
graduation P5

Embrace diversity: (un)divided Hebron

COEXISTENCE THROUGH ARCHITECTURE OF WATER

contents P5

problem statement

-

location & background

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research & conclusions

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overall city strategy

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design introduction

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design concept

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design development

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design presentation

problem

Water scarcity in the world

Water as the source of life: valuable to fight for

War over Water - example 1964-1967 Israeli-Palestinian conflict

focus location



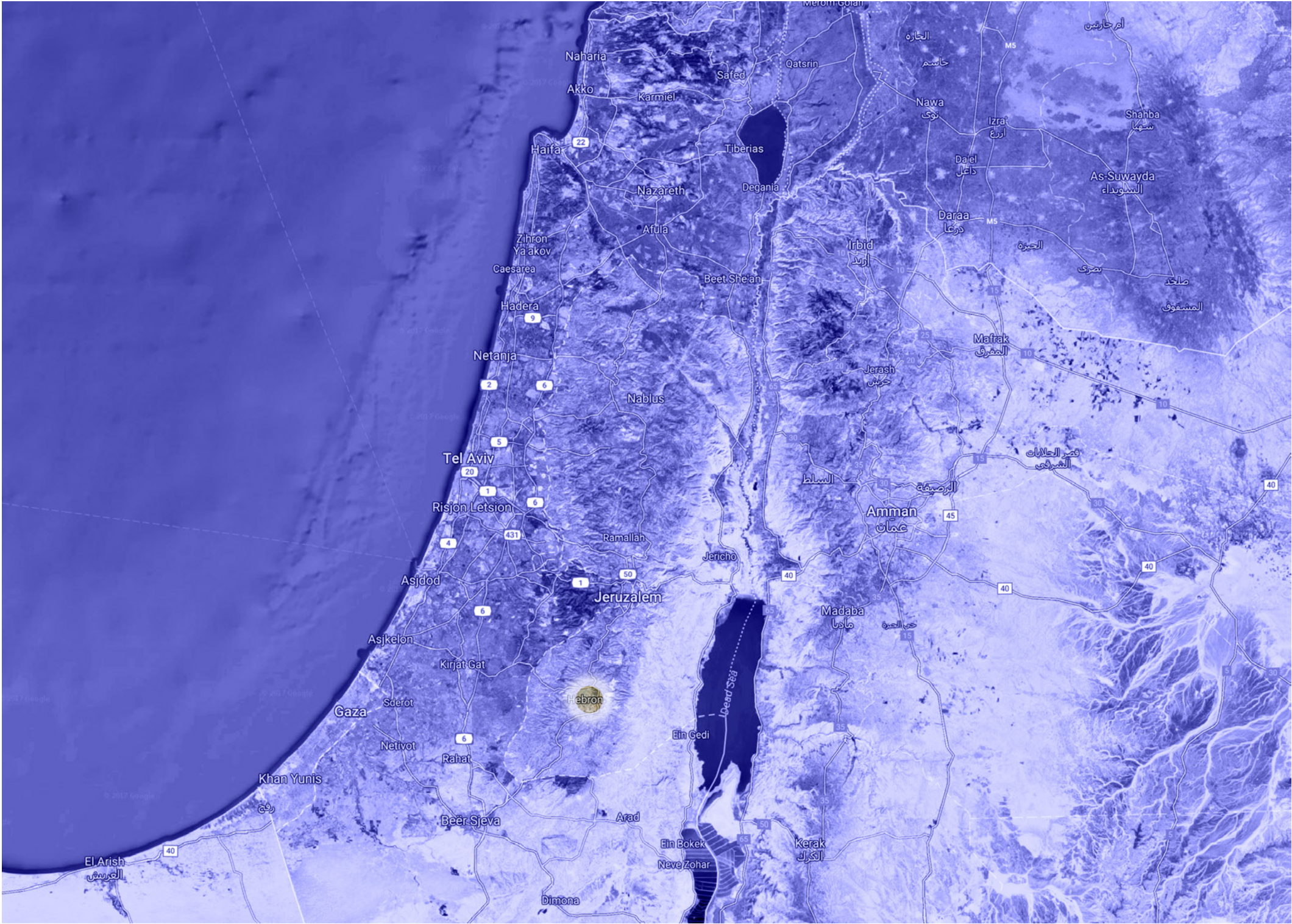
focus location



focus location



location



hebron

hebron



hebron



h1

h2

background

Hebron pre-1929: **peaceful coexistence** of social groups

—

1948: declaration of independence of the **State of Israel**

—

1967: Arab-Israeli War, start of Israeli **occupation of Palestine**

—

1993: **Oslo peace talks**, definition of boundaries and other impacting agreements (Arafat-Peres, Arafat-Netanyahu)

—

from 2000: building of walls for **‘protection and security’**

An aerial photograph of a coastal area with topographic contour lines overlaid. A specific region is highlighted with a semi-transparent blue overlay and a dashed white border. The highlighted area includes a central landmass and several smaller islands or peninsulas. The word "location" is centered above the highlighted area.

location

hebron

*"Never was it this bad in
Hebron, microcosm of the
occupation"*

- Derk Walters in NRC



hebron

*"Some families in Hebron
have been without water
for over 40 days"*

- Local Palestinian Journal



research

control areas of the west bank

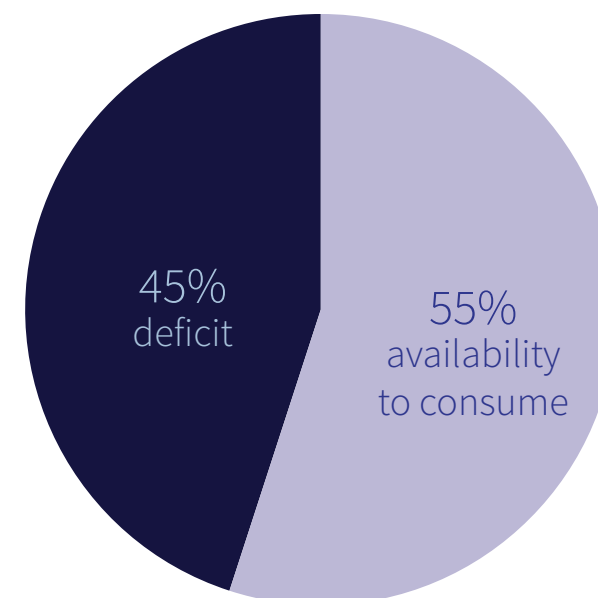


research

water allocation in
israel and the palestinian territories

PALESTINIAN WATER CONSUMPTION

in relation to WHO minimum
standard of 150l/c/d



research

spaces of conflict and opposition through water and architecture

water as source for mistrust and misunderstanding through ‘**Hydro-Apartheid**’ (example: **War over Water** 1964-1967)

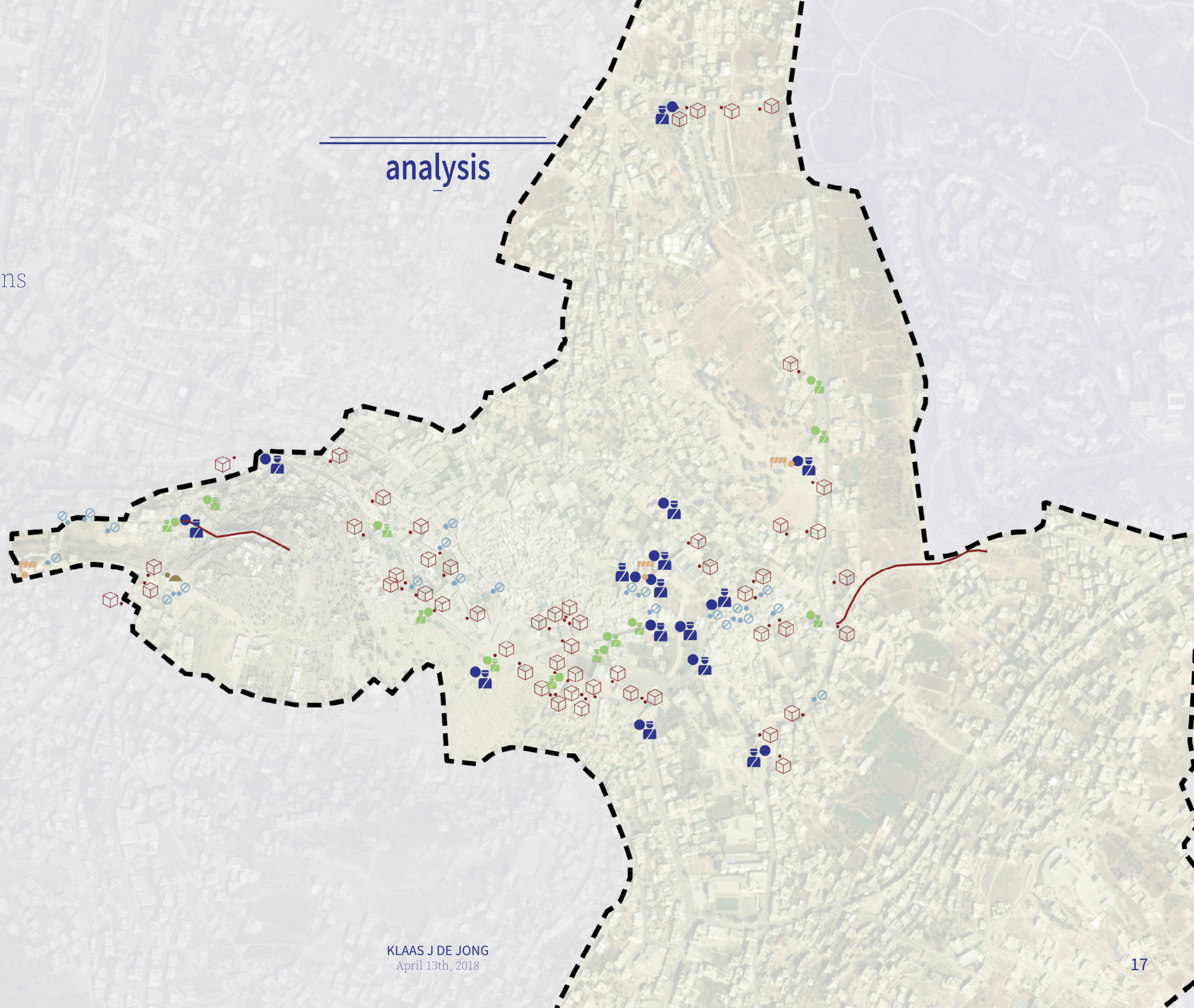
possibilities for e.g. architects through the spatial embodiment of water

importance of water systems in communities
connection and identification to society
creation of spaces to evolve in time

*Portugali (1991; 1992), Weizman (2004; 2006), Newman (1995; 1996; 2002), Yaron (1994),
Haddad (1998), Zahra (2001), Feitelson & Rosenthal (2012), Khamaisi (2002), Yiftachel & Yacobi (2002), Lefebvre (1991), Harvey (2004), Bier (2017)*

analysis

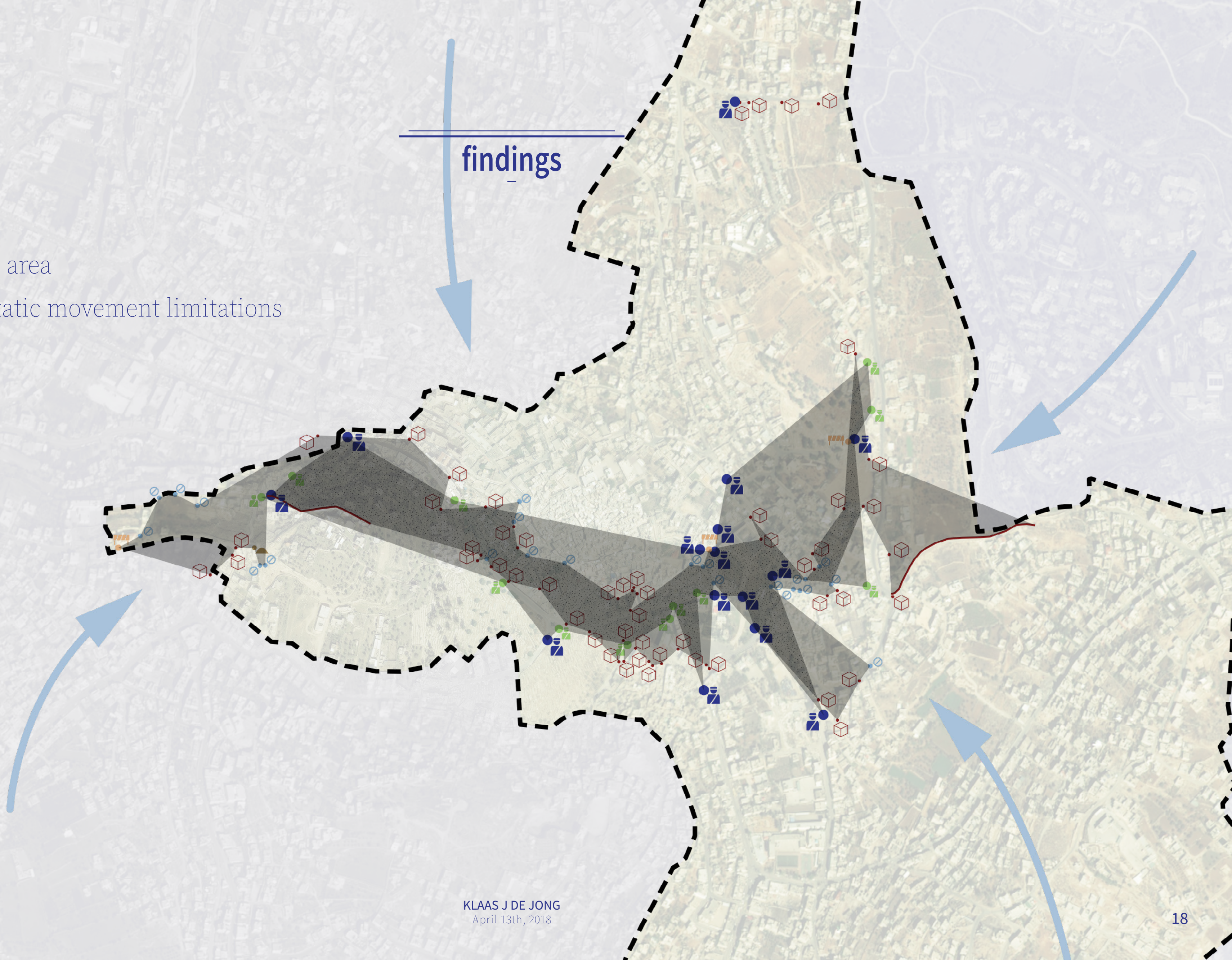
movement limitations



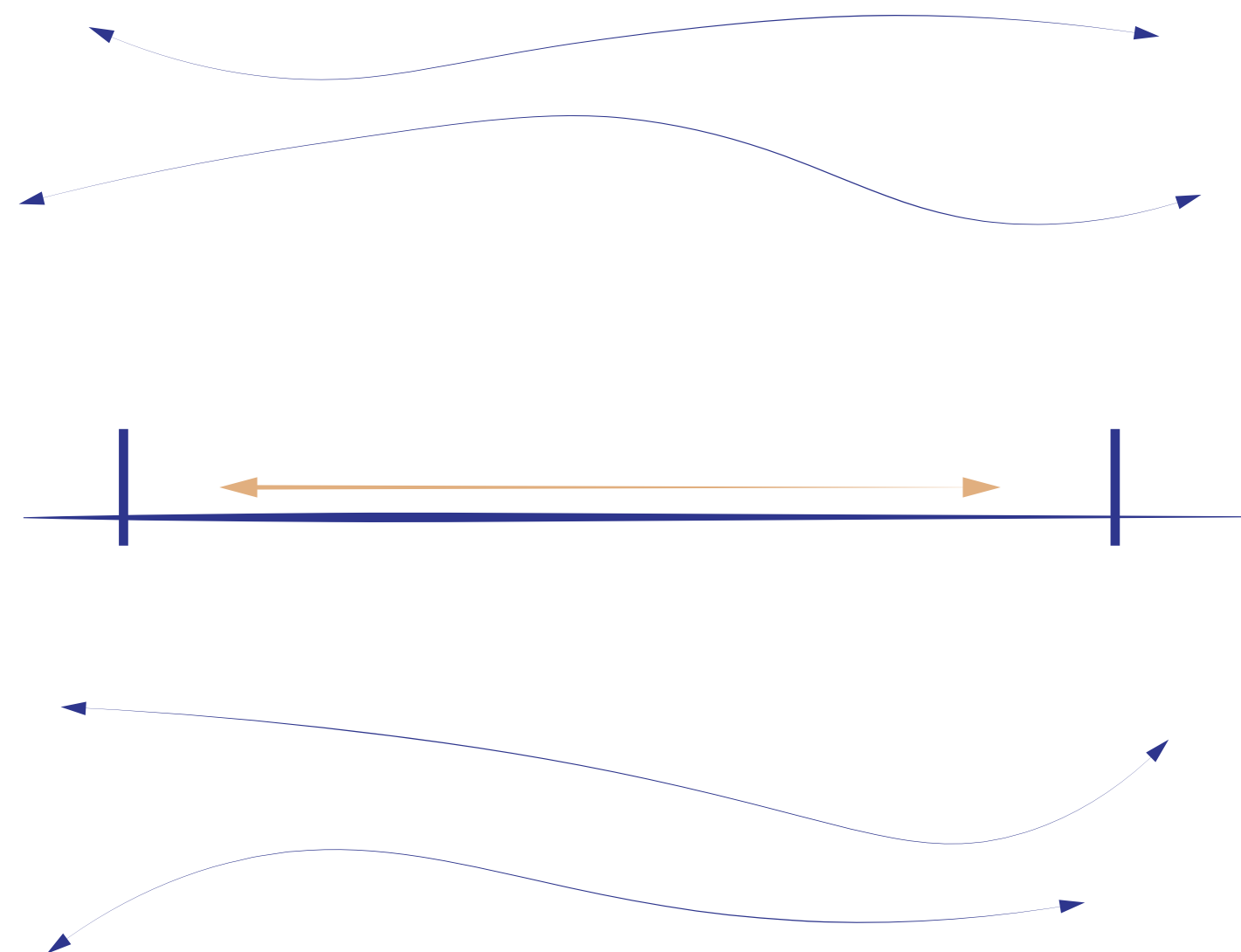
findings

communal area

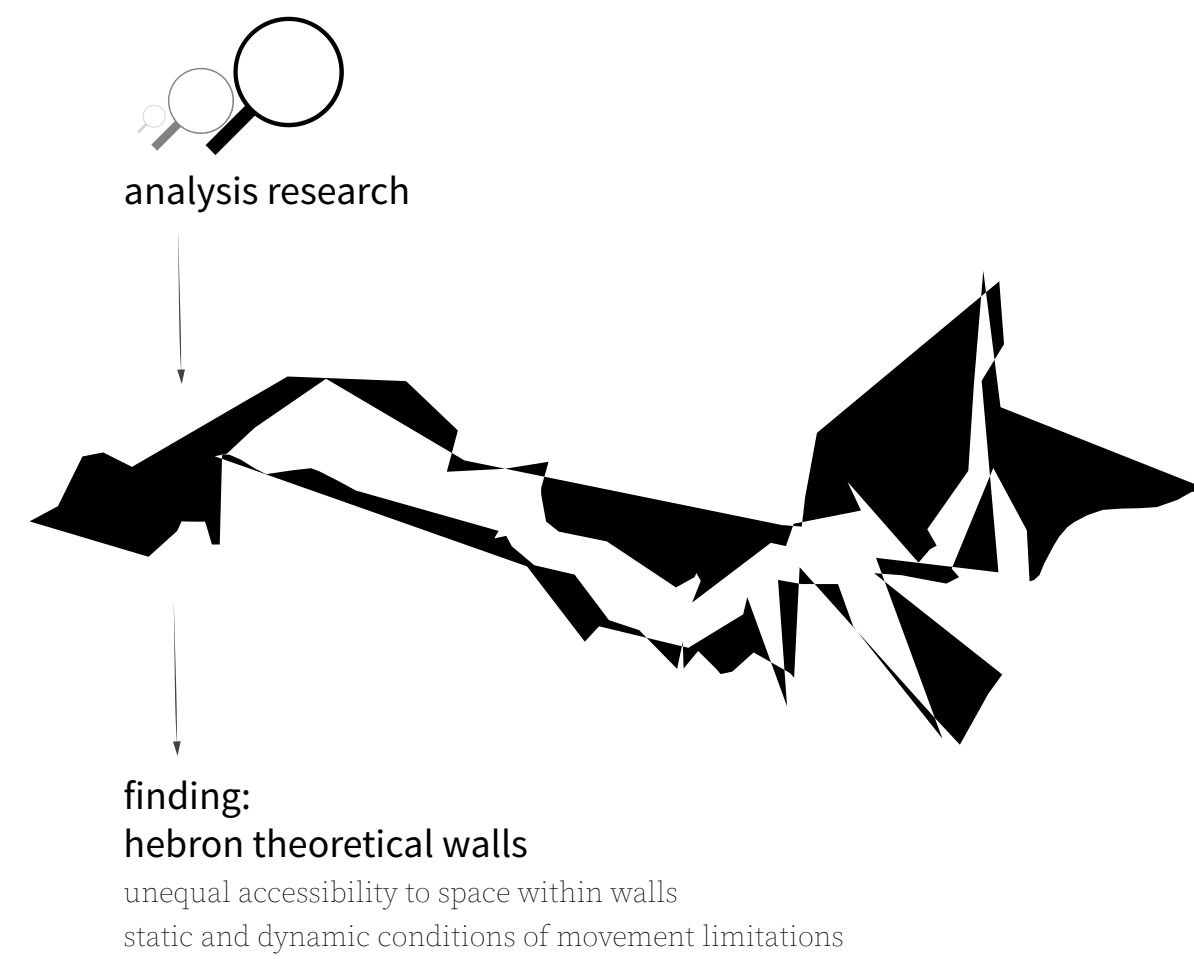
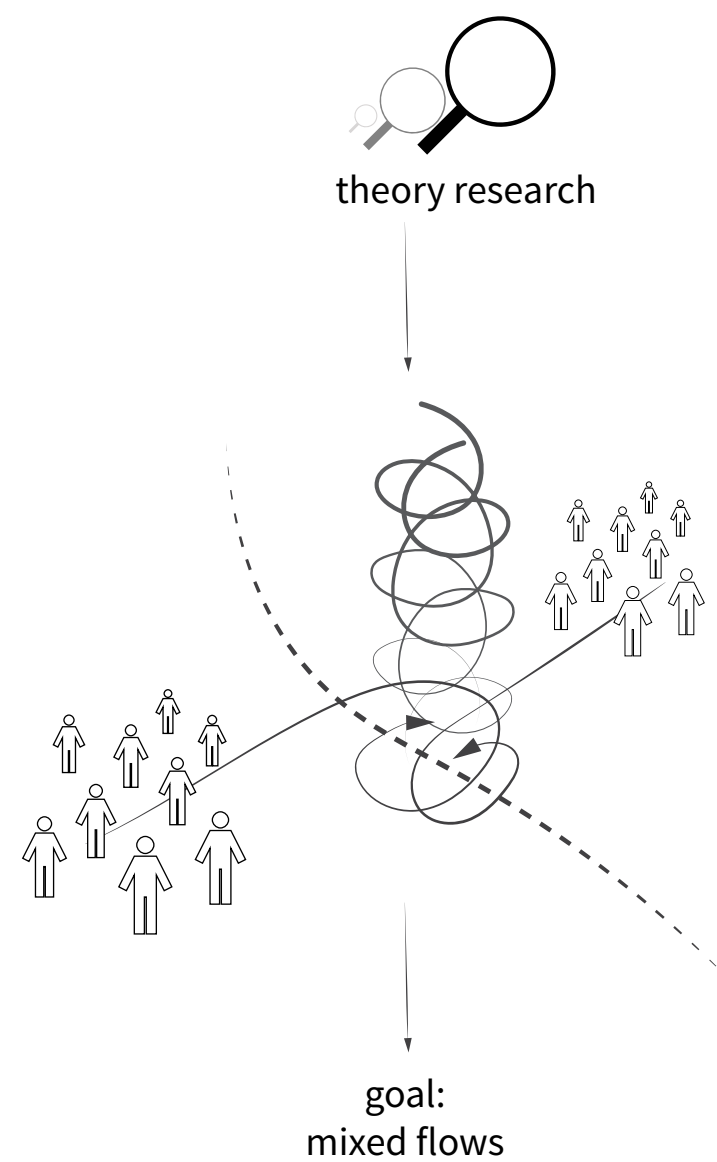
dynamic/static movement limitations



conclusion



overall concept



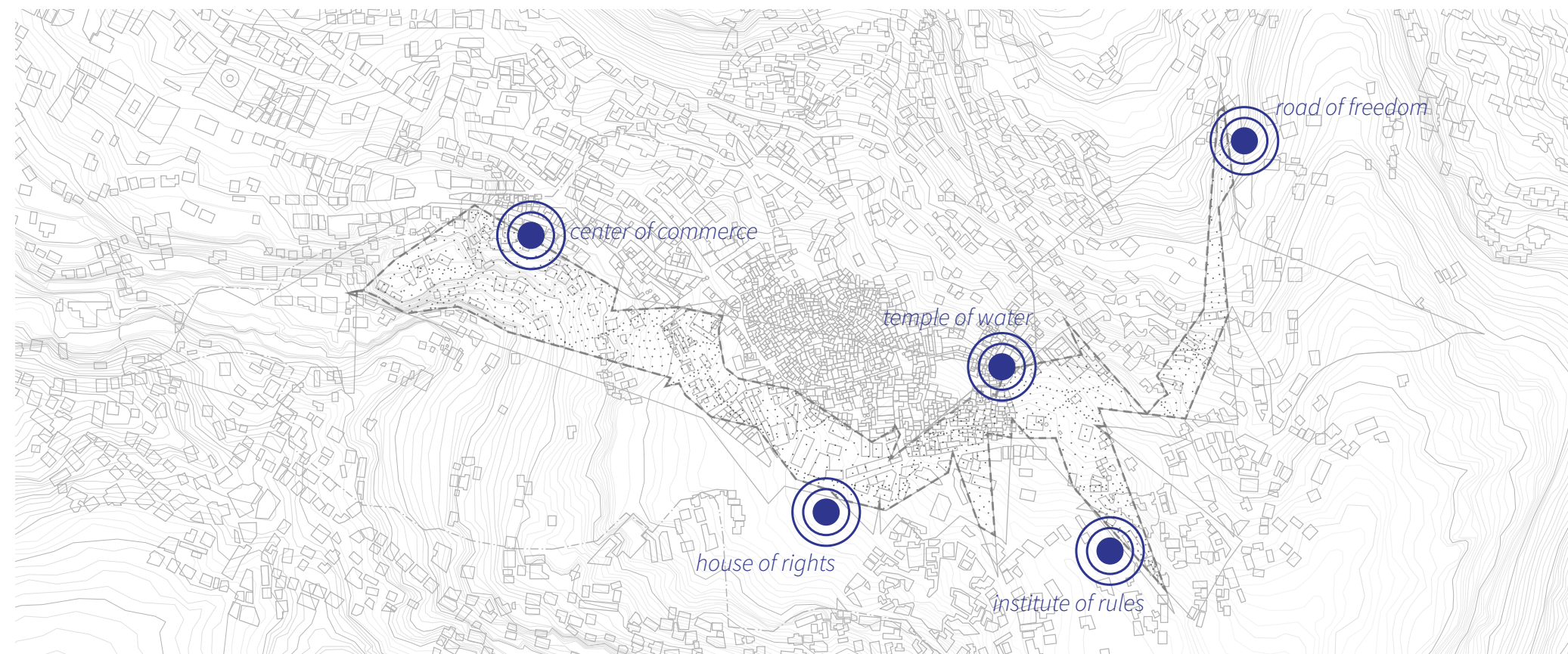
overall strategy



visibility of hebron walls as:

awareness of / reflection to current conditions (perhaps future past conditions)
relation between architecture/urbanism and inhabitants' collective identity

overall strategy



demarcation of space within hebron walls through:

center of commerce
house of rights
temple of water
road of freedom
institute of rules

overall strategy



fading and retraction of hebron walls through time

water



water as the source of life
-directly and indirectly
water as environmental need and factor
water as economical product
water as political instrument
water as substance for joy

lots of potential architecturally

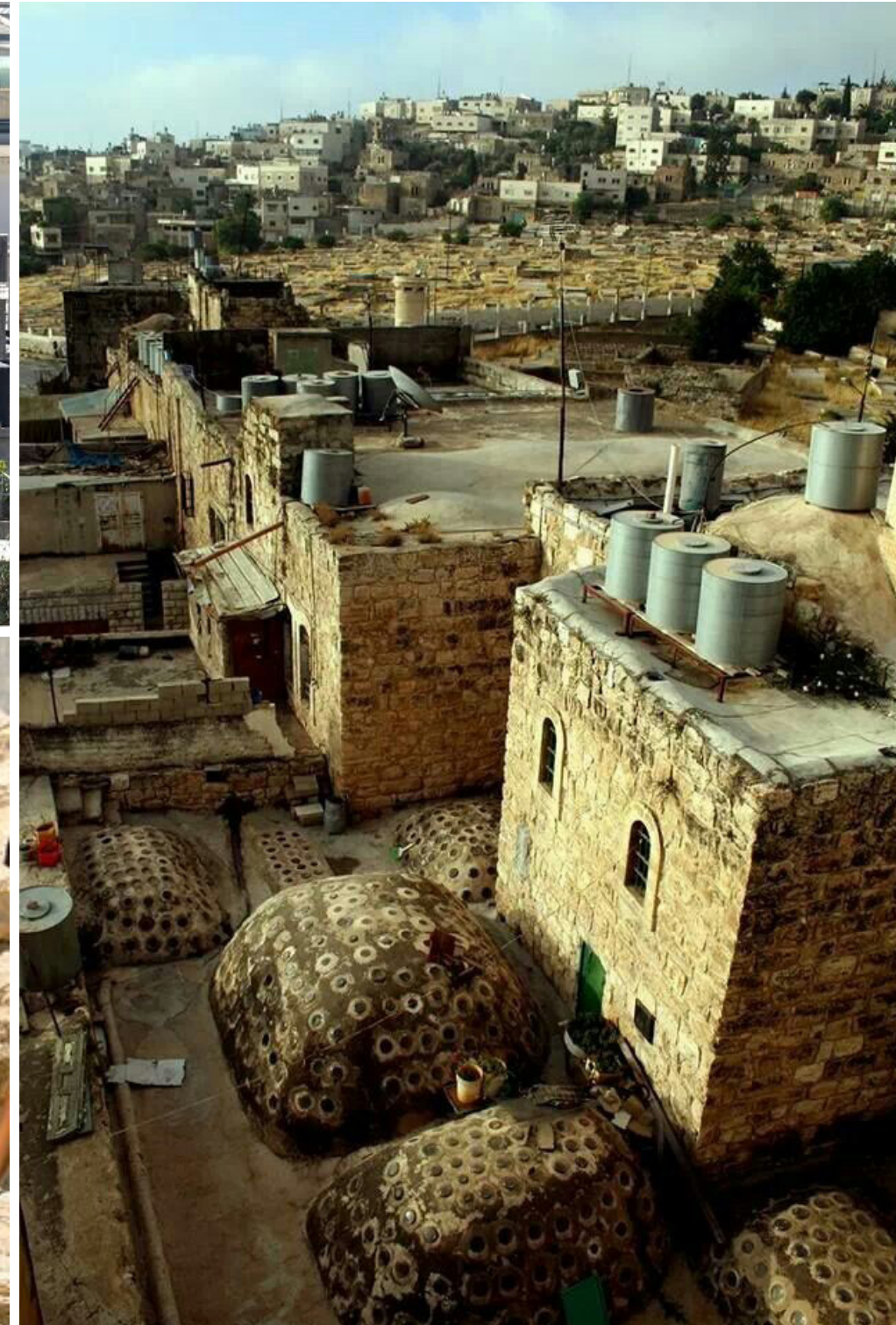
water



water

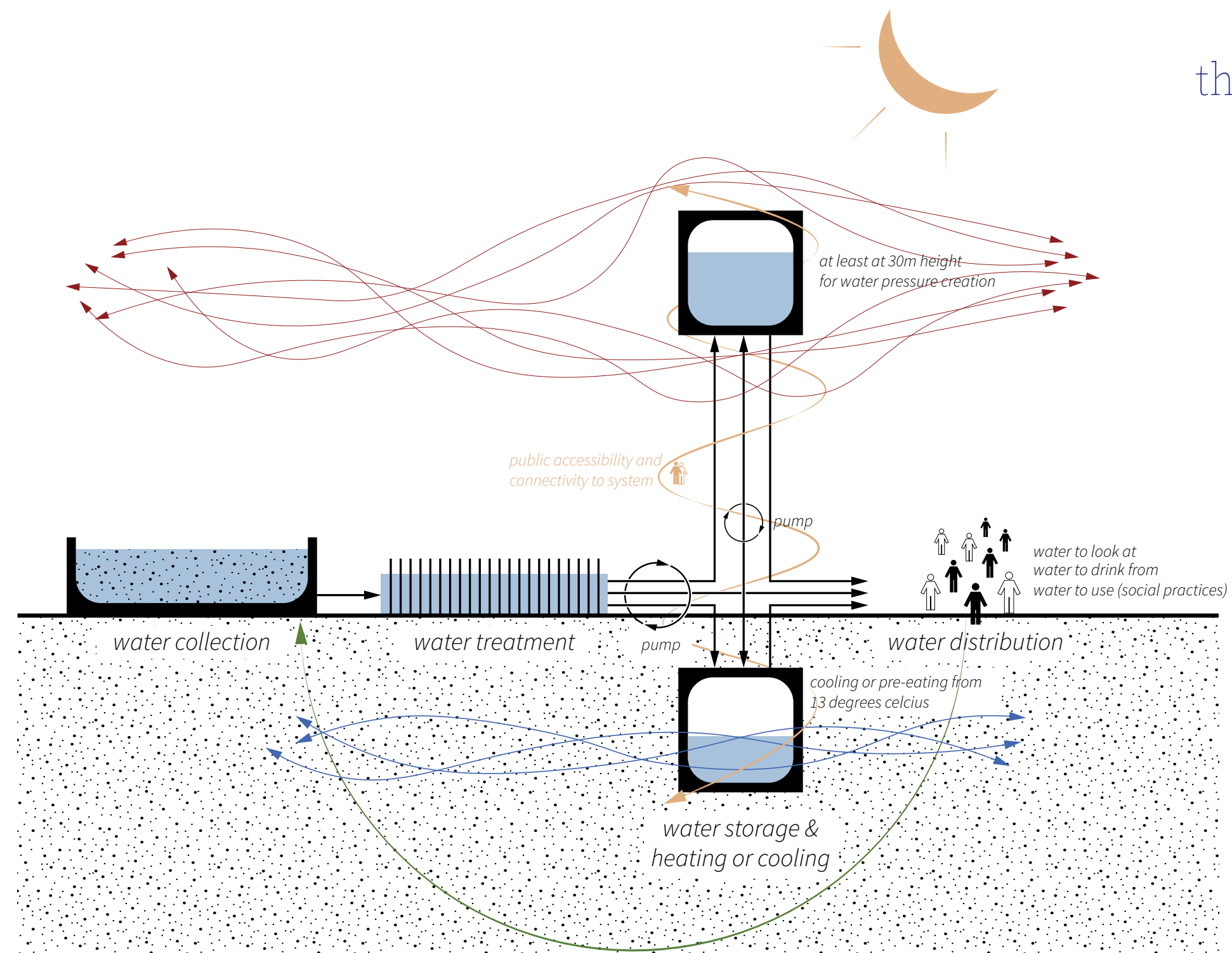


water



design concept

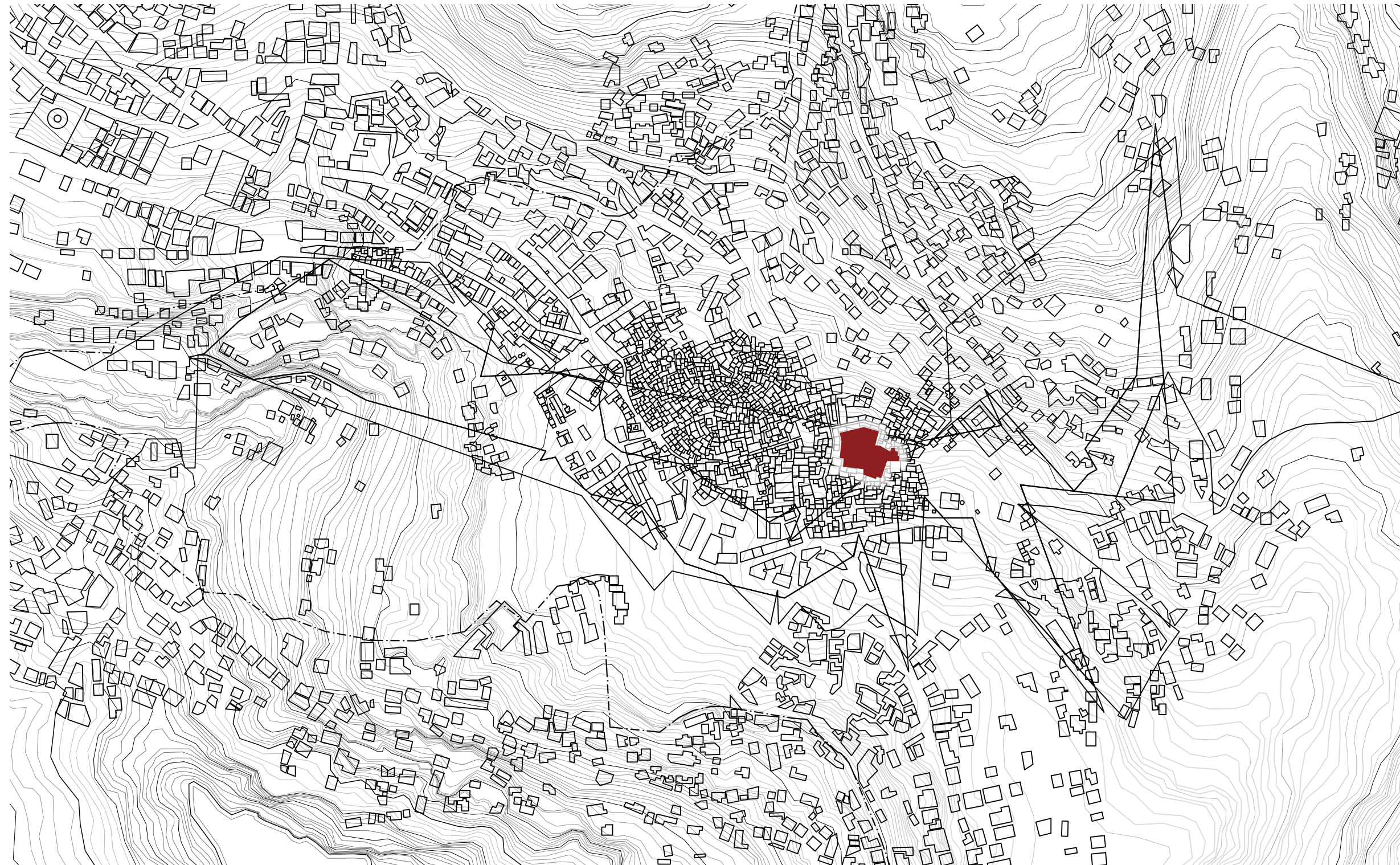
platform for mixed flows
through architecture of water



design relevance



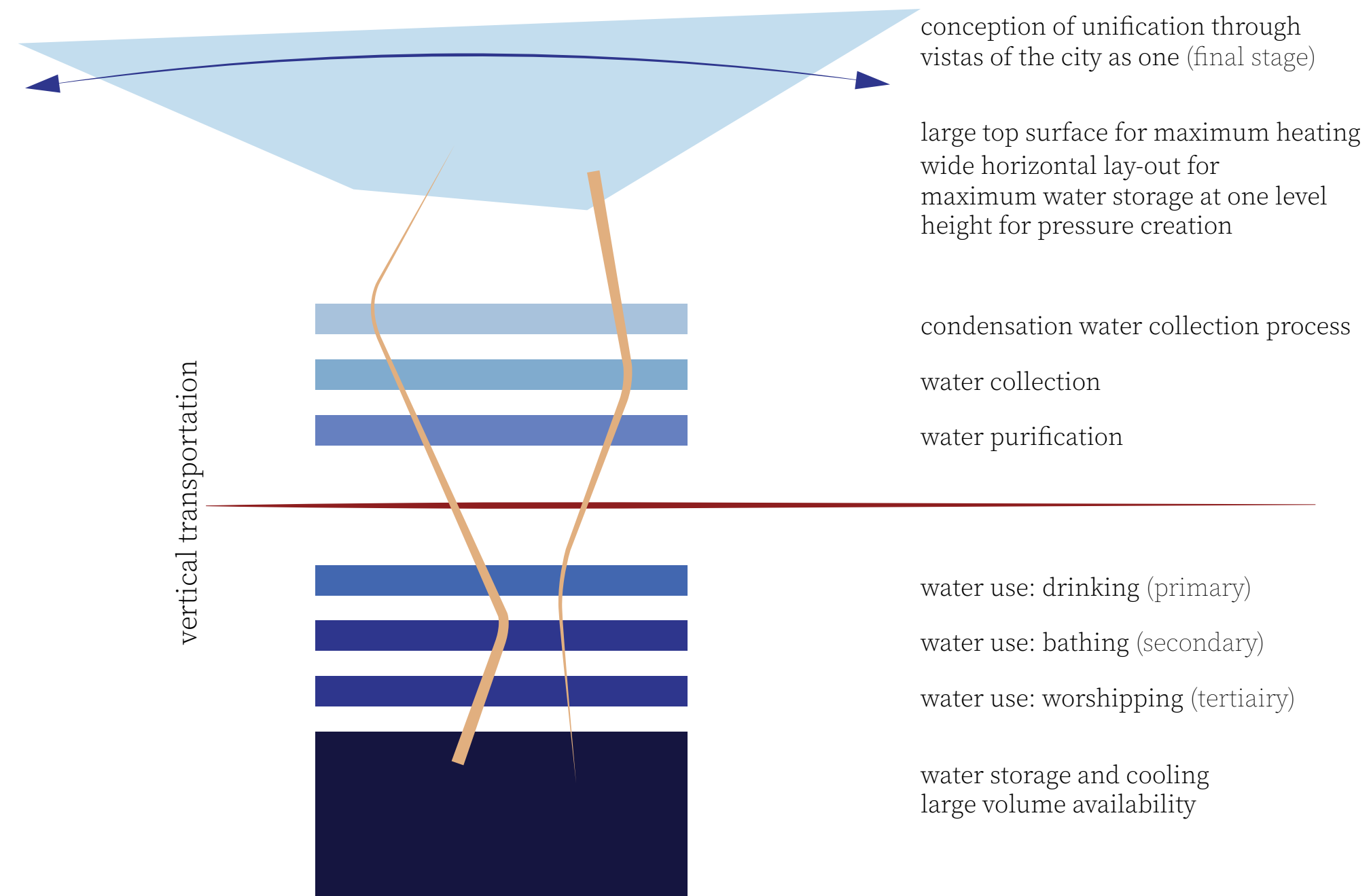
design location



temple of water



idea translation



atmosphere

water for life



atmosphere

water as spatial element



atmosphere

water as climatological factor



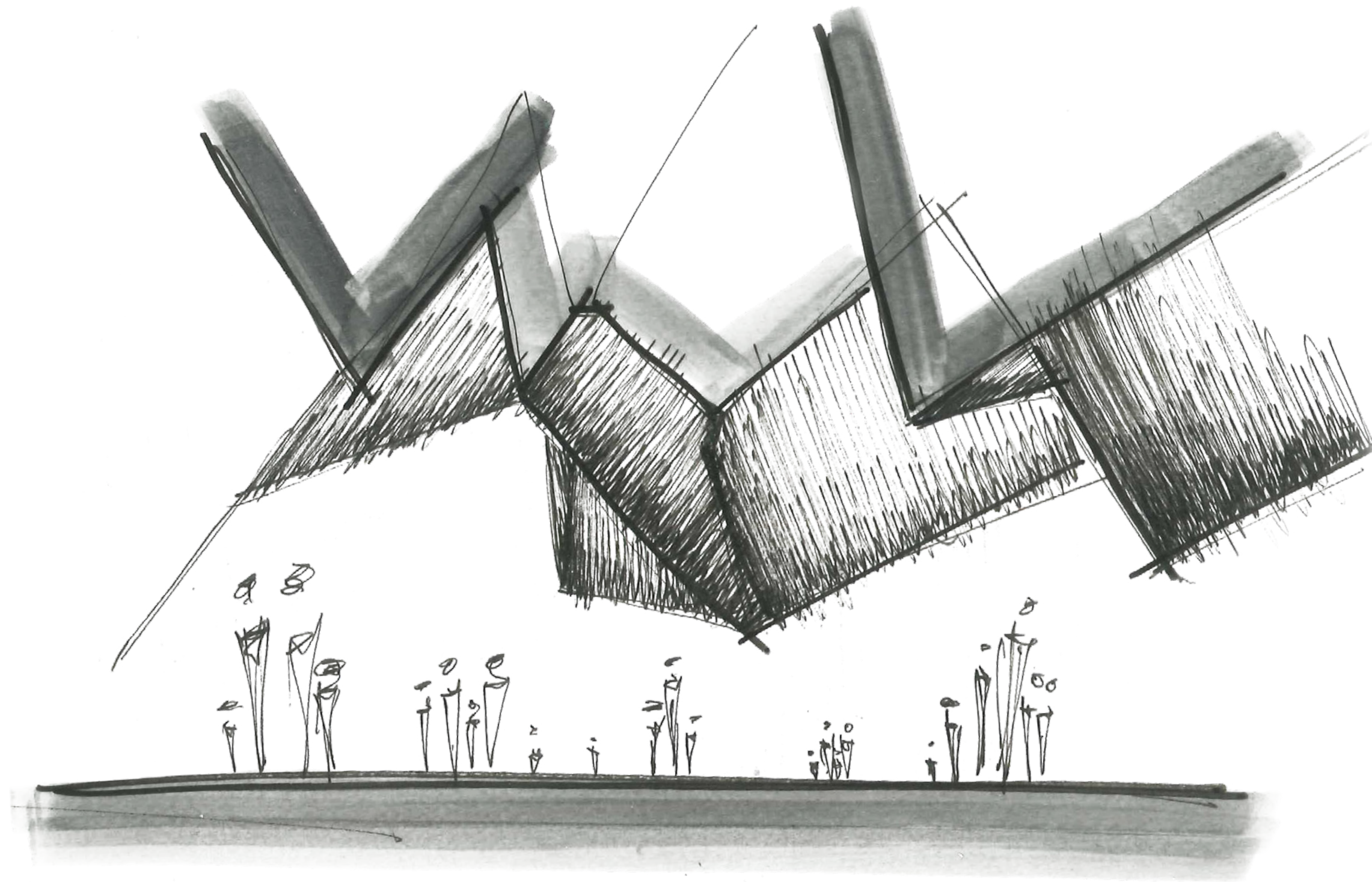
design process

architect study
Hans Scharoun



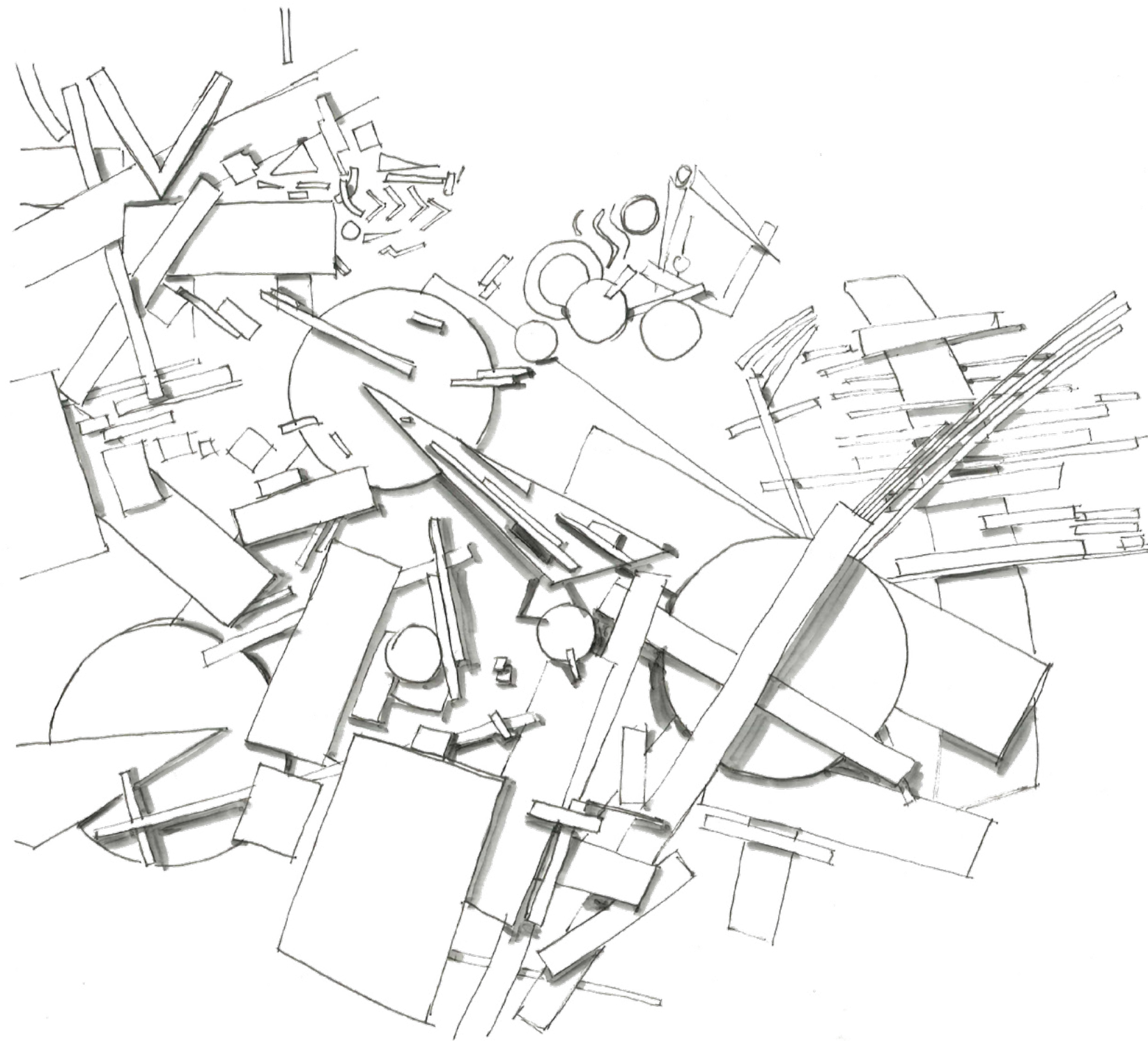
design process

space research
design drawings

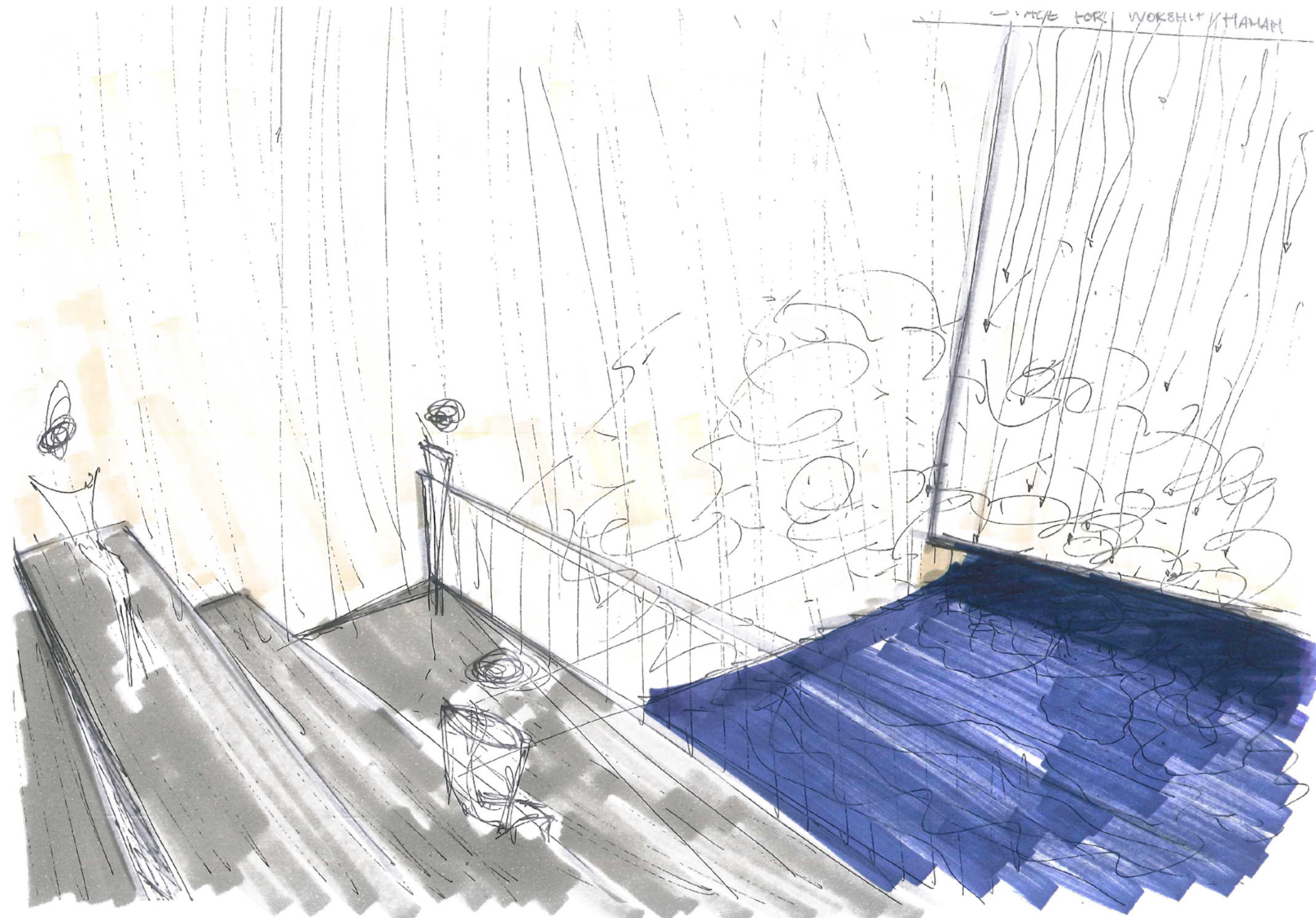


design process

form study
interpretations of suprematism



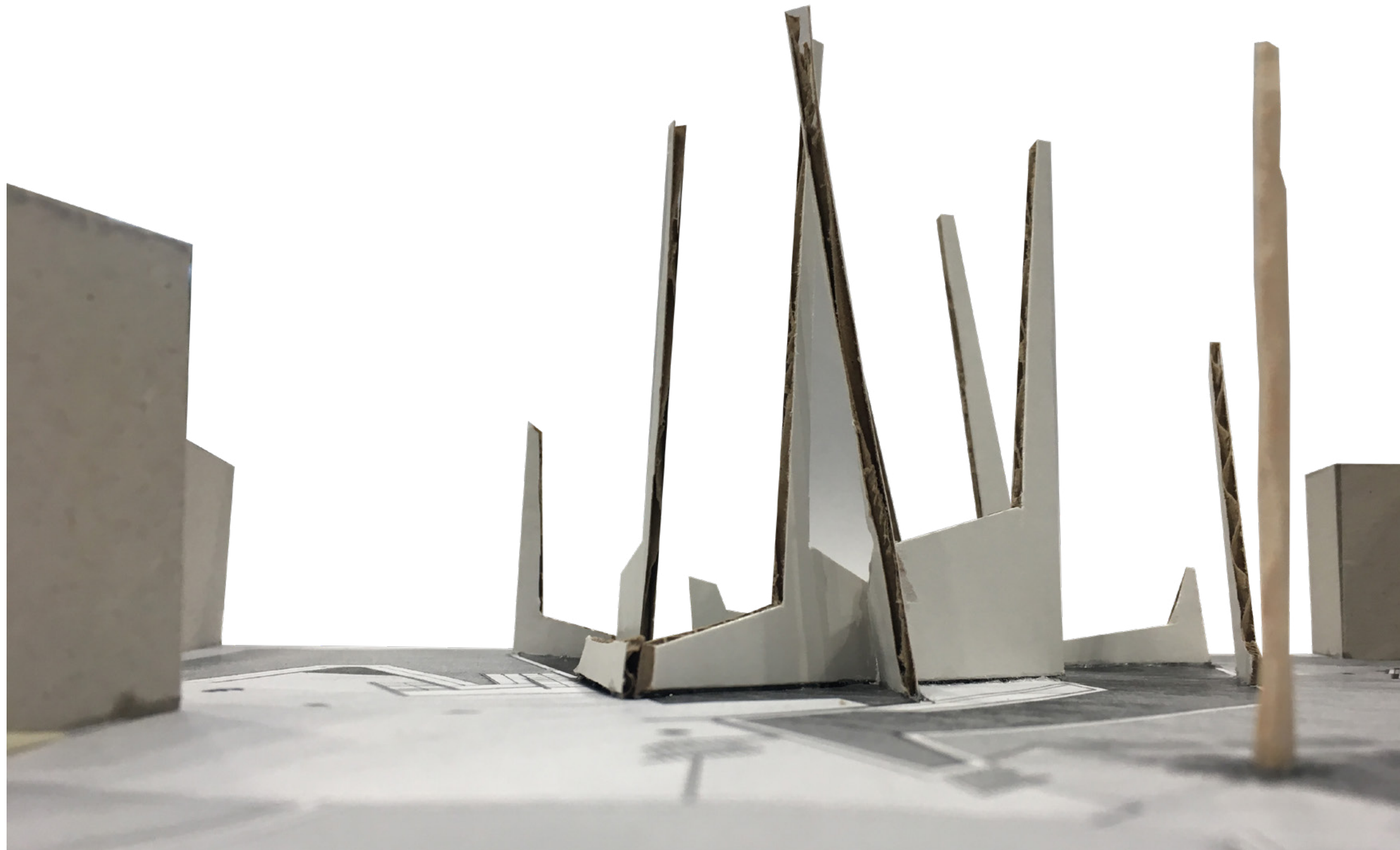
design process



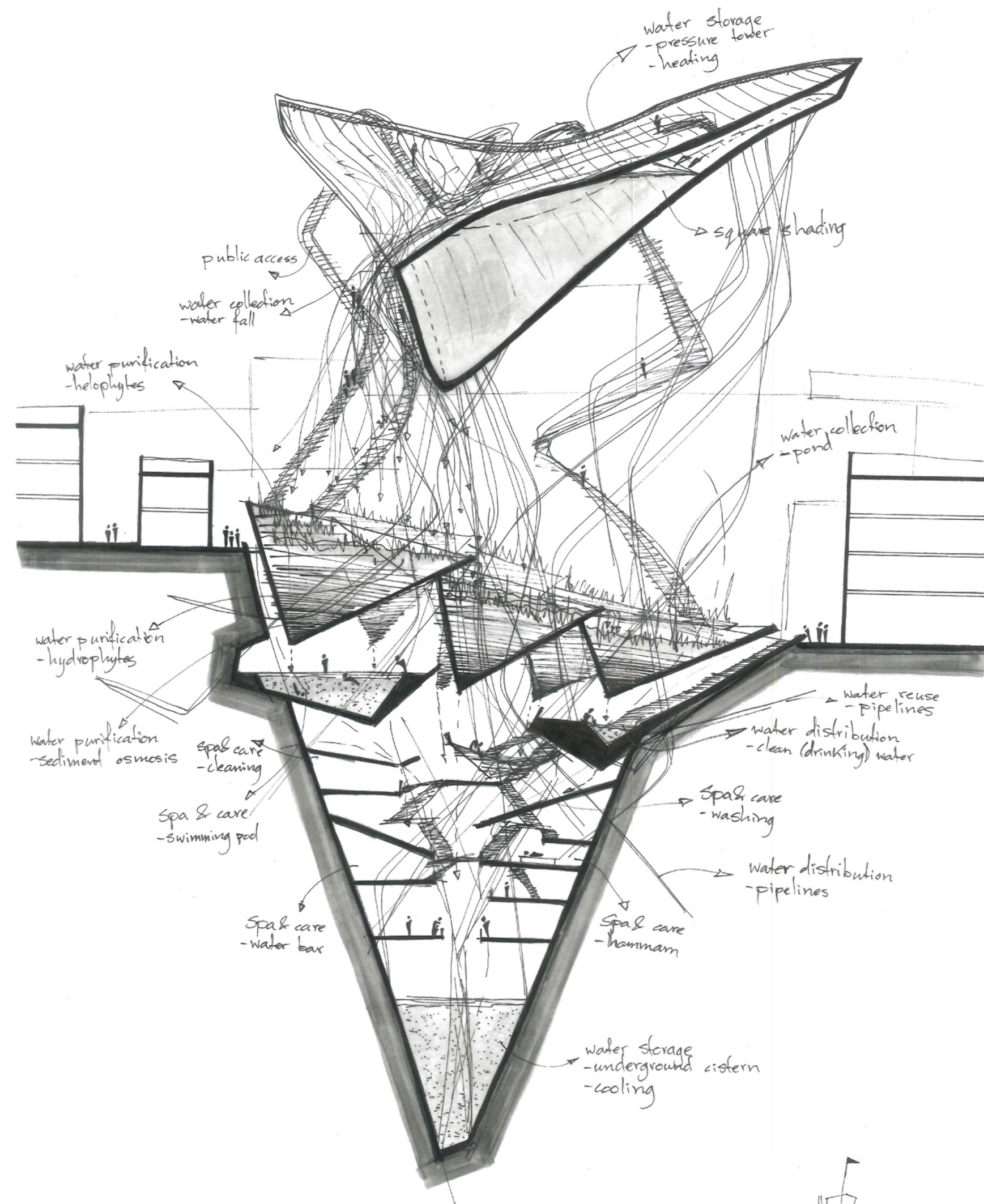
space research
3D sketch
visualizations

design process

appearance study
sketch models



TRANSVERSAL SECTION



SCALE 1:250

graduation P5

Embrace diversity: (un)divided Hebron

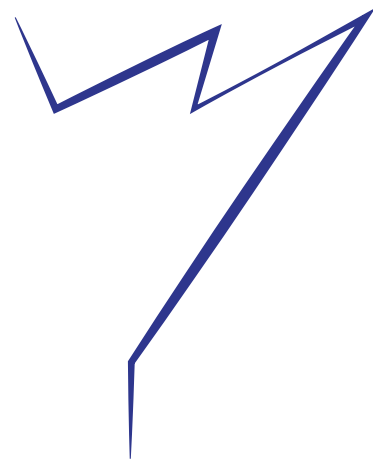
COEXISTENCE THROUGH ARCHITECTURE OF WATER



design concept

water - communal character in transmutation:

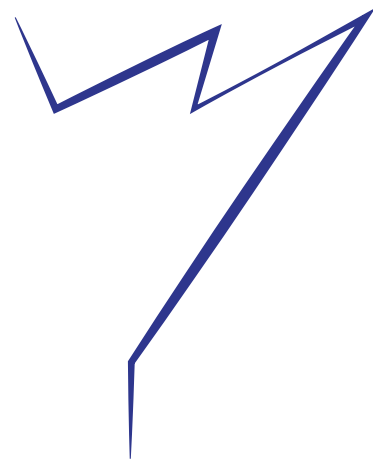
‘ma’ character



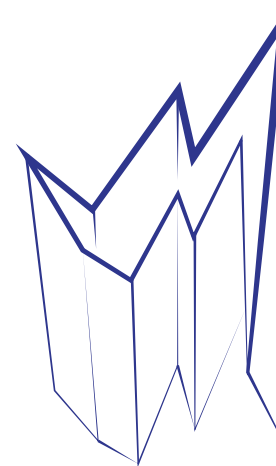
design concept

water - communal character in transmutation:

'ma' character



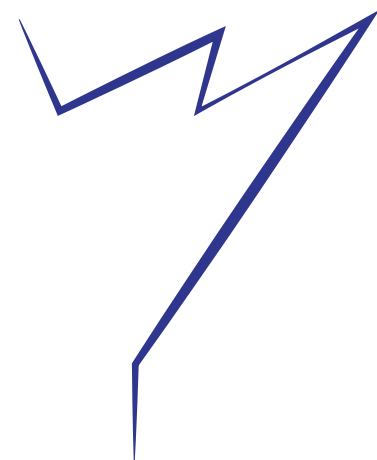
transfiguration
- 3 dimensionalisation



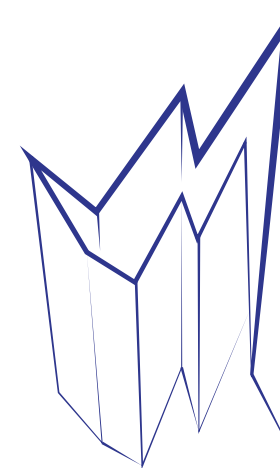
design_concept

water - communal character in transmutation:

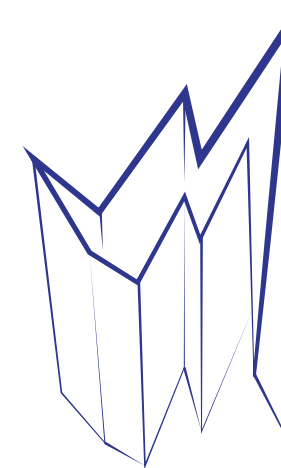
'ma' character



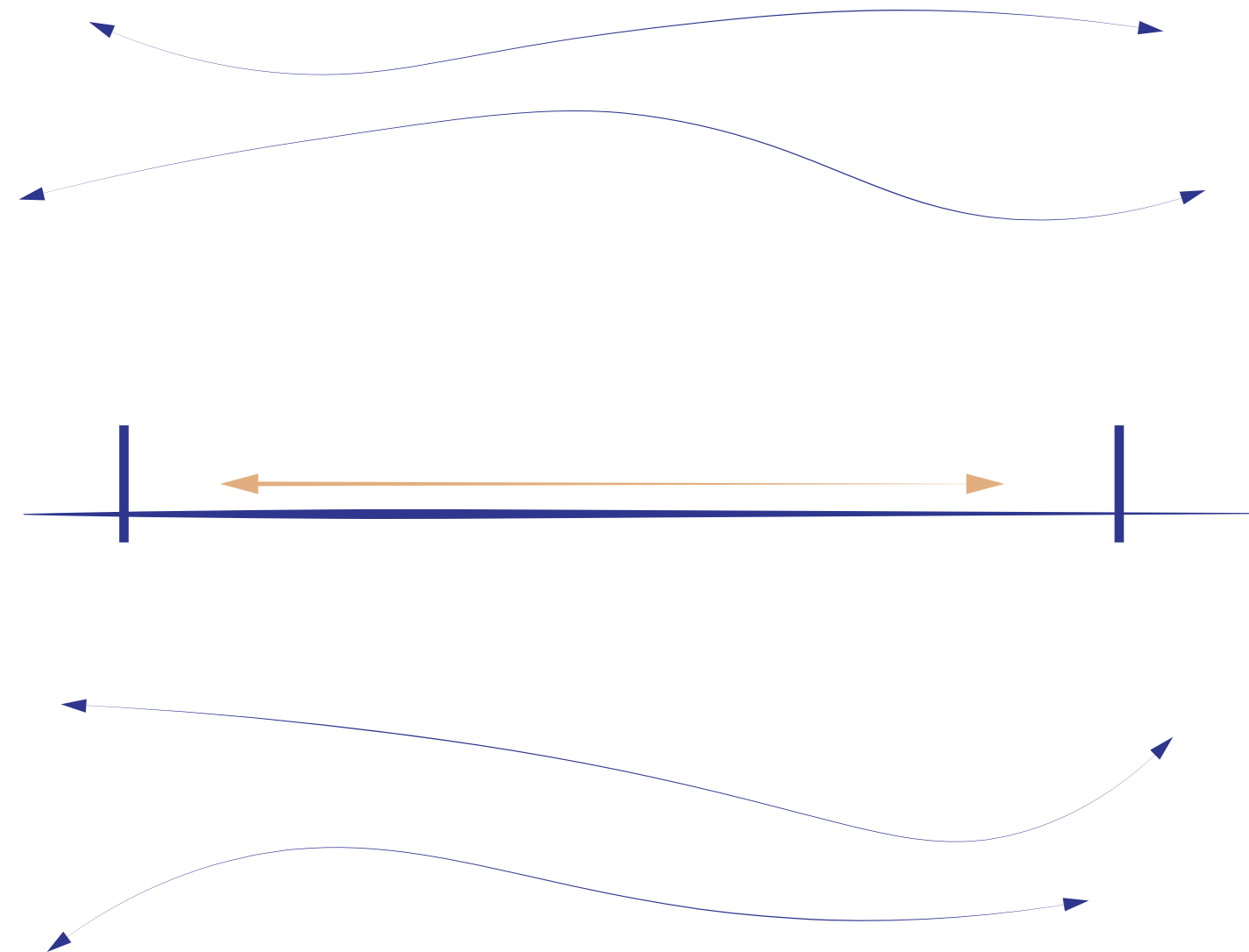
transfiguration
- 3 dimensionalisation



transformation
- materialisation &
texturialisation

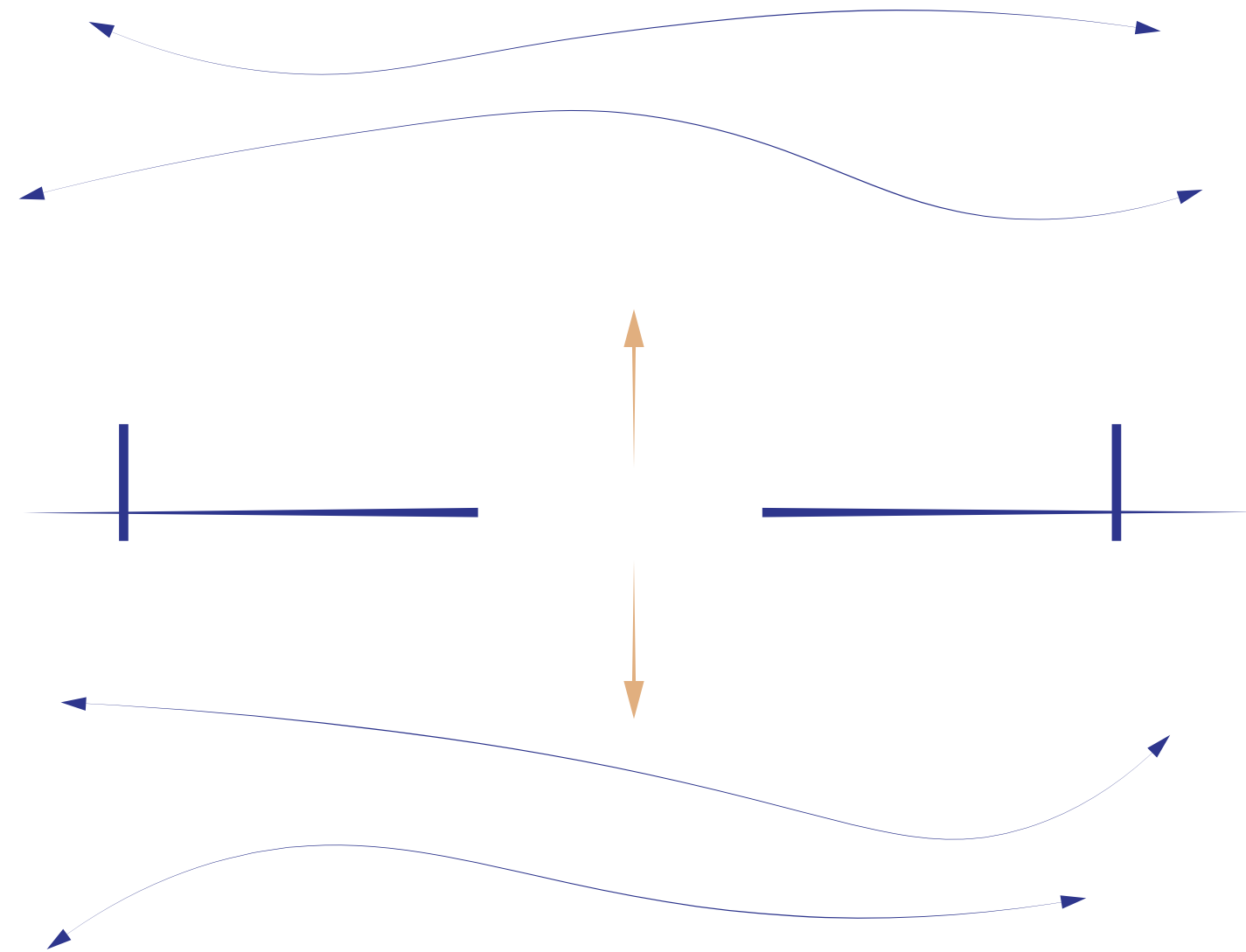


idea translation



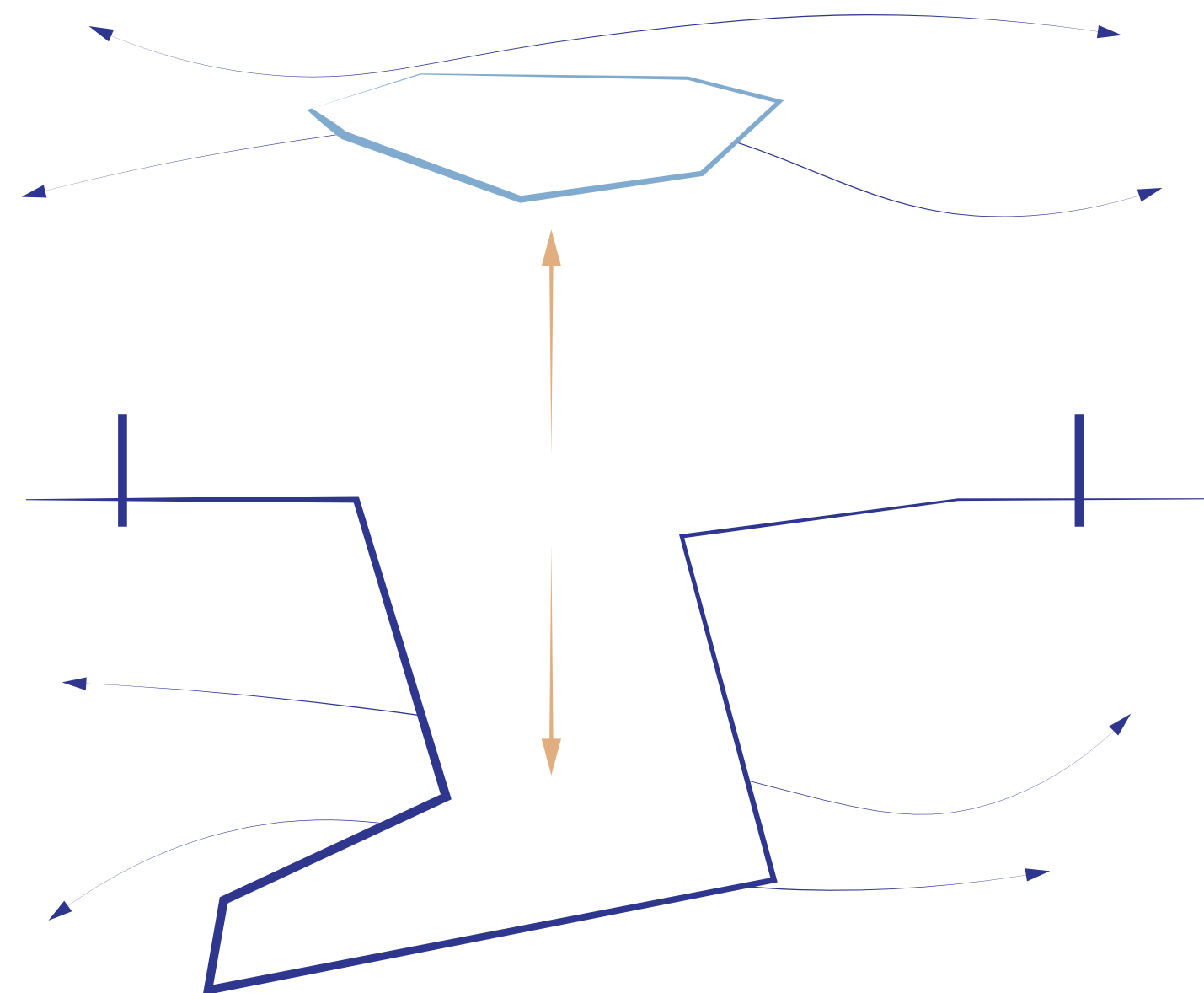
starting situation/horizontal barriers

idea translation



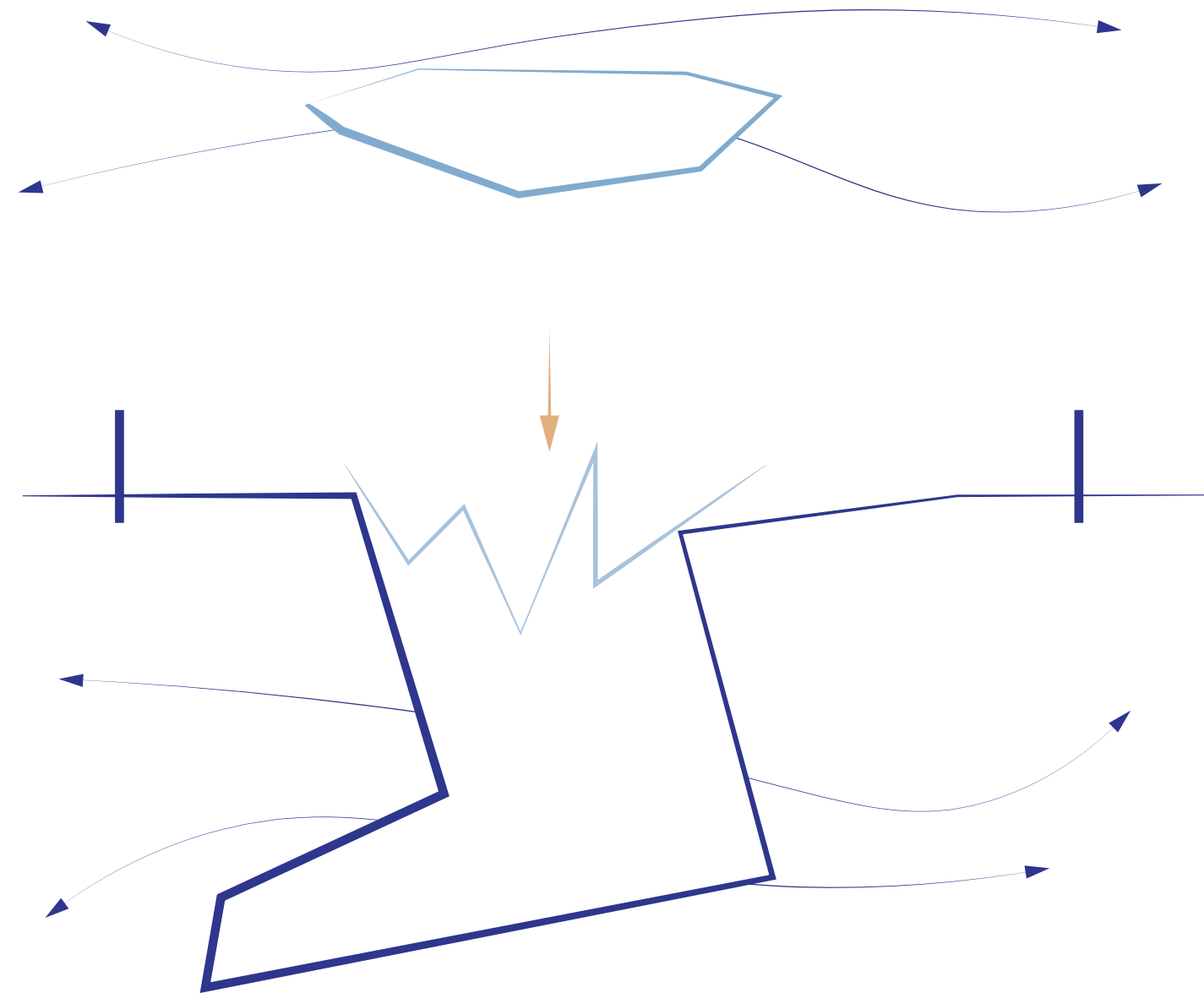
towards space without barriers

idea translation



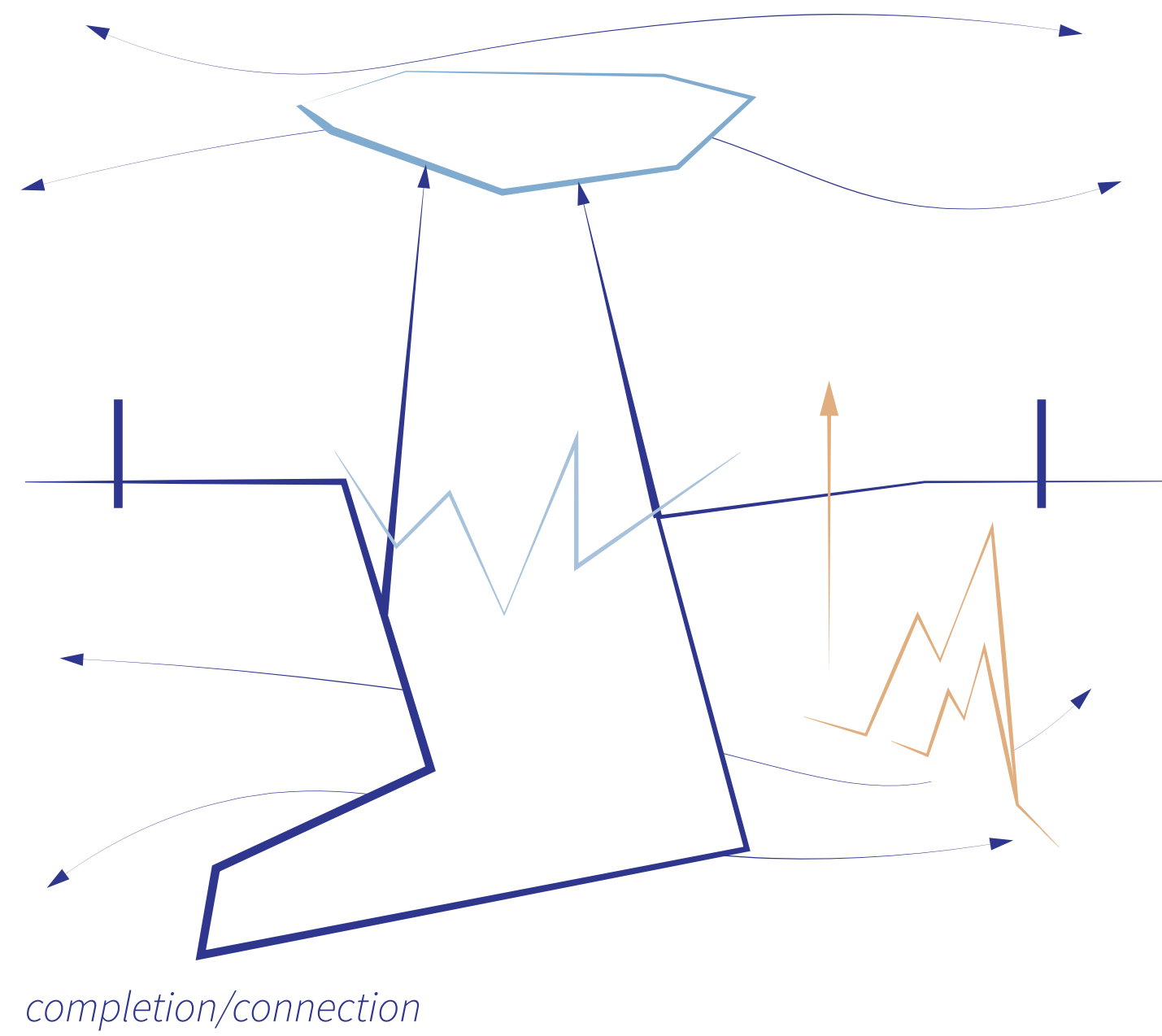
water storage well/water storage tower

idea translation

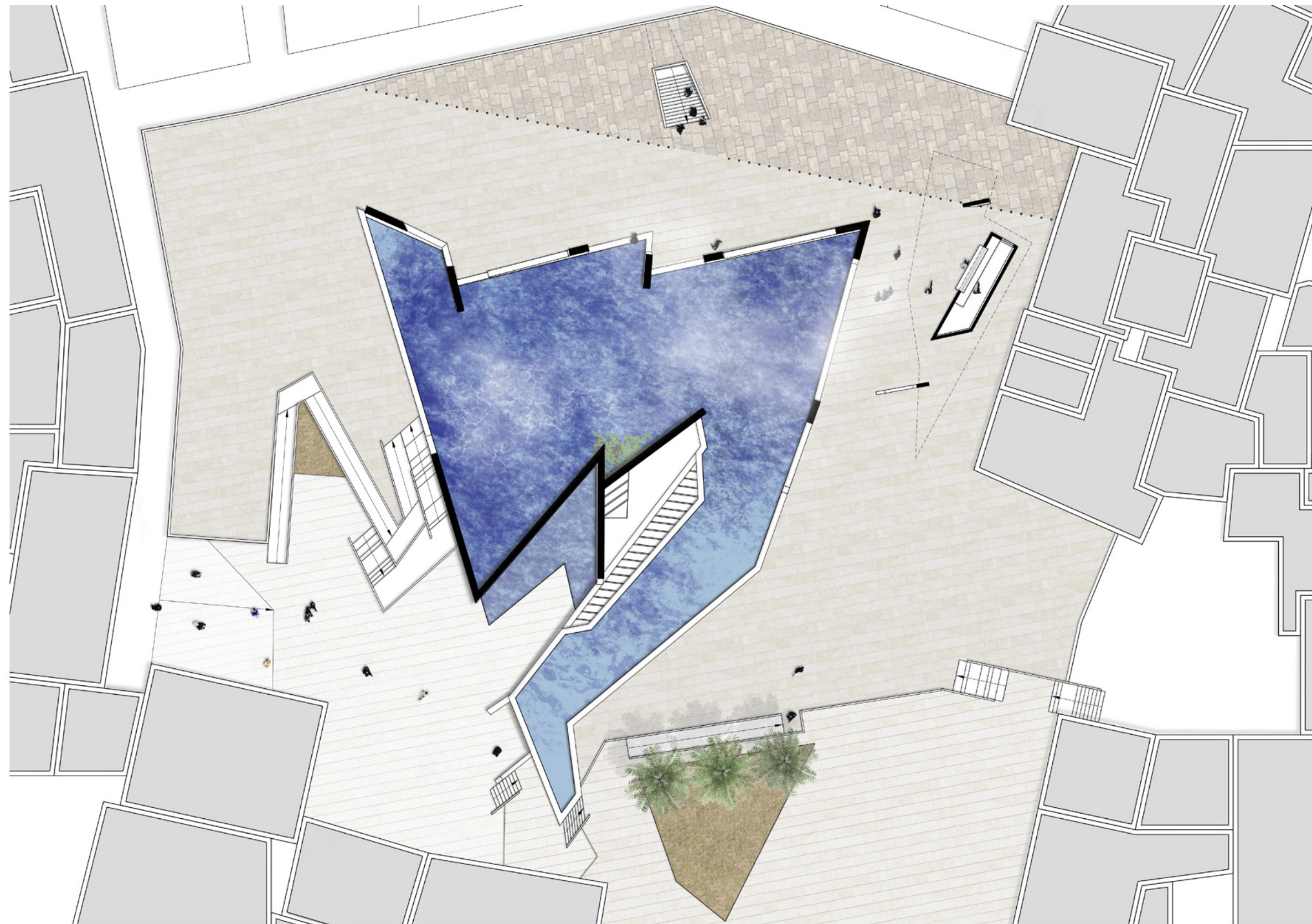


well topping/water purification basin

idea translation



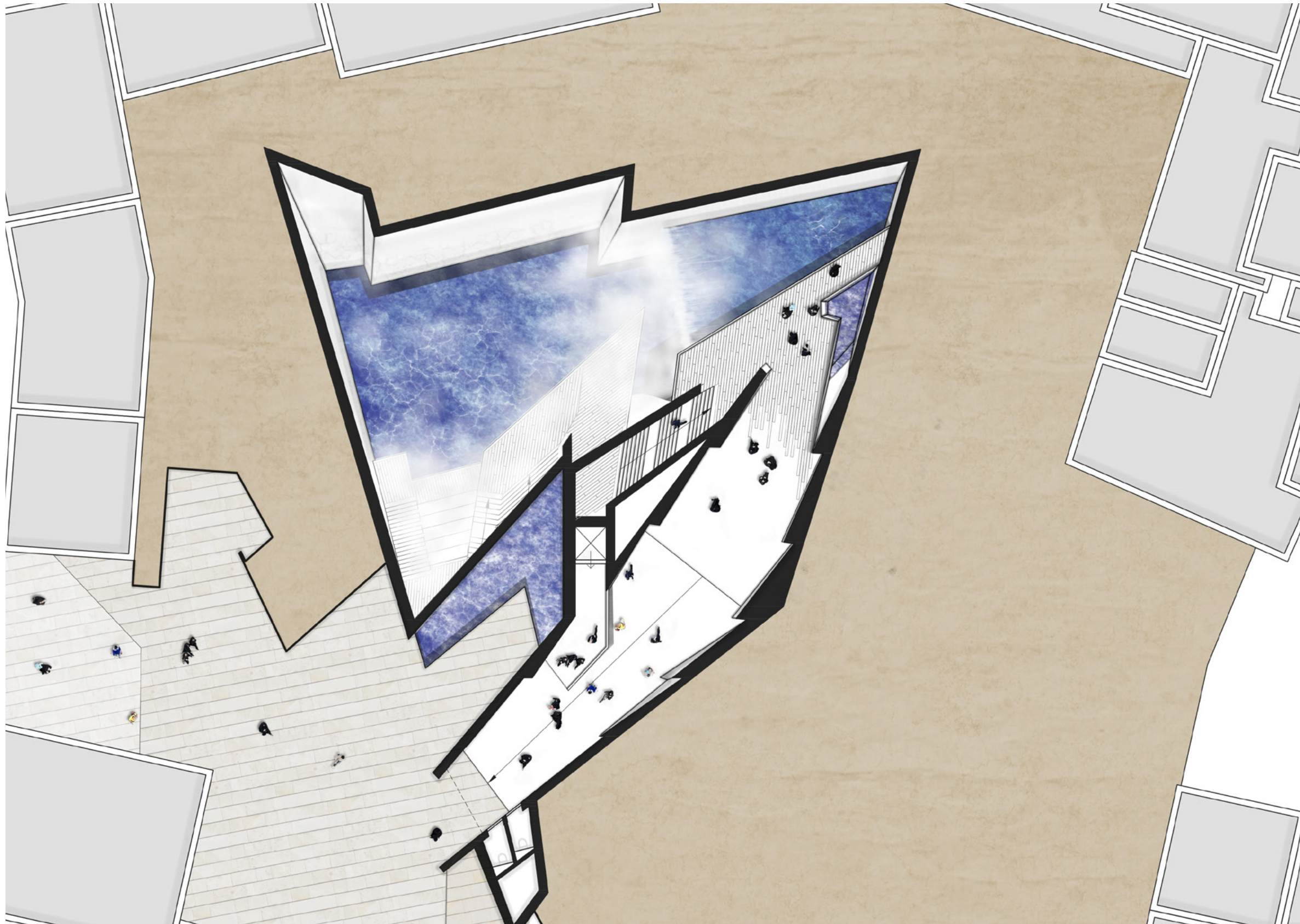
plans



floor plan
ground level



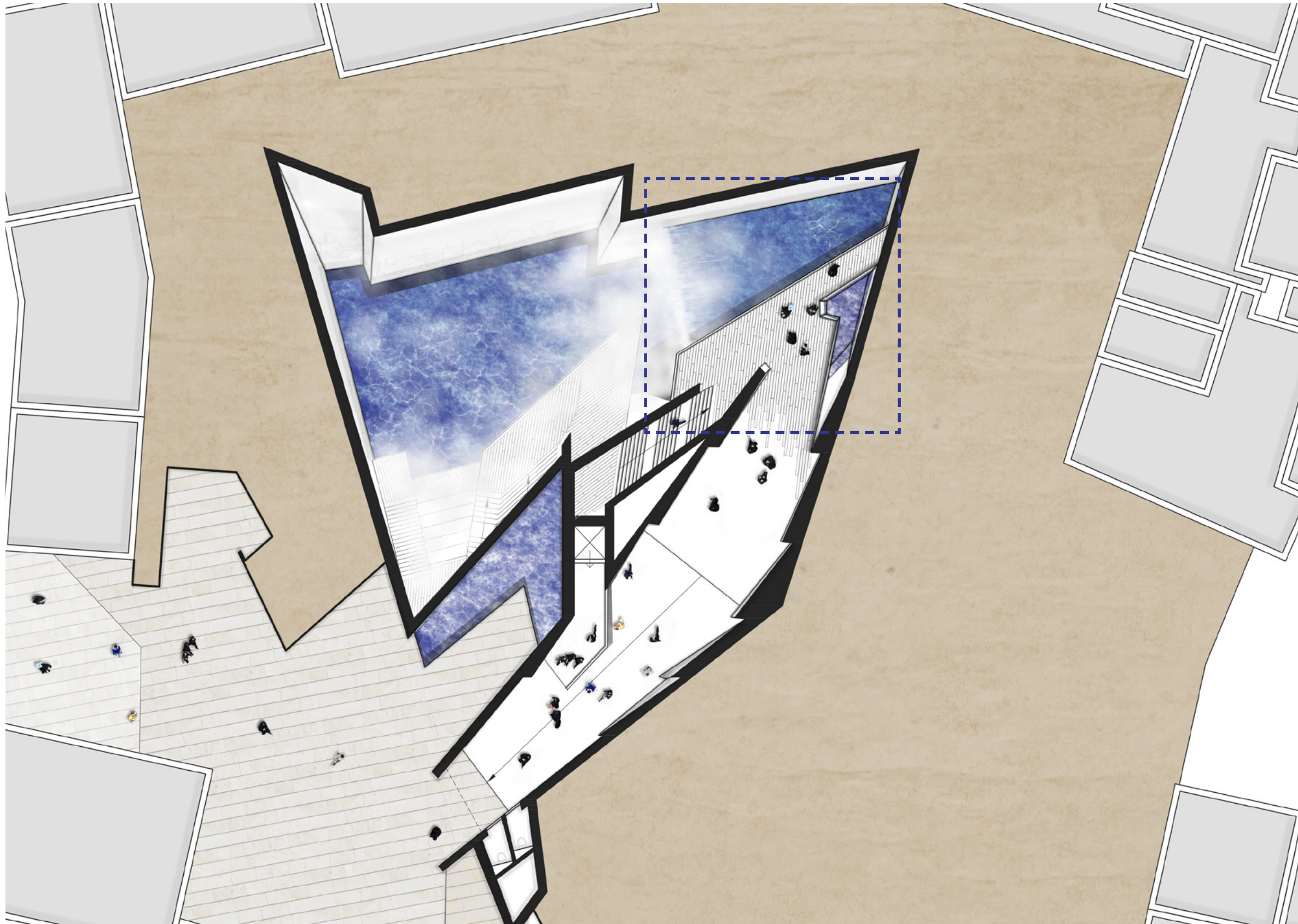
plans



floor plan

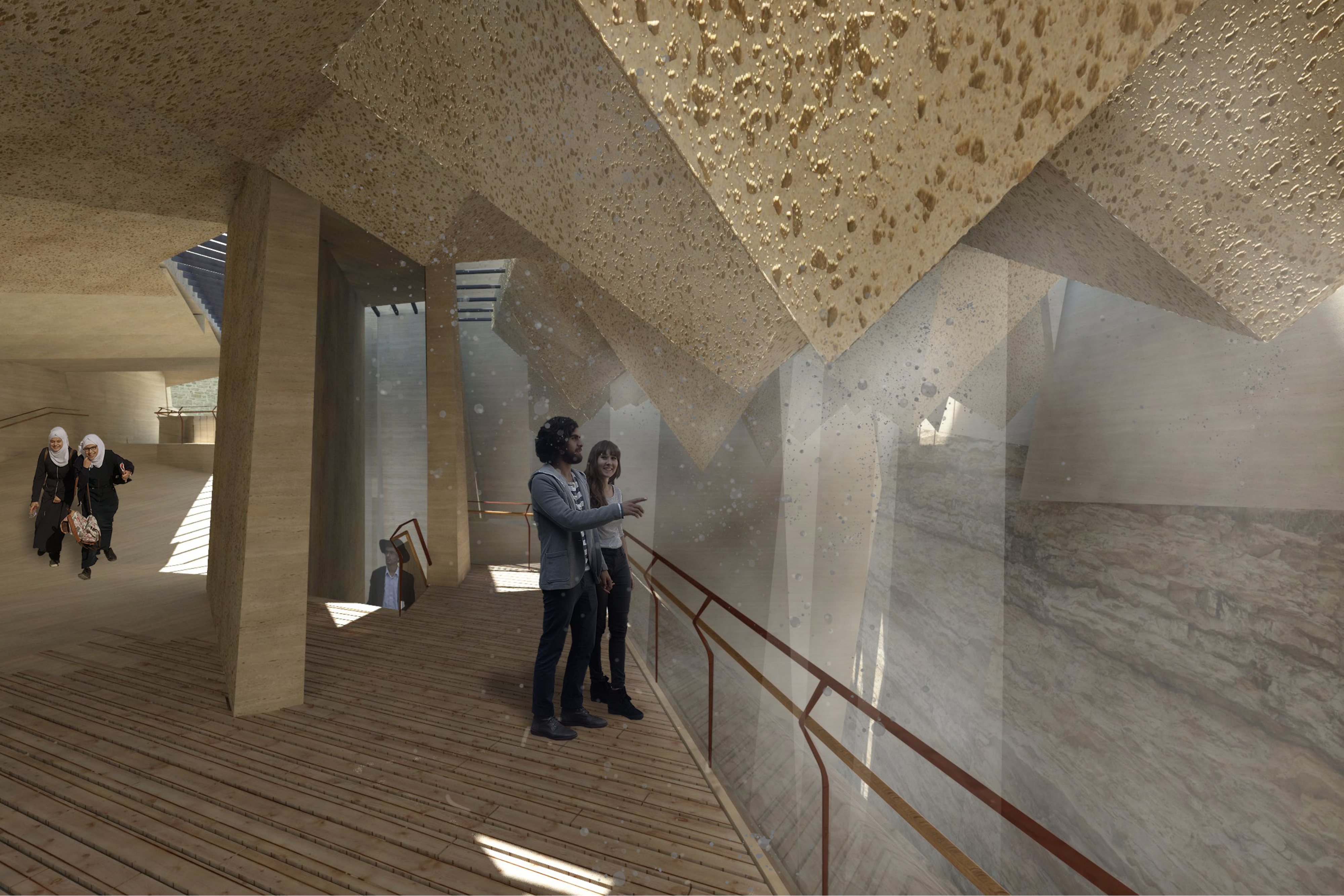
level -1

plans

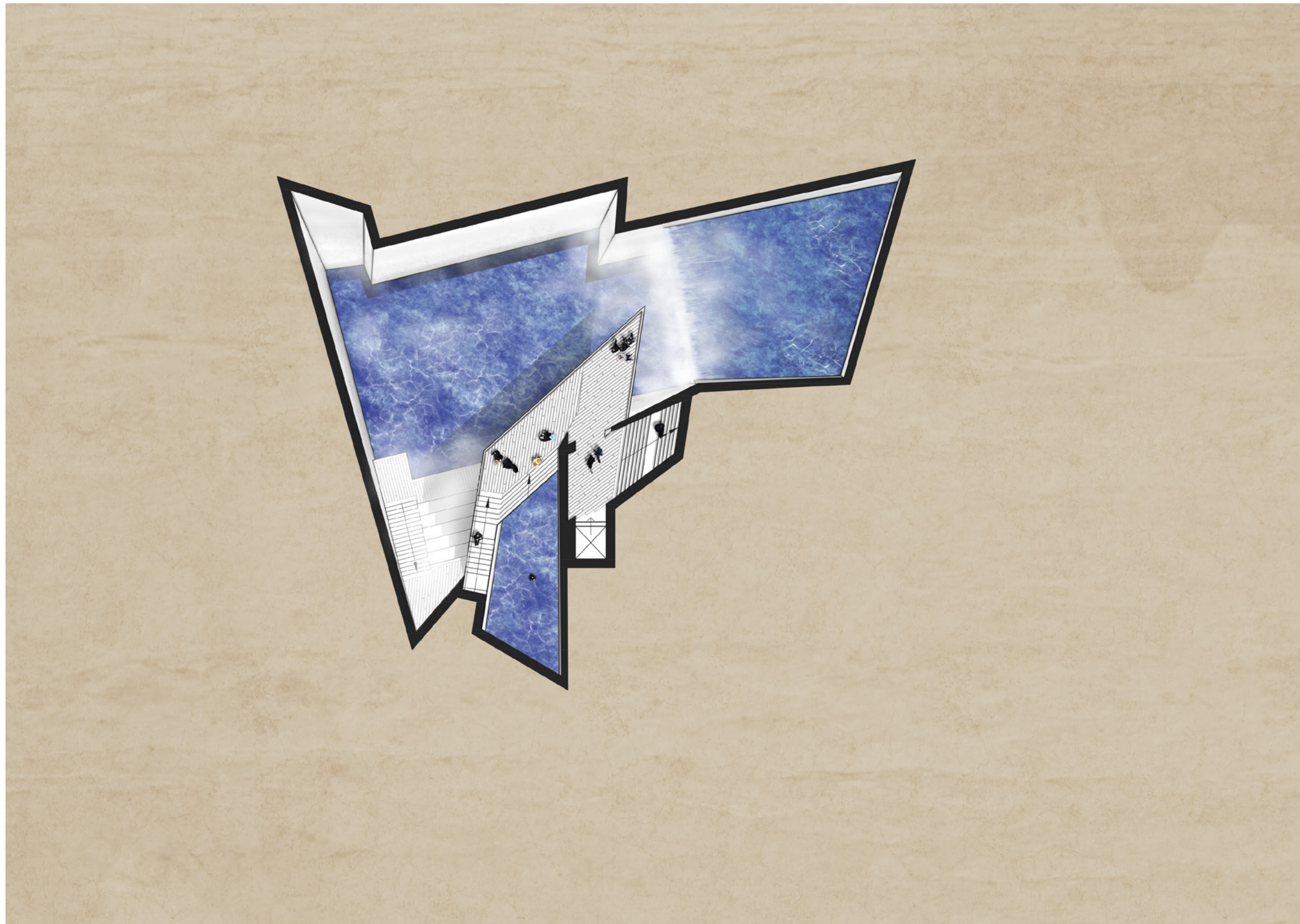


floor plan

level -1



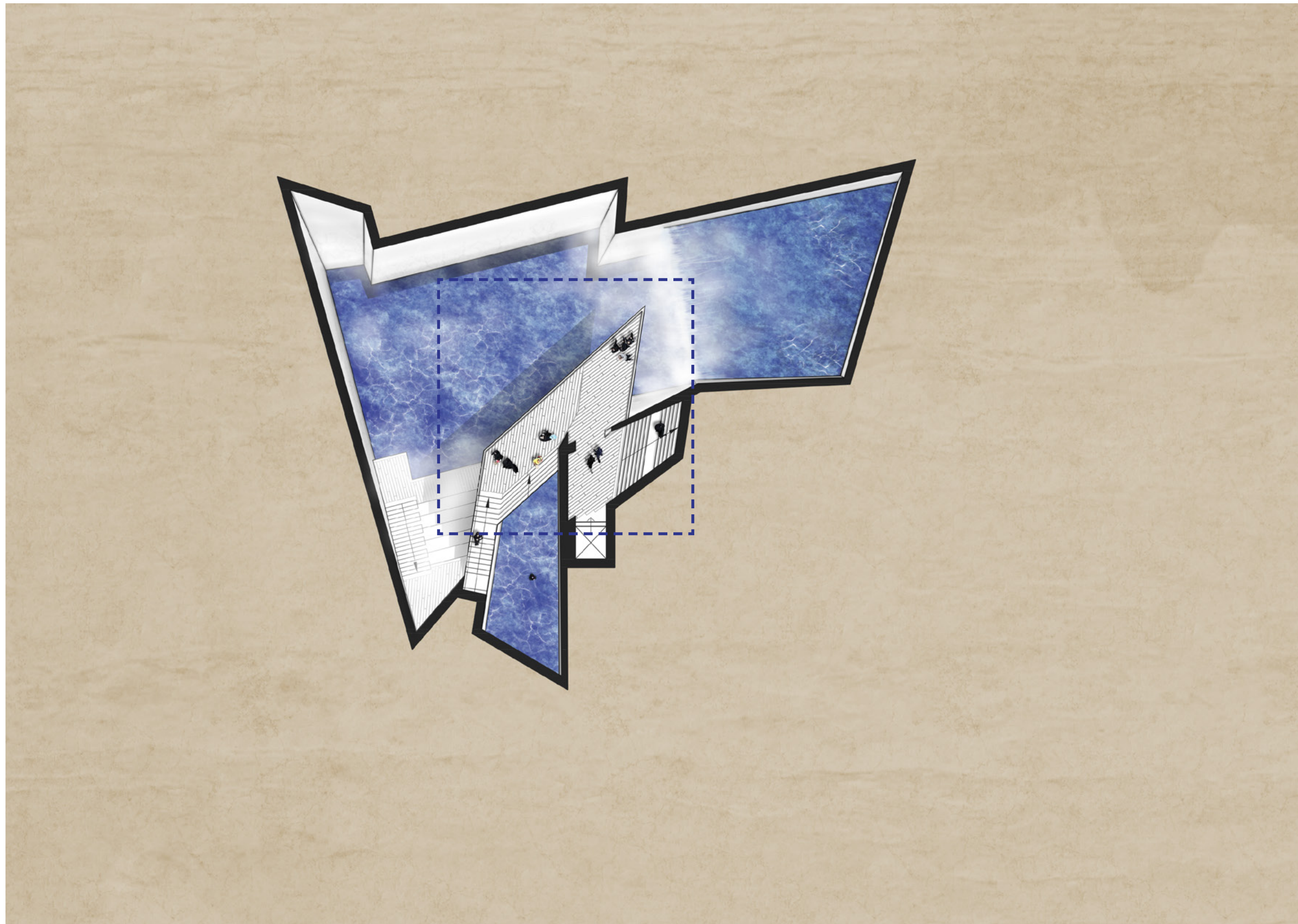
plans



floor plan

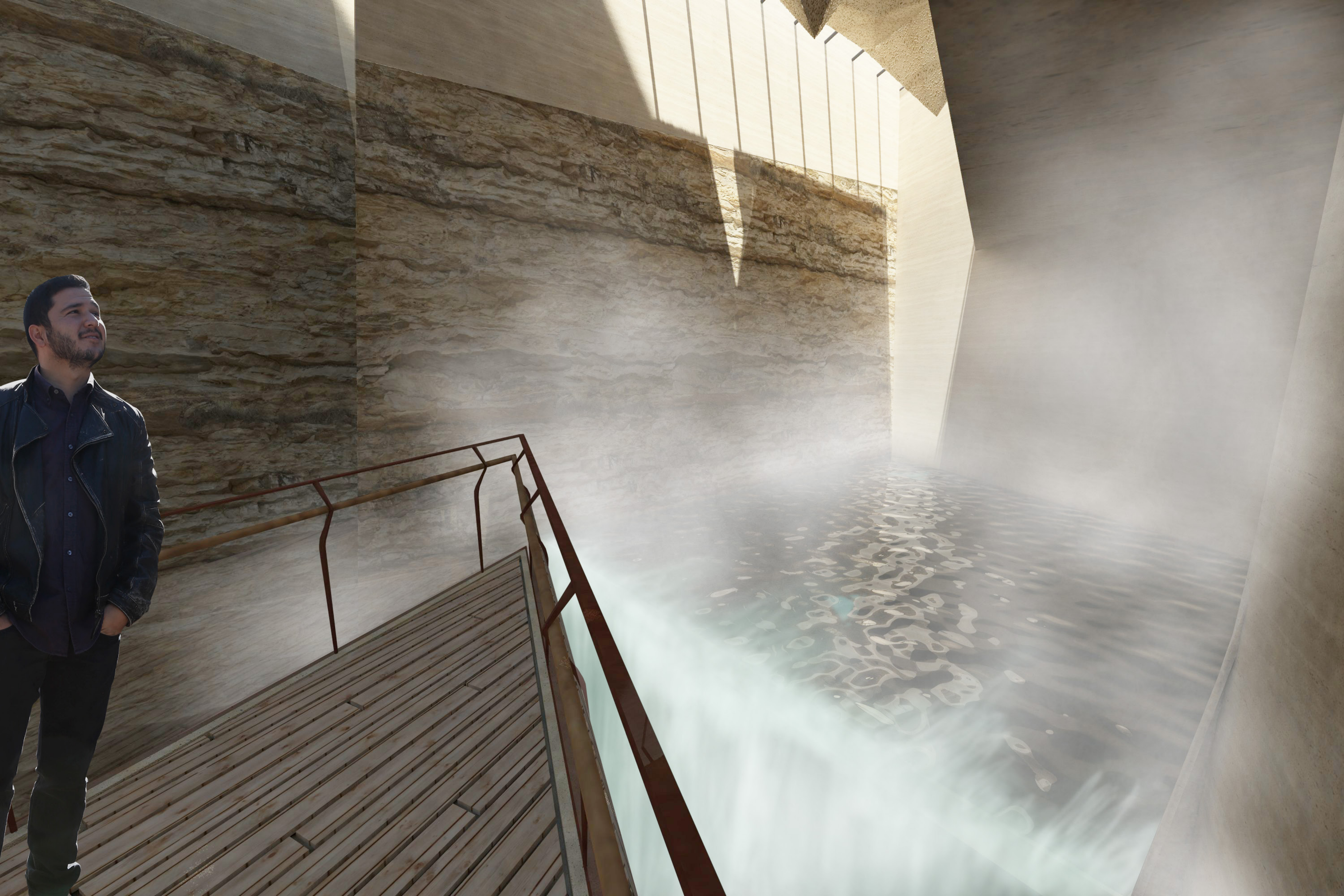
level -2

plans

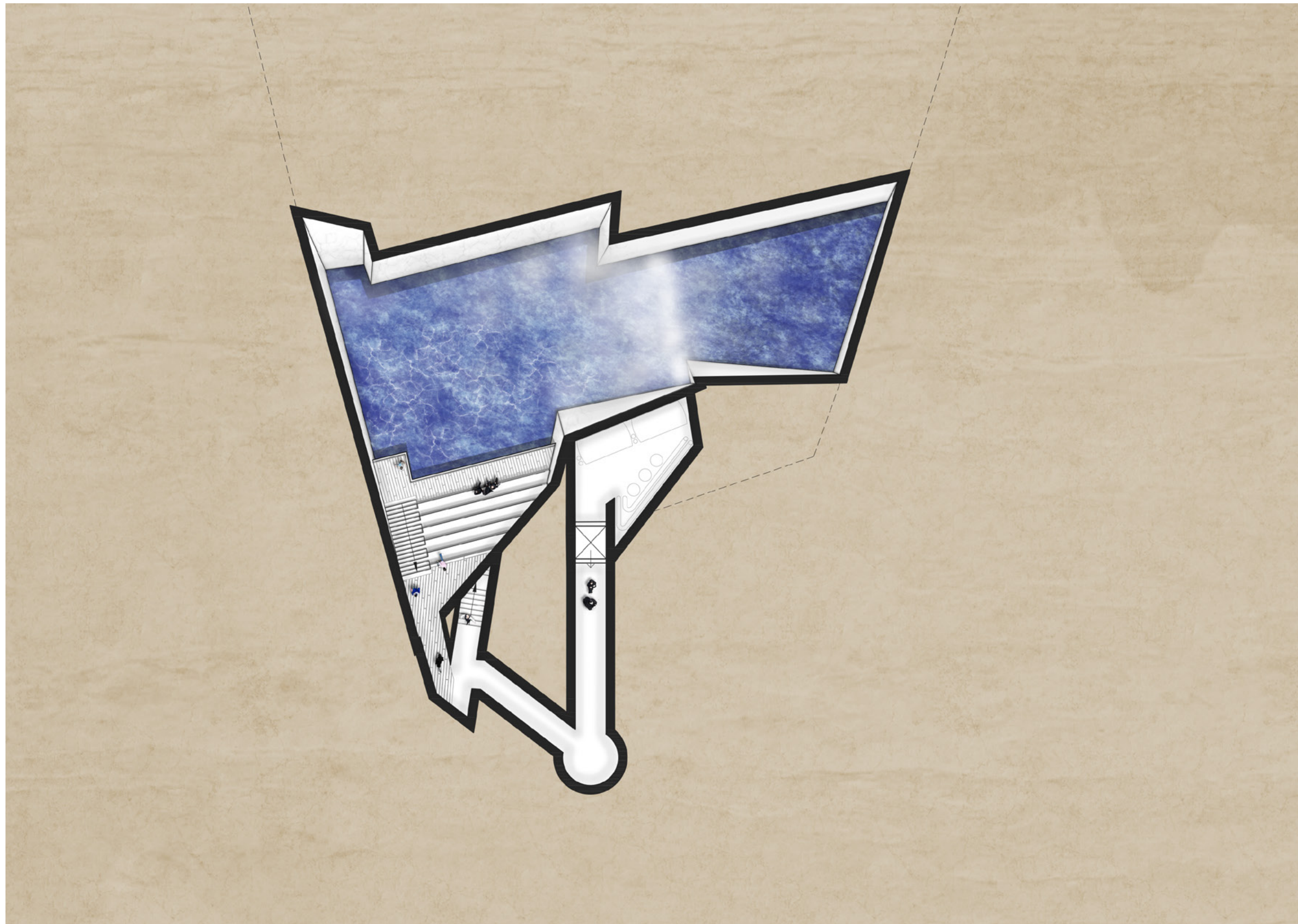


floor plan

level -2



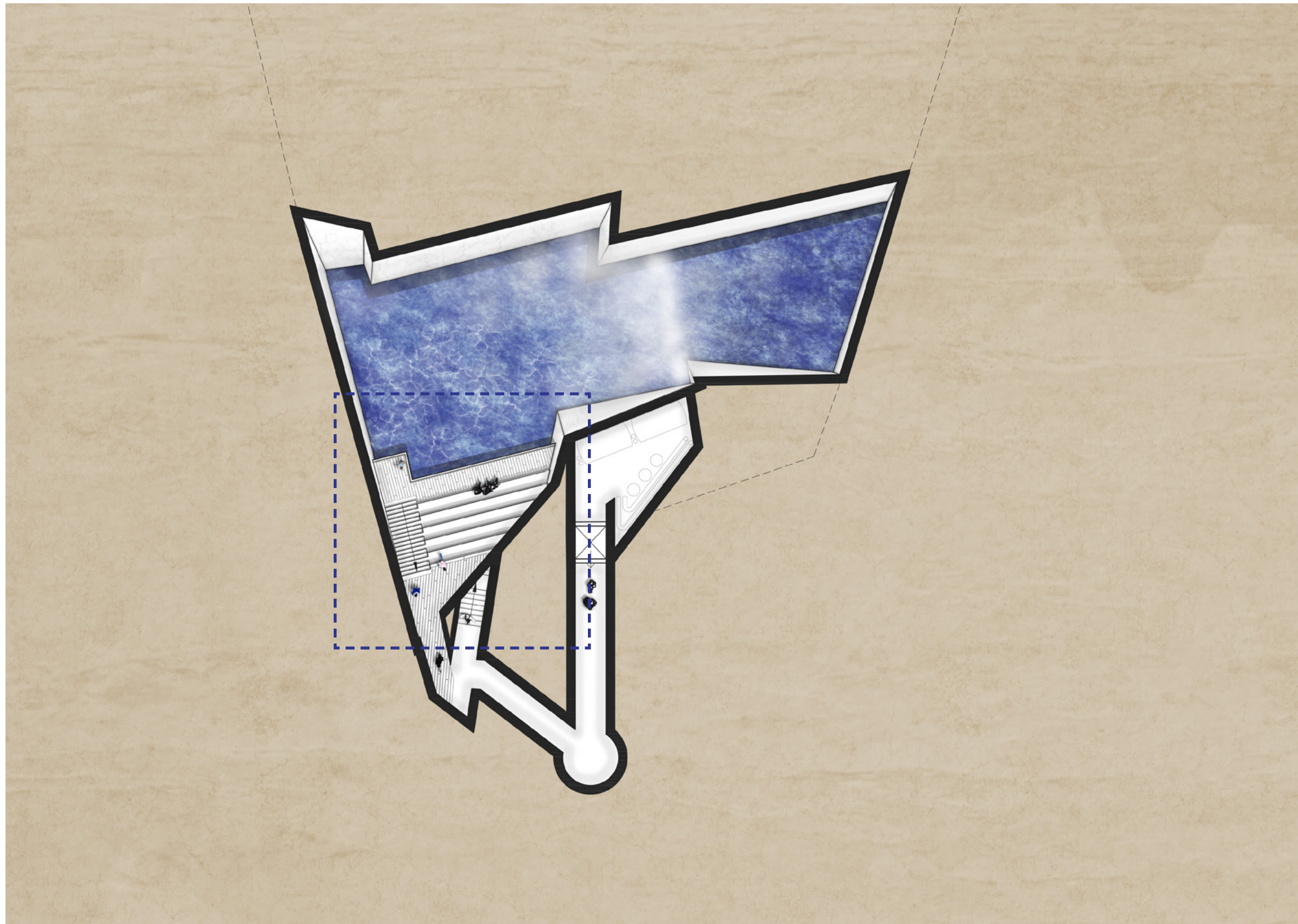
plans



floor plan

level -3

plans



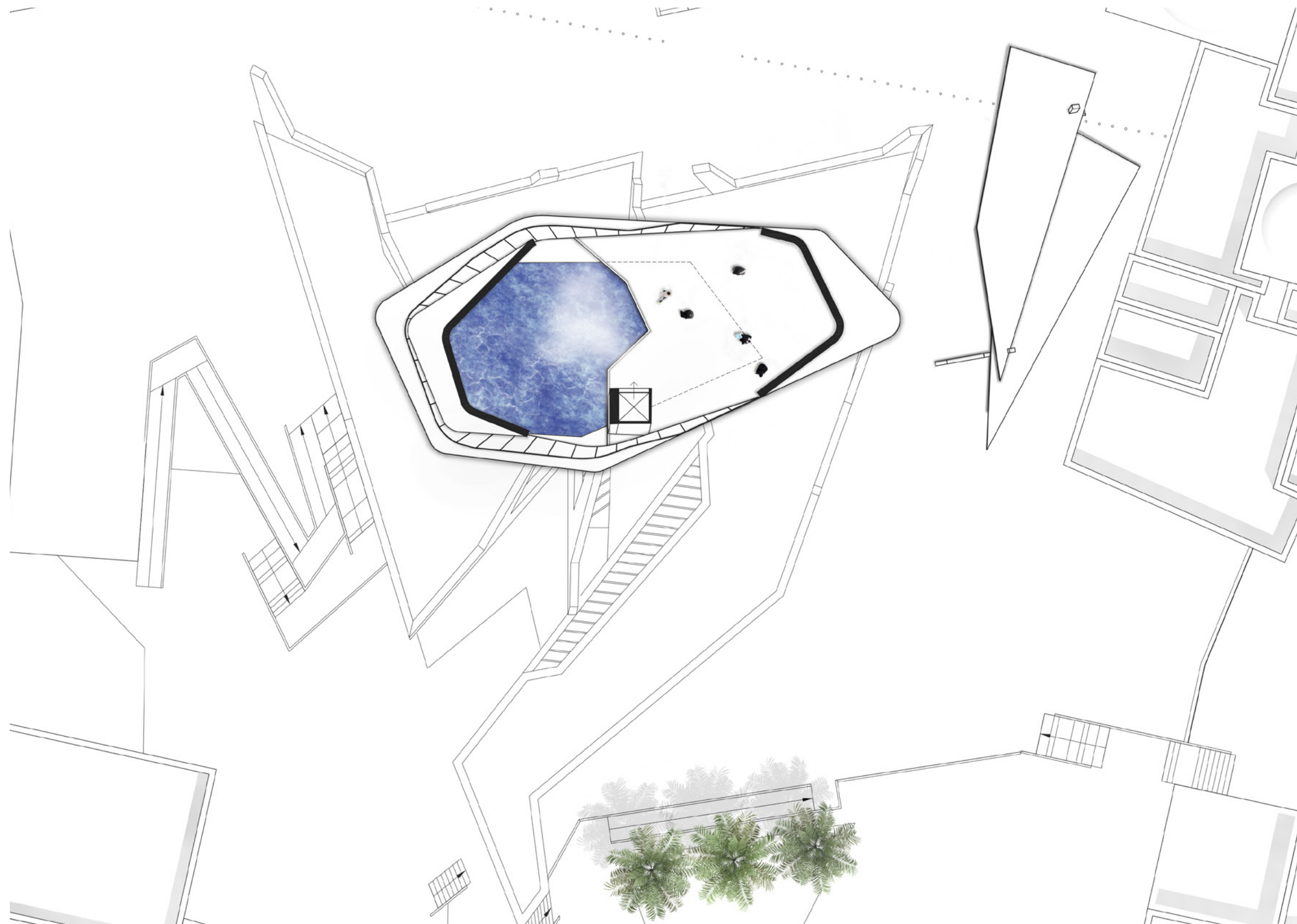
floor plan

level -3

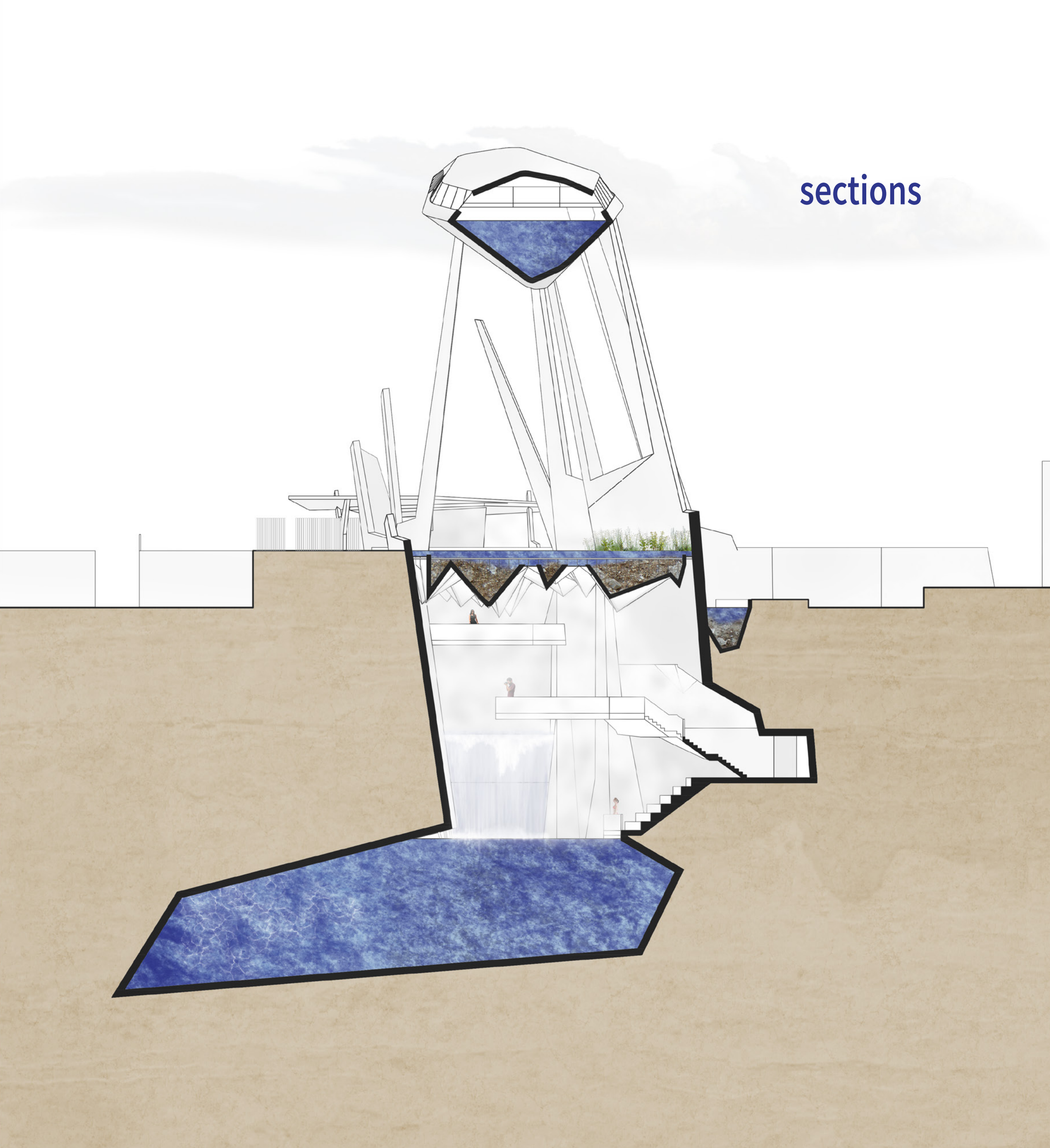




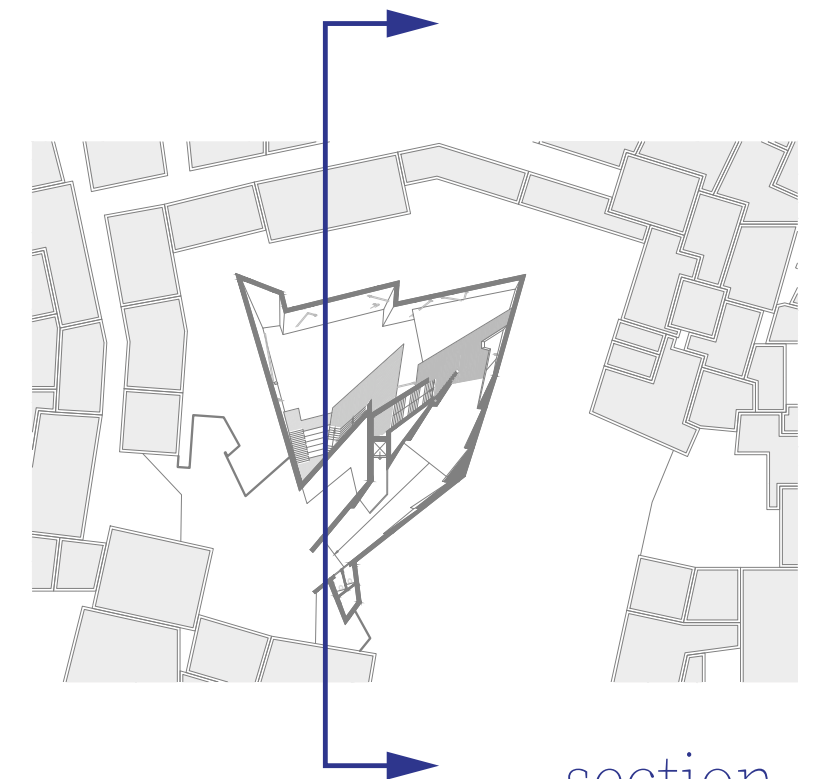
plans



floor plan
water tower level



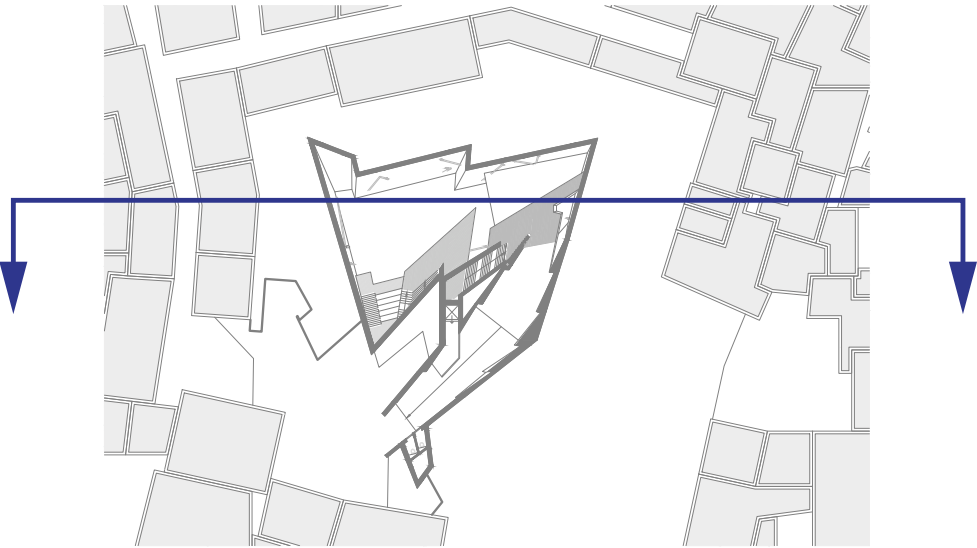
sections



section

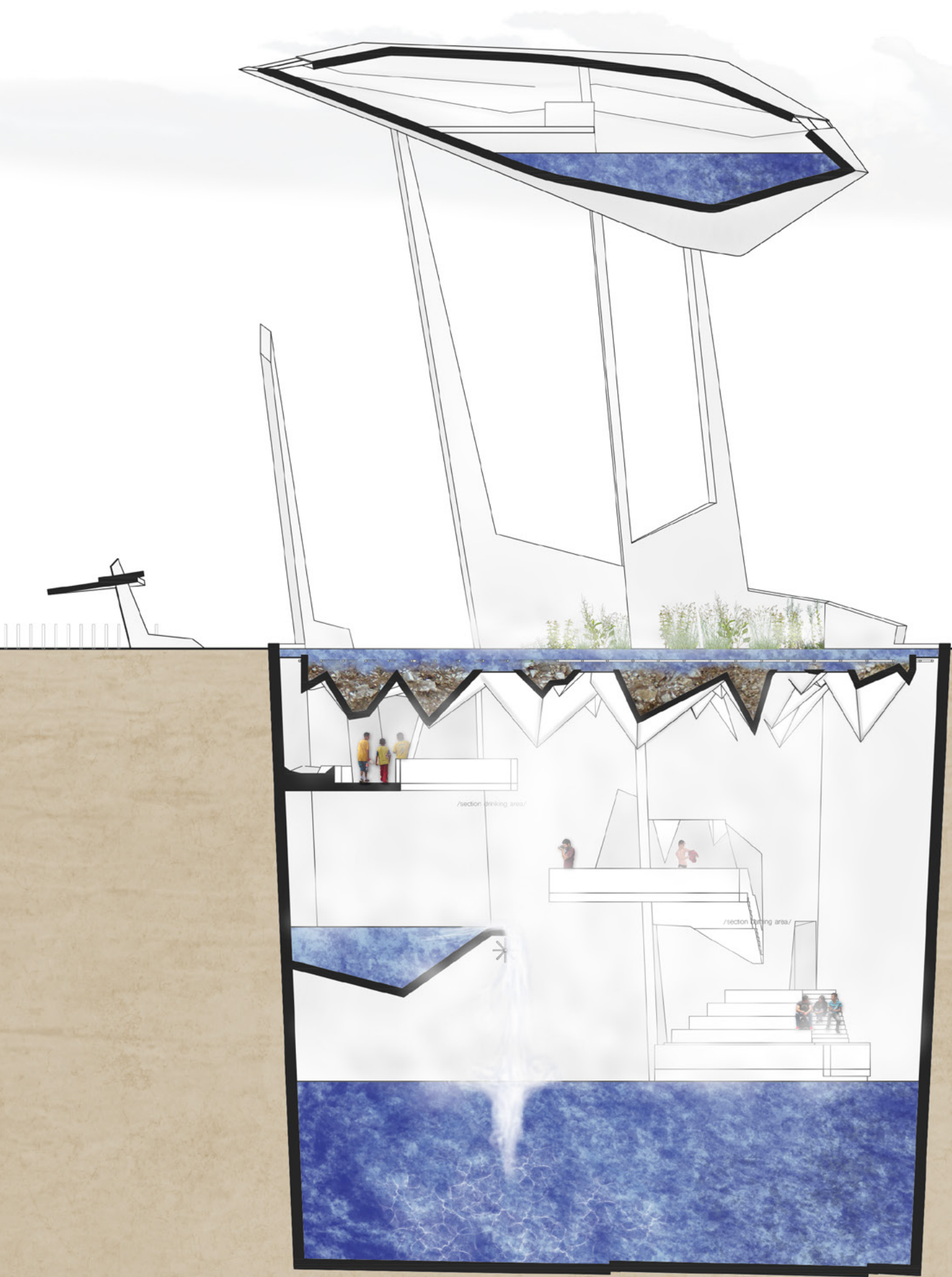
transversal a

sections

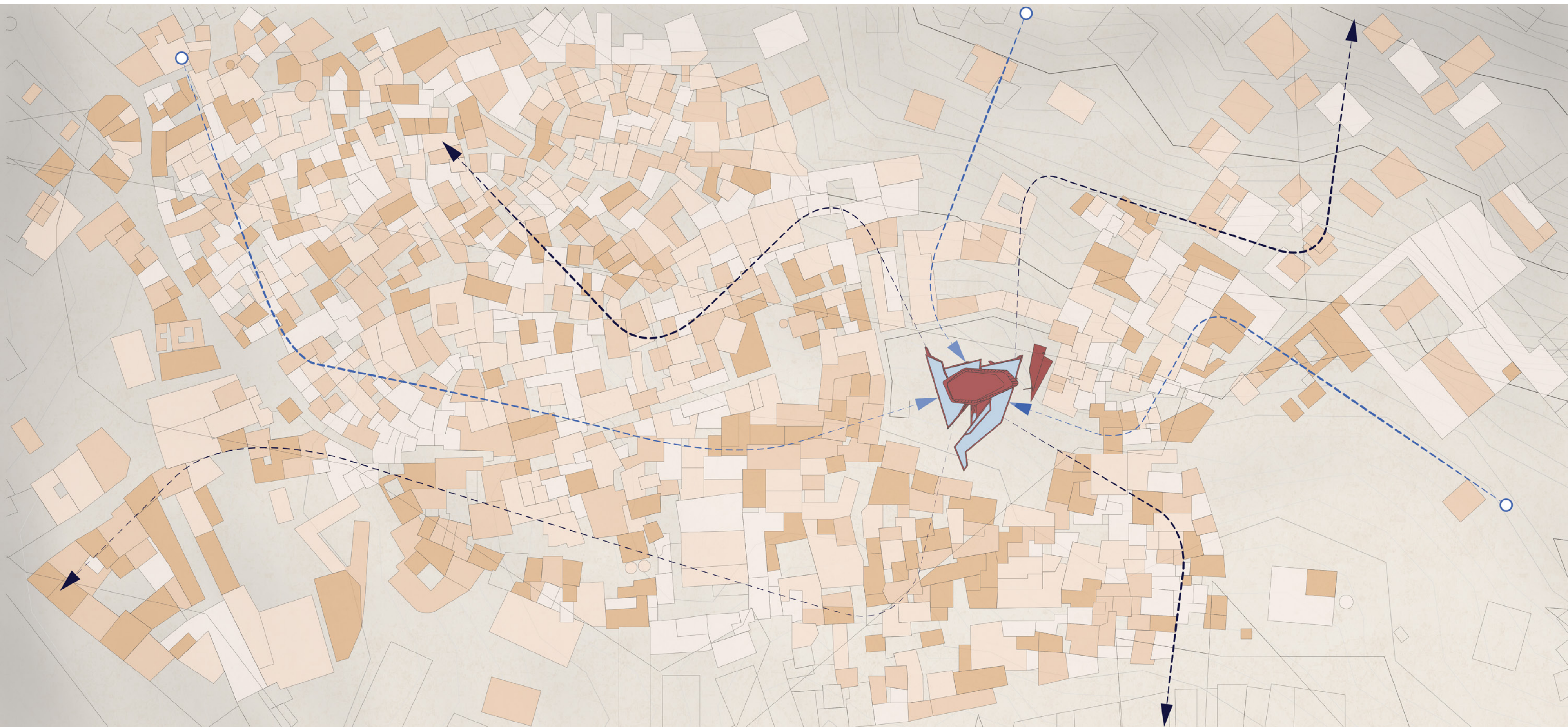


section

longitudinal



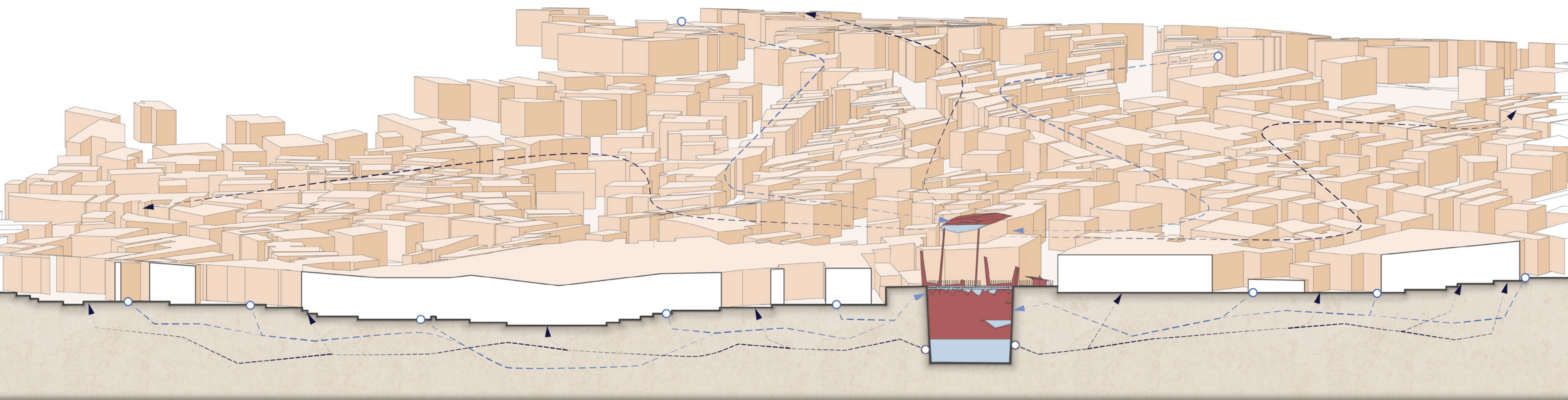
design_in city



design_in city

temple of water as part of the city

water supply to inhabitants
wastewater extraction from city



A detailed architectural model of a rugged, light-colored rock cliff face. Several small, dark human figures are positioned on different levels of the model. One figure stands on a small platform with a metal railing. Another figure stands on a larger, flat wooden-plank deck. A third figure is visible on a lower level. The model illustrates a complex spatial arrangement within a naturalistic rock formation.

conclusion

relevancy of water and architecture
-
problems of territorial water management
-
architecture in spaces of conflict and opposition
-
revitalisation of Hebron

graduation P5

Embrace diversity: (un)divided Hebron

COEXISTENCE THROUGH ARCHITECTURE OF WATER

thank you

data

2015 hebron numbers regarding water

daily water production:
western aquifer
eastern aquifer
(for entire west bank)

0,4 Mm3
16,2 Mm3

daily:

water needs

34,2 Mm3

water deficit

17,4 Mm3

water supply

26,1 Mm3

water loss

9,3 Mm3

water consumed

16,8 Mm3

yearly rainfall

(netherlands)

620,5 mm
(700-900mm)

rainfall days

55 days

water evaporation

1951,6 mm

needs based on WHO

standard of:

150 l/capita/day

consumption:

73,7 l/capita/day

wastewater:

localities connected to network

4

localities in use of cesspits

78

localities with open channels

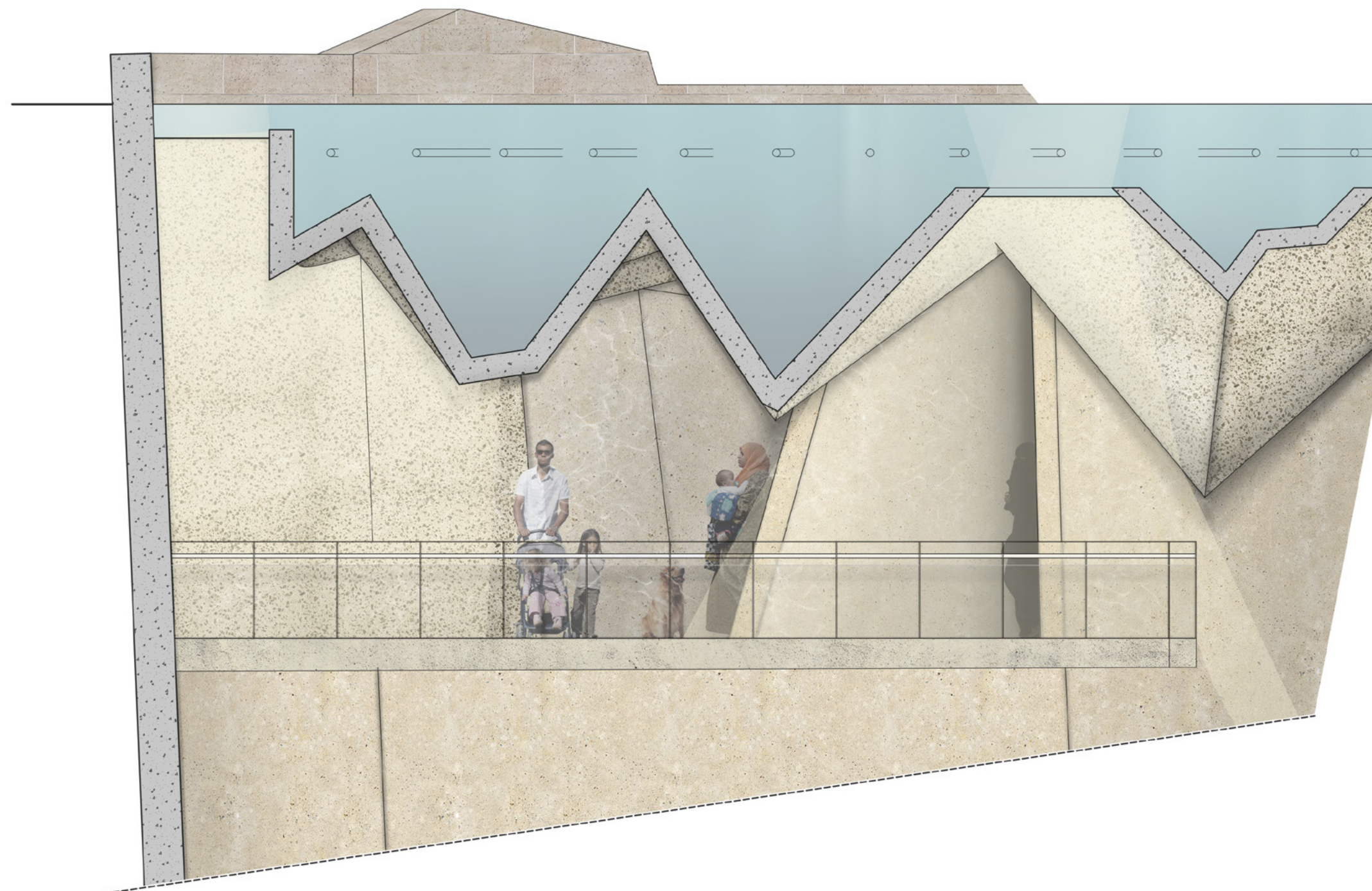
5

localities disconnected

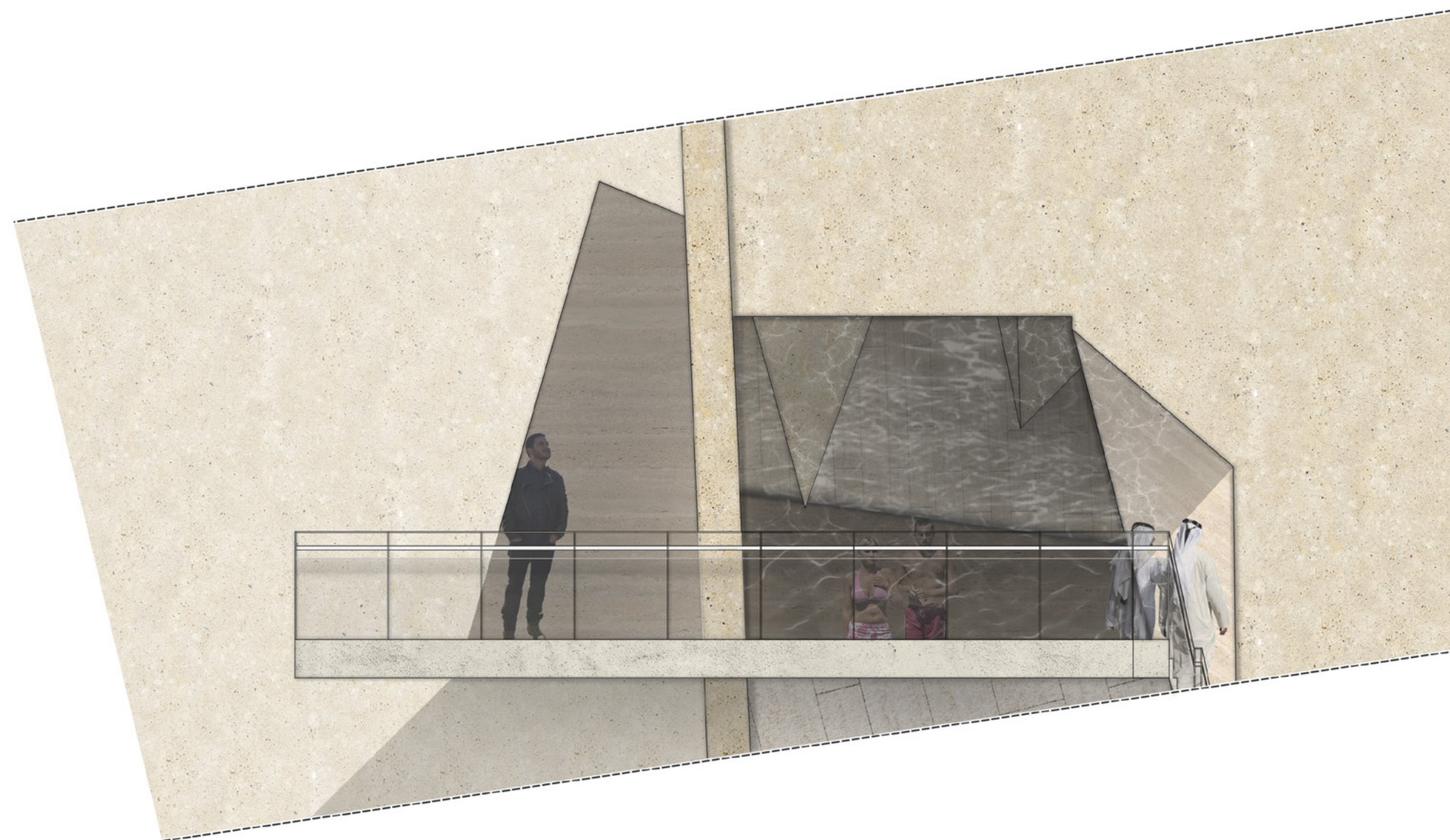
88

of WHO standards: 49%

materialisation



materialisation



materialisation

