ENHANCING
THE SURVIVAL LANDSCAPE

Spaces of resilience
as social catalyst

ISABELLA BANFI

Graduation Project
MSc Landscape Architecture
TU Delft



What happens when traumatic events unexpectedly not only change the environment, but erase entire cities?



Siege of Mostar, 1992/1994



> Resilience becomes clear through the ability of citizens to practice their everyday life by adapting to new violent conditions .

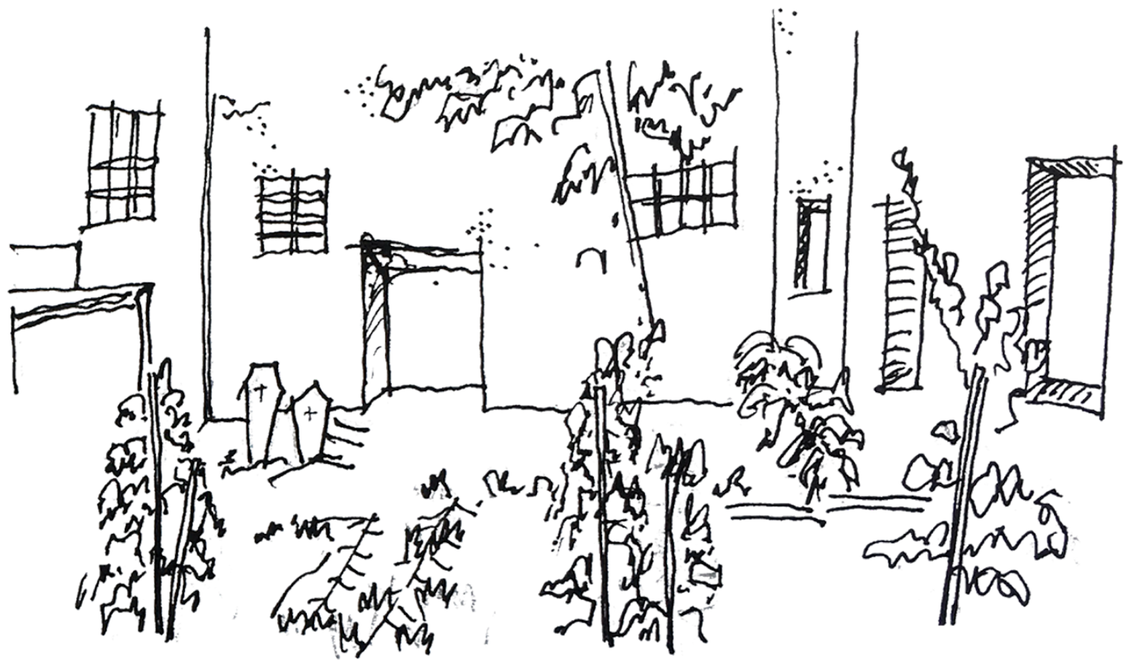
Davis, D.E. 2012




SNAJPER!
DAN I NOĆ

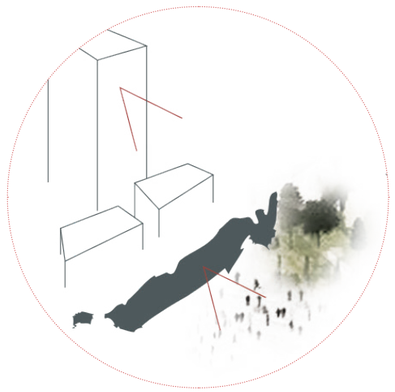


Trees were more than just source of protection, they also provided wood used to warm up

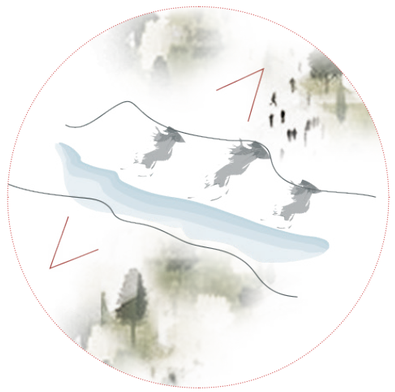


Kitchen gardens not only were the main source of food but also provided space for graves

Unsafe landscape



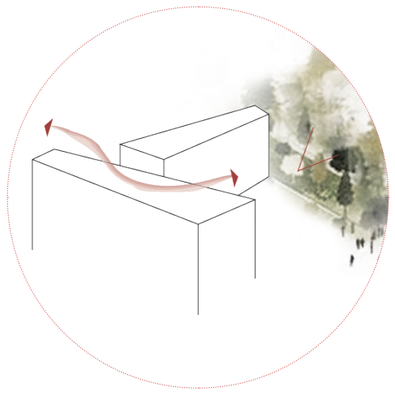
Extended



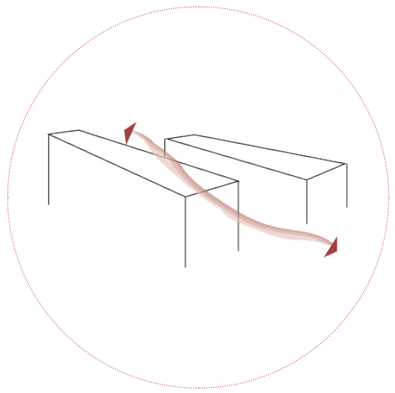
Exposed

Spatial conditions

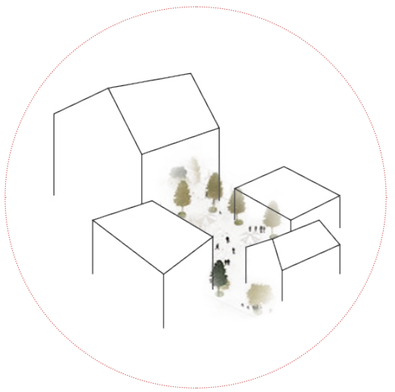
Survival landscape



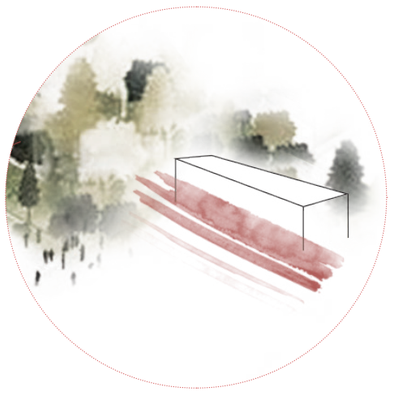
Enclosed



Semi-enclosed



Confined

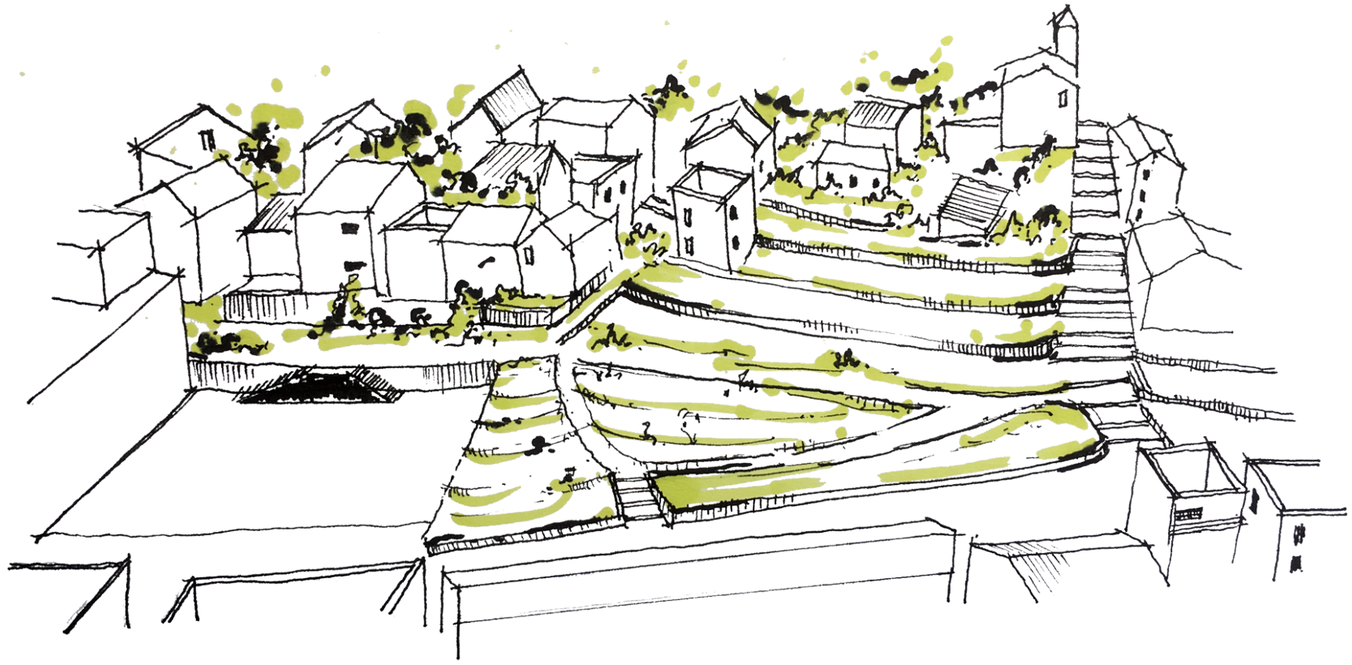


Impenetrable

Landscape's duality



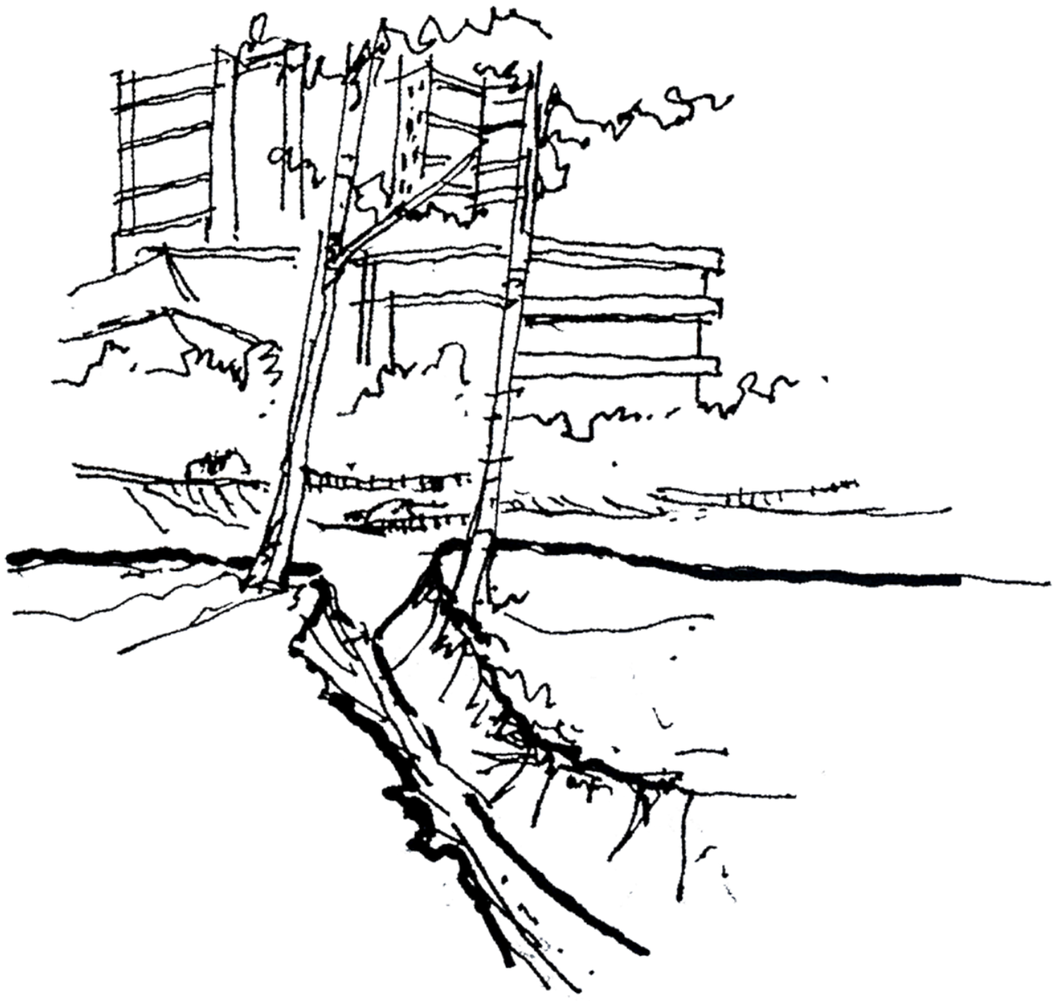
West side: high-risk zone, closer to the fight. The area was mostly abandoned and soon vegetation took over



East side: the natural slopes provided protection from snipers' fire



The Neretva river represented safety when people crossed it to reach the East area

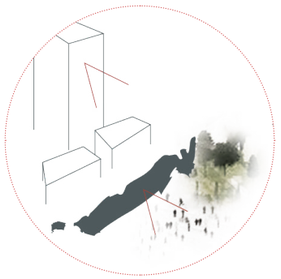


Bosniak militias dug trenches taking advantage of the steepness of its banks to move safely on open fields

War-time uses

of unsafe landscape

Extended



Sniper positions
from HVO and ARBiH militias positioned in high-rise buildings

Exsposed



Zone of risk
resulted in spatial solutions for safe lines of movements

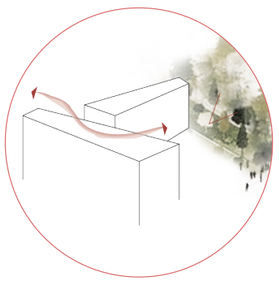
Spatial conditions

War-time uses

of survival landscape

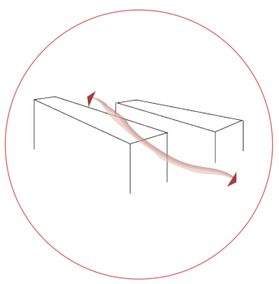
Spatial conditions

Enclosed



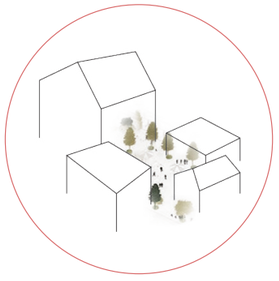
Gathering areas
in safe/protected squares/ courtyards with easy way out

Semi-enclosed



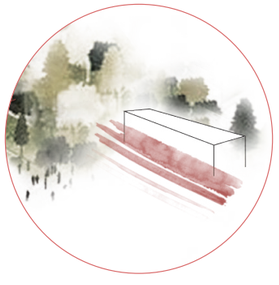
Temporary areas
water and food distribution points, main lines of movements, short-term gathering points

Confined



Kitchen garden
protected courtyard as only source of supply

Impenetrable



Long-term stay
areas with shelter and hospital/first aid station

War-spatiality

- Enclave
- Wild green areas
- Main access way to Mostar
- Main lines of movement
- Hill's frontline
- Main frontline
- Croats frontline
- Bosnian frontline
- Sniper range - city
- Sniper range - hills

0 200 400 600 800m

+370m AMSL

+304m AMSL

Mount Hum

+410m AMSL

Unsafe landscape

- HVO sniper position
- ARBiH sniper position
- Attention: sniper!
- Zone of risk
- Frontline

Survival landscape

Safe lines of movements:

- Defence line
- Trenches
- Temporary bridge

- Gathering area
- Long-term stay: shelter
- Long-term stay: hospital/first aid
- Kitchen garden
- Temporary area

0 200 400 600 800m



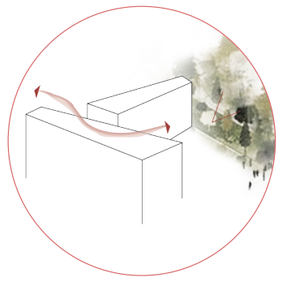
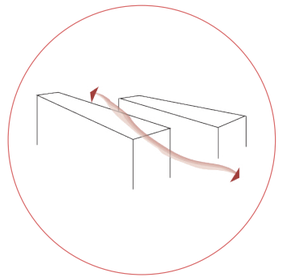
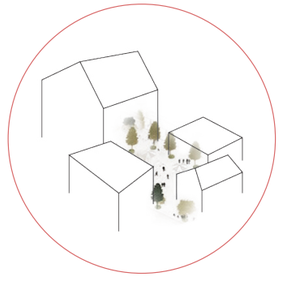
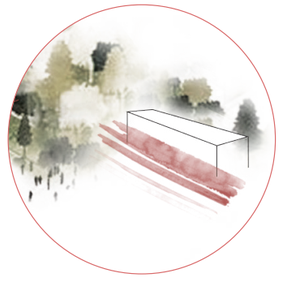
What happened to those spaces of resilience?
Are they still visible nowadays?

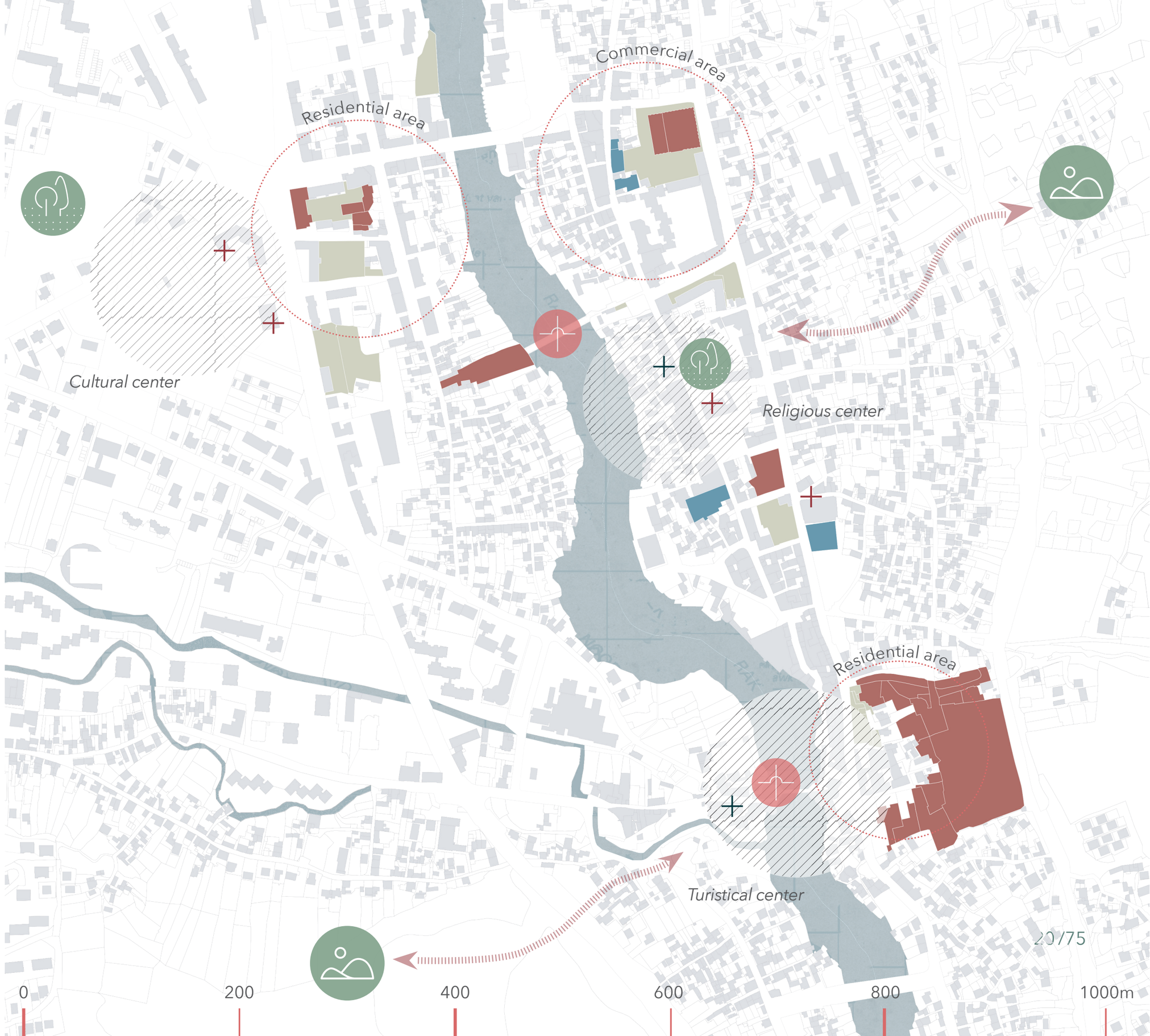
Spatial outcome

- Post-war rebuilt buildings
- War-endured buildings
- Resilient buildings
- In-between buildings
- Ruins
- Residual areas
- Abandoned areas

0 200 400 600 800m



Spatial conditions		War-time uses *of survival landscape*	Current situation *of residual landscape*
Enclosed		*Gathering areas* in safe/protected squares/ courtyards with easy way out	*Residual square or courtyards used as parking spaces by the residents*
Semi-enclosed		*Temporary areas* water and food distribution points, main lines of movements, short-term gathering points	*Residual commercial street with vehicular circulation, the sides used for illegal parking*
Confined		*Kitchen garden* protected courtyard as only source of supply	*Courtyards with no-roof-ruins and low vegetation*
Impenetrable		*Long-term stay* areas with shelter and hospital/first aid station	*Abandoned ruins, inaccessibile due to dense vegetation inside and surrounding*



- Abandoned area
- Temporary space
- Residual square
- Urban park
- Hills
- Pedestrian bridge
- Point of interest - local
- Point of interest - tourist

Strategy

Dense vegetation

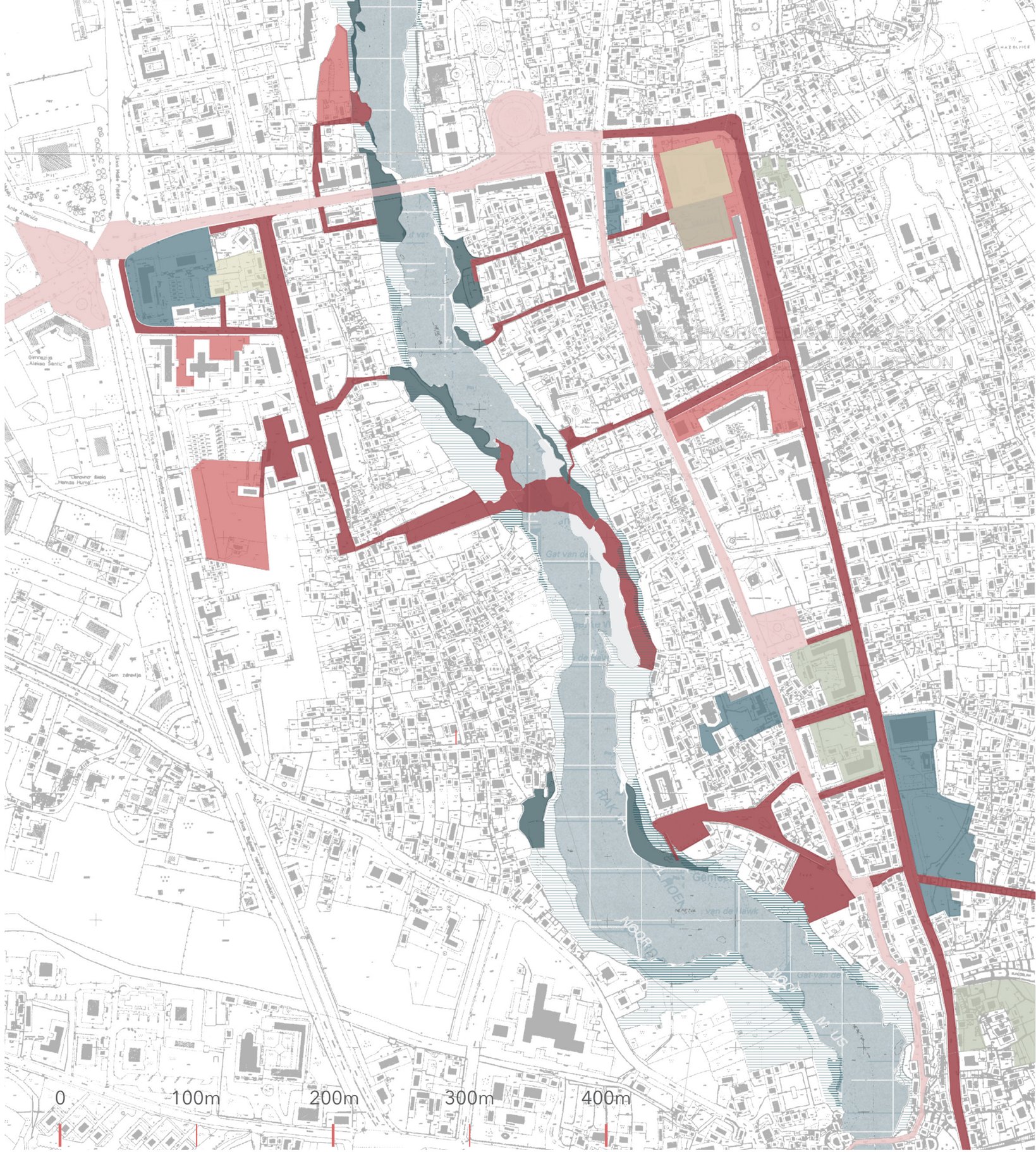
Sparse vegetation

Enclosed

Semi-enclosed

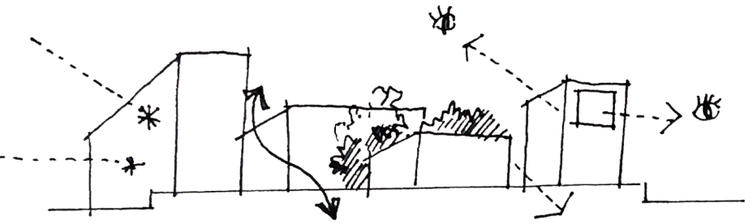
Confined

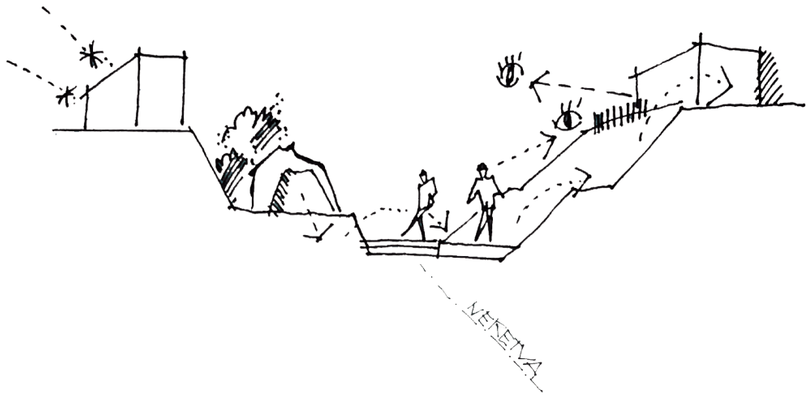
Impenetrable

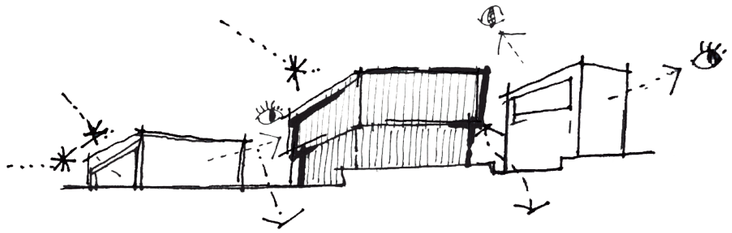


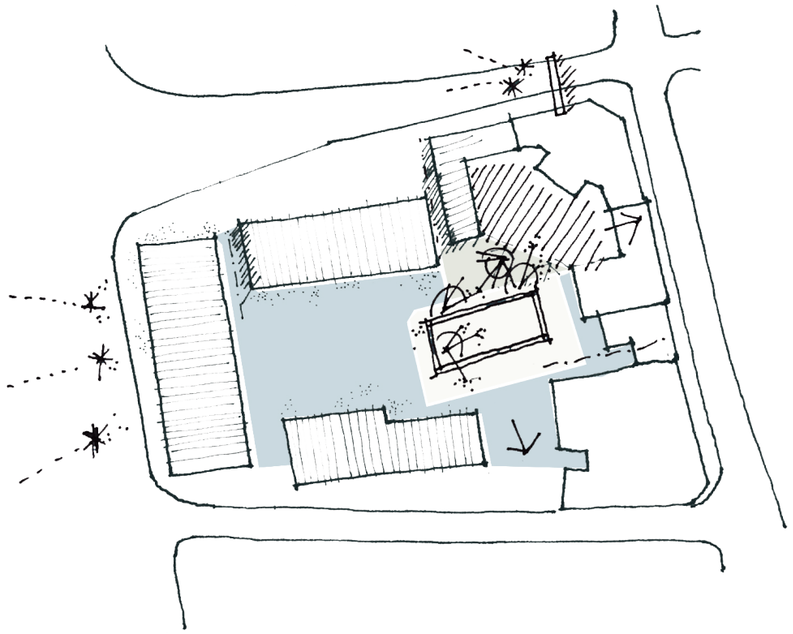
- *Enclosed*
- *Semi-enclosed*
- *Confined*
- *Impenetrable*

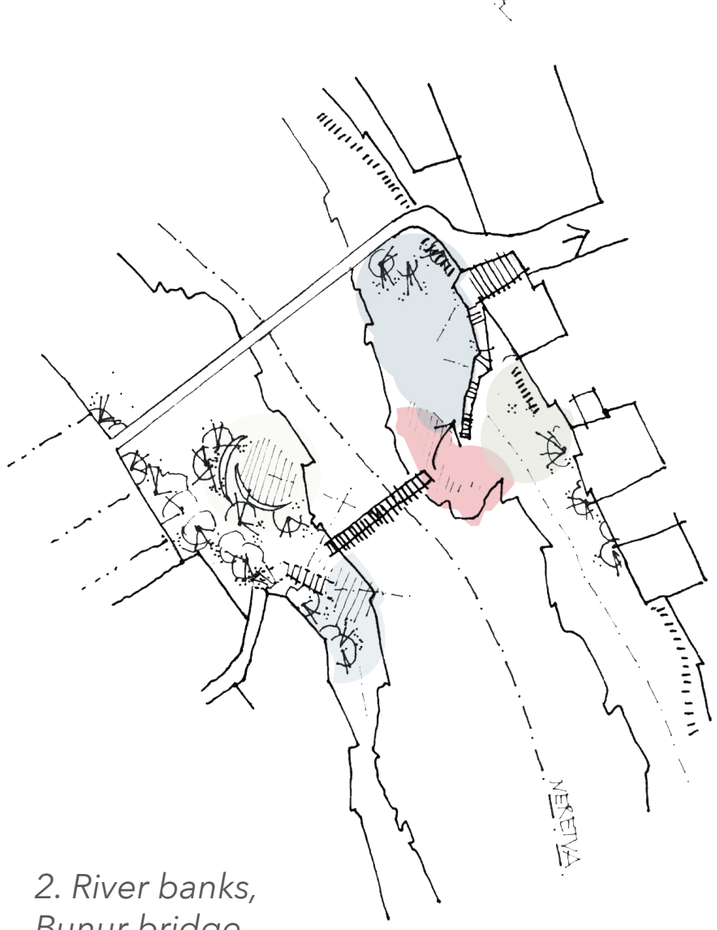
Spatial conditions

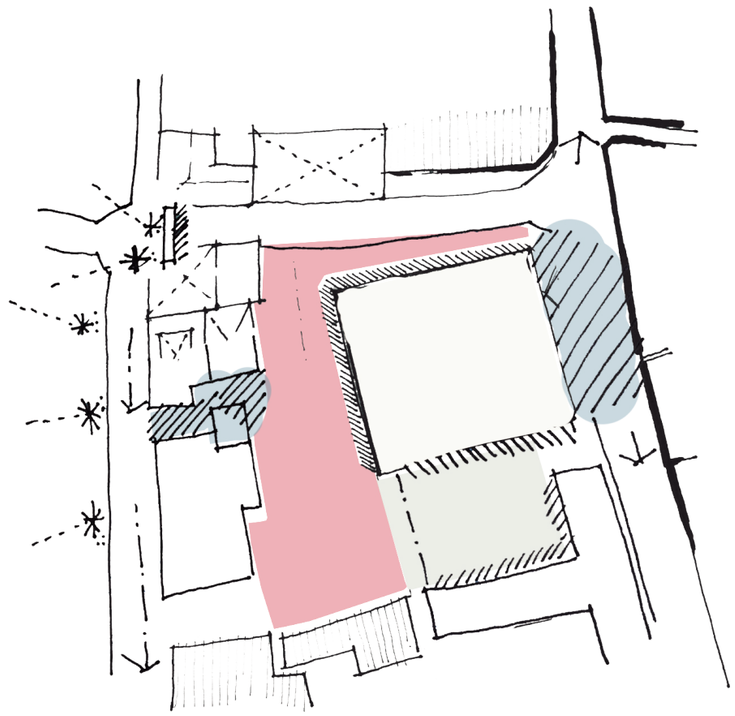










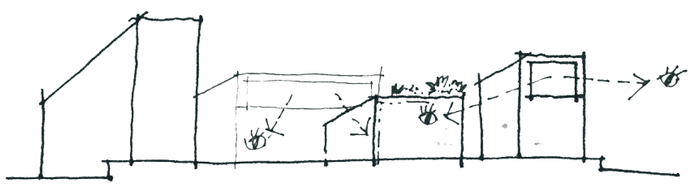


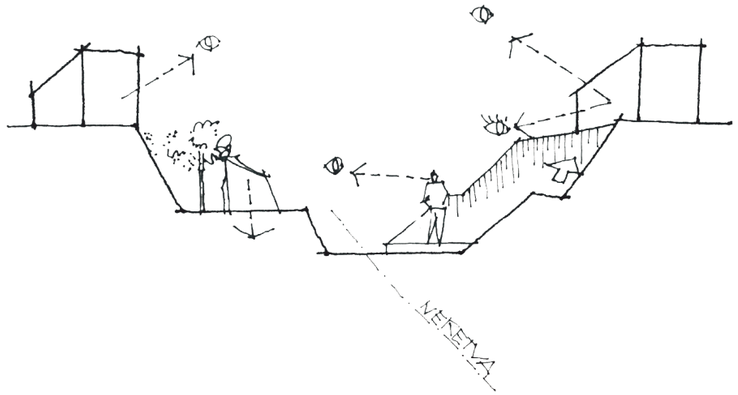
1. Residential courtyard

2. River banks, Bunur bridge

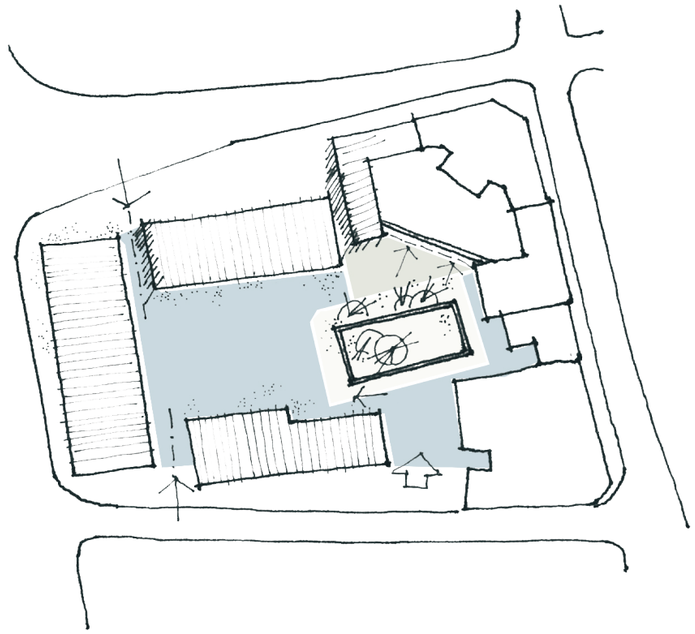
3. Razvitak department store

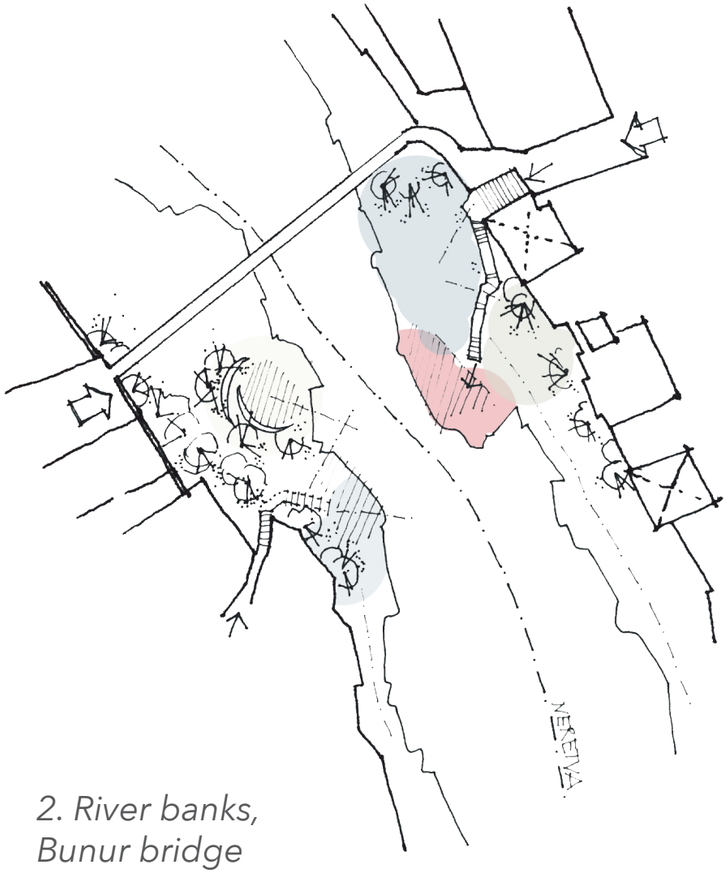
- *Enclosed*
- *Semi-enclosed*
- *Confined*
- *Impenetrable*

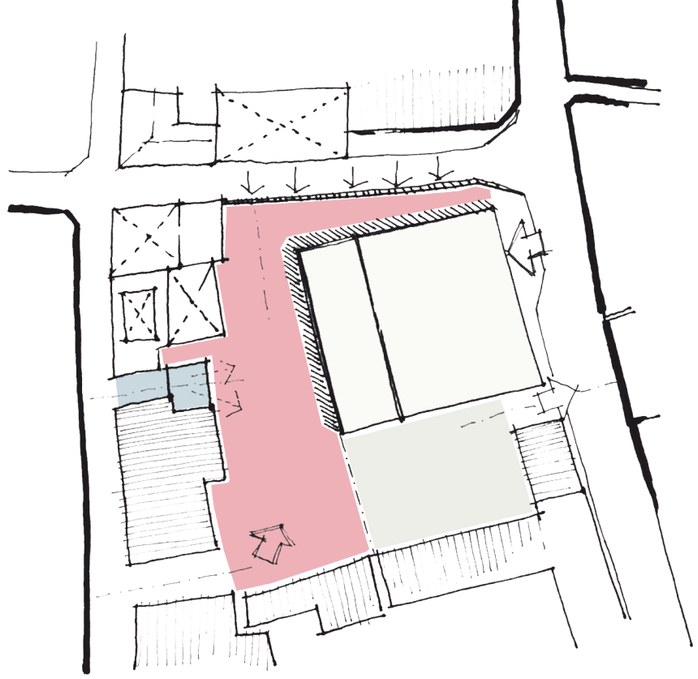












1. Residential courtyard

2. River banks, Bunur bridge

3. Former Razvitak department store

Objective

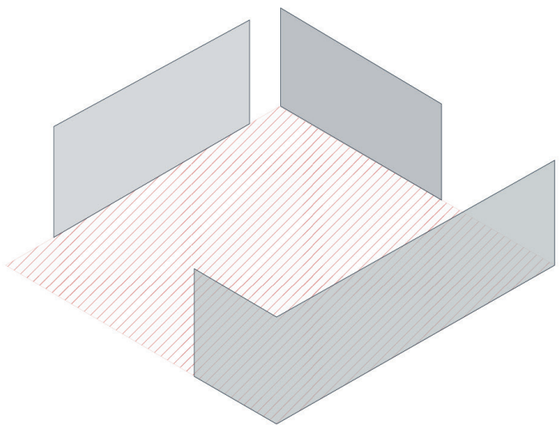
HOW CAN SUCH SPATIAL CONDITIONS BE EXPLOITED IN ORDER TO SWITCH CITIZENS' ATTITUDE AND DEFINE NEW SOCIAL CONNECTORS?

What are the most suitable spatial and material devices to enhance qualities of resilient survival landscape?

How to define a new level of memory in order to implement the previous?

What are the implications of design interventions in terms of urban and social aspects? It is possible to replicate them in similar contexts?

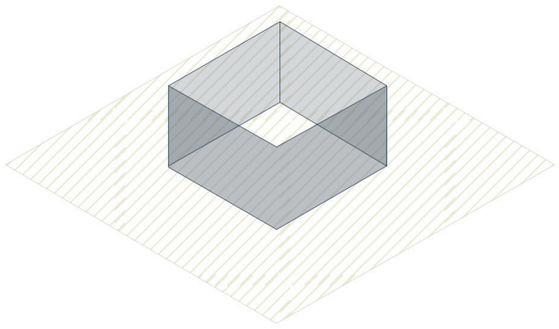
Current situation:



(Semi) enclosed

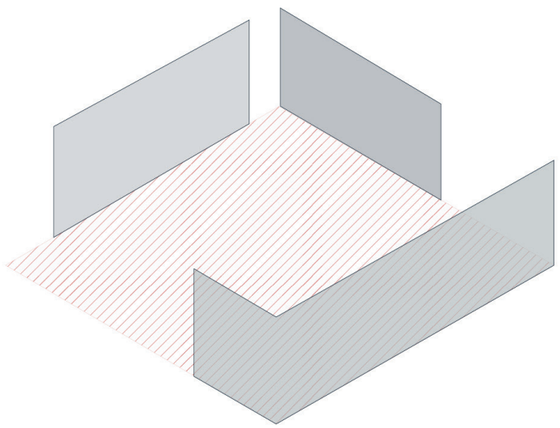


Confined

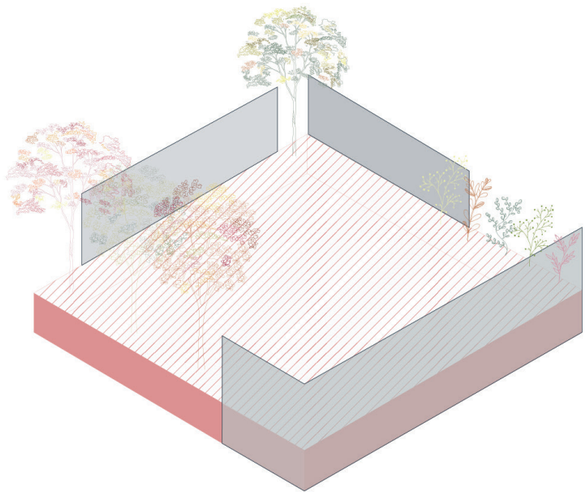


Impenetrable

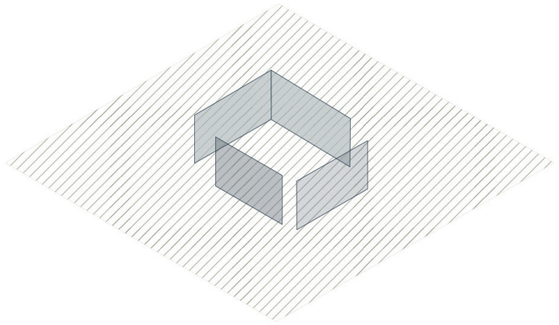
Current situation:

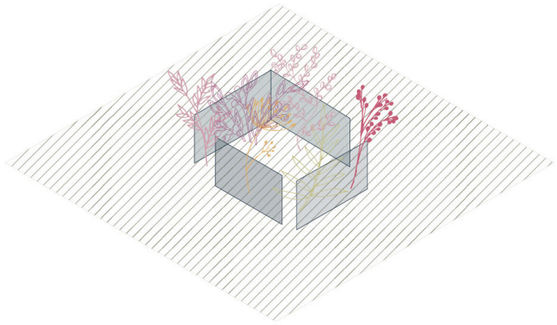


First phase - basic scenario:

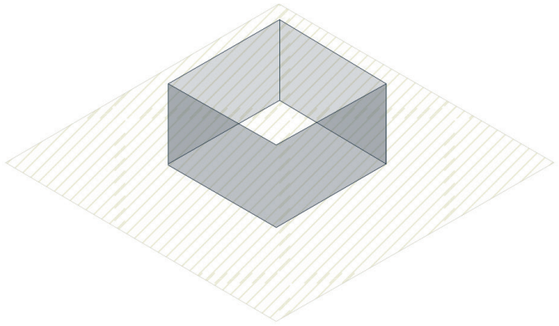


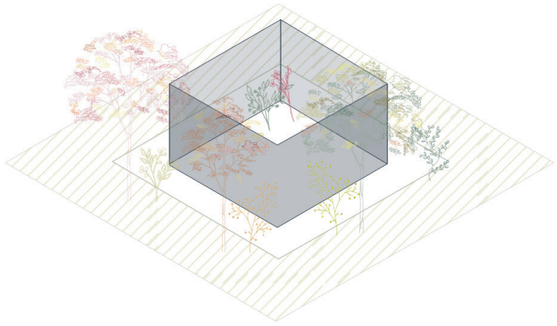
Play with the topography of the site: raising or lowering the existing level





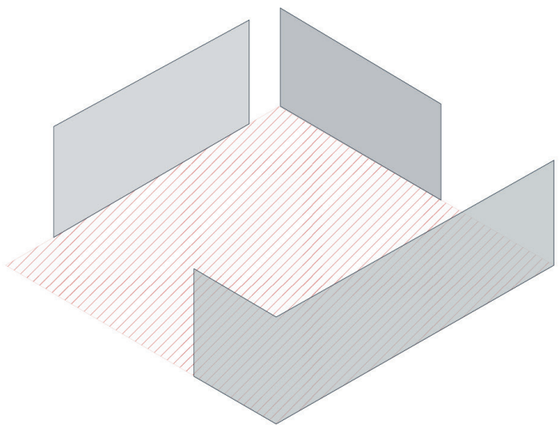
Low vegetation to emphasise the limited access



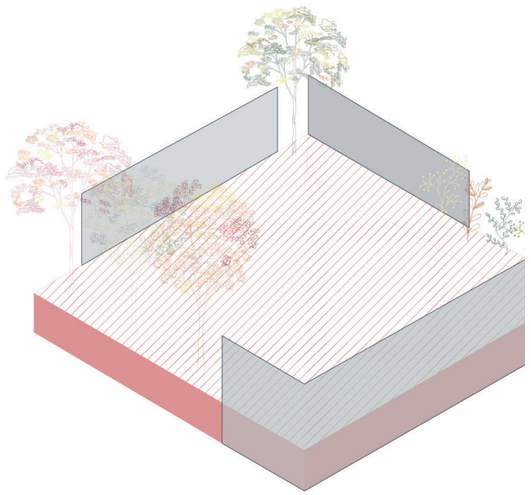


Enhance and embrace the ruin - defining an inaccessible void surrounded

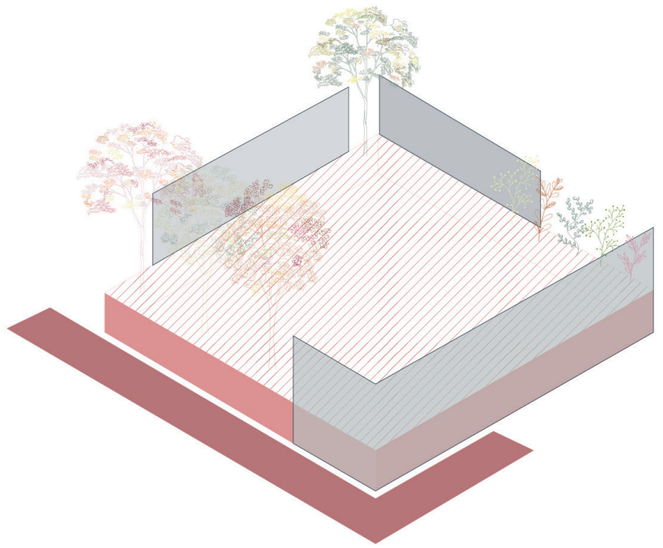
Current situation:

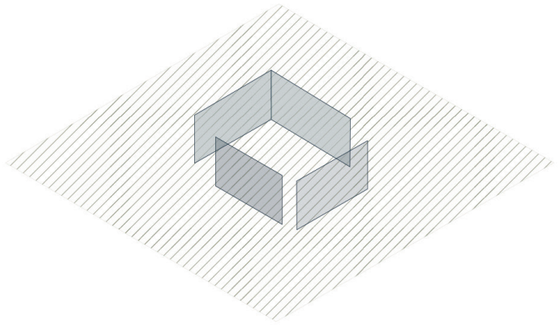


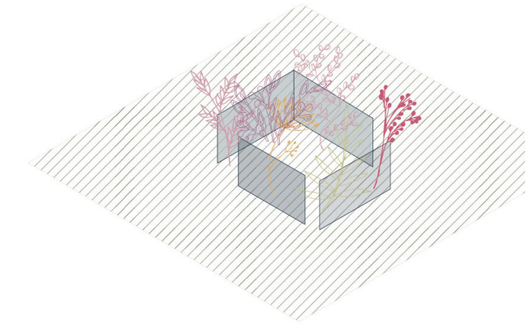
First phase - basic scenario:

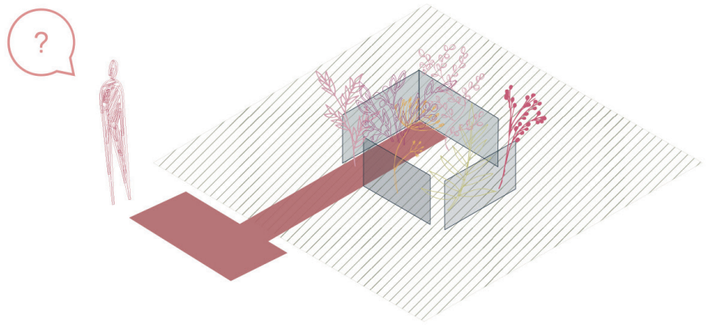


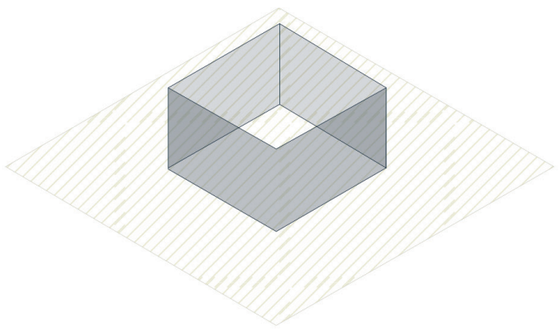
Second phase - network definition:

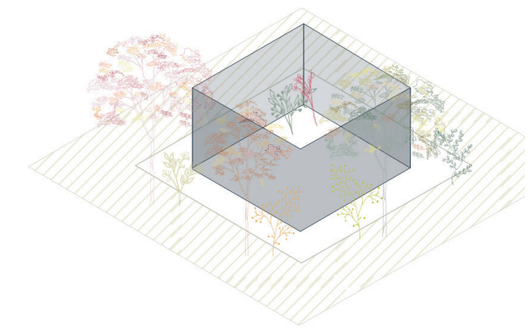


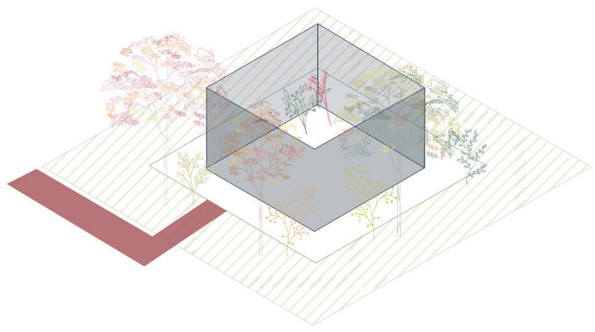




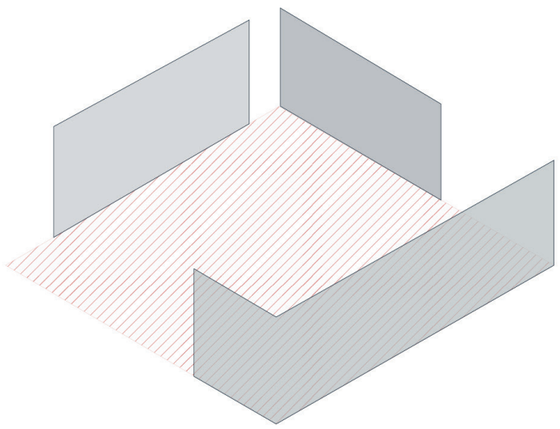


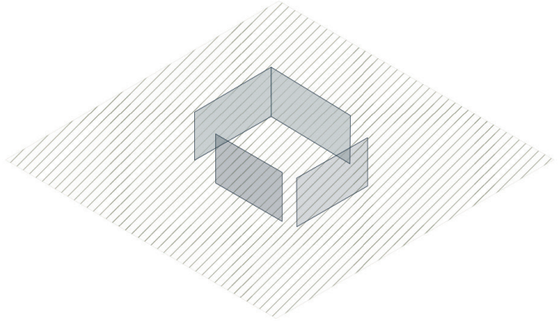


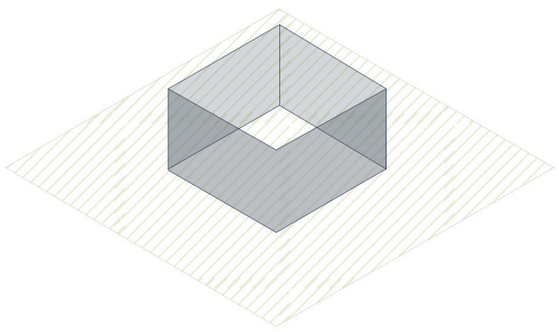




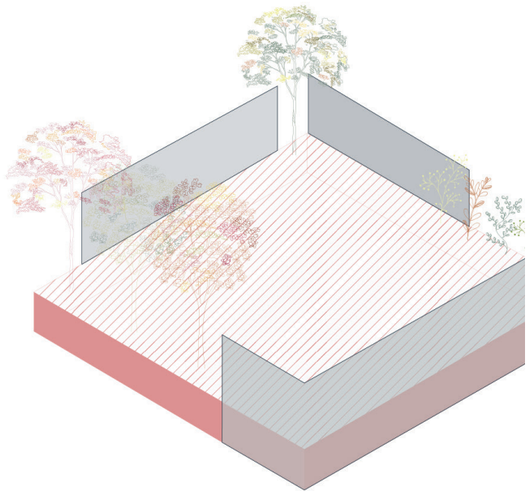
Current situation:

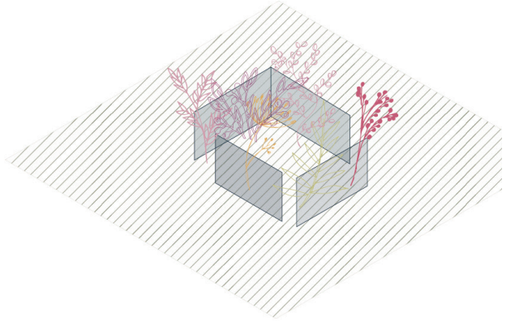


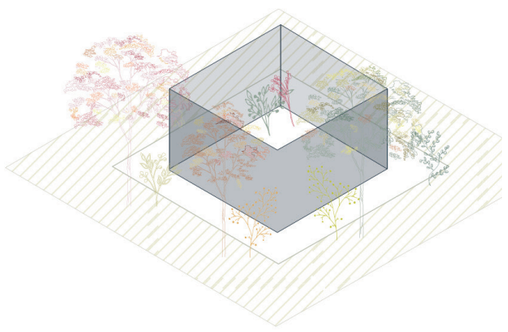




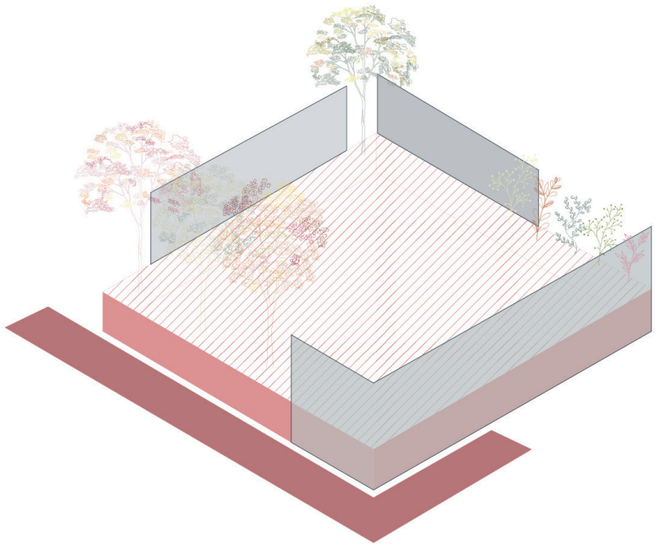
First phase - basic scenario:

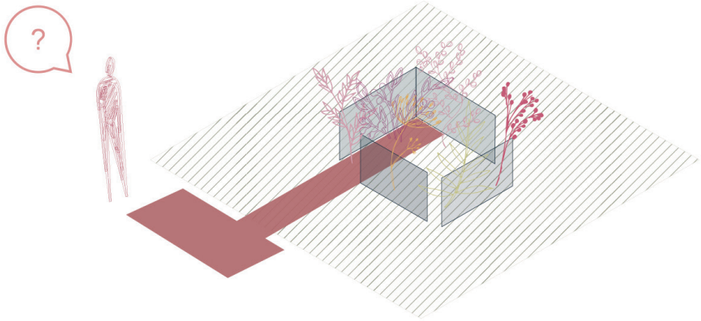


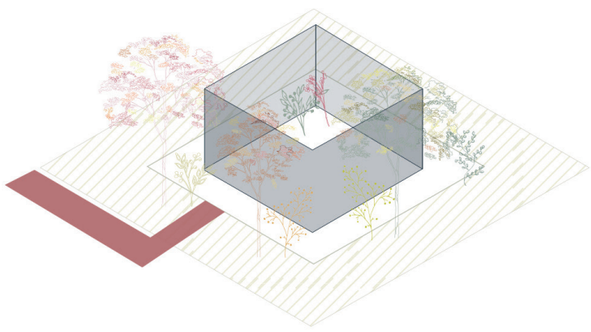




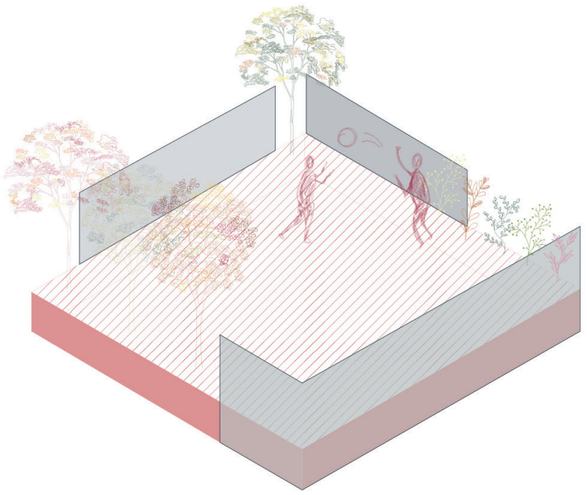
Second phase - network definition:

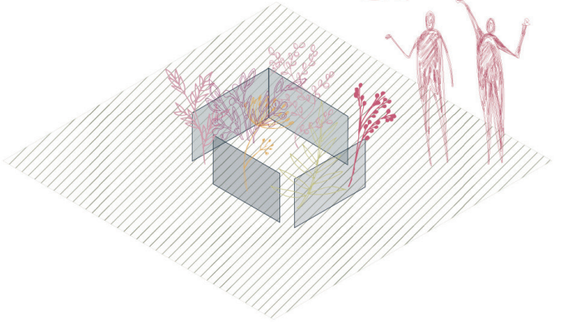


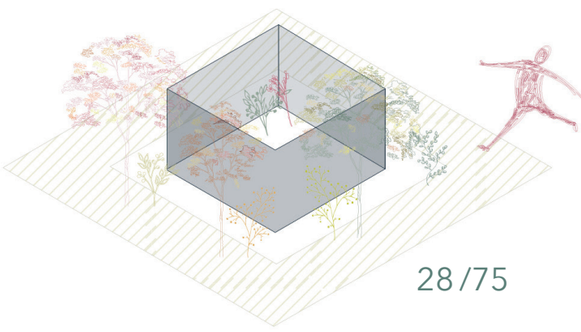


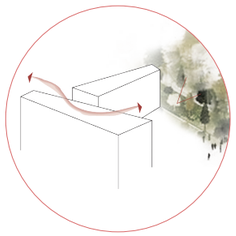
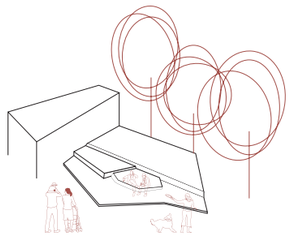
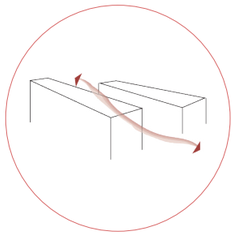
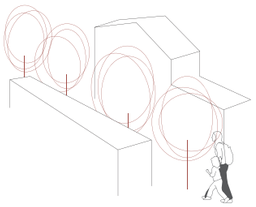
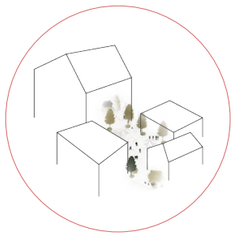
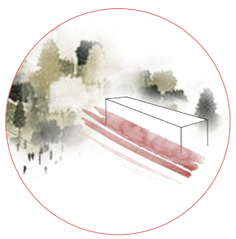
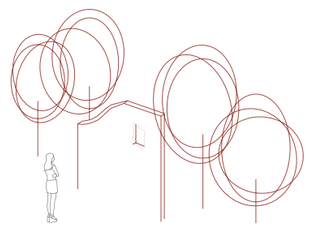


Third phase - activities:







Spatial conditions		War-time uses *of survival landscape*	Current situation *of residual landscape*	Future situation *Possible programmes*	
Enclosed		*Gathering areas* in safe/protected squares/courtyards with easy way out	*Residual square or courtyards used as parking spaces by the residents*	*Renovated square as meeting point/local activities*	
Semi-enclosed		*Temporary areas* water and food distribution points, main lines of movements, short-term gathering points	*Residual commercial street with vehicular circulation, the sides used for illegal parking*	*Temporary activities: exibithions, events*	
Confined		*Kitchen garden* protected courtyard as only source of supply	*Courtyards with no-roof-ruins and low vegetation*	*Community gardens*	
Impenetrable		*Long-term stay* areas with shelter and hospital/first aid station	*Abandoned ruins, inaccessibile due to dense vegetation inside and surrounding*	*Ruins as memorial*	


How?





32 participants

Age classes: 21/26 - university students
30/40 - workers

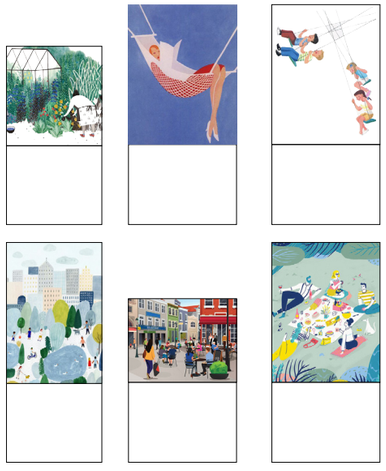
ROLE GAME

What activities would you want in Mostar? Where?

20 minutes

Video and photos documentation

Notes from participants



Workshop Co-Design

Mostar
26.03.19



COMPLETE THE PHOTO!

Understand to what kind of changes citizens are open for

30 minutes

Video and photos documentation

Participants explain the reasons behind their choices

PLANNING GUIDELINES

What are the most important directions to be taken into consideration?

10 minutes

Photos documentation





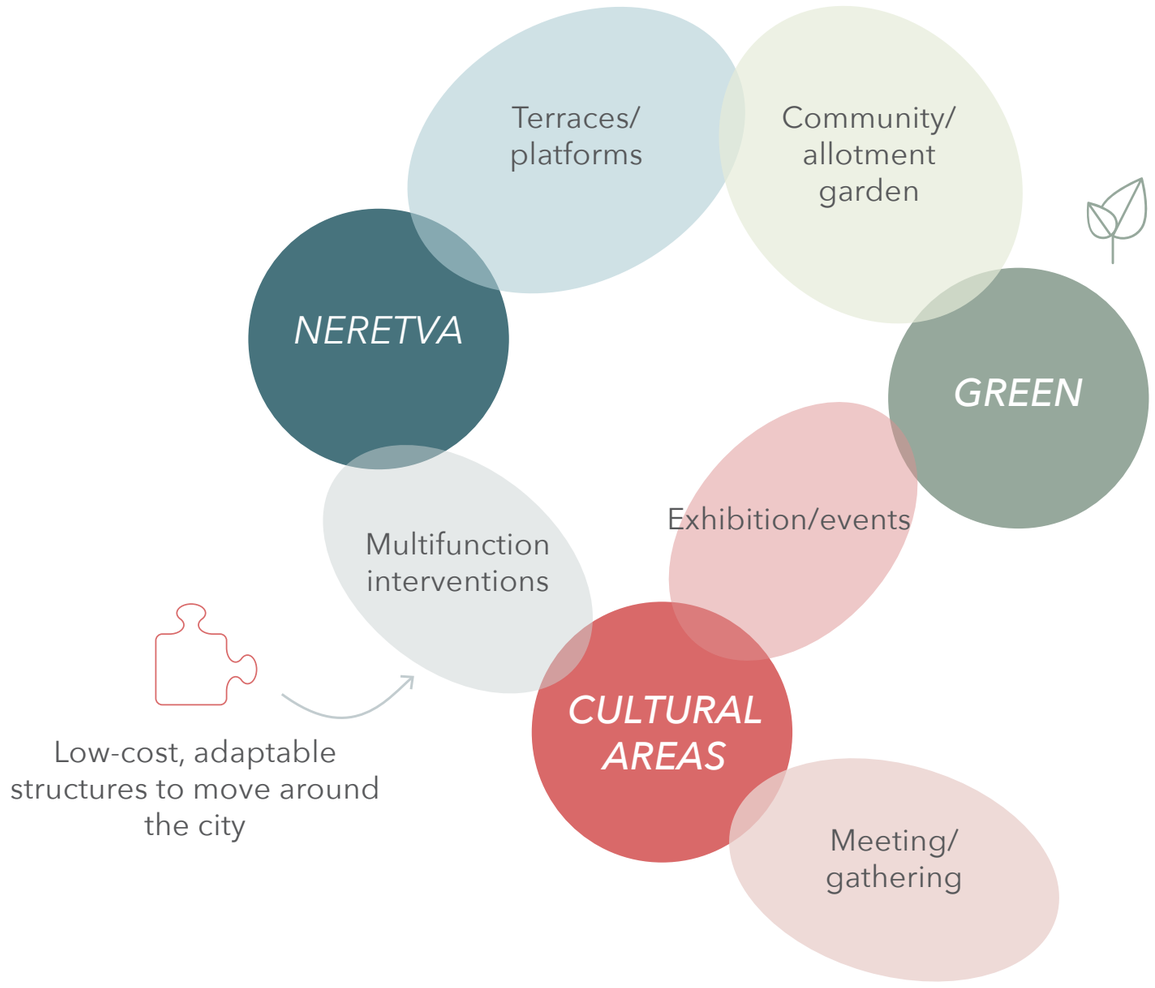
Mostar is gone! All we have left is the name. Now it's time to reactivate the space and make a new city.

Main planning guidelines

01. Increasing green space

02. Providing public space to socialise

03. Bringing back Neretva as public space



1.

2.

3.

0 20 40 60 80m

1. *Residential courtyard - current situation*

1. *Residential courtyard - design proposal*



2. *Riverbanks, Bunur bridge - current situation*



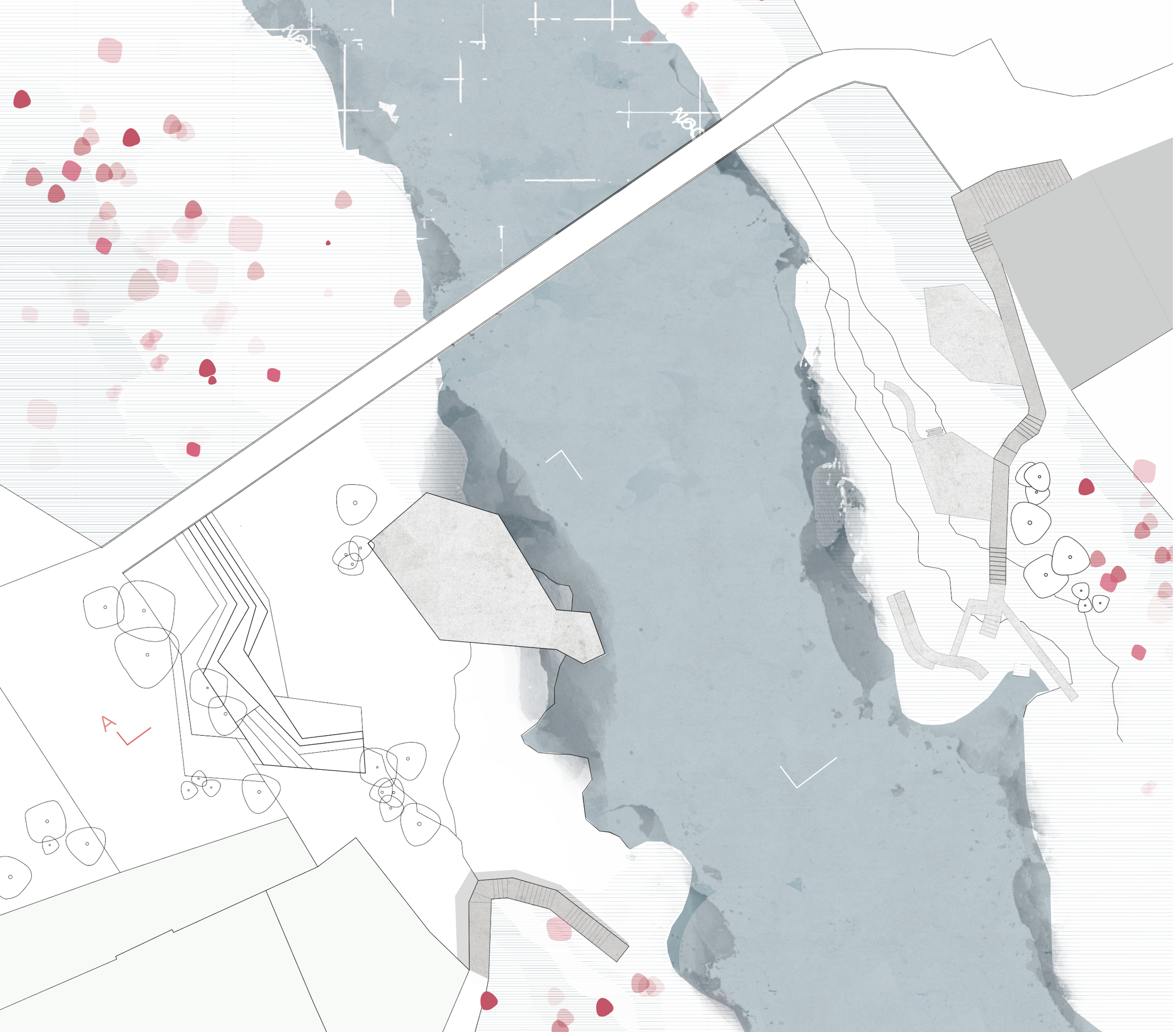
2. *Riverbanks, Bunur bridge - design proposal*

3. *Former Razvitak department store - current situation*

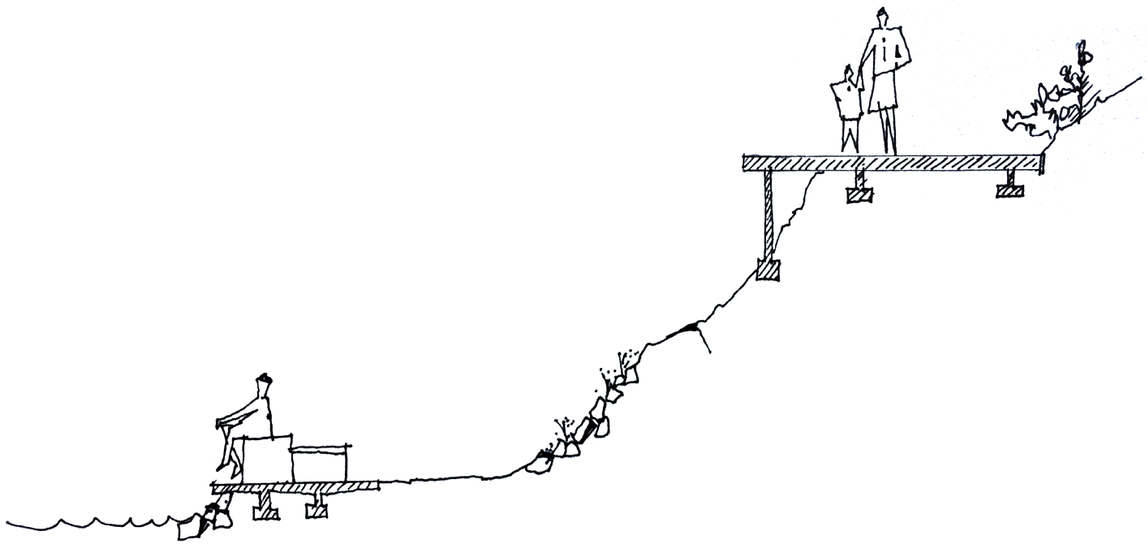
3. *Former Razvitak department store – design proposal*

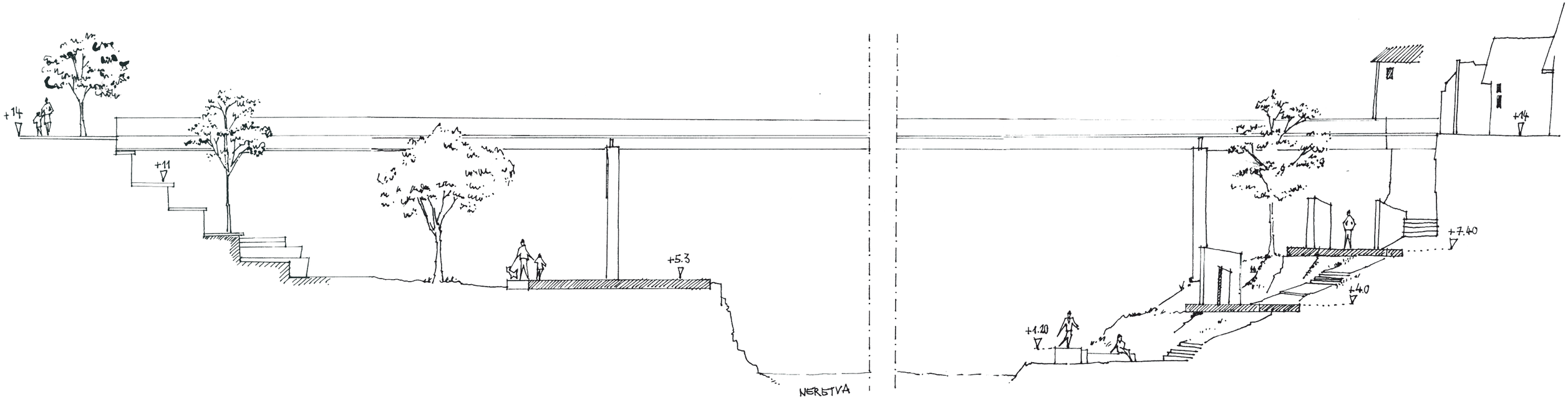
Riverbanks, Bunur bridge

0 10m 20m

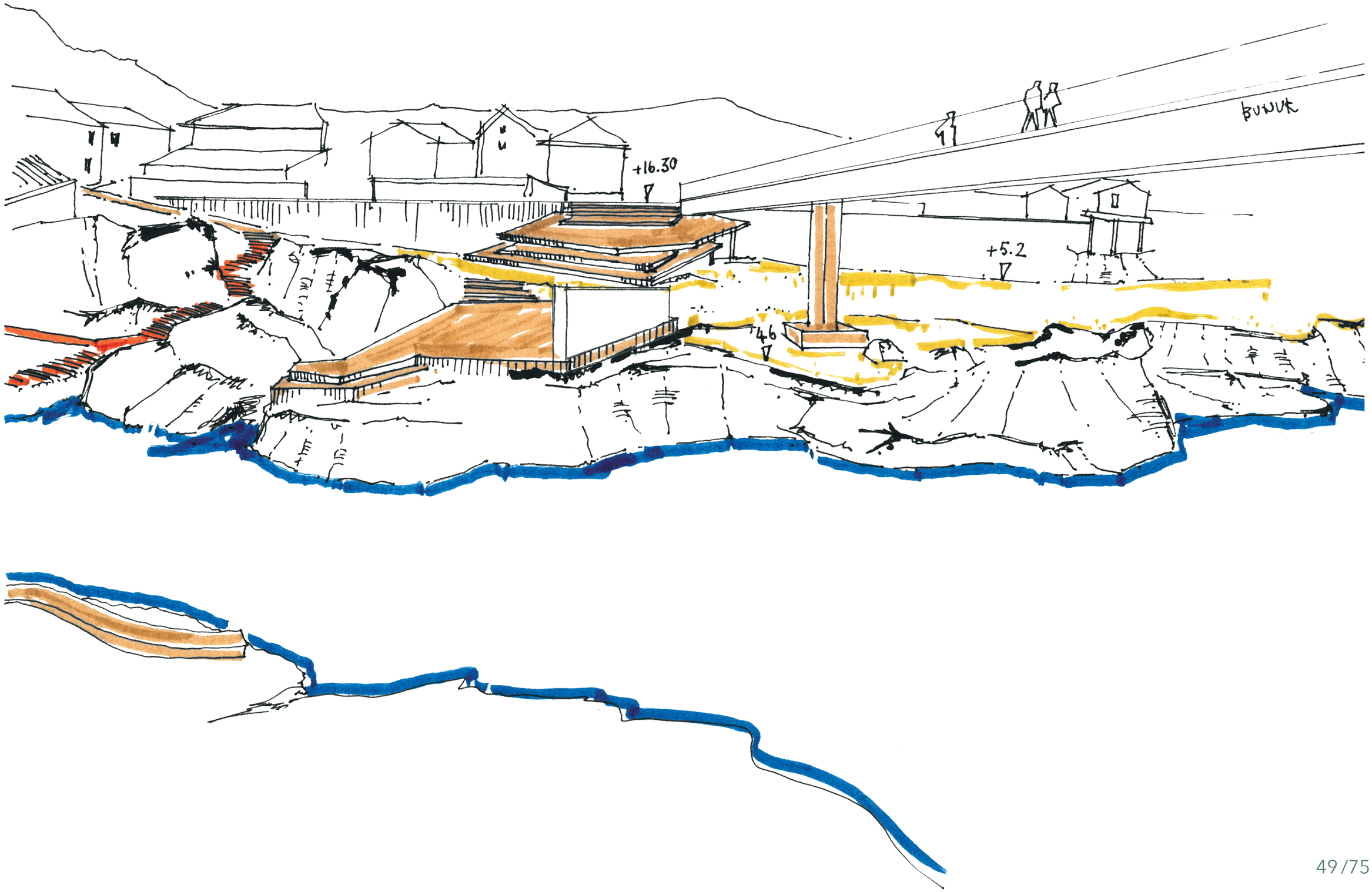

A
A
0
10m
20m

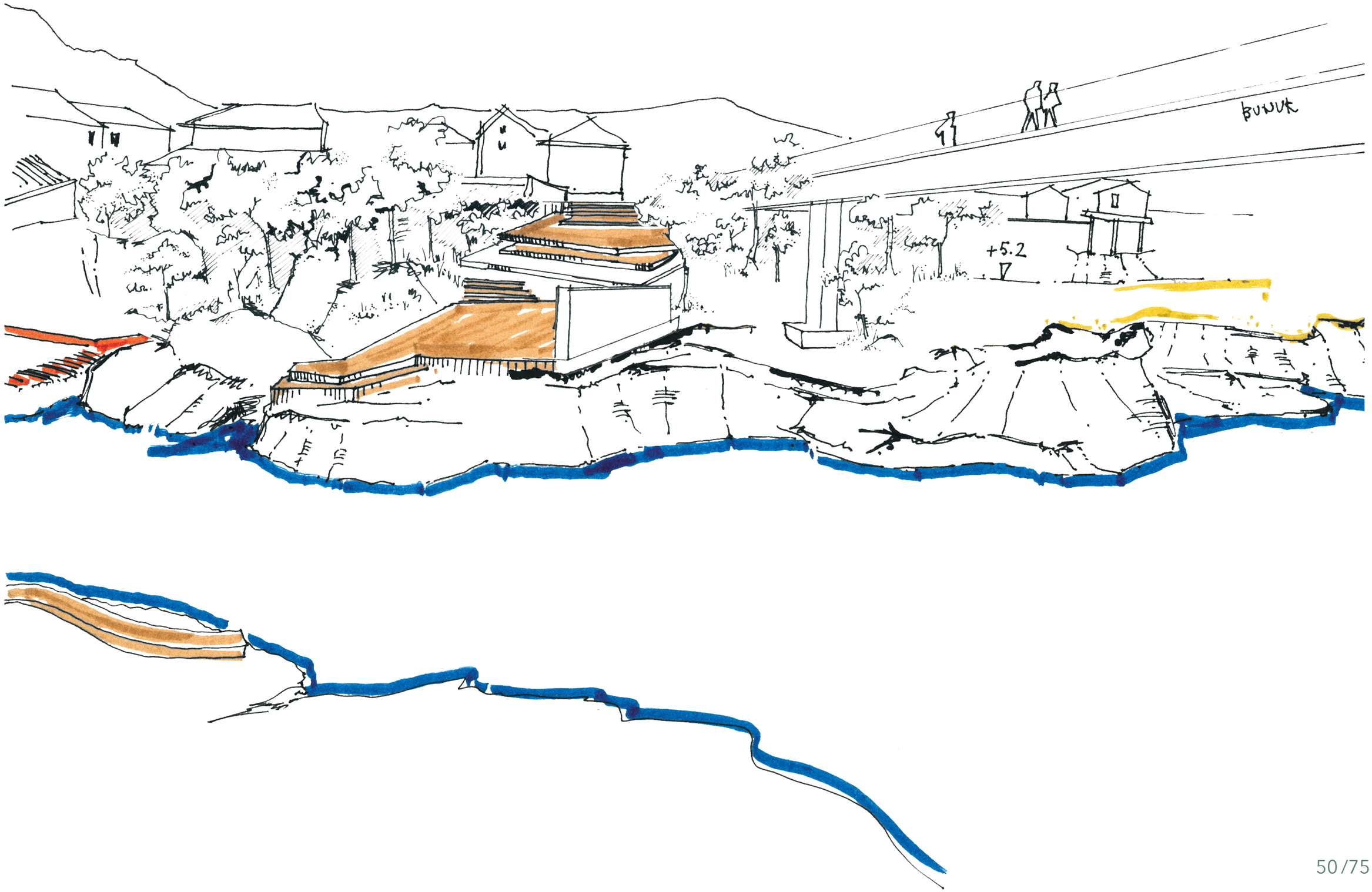
Section A-A

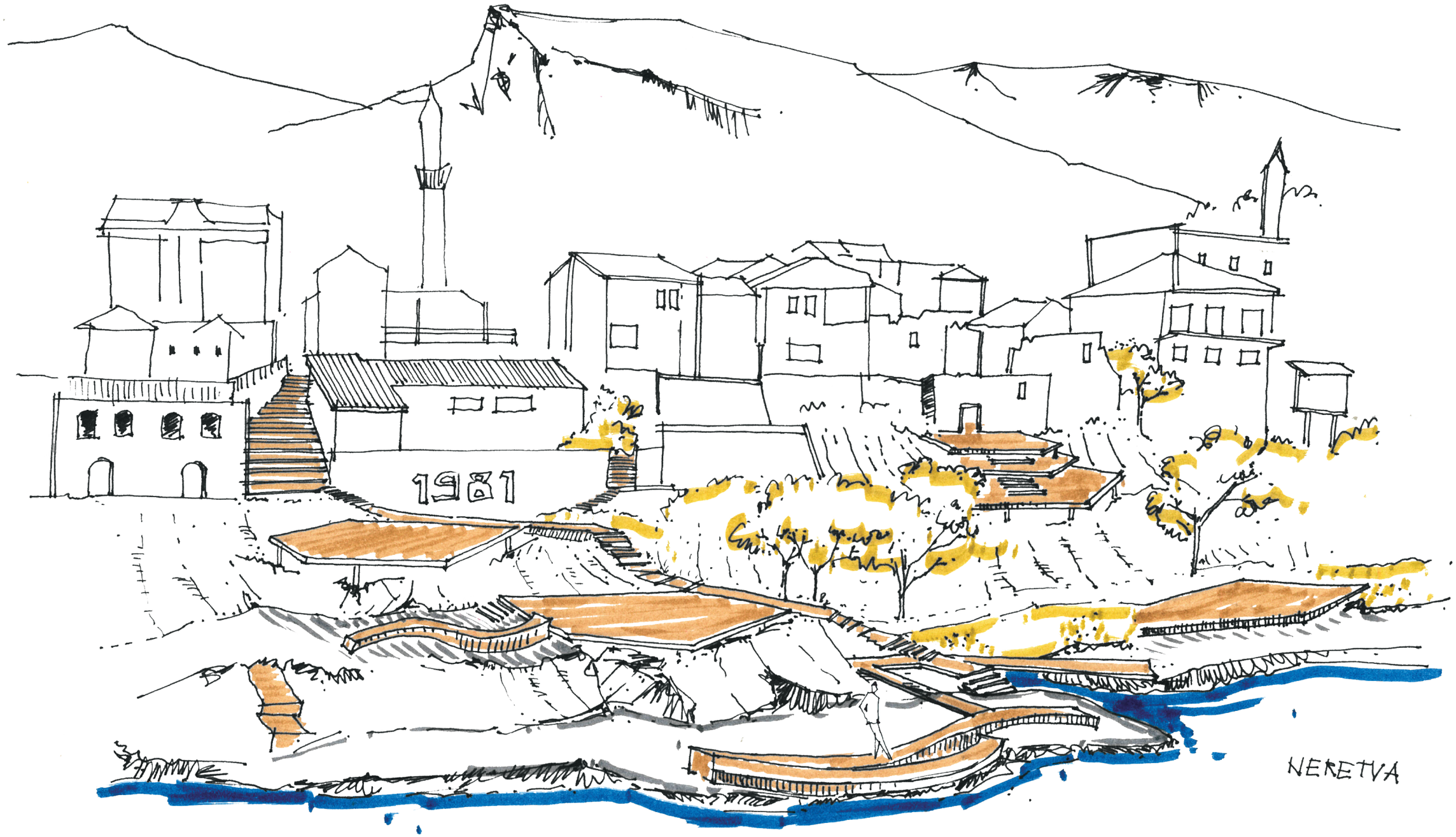




0 5m 10m


+16.30
+5.2
+4.6
BUNUK


BUNUK
+5.2


1981
NERETVA


1981
NERETVA

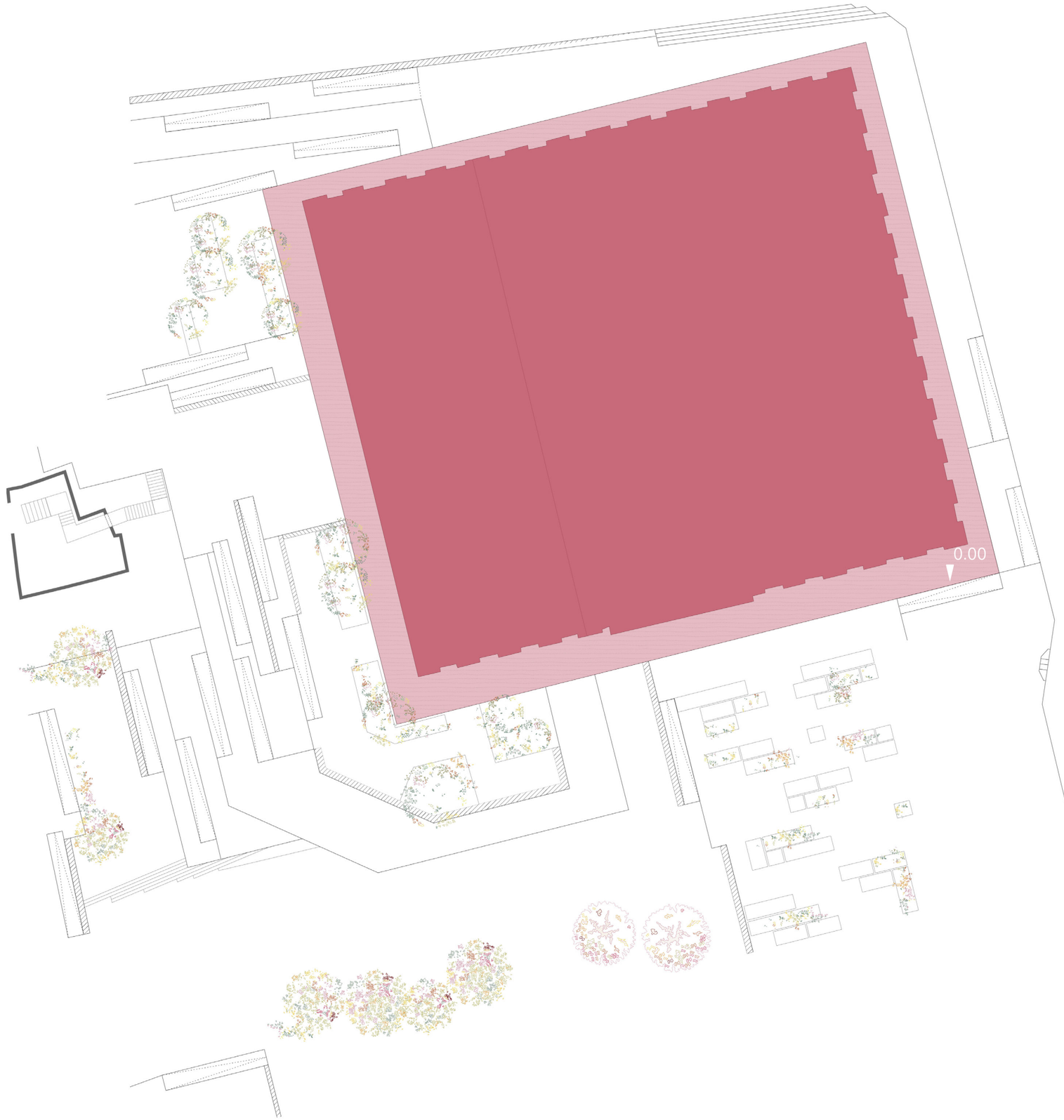

1981
NERETVA

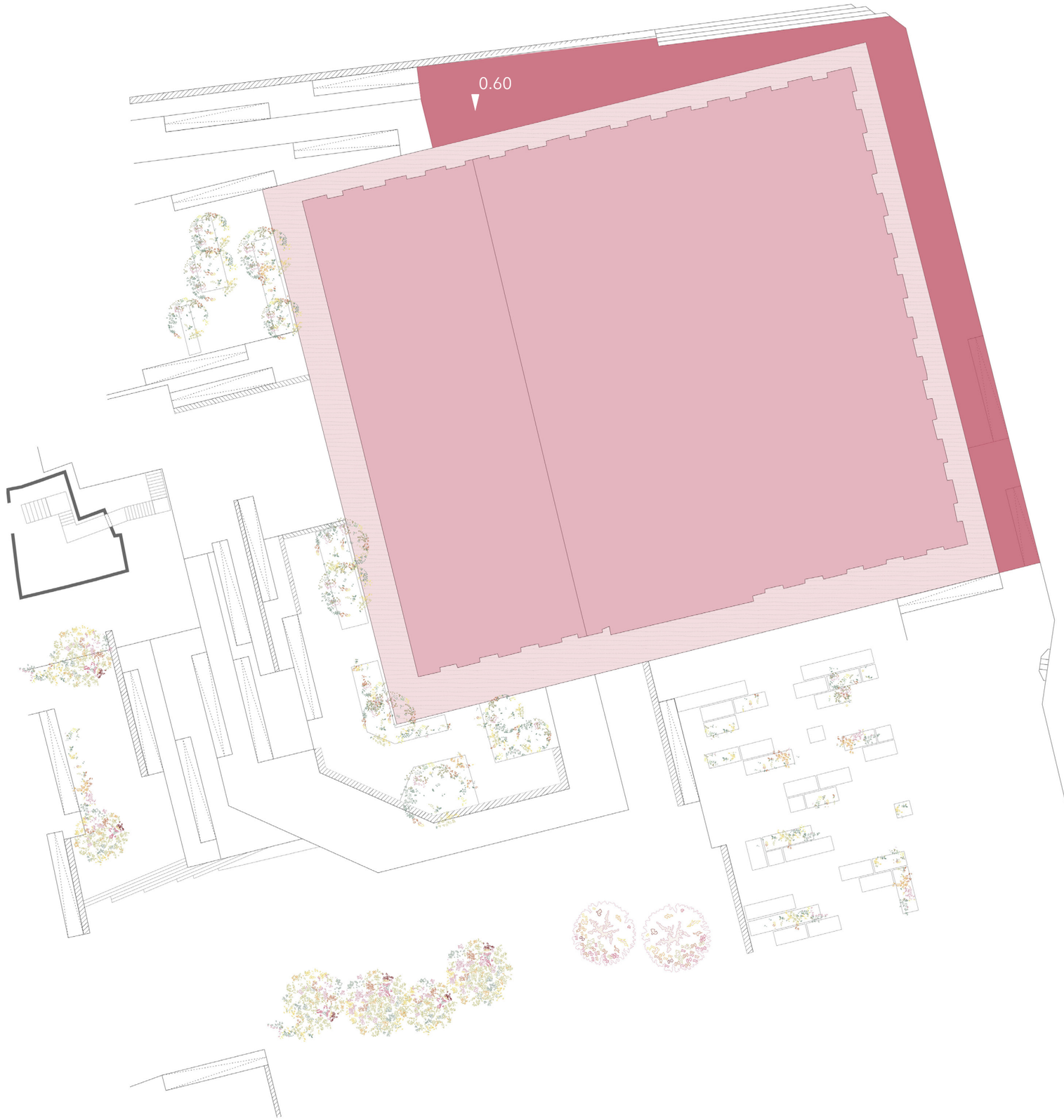

1981
NERETVA

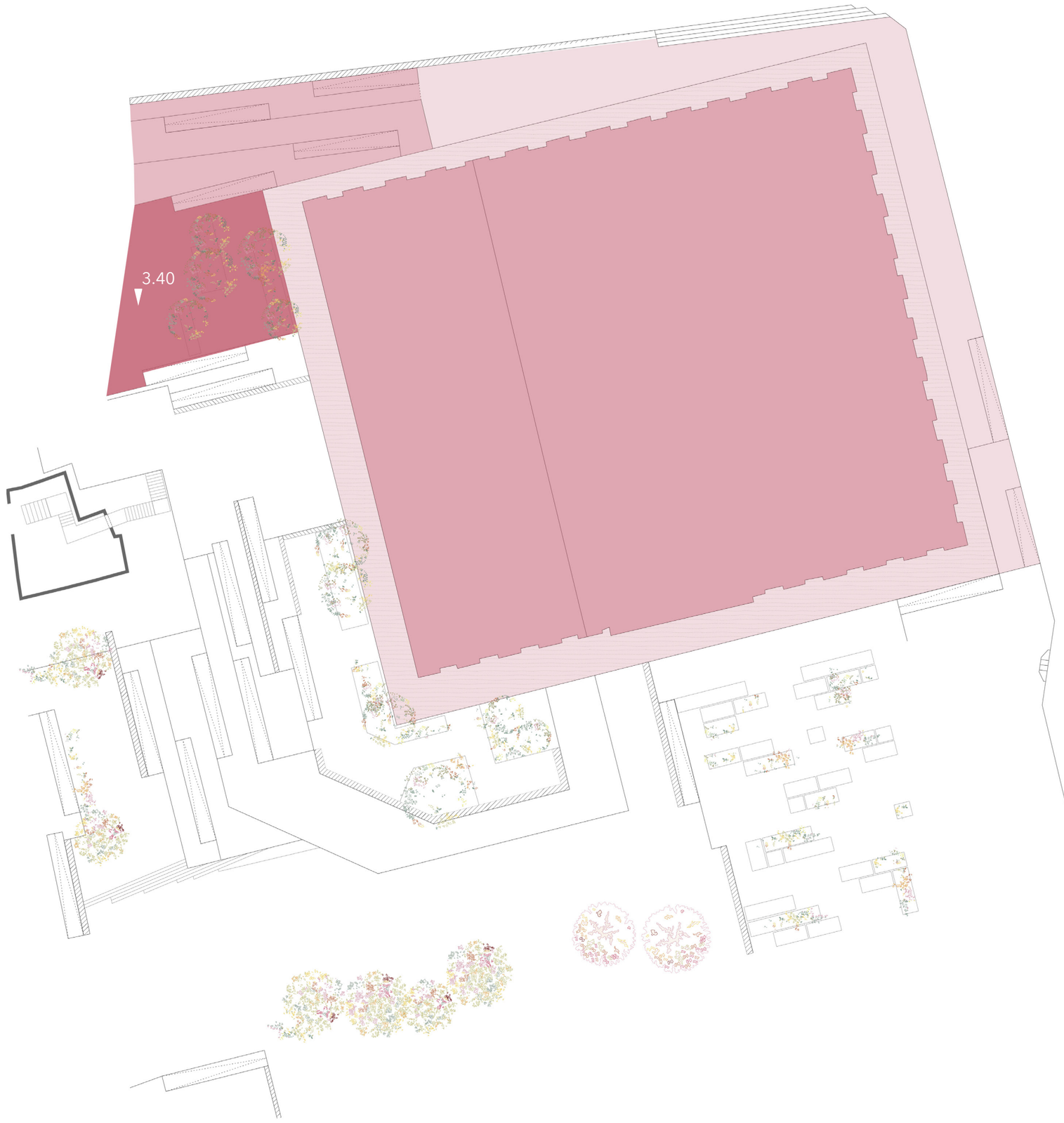
Former Razvitak department store

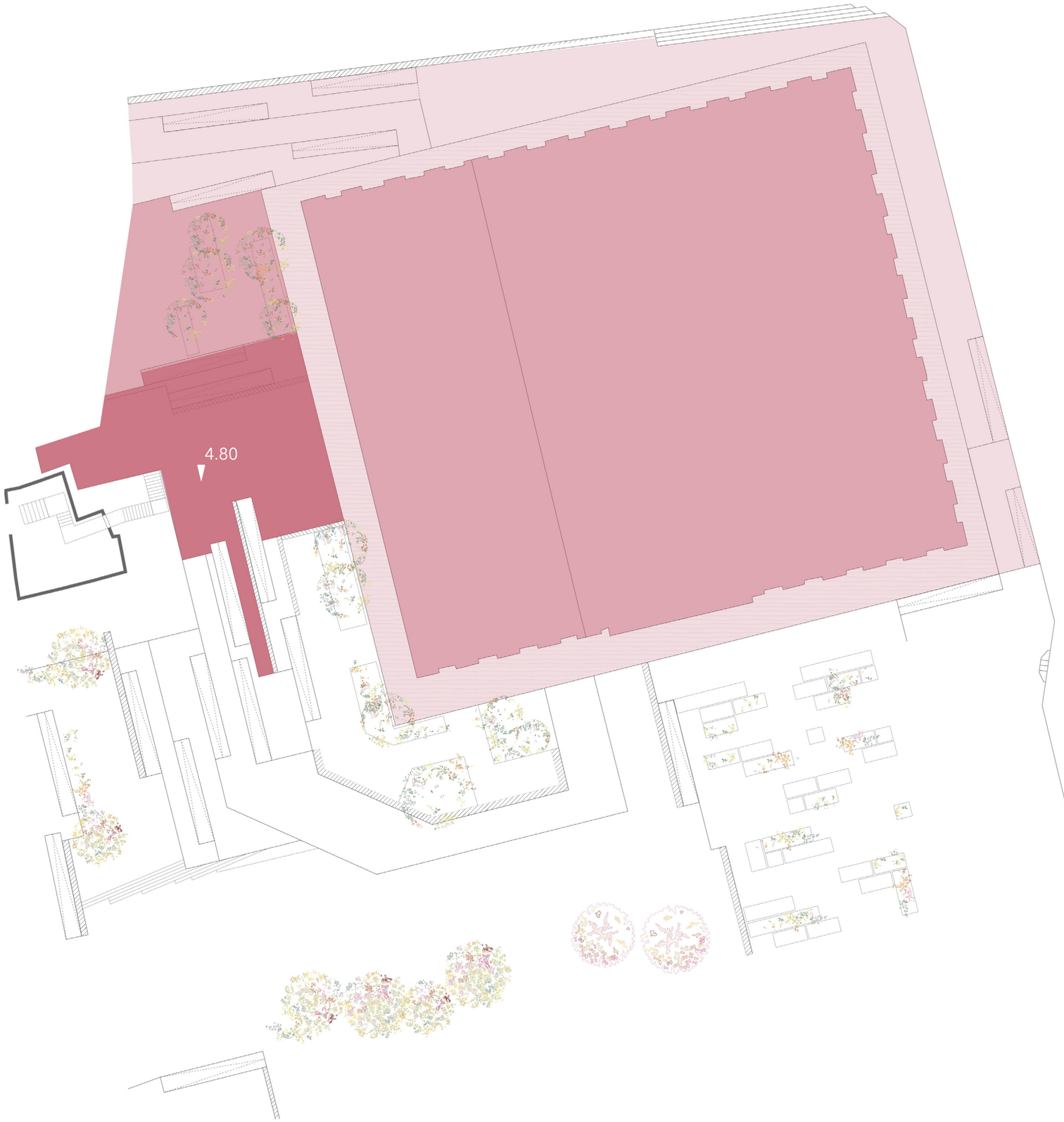


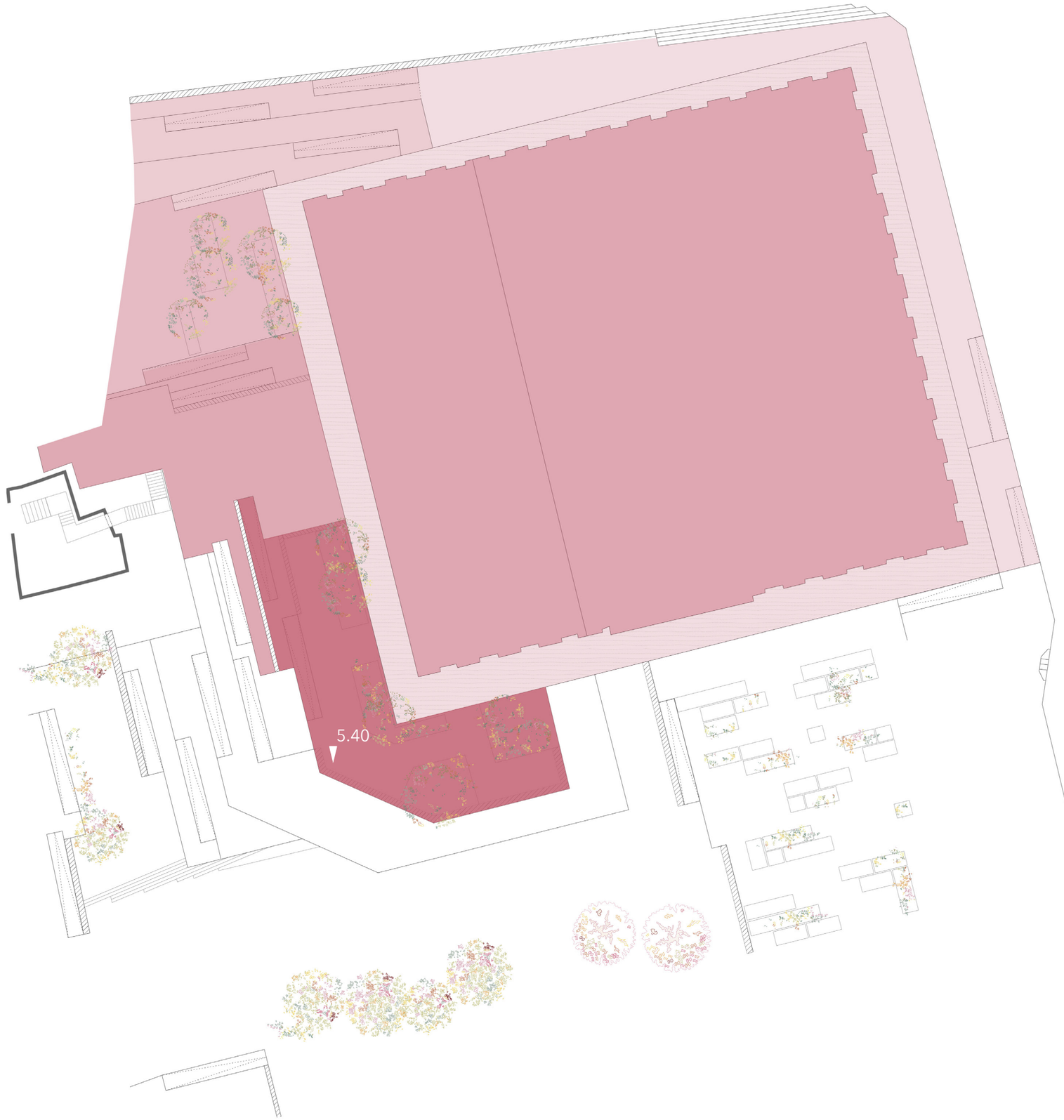
0 20m 40m

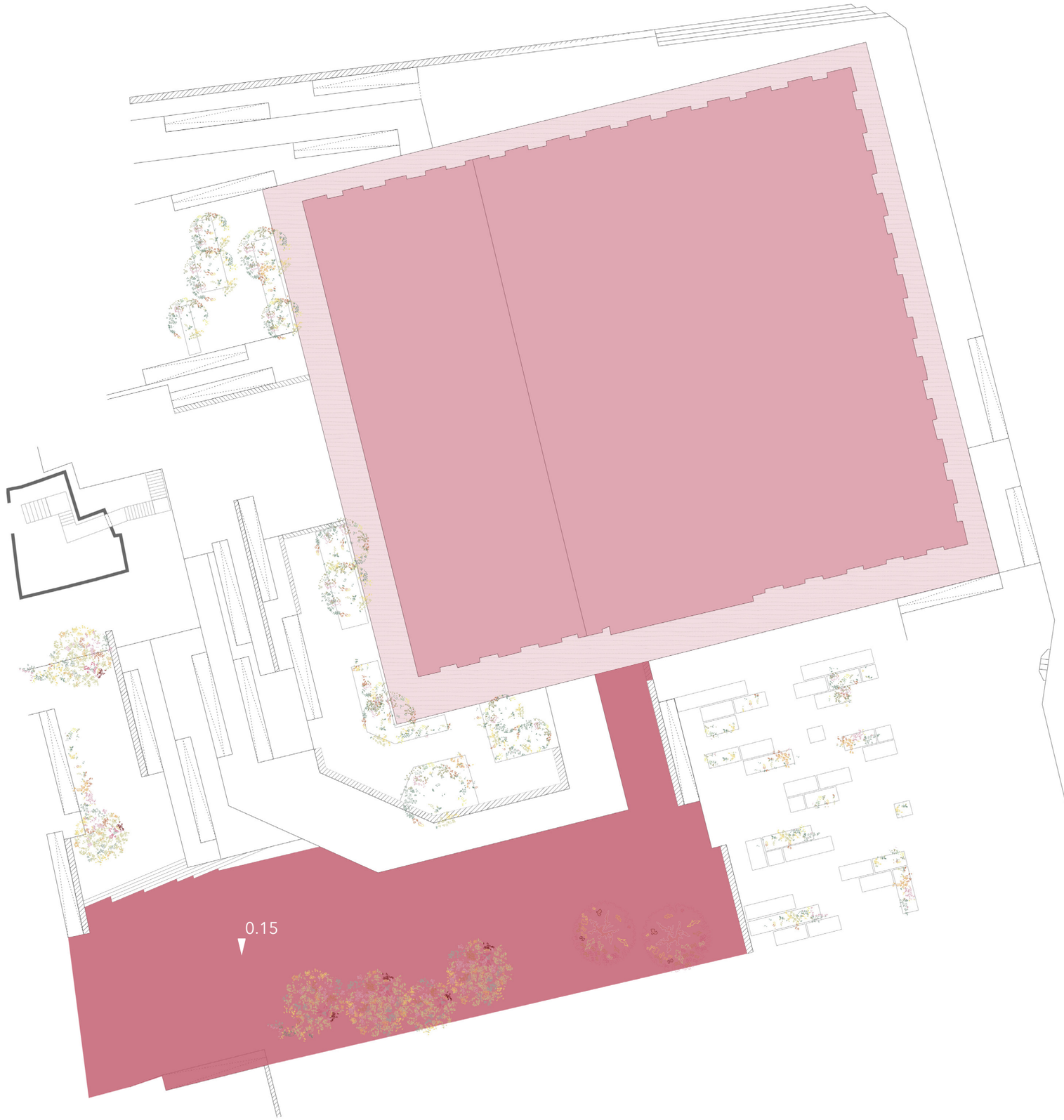

0.00


0.60

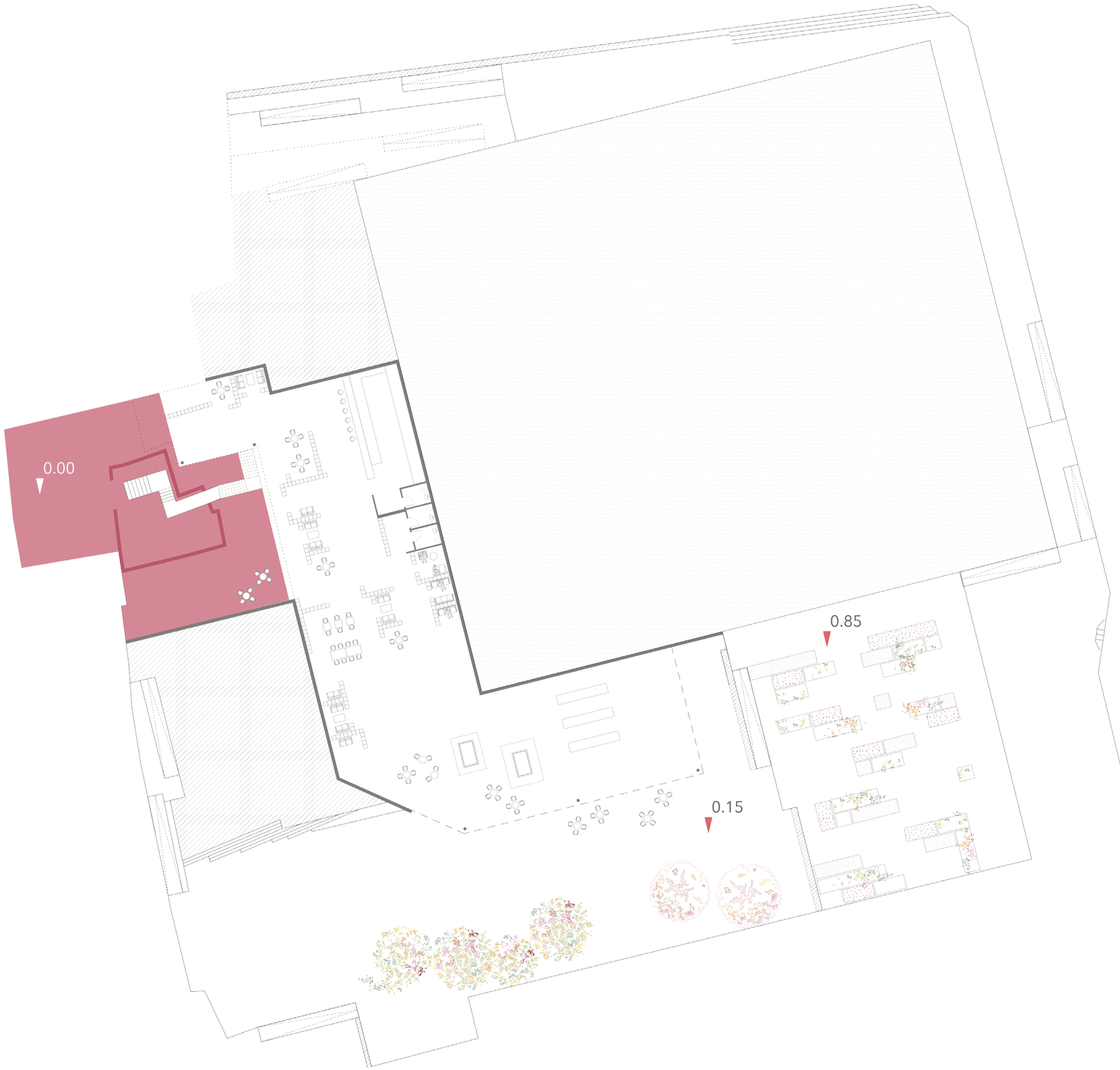

3.40


4.80

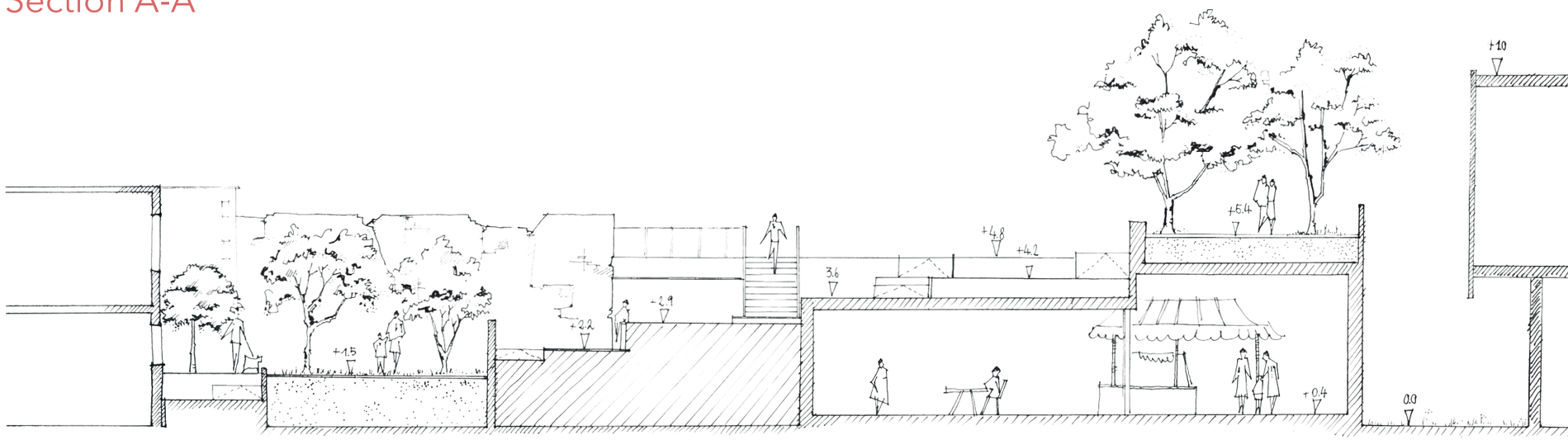

5.40


0.15

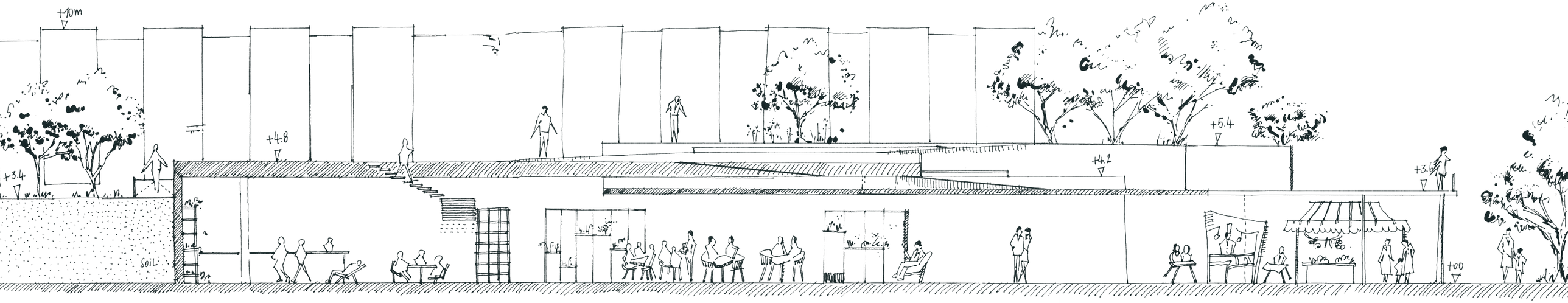



0.00
0.85
0.15

Section A-A



Section B-B



0 5m 10m


Sophora japonica
Cornus florida
Cercis siliquastrum
Ambrosia artemisiifolia
Capsella bursa-pastoris
Ilex crenata
Anchusa italica
Grass
0
5m
10m

1 - 2 years

3 - 5 years

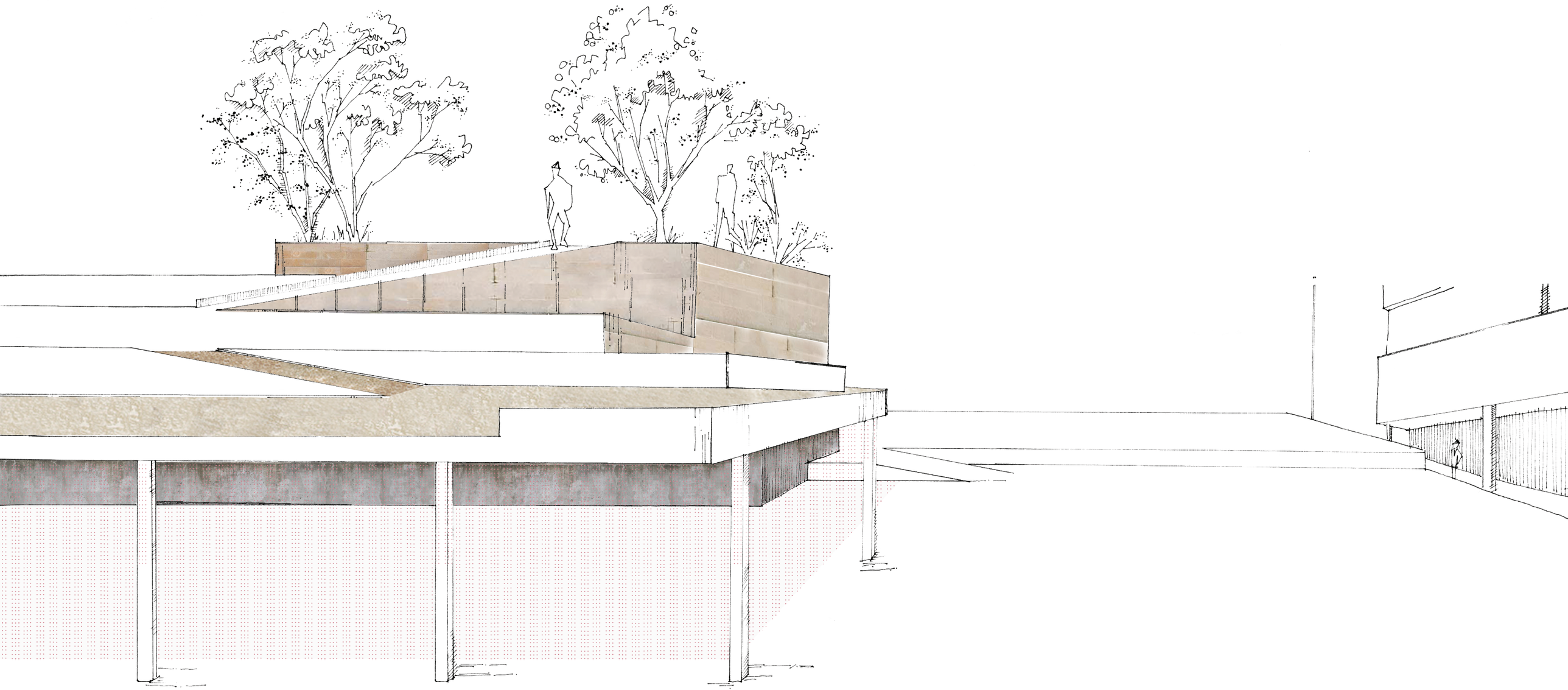
6 - 10 years

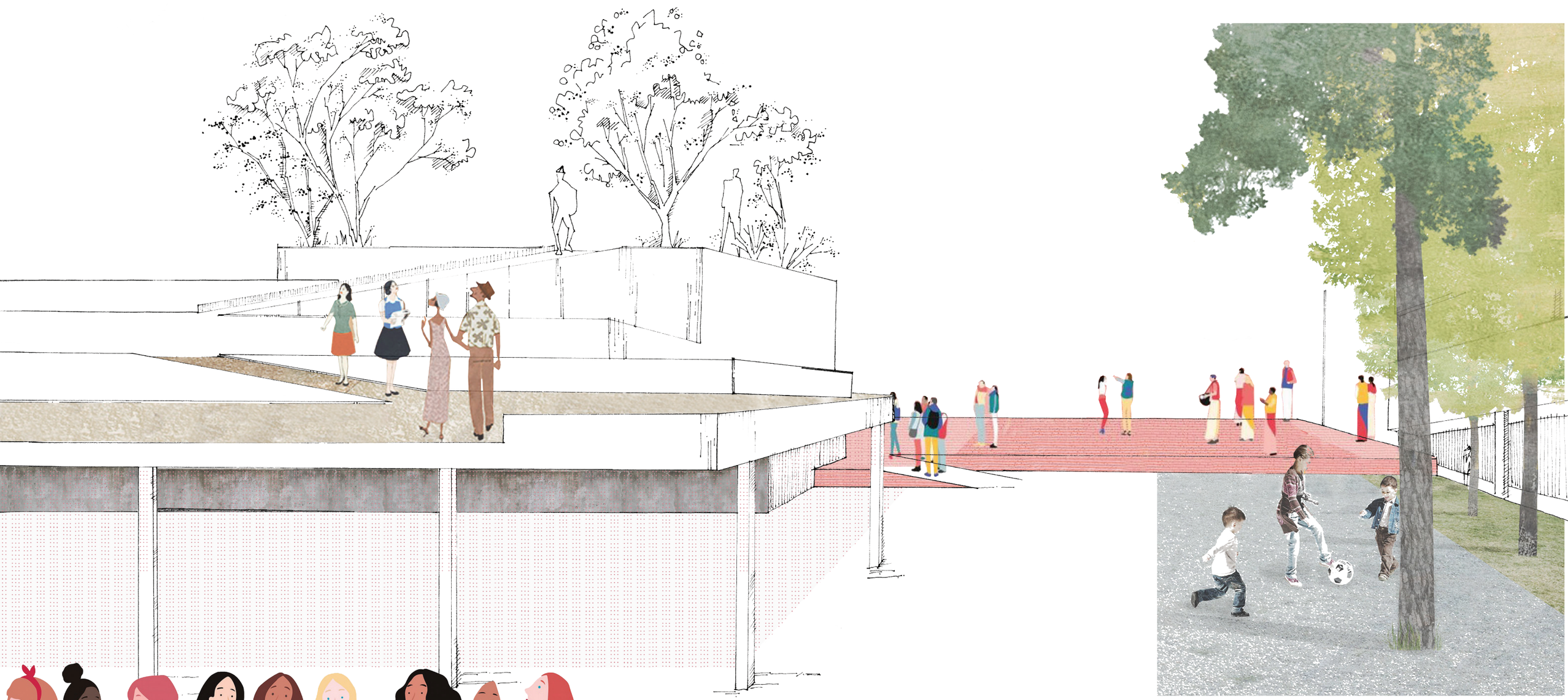


0 5m 10m



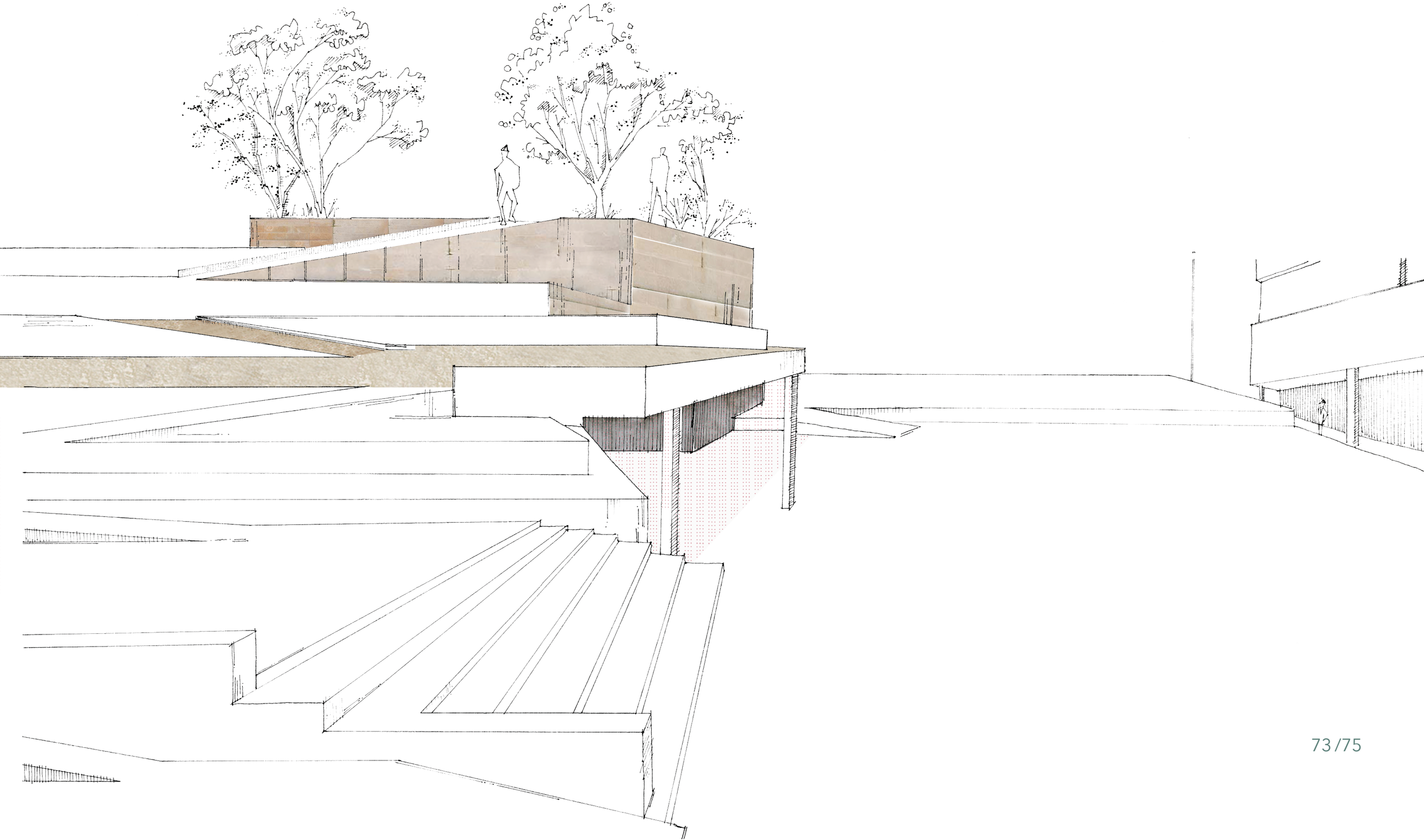









BANANAS





Thank you!