

A LANDSCAPE POEM

BORDERS & TERRITORIES GRADUATION STUDIO

Kashgar Group

Qiaoyun Lu 5061415

Research

I. Geographical Context
Natural Disasters in Tarim basin

II. Artifact
Expansion of Oasis cites in Xinjiang

III. Systematic Context
Water system in Kashgar

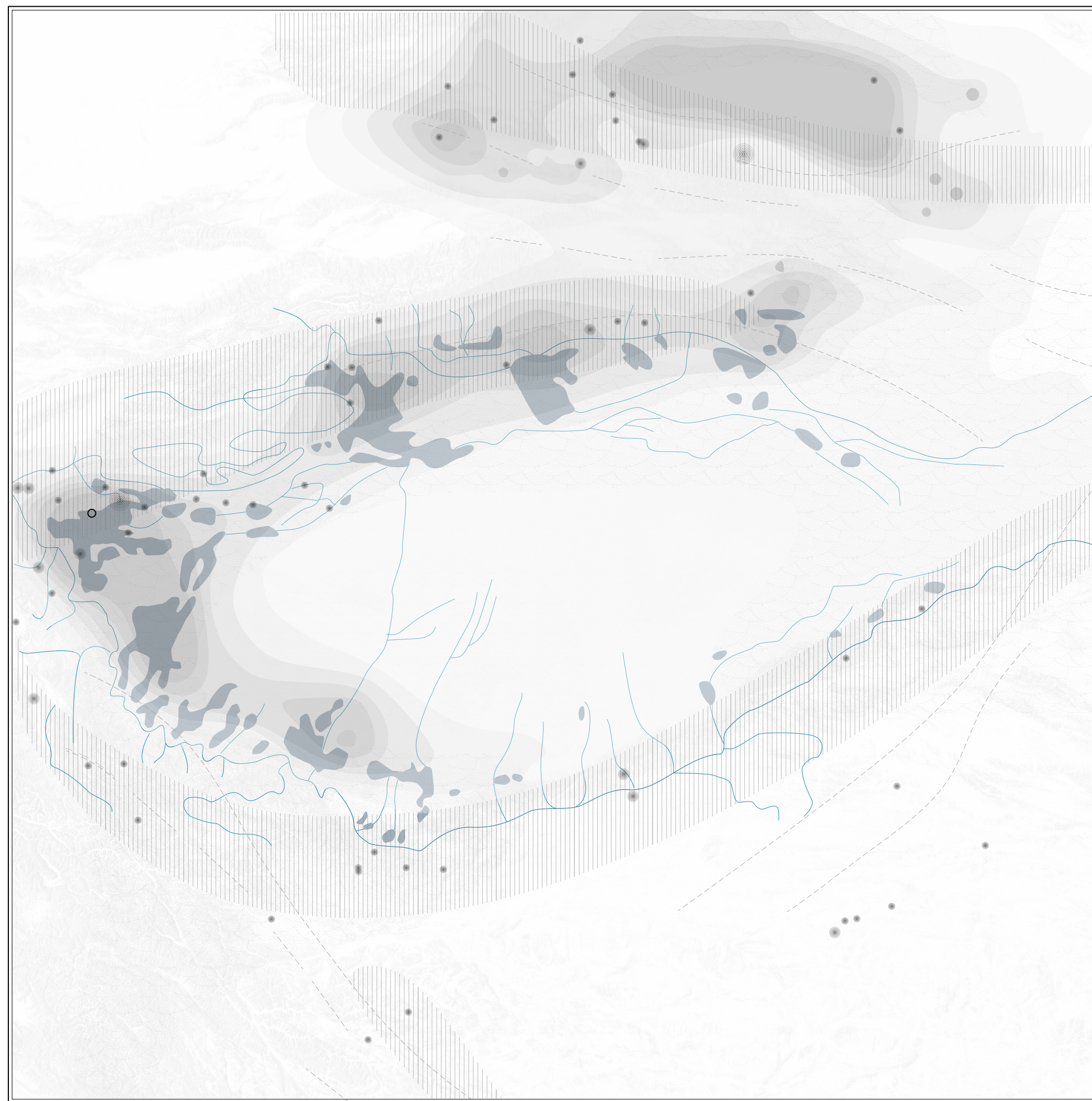
Project

I. Architecture makes landscape
Sedimentation factory

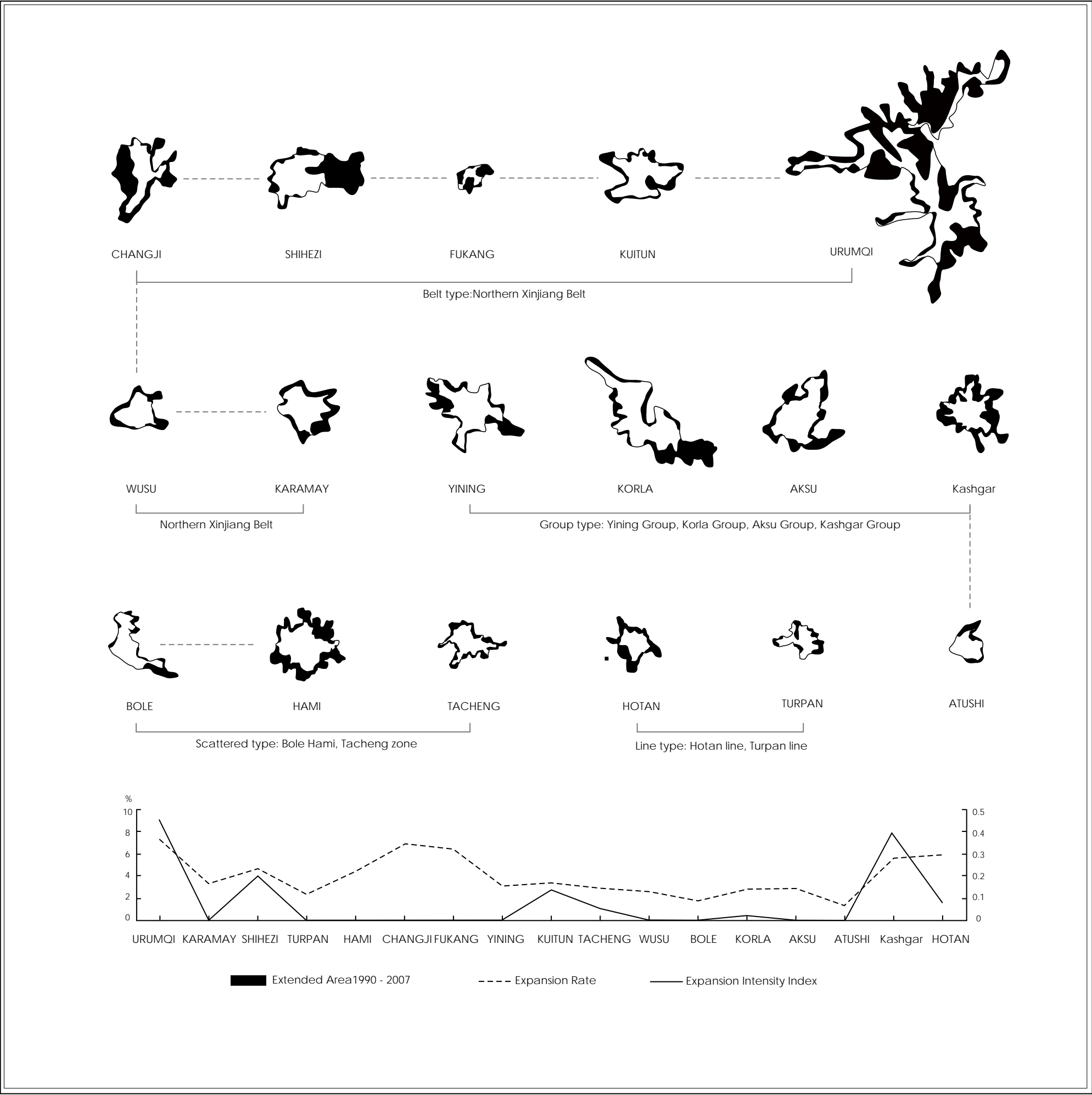
II. Landscape as infrastructure
Flood gate & Swimming pool

III. Landscape makes public life
Floating wetland

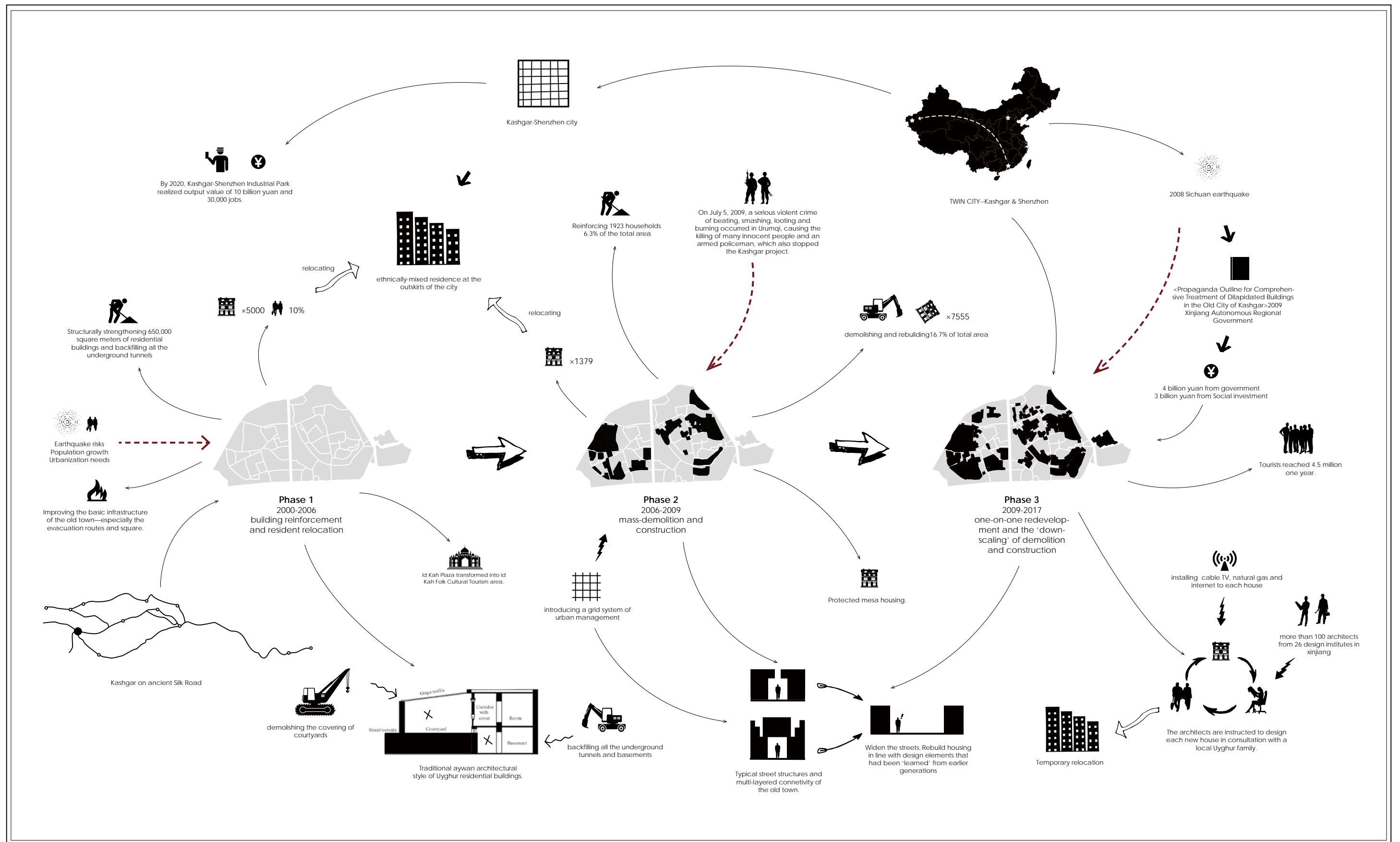
IV. Achitecture as a medium
The Endless Stair



LIMITATIONS OF TARIN BASIN



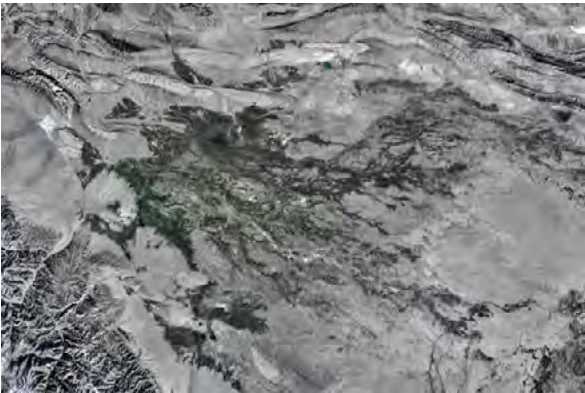
OASIS CITIES IN XINJIANG



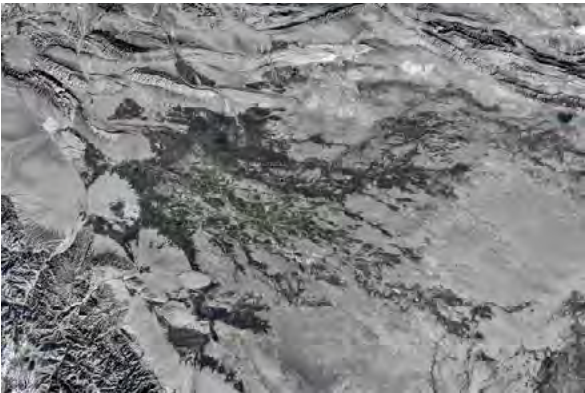
REDEVELOPMENT PROJECT OF KASHAGR'S OLD TOWN

Kashgar Oasis

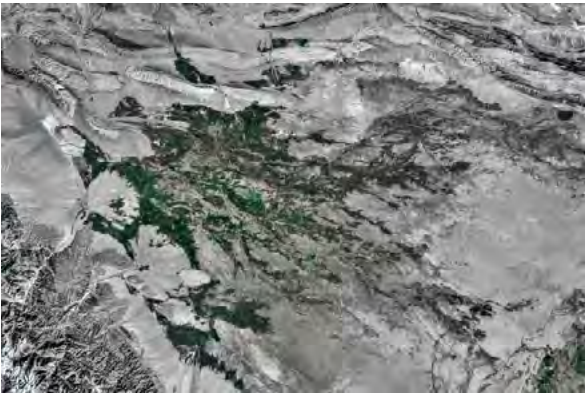
Oasis growth is generated by human activities.



1984



1992



2000



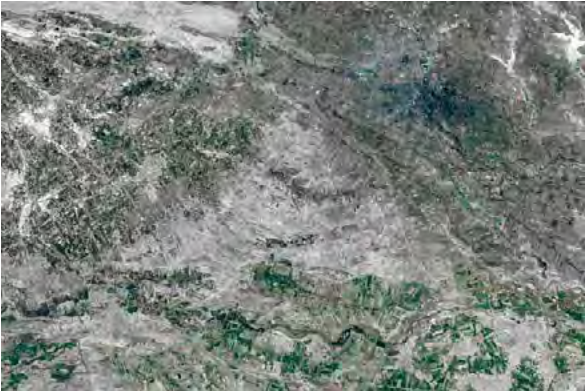
2008



2016

Oasification

Desert is transforming into oasis.



1984



1992



2000



2008



2016

Desertification

City is becoming new desert.



1984



1992



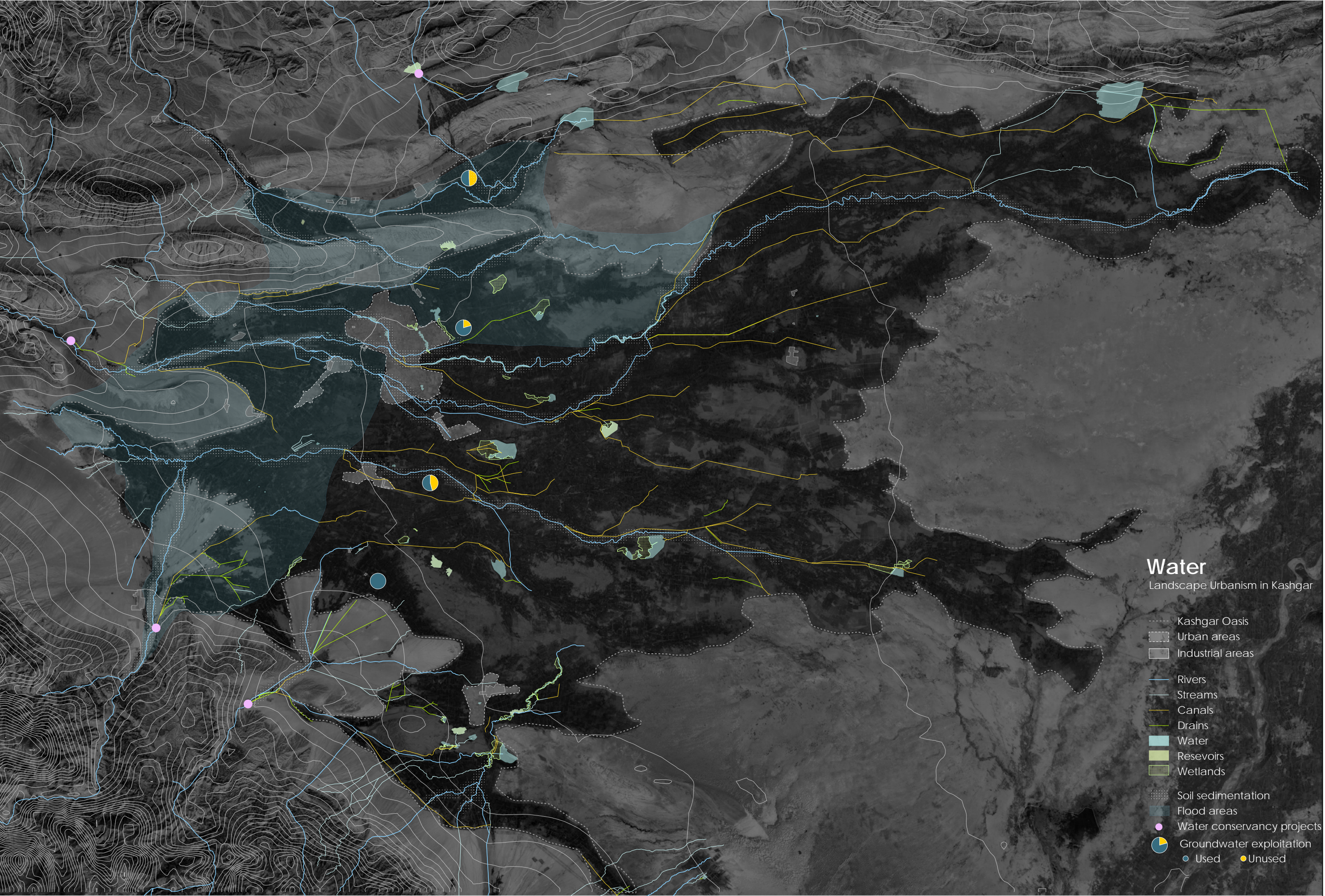
2000



2008



2016



Water

Landscape Urbanism in Kashgar

Kashgar Oasis

Urban areas

Industrial areas

Rivers

Streams

Canals

Drains

Water

Reservoirs

Wetlands

Soil sedimentation

Flood areas

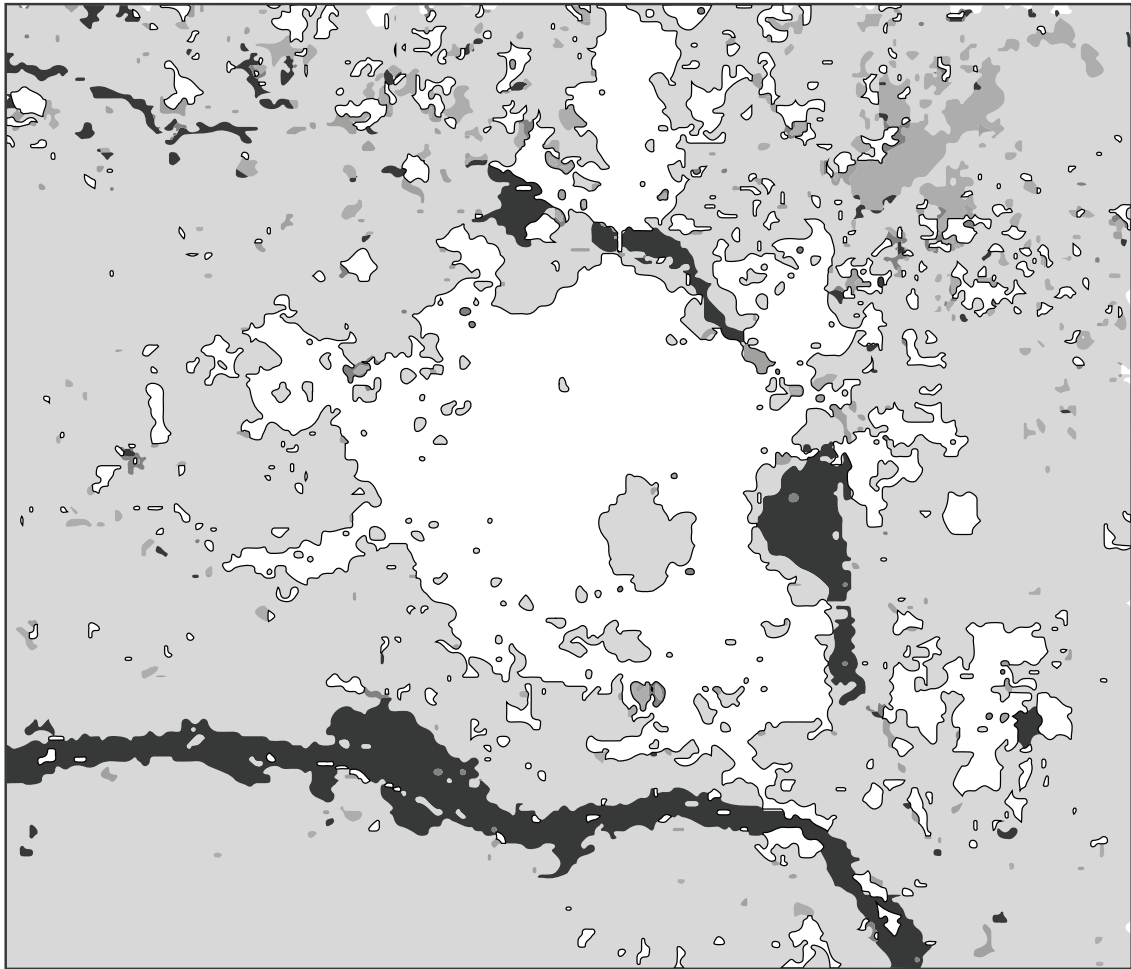
Water conservancy projects

Groundwater exploitation

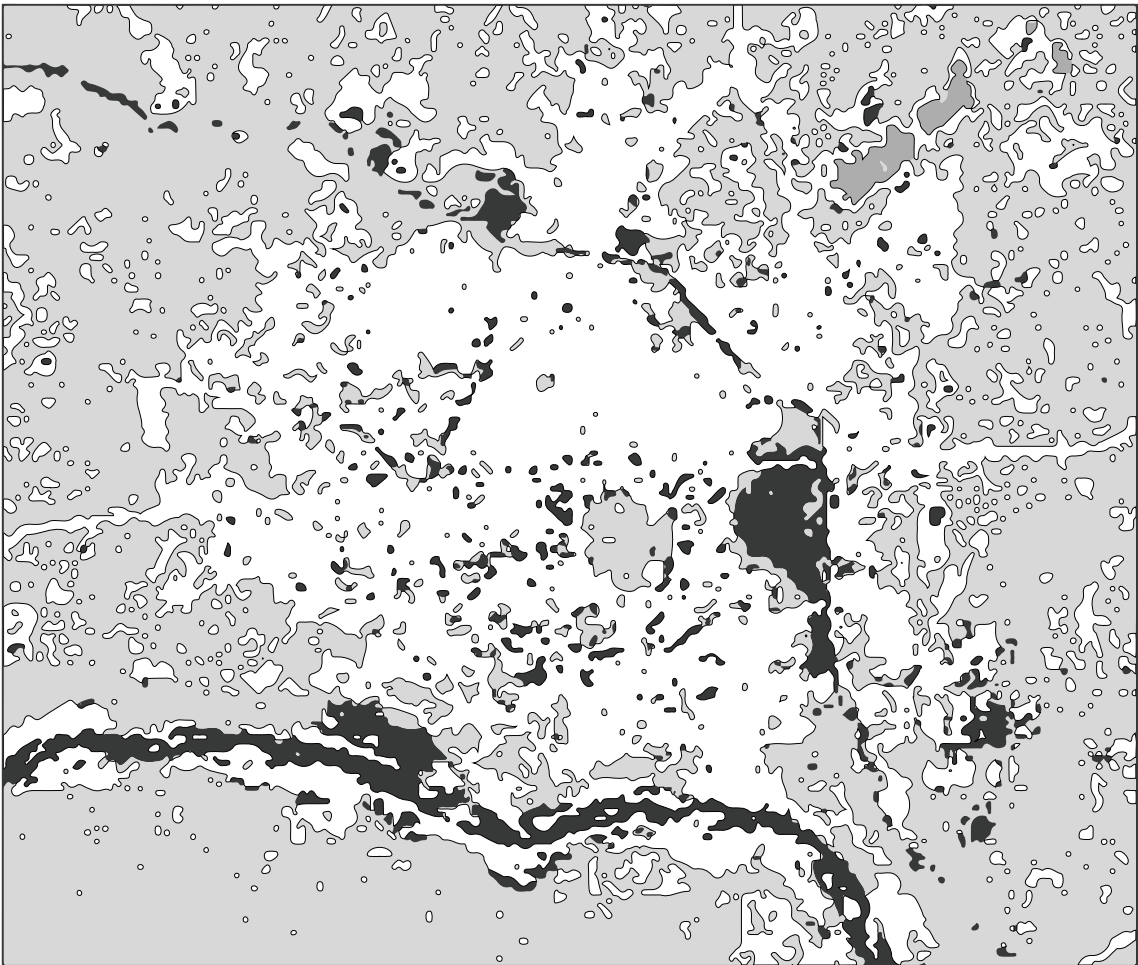
Used

Unused

WATER IN KASHAGR

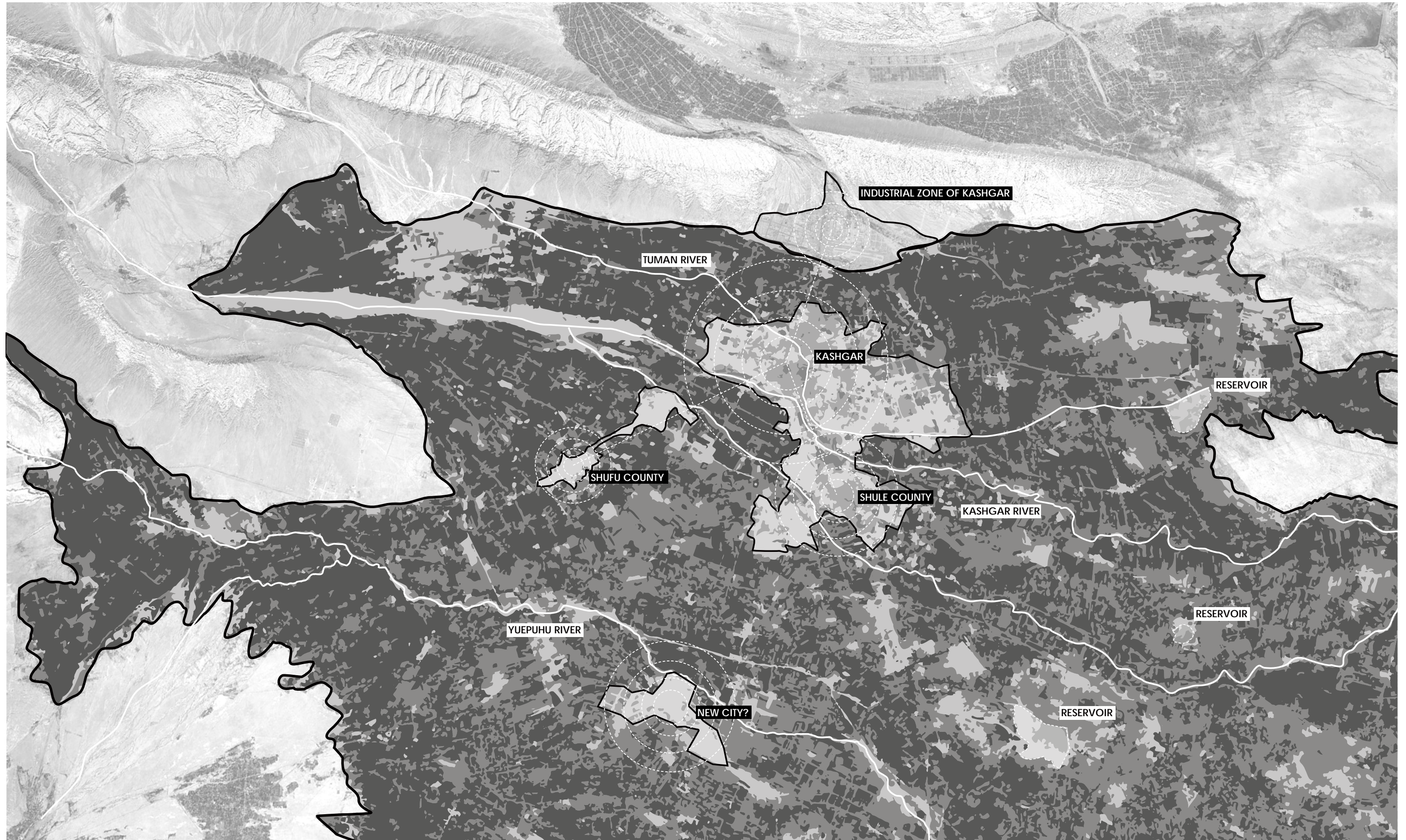


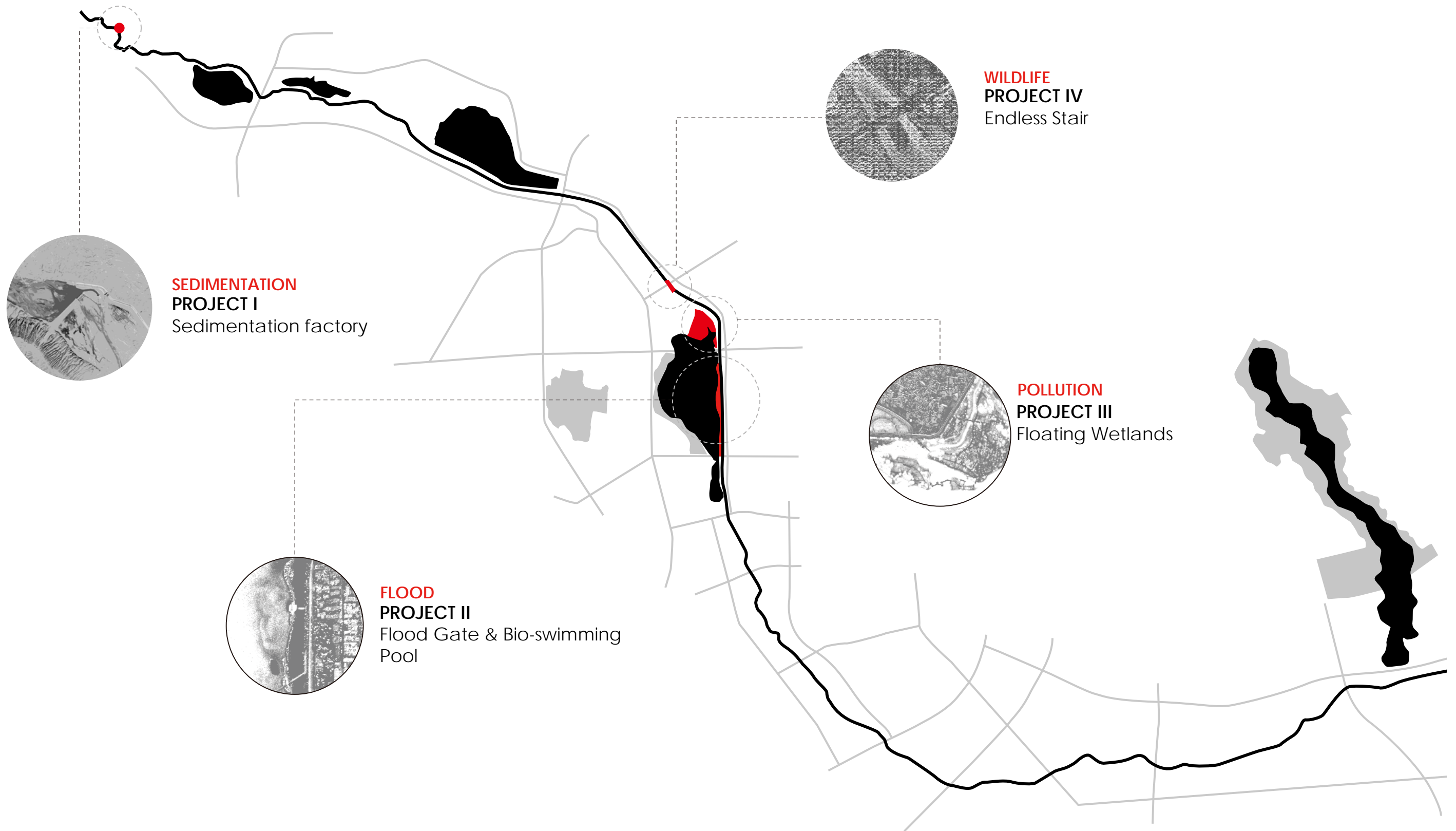
1990



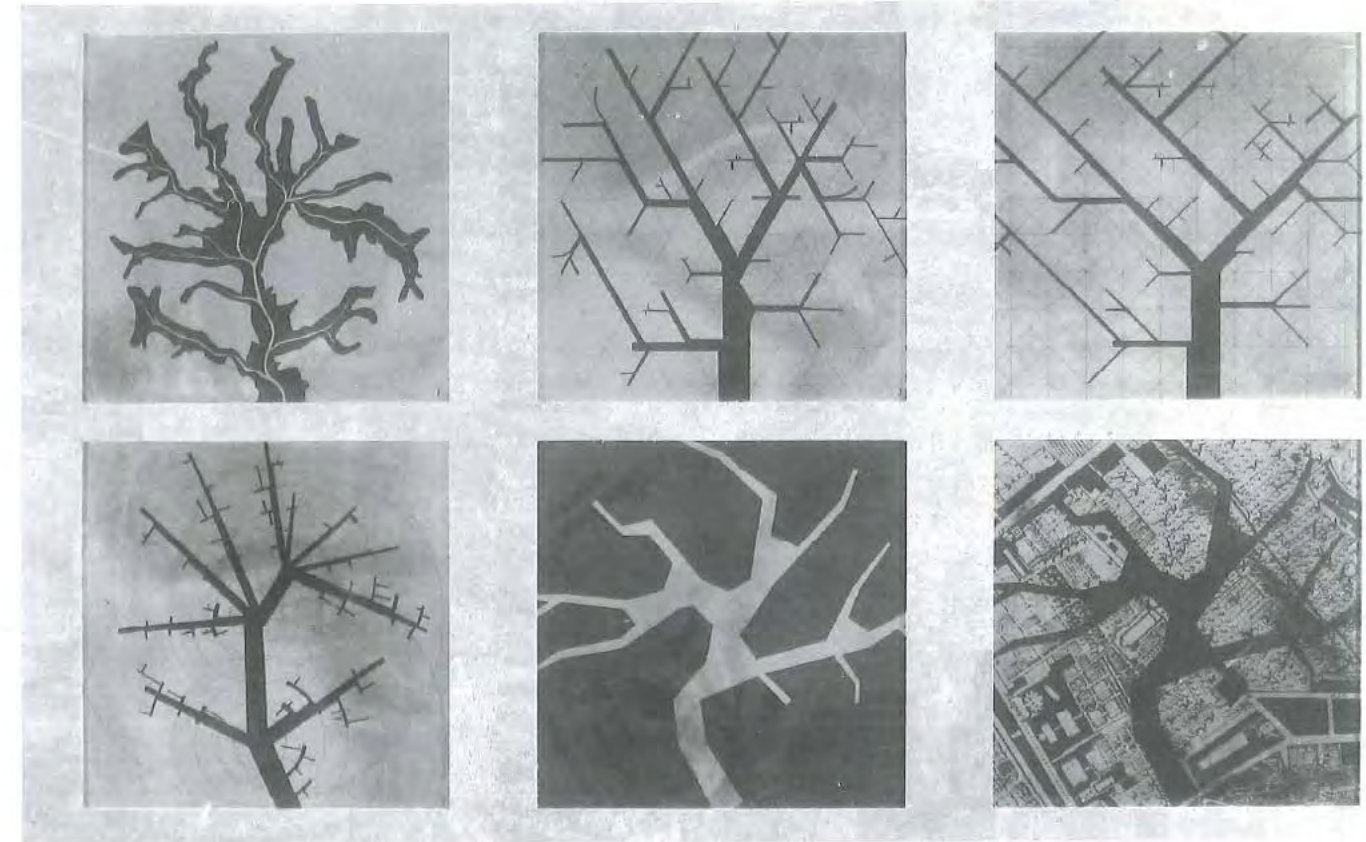
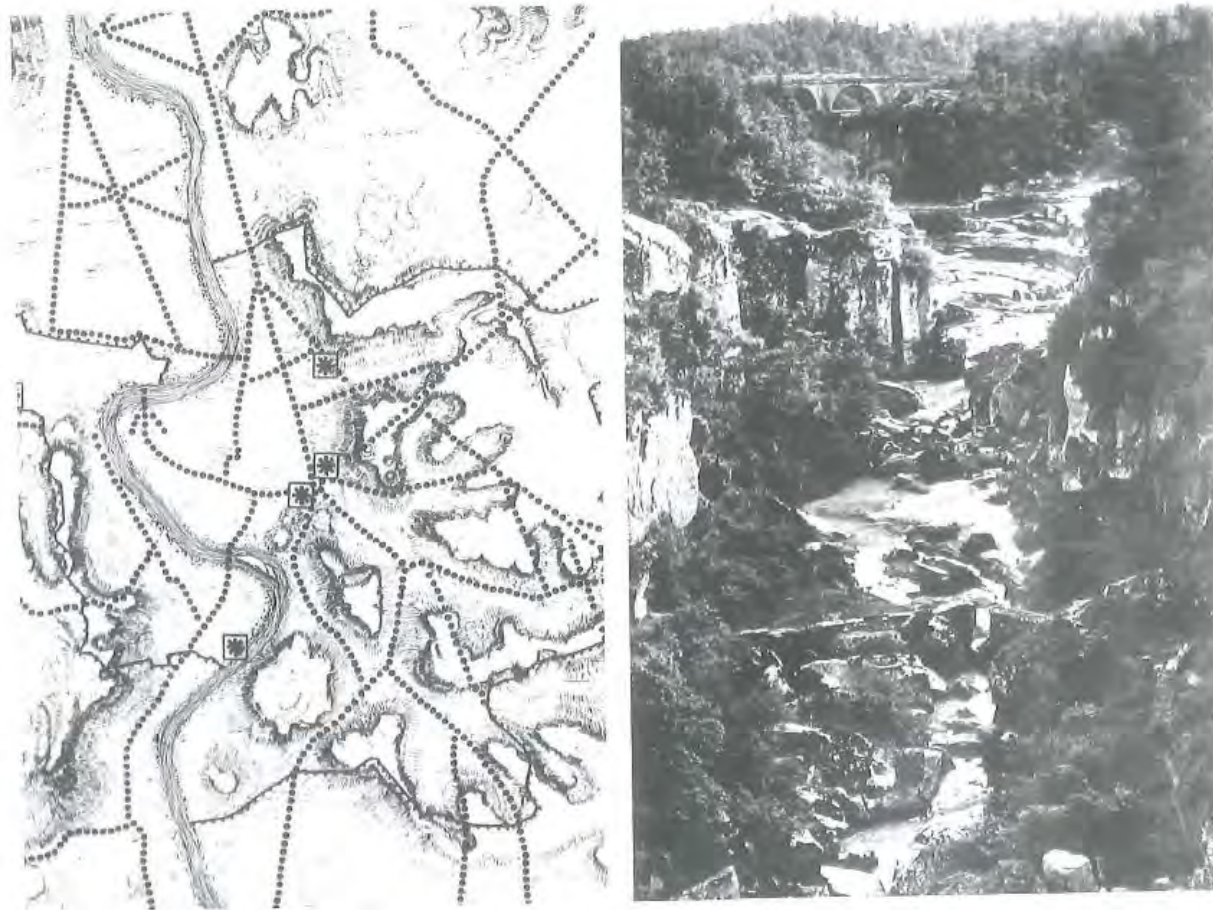
2000

- Vegetation Area
- Water
- Nonvegetation Area
- Desert





Concept generation



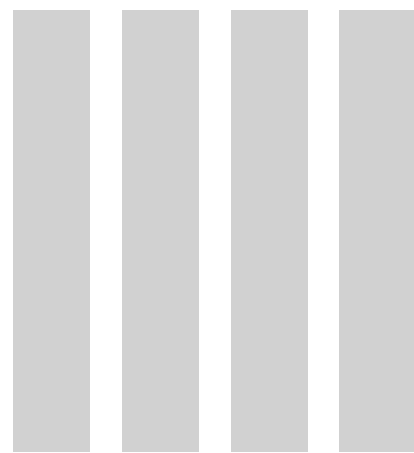
To retrieve the 'future' in the 'past', Portoghesi researched on 'Rome before Rome'. That is, depending on the typical original landscape which still ran beneath the city and undermined the foundation of its buildings, the structure of the future city was resuscitated and reorganized by contemporary linguistics.

---Paolo Portoghesi, *Roma Interrotta*, 1978



CONCEPT MODEL
Bring back the landscape before city.





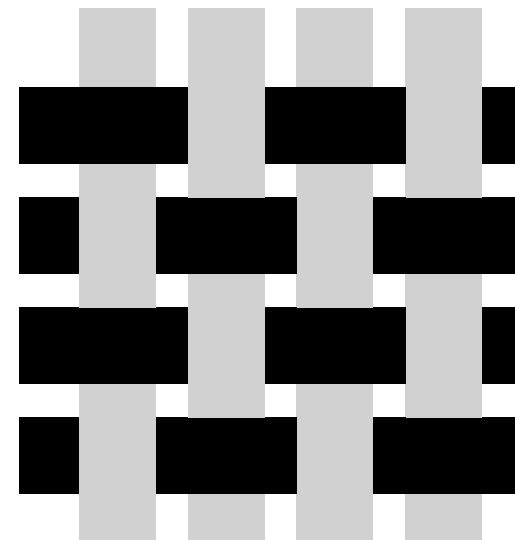
Landscape

+



Architecture

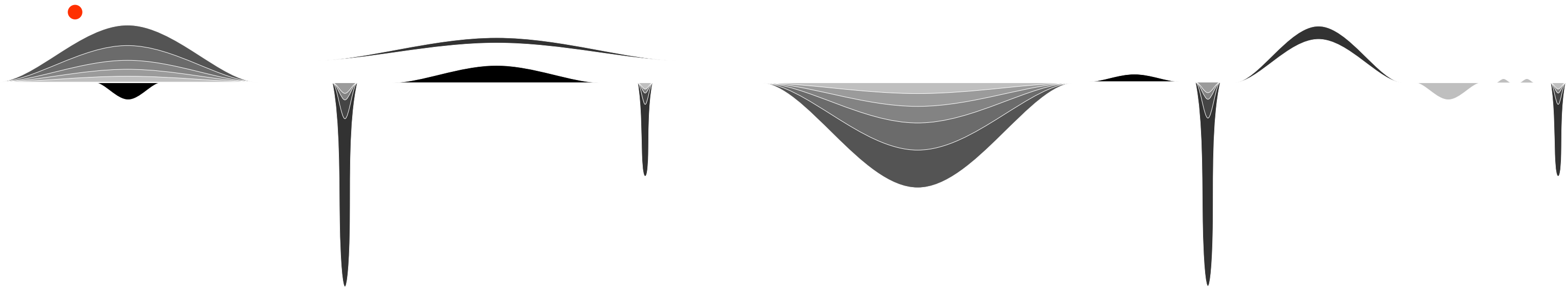
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Interweaving of landscape
and architecture

RECONCEPTUALIZATION

LANDSCAPE AS INFRASTRUCTURE





DESIGN I

I. Architecture makes landscape
Sedimentation factory

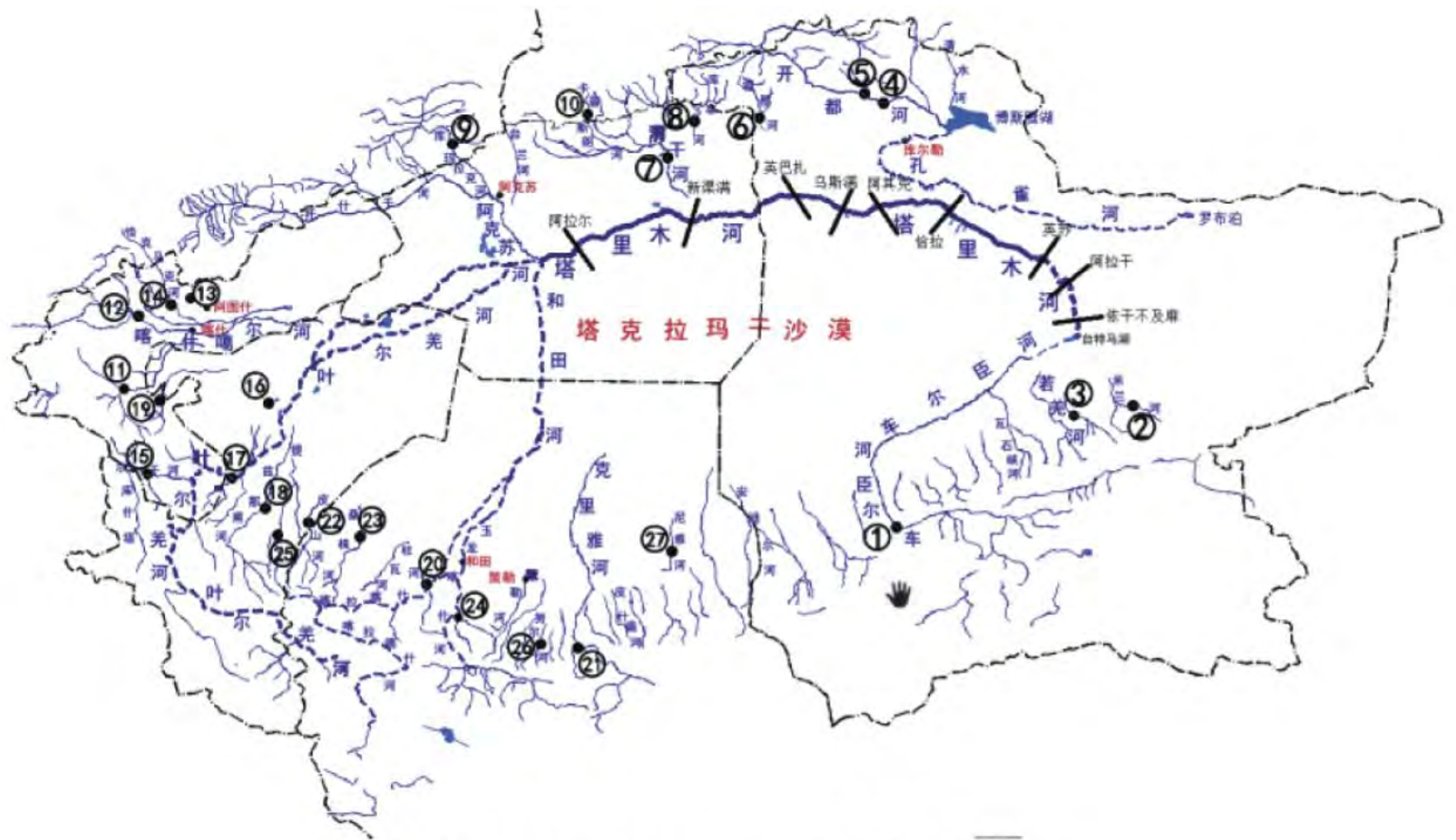
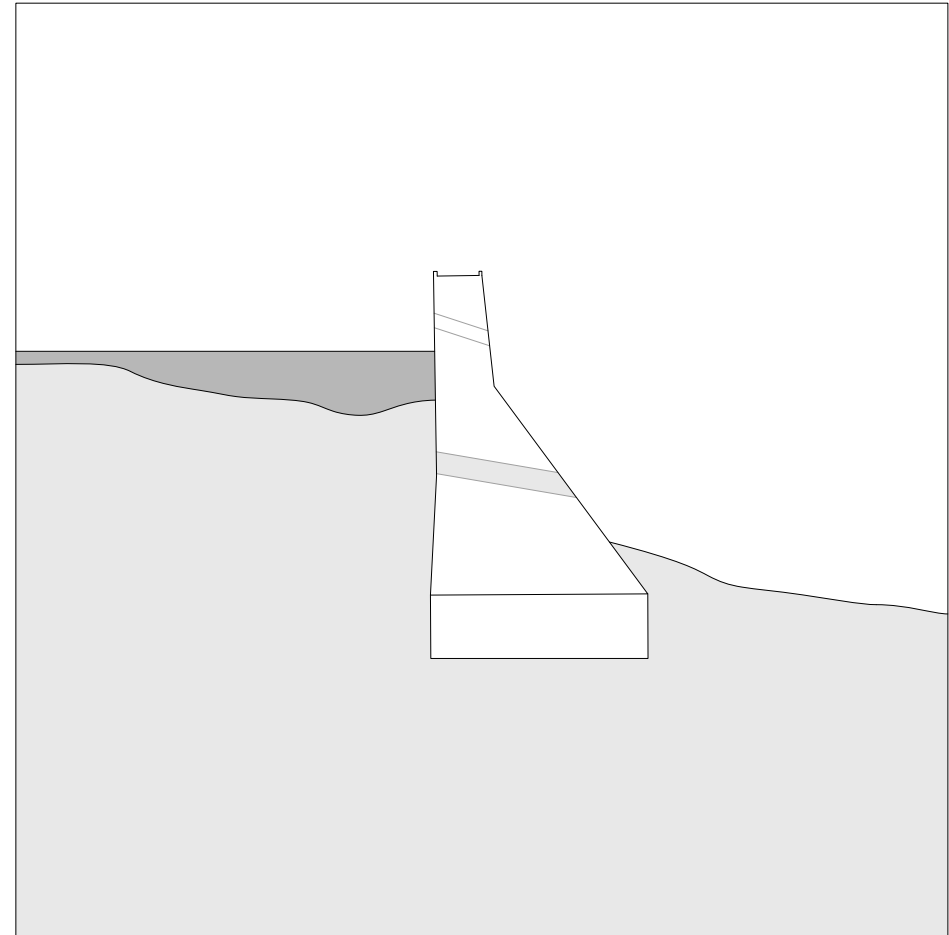
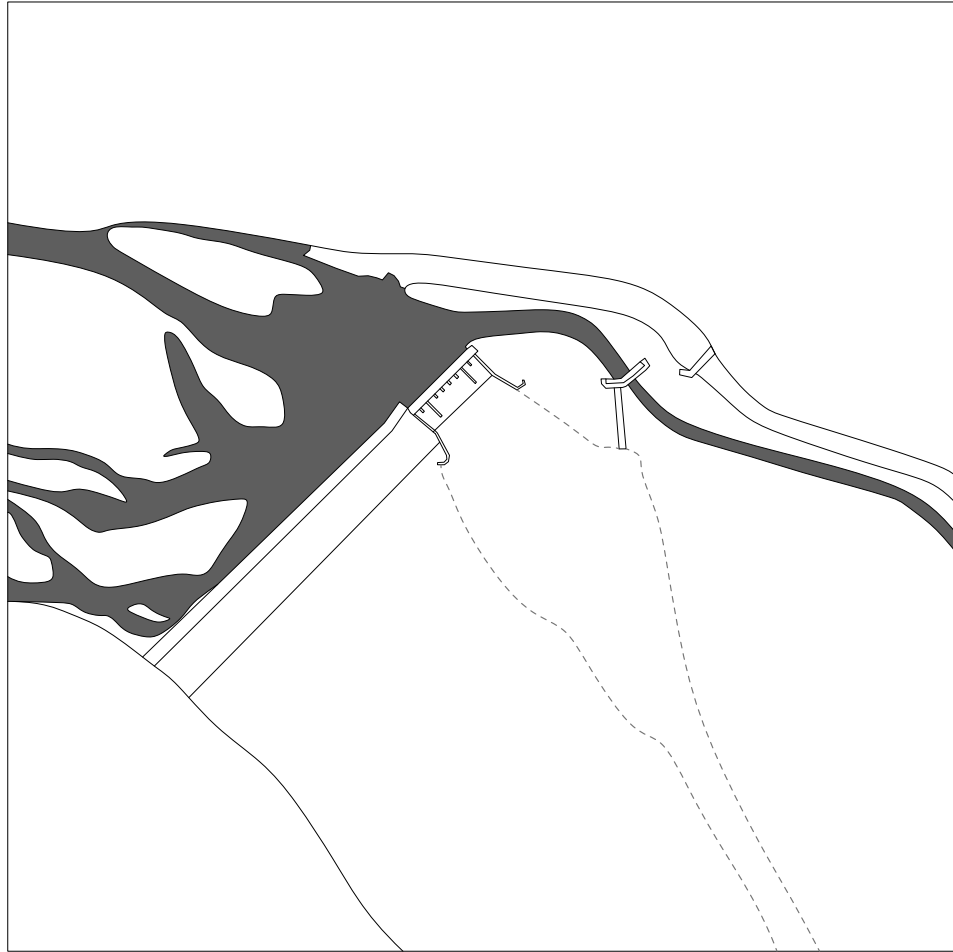
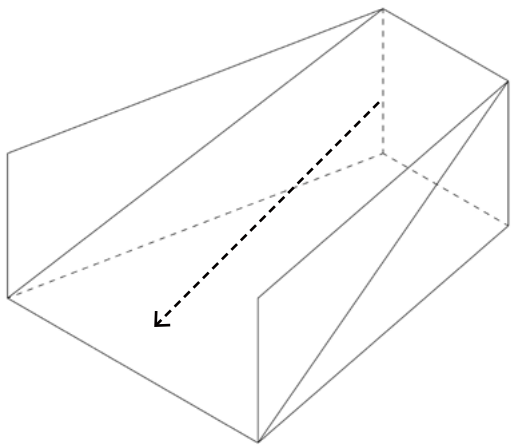


图1 塔里木河流域水系及重大水利工程布局简图
Water conservancy projects in Tarim Basin

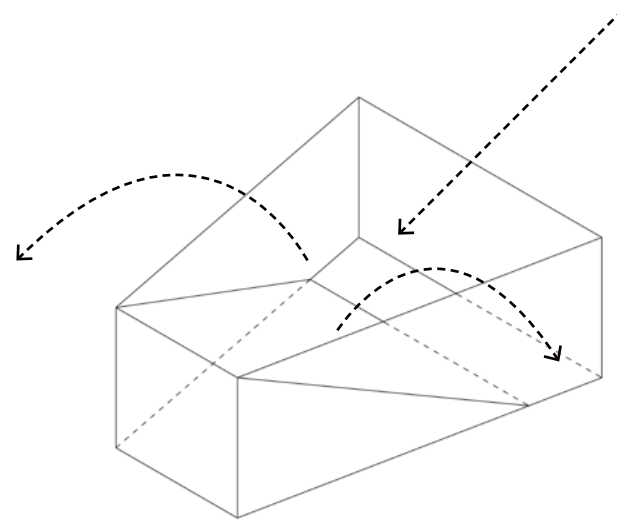




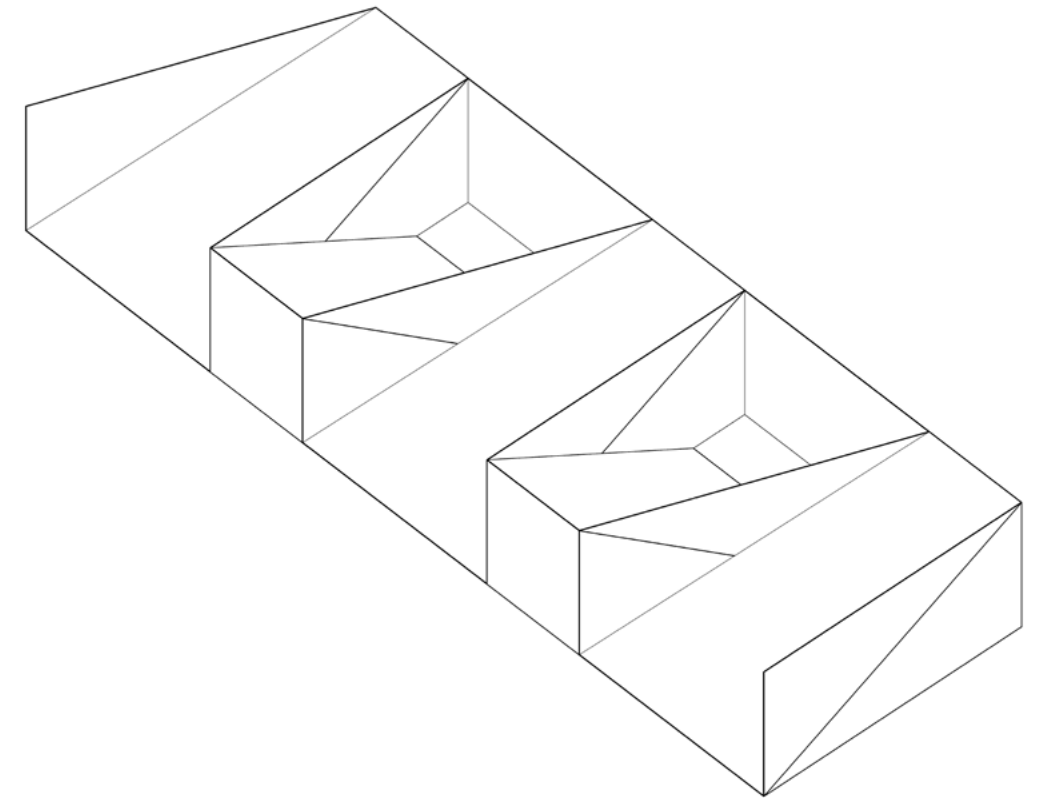
Unit design



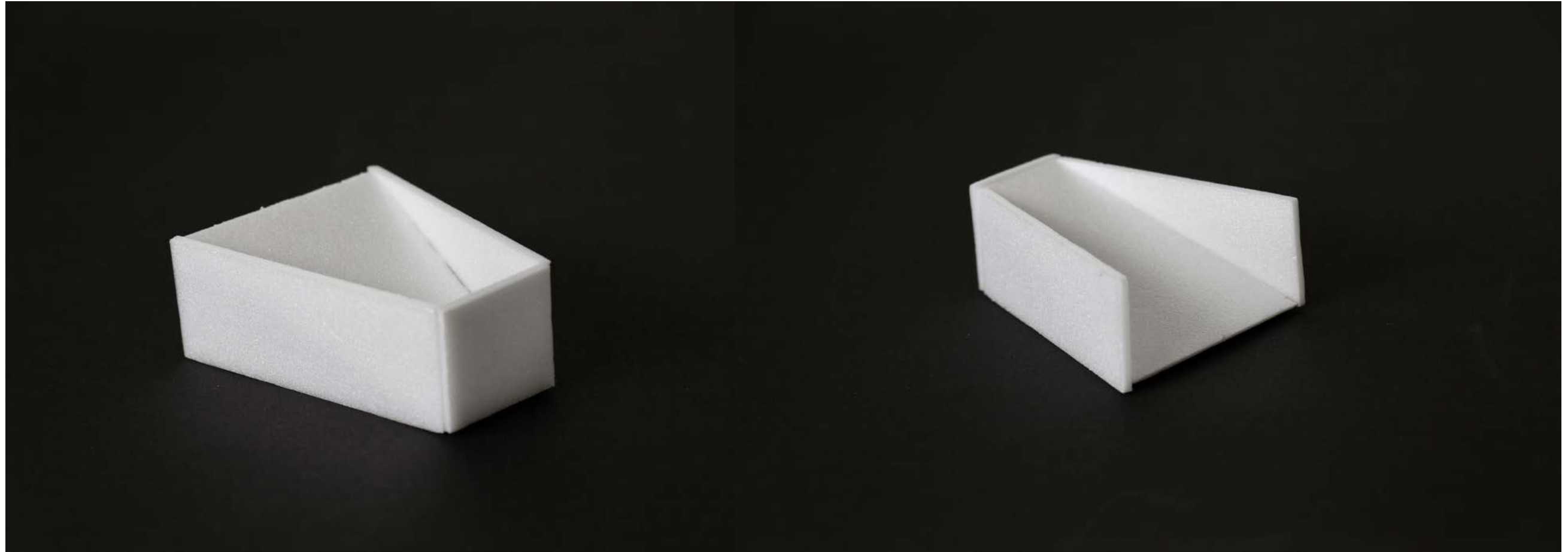
Slope



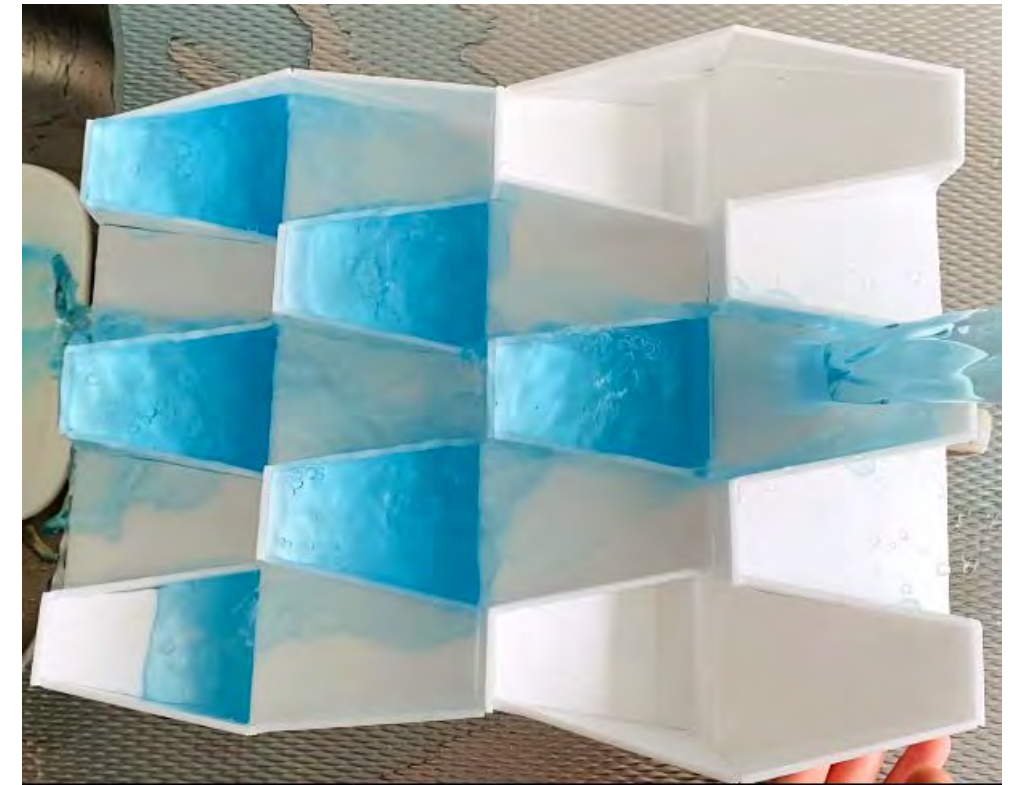
Sedimentation tank

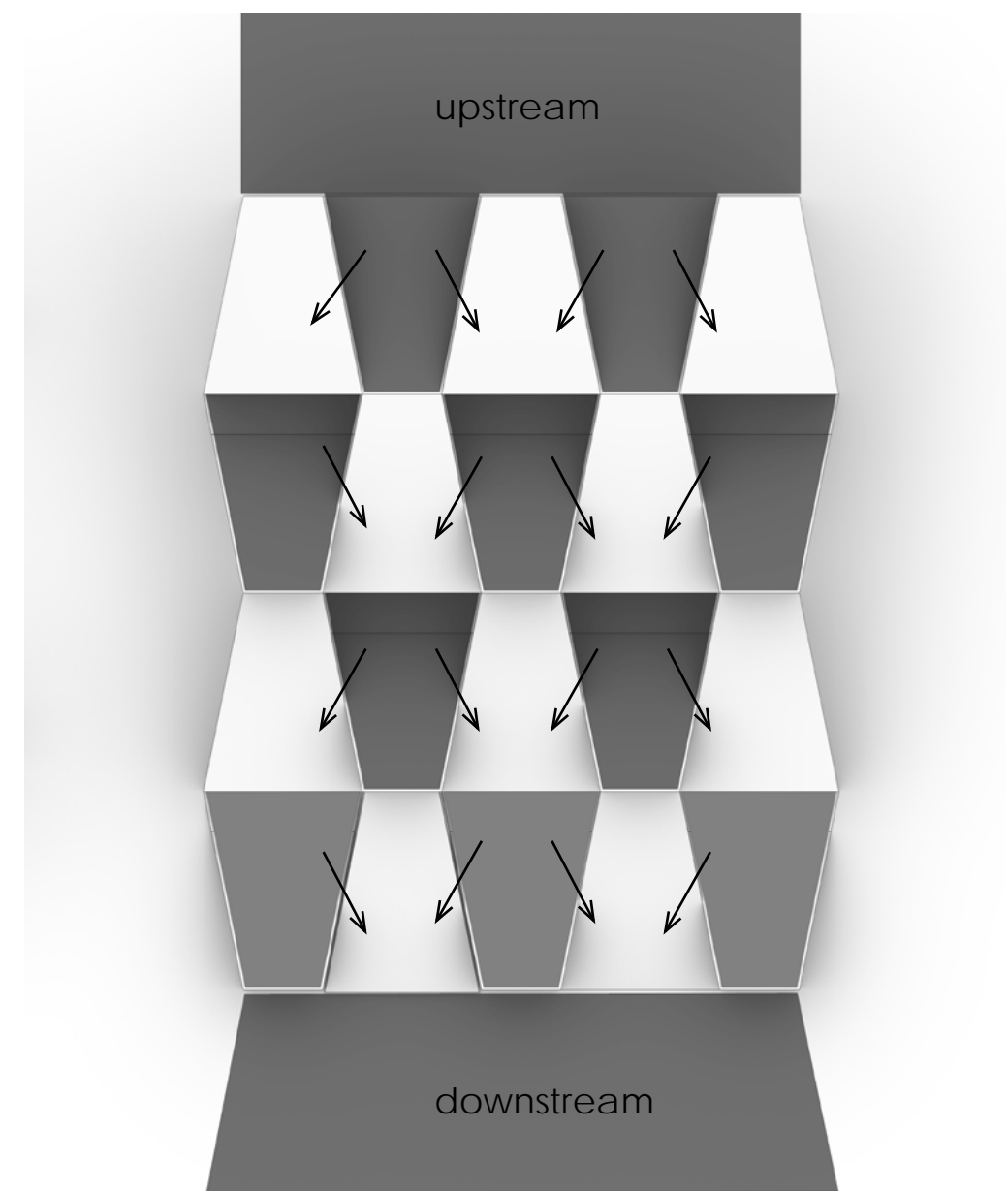
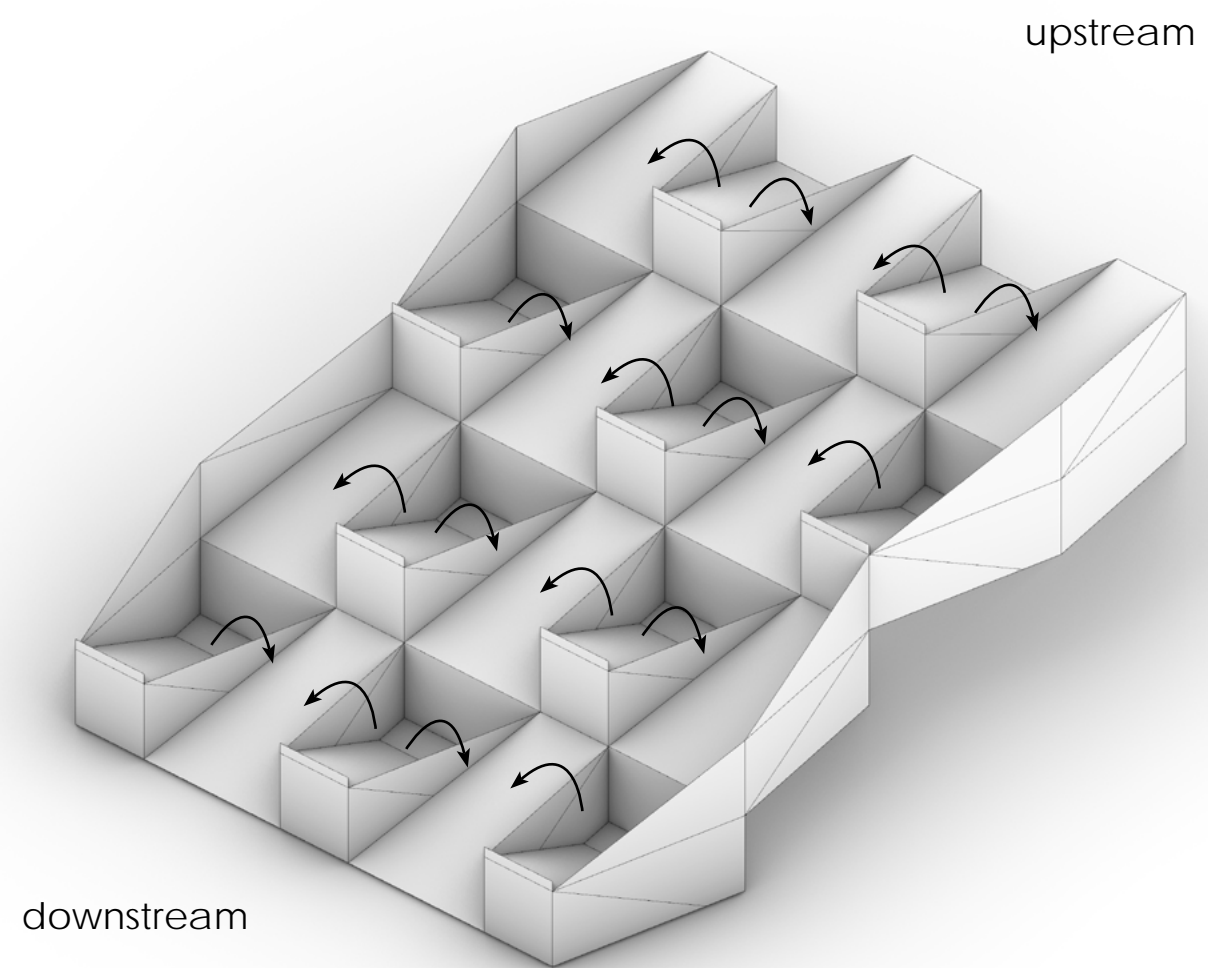


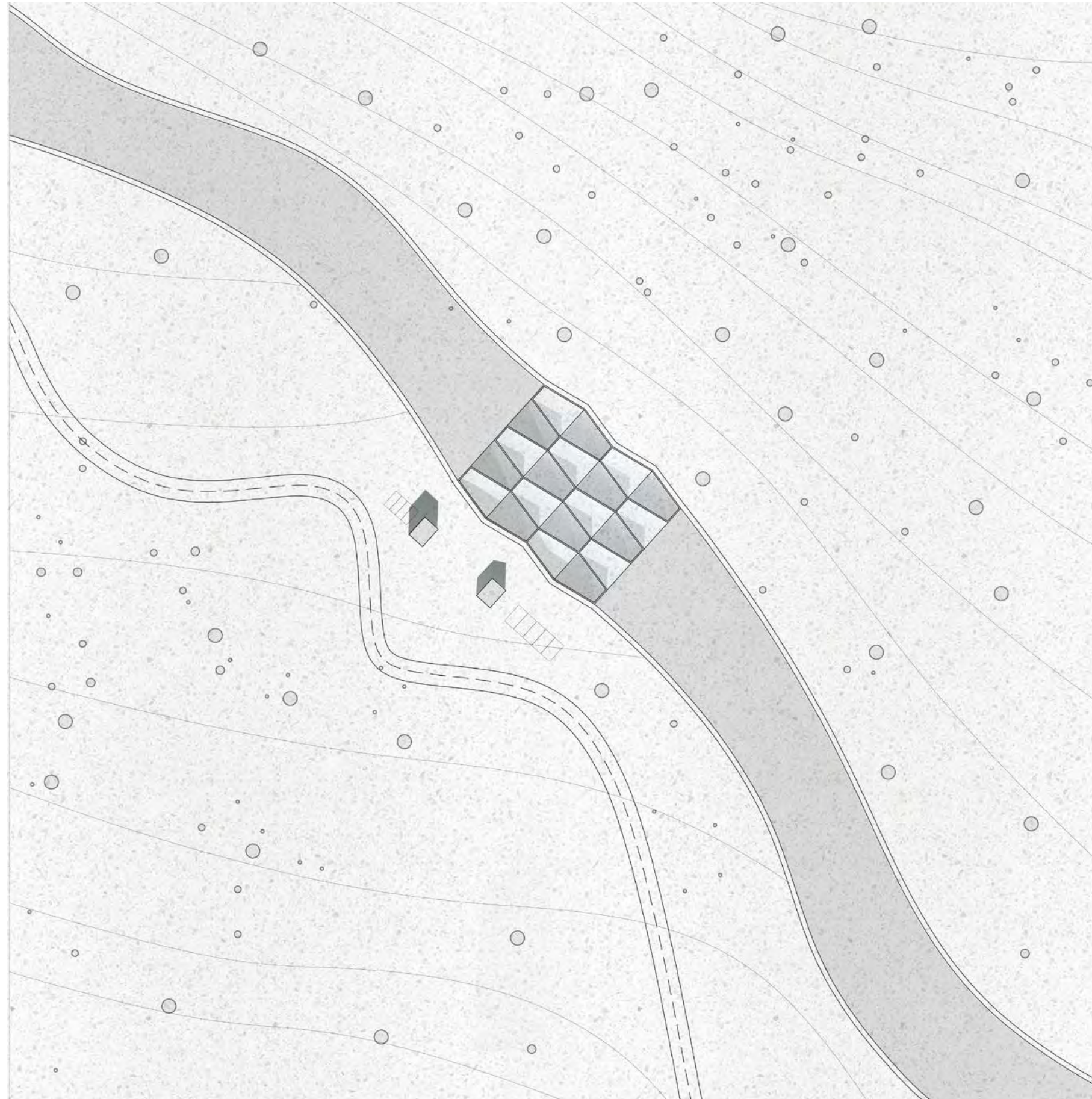
Combination



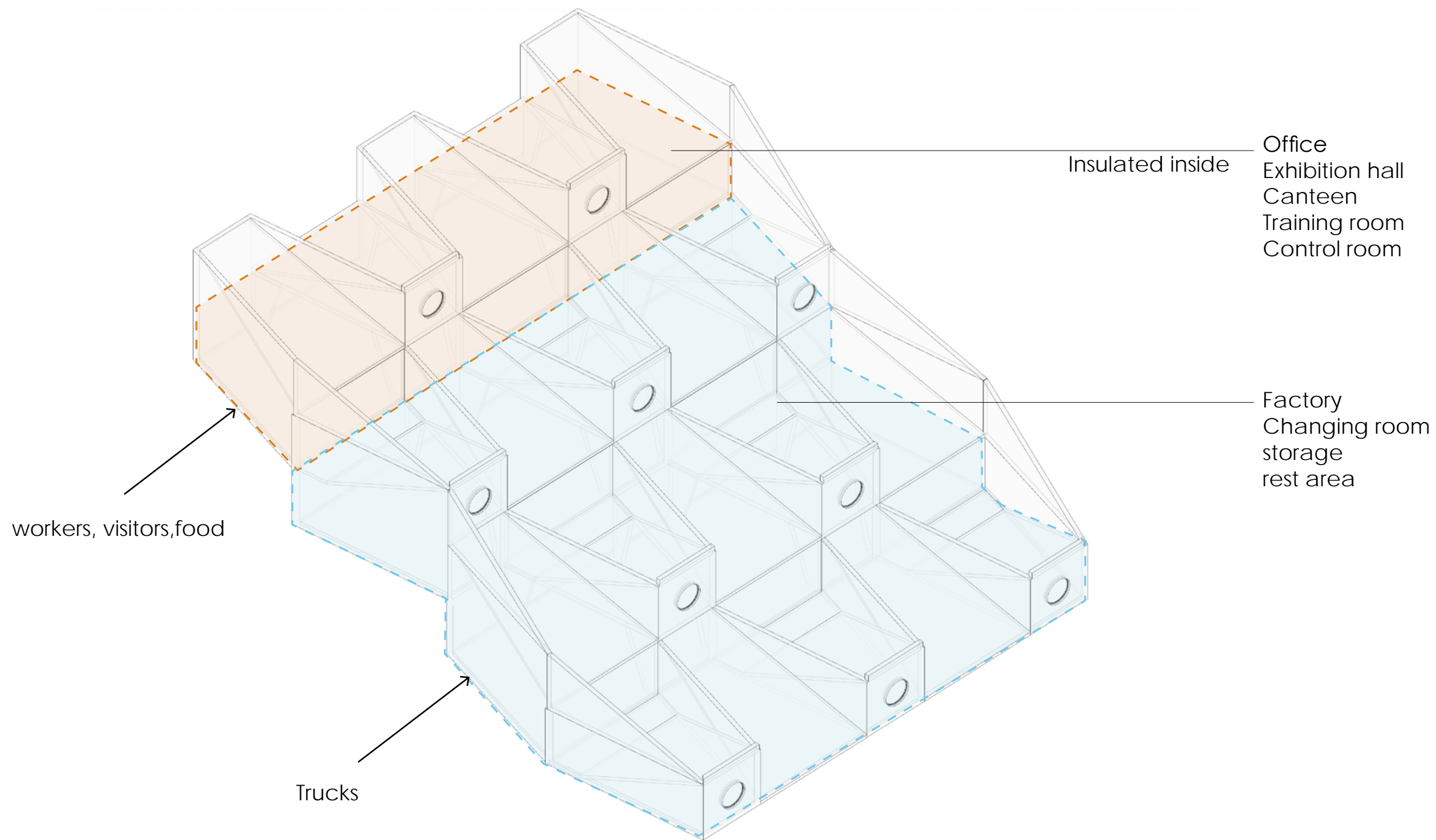


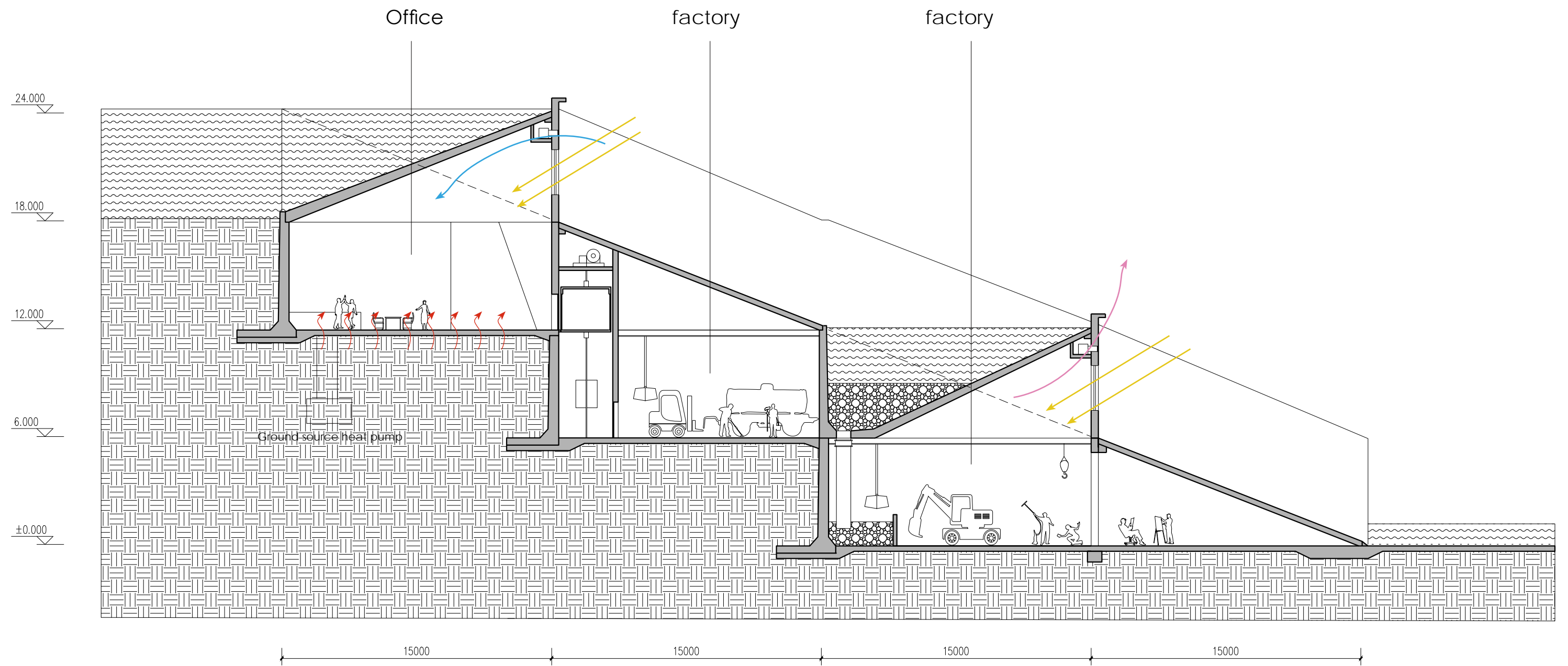




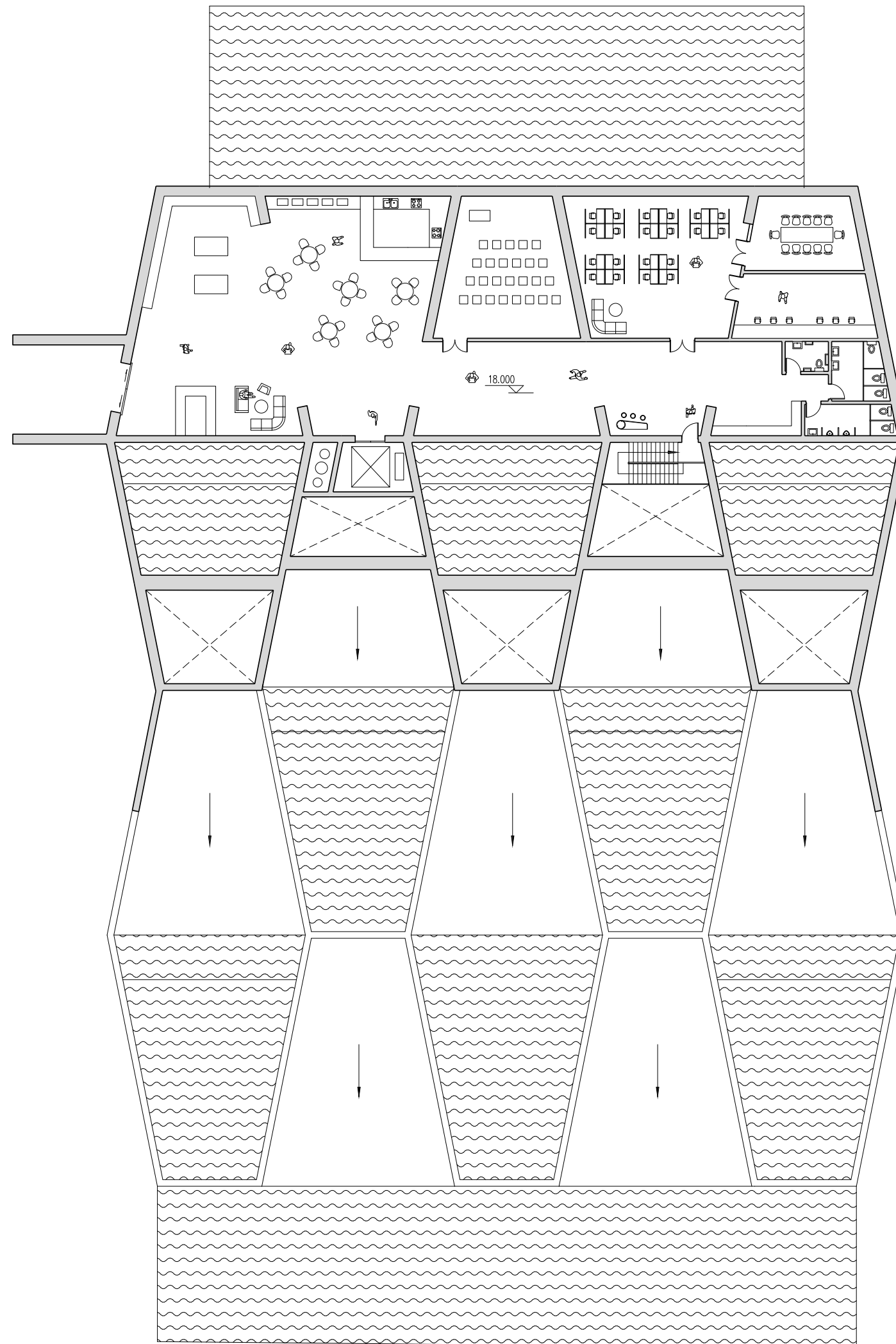


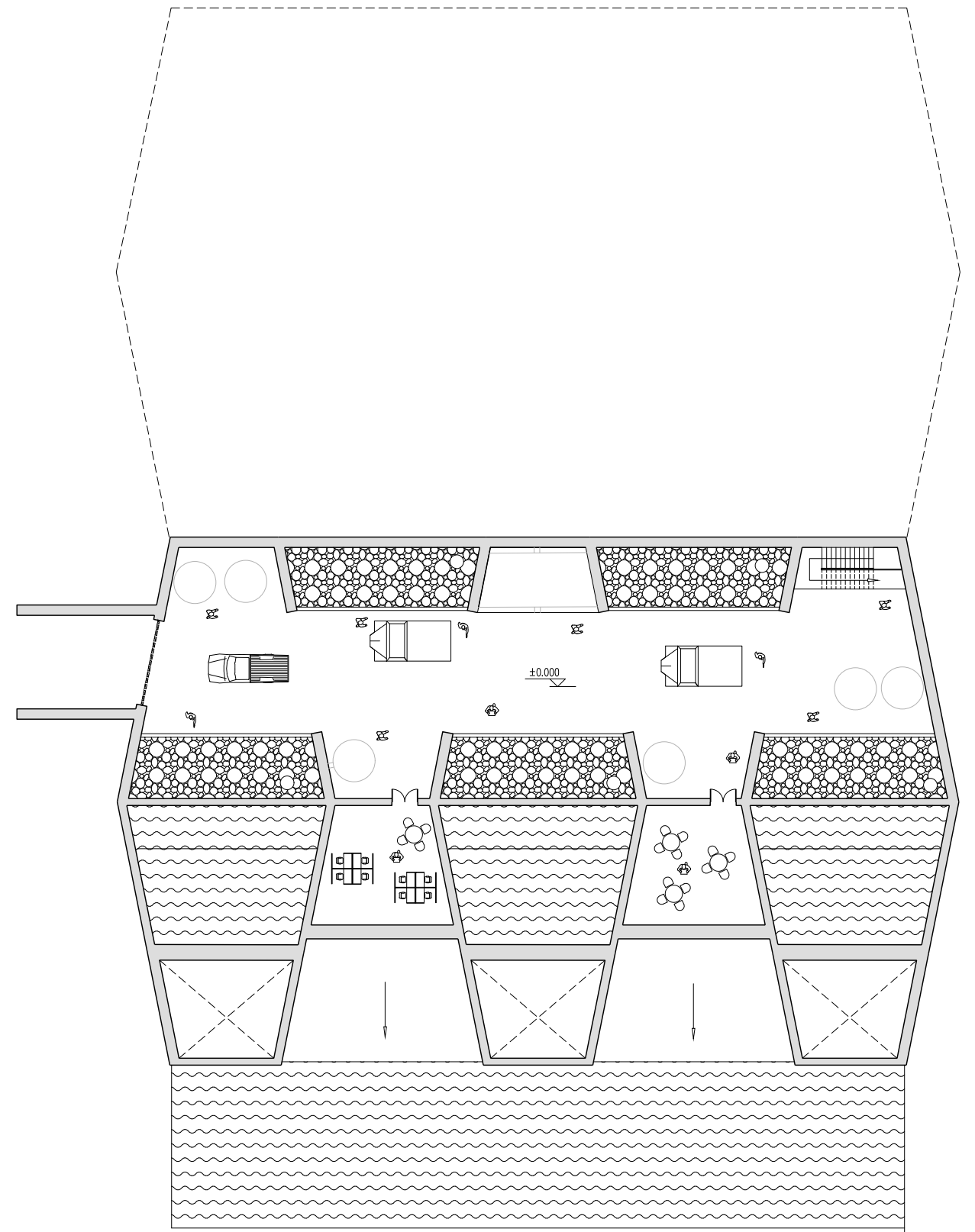
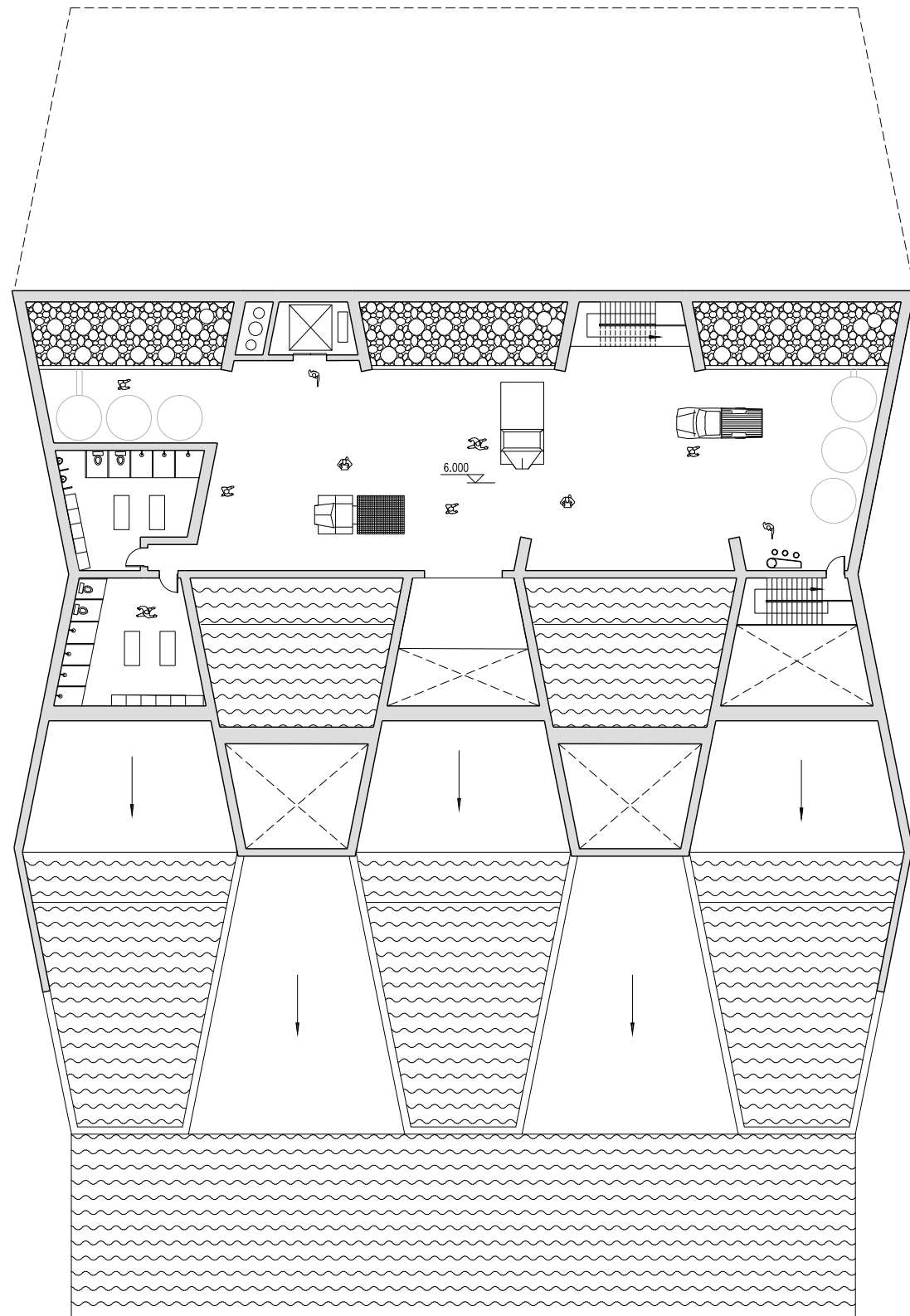
Master plan 1:2000 ↑





SECTION 1:200

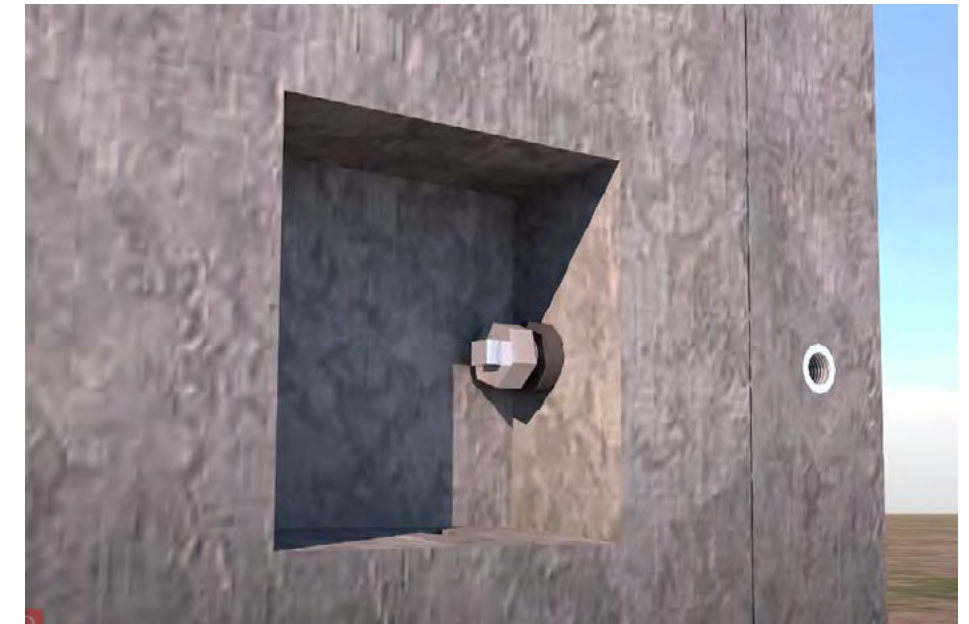
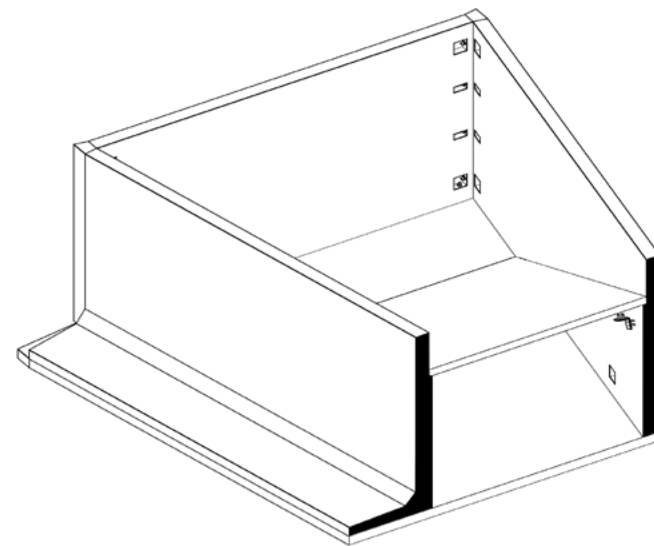
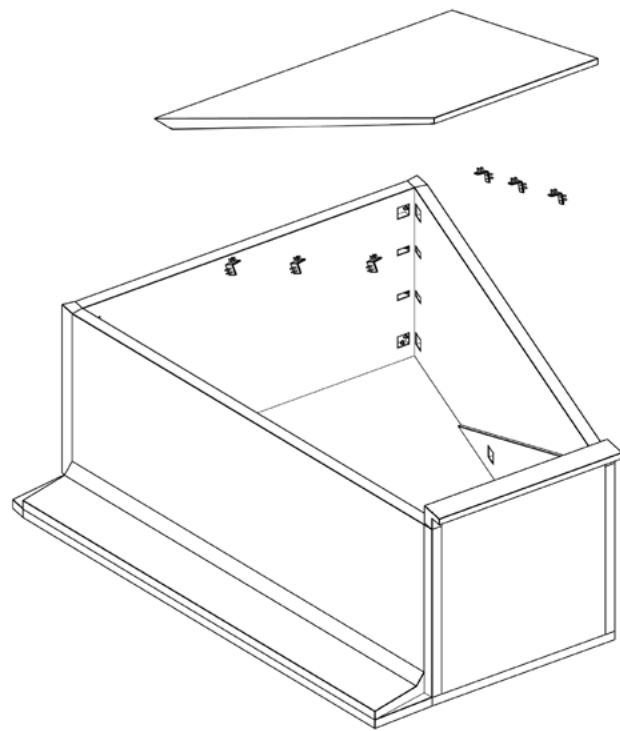
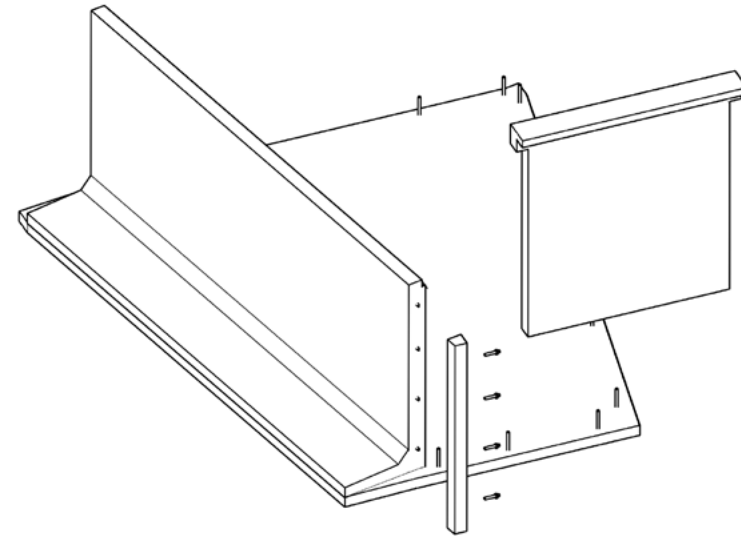
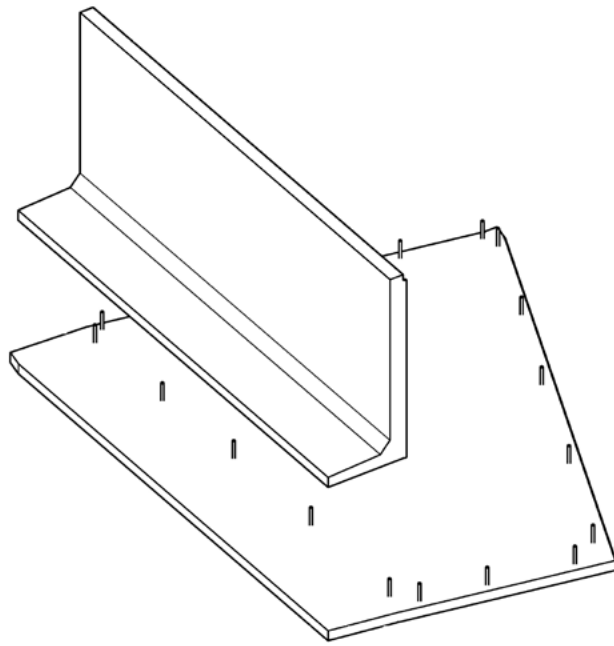


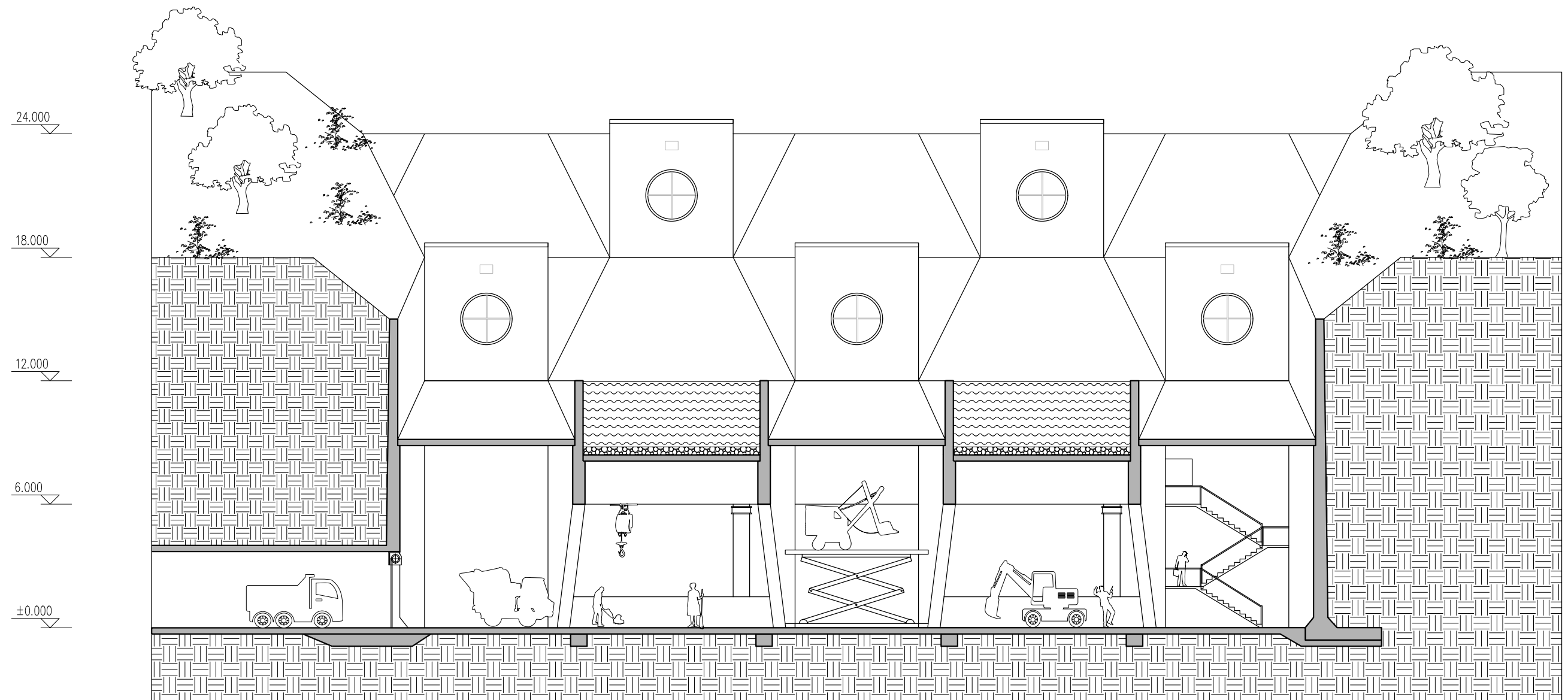


PRECAST CONCRETE PANEL



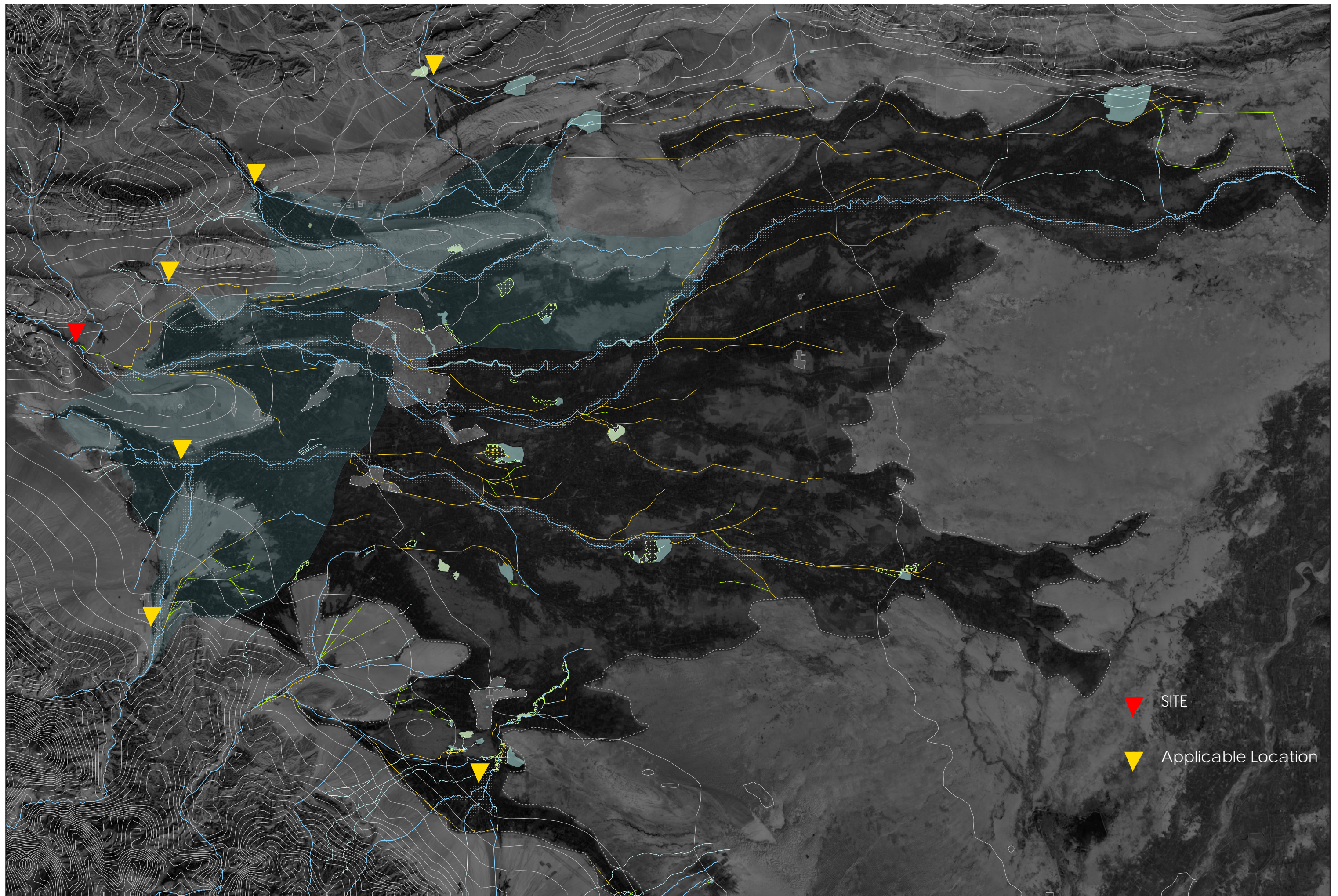
Construction method





SECTION 1:200





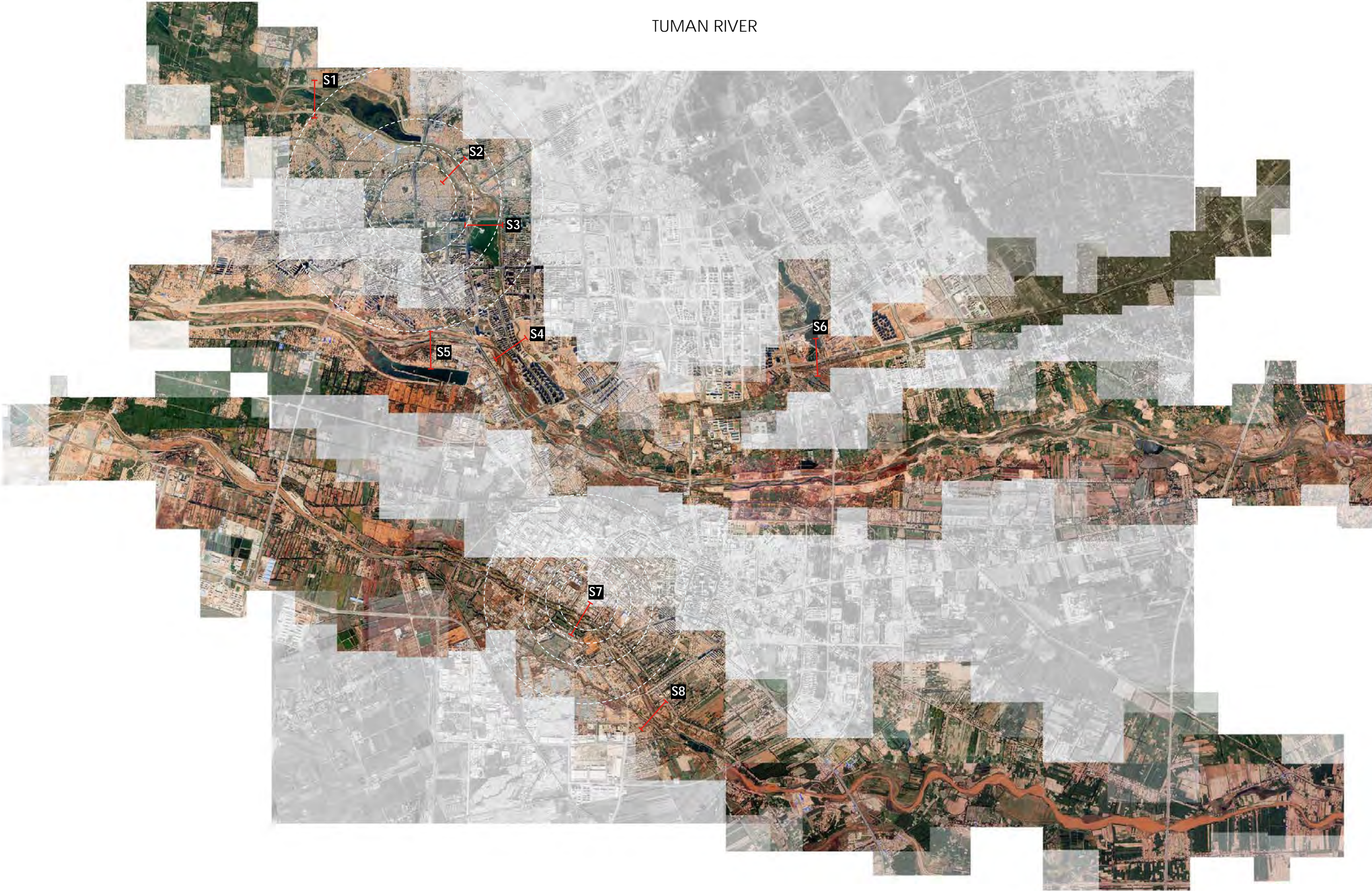


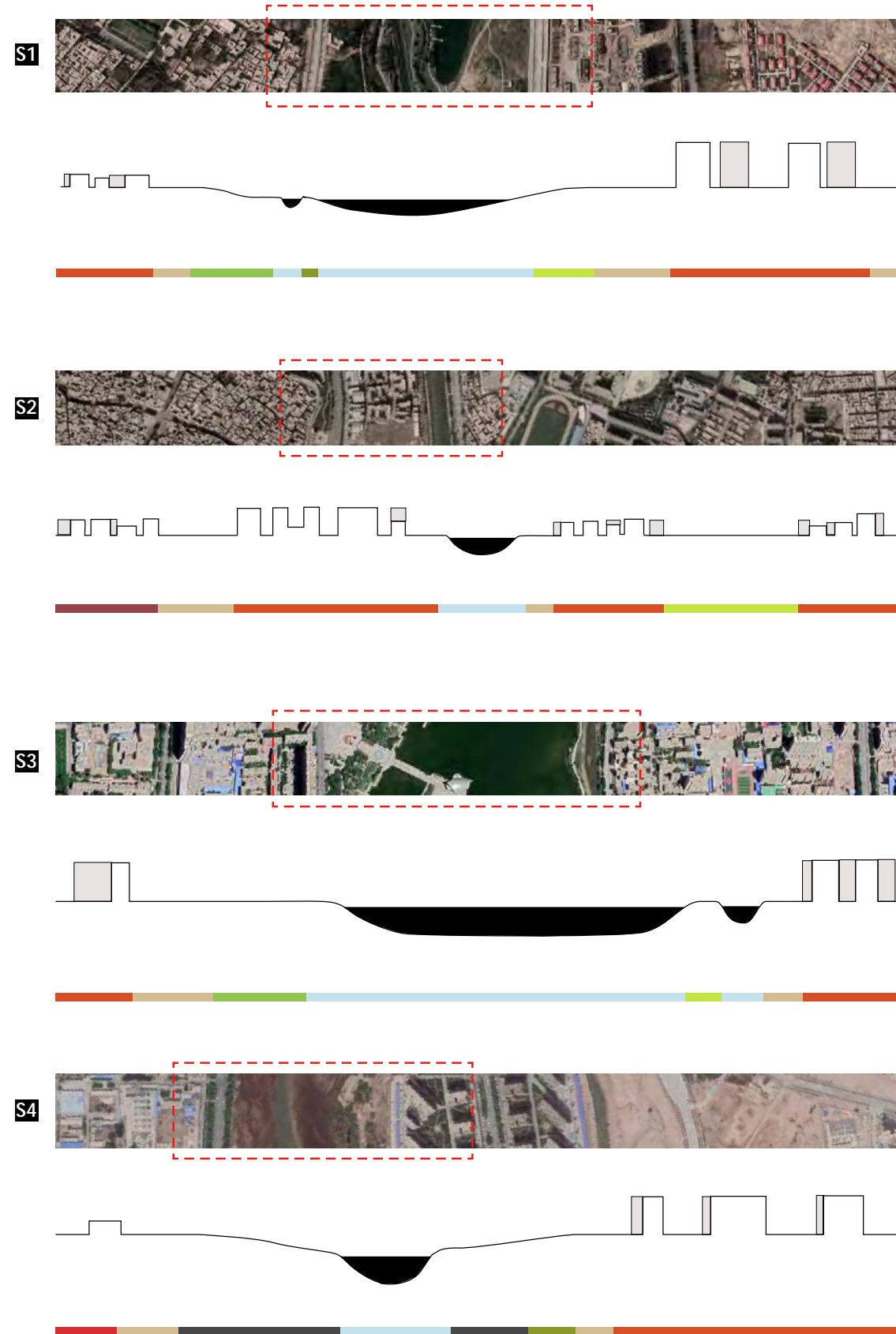
DESIGN II

II. Landscape as infrastructure
Flood gate & Swimming pool



TUMAN RIVER





Developed Areas

- City Center
- Industrial & Commercial
- High Density Urban
- Medium Density Urban & Suburban
- Bare Ground

Vegetation

- Grass
- Scrub & Shrub
- Deciduous Forest
- Mixed Forest
- Conifer Forest

Other

- Open water
- Bare Rock
- Mudflat

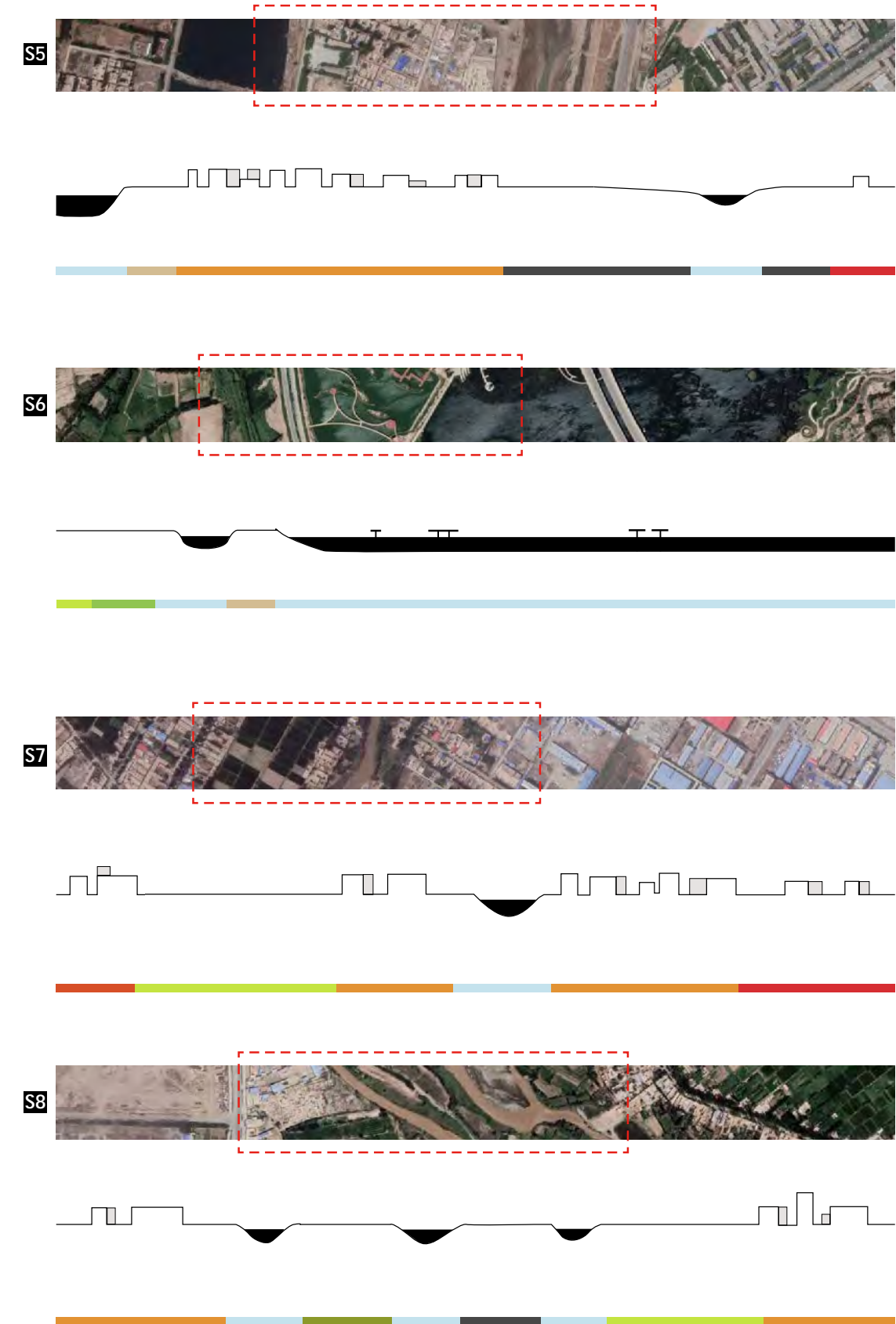
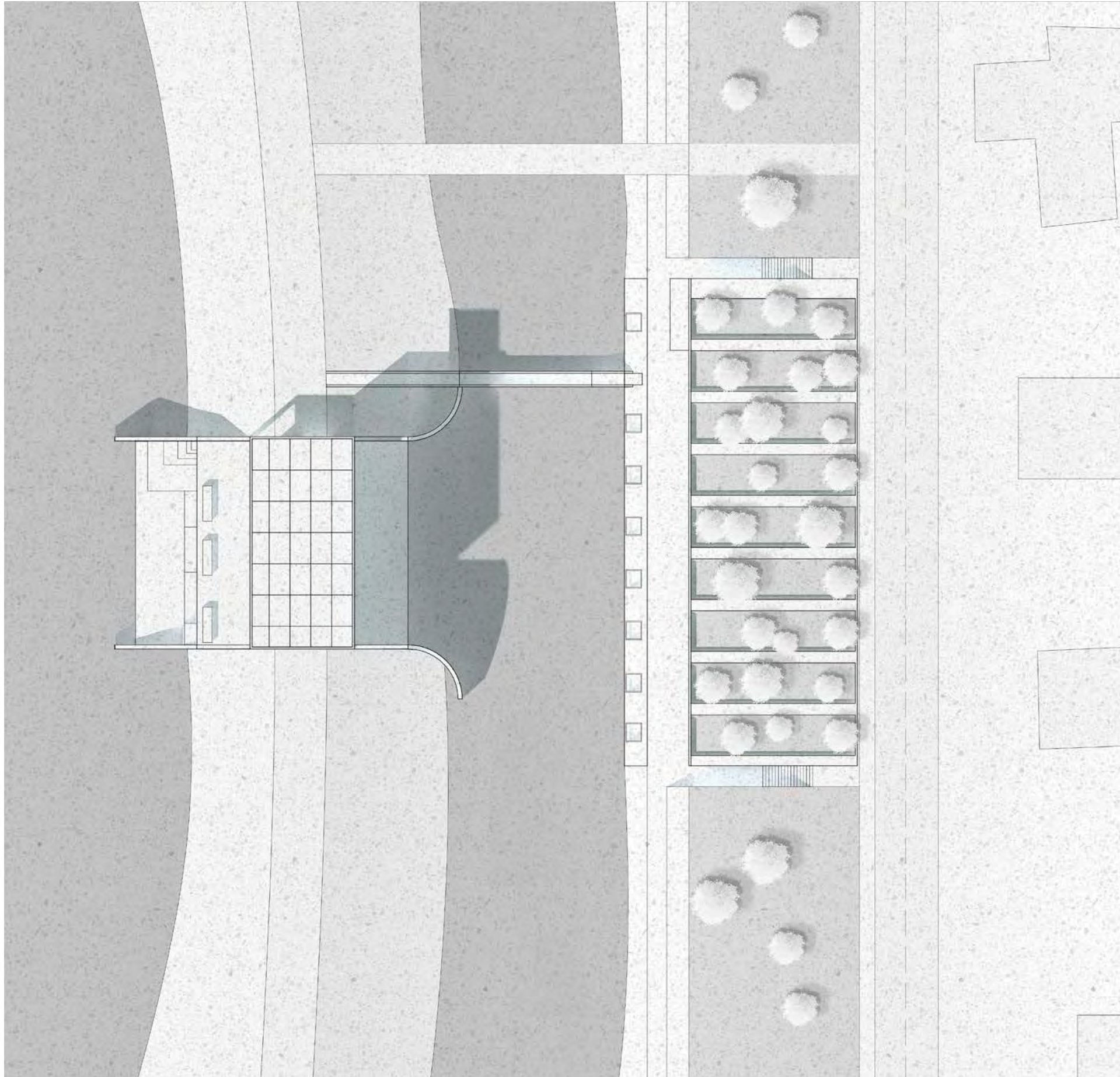


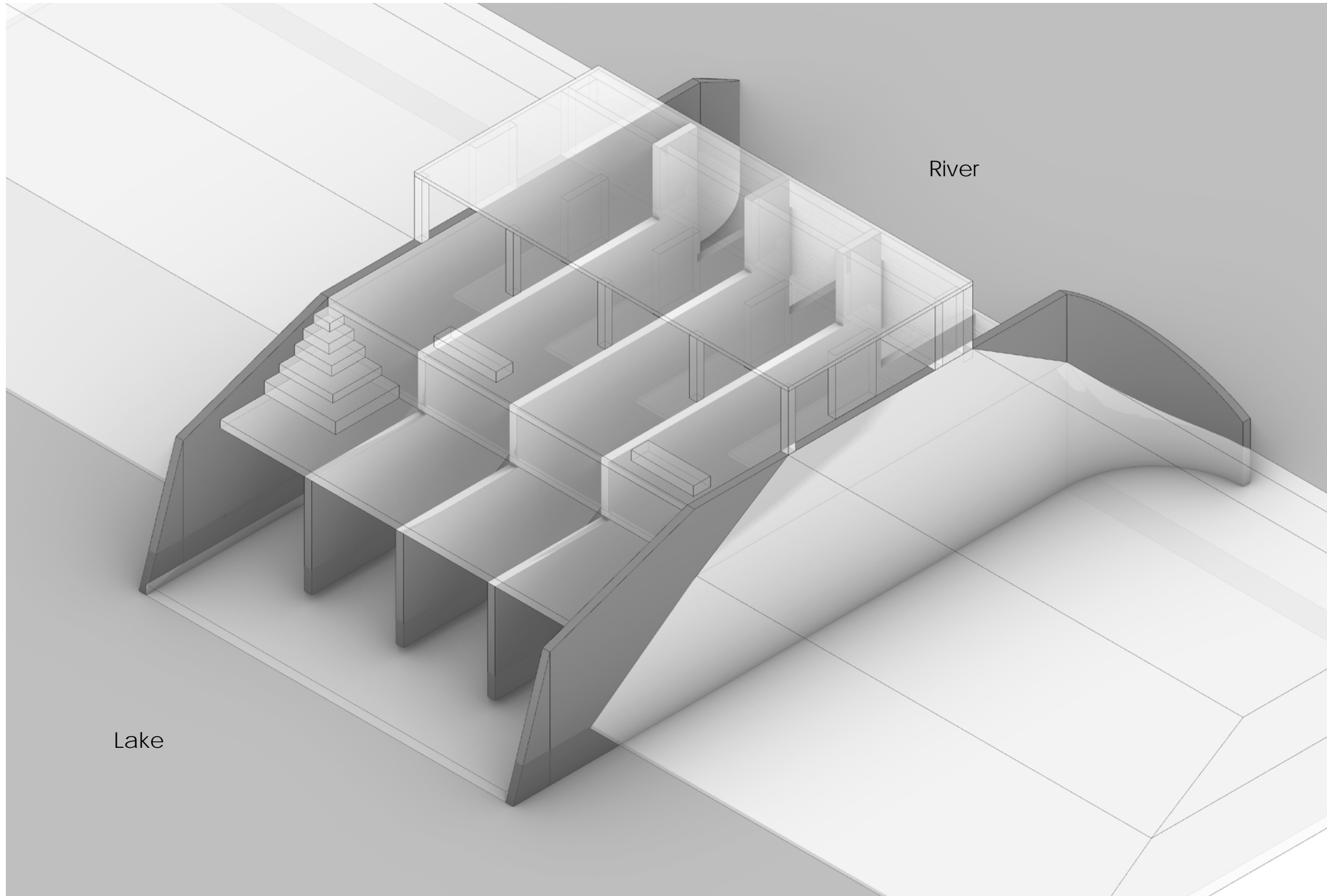
Table 1. Direct losses caused by serious natural disasters during 1949–1990 in Xinjiang.

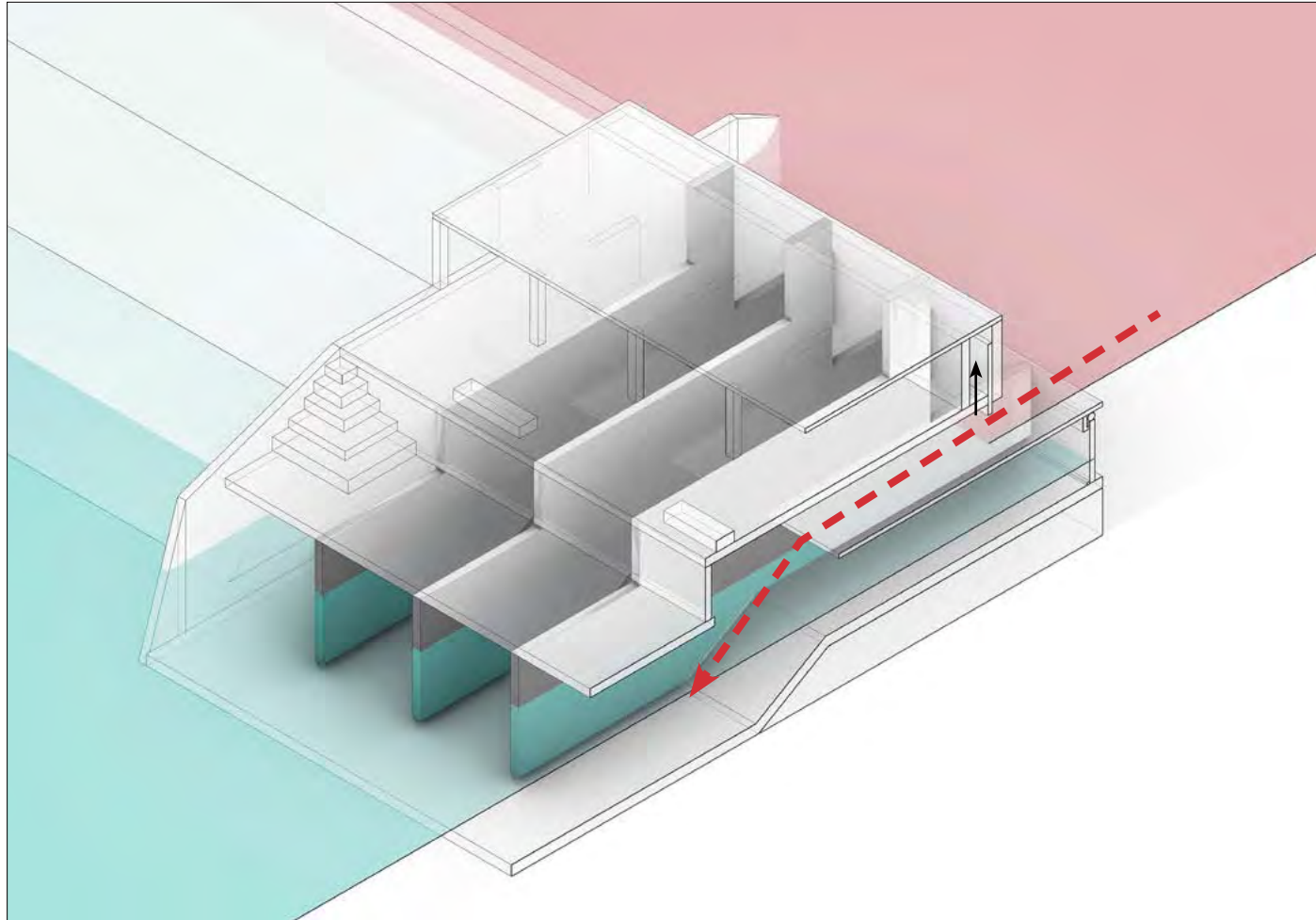
	Fatalities	Injured persons	Domestic animal lost	Damaged houses	Damaged key structures	Direct economic losses (10 ⁶ Chinese Yuan)
Earthquake	125	319	101,200	41,173	4	223.48
Drought			156,113			111.45
Flood	1053	418	254,620	97,756	157	569.59
Windstorm	108	124	46,374	4309	5	226.27
Hail	56	429	75,905	6195		362.55
Frost and freezing	212	678	7,773,492	1922	1	55.35
Lighting strike	15	13	28			
Plant disease and insect pests	4					45.94
Wild fire	12	13	230	870		6.67
Total	1585	1994	8,407,962	152,225	167	1601.30
Percentage due to flood	66.44	20.96	3.03	64.22	94.01	35.57

Data source: CCFDRMX (1993). Direct economic losses are unadjusted for inflation.

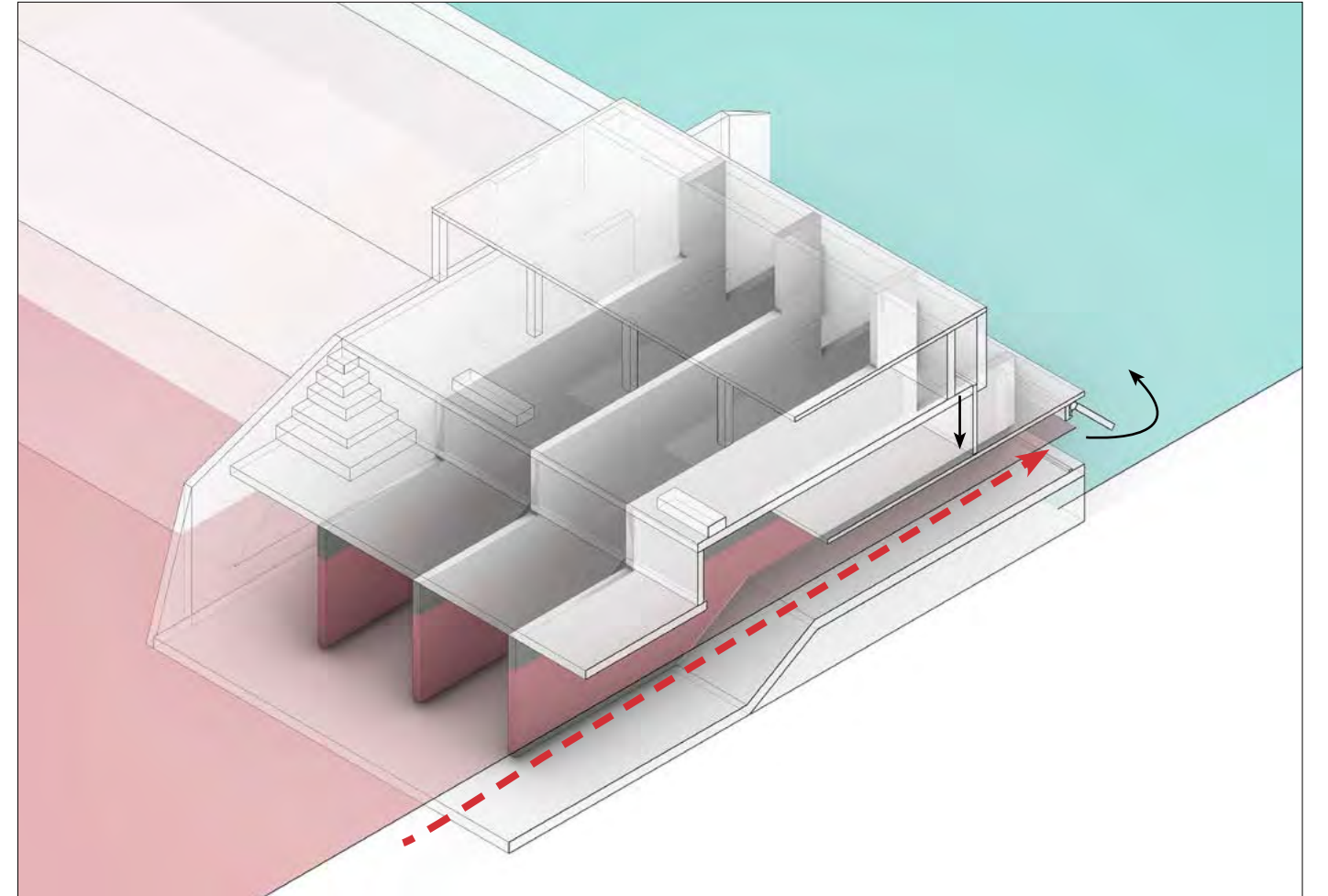


Master plan 1:500 ↑

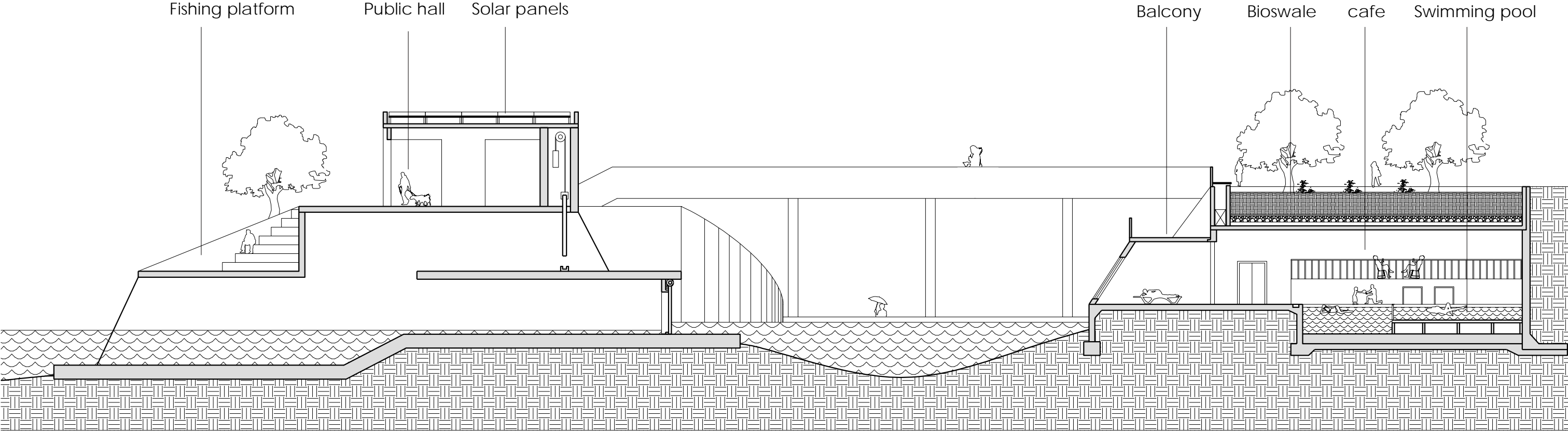




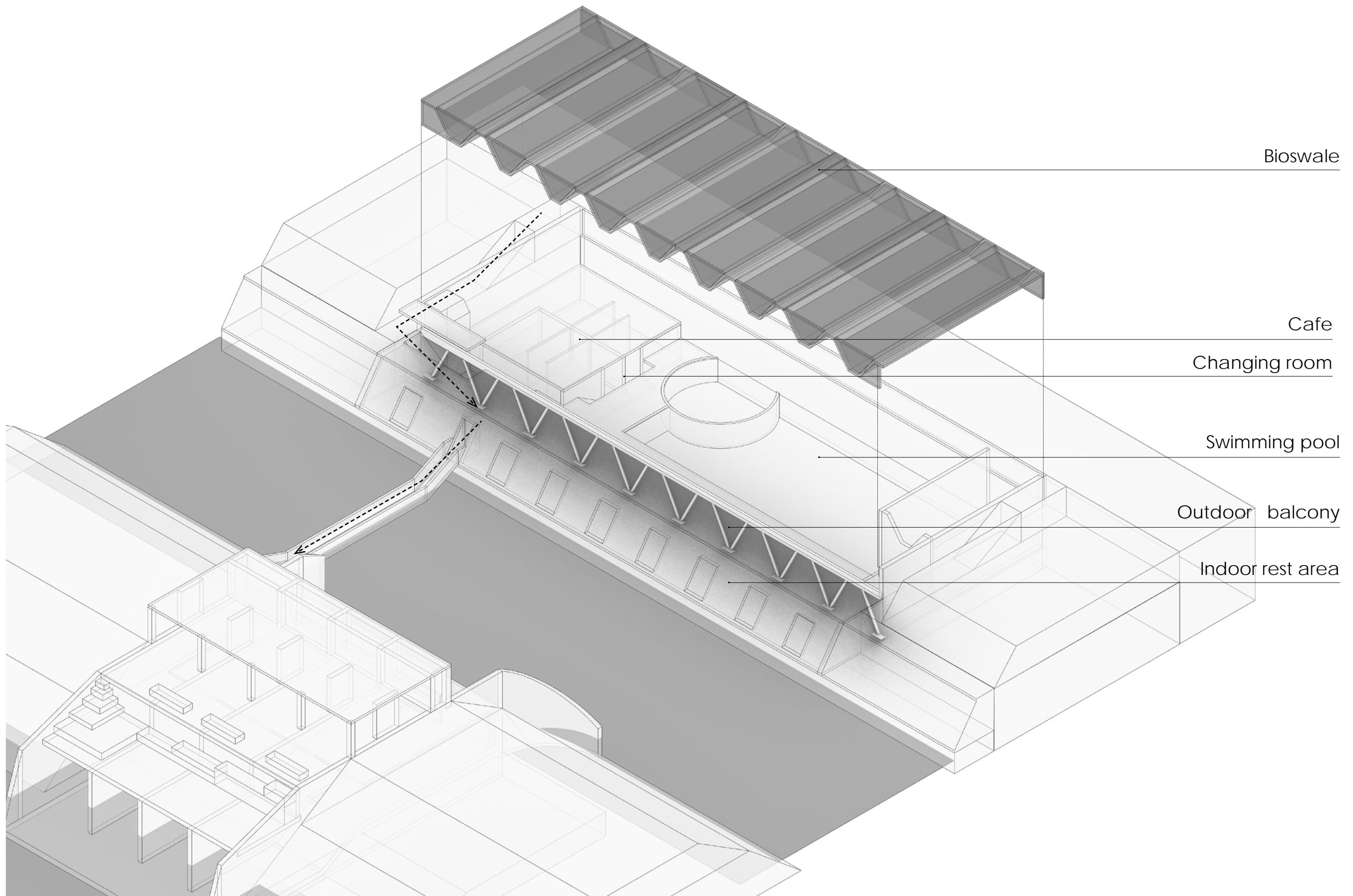
During Flood

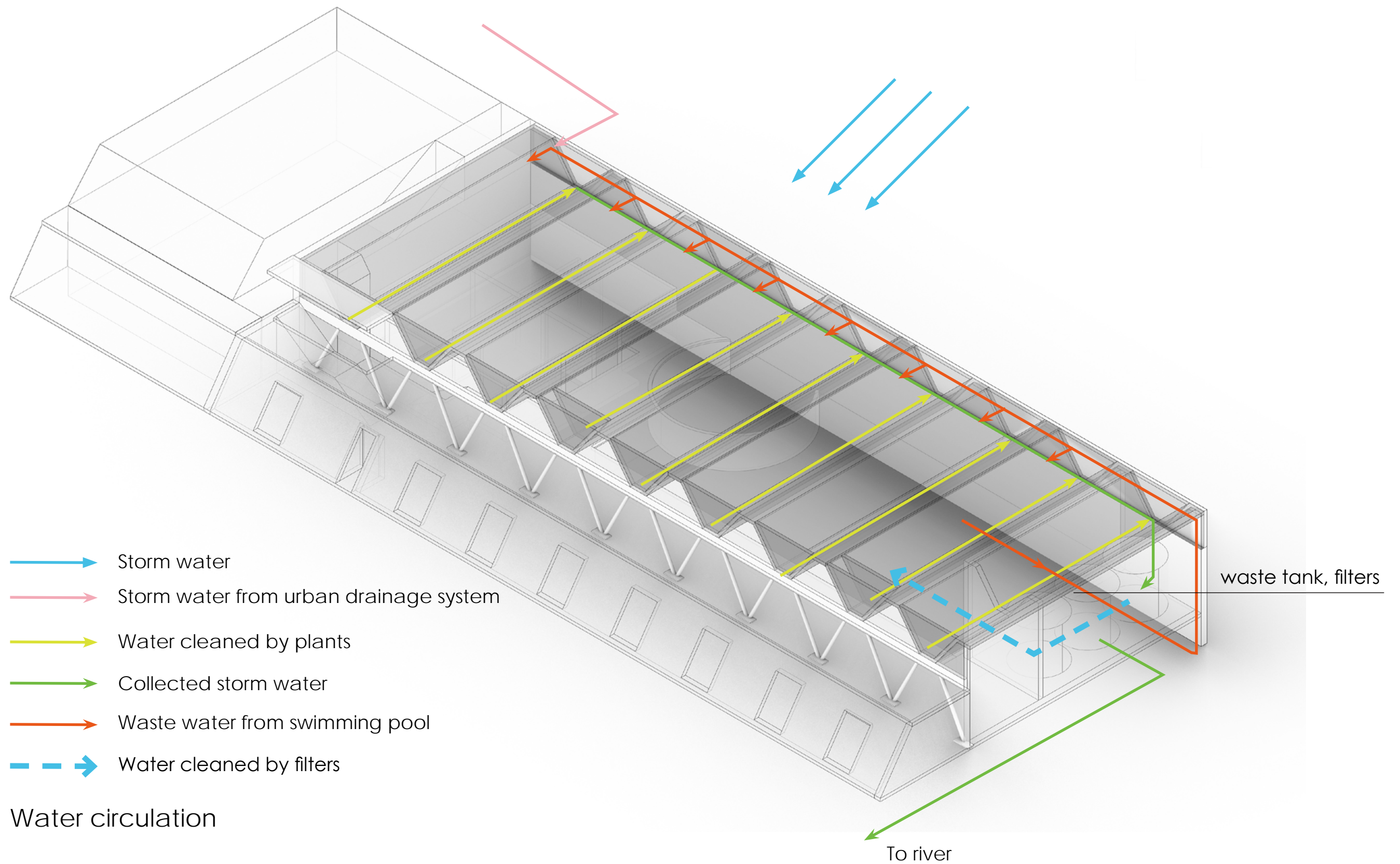


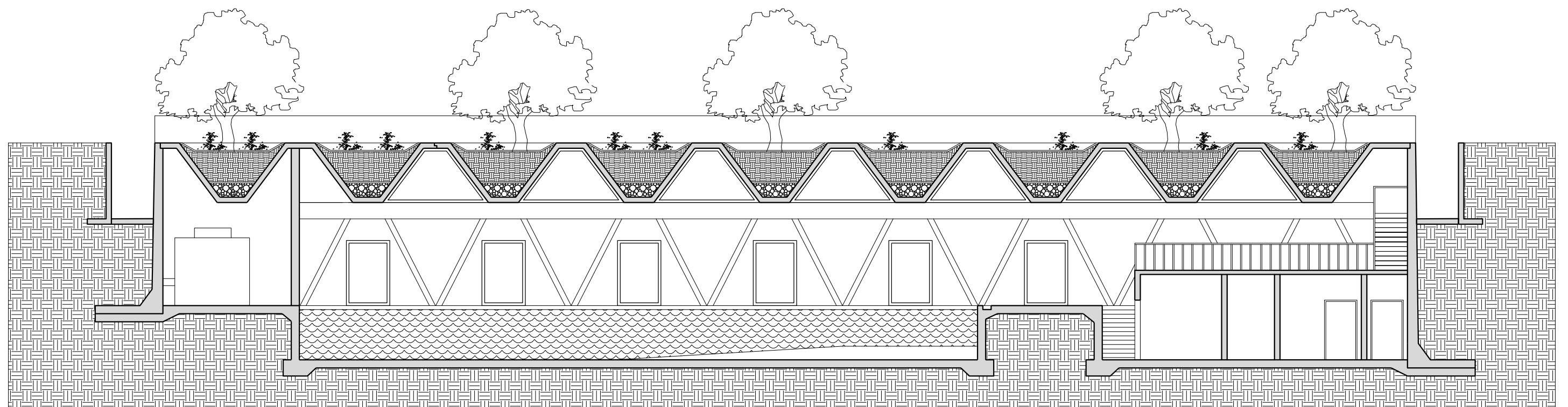
After Flood



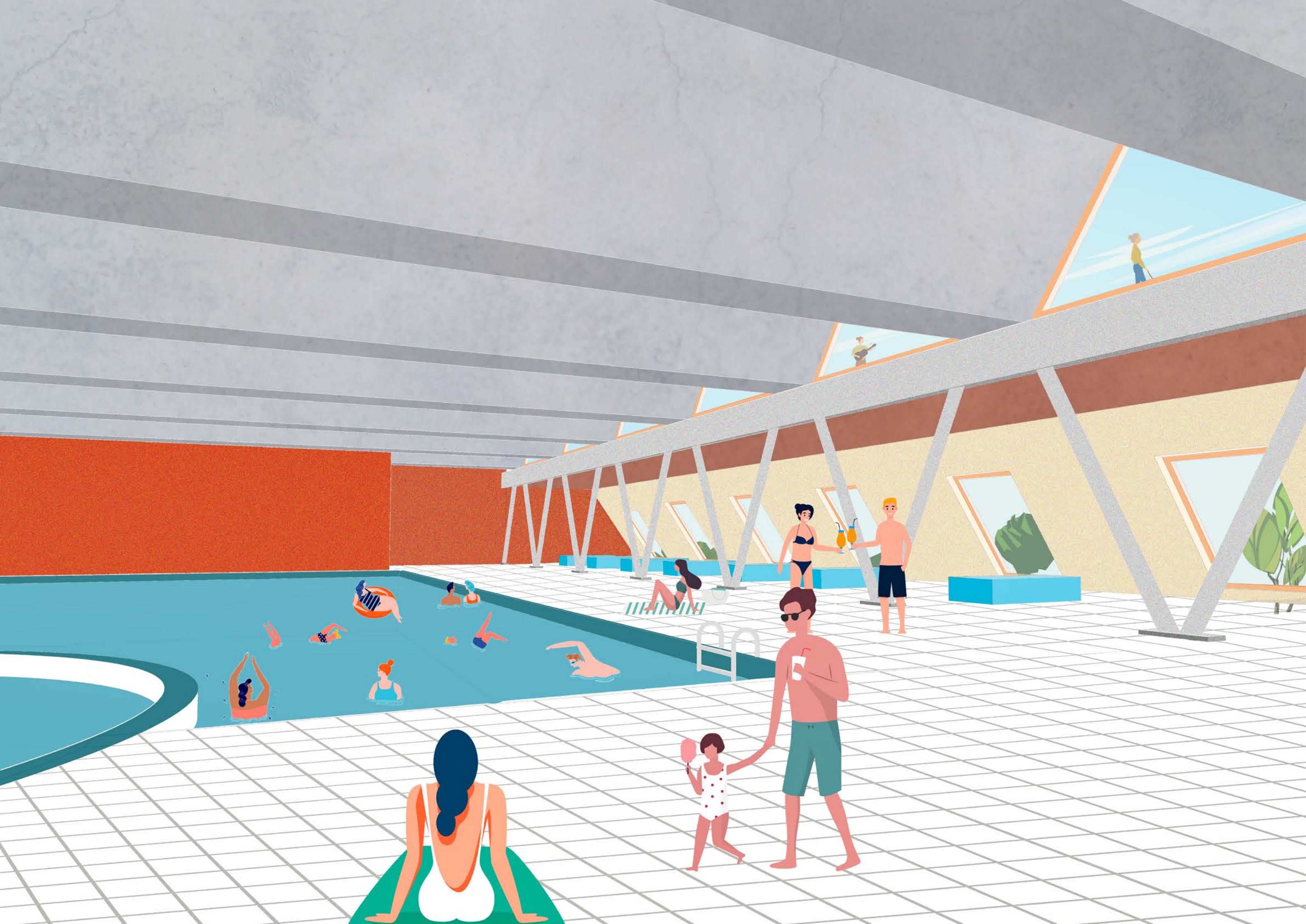
SECTION 1:200



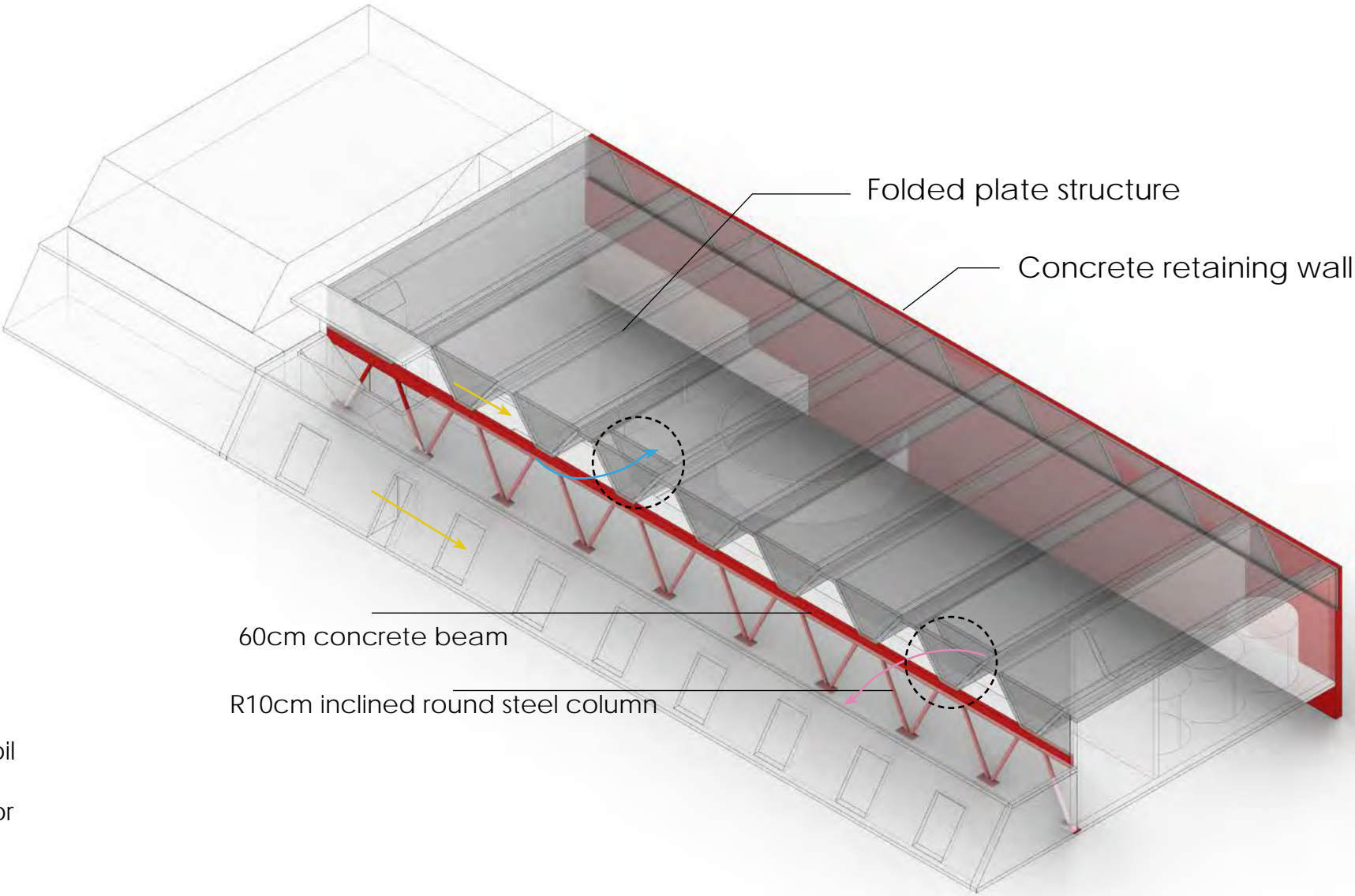
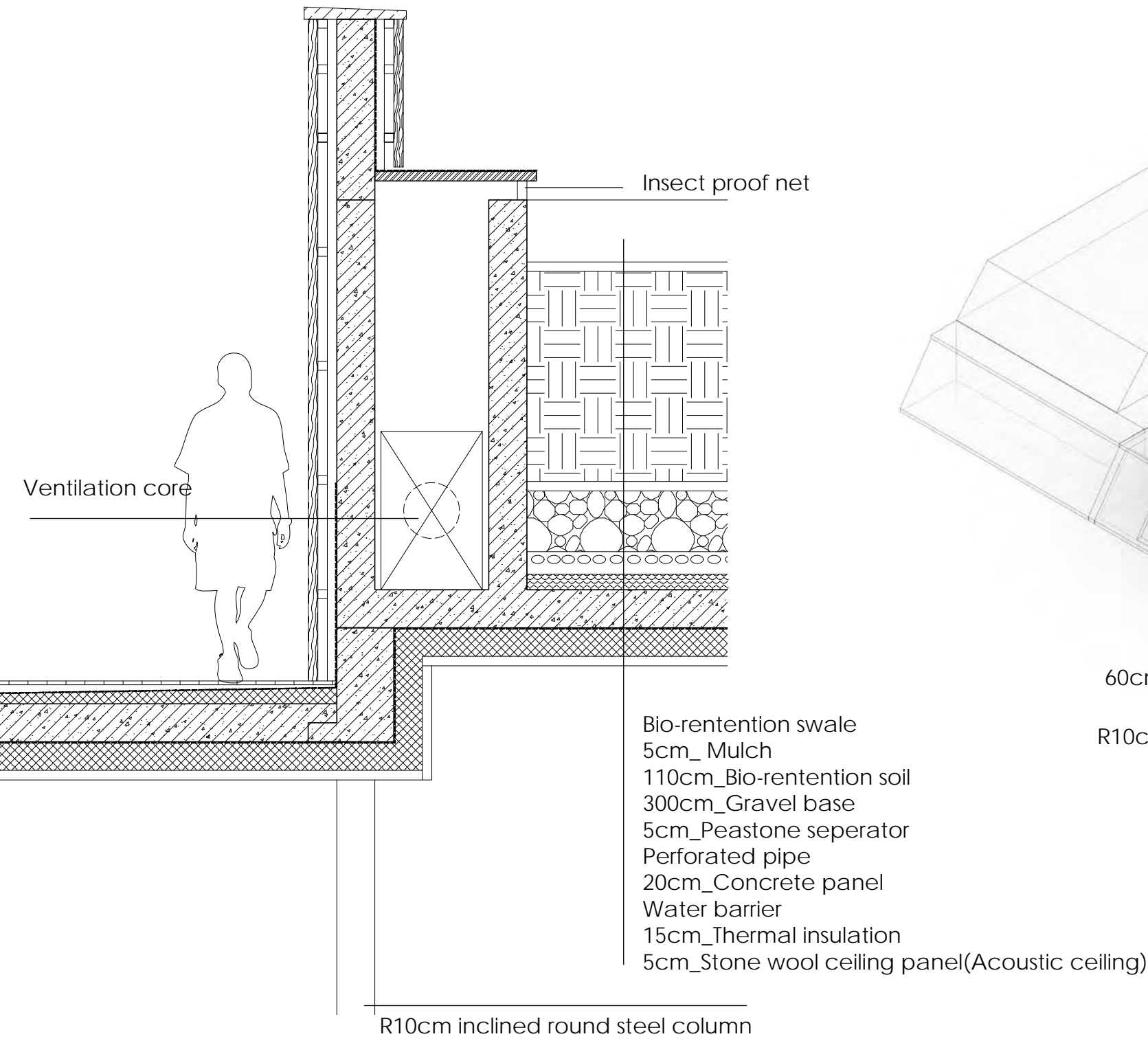


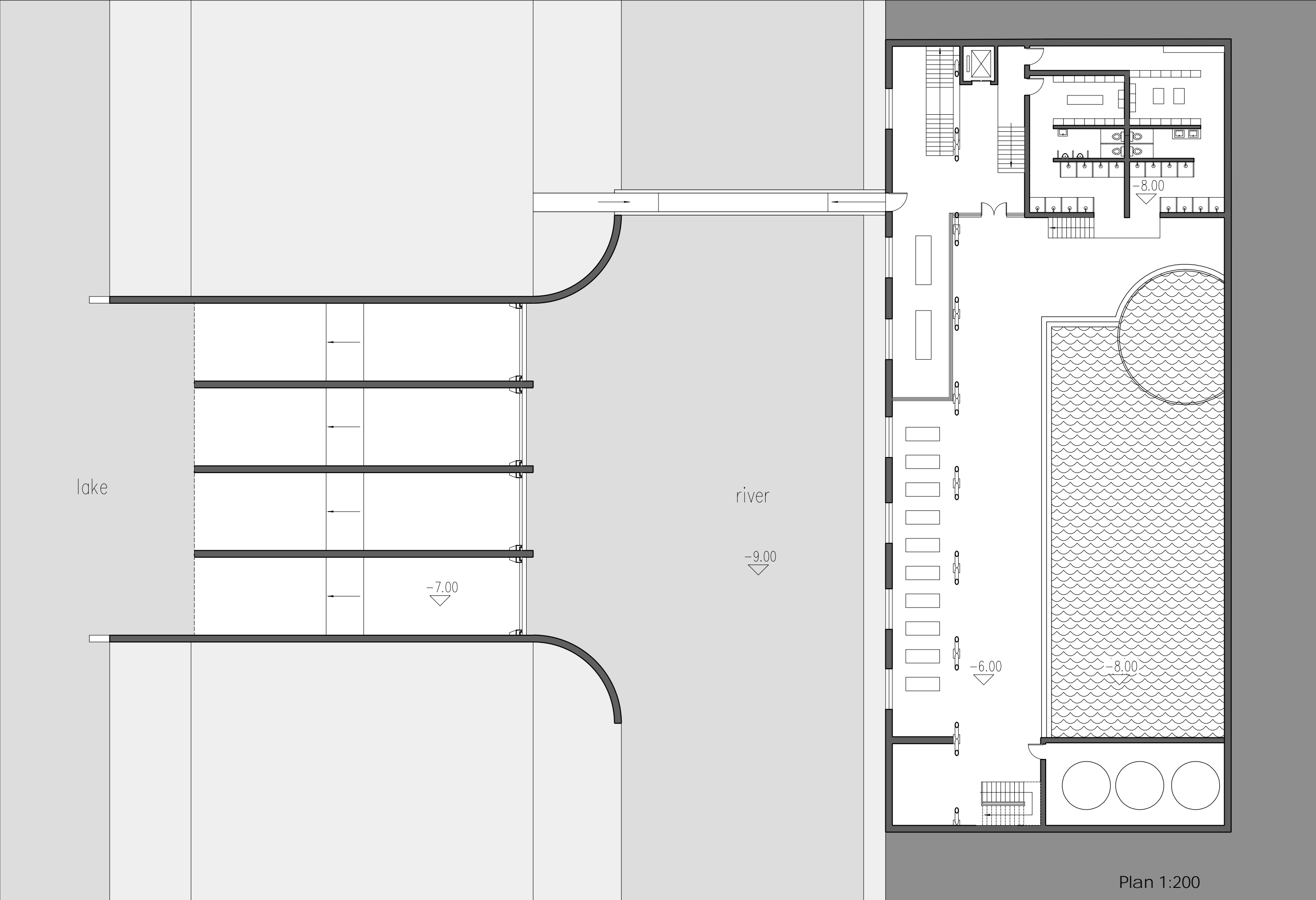


SECTION 1:150

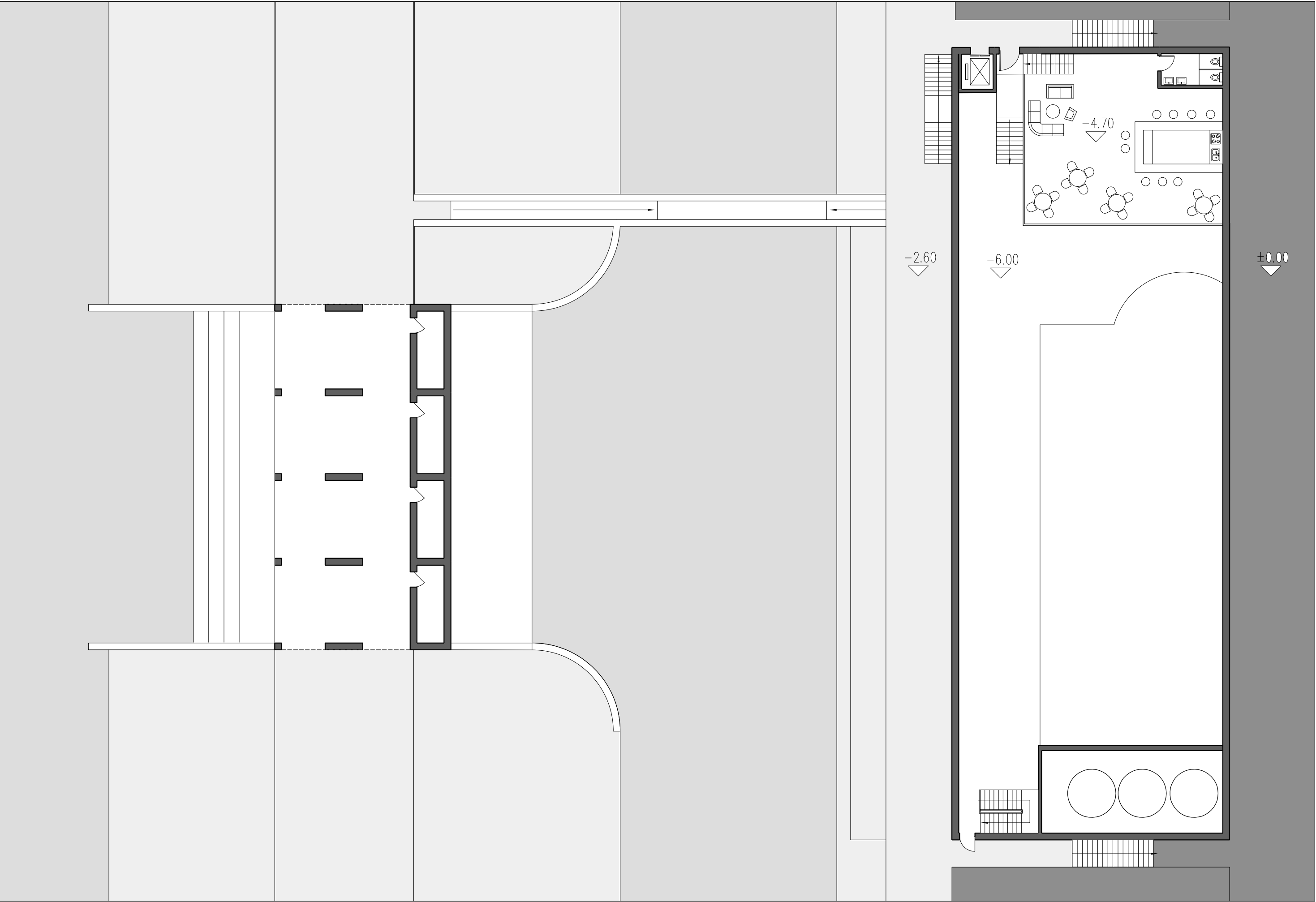


Structure





Plan 1:200

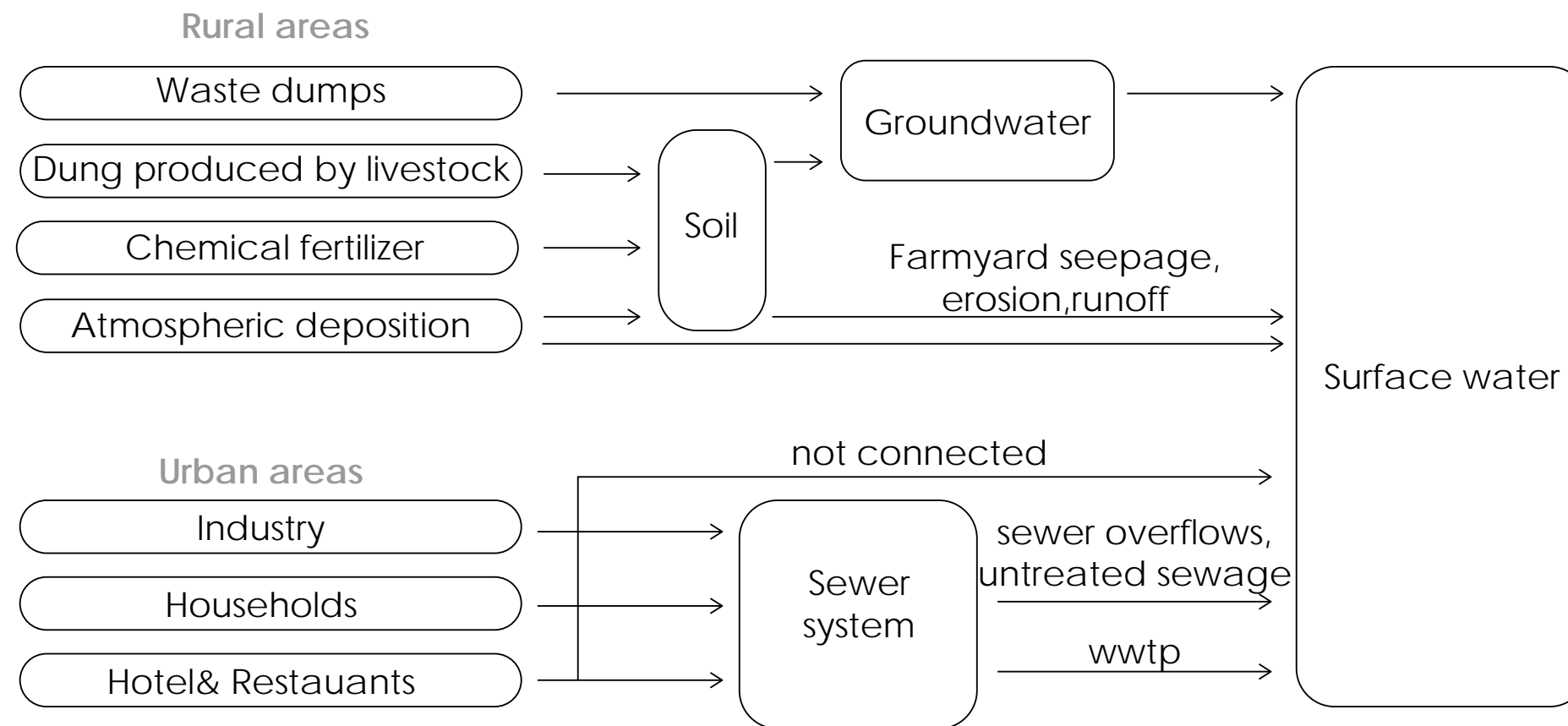




DESIGN III

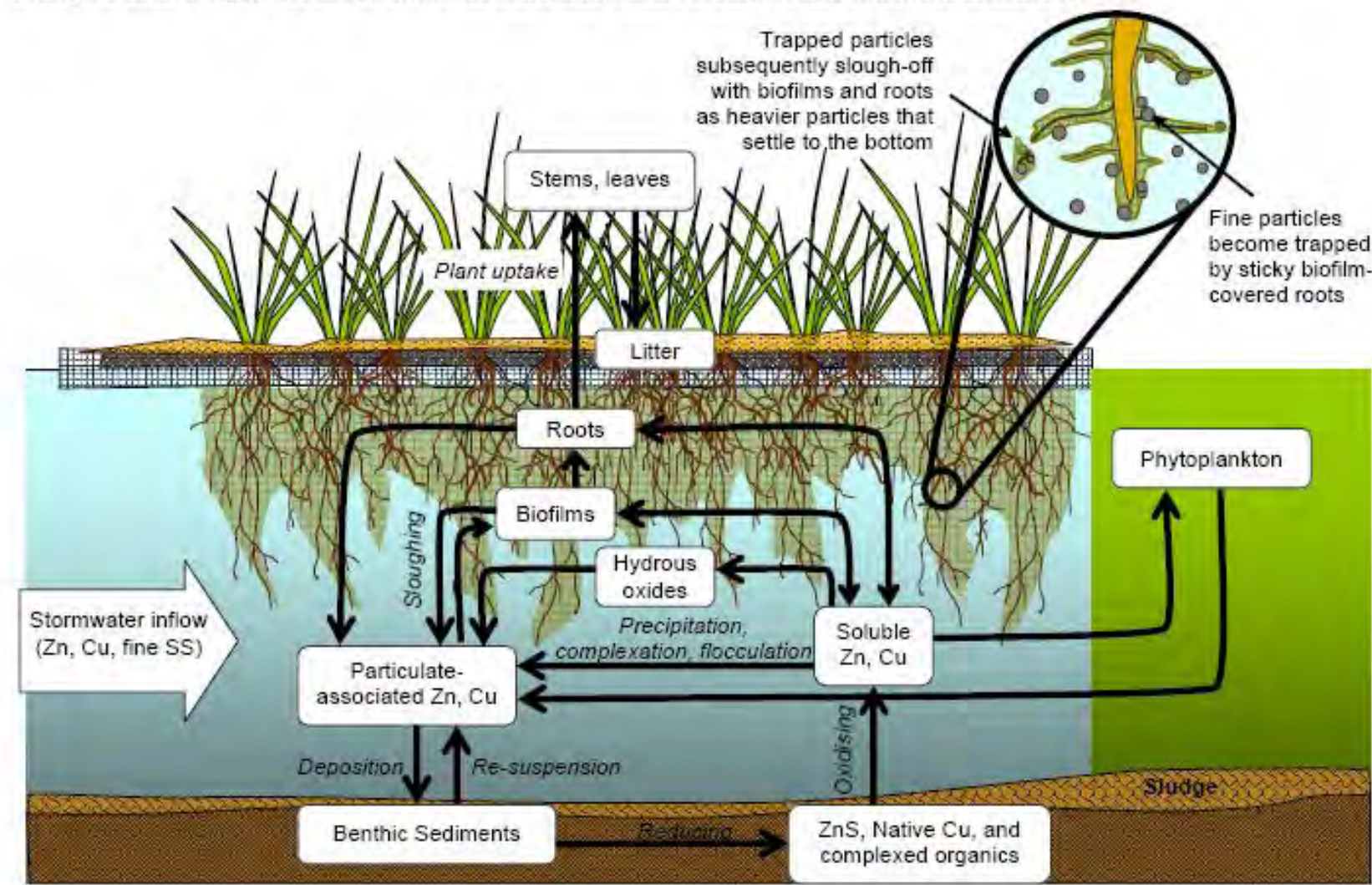
III. Landscape makes public life
Floating wetland

Sewage

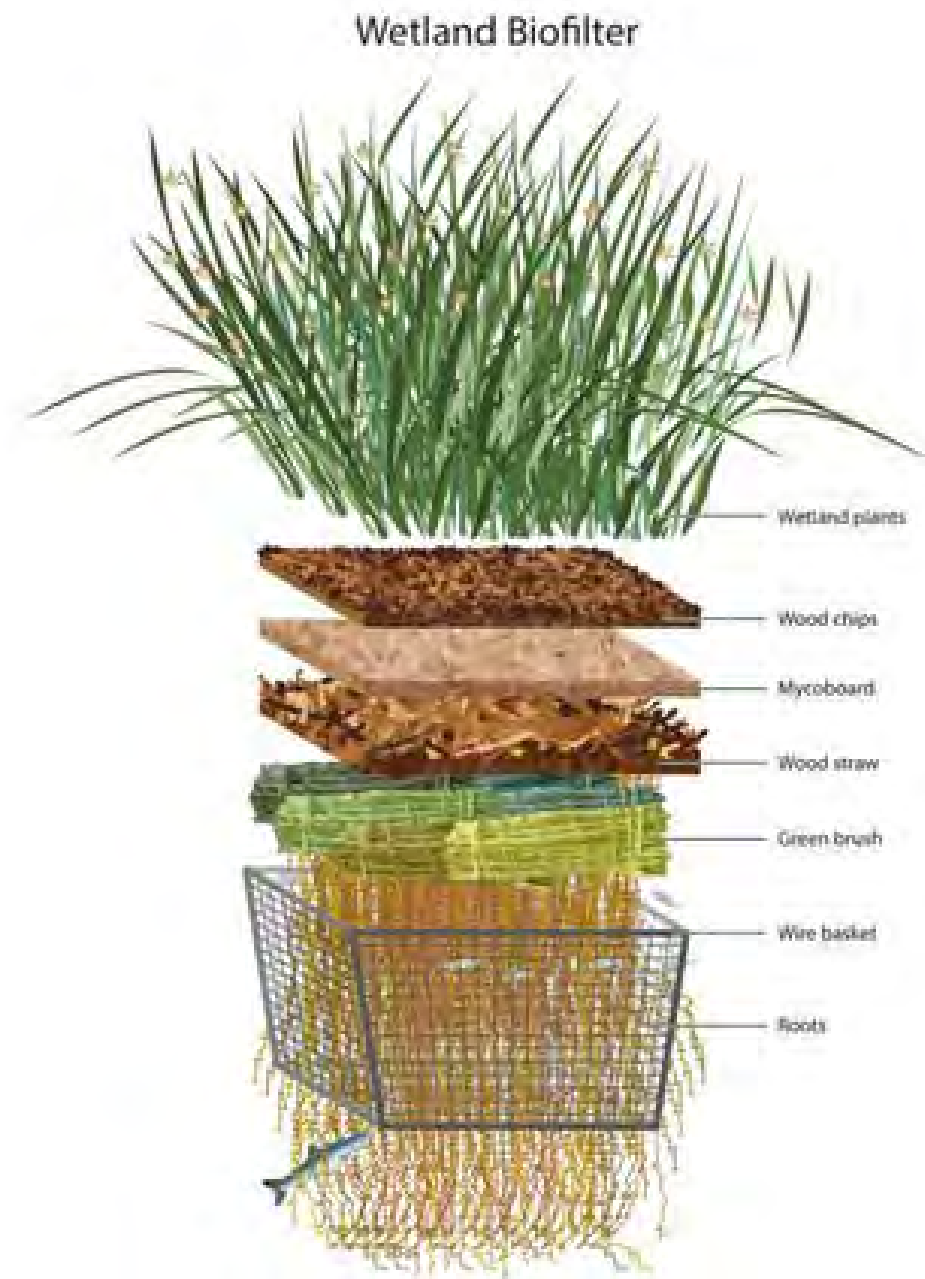


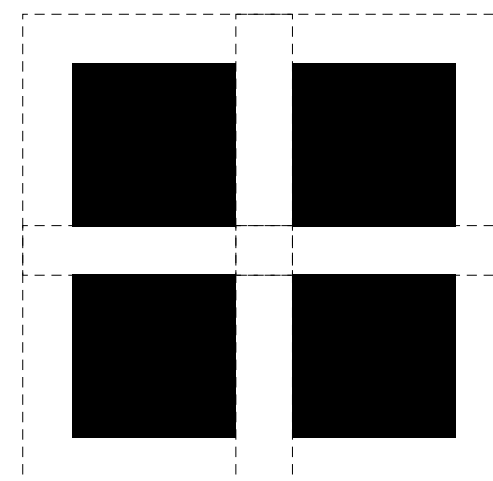
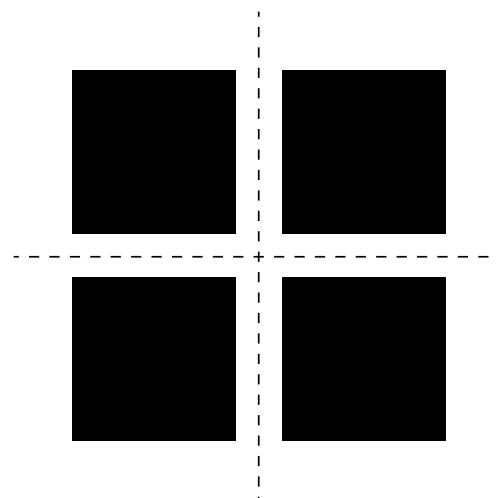
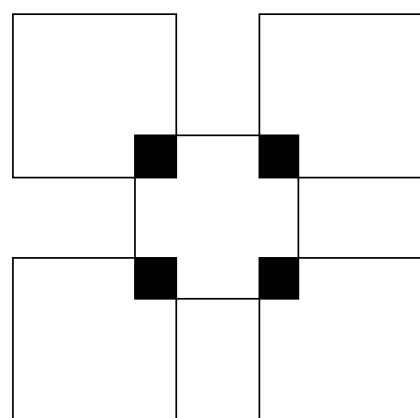
Floating wetland

Figure 39.
Conceptual model of copper and zinc pathways and interactions within a floating wetland stormwater treatment system.

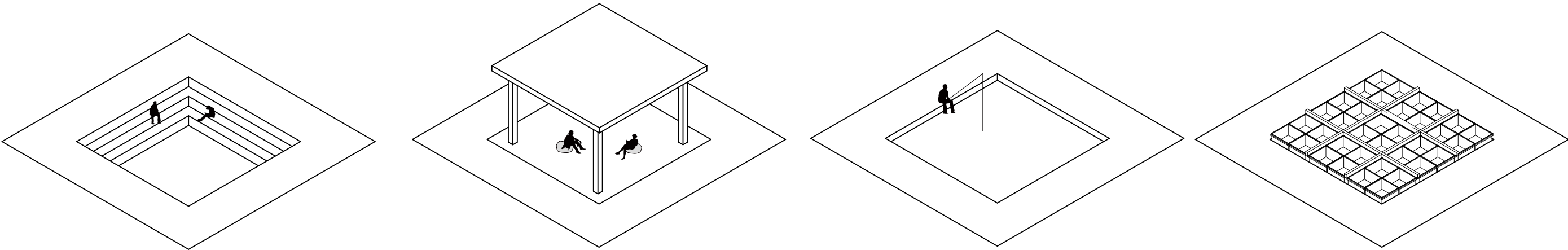


<https://professionele-vijverstofzuiger.com/giftige-blauwalgen-in-zwemwater-wat-ermee-te-doen/>





Multifunction grid



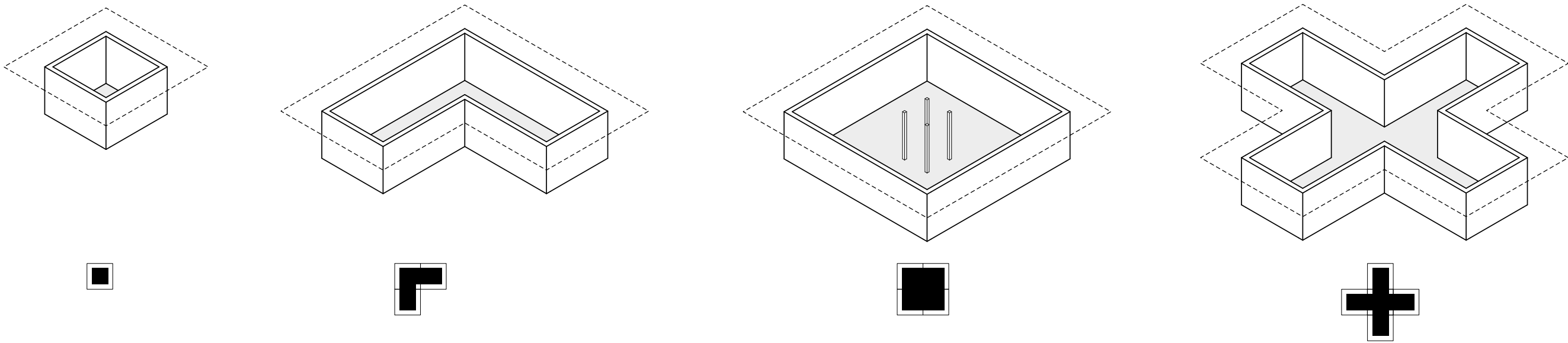
outdoor theater

Pavillion

Fishing Platform

Biofilter

COMBINATION

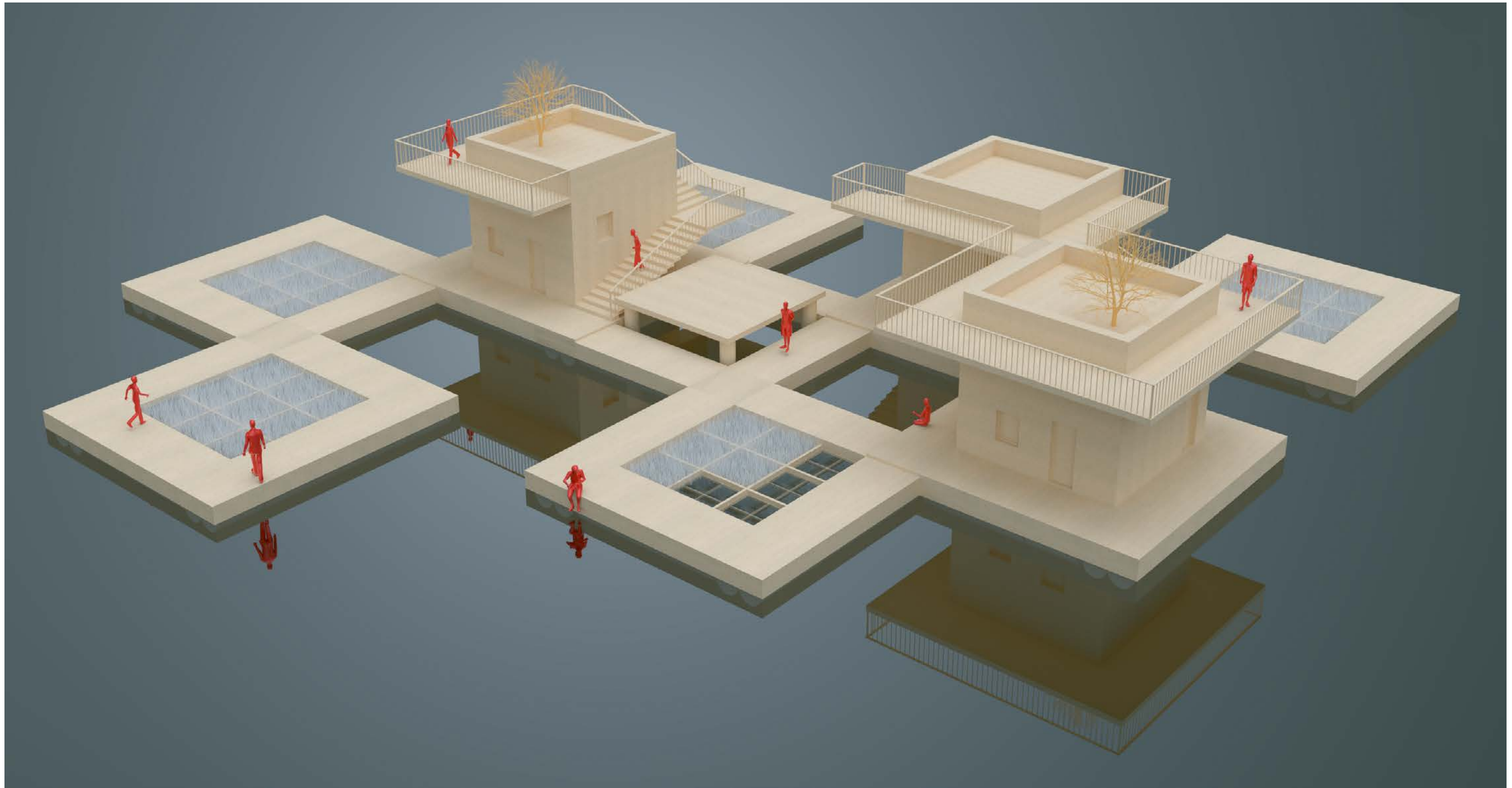


1unit
 $6 \times 6\text{m} = 36\text{m}^2$

3 units
 132m^2

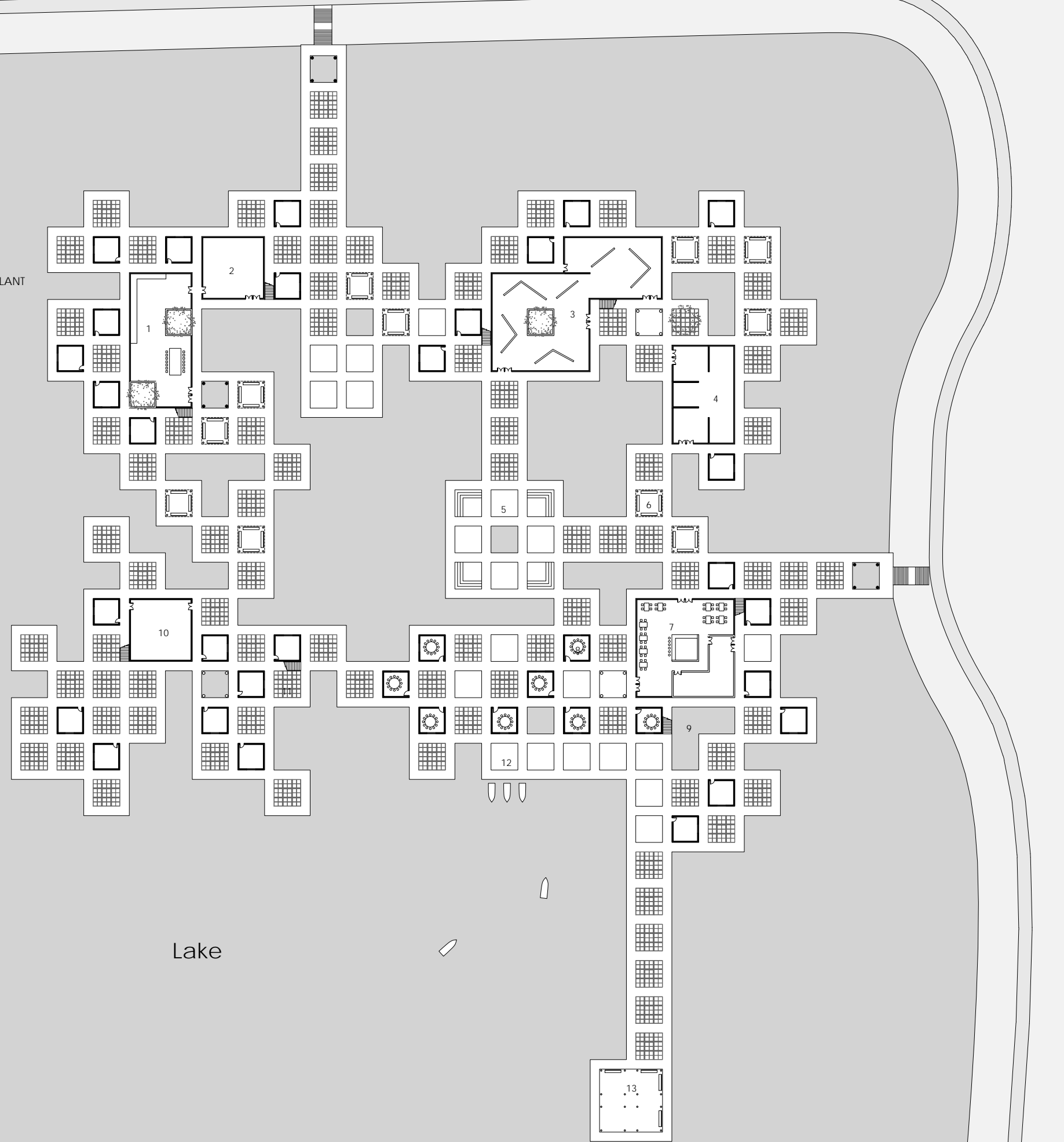
4 units
 196m^2

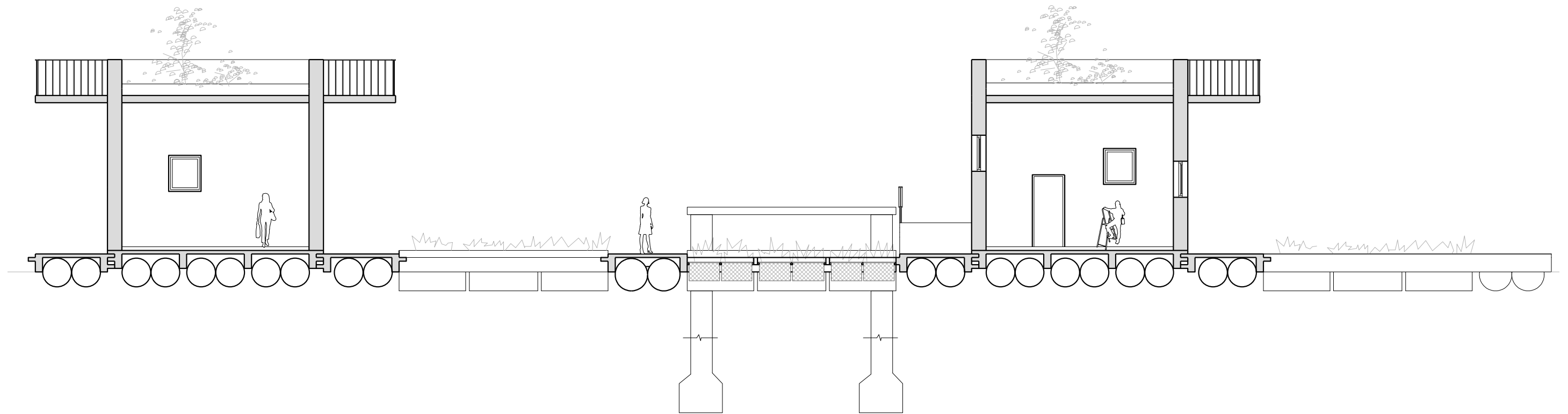
5 units
 228m^2



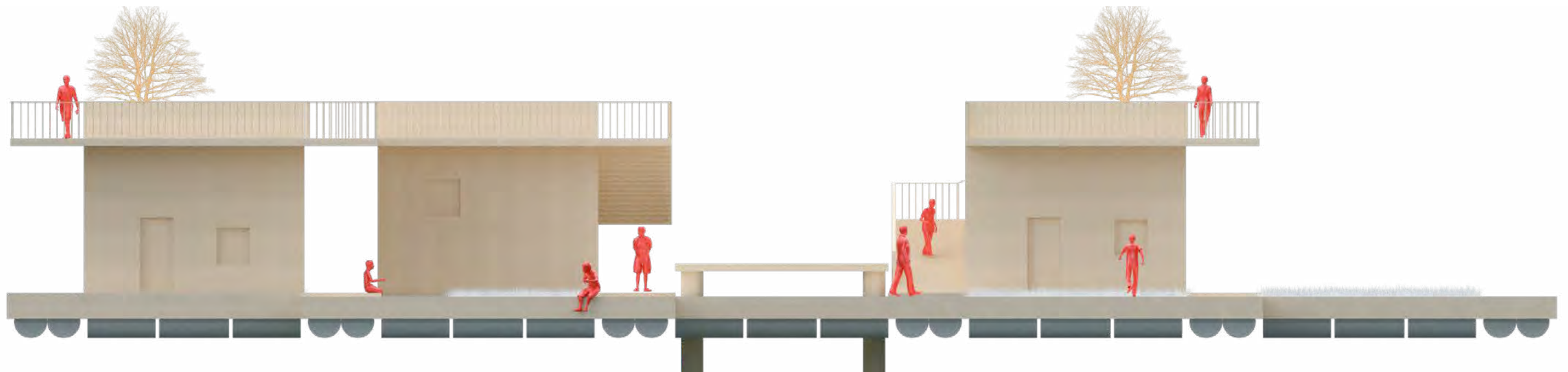
PLAN 1:500

- 1 CLAY WORKSHOP
- 2 POTTERY SHOP
- 3 CULTURE GALLERY
- 4 GREEN HOUSE
- 5 SINKING PLATFORM
- 6 PAVILLION
- 7 CANTEEN
- 8 GAME ROOM
- 9 FISHPOND
- 10 WASTE TREATMENT PLANT
- 11 WETLAND
- 12 DOCK
- 13 FISHING PLATFORM





SECTION 1:100



Elevation 1:100

Material

Precast rammed earth facade



<https://www.rammedearthworks.com/pre-cast-rammed-earth/5>

Prefab CLT structure



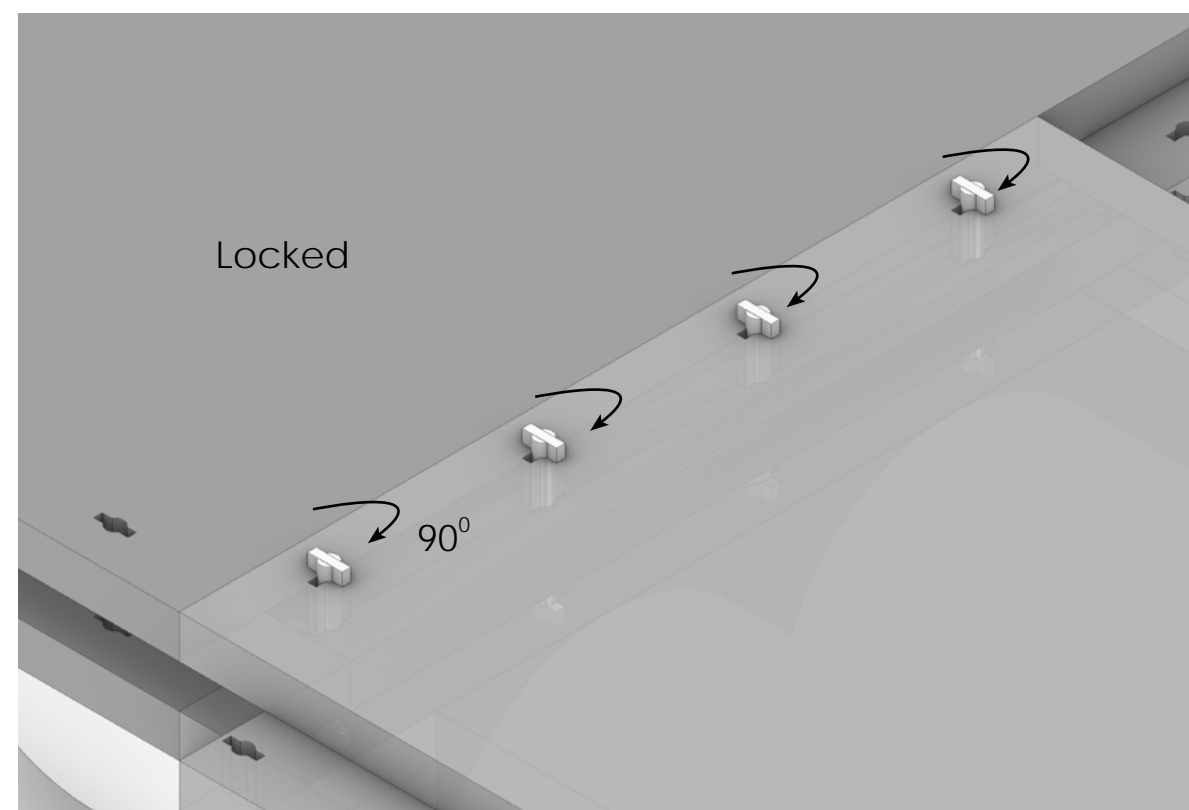
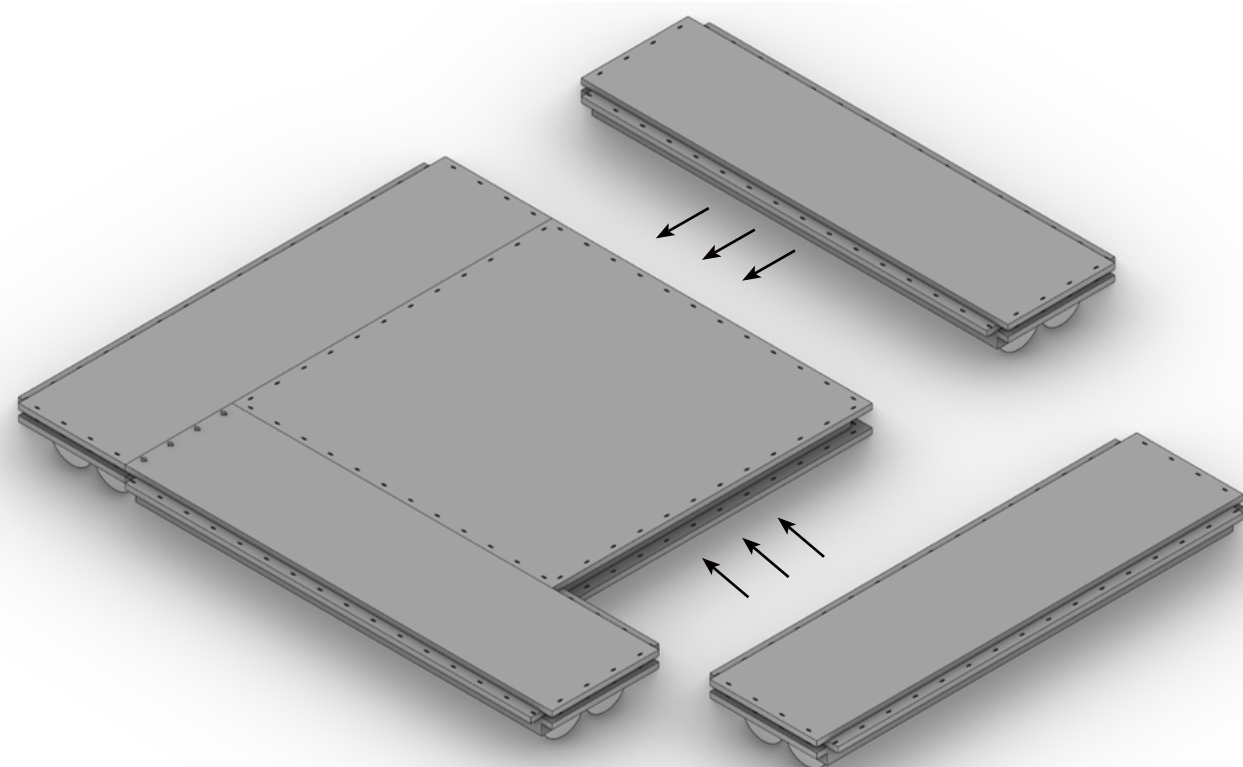
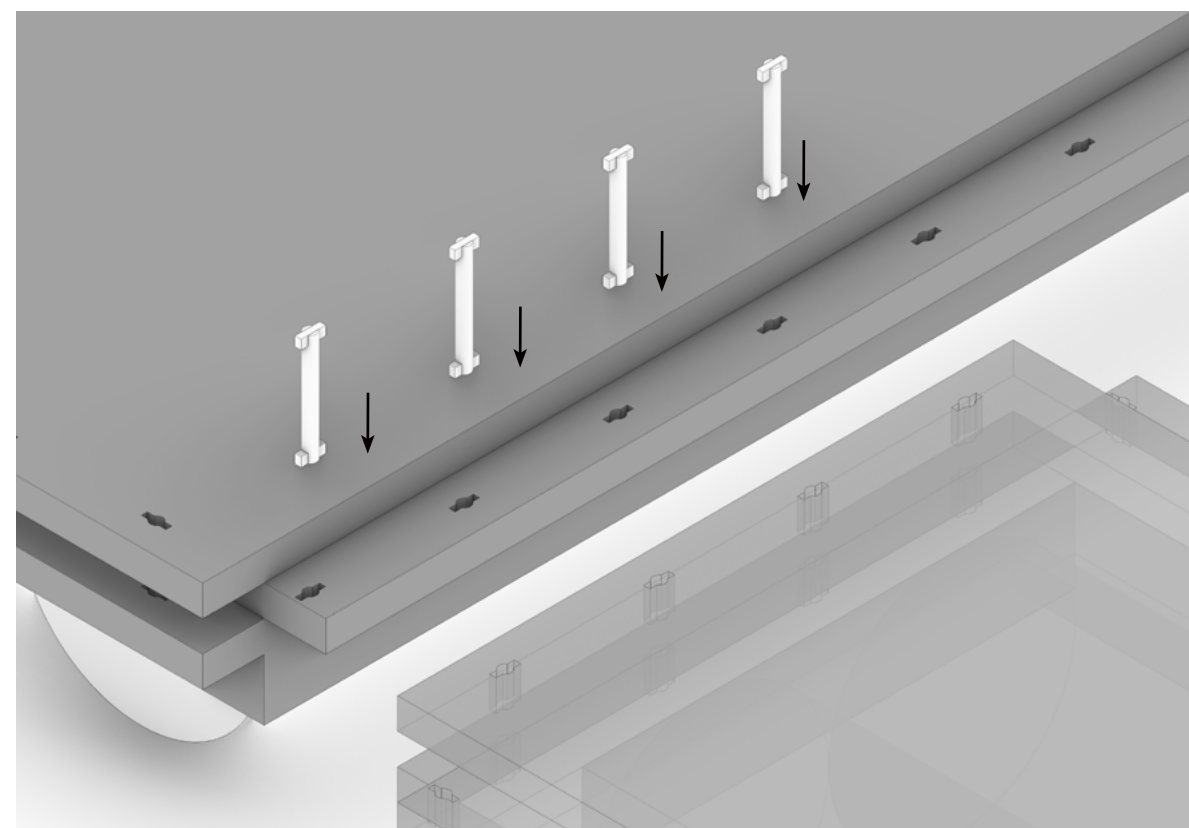
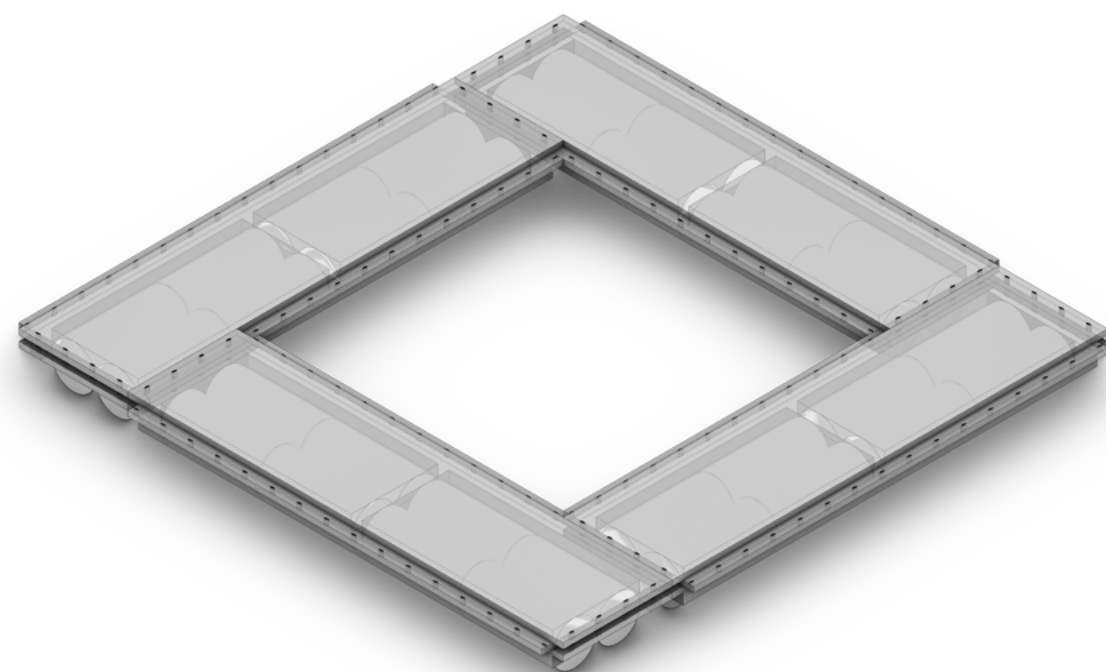
<https://www.orga-architect.nl/nieuws/clt-het-nieuwe-beton/>

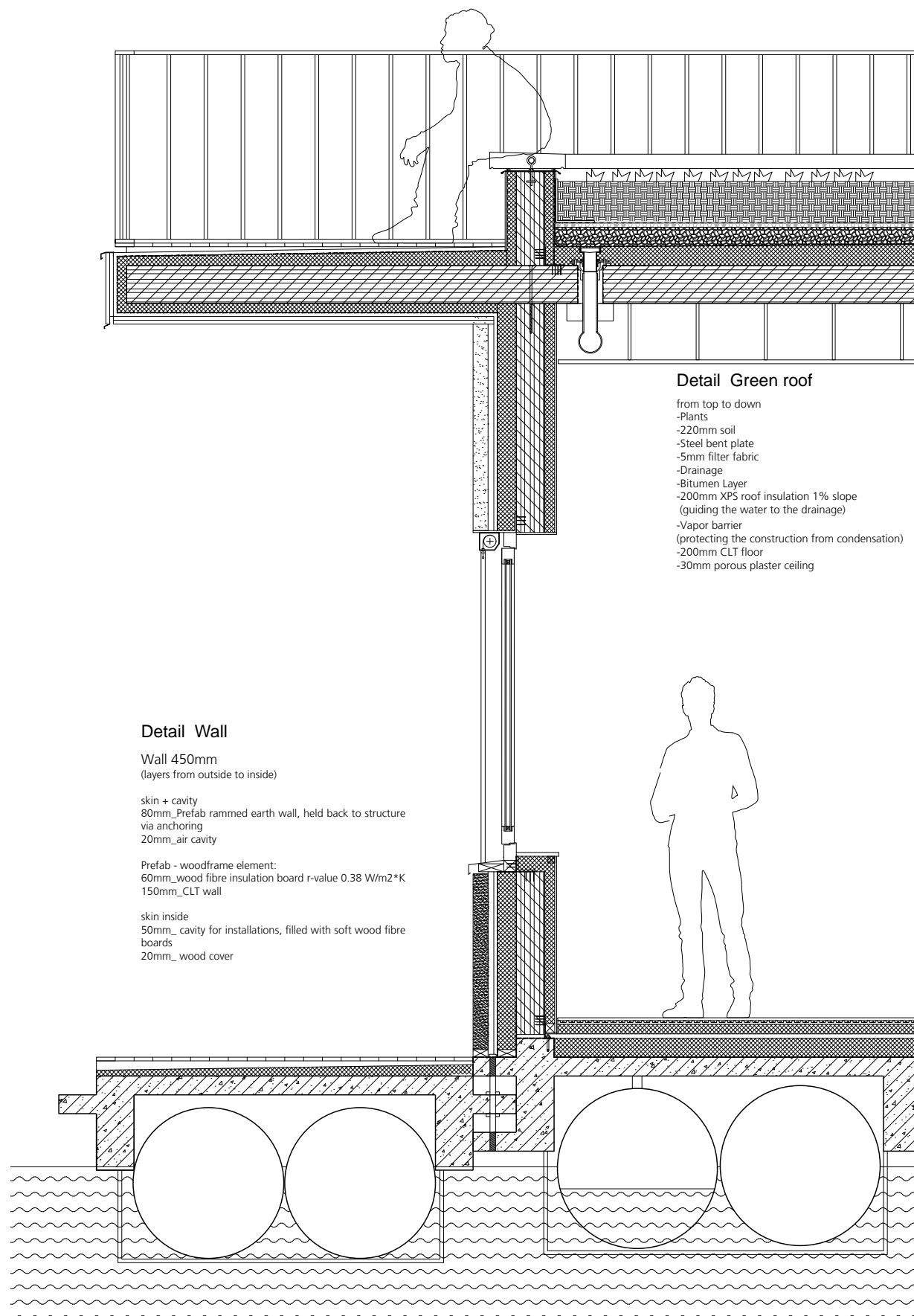
Precast concrete panel
Recycled plastic drums



<https://blog.ecoratio.com/high-quality-precast-concrete-panels>

<https://blueplanetrecycling.ca/materials-we-recycle/plastic-recycling/hdpe-pails-buckets-barrels-drums-ibc-totes/>







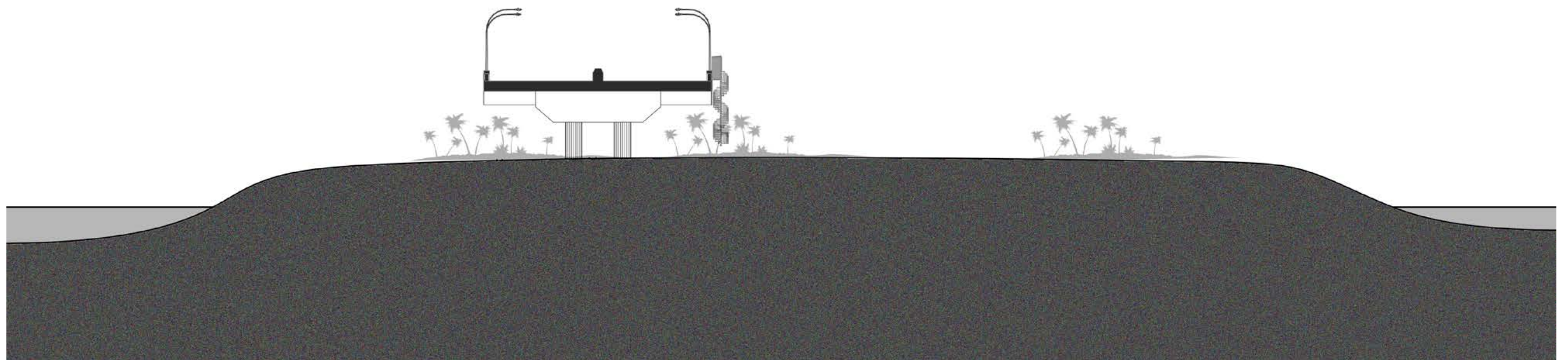
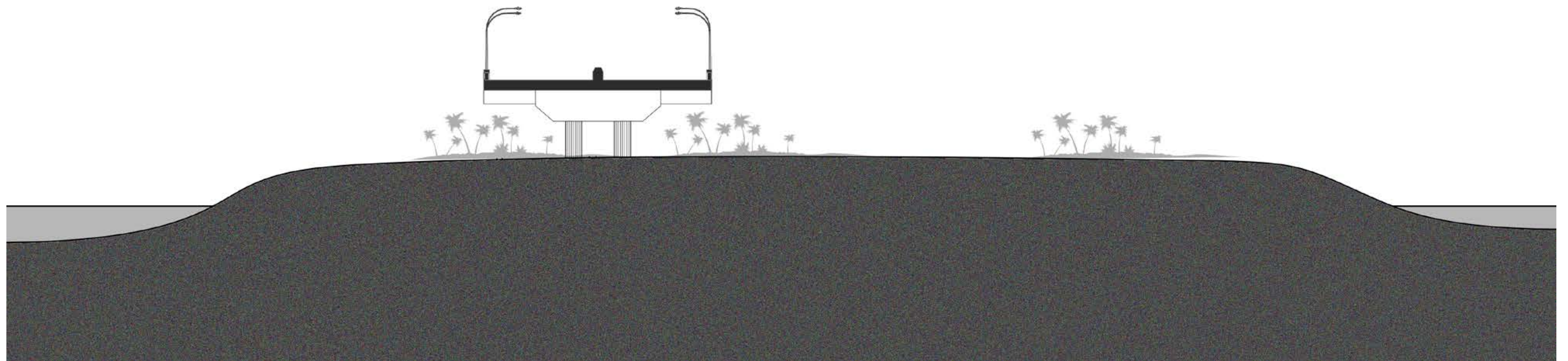




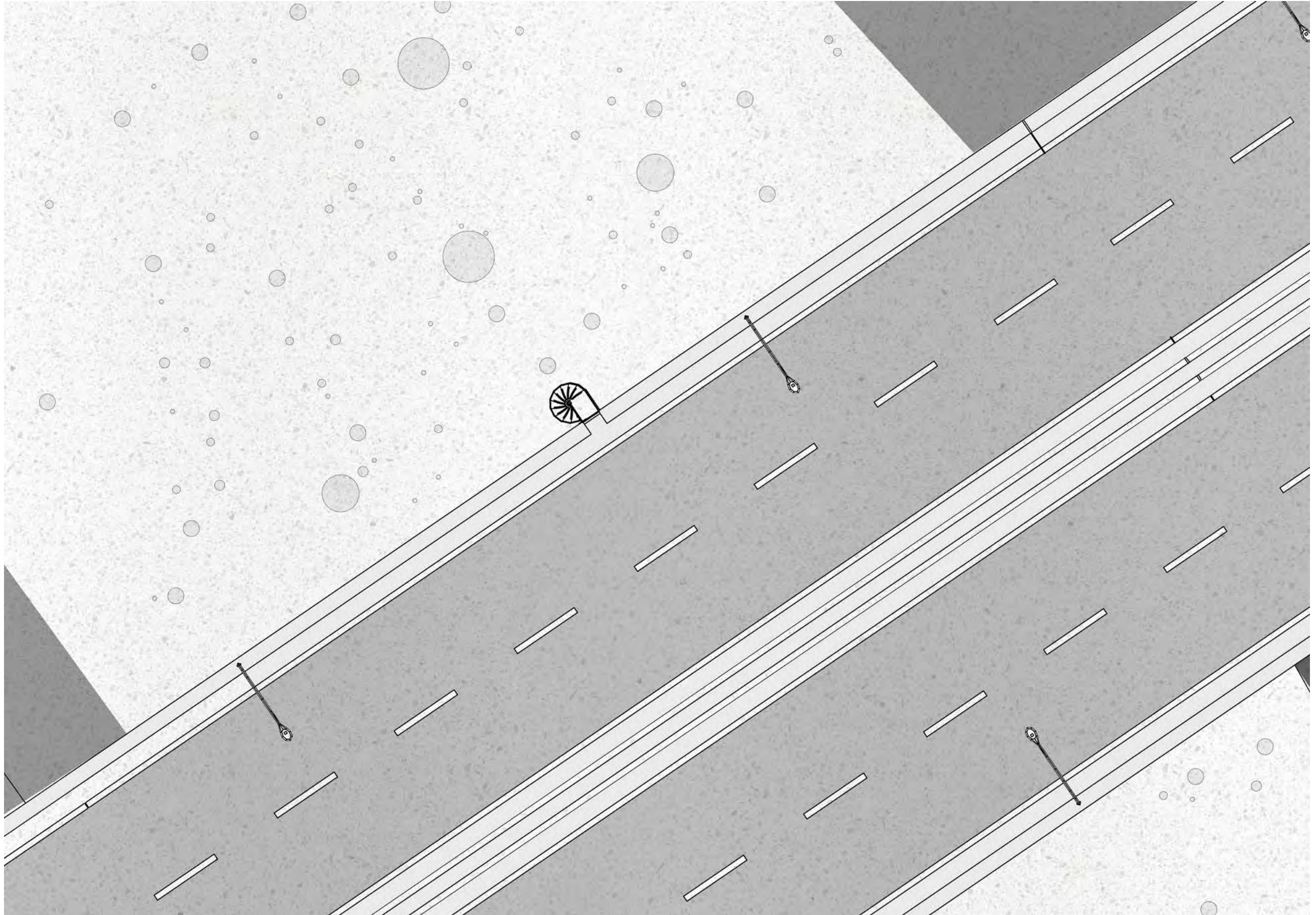
DESIGN IV

IV. Architecture as a medium
The Endless Stair



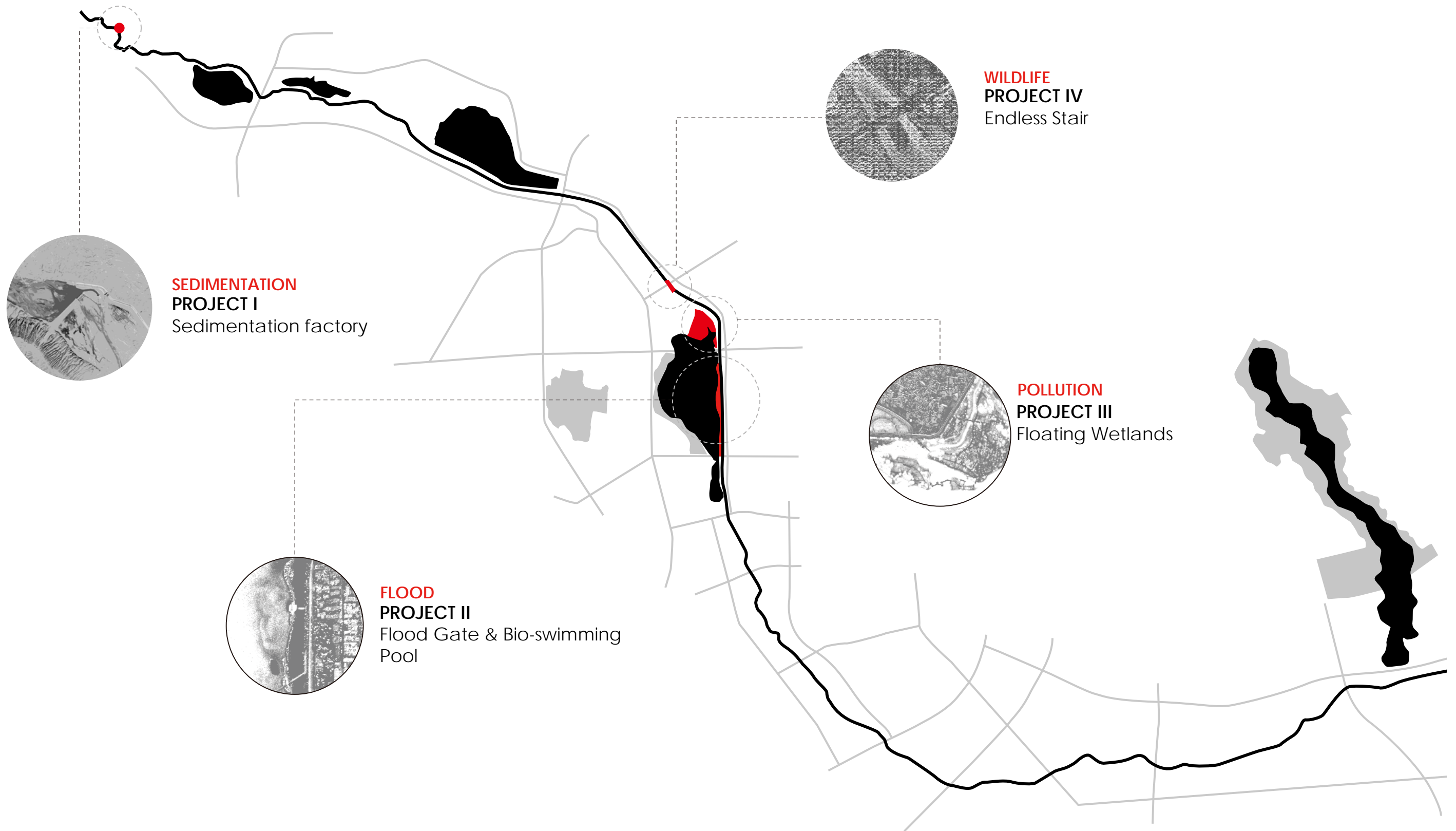


Section 1:500



Plan 1:100





A LANDSCAPE POEM

