

WELCOME!



Urban Resilience Through Community-Driven Architecture: The Case of Uzun Çarşı

Explore Lab | Graduation Presentation

09.04.25 | P5

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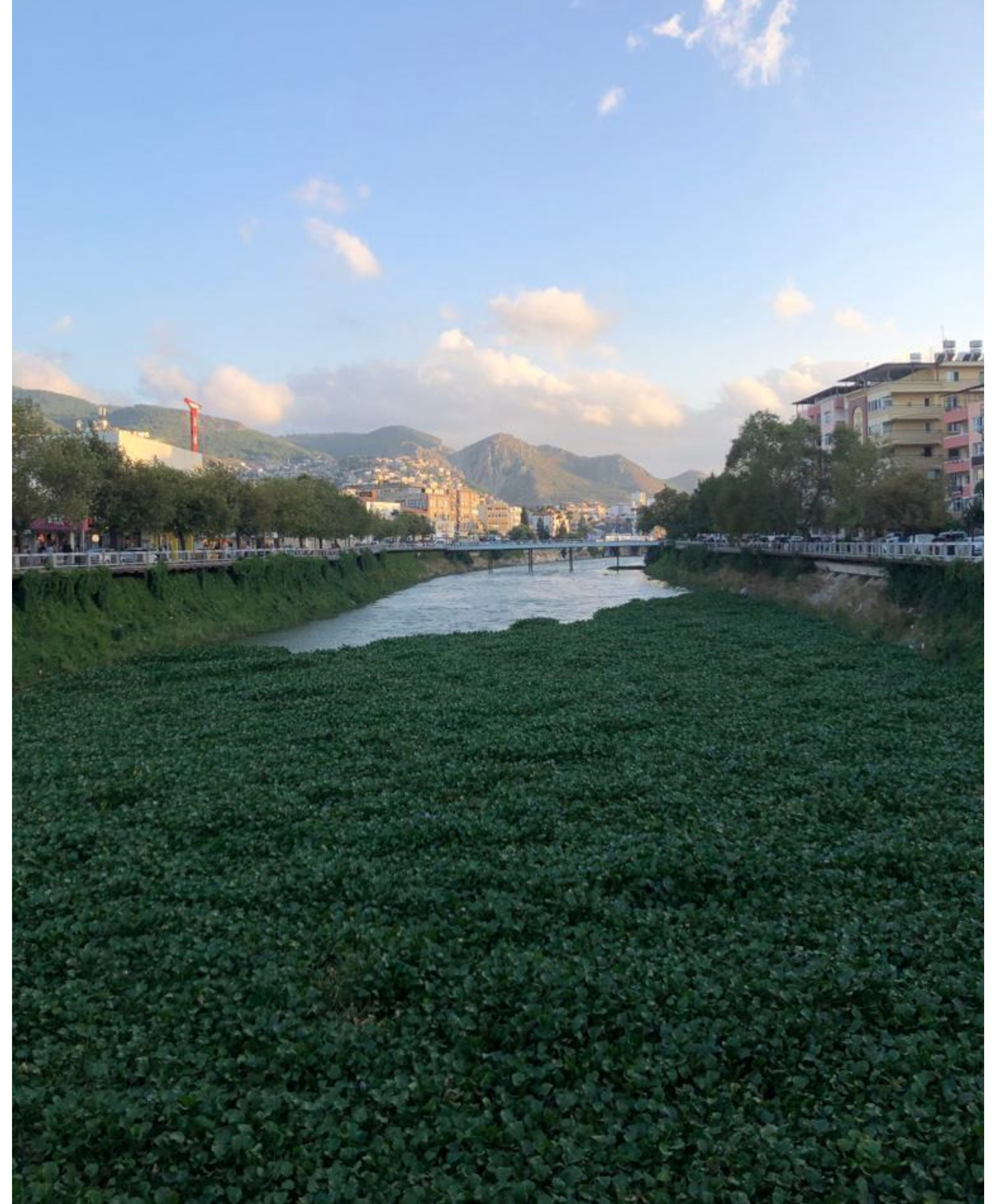
Rufus van den Ban



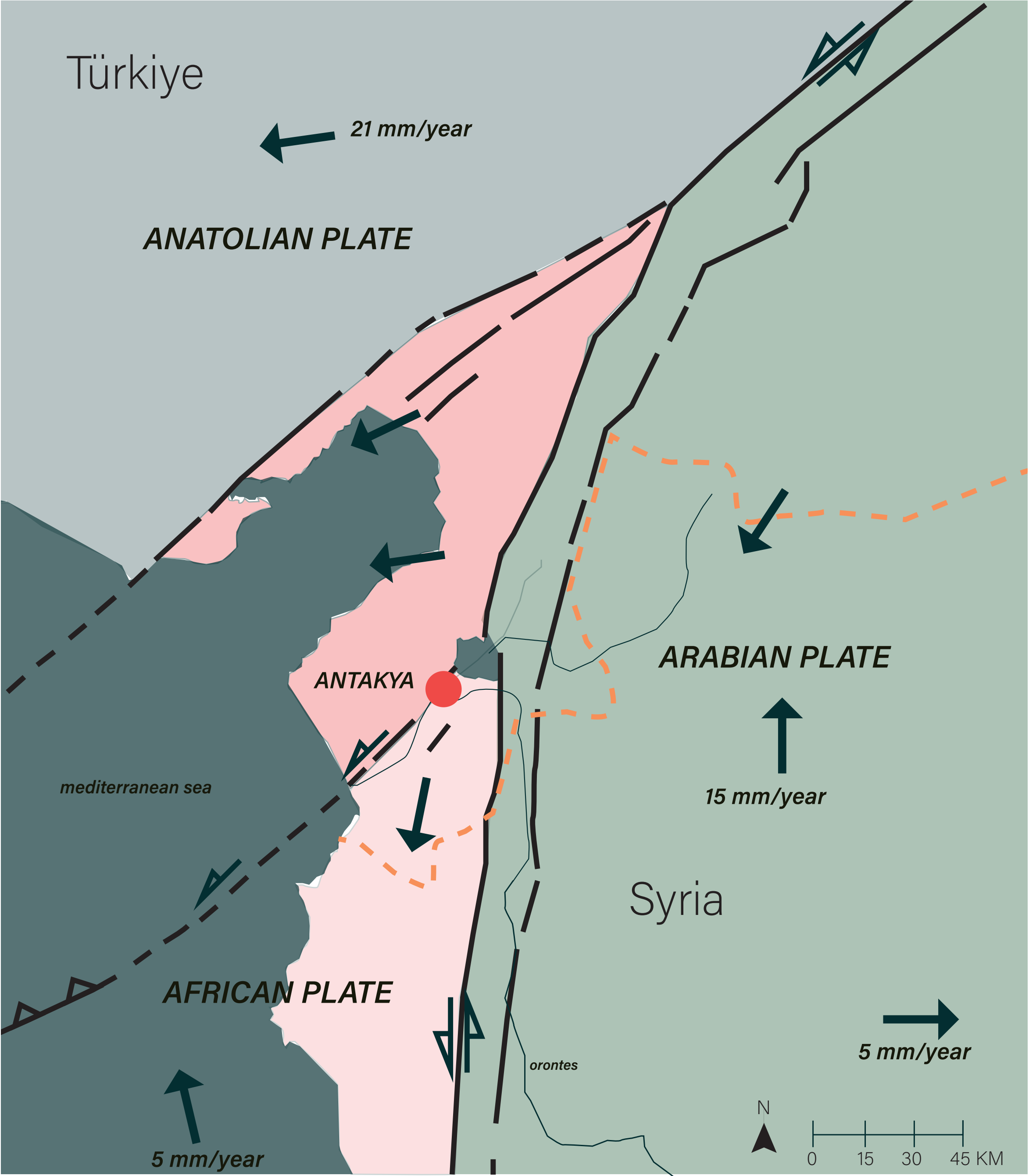
Fascination.



Fascination.

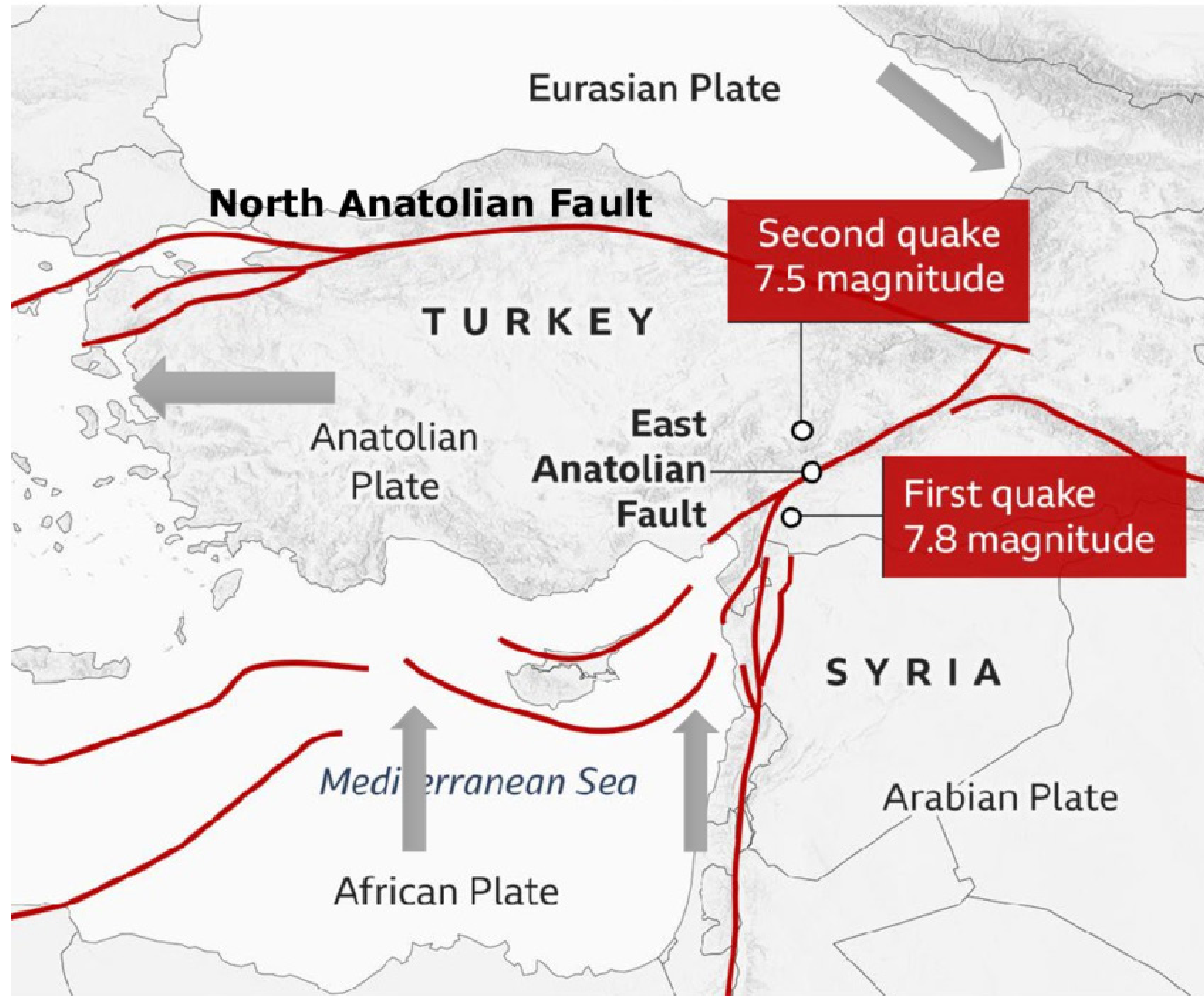


Fascination.



Earthquake.

6 February 2023 | 4:17



6 February 2023 | 4:17

350,000 km² of
damage

14 million people
affected

39,000
buildings
collapsed on the
first day

Total of
704,281 buildings
collapsed, (severe/minor)
damages

5 million
people migrated
to different
regions

53,537 deaths
in Türkiye and
8,476 deaths in
Syria

Earthquake.

Antakya, **most affected city after the earthquake.** Now a deserted city.
People from antakya fear the city wil not rise again



Earthquake.

Antakya, **most affected city after the earthquake.** Now a desserted city.
People from antakya fear the city wil not rise again



Ghosttown

80% of the
buildings left
unusable

Hope.



Hope.



Hope.



Problem statement.

The main objective of this research is:

to explore how architectural interventions can foster resilience, preserve memory, and support community-driven recovery in Antakya's Uzun Çarşı,

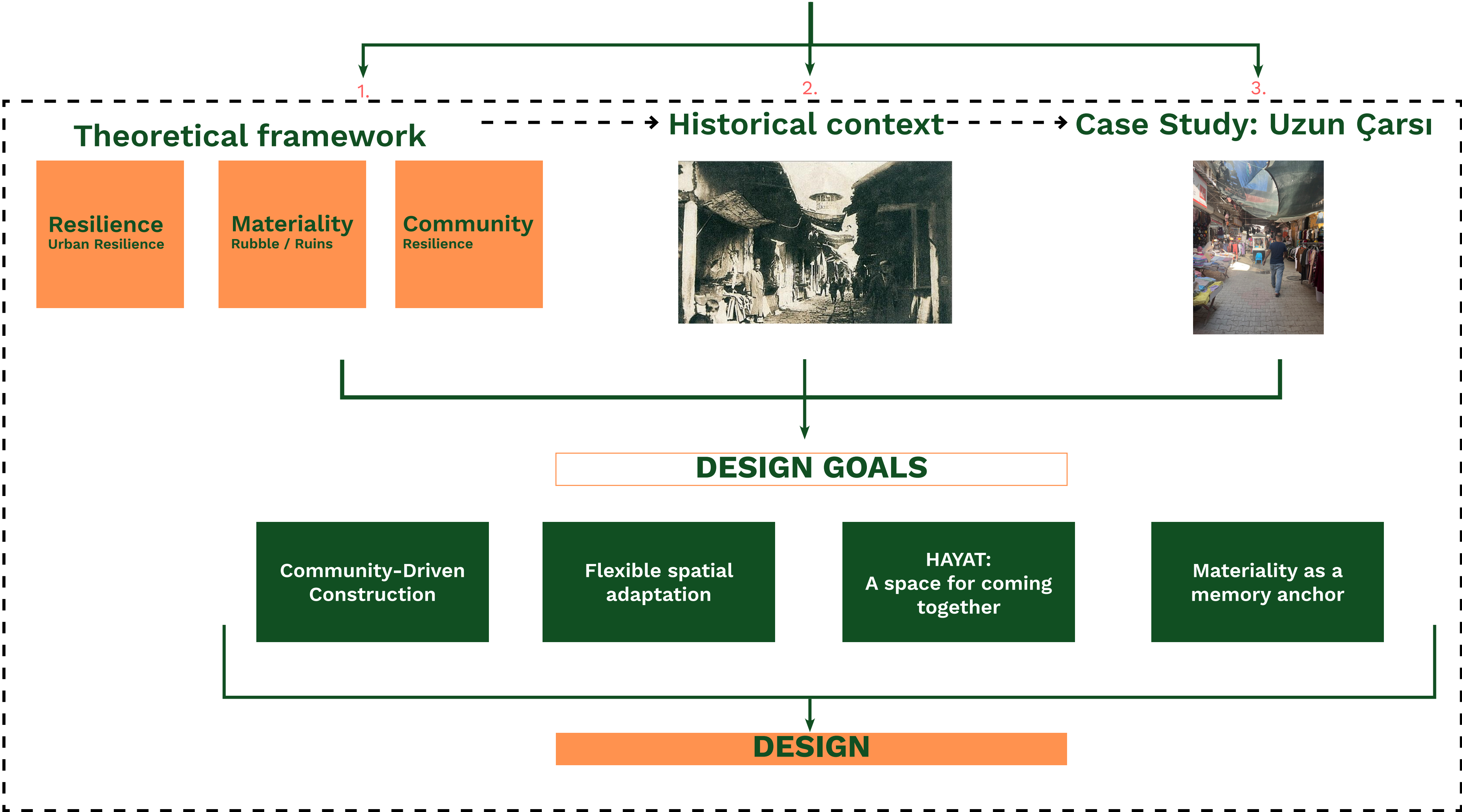
without imposing a design, but through subtle interventions that build on the resilience already present.



Research framework.

RESEARCH

“How can architectural intervention help Antakya become a more resilient city against periods of destruction?”



Resilience.

Patel & Nosal (2016):

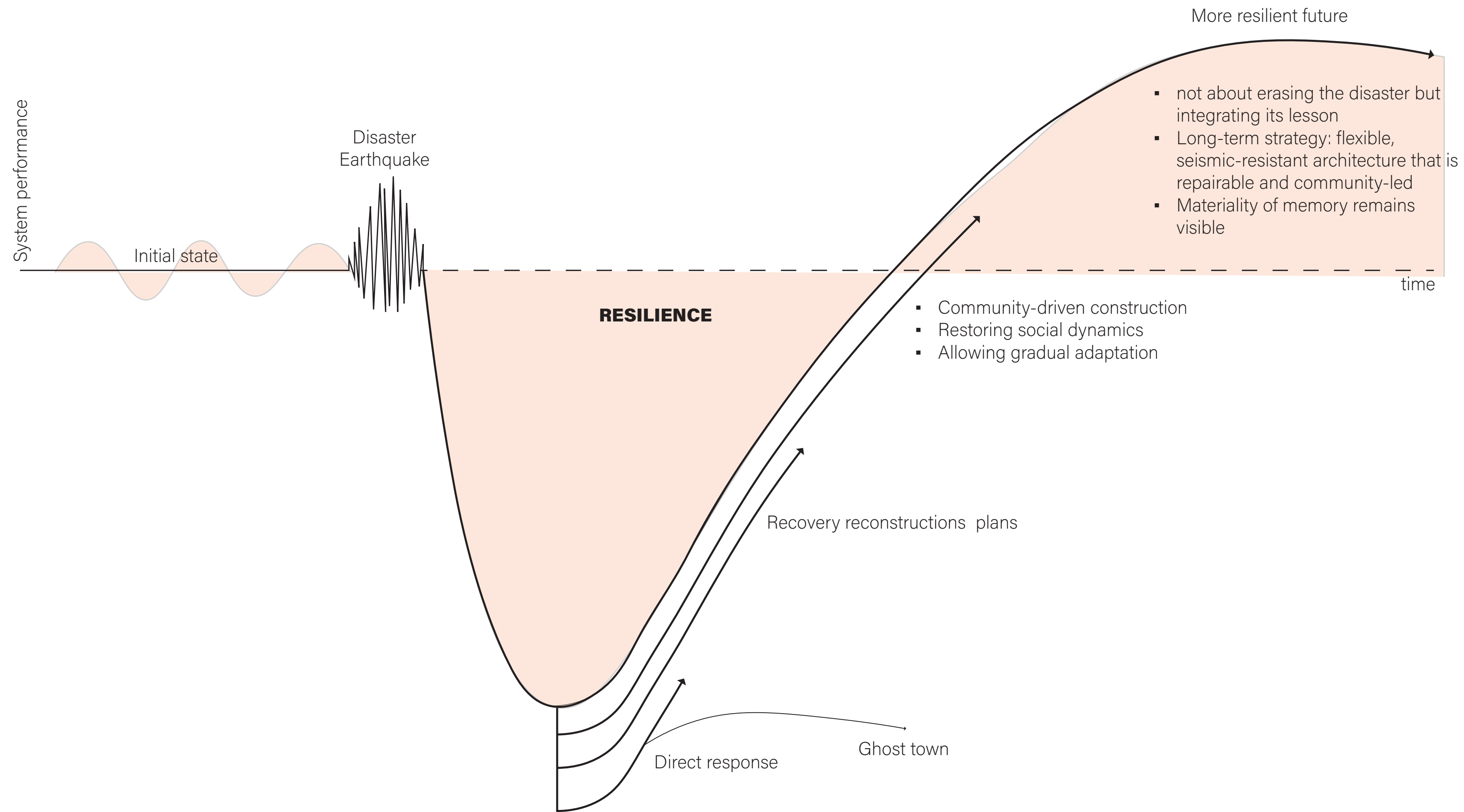
Urban resilience is the capacity of a system (city, community) to absorb shock, adapt, and thrive in the face of disruption.

Lahoud (2010):

Resilience is cognitive and perceptual, not just material.

Vale & Campanella (2005):

Memory and identity are central to resilience.



Materiality.

Ingold (2007):

Materiality is a sensory and evolving experience, not just a static property.

Gordillo (2014):

Rubble and ruins are “affectively charged matter”—they hold emotional and historical significance.

Stoler (2013):

Ruins are often reframed by governments to shape narratives of resilience—who controls the memory?

Heath-Kelly (2016):

cleaning remnants as a symbol of resilience to promote economic and political stability by governments

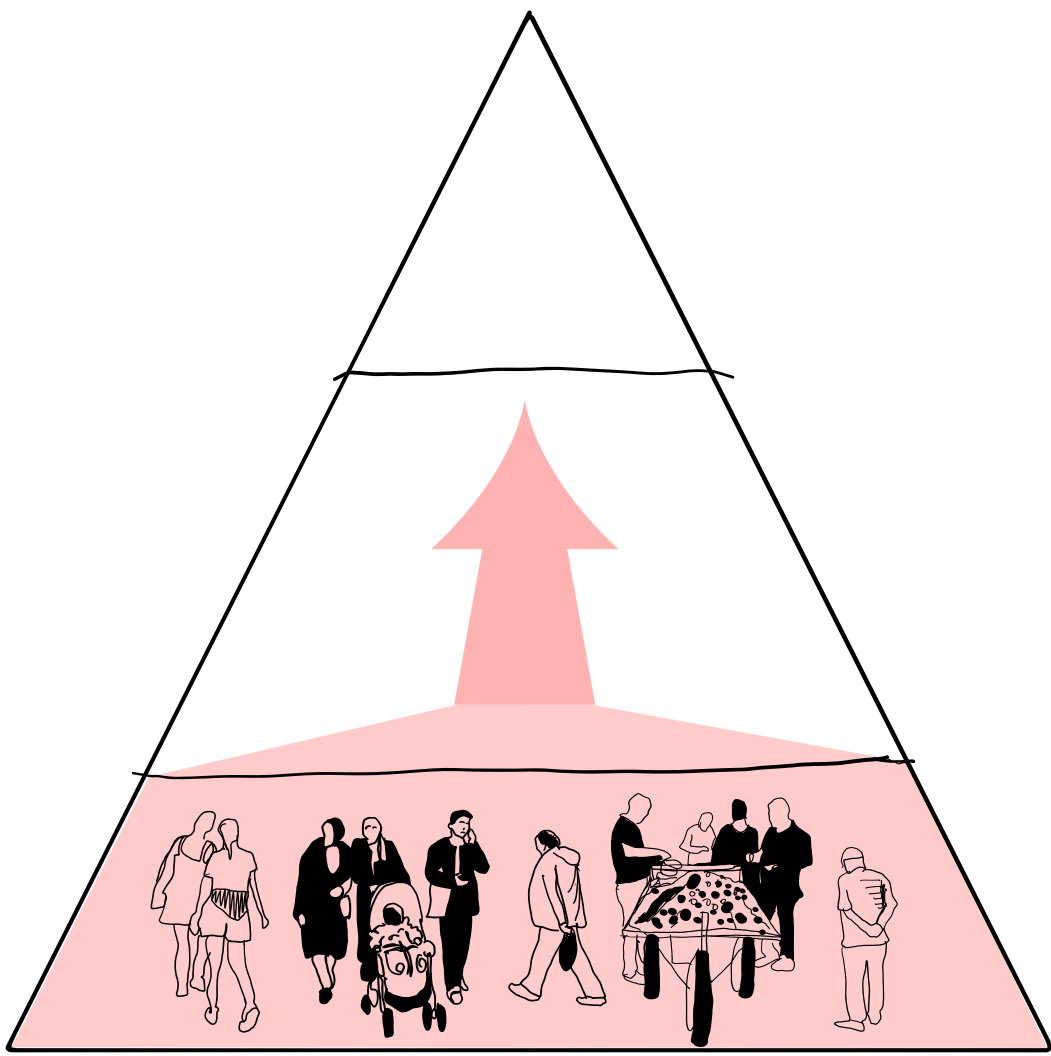
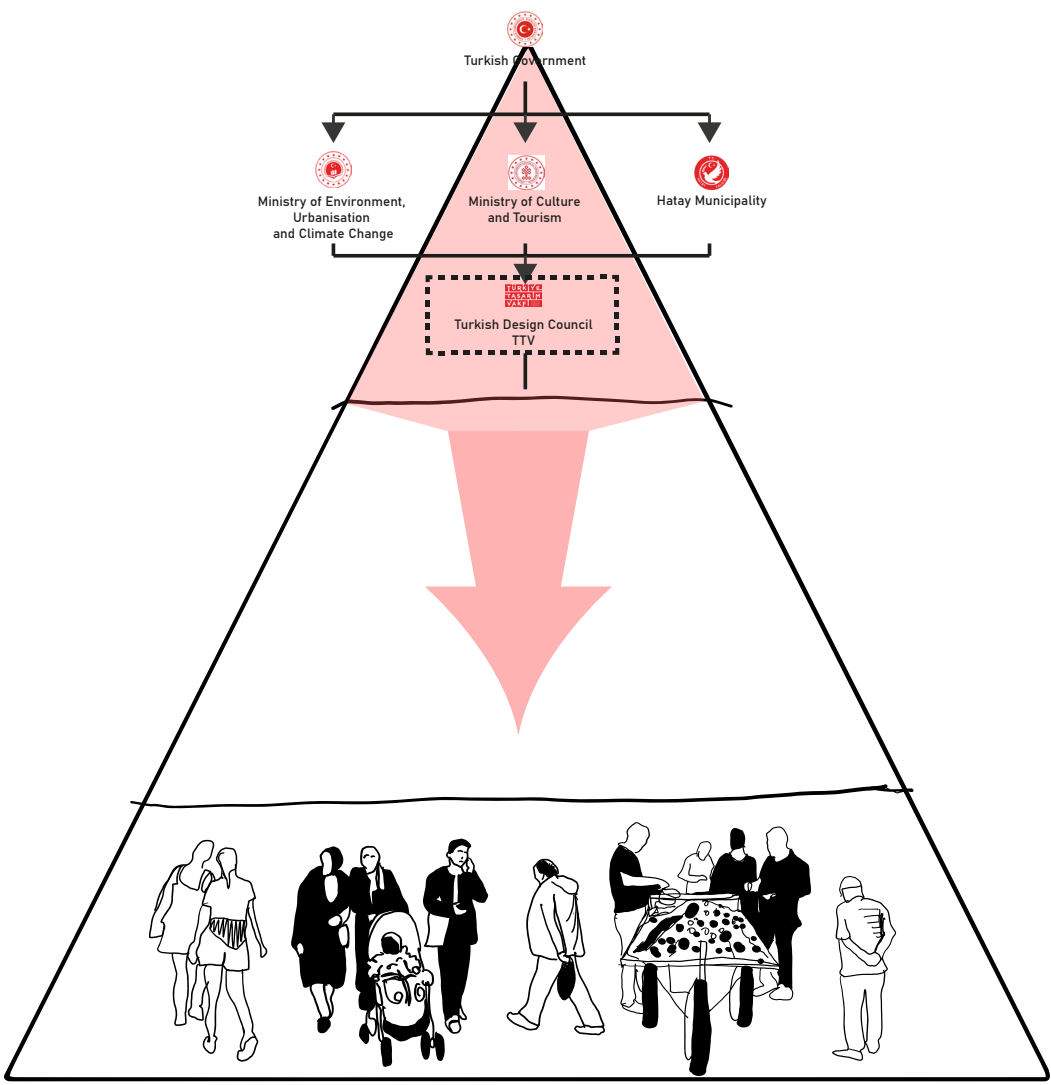
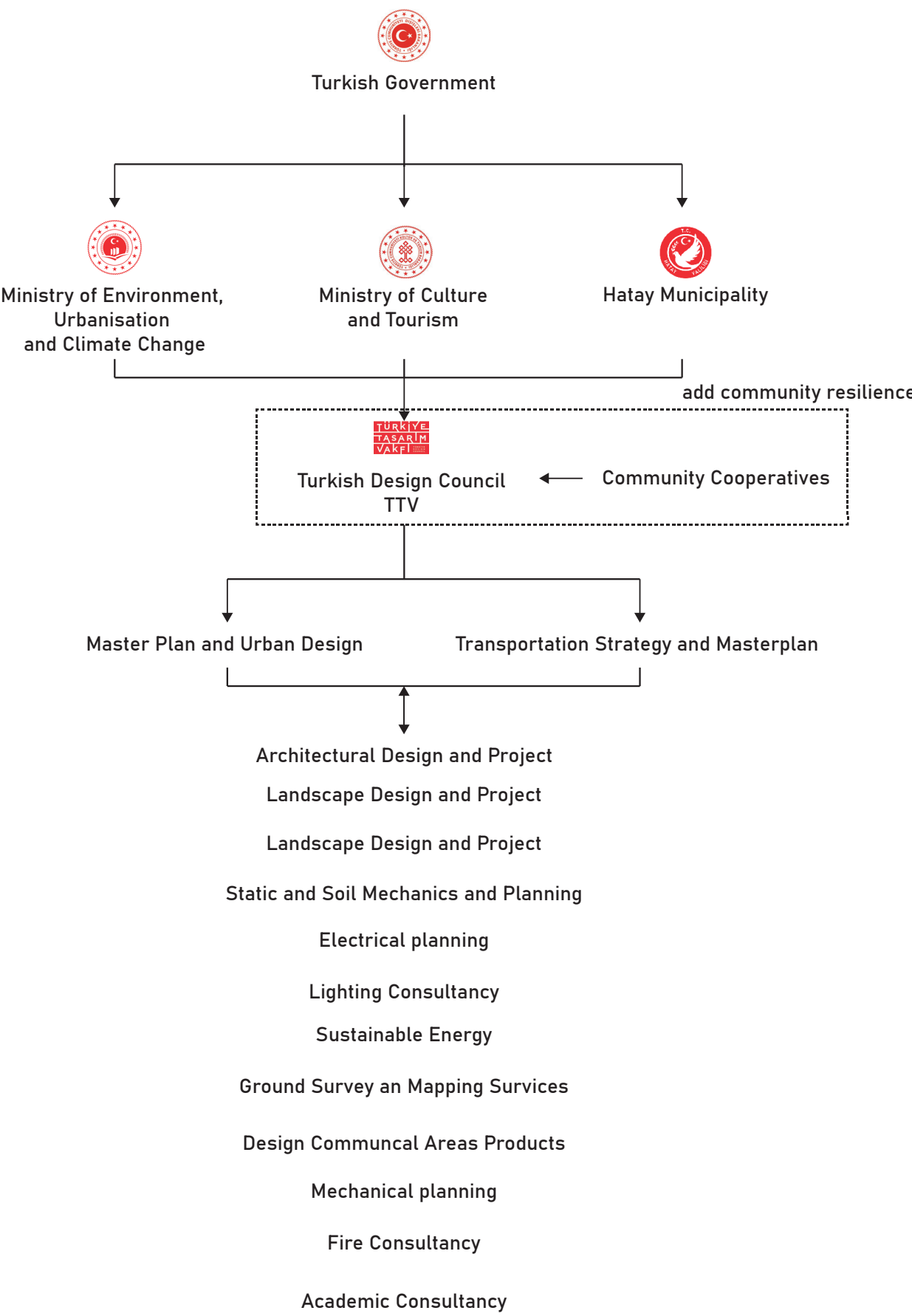


Community building.

James C. Scott (1998) :
Imposed solutions fail when they don't align with local practices.

Lahoud (2010):
Collective Healing: Architecture should respond to collective needs, not dictate them.

Dovey & King (2011):
Spatial Agency: Built environments support resilience through everyday interactions.



Top-down

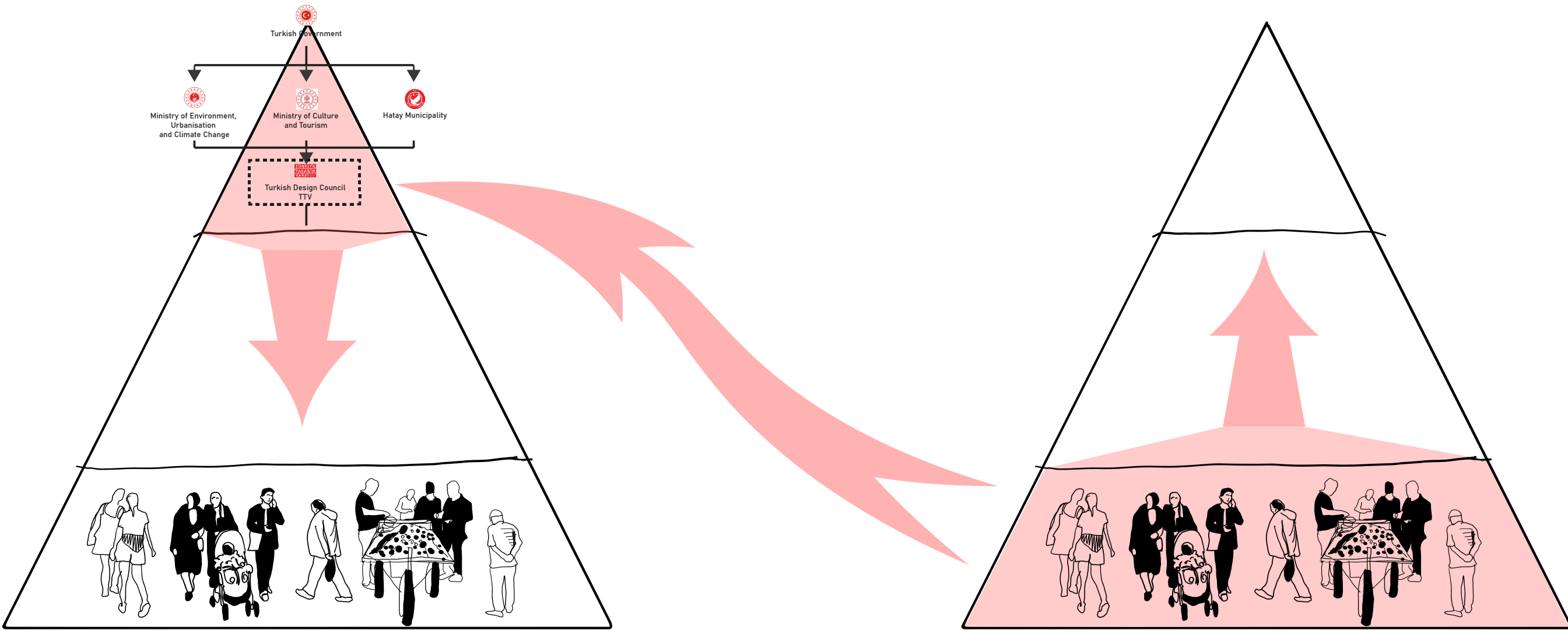
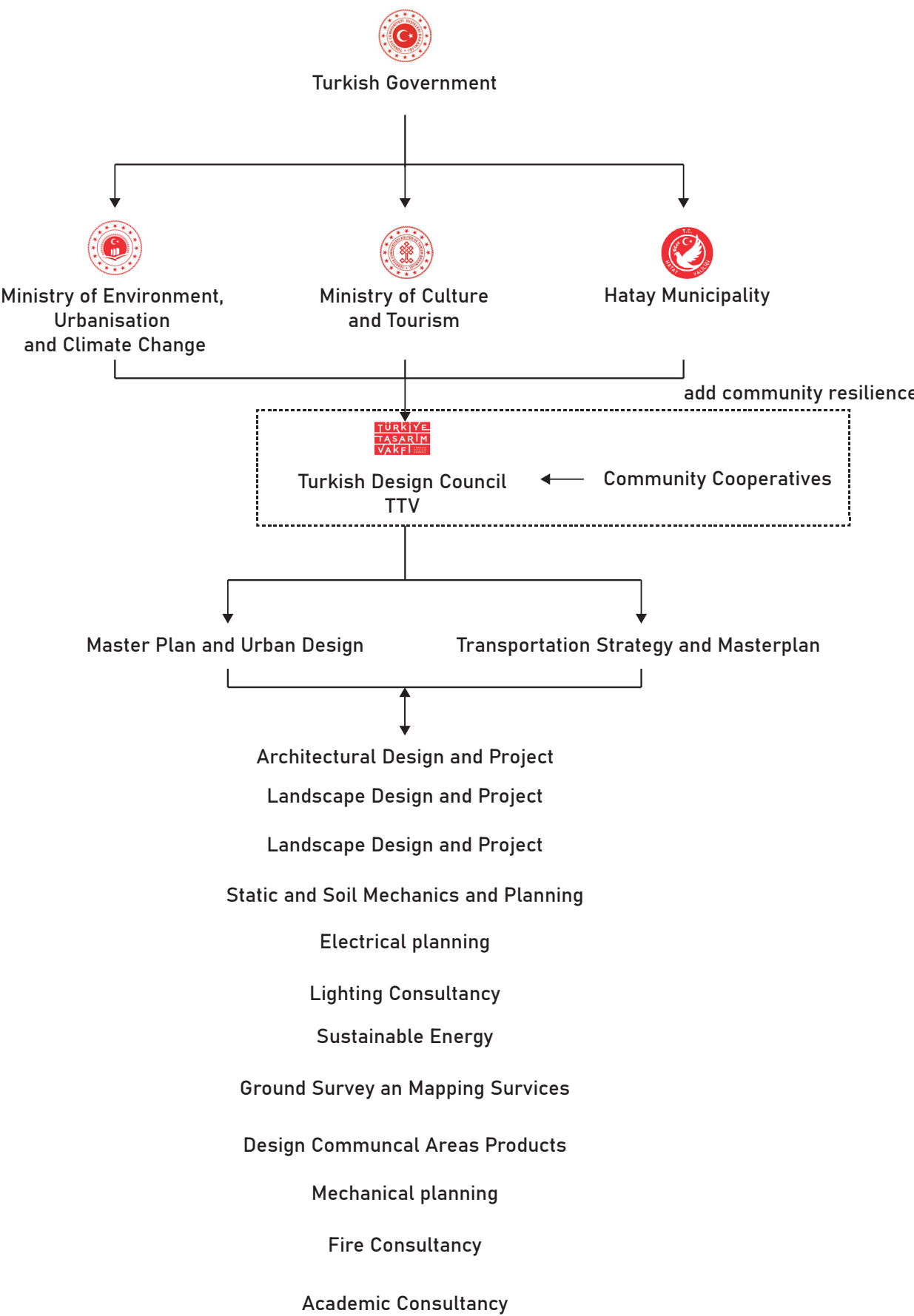
Buttom-up

Community building.

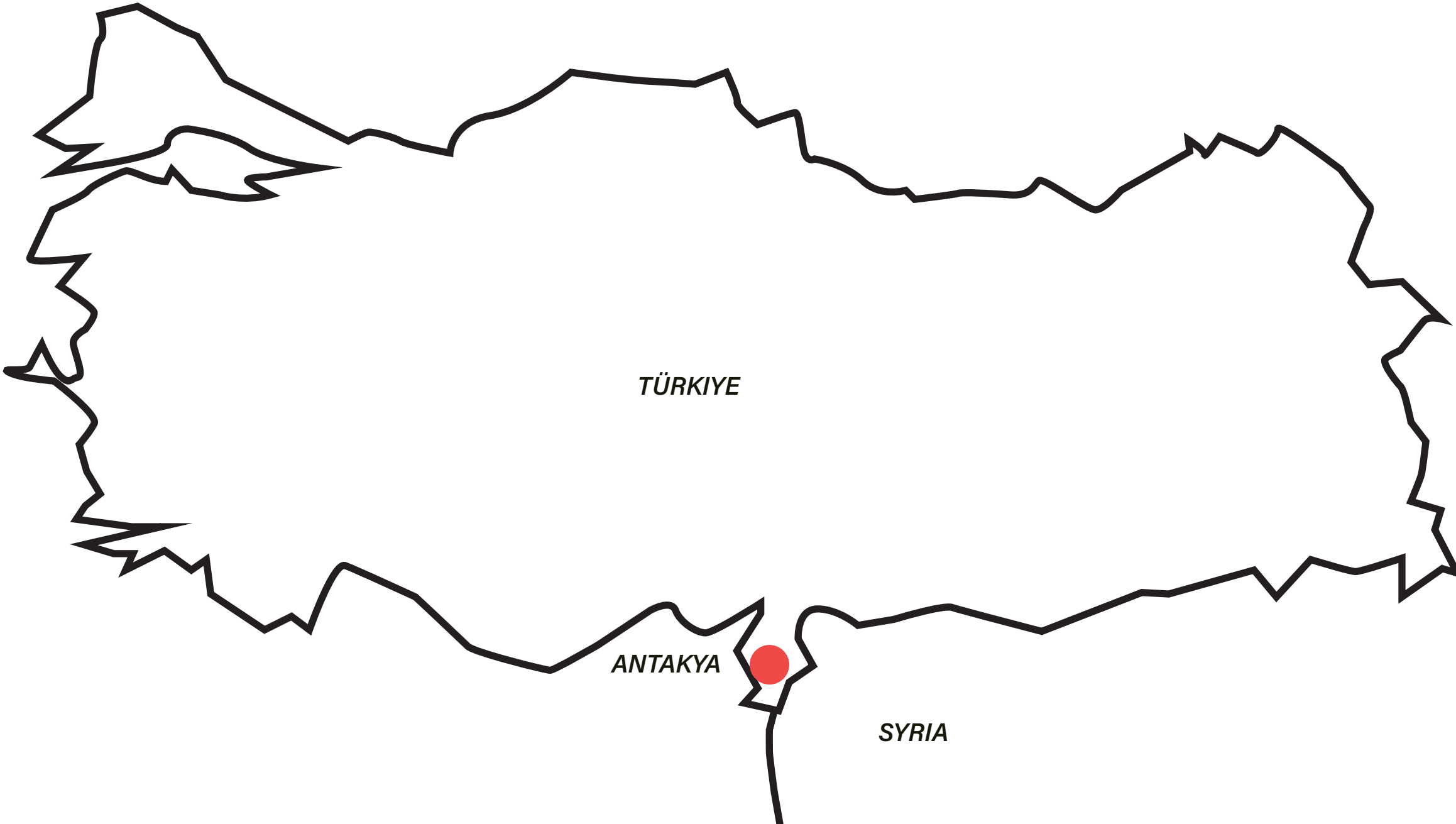
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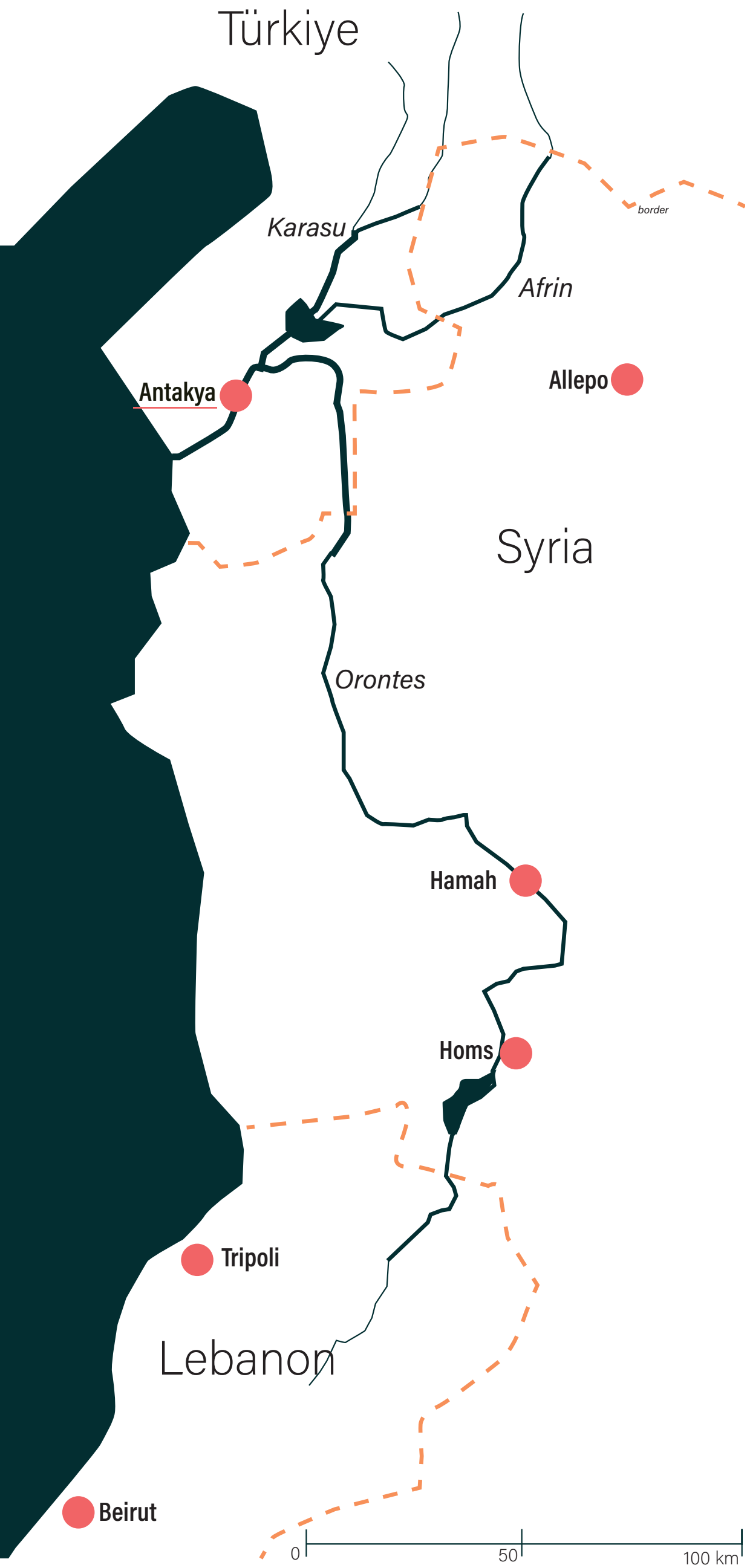
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Historical context.



Historical context.

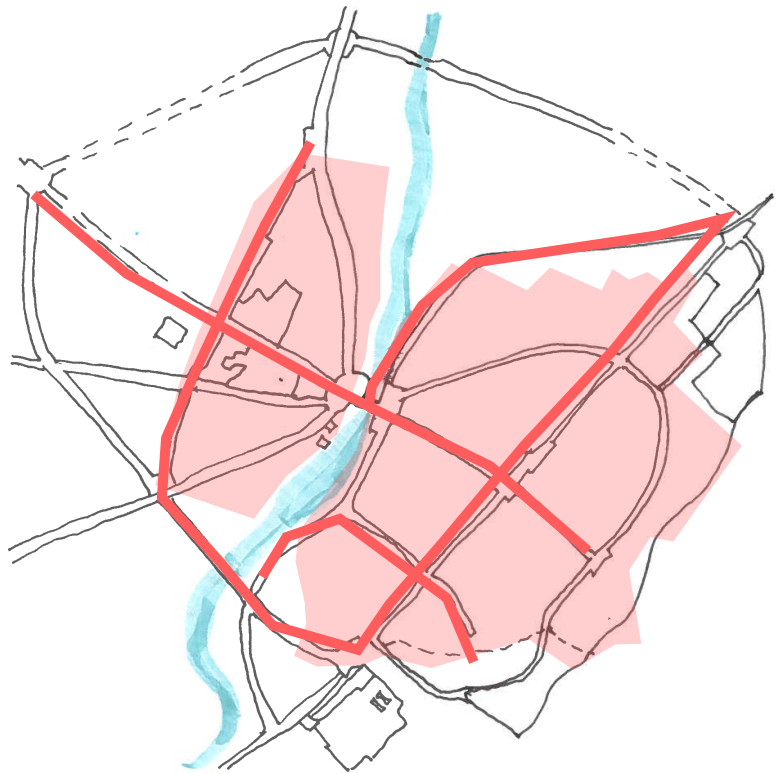
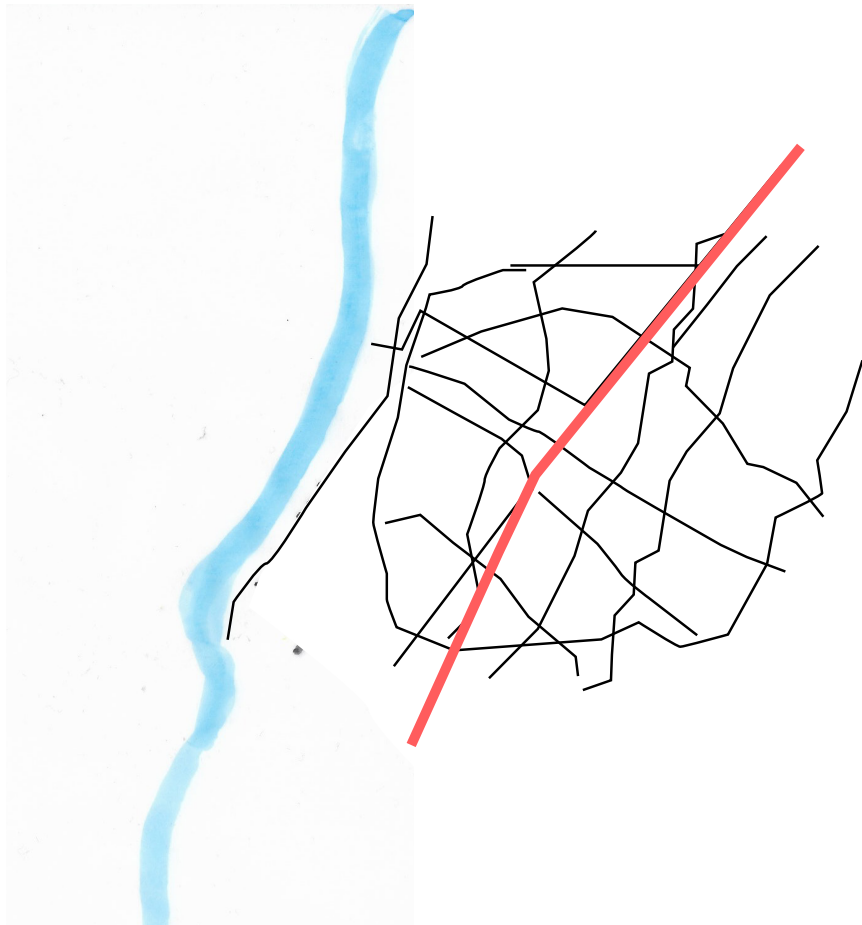
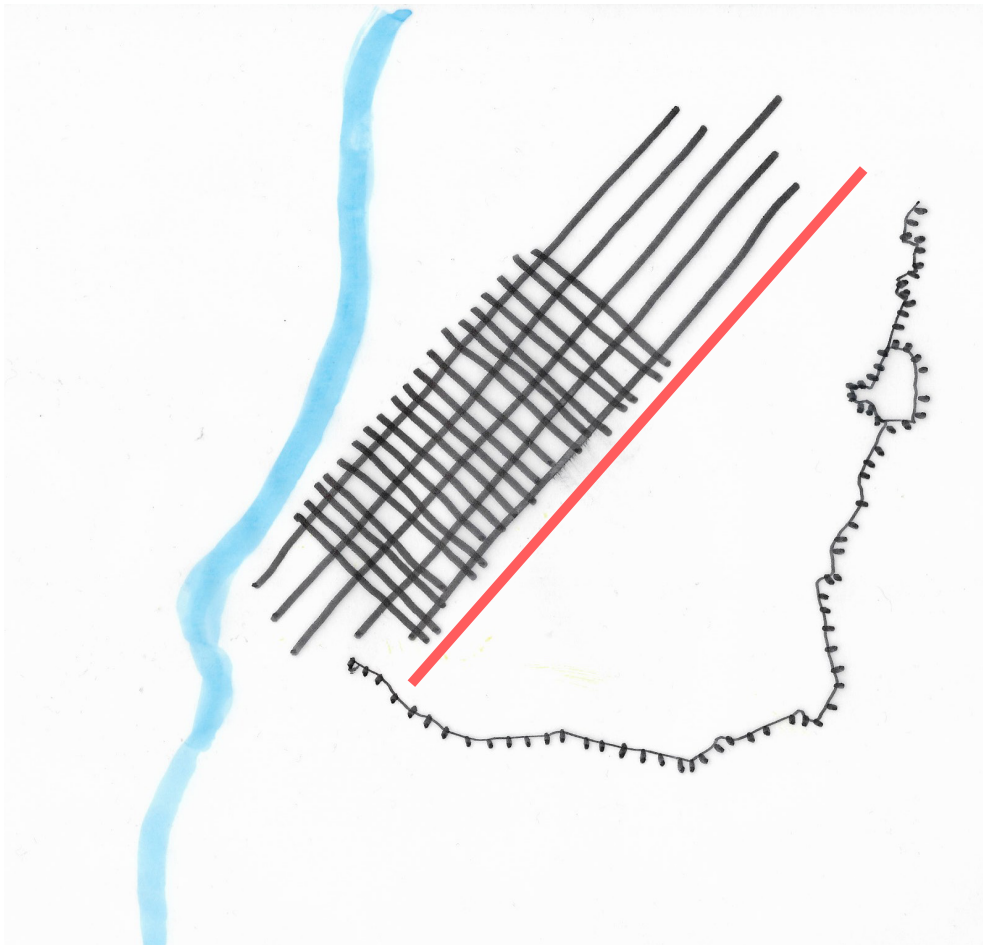
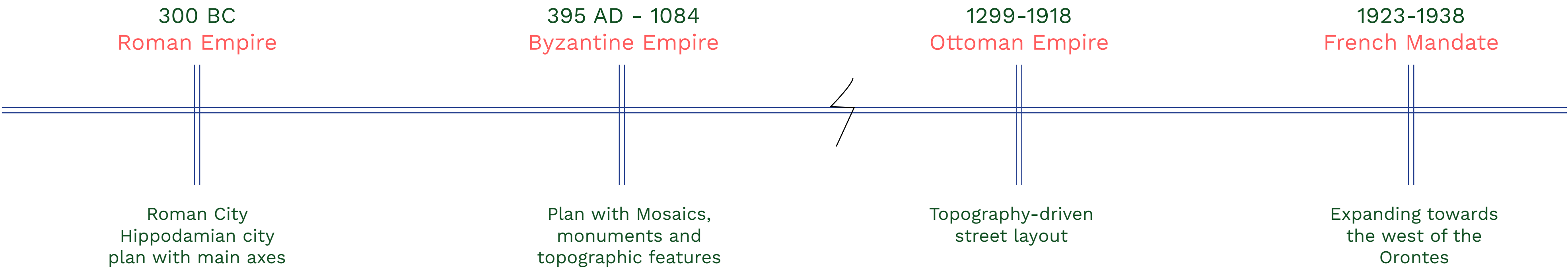


Cosmopolitanism

historically populated by
Greeks, Romans, Persians, Arabs, Orthodox Chaldeans, Syriac Melkites, Armenians and Jews



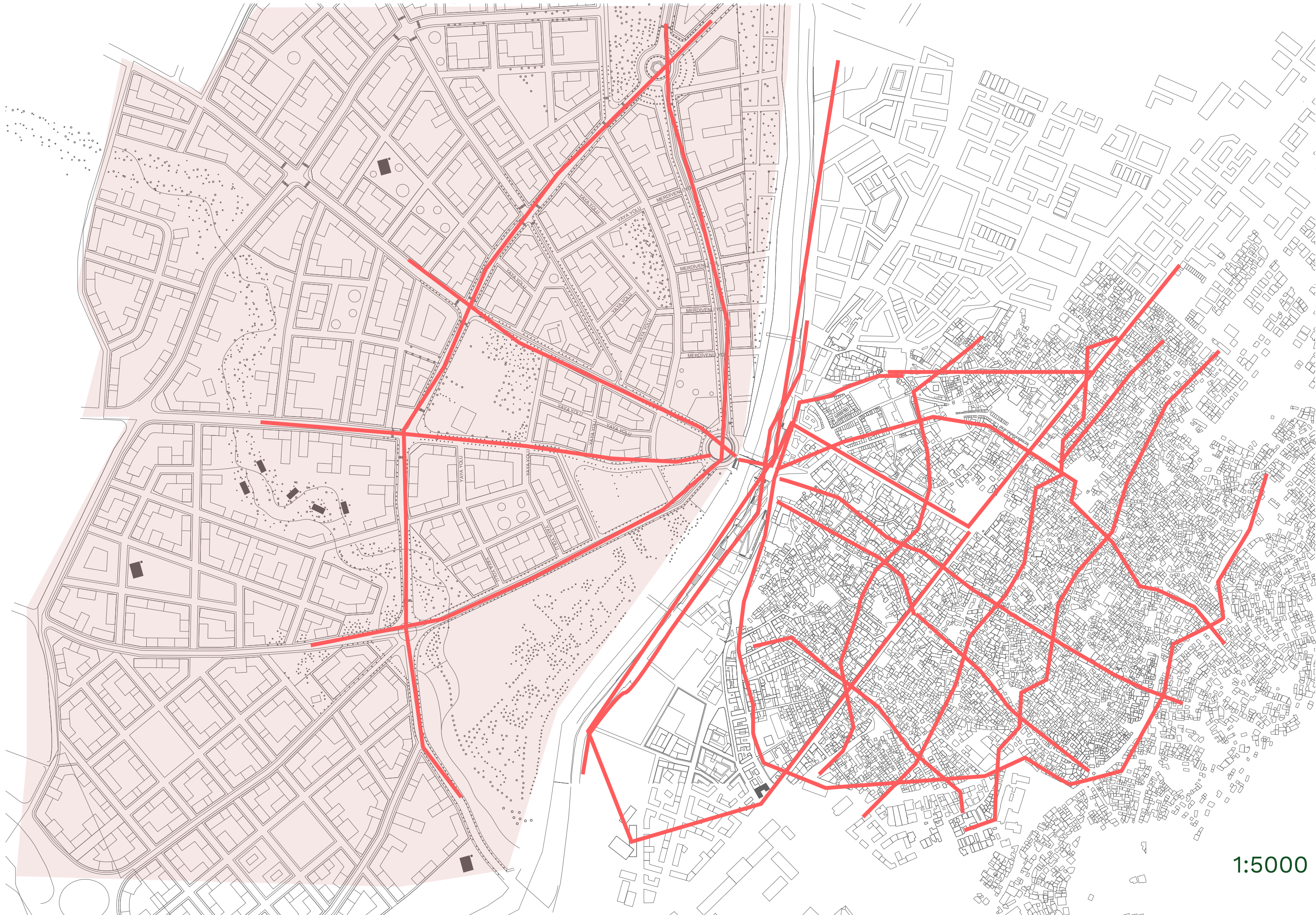
Historical context.



Historical context.

2023
Turkish Republic

Turkish Design Council
Masterplan



1:5000

Historical context



FOSTER AND PARTNERS MASTERPLAND ANTAKYA (2024)

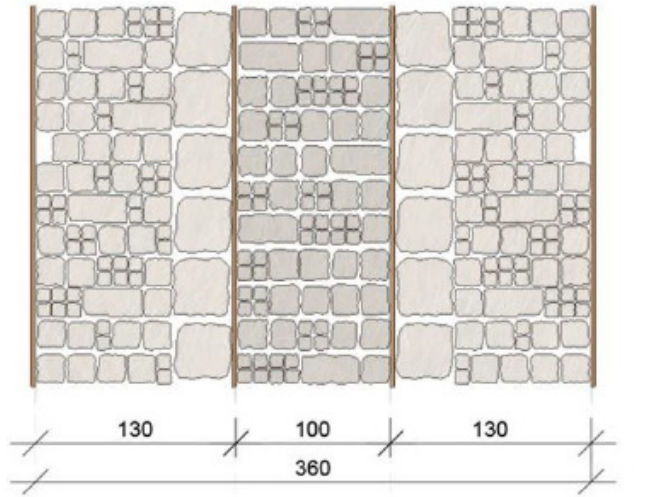
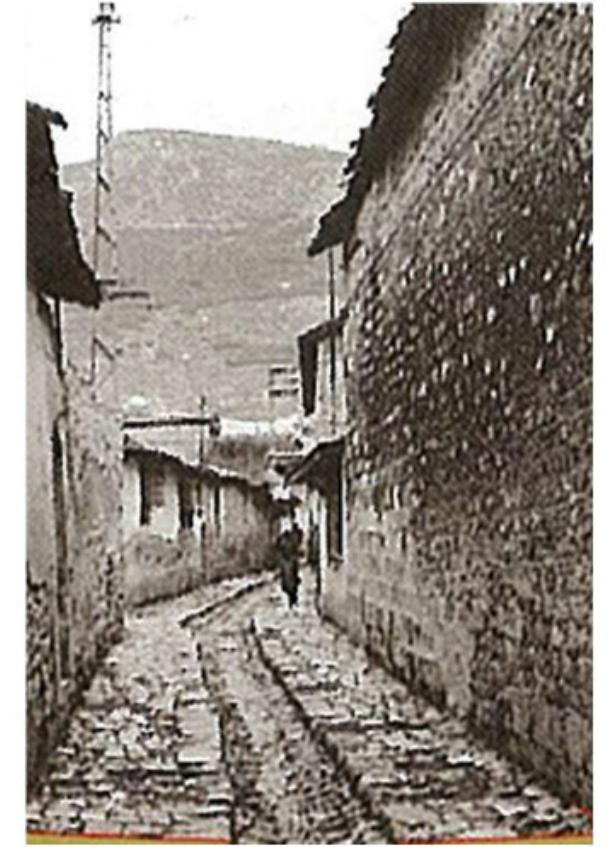
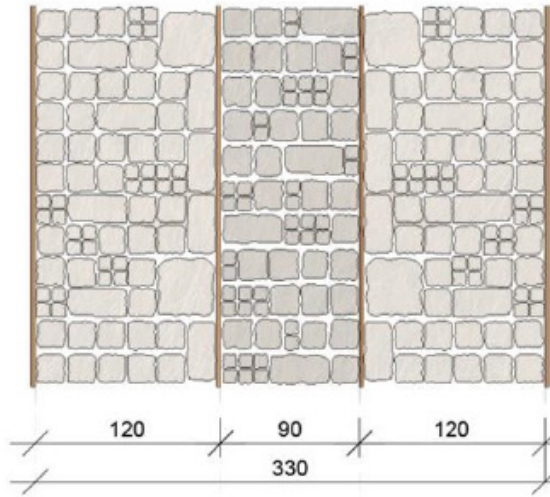
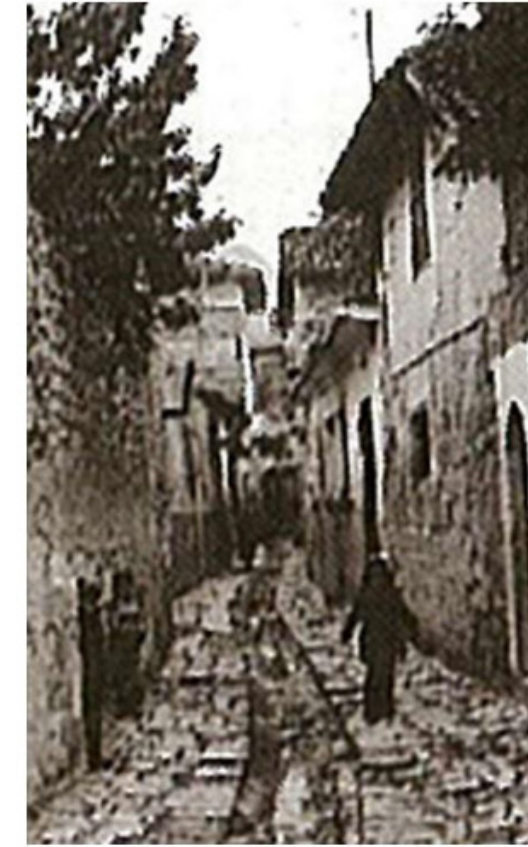
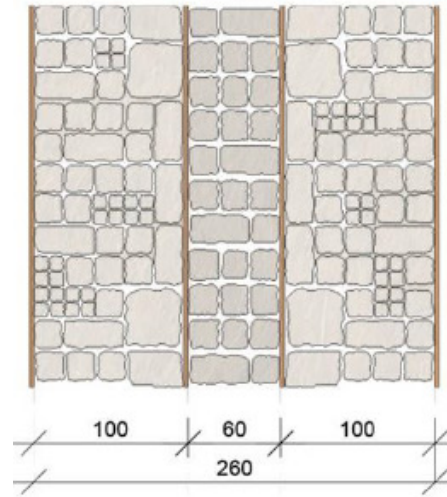
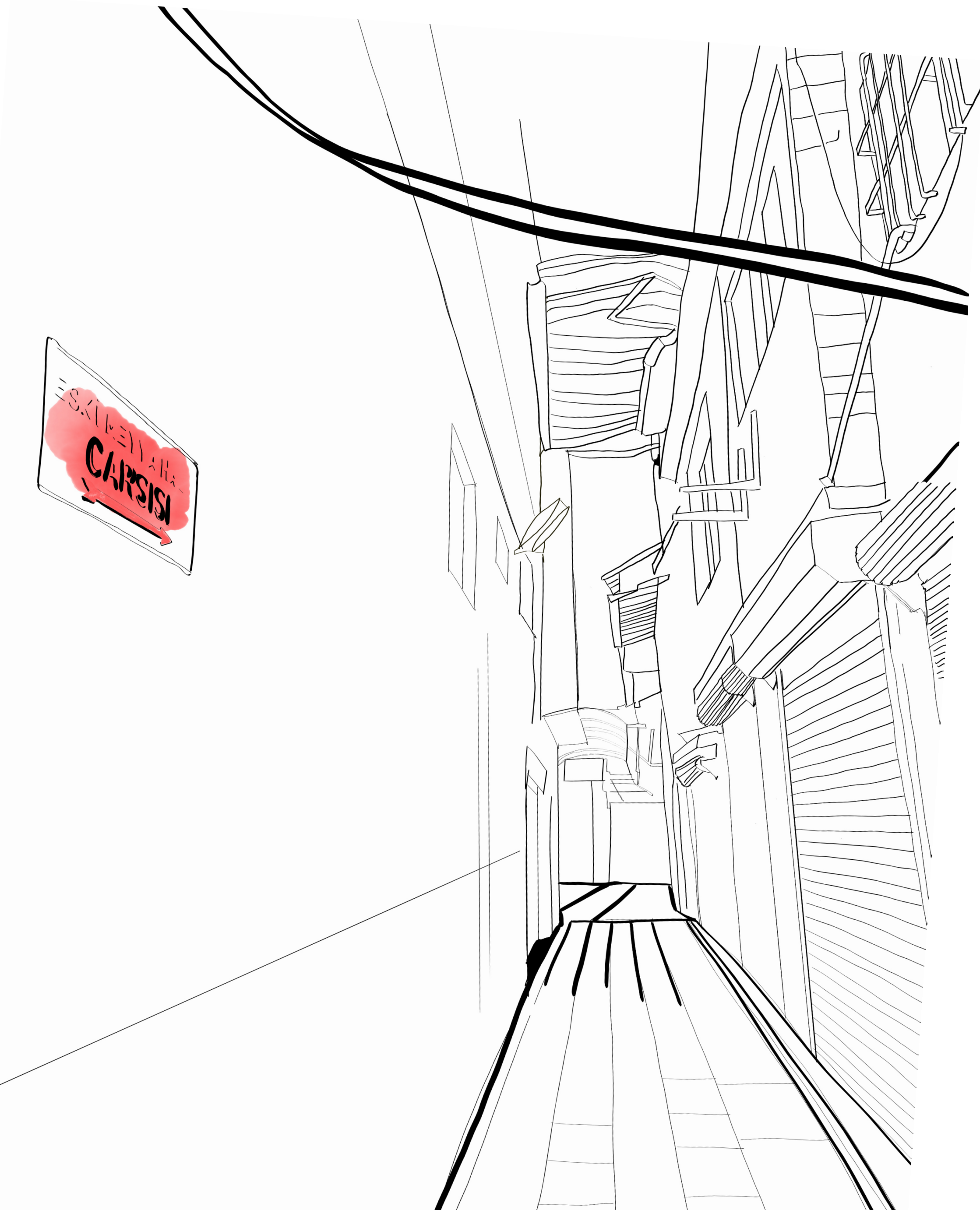
Case Study : Uzun Çarşı.



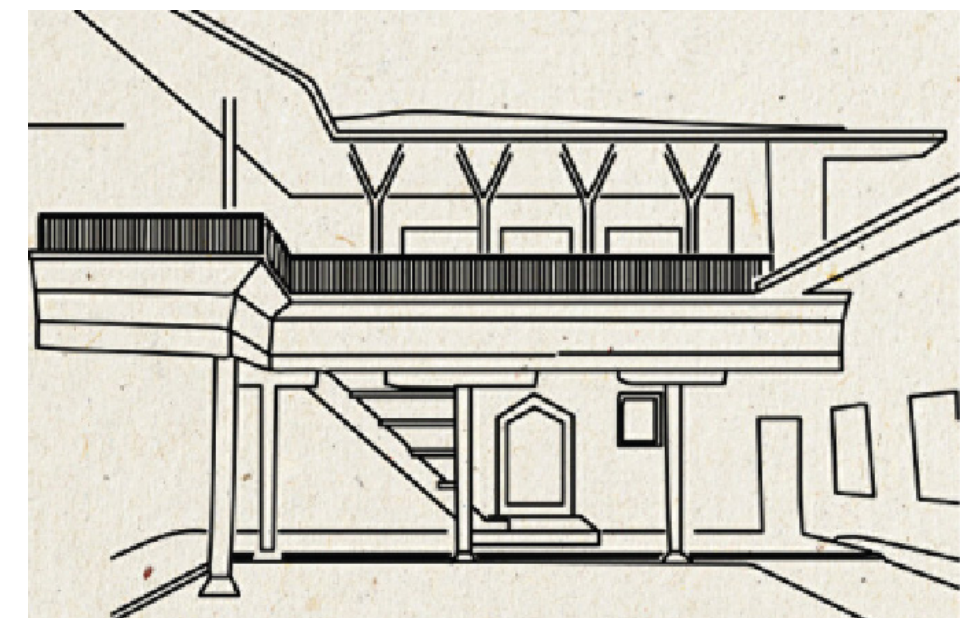
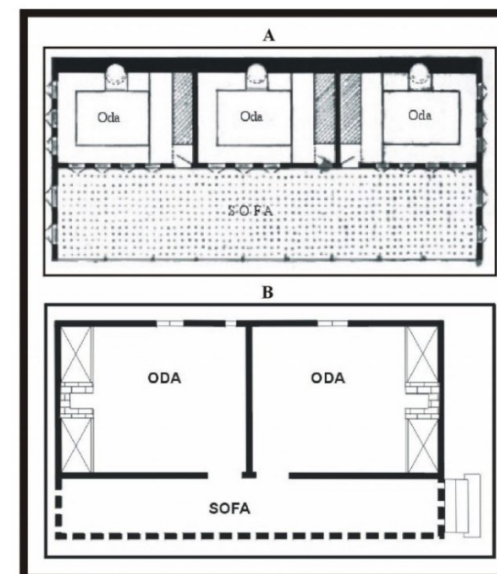
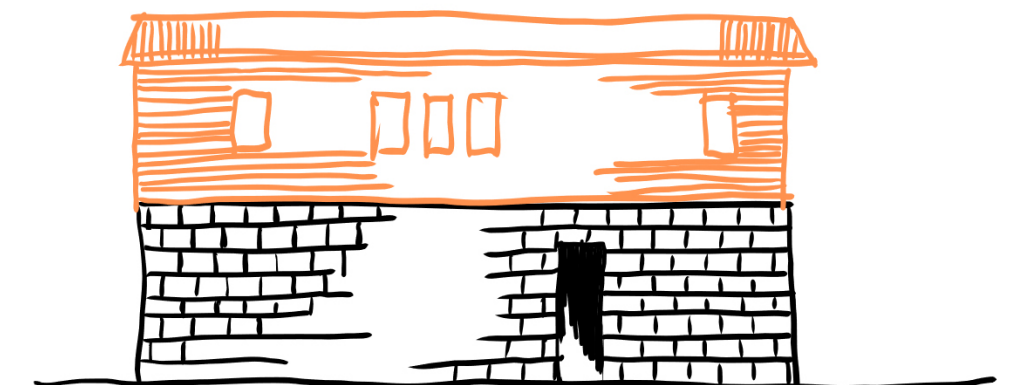
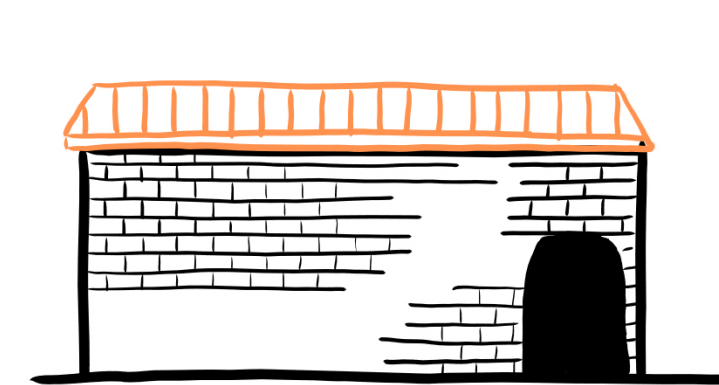
Case Study : Uzun Çarşı.



Historical context.



Wood
Stone



Hayat

Case Study : Uzun Çarşı.

Taghizadehvahed
(2015):

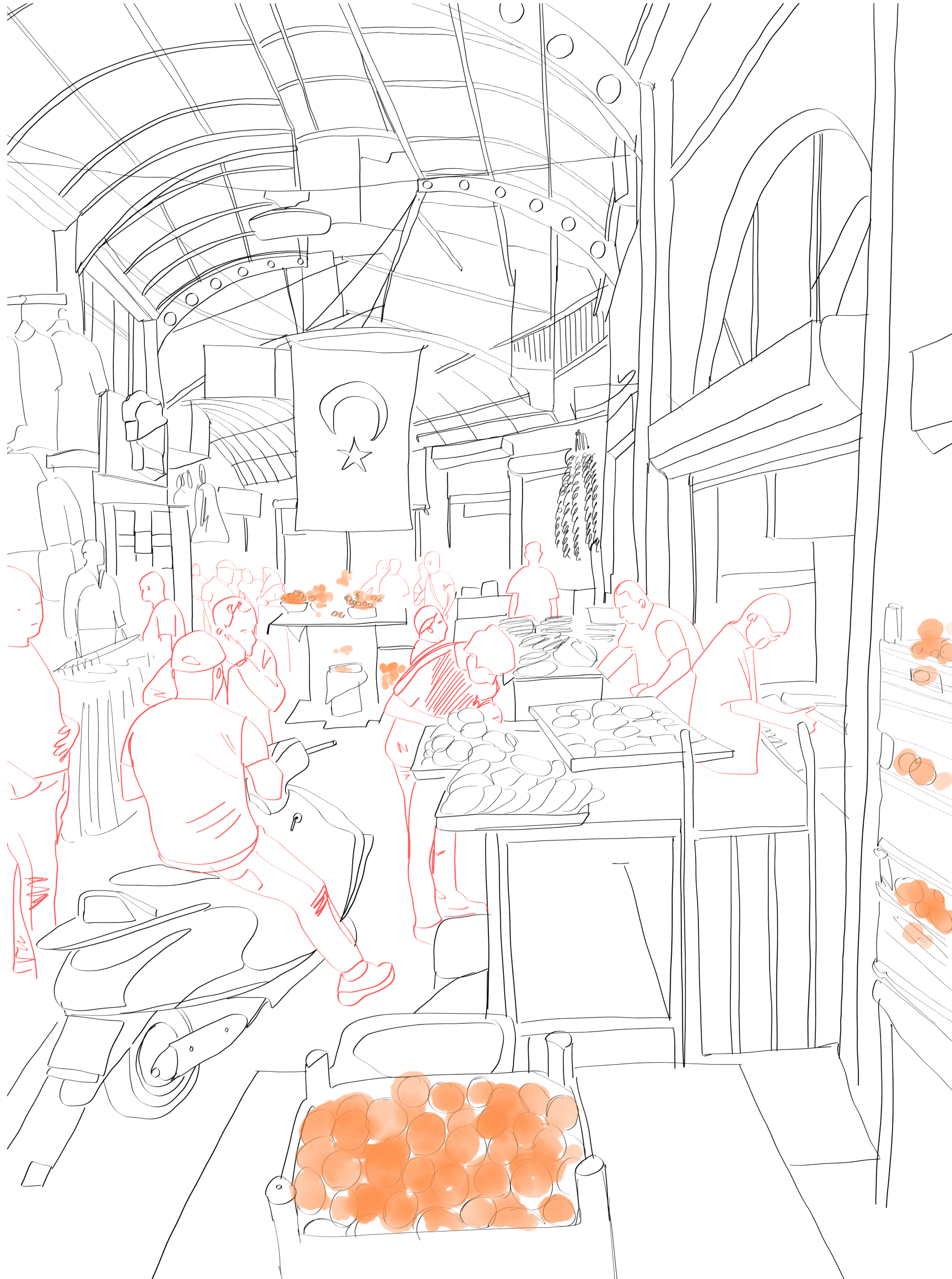
"Traditional bazaars are vital hubs of urban identity. These spaces embody a dynamic socio-cultural and economic environment, shaped through history by local traditions, trades, and interactions."



Case Study : Uzun Çarşı.



Case Study : Uzun Çarşı.



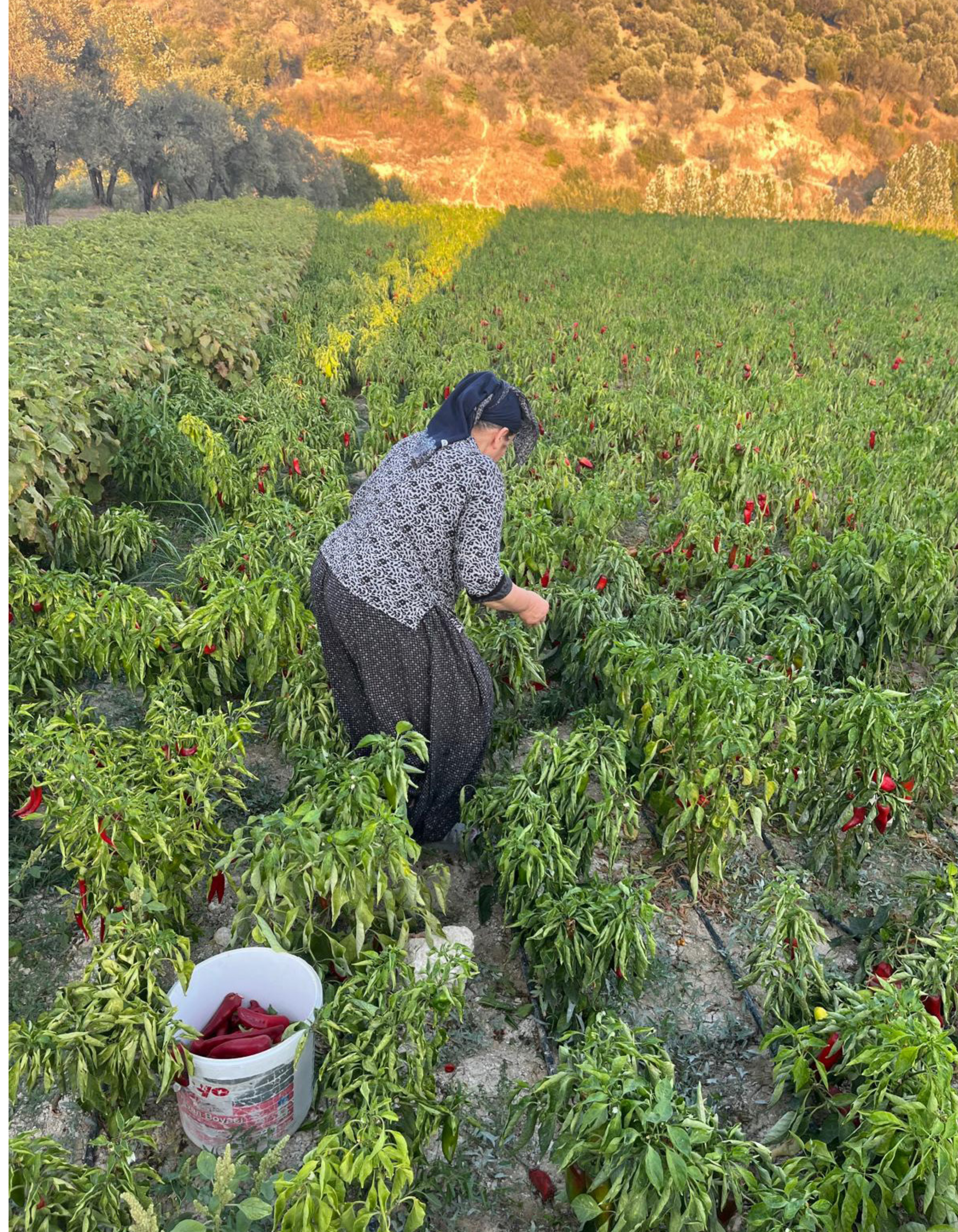
Case Study : Uzun Çarısı.



Baharat.



Baharat.



Baharat.



Baharat.



Baharat.



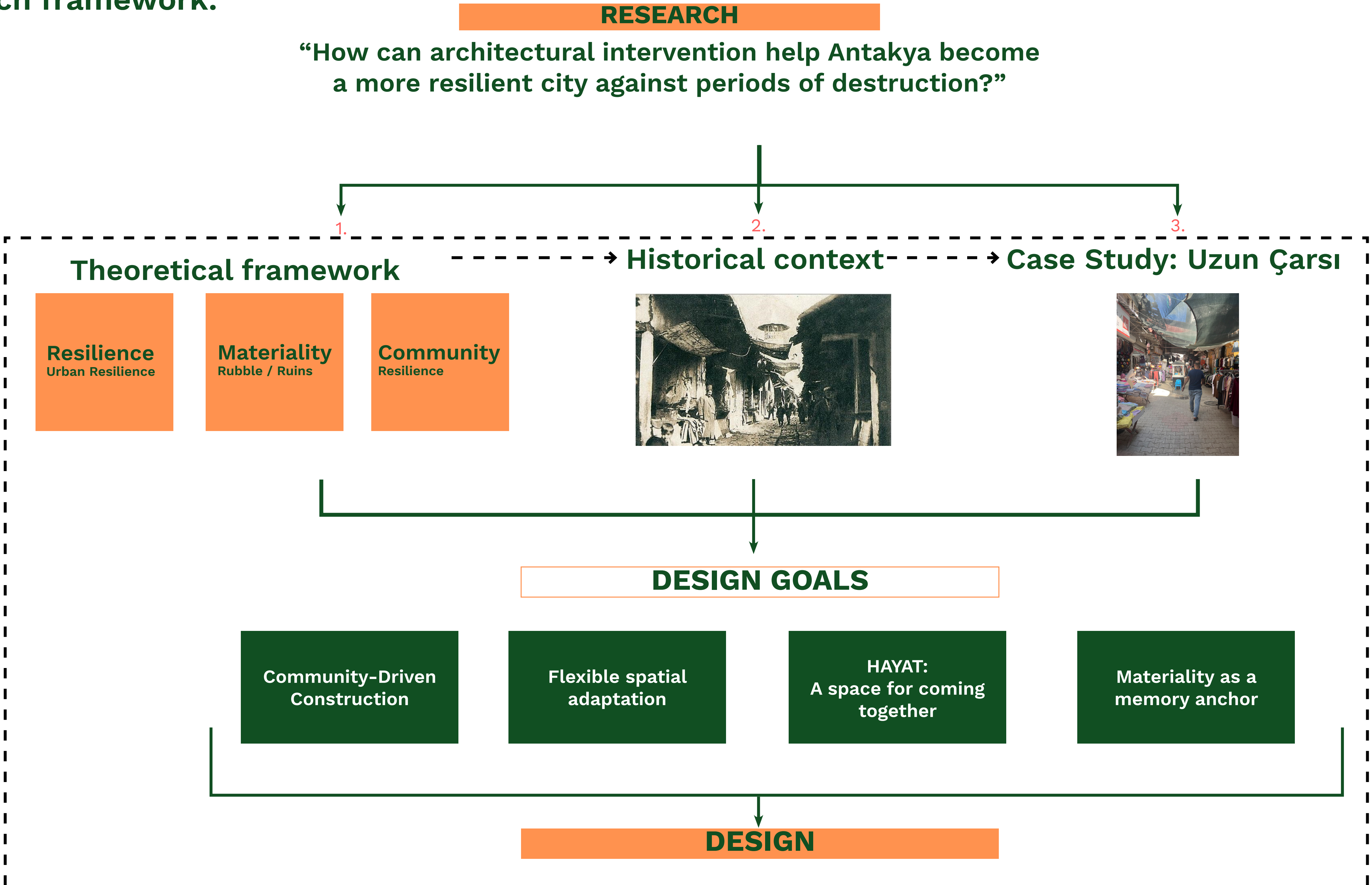
Field trip

“Helping others helps me. Even when I don’t always feel good, seeing that I can support other people, even just a little, makes me feel so much better.”

“The loss of control is the worst”

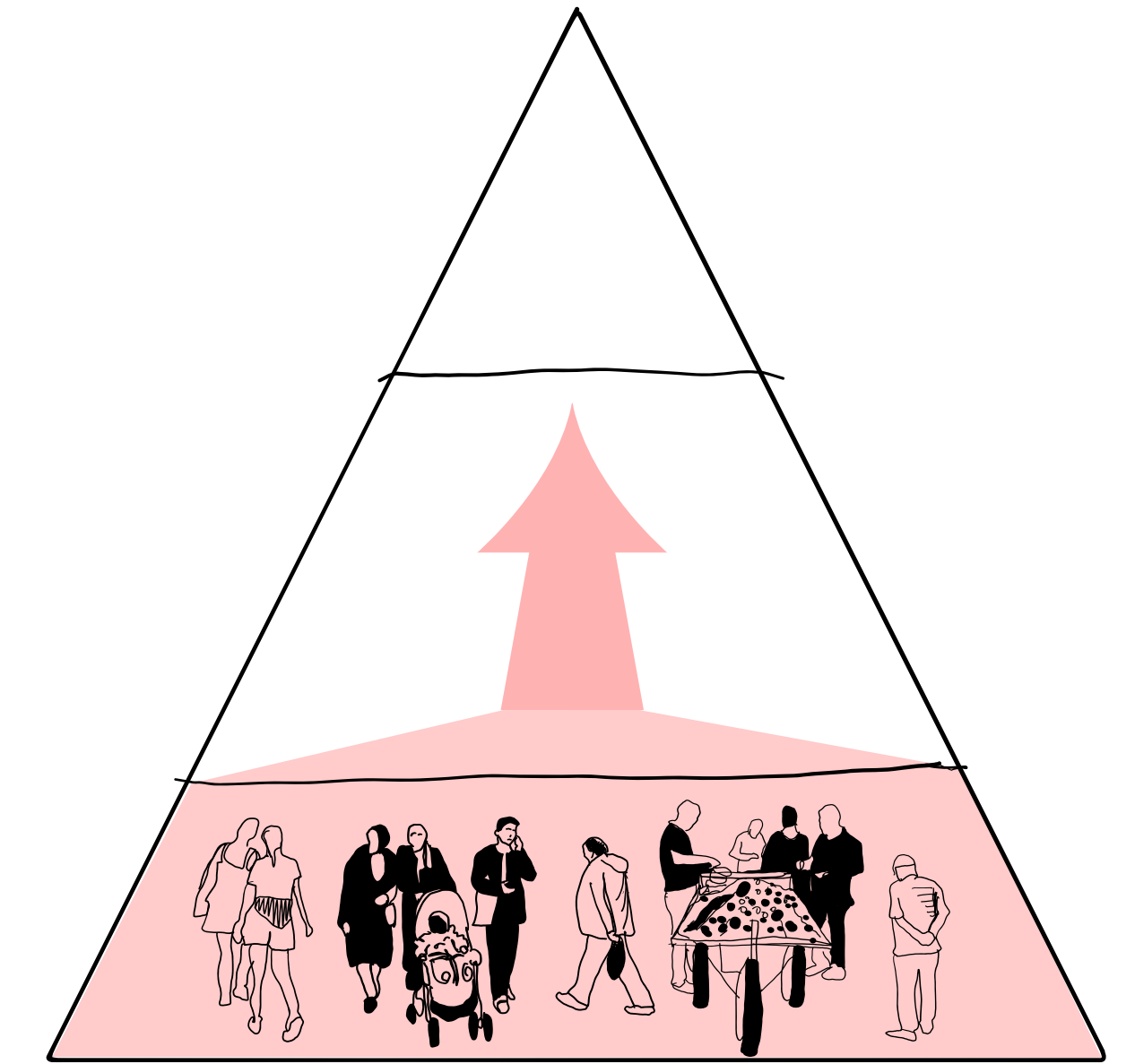


Research framework.



Design goals.

1. Community-Driven Construction



- Market vendors and community members should be part of the construction process.
- Training workshops on earthquake-resistant structures (traditional Turkish & Japanese seismic techniques).
- A modular construction system that allows for incremental building and expansion.

Design goals.

2. Flexible spatial adaptation

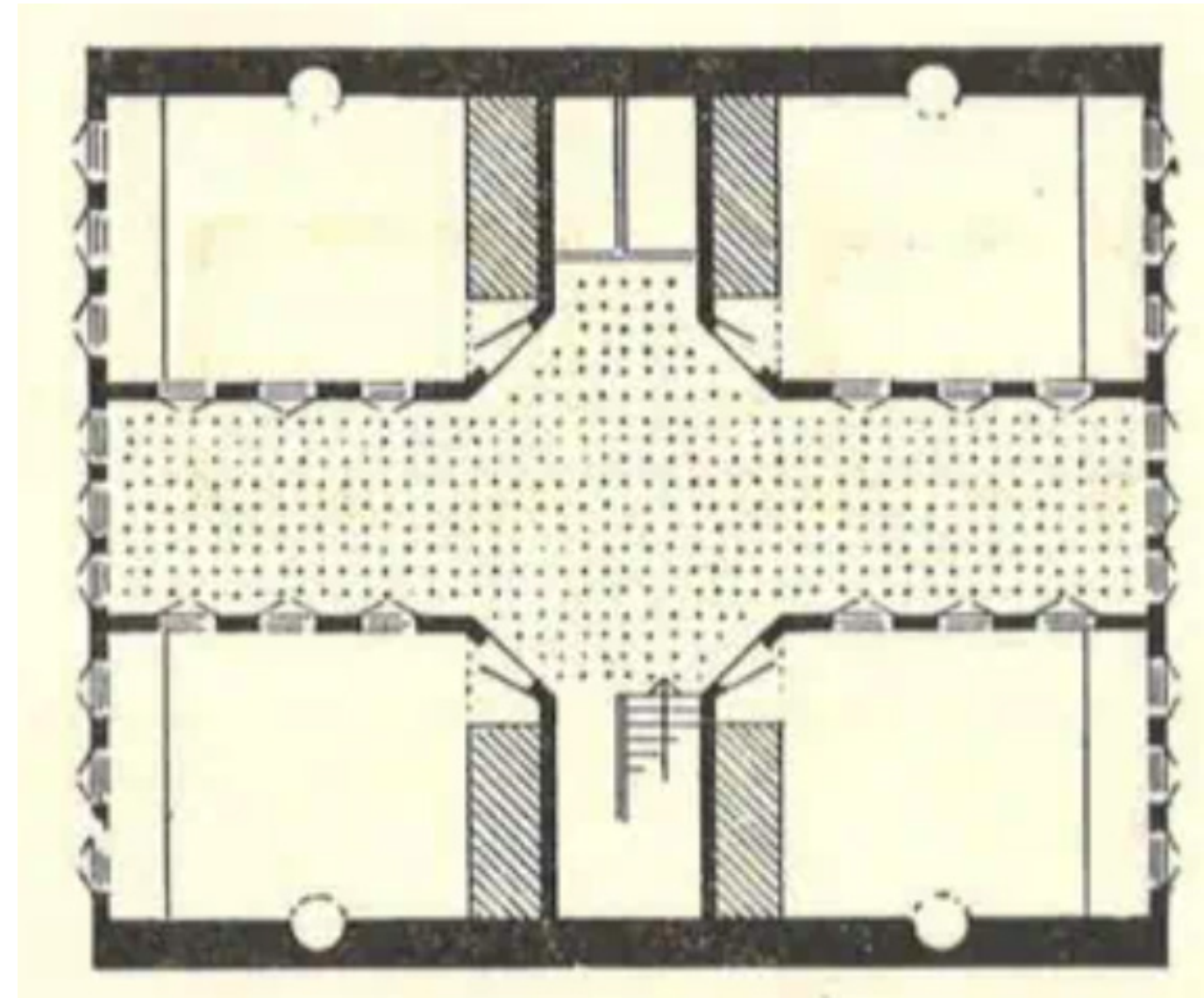
- Lightweight, adaptable designs that allow shop owners to modify their spaces over time
- Multi-use structures that can accommodate both small vendors and large-scale spice traders.
- Integrating movable street furniture & shade structures to adjust to weather conditions and user



Design goals.

3. Hayat: A space for coming together

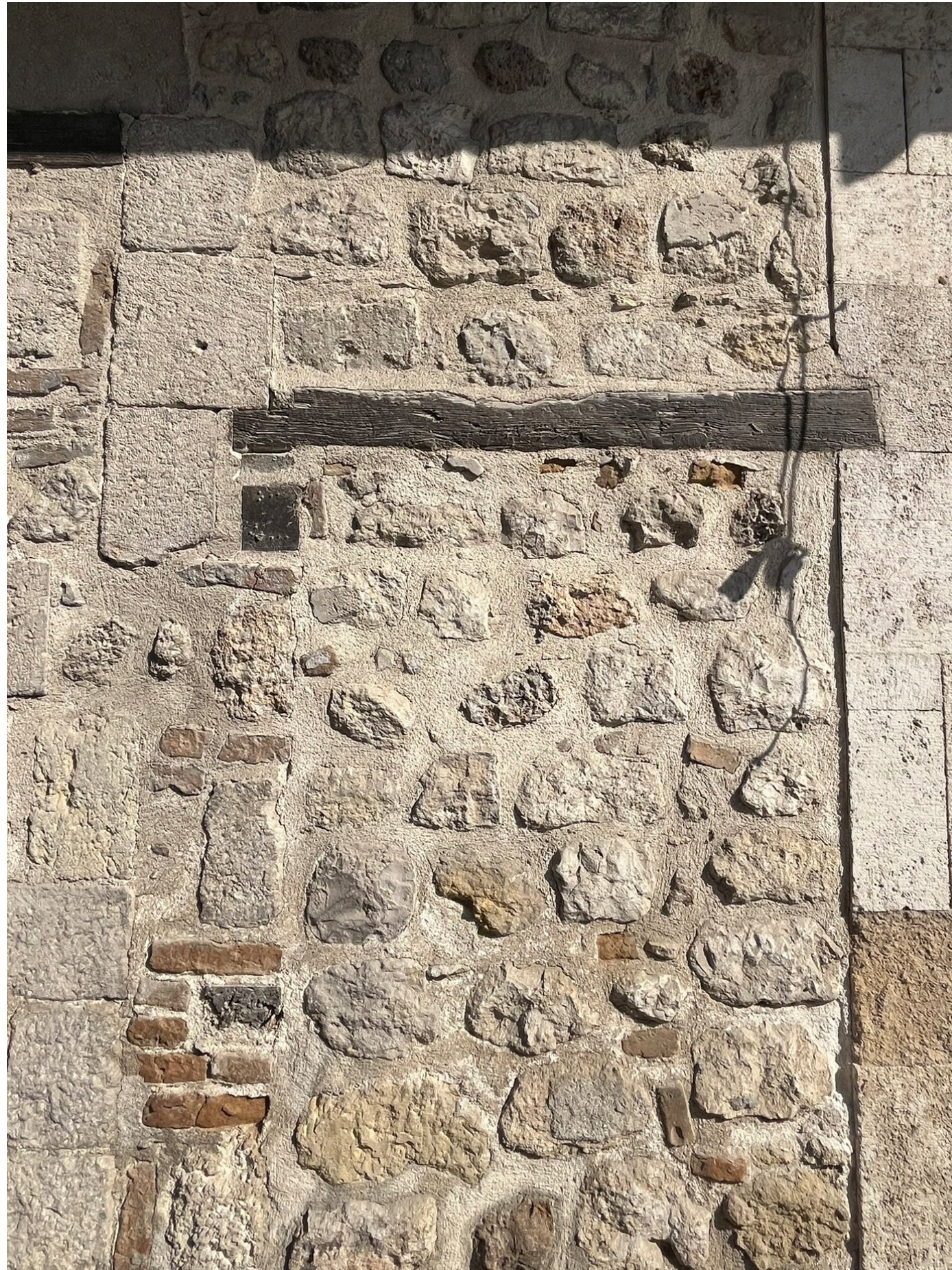
- Creating shaded public spaces ("Hayat") within the market where people can gather.
- Designing informal seating areas around tea shops, spice stalls, and key intersections.
- A hayat, a space for coming together see, meet, rest and talk with each other about your traumas



Design goals.

4. Materiality as a memory anchor

- Reusing earthquake rubble as building material (incorporating fragments of the old market into new designs).
- Creating a visual language that acknowledges destruction but focuses on renewal.

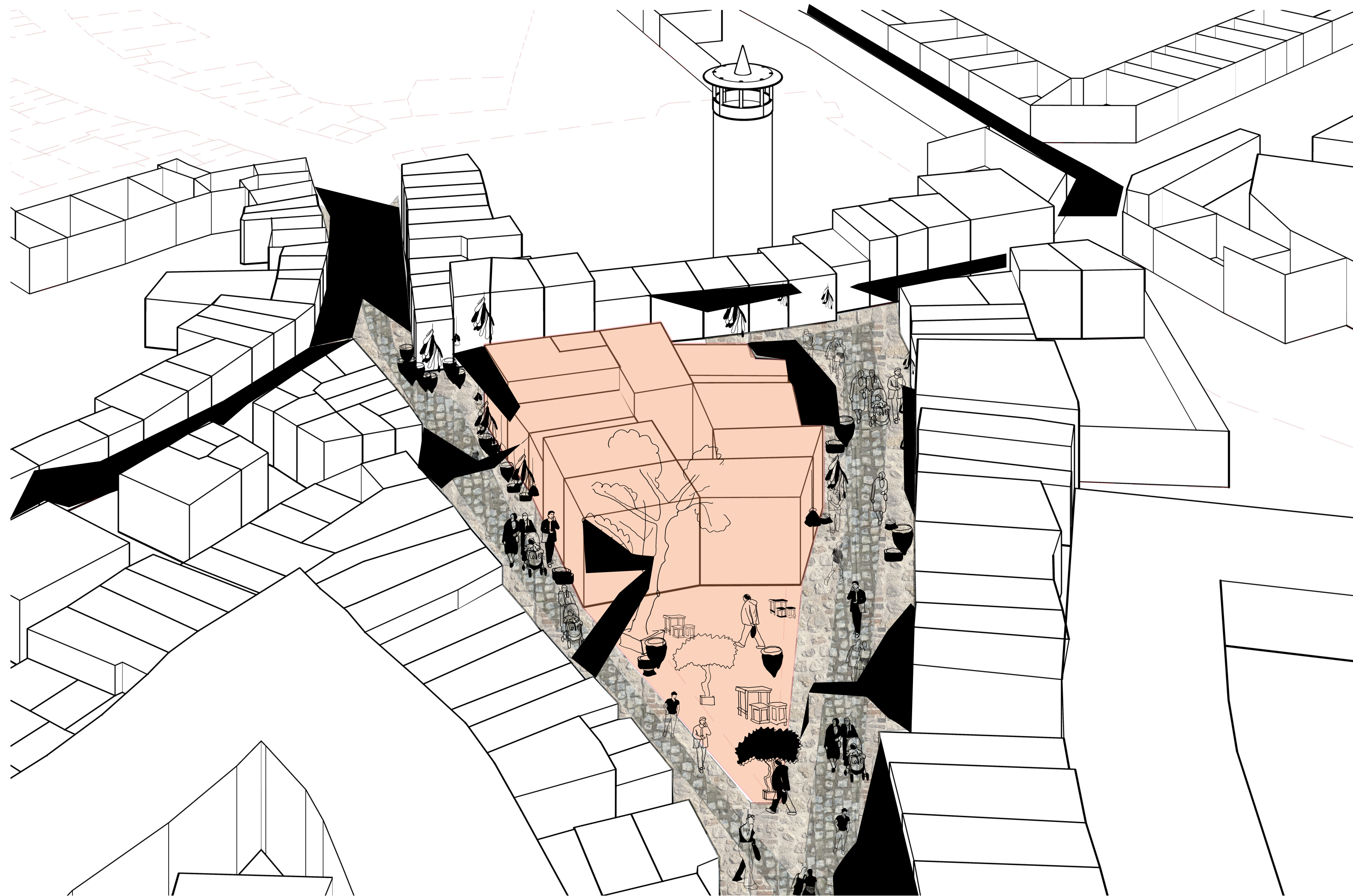


DESIGN

Community-driven construction.

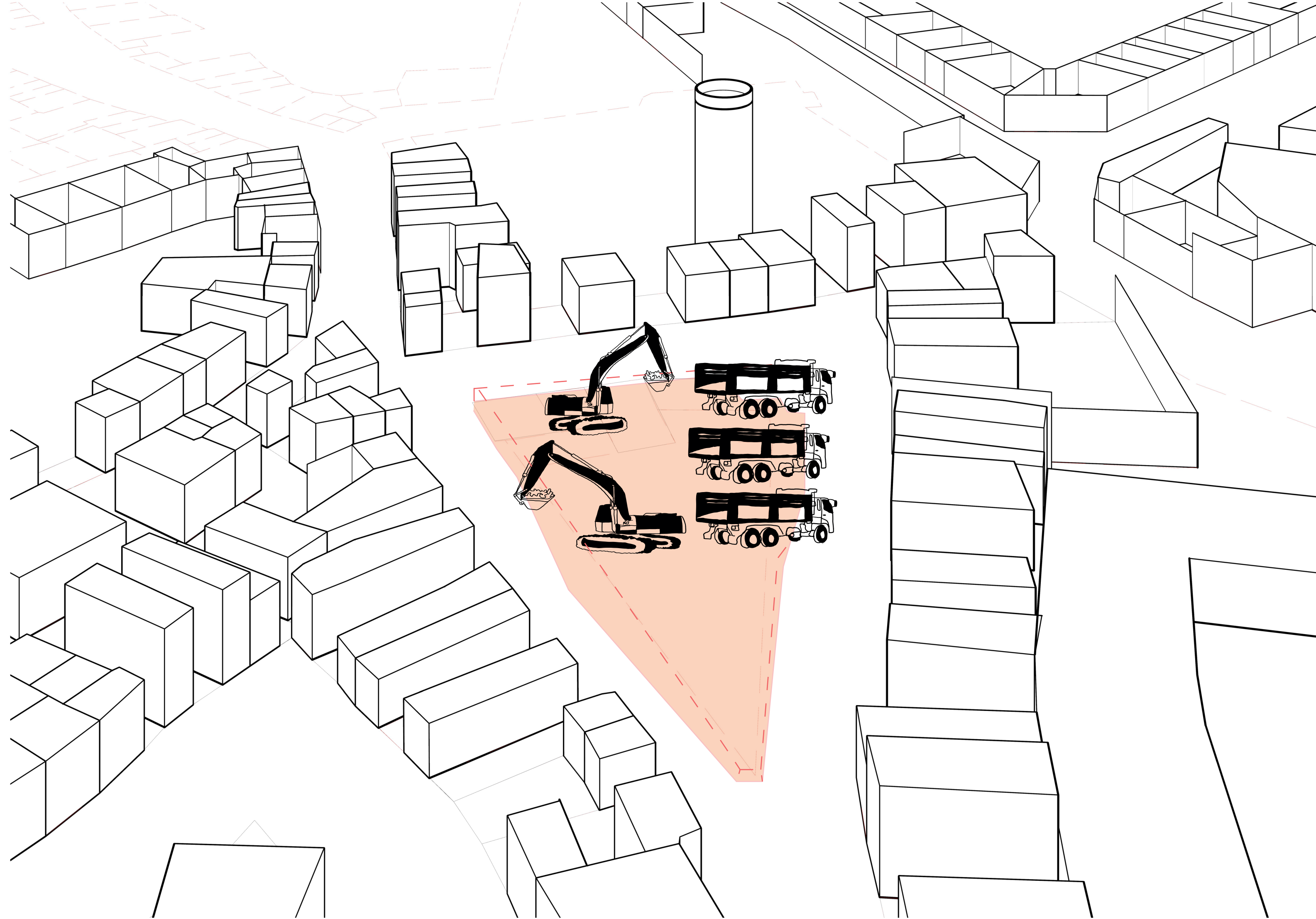
Community rebuilding plan

Community rebuilding plan



Business as usual

Community rebuilding plan



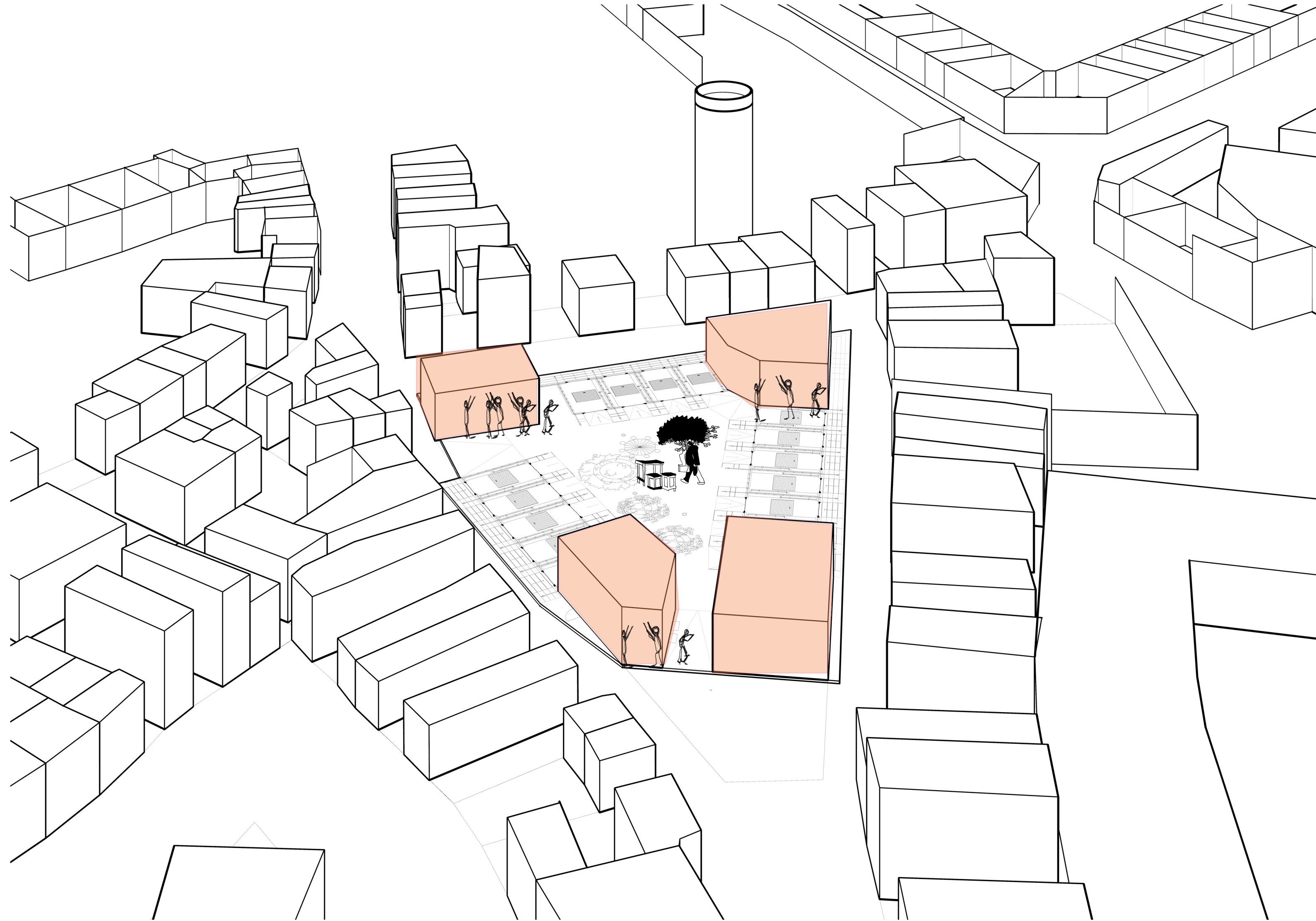
Municipality together with constructors check the situation at the market, collect data of shopowners, labels the materiality that have to be cleaned up immediately.

Community rebuilding plan



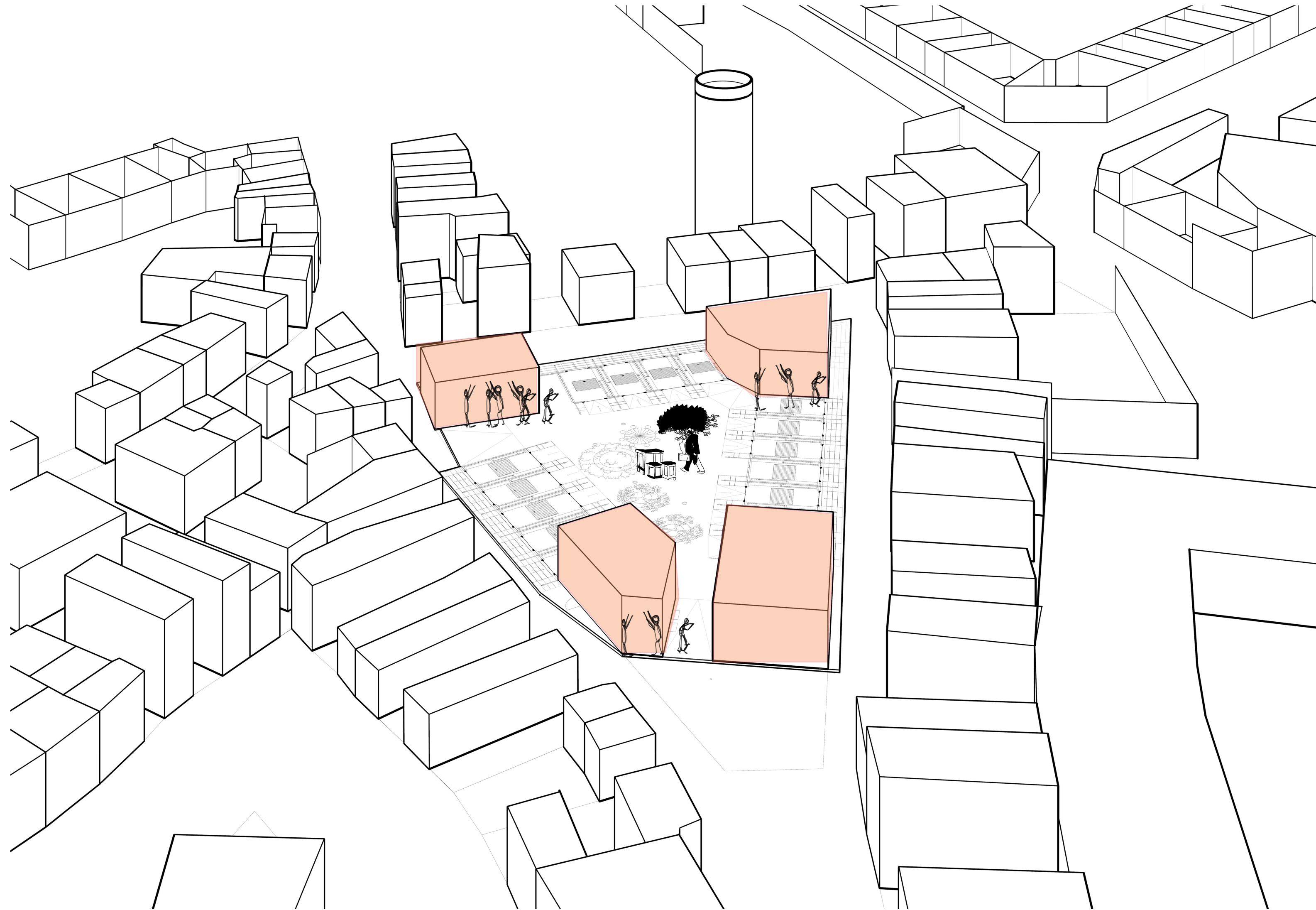
Shopowners, 'community leaders' will learn the ins and outs about the frame and how with the plywood connection it becomes resistant to earthquake vibrations.

Community rebuilding plan



The constructors built first the corner shops, toilets, exposition space and the kitchen. While doing this the community leaders learn how the frames are placed and work.

Community rebuilding plan



The constructors built first the corner shops, toilets, exposition space and the kitchen. While doing this the community leaders learn how the frames are placed and work.

Entrances



Ground floor 1:100 - Initial state



Program 1:100



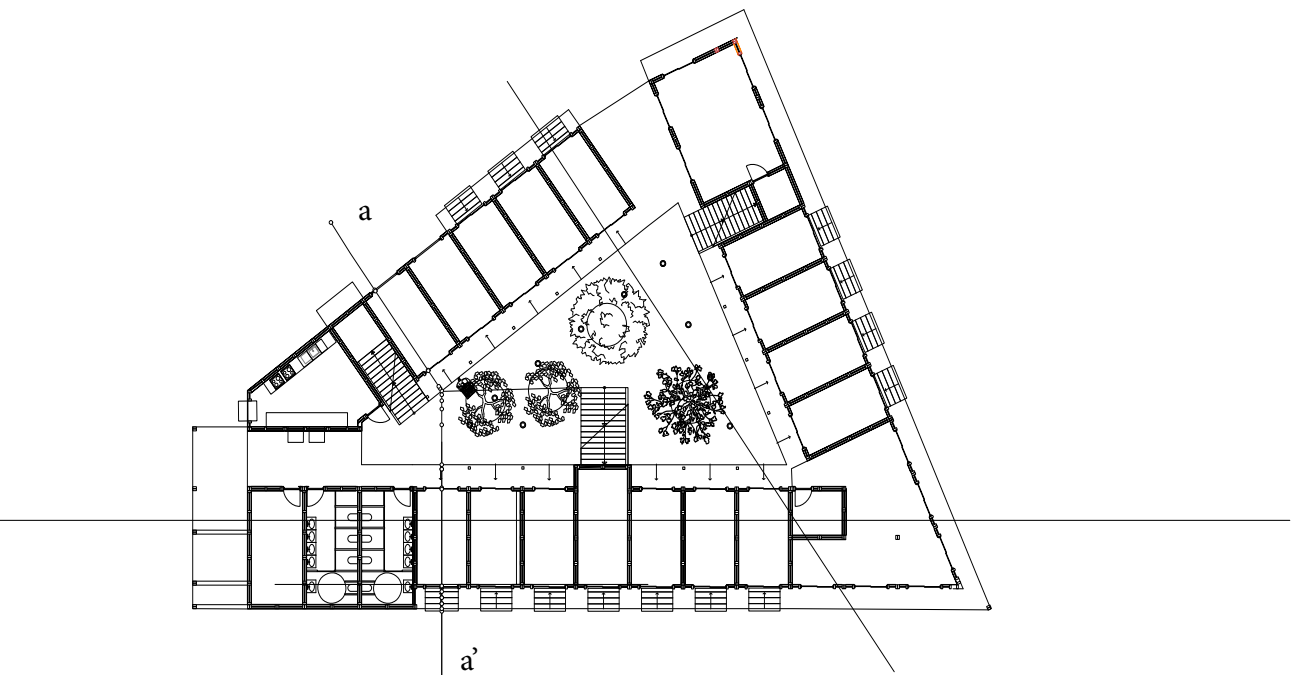
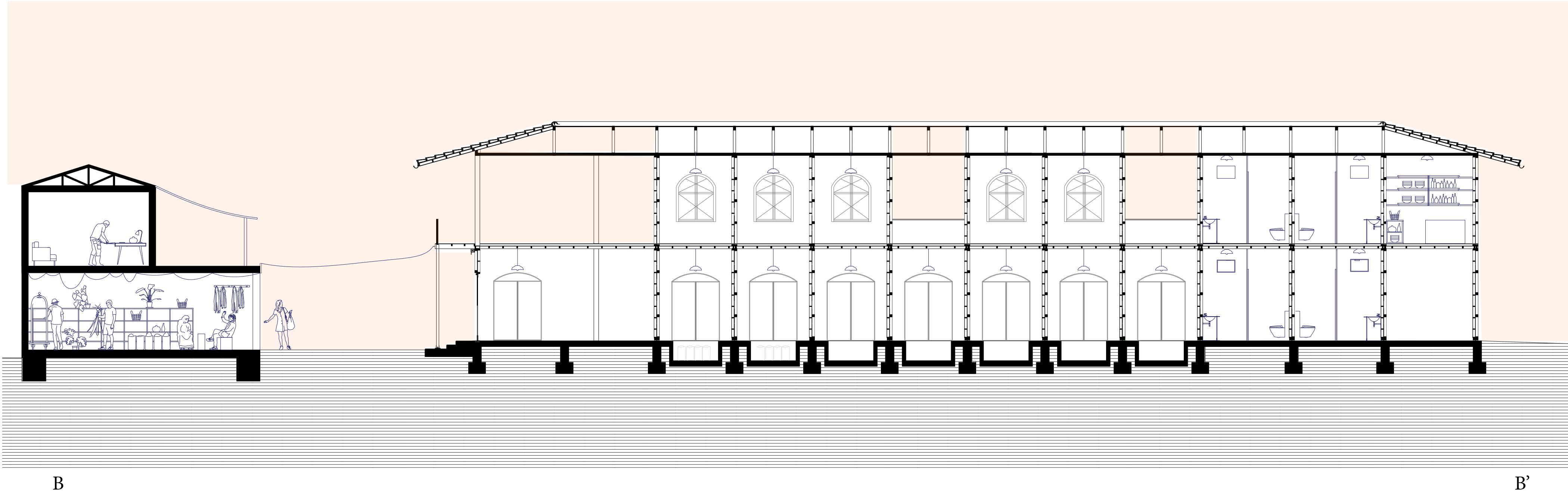
First floor 1:100



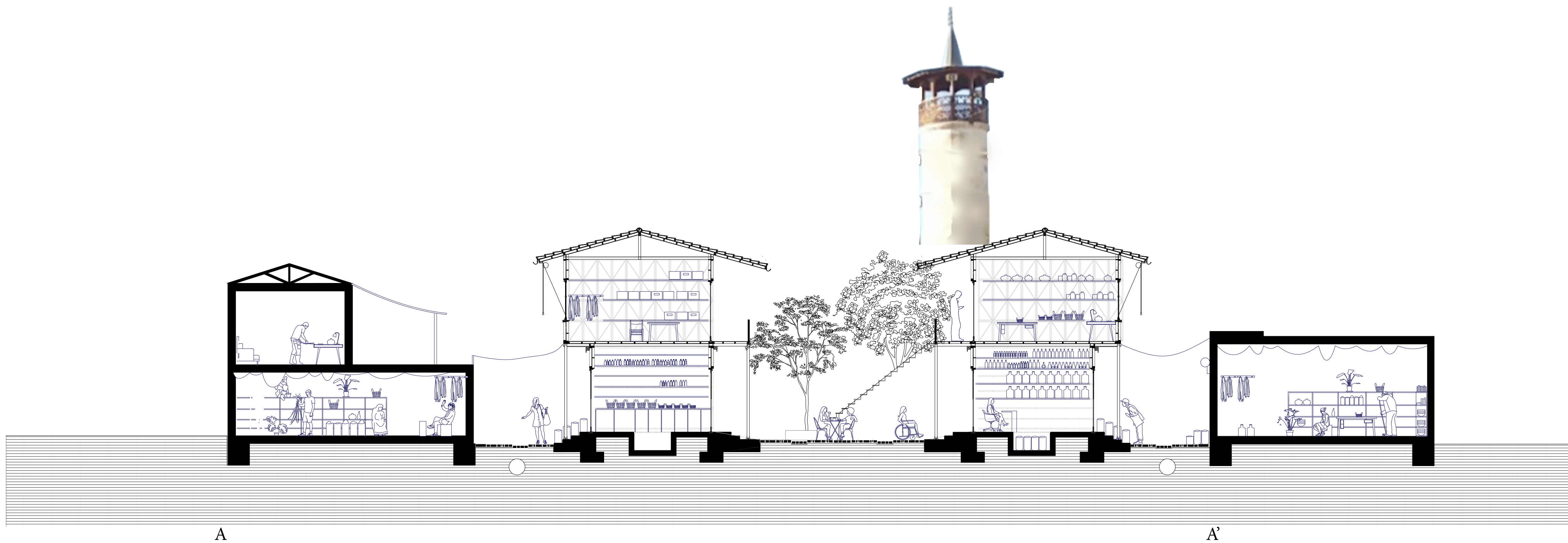
Hayat: space for coming together.



Section 1:100

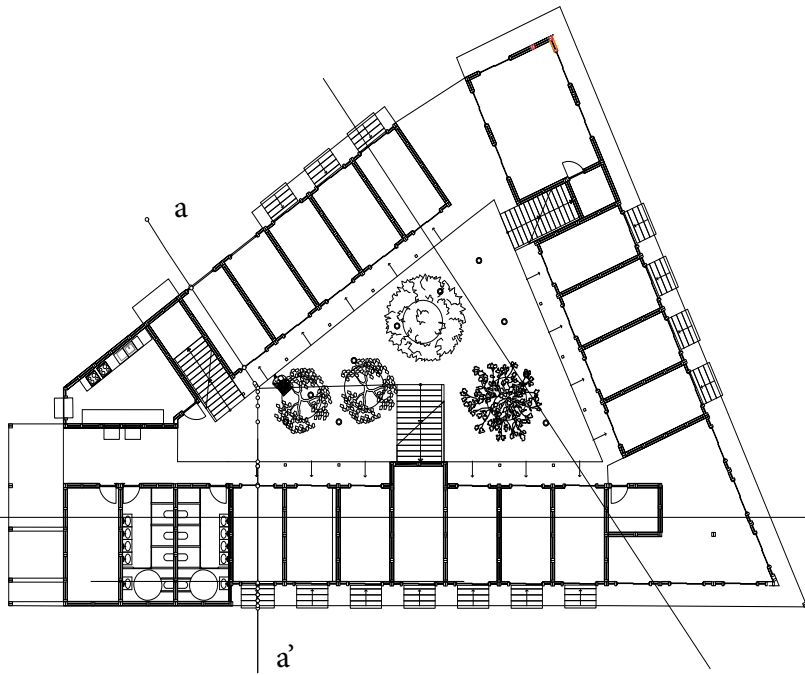


Section 1:100

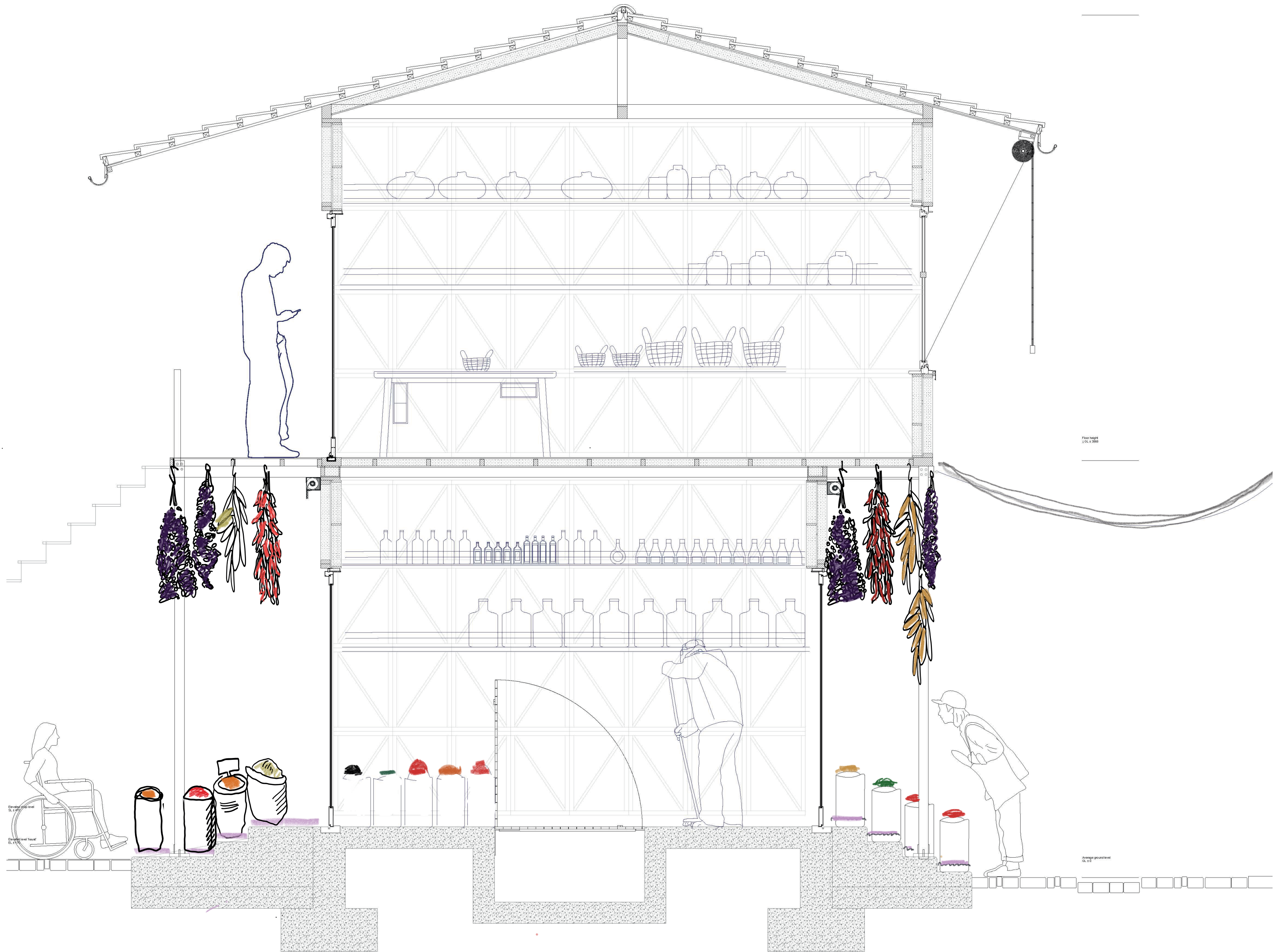


A

A'



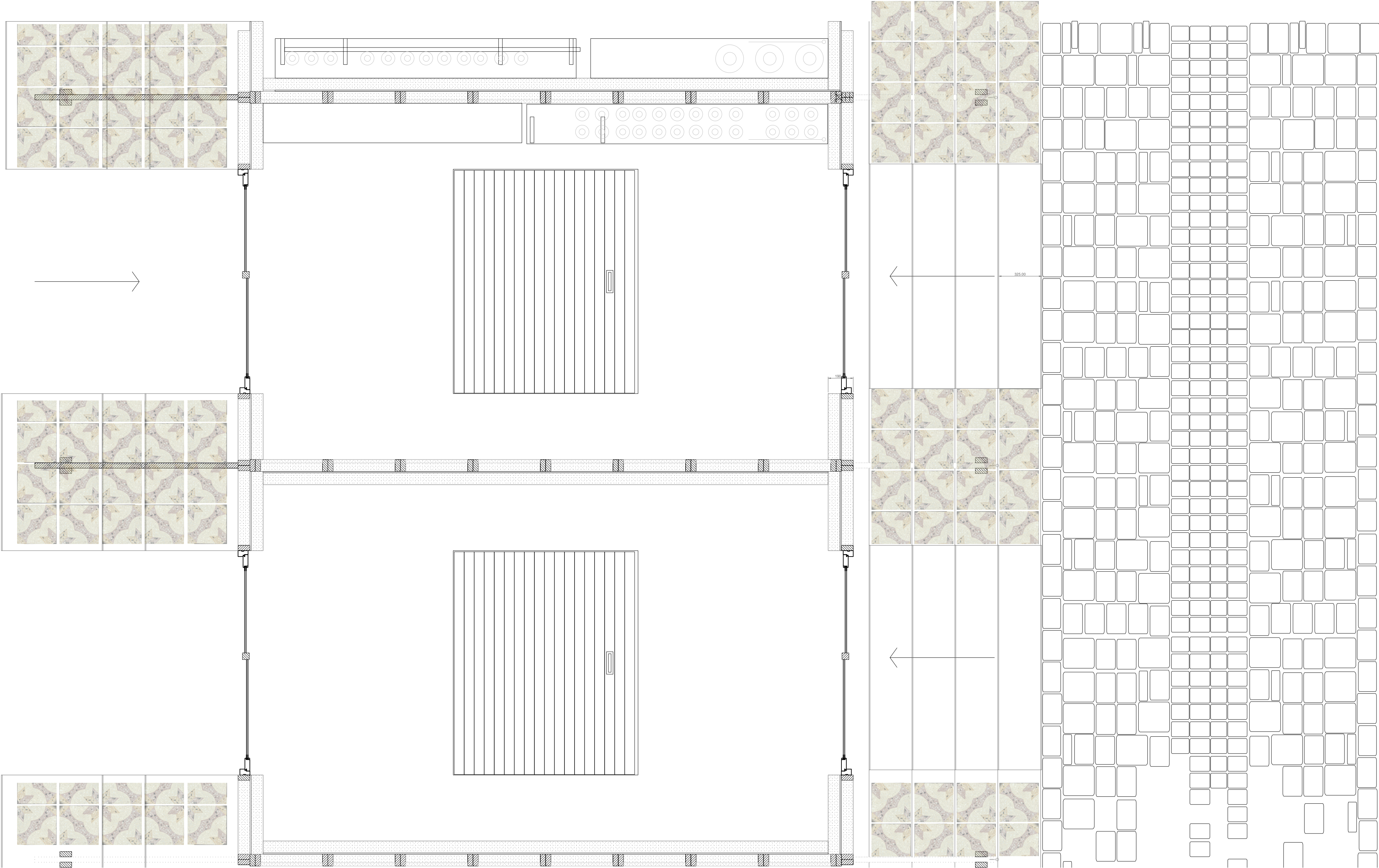
Section 1:20



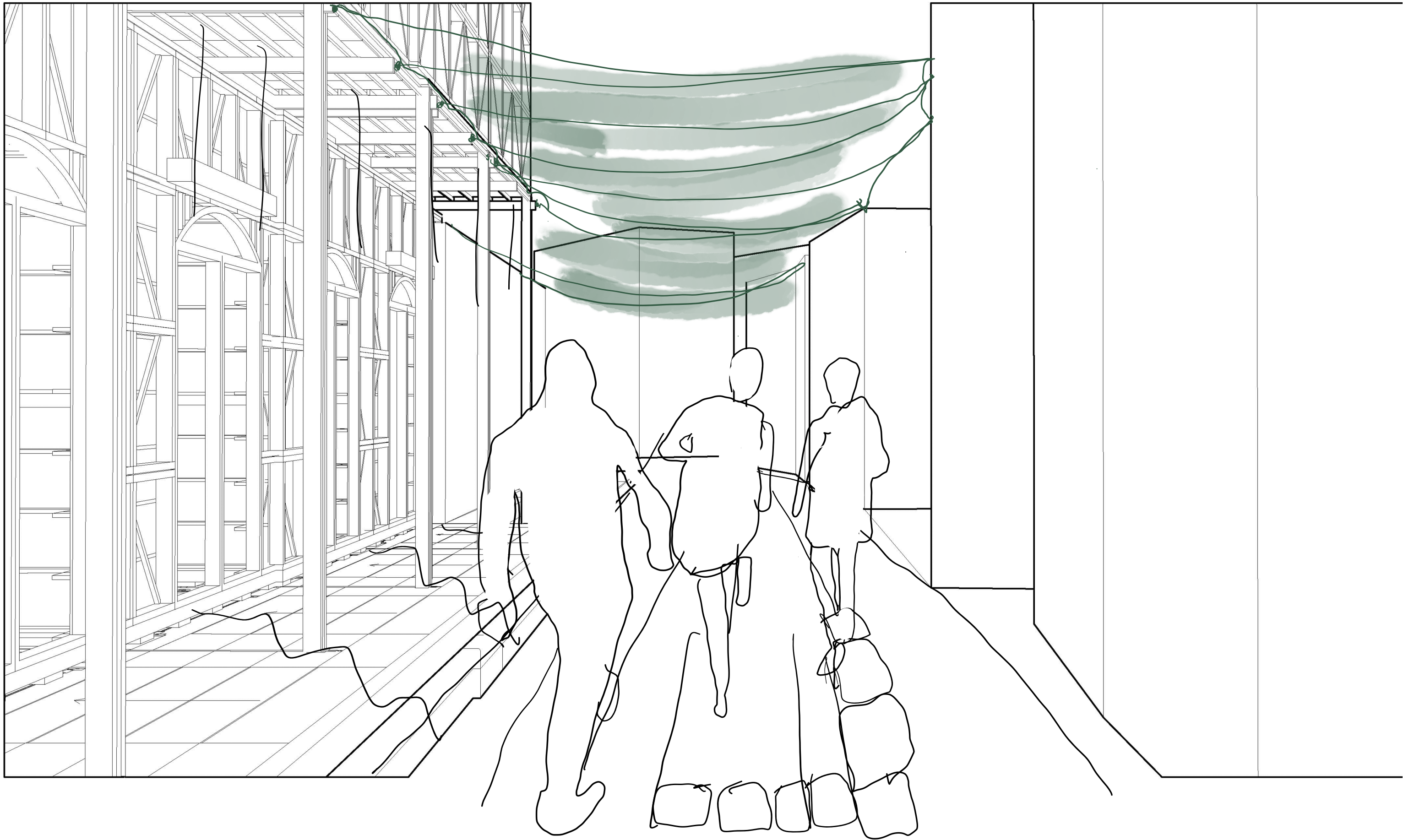
Façade 1:20



Shop 1:20



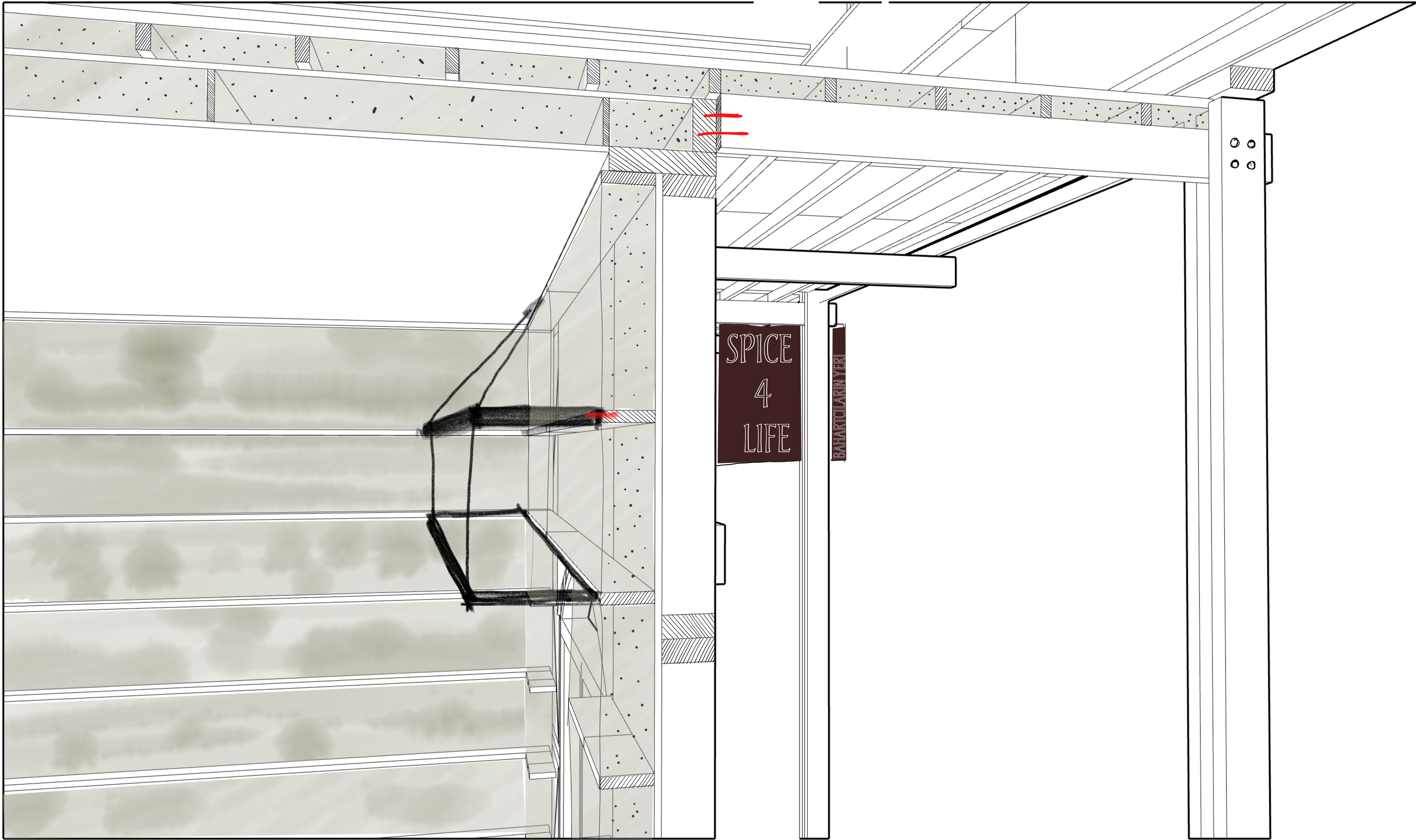
Connecting the streets



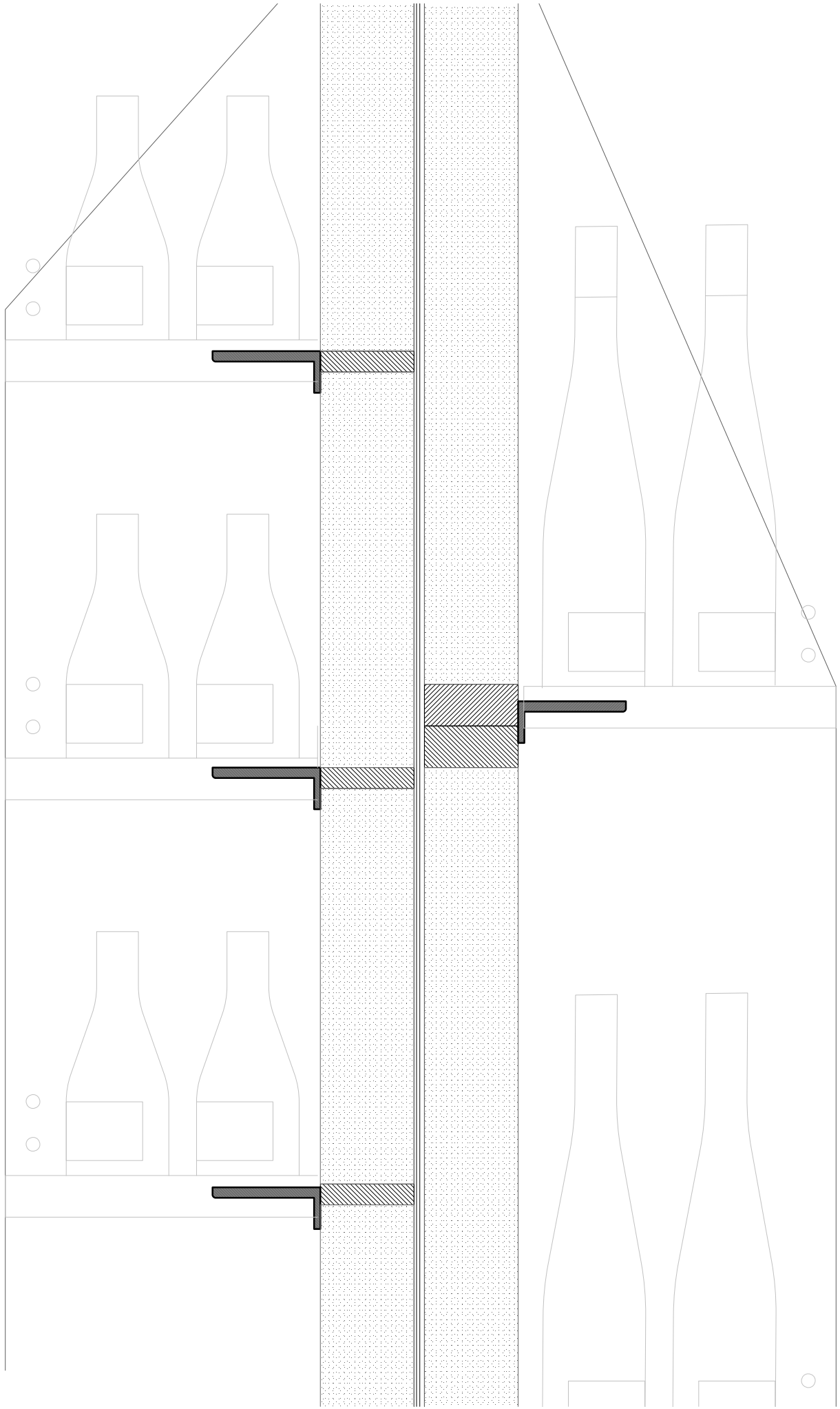
Flexible spatial adaptation.



Flexible spatial adaptation.



Detail 1:5 - shelves



Materiality for memory anchor

Why Timber?

Turkish Timber Code



The first Turkish Timber Structure Building Code has been approved in 2024. Before that there was no structural design code on how to built with timber

Lightness



1 m2 of timber is 35% lighter than steel and 60% lighter than concrete

Sustainable



2 tons of CO2 is emitted in producing 1 ton of steel and 4.5 tons in the production of 1 ton of concrete. 1 ton of timber stores 935 kg of CO2

Quick building process



Mass timber can be constructed 25% faster than steel or concrete structures due to their prefabrication, lightweight nature and simple connections

Resilience



The same weight of timber carries 3 times more load than steel and 24 times more than concrete

Thermal Conductivity



The thermal conductivity is about 350 times lowered than that of steel. it retards the burning.

Insulation



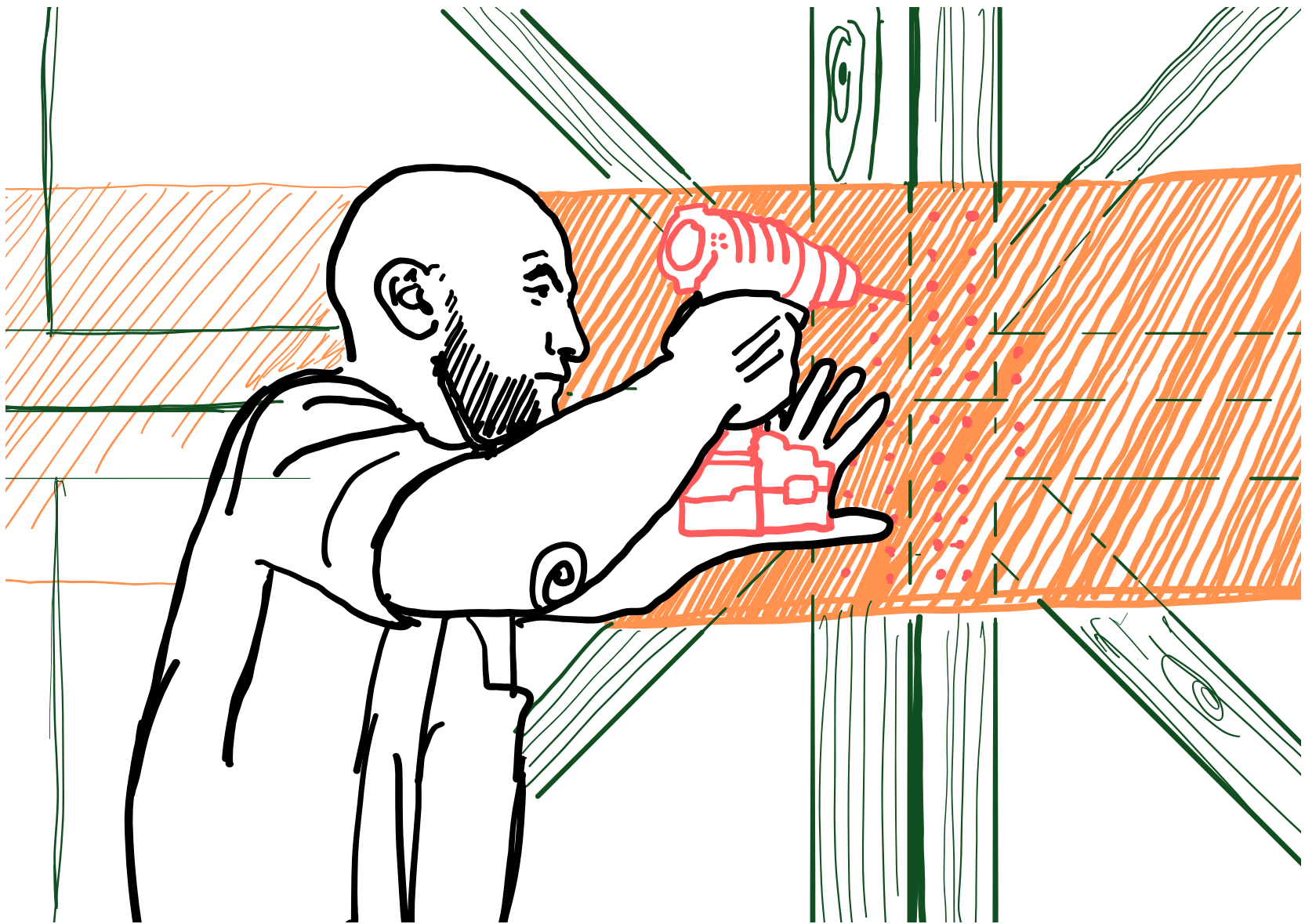
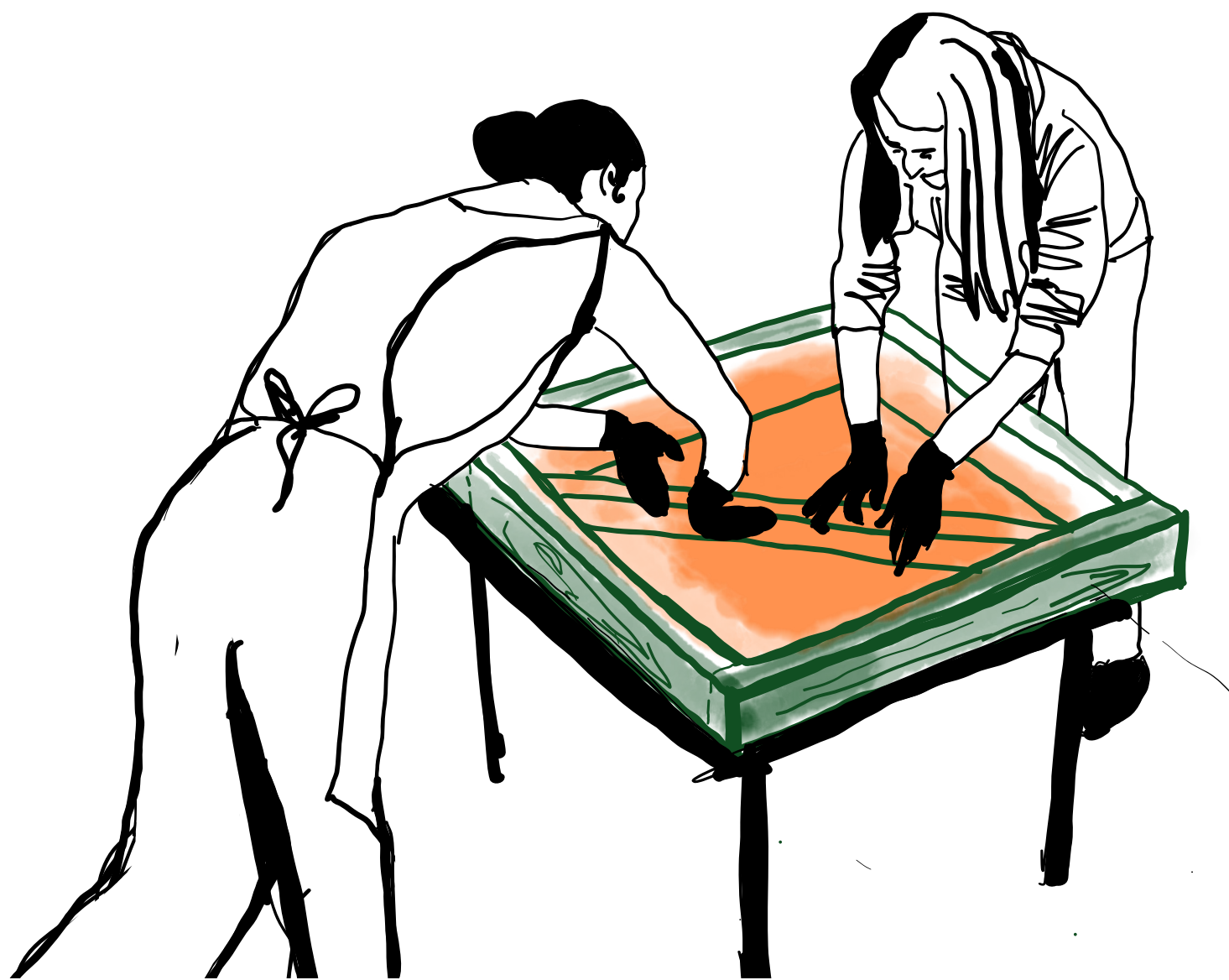
15 times more insulation than concrete of equal thickness and 390 times more insulation than steel. Provides up to 10% heat savings

Easy to be assembled

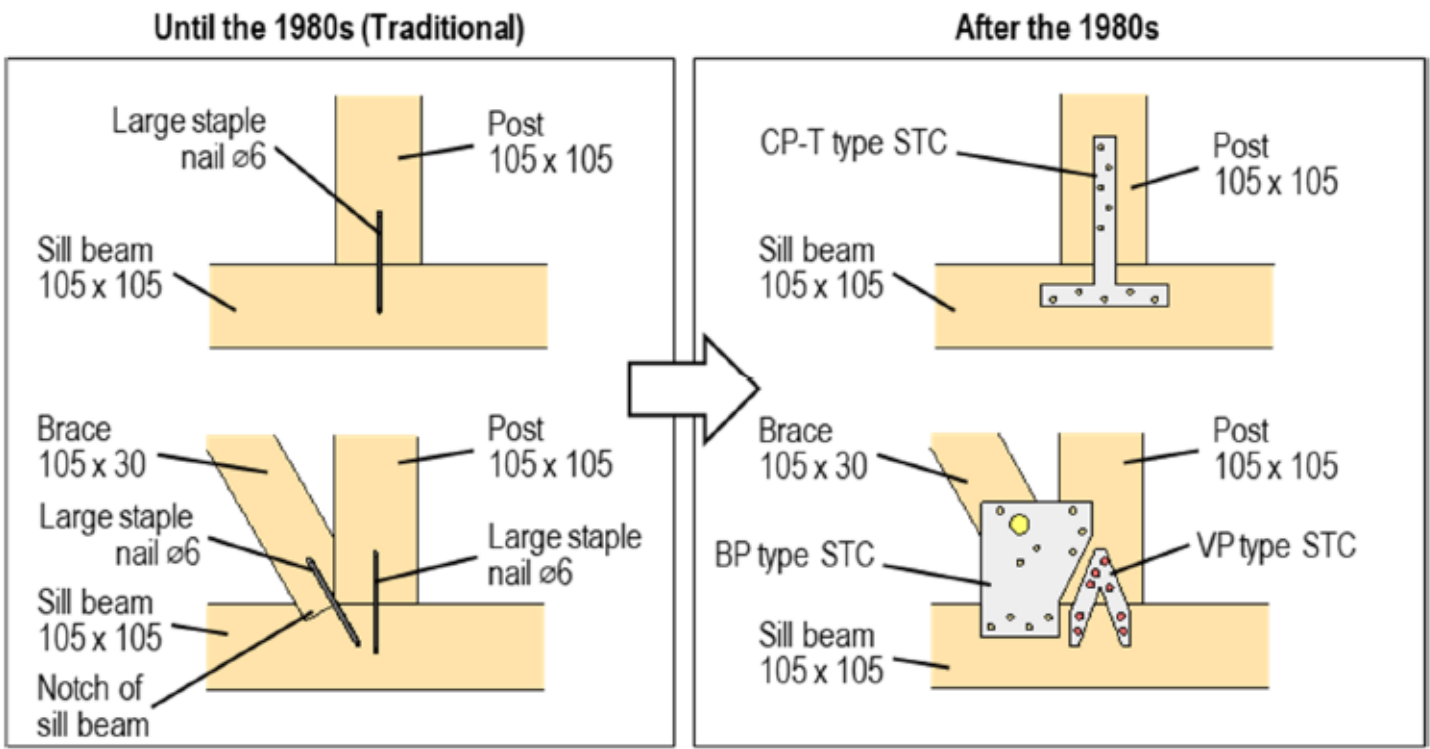
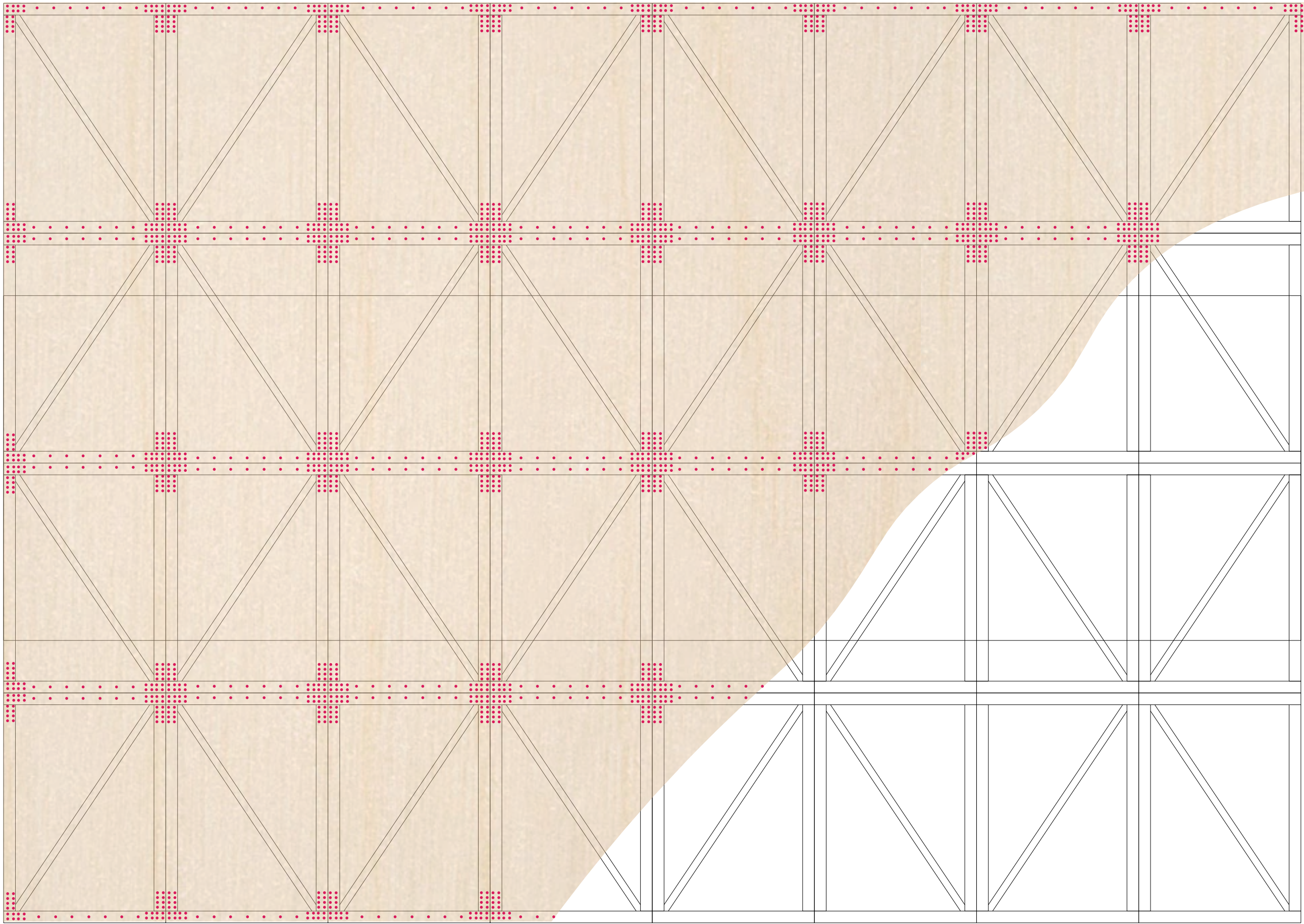


Timber connections easy to explain

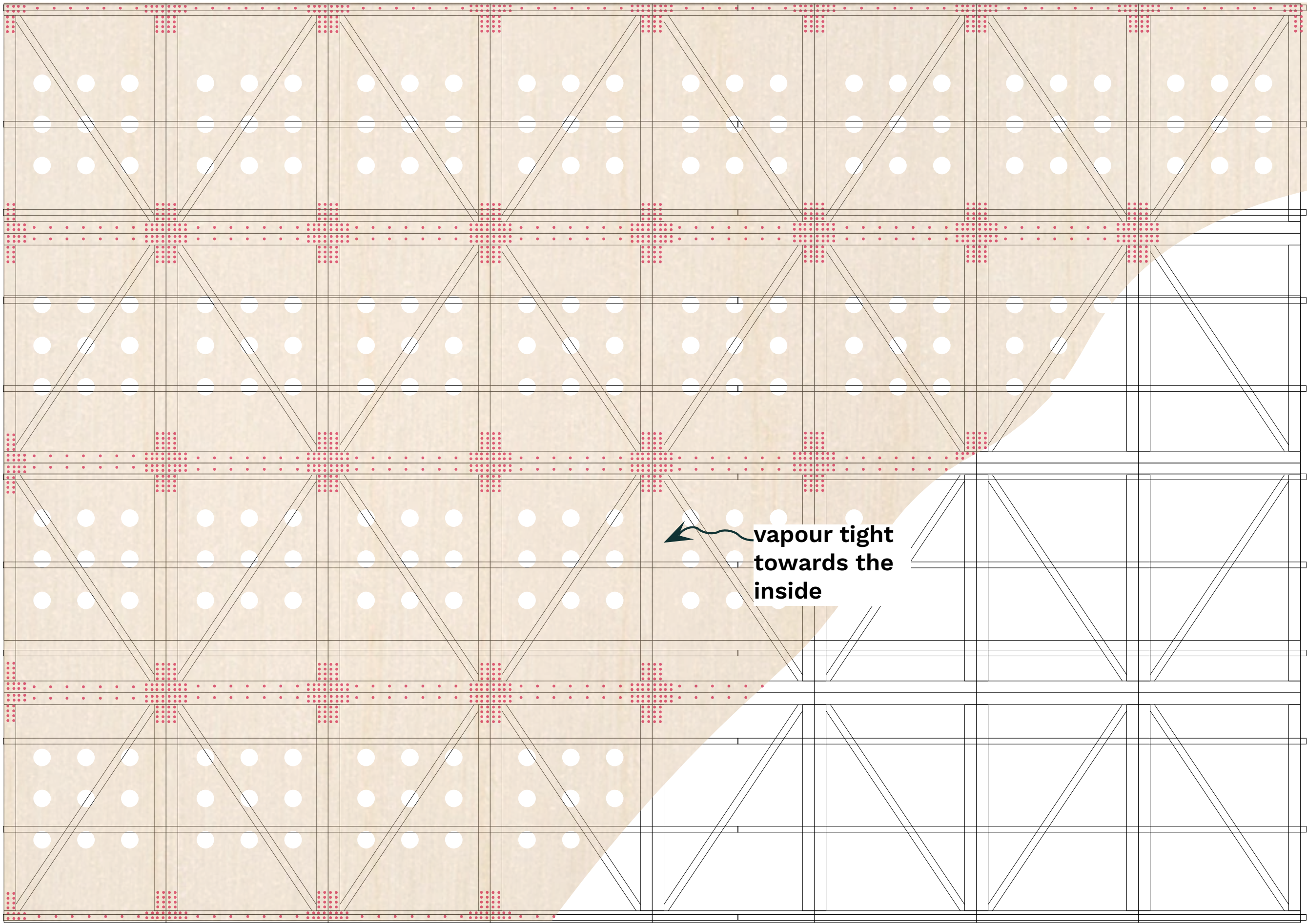
Building the elements



Earthquake resistant



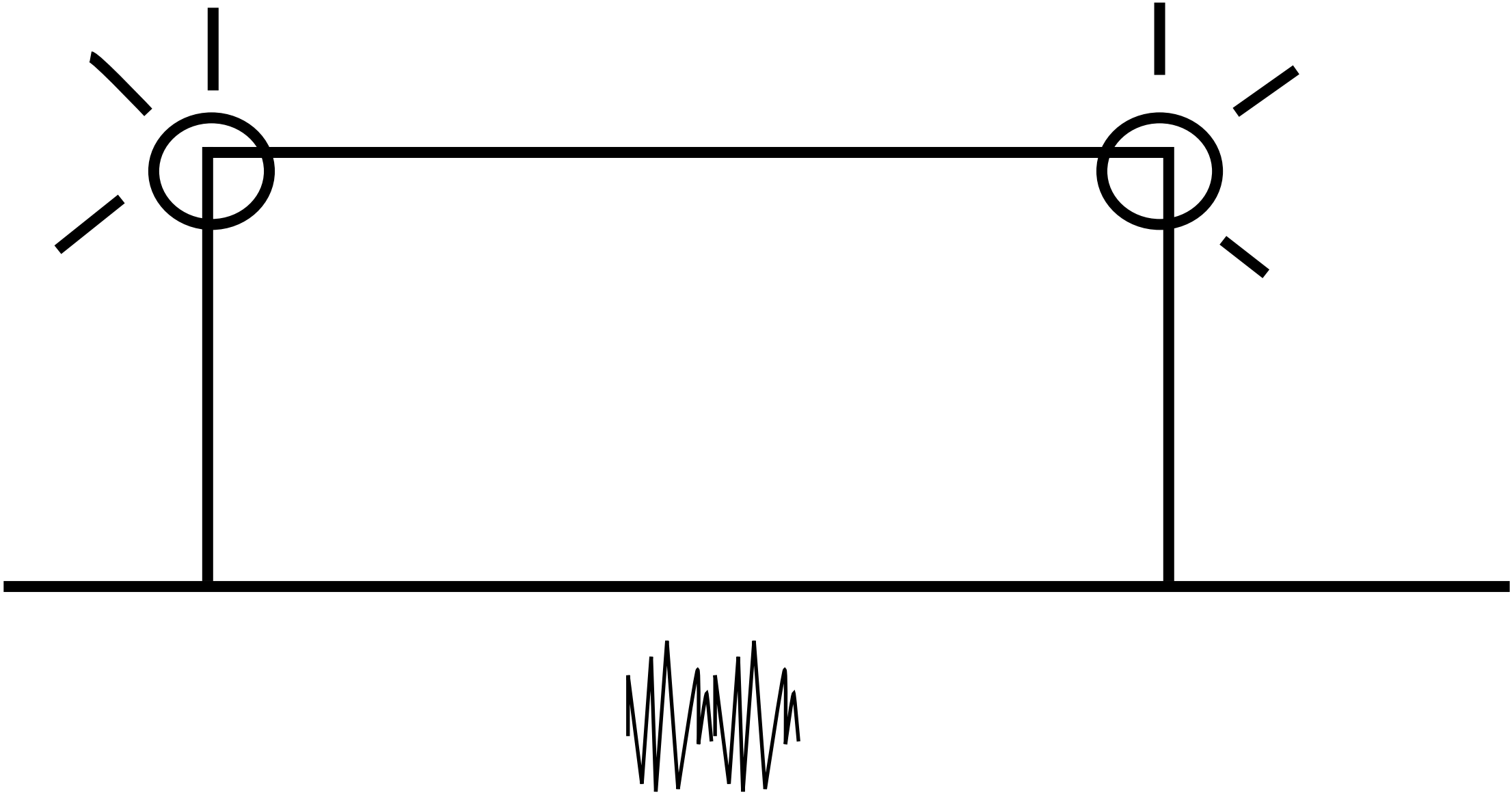
Earthquake resistant



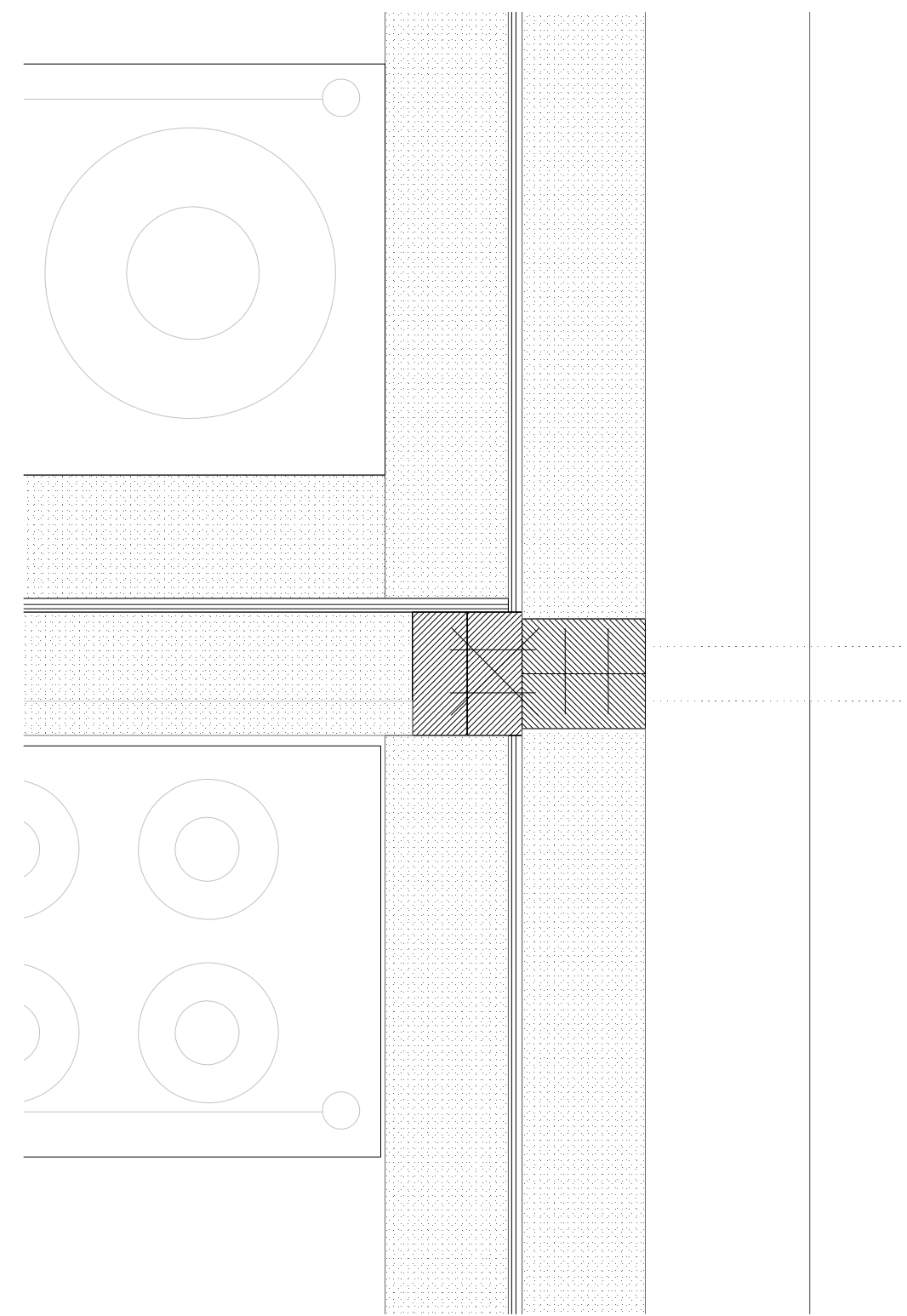
Earthquake resistant



Earthquake resistant



Detail 1:5 - corner



Façade = showcase



Hayat: space for coming together.



Recap - Design goals

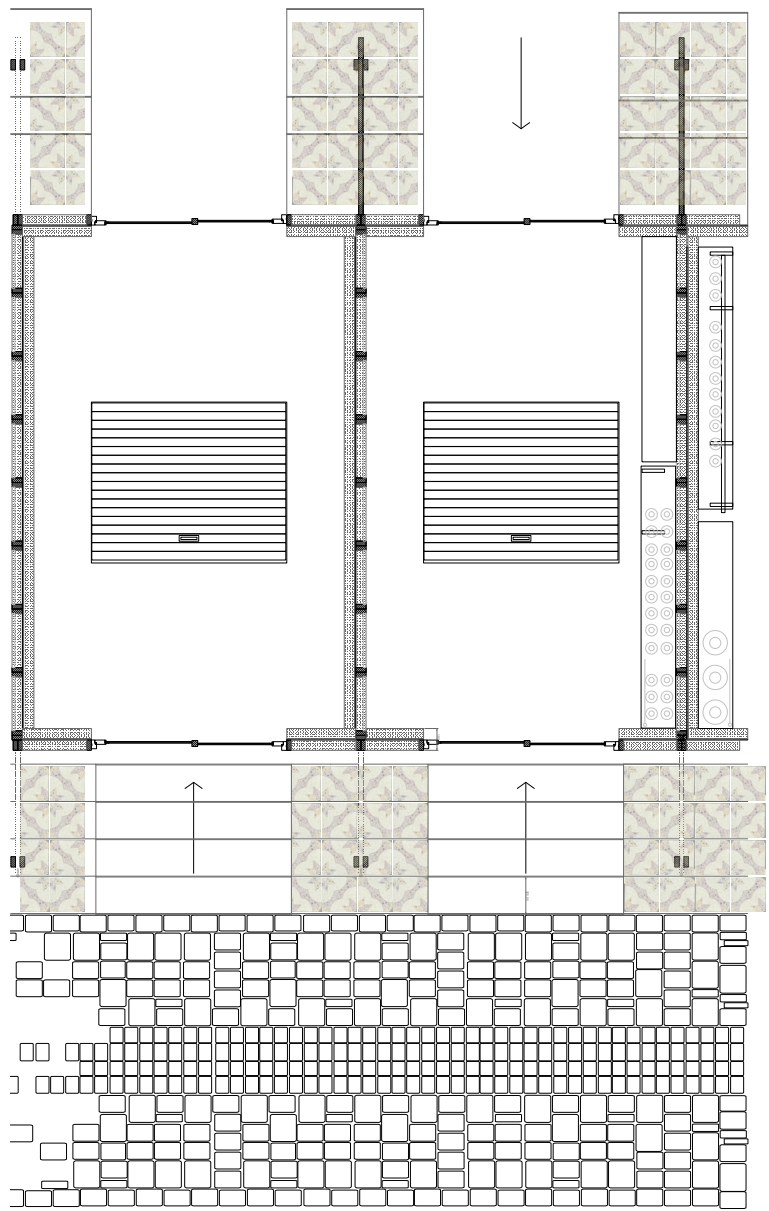
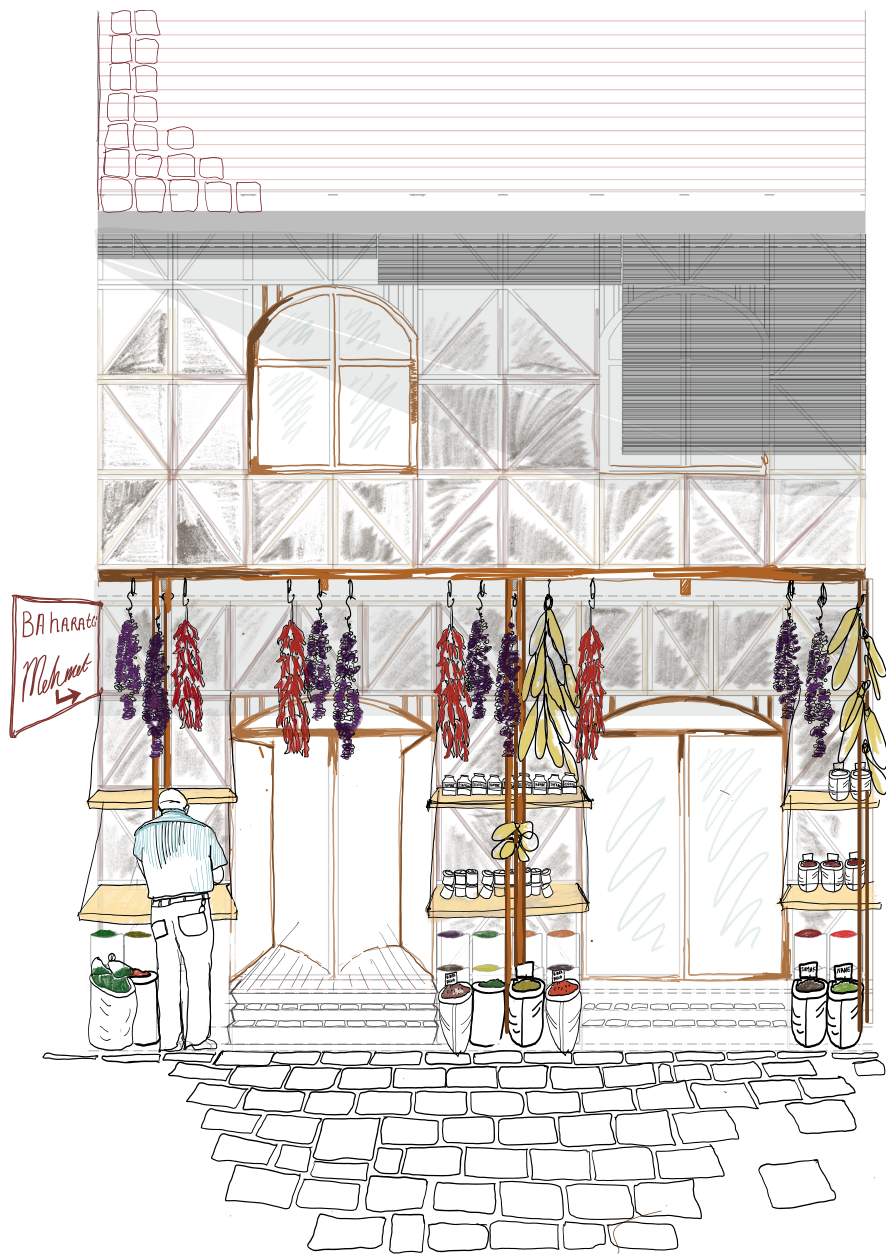
Resilience is not just about rebuilding - it is about reclaiming, adapting, and remembering. Uzun Çarsi's revival shows that community-driven adaptation, flexible space, shared social environments and material memory can create sustainable recovery without erasing the past.

Community-Driven Construction

Flexible spatial adaptation

HAYAT:
A space for coming together

Materiality as a memory anchor



Turning theory into practice with Architectural Recovery Team



Teşekkür ederim!

Thank you!

Dank je wel!