

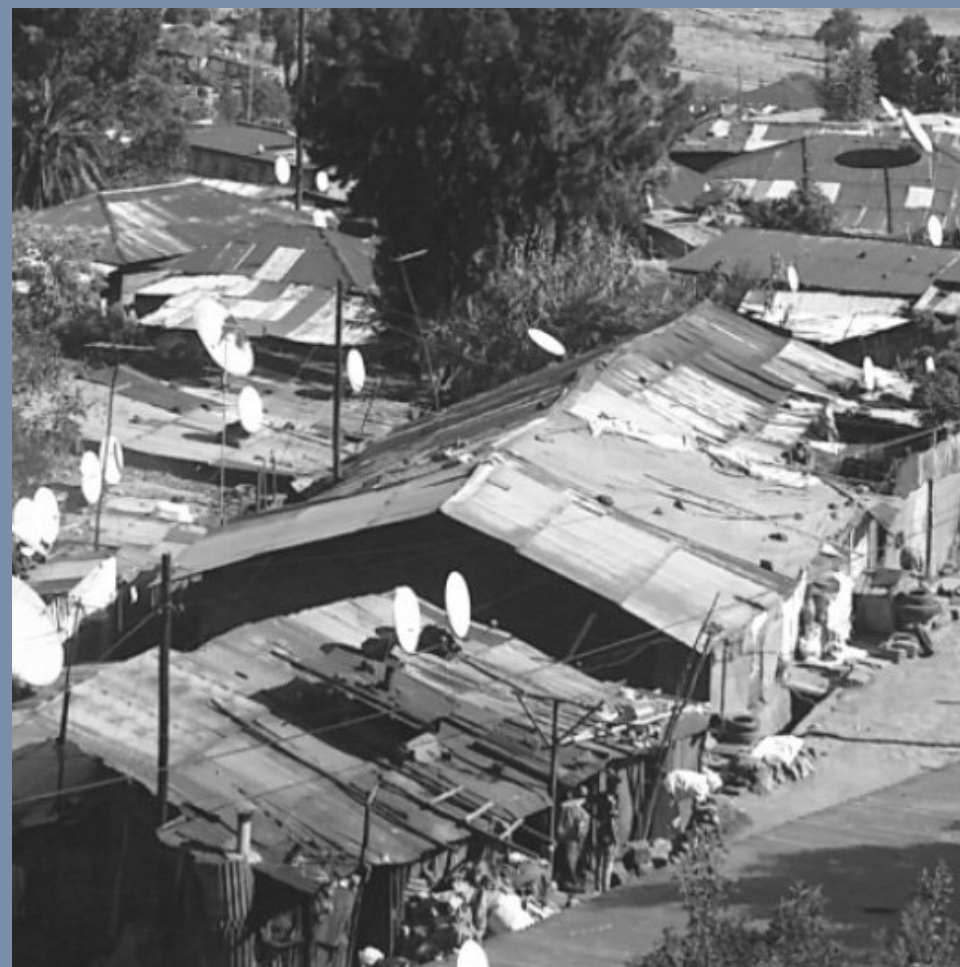


"From Home to Home"
Towards an inclusive, mixed and updatable community

P5 Presentation
Global Housing
Addis Ababa Living lab
Jinfeng Cheng
4931890

Addis Ababa: A new city flower

Growing but facing challenge



*In the form
of a informal
sector*

45 percent of the population subsists below the poverty line and nearly 80 percent of urban inhabitants live in impoverished settlements.



*37% of the population
in Addis Ababa
is from rural areas*

*Urbanization rate
around only 20%, more
than 88 million people
live in rural areas*

*Ethiopia's population will increase sharply in the future and the
centre of this demographic boom is the capital city Addis Ababa*

Occupying but not belonging



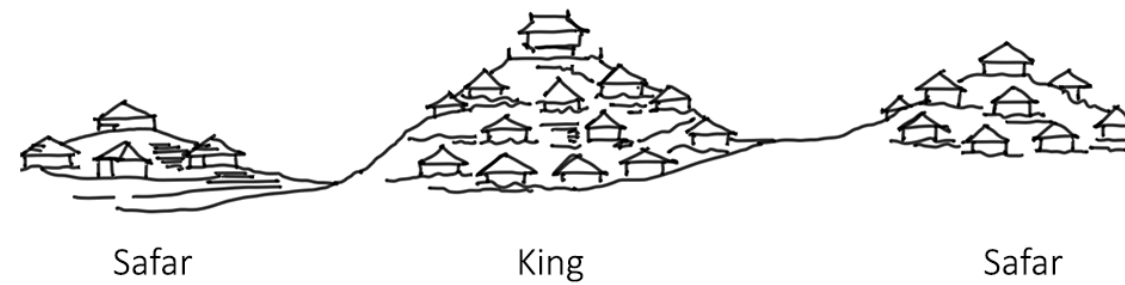
45 percent of the population, mainly the rural migrants, survive below the poverty line and 80 percent of urban inhabitants live in destitute environments, known as “kebele house” or slums

Addis Ababa: between income groups



loss of the traditional mixed inhabitation

Mixed neighbourhoods is the characteristic of the indigenous settlement in Addis Ababa centuries ago since the city was developed naturally around the king's palace.



"From Home to Home"

Towards an inclusive, mixed and updatable community

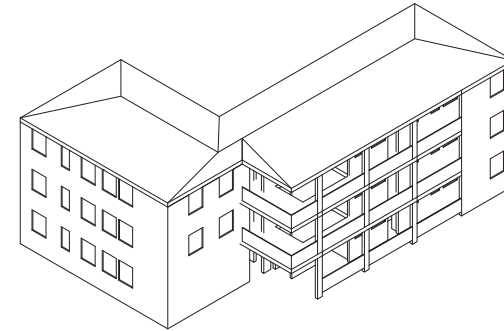
New “fruits” from the flower

Mixed-use neighbourhoods are gradually taken place by a one-goal, large scale projects such as the GHP.

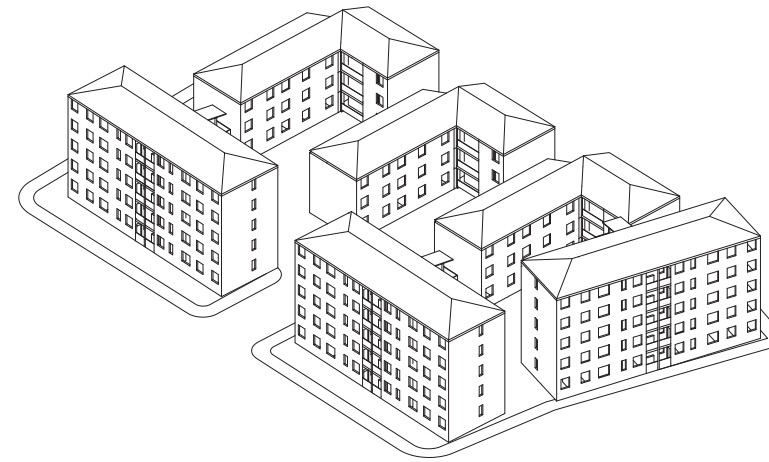


✗ lost of the traditional living pattern

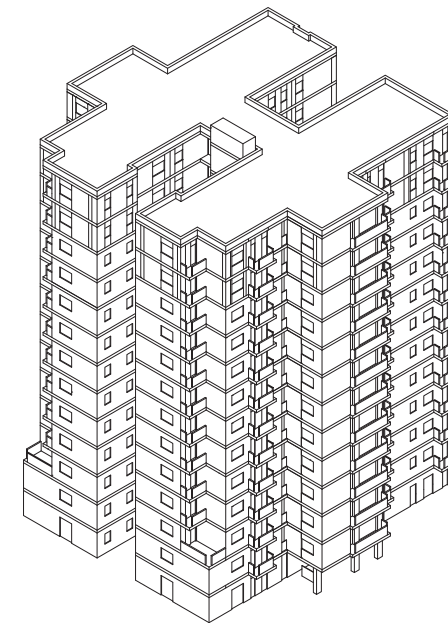
10/90 scheme: low-income group
Height: G+1/ G+2, studio 31m2



20/80 scheme: low-income and middle-income group.
Height: G+4/ G+7/G+12,
Type: 1 bedroom (50 m2), 2 bed rooms (70 m2), 3 bedrooms 85m2 with 10 percent commercial space.



40/60 scheme: high-income and middle-income group.
Height: High-rise with lift
Type: 1 bedroom (55 m2), 2 bed rooms (75 m2), 3 bedrooms 100m2 with 20 percent commercial space.



Space in bettween

✕ selling fruits



✕ cooking injera



✕ car washing



✕ washing laundry



Research Questions

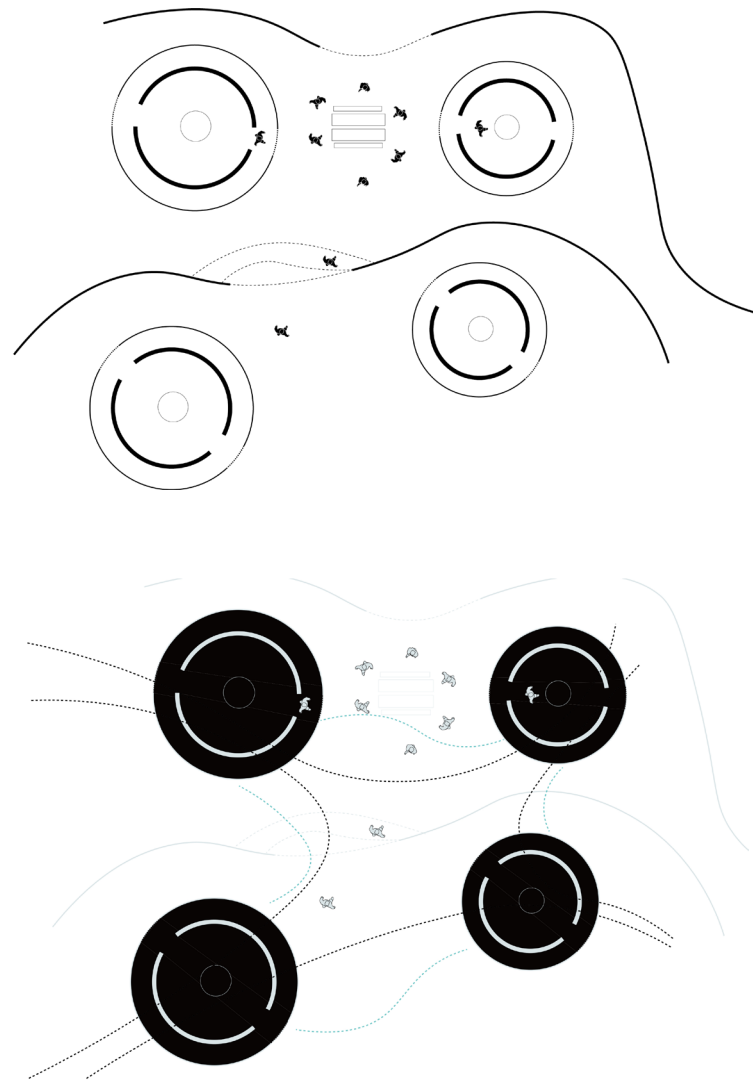
To build an inclusive community offer affordable housing for people from different income groups, sharing different lifestyles within the context of urban densification and Ethiopian culture

In which ways different income groups define places as "Home"?

"House is the place of central satisfaction which, depending upon the degree it represents this satisfaction, changes from a mere building to a home. The purely objective building gets a new subjective meaning, a content, which makes it a home"

A trip to Lalibela To know more about rural life

"Indeed here we are in the village, water and electricity are always in shortage but every night when families sitting around the stove drinking and dancing brought me lots of joy. Here we have lots of organic open space for farming, butchering. I will lose things like these when going to the city where I would struggle as well for living."

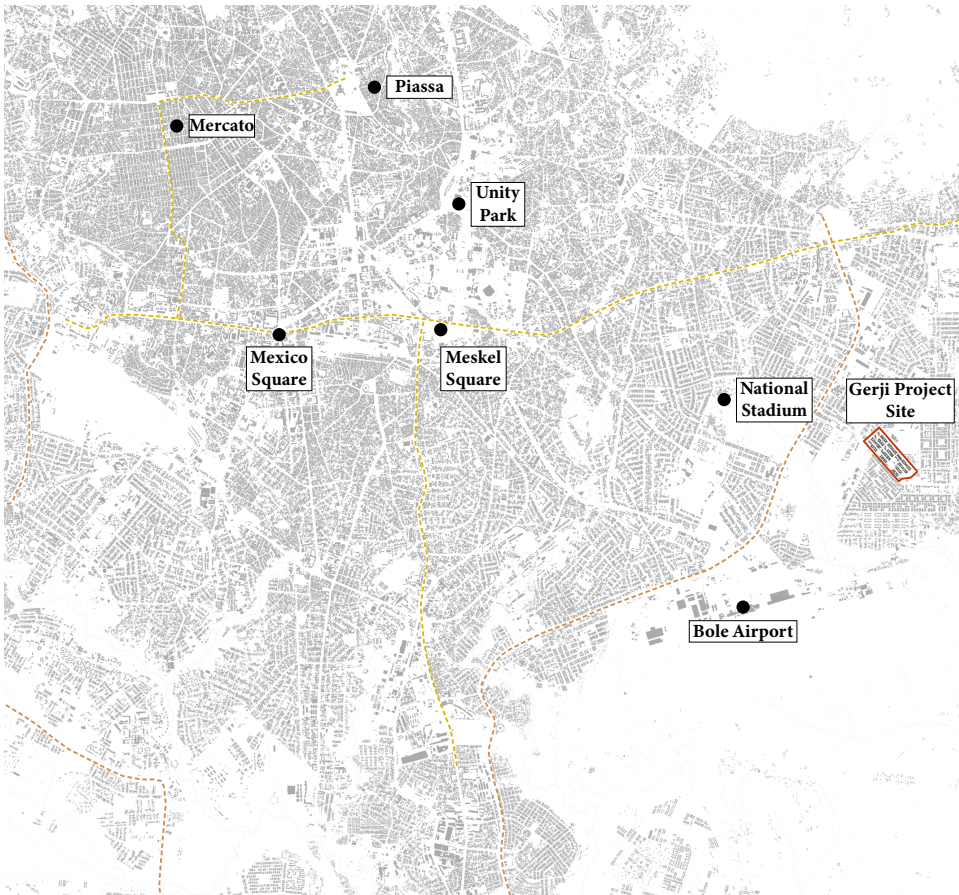


A trip to Summit
A high income family



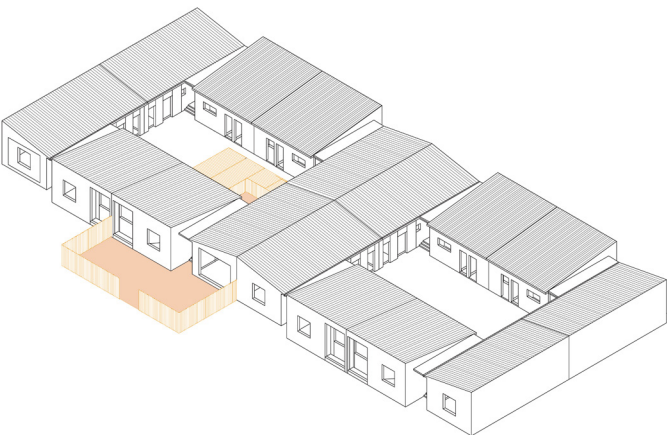
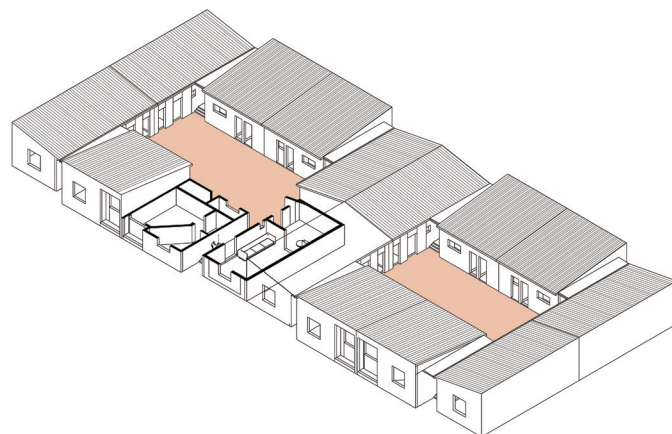
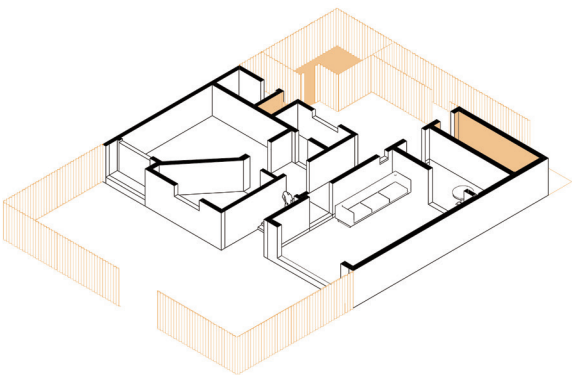
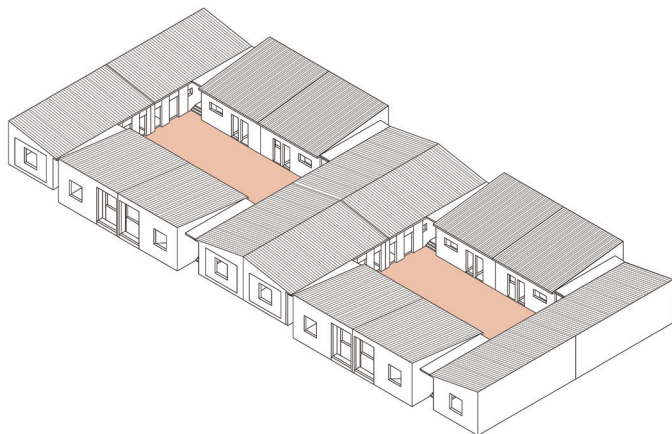
Derive in the Gerji

An understanding of the
Middle income groups



RESEARCH

"I am quite happy with the situation now, it is just got things I prefer ,quiet and green. There has been a always a problem for lacking of space actually. I have solved some by extending the room myself"

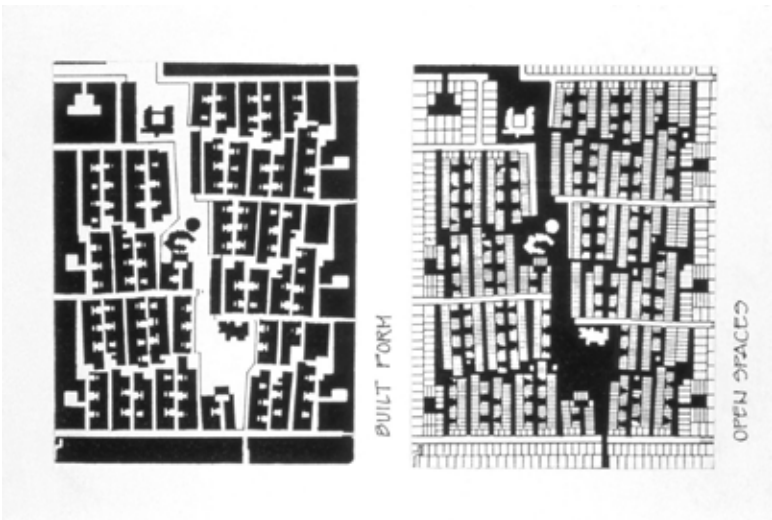


Defining the territories is a quite common phenomena in Addis Ababa. Although the low and middle income groups are usually centered around the collective and public realm, people attach great importance to own privacy within their dwellings. In the informal construction, this is indicated by the wide use of the corrugated metal sheets.



Balkrishna Doshi's Aranya
1990
Indore, India

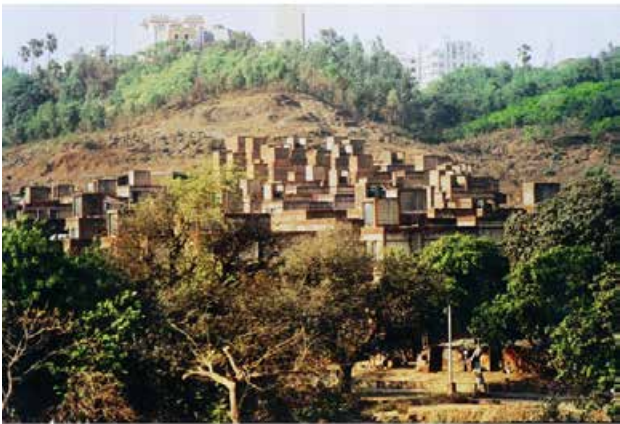
natural ventilation for tropical architecture world
Incremental Strategy with Site and Service , upon which
high quality basic infrastruture is provided.

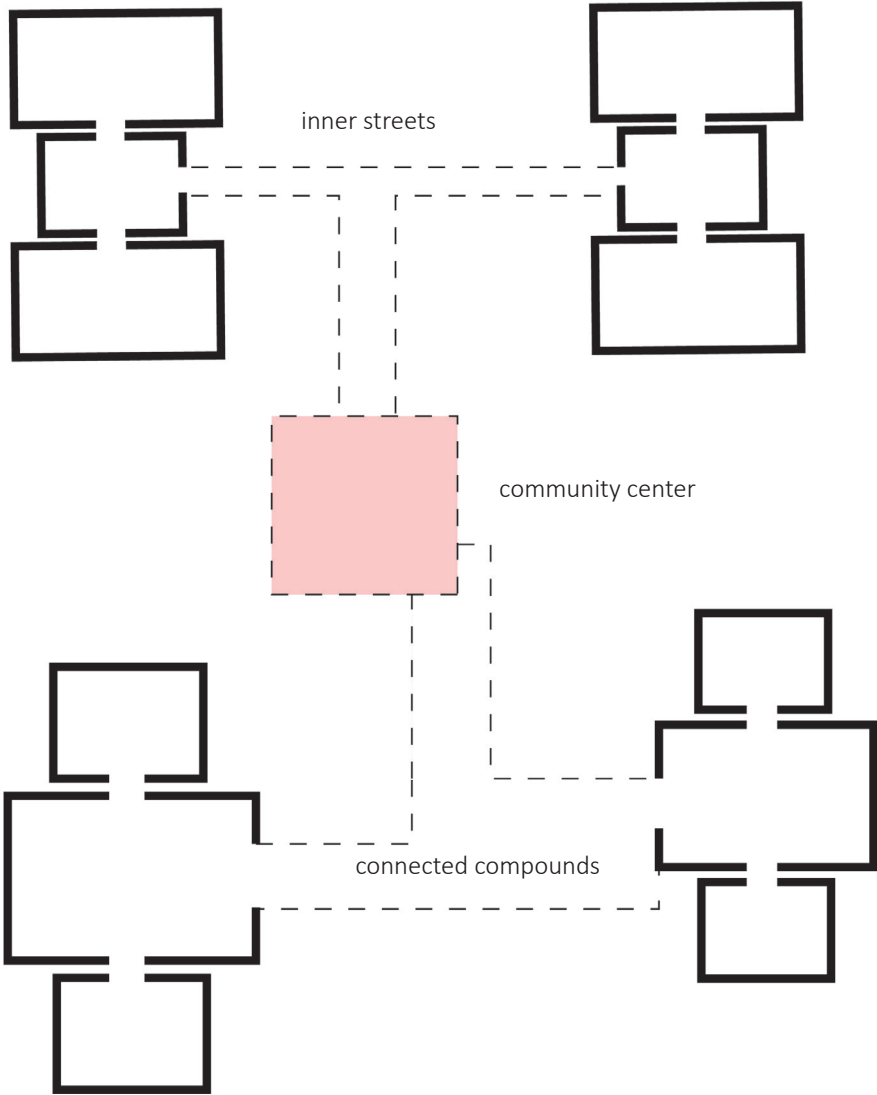


Global Housing Studio
Addis Ababa Living Labs

CIDCO Housing
New Bombay
1998
Raj Rewal

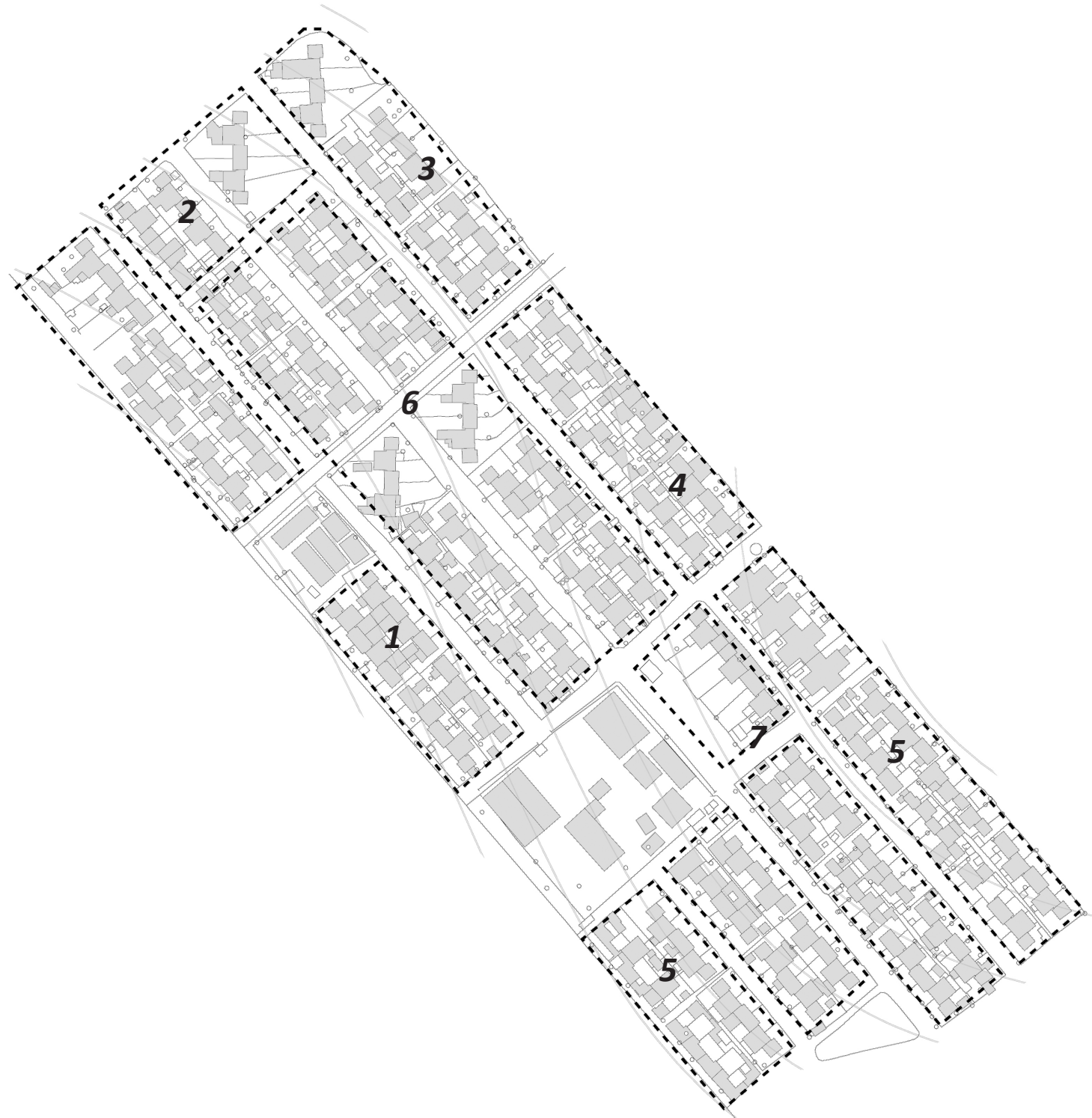
Providing low cost housing for approximately 1000 units in Bombay.
Instead of building large monolithic parallel blocks of grim dimensions,
we opted for a different kind of settlement pattern. The design for the
large number of dwelling units is fragmented into smaller aggregations
enclosing a variety of spaces, which can be cohesively arranged on the
sloping site of a hillock and strung together with pedestrian pathways.





"The integrity of each space, the preservation of its special, carefully specified environmental characteristics, depends on the physical elements that provided separation, insulation, access, and controlled transfer between domains. The joints between domains are also important, which gives the plan its hierarchical structure."

RESEARCH



Phasing the the construction progress helping keep the existing dwellers relocated in site and involve the labour contribute for the low in come in later process



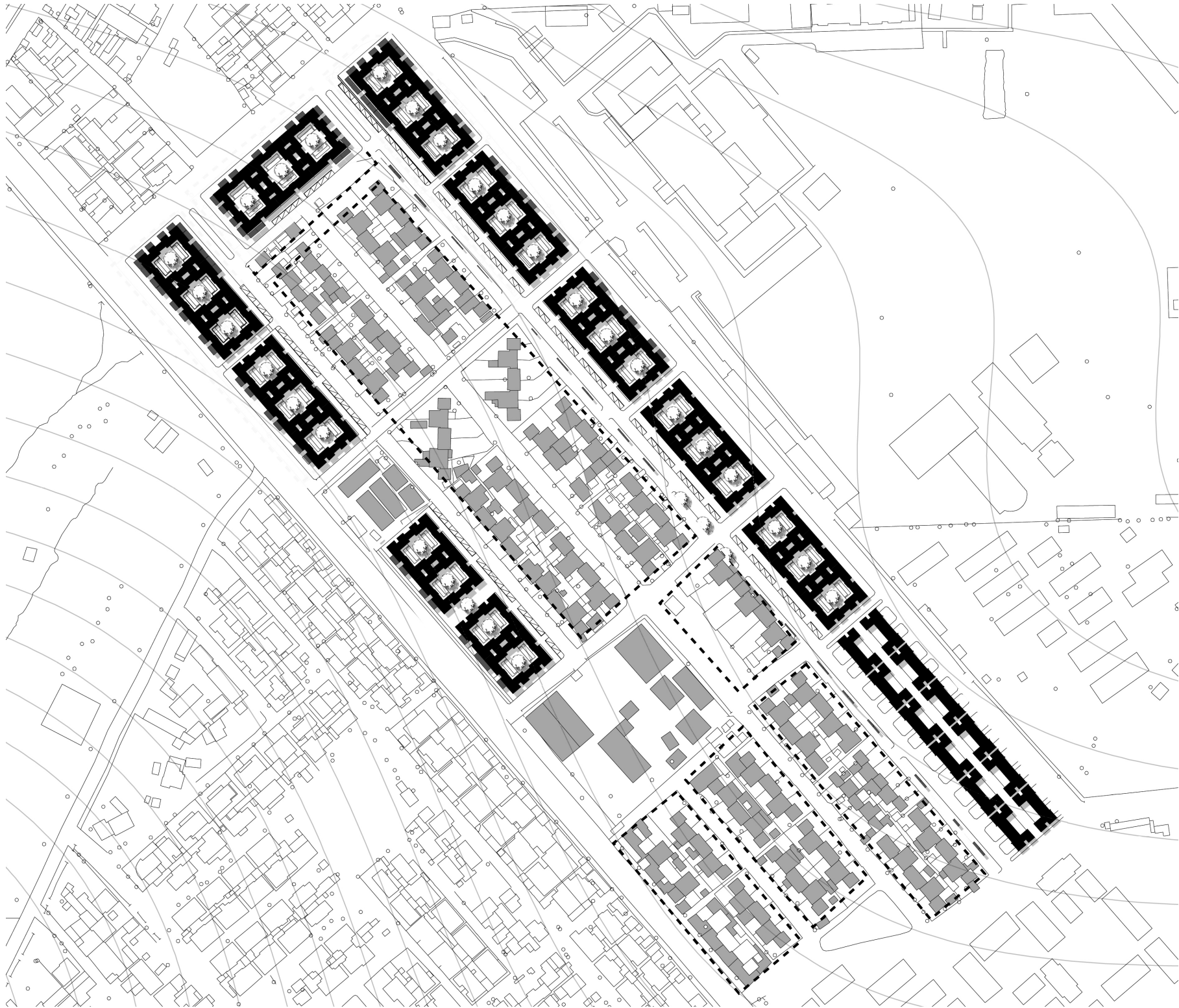
Phasing 1



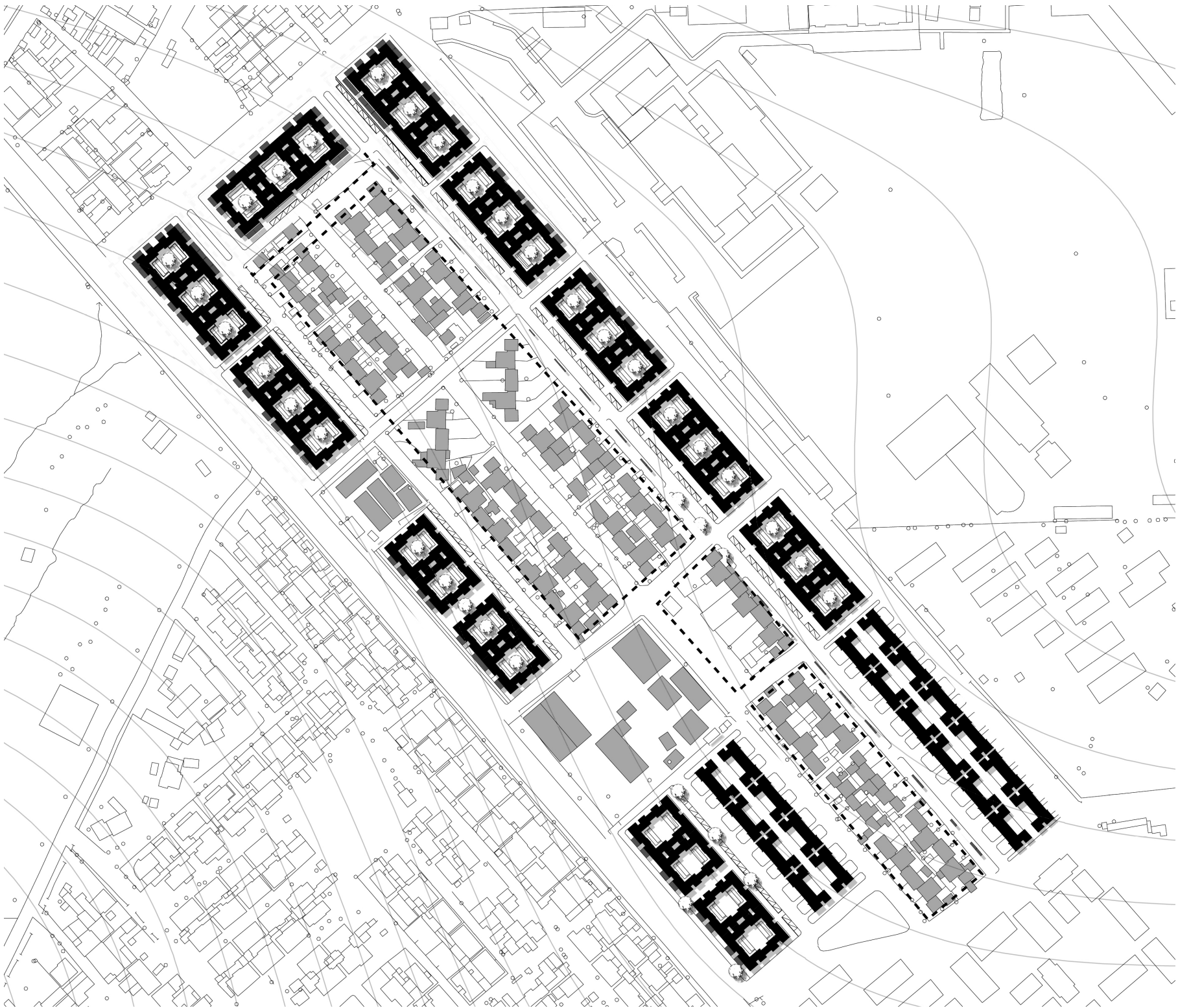
Phasing 1

"From Home to Home"

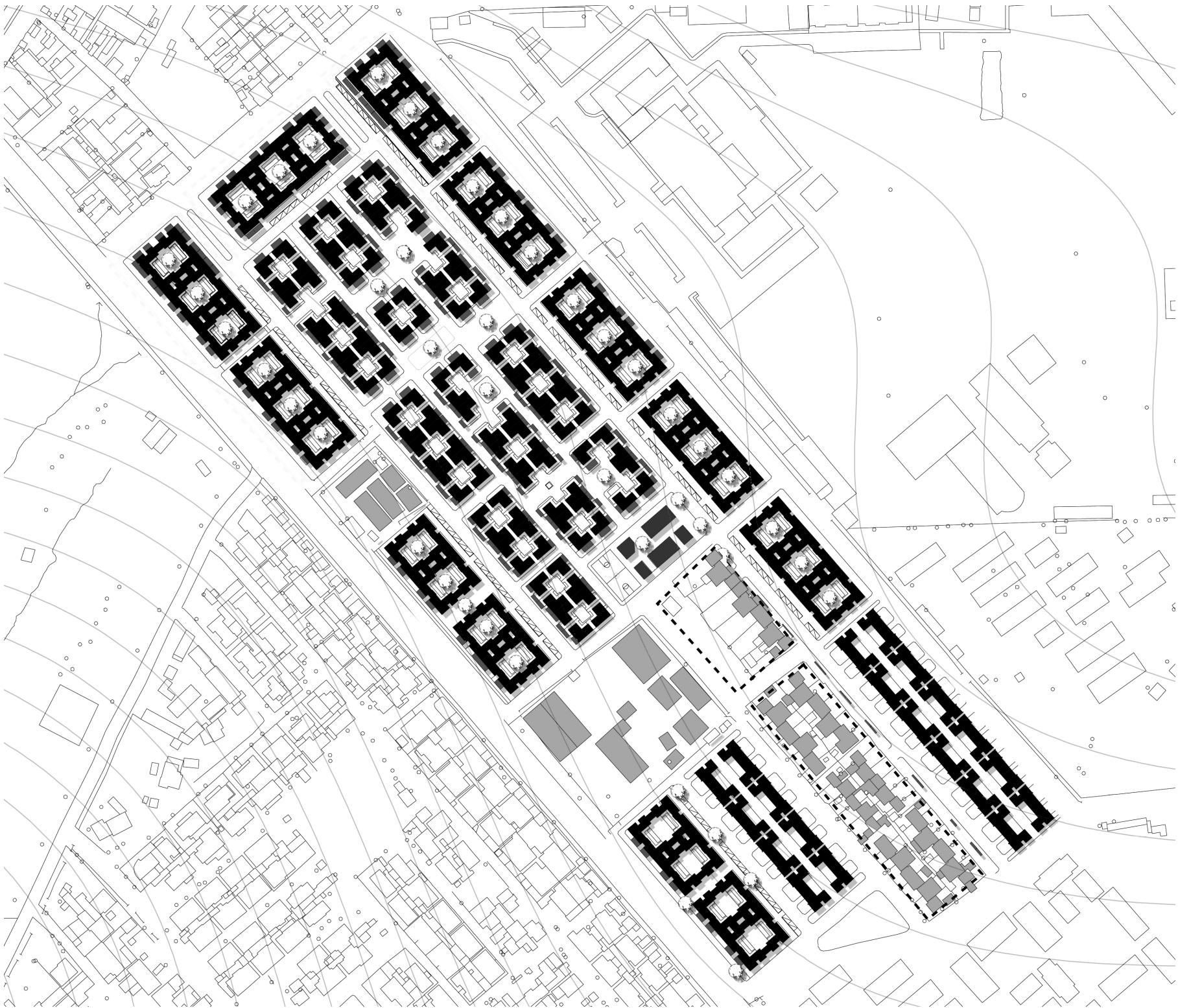
Towards an inclusive, mixed and updatable community



Phasing 2



Phasing 3



Phasing4



Phasing 5



Households: from 318 to 1843
FAR: from 0.43 to 1.435
Population (est.): from 1900 to 4300
Density: from 143 to 323 p/ha
(90 households/ha)



Low income housing
360 households



Middle income housing
250 households



High income housing
30 households



"From Home to Home"

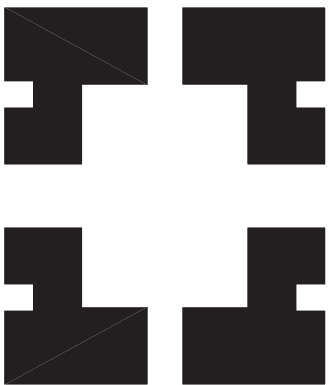
Towards an inclusive, mixed and updatable community

Conceptual Scheme

Typology 1
Low-income
Introverted collective
compound



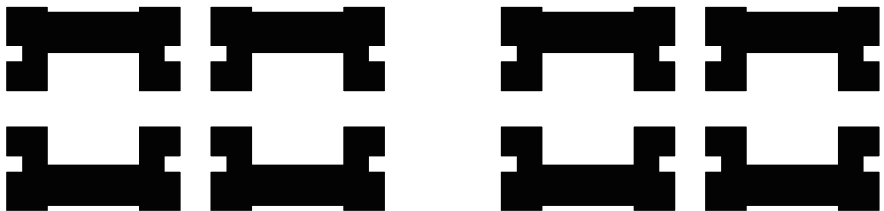
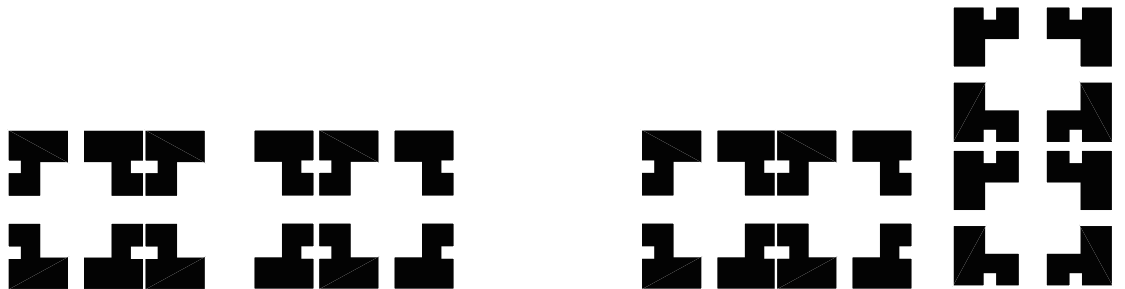
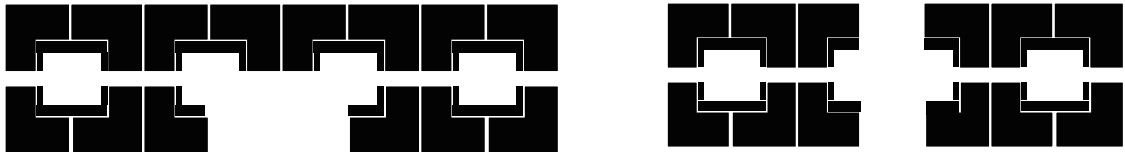
Typology 2
Middle-income
Semi-collective com-
pound



Typology 3
High-income
Detached compound



Urban situation



DESIGN

"From Home to Home"

Towards an inclusive, mixed and updatable community



Typology 1

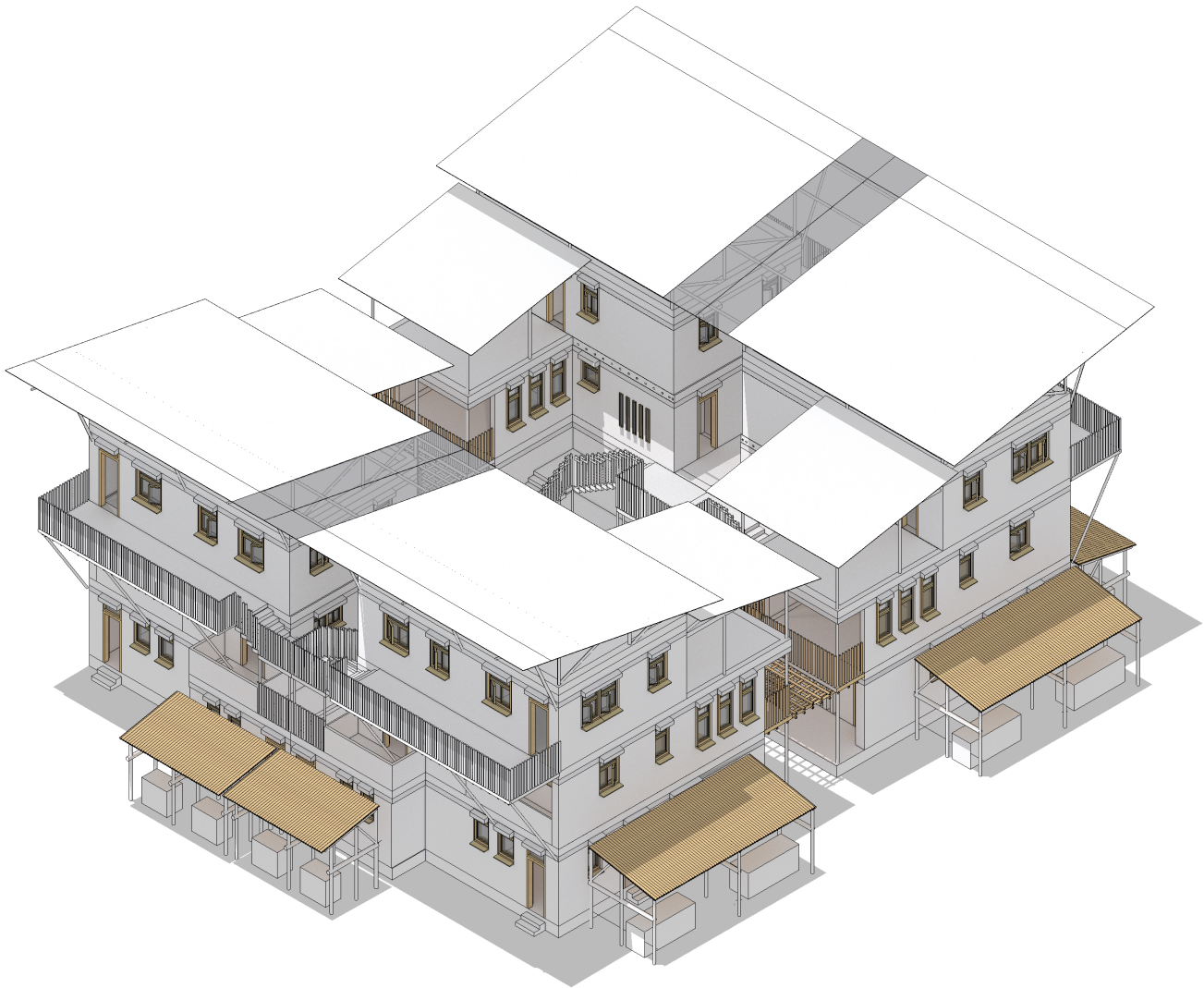
Low-income

Introverted collective compound

12 households

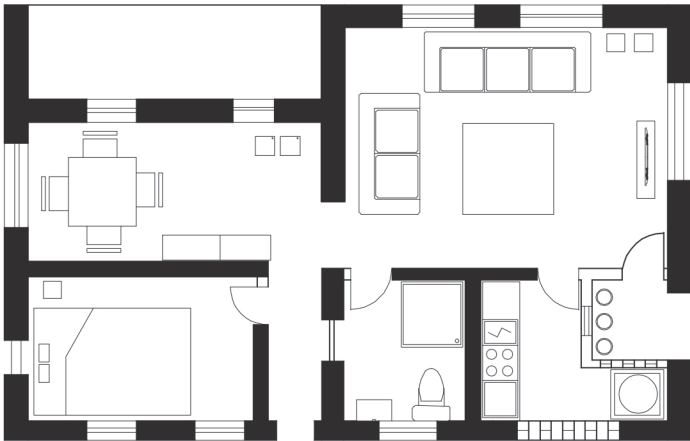
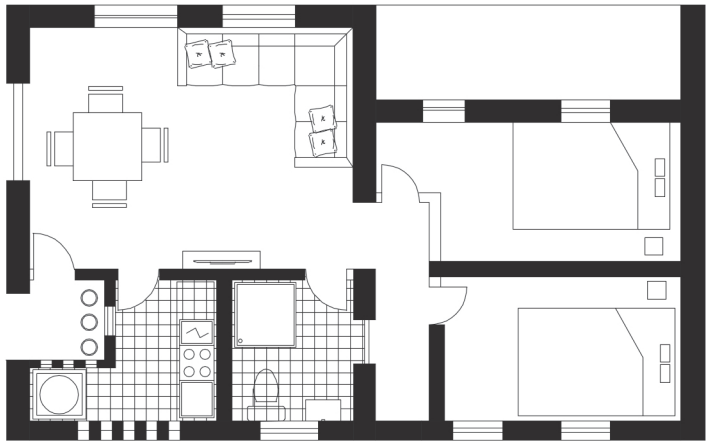
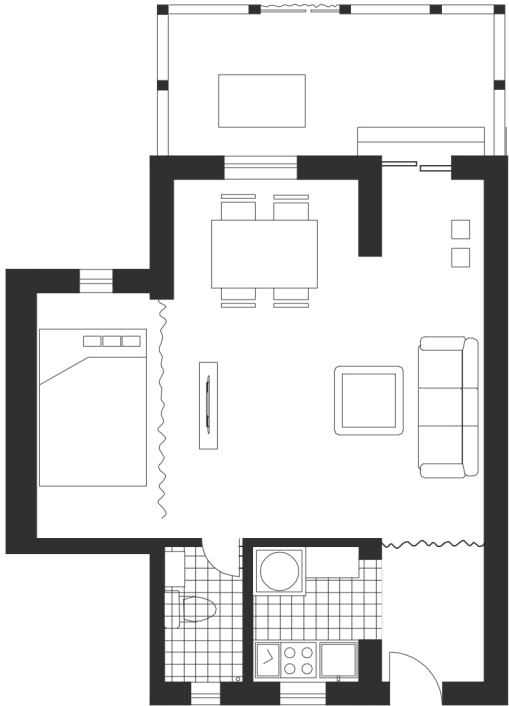
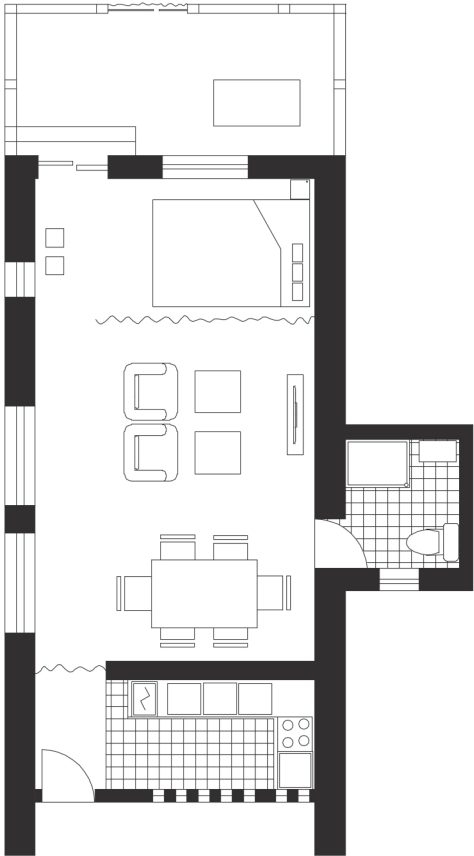
48 dwellers

Courtyard 48 m²

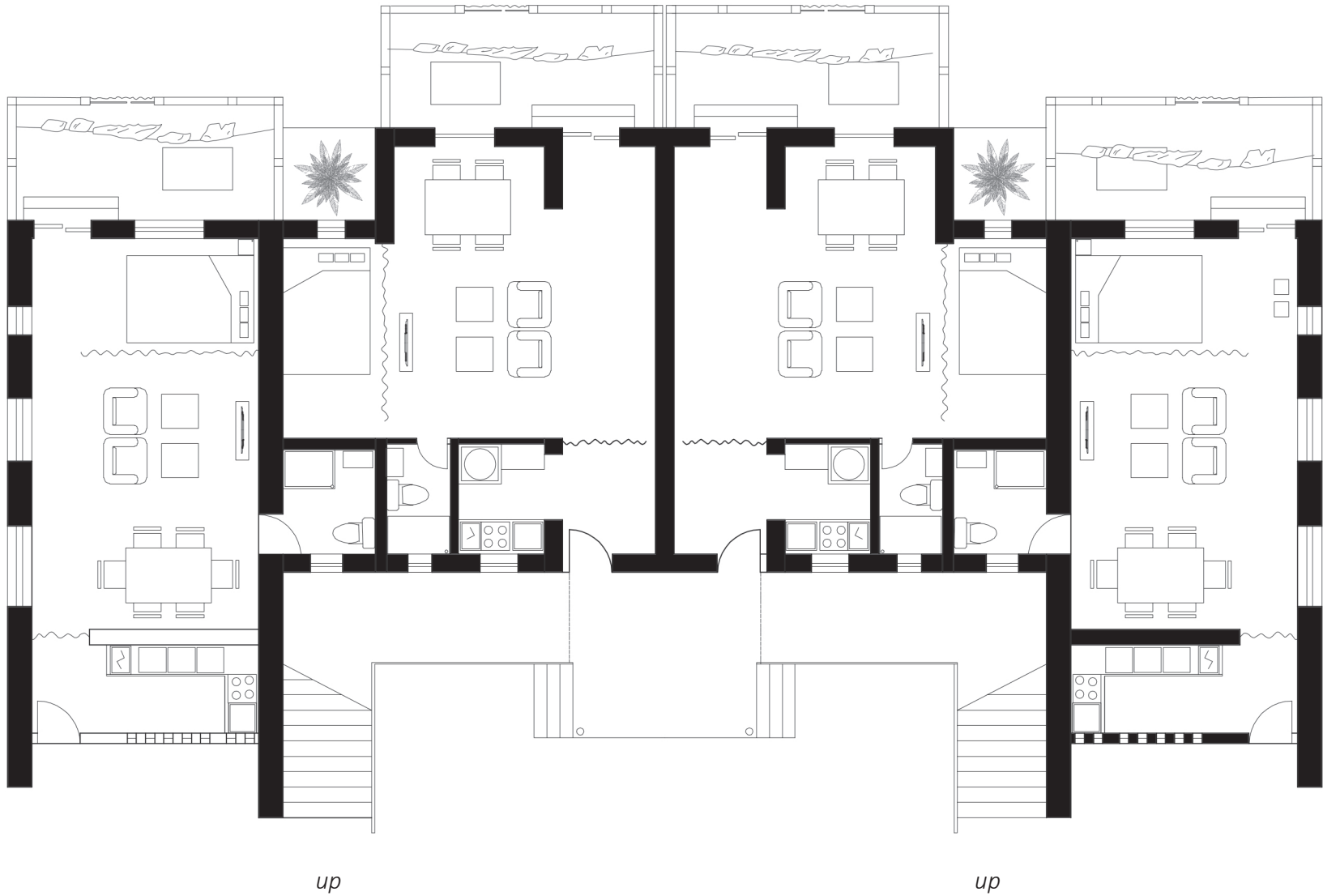


Typology 2
Low-income
Isometric renders

Basic units

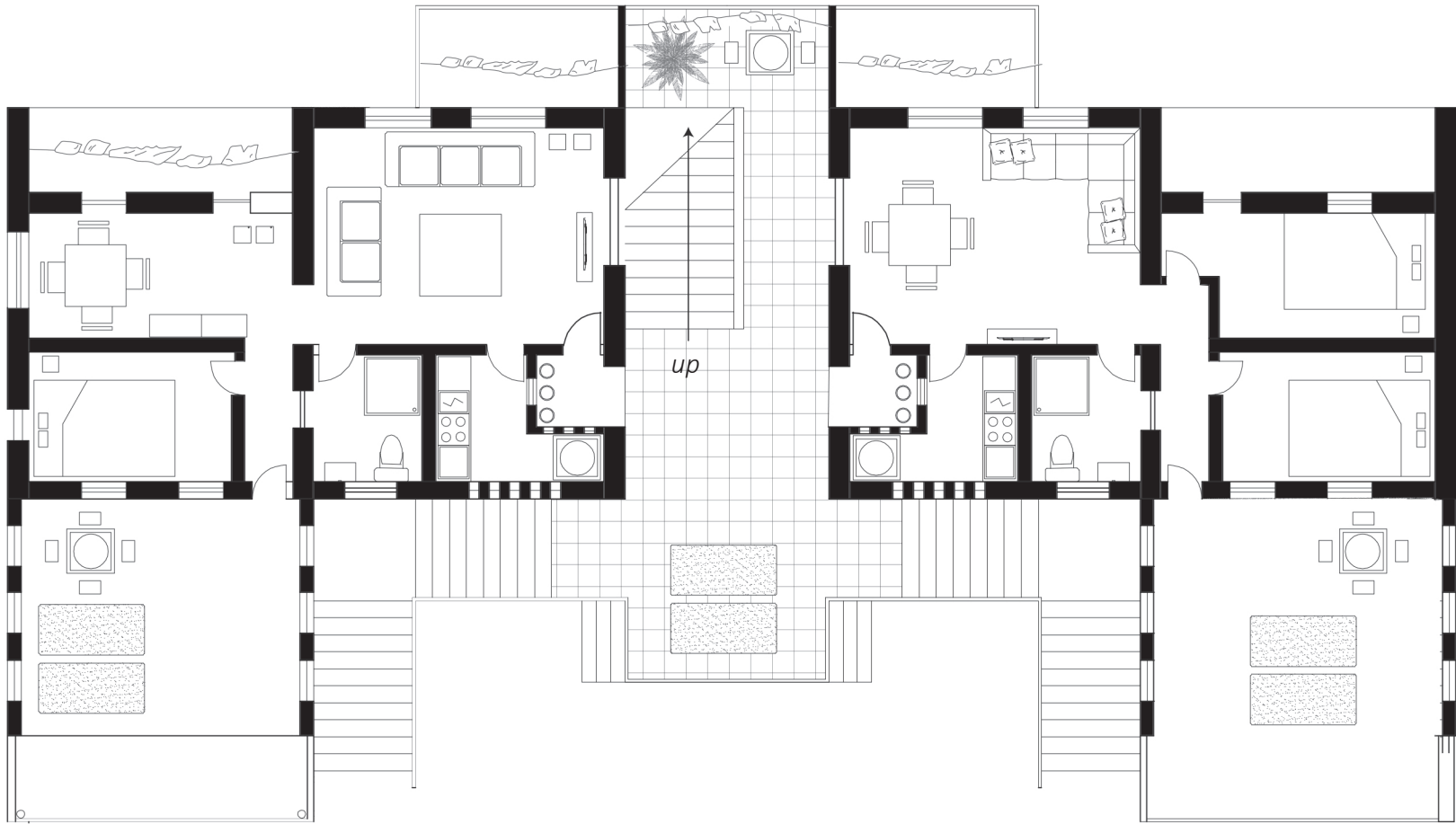


Plan Fragments



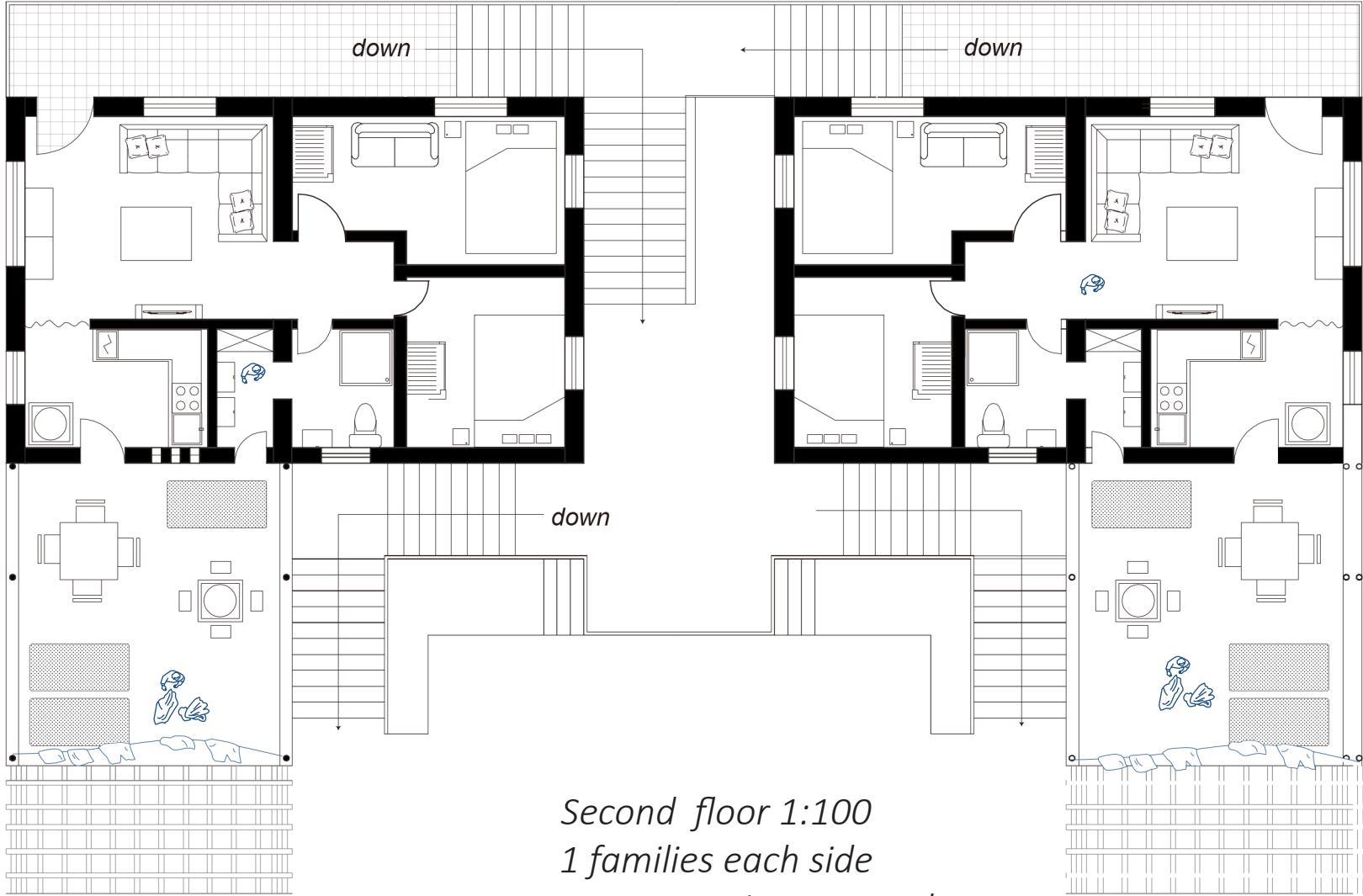
Ground floor 1:100
2 families each unit
32 m2 + 10 rental shops
34 m2 + 10 commercial space

Plan Fragments



First floor 1:100
1 families in each unit
38 m2 + 14 m2 incremental

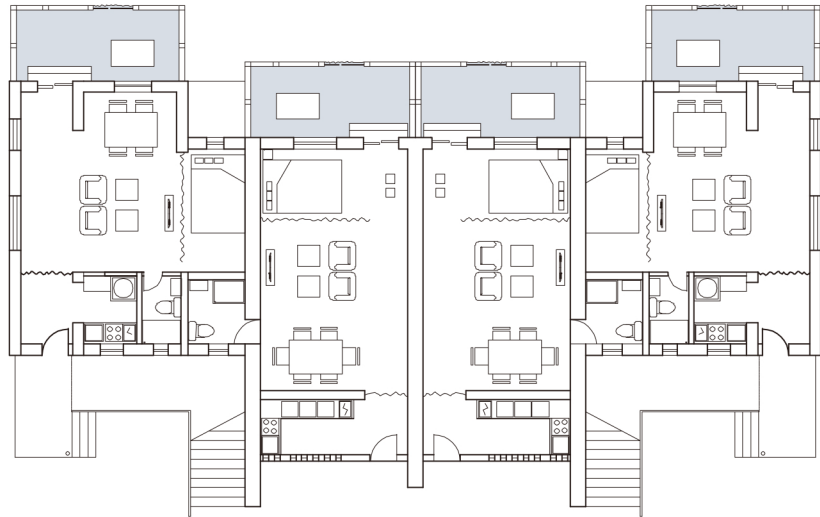
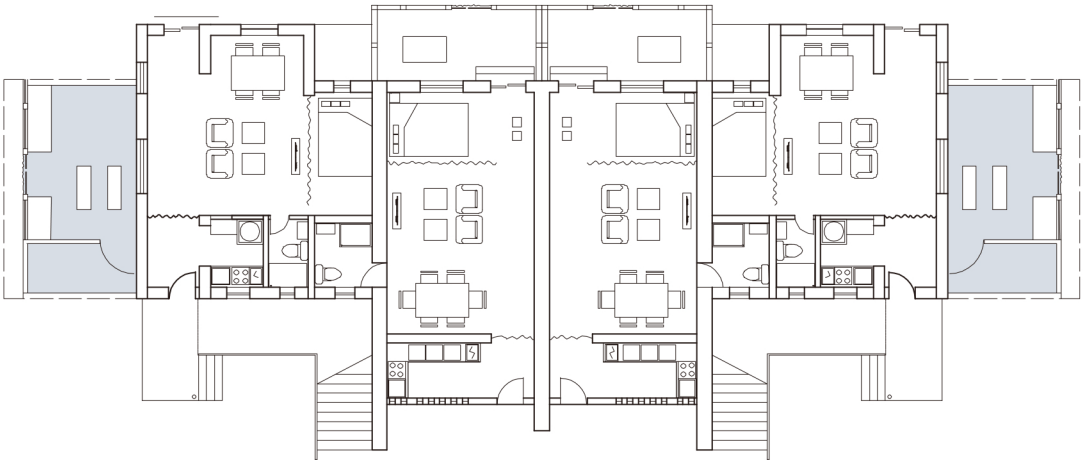
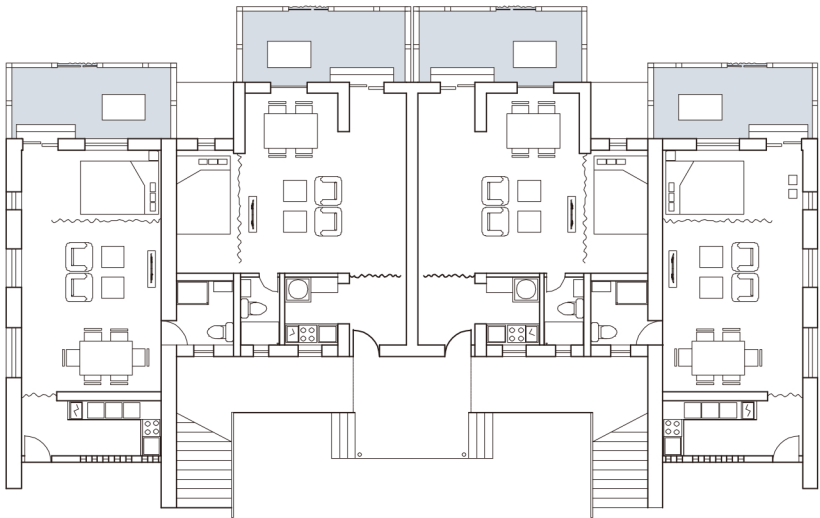
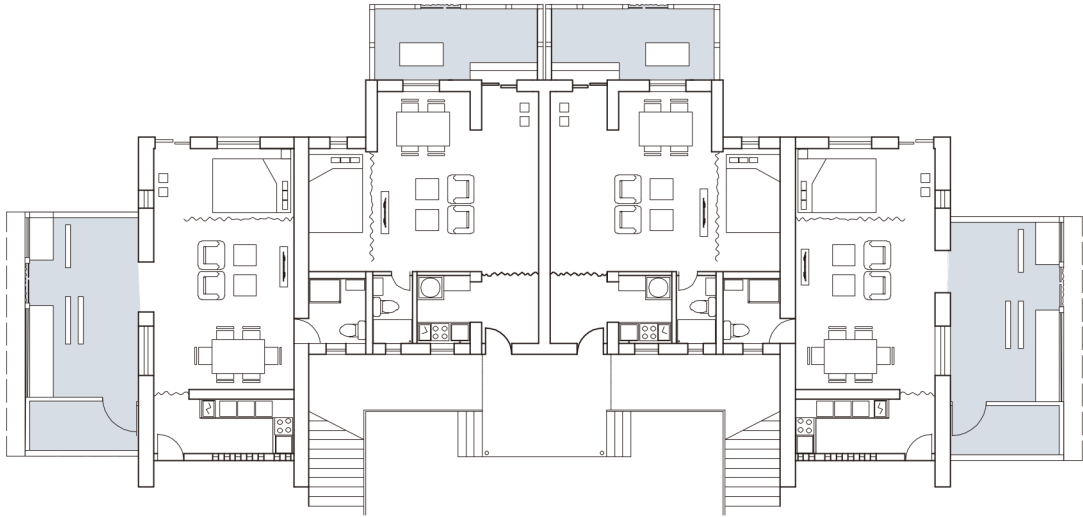
✕ Plan Fragments

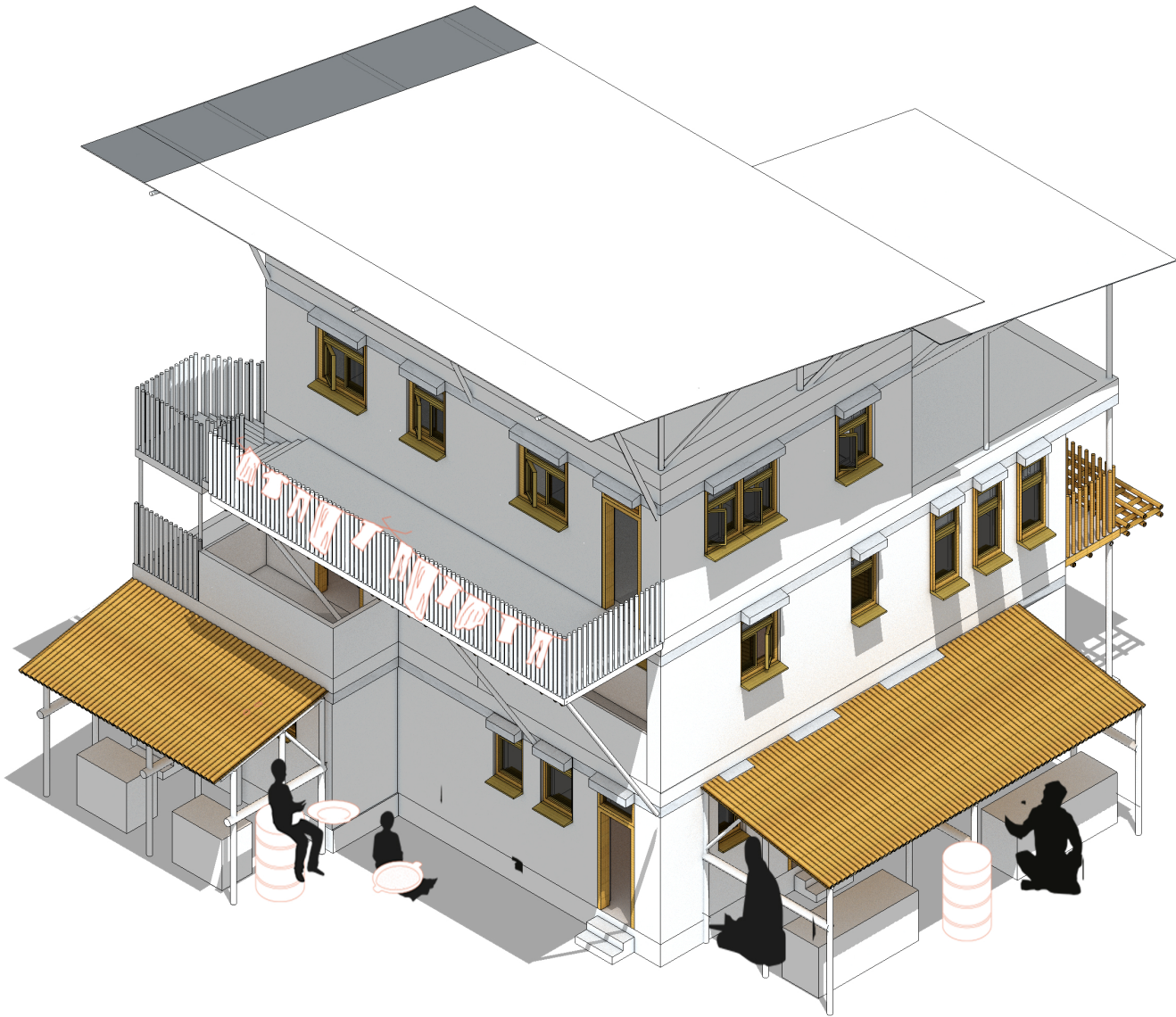


Second floor 1:100
1 families each side
43m2 + 14 m2 incremental

DESIGN

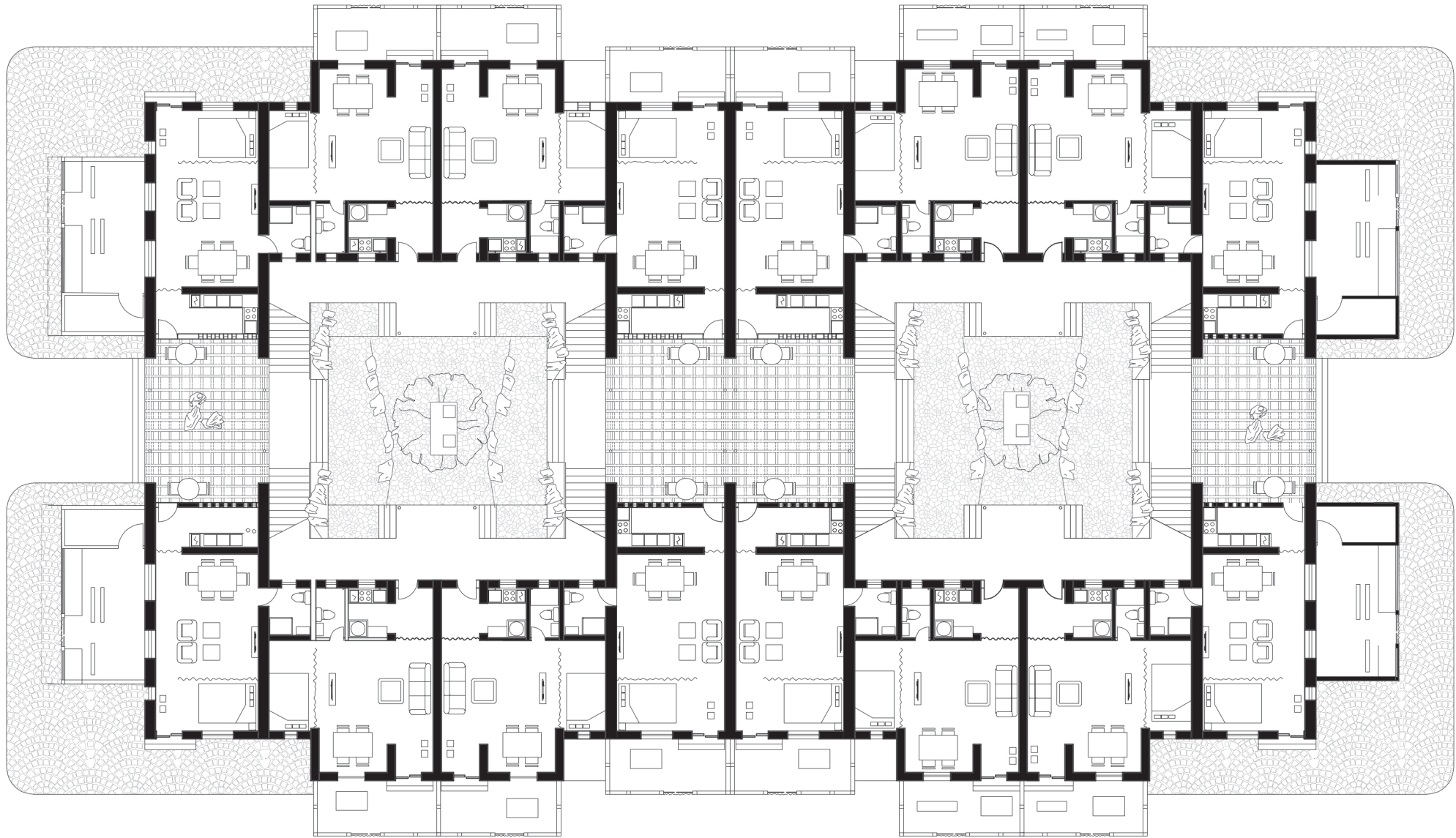
✕ Shops possibilities on ground floor





"From Home to Home"

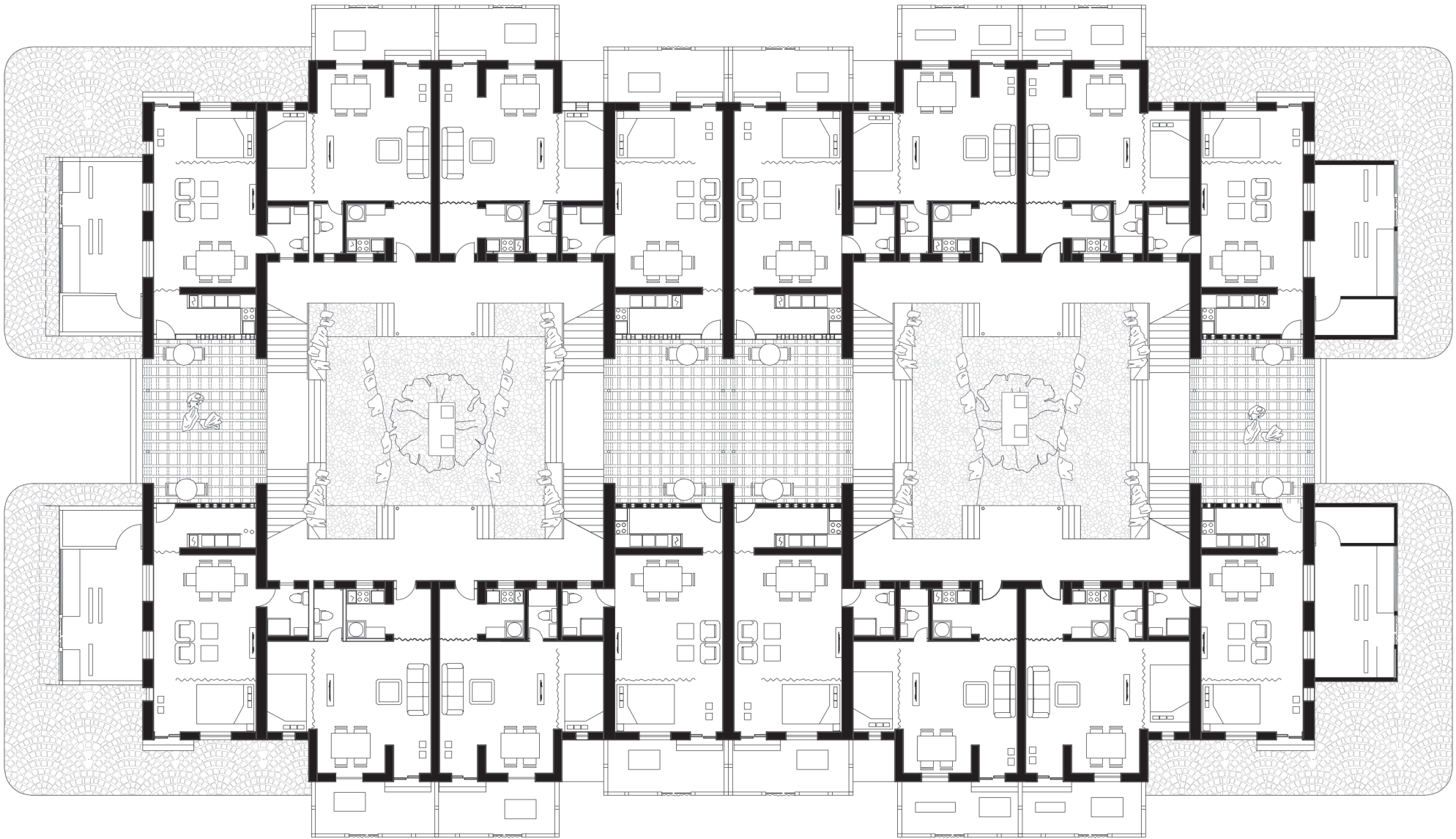
Towards an inclusive, mixed and updatable community



Ground floor compound 1:200

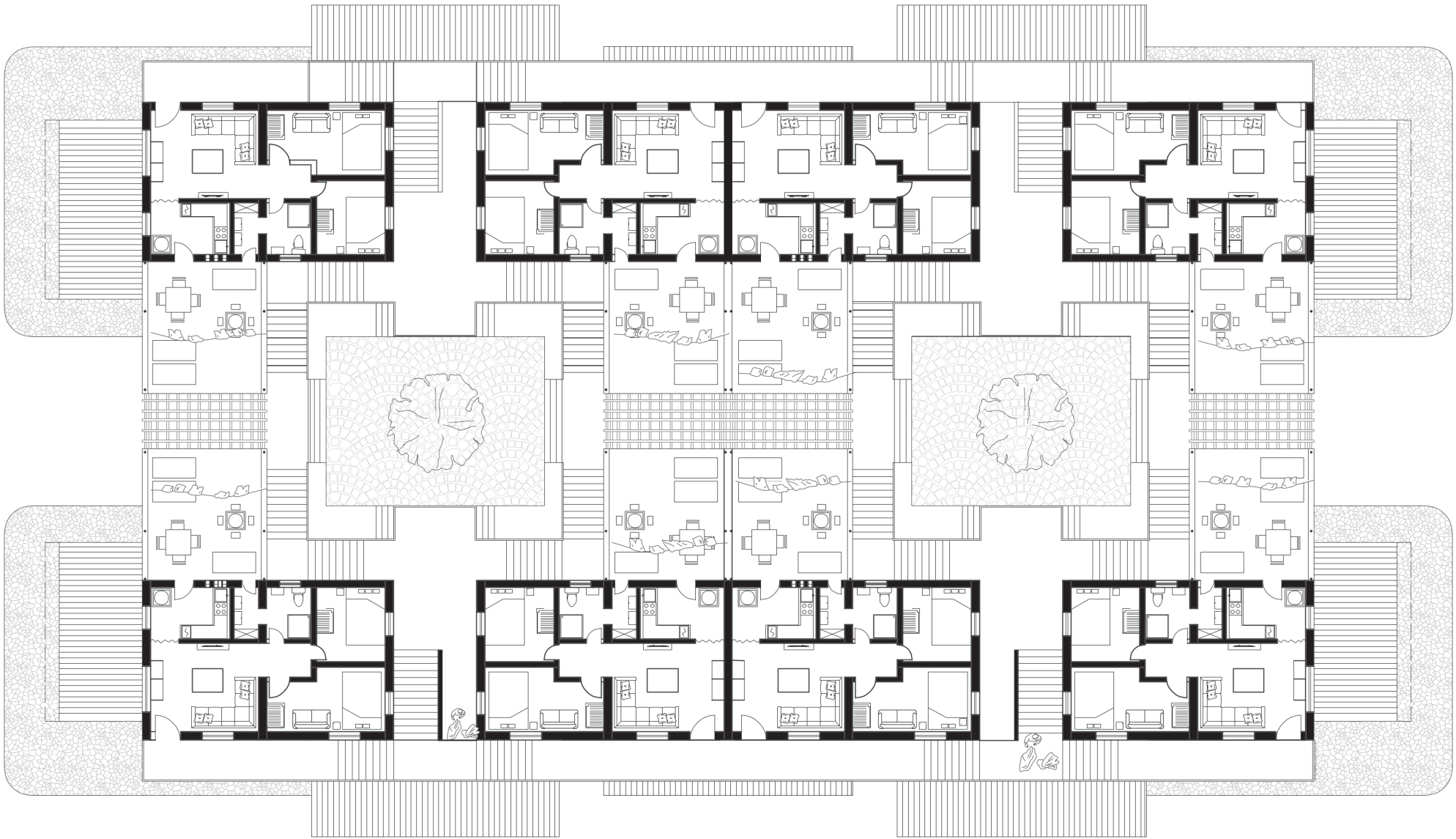
Interaction in the yards and kitchen

"From Home to Home"
Towards an inclusive, mixed and updatable community



*First floor compound1:200
Interaction in the balconies, kitchen
and stair case*

"From Home to Home"
Towards an inclusive, mixed and updatable community

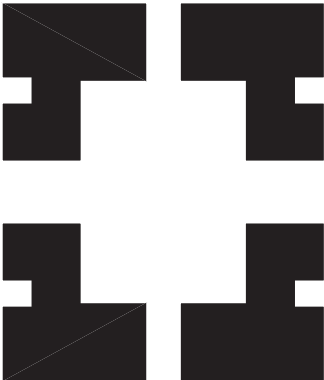


*Second floor cluster1:200
Interaction in the balconies, kitchen
and stair case*



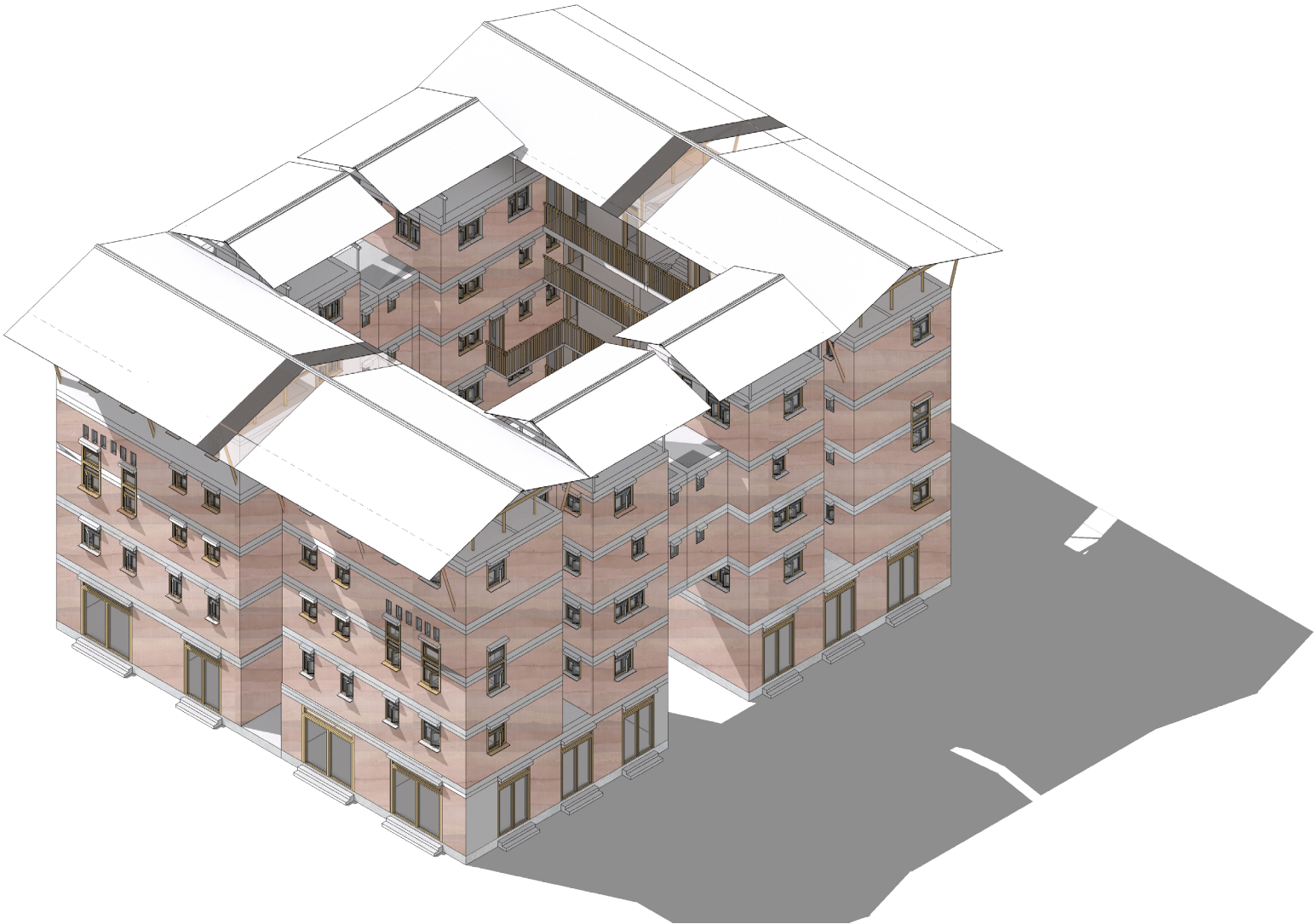
DESIGN

Public street elevation
Light structure as
Shops or thresholds



Typology 2
Middle-income
Introverted collective compound
20 households
70dwellers

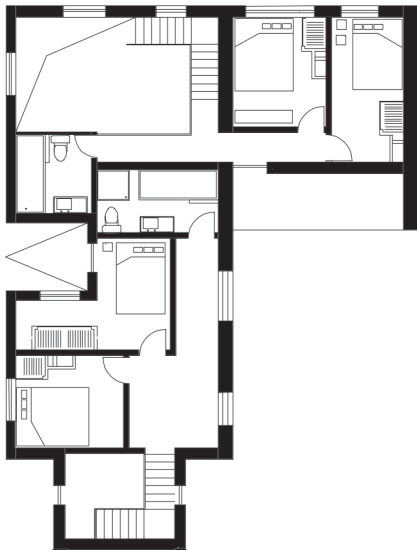
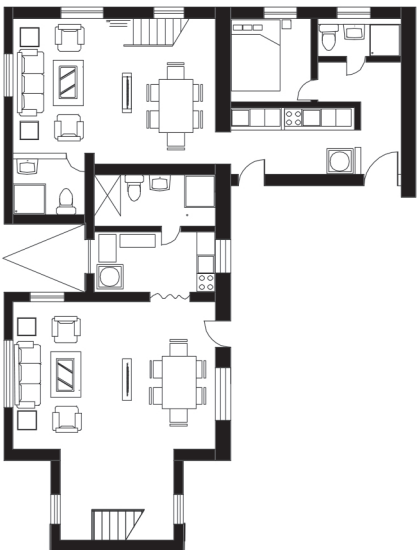
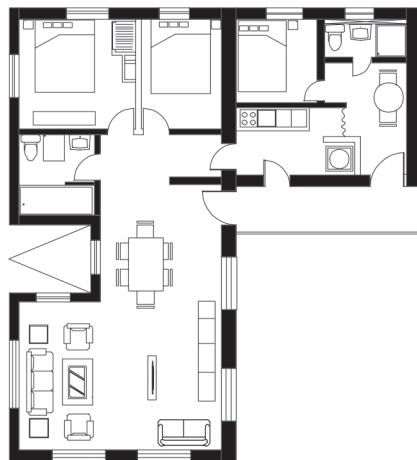
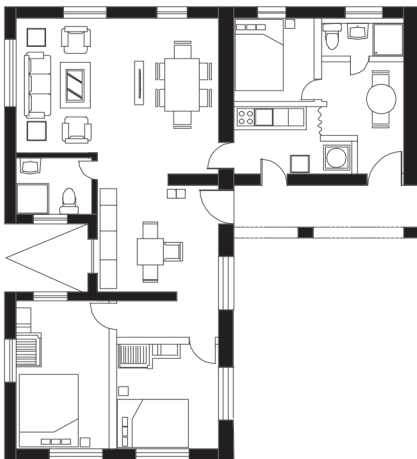
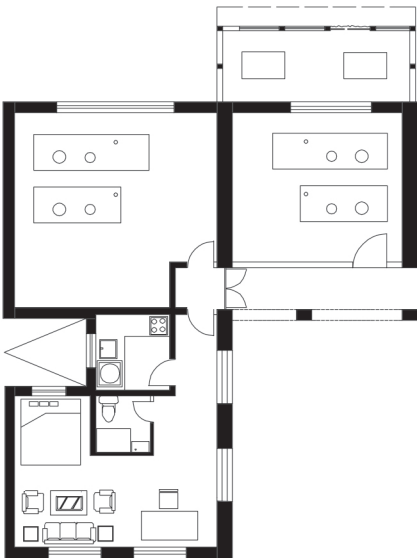
Courtyard 156 m2



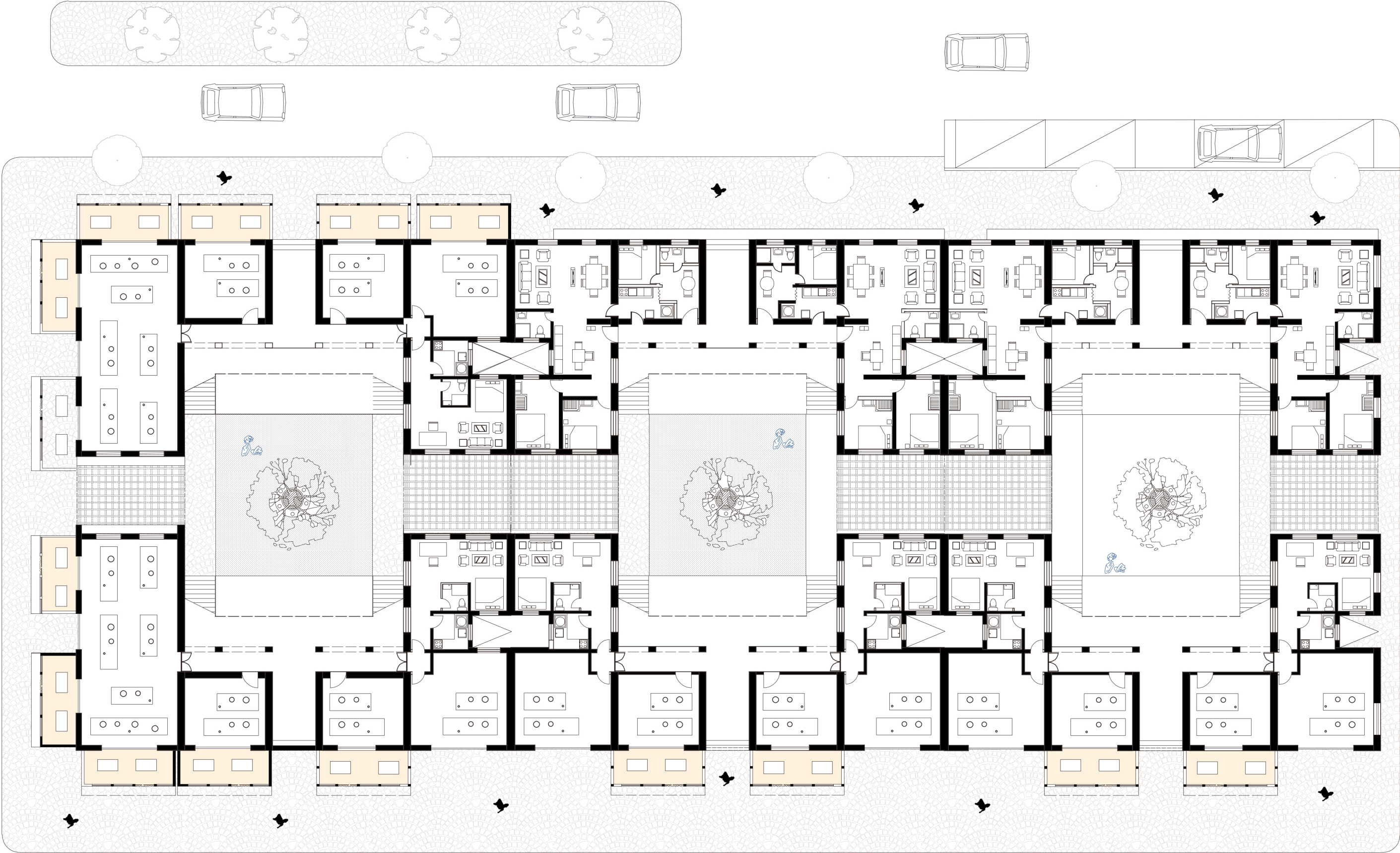
Typology 2
Middle-income
Isometric renders

"From Home to Home"

Towards an inclusive, mixed and updatable community

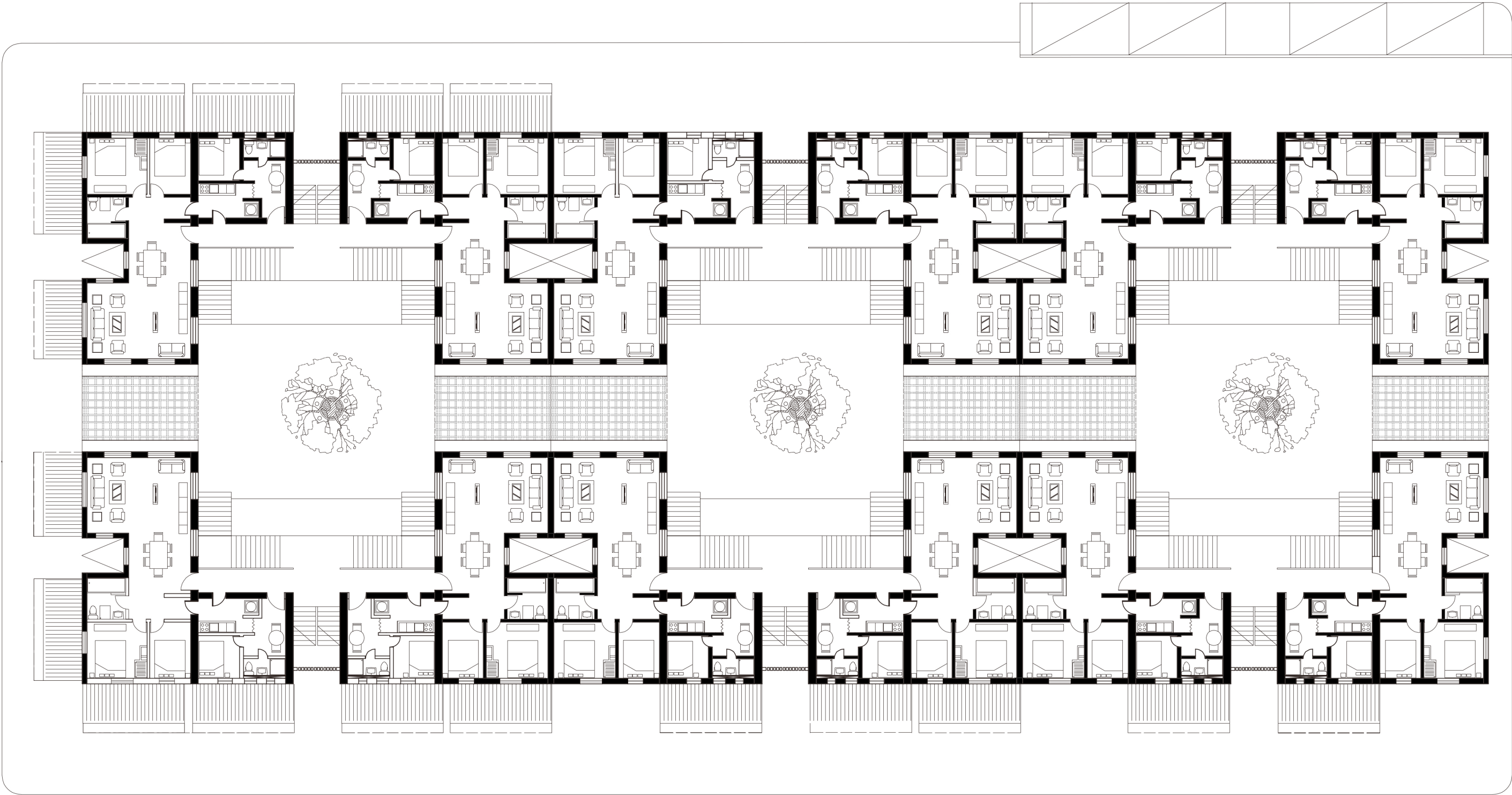


"From Home to Home"
Towards an inclusive, mixed and updatable community



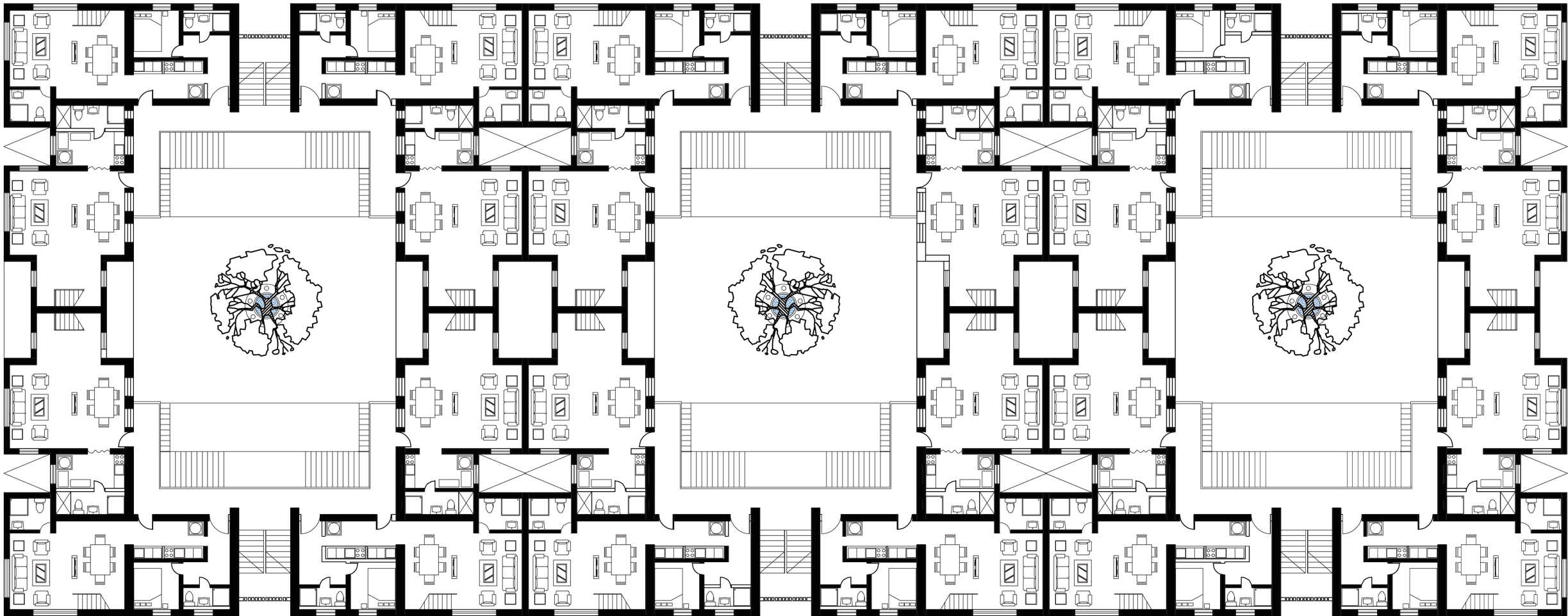
DESIGN

Ground floor cluster1:200
Different types facing different streets
28 m2 studio
One family single unit 78m2
Including 17 m2 maid area that could be rent out
47



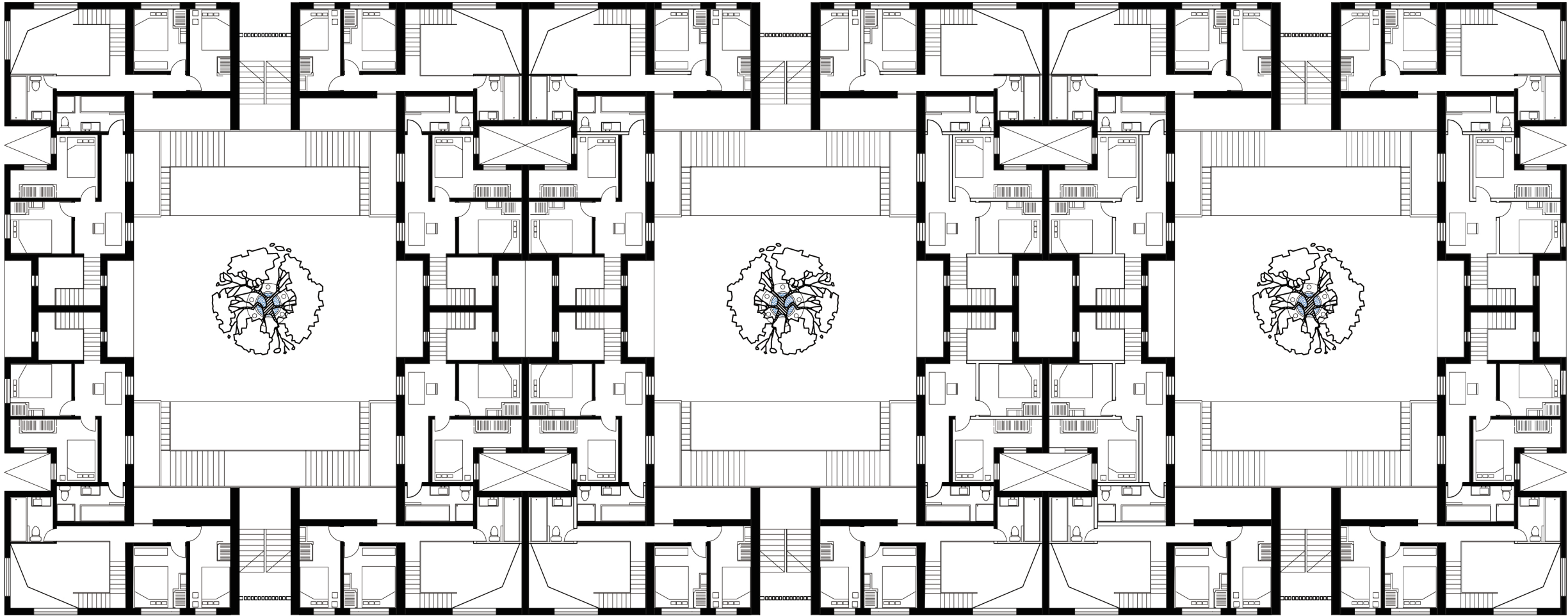
*First floor cluster1:200
1 families each single
78m2 with 2 bedrooms
Including 17 m2 maid area that could be rent out*

"From Home to Home"
Towards an inclusive, mixed and updatable community

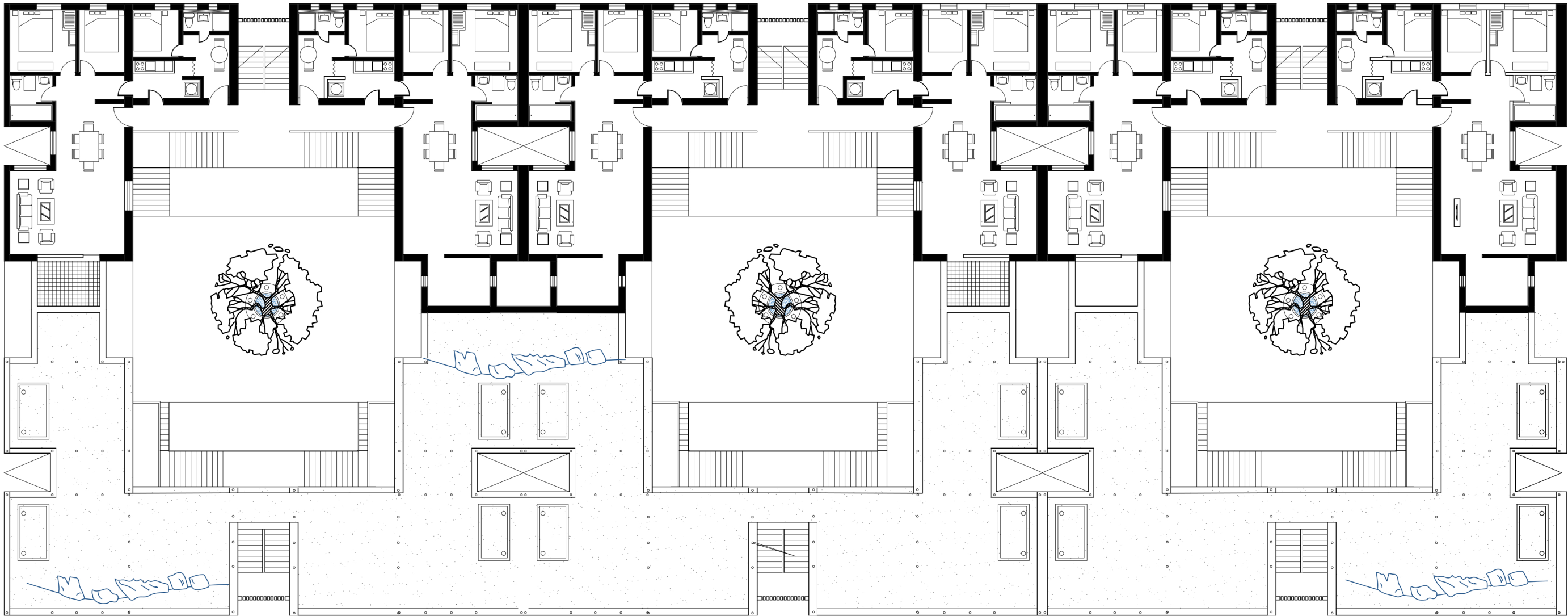


DESIGN

*Duplex with 2 families each side with
38m2 and
43m2 on each level*

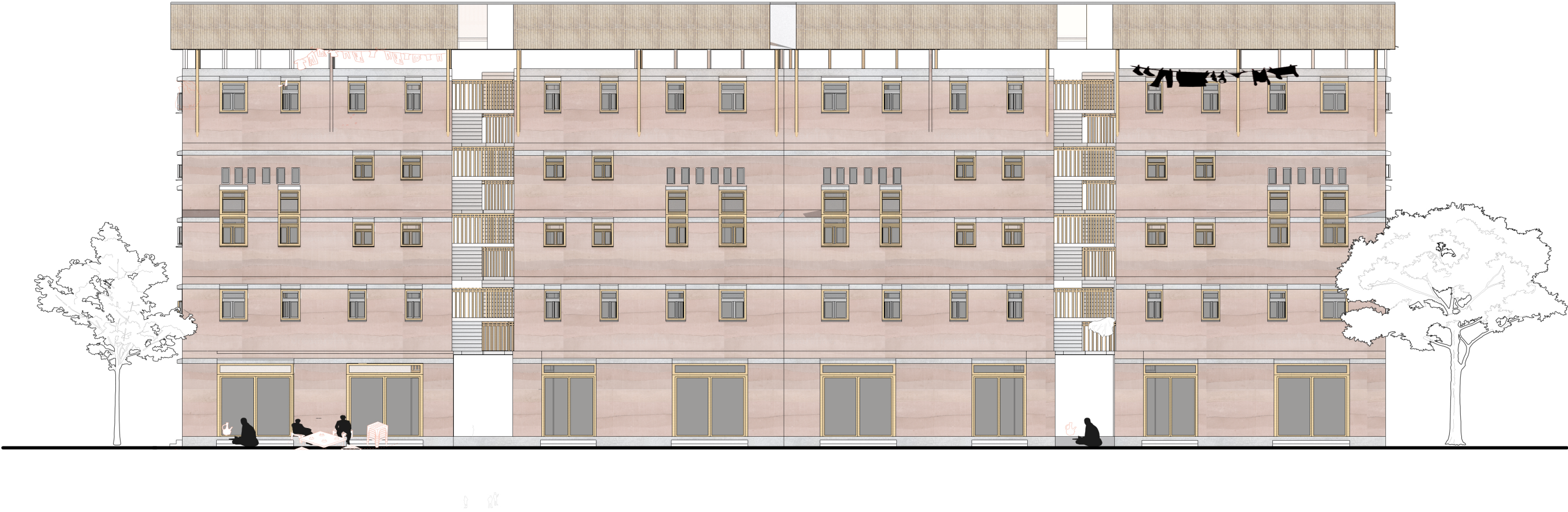


Duplex with 2 families each side with
38m² and
43m² on each level



DESIGN

Fourth floor 1:200
Water tanks or laundries

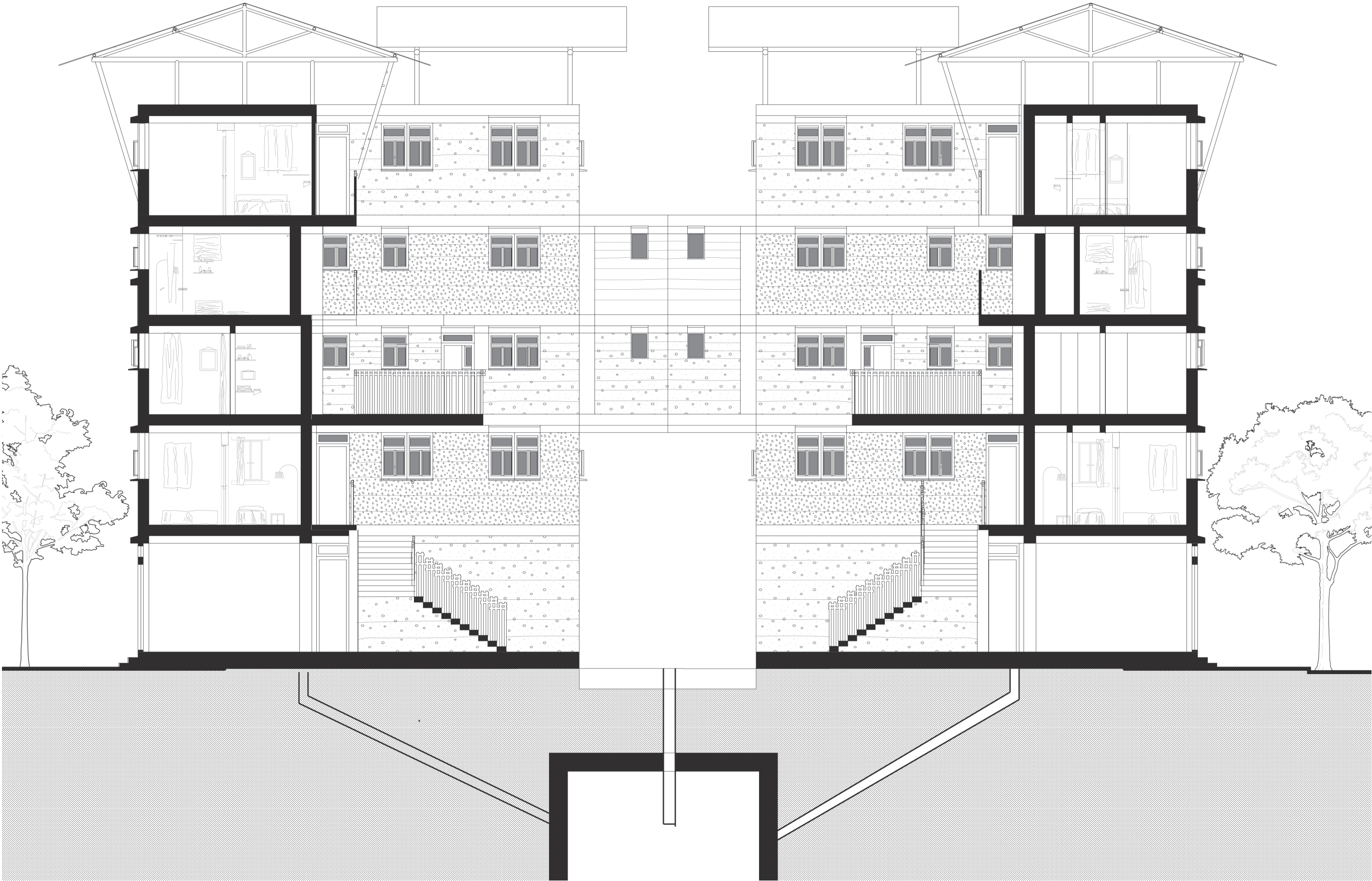


Public street elevation
Light structure as
Coffee stands or rests

"From Home to Home"
Towards an inclusive, mixed and updatable community

Jinfeng Cheng
P5 Presentation

DESIGN



"From Home to Home"
Towards an inclusive, mixed and updatable community



"From Home to Home"
Towards an inclusive, mixed and updatable community



Global Housing Studio
Addis Ababa Living Labs

"From Home to Home"
Towards an inclusive, mixed and updatable community

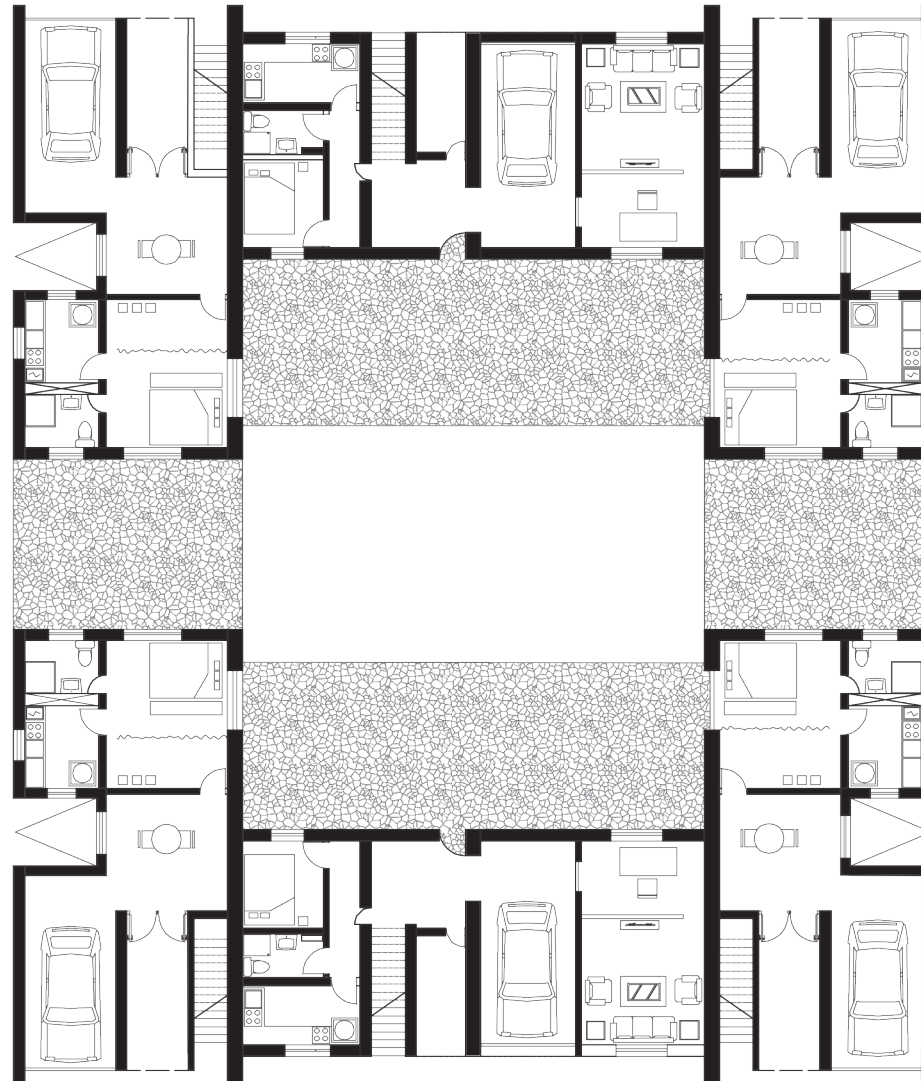


typology 3
high-income
6 households
32 dwellers

Courtyard 160 m2

"From Home to Home"

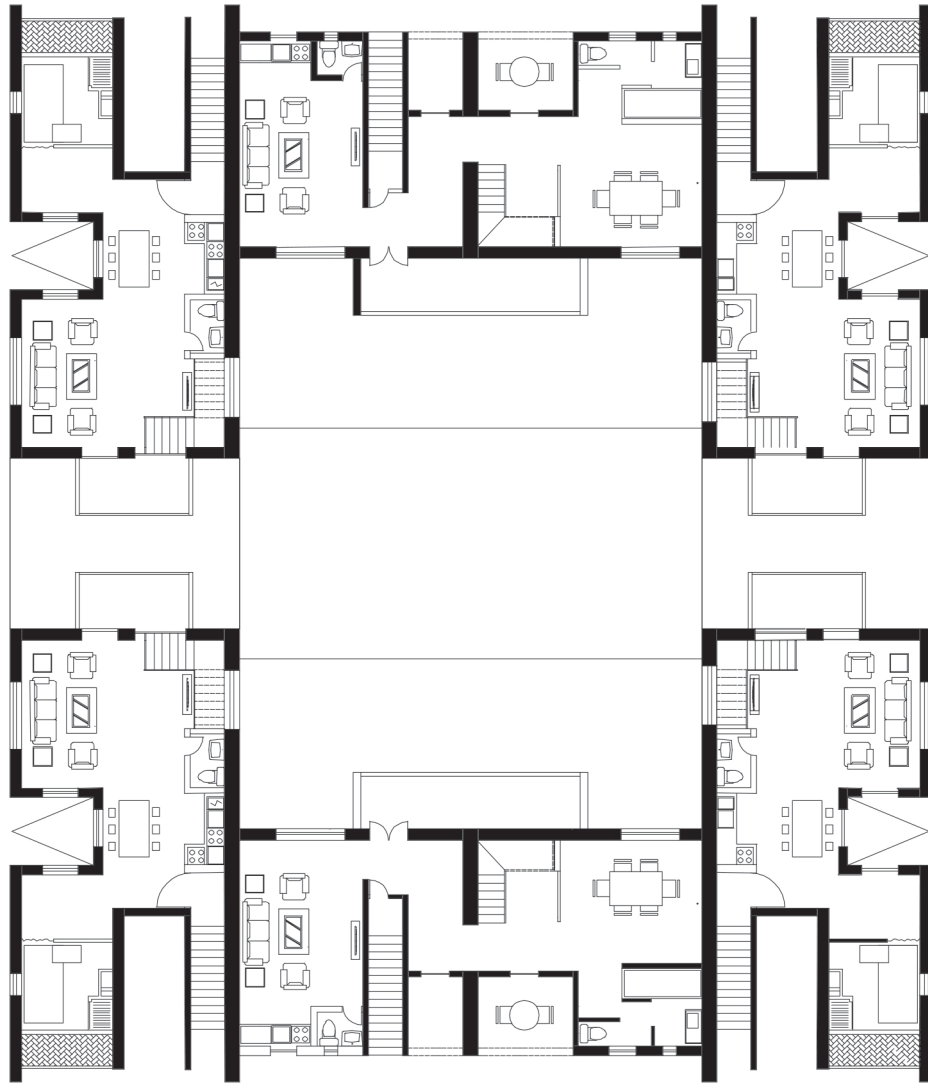
Towards an inclusive, mixed and updatable community



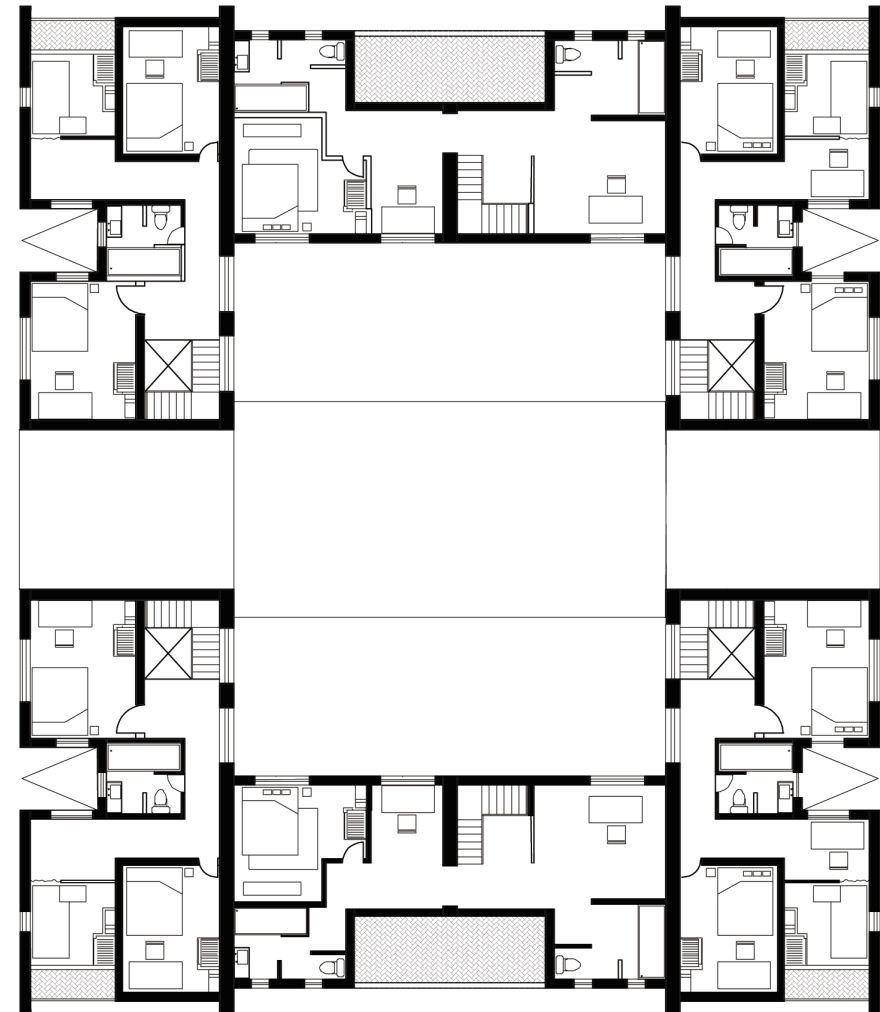
Ground floor 1:200
3 families
160m²
180 m²

"From Home to Home"

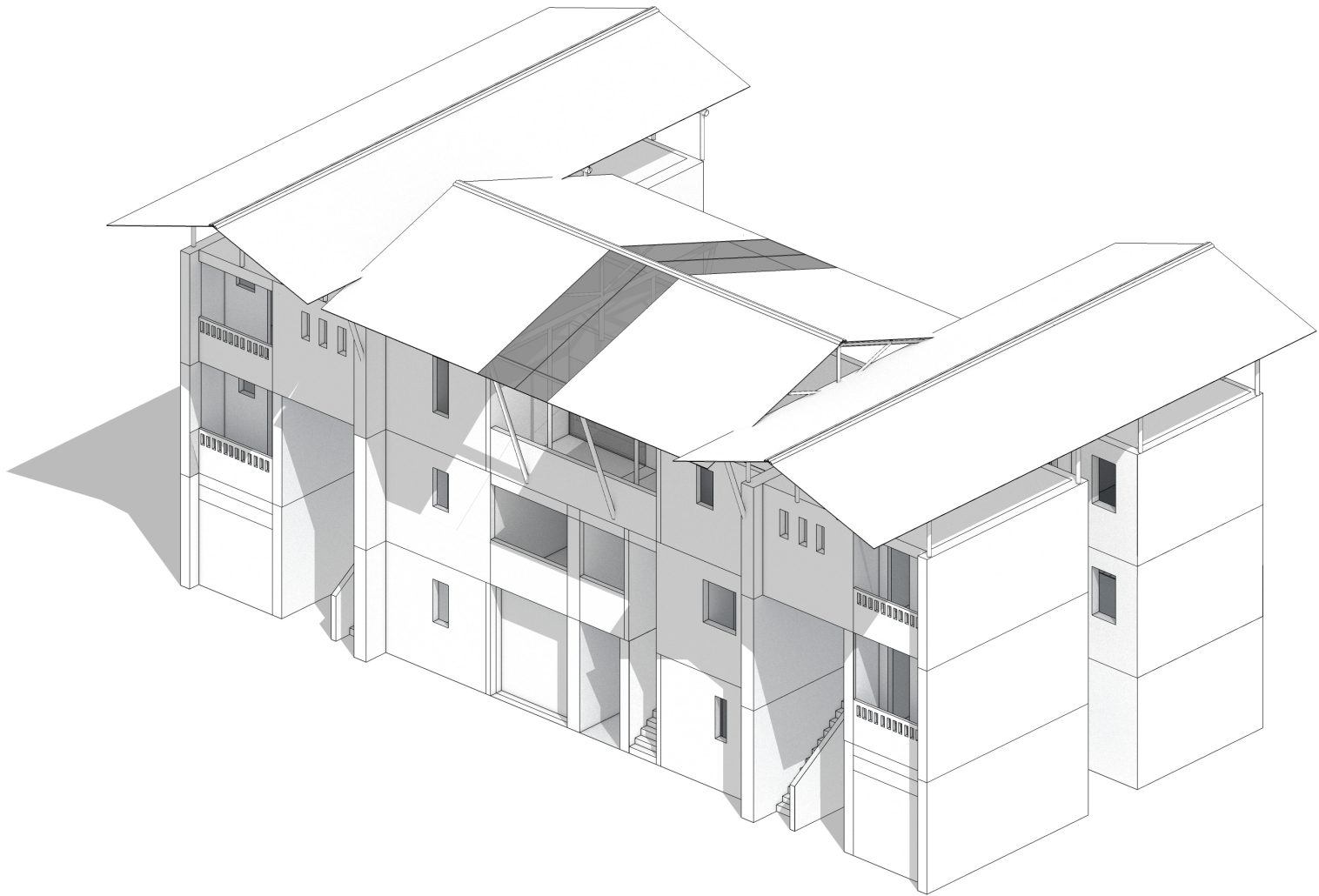
Towards an inclusive, mixed and updatable community



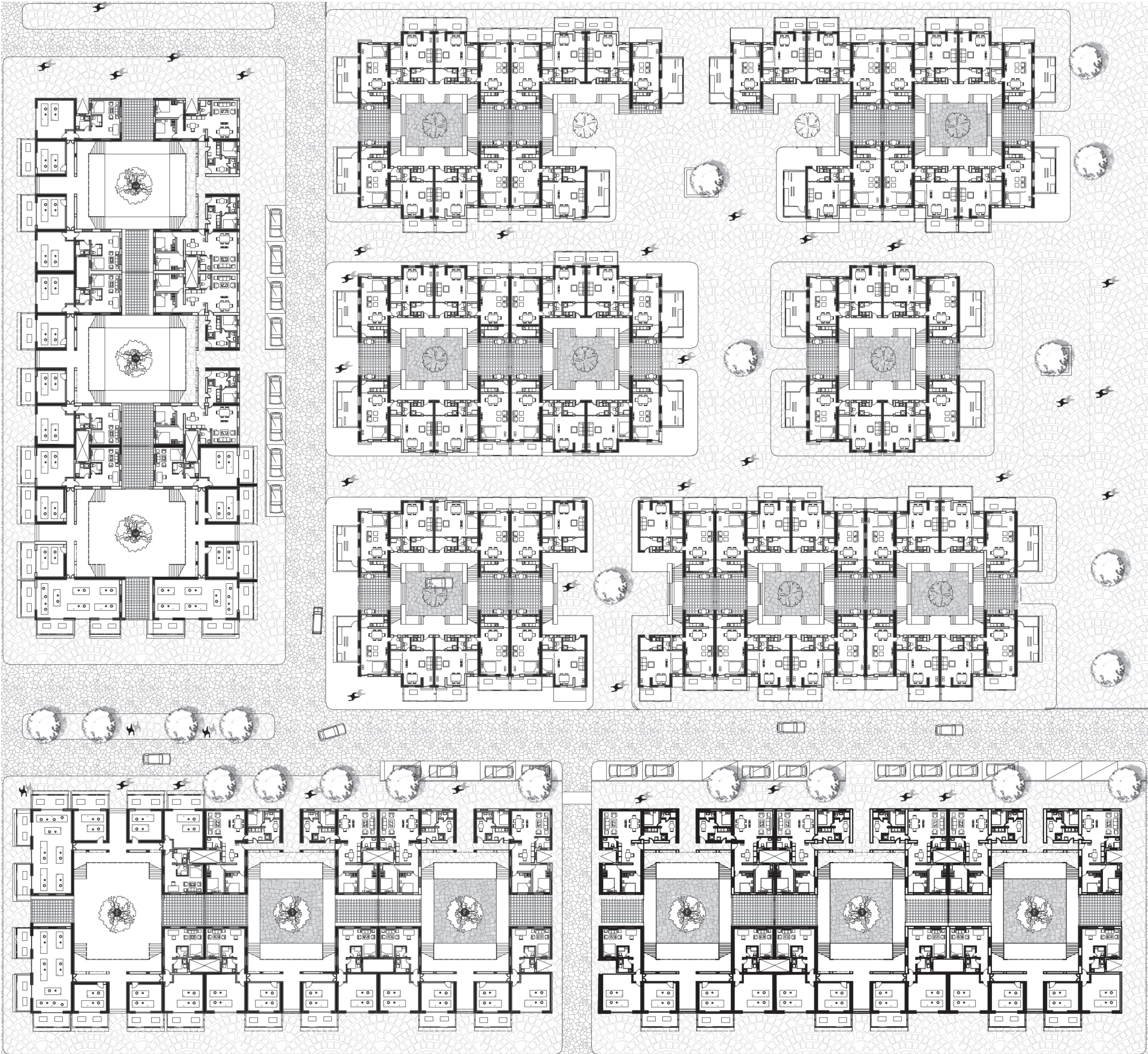
First floor 1:200

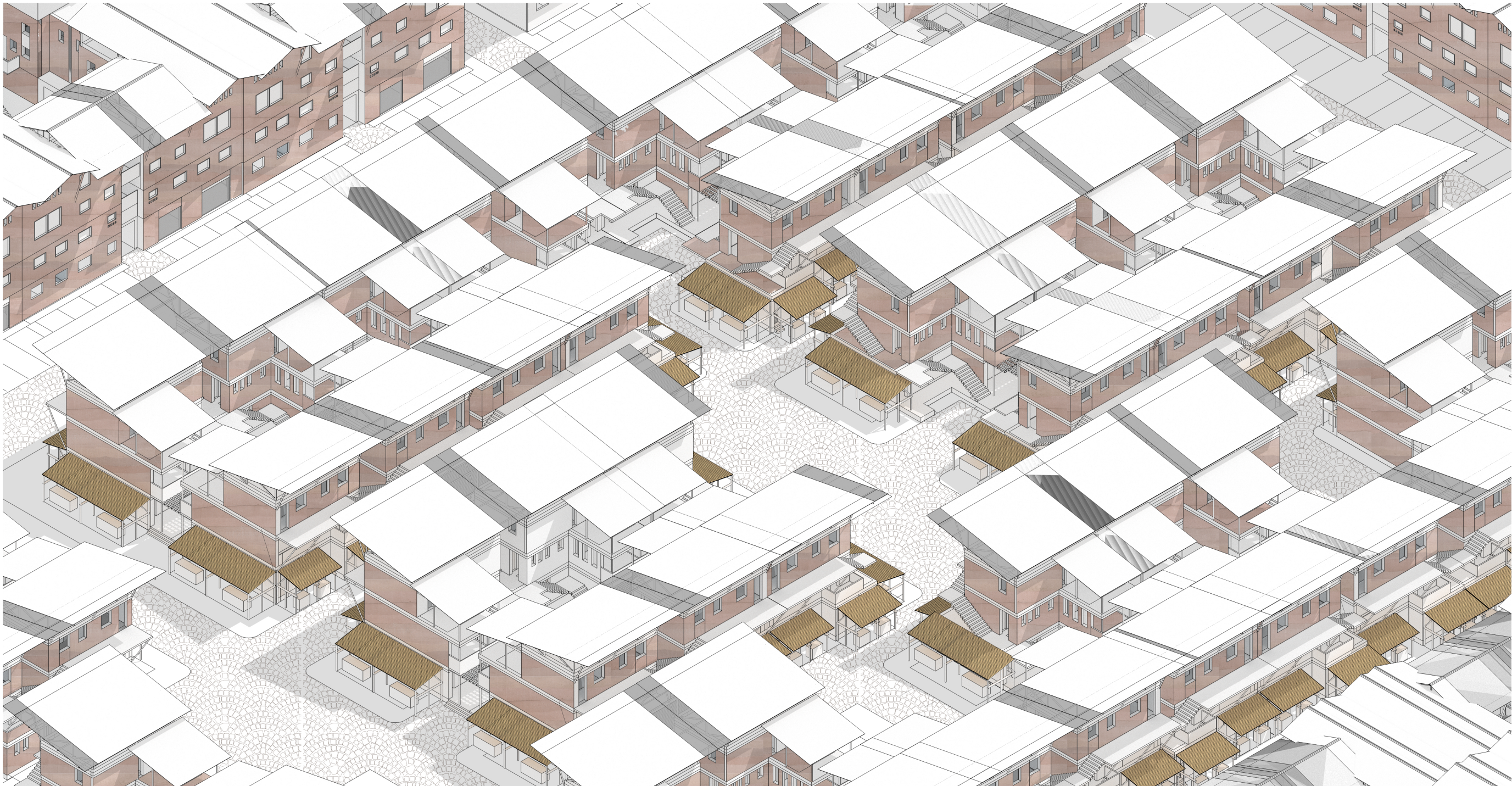


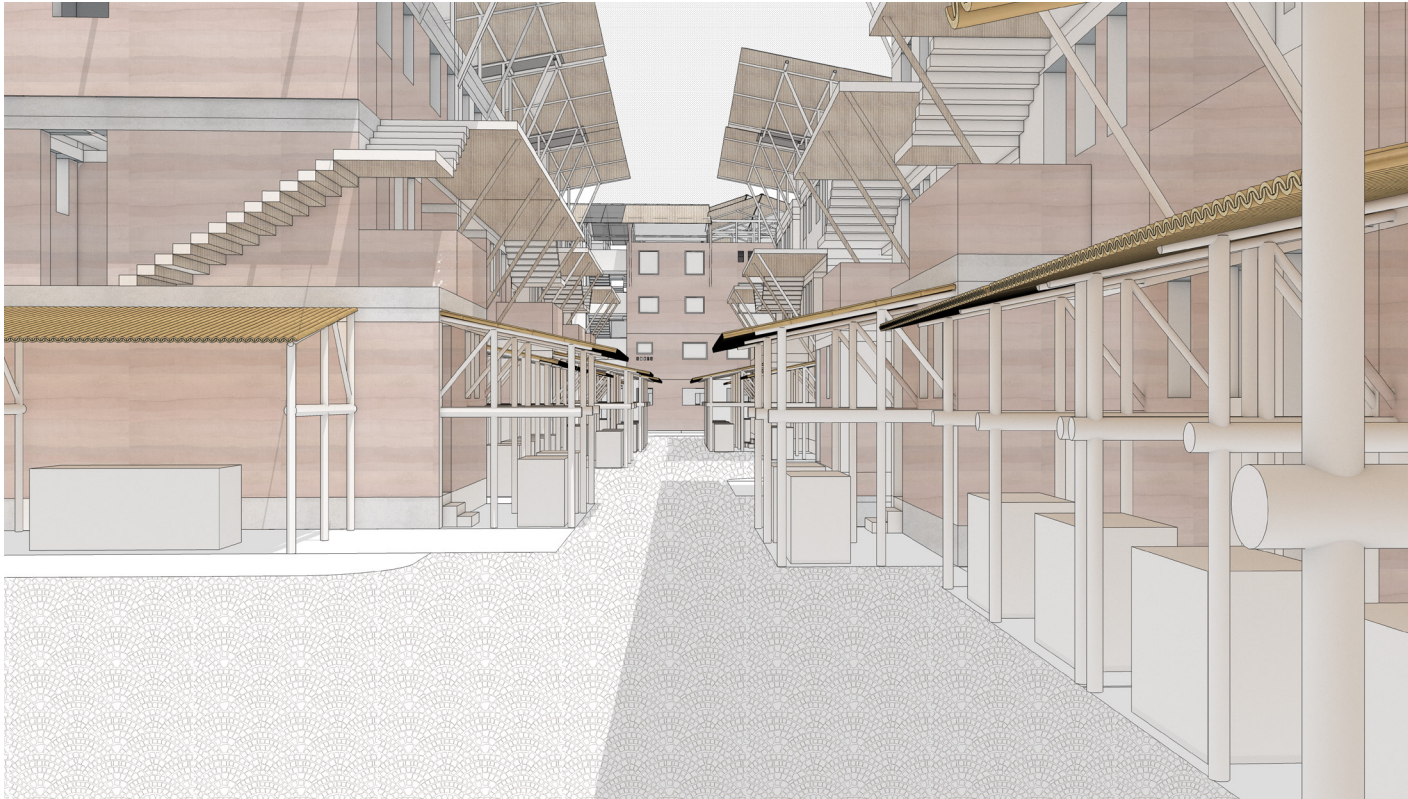
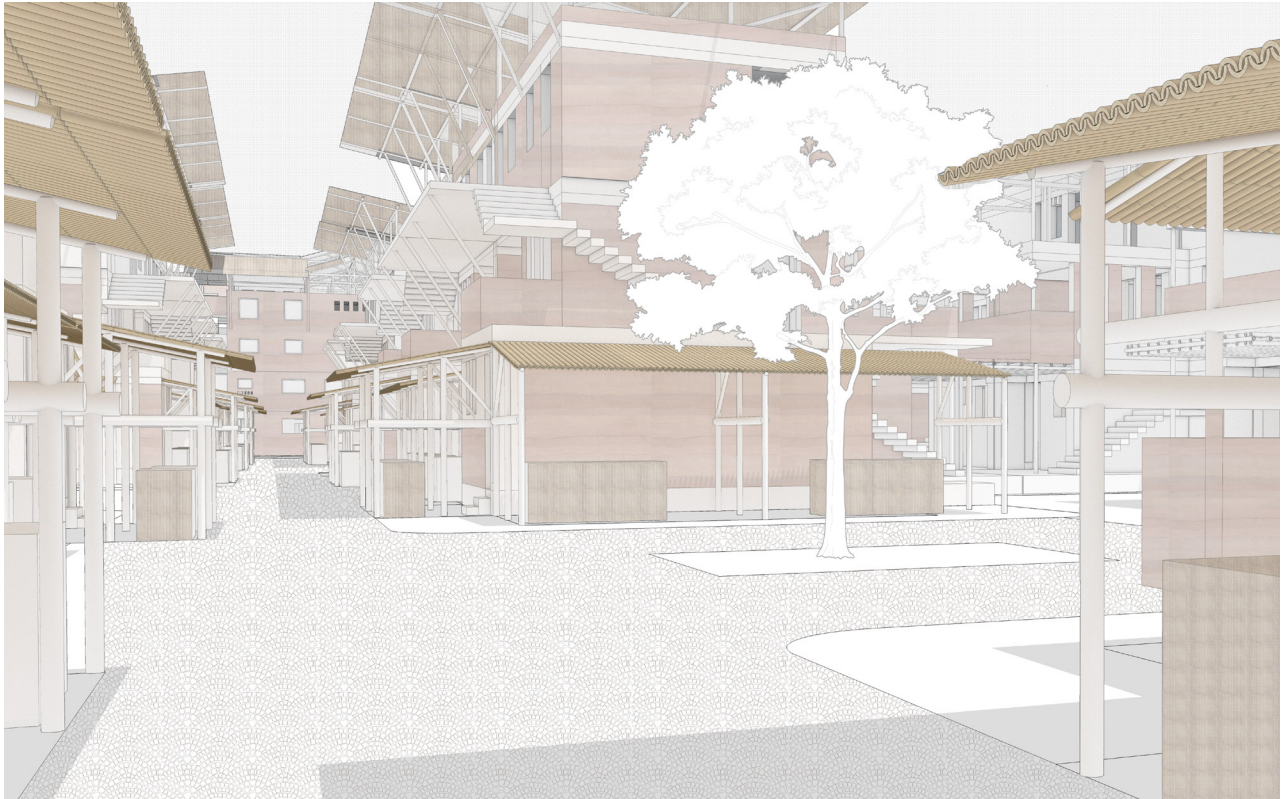
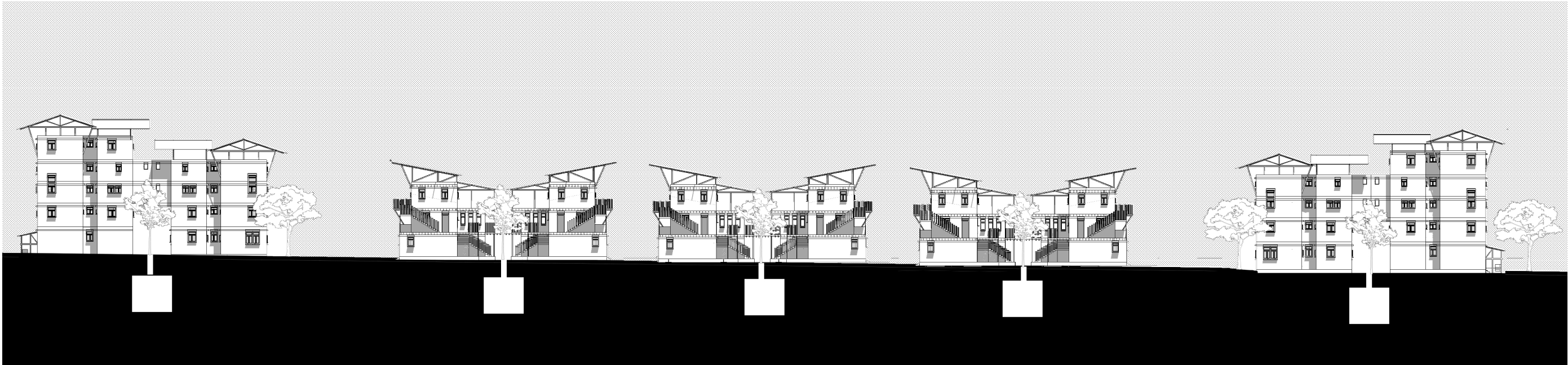
Second floor 1:200

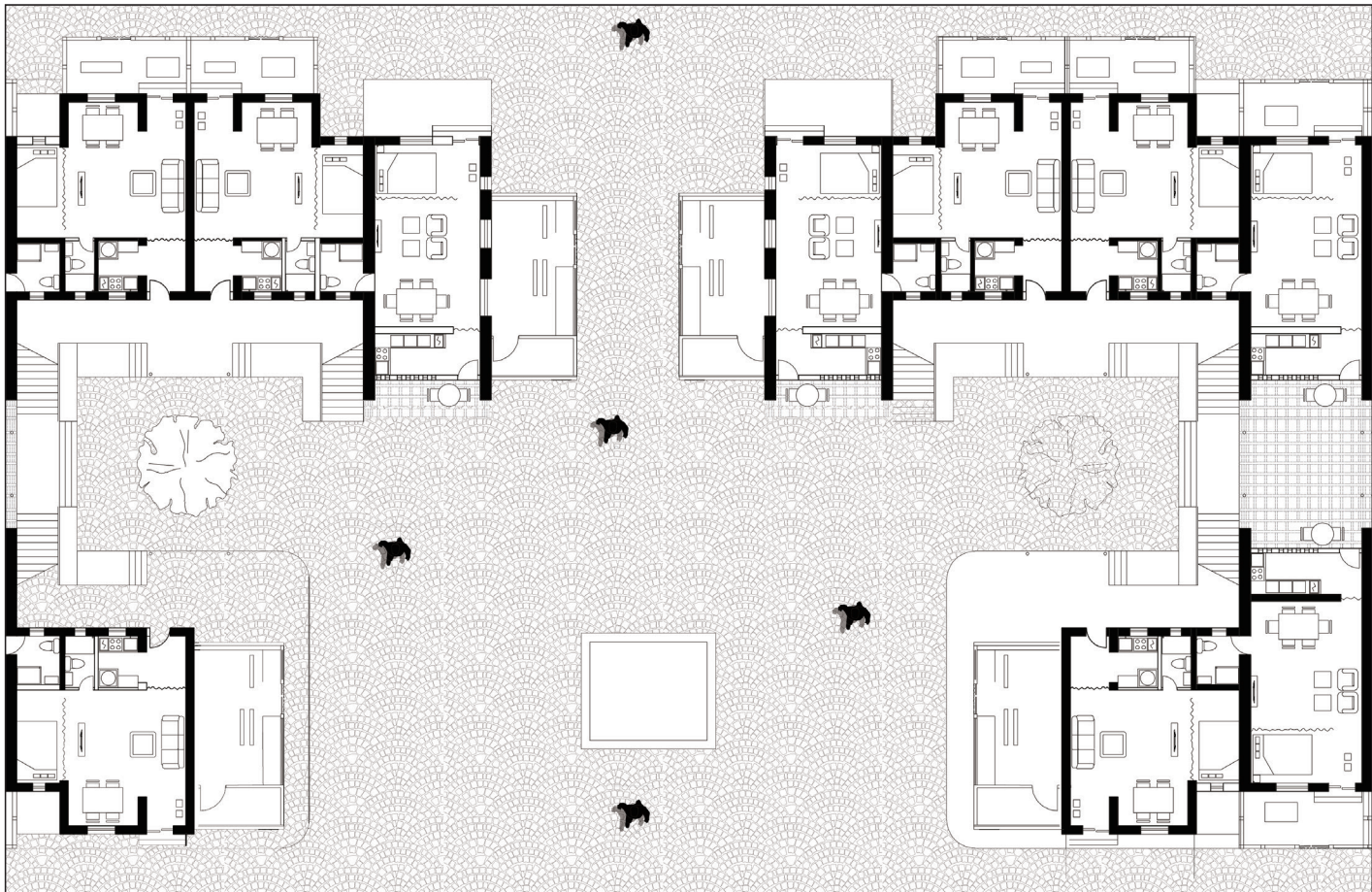


Elevation 1:100
Detached entrance for high income

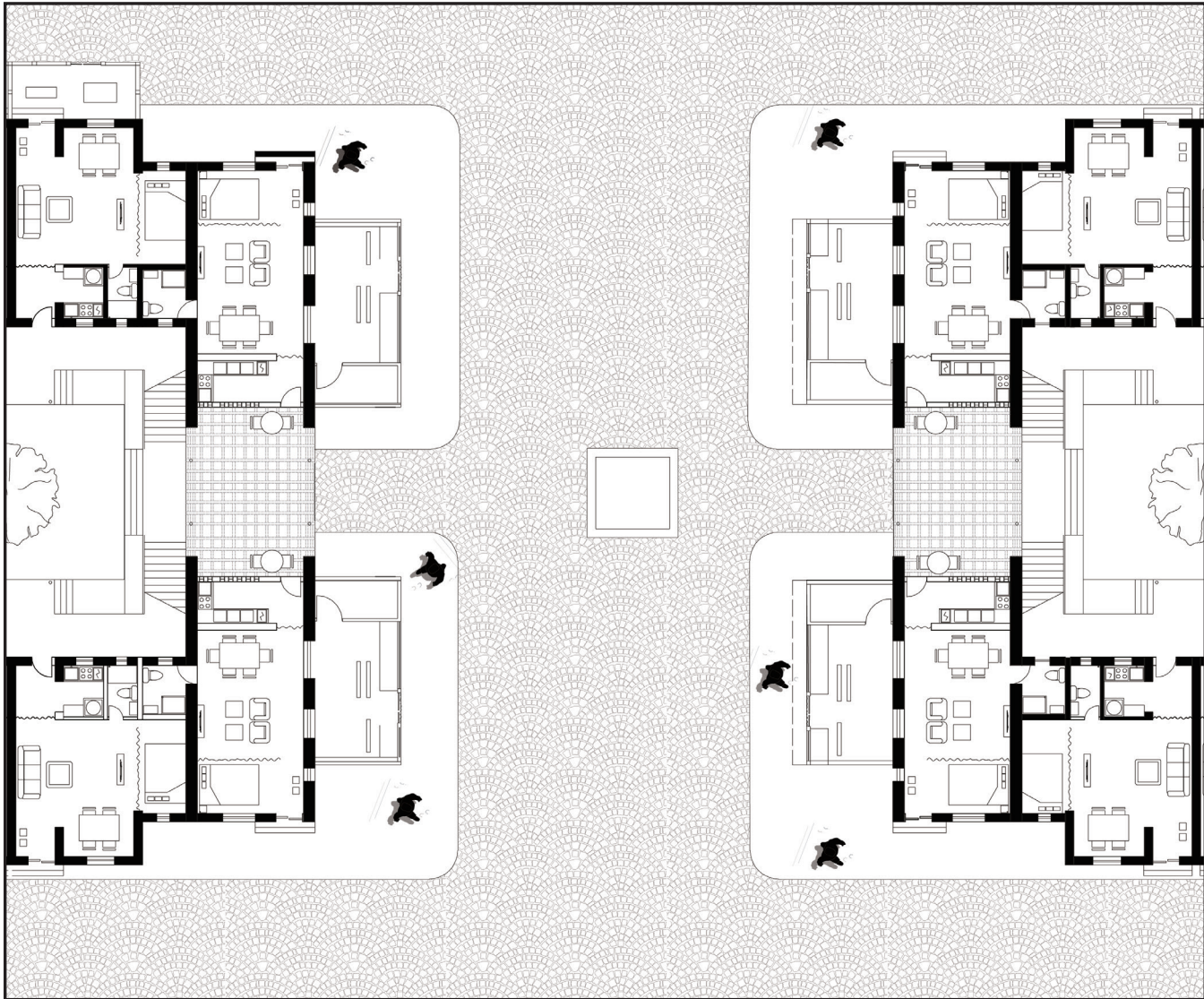




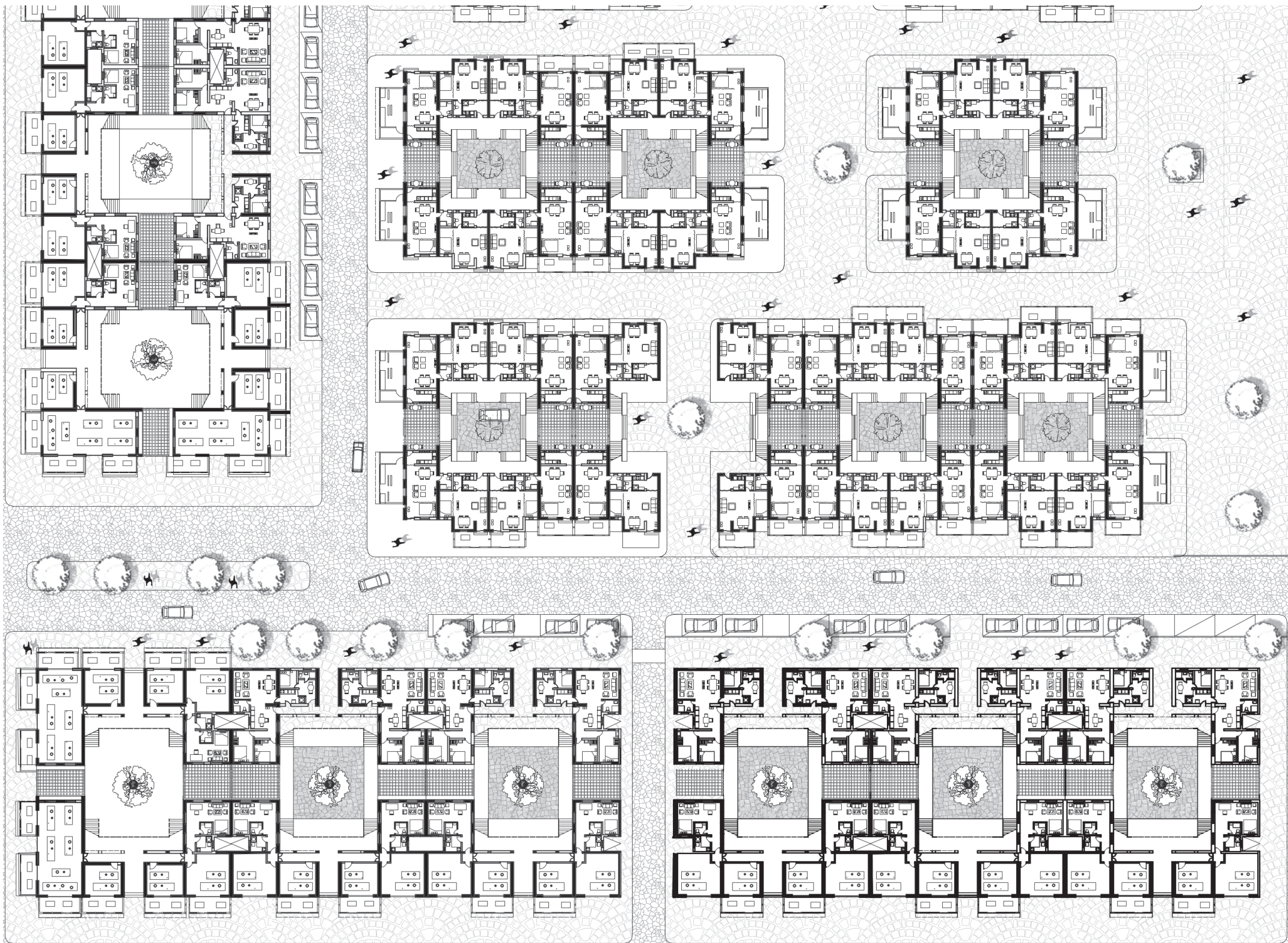




DESIGN



DESIGN



"From Home to Home"

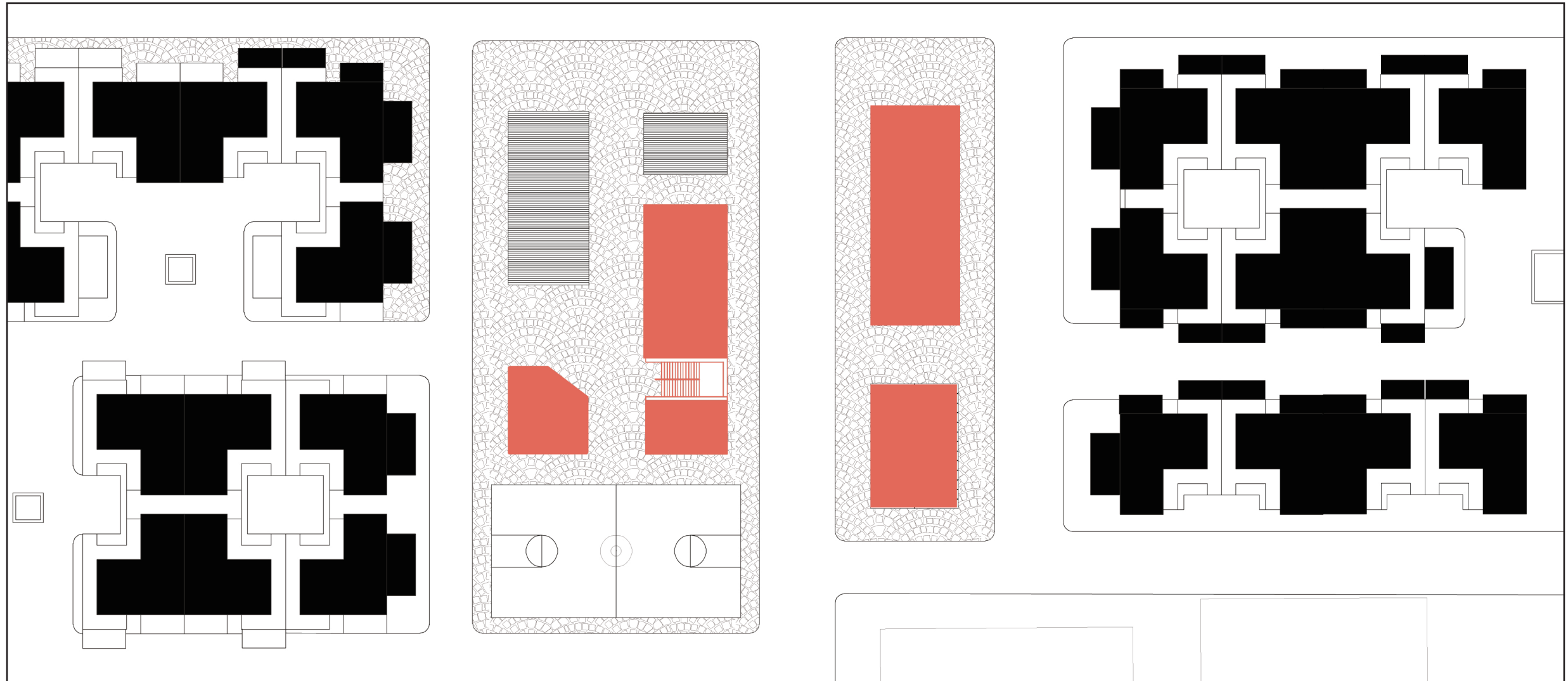
Towards an inclusive, mixed and updatable community

"From Home to Home"

Towards an inclusive, mixed and updatable community

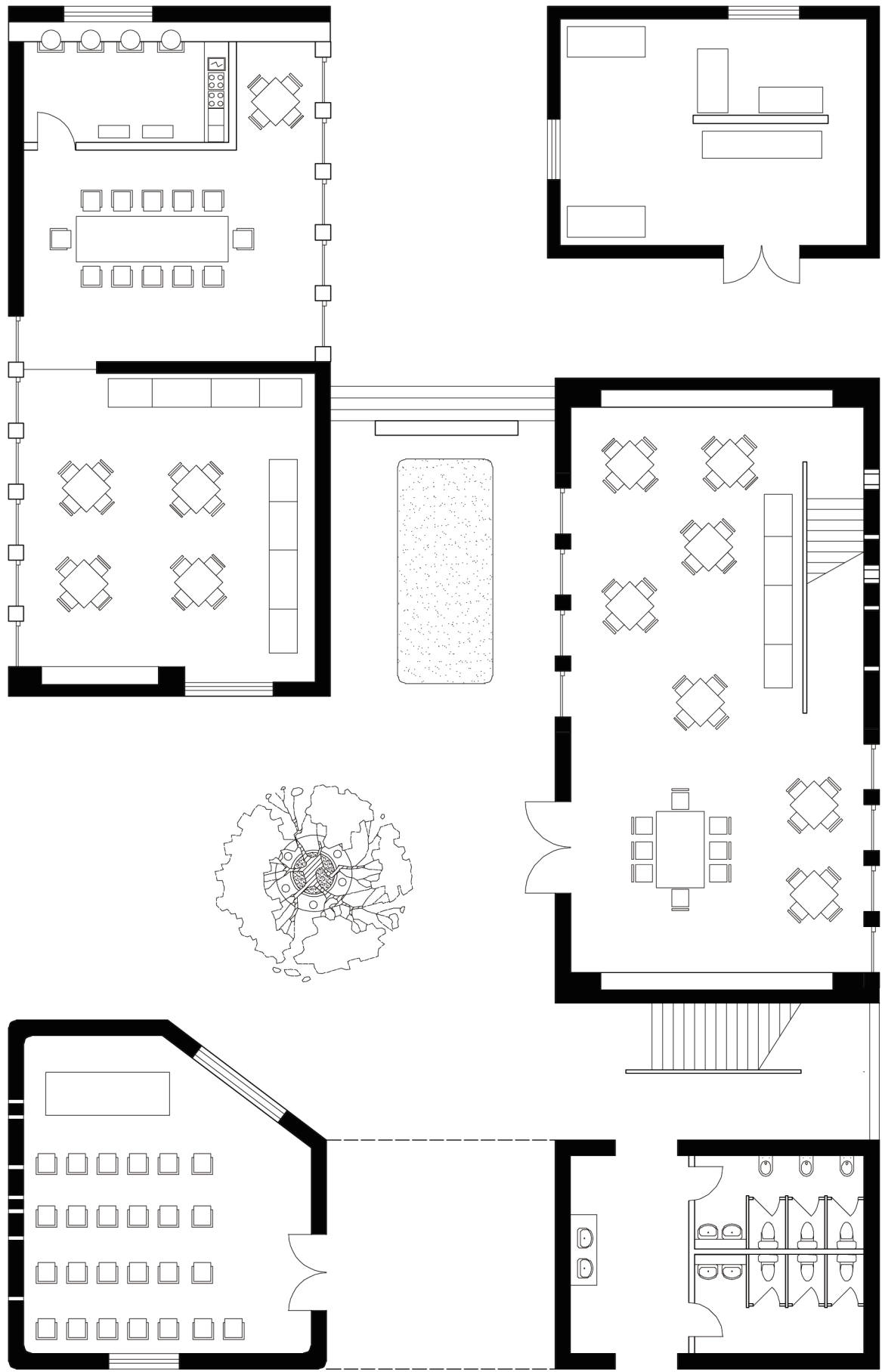






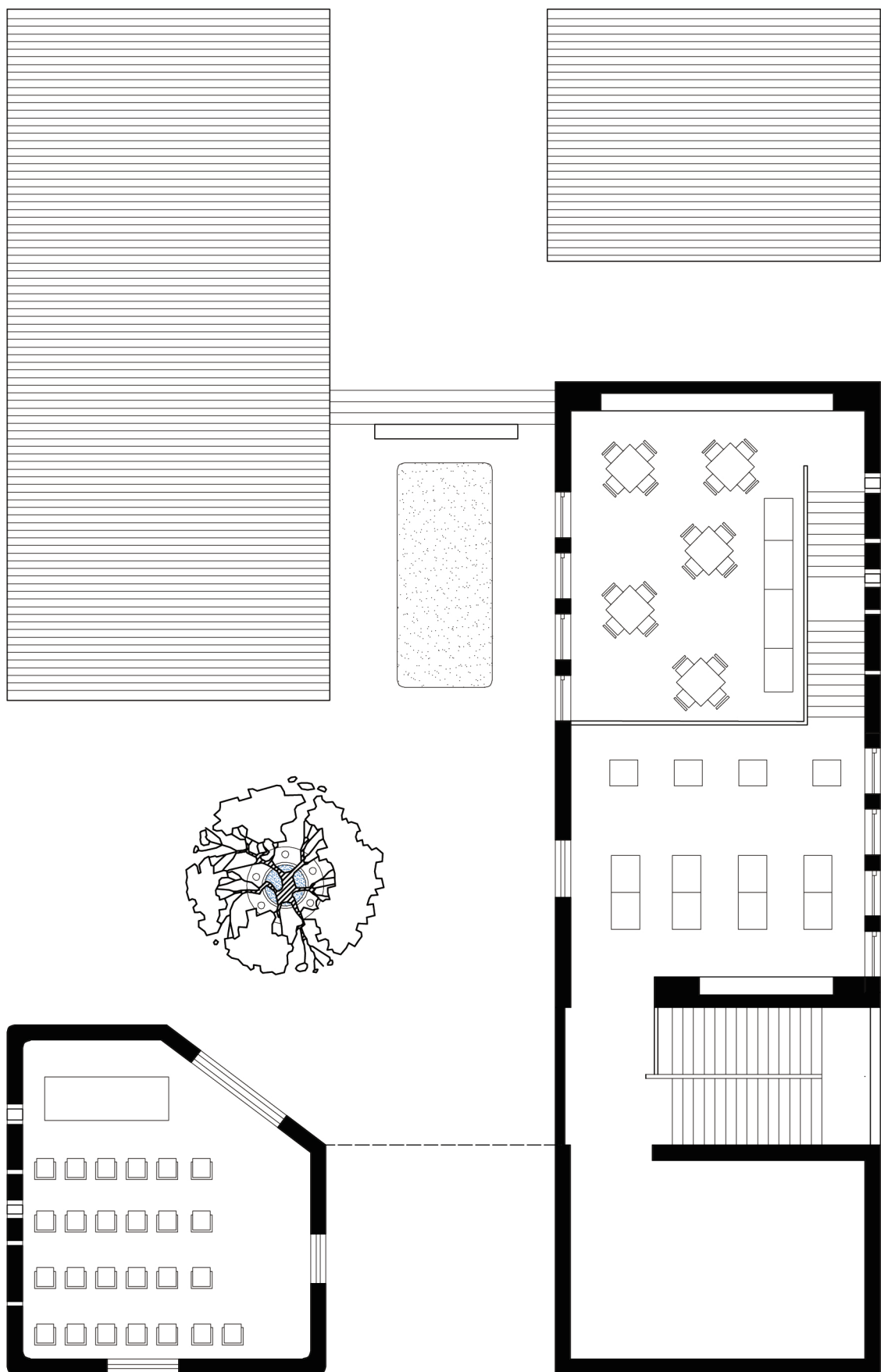
"From Home to Home"

Towards an inclusive, mixed and updatable community



"From Home to Home"

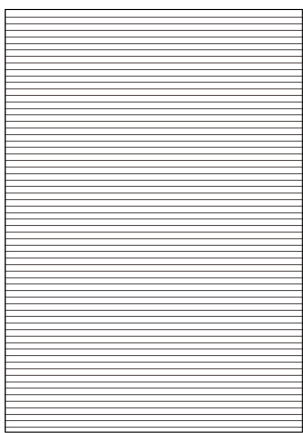
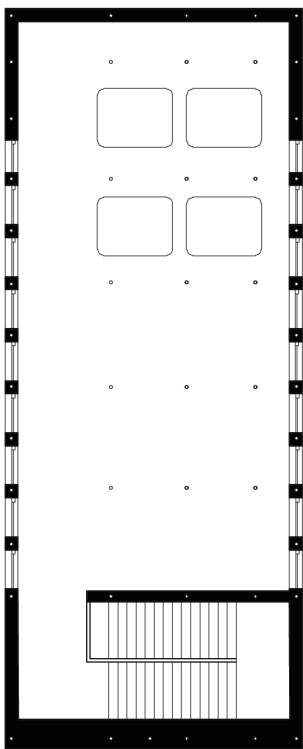
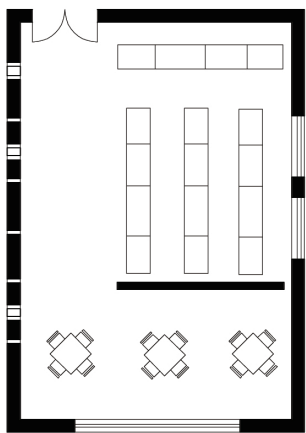
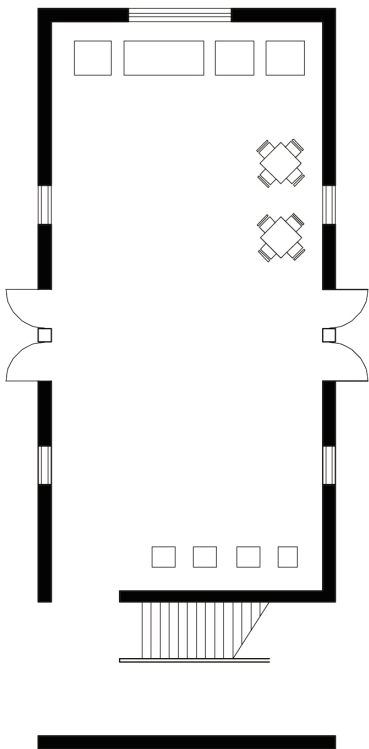
Towards an inclusive, mixed and updatable community



"From Home to Home"

Towards an inclusive, mixed and updatable community

"From Home to Home"
Towards an inclusive, mixed and updatable community

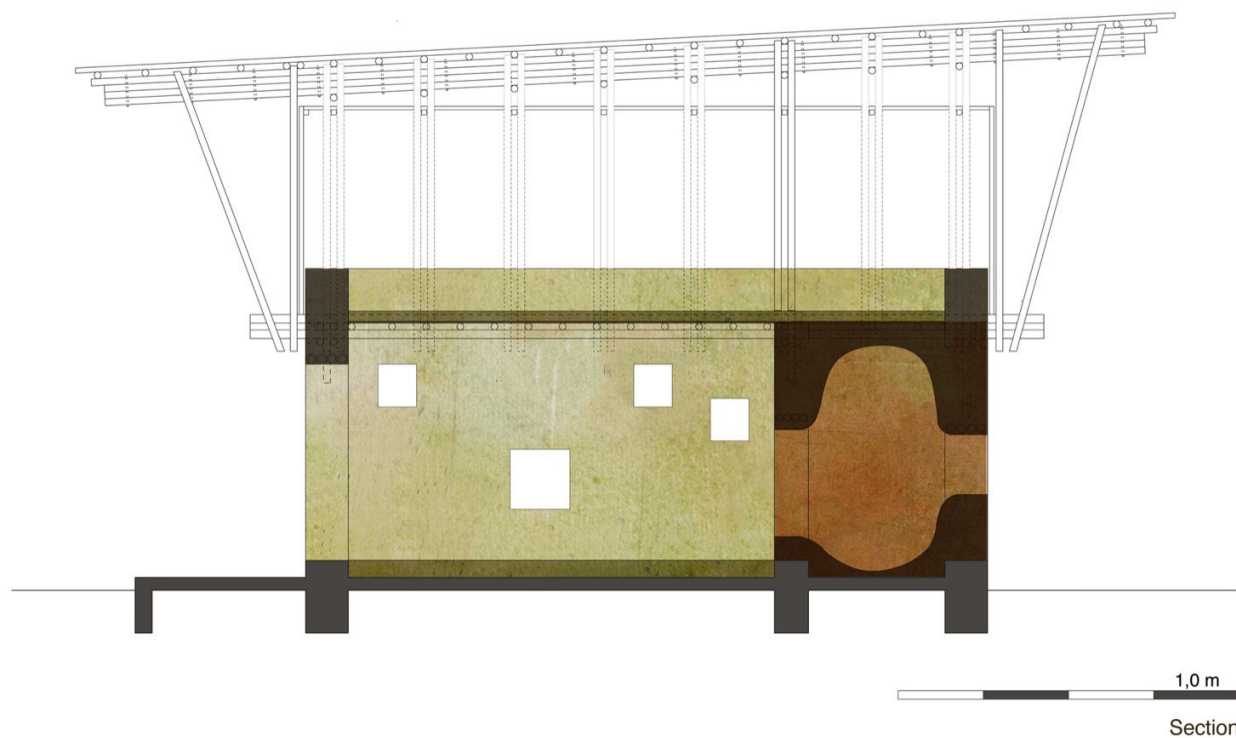


Inspiration : Rammed Earth

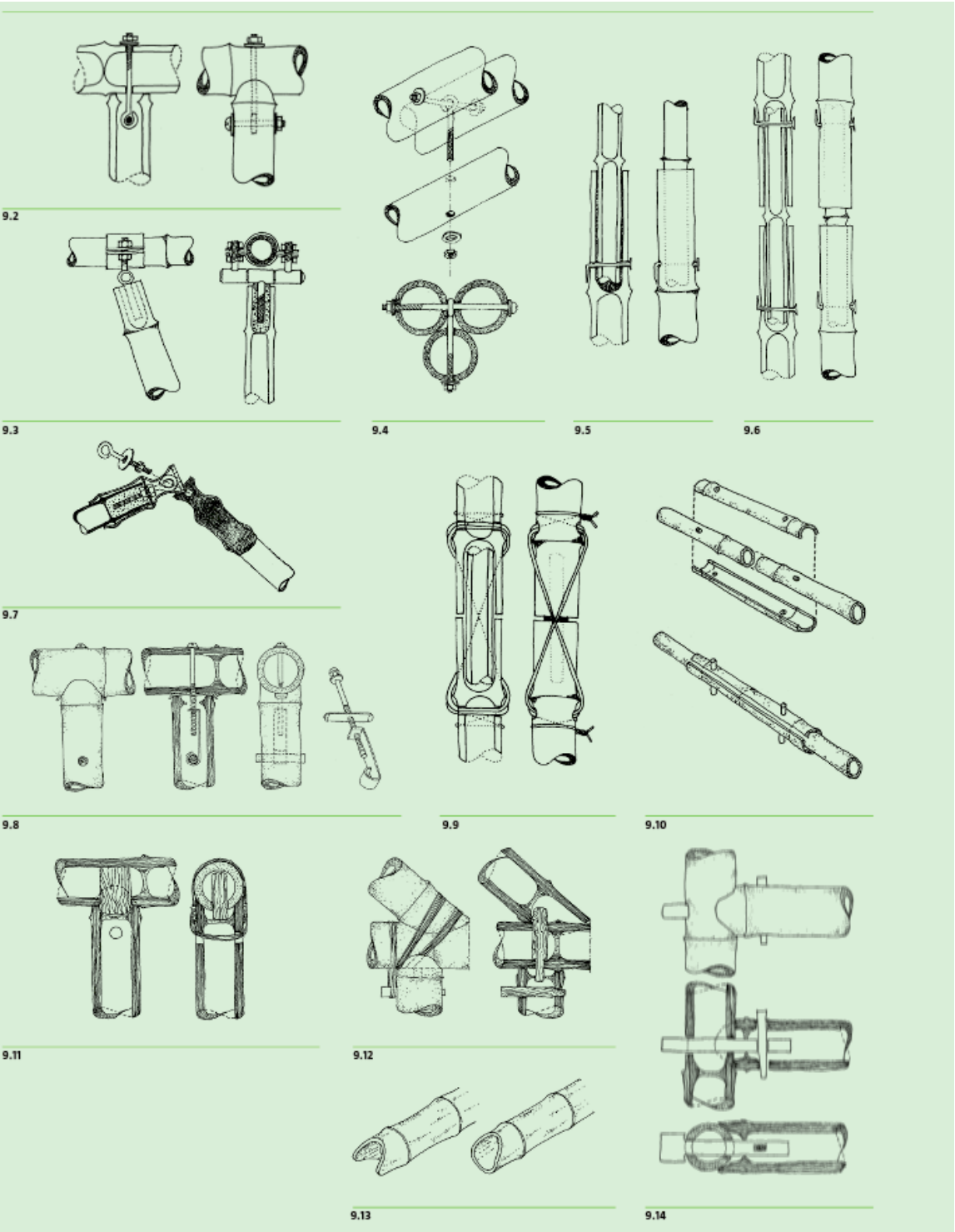
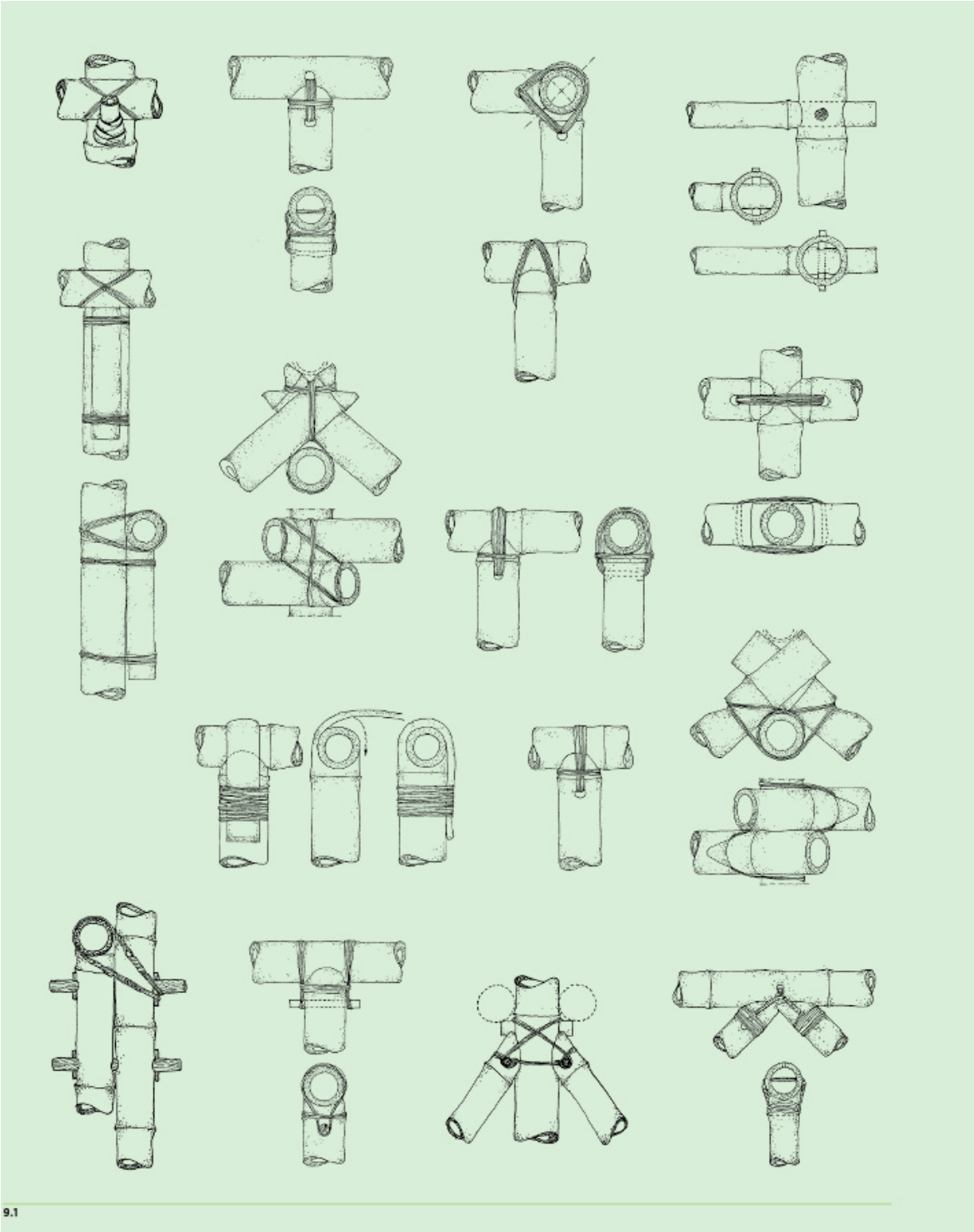


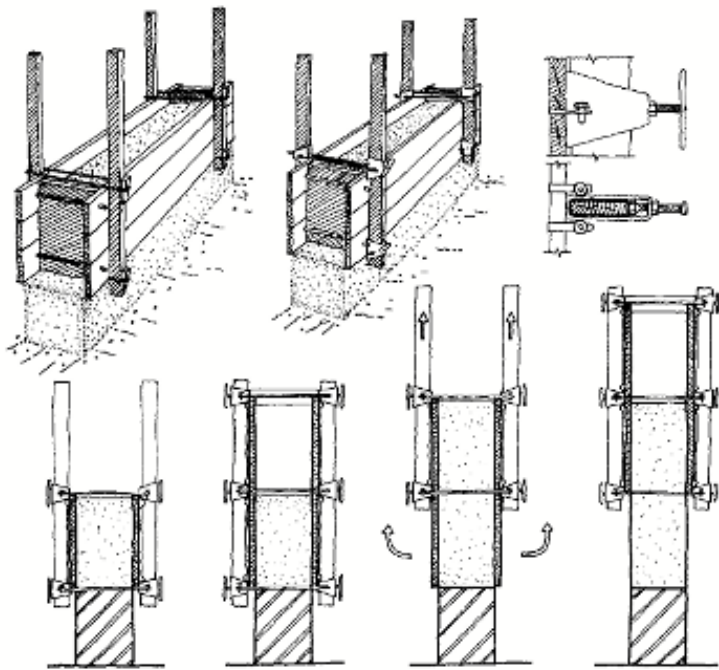
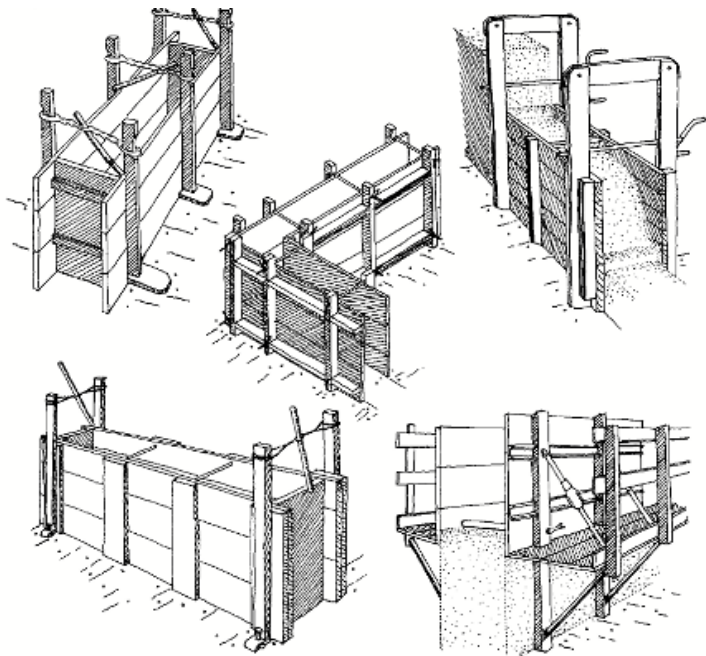
DESIGN

Inspiration : Bamboo earth floor



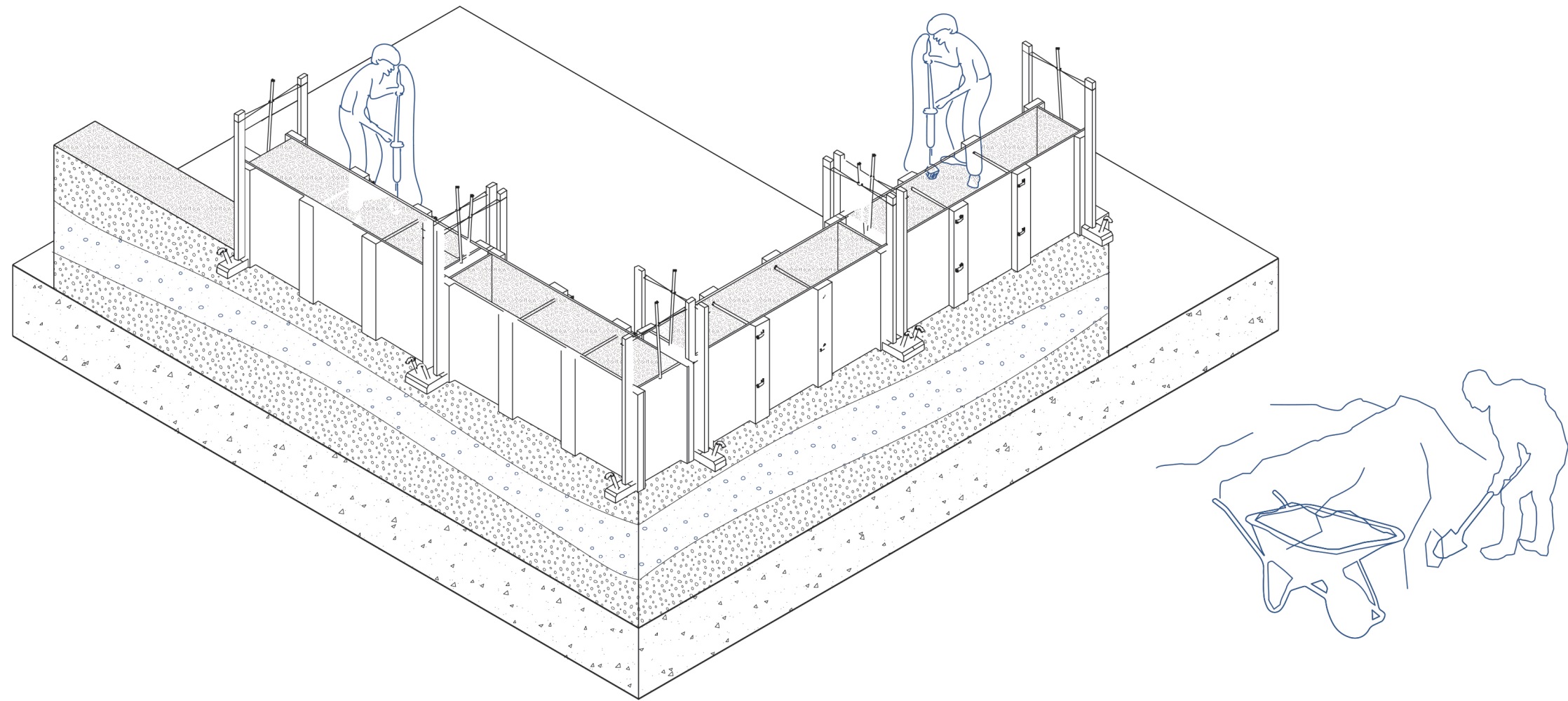
The ceiling of the ground floor is a triple layer of bamboo canes with the central layer arranged perpendicular to the layers above and beneath to provide lateral stabilisation and a connection between the supporting beams. A layer of planking made of split bamboo canes was laid on the central layer and filled with the earthen mixture analogue to the technique often used in the ceilings of European timber-frame constructions



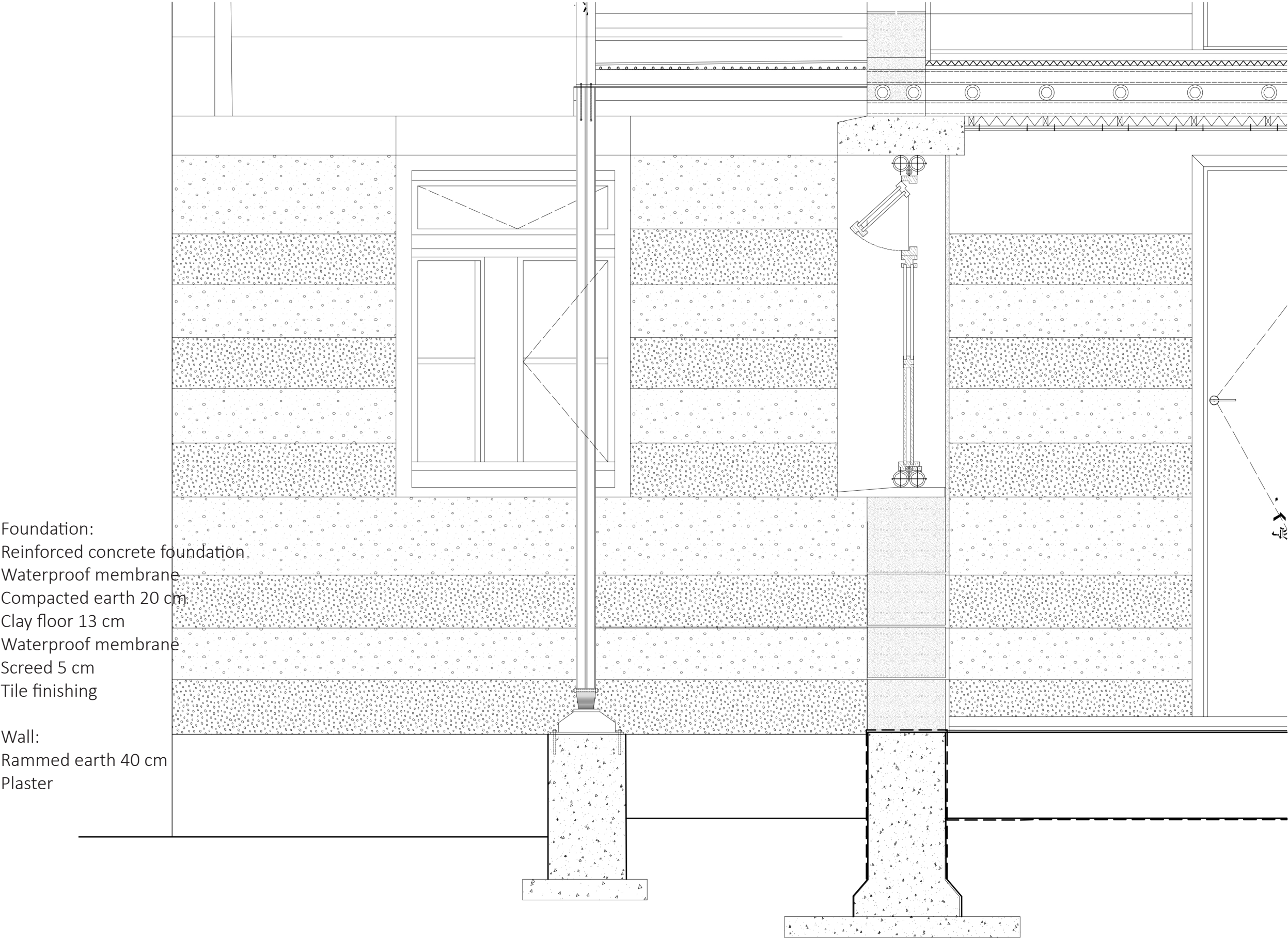


"From Home to Home"

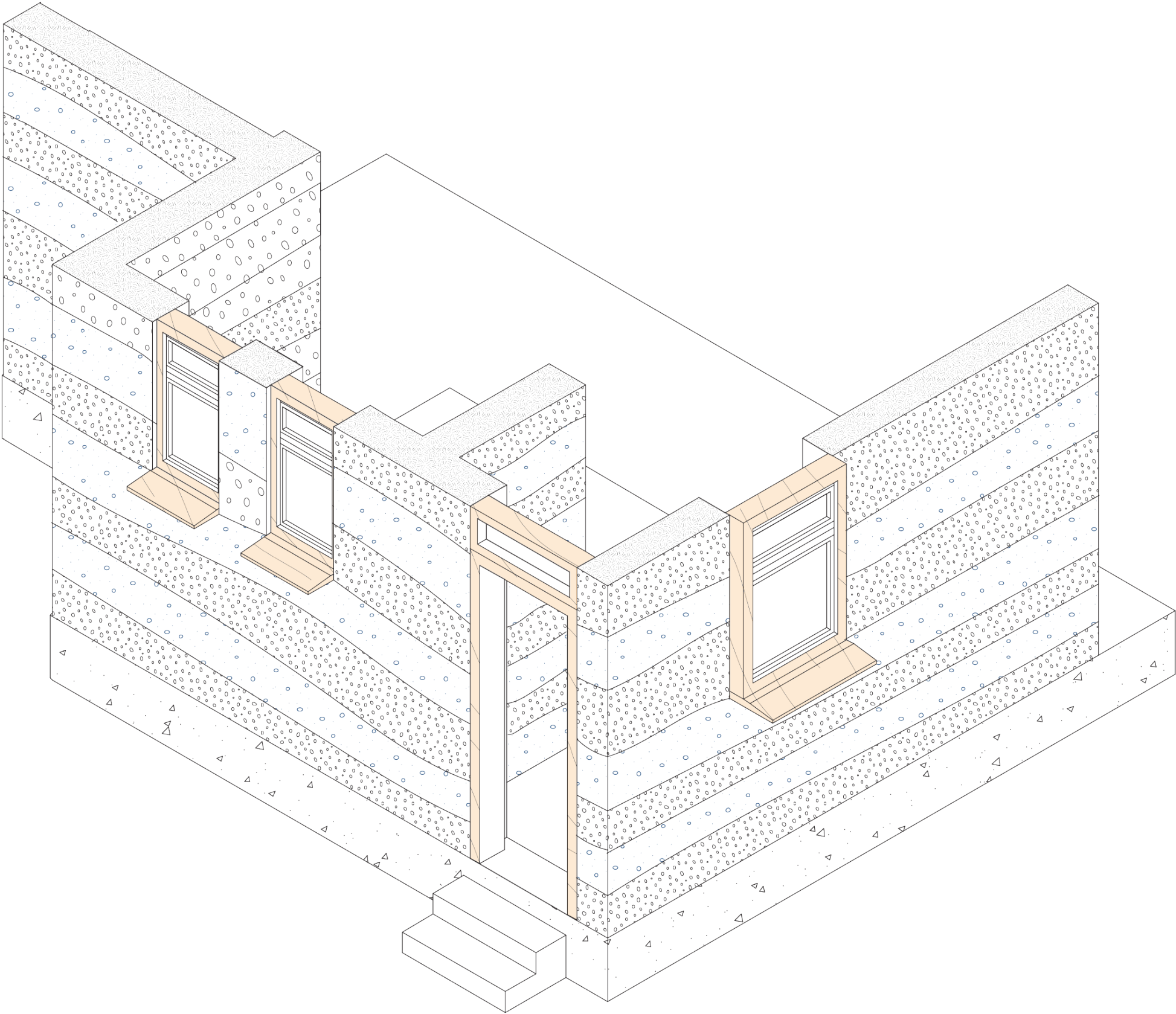
Towards an inclusive, mixed and updatable community



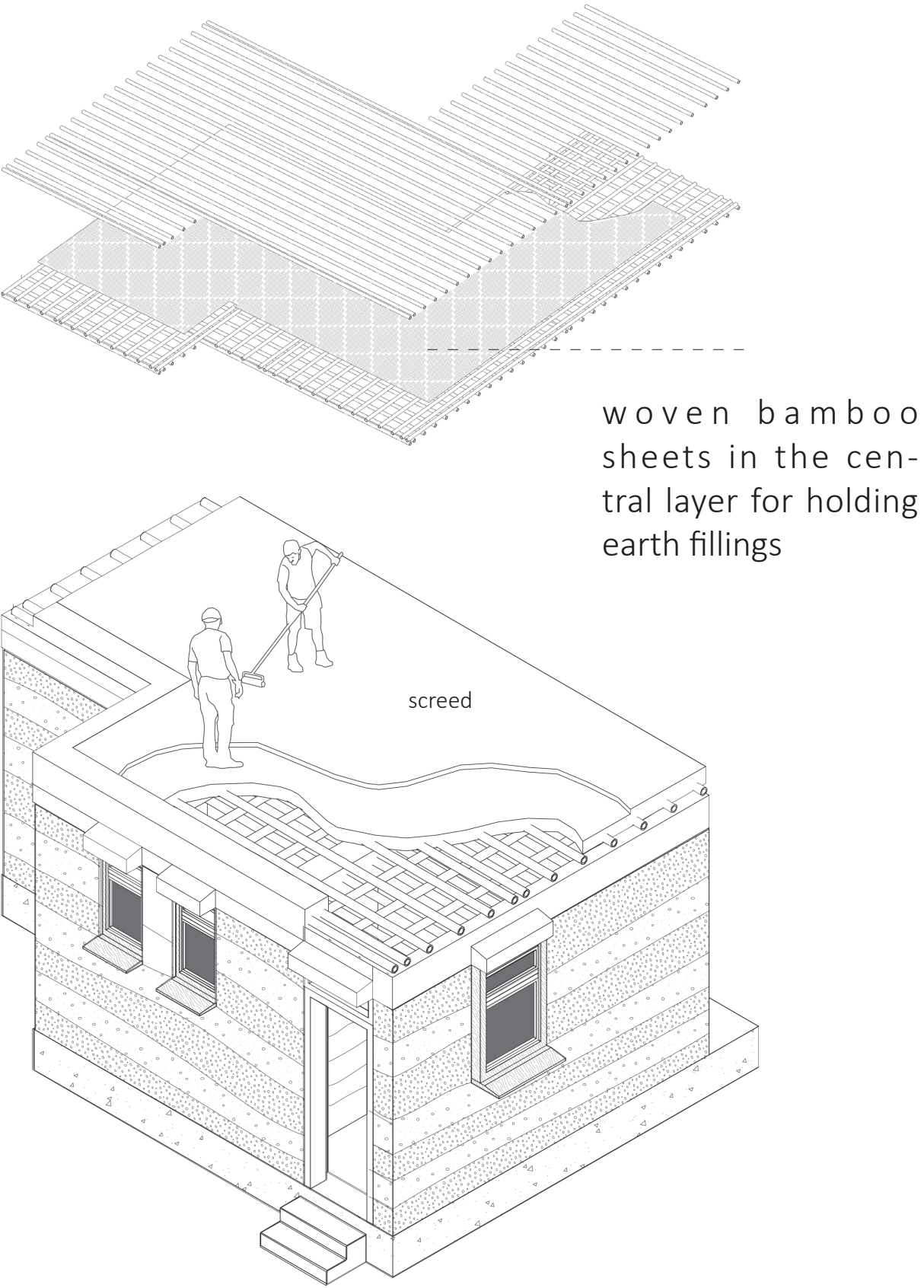
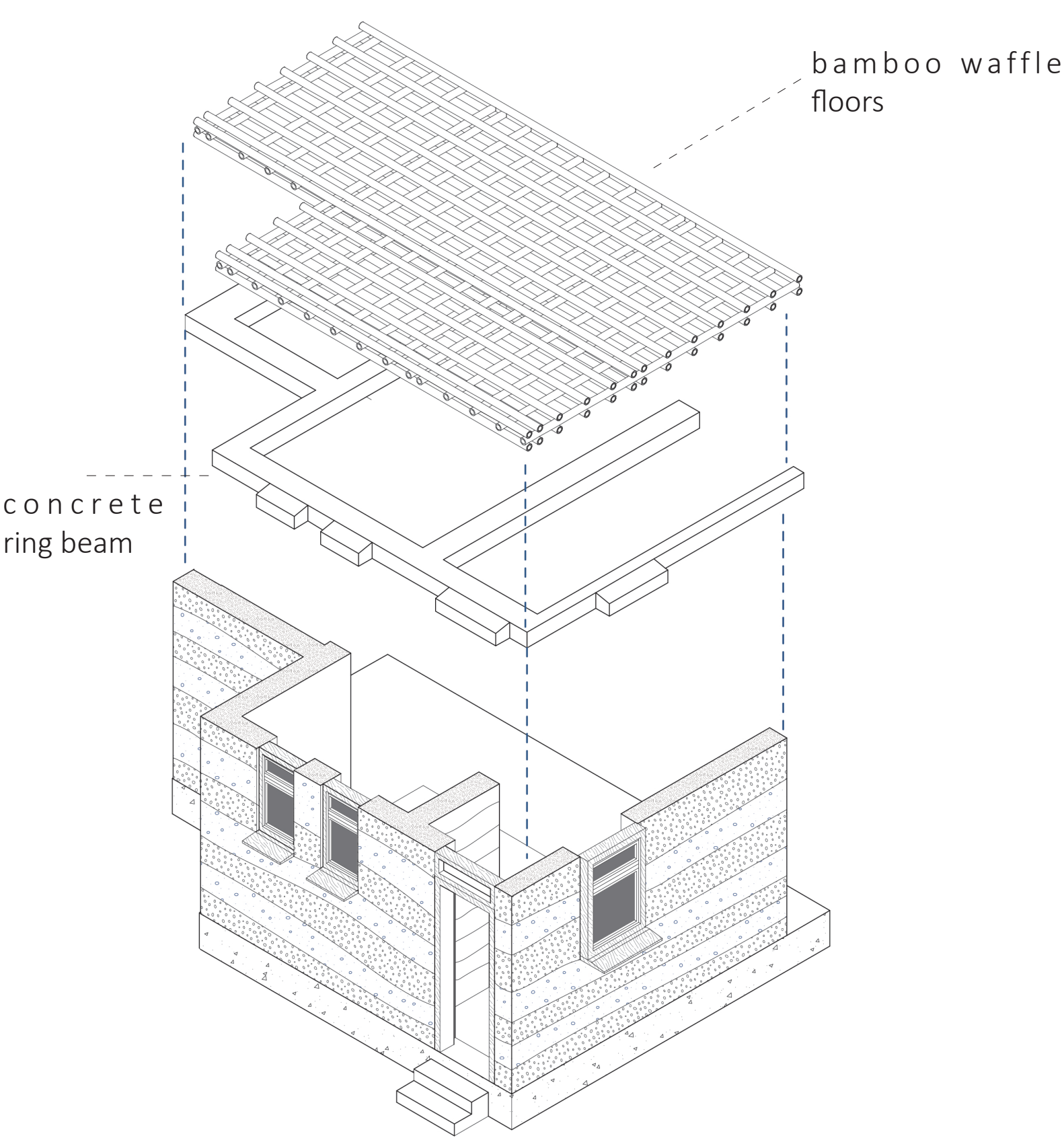
Always start with corners for foundations



Shaping the openings with window frames



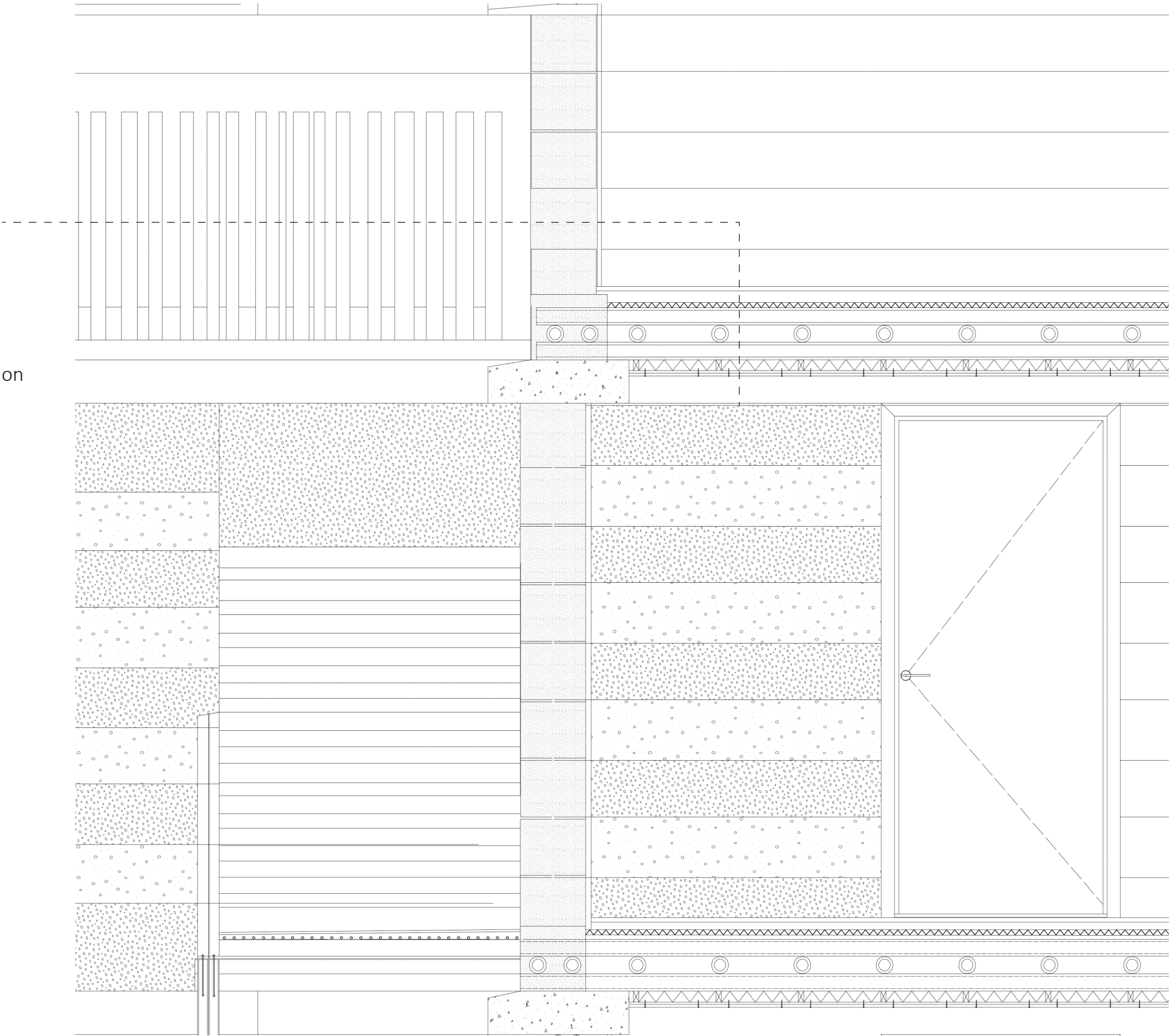
DESIGN



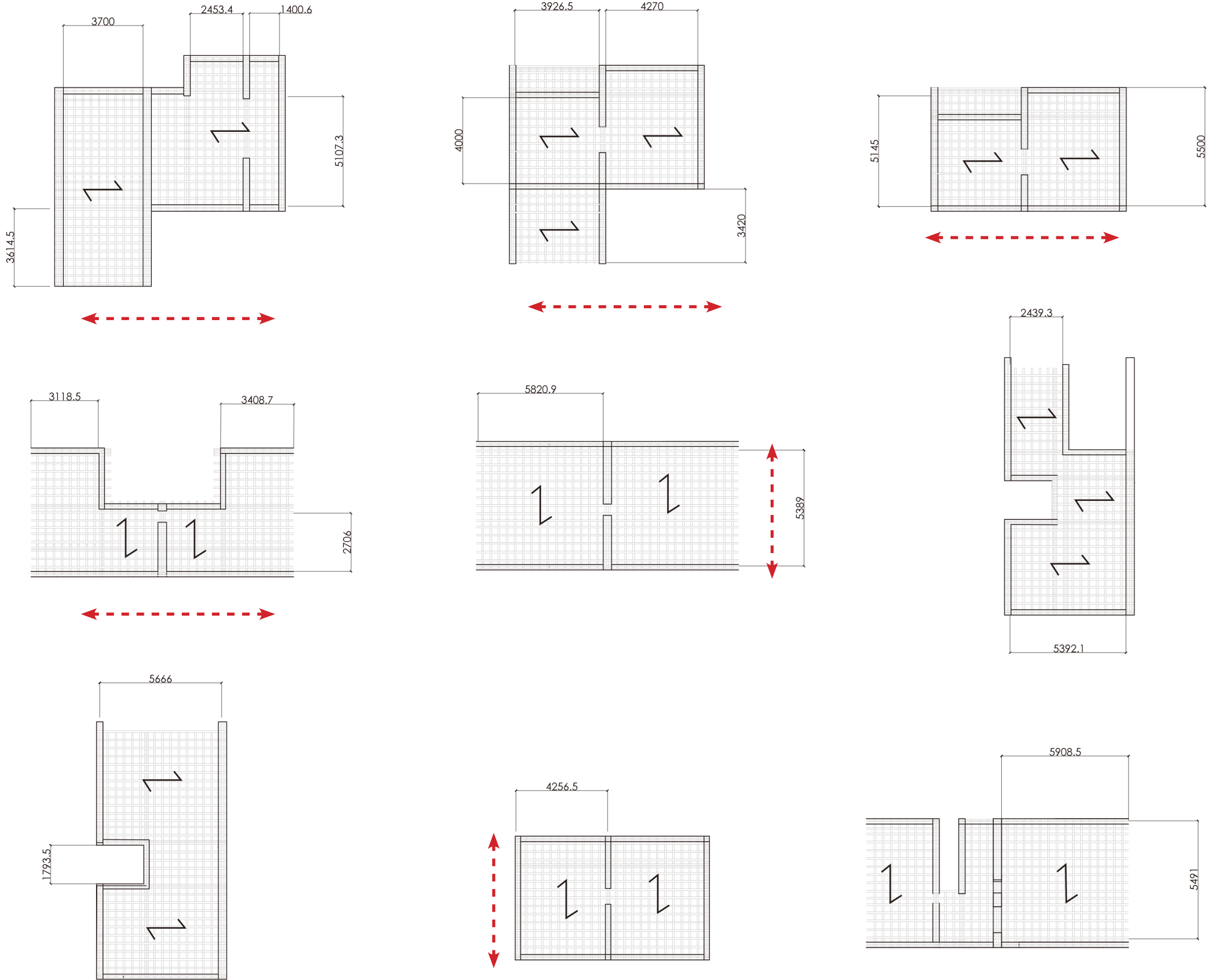
Floor:
Three layers of bamboo structure
Bamboo wattle
Structural earth base 8 cm
Waterproof membrane
Screed 5 cm with 2.5cm sound insulation
Tile finishing
Gypsum 25mm with insulation

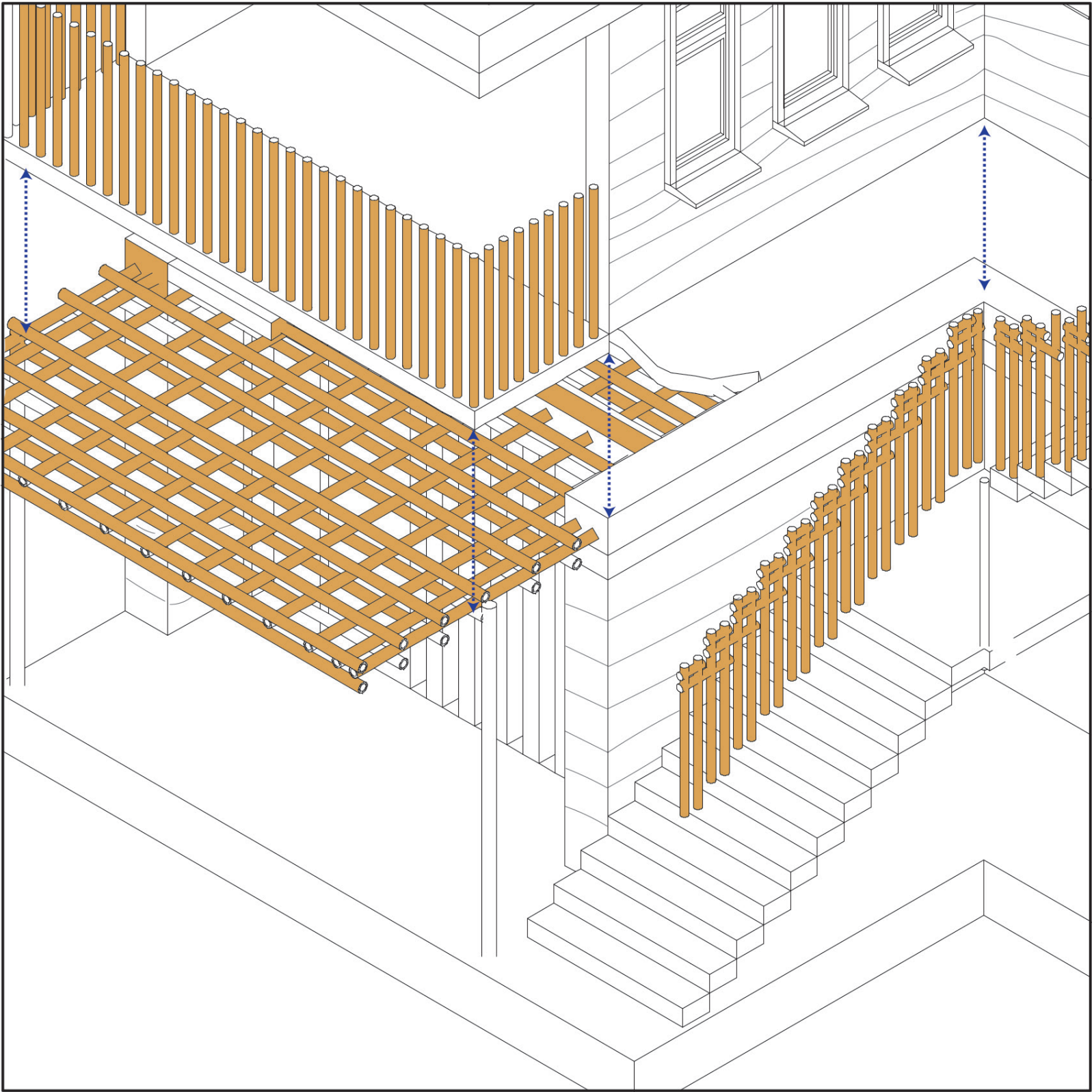
Wall (second floor):
Rammed earth layer 300mm each
loam finish

Gallery:
Three layers of bamboo structure
Bamboo wattle
Structural earth base 8 cm
Tile finishing

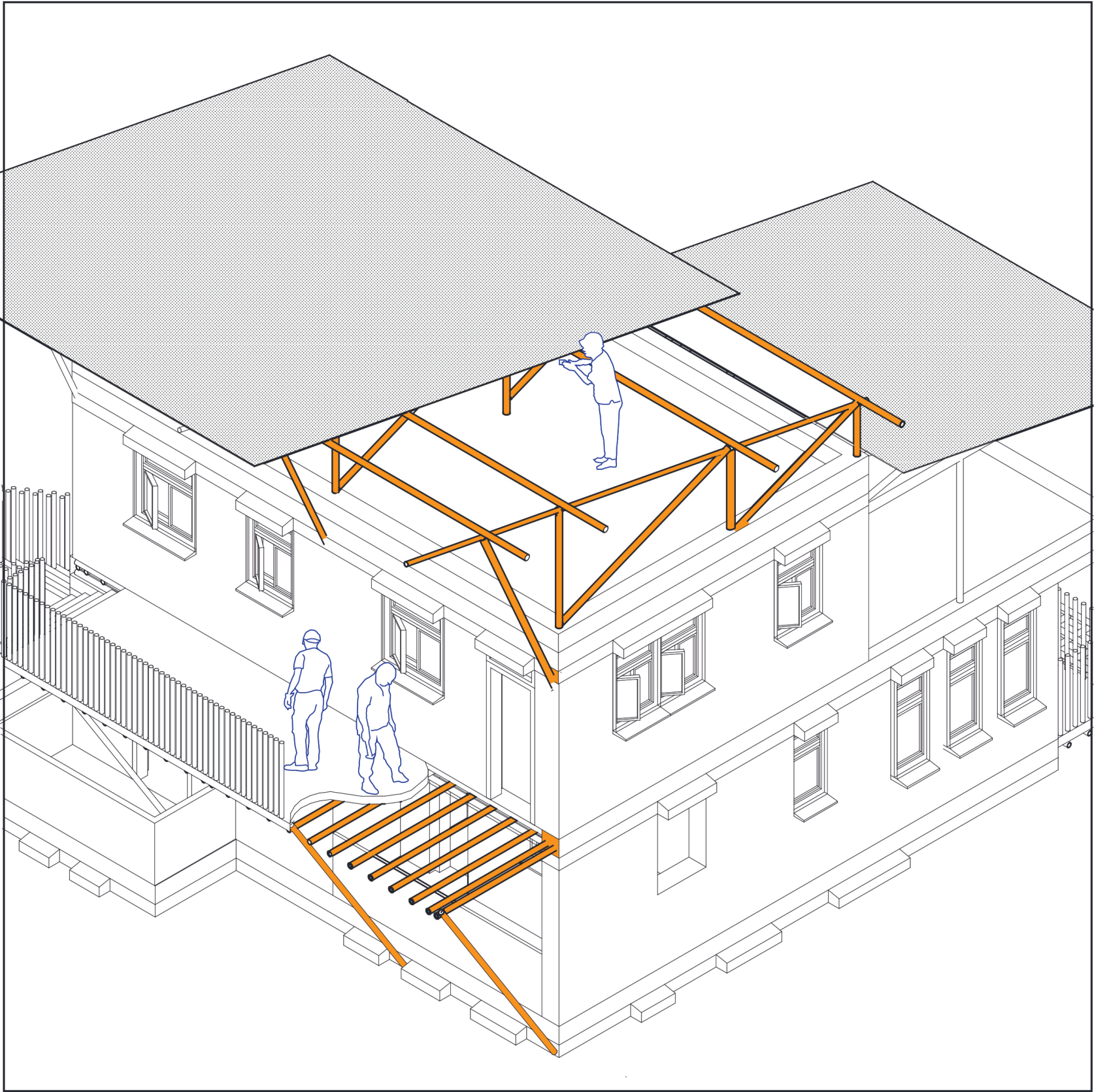


✕ Bamboo Floor Span

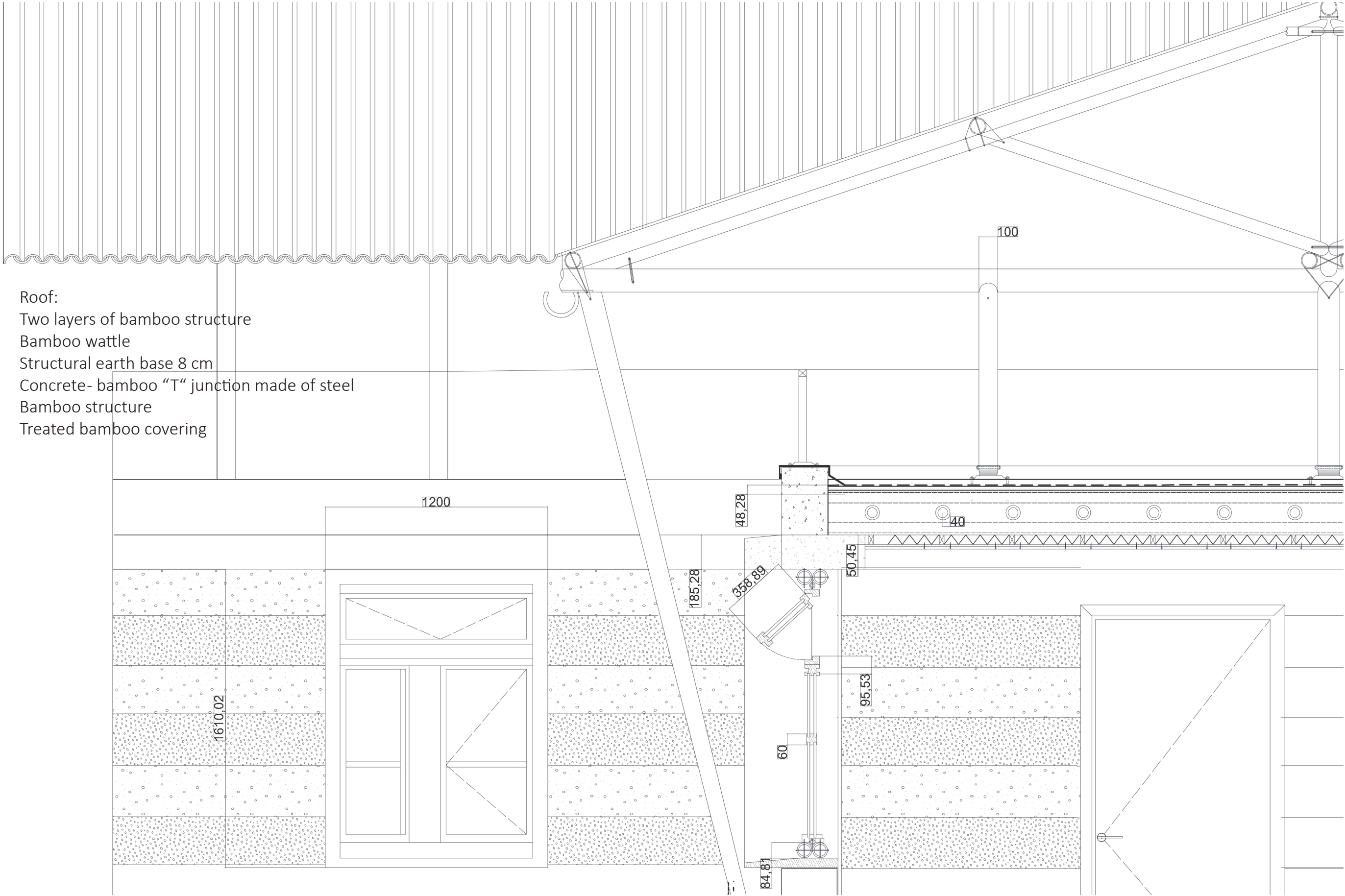




Bamboo Floor stick out working with bamboo column as shading.



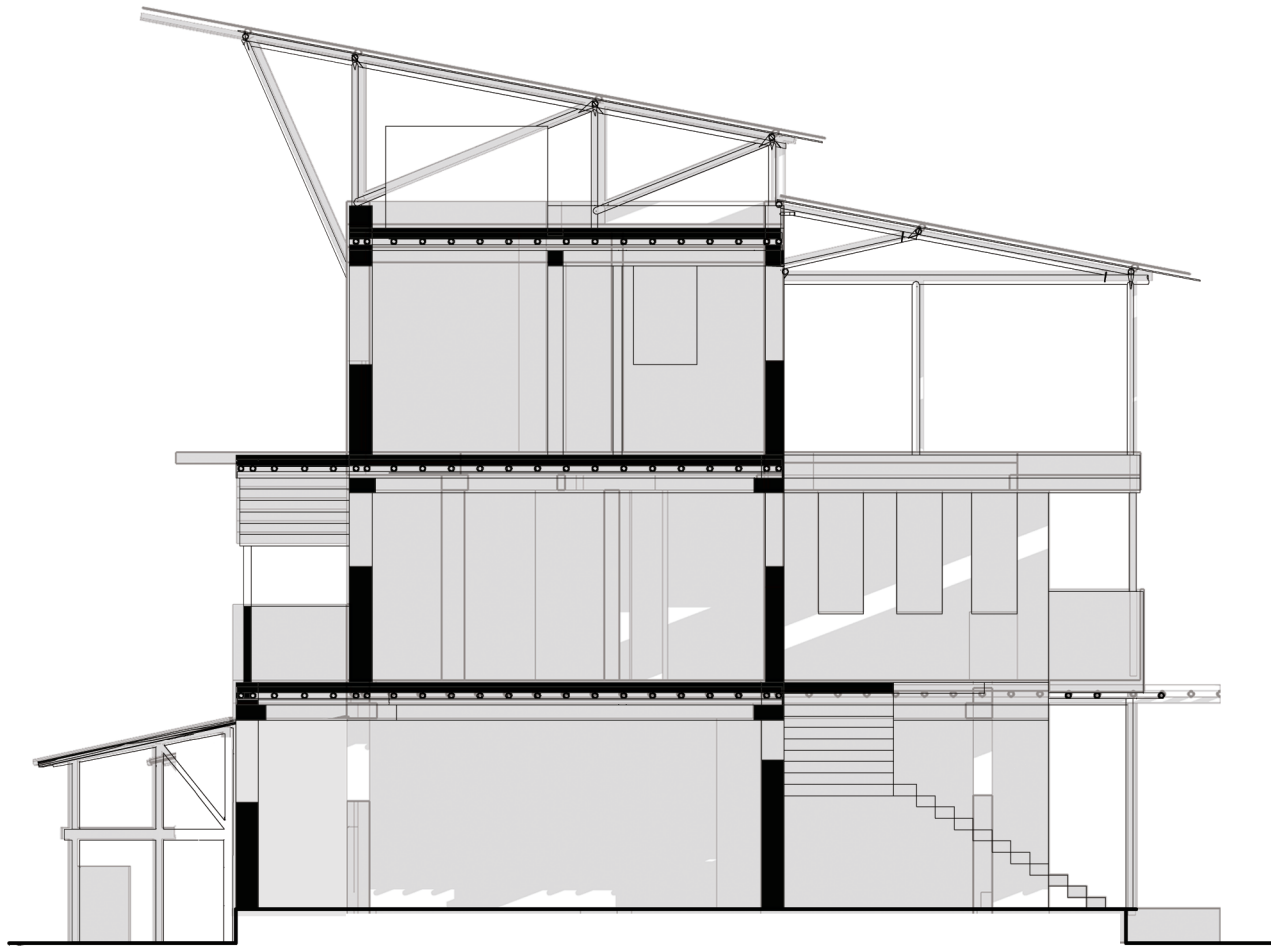
Bamboo floor sticking out working with bamboo columns supporting the balconies



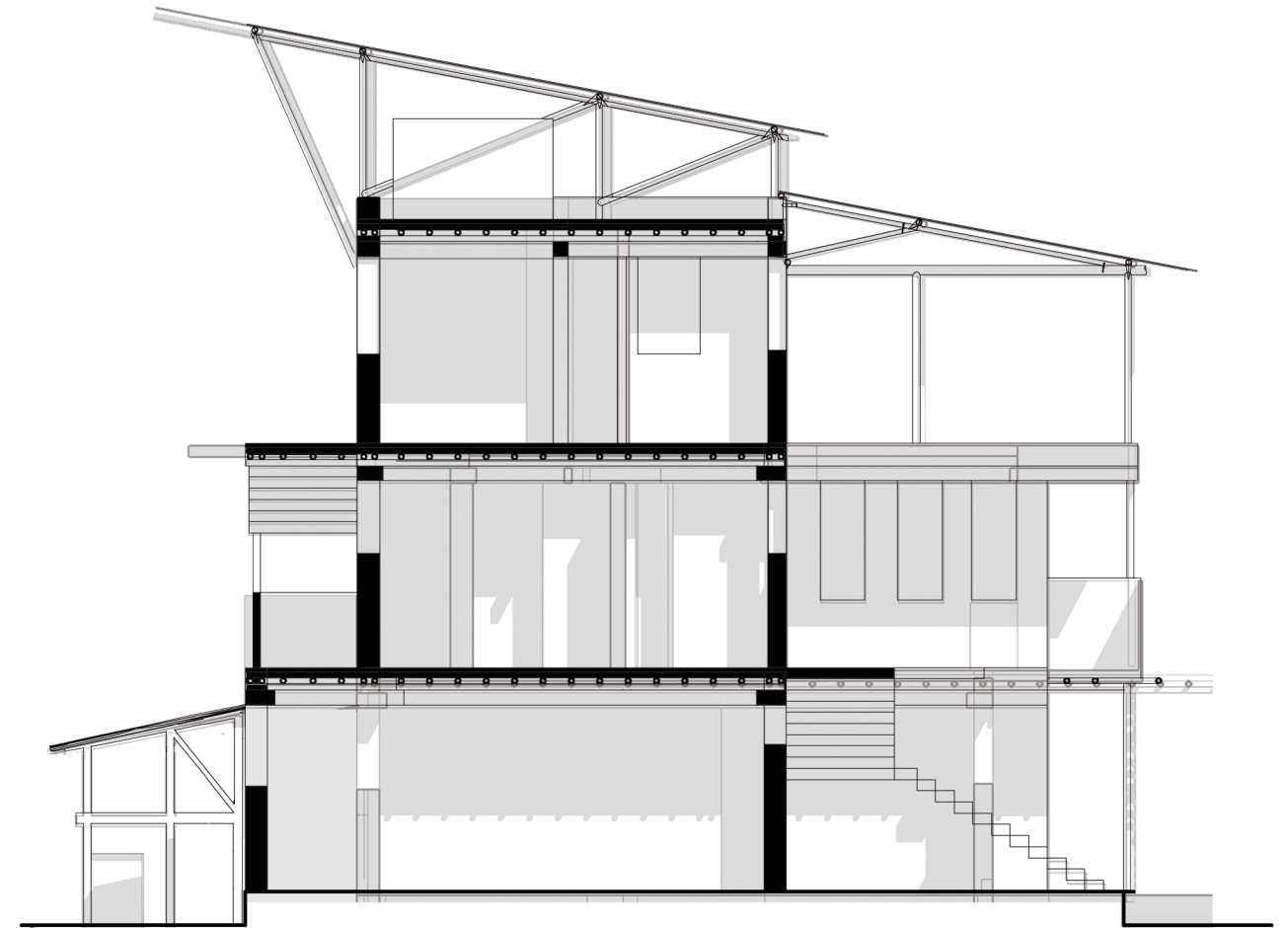
"From Home to Home"
Towards an inclusive, mixed and updatable community



✕ shading

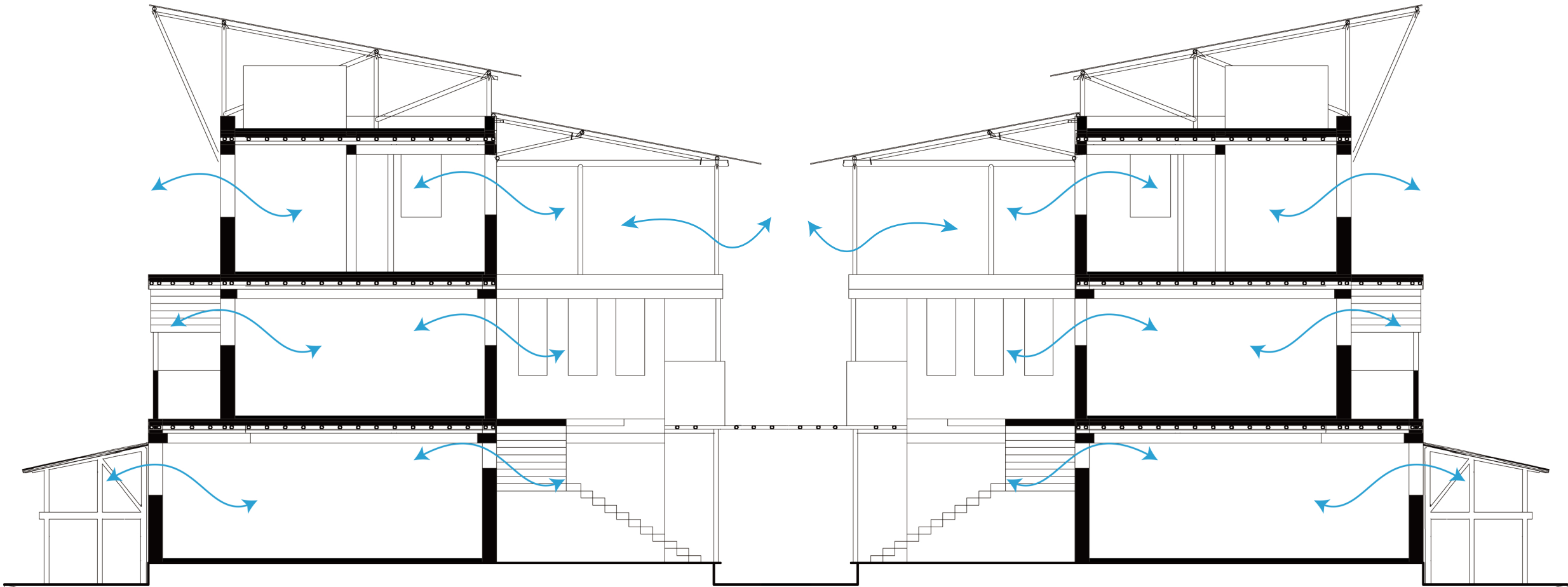


*section 1:100
shading in winter*



*section 1:100
shading in summer*

X ventilation



DESIGN

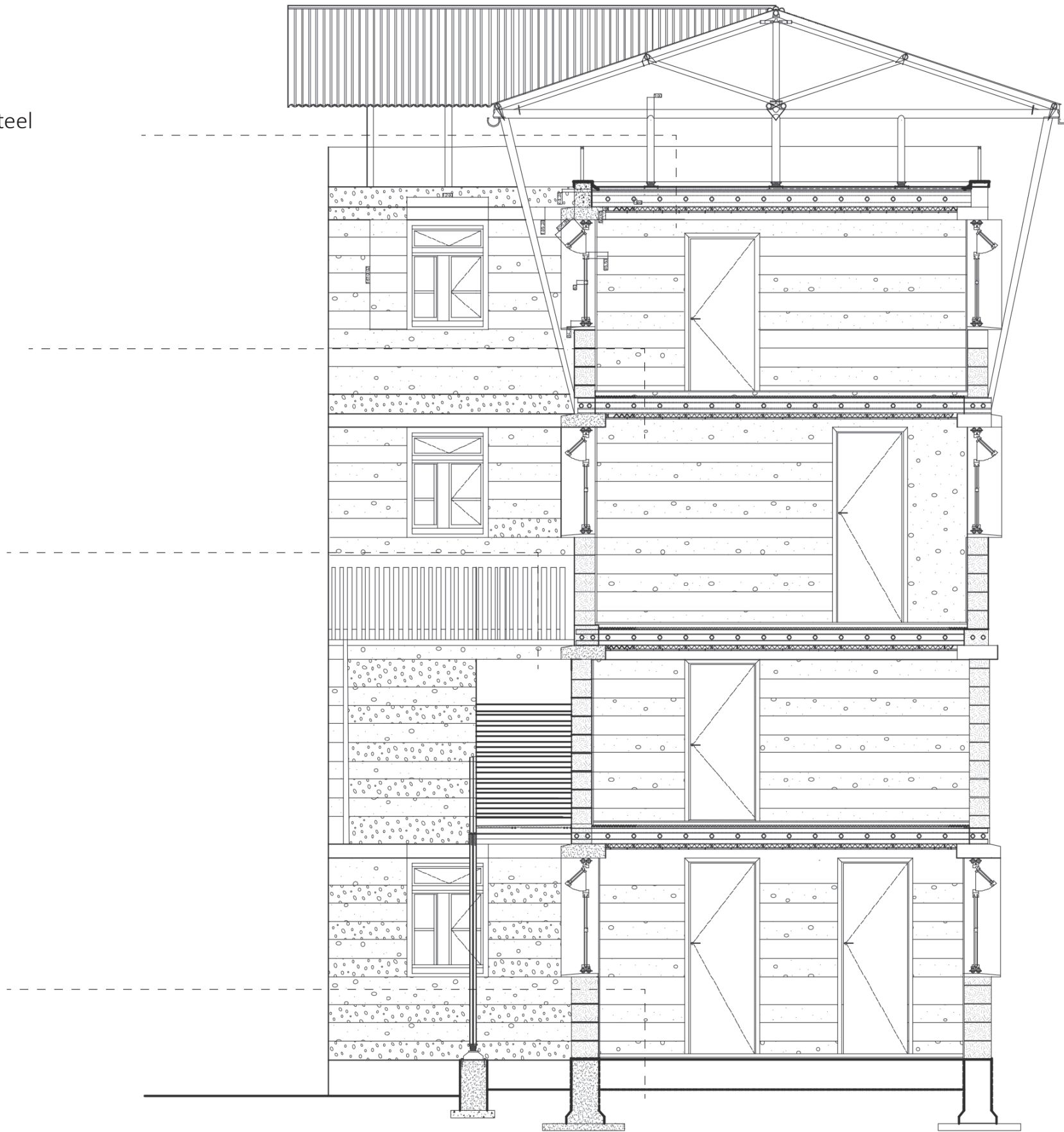
Roof:
Two layers of bamboo structure
Bamboo wattle
Structural earth base 8 cm
Concrete- bamboo "T" junction made of steel
Bamboo structure
Treated bamboo covering

Floor:
Three layers of bamboo structure
Bamboo wattle
Structural earth base 8 cm
Waterproof membrane
Screed 5 cm with 2.5cm sound insulation
Tile finishing
Gypsum 25mm with insulation

Wall (second floor):
Wall (second floor):
Rammed earth layer 300mm each
loam finish
Gallery:
Three layers of bamboo structure
Bamboo wattle
Structural earth base 8 cm
Tile finishing

Foundation:
Reinforced concrete foundation
Waterproof membrane
Compacted earth 20 cm
Clay floor 13 cm
Waterproof membrane
Screed 5 cm
Tile finishing

Wall:
Rammed earth 40 cm
Plaster



"From Home to Home"
Towards an inclusive, mixed and updatable community



Global Housing Studio
Addis Ababa Living Labs

"From Home to Home"

Towards an inclusive, mixed and updatable community

