The new arrival city of Addis Ababa

Creating resilient urban clusters for city's dwellers and newcomers

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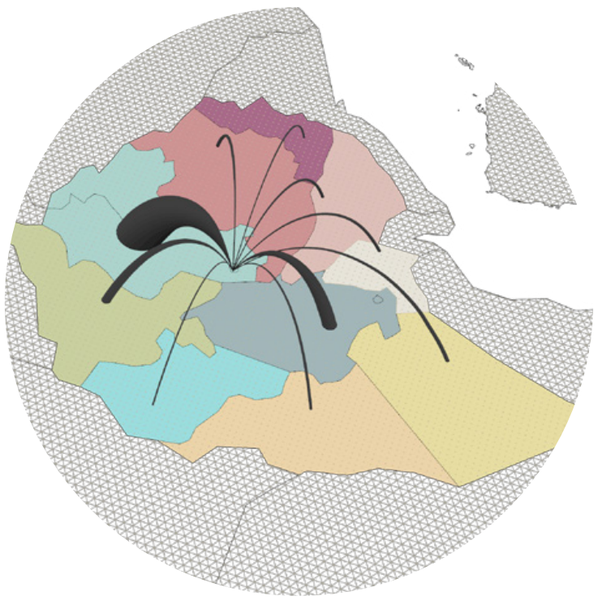
“The great migration of humans is manifesting itself in the creation of a special kind of urban place.
*These transitional spaces - **arrival cities** - are the places where the next great economic and cultural boom will be born, or where the next great explosion of violence will occur. The difference depends on our ability to notice, and our willingness to engage.”*

-Doug Saunders

01research

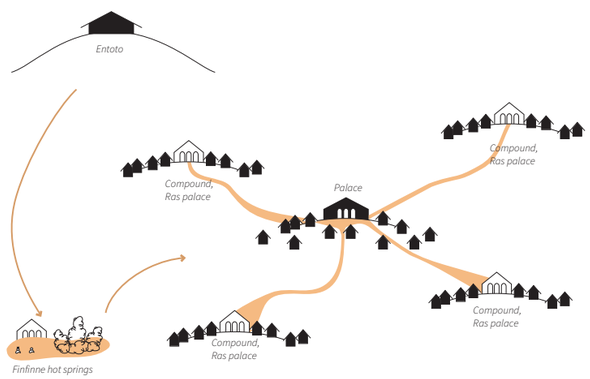
Over the past six decades, the planet has experienced vast urbanization: in 1950, more than ***70%*** of people worldwide lived in rural settlements. In 2007, for the first time in history, the global urban population exceeded the global rural population. Today, ***55%*** of the World's population lives in urbanized areas.

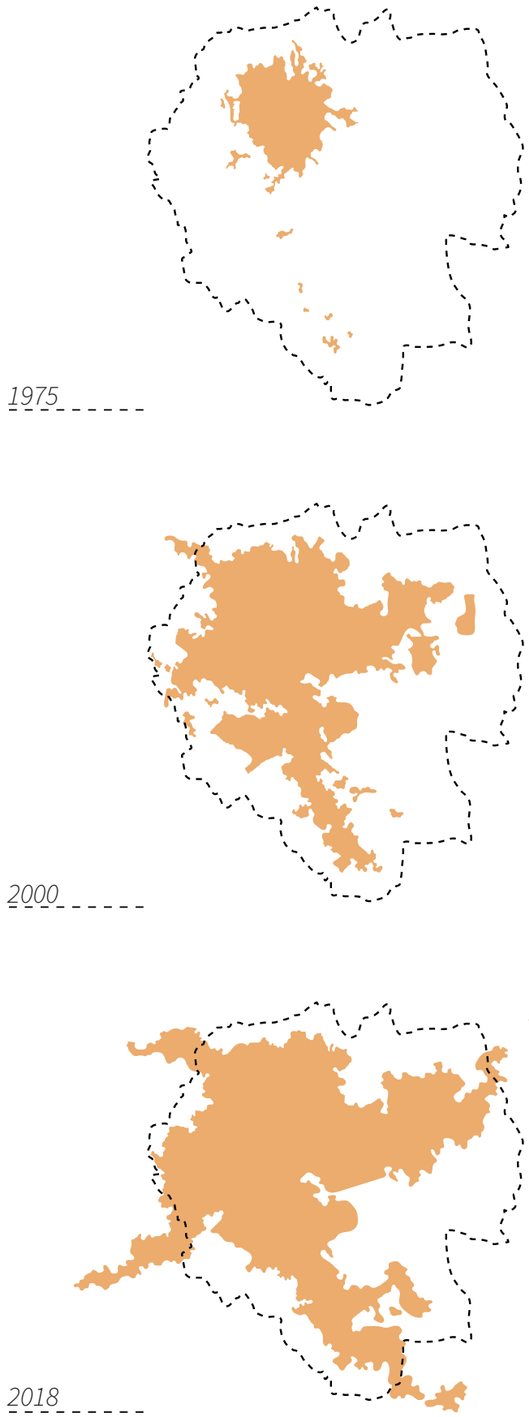
The country is populated by almost ***110 million*** inhabitants and ***only 20%*** of the whole population ***is living in the cities***, leaving another 80% to live in the rural areas.



Over ***65%*** of the population from rural areas have started to follow the migration patterns from rural countryside to the urban settlements. Especially, to one of the biggest urban cities of Africa: Addis Ababa.

The creation of Addis Ababa and its former structural division to ***sefers*** for royal families, lead the working class to expand around it and build uncontrollably and unsupervised.





This resulted in city's expansion horizontally rather than vertically.
By many, the city of Addis Ababa therefore, could be labeled as an

Arrival City.

01 Rural migrants and urban poor are confronted by demanding task of finding even momentary accommodation. The problem is the lack of

approximately ***700 000*** adequate housing units resulting in illegal framework of building.

02 Rural migrants and urban poor face the social and spatial segregation. The new investments and developments symbolise Addis Ababa's aspirations to become hyper-modern metropolis. However, the private investments are developed on the remains of informal settlements, resulting in forced evictions of residents.

03 Rural migrants have lack of understanding of the urban lifestyle. The urban pattern of informal settlements are shelters. And therefore, Addis Ababa experiences the ruralization of its urban centre. Rural migrants bring their past lives, values and traditions.

04 An additional struggle newcomers confront is the discouraged traditional living patterns. The international style of globalized architectural approaches and standartized solutions have little to do with the traditional and cultural dwelling patterns of Ethiopians.

05 Nowadays, growing cities urgently need a change in creating spaces of transition for migrants, that would sustain their lifestyle, but also offer a flexible way to adapt towards the lifestyle of the city by providing flexible housing arrangements, where variety of socio-economic groups could dwell together.

*What kind of **urban neighbourhoods** and **housing typologies**, can accommodate a variety of **social structures** and **help** the newcomers **transit** towards the lifestyle of the **urban city**, that would **sustain** their traditional living and **dwelling patterns** but also deal with urban conditions of certain **density** in a constant growing megapolis of Addis Ababa?*

02 design research

During the field trip, ***the different habitation patterns*** were investigted in variety of districts of Addis Ababa, including ***informal settlements and the areas of low-income and middle-income groups***.
These patterns include:

Social Spaces

Domestic Practise

Income generation

Building Techniques

Borders

Social Spaces

Social spaces in Addis Ababa vary from different areas, however, it almost always occupy ***the main or secondary streets, informal markets, green spaces and the internal courtyards of the compounds***. Between the low-income groups, social spaces are crusial, because they create communual spaces for interactions, where women cook, wash clothes or/and watch over children together. The streets act as social spaces.

Internal courtyard of the compound: women washing clothes and taking care of their children together in Kolfe

Coffee sellers in the informal settlement in Tallian

Men resting in the only green space in the area, Addis Ababa

Informal market in Kolfe

Football table in the street for communual activities in Tallian

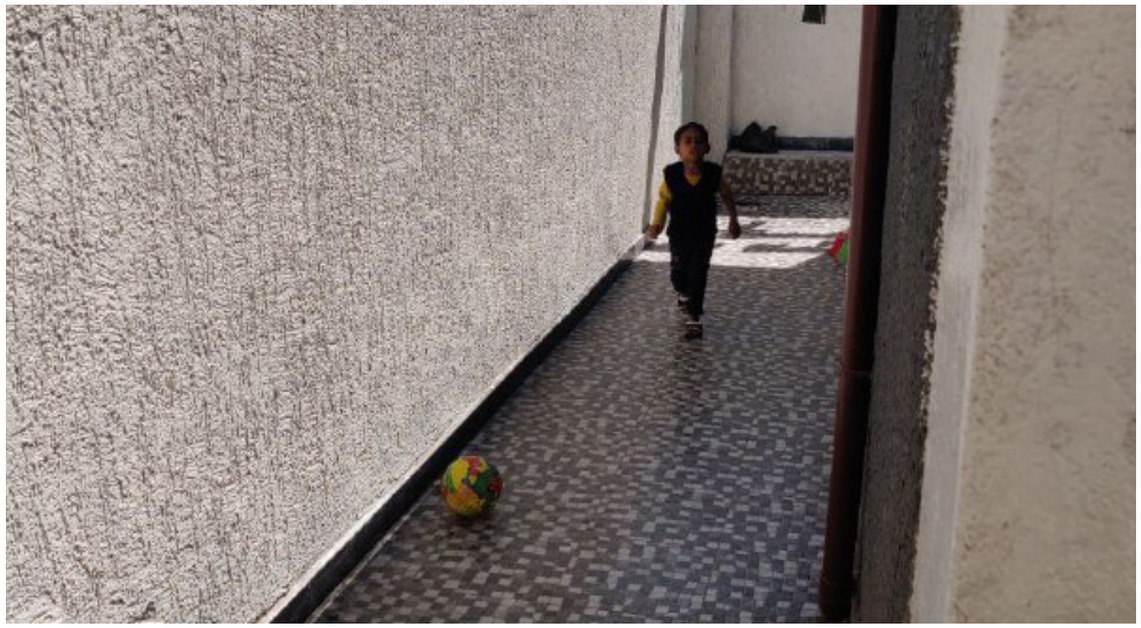
Lunch in the shade in Kechene

Football field for children in Kolfe

Domestic Activities

Domestic spaces are represented by the close ***relation between the internal dwelling and external courtyard spaces of the compound.*** As the houses are relatively small, many activities as washing clothes, drying clothes, drying grains, children playing take place outside.

Drying grains in the compound, Tallian



Children playing in the backyard, Gerji

Drying clothes in the courtyard, Gerji

Small kitchen in Gerji

Injera preparation room in Gerji

Drying clothes and spices in Kechene

The pile of tires to help wash the clothes in the condominium complex in Gerji

Income generation

The division between tasks in low-income social groups are between men and women. ***Men leave to work and come back in the evening, while women takes care of children and the household***. Therefore, the additional income generation are taking place inside the house units or the courtyard by women and outside by men.

Woman generating income by creating mats and selling them once a month in Mercato in Kolfe

Woman generatin income by washing clothes for middle-income group residents in Kolfe

Income generation next to the main street in Kolfe

Building Techniques

The sizes of the projects developed in Addis Ababa are very different. Therefore, the materials used also defers. I***n the newly built buildings, concrete is the main material, however, in the informal settlements, local materials that are cheap are widely used.***

Concrete usage in the new condominium complex, Addis Ababa

Walls in informal settlement made from “chicka” and stones in Tallian

Broken tiles used in concrete for pavement in Kechene

Borders

There are many borders that could be found in Addis Ababa: ***the ones that identify the streets, compounds and households.***

Corregated metal sheet fences in Addis Ababa

Walls and different facades materials identify the individual units in Gerji

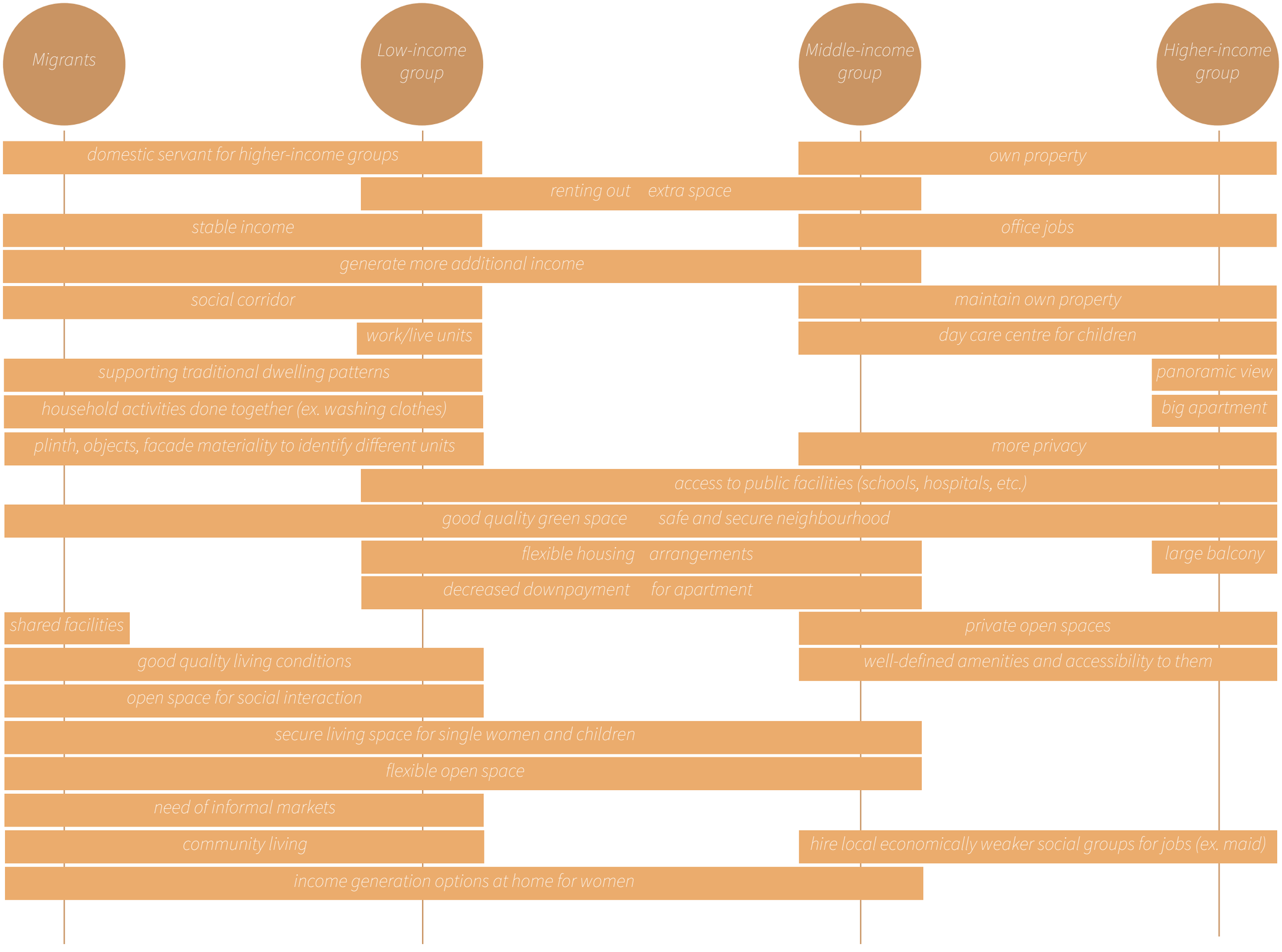
Informal shop operated from the courtyard of the house in Gerji

Corregated metal sheet fence border in Tallian. Different colours identify individual units inside courtyard

Gated windows create border between the inner household and courtyard in Kechene

Plinth, objects, and facade materials to identify individual units in Kolfe

Plinth, objects, and facade materials to identify individual units in Gerji


Migrants
Low-income group
Middle-income group
Higher-income group
domestic servant for higher-income groups
own property
renting out extra space
stable income
office jobs
generate more additional income
social corridor
maintain own property
work/live units
day care centre for children
supporting traditional dwelling patterns
panoramic view
household activities done together (ex. washing clothes)
big apartment
plinth, objects, facade materiality to identify different units
more privacy
access to public facilities (schools, hospitals, etc.)
good quality green space
safe and secure neighbourhood
flexible housing arrangements
large balcony
decreased downpayment for apartment
shared facilities
private open spaces
good quality living conditions
well-defined amenities and accessibility to them
open space for social interaction
secure living space for single women and children
flexible open space
need of informal markets
community living
hire local economically weaker social groups for jobs (ex. maid)
income generation options at home for women

03location

Title

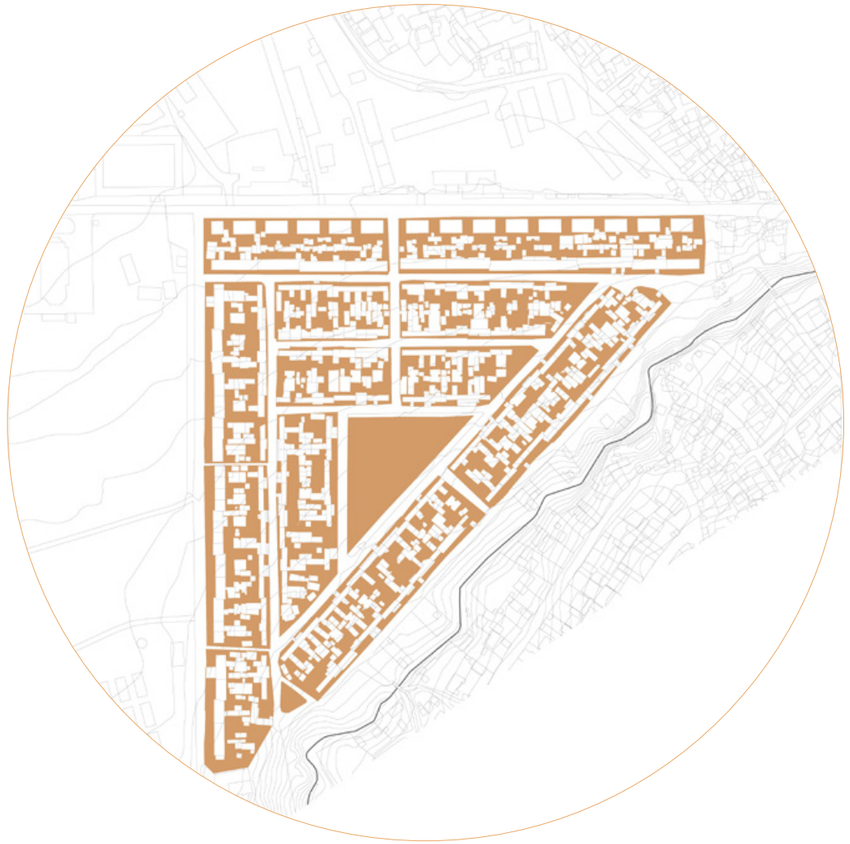
Subtitle


Market
Secondary school
Aqsa Mosque
Mulugeta's house
Saba's house
Football field
Monastery
Primary school
Paulus Kidos Church
Police academy
Informal market

Rigid street structure

Closed natural and urban borders

Built-up space



Open space

Secondary streets are defined by the corrugated metal sheet fences and gates

The primary vehicle road from Police Academy towards the street connecting neighbourhood with the city

Secondary streets are defined by the corrugated metal sheet fences and gates

Appropriation of the space

Formal market in the neighbourhood

Informal settlements near by the river stream

Informal market in the South part of Kolfe neighbourhood

The condition of river stream

Mulugeta's garden in the public space

Public area: football field and abandoned green spaces

Saba's and Kidan's courtyard in the front

Informal restaurant and coffee shop in the central public space

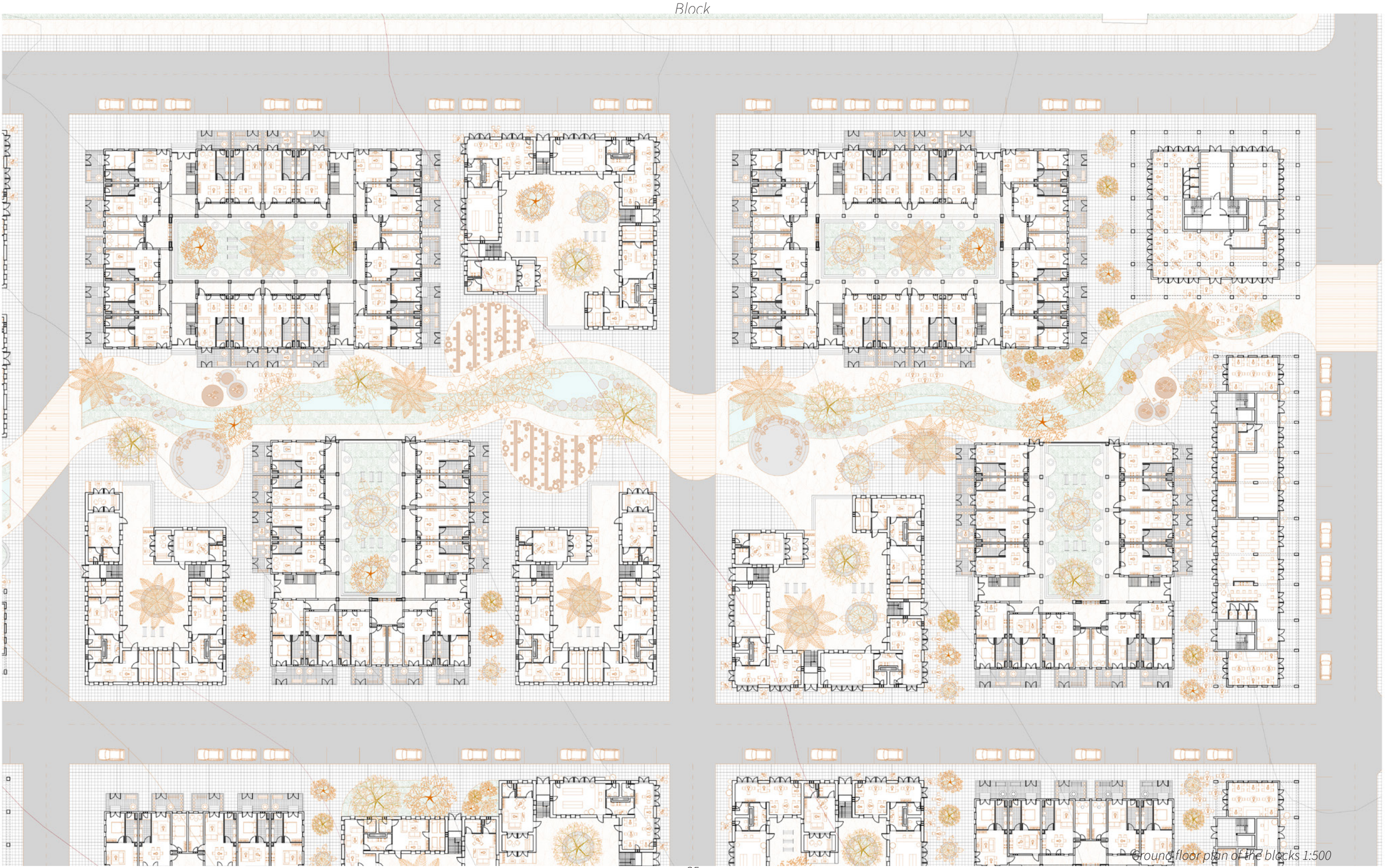
Inspired by the existing street structure and rigidity, ***the new road structure is created***. Defined by streets, three block typologies are created: square, cut-off square and triangle.

Rigid block are intertwined with fluid, green pedestrian paths, creating the hierarchy of streets and spaces. The rigidity is left for the cars, whereas the fluidity for people. ***Bridges*** above the river stream ***are being placed to open and connect the neighbourhood*** with the surrounding areas.

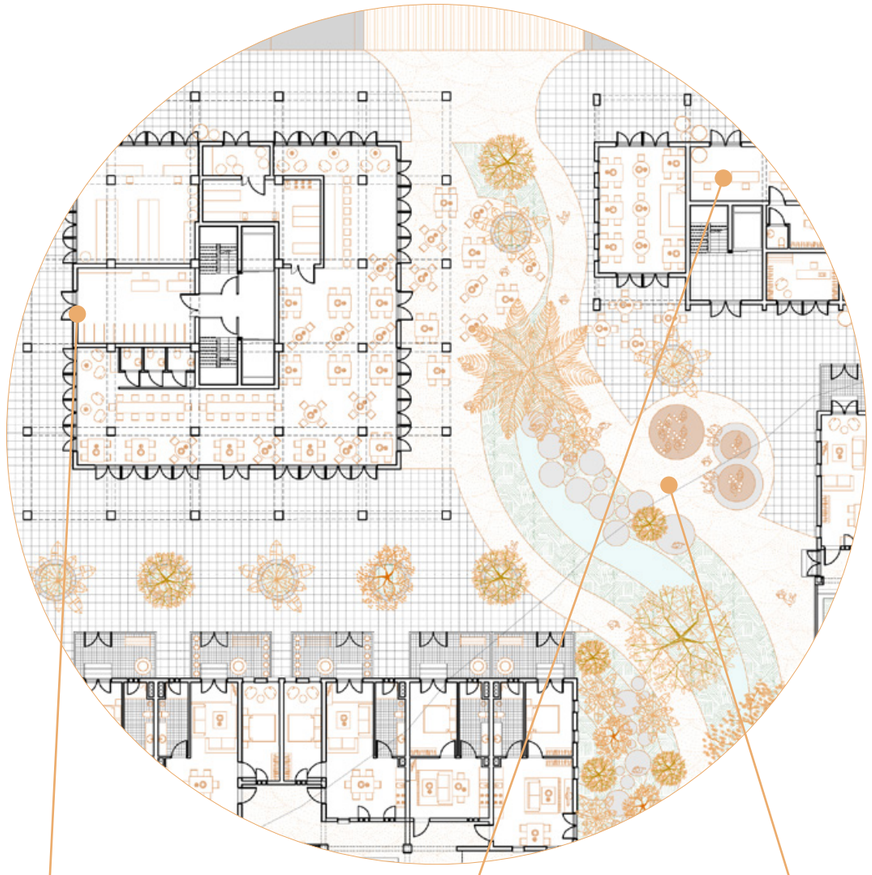
Newly proposed 4 typologies for different socio-economic groups are placed in the neighbourhood, defining special conditions, borders and different spatial qualities. ***It does not make different economic groups equal, but it brings the same social levels of acceptance and respect to different socio-economic groups.***

The block structure represents the framework for the community giving shape in semi-open courtyards, inner pedestrian streets, combination of low-rise and high-rise building, small communal spaces and sustainable solutions for dwelling.

Masterplan 1:1500



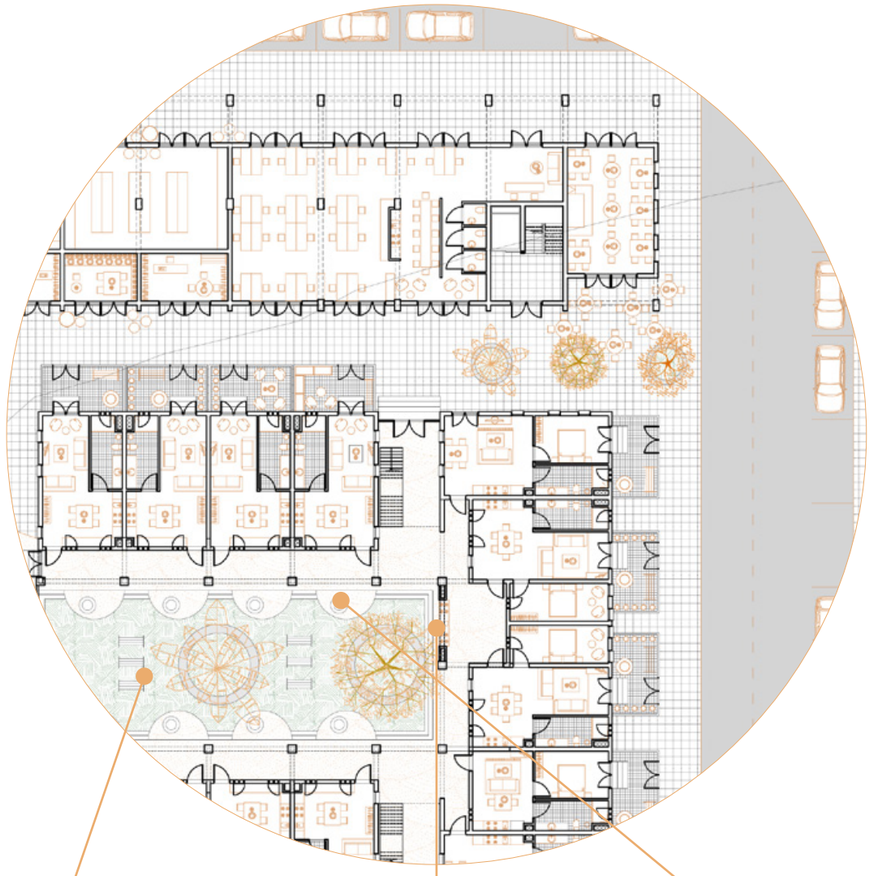
Ground floor plan of the blocks 1:500



Private entrance

Amenities on the ground floor

Children playing outside



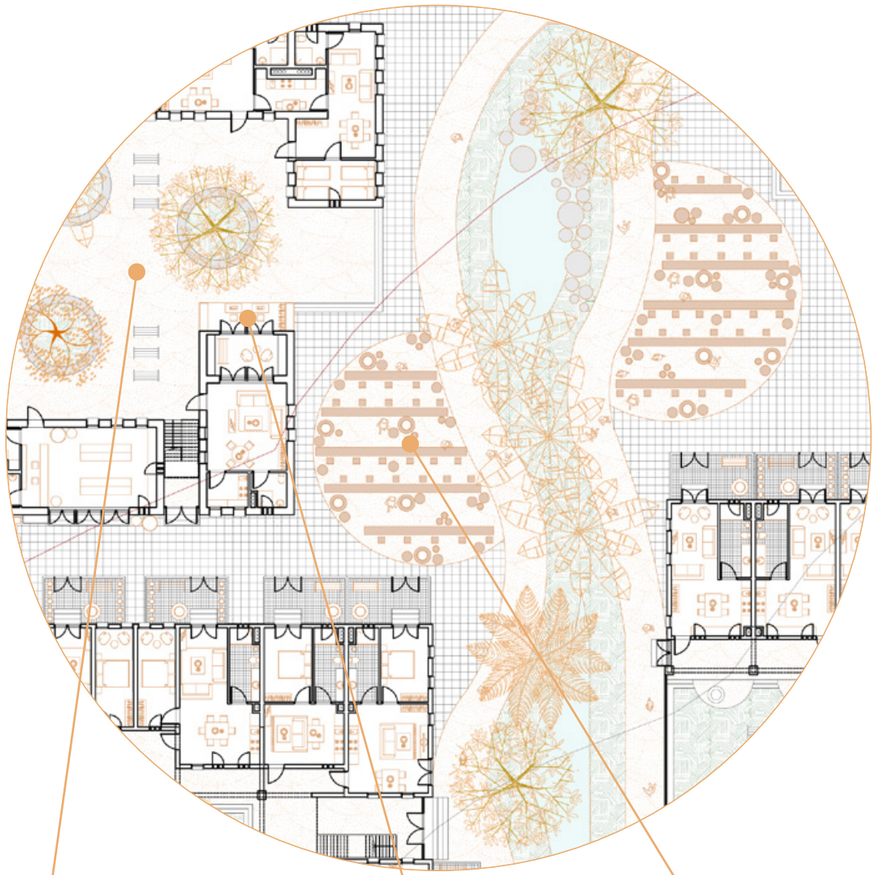
Drying clothes in the courtyard

Communal living - open-fire, outside kitchen

Space for washing clothes

03 location

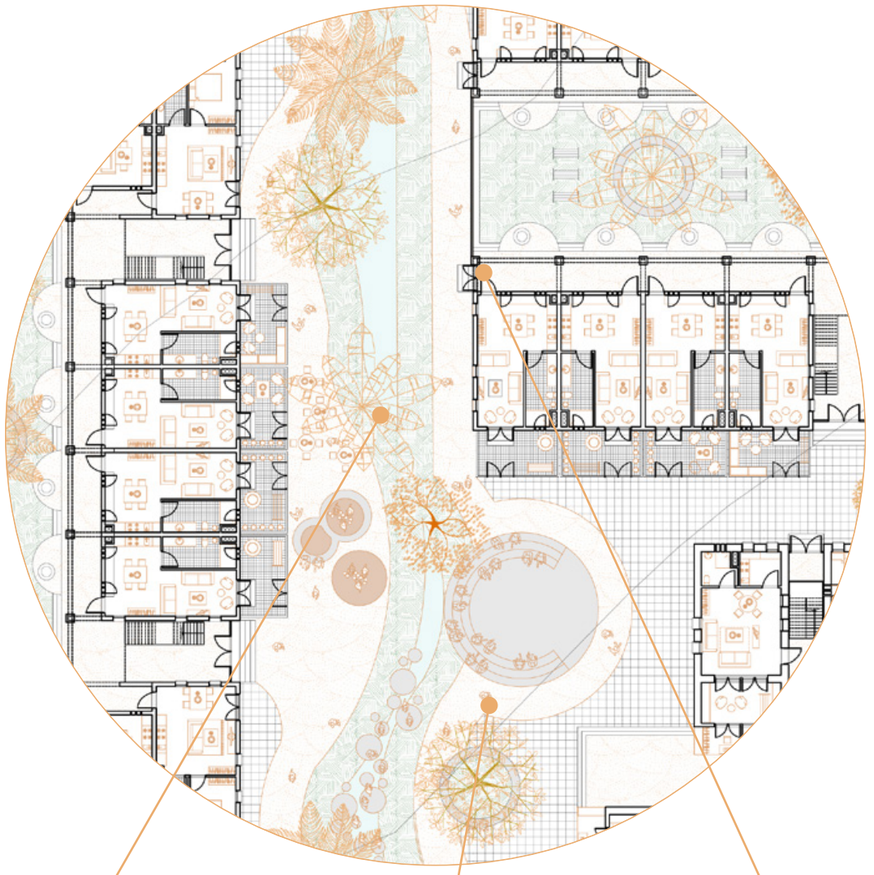
Block



Drying grains in the compound

Income generation

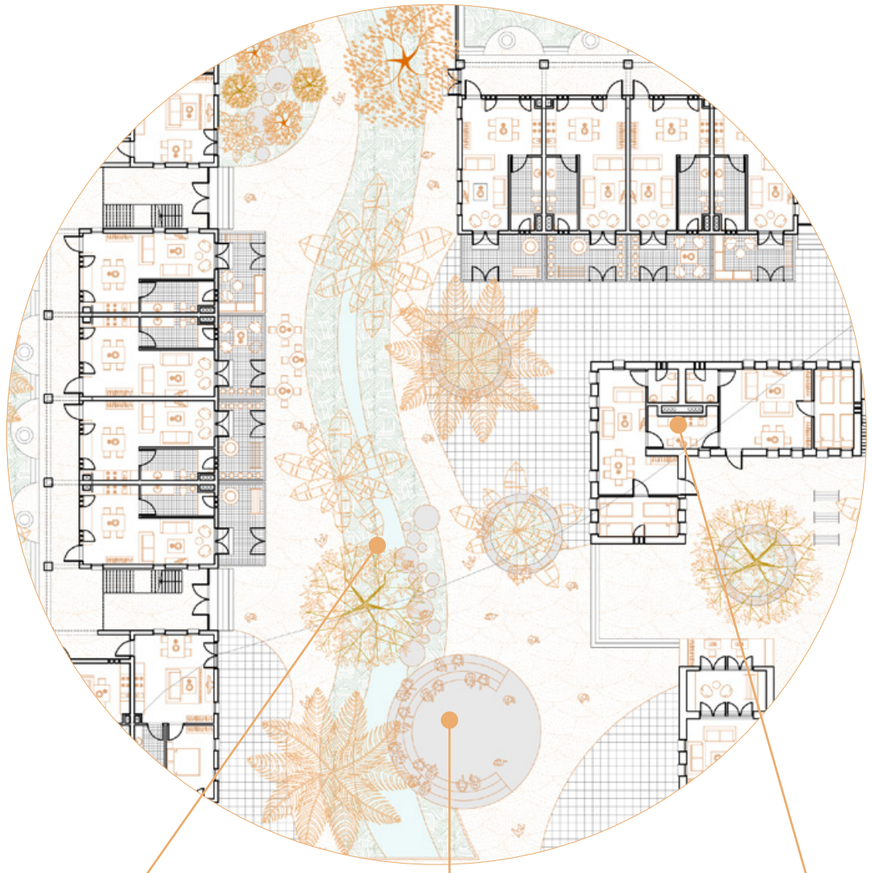
Informal market



Good quality green space

Stoned pavements

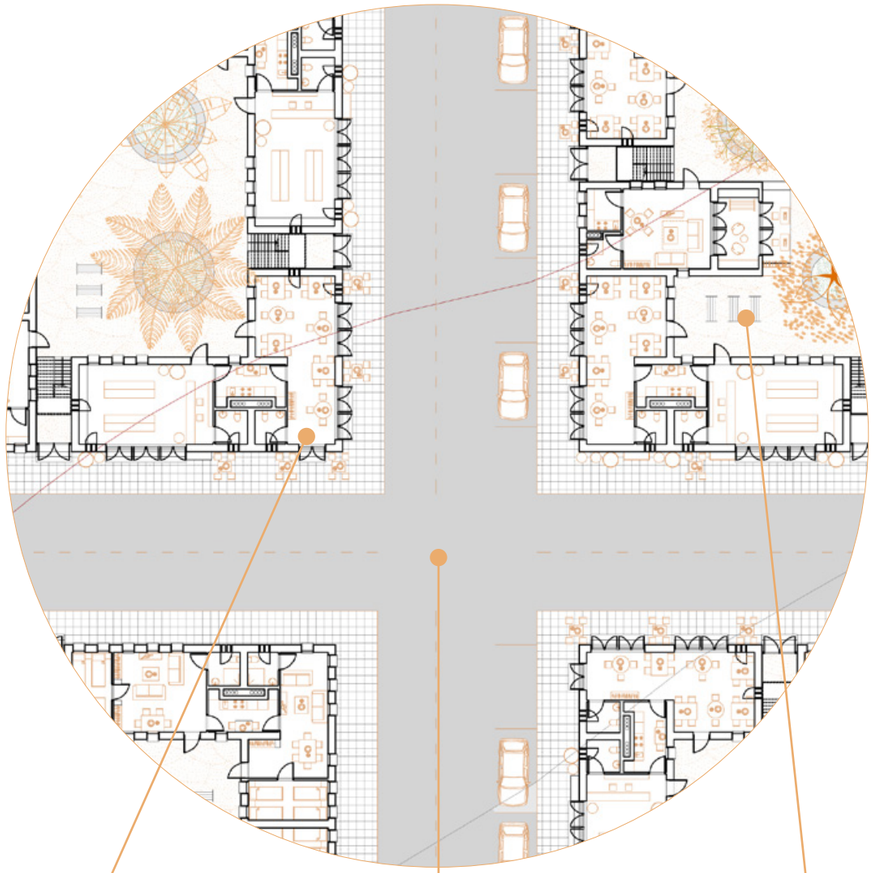
Appropriation of space



Urban playground

Amphitheathre transformed to cinema

Shared facilities

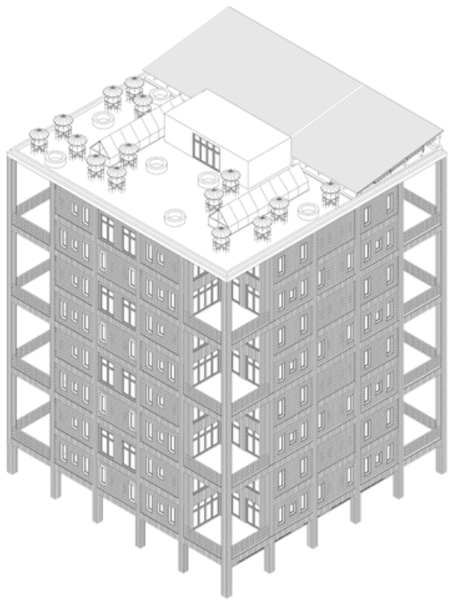


Coffee on the corner of the

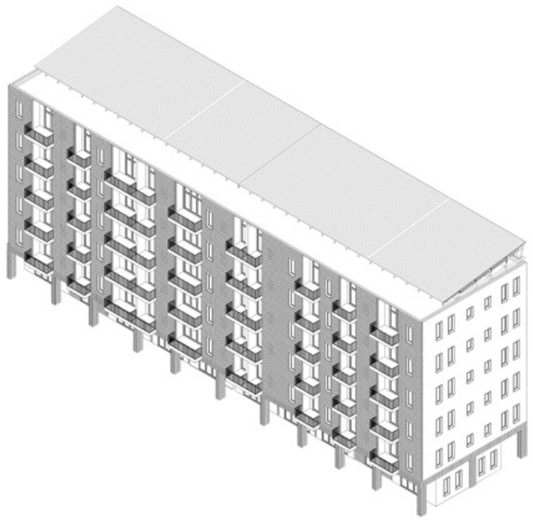
Asphalted car road

Close community

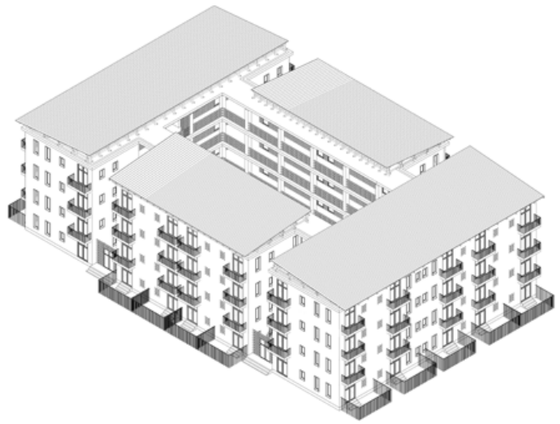
04design



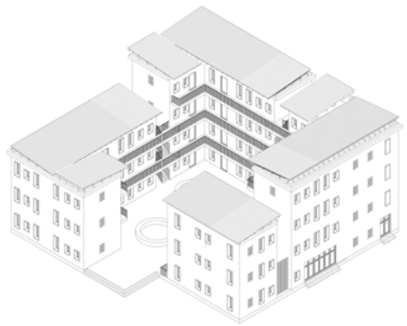
Tower



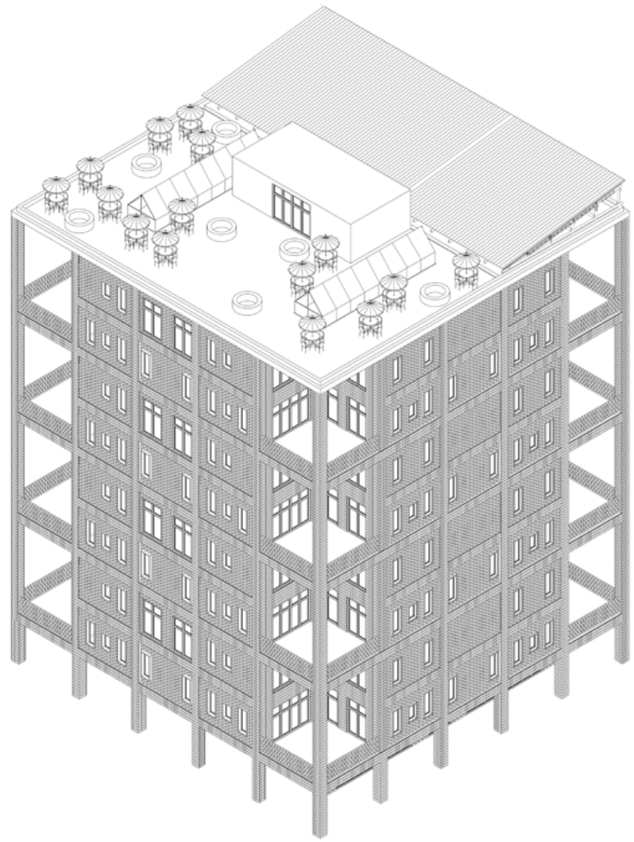
Slab

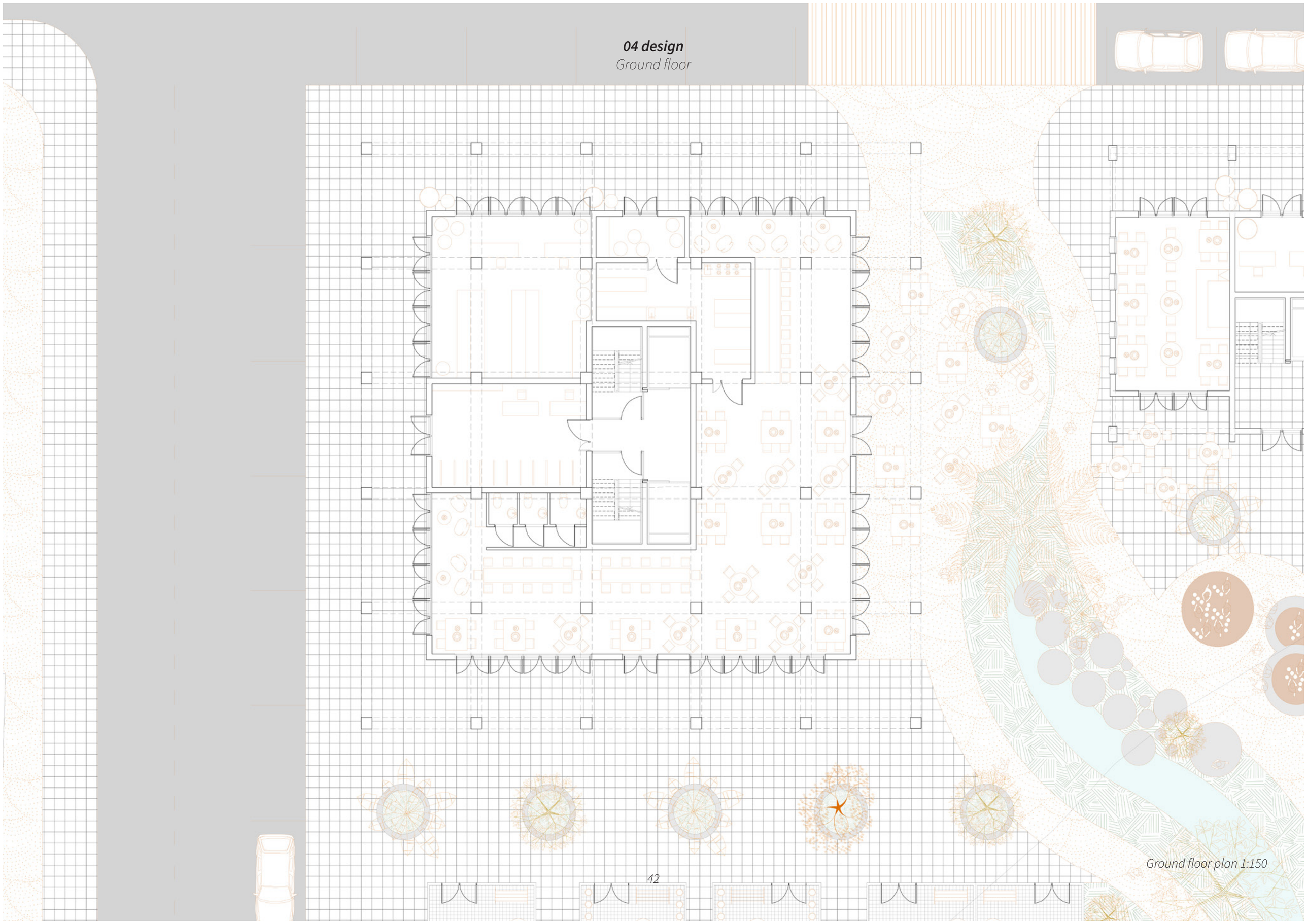


Courtyard

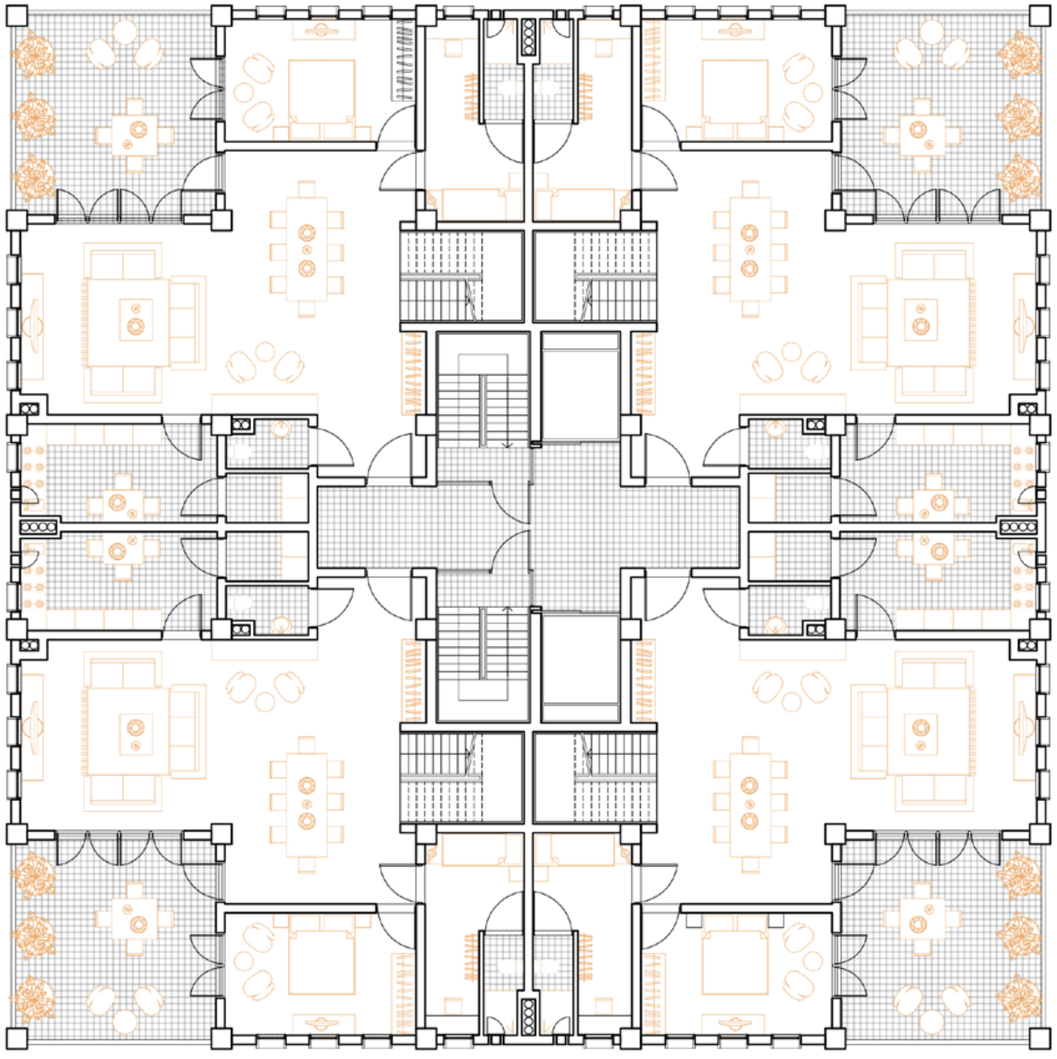


Compound

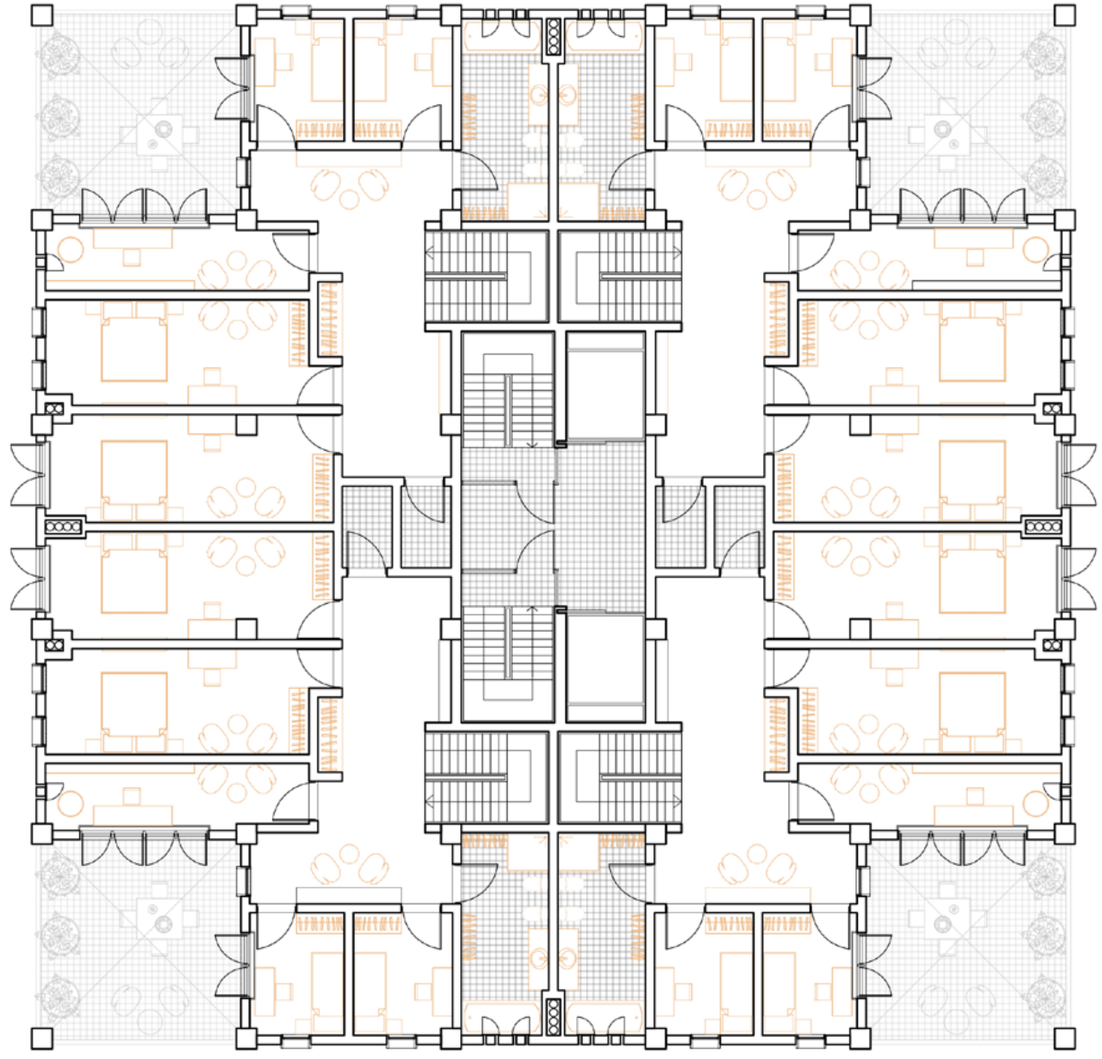




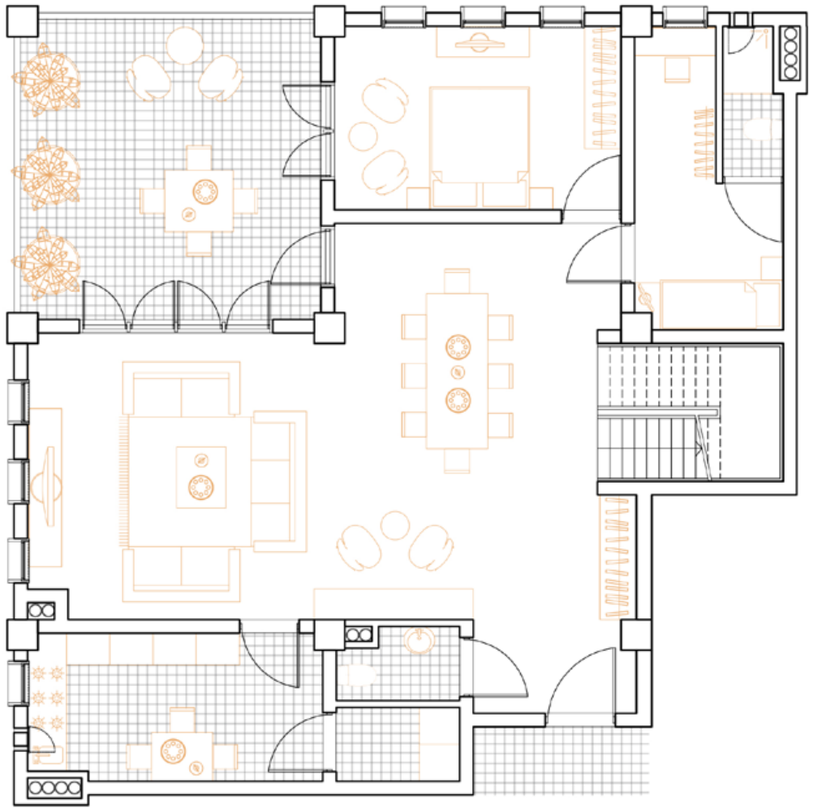
Ground floor plan 1:150



First floor plan 1:150



Second floor plan 1:150

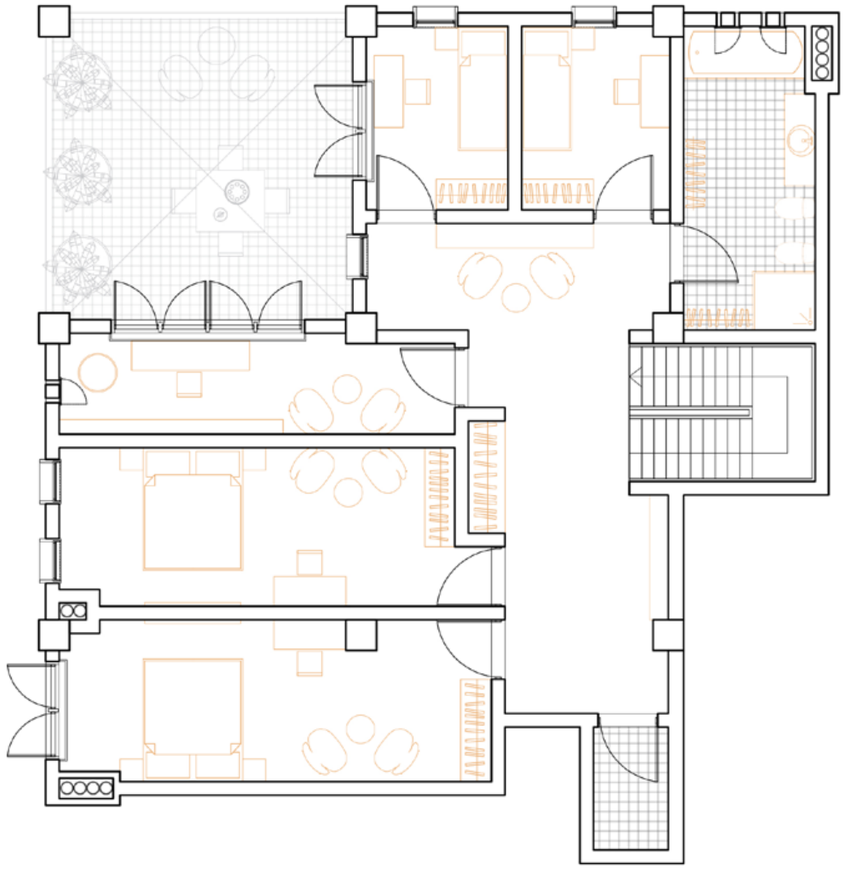


5 bedrooms apartment
210m²

Maid unit 12m²

Balcony 24.75m²

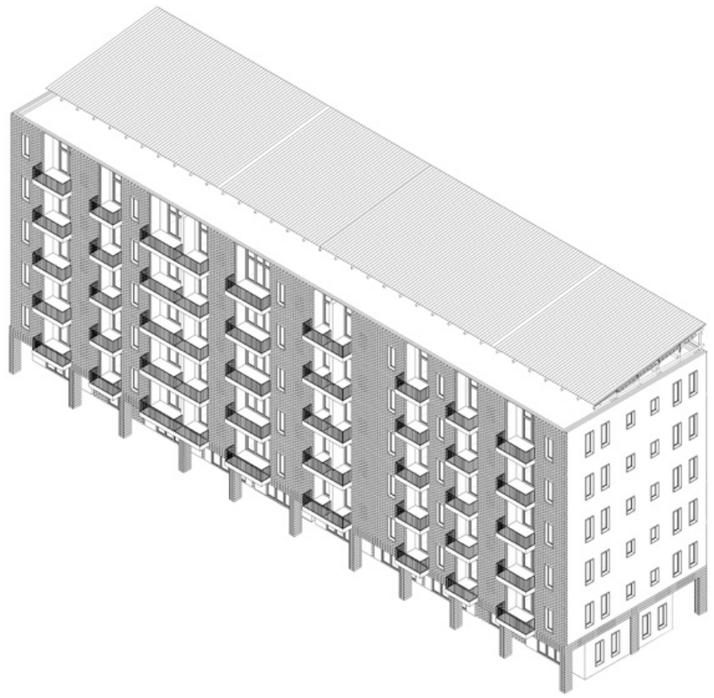
5 bedrooms apartment first floor 1:100

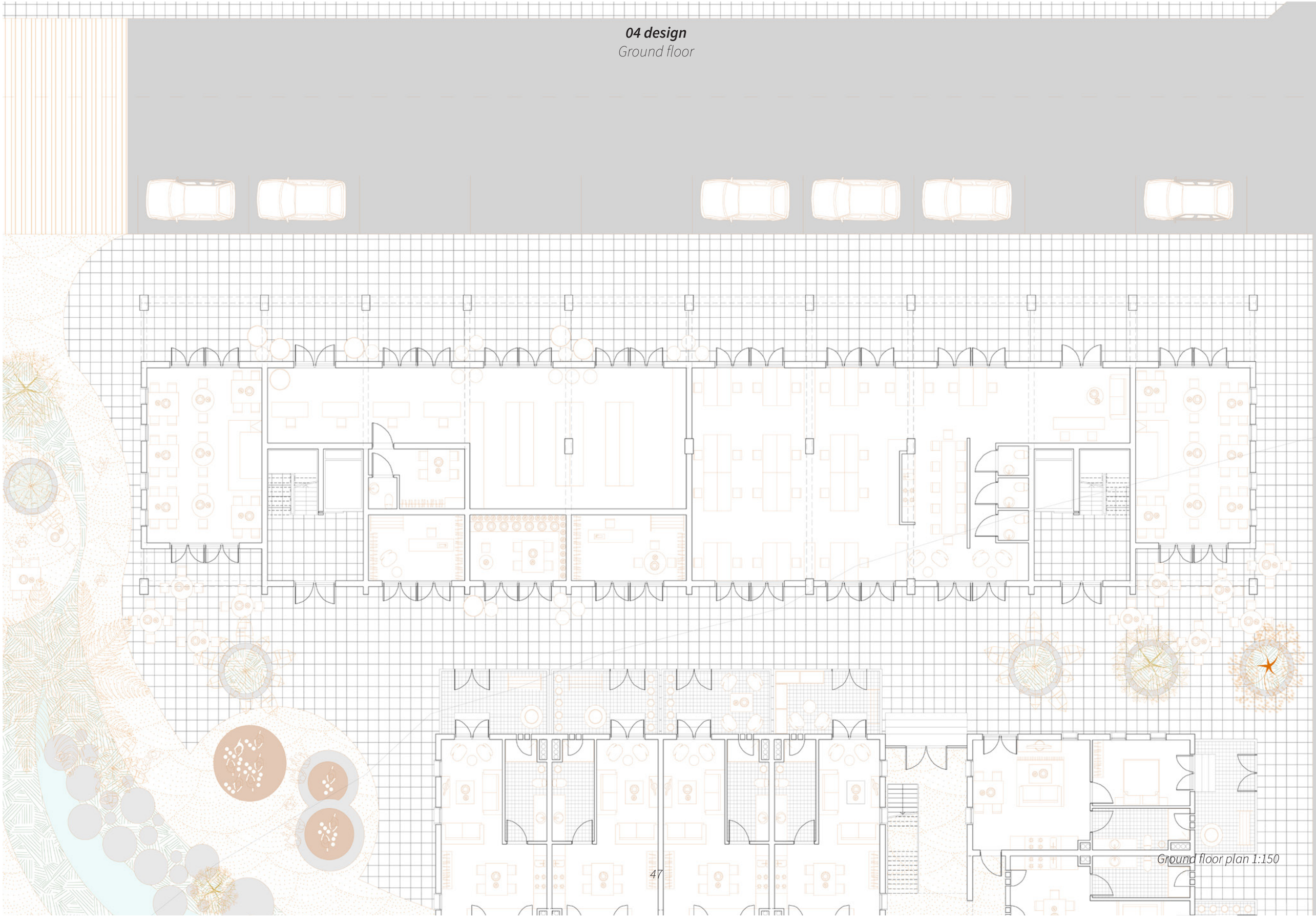


5 bedrooms apartment second floor 1:100

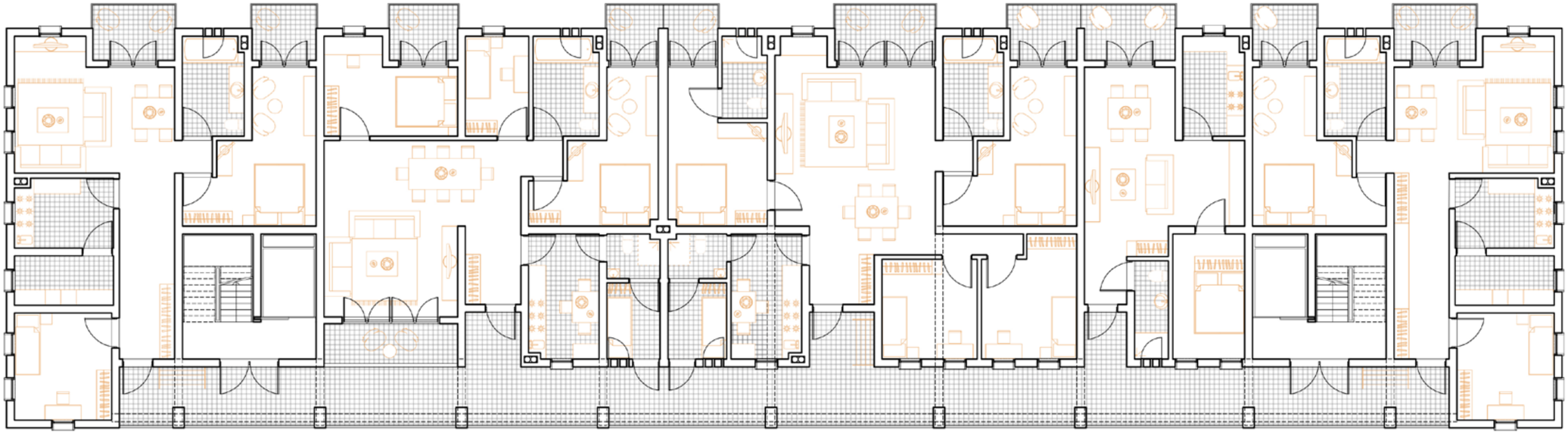
Fasade 1:150

Section 1:150

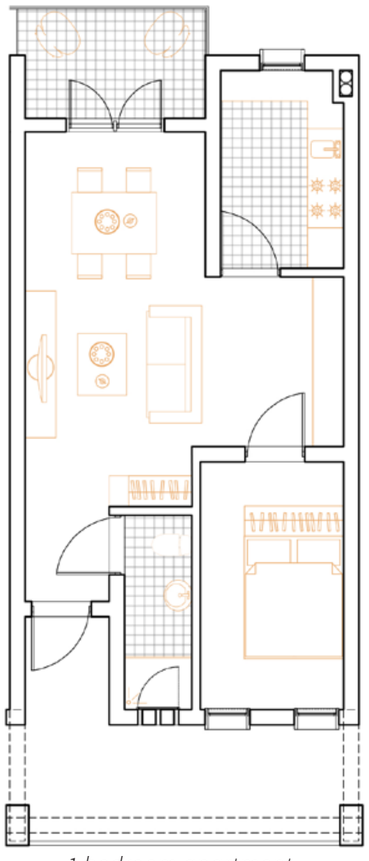




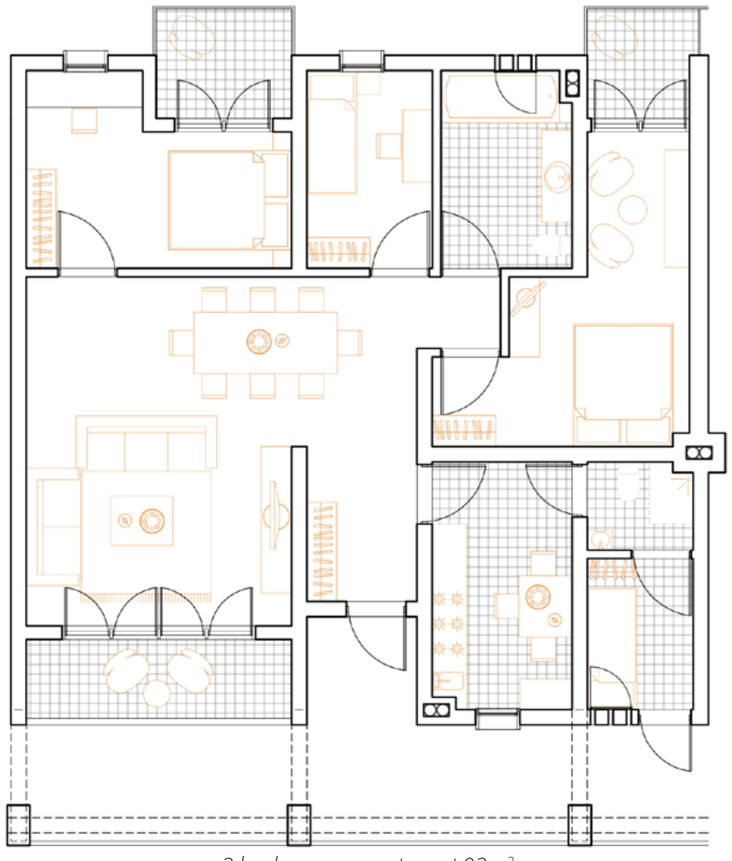
Ground floor plan 1:150



First floor plan 1:150



1 bedroom apartment
45.9m²

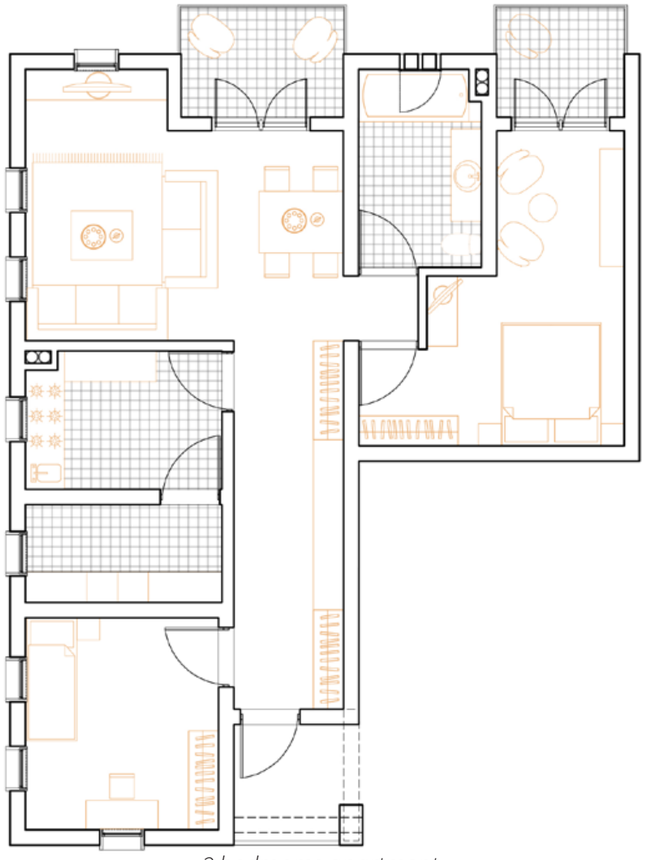


3 bedrooms apartment 93m²

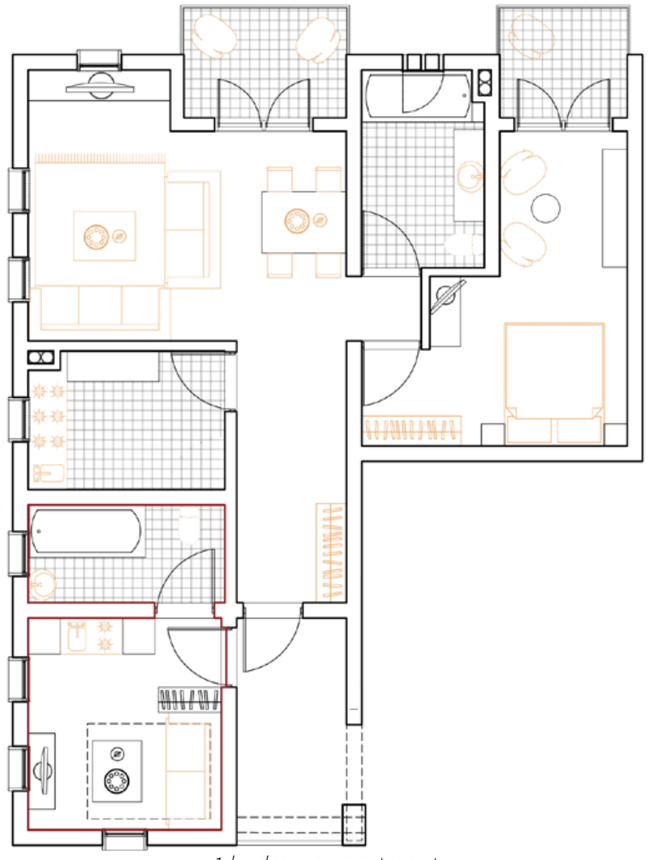
Maid unit 7m²

1 bedroom apartment 1:100

3 bedrooms apartment 1:100



2 bedrooms apartment
76.6m²

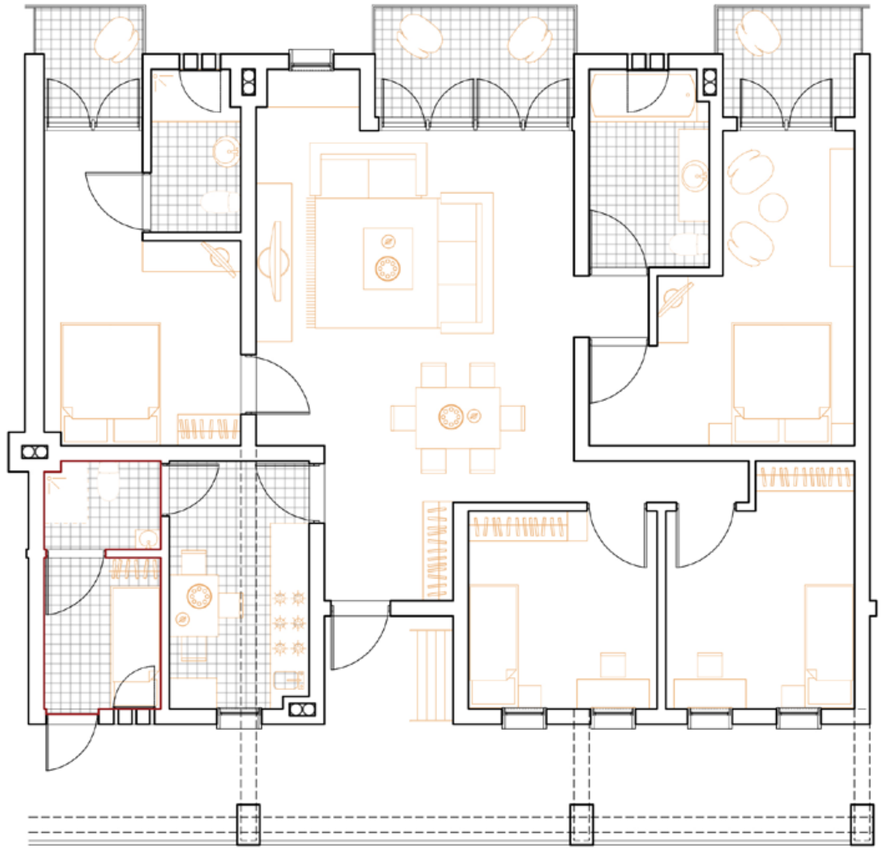


1 bedroom apartment
60.4m²

Rental unit 16.2m²

2 bedrooms apartment 1:100

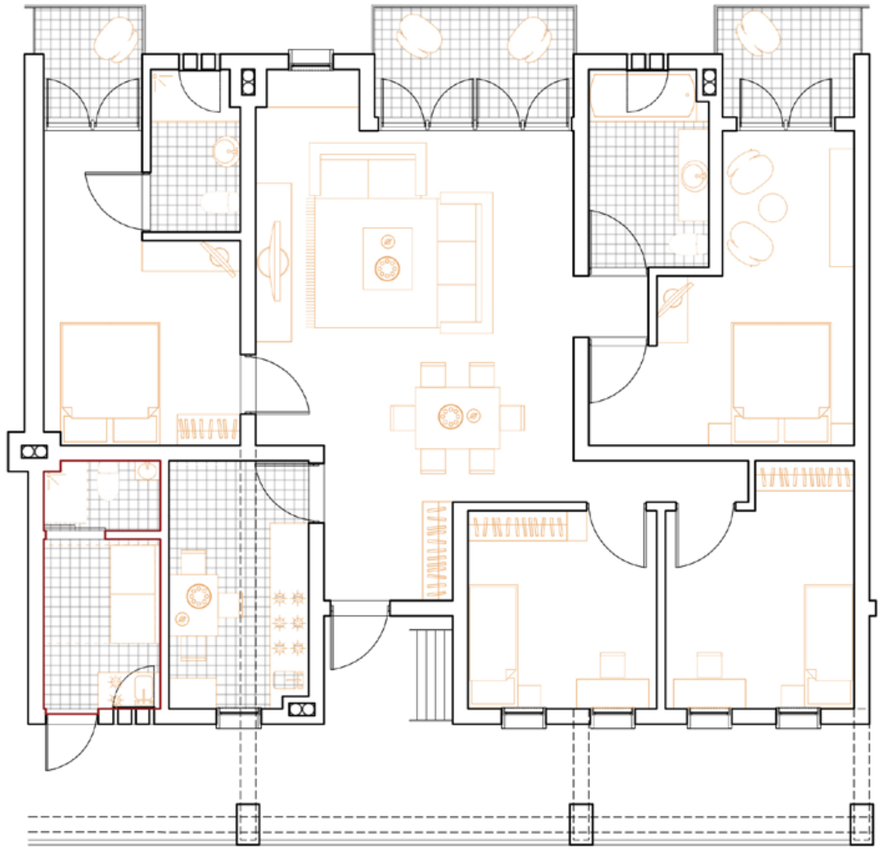
1 bedroom apartment with rental unit 1:100



4 bedrooms apartment
114.8m²

Maid unit 8m²

4 bedrooms apartment 1:100



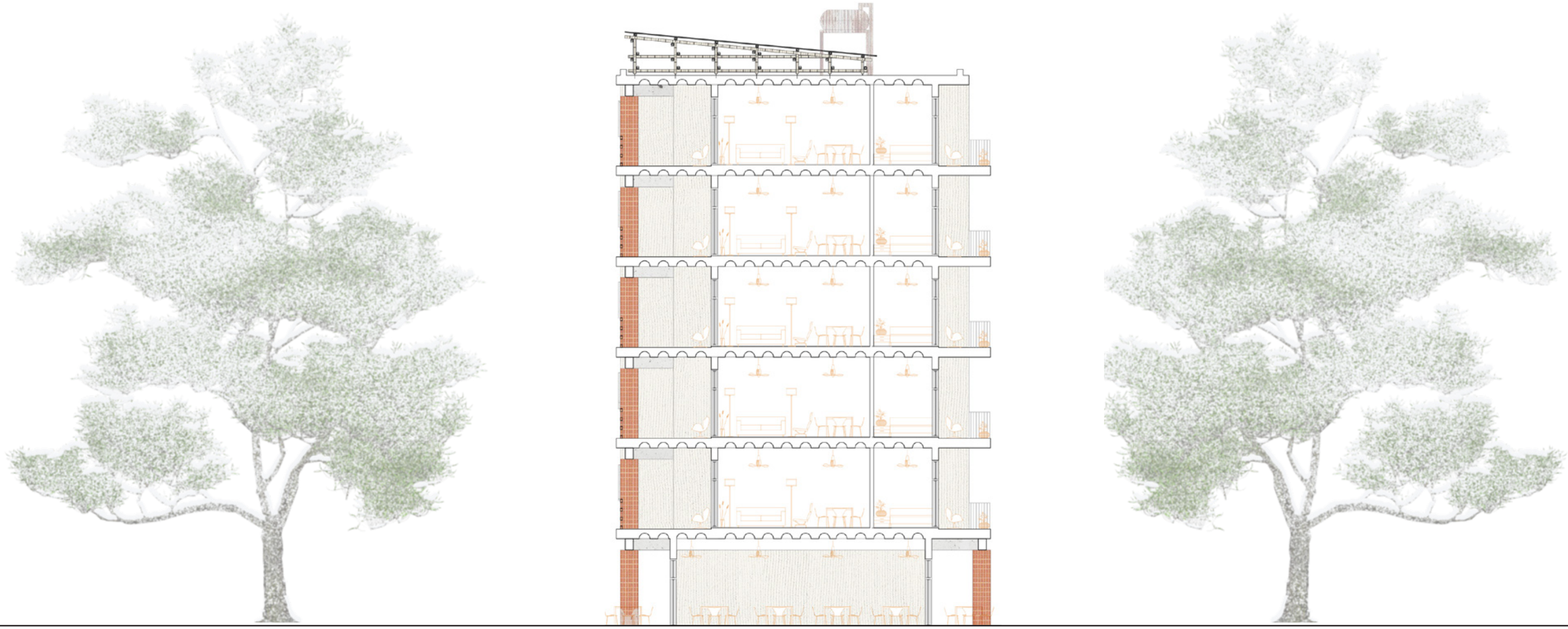
4 bedrooms apartment
114.8m²

Rental unit 8m²

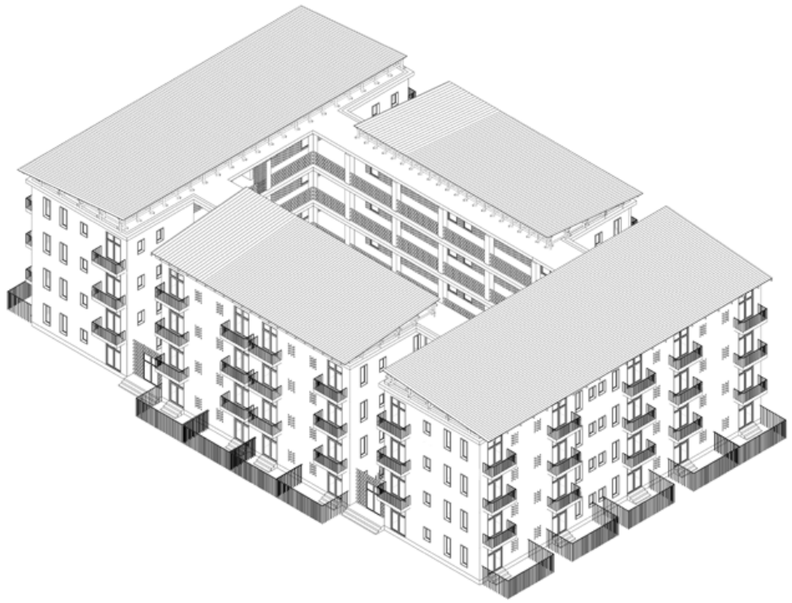
3 bedrooms apartment with rental unit 1:100

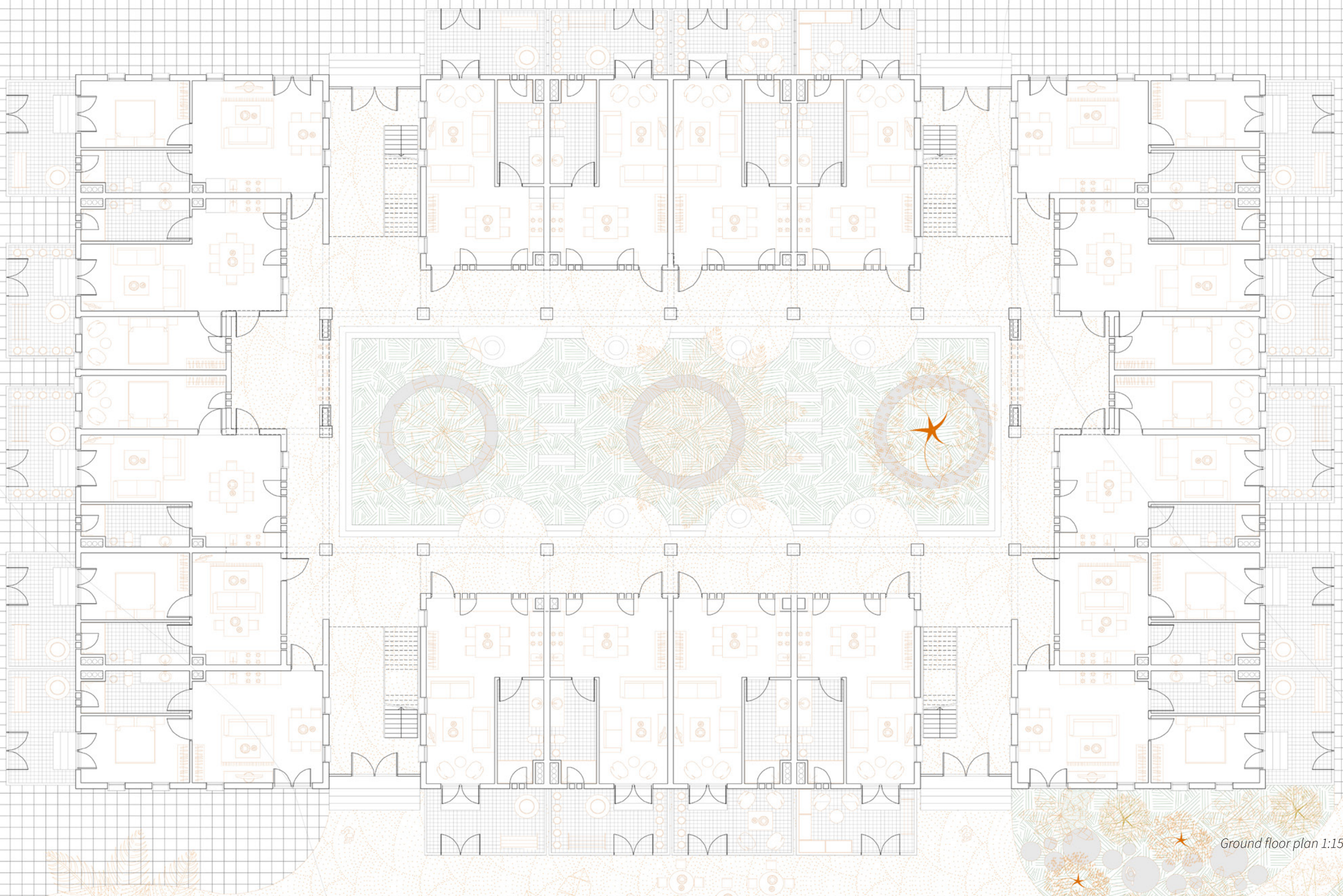
Facade 1:150

Facade 1:150

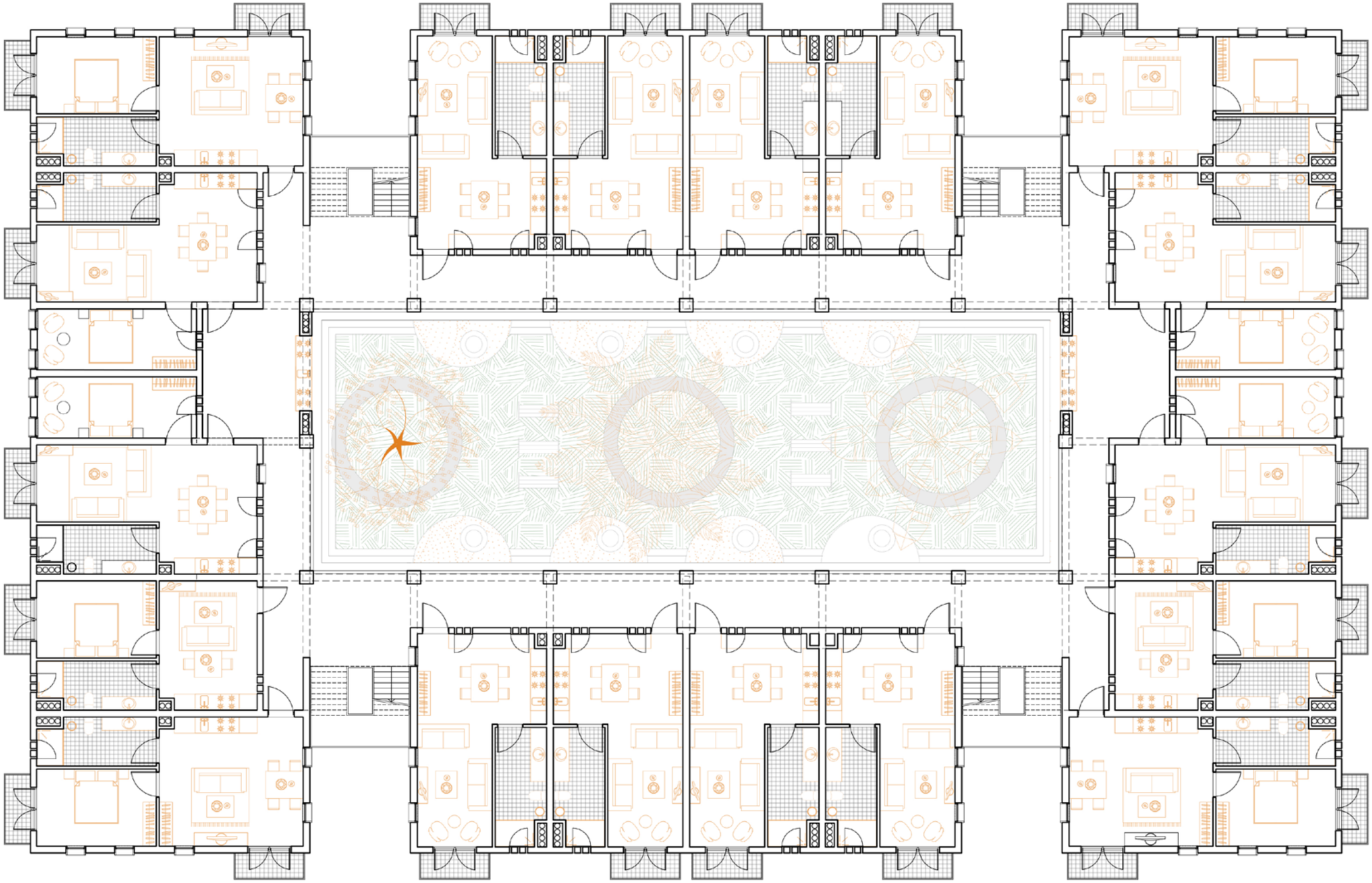


Section 1:150

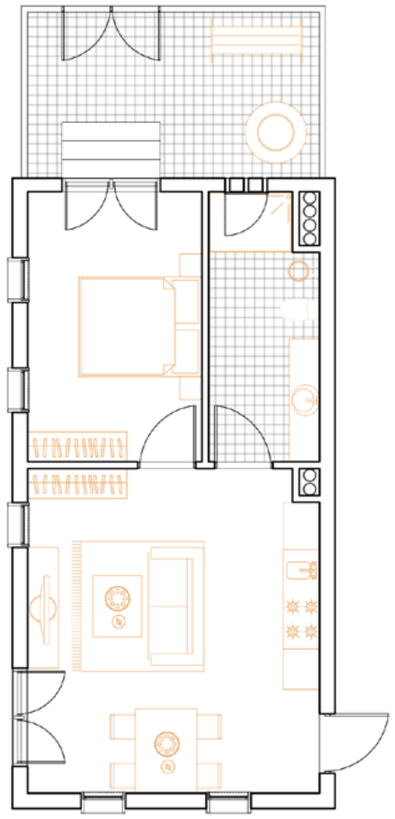




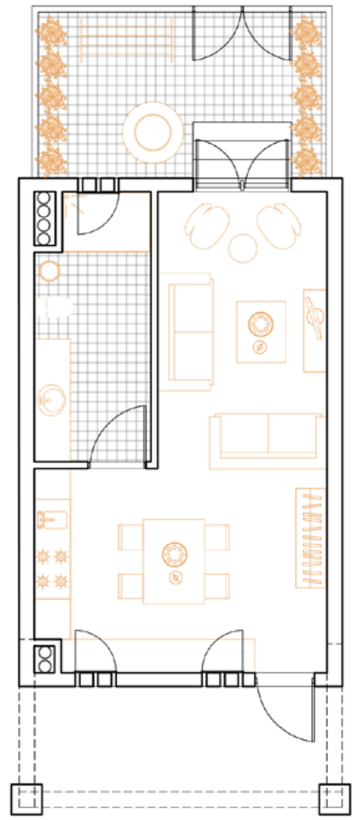
Ground floor plan 1:150



First floor plan 1:150

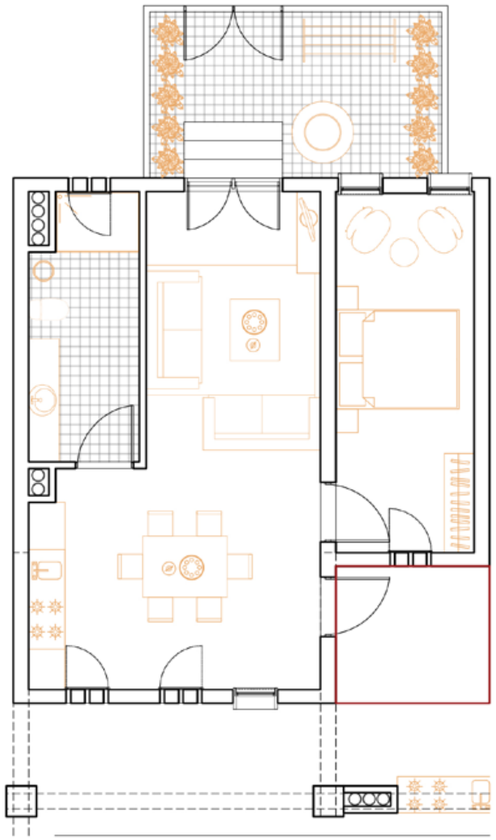


1 bedroom apartment
45.2m²



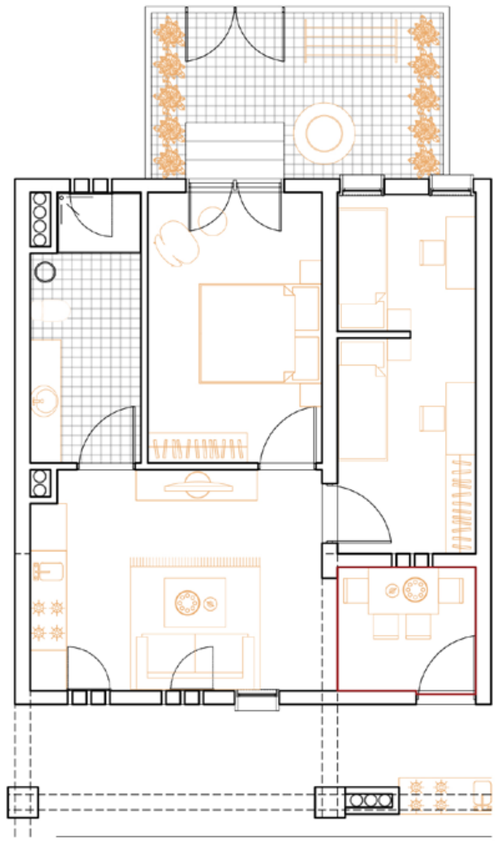
Studio apartment 35.9m²

Studio and 1 bedroom apartments 1:100



1 bedroom apartment
45.2m²

Extension 5m²



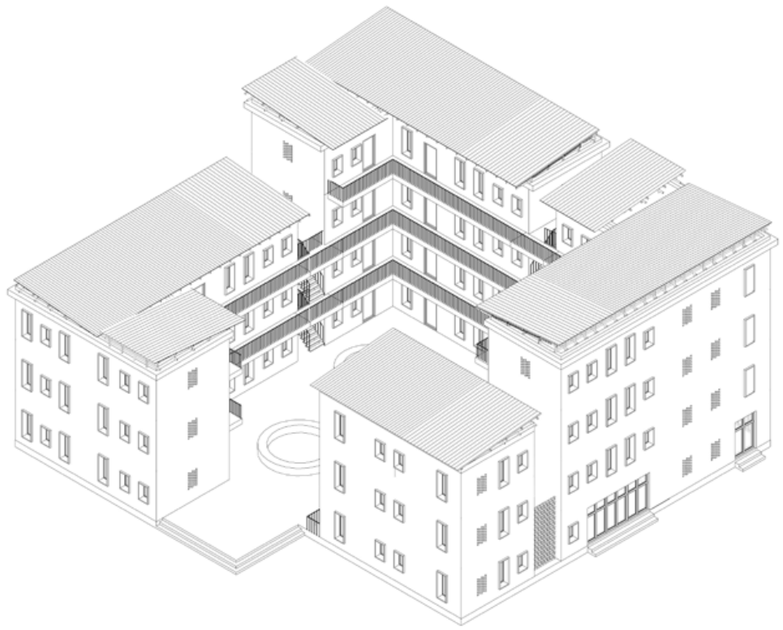
2 bedrooms apartment
55.2m²

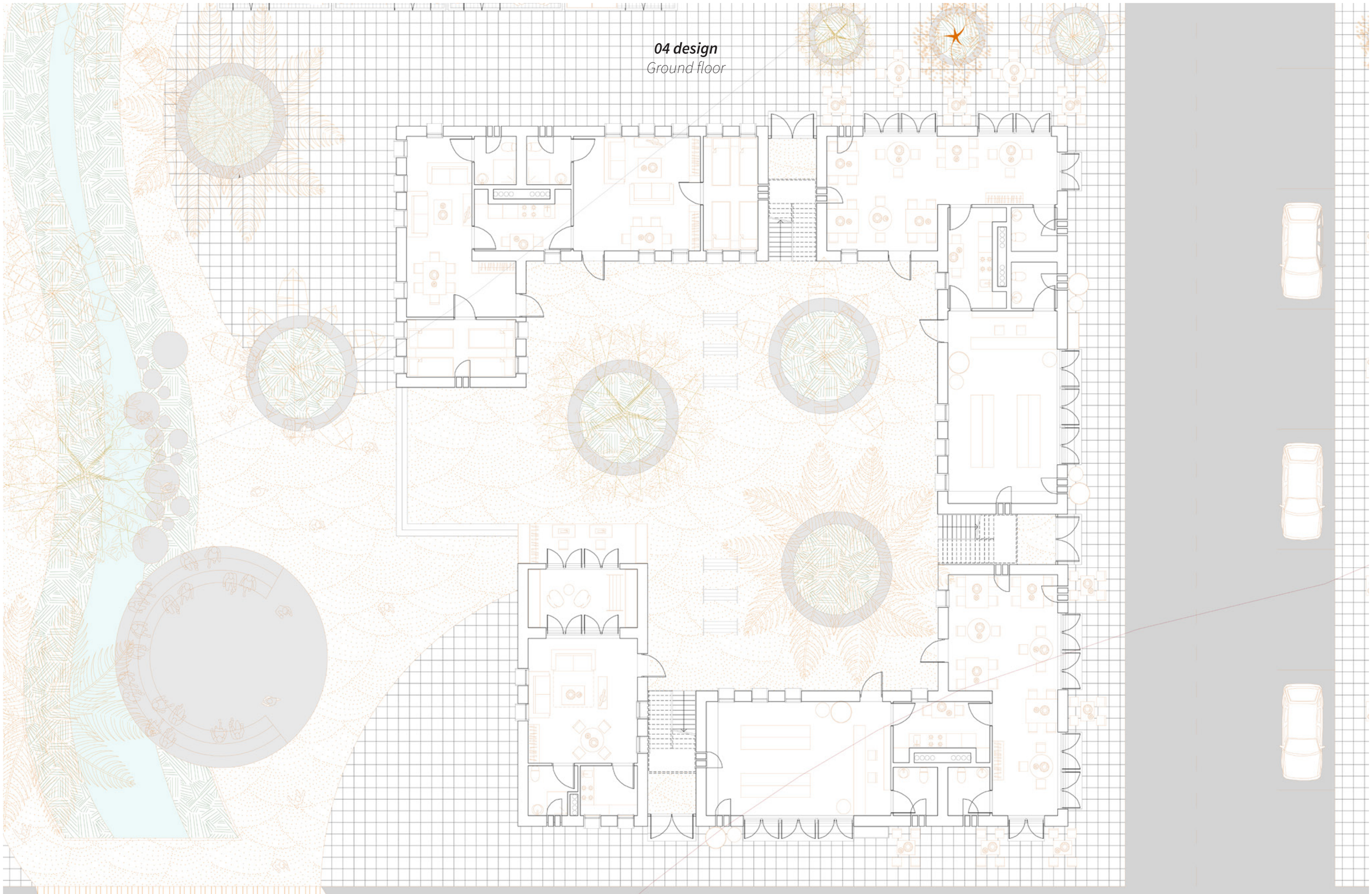
Extention of 1 bedroom apartment to 2 bedrooms apartment 1:100

Facade 1:150

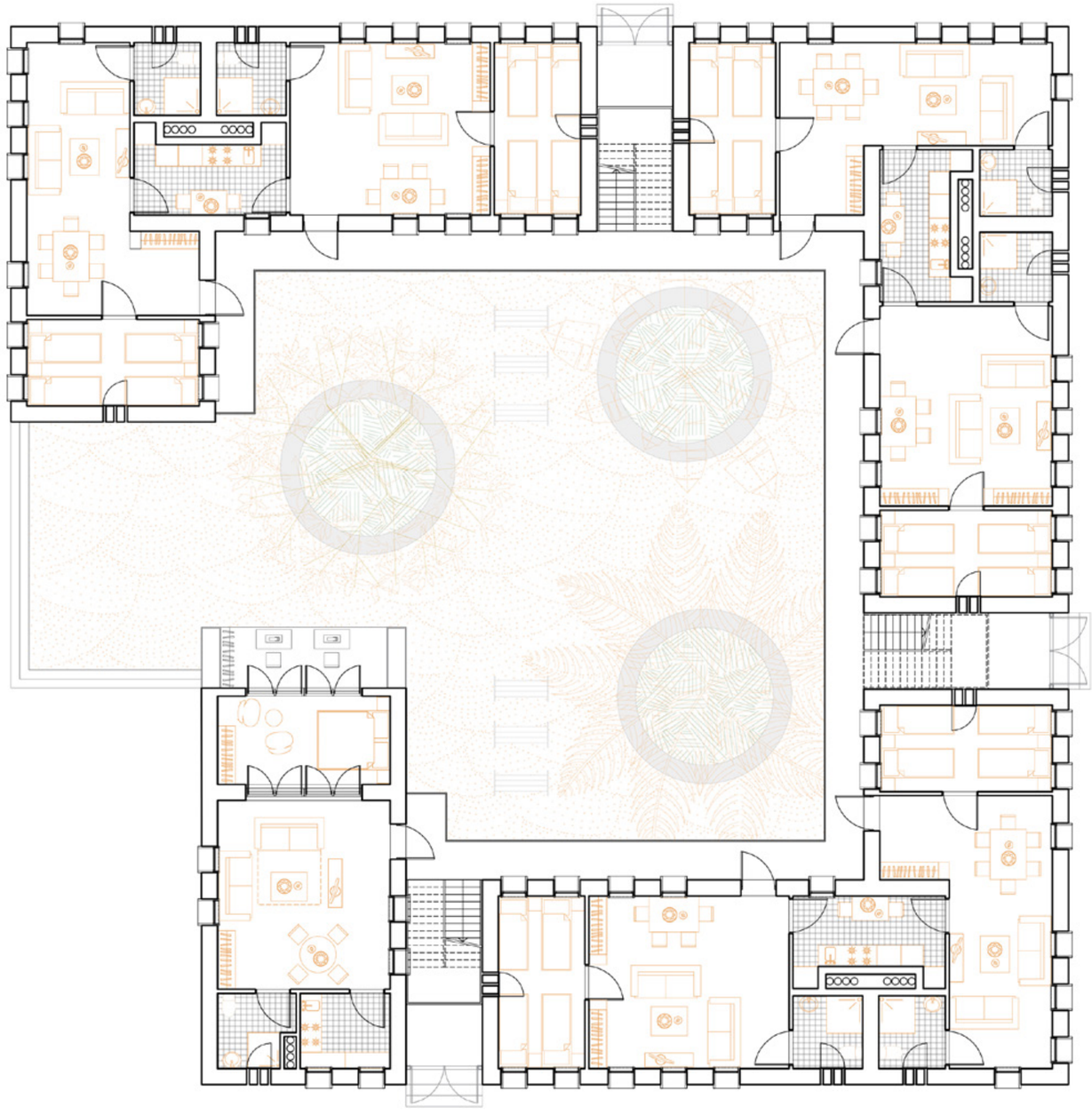
Facade 1:150

Section 1:150

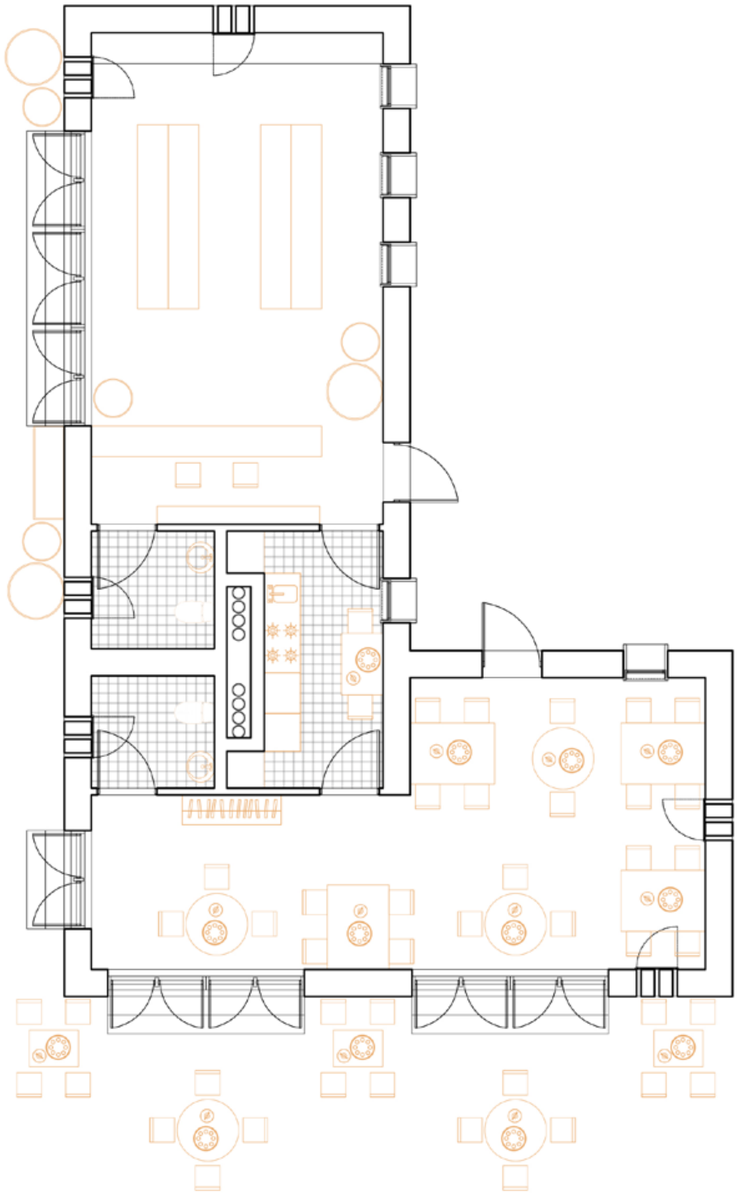




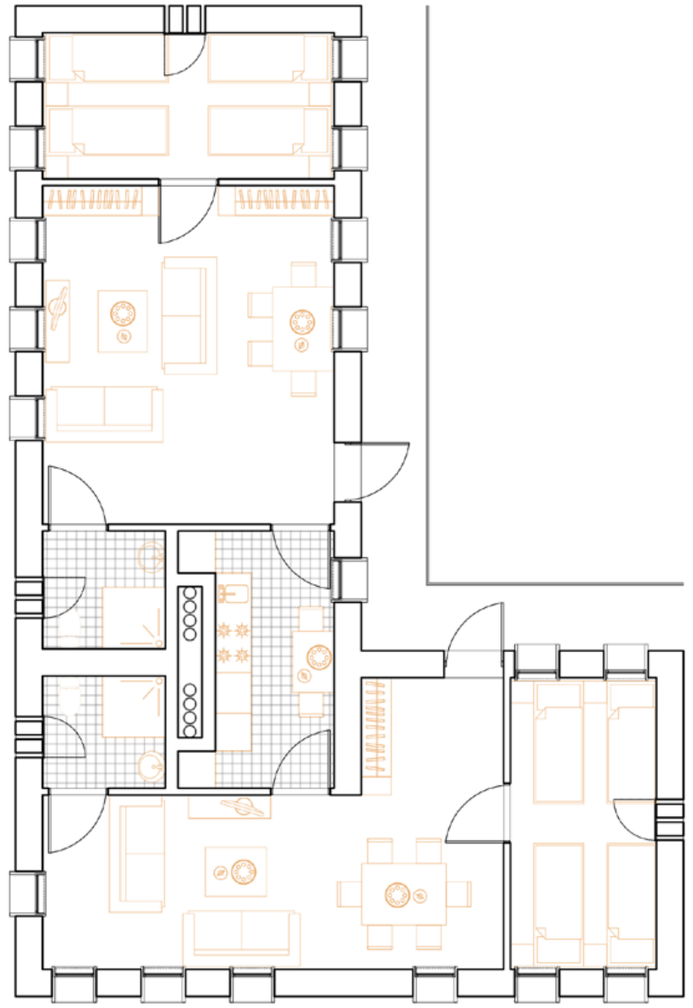
Ground floor plan 1:150



First floor plan 1:150

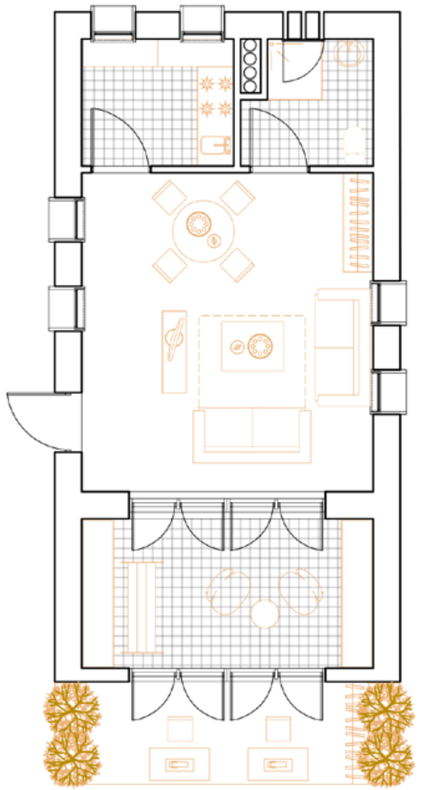


Commercial functions on the ground floor near the main road 1:100



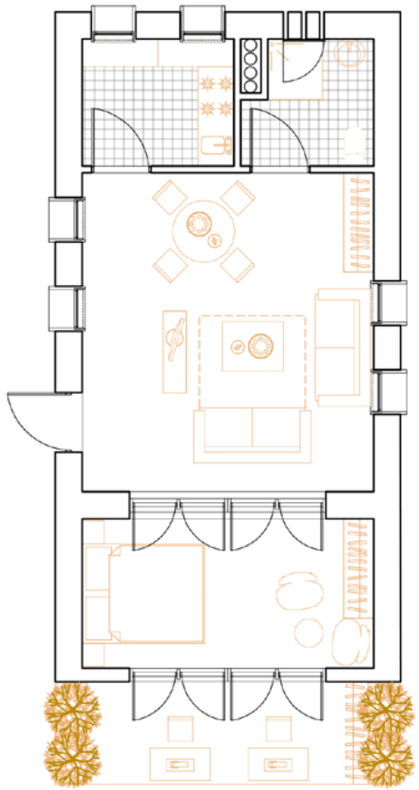
L shaped partment with shared facilities for rural migrants and urban poor 91.6m²

Apartment for rural migrants and urban poor with shared facilities 1:100

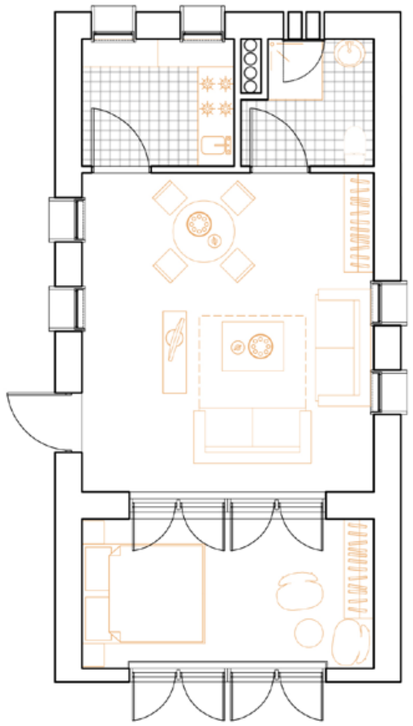


Studio apartment 34.2m²

Room for income generation
11.5m²



1 bedroom apartment
45.7m²



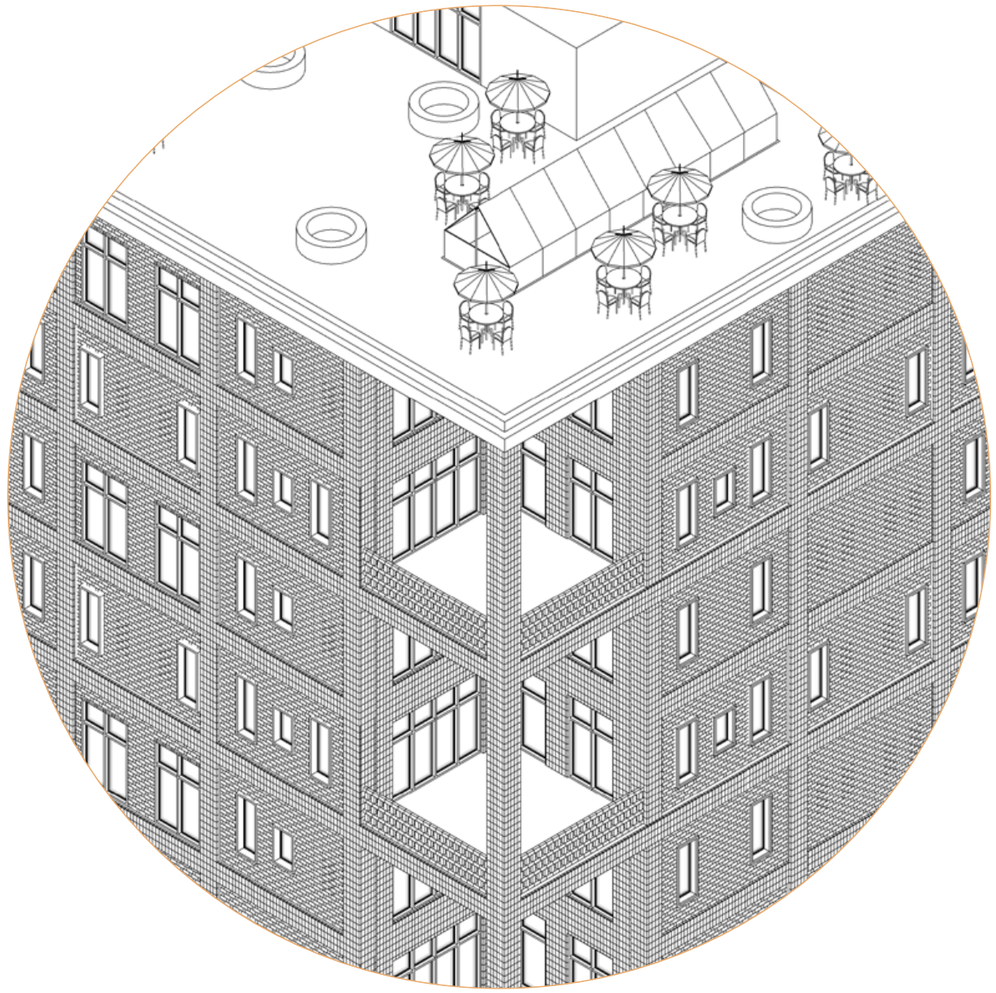
1 bedroom apartment
45.7m²

Studio apartment transformed to 1 bedroom apartment on the ground floor 1:100

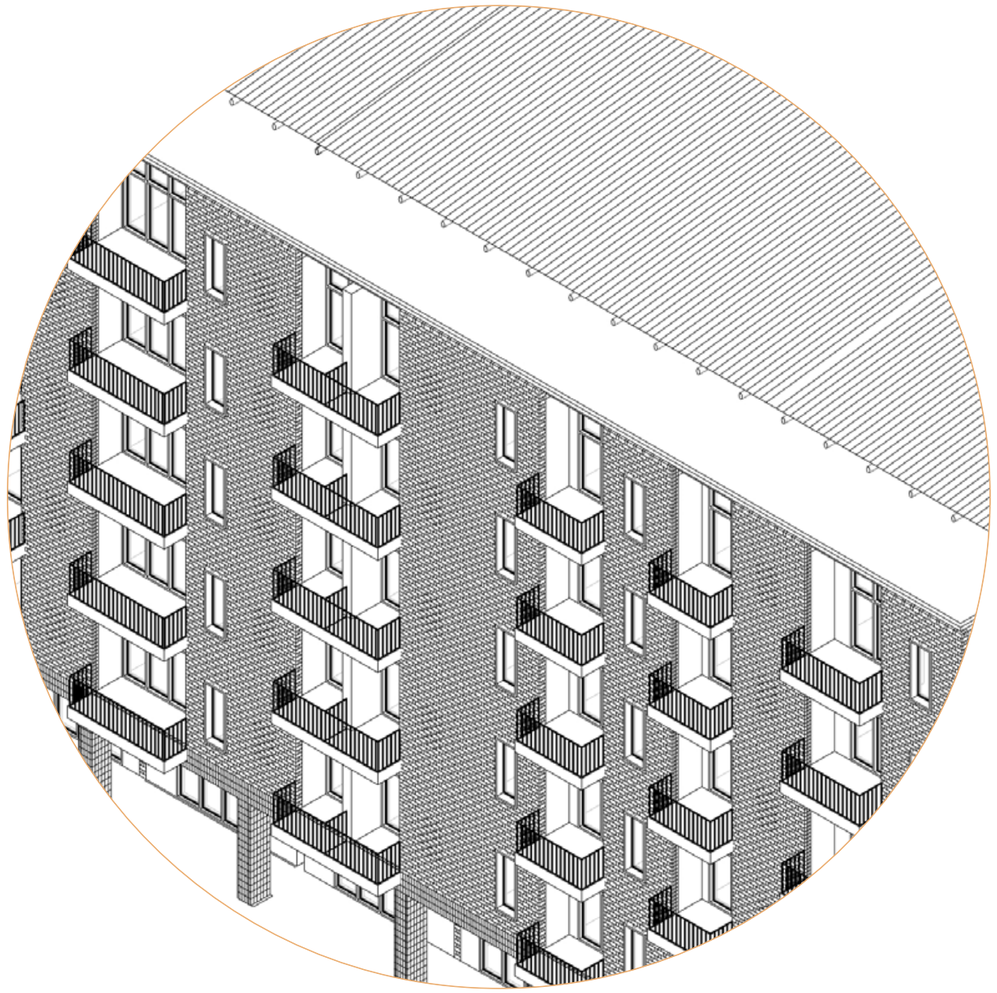
1 bedroom apartment 1:100

Facade1:150

Facade1:150



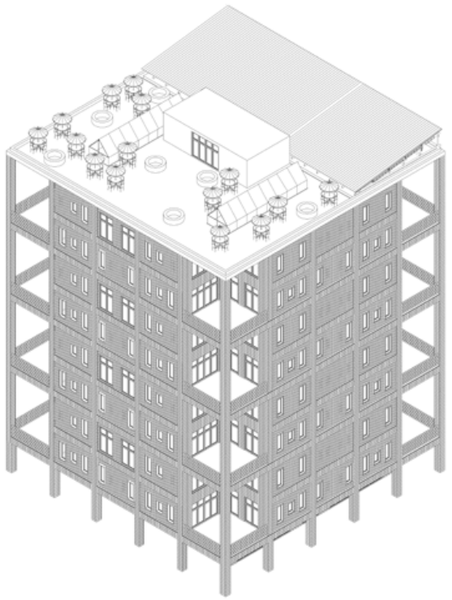
Tower



Slab

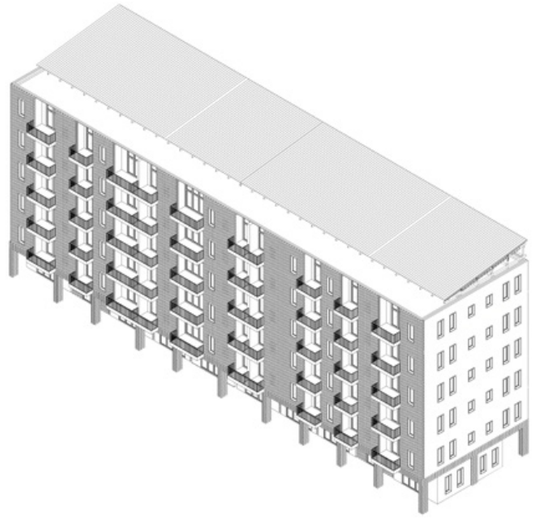
Courtyard

Compound



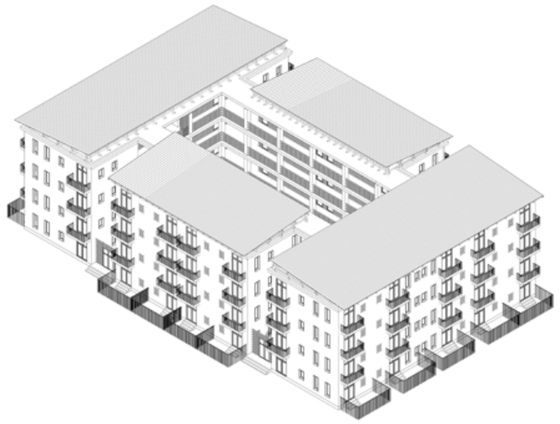
Tower

High-income groups
Terrasce on the rooftop for residents
Offers panoramic view, big balcony, privacy
Offers bedroom for maid
Possibility to hire people from the neighbourhood for daily chores
Commercial functions on the ground floor
Craftsmanship required facade detailing
Units size: 5 bedrooms apartments
210m²
9 + floors



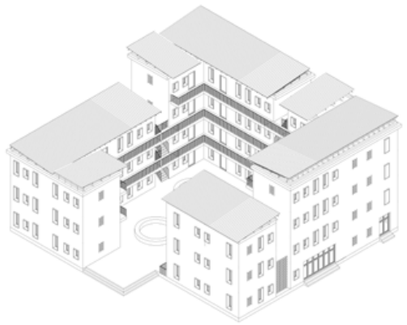
Slab

Middle- and middle-higher income groups
Offers views over Addis Ababa, privacy and entrances through galleries
Commercial functions on the ground floor
Craftsmanship required facade detailing
Units size: 1-4 bedroom apartments
from 46m² to 115m²
5-6 floors



Courtyard

Low- and middle-low- income groups
Offers courtyard for interaction, possibility to extend units and re-arrange the floorplan
Gardens are offered of the ground floor, therefore possibility for working-living units or small space for business could be created
Open-fire kitchens are offered on every floor
Units size: Studio - 2 bedrooms apartment
from 34m² to 55.2m²
4 floors



Compound

Economically weak social groups - migrants and urban poor
Public living, shared facilities, communual activities taking place on the ground floor of the courtyard
Possibility for different activities on the ground floor (ex. commercial shop)
Units size: Studio - 1 bedroom apartment
from 34m² - 46m²
Shared apartment by 8 -10 people
90m²3-4 floors

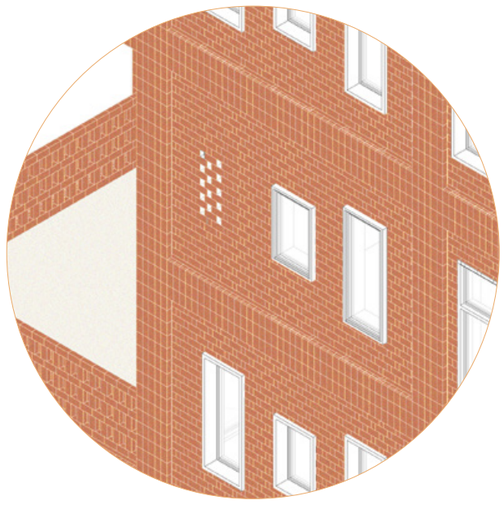
05 building technology

Concrete columns

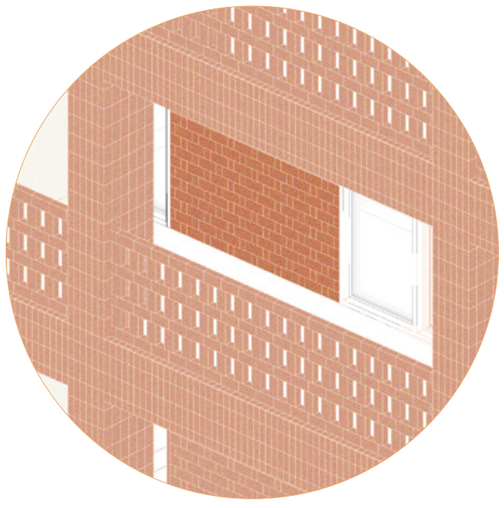
Concrete flooring

Concrete blocks

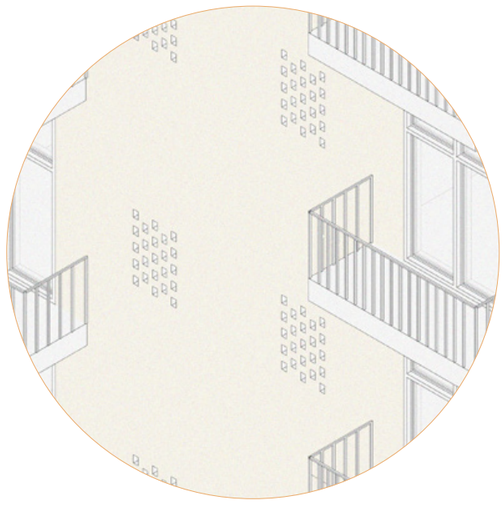
Compressed earth blocks



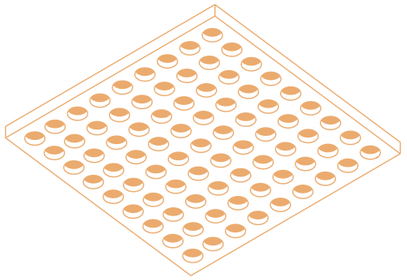
Red concrete bricks



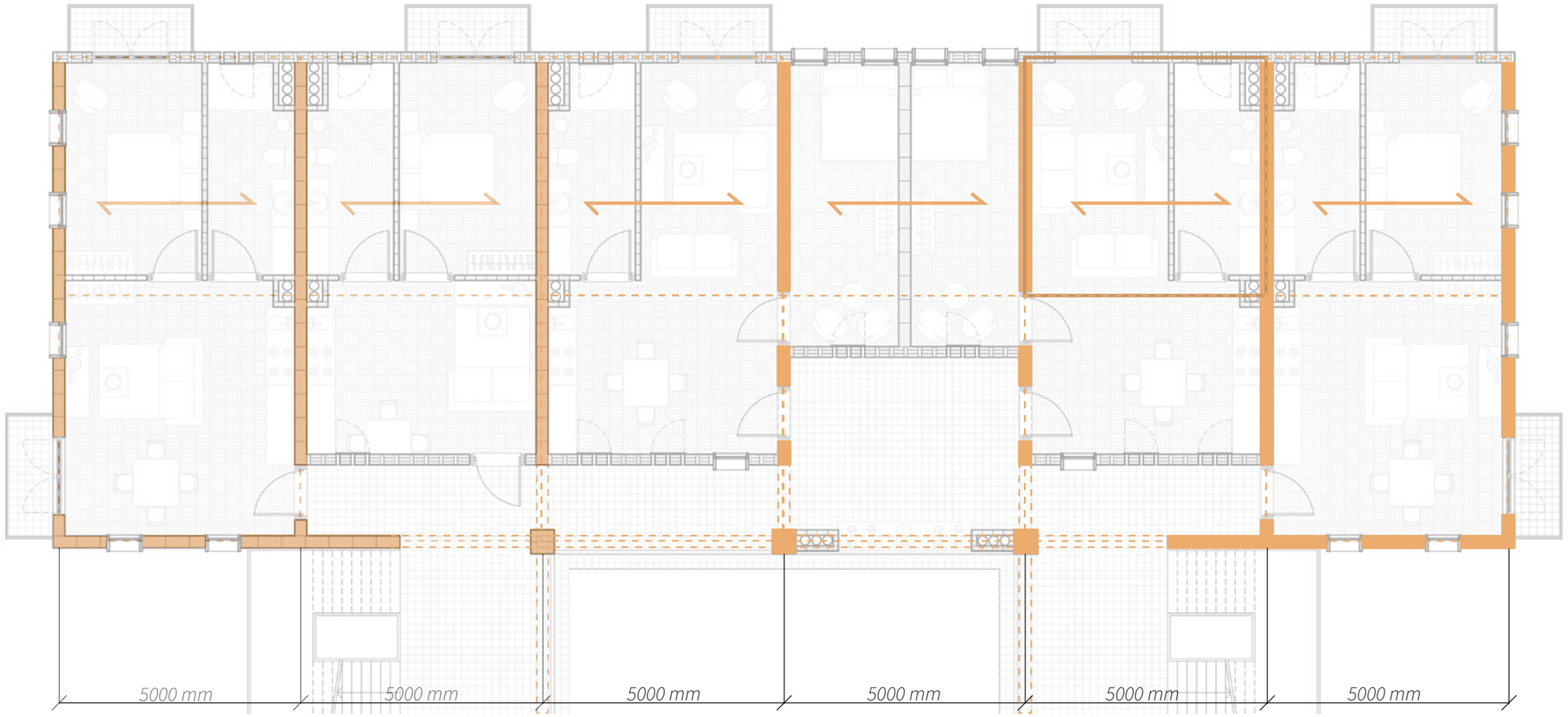
Red compressed earth blocks - not plastered



Plastered facade



Concrete slab palette with hollow pattern

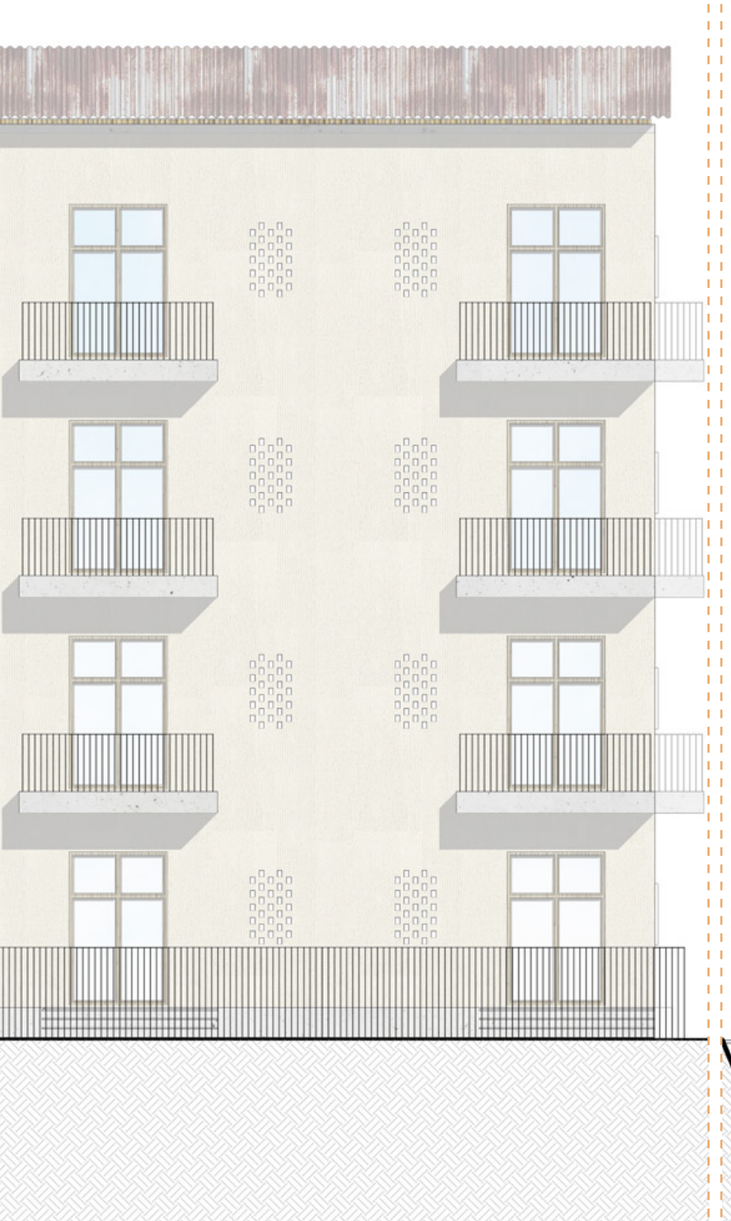


Structural floorplan 1:100

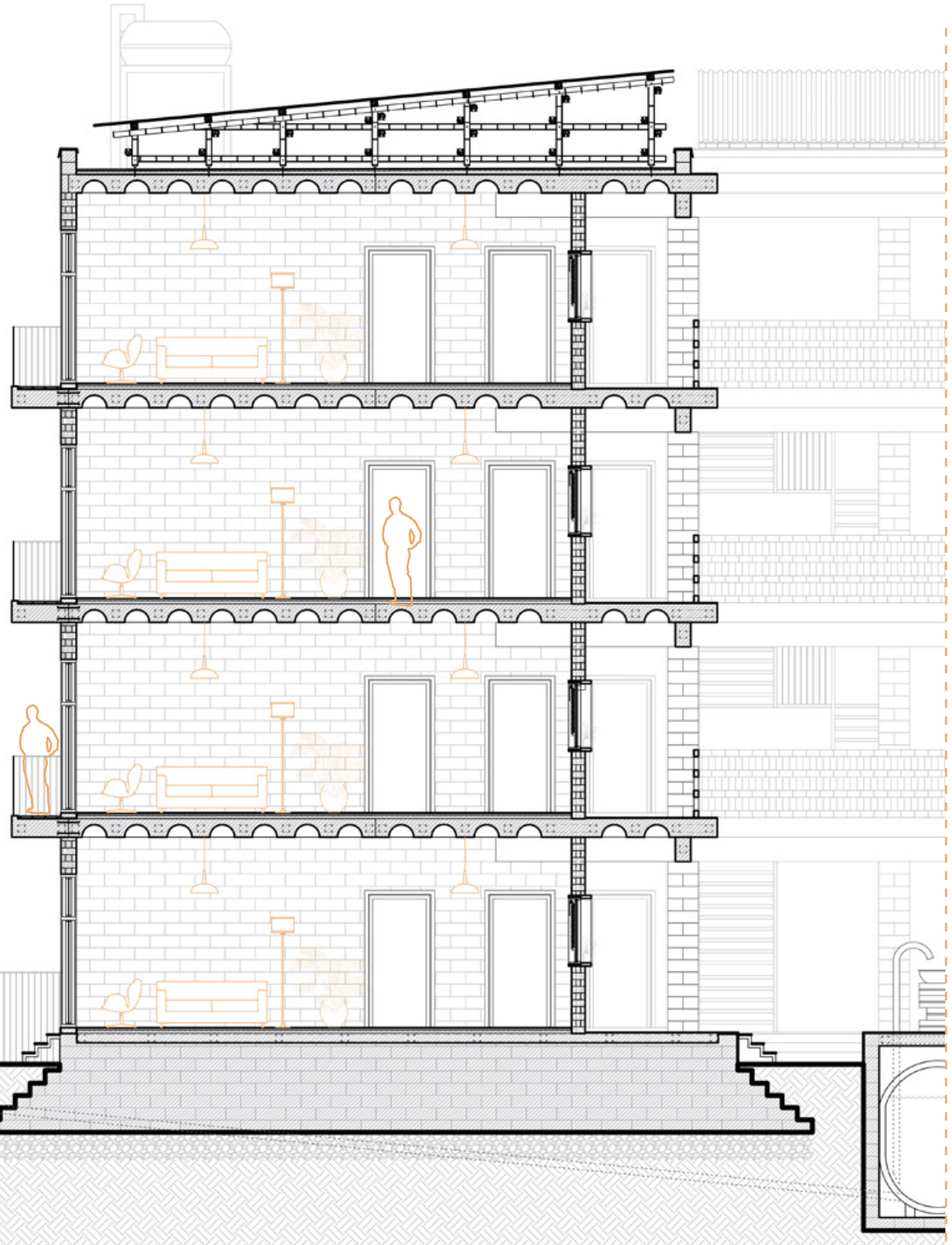
Detailed floorplan 1:50

05 building technology

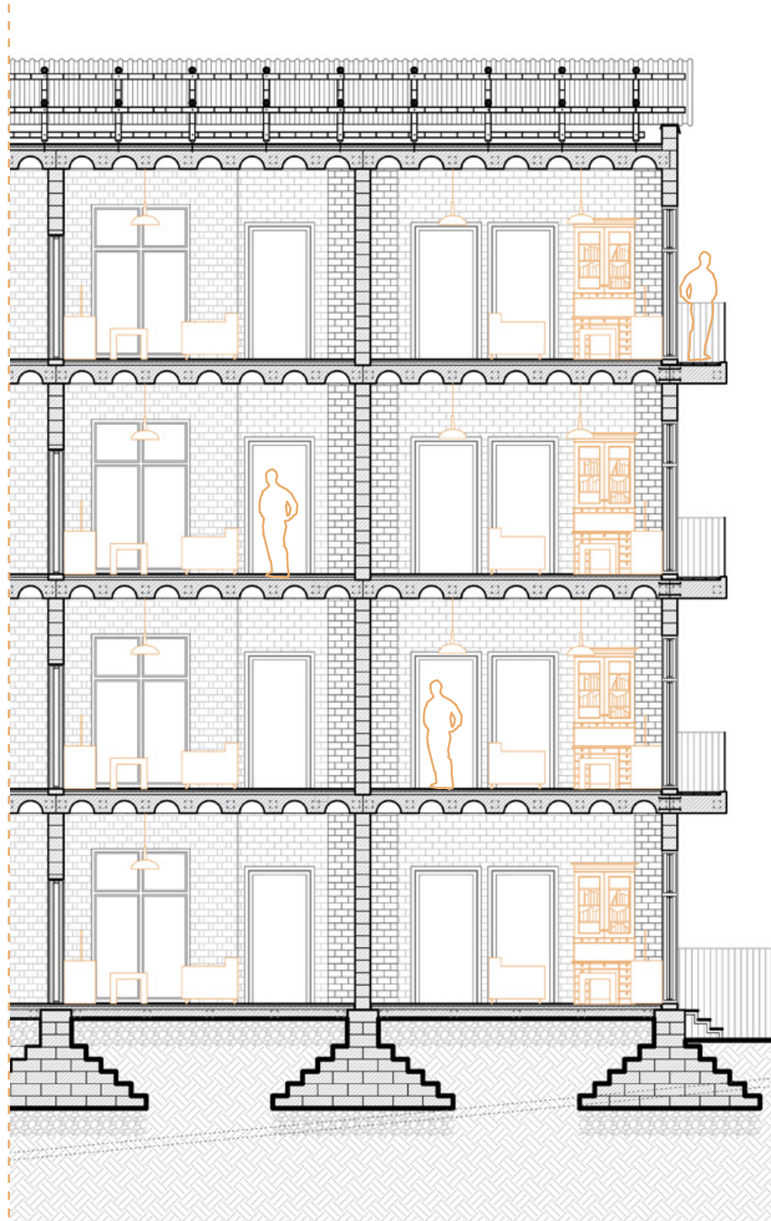
Facade, vertical and horizontal sections



Facade 1:100

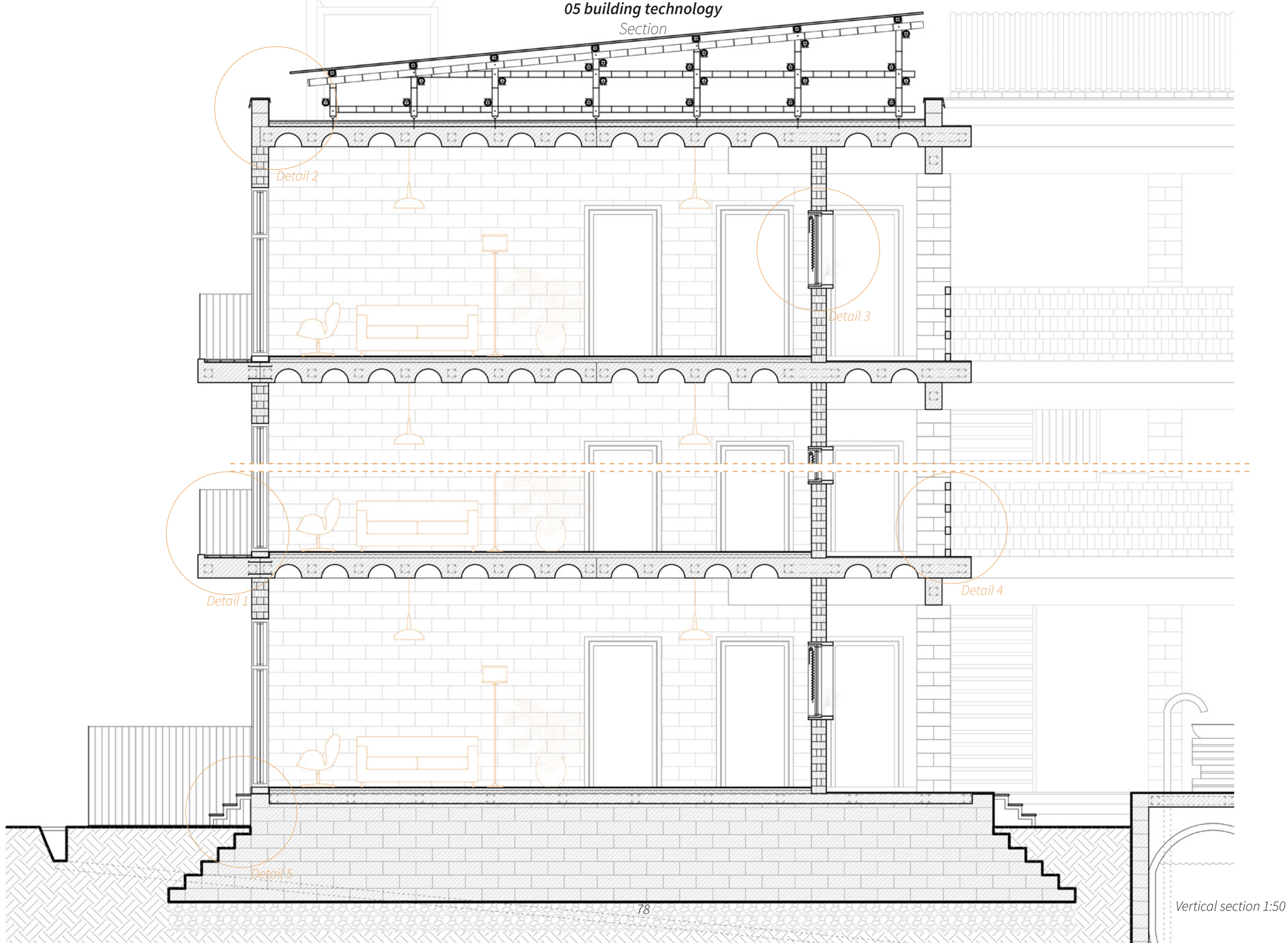


Vertical section 1:100

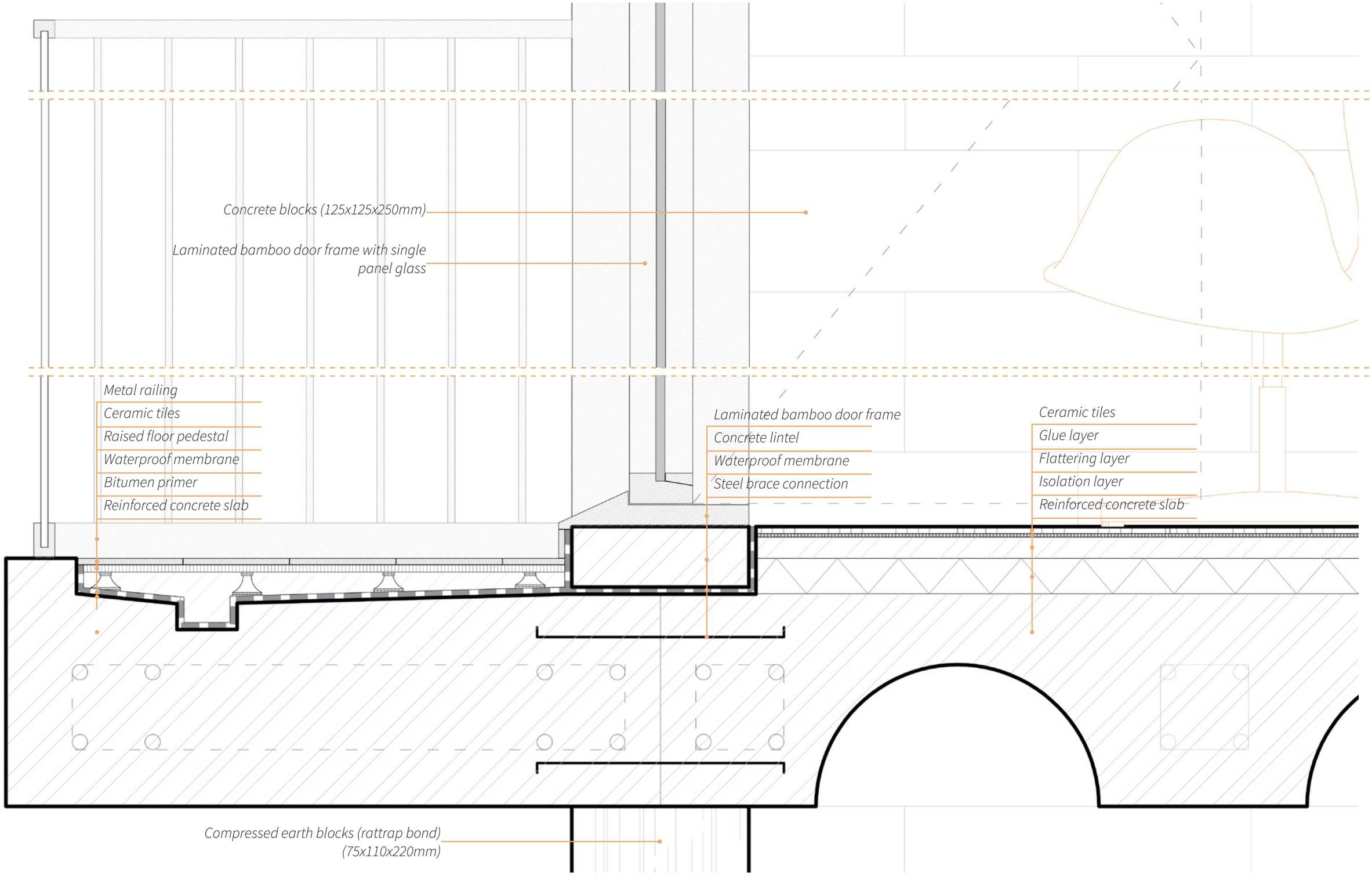


Horizontal section 1:100

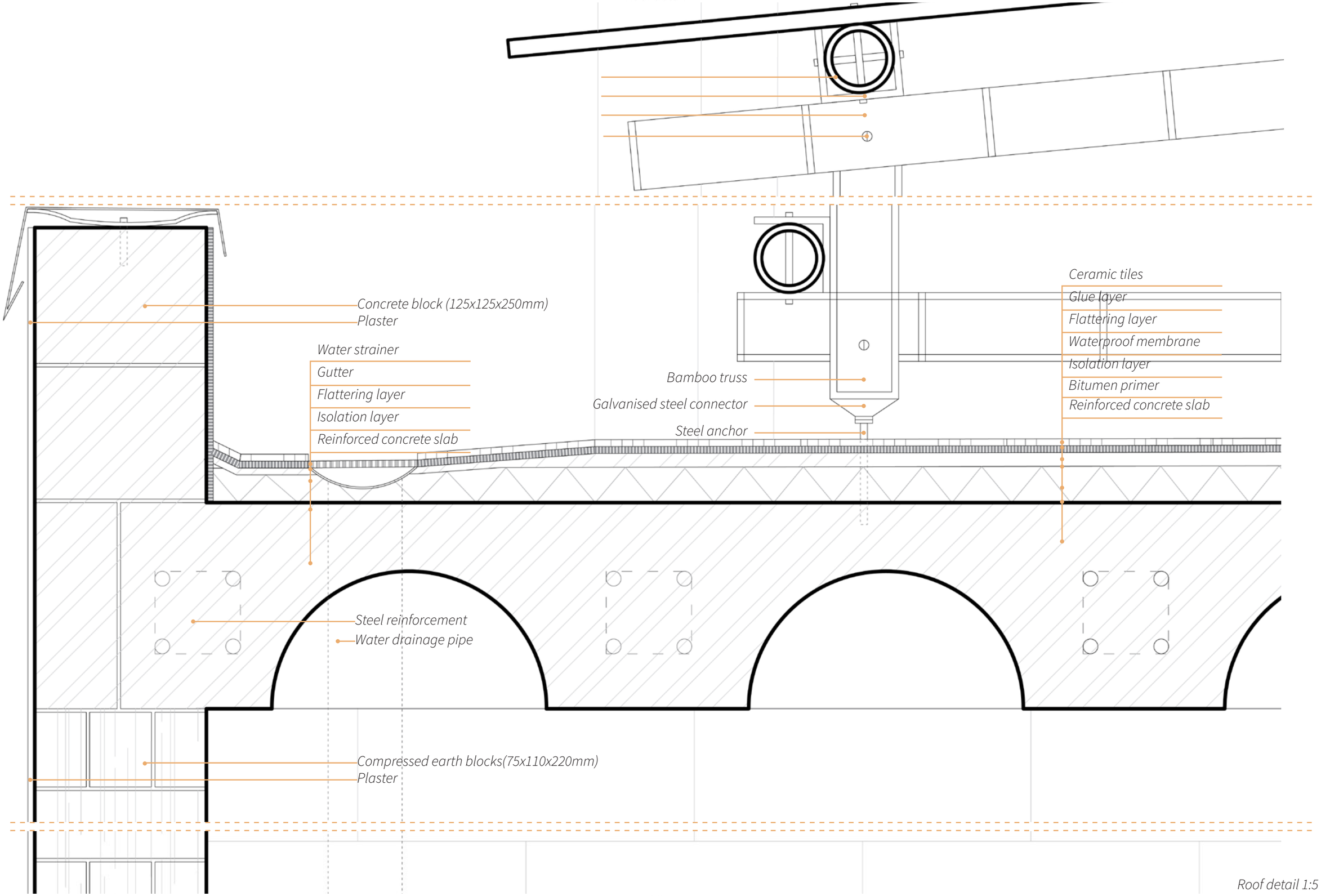
Facade 1:50



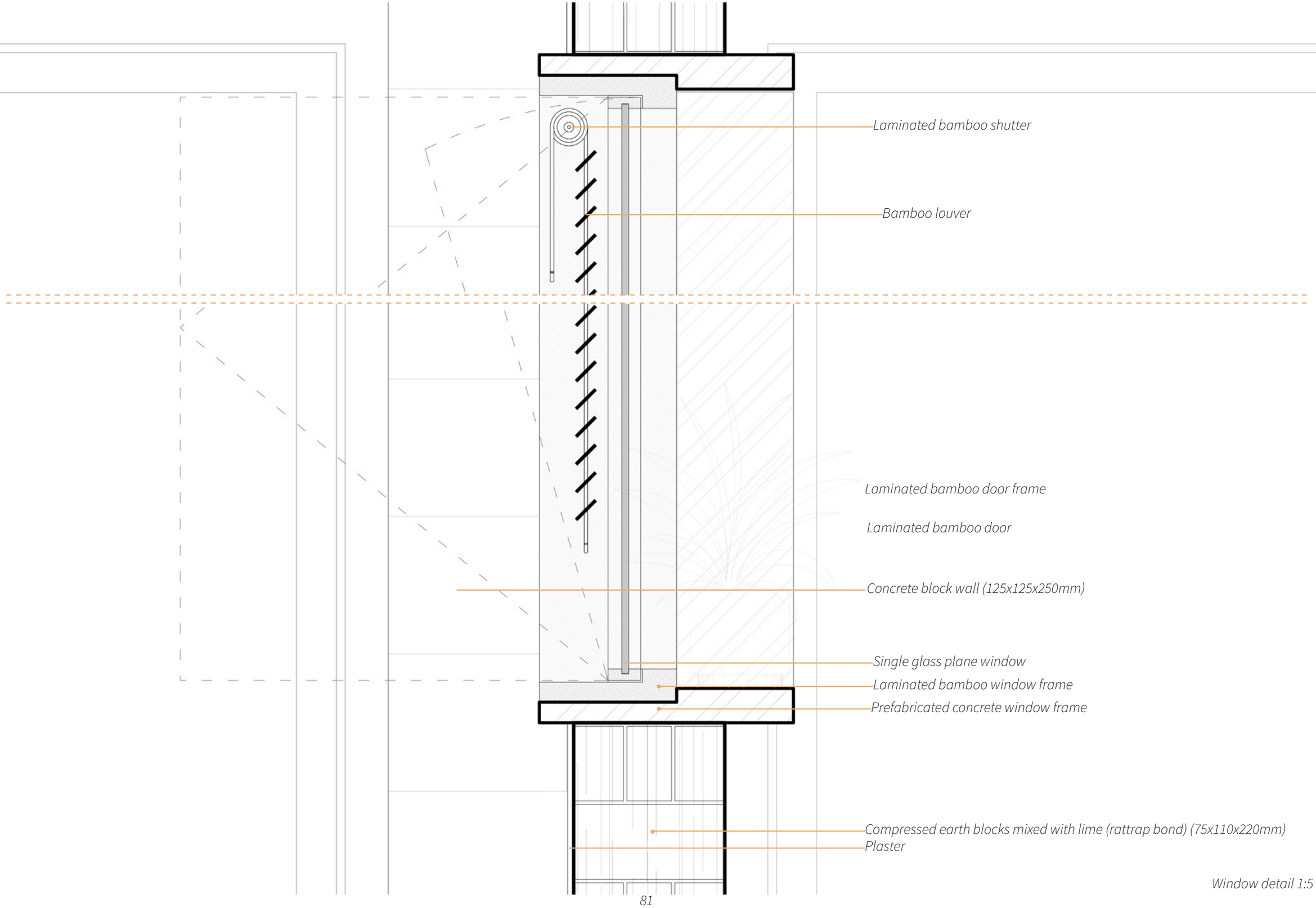
Vertical section 1:50



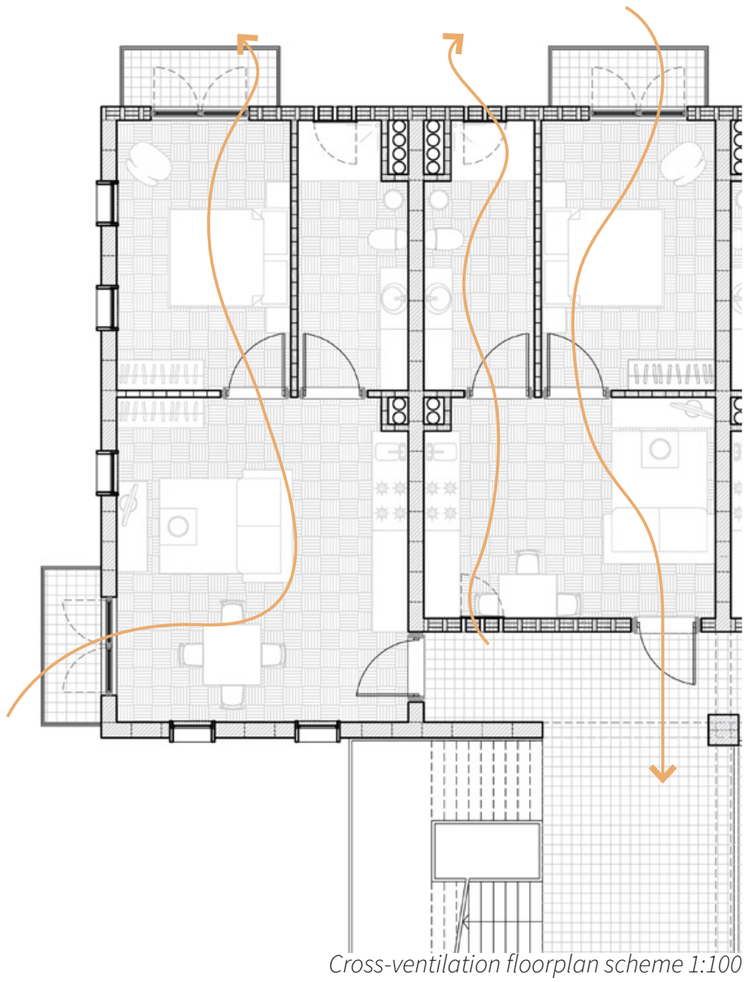
Balcony detail 1:5



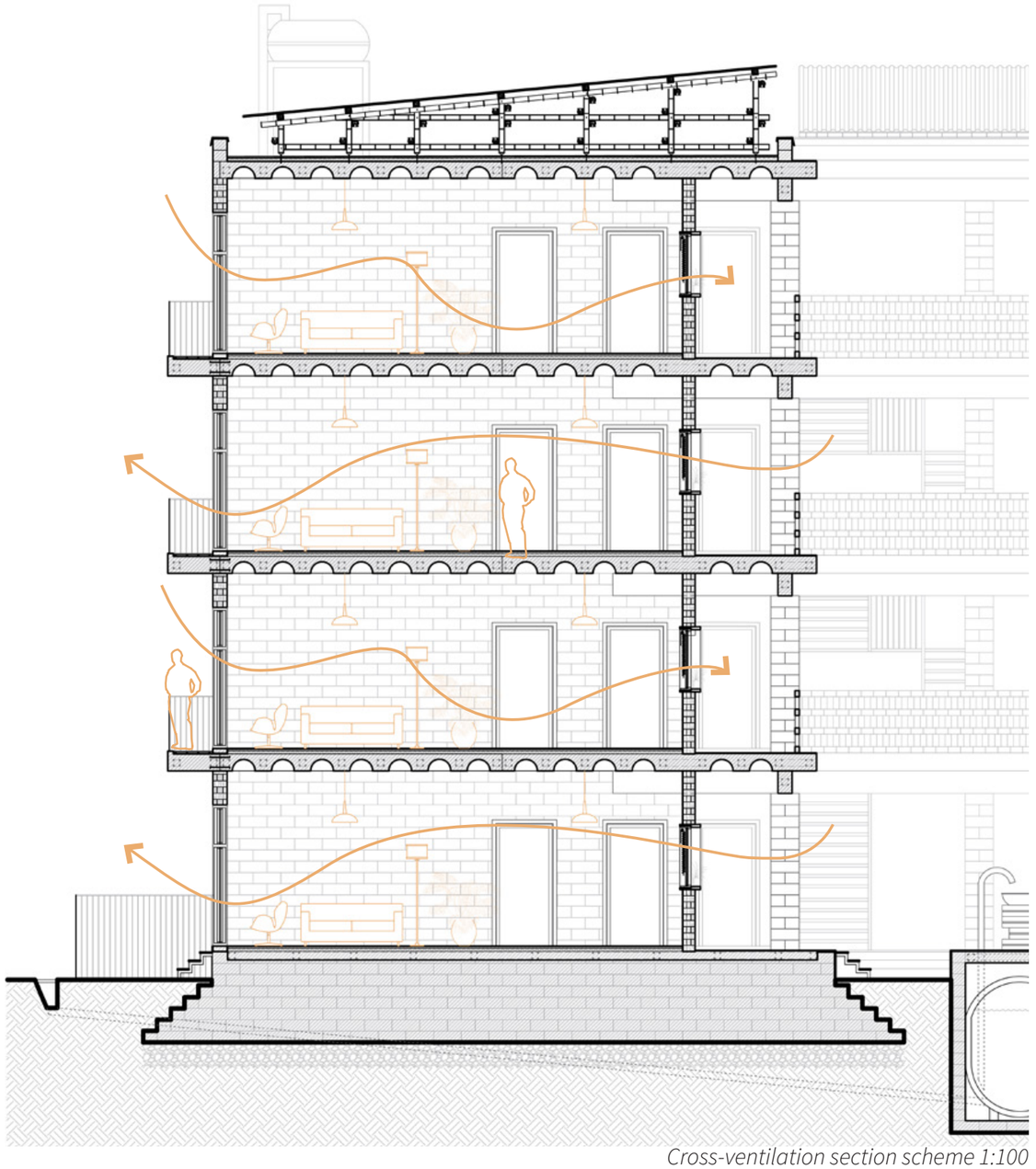
Roof detail 1:5



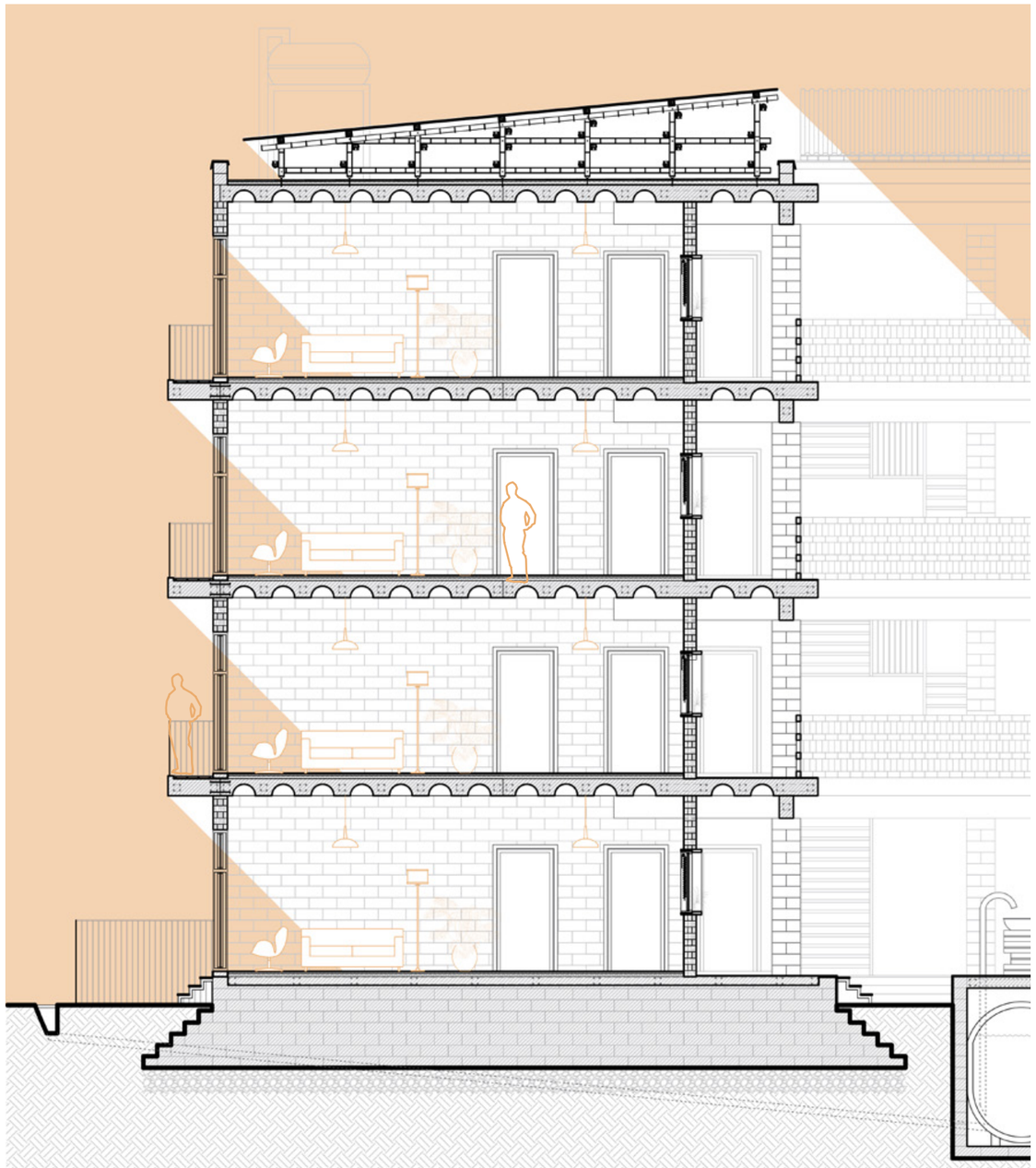
Window detail 1:5



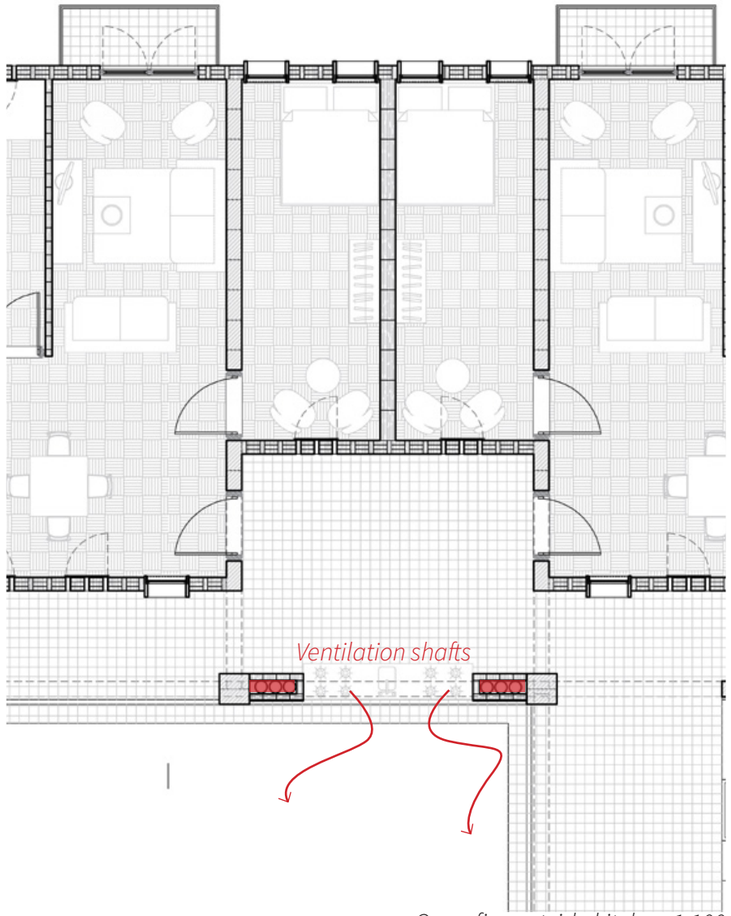
Cross-ventilation floorplan scheme 1:100



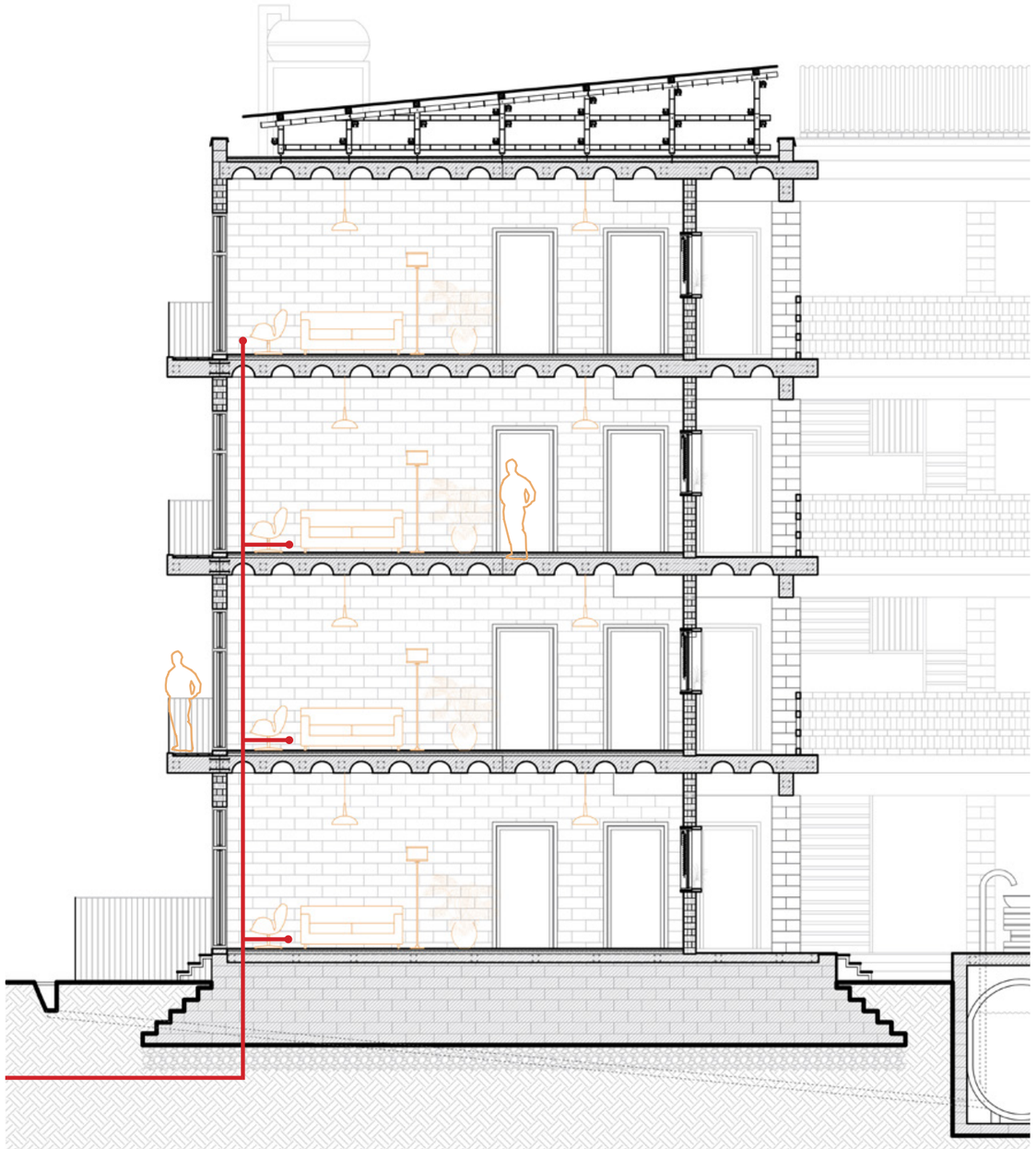
Cross-ventilation section scheme 1:100



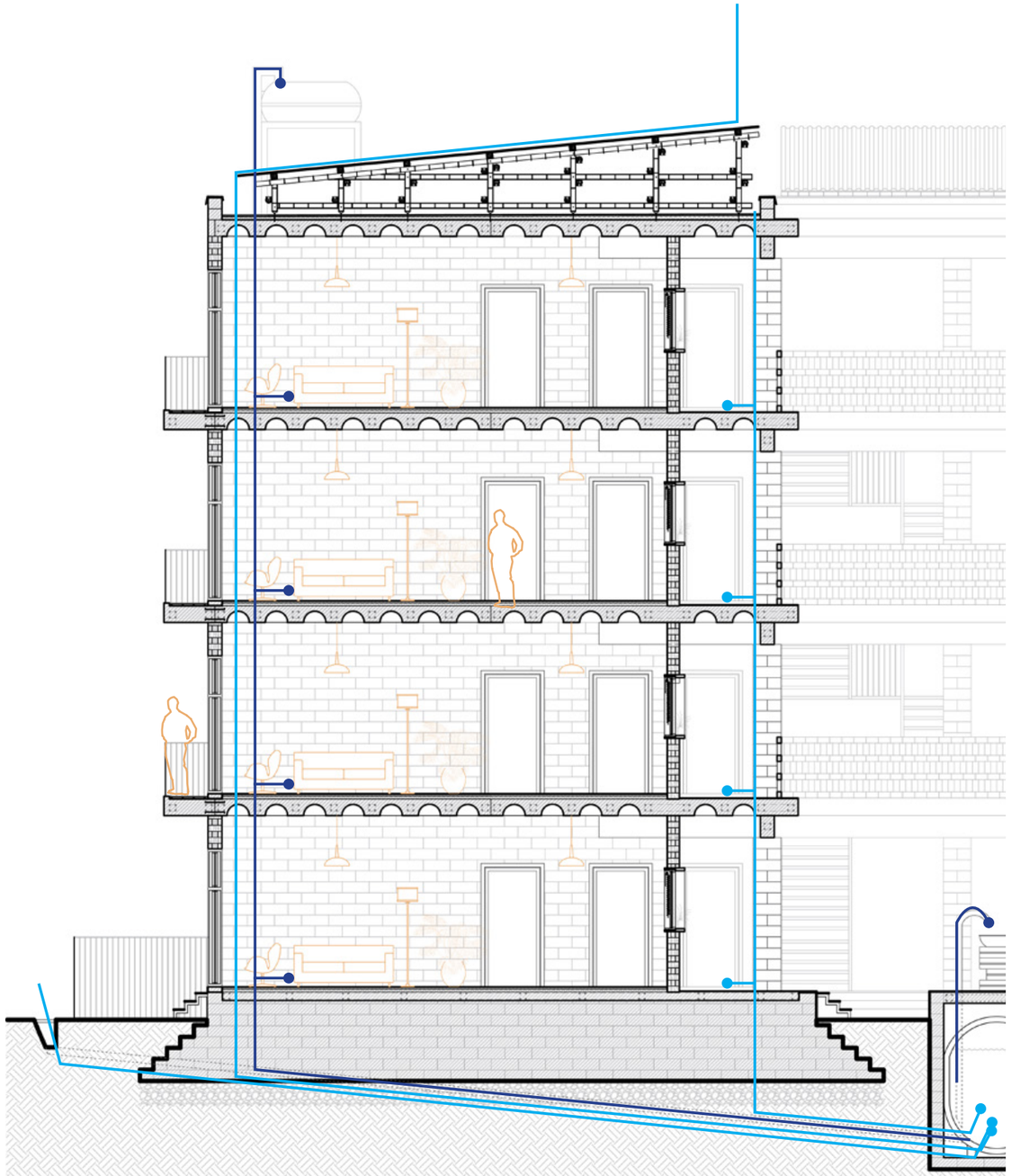
Shading scheme 1:100



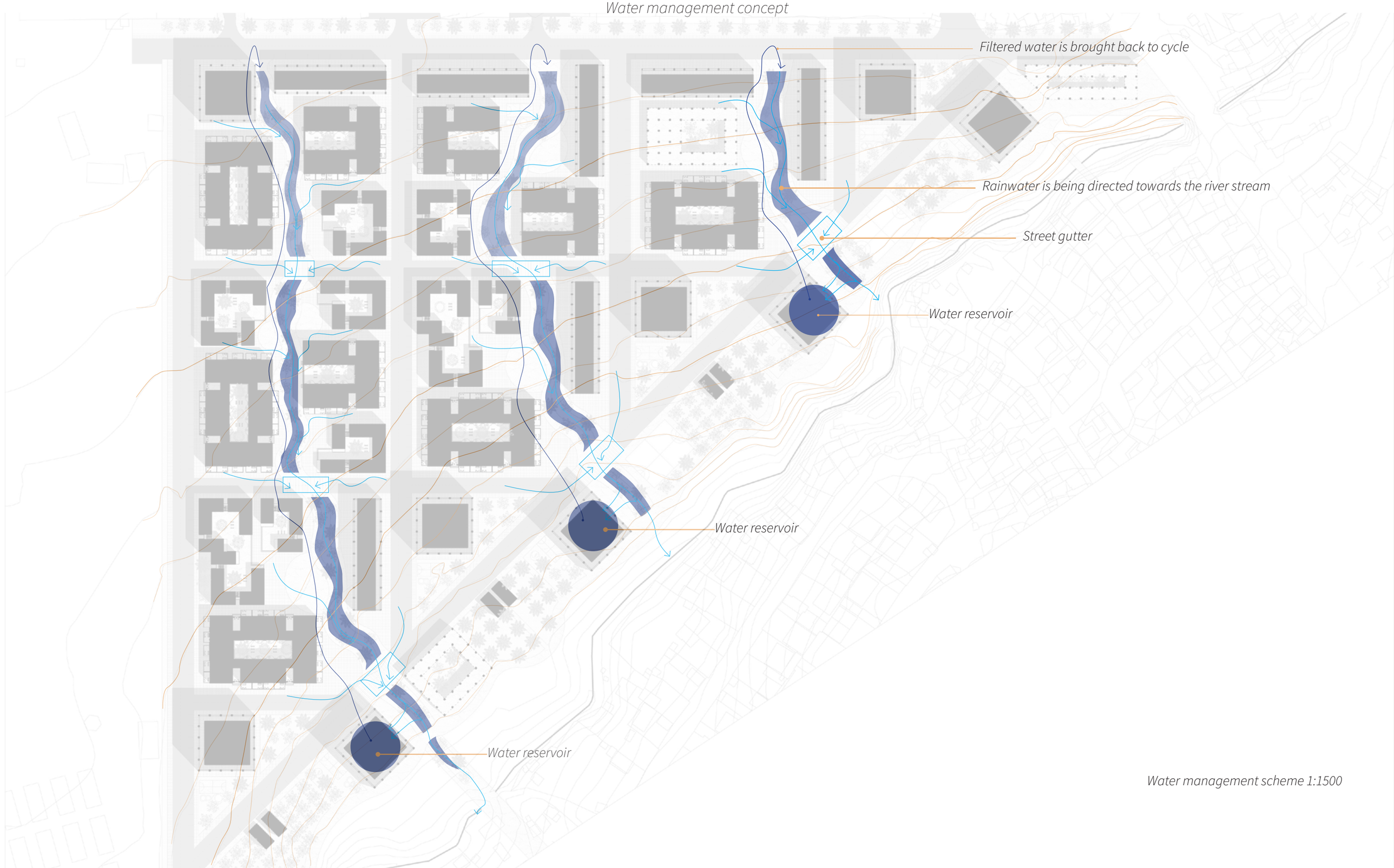
Open fire outside kitchen 1:100



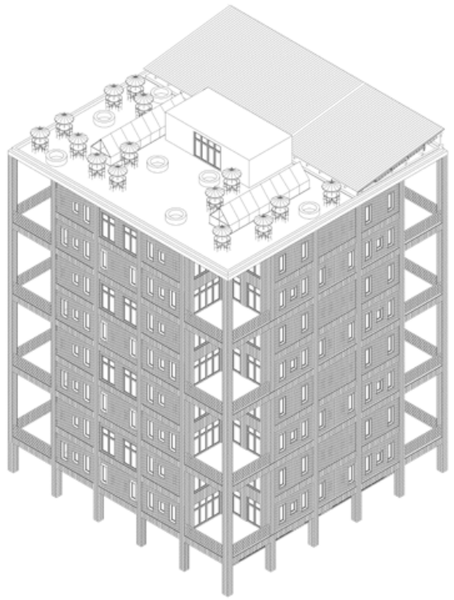
Heating scheme 1:100



Water management scheme 1:100



Water management scheme 1:1500



Tower

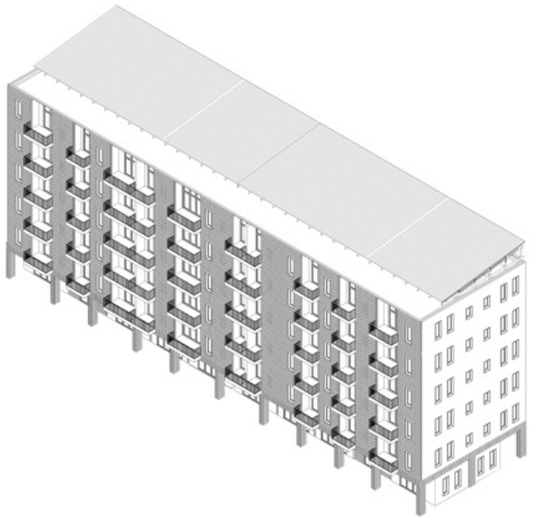
Load-bearing system: *concrete columns (5x5 metres grid) and concrete beams supporting them*

Flooring: *concrete slab (palettes of 5x5 metres)*

Non-load bearing walls: *compressed earth blocks*

Facade finishing: *the assemble of red-concrete bricks, using different patterns*

Roof: *Bamboo and corrugated metal sheet structure for water management and white tiles for rooftop terrace*



Slab

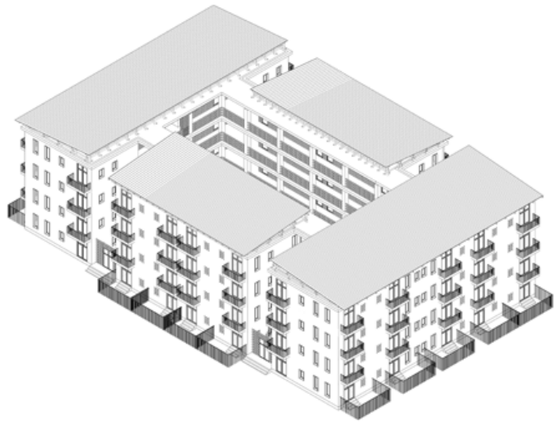
Load-bearing system: *concrete blocks (grid varies), concrete columns ground floor, concrete block columns supporting galleries*

Flooring: *concrete slab (palettes of 5x5 metres)*

Non-load bearing walls: *compressed earth blocks*

Facade finishing: *the assemble of red-concrete bricks using different patterns, plastered walls and compressed earth blocks in the facade of galleries*

Roof: *Bamboo and corrugated metal sheet structure for water management*



Courtyard

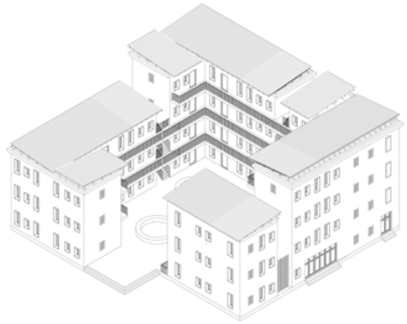
Load-bearing system: *concrete blocks (5 metres grid), concrete block columns supporting galleries*

Flooring: *concrete slab (palette of 5x5 metres)*

Non-load bearing walls: *compressed earth blocks*

Facade finishing: *the assemble of compressed earth blocks, plastered with white paint and compressed earth blocks in the facade of galleries, unplastered*

Roof: *Bamboo and corrugated metal sheet structure for water management*



Compound

Load-bearing system: *compressed earth blocks (5 metres grid)*

Flooring: *concrete slab (palette of 5x5 metres) with 1 metre offset for galleries*

Non-load bearing walls: *compressed earth blocks*

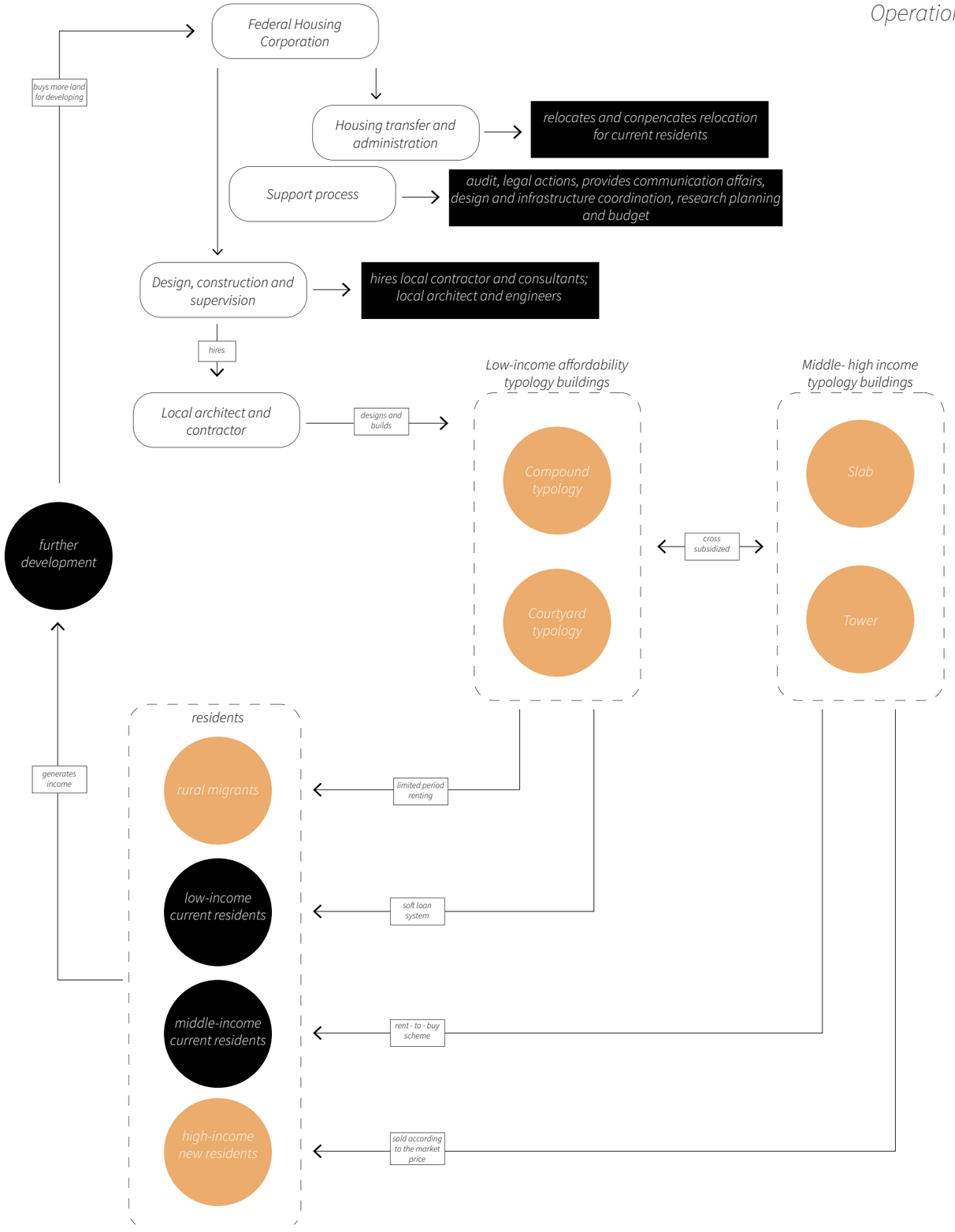
Facade finishing: *the assemble of compressed earth blocks, plastered with white paint*

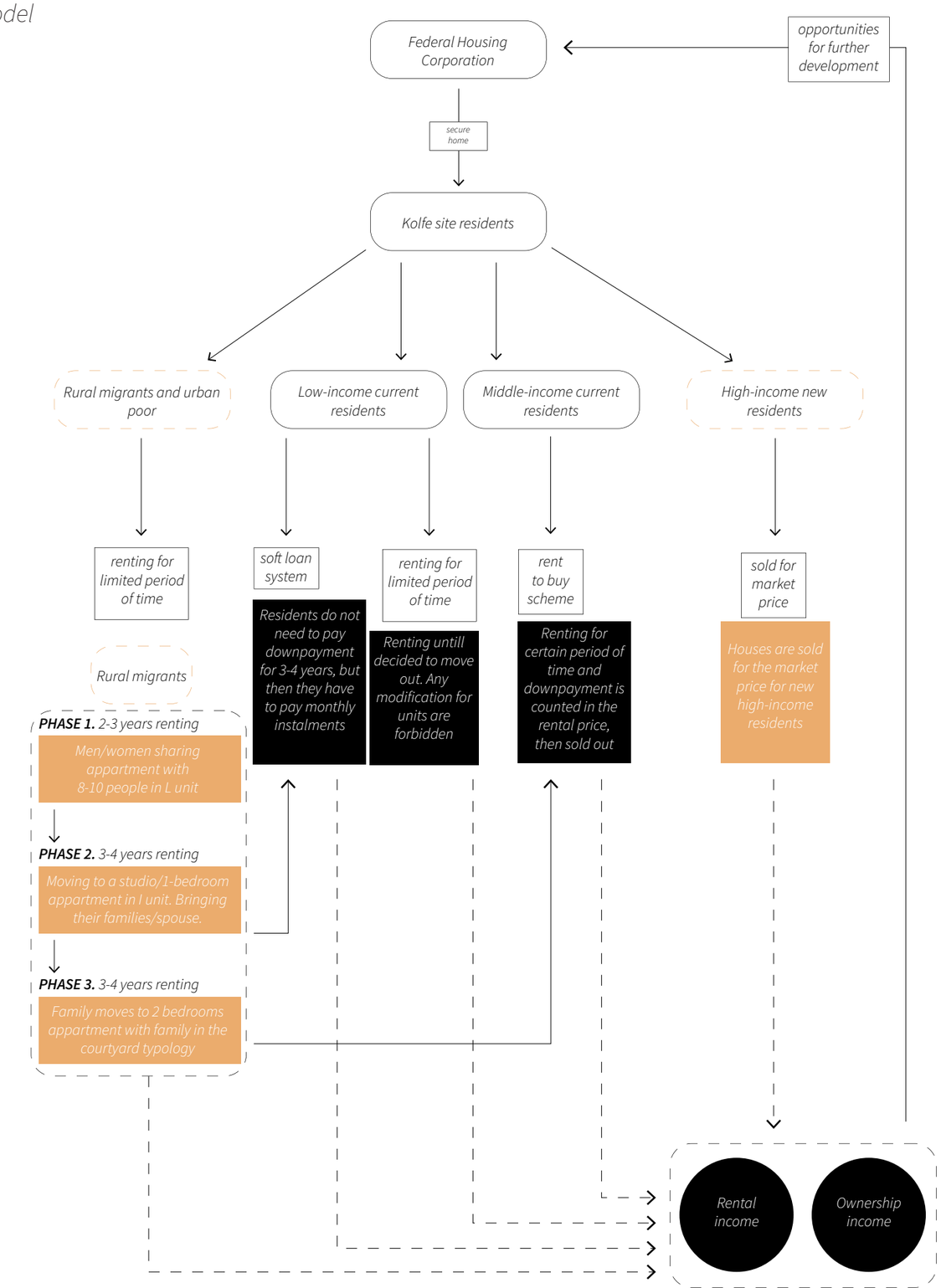
Roof: *Bamboo and corrugated metal sheet structure for water management*

06 managerial model

06 managerial model

Operational model





1st phase

2nd phase

3rd phase

4th phase

5th phase

6th phase

1

The tower defines the block, offering special block qualities. The combination of tower and slab typology defines the outline of the block near the primary car road. Courtyard typology visually separates the direct connection of the high and low income typologies.

2

The slab typologies define the outline of the block near the primary car road. Courtyard typology visually separates the direct connection of the high and low income typologies.

3

The block is surrounded by the secondary vehicle roads. Low-income groups are living close by each other.

4

The block is shaped by the cut-off corner and a primary road. Slab typologies define the border of the block.

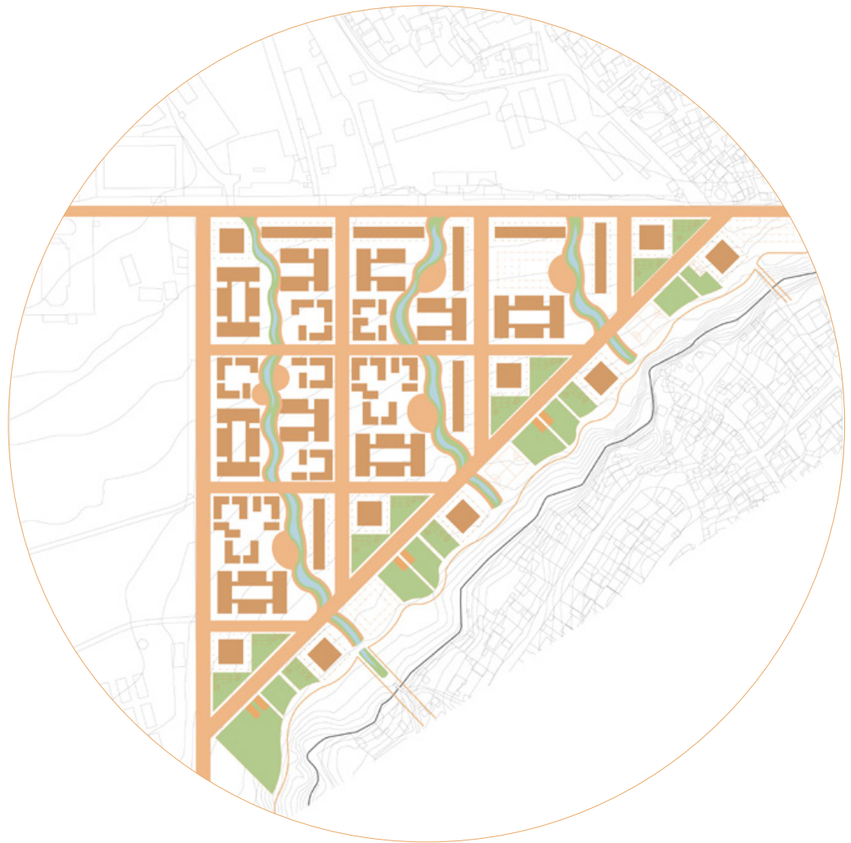
5

The block is shaped by the cut-off corner and a secondary road. Slab typology defines the border of the block. The green pedestrian path visually separates the different socio-economic groups.

6

The block is a triangular shape and defines the corners of the newly proposed streets structure.

People: ***2540***
Households: ***338***
FSI 0.55



People: ***3800***
Households: ***1365***
FSI 1.9