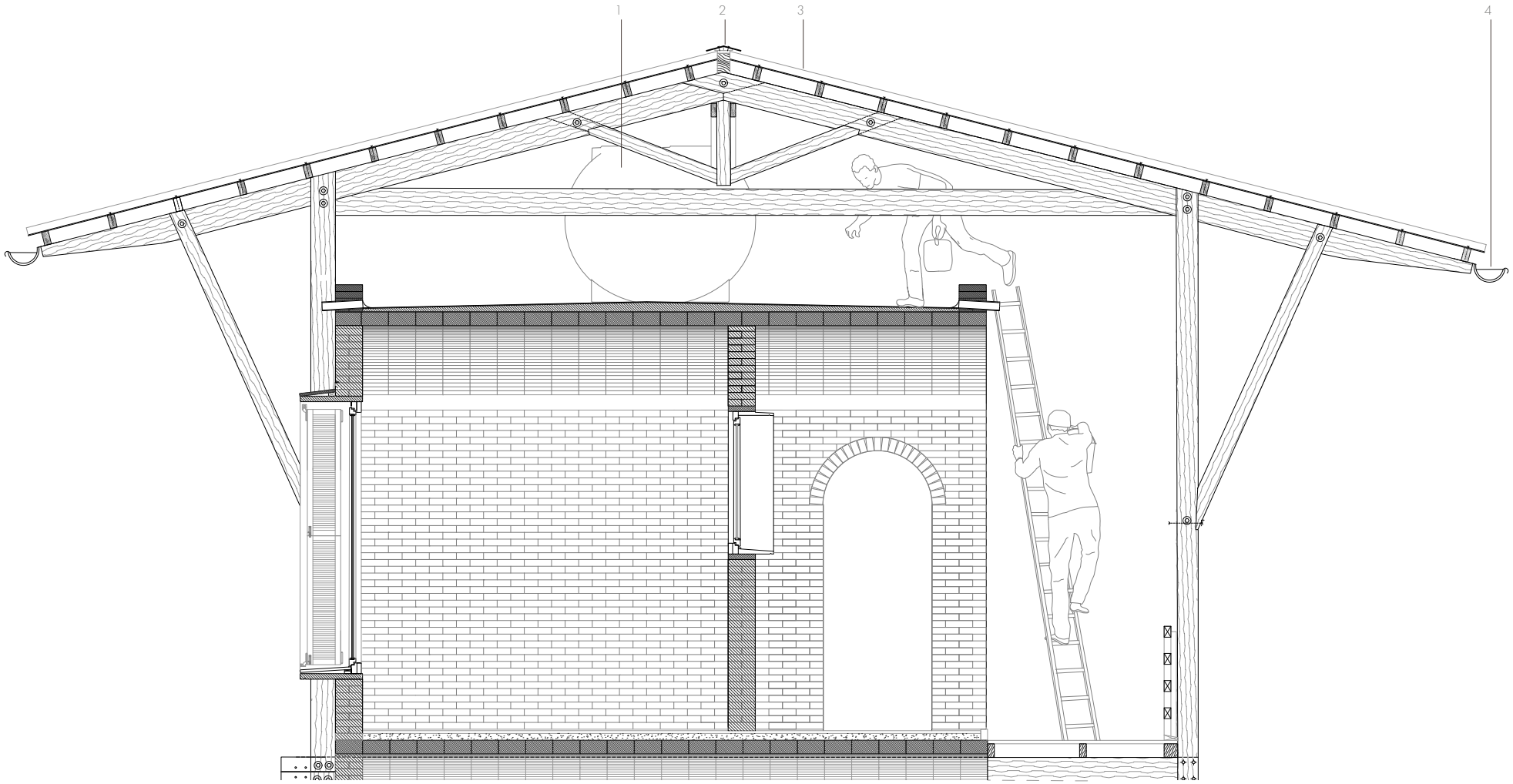
"Tradition is not necessarily old-fashioned and is not synonymous with stagnation. Furthermore, a tradition need not to date from long ago but may have begun quite recently. As soon as a workman meets a new problem and decides how to overcome it, he first step has been taken in the establishment of a tradition. When another workman has decided to adopt the same solution, the tradition is moving.

Architecture for the Poor, Hassan Fathy



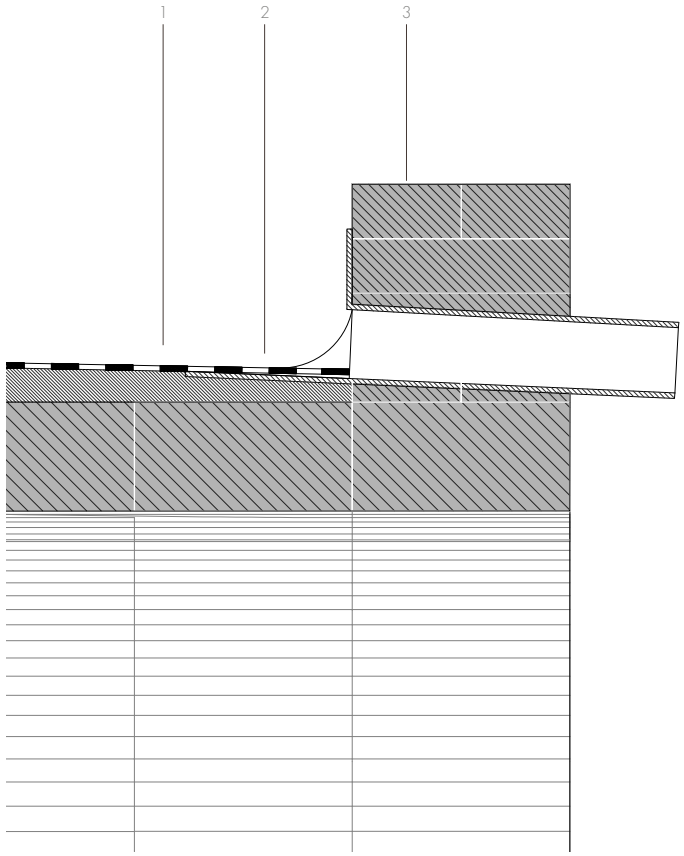


ROOF WATER-PROOFING

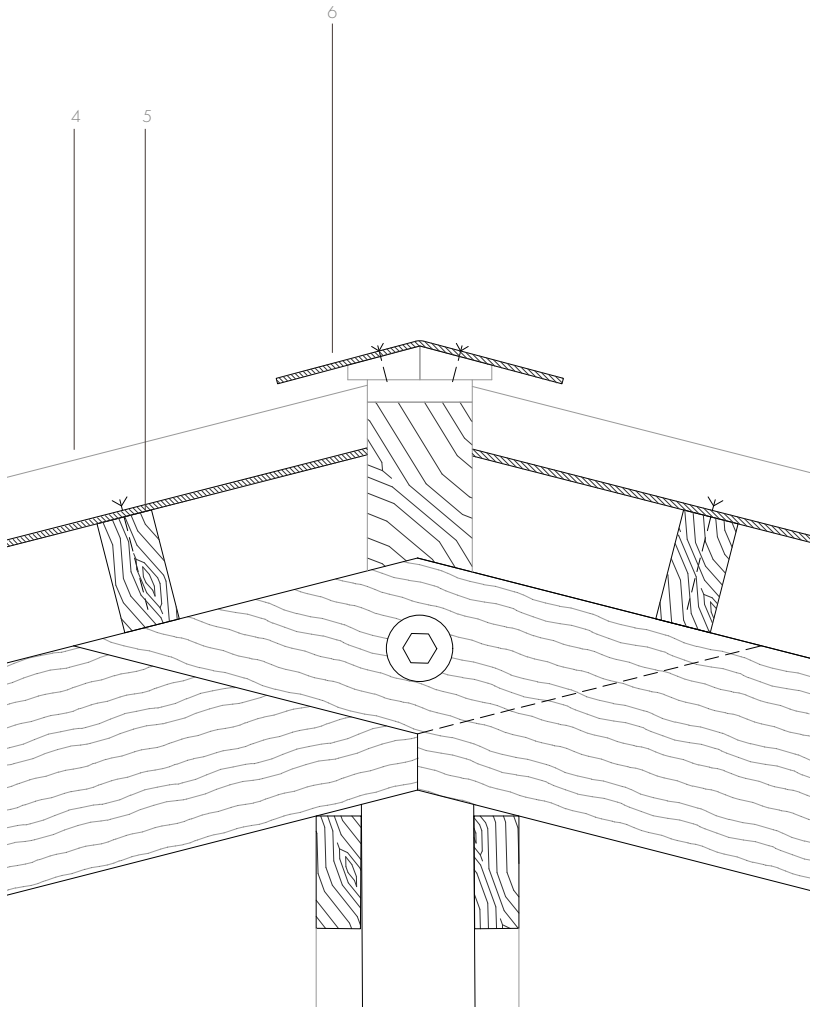


1. water tank - 5 l
2. timber truss
3. aluminum roof
4. metal gutter

in case of a leakage of the water tank, a waterproofing layer protects the vaulted construction

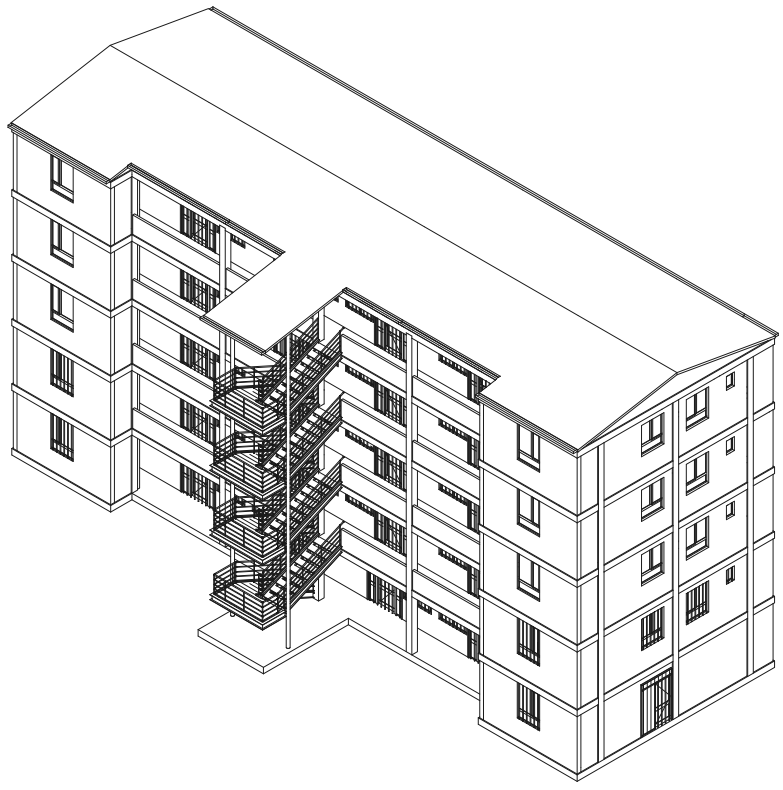


1. water-proofing: nylon membrane
2. metal draining
3. CEB



4. corrugated metal sheet
5. timber joist
6. metal cap

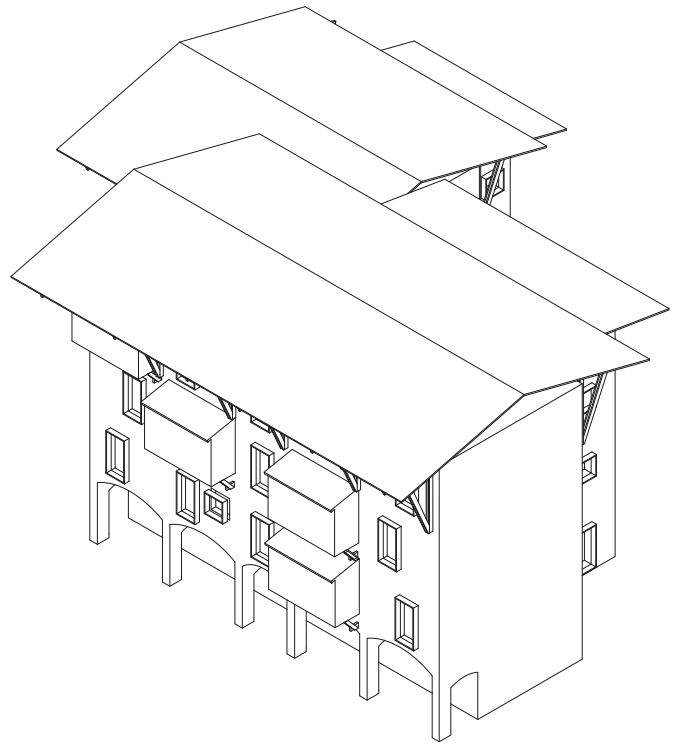
CONDOMINIUM 20/80



foreign or skilled labour

foreign and expensive materials (Imported from China)

DESIGN PROPOSAL



local employment: +20 people minimum
creation of job opportunities

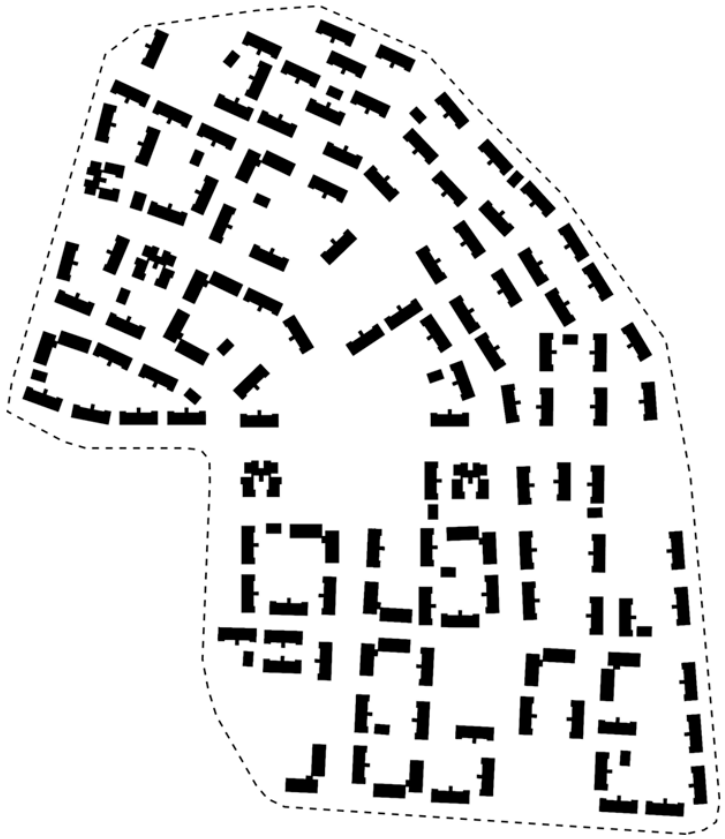
local and economic materials

design feasibility



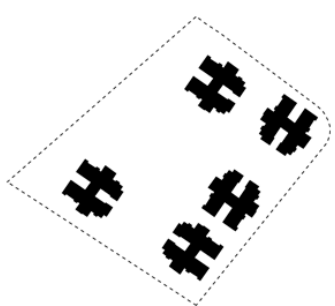
Talian Sefer

27,2 ha
80 u/ha
319 inhabitants/ha
fsi: 0,6
building heights 1-2 storeys



Mickey Leland
condominium 20/80

21 ha
90 u/ha
369 inhabitants/ha
fsi: 1
building heights 4-5 storeys



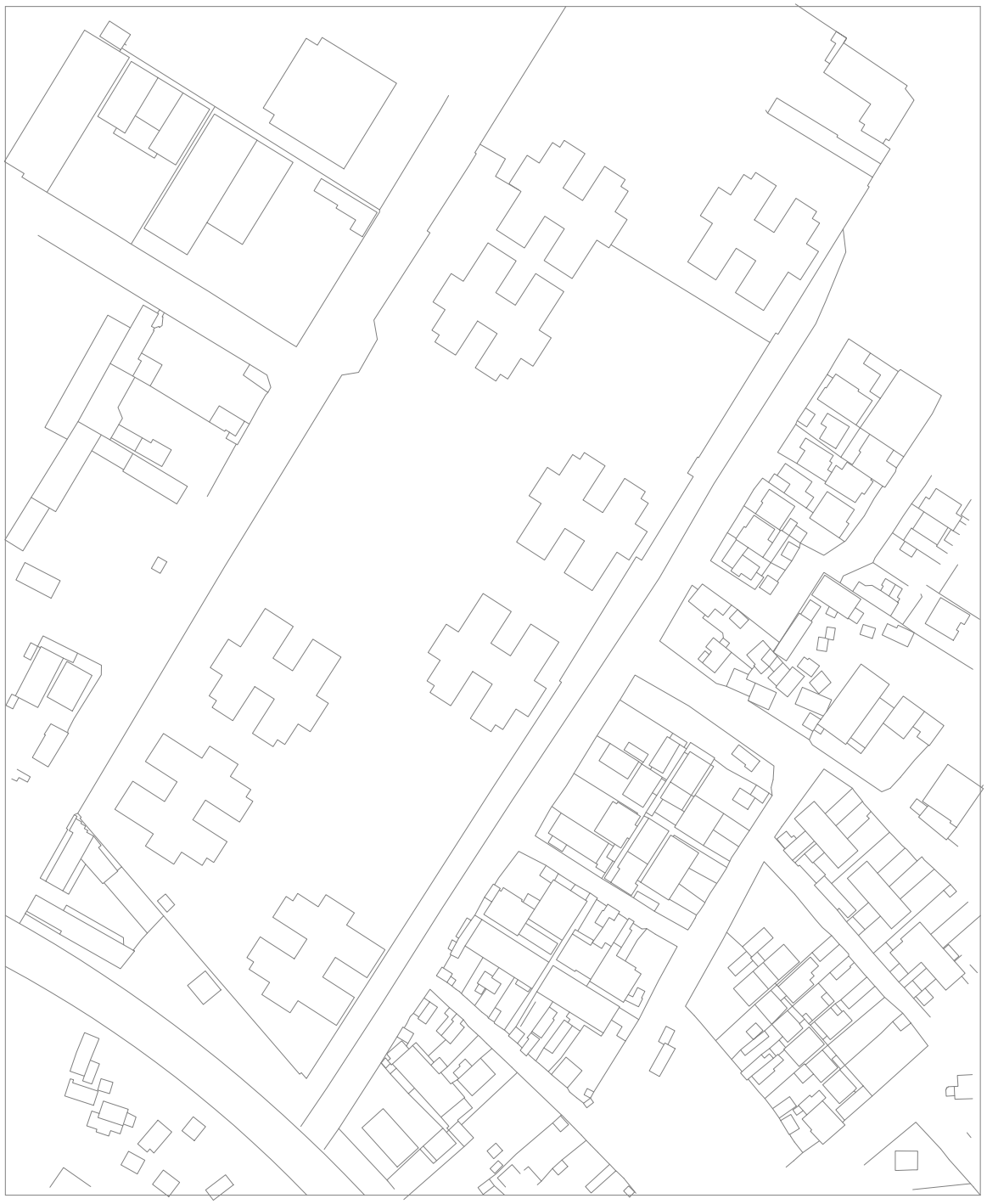
Sengatera
condominium 40/60

2,6 ha
122 u/ha
613 inhabitants/ha
fsi: 1,85
building heights 13 storeys



design proposal

3,4 ha
total units: 732
Inhabitants: 3290
236 u/ha
1062 inhabitants/ha
fsi: 1,9
building heights 4-7 storeys



Gerji
condominium 40/60

4 ha
122 u/ha
613 inhabitants/ha
fsi: 1,85
building heights 13 storeys



Gerji
condominium 40/60 + infill

4 ha
358 u/ha
fsi: 2,55
building heights 4-13 storeys
+ 516 additional units



Kebele 24
site and services

2,5 ha
fsi: 0,55
building heights 1-2 storey



Kebele 24
proposal for the outskirts of Addis

2,5 ha
310 u/ha
fsi: 2,1
building heights 4-7 toreys
+ 704 units

COST OF PRODUCTION

All costs are proportioned to 1 low-income housing unit, for which 12.000 blocks have to be produced

EMPLOYMENT: minimum + 9
COST W/OUT LABOR: 769 Birr per sqm

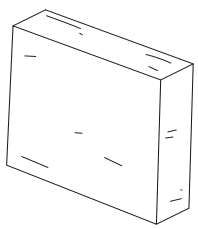
Category	Amount	Cost	Time	Source
EXCAVATOR	1	negligible for 1 unit	n/a	2merkato.com
EXCAVATION	76 tonnes	2.730 Birr - 75 Euros	n/a	2merkato.com
BRICKS	12.000 units	1.890 Birr - 52 Euros	30 hours	Fathy
OSKAM PRESS	1 unit	negligible for 1 unit	n/a	n/a
CEMENT (stabilizer)	3,8 tonnes	9.216 Birr - 254 Euros	n/a	2merkato.com
WATER	12.000 liters	n/a	n/a	E.A. Adam
LABOR	9-11 people: 5-7 for press - SKILLED (after workshop) 2 for excavation - SKILLED 2 trainees for everything else - UNSKILLED	 30 Birr each per hour 30 Birr each per hour 15 Birr each per hour		2merkato.com

COST CALCULATION

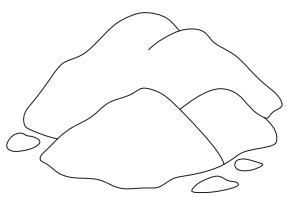
EMPLOYMENT: minimum + 4
COST W/OUT LABOR: 67 Birr per sqm

Category	Amount	Cost	Time	Source
STONE (incl. transport)	4,2 cubic meters	1202 Birr - 35 Euros	n/a	2merkato.com
UTENSILS	toolkit	2 Birr per hour	n/a	2merkato.com
LABOR	4 people:	30 Birr each per hour	n/a	E.A. Adam
	1 mason - SKILLED			
	2 for excavation	30 Birr each per hour	n/a	
	- SEMI-SKILLED			
	1 trainee - UNSKILLED	15 Birr each per hour	n/a	

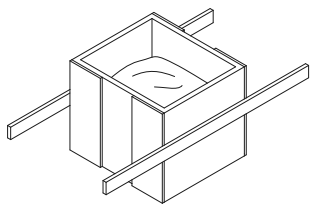
INGREDIENTS



Blocks



Sand



Clay Flooring



Water-proof
Layer

COST OF ASSEMBLY, MAINLY LABOR

EMPLOYMENT: + 7 minimum
COST W/OUT LABOR: 125 Birr per sqm

Category	Amount	Cost	Time	Source
CENTERING	2	re-usable, negligible for 1 unit	n/a	n/a
CONCRETE BEAM	3x 0,75 cubic meters	720 Birr - 20 Euros	n/a	2merkato.com
SAND	9 cubis meters	1530 Birr - 42 Euros (imposs poi ti spiego)	n/a	2merkato.com
WATER-PROOFING	2 sheets	n/a	n/a	n/a
CLAY FLOORING	0,4 cubic meters	boh	n/a	n/a
LABOR	7 people:		n/a	Fathy and 2merkato.com
	2 Masons - SKILLED	30 Birr each per hour		
	2 Workman - SEMI-SKILLED	30 Birr each per hour		
	2 Helpers - UNSKILLED	15 Birr each per hour		
	1Trainee	15 Birr each per hour		

Reflection

-Introduction

Designing in a context that demands for urgent interventions have been unquestionably a great challenge that required critical and in-depth analysis of the issues that Ethiopia is currently facing. Moreover, Addis Ababa did not only represent for me a complex ever-changing environment in which I have decided to reflect upon through a project, but also an undeniably foreign one, a condition that made me think about the role of an external architect and the legitimacy of his position. A thought upon which I will reflect later, but that was the object of constant discussions with my colleagues. I believe that the questions that we have been facing throughout the year in the studio epitomize the complexity of urban and architectural dilemmas that ask for a holistic approach and can only be tackled by a critical research characterised by a great variety of tools and a cooperation between a great number of stakeholders.

I understood more than ever before the extent to which a project cannot proceed with intuitions and thoughts detached from a context but must grow from thorough research and discussions with all the people involved. This process helped me shaping a personal position, which I believe is the most important element to guide an architect in his work.

. Research and Design

I would like to begin by reflecting on the relevance of research-methodological awareness in relation to design practice in a context of great complexity such as the one that we have been studying throughout the year within Global Housing Graduation studio. Indeed, reflecting upon the case of Addis Ababa, a rapidly developing city, brings about several questions that opened my eyes to the relationship between research methods and architectural design.

In "Notes on the Concept of an Architectural Position", Royston Landau states that architectural culture should not be merely regarded as the evolution of built forms as distinct objects and the list of unique personalities that epitomized certain historical moments. Indeed, a similar reductionist approach might only help us to label architectural movements, fixing the individual work carried by an architect under categories that are reflecting a given historical moment, while running the risk of forgetting the driving forces behind those architectural manifestations.

In contrast, Landau encourages us to consider the role of a multiplicity of architectural approaches and positions held in the evolution of architecture. In other words, the manifestations of architectural culture might be understood as a series of relevant questions to which architects had to respond by drawing on a chosen body of methods. Here, the crucial word is choice. It is undeniable the extent to which the work of an architect is influenced by

a historical context and its complex determining factors. However, considering the service that architects provide to a specific community, I recognize a certain degree of vagueness and ambiguity for which we are called to take a position. Something that can only derive from a deep understanding of the issues to which we are asked to respond to. A critical research frees us from dogmatic positions by being also tightly bound to chosen methods that allow us to frame reality and react to it in ways that might produce new knowledge.
Even if this statement is true for every service that architects provide, it is particularly relevant when we are confronted with multifaceted issues that demand a position in order to cut our way into intricate complexities. This is the case for the rapidly growing city of Addis Ababa, capital of Ethiopia, which is currently facing a significant housing demand in a context of great speed of development. The government has tried to tackle the issue since 2004, through the "Grand Housing Program" which aimed to eradicate the informal settlements throughout the whole city. However, this violent manoeuvre represents a forced march that does not consider cultural facts and social patterns that are crucial for the life of a city. In this complex context that urges for alternatives, I have found myself fascinated by the tendency of an African capital to move forward while erasing its traces in some form of autophagic behaviour. Indeed, considering that the capital cannot expand beyond its administrative limits for political reasons, it appears daring to imagine possibilities of co-existence of historical districts with such a strive for modernity. This brought me to ask myself what it means to dream of modernity, what is it exactly that this civilization is looking for. And more: what is the role of history, culture and social life in this process of fast transformations?

Finally, all these questions were synthetized in a single multifaceted one, that would make of Addis Ababa a case that could relate to a crisis that humanity is facing at a global scale:

As cities in the Global South grow at an extremely fast pace, how can we densify and reconfigure their historical districts without erasing their traces, interpret their styles of life while providing a dynamic structure that can cater for their dreams?

To start to answer to similar questions it appeared appropriate to begin with a deep study of the complex urban ecology of the capital. As a group we were asked to proceed within a theoretical framework of 'desk researches' and ethnographical studies. I believe that within the body of methods proposed by the studio I have found the opportunity to develop a solid and personal approach since the very first months. I had the chance to bring to the research process a personal theoretical framework comprising references that connect different disciplines,

test it, and find my personal voice.
I began by taking two parallel ways: on the one hand, I decided to investigate the morphogenetic processes driving the emergence of Addis Ababa through a rigorous typological study. On the other hand, to account for the transformations of the patterns of inhabitation and the social structures that co-evolved with that habitat.
Within the first phase of analysis, I have decided to focus on Ethiopian dwelling culture, housing typologies and their transformations throughout history. Here, we had the chance to explore a variety of theoretical frameworks by conducting our group research in a very personal way. In order to give a critical perspective to our work, I proposed Muratori's formulation of typo-morphological analysis and the outstanding reflections of Manuel DeLanda about history and materialism. As Muratori did, we strived to reconcile an understanding of the city by identifying elementary types that constitute the urban fabric with the orographic dimension of the territory in a continuous variation of scale. In order to combine an analysis of the built environment with the social practices interrelated with it, the Chair of Architecture and Dwelling proposed an ethnographical approach based on the formulations of Christopher Alexander and the Japanese tradition that goes from Kon Wajirō and Uzo Nishiyama to Momoyo Kaijima.
The first research brought about a historical perspective on dwelling culture that allowed me to incorporate principles of historical precedents into urban design. These set of analysis became particularly useful when I first faced the project site, Talian sefer. Partly, my fascination for Talian as an historical neighbourhood was born from my previous studies of Addis urban transformations. I went back several times to our research to try and make sense of the sefer and I understood that a sensitive urban renewal is impossible without a clear notion of how the city came about, how those spaces that we would reconfigure had been created by the people we would need to re-house.
We began from an historical aerial image of the neighbourhood that allowed us to map the morphological transformations of the area through time. From these observations, we understood that Talian, as many other sefer around Piazza, was the result of an interplay between permanent elements and temporary structures. At first, we identified historical villas and military structures dated to the 20's and 30's as the permanent elements around which the informal settlement grew. However, after deeper analysis we came to understand that other larger mud houses that were presumably build before the Derg regime represented key elements generating a self-organizing clustering system. This enabled us to recognize Talian as a series of fragments of communities characterized by different degrees of interdependence.
Therefore, we identified these fragments that were inhabited by smaller communities that we would re-house in a series of architectural

interventions. I believe that one of the greatest challenges we had to face was the confrontation with such a complex reality in all its aspects. Indeed, on the one hand we must consider the city as a whole and its relationship with the intimacy of a dwelling, which in Ethiopian context demands for a clear definition of public and private realms. On the other hand, we must face the intricacy of contingencies of such complex realities to which we need to react to without compromising a strong common strategy. In other words, our dilemma could be synthesised as follows: how can we create a modern neighbourhood that would not result in a patchwork of contingent decisions made to relate with an existing fabric that disappears in each phase? How can we develop a method to interpret the accidents of reality and make them part of our design?

In Writing Culture, James Clifford and George Marcus questioned the scientific authority of ethnographical accounts that strived to address as objectively as possible the result of subjective encounters. Something that Clifford deems as a paradox that "was masked by marginalizing the intersubjective foundations of fieldwork, by excluding them from serious ethnographic texts, relegating them to prefaces, memoirs, anecdotes, confessions, and so forth." I tend to agree with Clifford when he states that cultural studies are inventions rather than representations, in the sense that researcher and informant cooperate in re-writing a contingent and partial truth. In similar contexts, this impossibility to attain a scientific truth should not be regarded as a discouragement, instead, the very notion of a research aiming for factual truth should be deemed as a bizarre pursuit that can only obstruct our thinking.

"The rigorous partiality I have been stressing here may be a source of pessimism for some readers. But is there not a liberation, too, in recognizing that no one can write about others any longer as if they were discrete objects or texts? And may not the vision of a complex, problematic, partial ethnography lead, not to its abandonment, but to more subtle, concrete ways of writing and reading, to new conceptions of culture as interactive and historical?"

In a similar way, by asking ourselves what architecture is after it leaves the pen of its 'authors', we might challenge the notion of the architect as a demiurge imposing shape to inert matter. Instead, with these subtle methods, we could learn how form emerged from the way people dwell. Thus, the architect might become a craftsman with a sensual knowledge and the ability "to track the machinic effects created by nonlinear phenomena in nature" and "to help social hybrid structures to evolve." In Open Architecture as Radical Democracy, Esra Ackan, too, refuses the traditional authority of the ethnographer and adopts the role of a storyteller that wanders in Berlin's urban landscape acting as a mediator for a plurality

of individuals who offered their voices. The keyword here is offer. In a conference, Ackan, inquired about the methods employed in the selection of the interviewees, replied that there was no a priori decision leading the selection, but that it was something derived by the very nature of the social interactions with the inhabitants: indeed, a method open to serendipity and collaboration allowing a story to be shaped by the encounters on the field.

Werner Herzog is undoubtedly a storyteller for whom "intuition is more important than planning". Far from meaning improvisation, his intuition lies in a capability of harmonizing his visionary fervour and a sensibility towards happenstance, seeking what he defines 'ecstatic truth' in opposition to the factual 'truth of accountants.' In his documentaries, Herzog often adopts a technique that I believe synthetizes this position in-between individual vision and openness: he stages parts of interviews but keeps the camera rolling after the end of his instructions. In those instants when the characters are frozen and stare in the camera nobody knows what can happen. This not only makes the audience sympathize with a person that seems to have dropped a mask, but also allows the character to re-invent his role in the scene creating beautiful moments of 'ecstatic truth'.

I have adopted this position of openness not only in the production of the graphic novel but also during my personal research as a filmmaker. Since an early age, I began to develop an interest in video making, but only recently I could bring this into architectural research, first, during a field trip in Dhaka and now in Addis Ababa while exploring Talian Sefer. I believe that both shooting documentaries and writing graphic novels are forms of storytelling that demand for active thinking and collaboration with the other: we cannot be silent like a 'fly on the wall' patiently waiting for action and neither a "justified intruder observing the most intimate lives." The camera is for me an instrument to navigate through different spaces and follow the movements of ordinary activities, revealing the indissoluble bond between built forms and social structures.

Everyday life consists of the little things one hardly notices in time and space. [...] The event is, or is taken to be, unique; the everyday happening is repeated, and the more often it is repeated the more likely it is to become a generality or rather a structure. It pervades society at all levels, and characterises ways of being and behaving which are perpetuated through endless ages. Sometimes a few anecdotes are enough to set up a signal which points to a way of life.

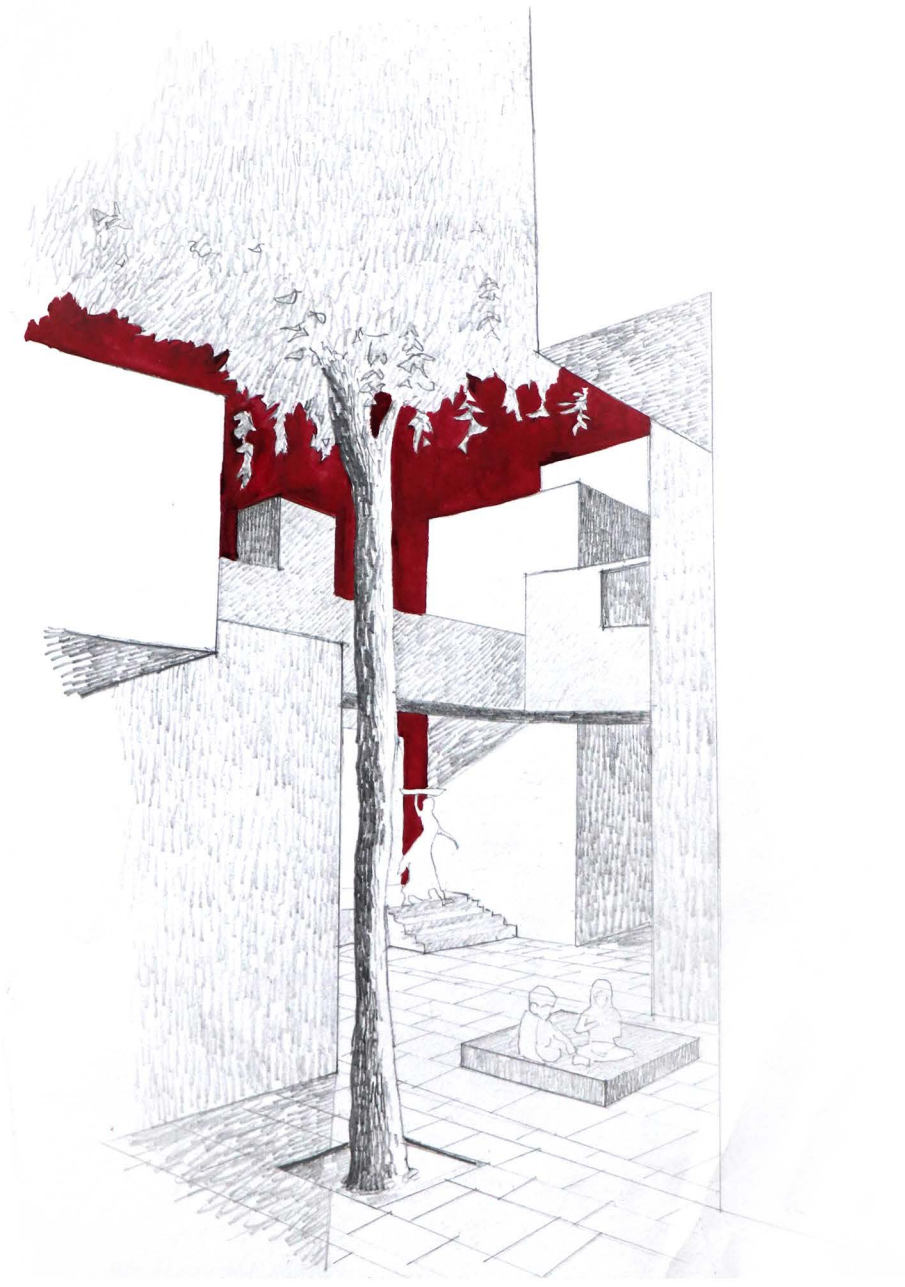
Through the exploration of the current situation, complemented with oral fragments of memories and historical footages, I began to familiarize with the processes of becoming of the patterns of everyday life in the neighbourhood. A research that this research will shape my proposal for an environment

with an improved quality of life open to the re-creation of their styles of life and the ambitions for modernization.
I think that the combination of these two approaches enabled me to grasp the relation of interdependency that occurs between built forms and social patterns. Something that is often overlooked in developing countries, where forced marches to development often result in top-down solutions merely aiming for an efficient outcome that do not include people's lifestyles.
. Relevance
I would like to conclude with a brief reflection regarding the transferability of the project result and its wider context. The explosive growth of Ethiopia, Bangladesh, India and several other countries in the Global South demands action. However, a violent imposition of foreign 'universal' values cannot be the driver for change. It seems to me that today more than ever before, it is evident how humanity as a whole is experiencing rapid transformations that converge toward a global unified direction. This is particularly relevant if we consider this peculiar historical moment that proves the scale of our civilization and the rapidity of exchanges that are occurring every day at incredible speed. In this unique moment of pause, we can also observe the trajectory of this forced march towards modernity and question our civilization and its manifestations through time in the cities that on which we have been reflecting upon during these semesters.

"Let us never cease from thinking -what is this 'civilization' in which we find ourselves? What are these ceremonies and why should we take part in them? What are these professions and why should we make money out of them? Where in short is it leading us, the procession of the sons of educated men?"
Virginia Woolf urges us to assume a critical attitude towards the most common practices of the everyday life, to question the banal and the ordinary, to make "the familiar strange, the exotic quotidian." By questioning the current processes of urban transformation, beyond any Manichean opposition (tradition and progress, rural and urban, vernacular and modern), naïve notions of progress or dogmatic teleologies, we might be capable of re-thinking the role of architecture itself. A critical attitude that sets us free from 'higher values' and dogmas that form comfortable positions from which we butcher and analyze reality: this villa represents historical heritage; this house is below the standards of a modern capital etc... These classifications, prior to the complexity of a specific culture, frequently become a heavy burden when facing multifaceted issues such as the reconfiguration of a historical district of a city.
There is a great liberation, indeed, in recognizing that we can no longer look at the context as a distinct object and that we need to derive the fuel for change from the internal capabilities of a city and from the collective values of its inhabitant considered

as a dynamic system. The aim of the project is twofold: on the one hand, it intends to draw on the existing values and collective memory to reconfigure the narratives of historical districts; on the other hand, the ambition is to provide a structure that can adapt through time and be open to change. If the model is neither entirely taken from the current configuration nor imposed as an external solution, but rather one derived from the internal morphogenetic capabilities it could bridge the apparent opposition between local and universal.

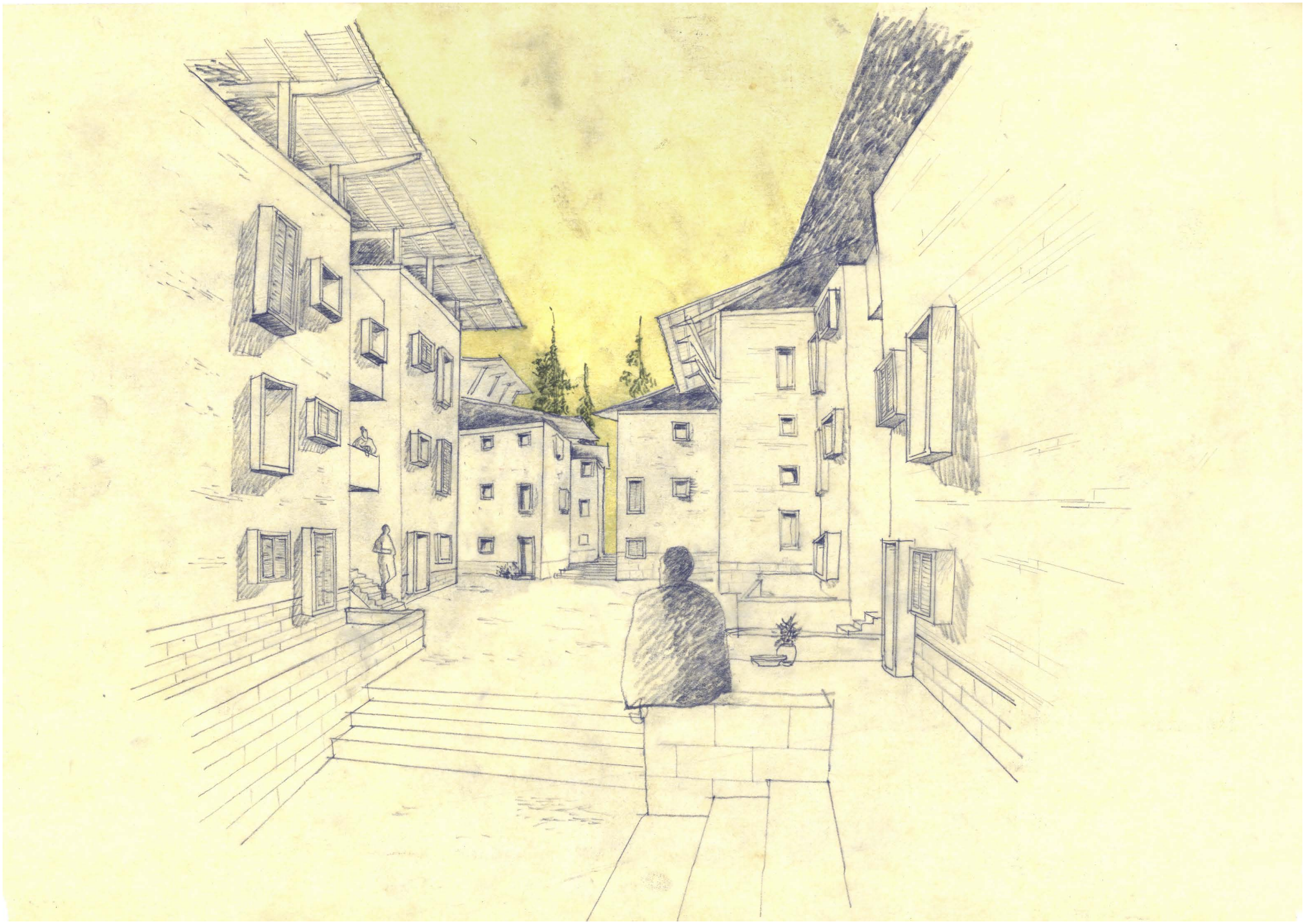
Indeed, Paul Ricoeur stresses the vital role that culture holds as an ever-evolving category: "Only a living culture ready for creativity [...] is capable of sustaining the encounter of other cultures. [...] The problem is not simply to repeat the past, but rather to take root in it in order to ceaselessly invent." The keyword here is invent. Architecture, indeed, needs to be re-thought as a dynamic realm, neither derived from nor producing static models inappropriate to the complexity of life. Indeed, impositions of external models represent an annihilation of local cultures, resulting in the loss of the creative potential and vitality of a city in the production of forms. I believe that the reconfiguration of Addis Ababa's historical districts poses questions that go beyond the context of the capital, opening the debate to the scale of other rapidly changing countries that often experience the obliteration of local culture in the name of universal values related to a notion of 'humanity as a whole', prior to specific contexts.



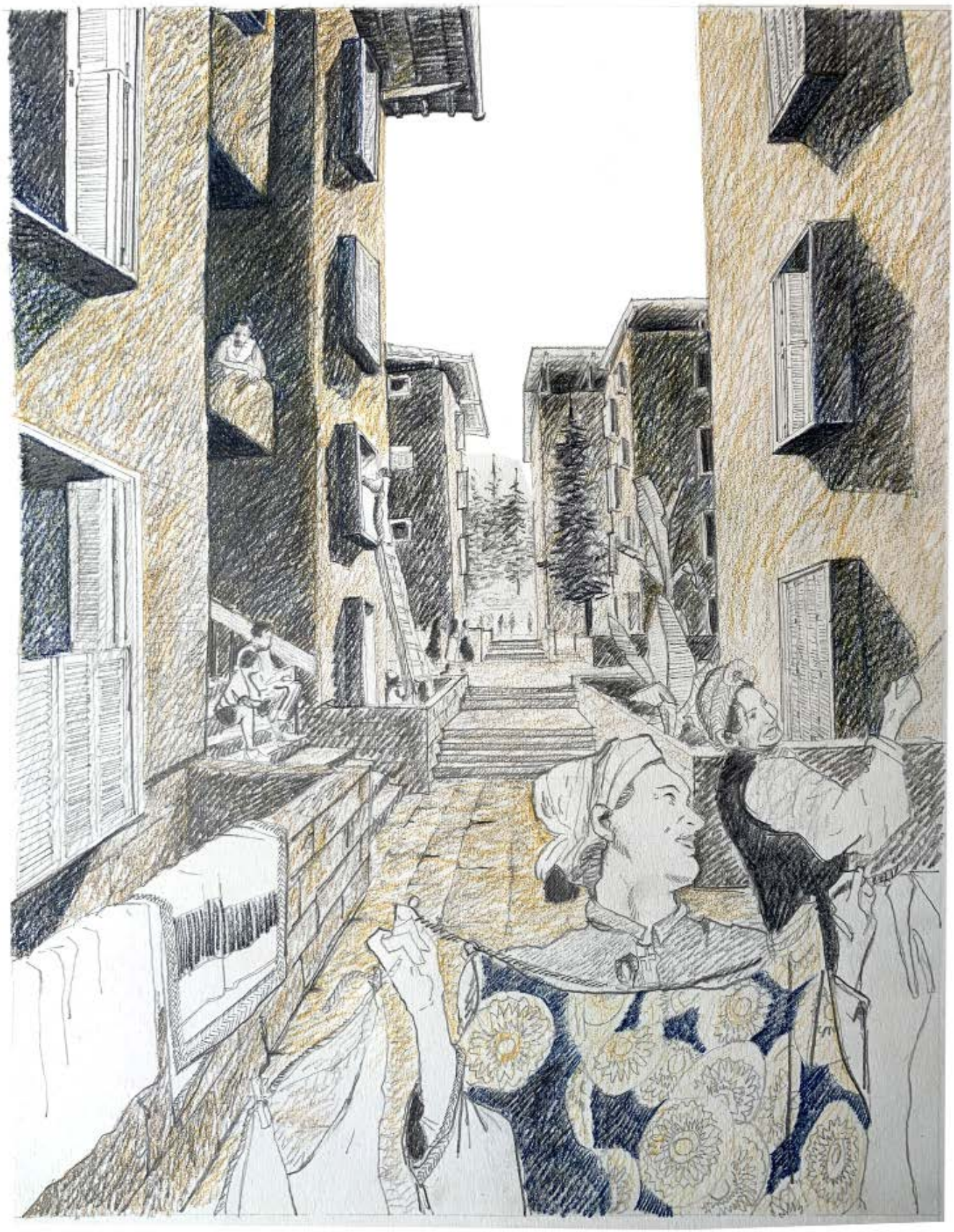
august 2019



february 2020



may 2020





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