

BLURRED BOUNDARIES

GRADUATION PROJECT OF THOMAS LATJES
DWELLING - GLOBAL HOUSING

9 - 11 - 2018

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INTRODUCTION

India is the second most populated country in the world, counting for over 1,3 billion people, a number that is rapidly increasing. In line with the rest of the world, India is, next to its increase in population, seeing a rapid urbanization, with Mumbai in the centre of it all. Considering the increase of population and the urbanization of India, it is only a logical cause that its capital is now growing at an unprecedented pace. In only fifty years' time, the population of Mumbai has tripled, with no apparent end to be seen. Almost needless to say, the city is struggling with these numbers. What might be even more striking is the fact that in the same time span, the percentage of people living in slums has risen from roughly ten percent to as much as fifty percent of total population. And although slum dwellers form half of the population, their homes only take up 6% of the total land area. The conditions in which many of these dwellers live, are alarmingly unhygienic and according to the Census of India unfit for human habitation. Former Secretary General of the UN Kofi Annan wrote the following in the UN-Habitat Report "Challenge of the Slums" (2003):

If Kofi Anan's words are to be taken even remotely seriously, it is clear that action is needed. Current positions are almost impossible to maintain: change is paramount.

In Mumbai, change has been tried to be established by the state government of Maharashtra, under which Mumbai falls, for decades now. Implementing policy to reduce slum dwellings has been, and still is, one of the key challenges. However, policy making is mainly looked upon as a practice in numbers. The main objective is to house as many dwellers as possible, with the lowest possible investment. It will be no surprise to any, that this strategy pays hardly any attention to the social and economic needs of the dwellers.

The growth of urban dwellers in India is mainly explained by two factors, one being simply the increase in population. However, an increasingly important factor is immigration from rural areas in the country. Especially in Mumbai, where immigrants make up more than a quarter of its population (Le et al., 2017), this is a force to be reckoned with. Of these immigrants, nearly 60 percent come from rural areas. These migrants, having little or no money, often end up in the most appalling living conditions in the worst kind of neighbourhoods. The spatial contrast with the village could hardly be bigger. So-called Baithi Chawls are a much-seen housing type in these kinds of neighbourhoods: long, single-storey, narrow rows of single-room dwellings with hardly any space in between the housing blocks. However small and lacking any sort of public space, even worse are the Chawls, which look like a six or seven storey high extrusion of the Baithi Chawls. One does not need too much imagination to understand that the lower floor dwellings conceive hardly any daylight. Also, a lack of provision in basic sanitary needs can be observed, as well as extremely small dwellings and many safety hazards. When taking a closer look into the development history of these areas, it becomes clear that many of these Chawls are a quite literal extrusion of the Baithi Chawls. They started as single-storey housing which was developed into six- or seven-storey high building blocks. When visiting these sites, we learned that many of these developments are illegal, however, no action is taken by the government.

From a quantitative approach, it will be almost impossible to compete with the developments of the Chawls. It is simply not possible to house any more dwellings on a piece of land, without making substantially higher buildings, which would no longer be economical. The developers have maximised their profits, with hardly any regard for the dwellers needs, of whom, as described before, many come originally from villages all over India. However, the quality of these houses is extremely poor. It is clear that the interests of the developer are not with the dwellers themselves. When visiting the village of Nalasopara, a mere 2,5 kilometres away from the Chawls, the stark contrast between the two became obvious. Whereas the village accommodates in many of the social and economic needs of its inhabitants, the (Baithi) Chawls are very monotonous and lack the richness in sociospatial layers. A large variety in hierarchy of spaces can be observed in the village, constituting a layering in the way spaces are used and the interactions between people taking place. This hierarchy is not present in the (Baithi) Chawls, resulting in a scarce variety of spaces and how they are used. Although most of the dwellers have broken the bonds of village community, that does not mean the spatial practices originating in the village are also thrown away. Moreover, the "village way of life" has certain qualities, which can serve also those who do not originate from the village. Not paying attention to those, which is happening now, is a lost opportunity. These qualities could be used to overcome the problem of the lack of sociospatial layers and not meeting the social and economic needs of the dwellers.

This document represents an attempt to overcome some of the issues discribed above and will show a design that tries to combine the qualities of the village together with the reality of the Baithi Chawl. It will show a design that introduces hierarchical spaces in the overcrowded areas of the (baithi) chawls, to blur the boundaries.

RESEARCH







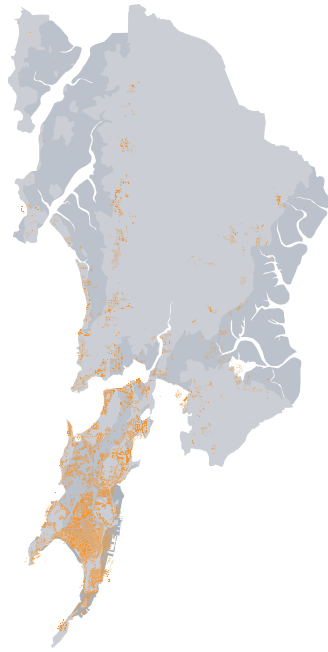
population: 1.221.233



Nala Sopara

43 km²

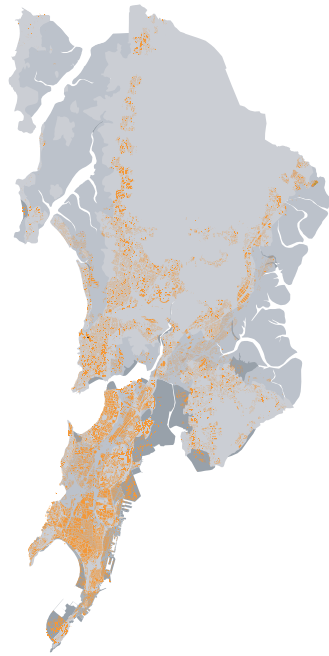
population: 564,664



1909



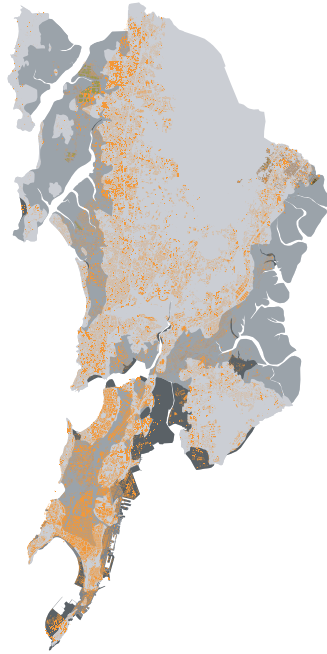
population: 1.2 million



1964



population: 5.0 million



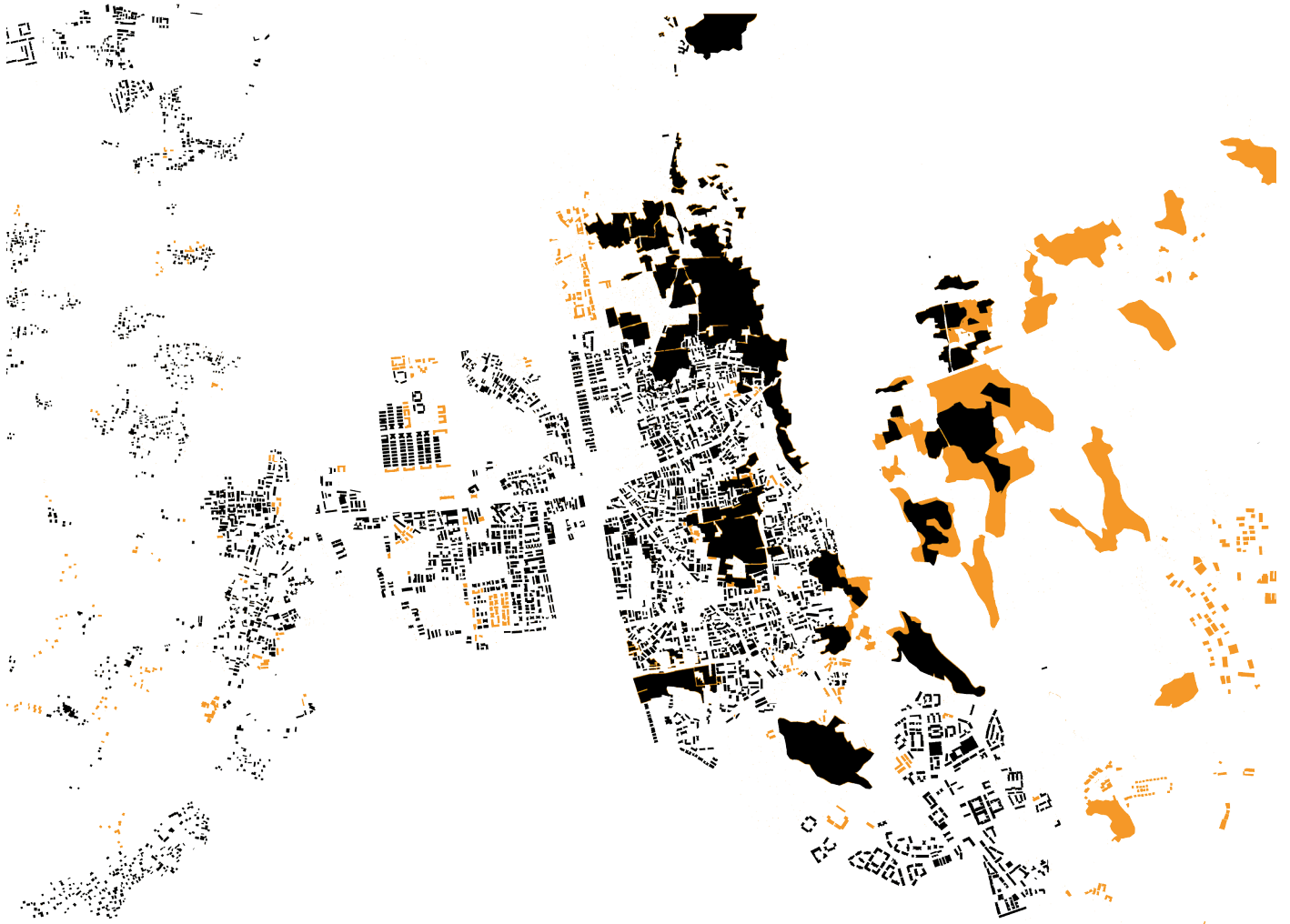
2012



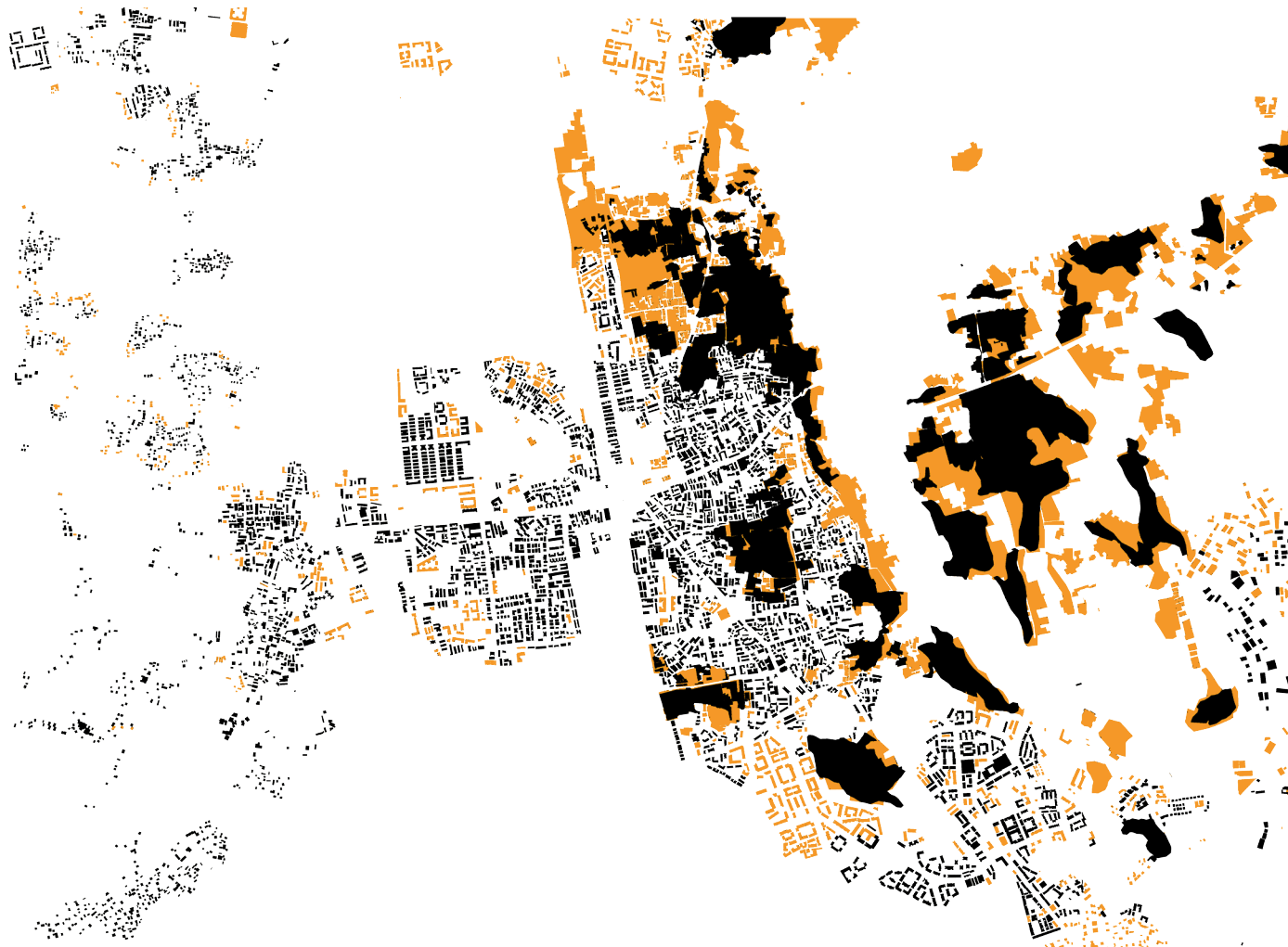
population: 20.8 million



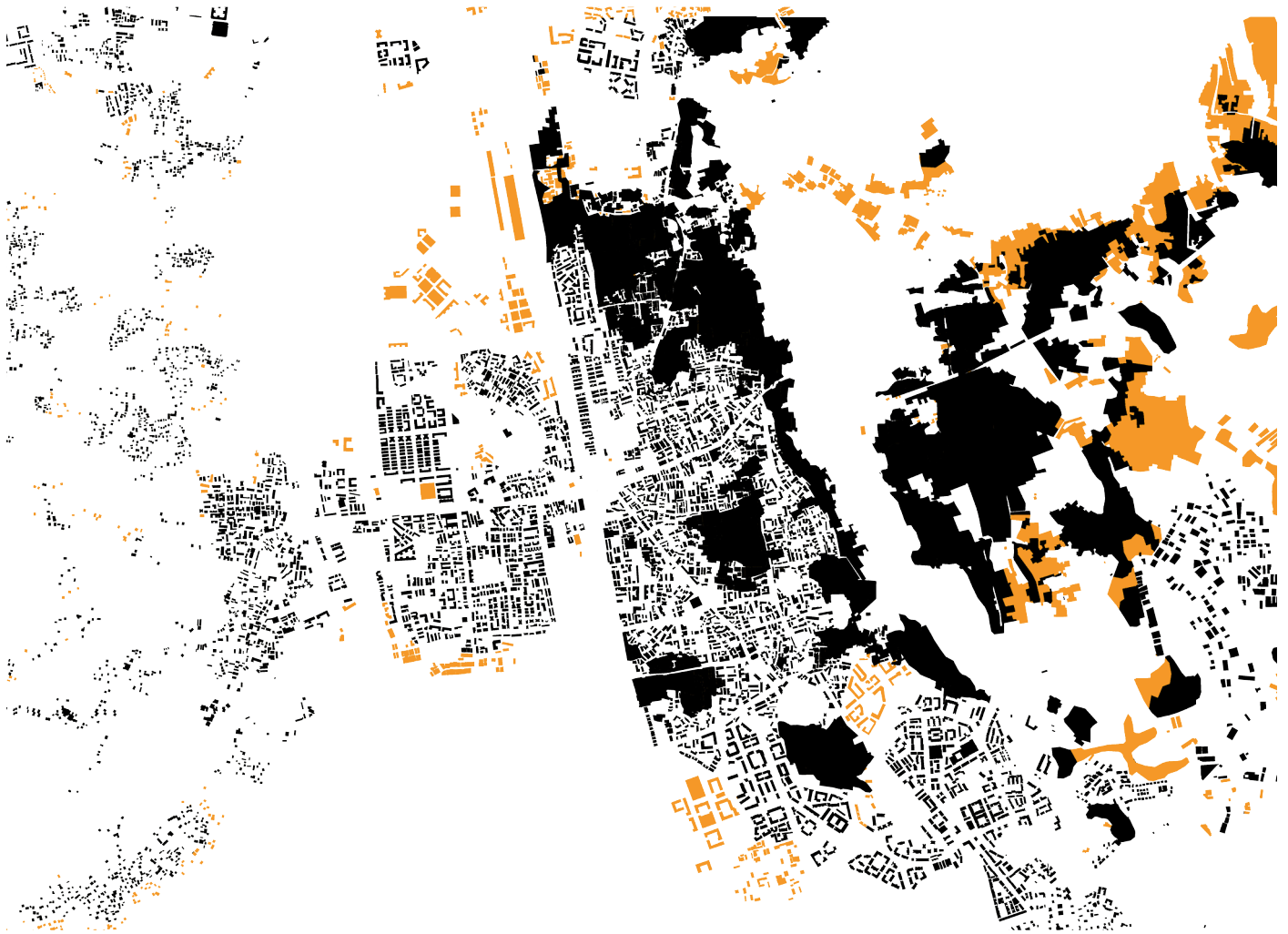
2002



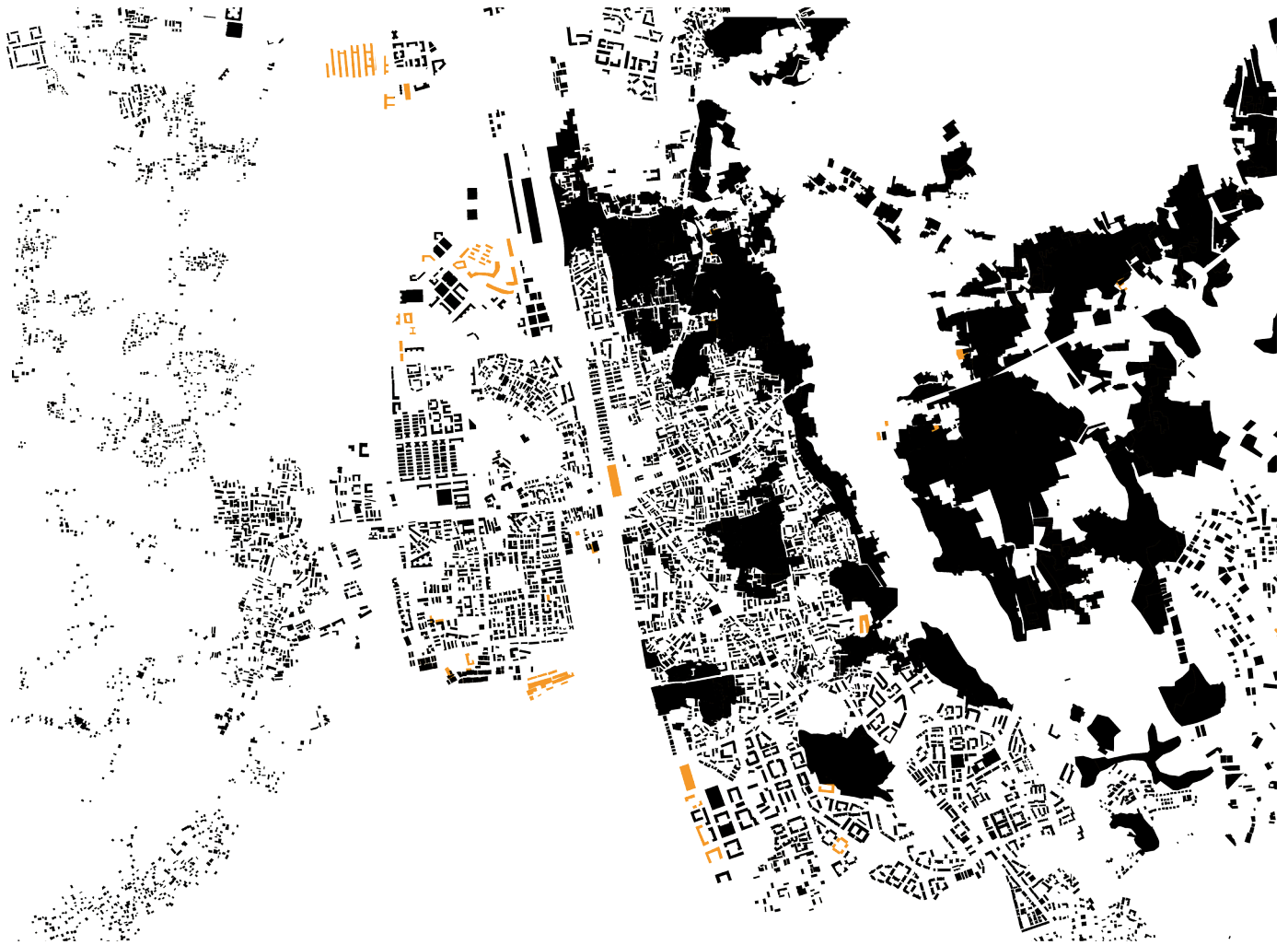
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2009

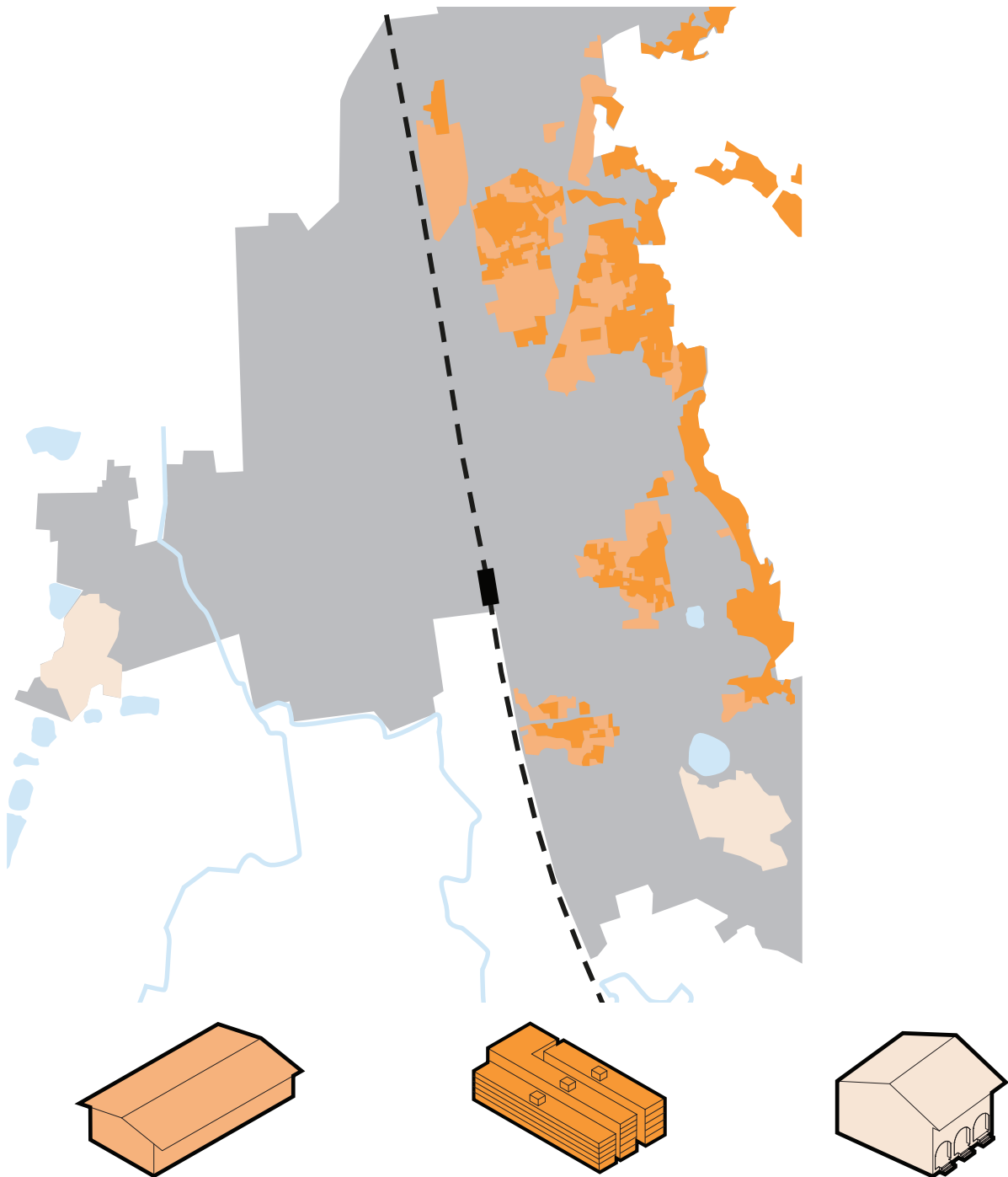


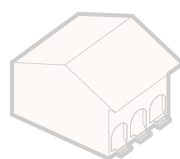
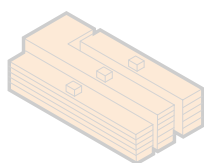
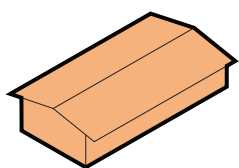
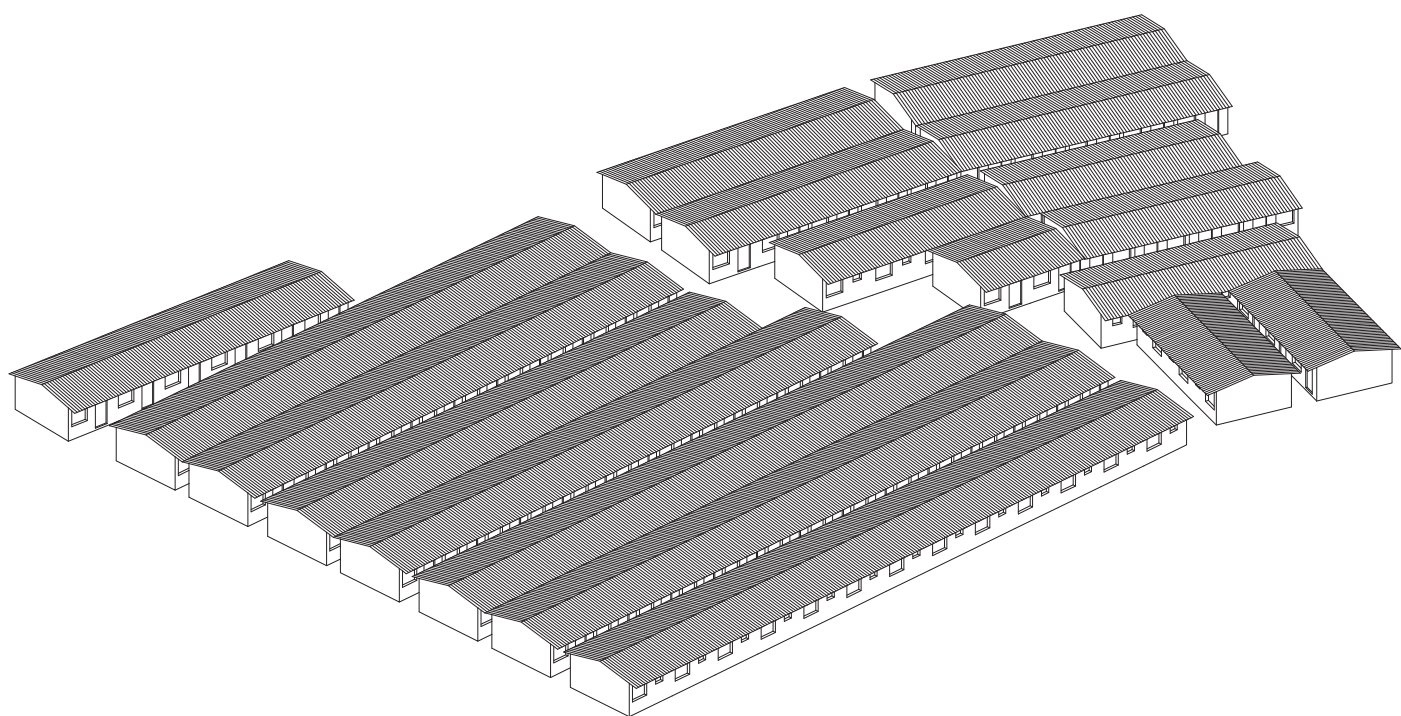
2013

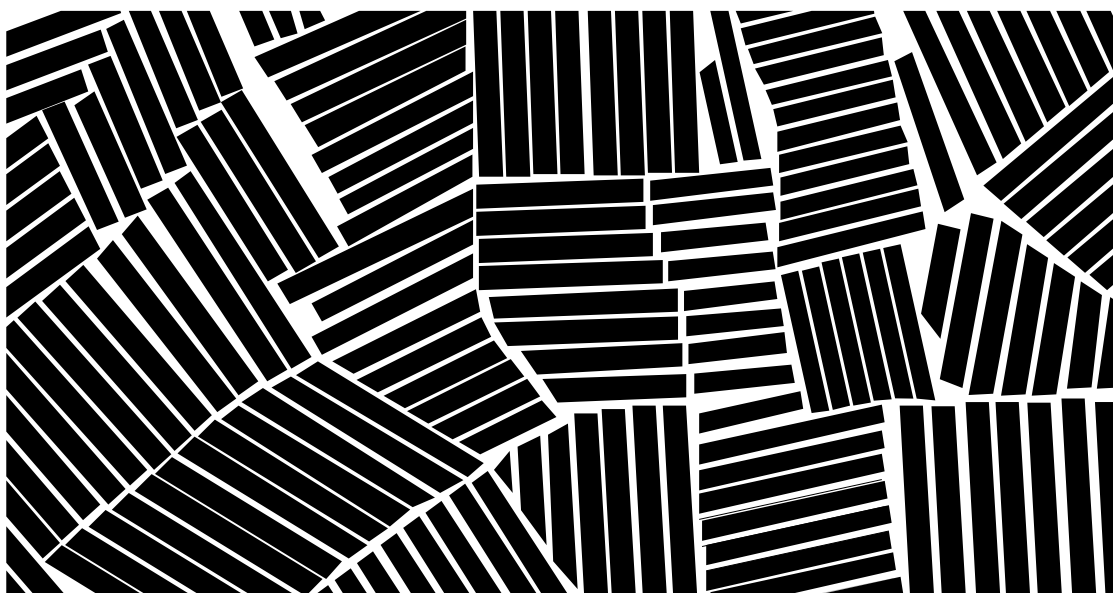


2017



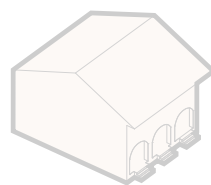
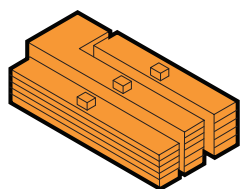
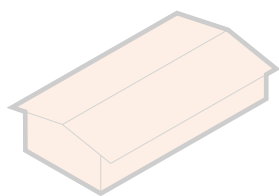
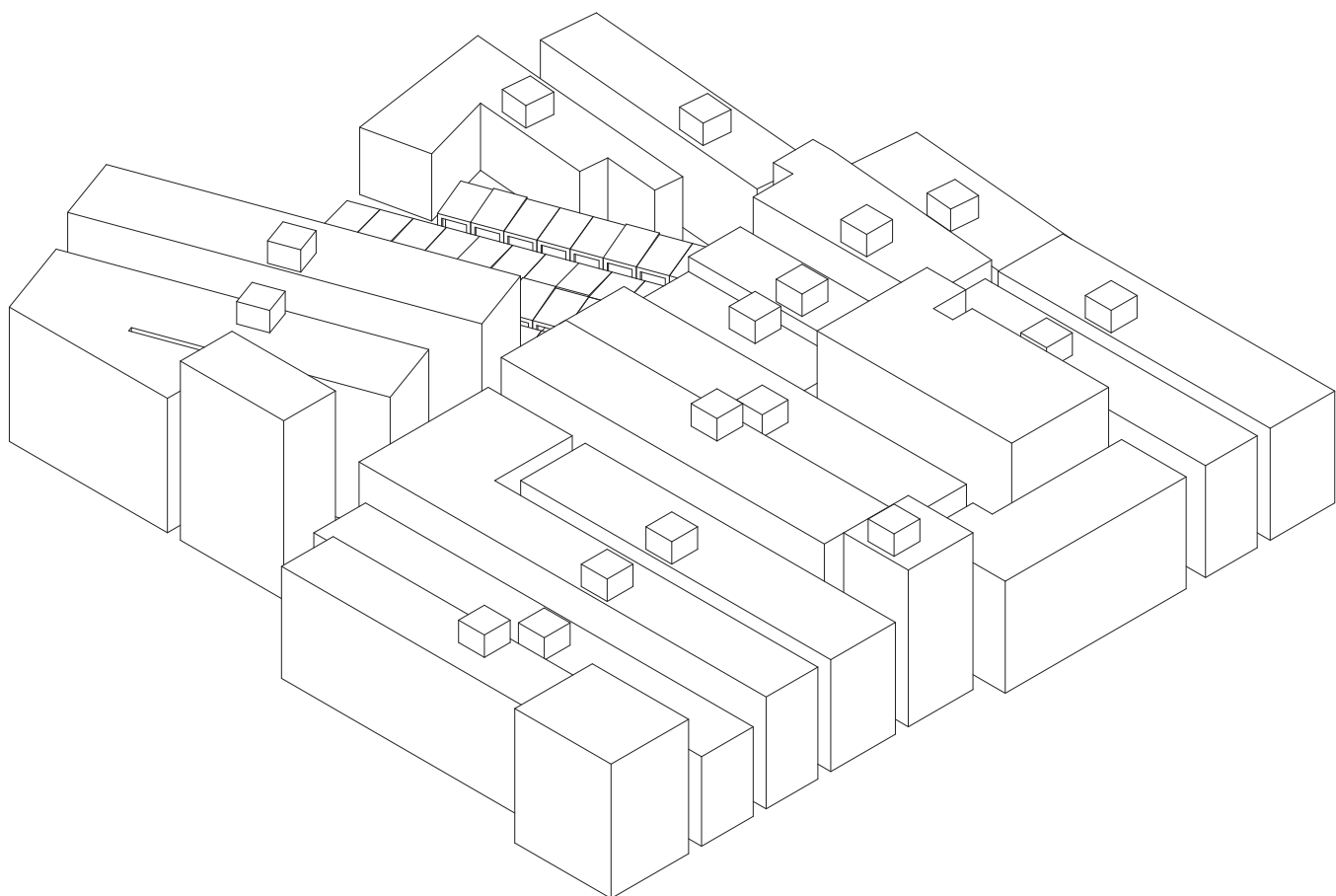


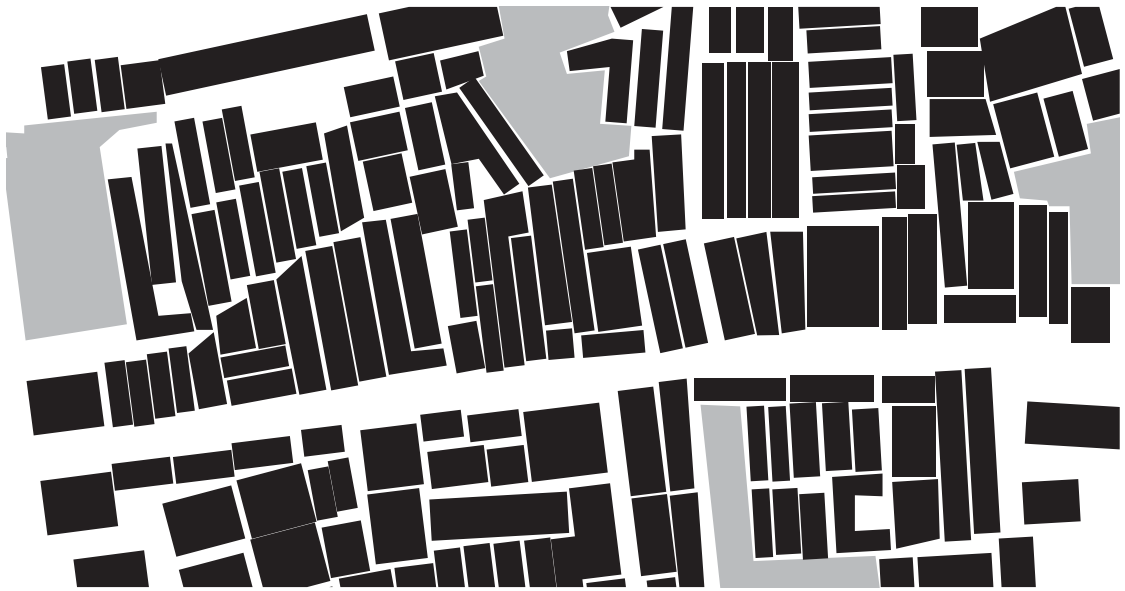






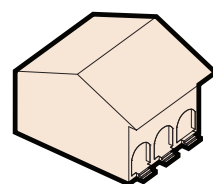
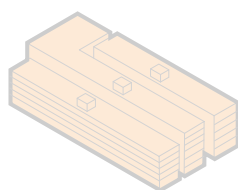
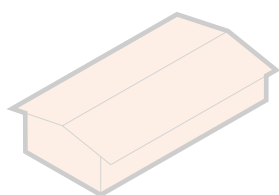
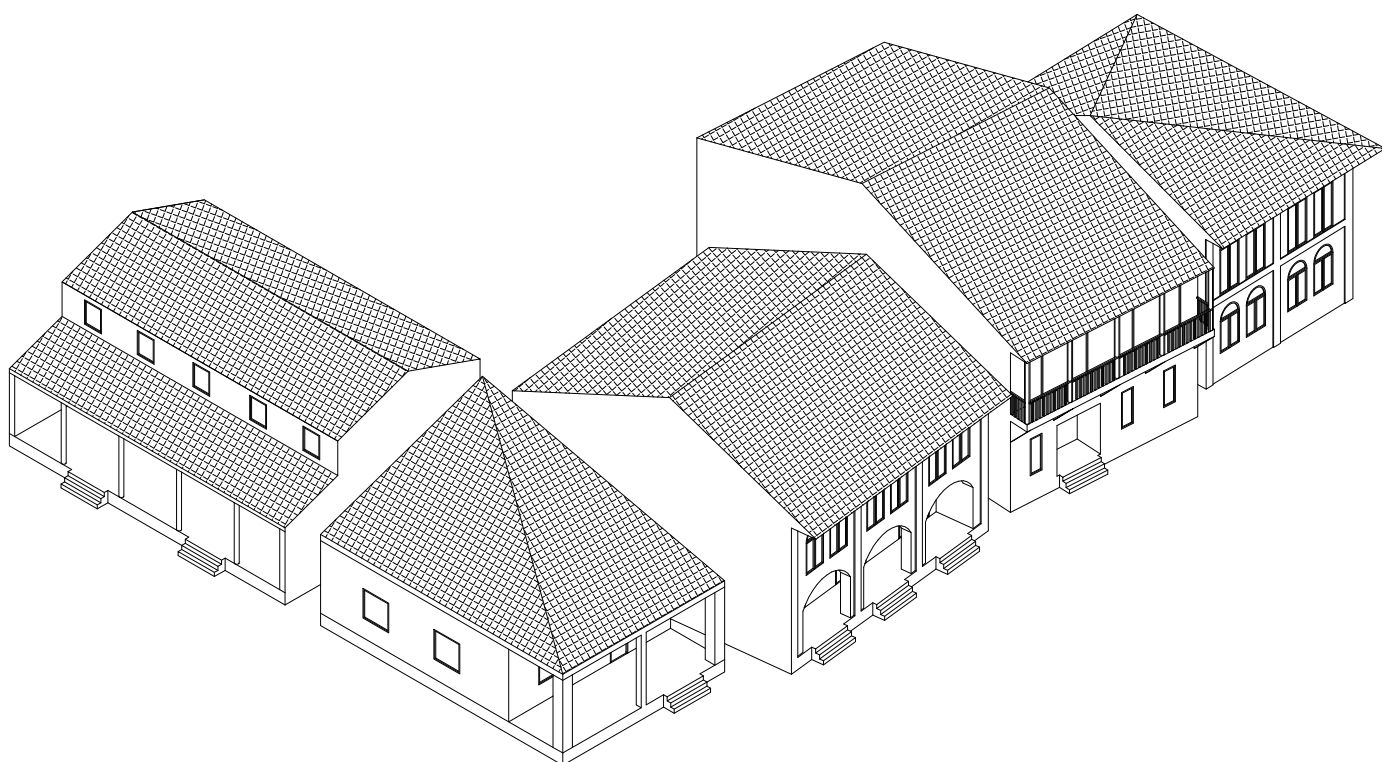


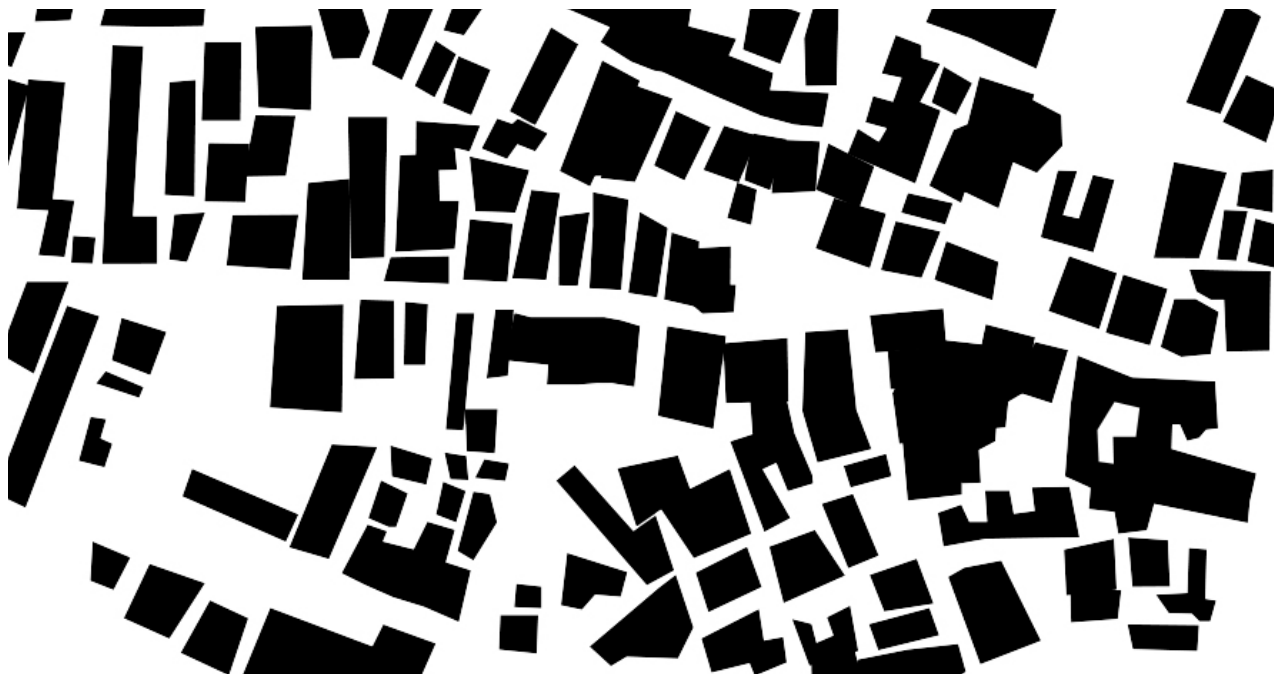






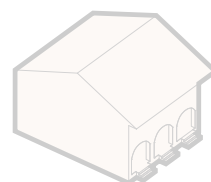
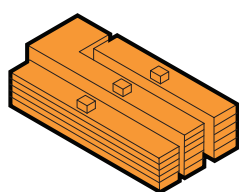
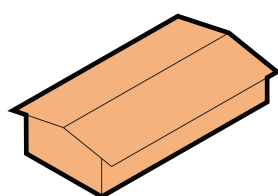
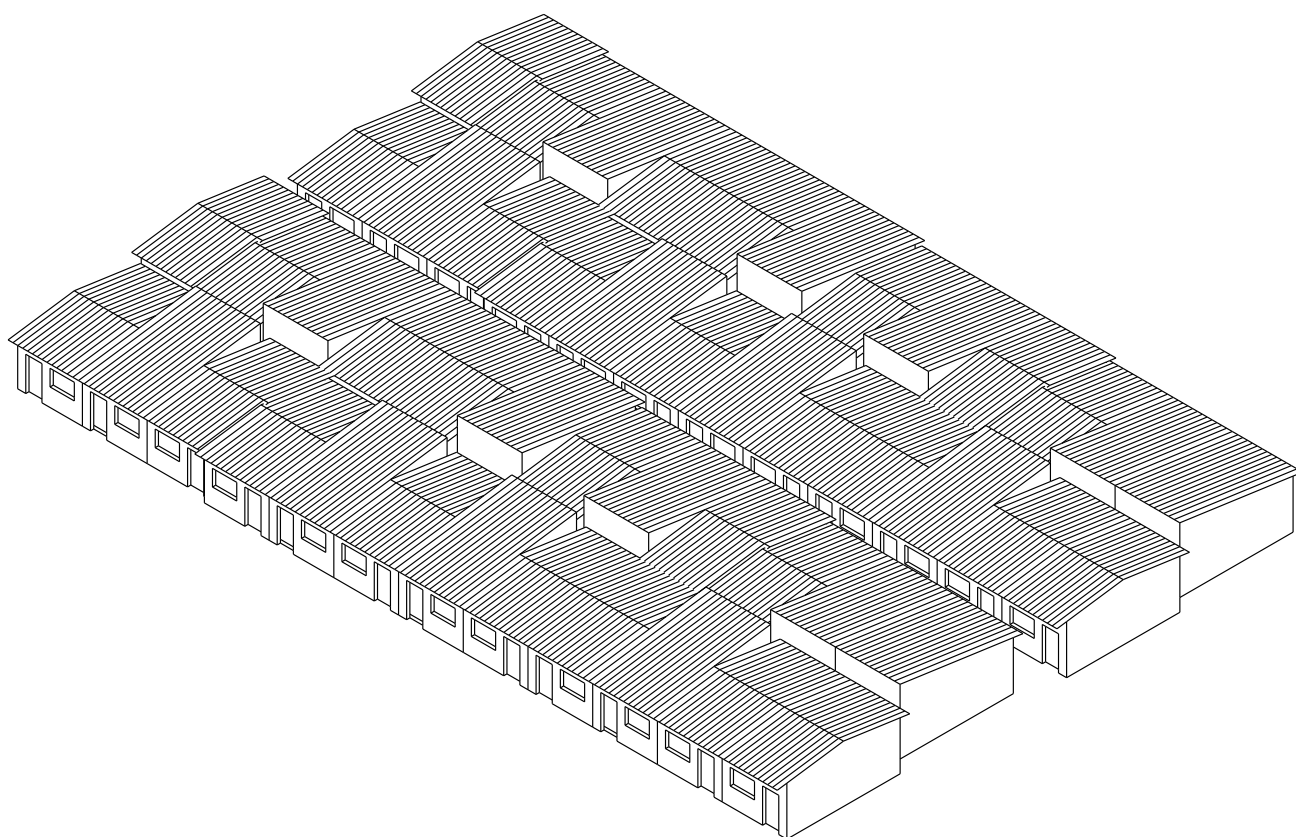


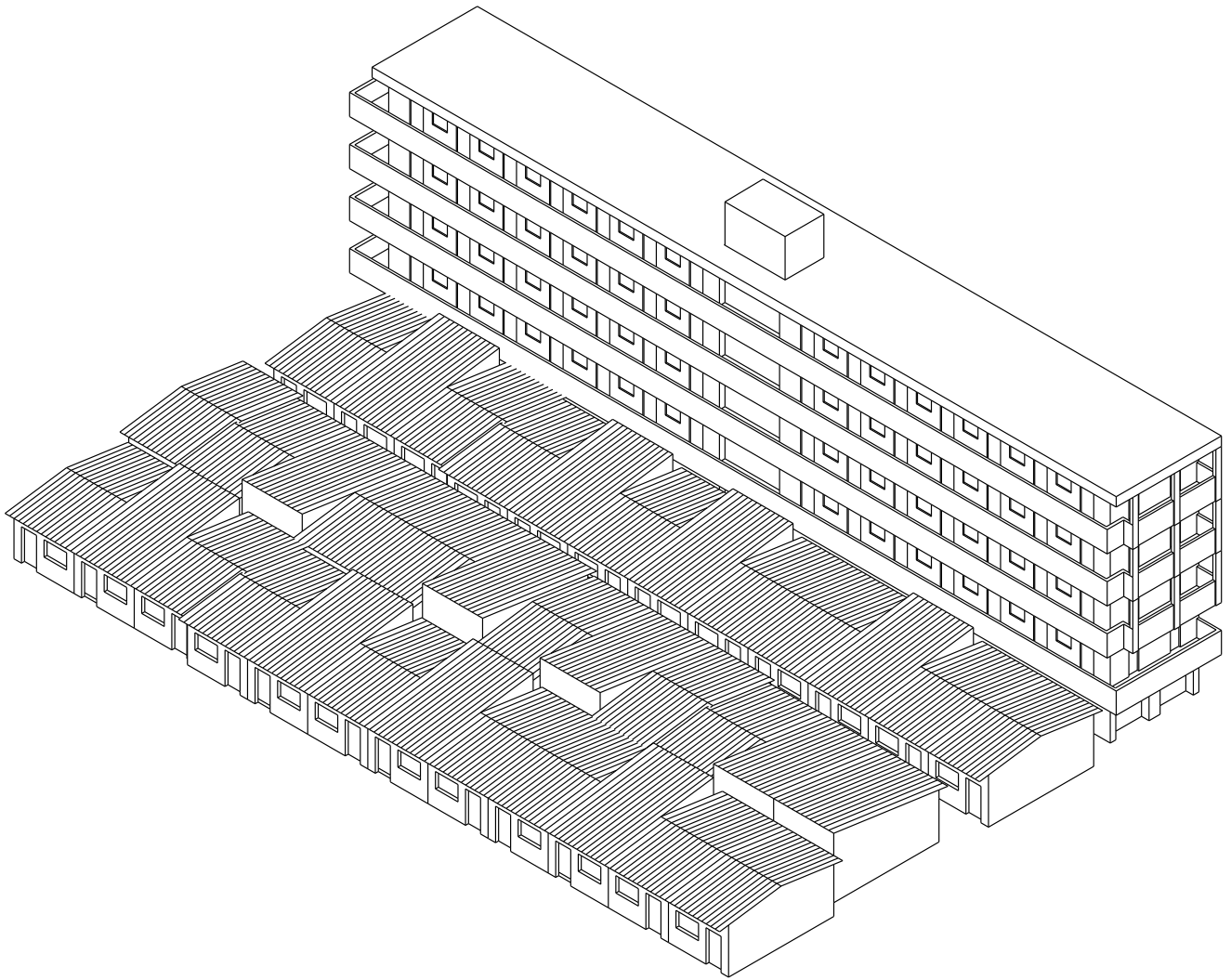


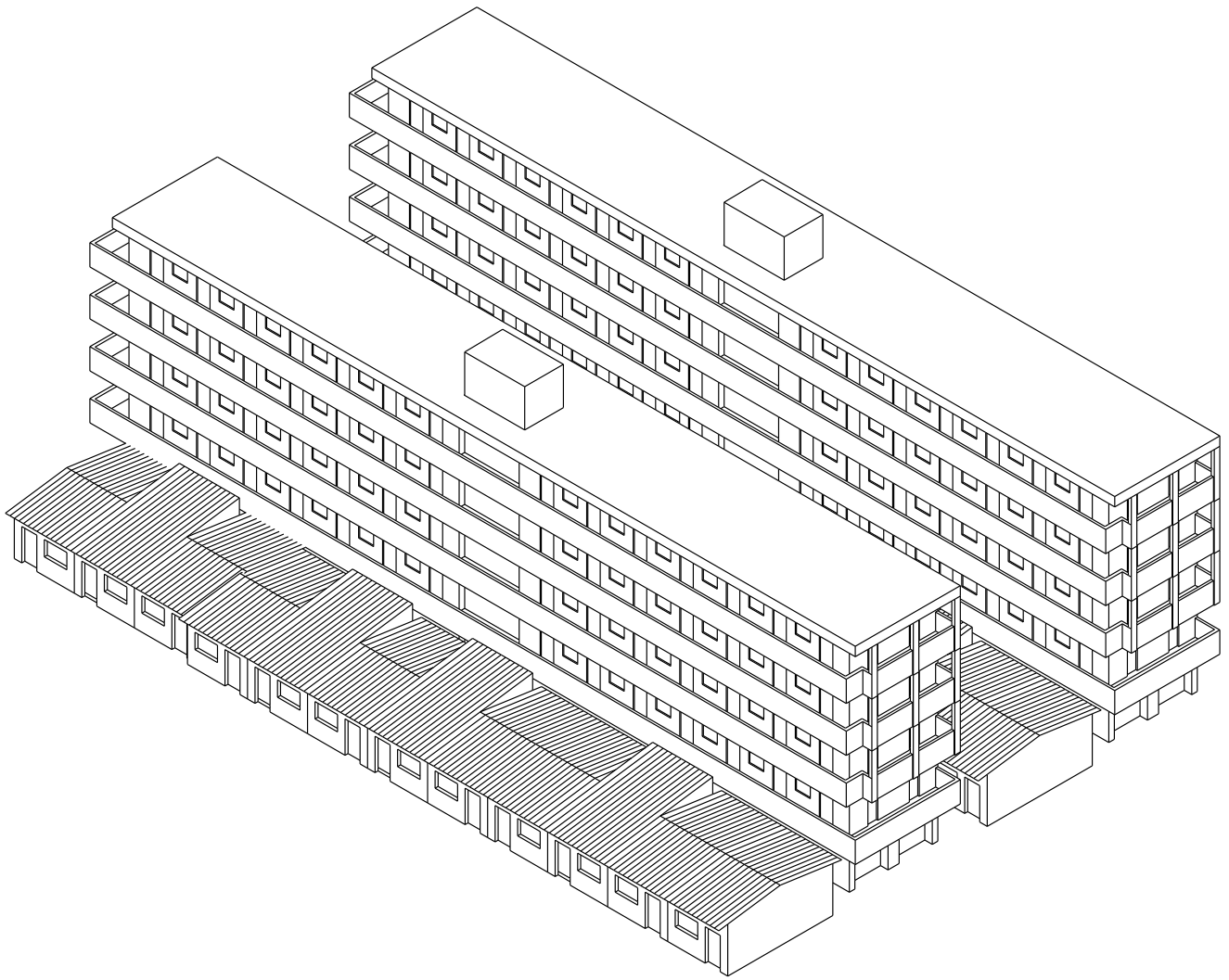


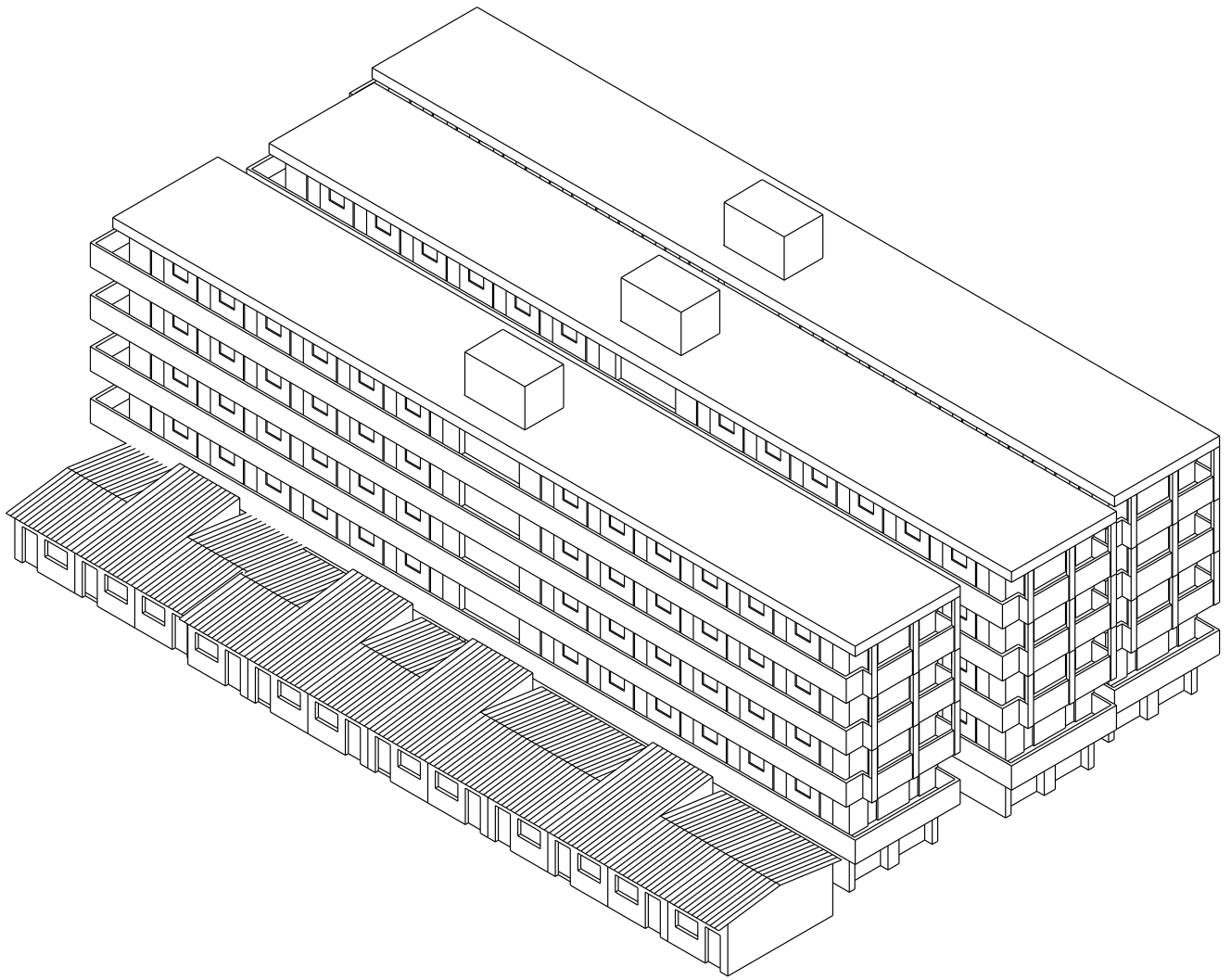


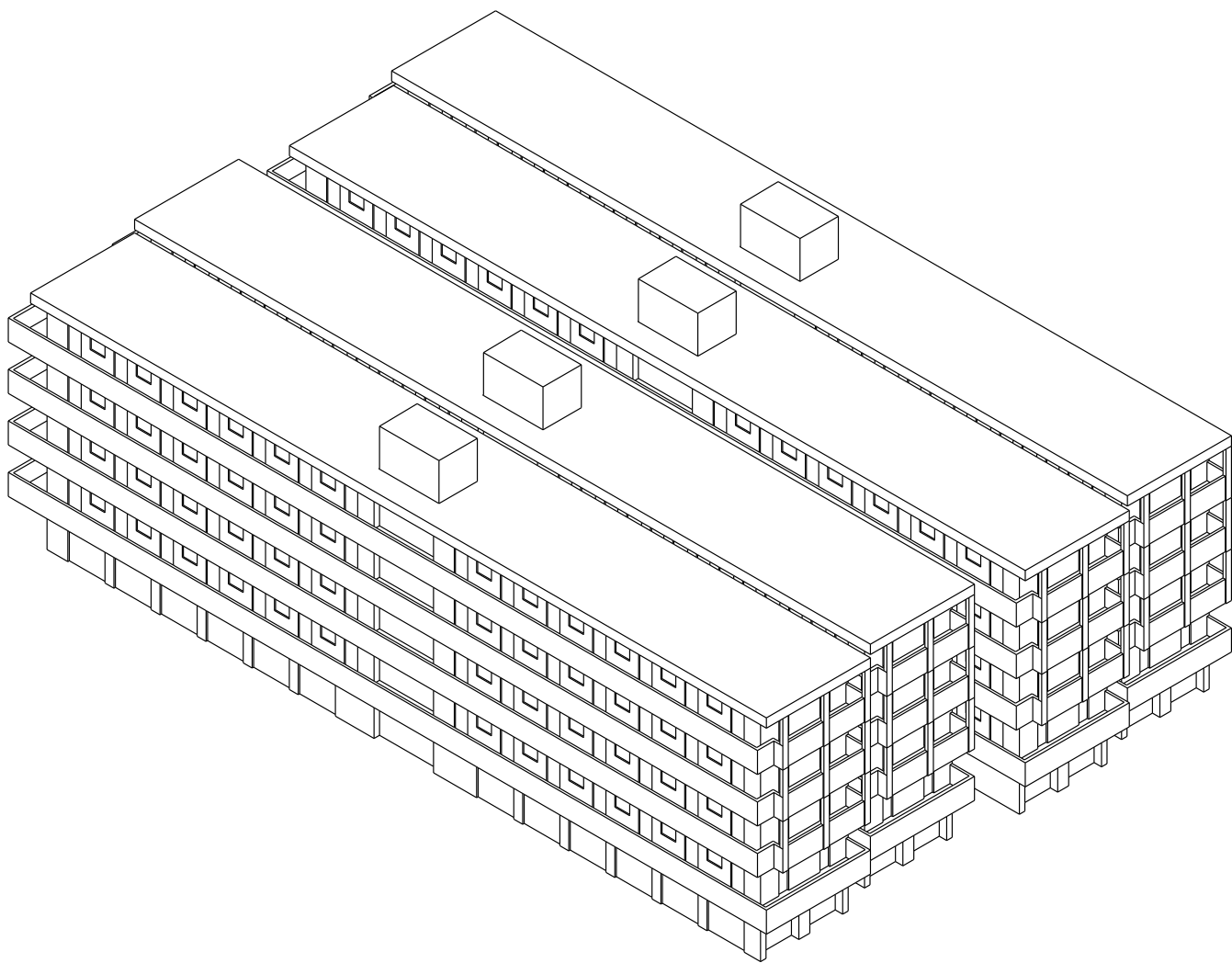


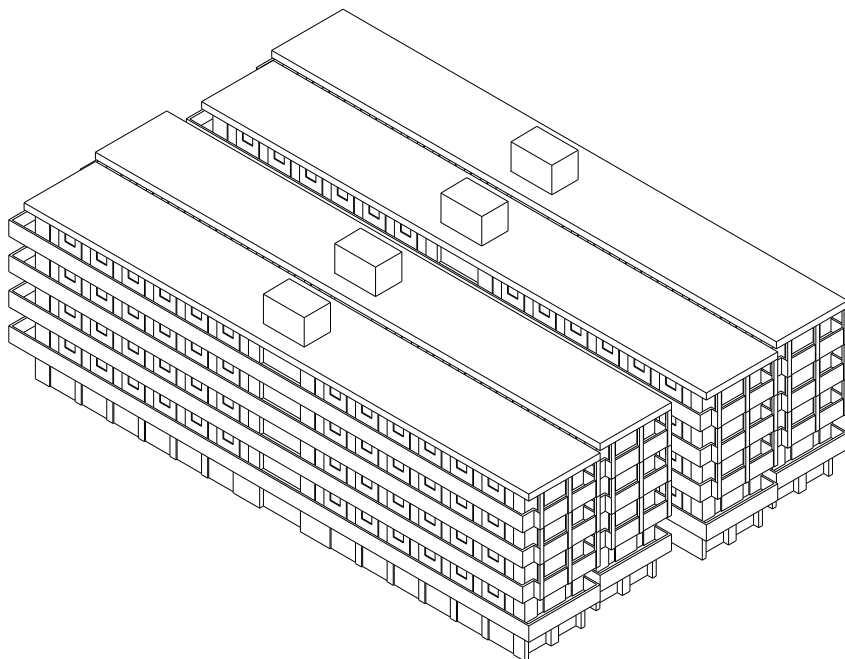
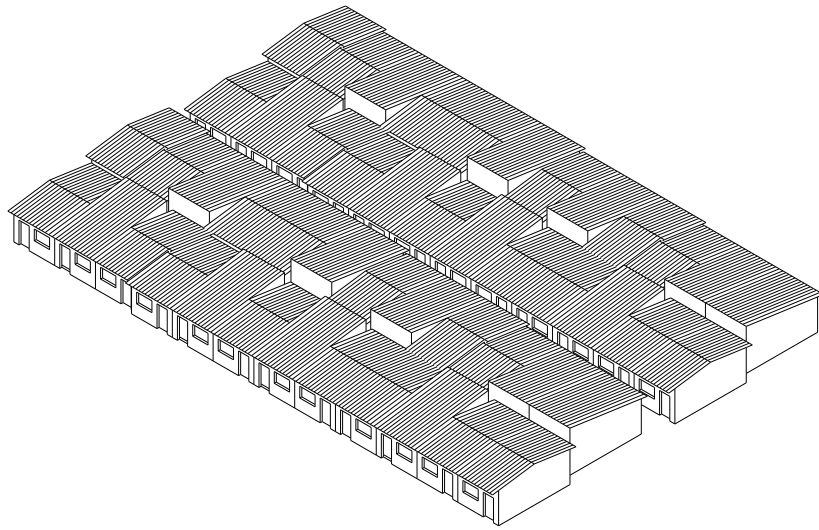








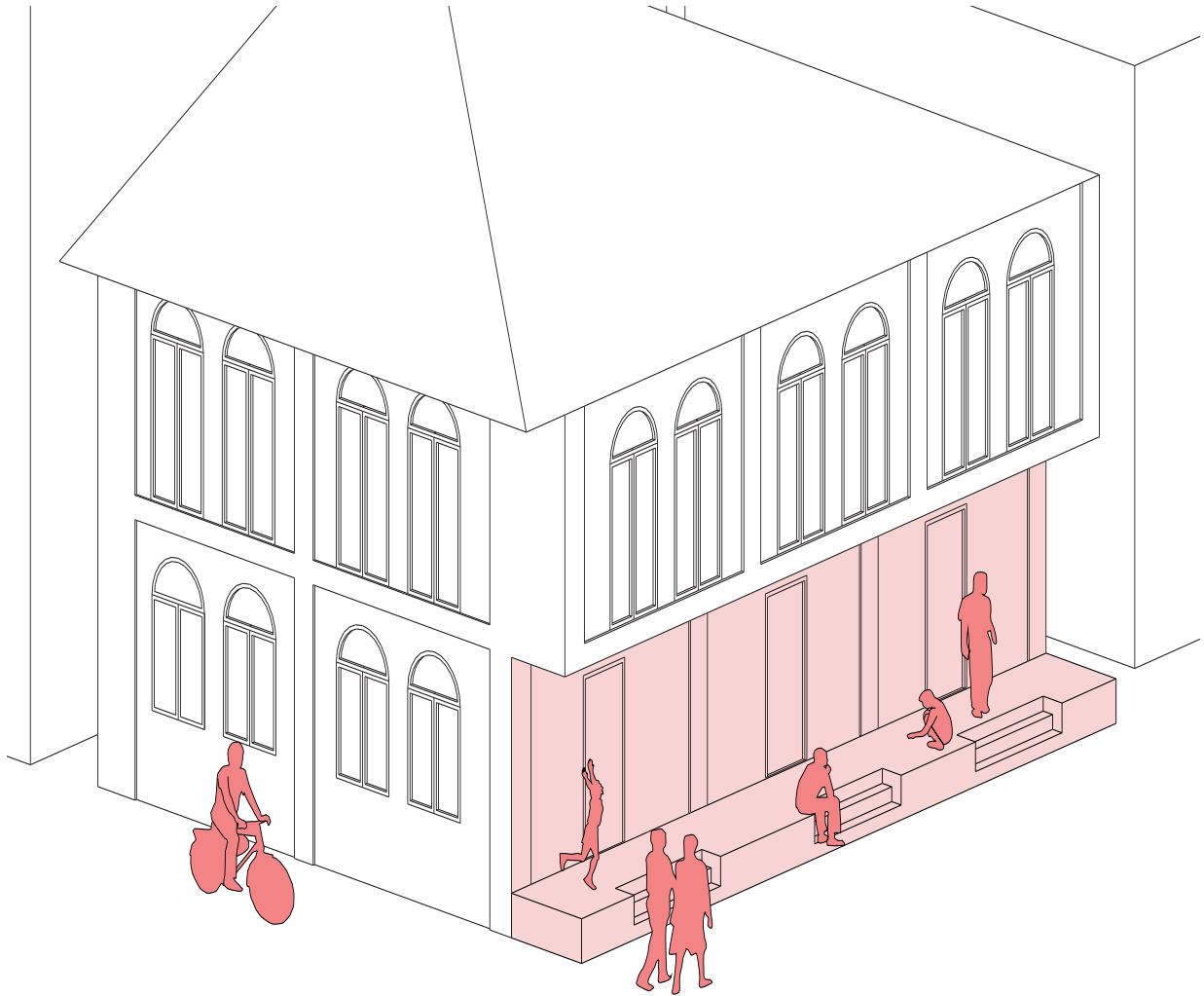




PATTERNS OF THE VILLAGE

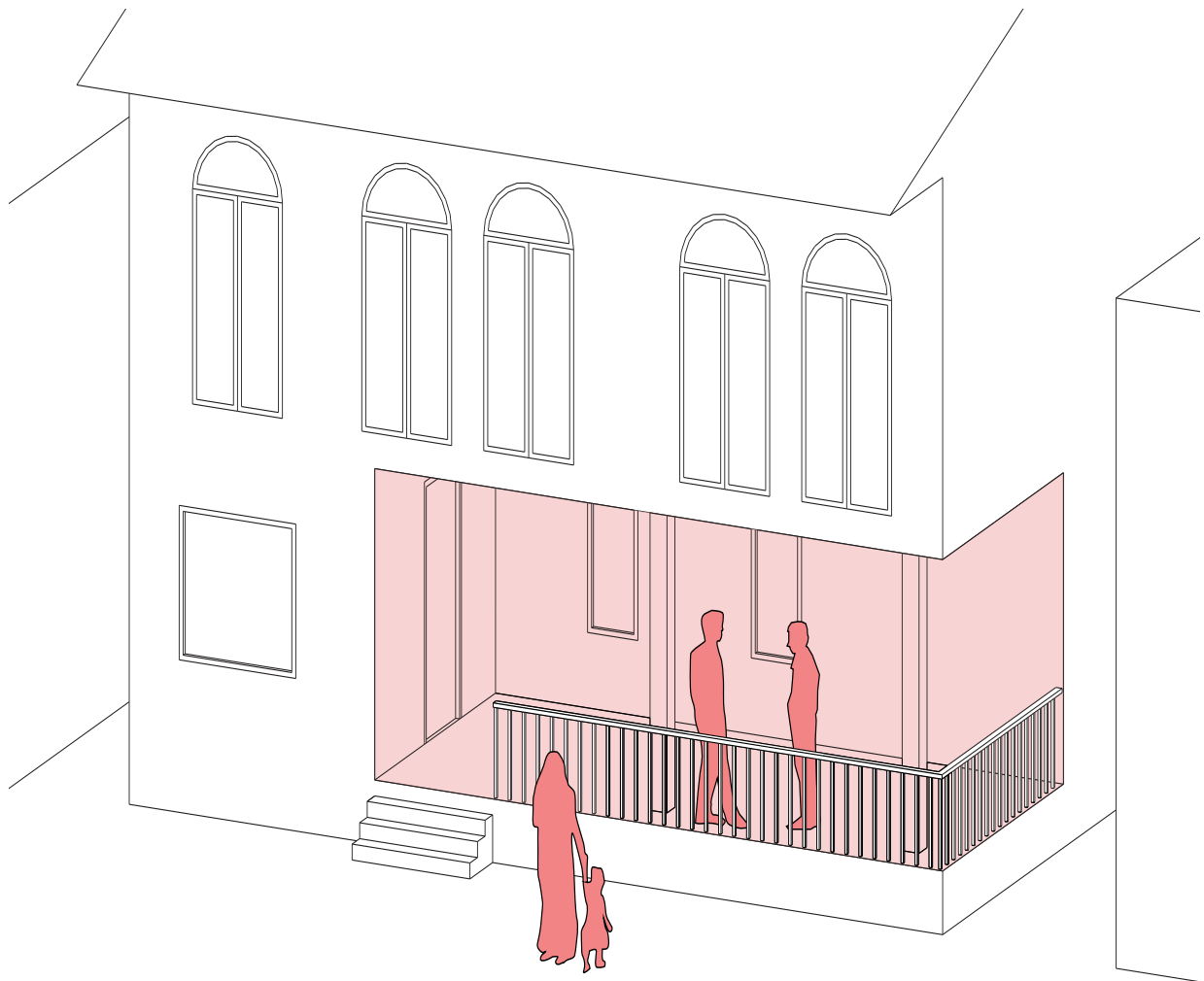


THE OTLA



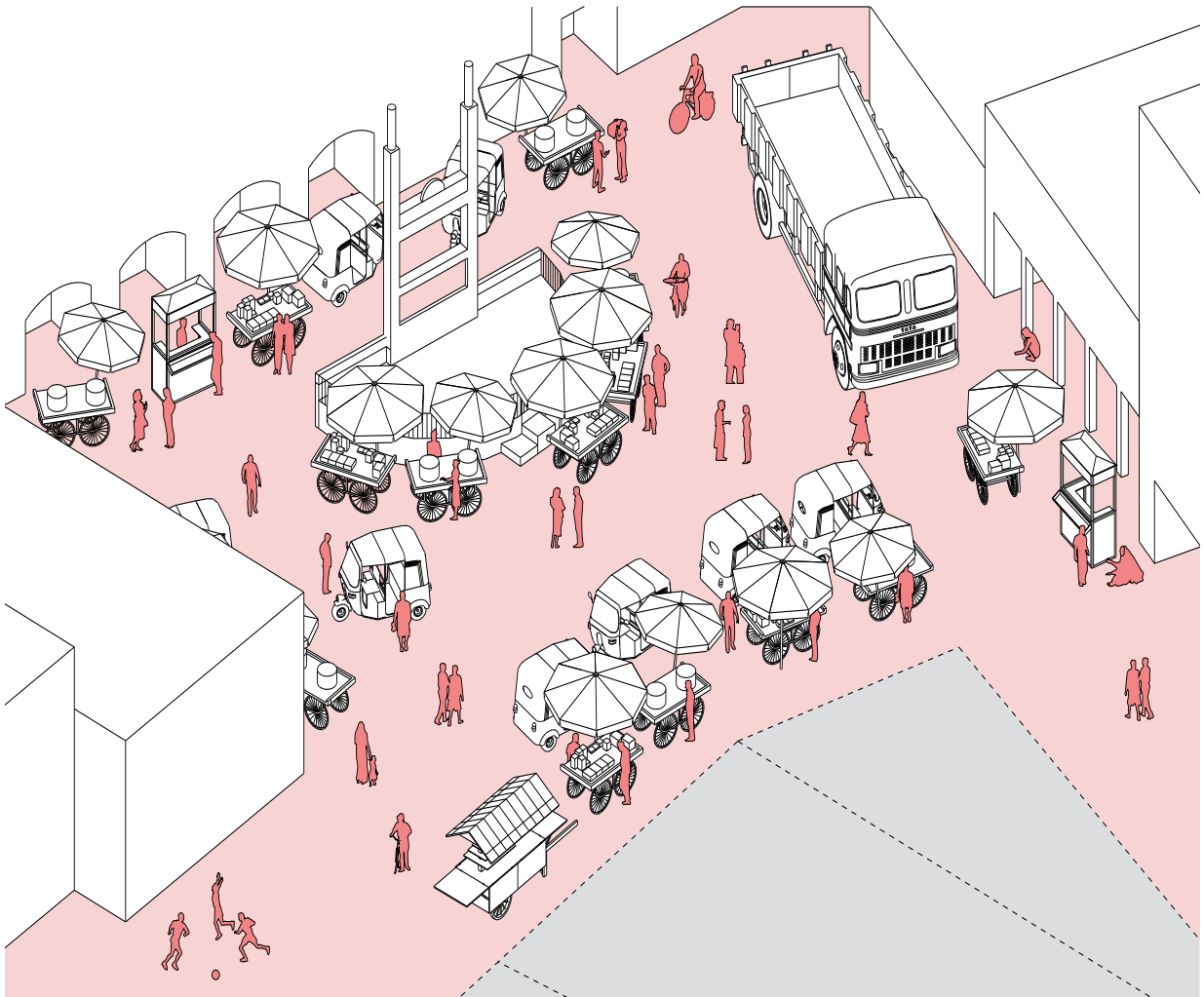
Usually a heightened area in front of the entrance, the otila represents the intermediate space between the street and the house. A place more private than the street but more public than the house. It is in this space where visitors will take off their shoes before they advance into the house, where neighbours will celebrate festivities with each other and where children meet and play.

THE LOGGIA



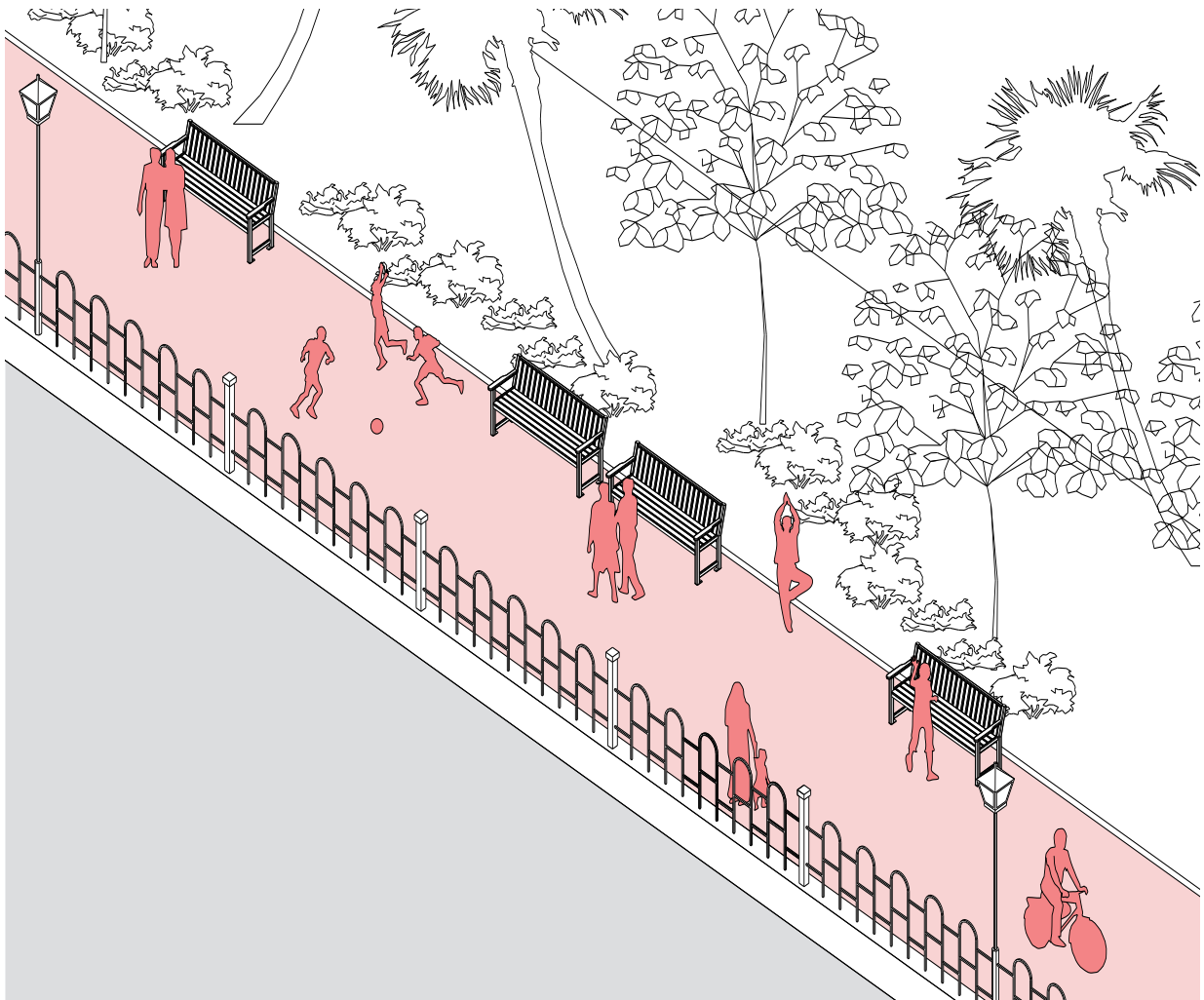
Similar to the otila, but more private, this place behaves in the same way. Spatially it is understood as a fenced off, heightened area on the ground floor, open to at least one side of the surrounding and accessed via one or more steps from the public street. The loggia is where the inhabitants can rest and interact with people on the street, shielded from the sun. It is also where visitors are welcomed into the house and take off their shoes.

THE MARKET AREA



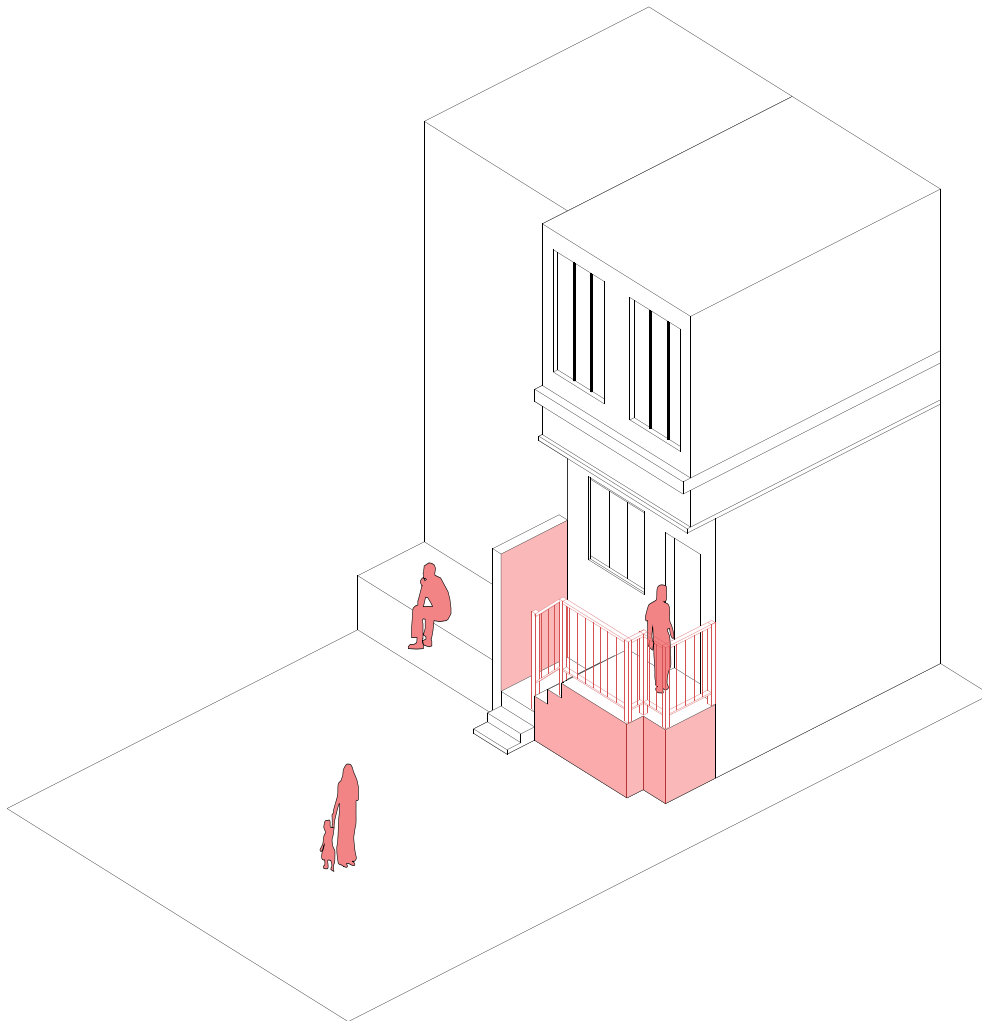
The market area is the most central place in the village. In a place where both Hindu's and Muslims live, it is both the physical and mental interconnection between the two population groups. It is the most important place for social interaction between the villagers. In the morning, the square is crowded with people and market vendors. In the afternoon, this place becomes quieter.

THE LAKESIDE



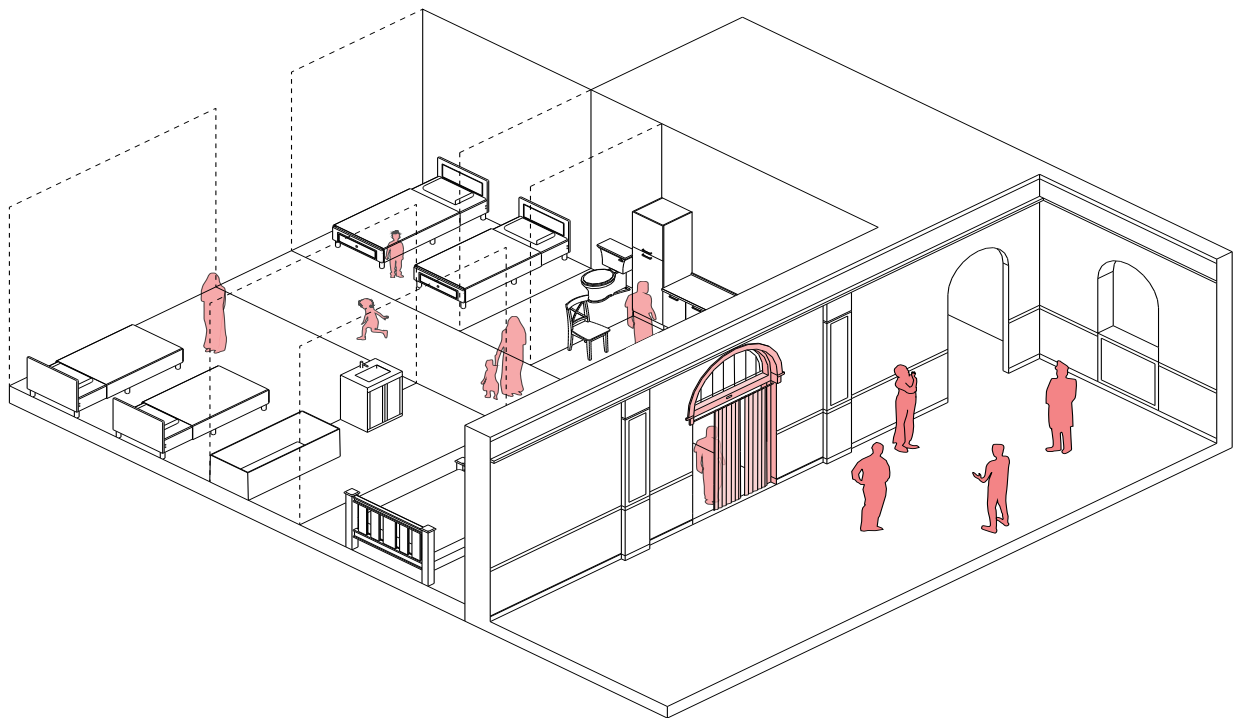
The lake represents an important symbol in the village. In former times, fresh water was taken from the lake and thus it symbolizes a source of life. Nowadays, the lake functions mainly as a social gathering space. The lakeside is fenced off at the water's edge and demarcated with trees and bushes on the other side, providing shade and shelter from the road. People meet and play chess, while their children take over the playground.

THE HEIGHTENED ENTRANCE



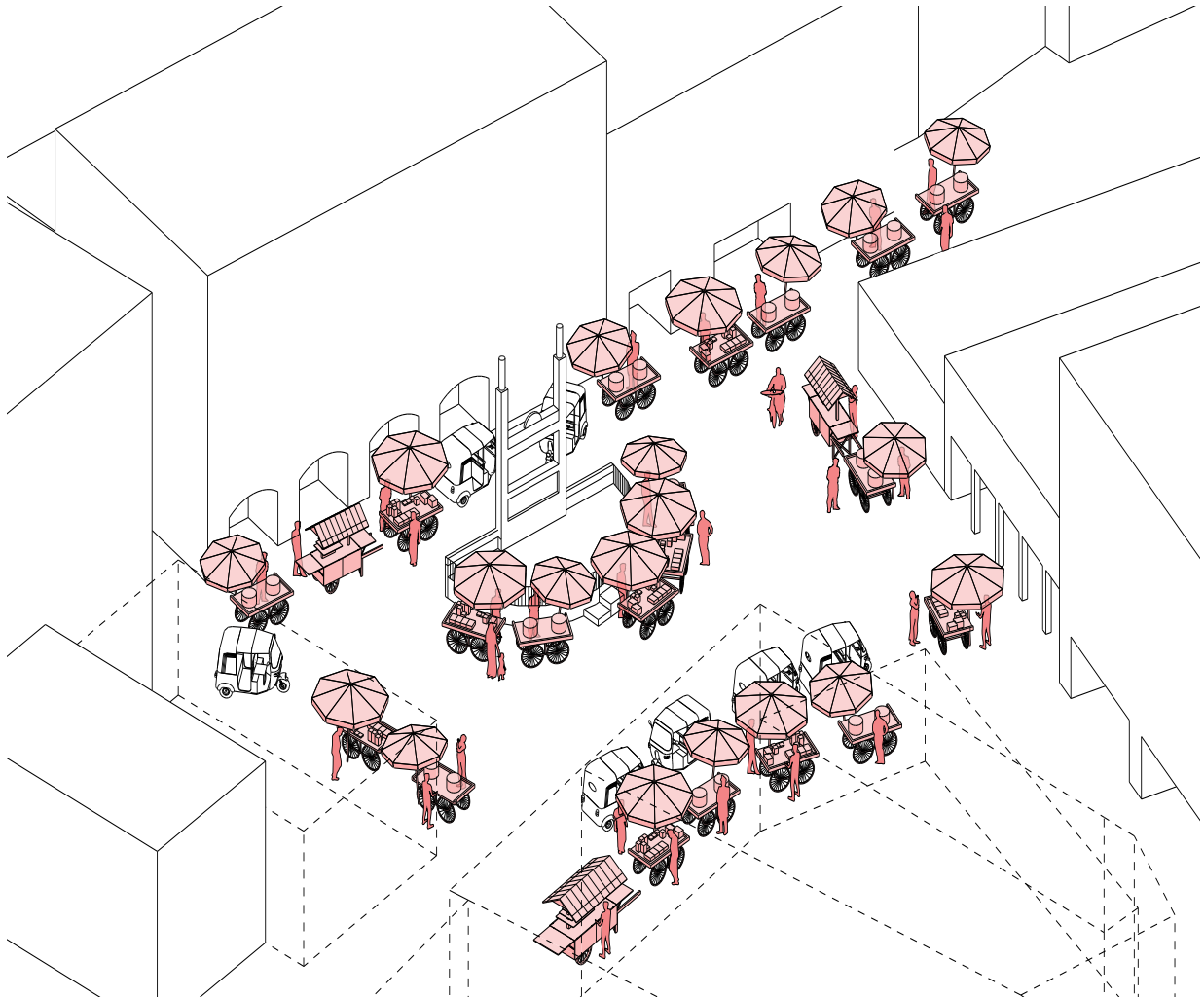
The heightened entrance is a border in the village that creates a distance between the street and the residence. It consists of a small stair that leads to a fenced off platform that leads to the front door. The construction keeps passers-by on a distance and it increases the villager's sense of privacy and security. It also protects the residence against floods.

THE CURTAIN



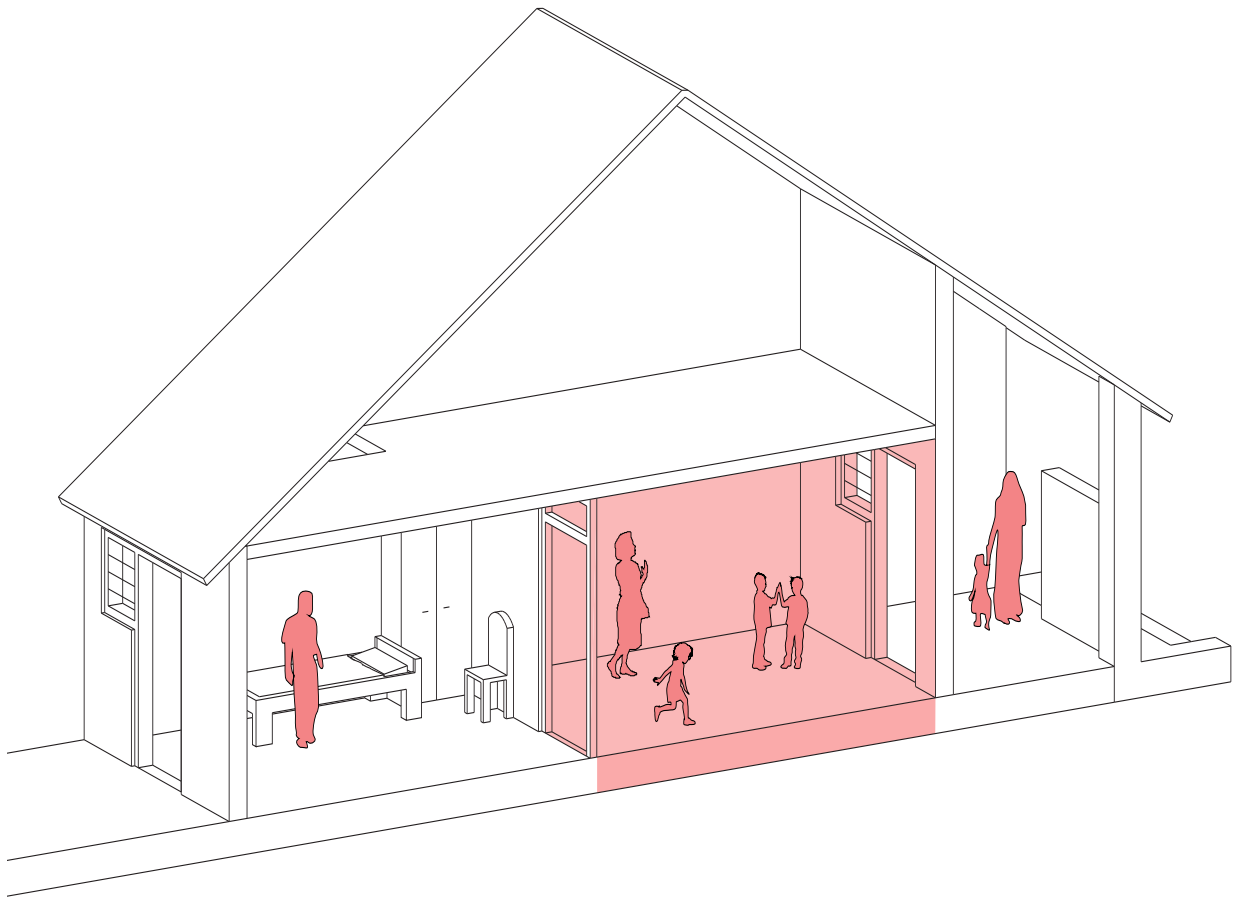
In the houses in the village that are owned by Muslims, the curtain plays an important role. Based on their religious believes, the women are not allowed access to the entrance hall when guests are being welcomed. The curtain forms the soft border behind which the women can retreat. Behind this border lies the common area of the women, the kitchen, bedrooms and sanitary provisions.

THE MARKET VENDOR



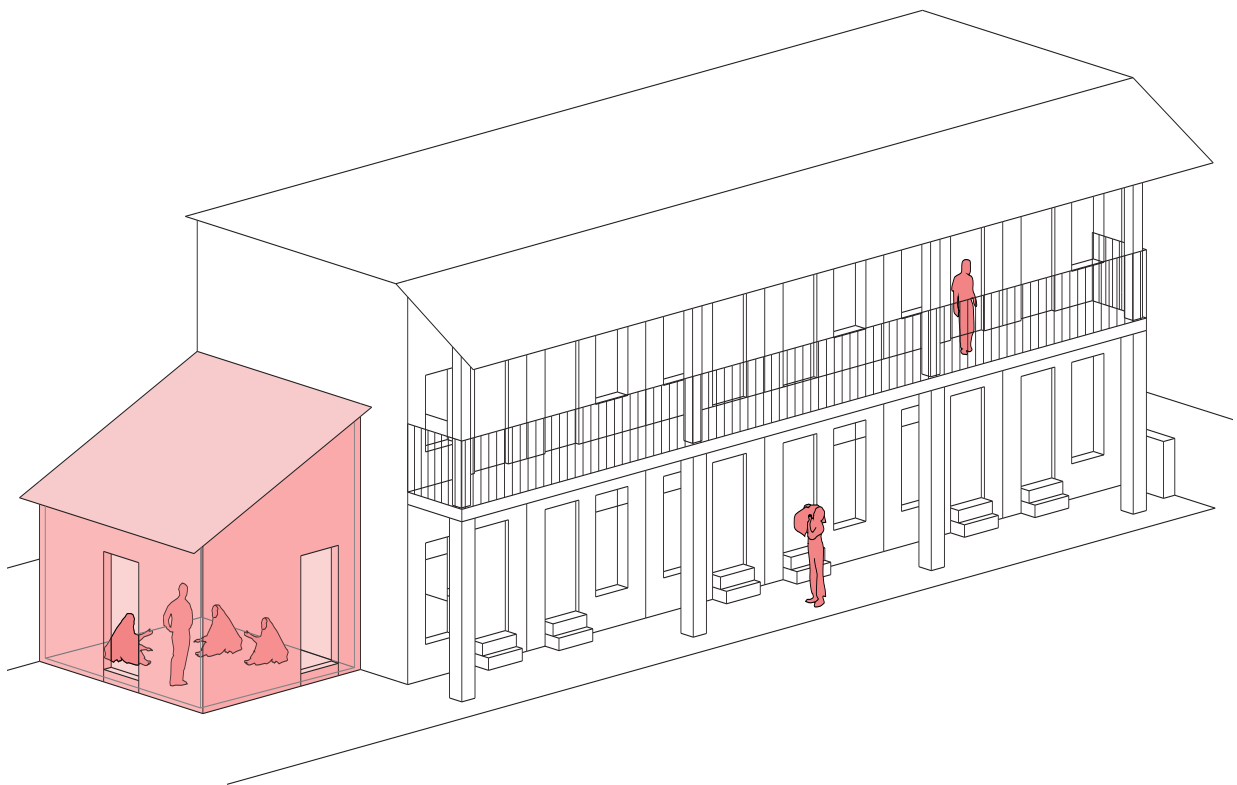
The market vendor occupies an important role in the village life. It is via him (hardly any women are observed among them) that the villagers get their daily groceries. The market vendor operates mostly in the morning, when the sun is still relatively gentle. The physical space he takes in, becomes even more apparent in the afternoon, when he is no longer there. Suddenly the streets and squares become much larger.

SUBLETTING



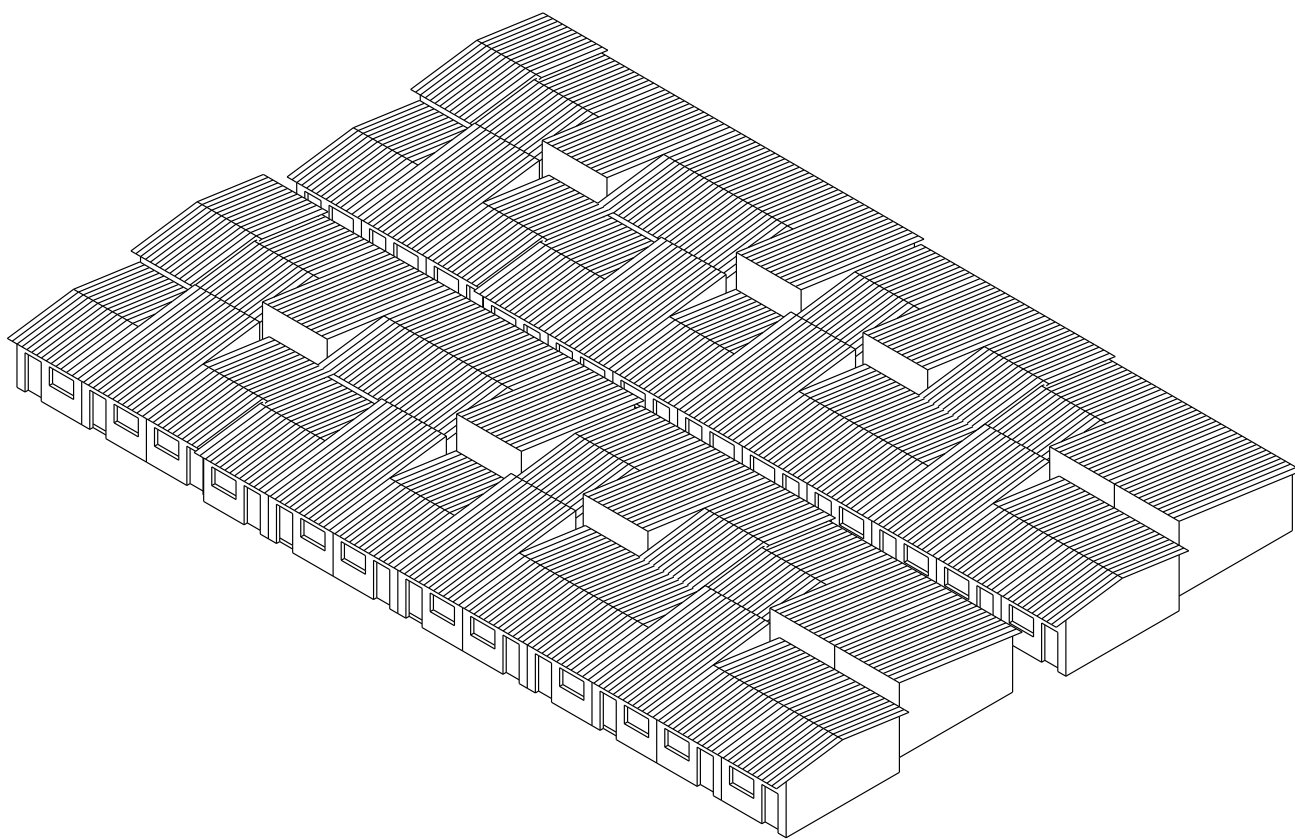
Many villagers generate (part of) their income from subletting rooms in their house. In the village, where space is less scarce, people often have a spare room. Especially when no longer capable of working themselves, subletting some of their rooms is a good option to generate some money. The rooms are used for a wide variety of purposes, acting as a school, providing people with space to work or even to live.

MICRO ENTERPRISE

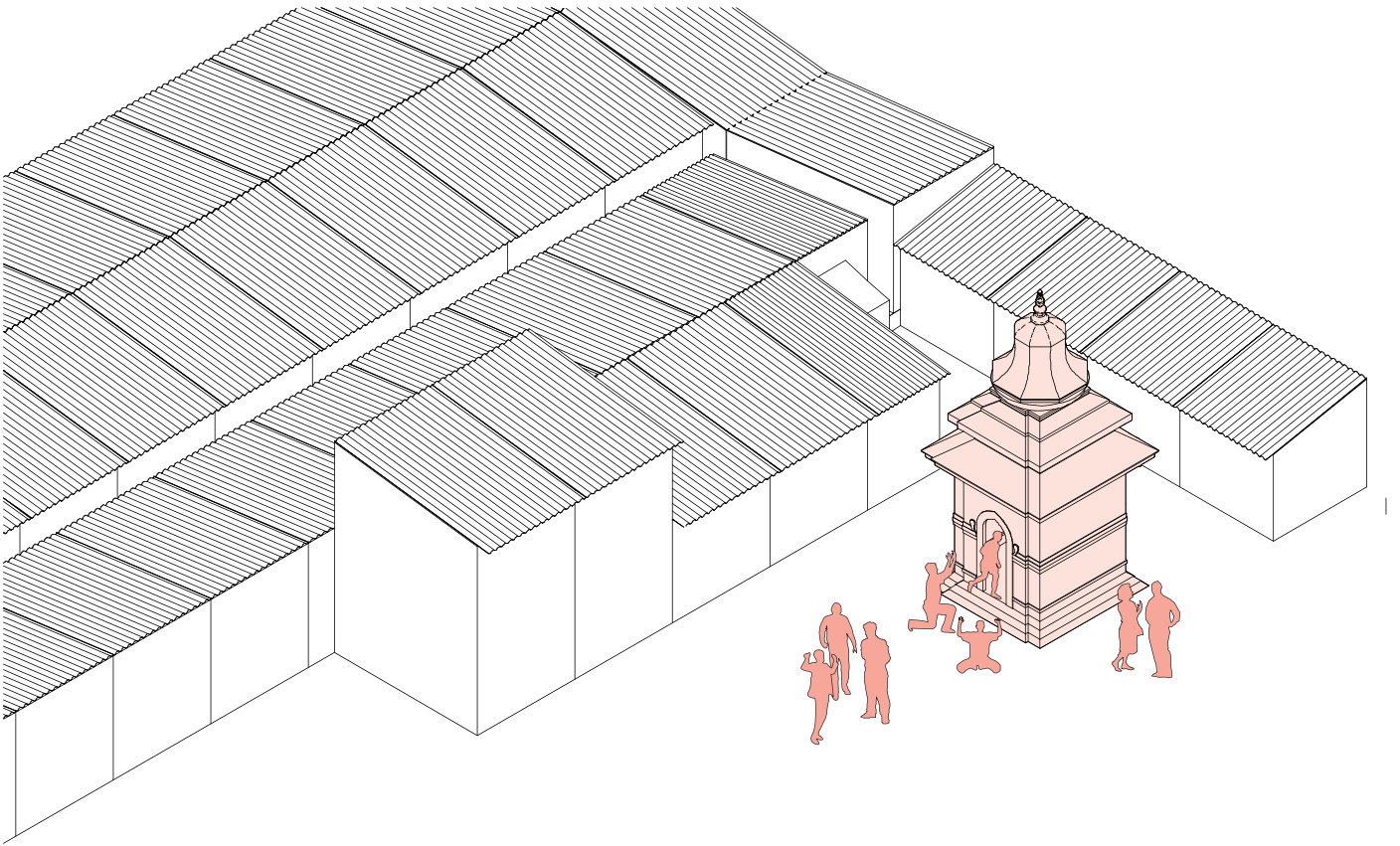


A variety of micro-enterprises are located in the village that each provide income for a small group of villagers. Consisting of a local investor and some employees these companies provide small-scale production of a variety of products that are sold in the village as well as in the city of Mumbai. They are located in residential areas in left over spaces like spare rooms, sheds or vacant buildings.

PATTERNS OF THE BAITHI CHAWL



TEMPLES



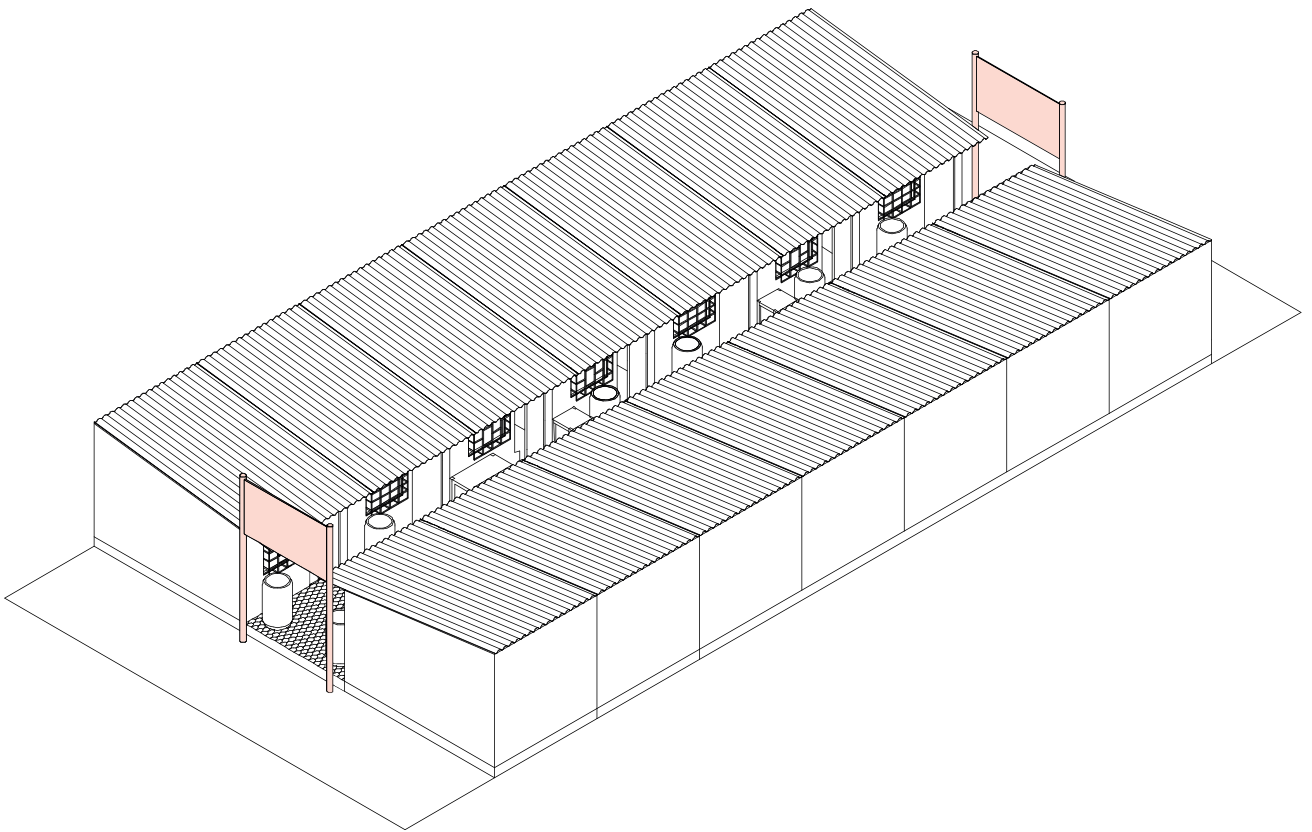
Temples or places of worship are scattered all around the baithi chawl alleys, often situated in open areas. These places are spaces to pay respect to the gods but also to meet the community, to show that you are pious and committed and fitting within the group.

COMMUNAL ALLEYS



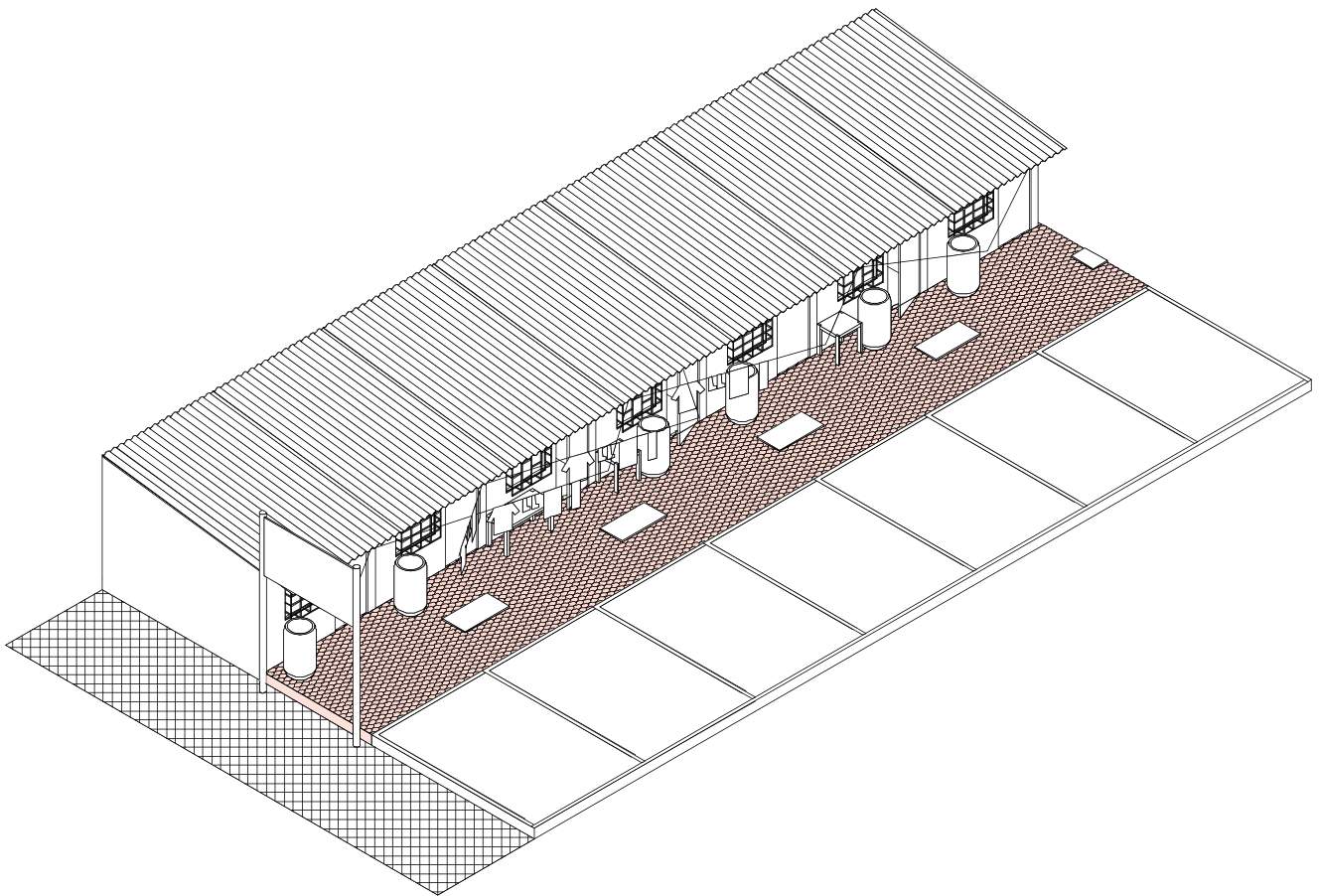
The communal alley is, although its cramped space a very lively social area. This is where the private life of the dwellers meets the public sphere and where family, friends and neighbours meet each other. It is a very important space for the community to bond and to discuss important matters. People sit in front of their houses or stand in door openings chatting with each other.

SOCIETY GATES



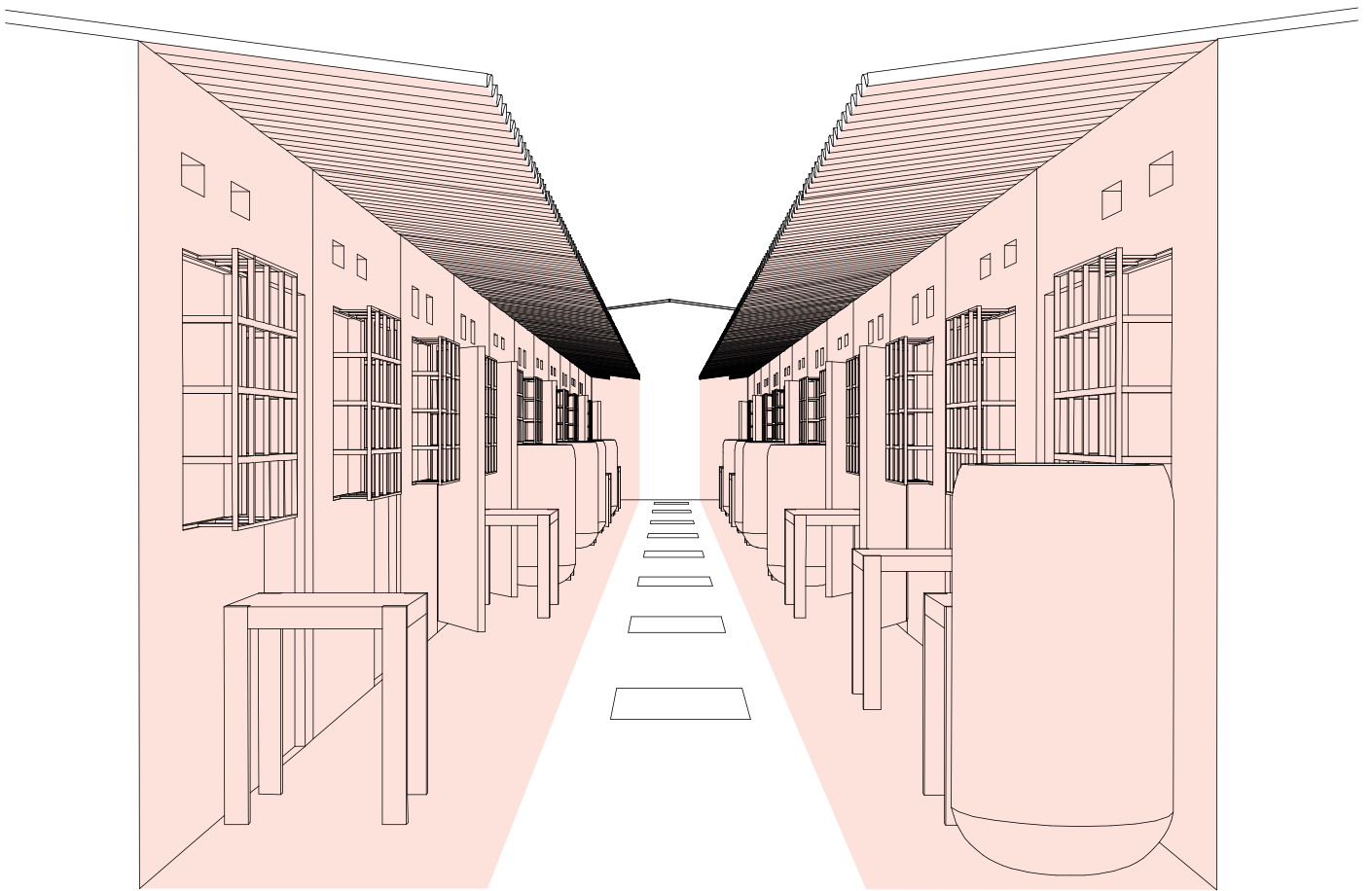
The society gate acts as a transitional border that sets the perimeter of semi-public space: the society area. This measure not only gives information about the society itself but also gives a very clear message that everyone not from the society: they are visitors/guests.

COMMUNAL PAVEMENTS



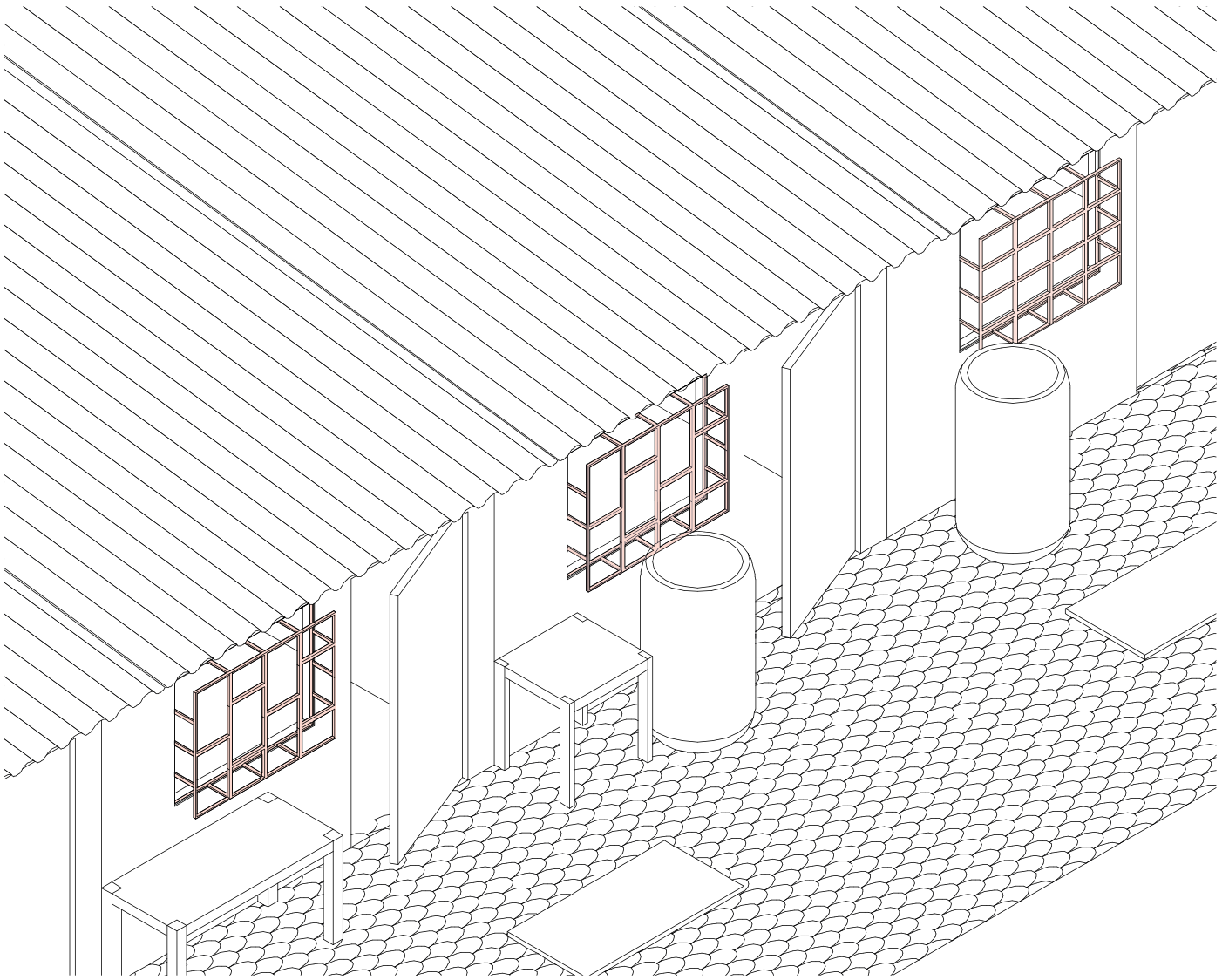
The communal pavement of the alley between baithi chawls is an element that highlights the semi-public character of the communal lane. This pavement is characterised by a little height difference and different type of bricklaying and is often well maintained showing the community's tight interaction. By entering a different street, characterised by a smaller width and materialisation than that of that the bigger commercial street a person enters a new domain, here a semi-public area. With this well maintained different communal pavement the dwellers living here signal that a person entering here is mere a visitor.

CANOPIES



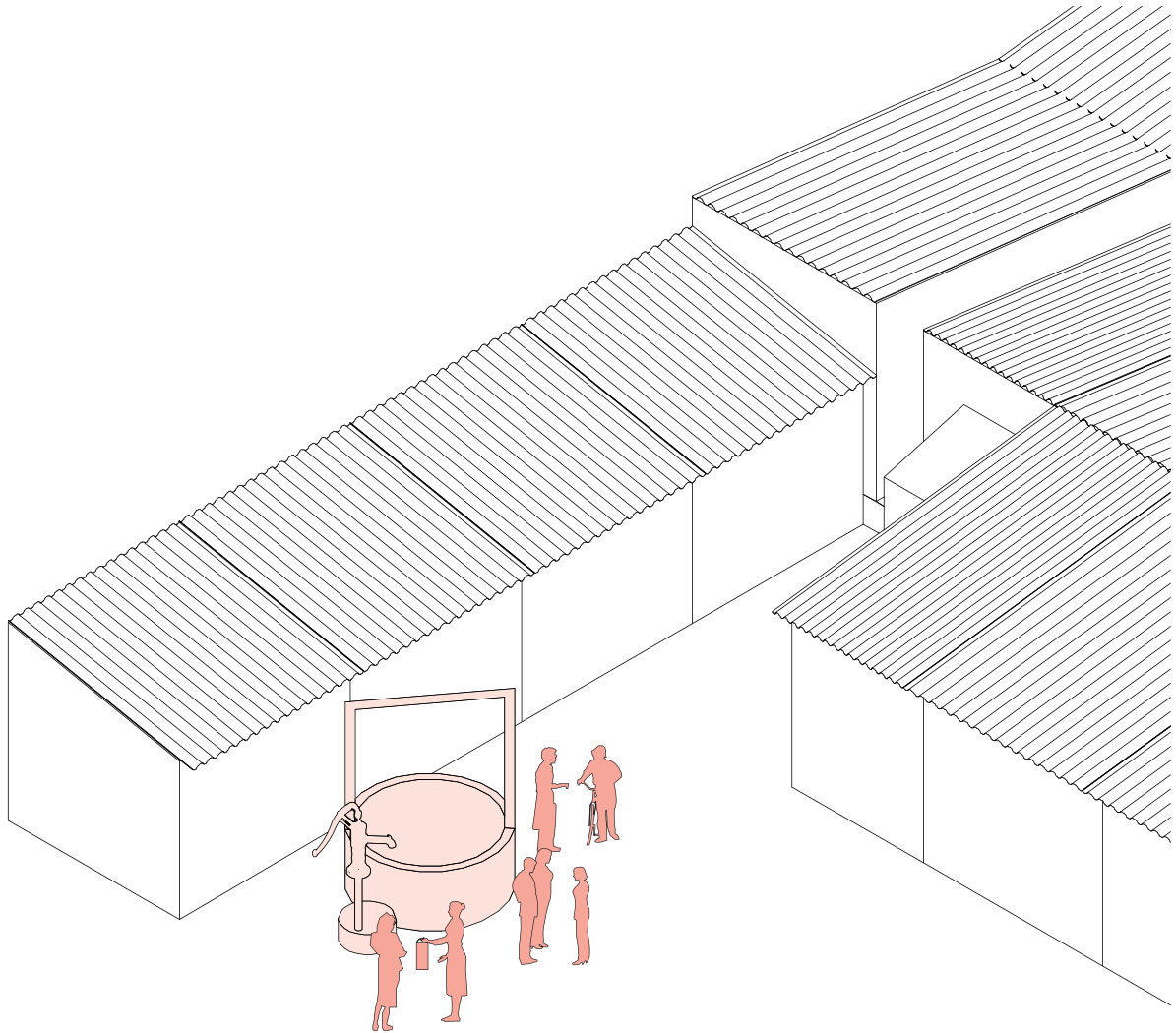
The canopies of baithi chawls cover a part of the communal lane. This space is appropriated by the different dwellers and used as an extension of their house, to store water, to dry clothes or to sit outside. This makes this layer a private area although being actually semi-public. This space further softens the transition of public street to private dwelling

WINDOW CAGES



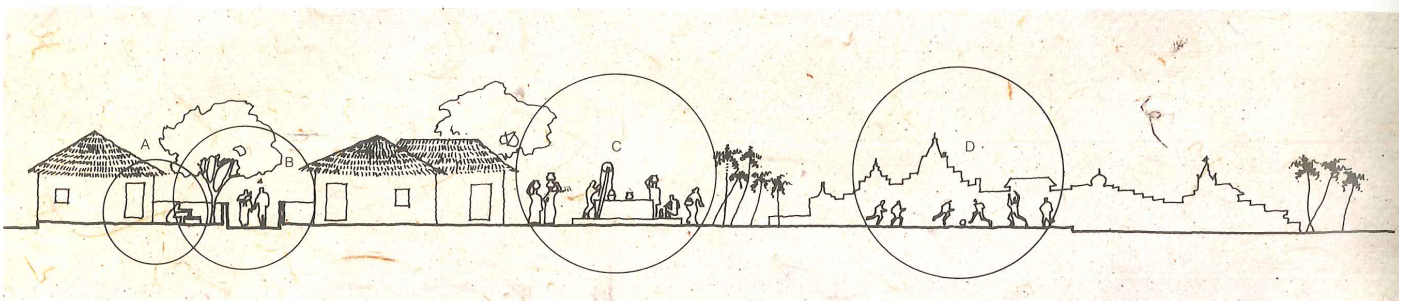
The cages in front of the windows of baithi chawls are for protection but also initiate to the person not living there: “keep out, private property”. It’s a very hard transitional element that separates semi-public with private space. In other cases, you will find these cages to be used as a extension of the dwelling, but the cages found at baithi chawl dwellings are not deep and are only meant for protective purposes.

WELLS



Wells around the rows of baithi chawls act as a place to meet for the women of the baithi chawl area. In a conservative nation such as India, where women of economical lower classes have not always the freedom to move around freely, the act of getting water as a daily activity act as a way for women to go out of their houses and to meet one another, to gossip or to talk. This happens on a local basis so this social space is characterized by its semi-public appearance.

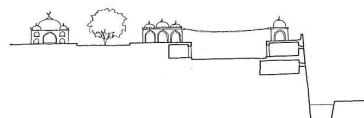
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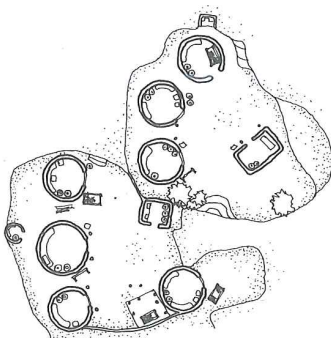
System of spaces



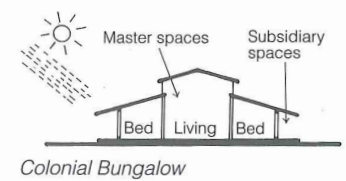
The Red Fort at Agra



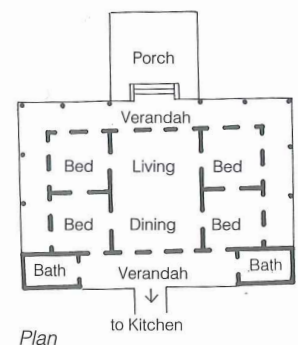
Diagrammatic section of Red Fort



House in Banni village

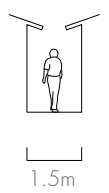
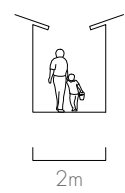
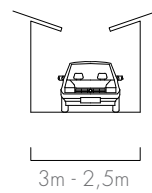
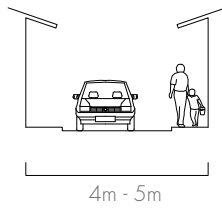
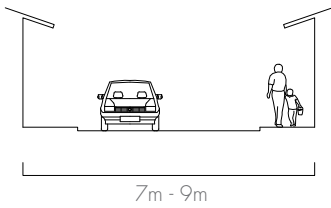
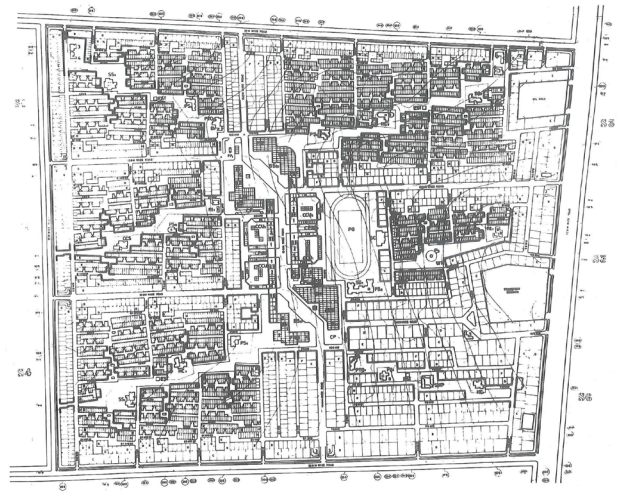
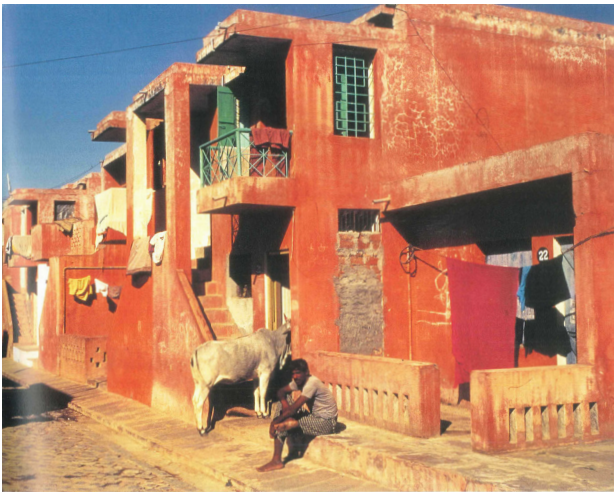


Colonial Bungalow



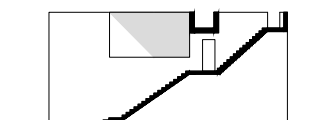
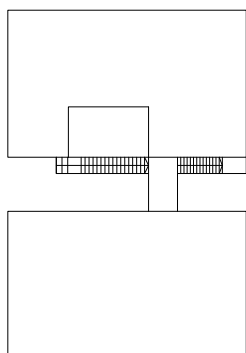
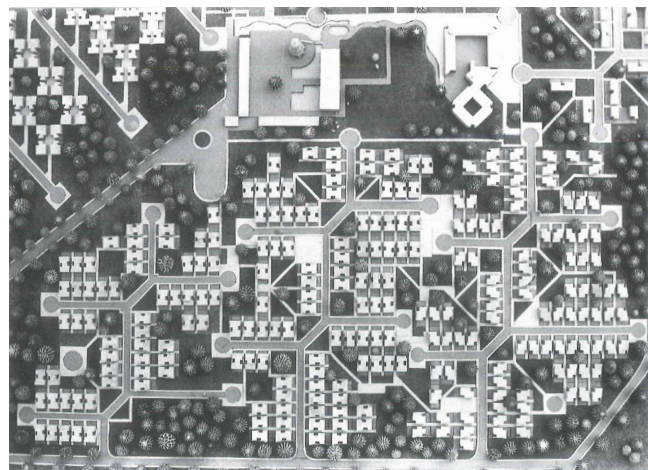
Open-To-Sky-Space

Charles Correa



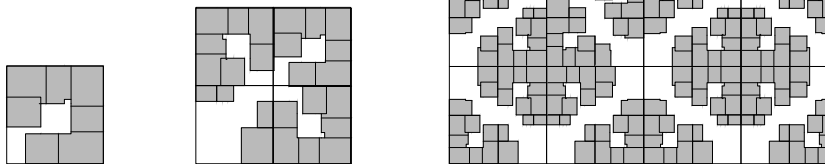
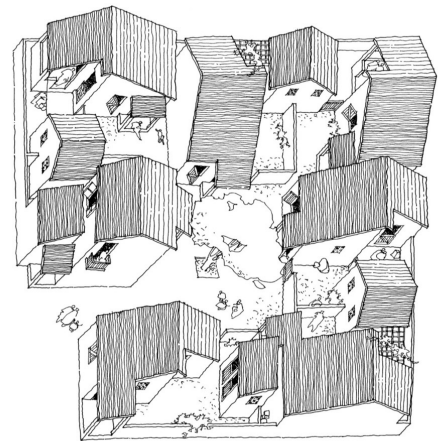
Aranya Township

Balkrishna Doshi



GSFC Township

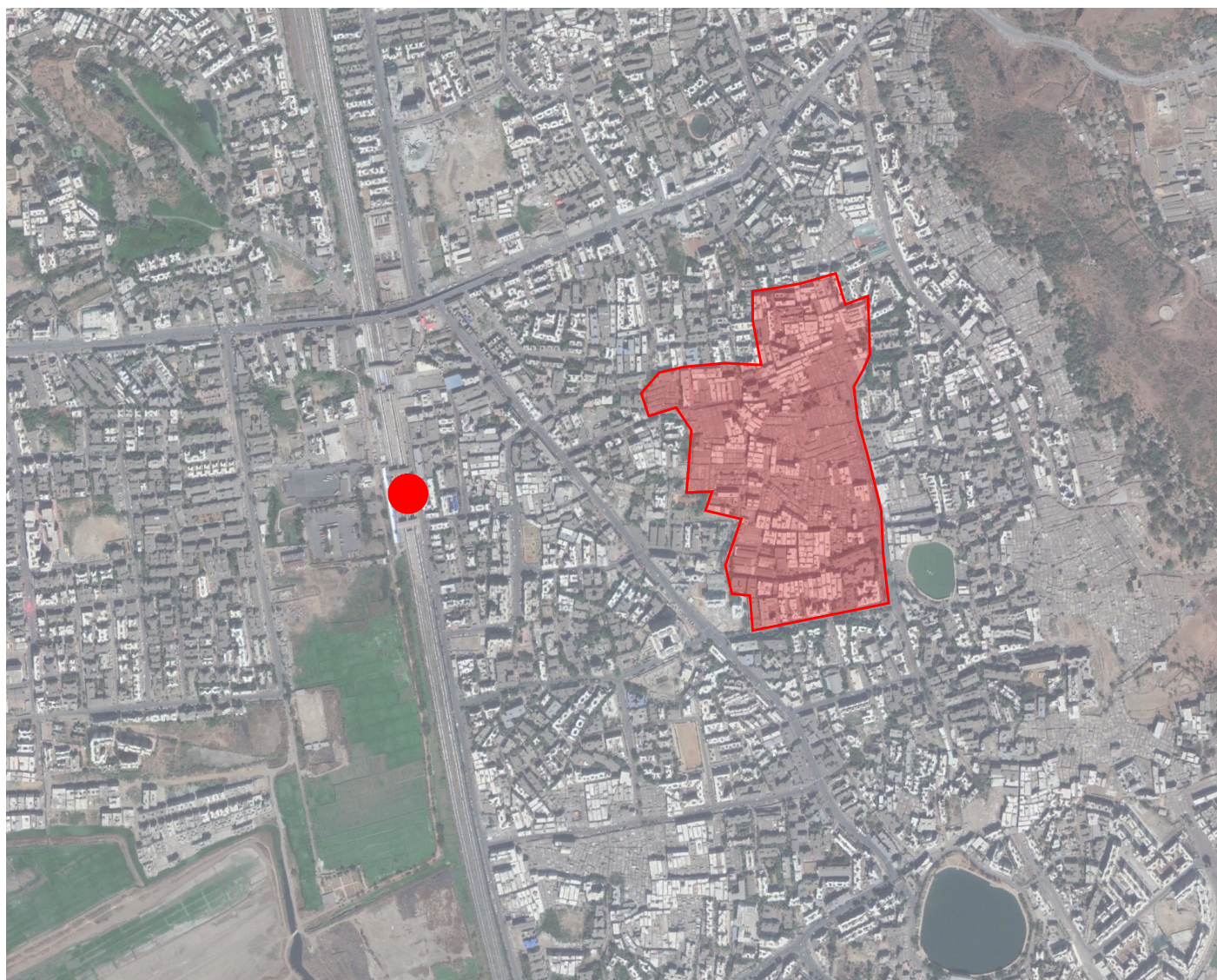
Balkrishna Doshi



Belapur

Charles Correa

LOCATION ANALYSIS

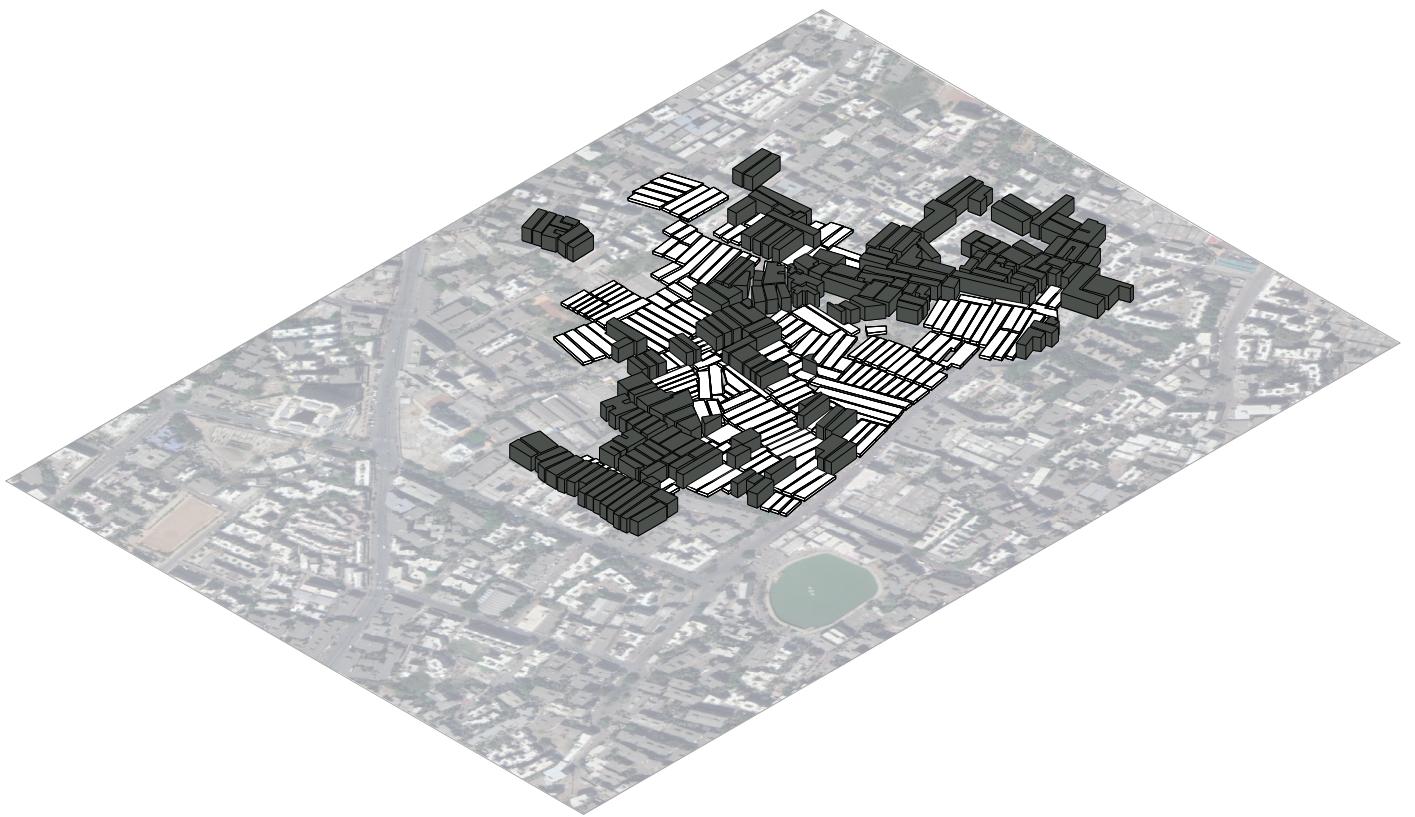


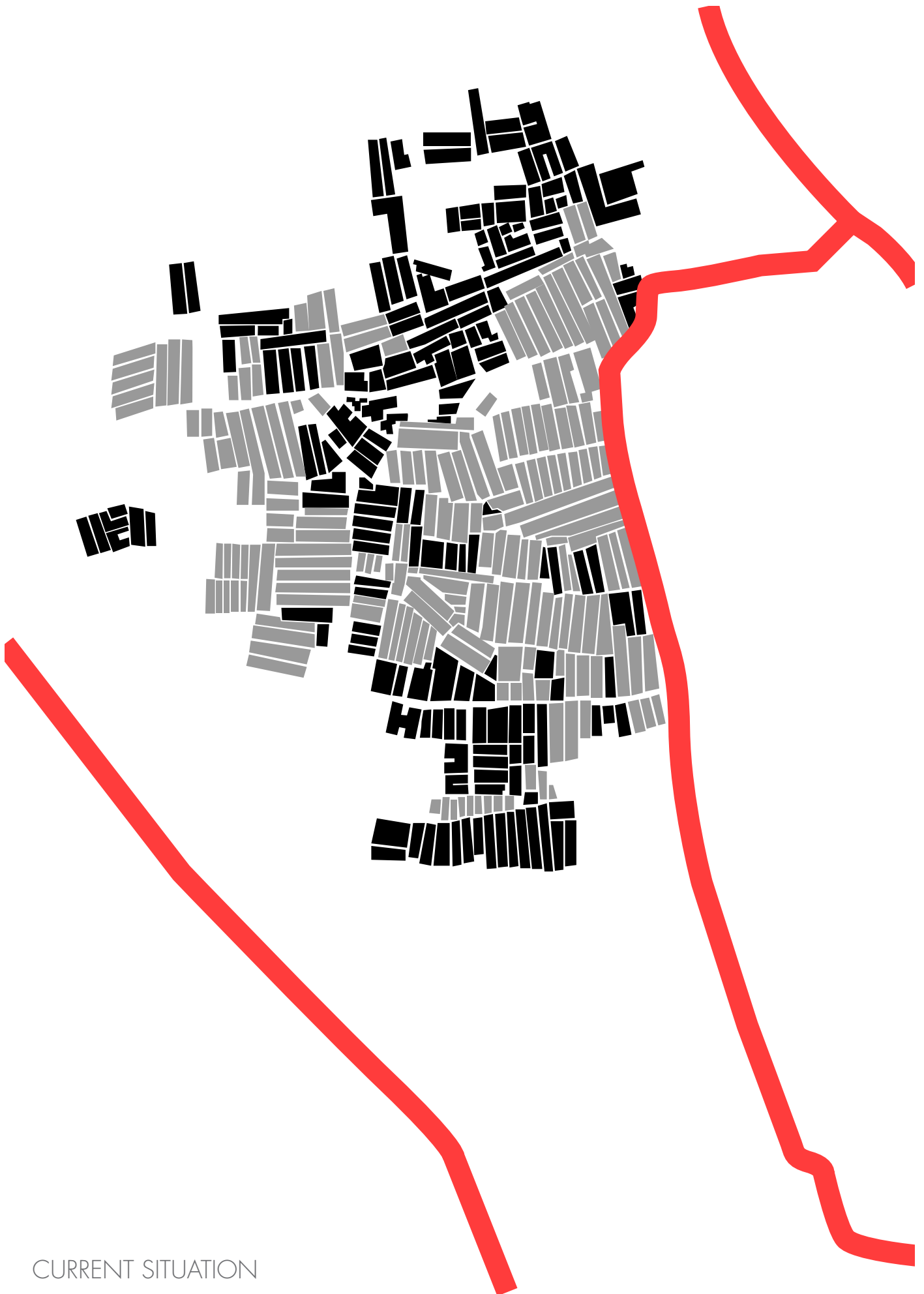


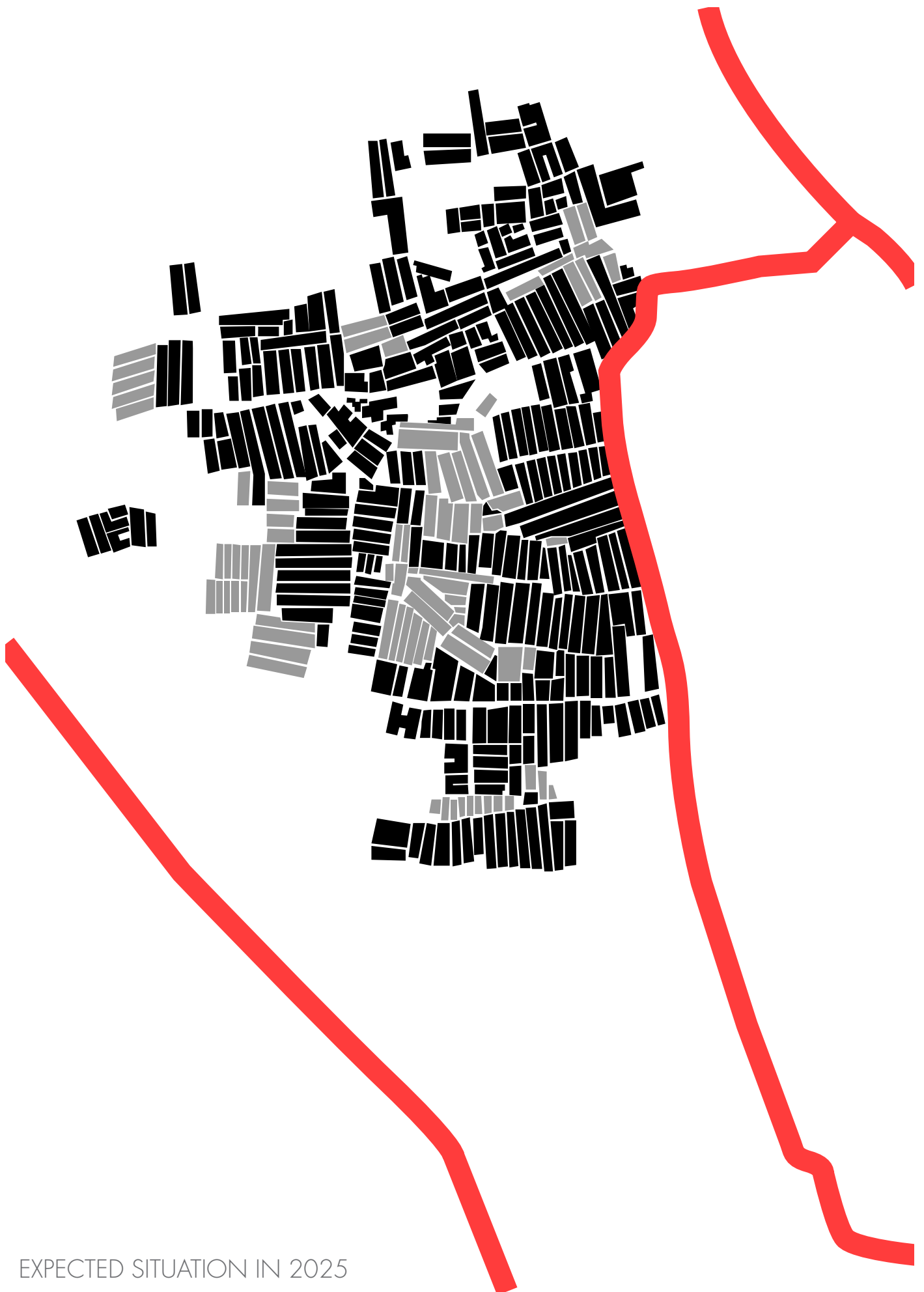


550m

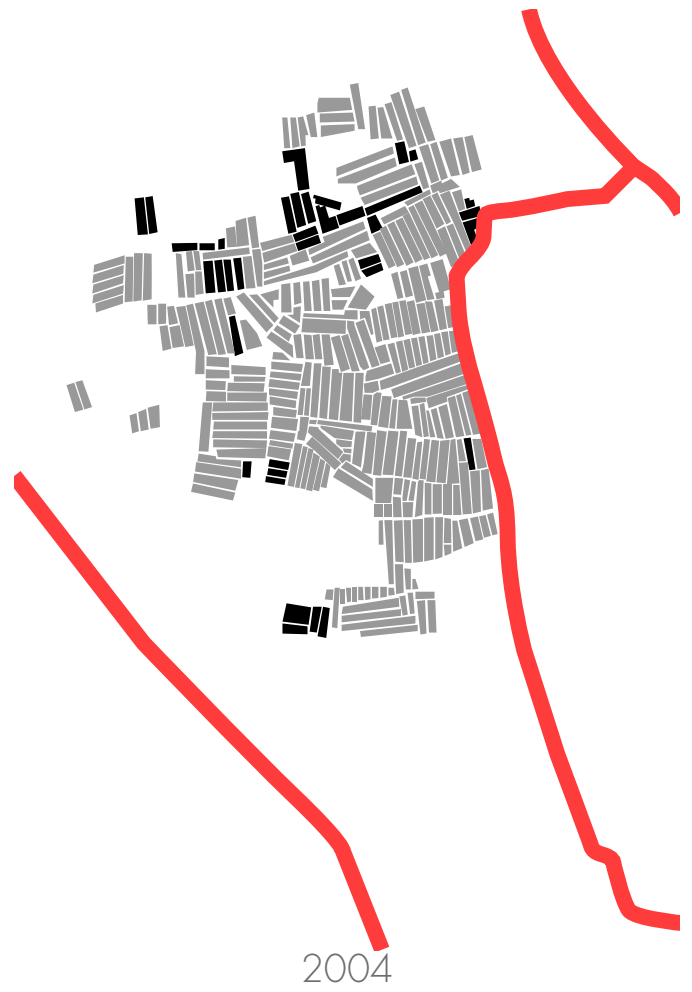
700m

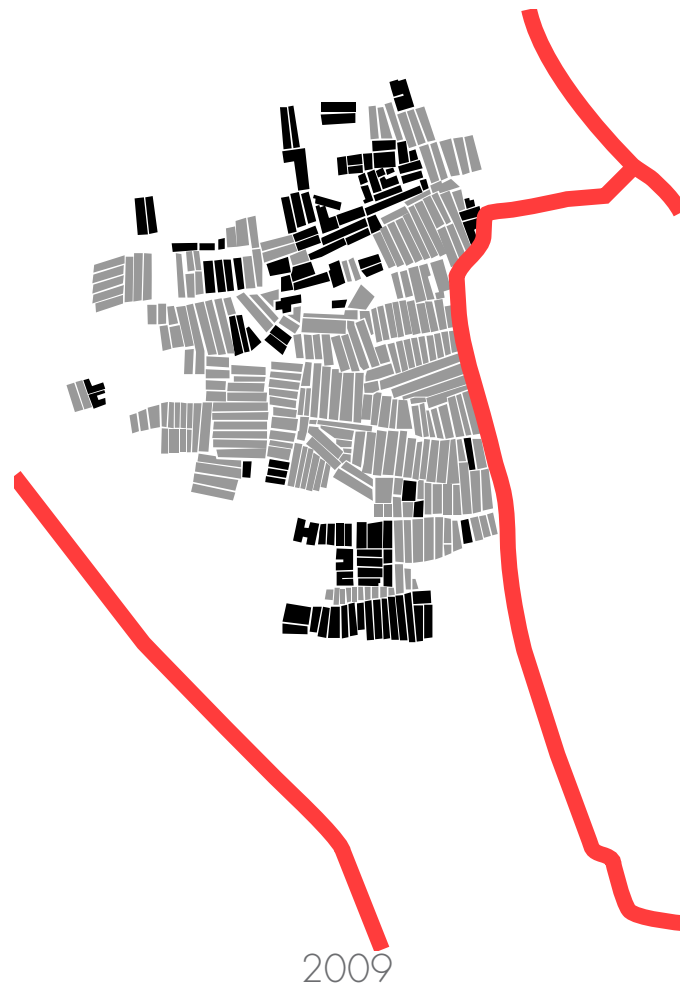


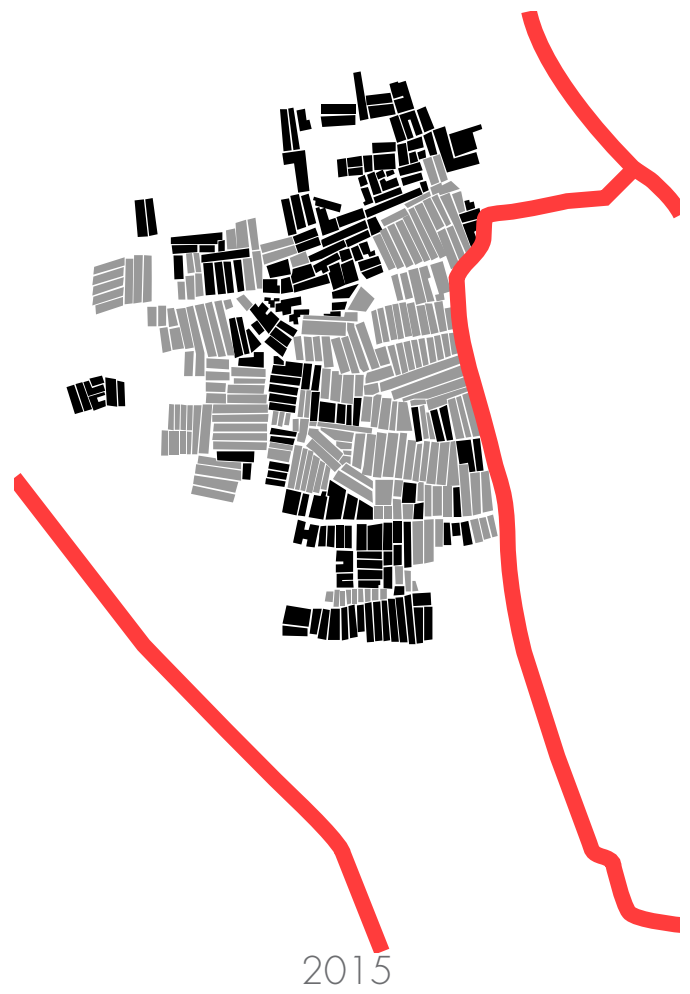
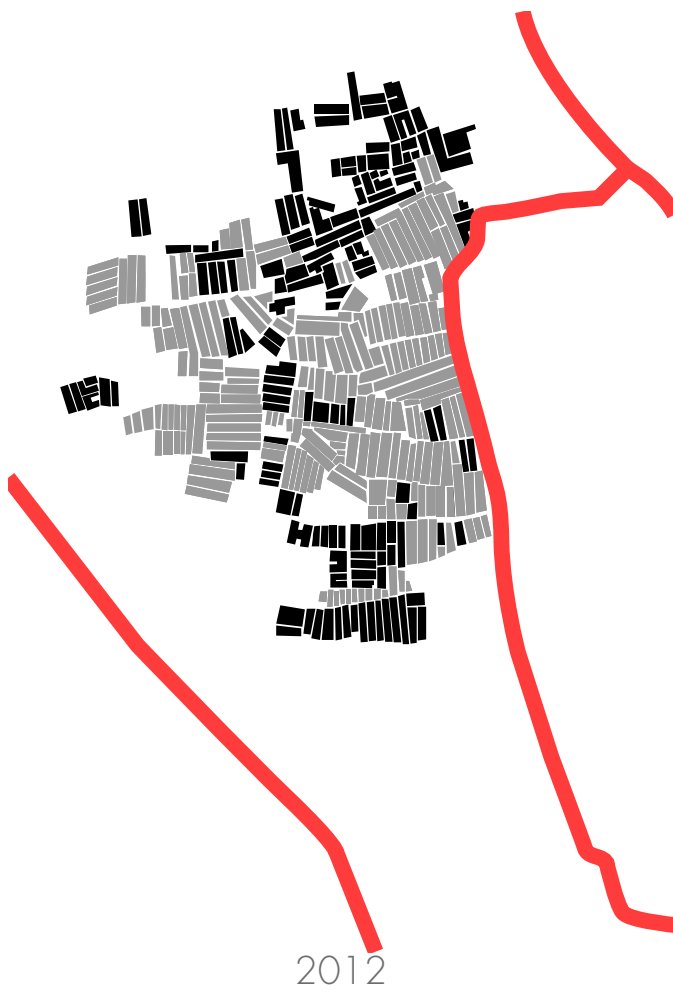


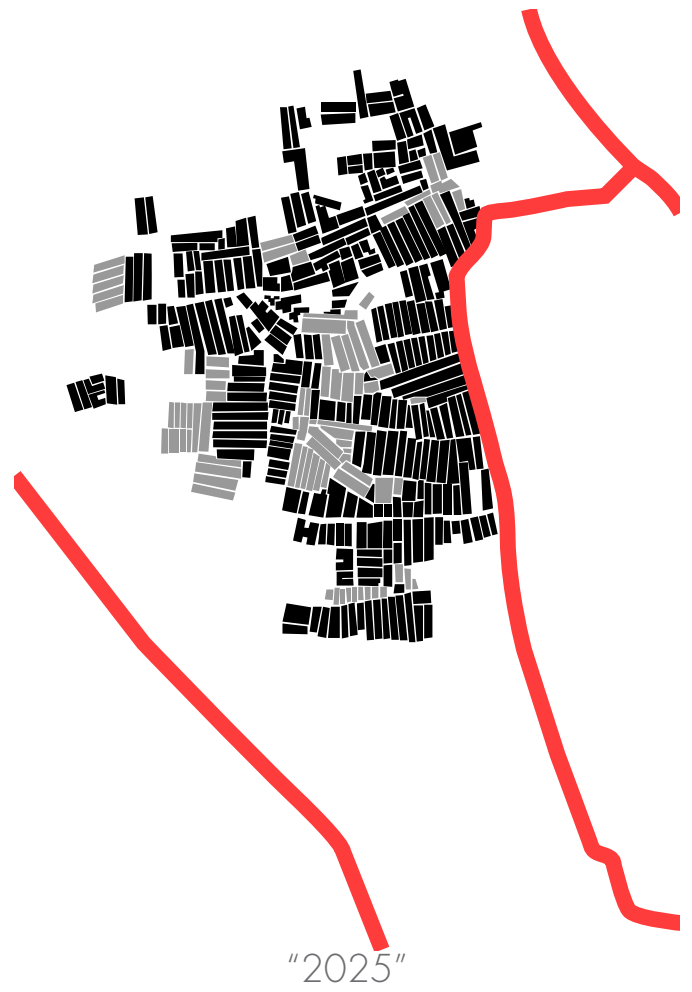
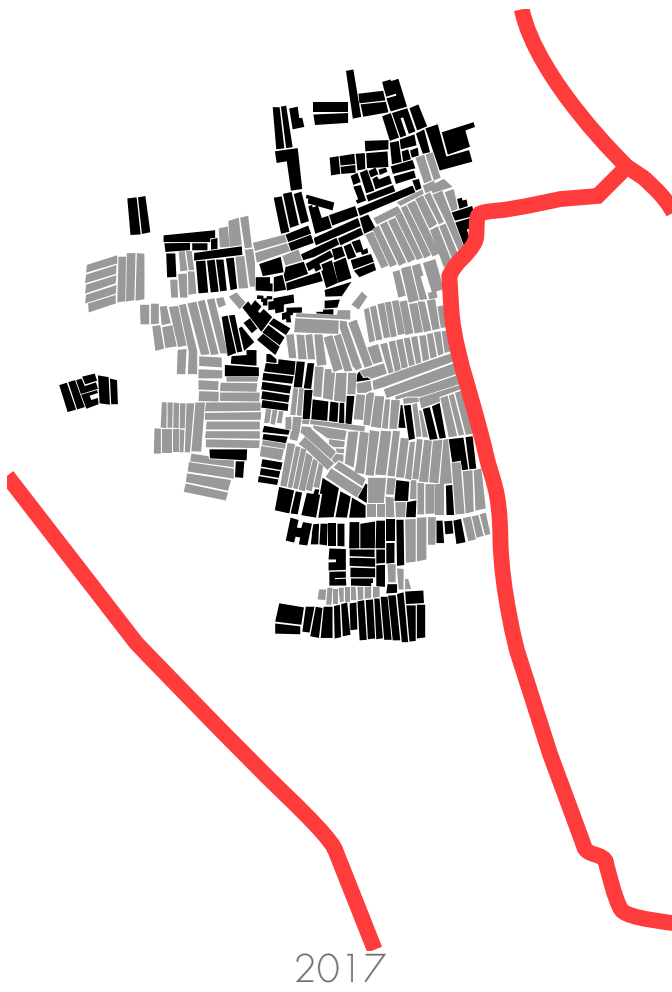


EXPECTED SITUATION IN 2025











ROADS



SERVICES



ROADS AND BAI THI CHAWLS



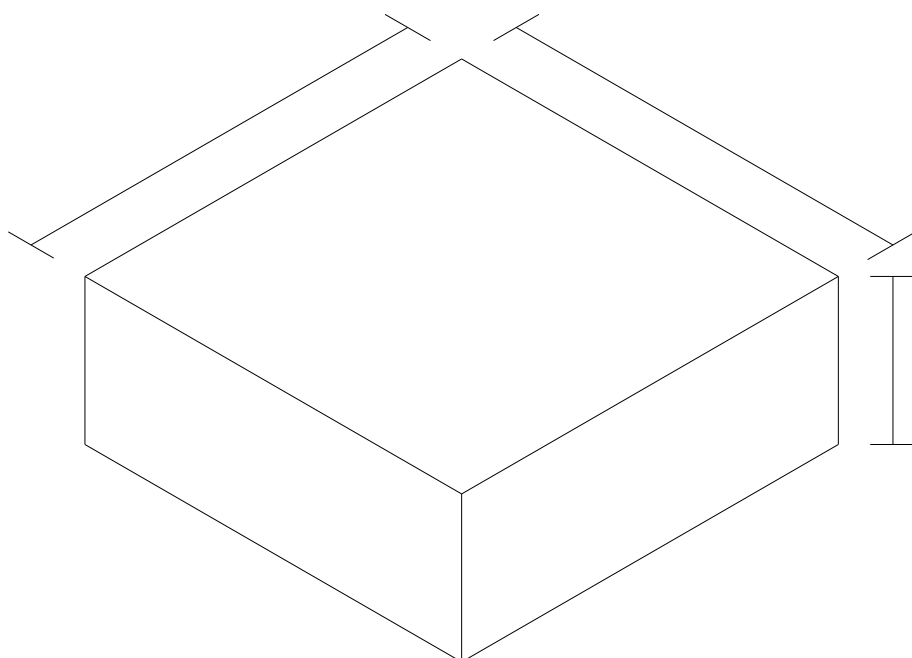
ROADS AND CHAWLS

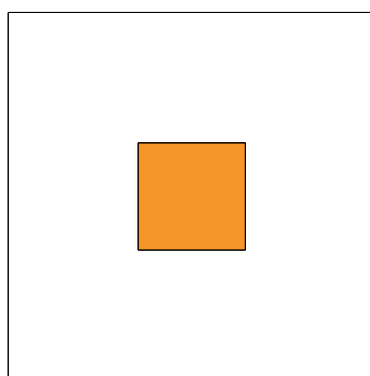
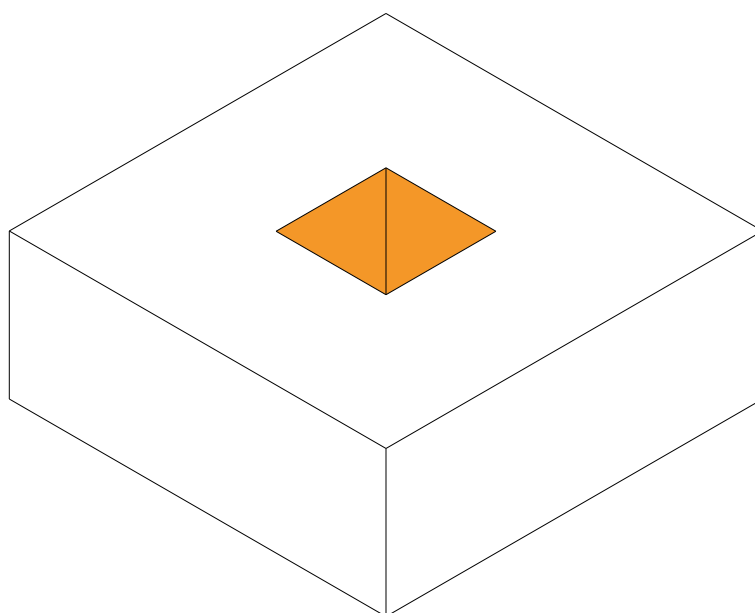


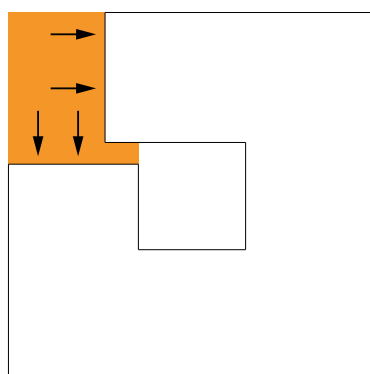
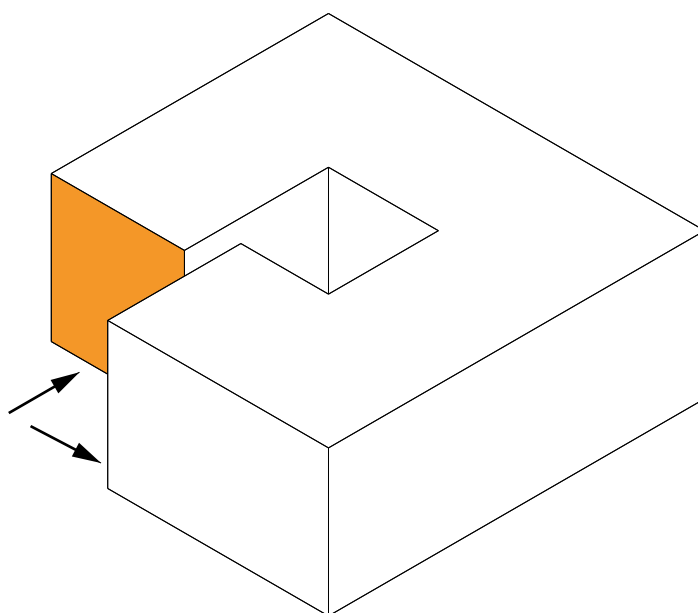
ARCHITECTURAL DESIGN

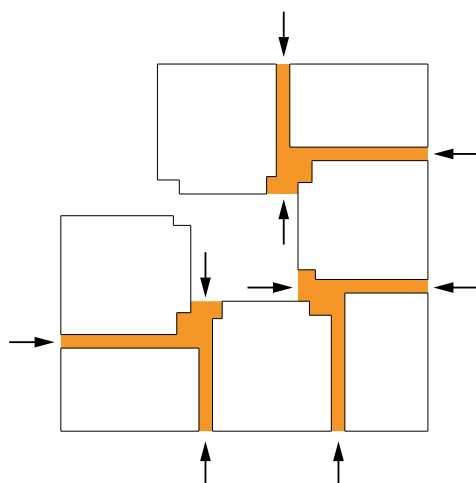
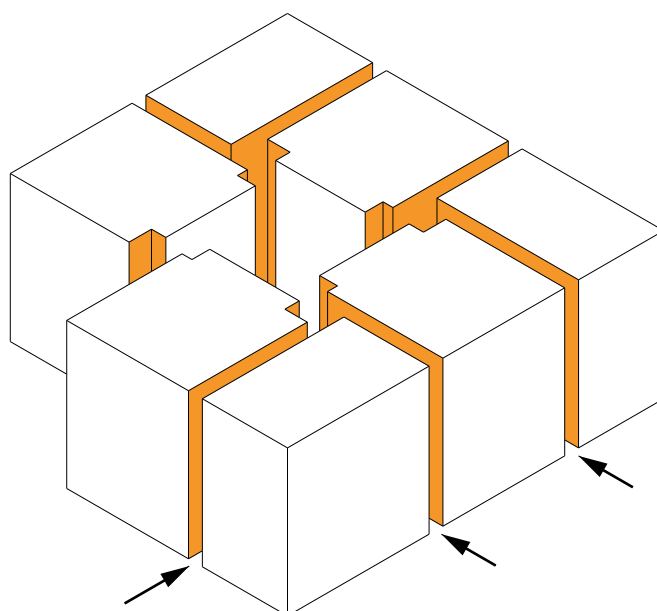


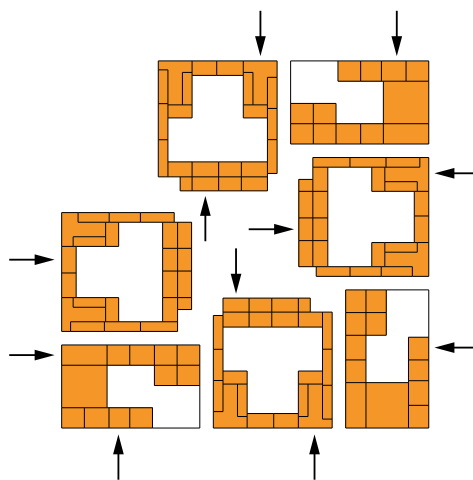
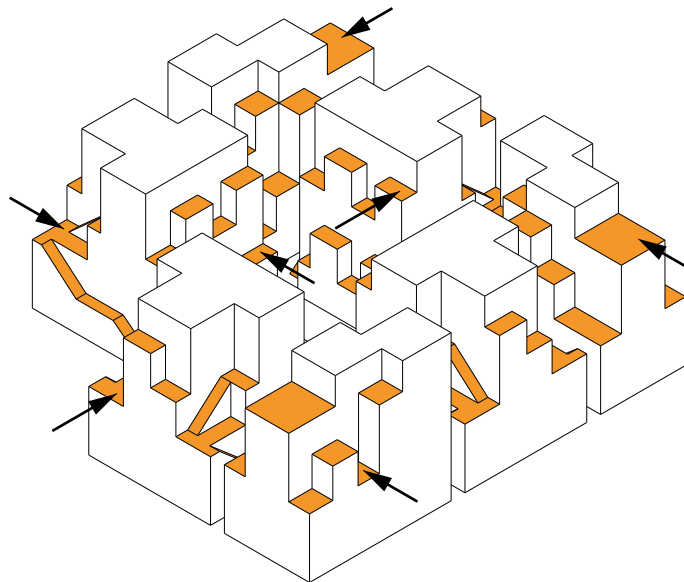


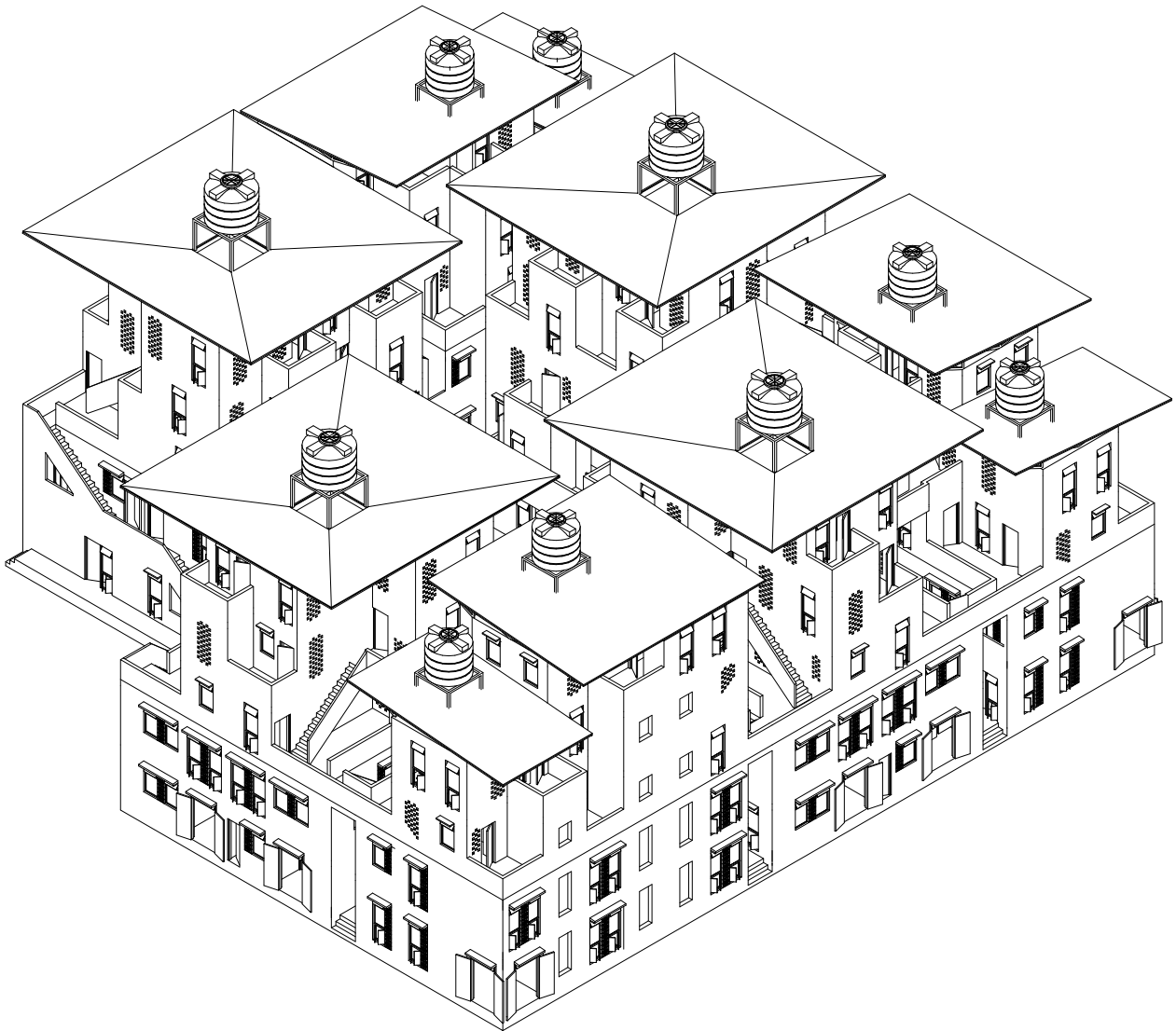






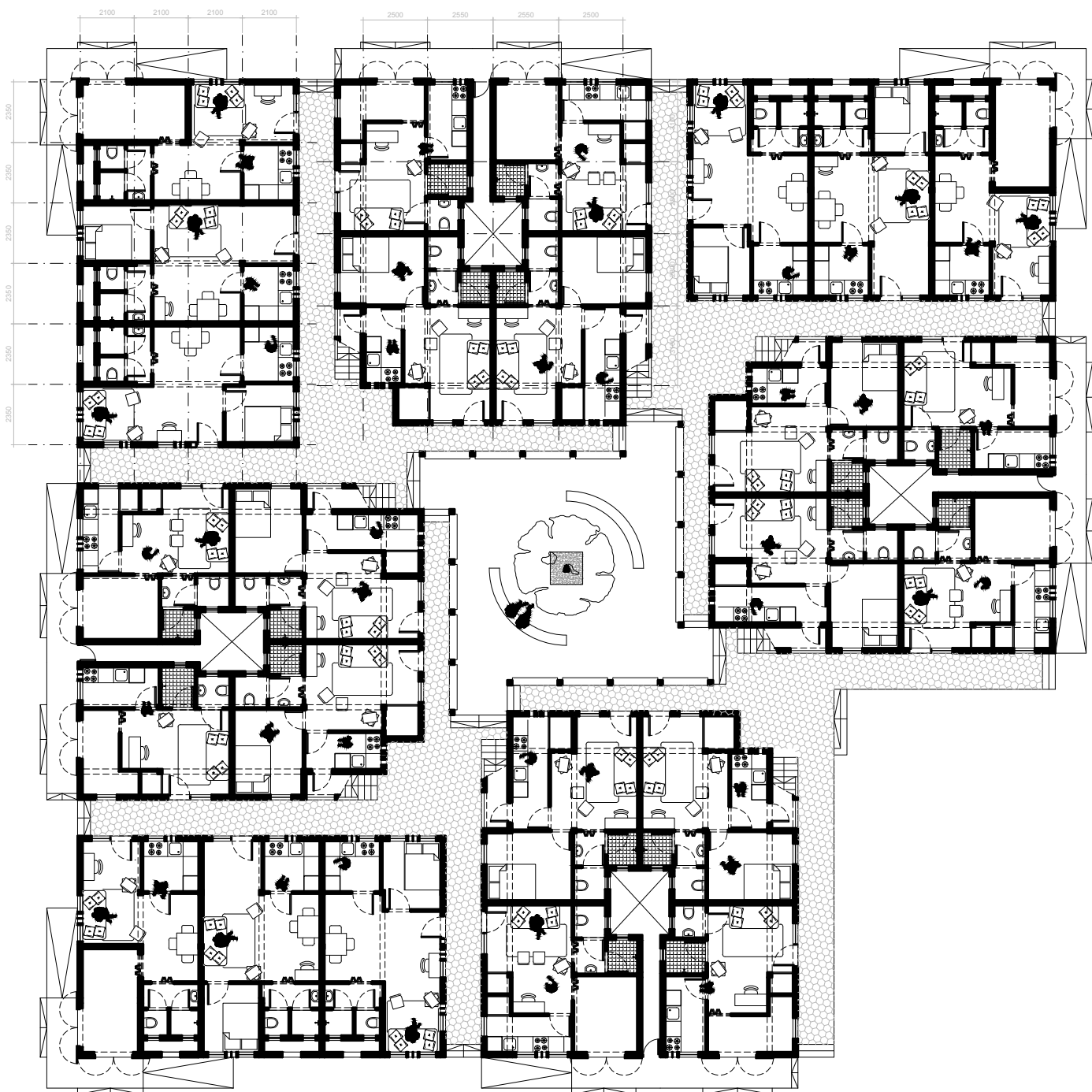






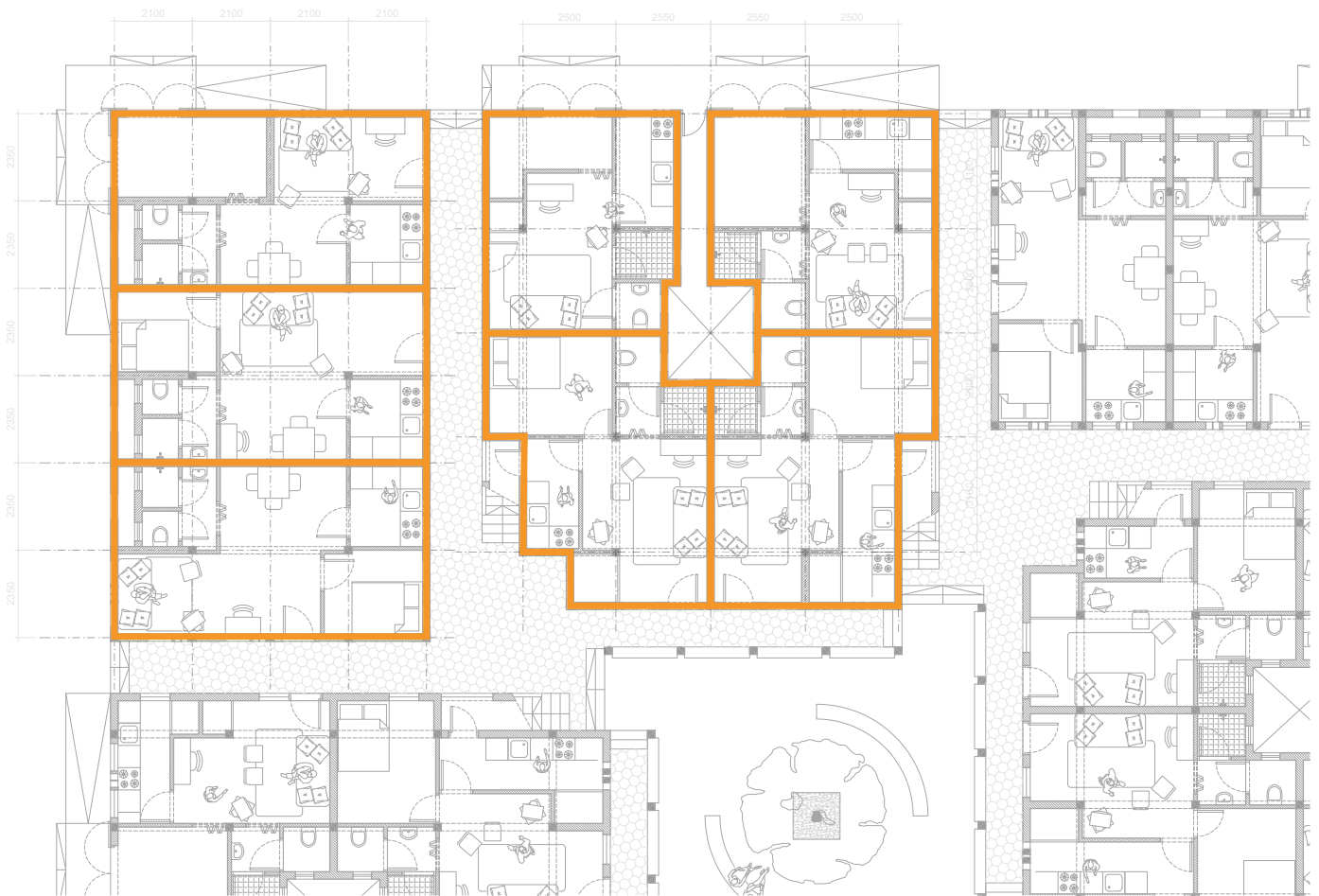






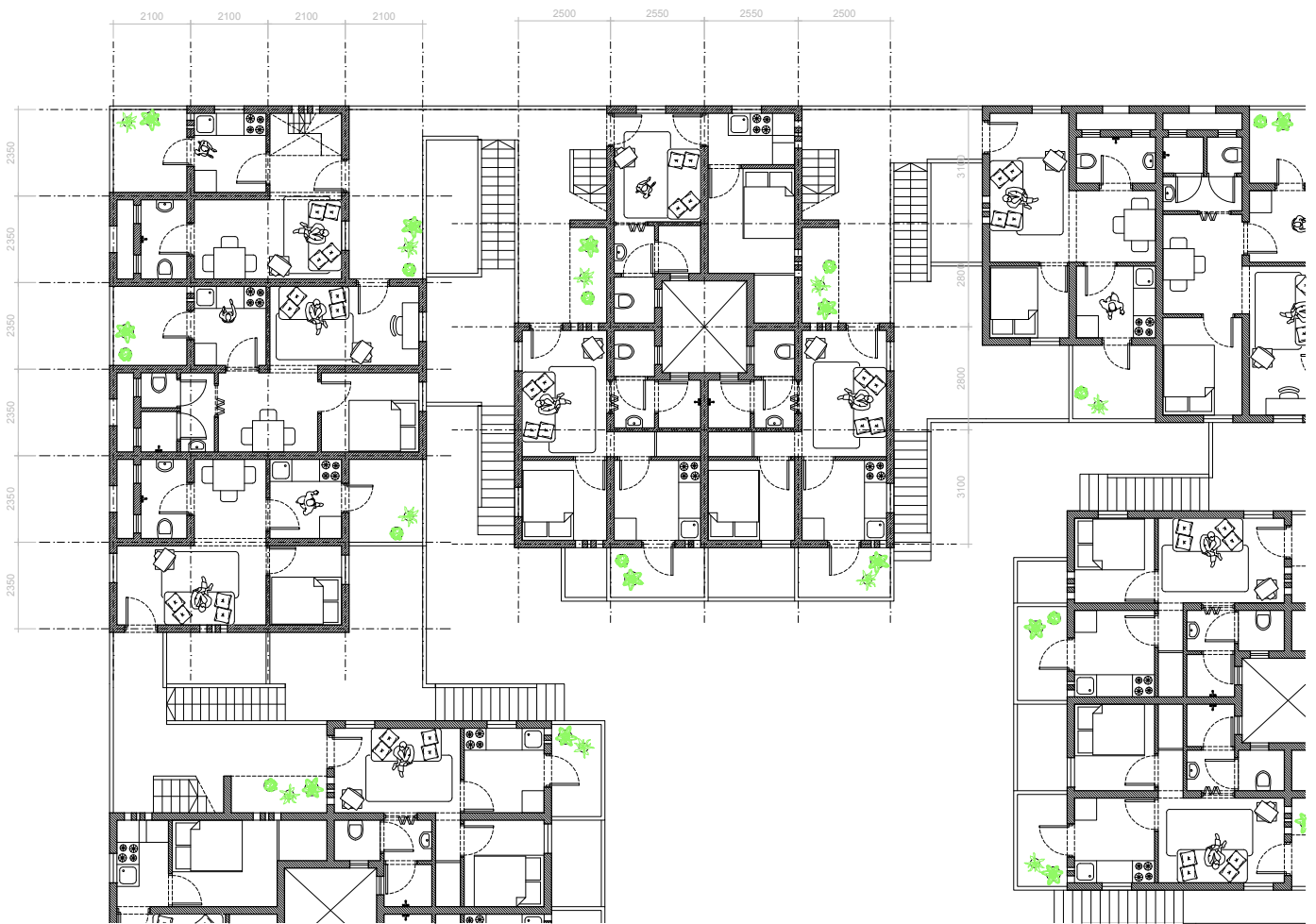
2 1 0 2.5 5 7.5 10m
SCALE

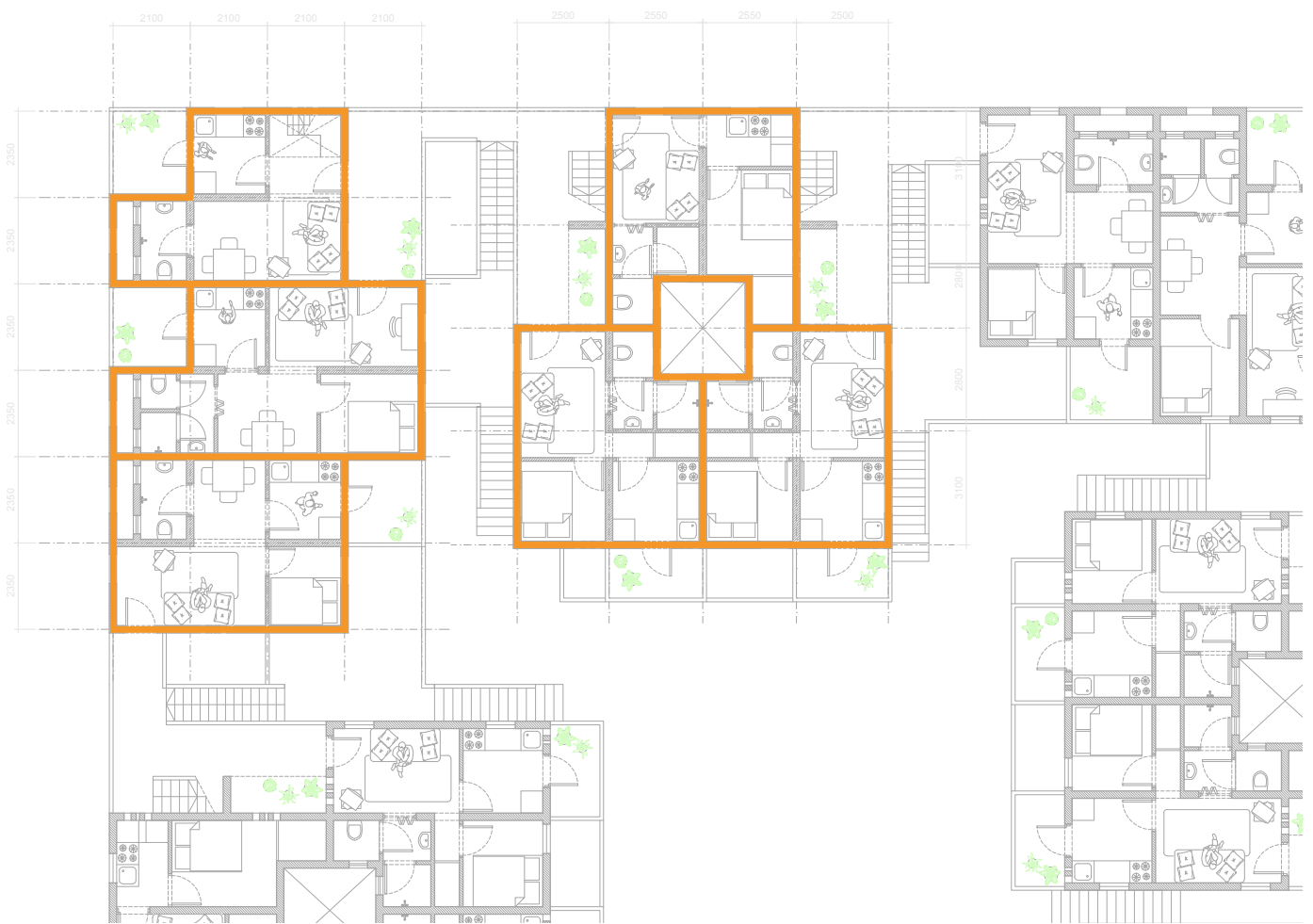


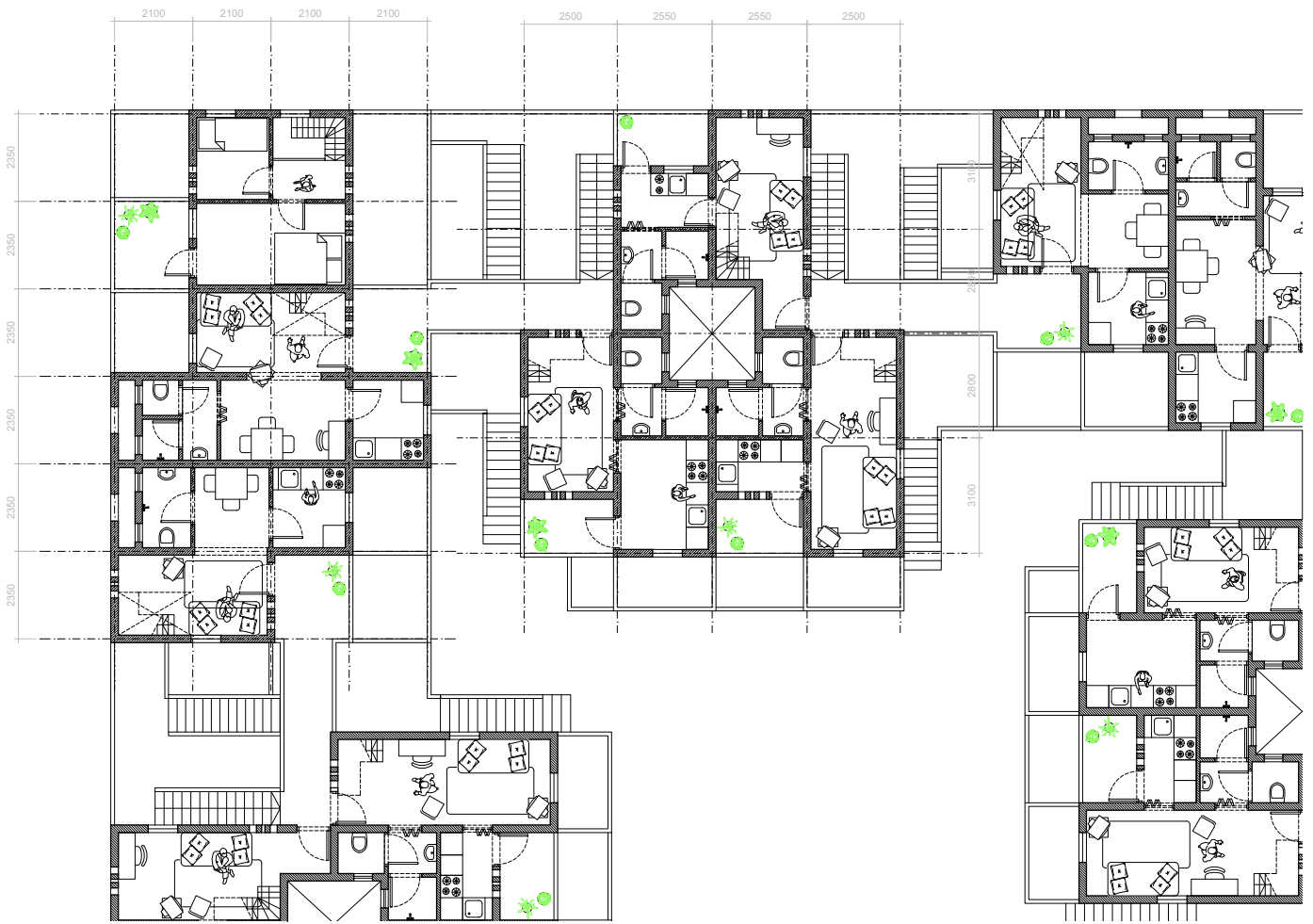


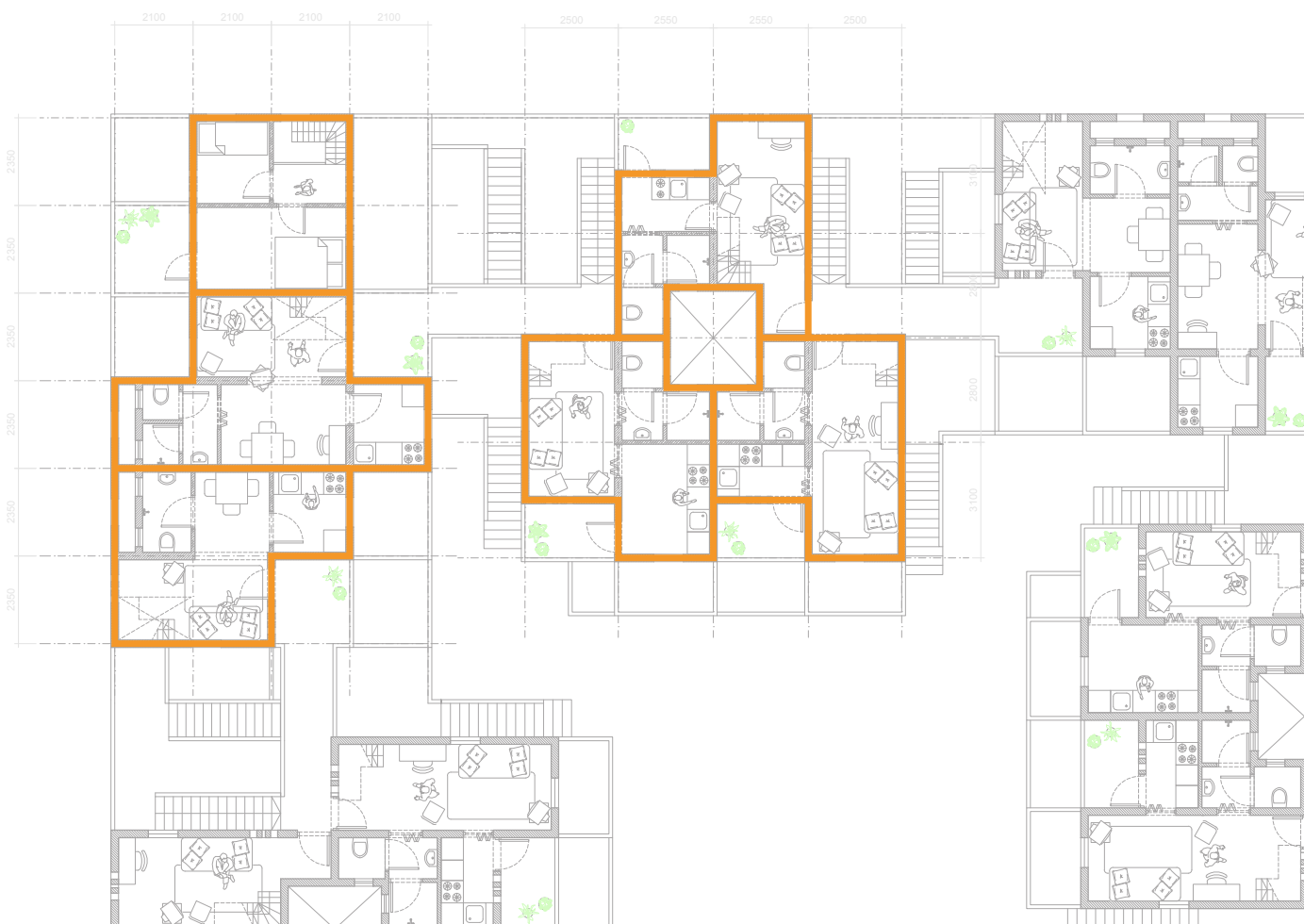


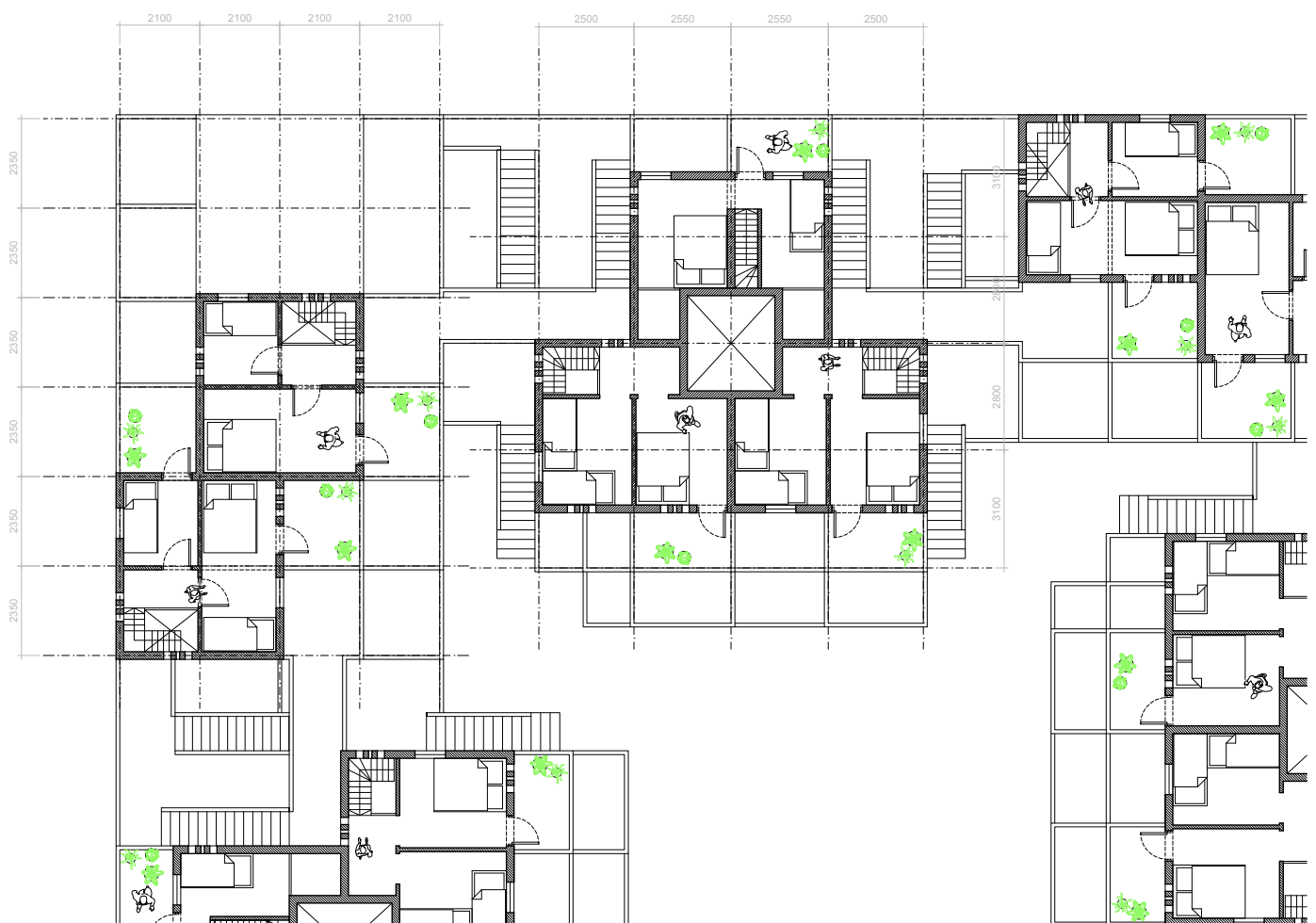






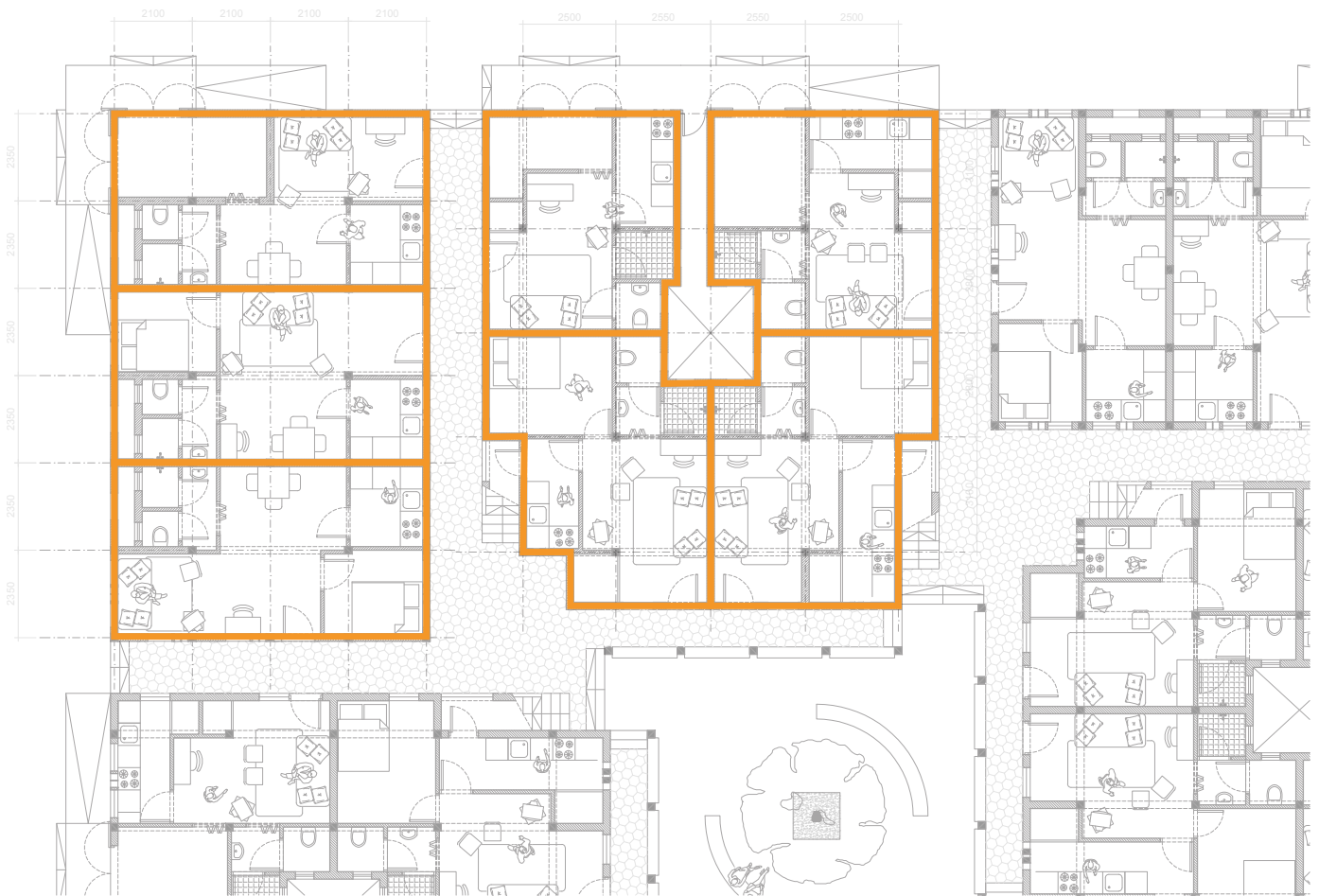


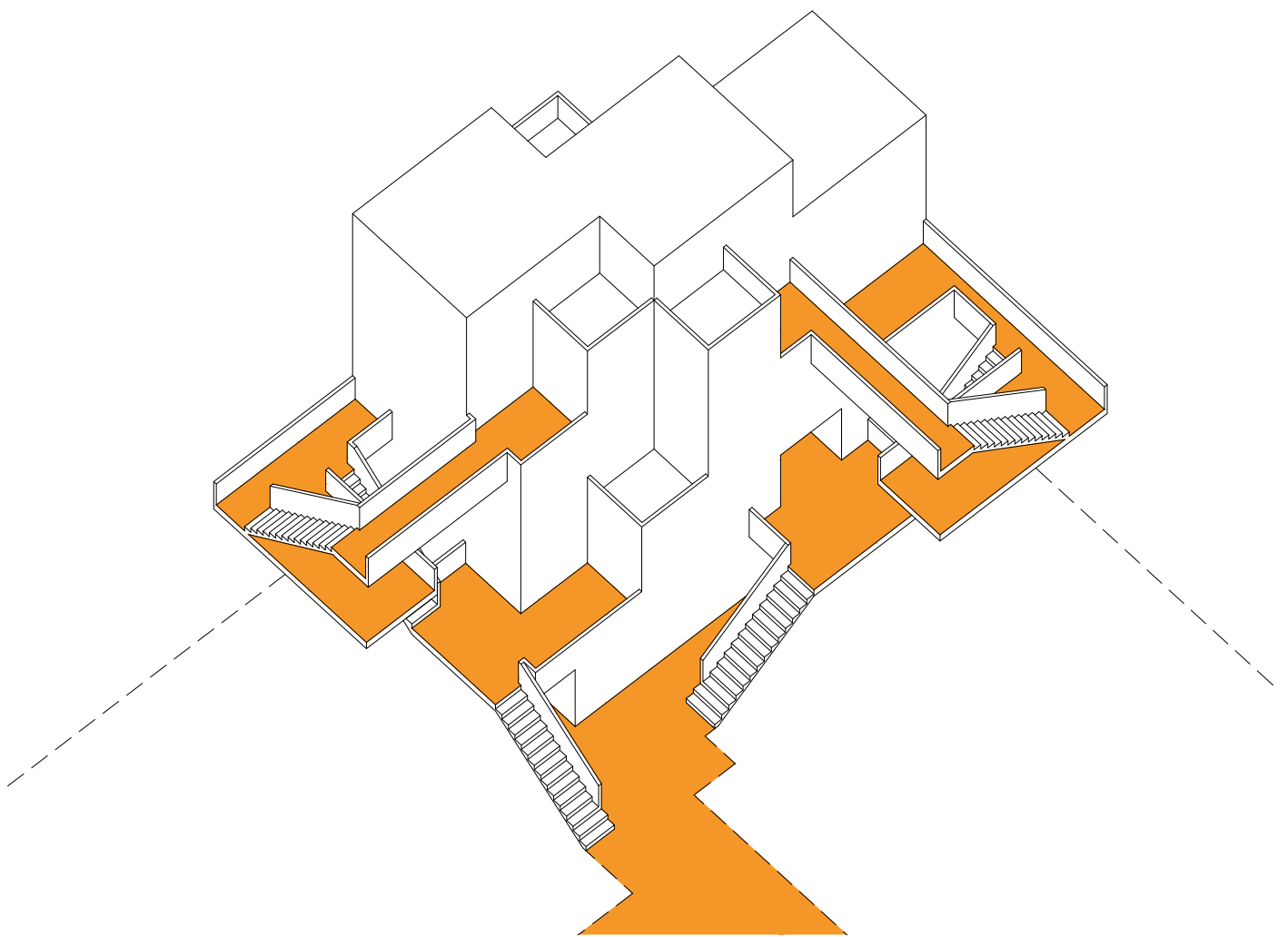


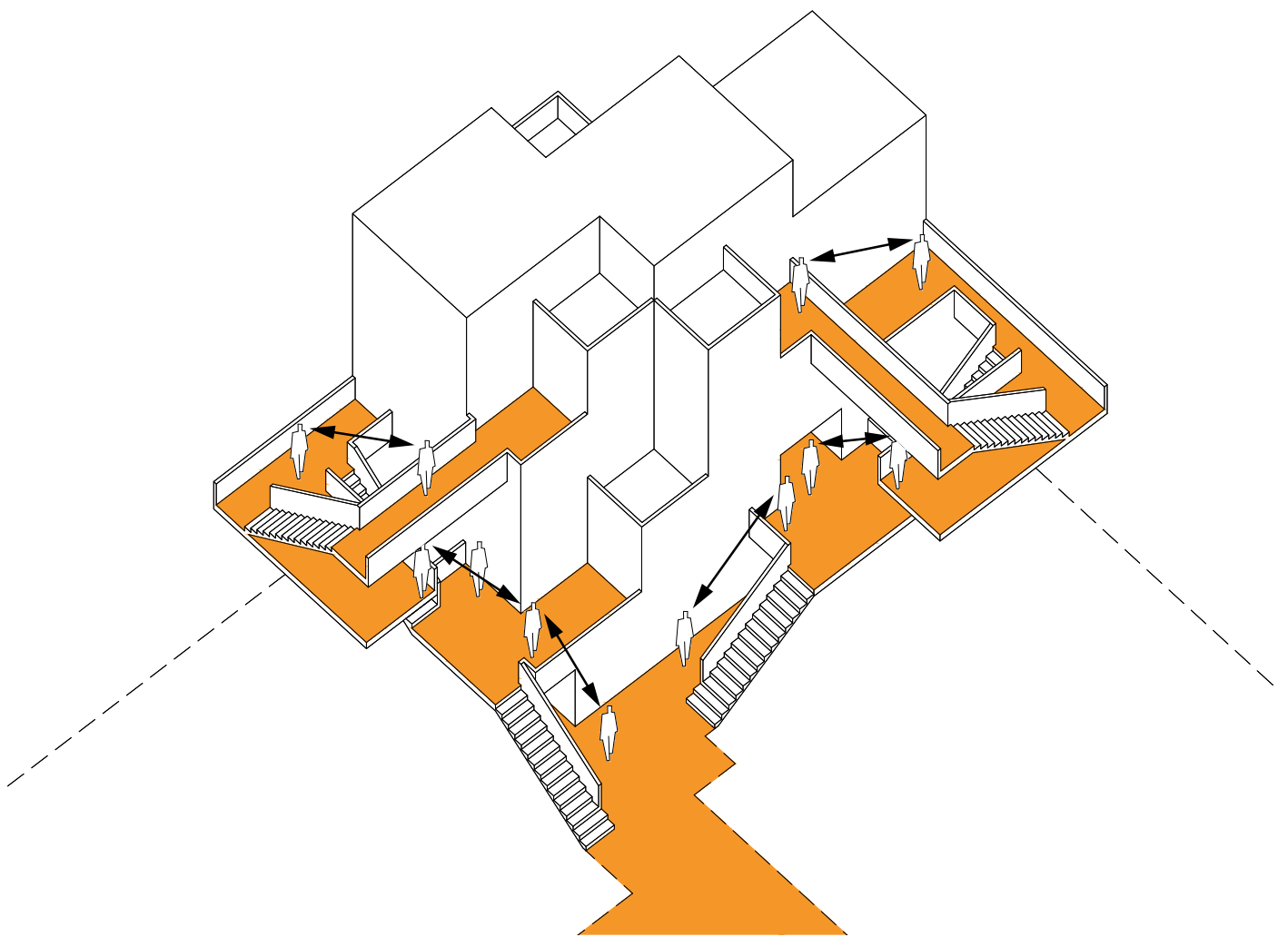










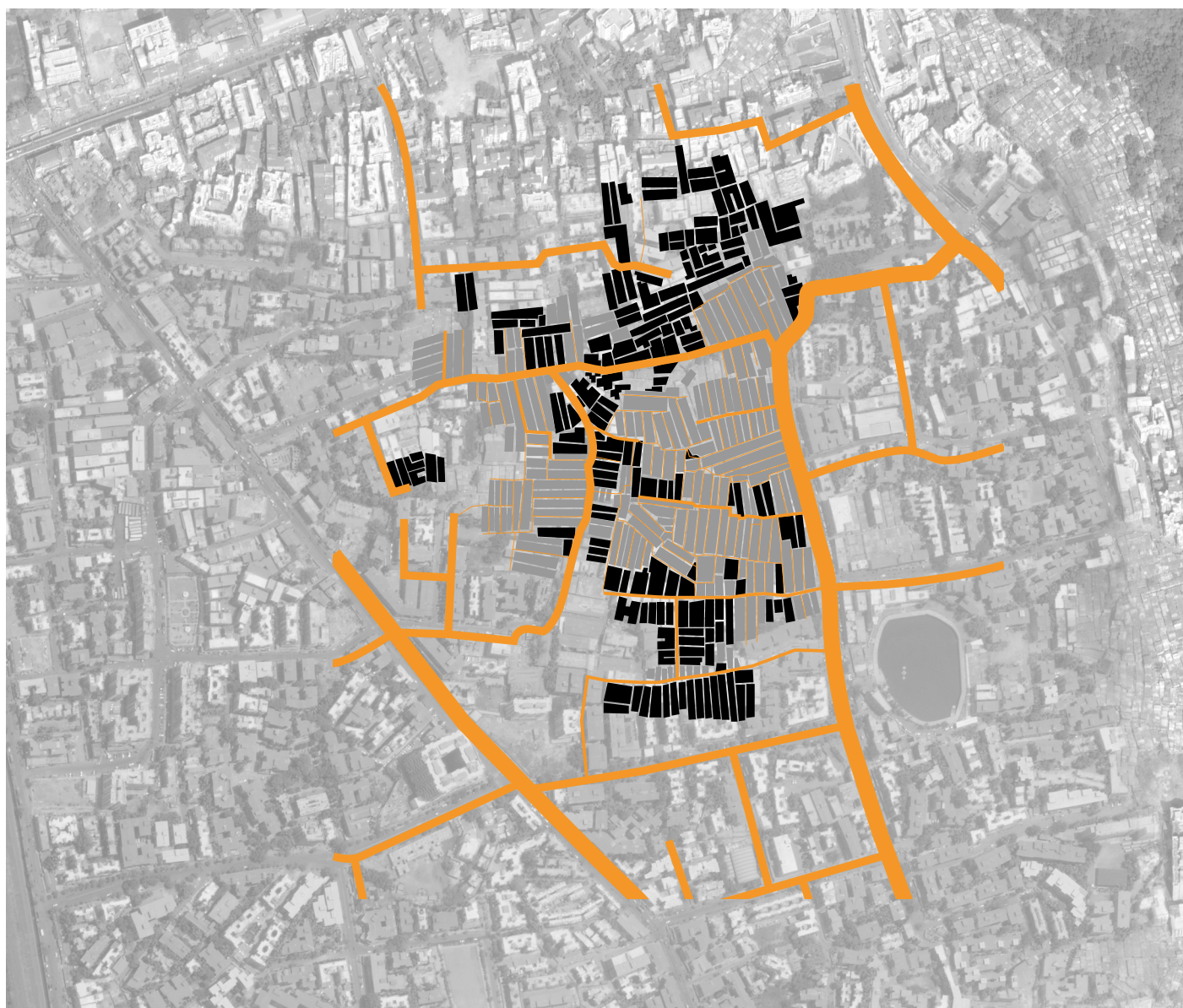


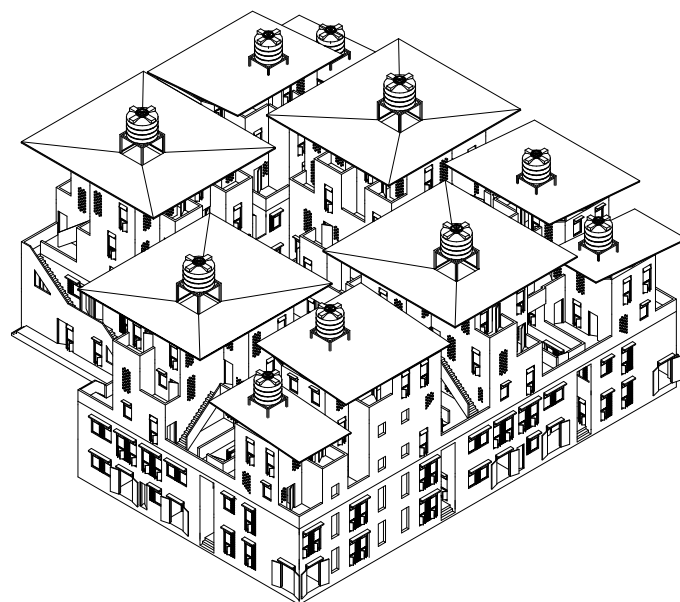


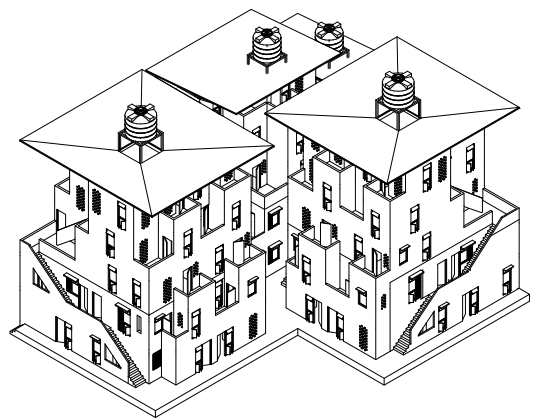
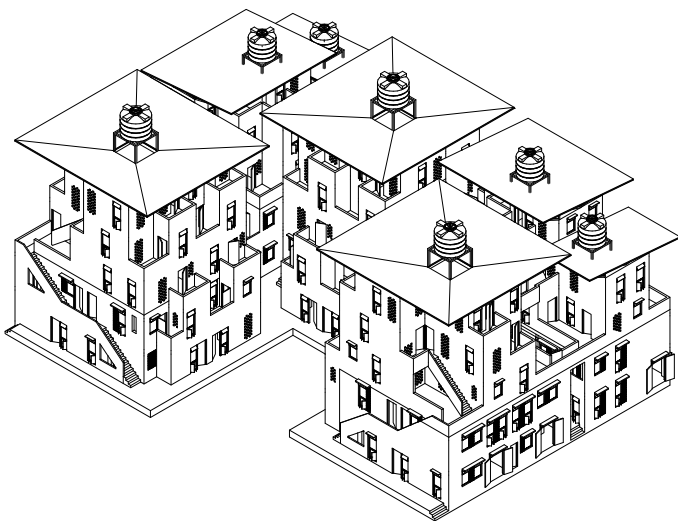


URBAN DESIGN

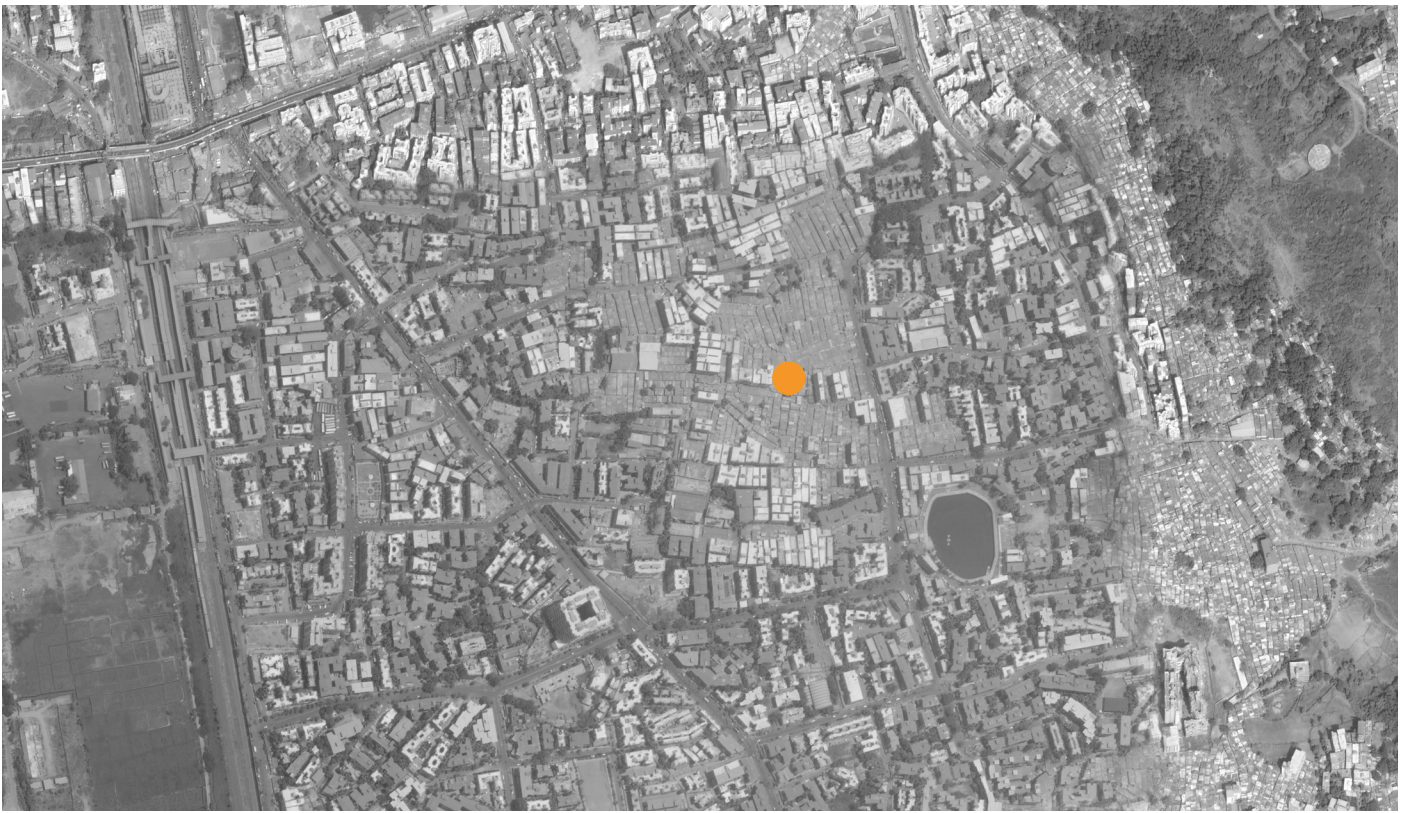




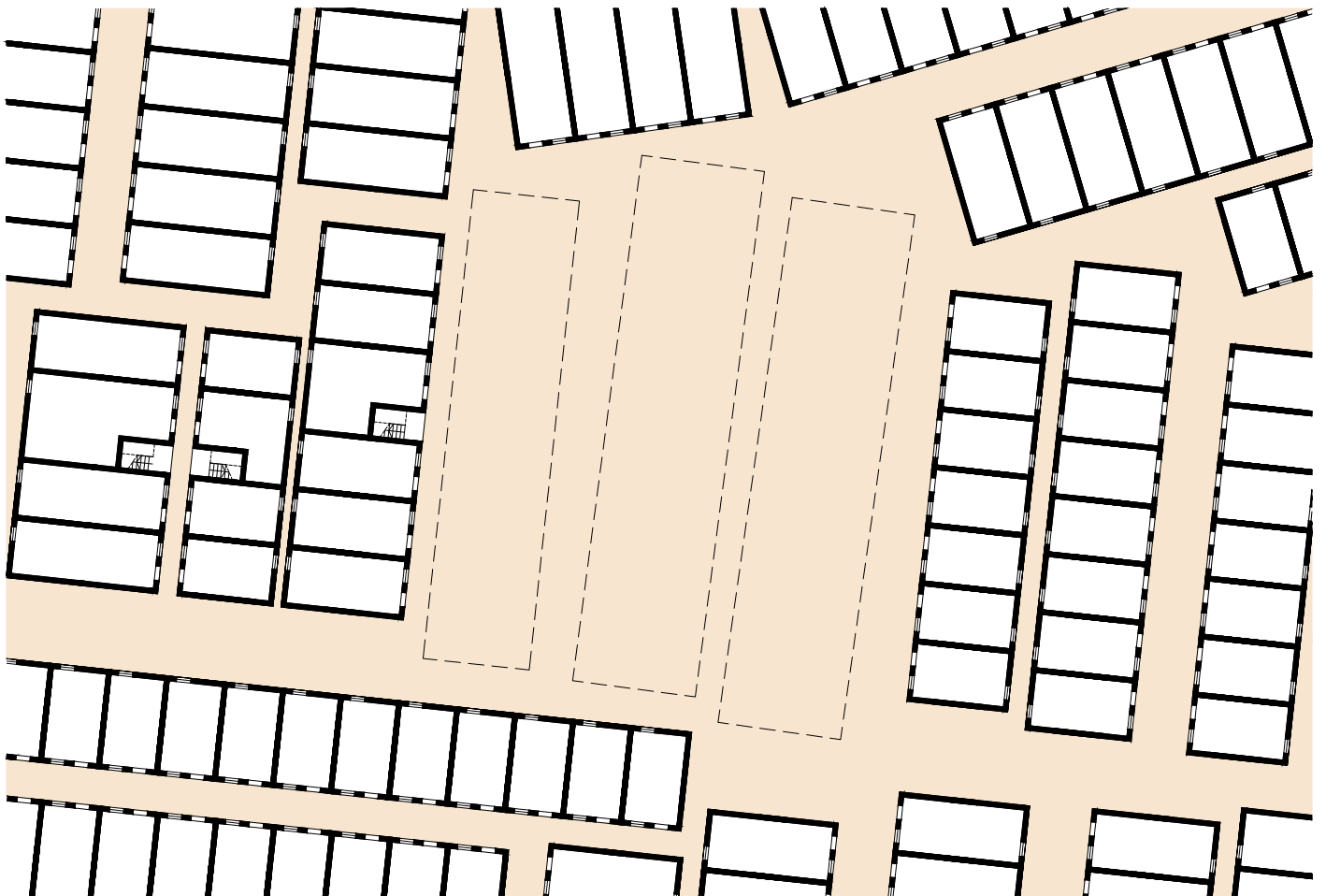


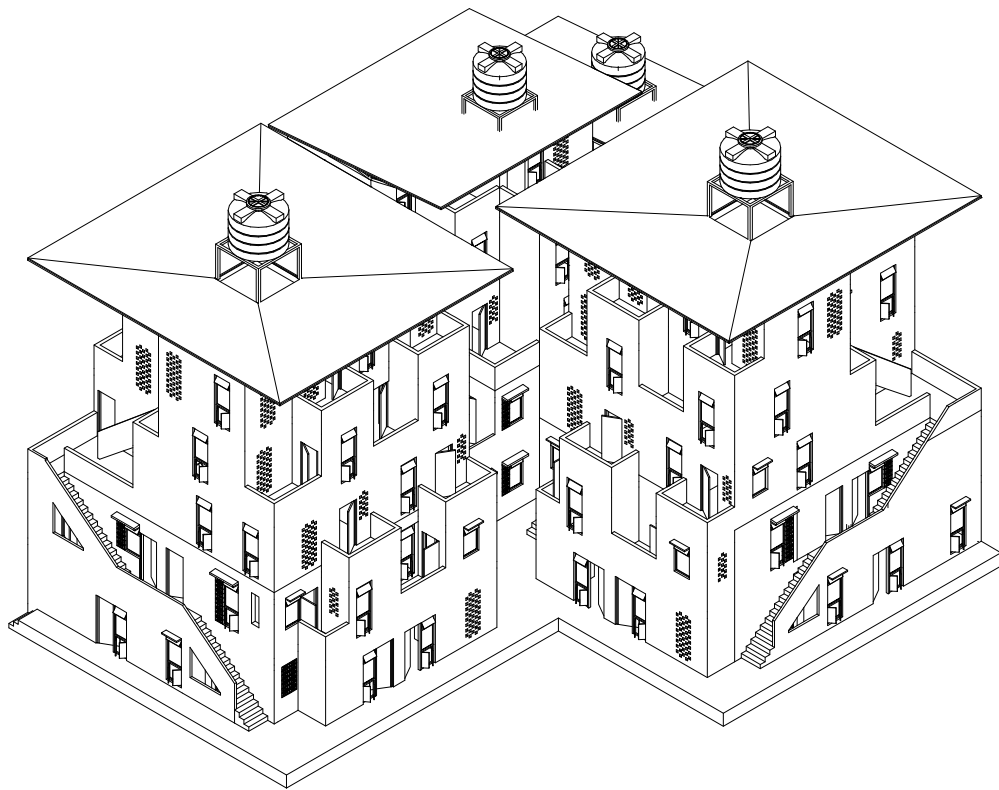










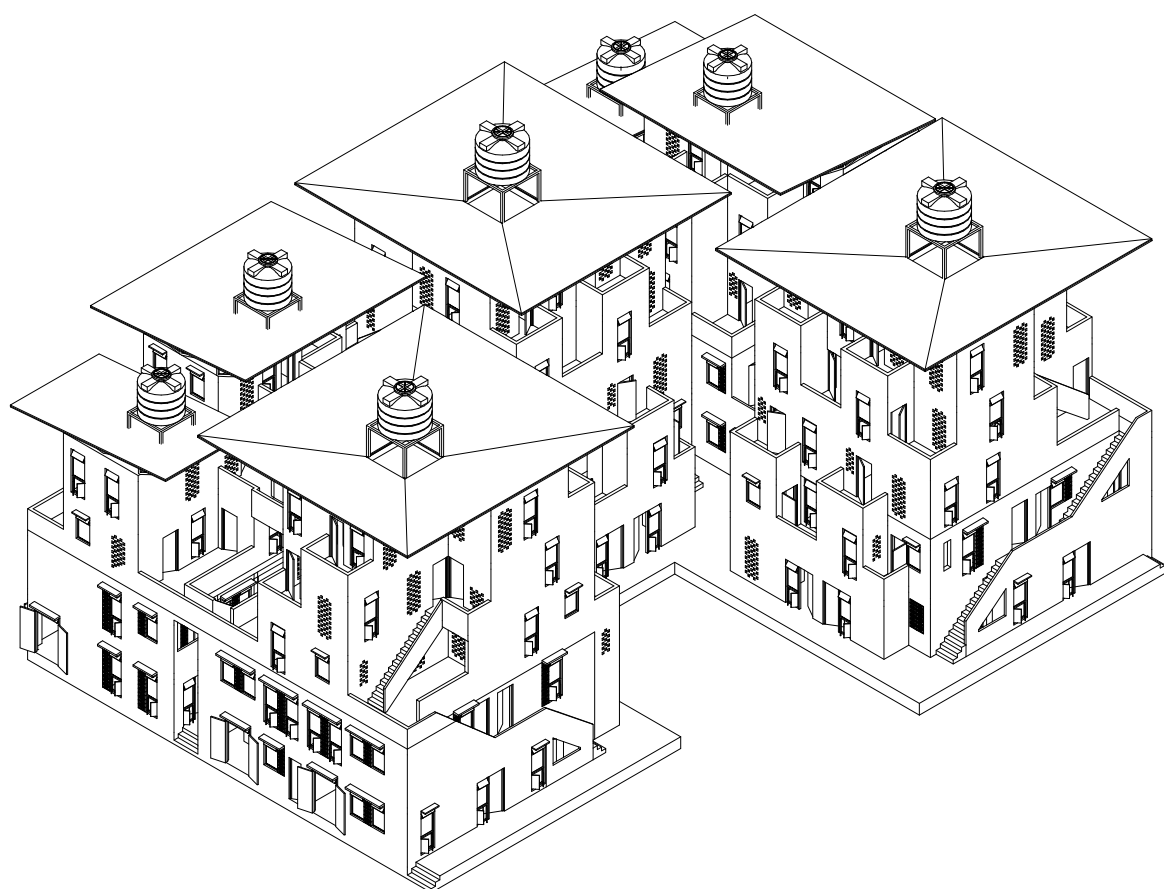






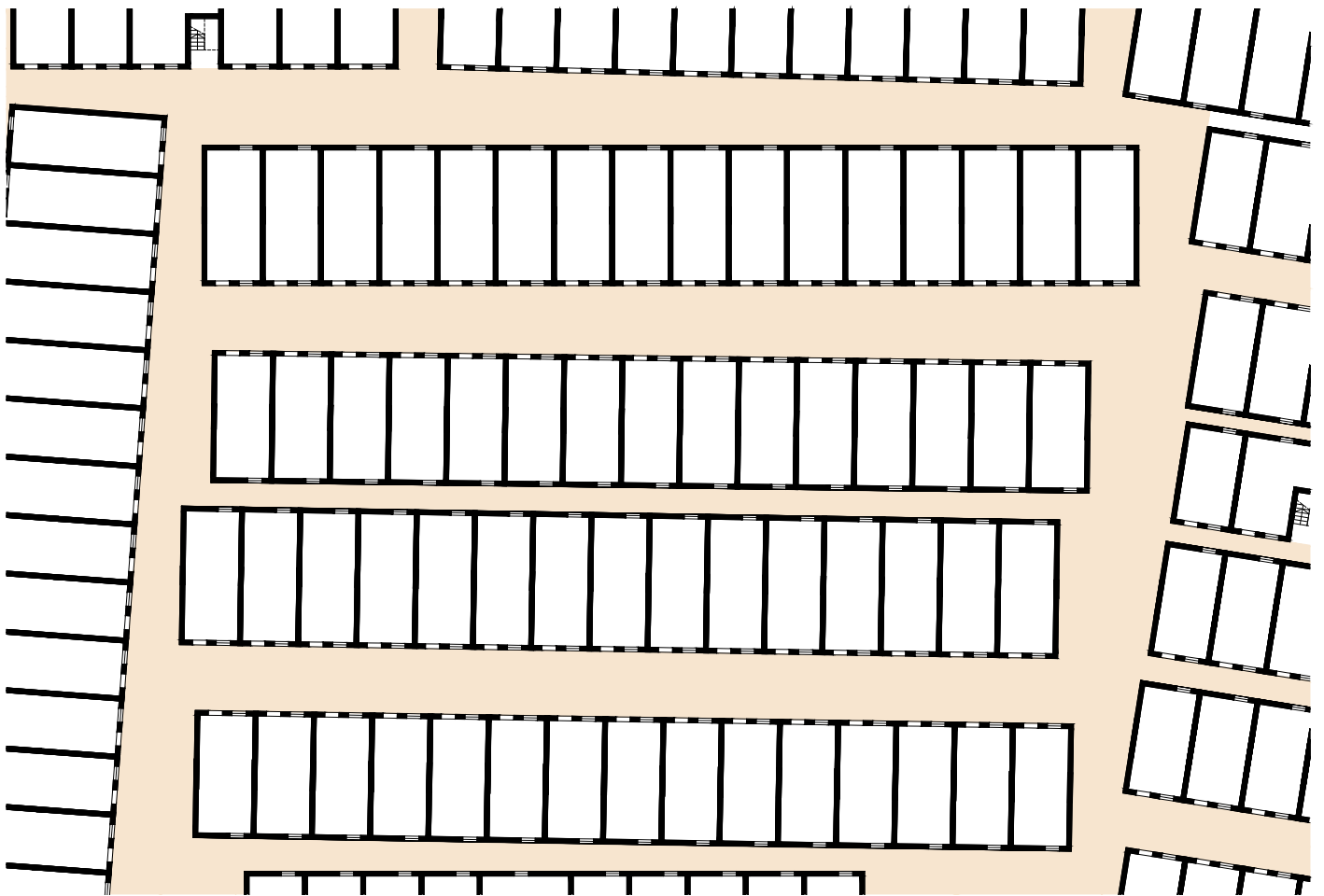


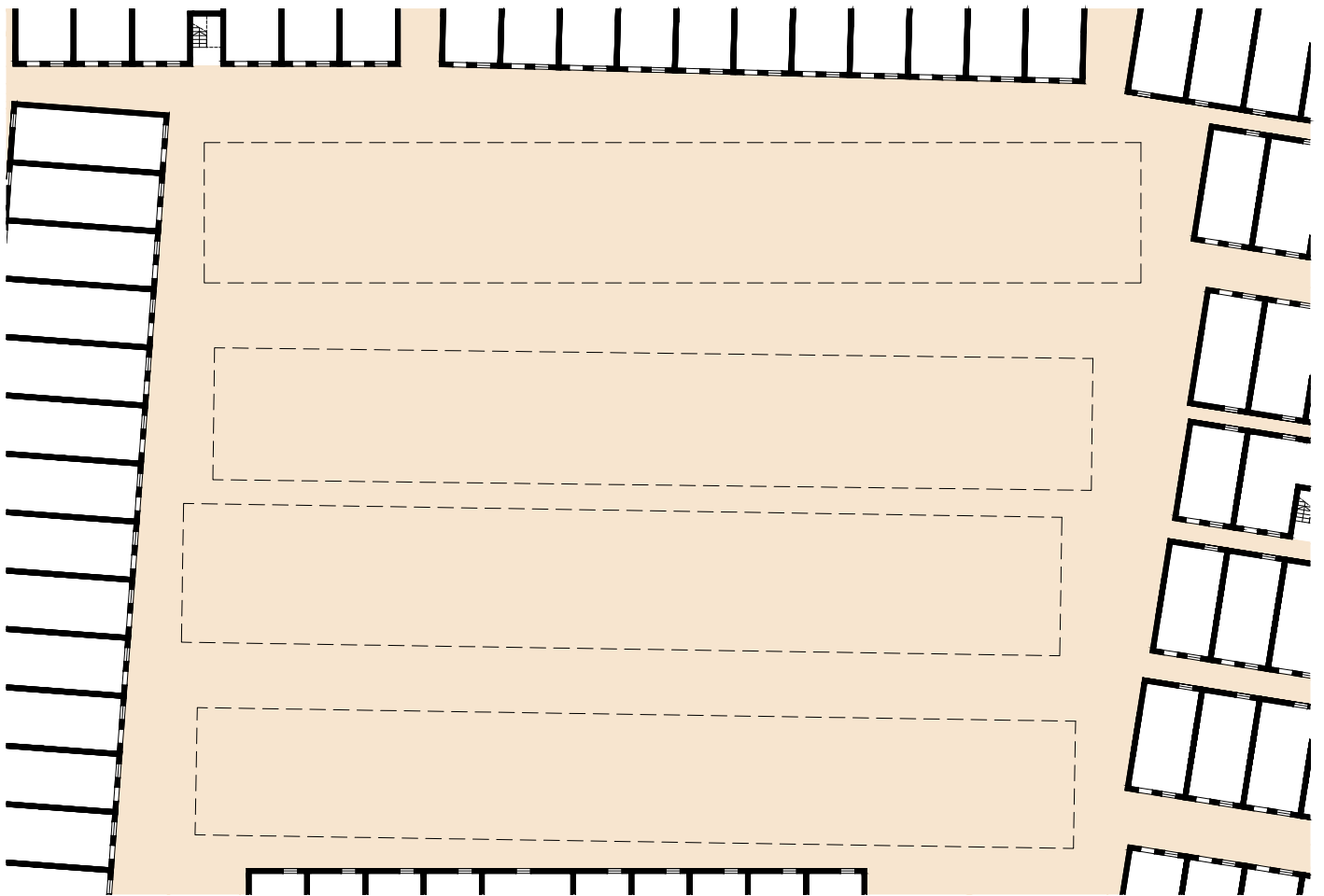


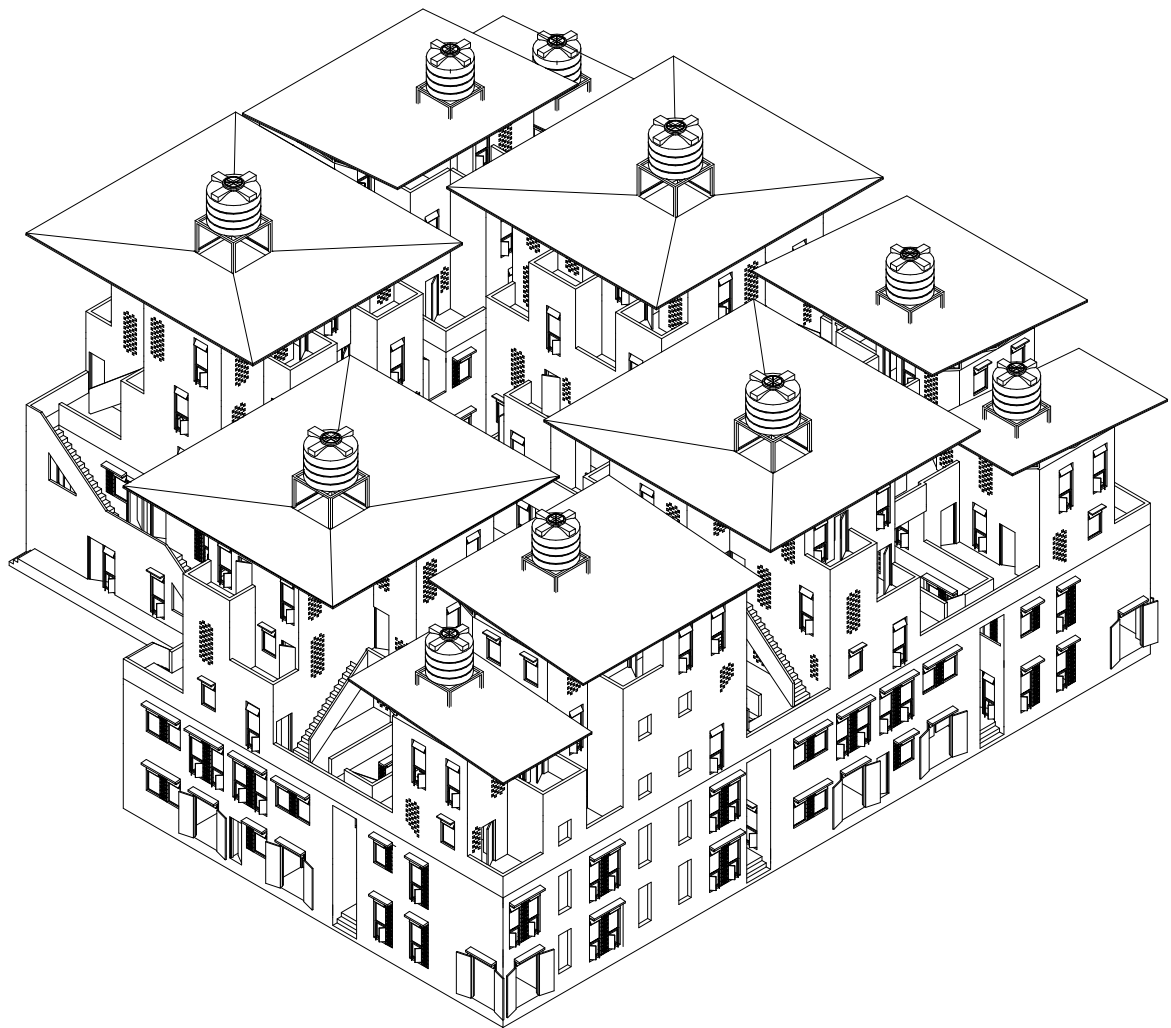


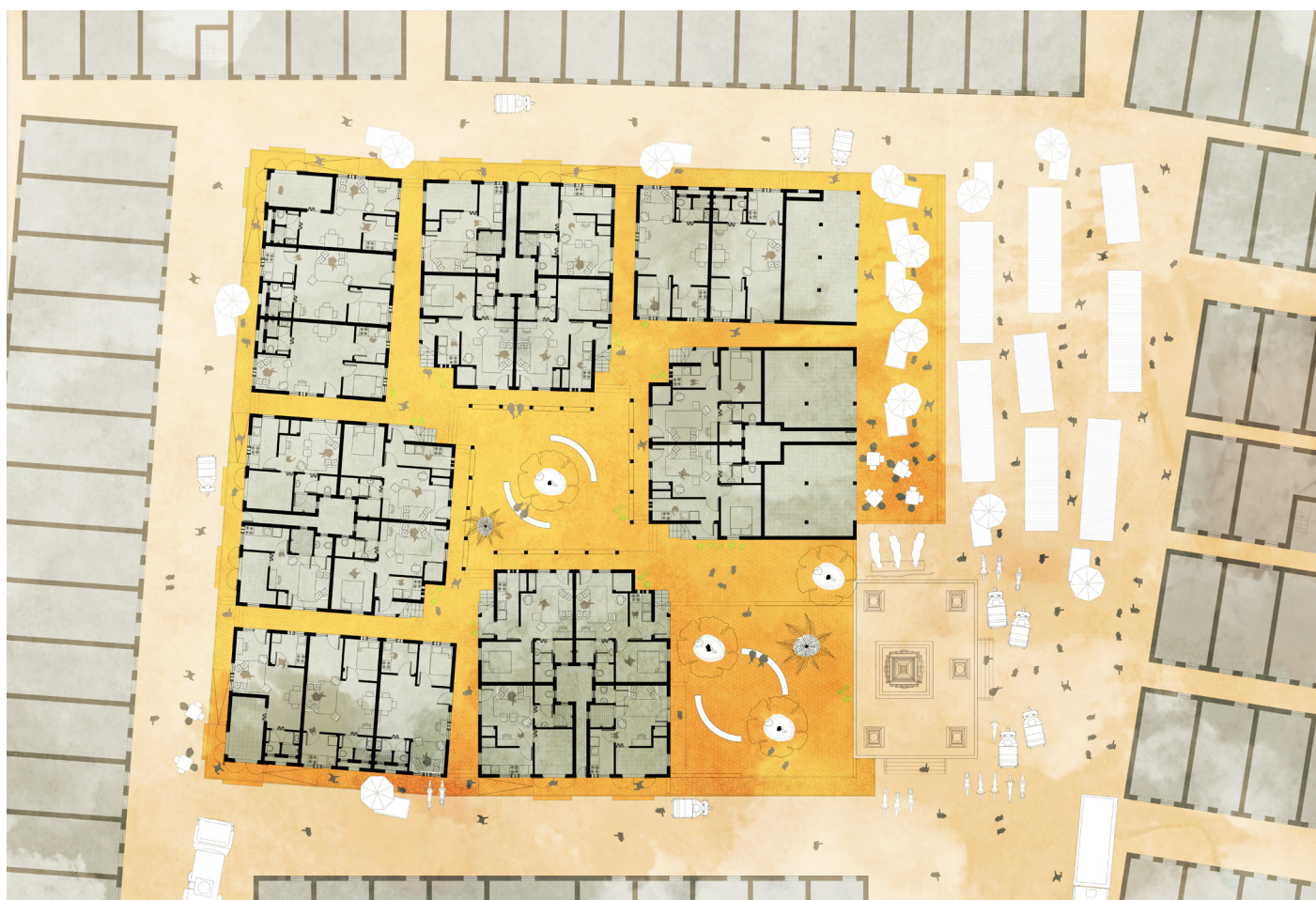


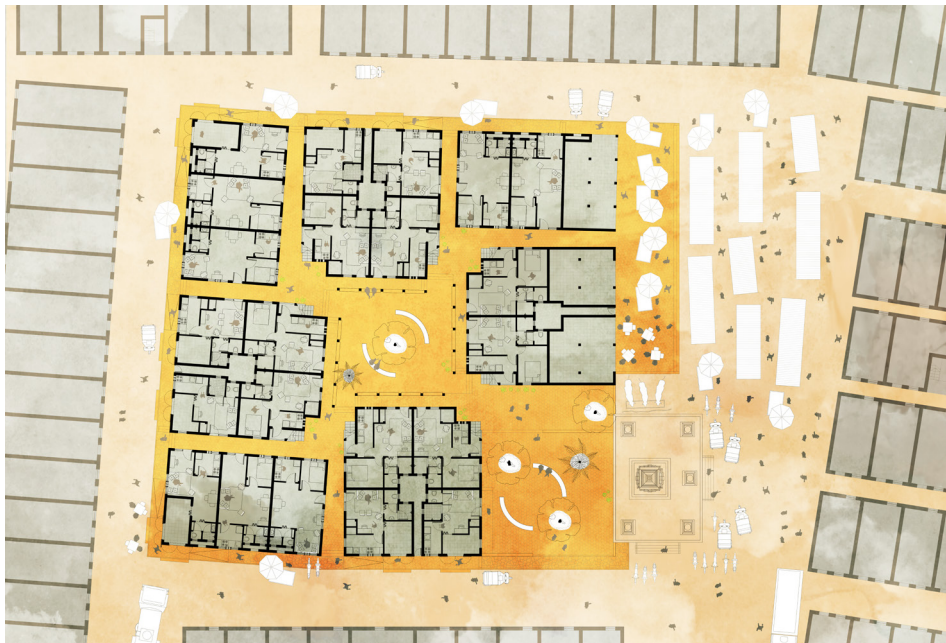












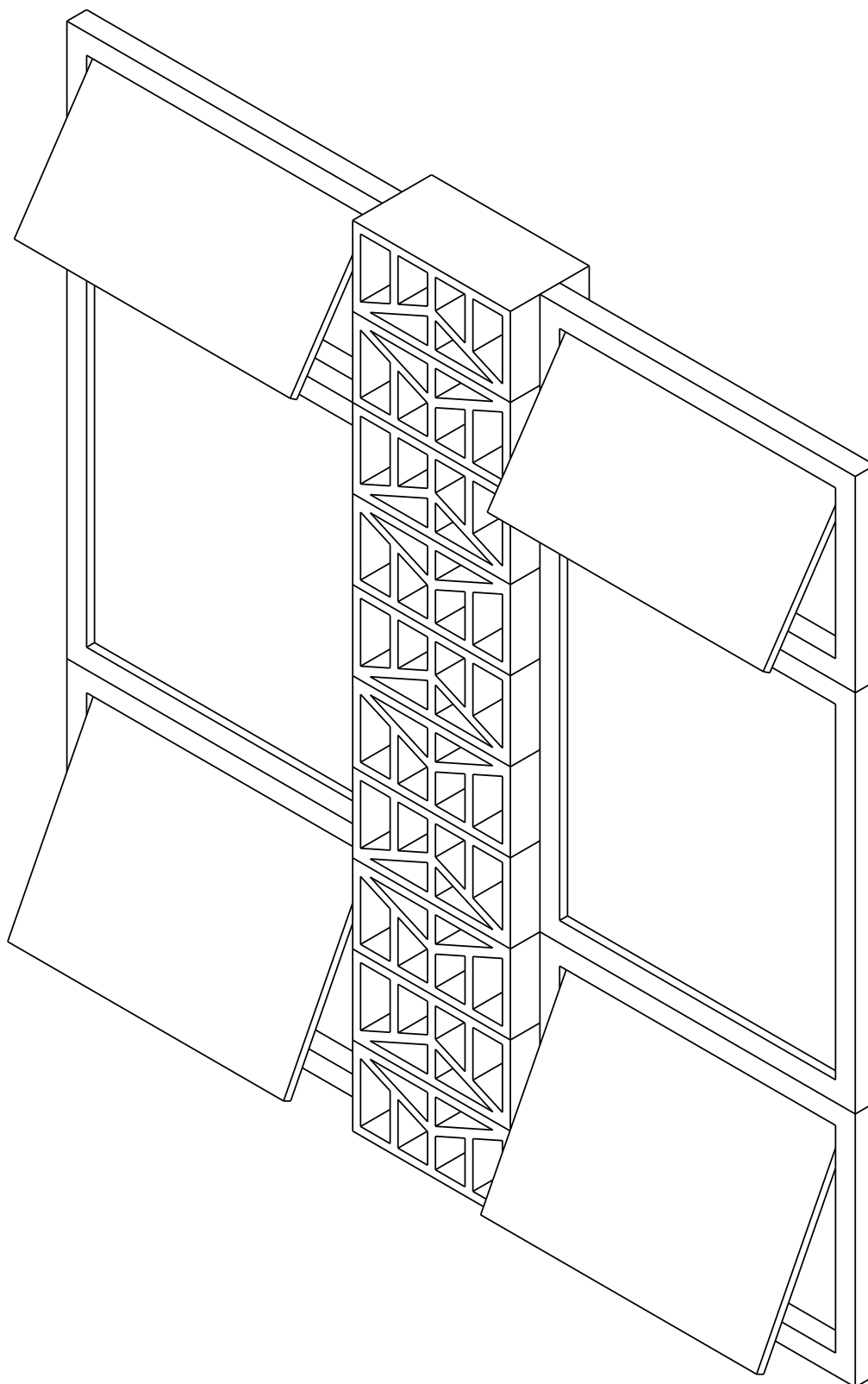
	Old Situation	New Situation
FSI :	0,6	1,1
Open Space (m ²) :	585,4	873,3
Amenities (m ²) :	0	0
#Dwellings EWS :	26	24
#Dwellings LIG :	0	14
Open Space/Dwelling (m ²) :	22,5	25,0

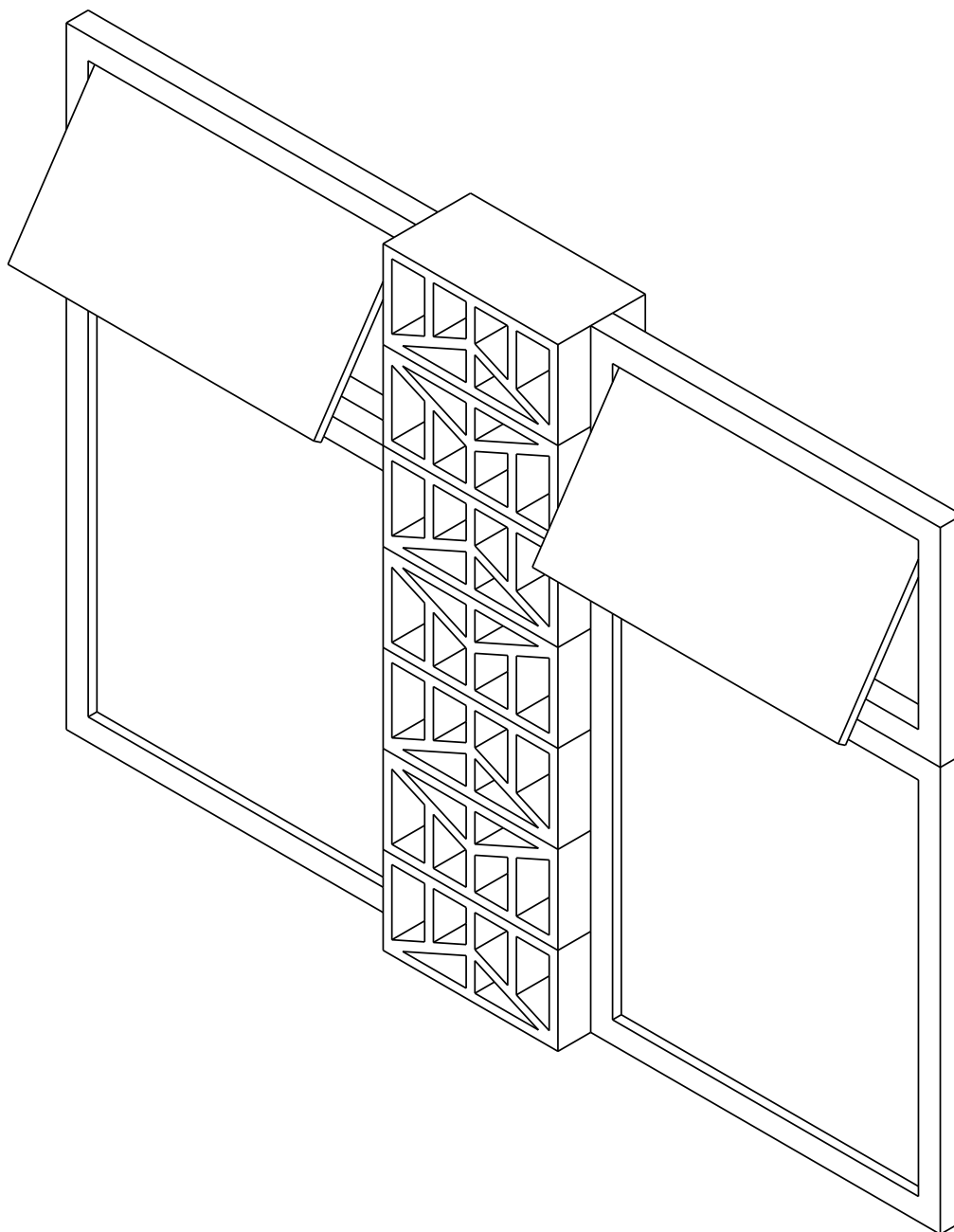
FSI :	0,6	1,2
Open Space (m ²) :	796,1	1206,4
Amenities (m ²) :	0	96,1
#Dwellings EWS :	39	36
#Dwellings LIG :	0	23
Open Space/Dwelling (m ²) :	20,4	25,4

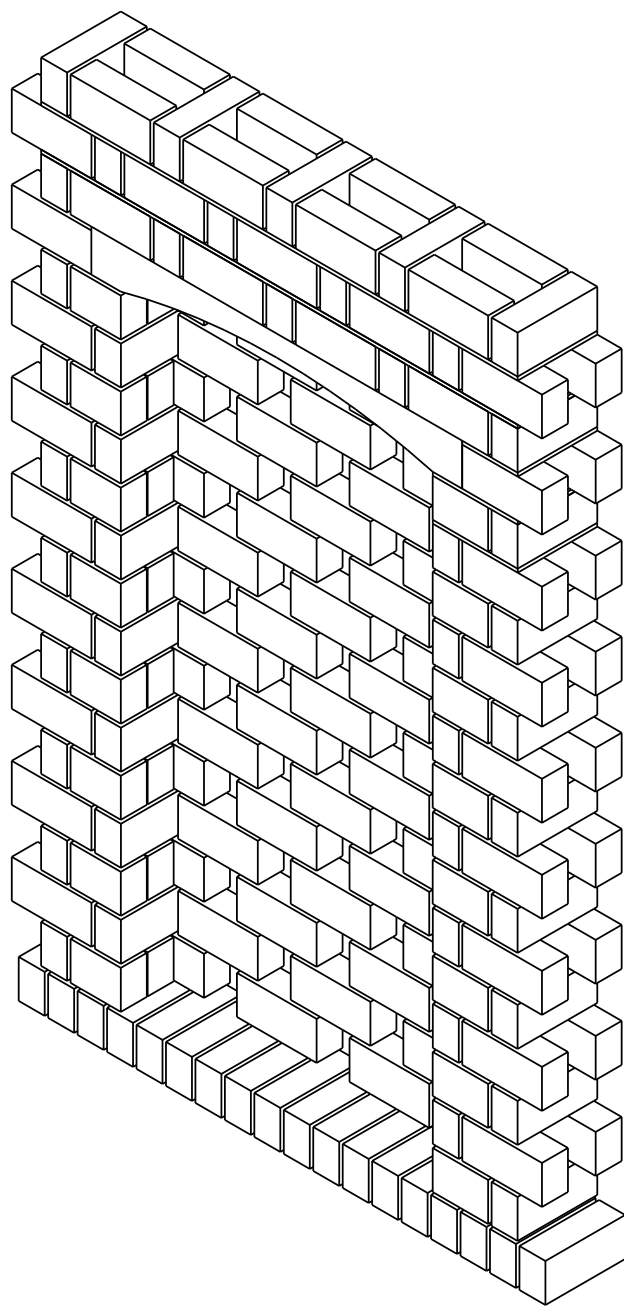
FSI :	0,6	1,0
Open Space (m ²) :	1357,5	2292,2
Amenities (m ²) :	0	97,5
#Dwellings EWS :	61	51
#Dwellings LIG :	0	32
Open Space/Dwelling (m ²) :	22,3	27,6

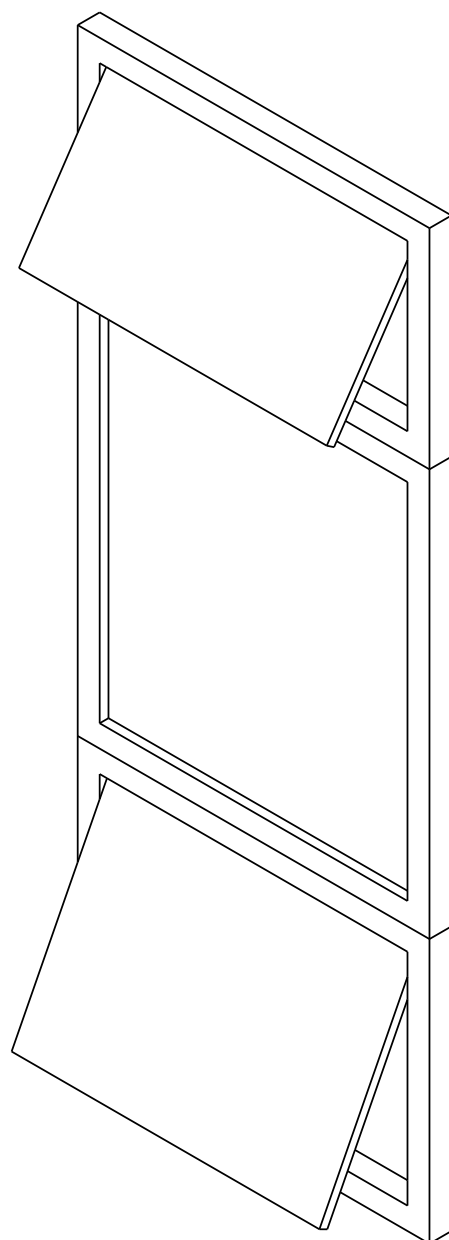
BUILDING TECHNOLOGY



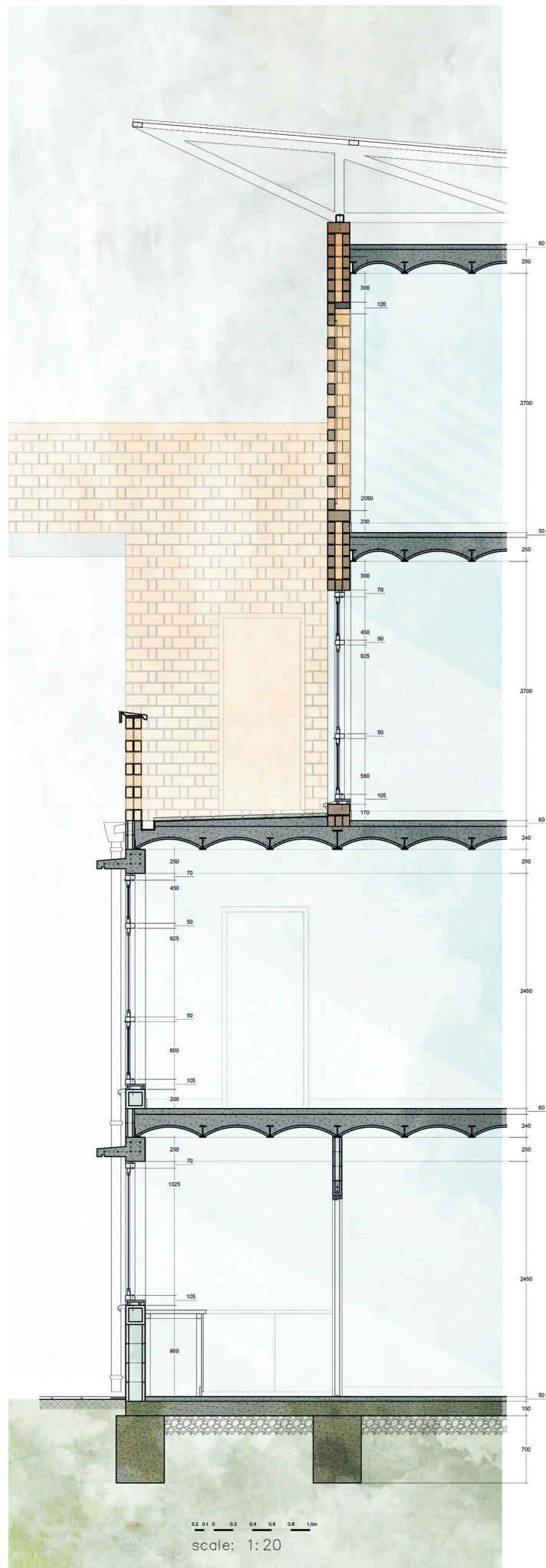


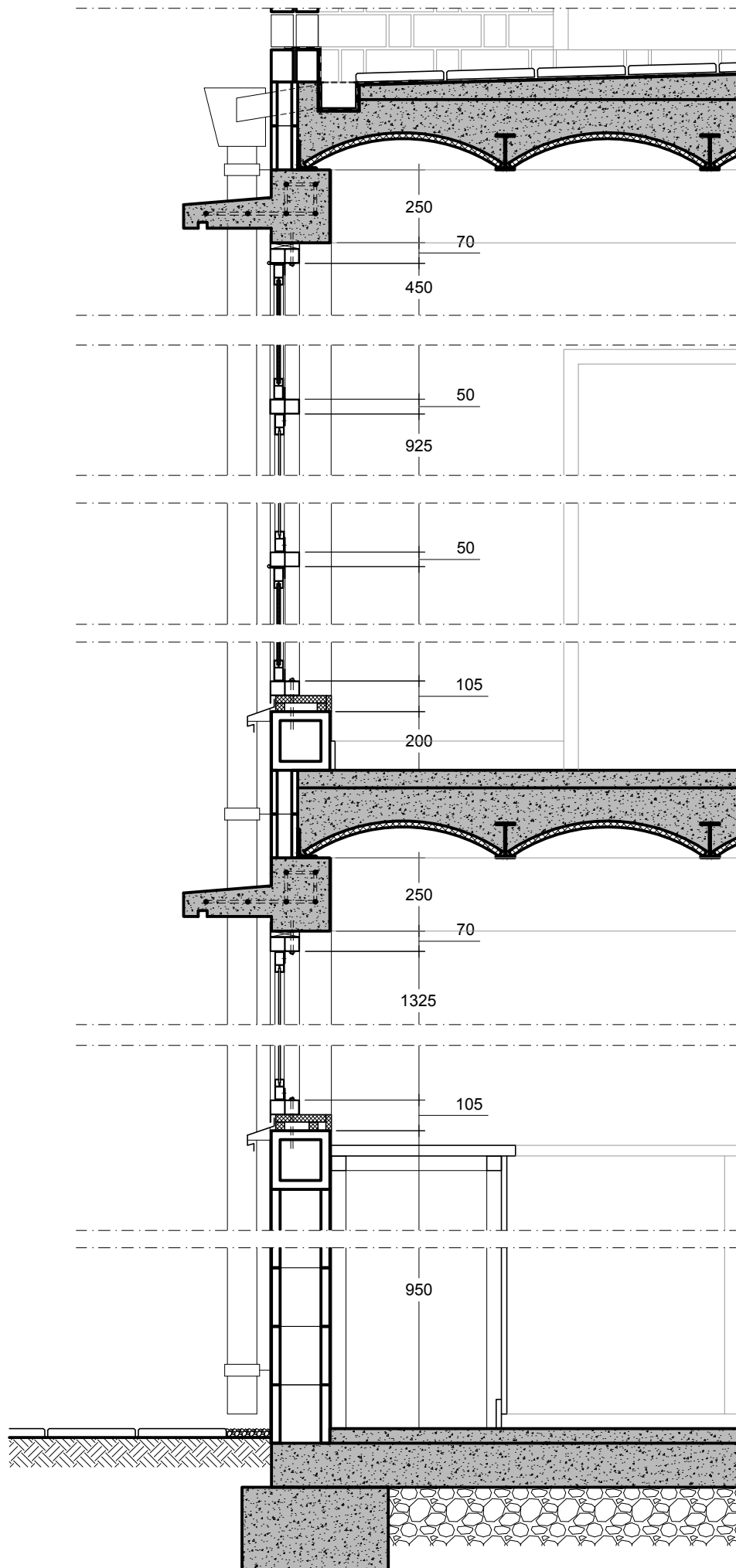


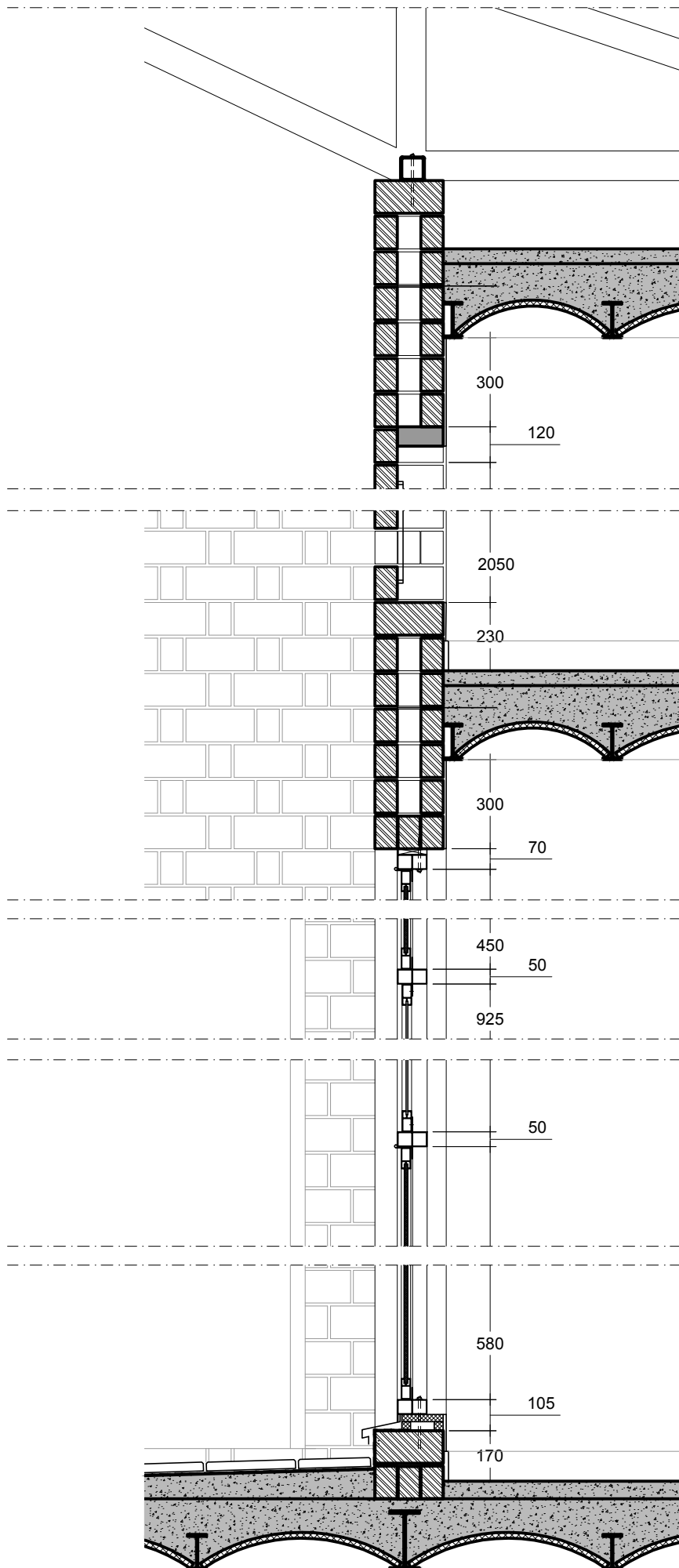


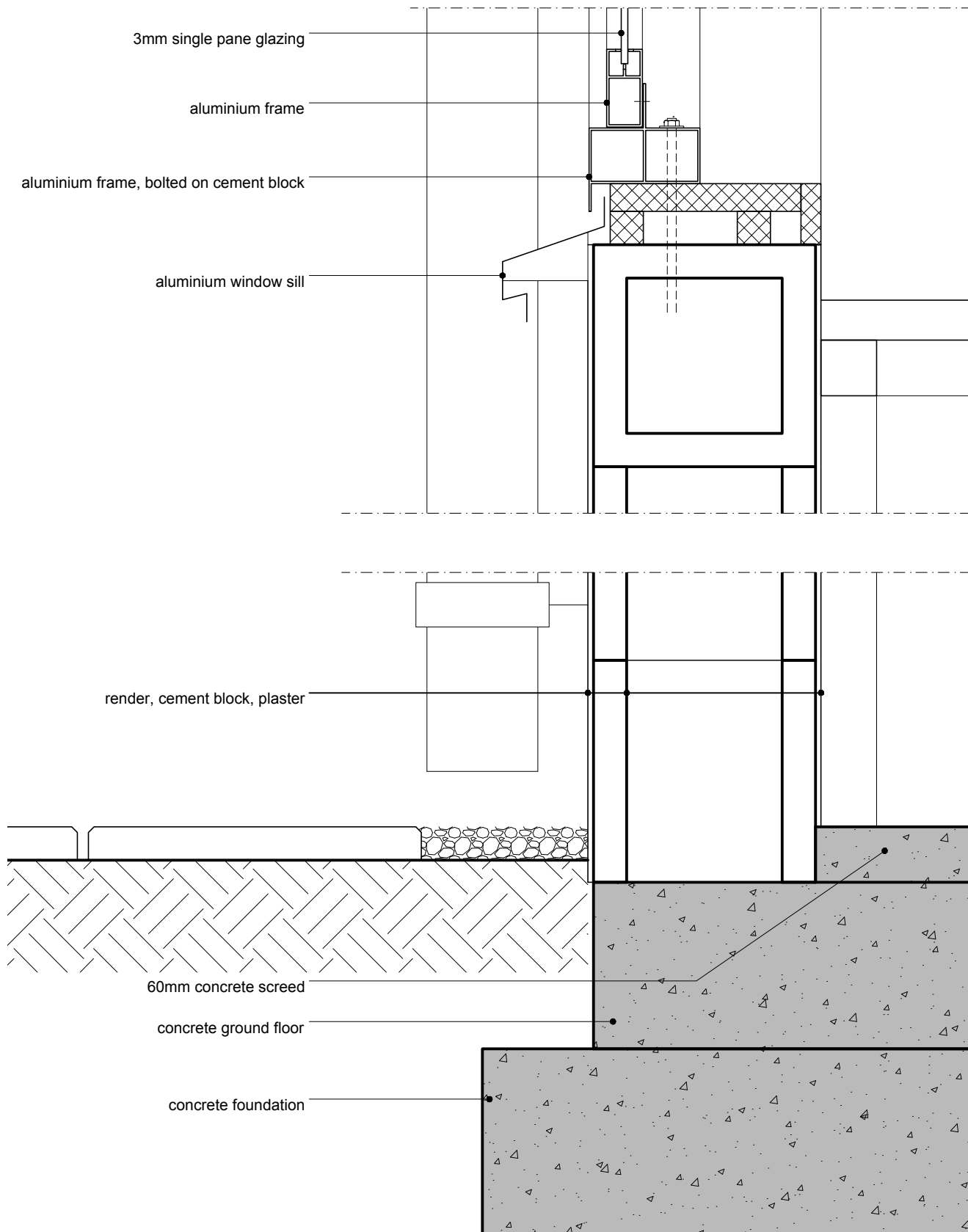


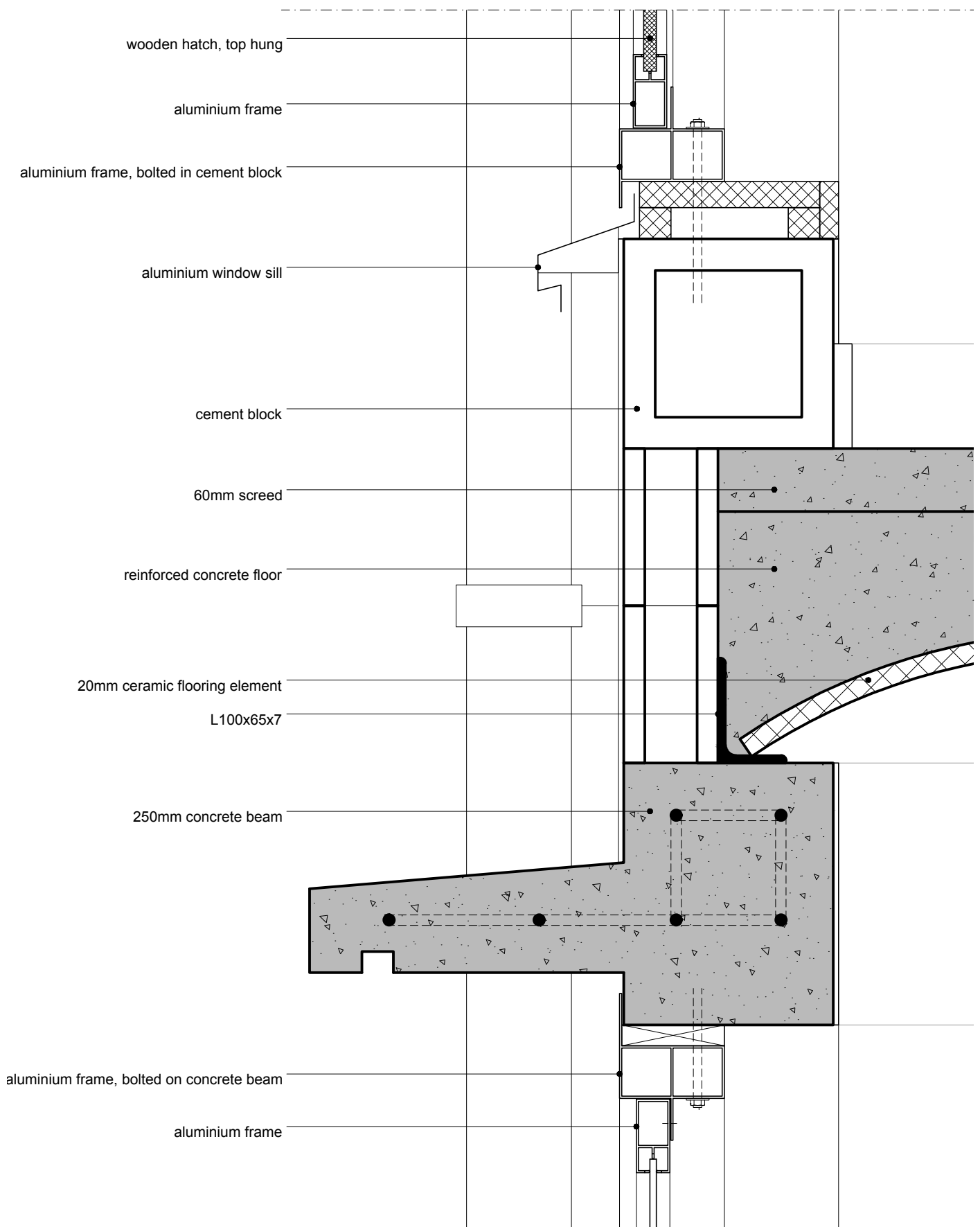
DETAILS

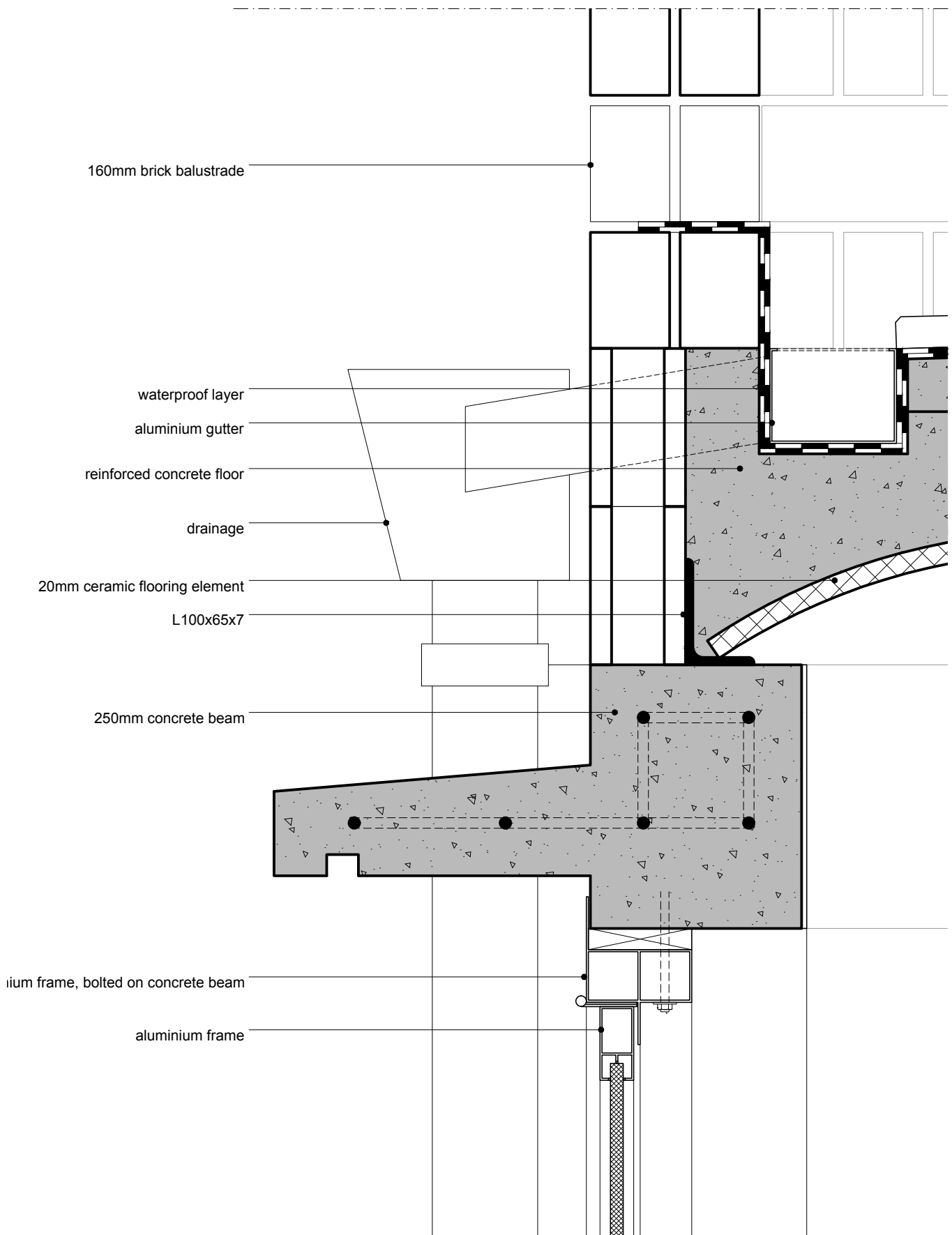


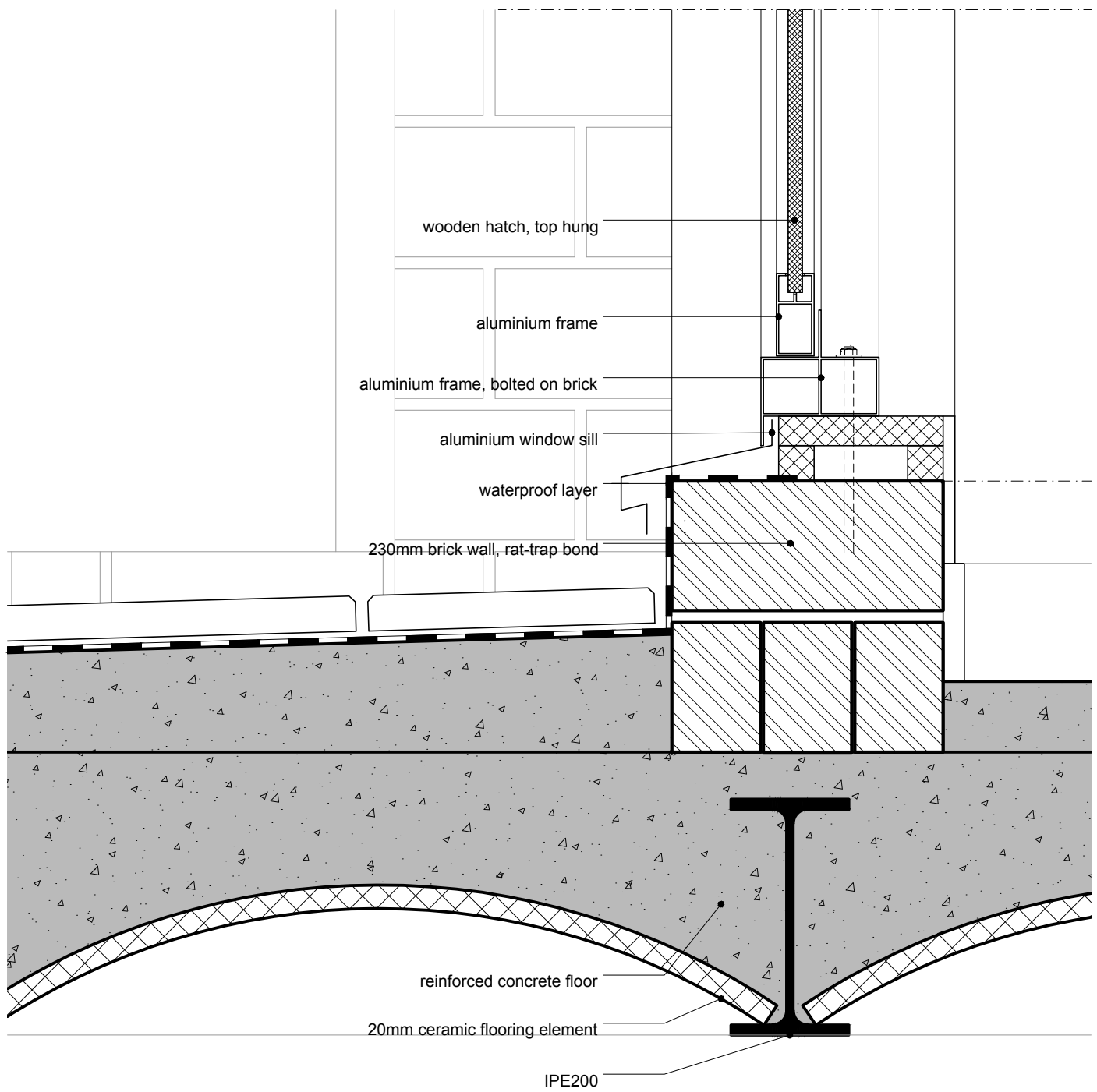


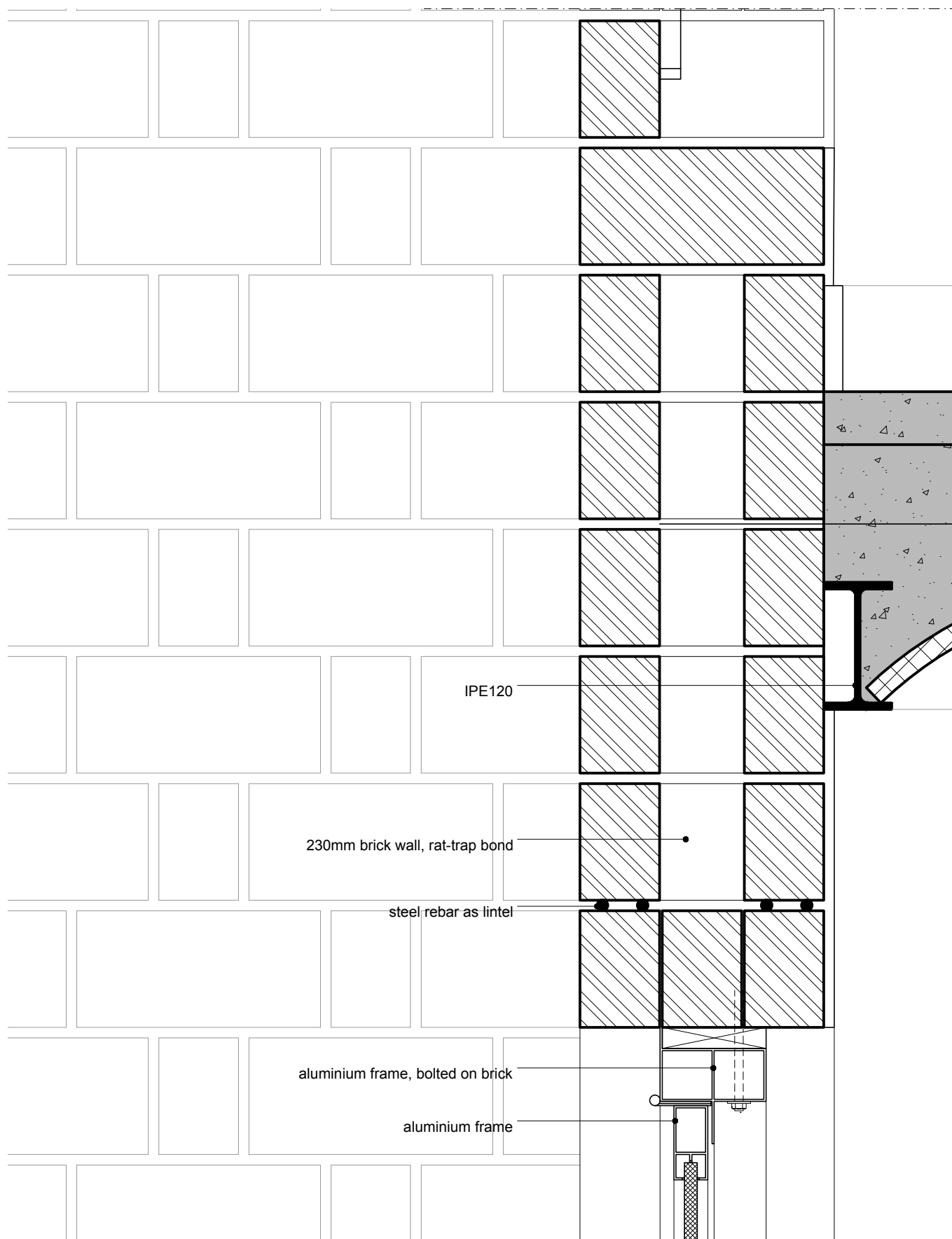


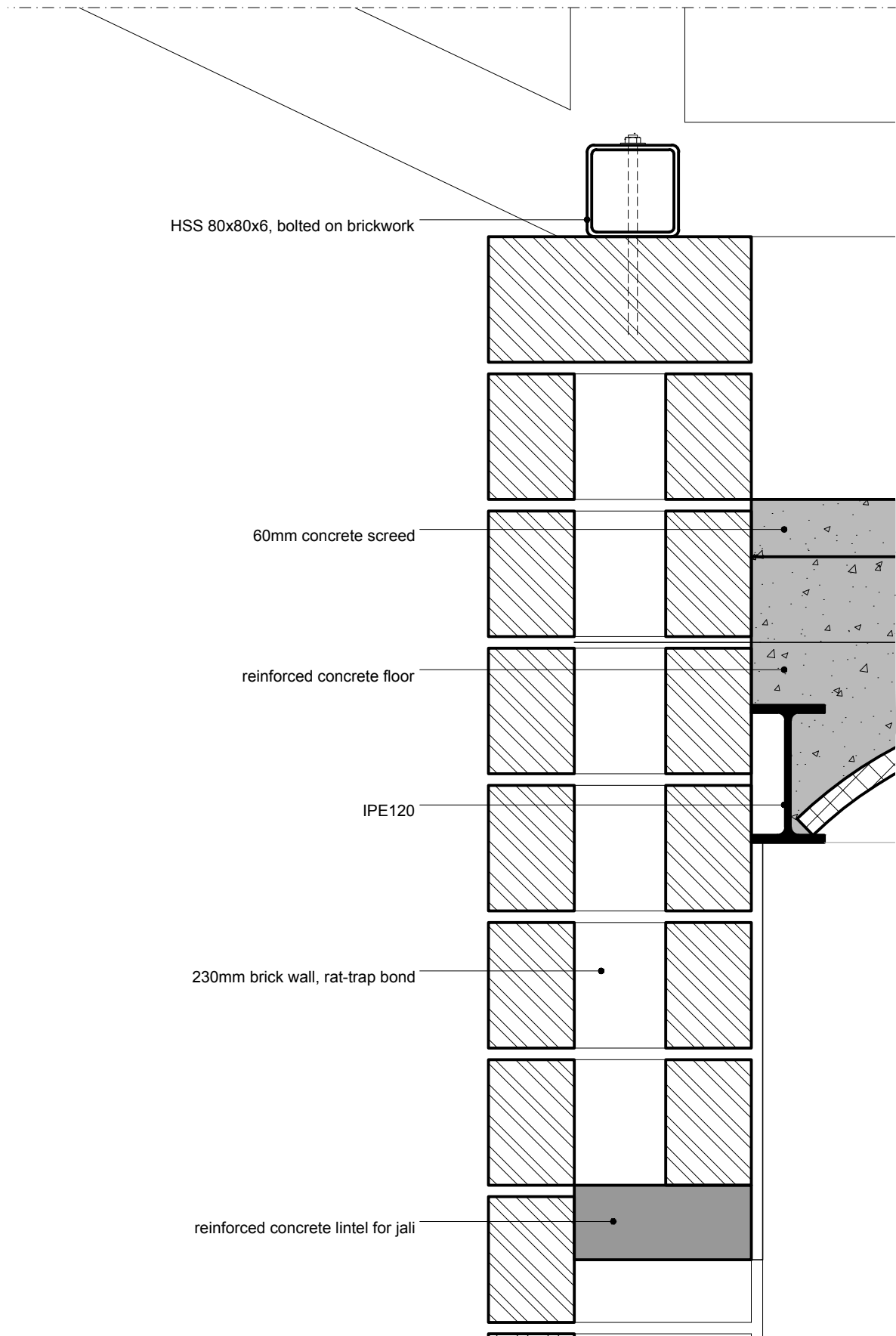








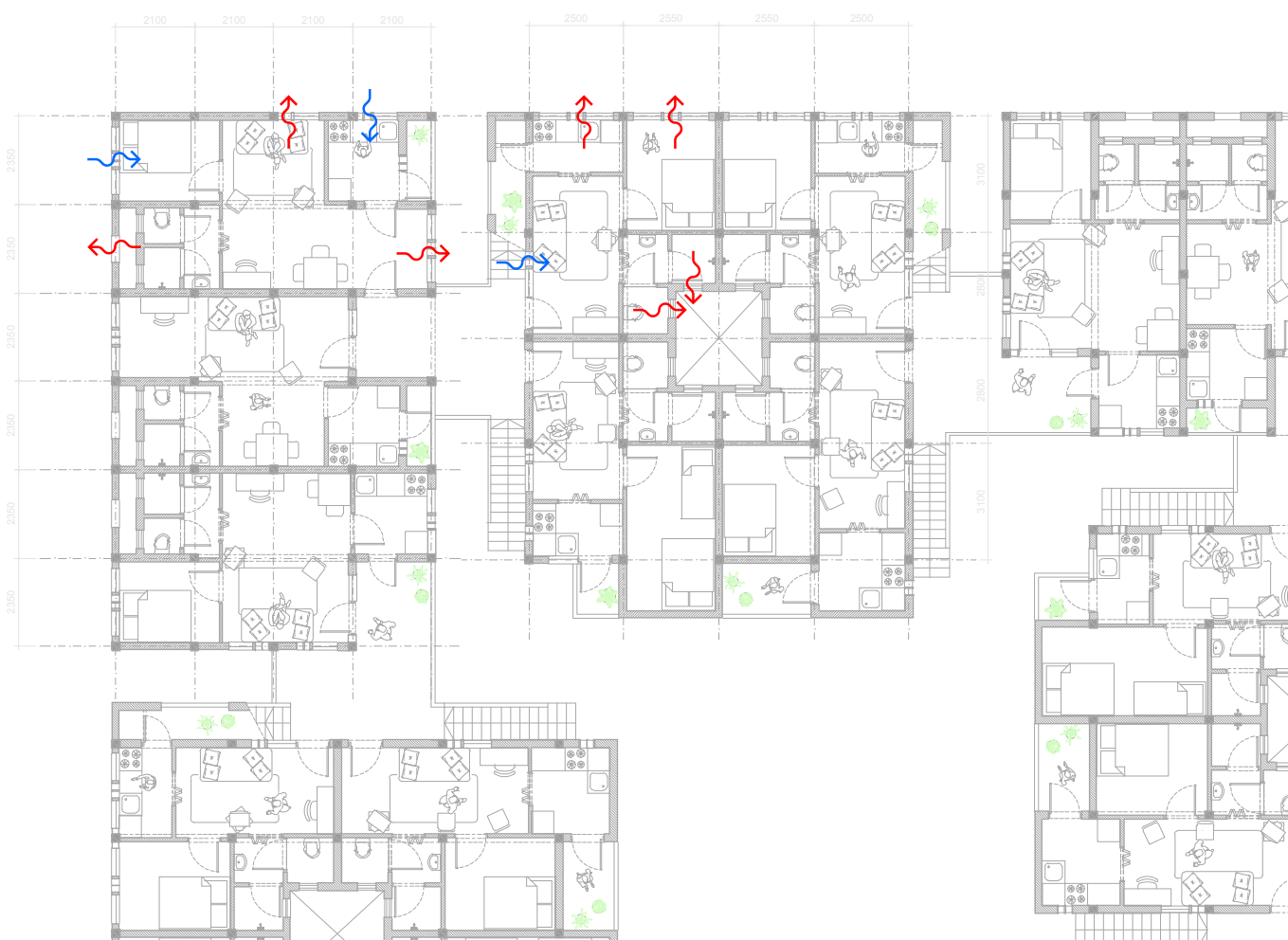


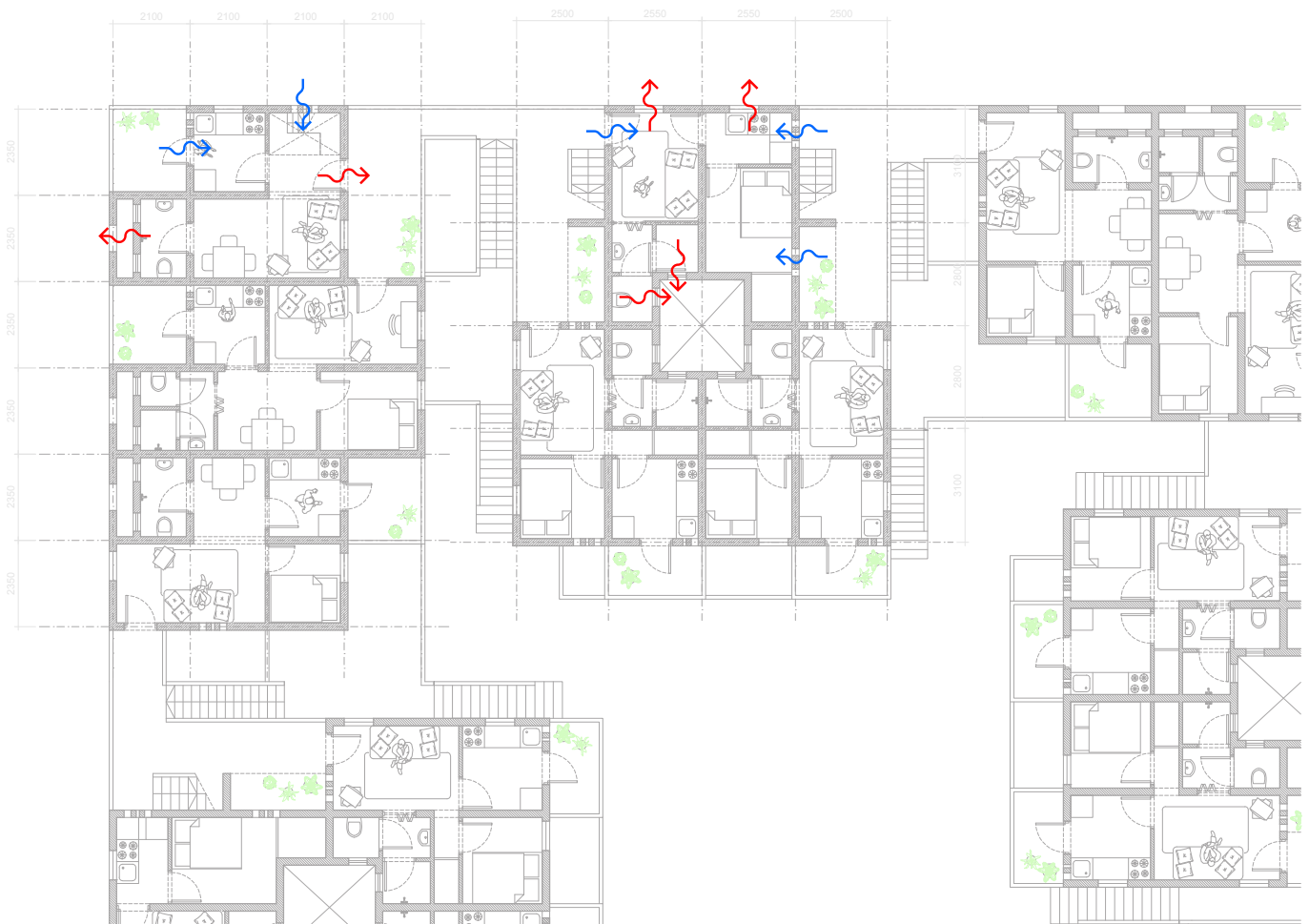


VENTILATION & WATER MANAGEMENT

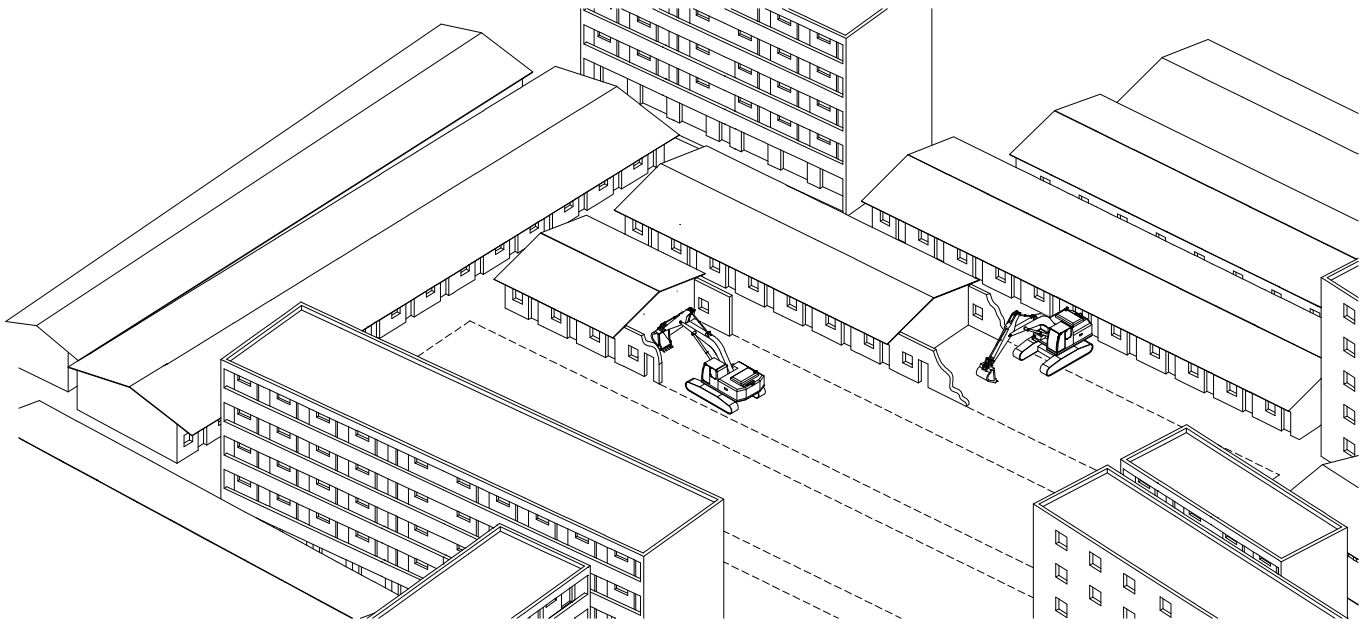




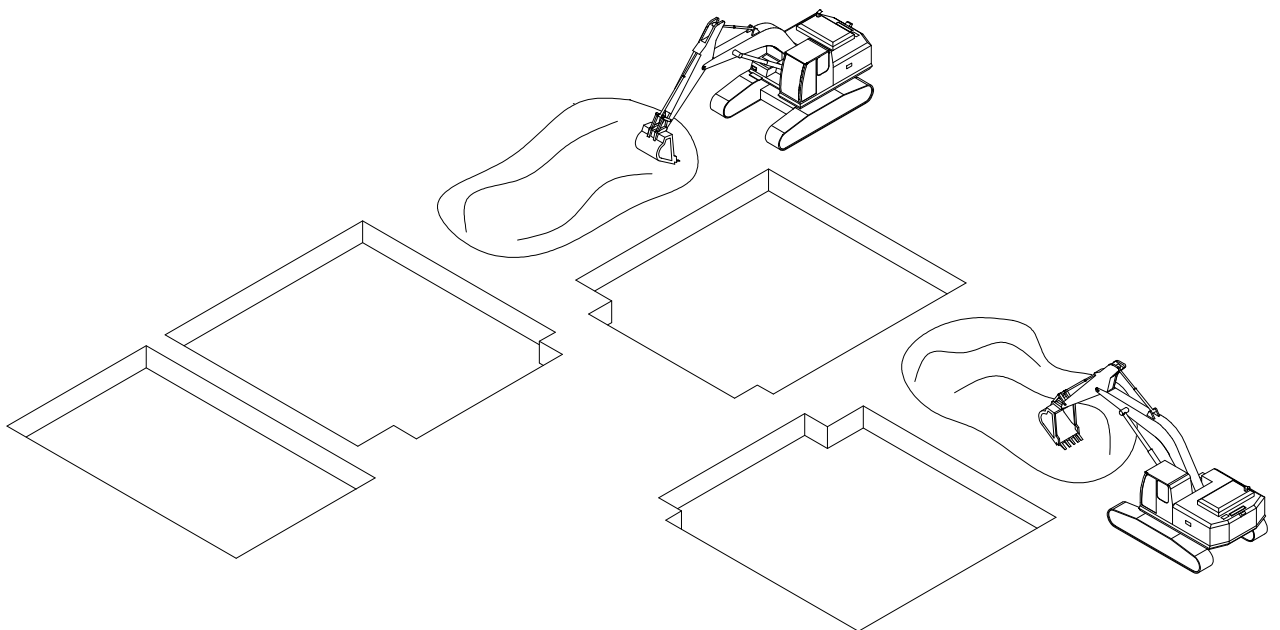




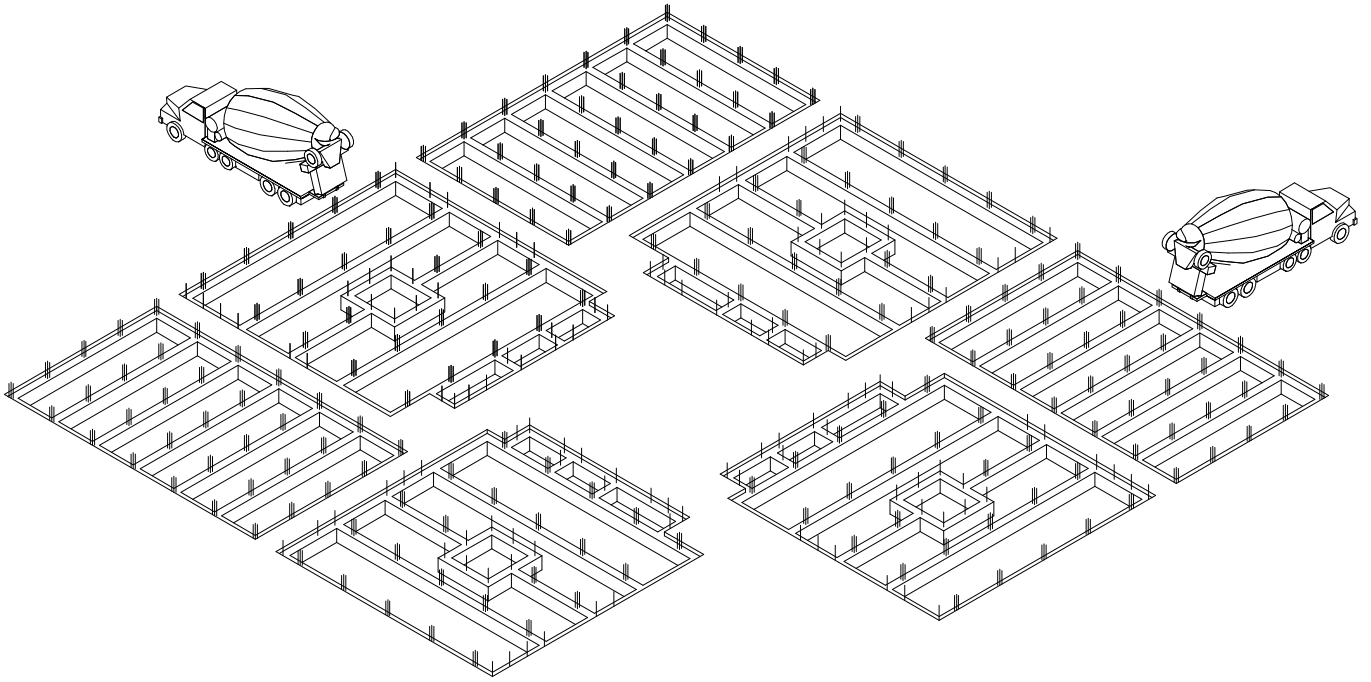
CONSTRUCTION



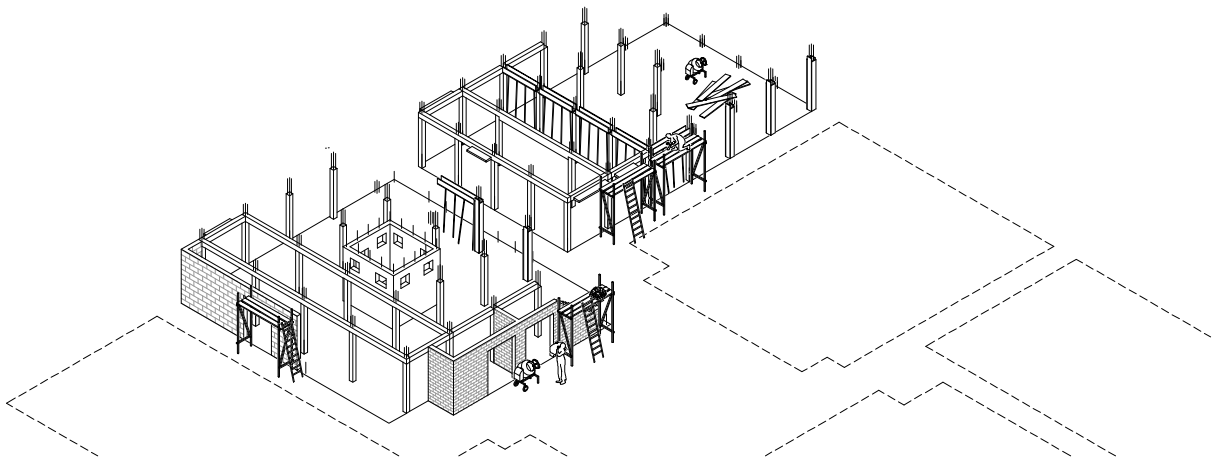
1. Demolition



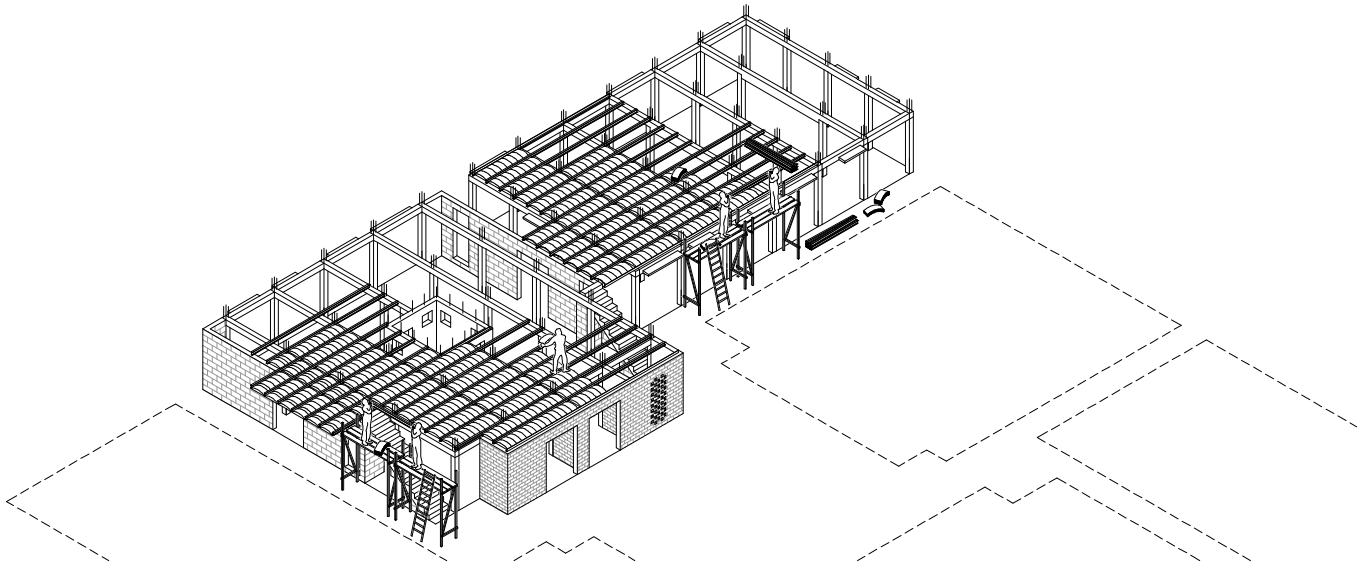
2. Ground Works



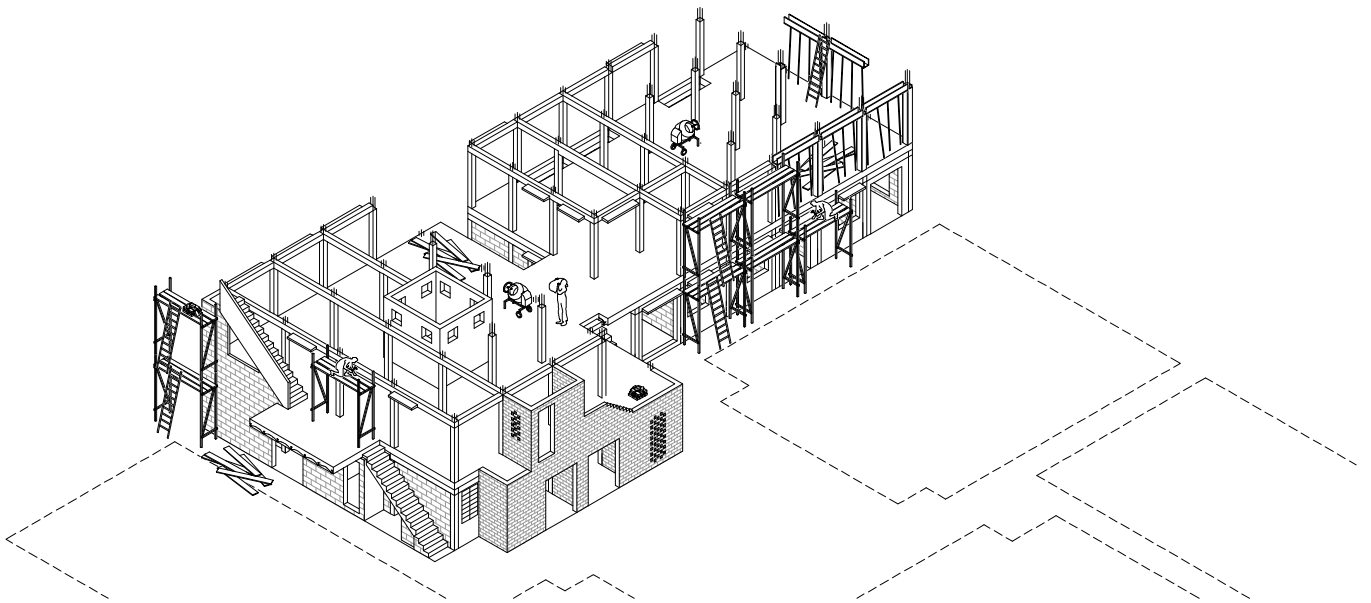
3. Foundation Works



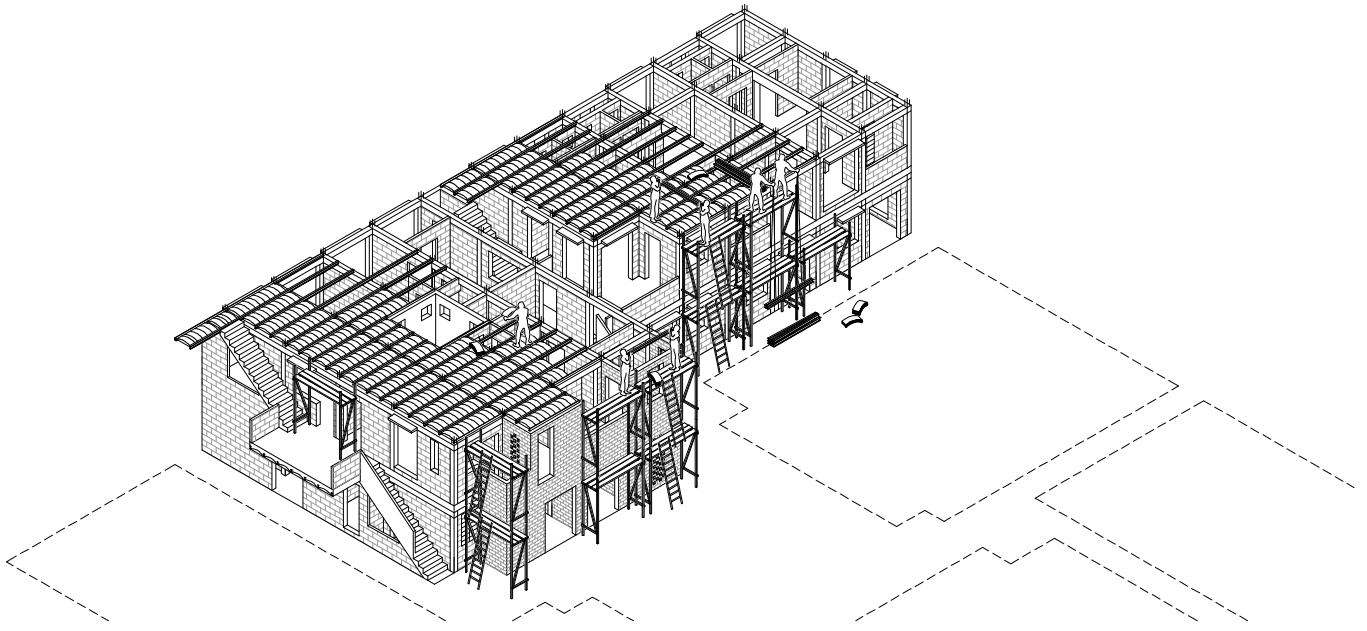
4. Ground Floor



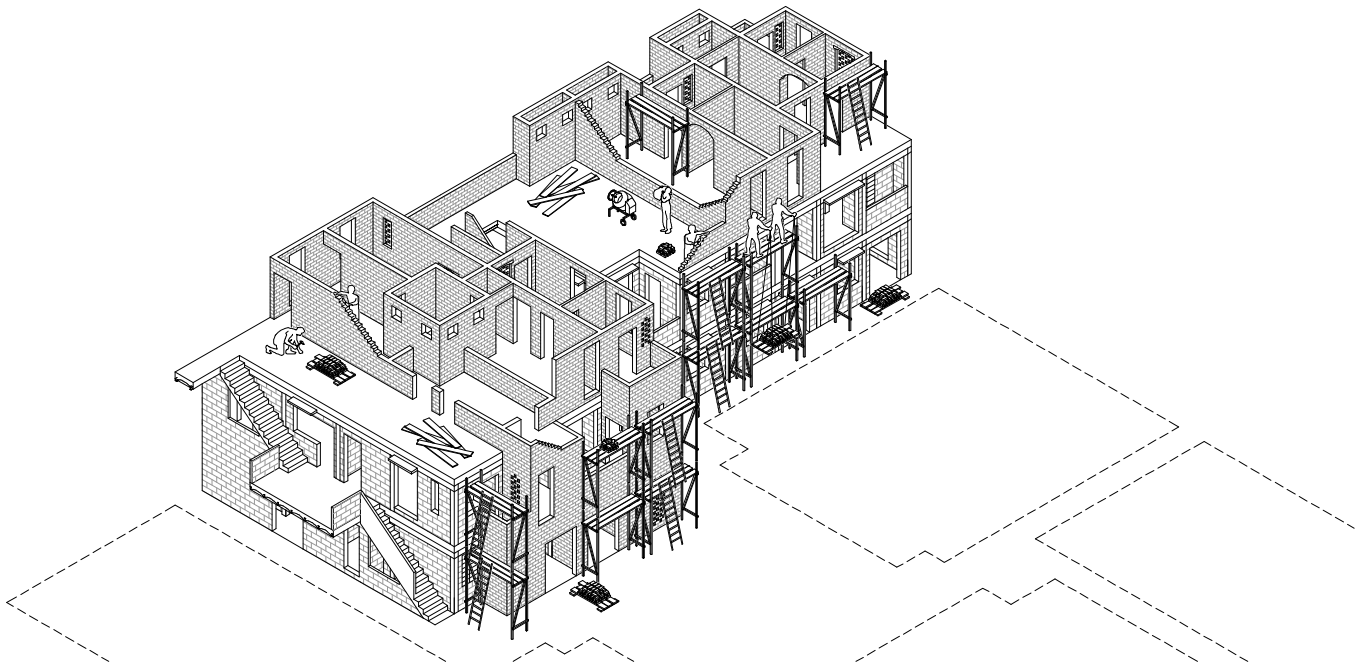
5. First Floor



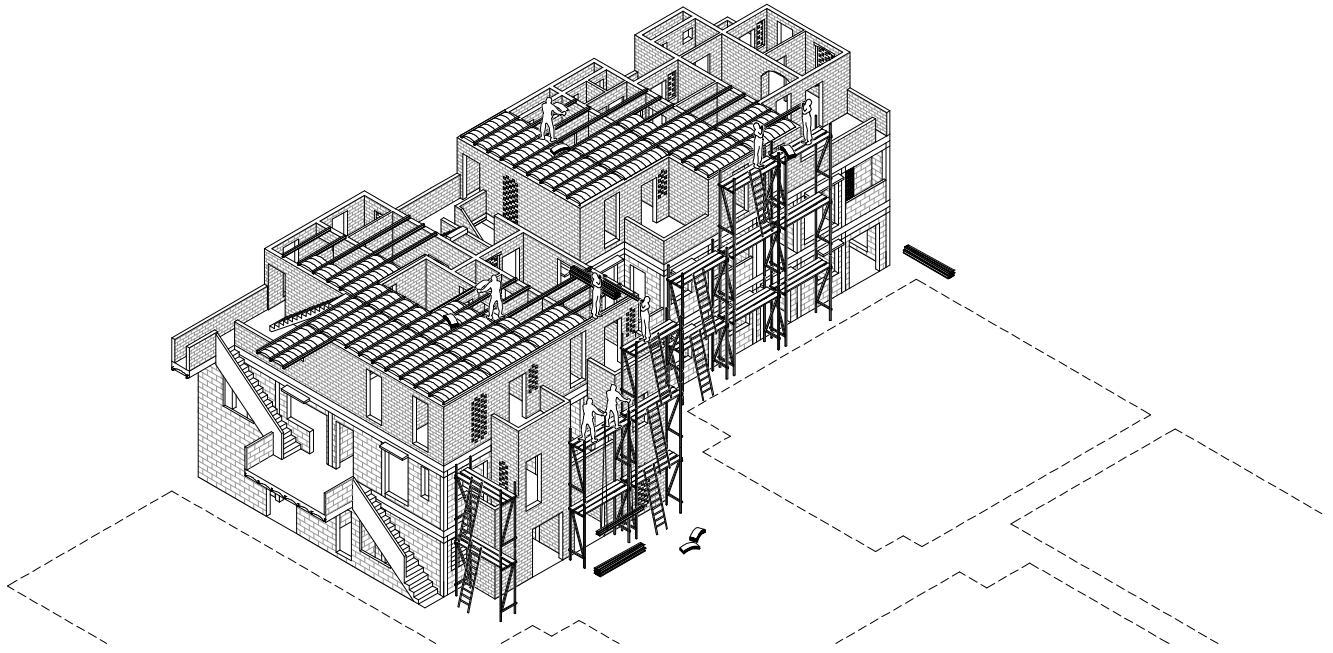
6. First Floor



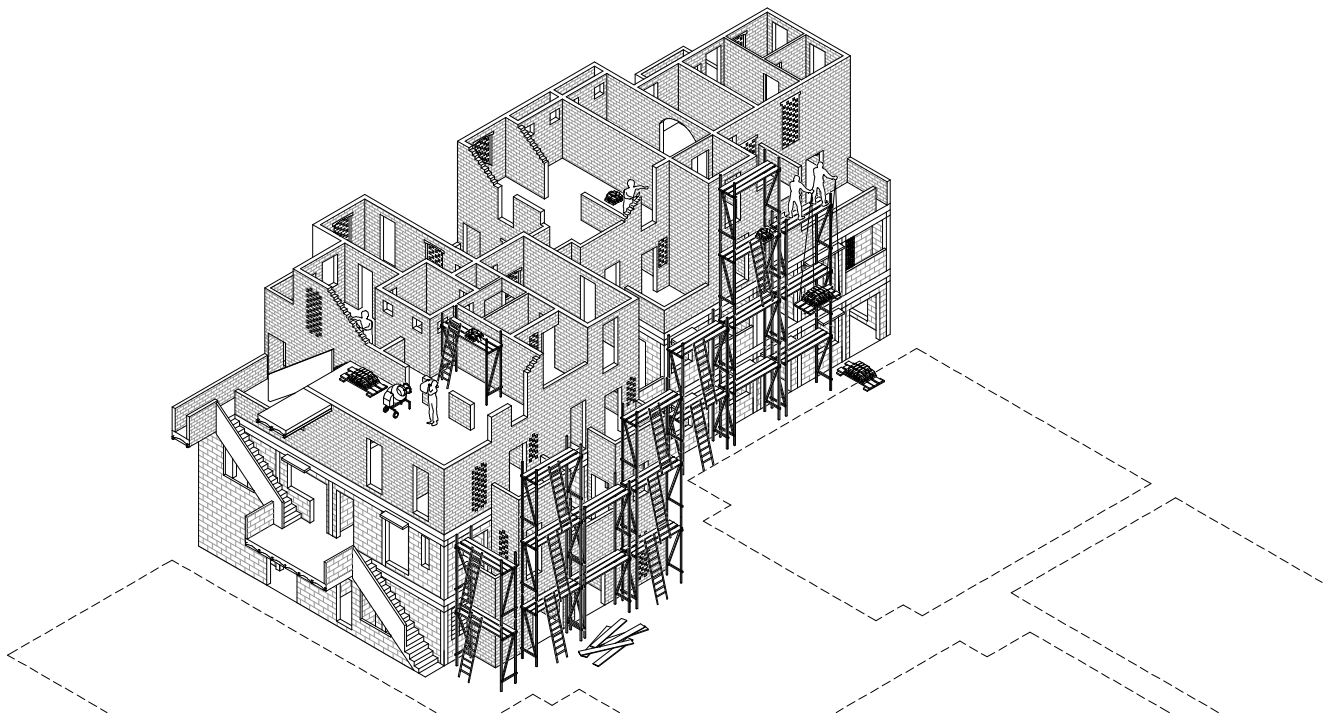
7. Second Floor



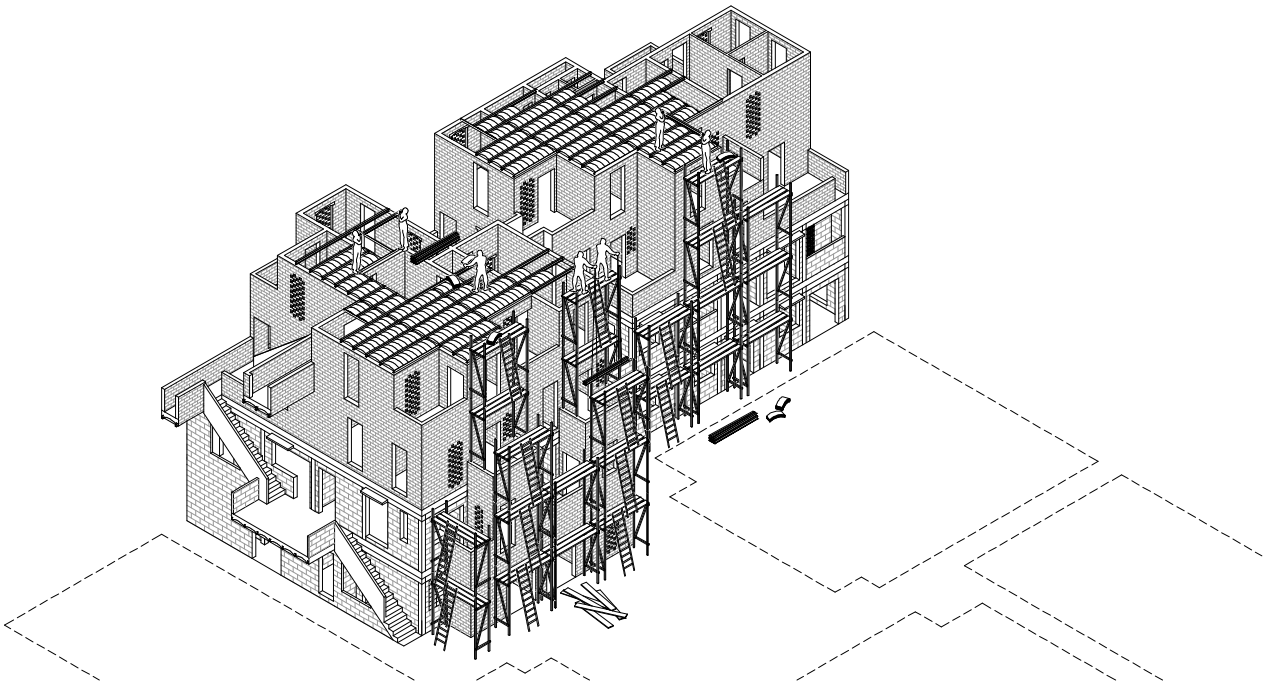
8. Second Floor



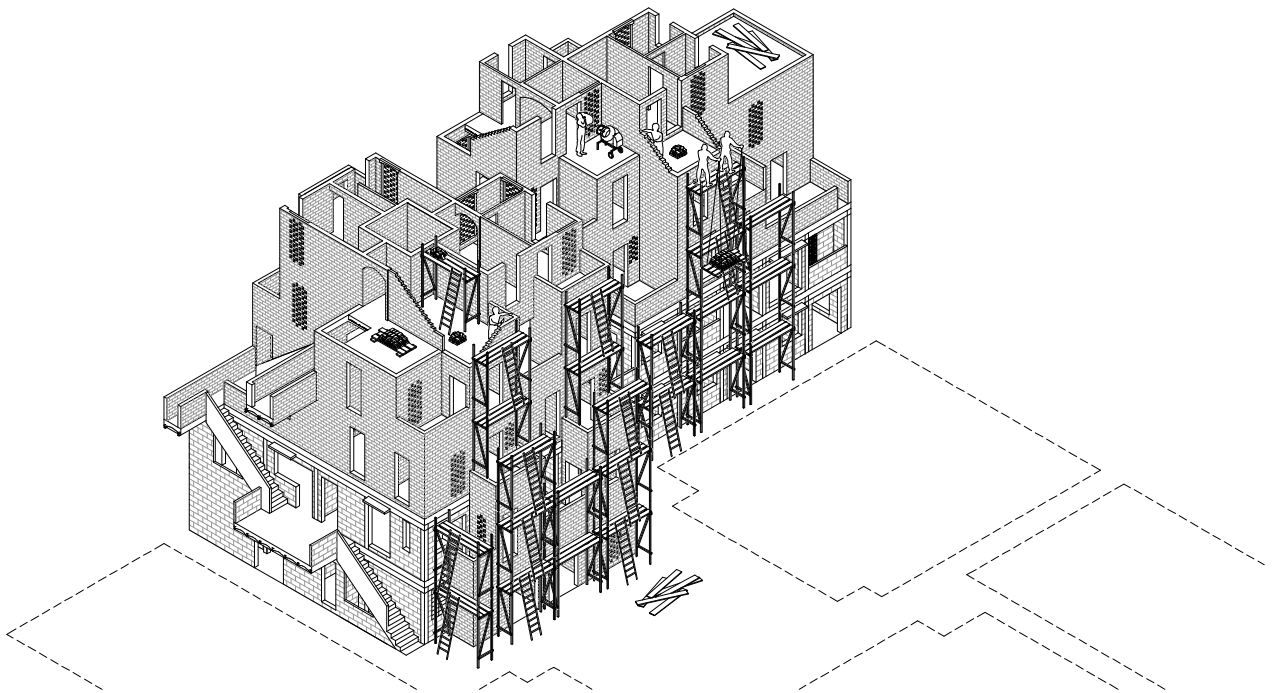
9. Third Floor



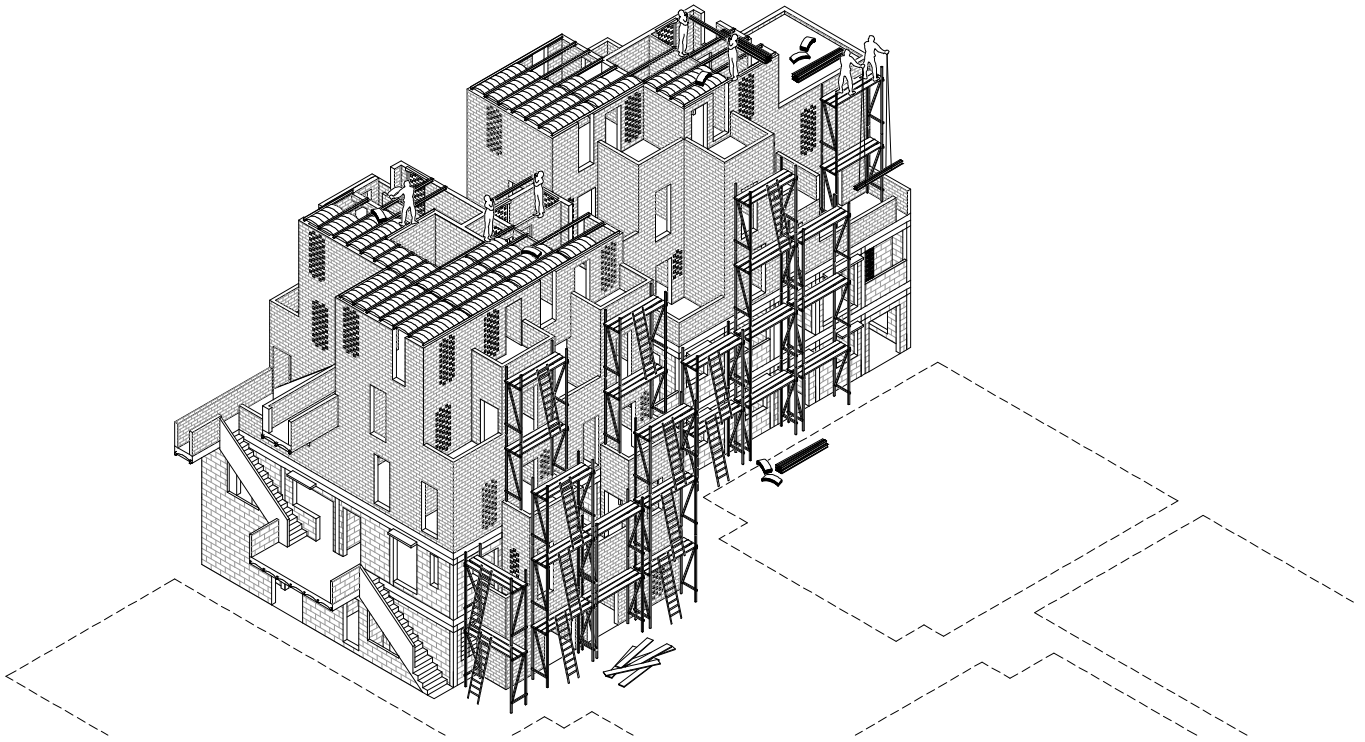
10. Third Floor



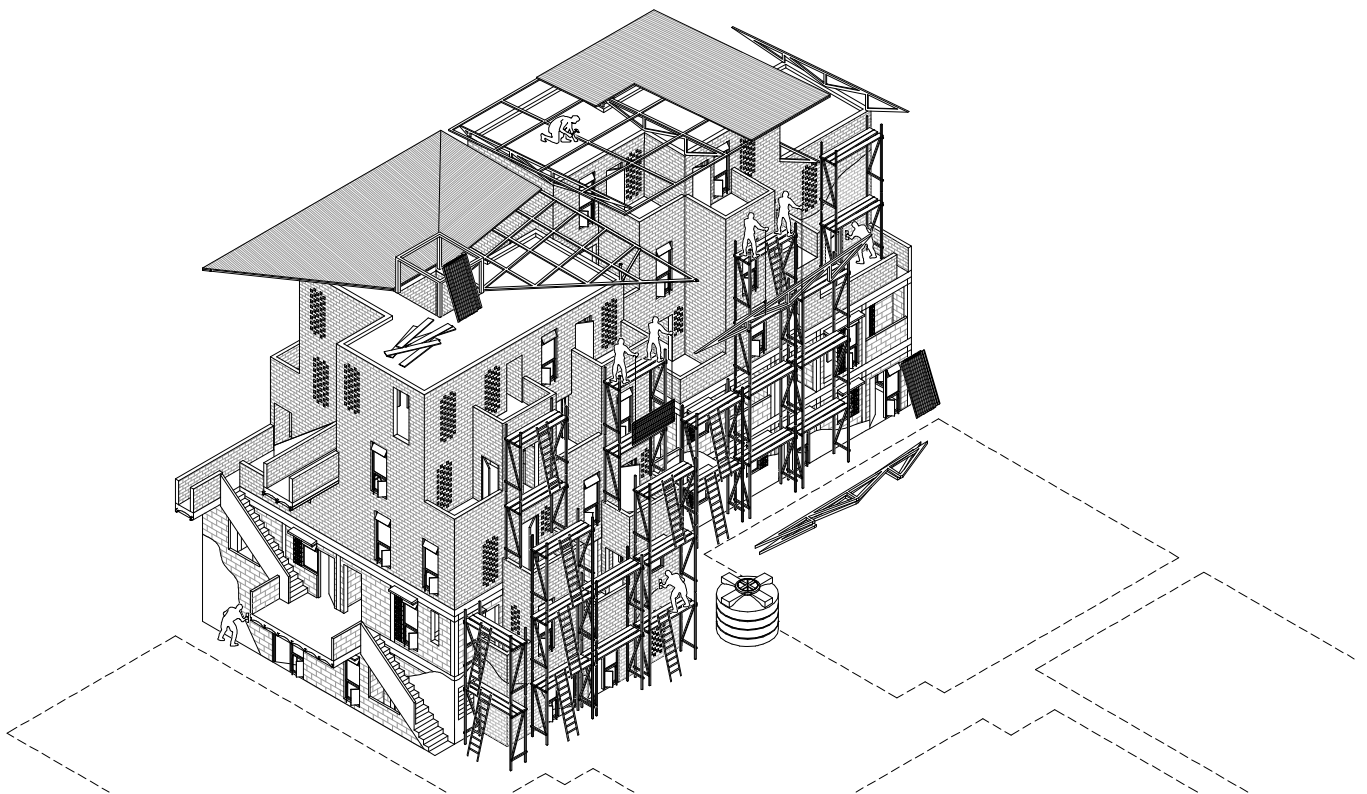
11. Fourth Floor



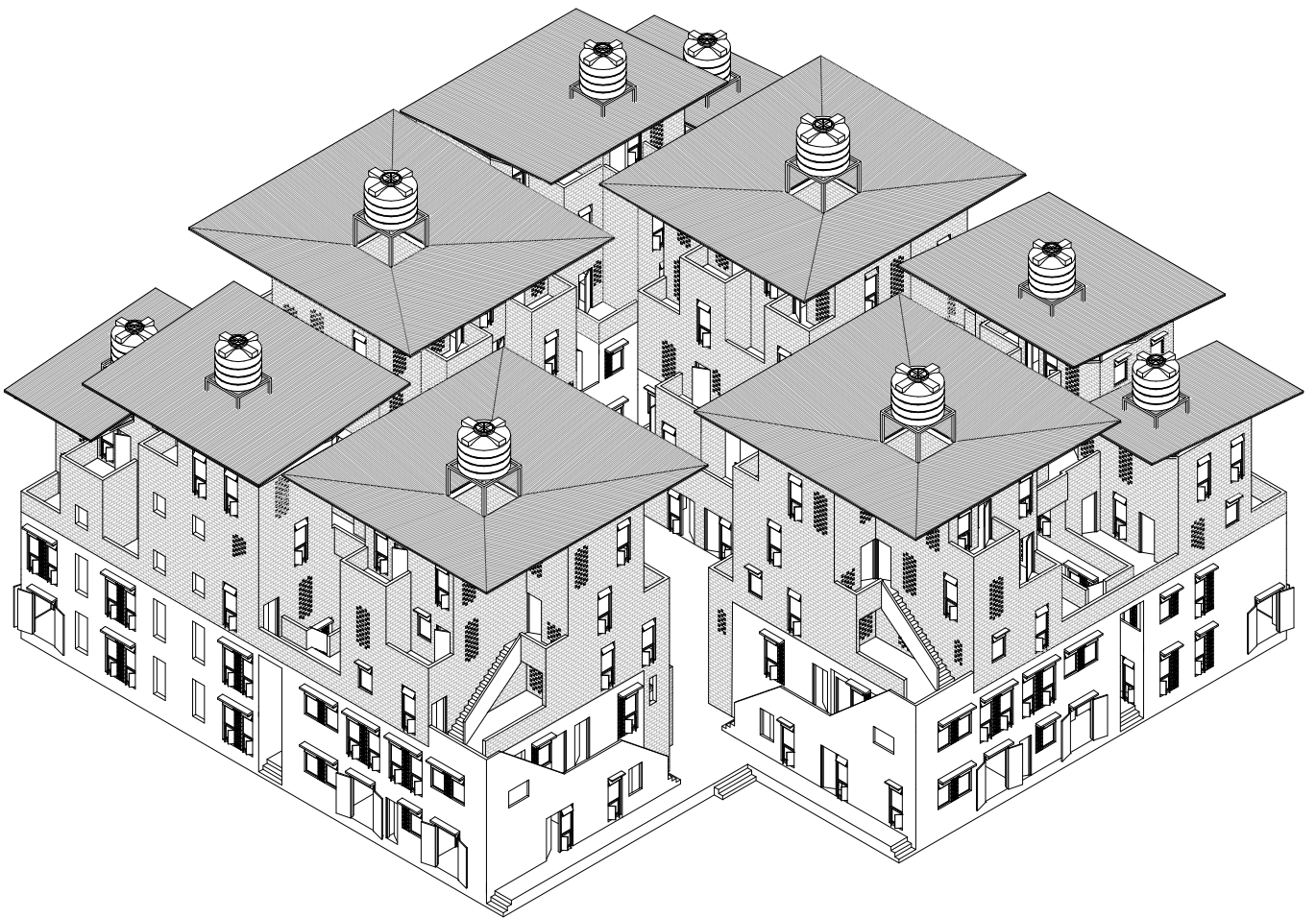
12. Fourth Floor



13. Fifth Floor

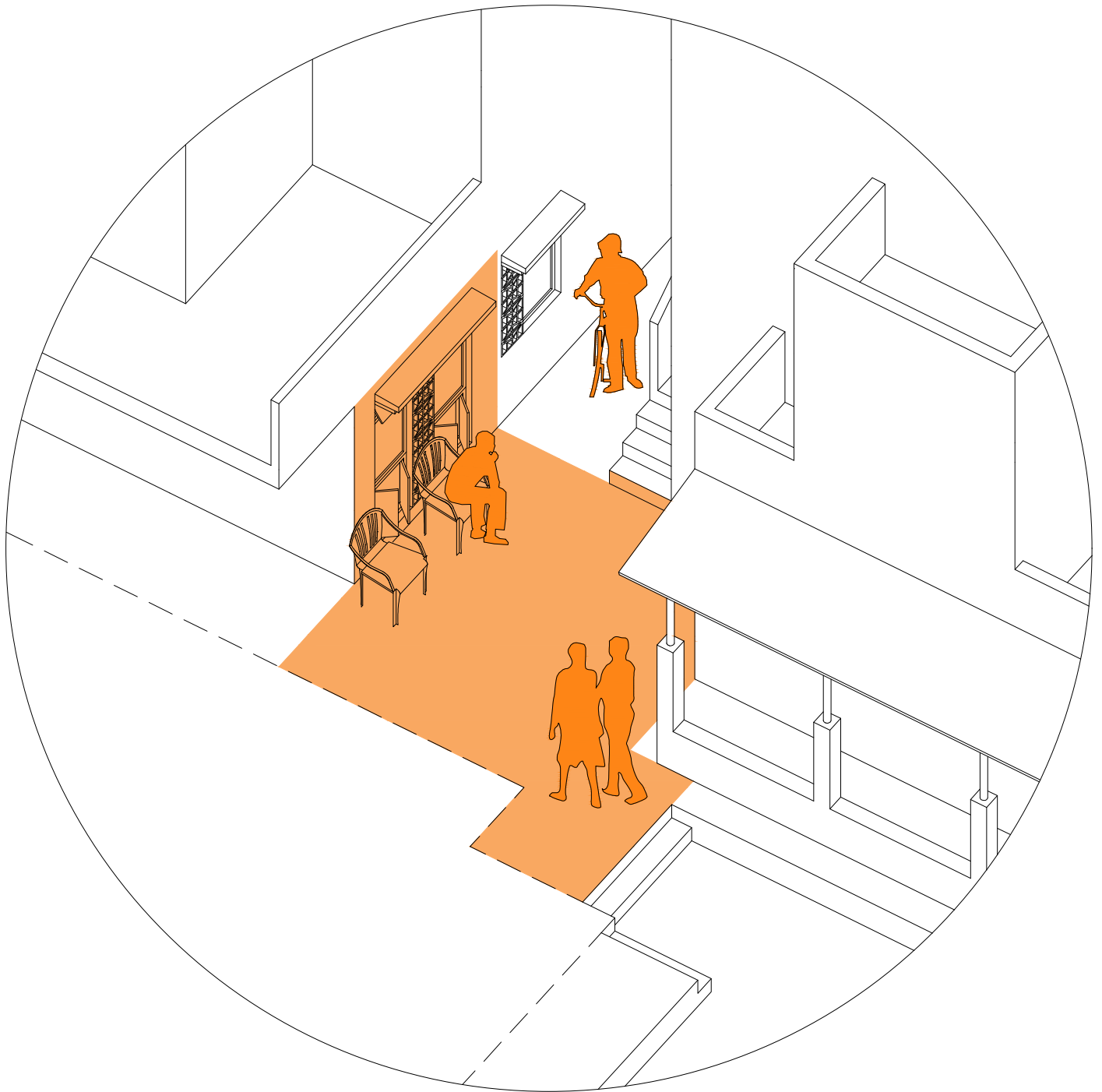


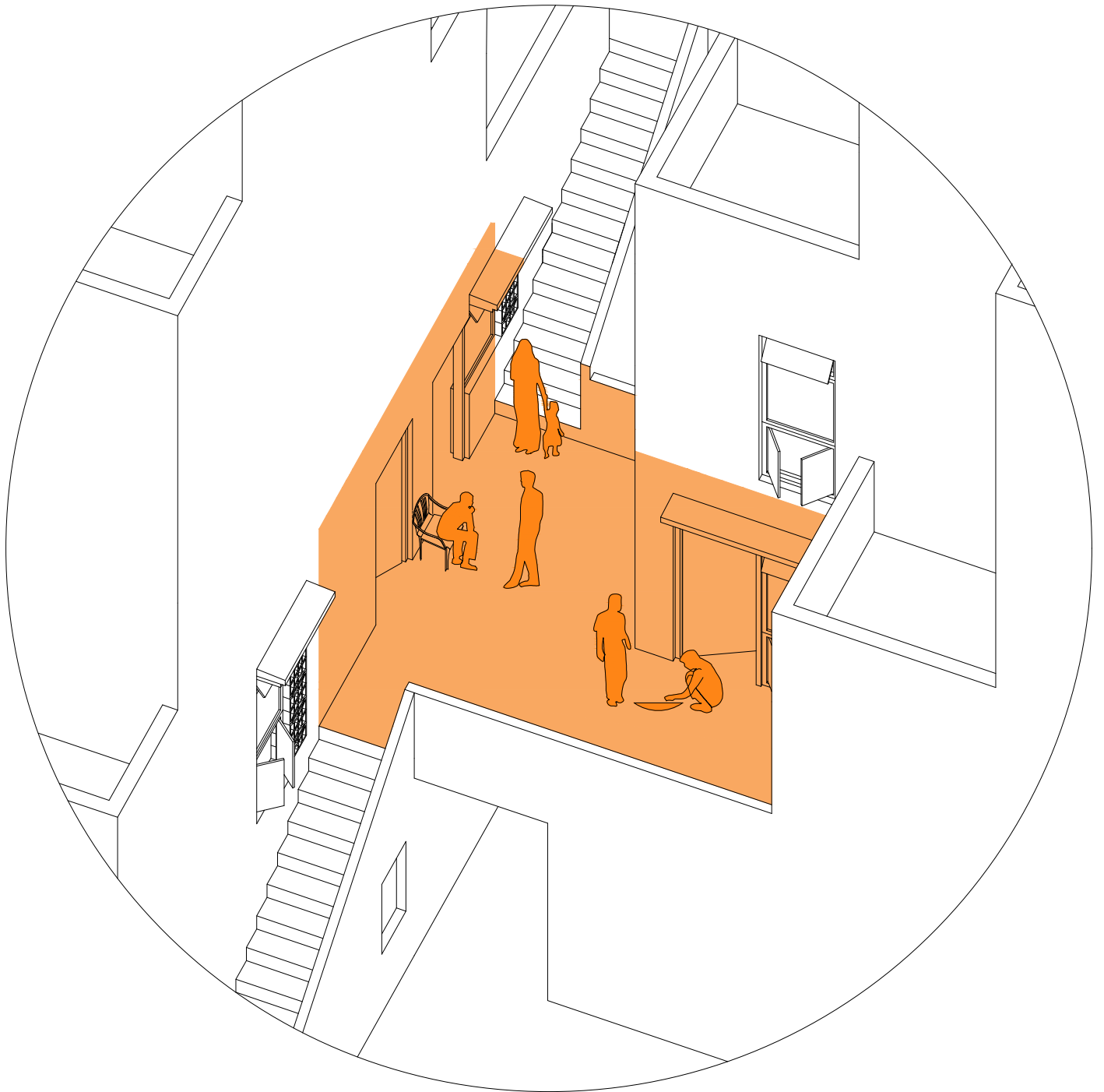
14. Roof, Windows, Doors & Finishing

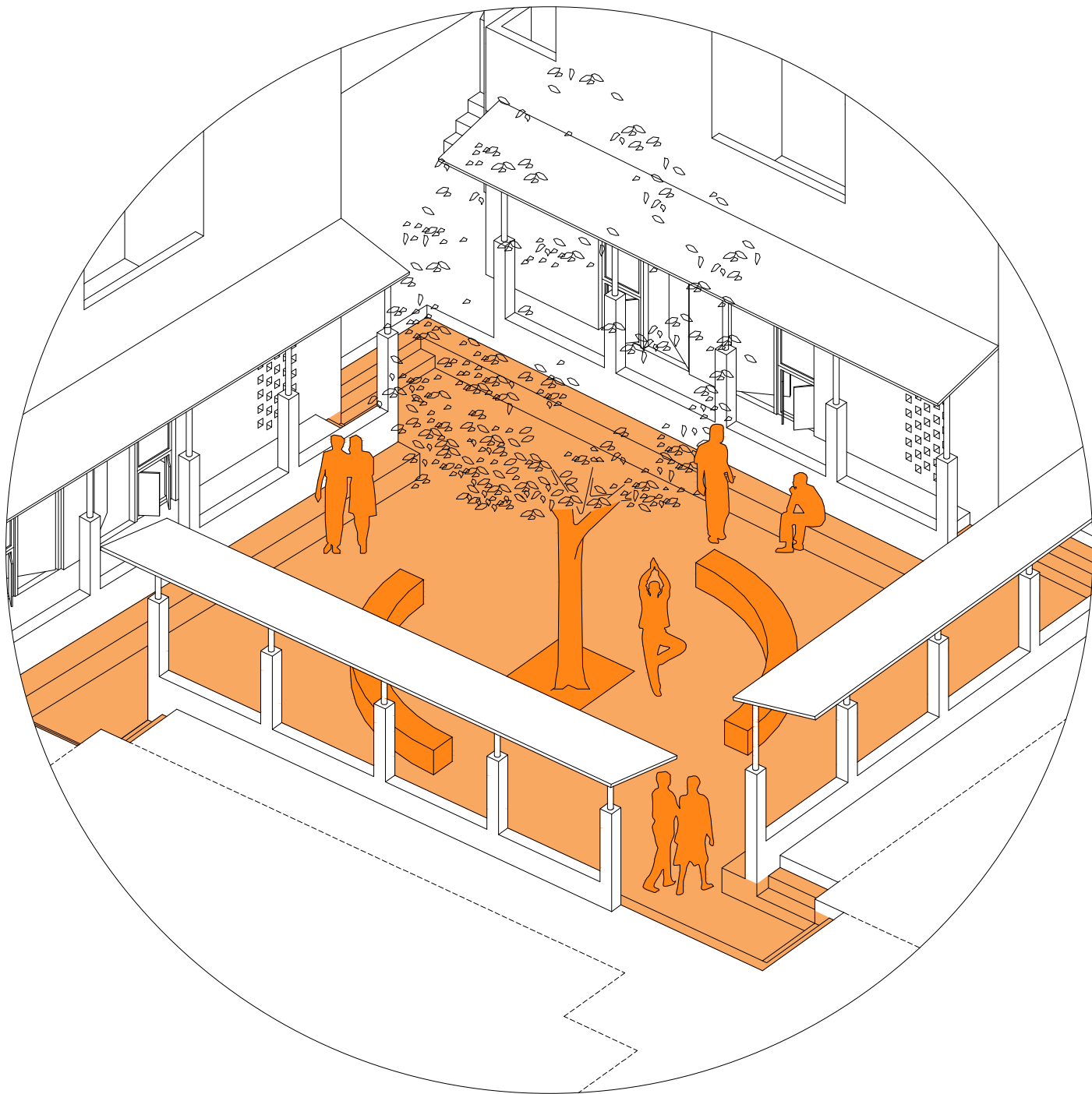


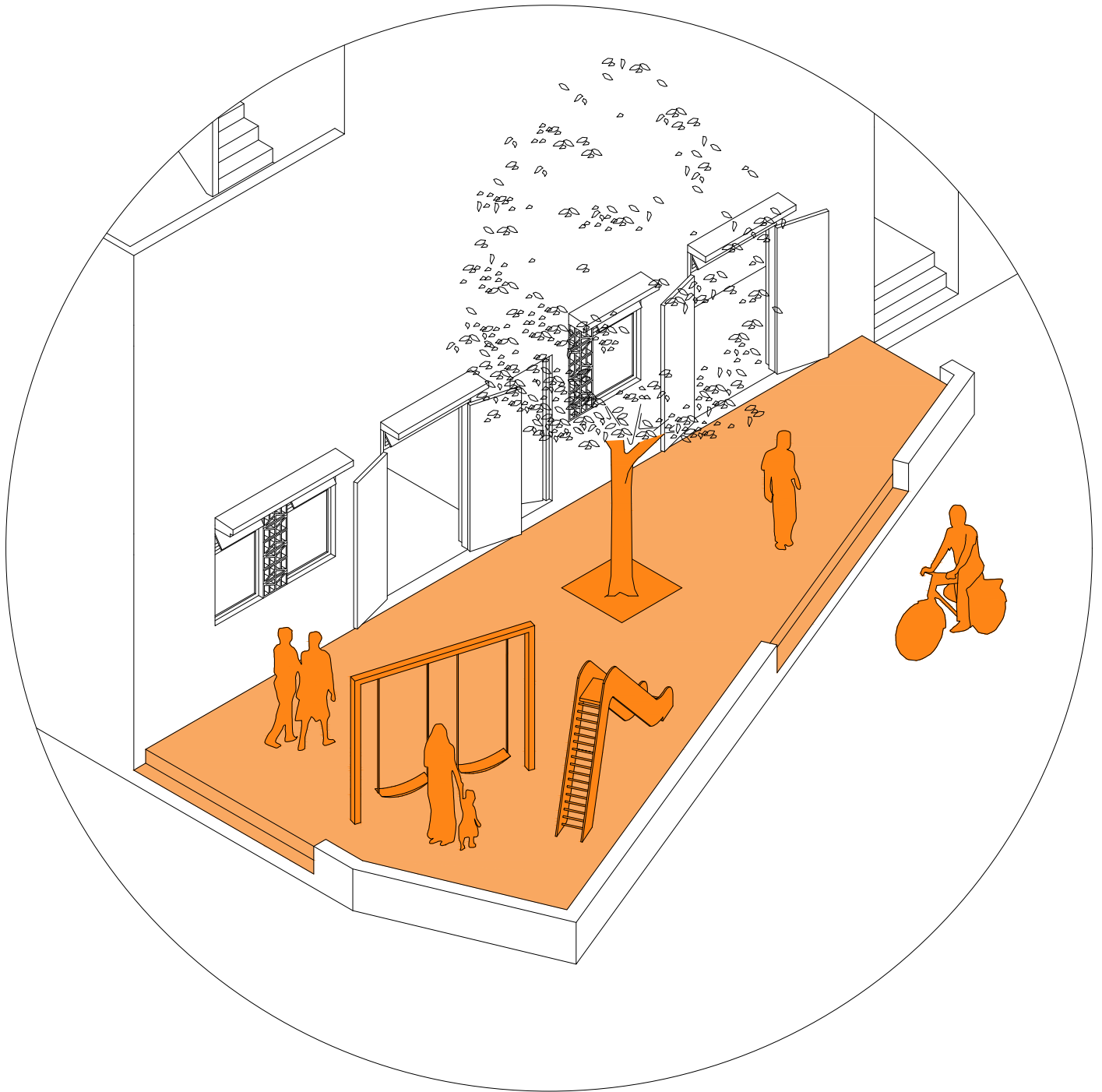
15. Finish

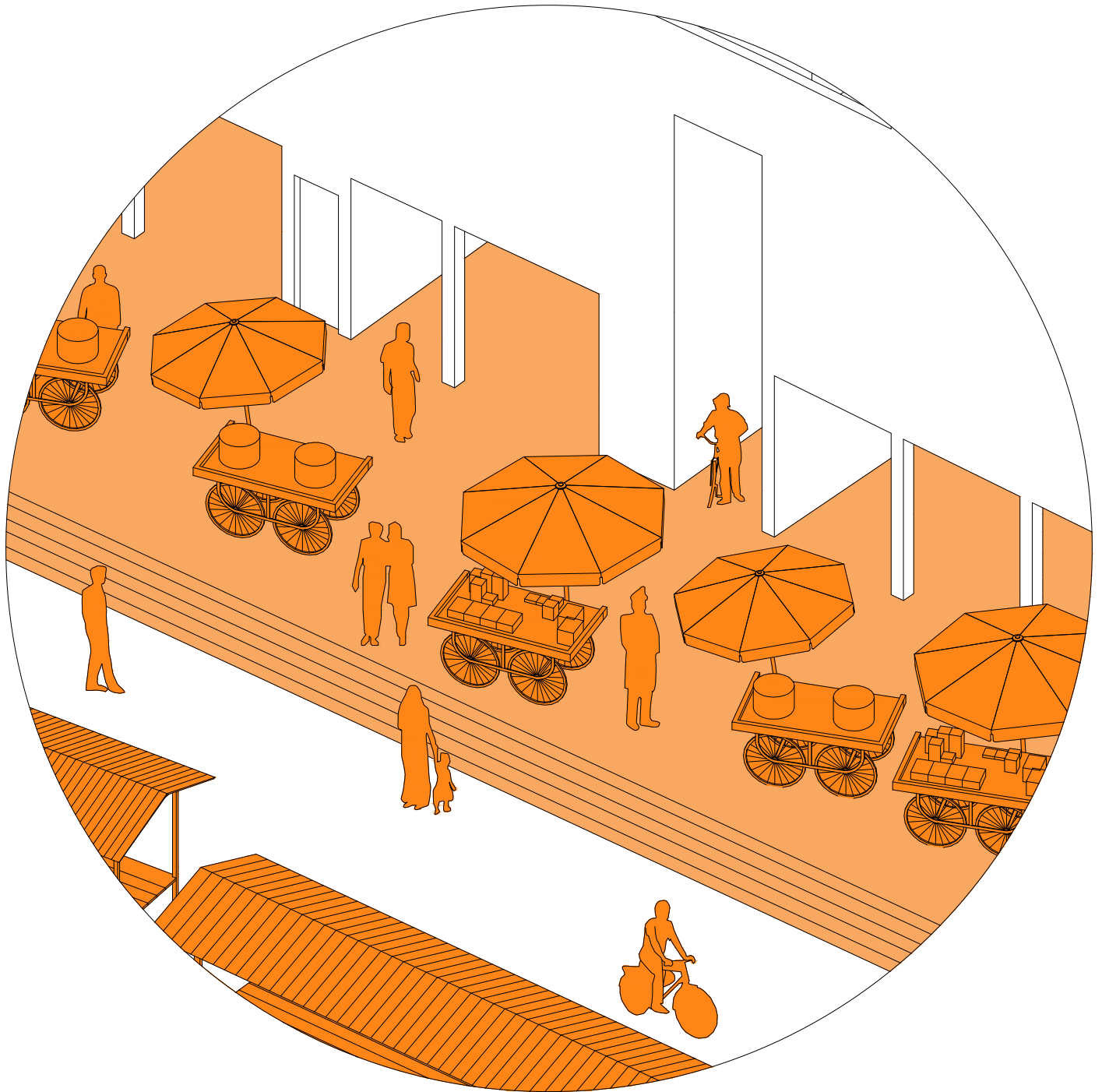
SYNTHESIS

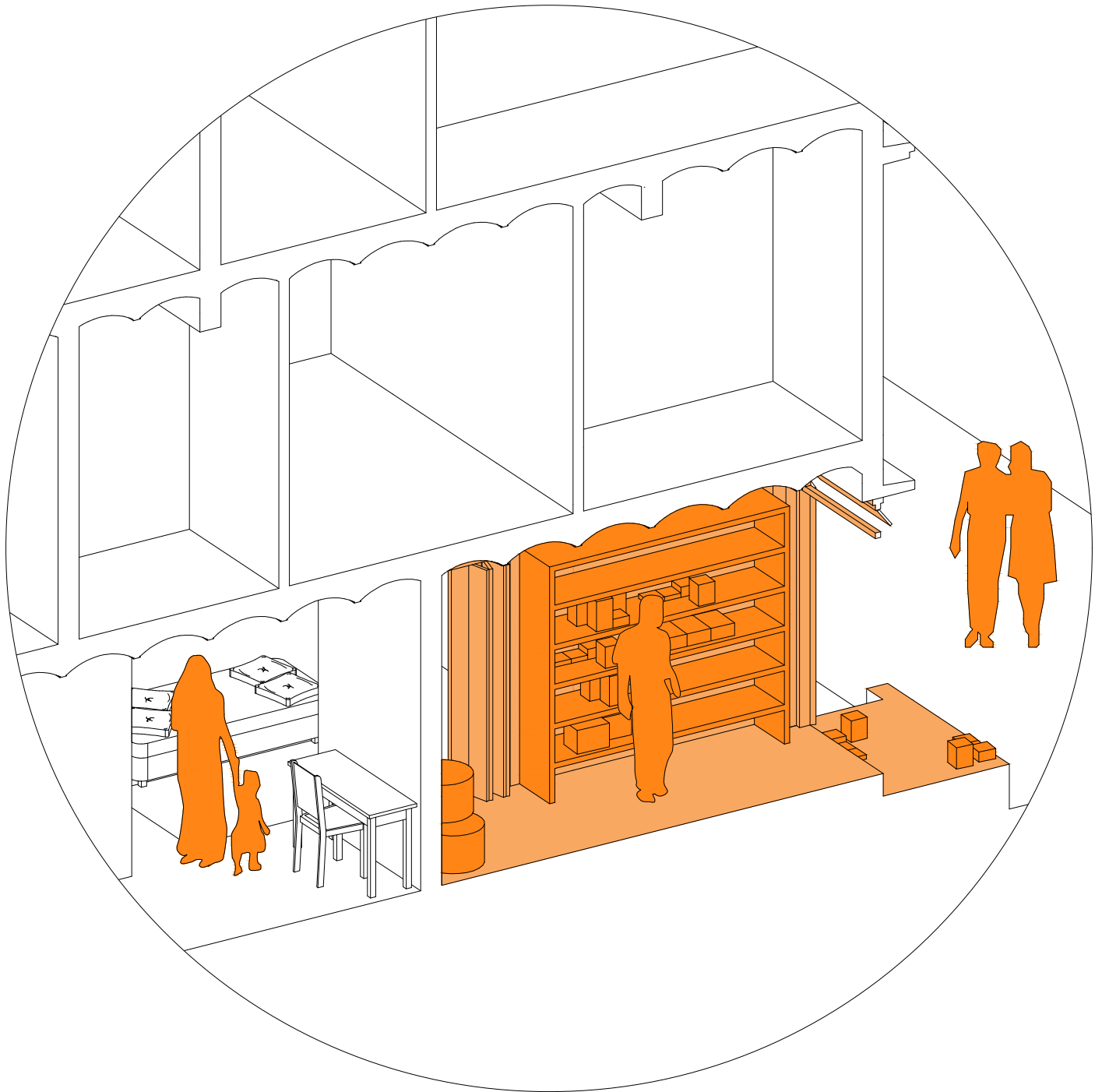


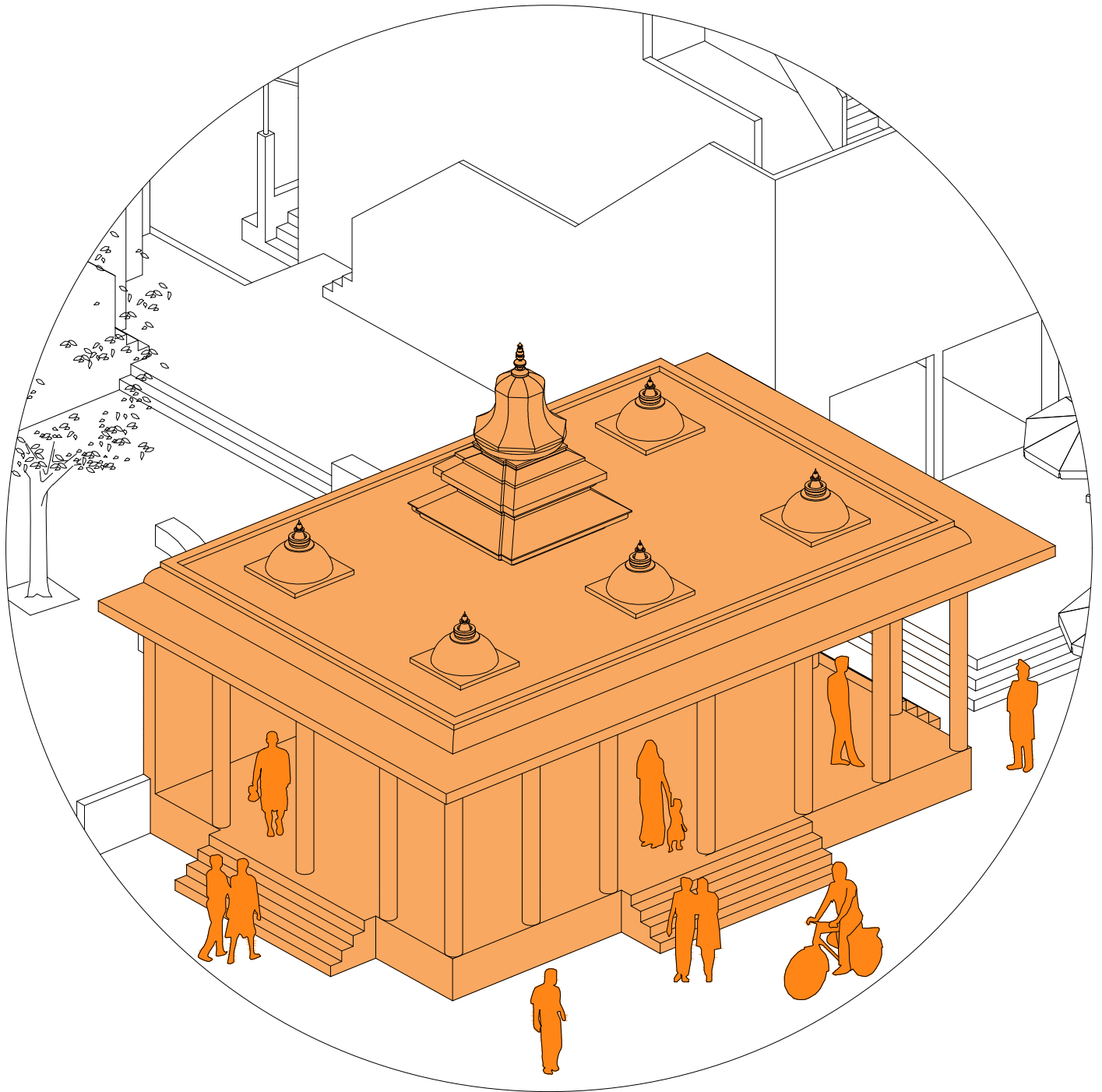


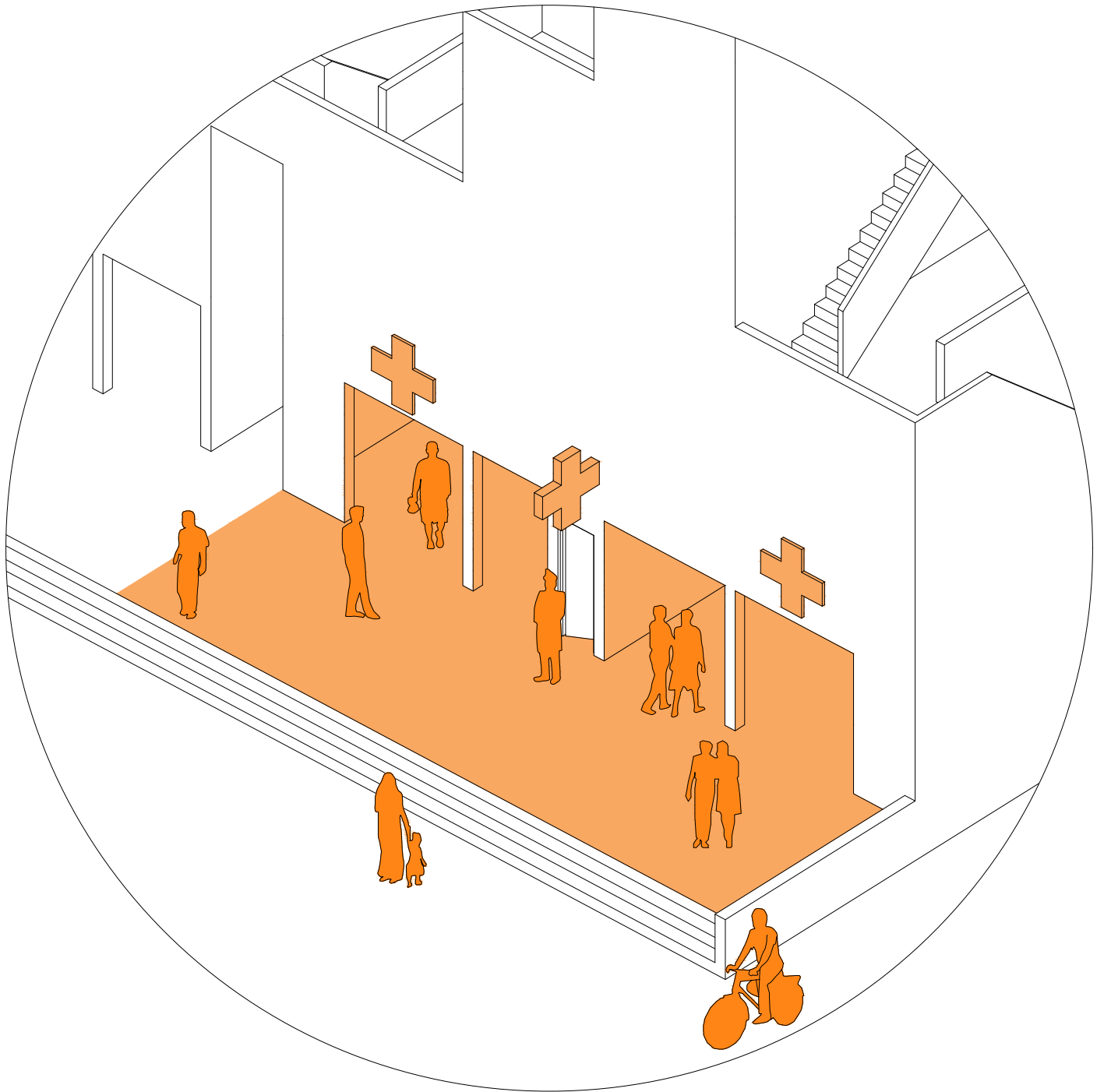


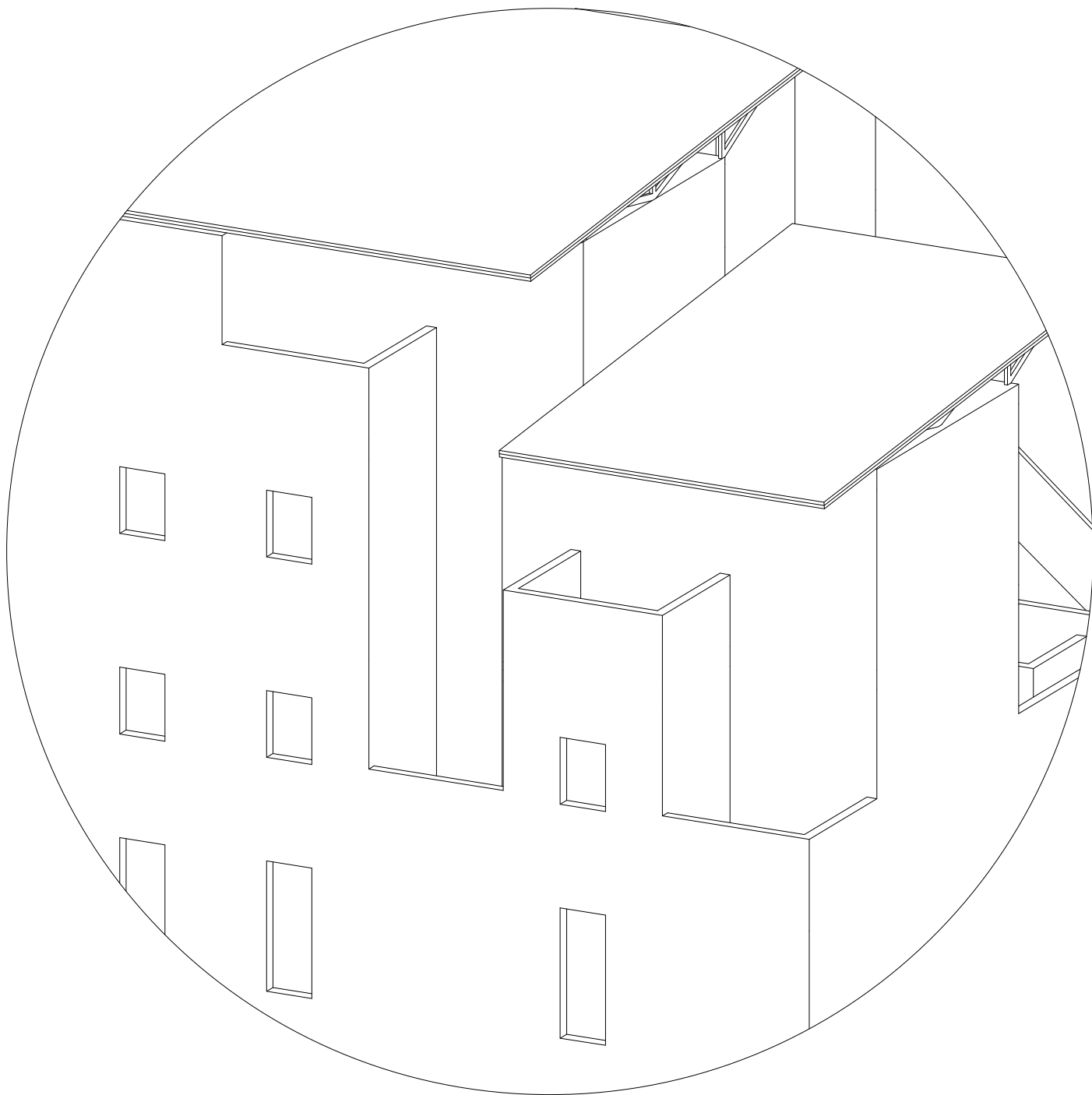


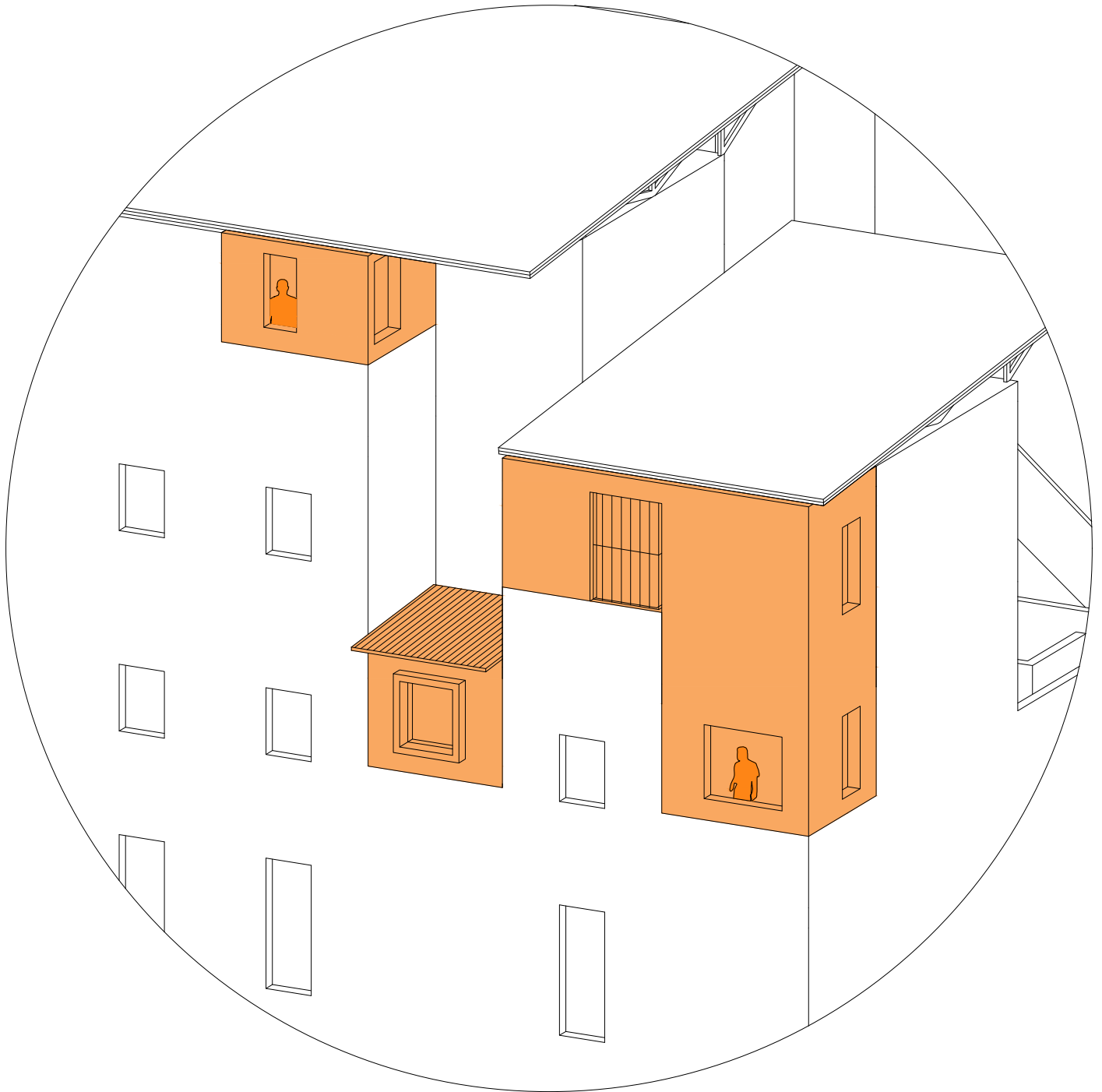












IMPRESSIONS





























