

horick

to

horick

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aE Intecture studio

indonesia



bandung

bandung



bandung 1940



bandung 2016

cigondewah



- attracts immigrant workers for the textile industry
- from traditional to modern way of building



wasted potential?

- found significant amount of stone waste
- demolition sites are re-used buildings de-
serted

design question

How can the development of co-housing typologies be encouraged by systemic transformation of stone building waste material within Indonesian kampungs?

main themes

transformation of stone waste material (research)

building method / structural system

vertical housing

cooperative housing

incremental expansion

urban outcome

the potential of stone waste material



- Total output of stone waste 880 ton a year
- Locations of waste are throughout the kampung

transformation of material



stone waste transformation
process:

1. stone waste is collected in a central location
2. mobile stone recycling unit comes to cigondewah
3. stone waste materials is transformed into bricks and concrete fillament

recycled material

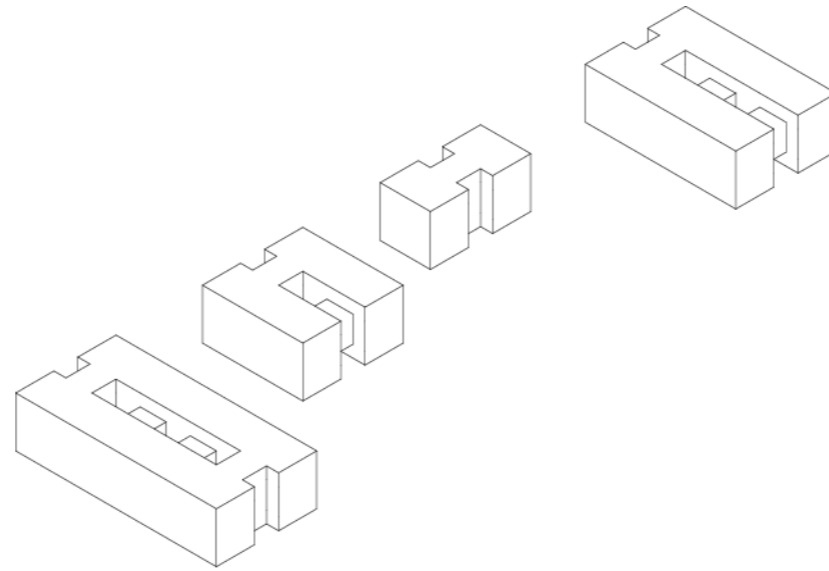
brick



concrete

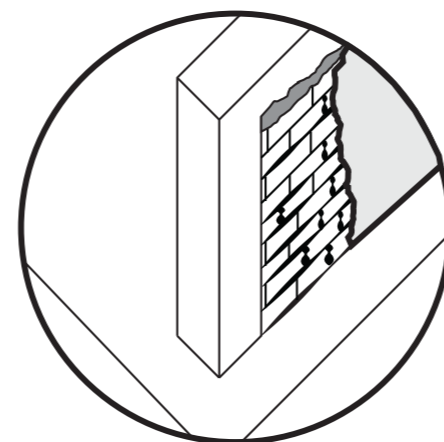
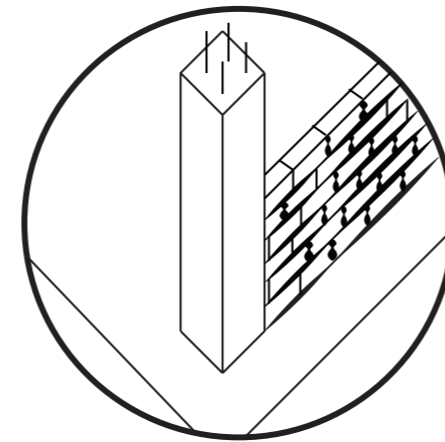
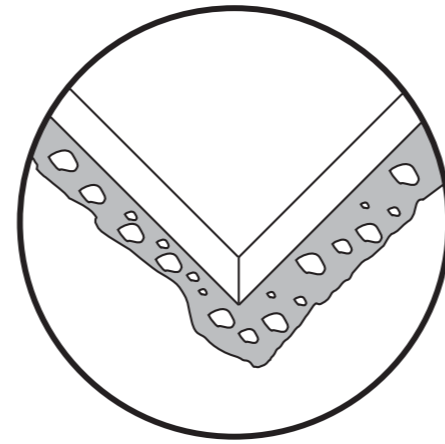


the brick



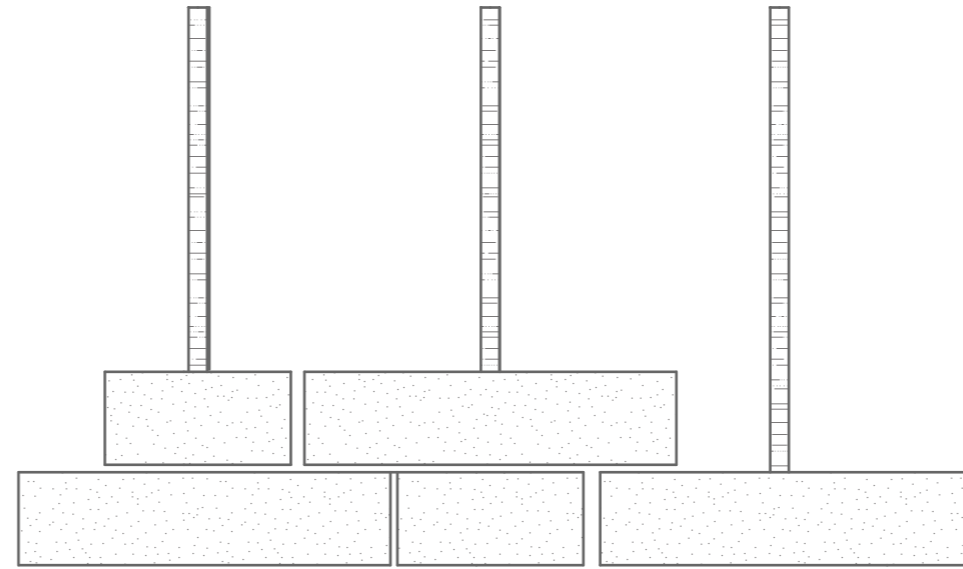
- fascination by the potential of different brick laying
- starting point within the project

local construction

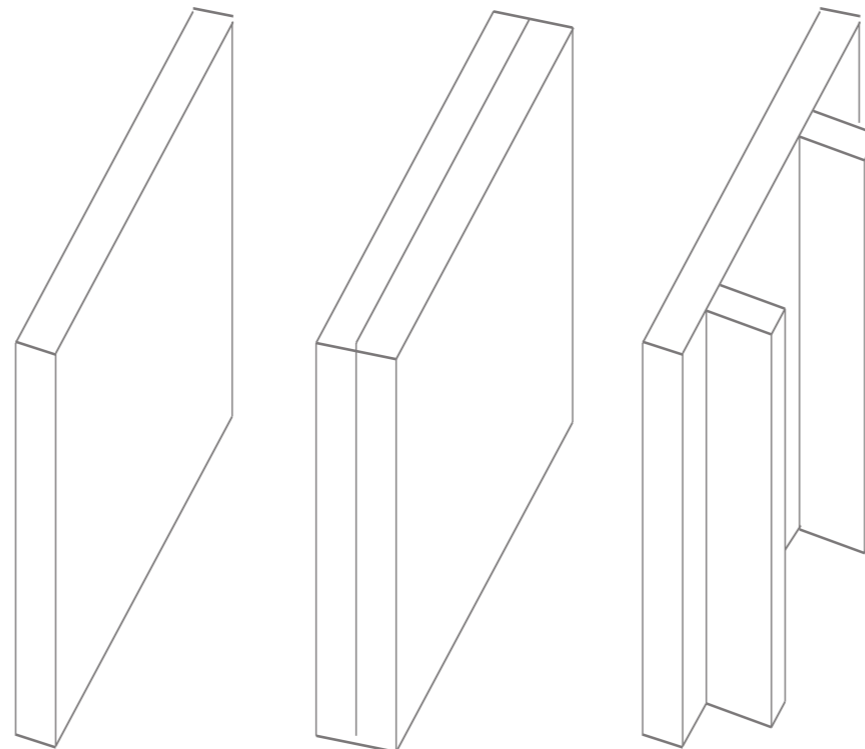


- lack of construction skills with new materials
- susceptible to structural damage

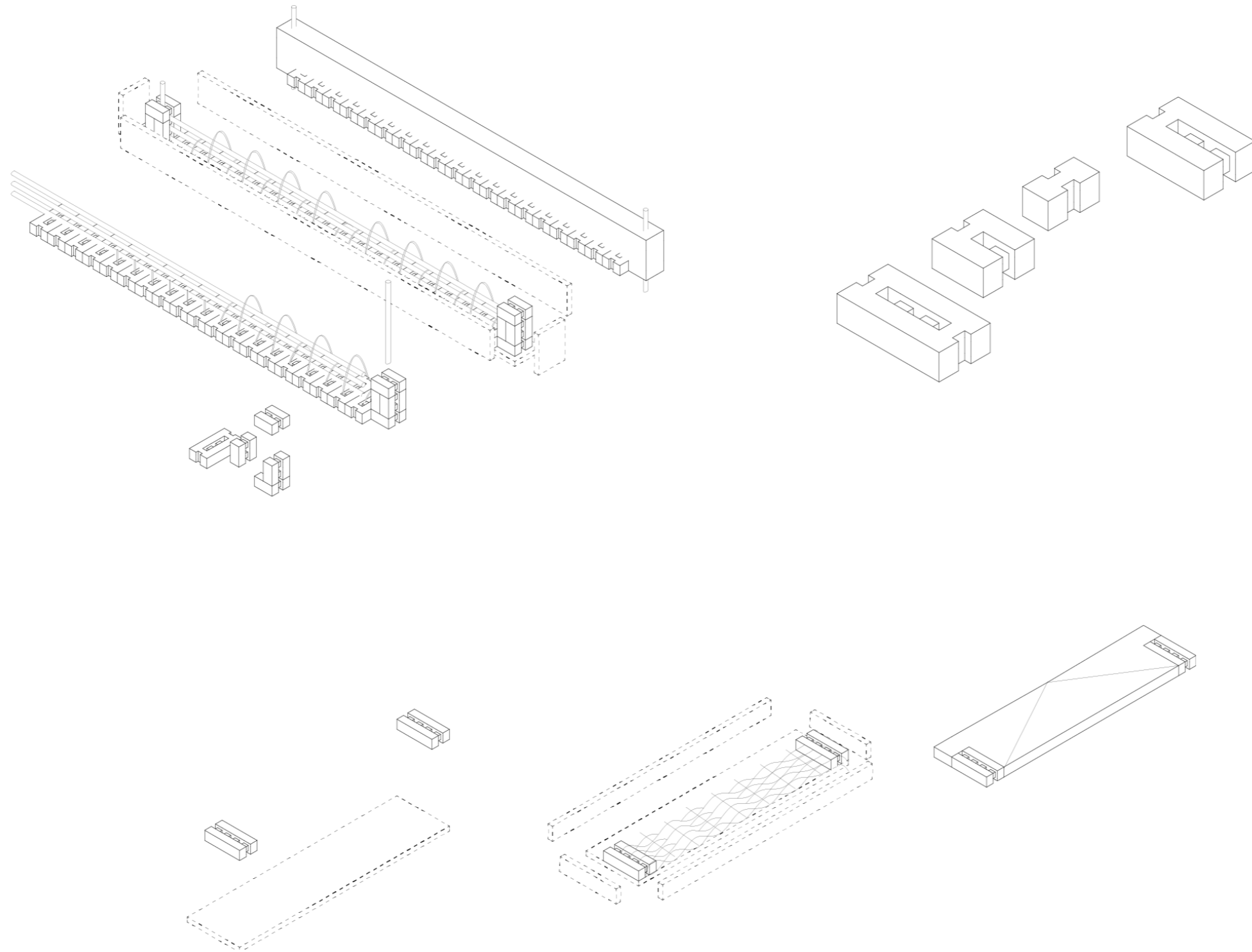
new construction method



- brick and bamboo put together
- wall designed with supports

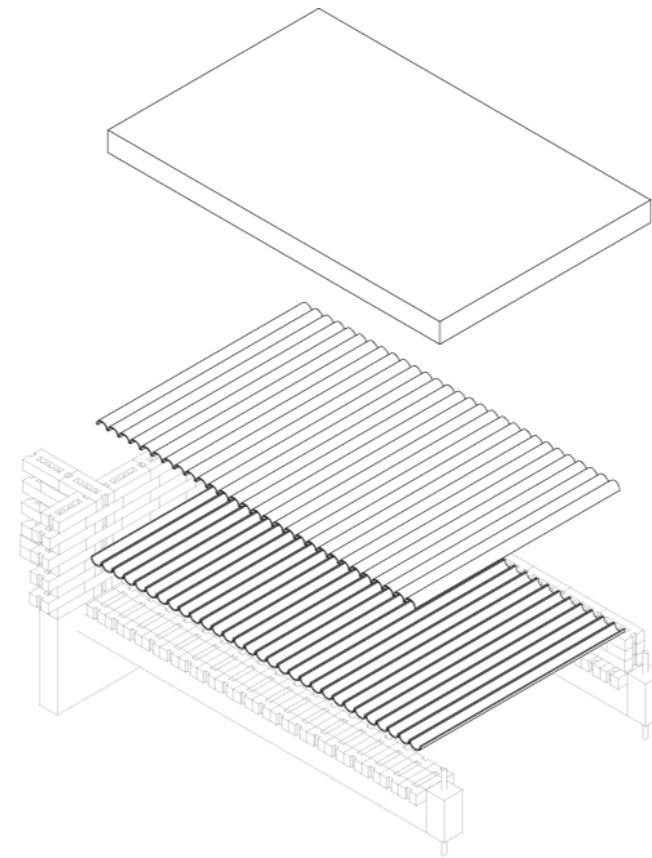
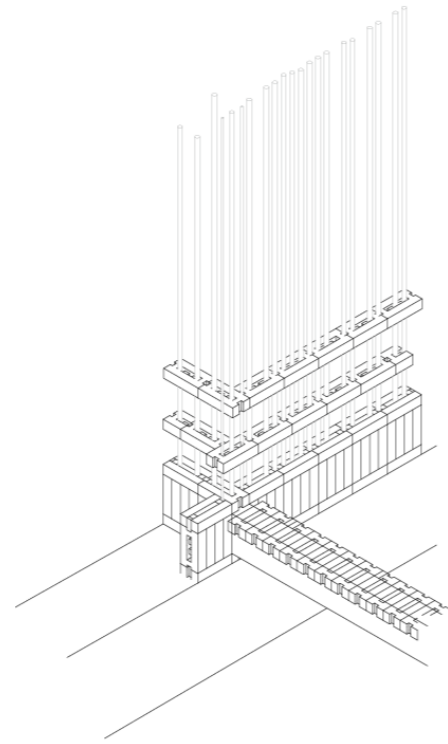


main elements



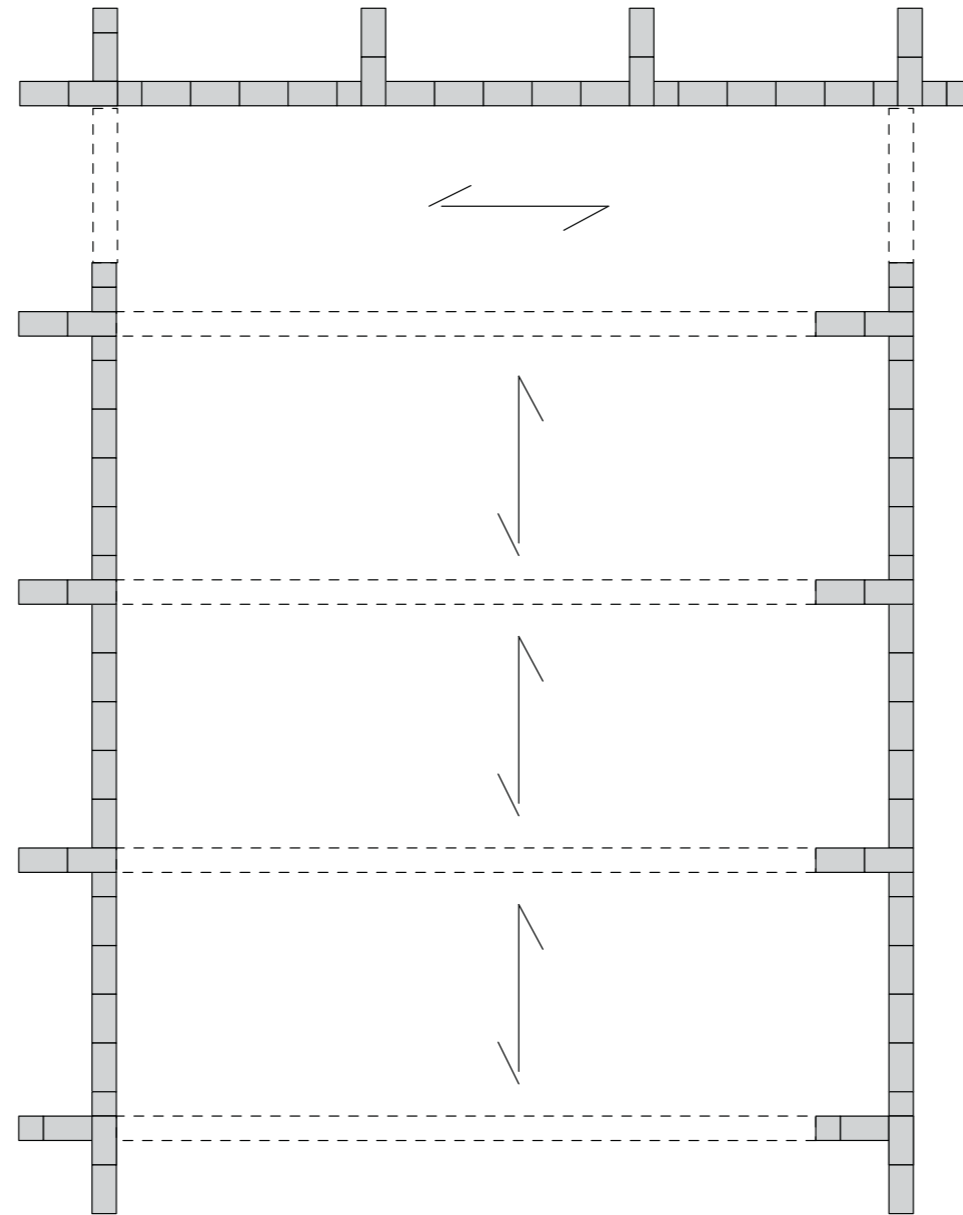
- local materials put together
- stone materials form the basis

materialisation



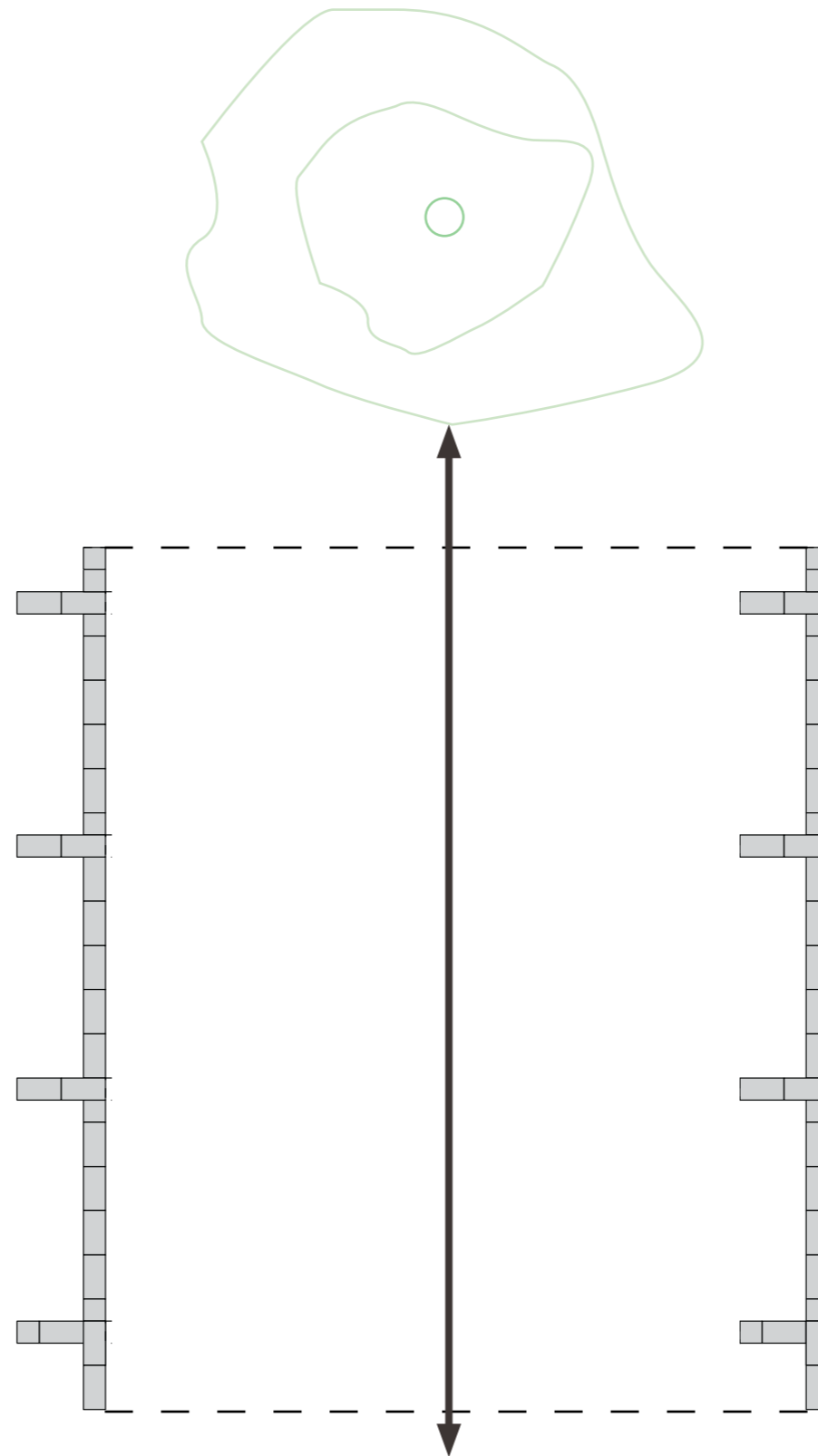
- Simple layering of the different building elements

structural system

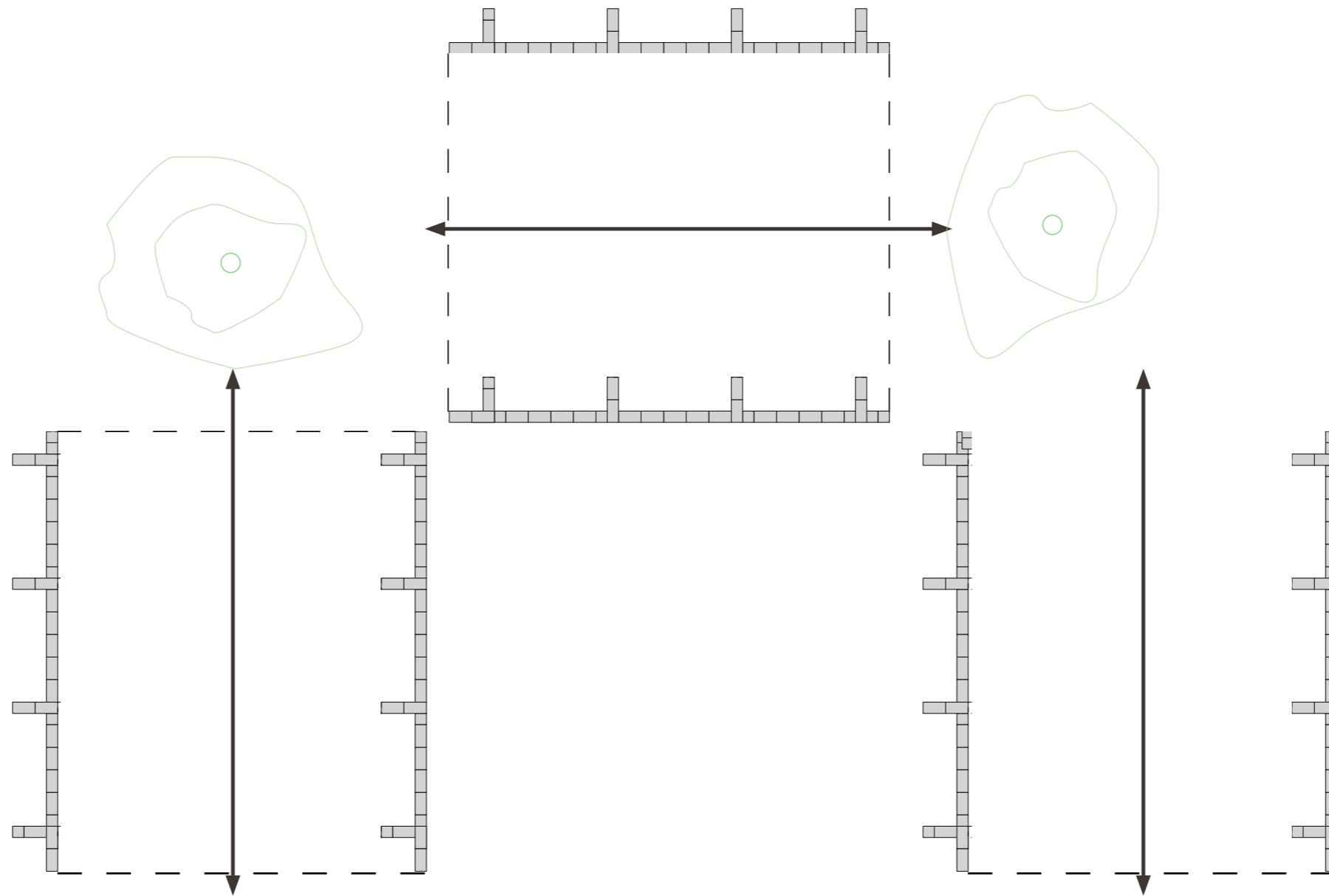


- parallel walls
- floors and beams connect the structure together
- no crossing walls

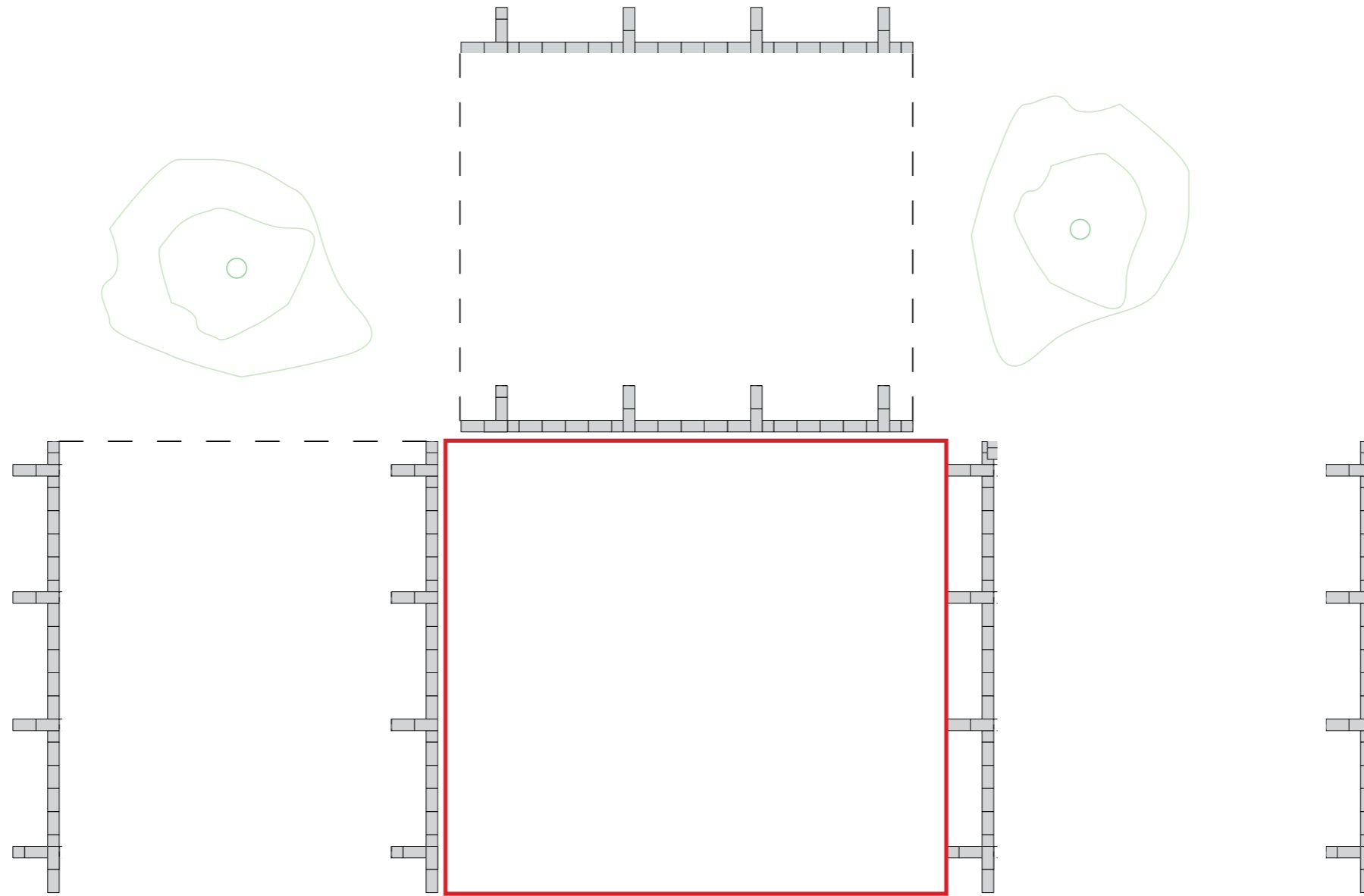
dwelling concept



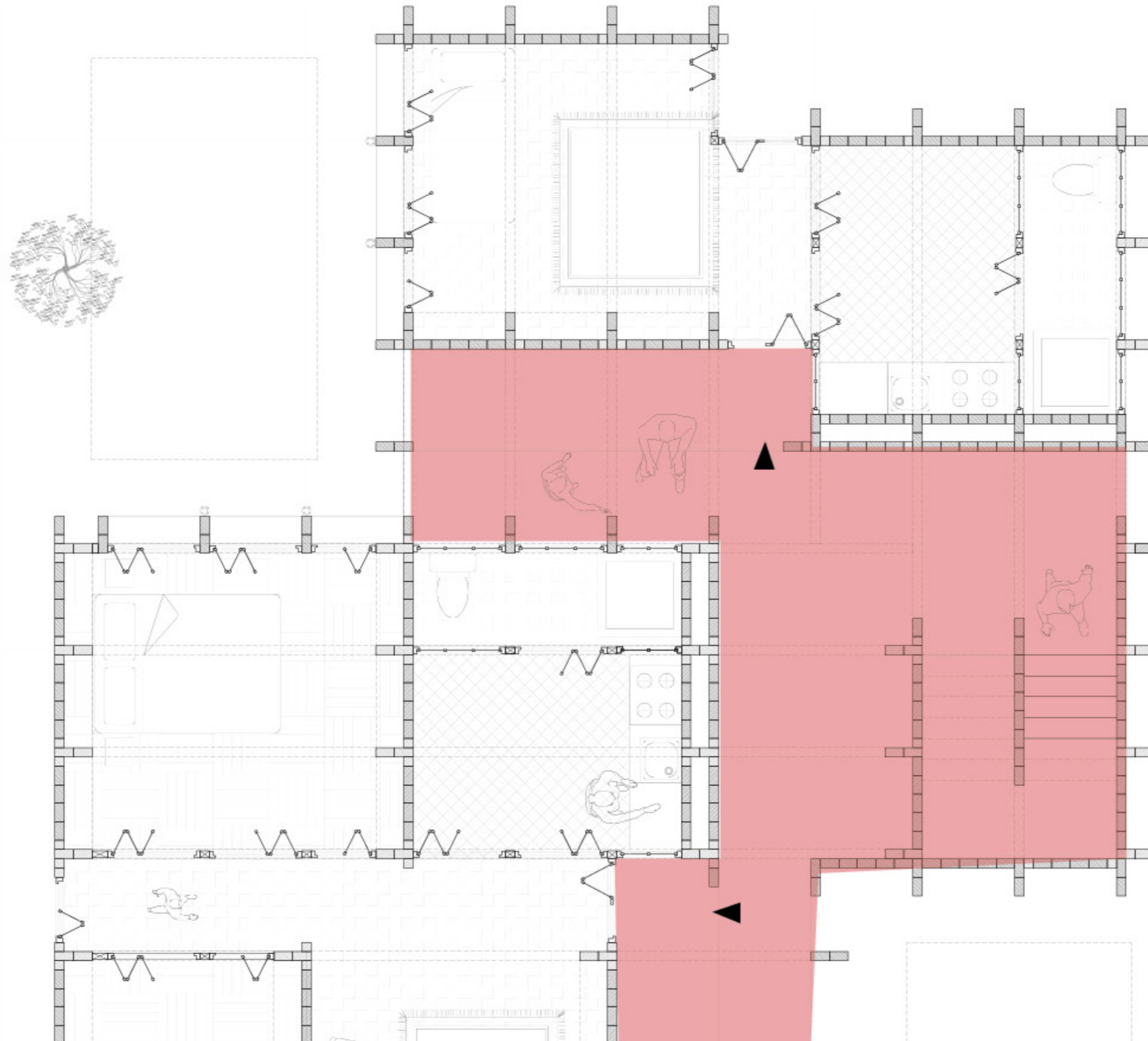
composition concept



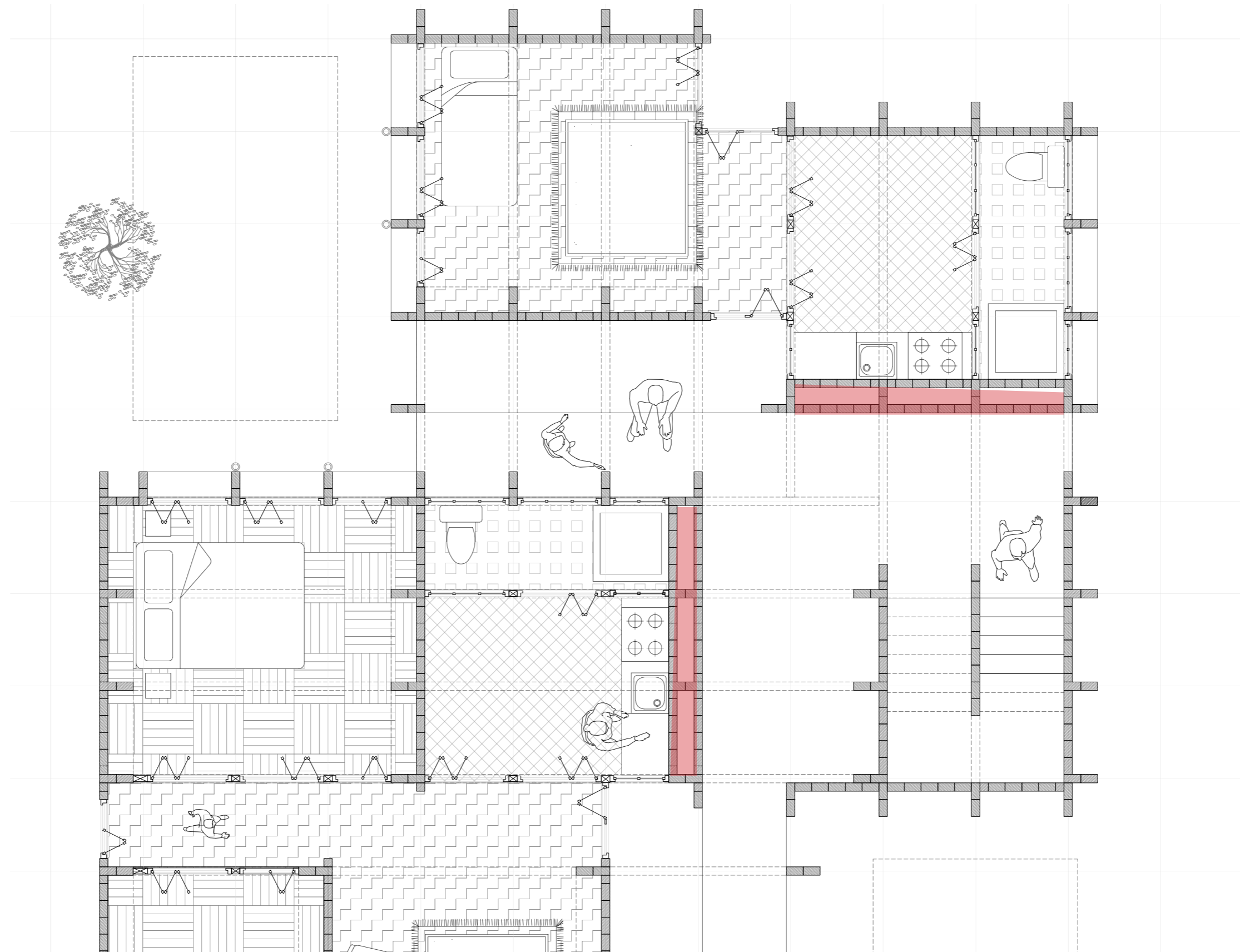
core?



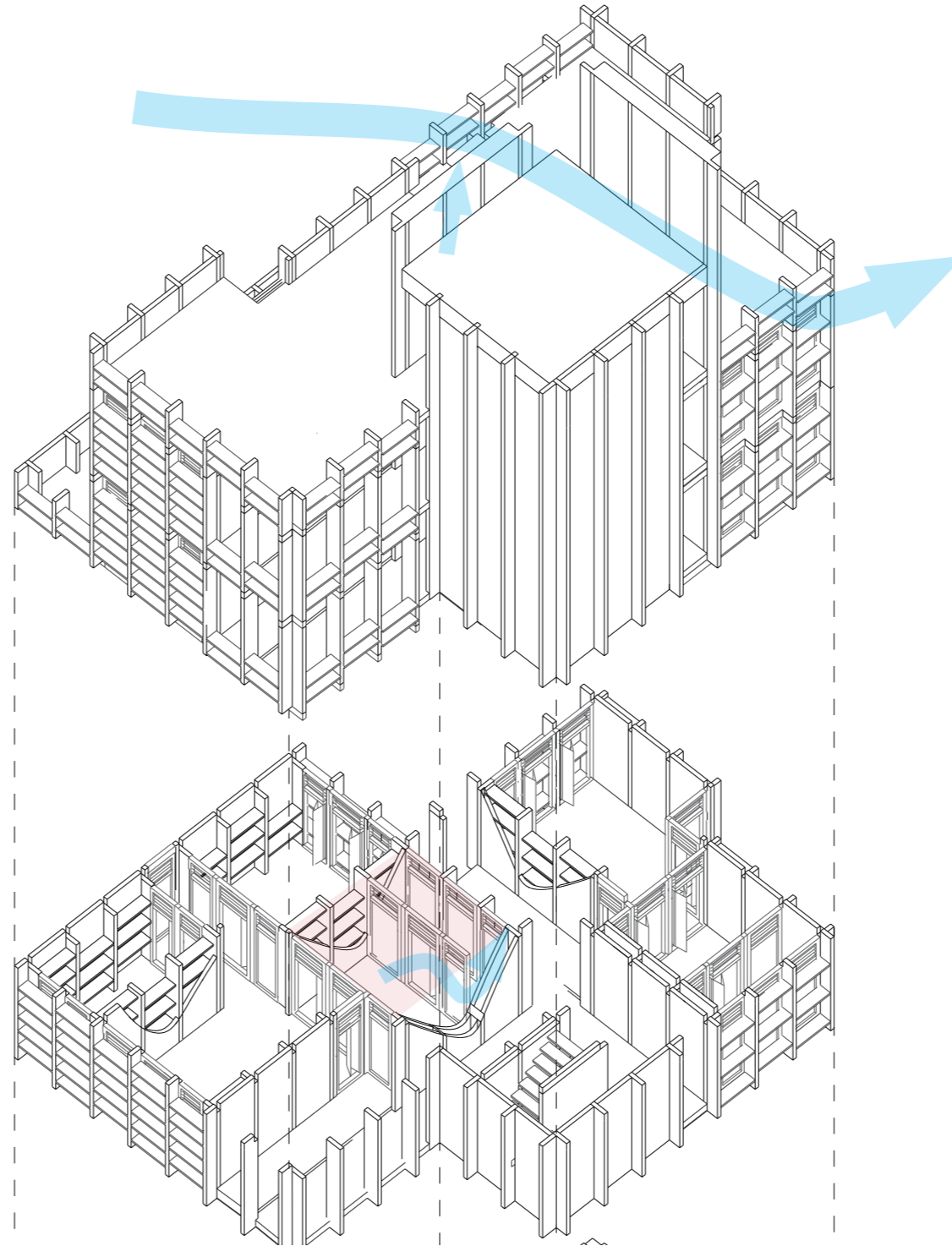
social connection between dwellings



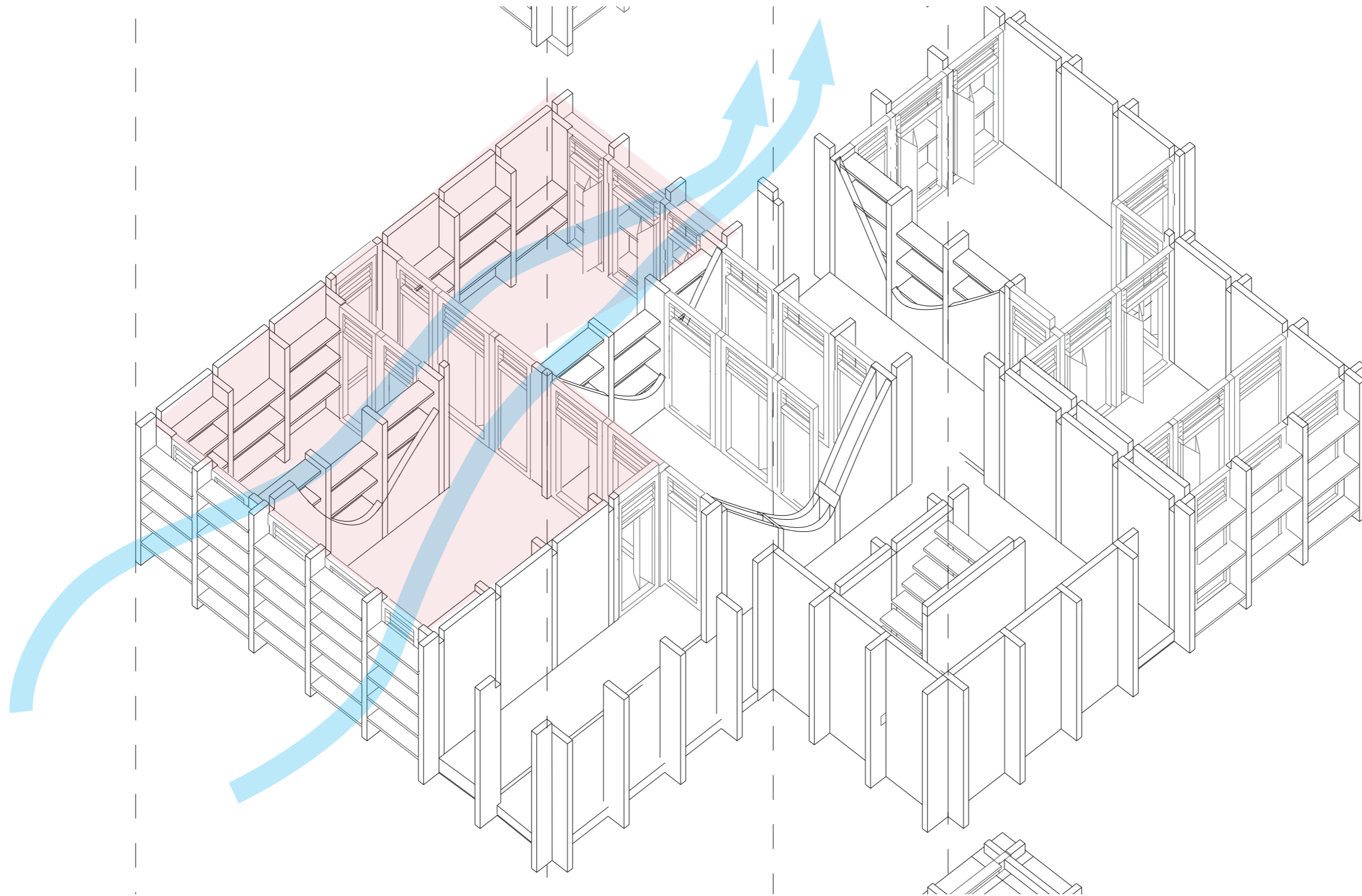
technical clustering



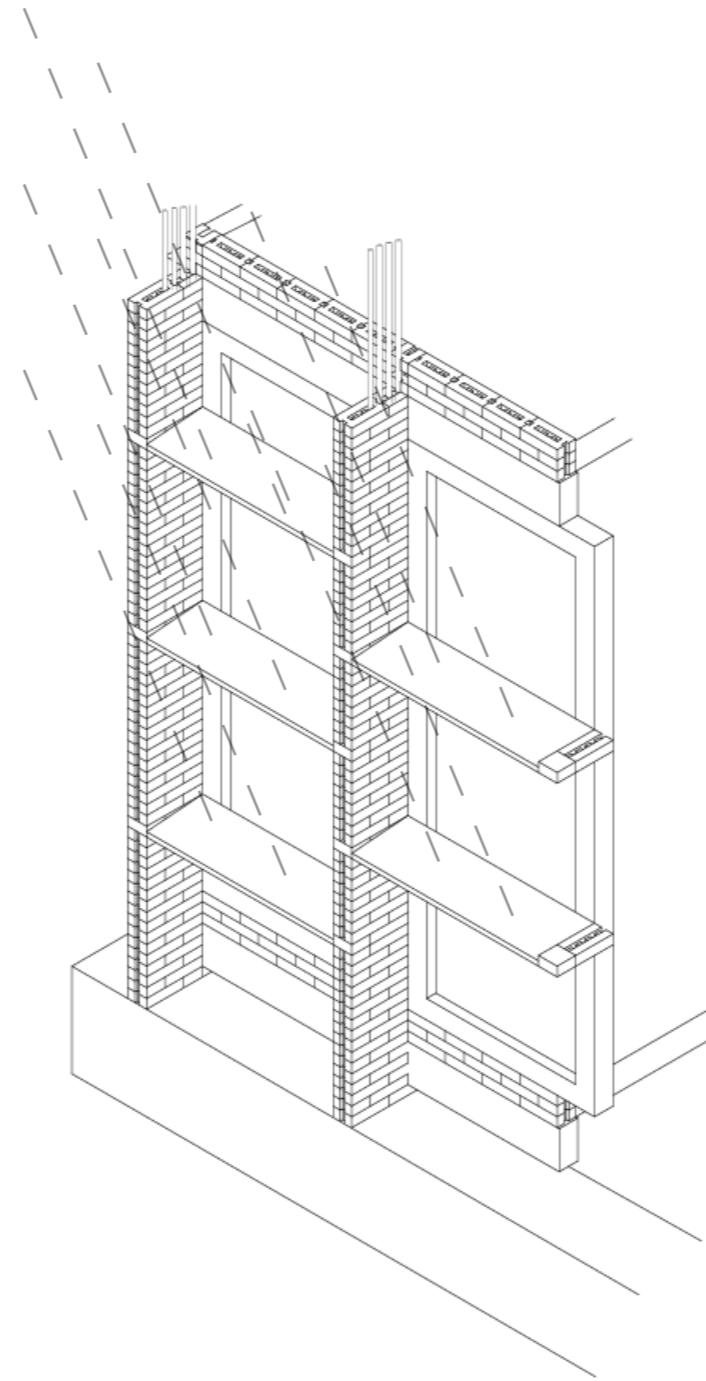
stack ventilation kitchen/bathroom



cross ventilation living spaces

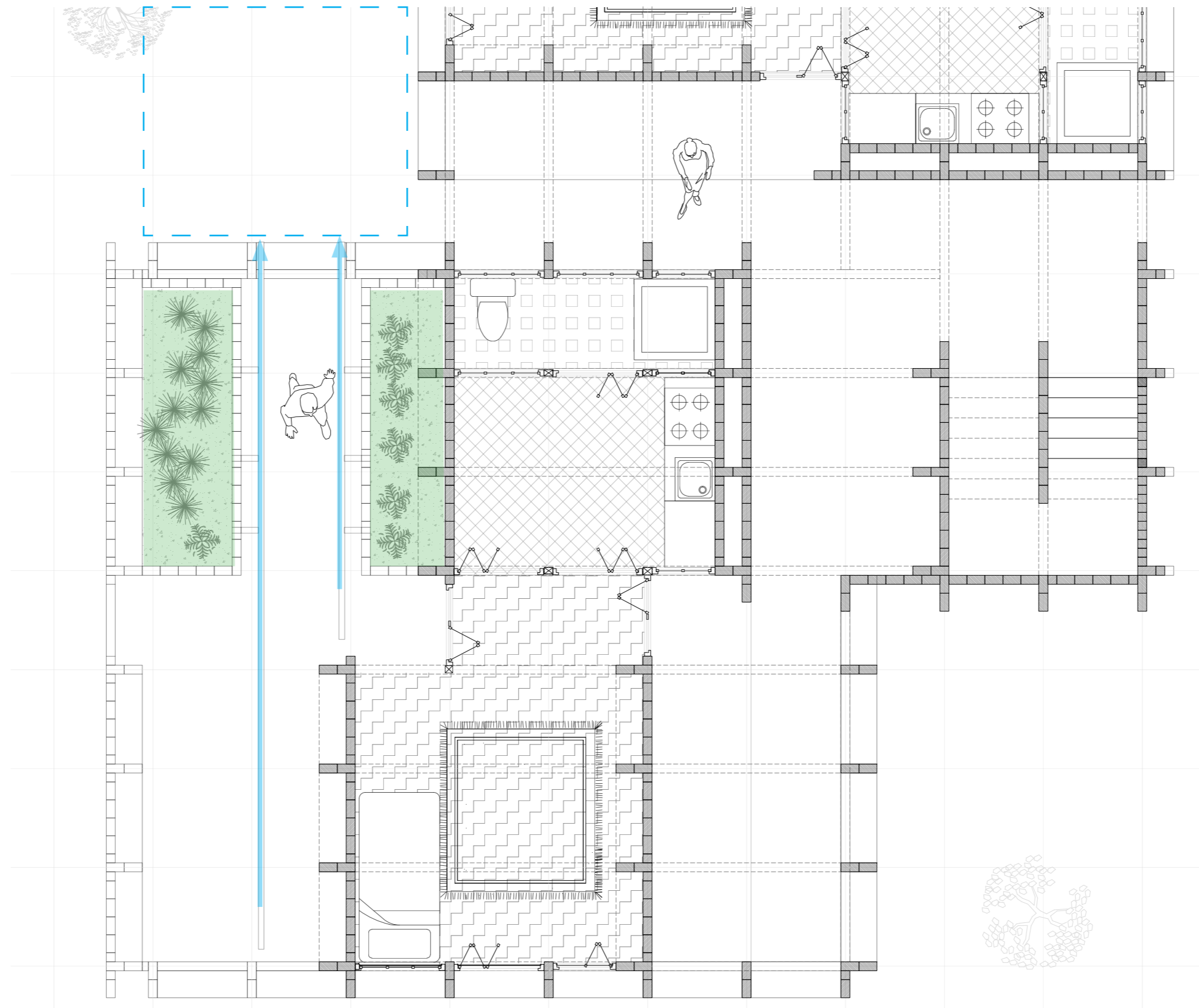


rain/sun protection

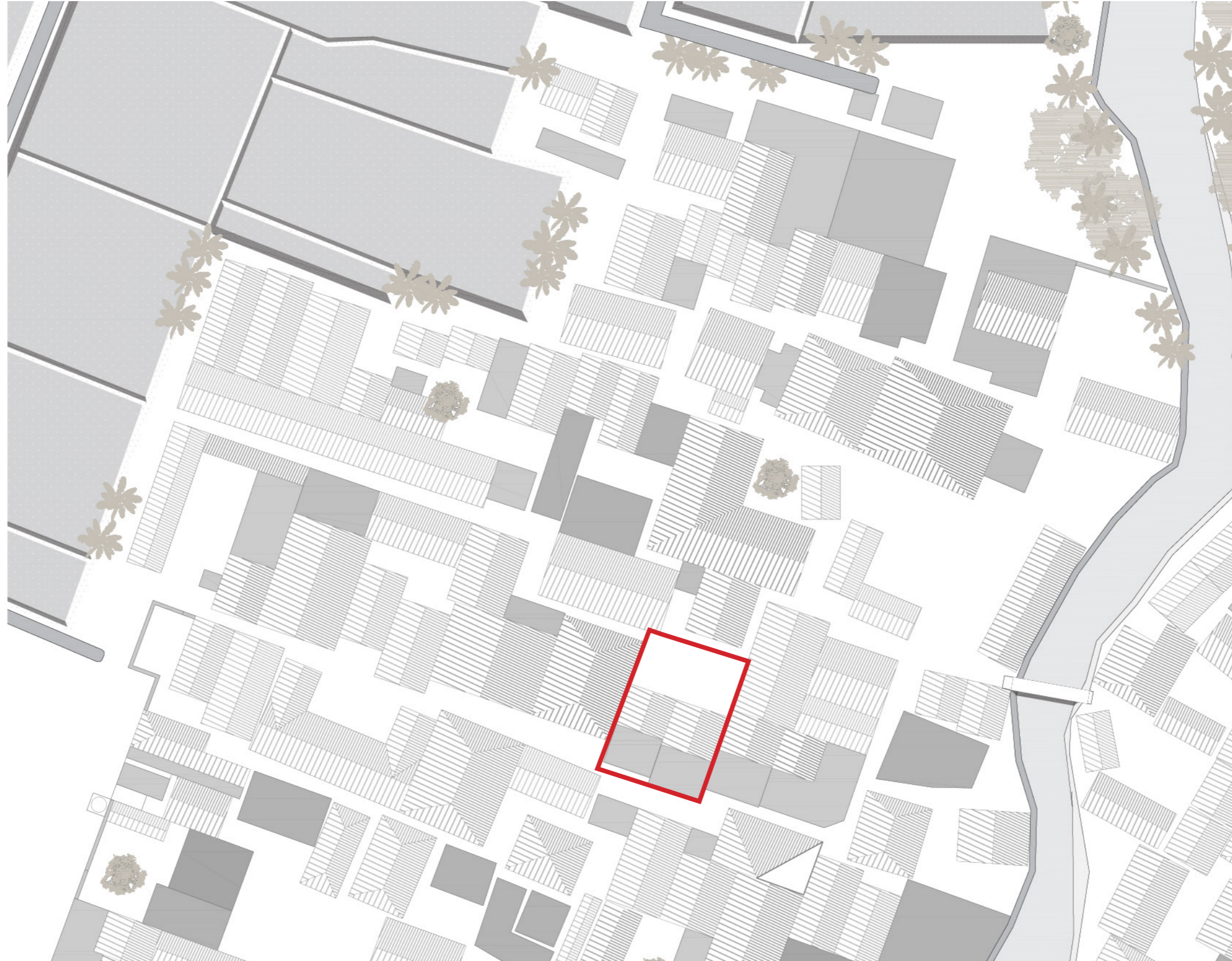


- roofs cannot extend facade line
- concrete slabs protect infill + walls
- concrete slabs are place in between the walls

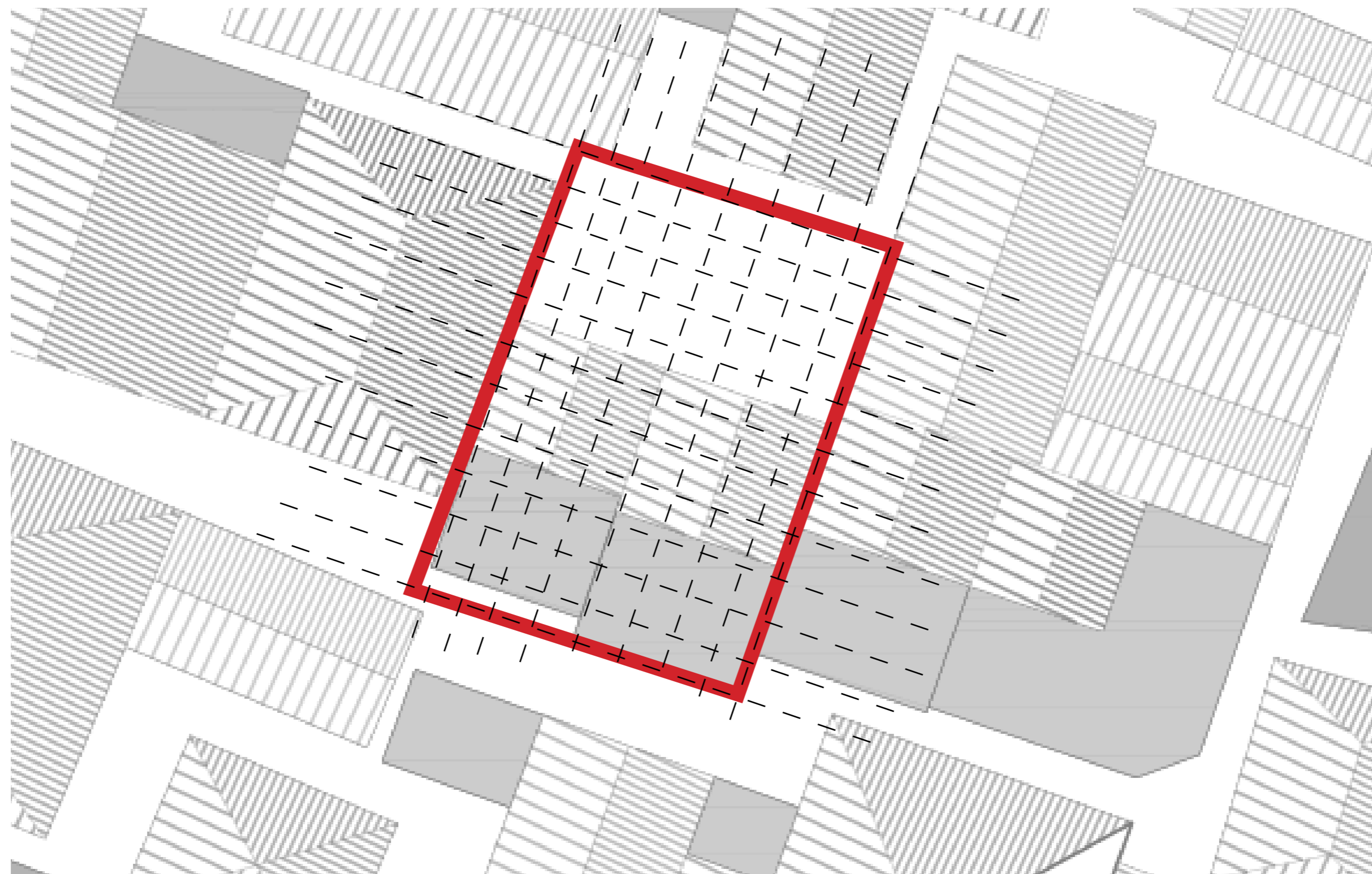
roofs



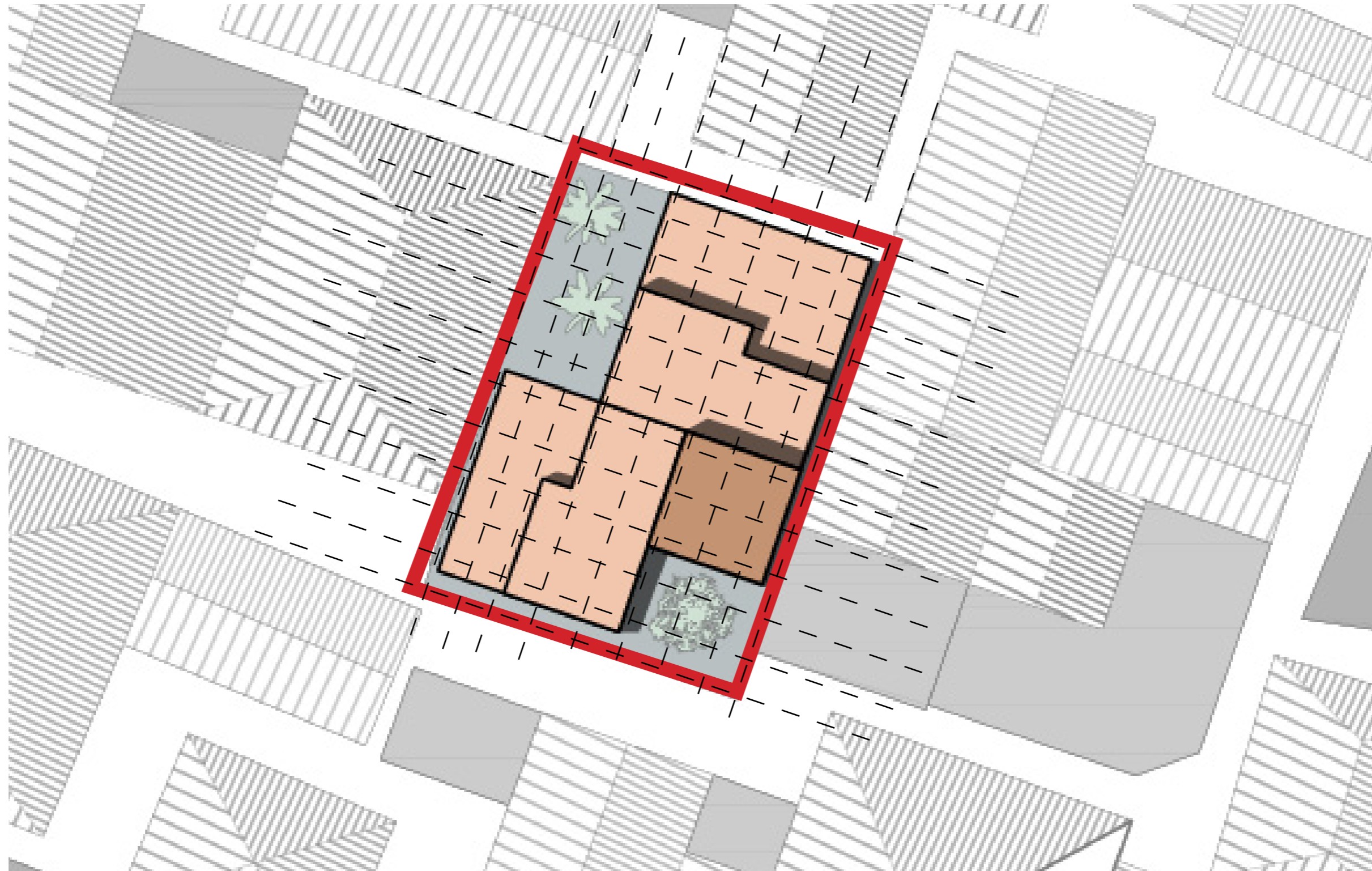
plot of land



1.1 m by 1.1 m



the core, dwellings and gardens



the landowners



neighbours Bagus & Rafi

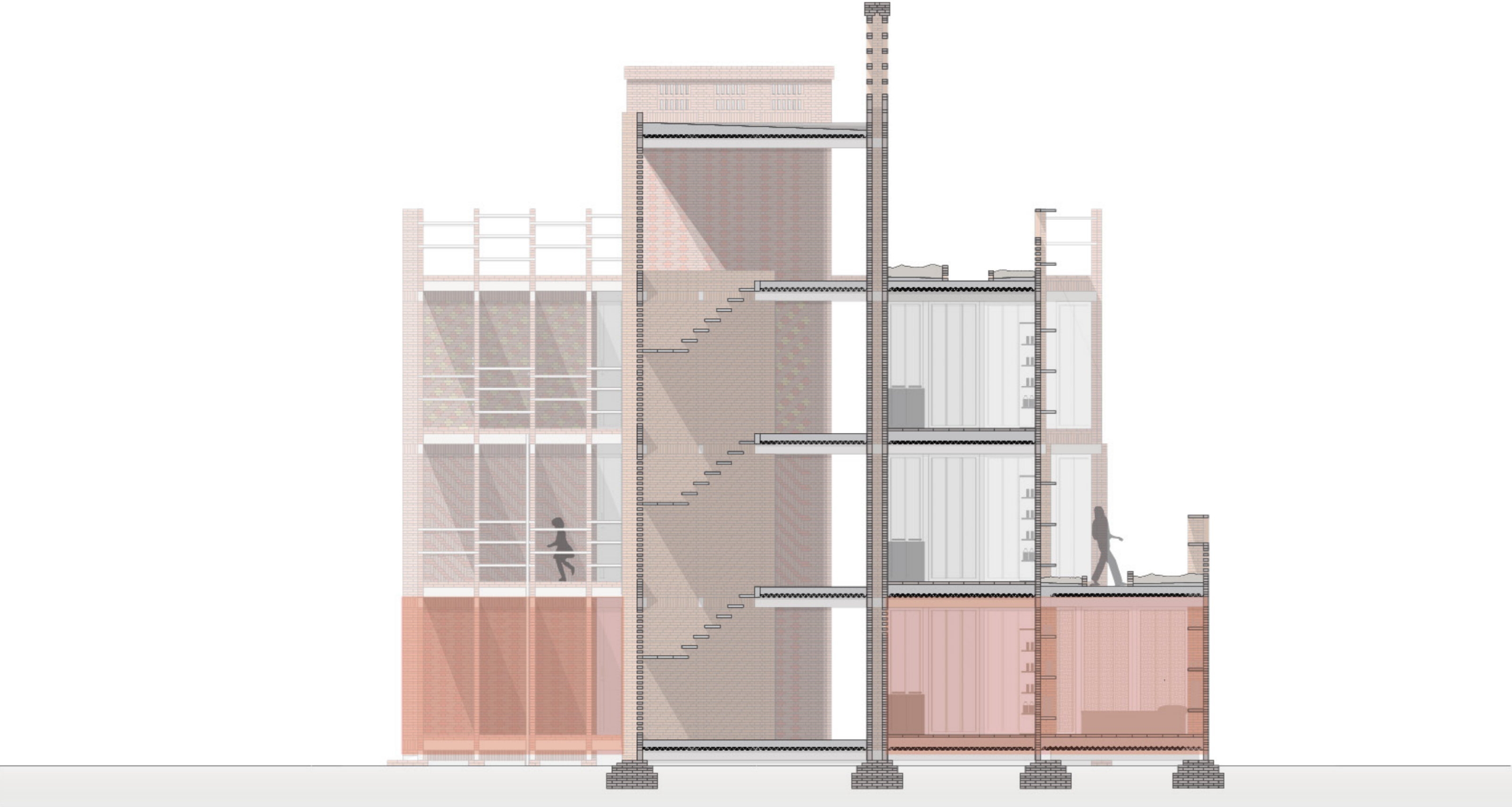
Bagus:

- married and two children
- relatively wealthy
- occupation: builder

Rafi:

- single no children
- relatively little to spend
- occupation: builder

the landowners

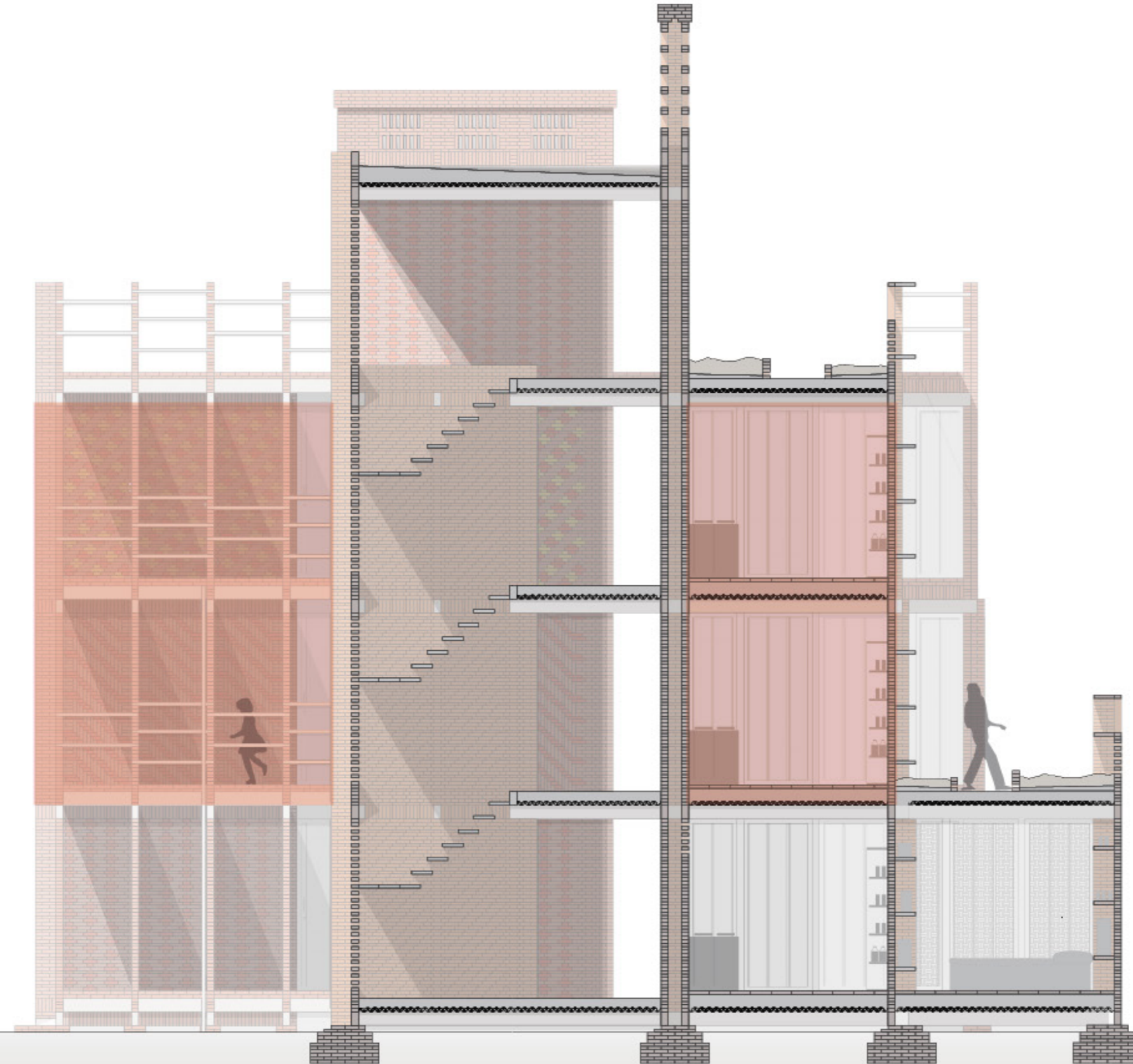


the migrant workers

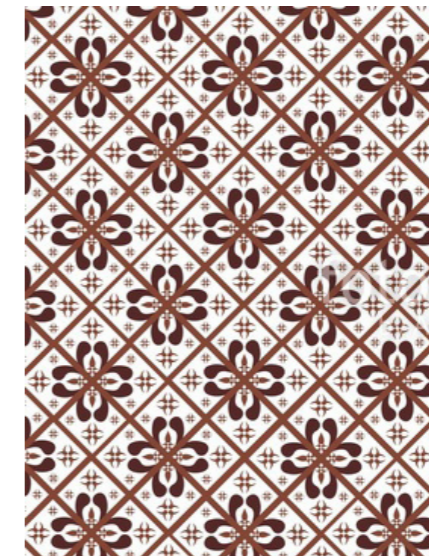
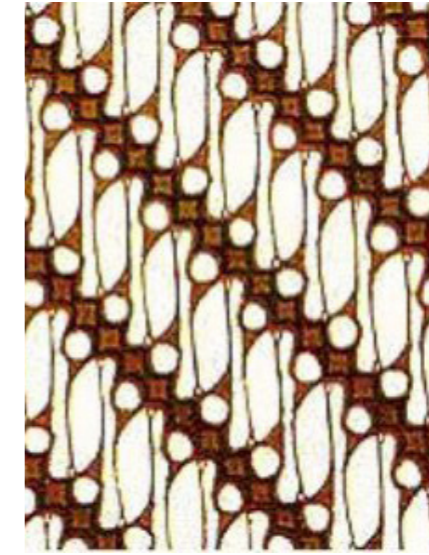
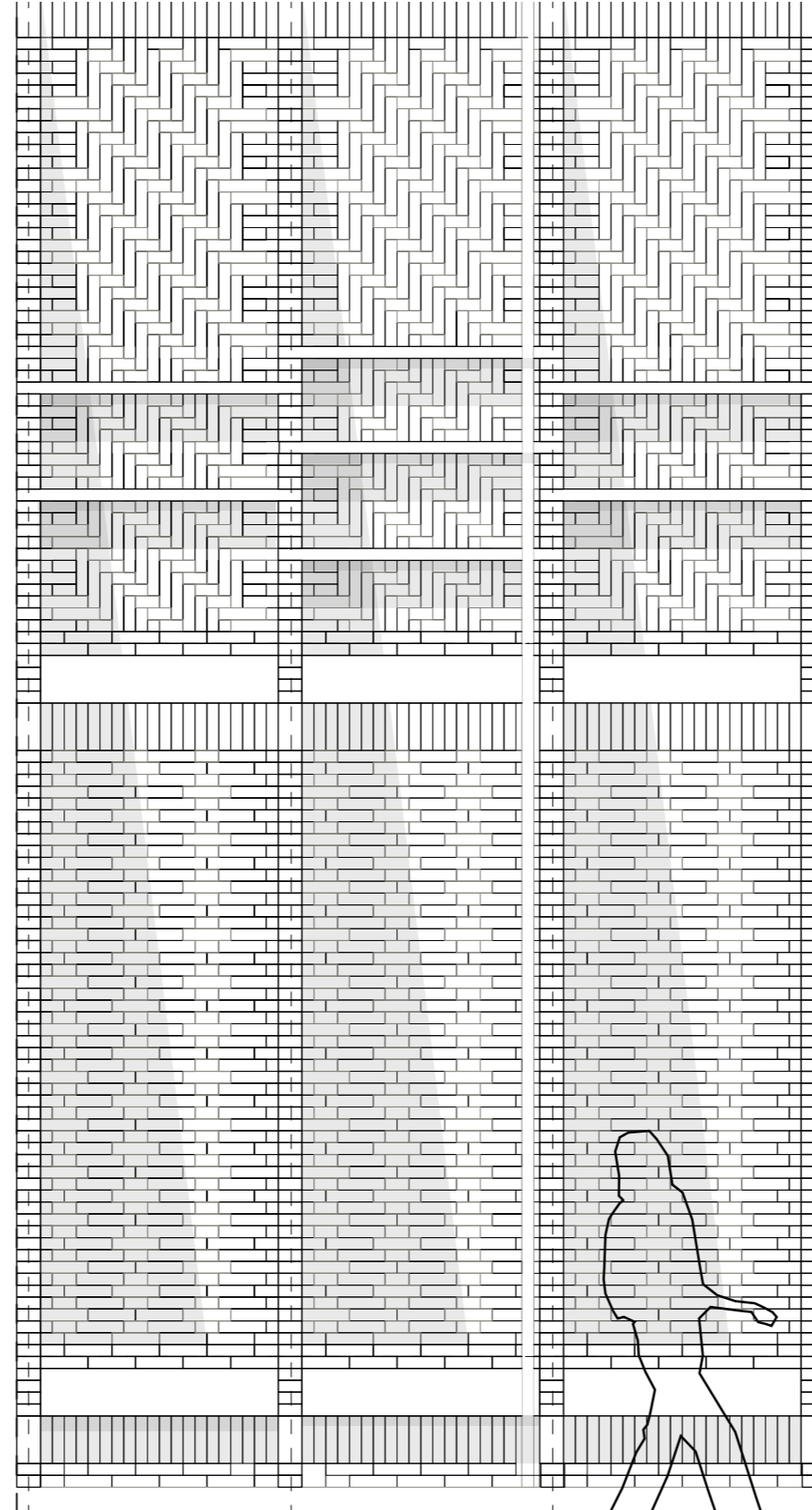
migrant workers

- single no children
- relatively little to spend
- intending to build a life in cigondewah

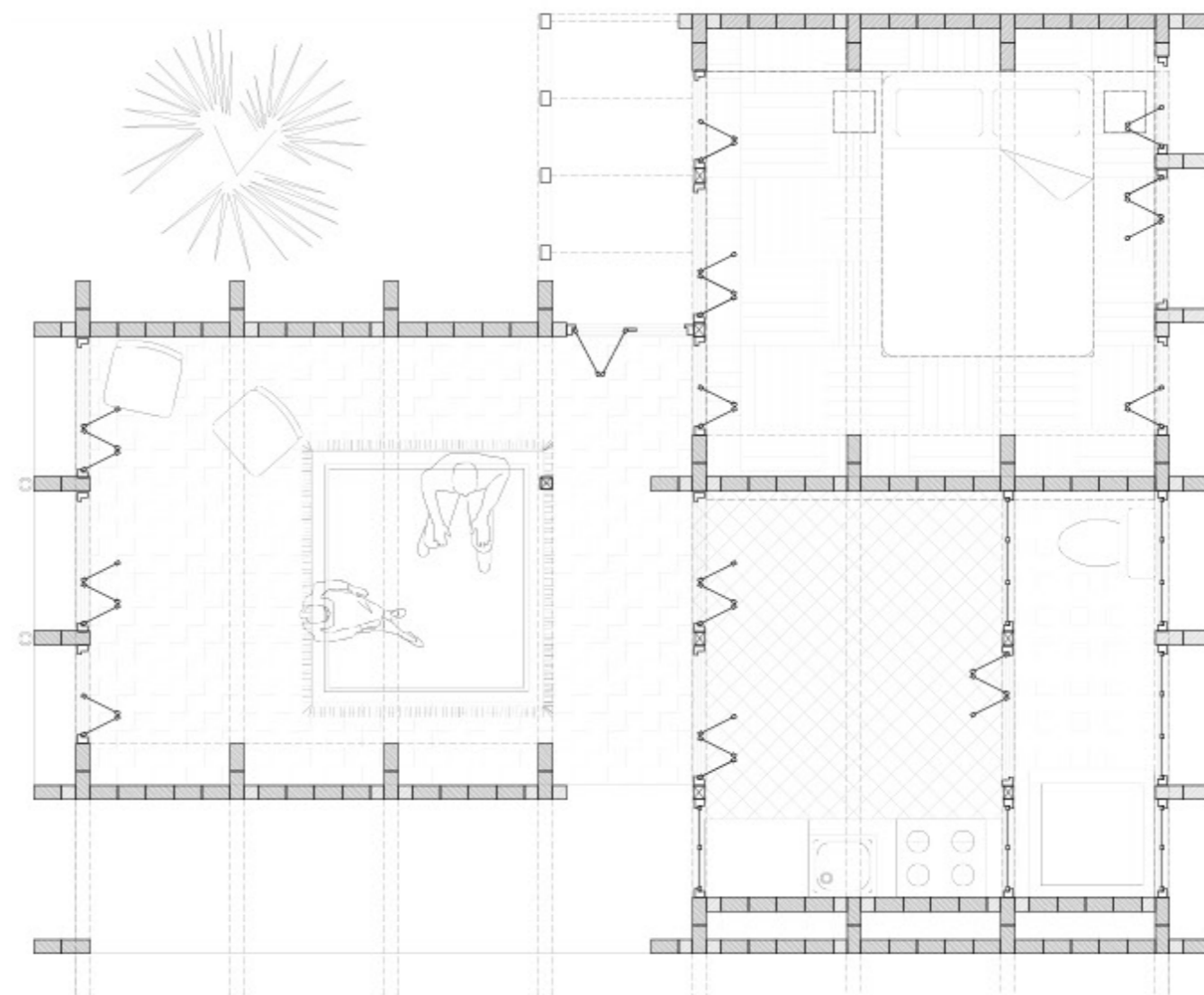
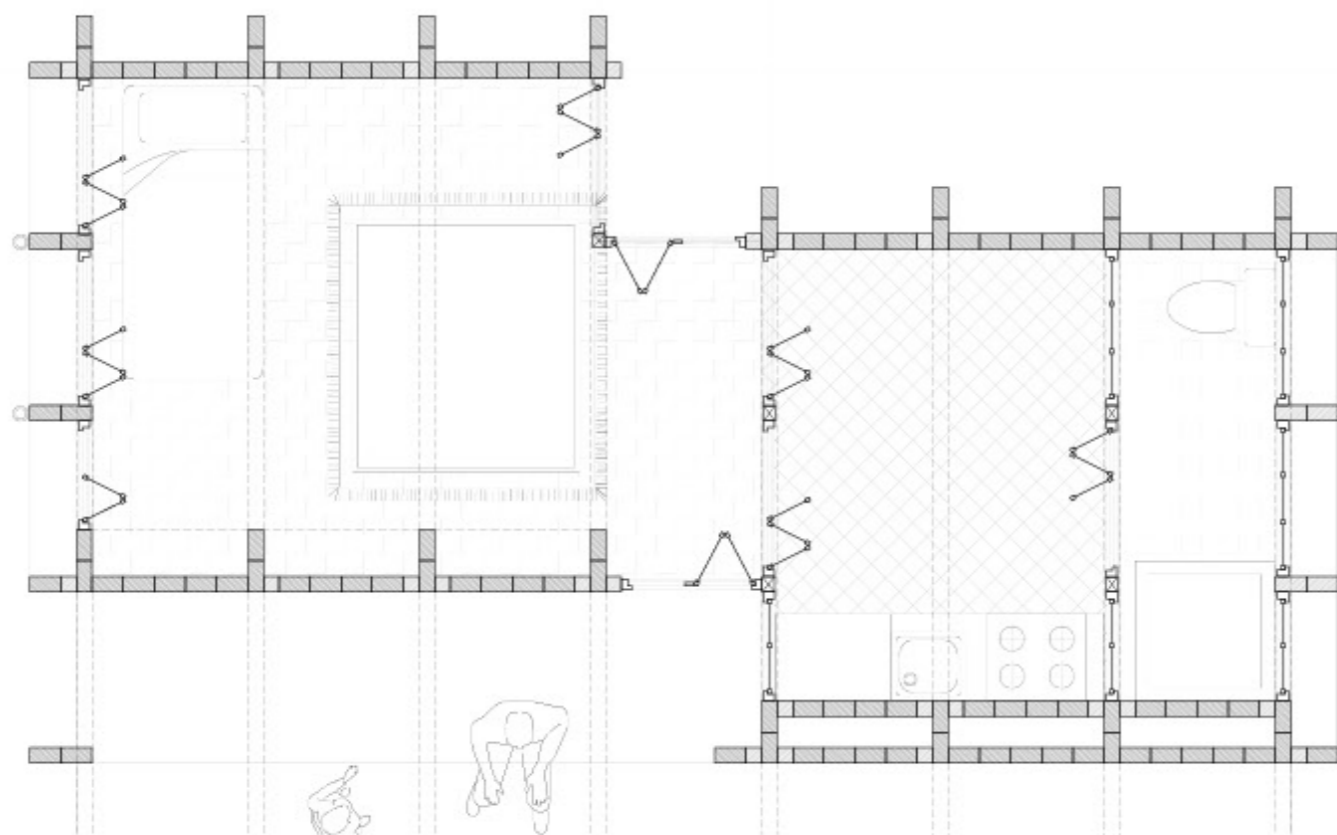
the migrant workers



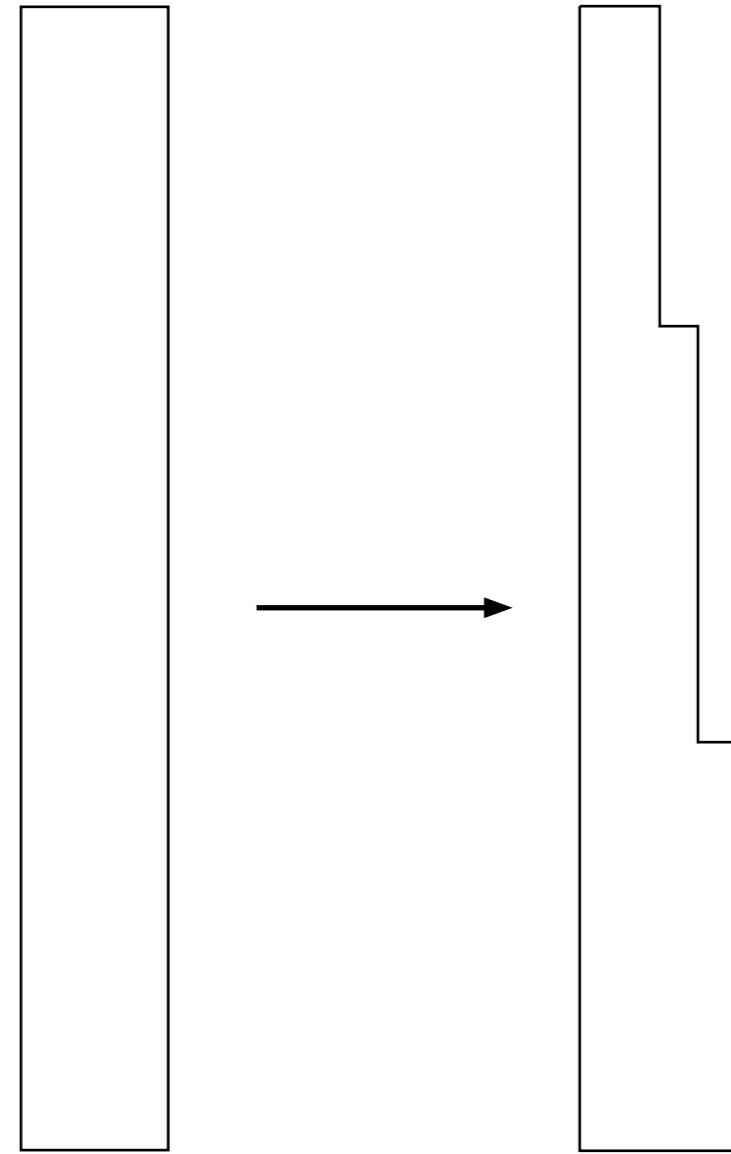
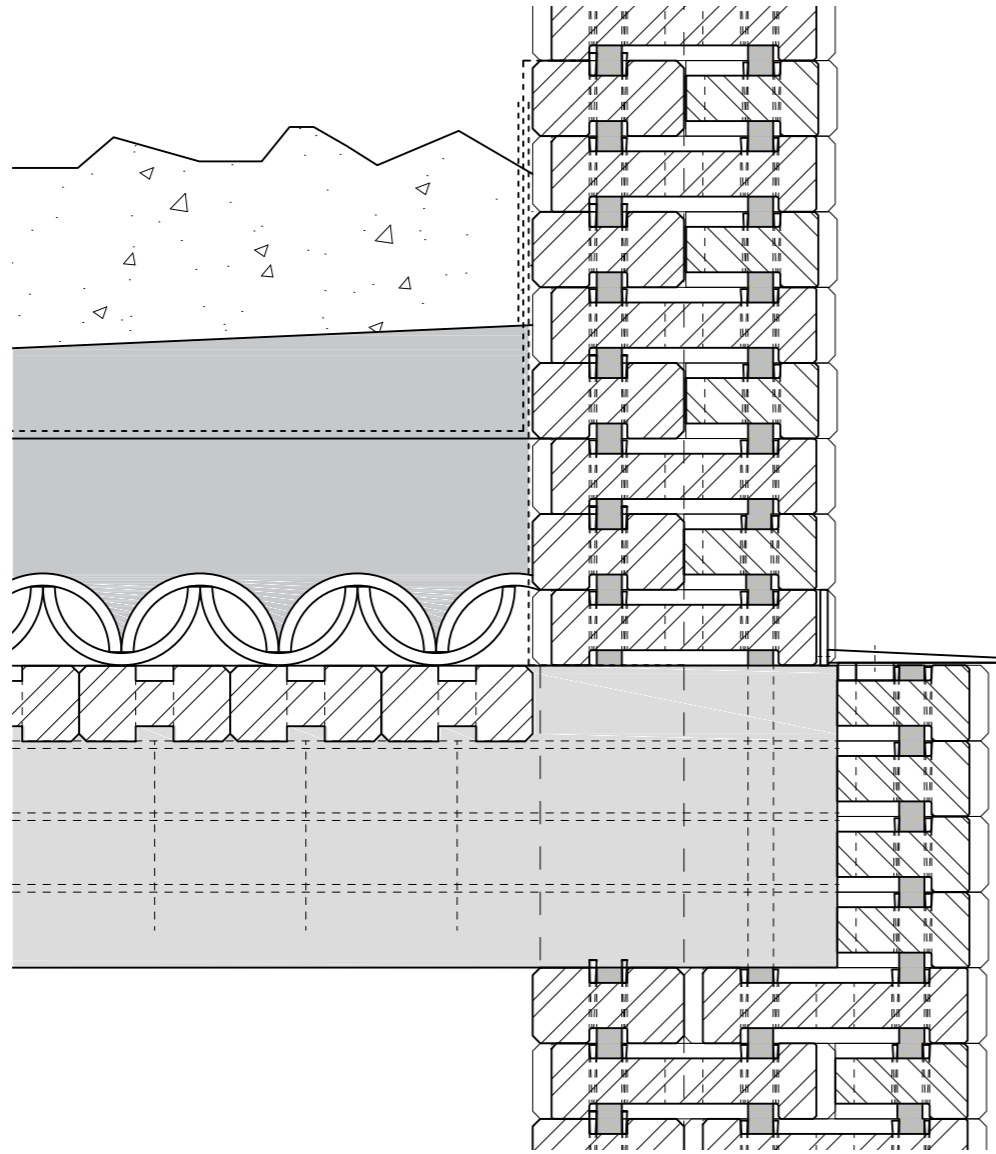
Difference in expression



extendable dwellings

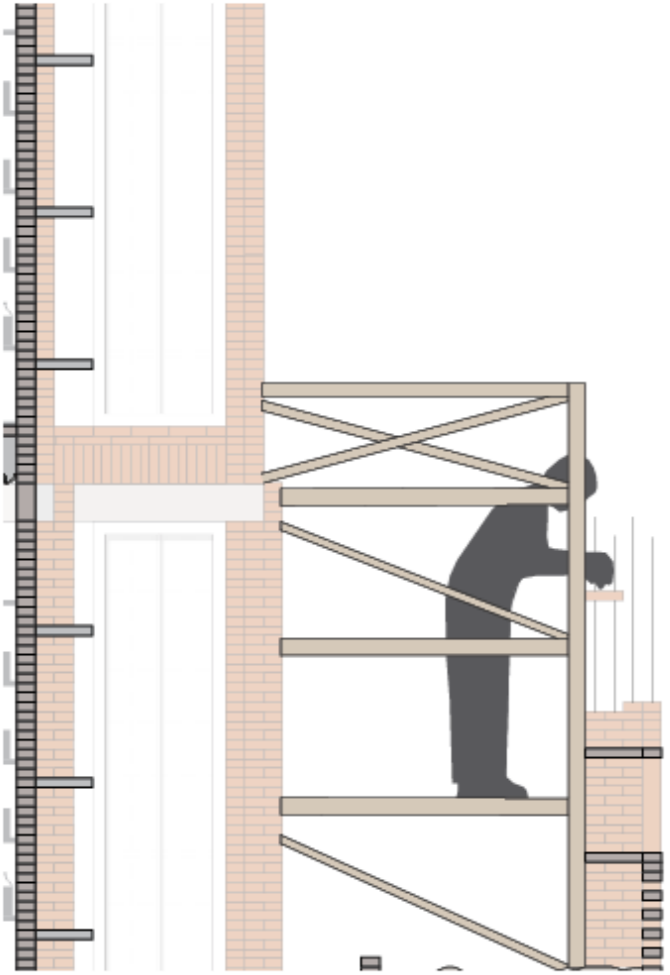


extendable detailing

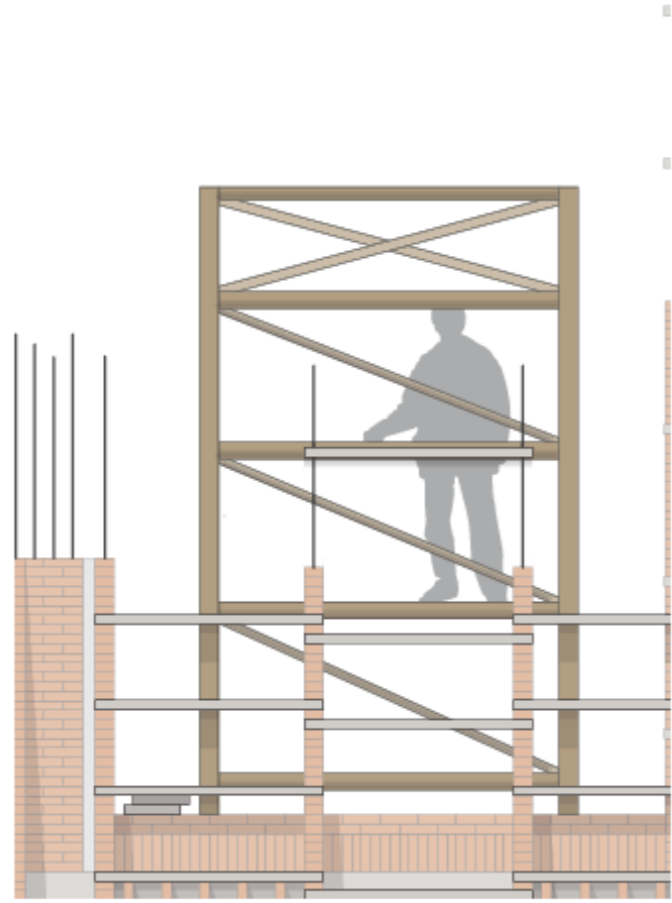


form of the supports

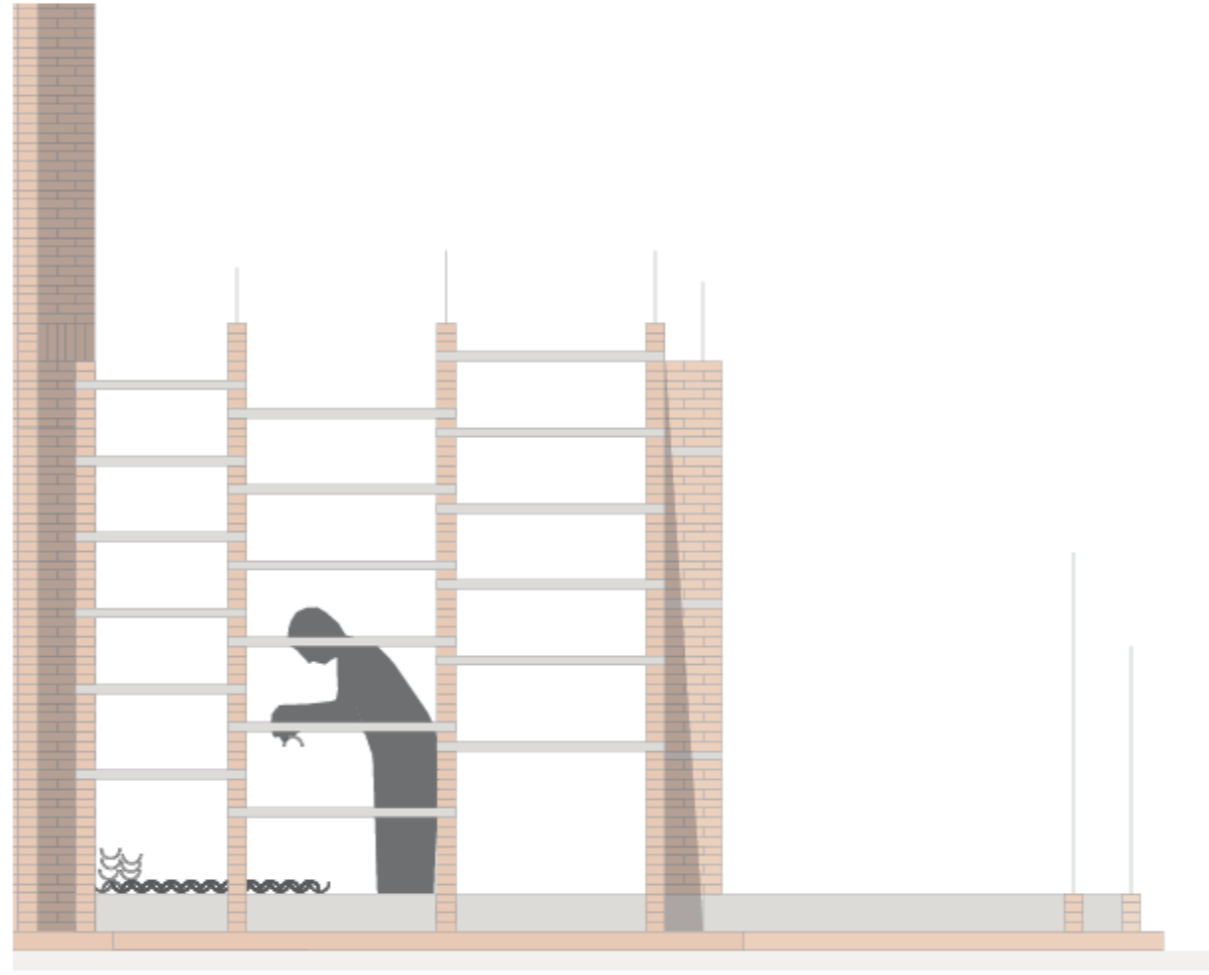
work in progress



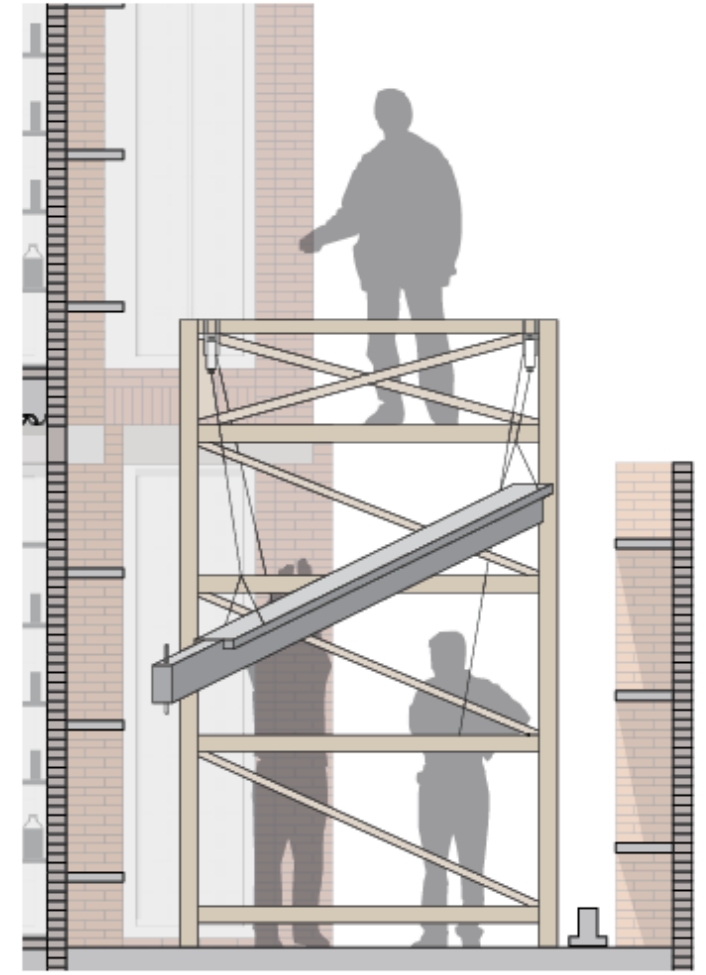
laying of bricks



laying of the facade elements

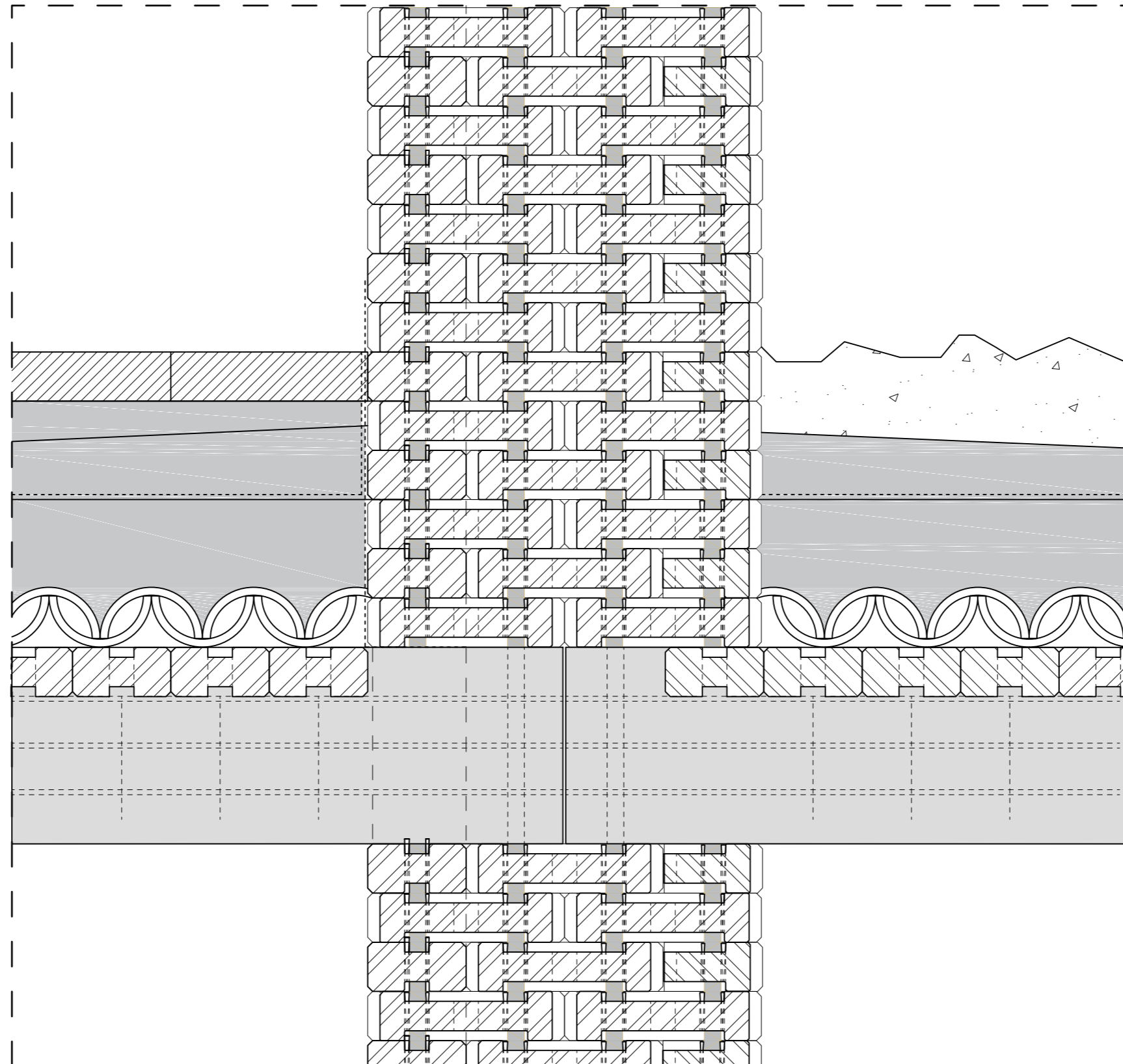


laying of the bamboo floors



casting and hoisting the concrete beams

detail after



kampung time line



year 0



year 5



year 10



conclusion

