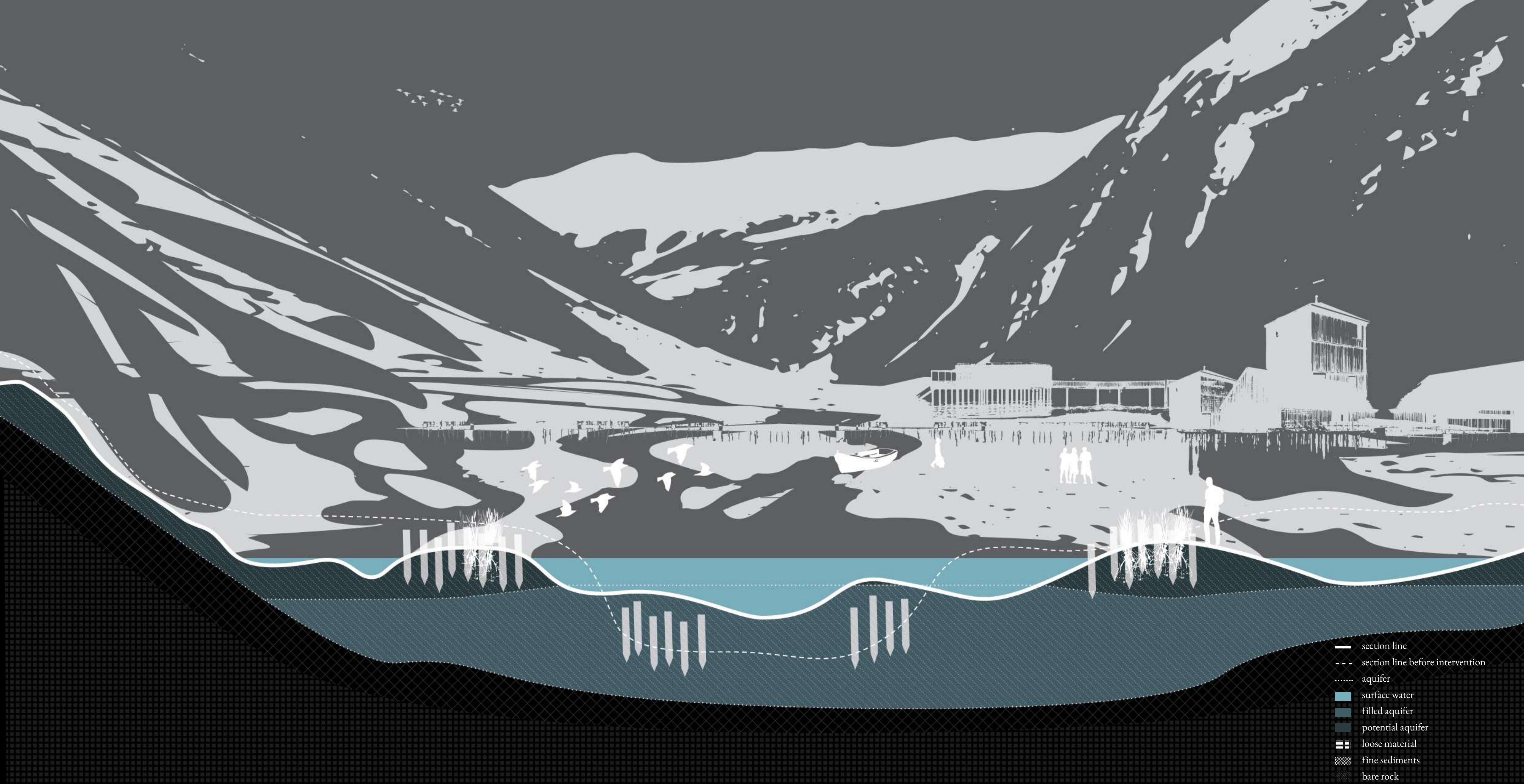


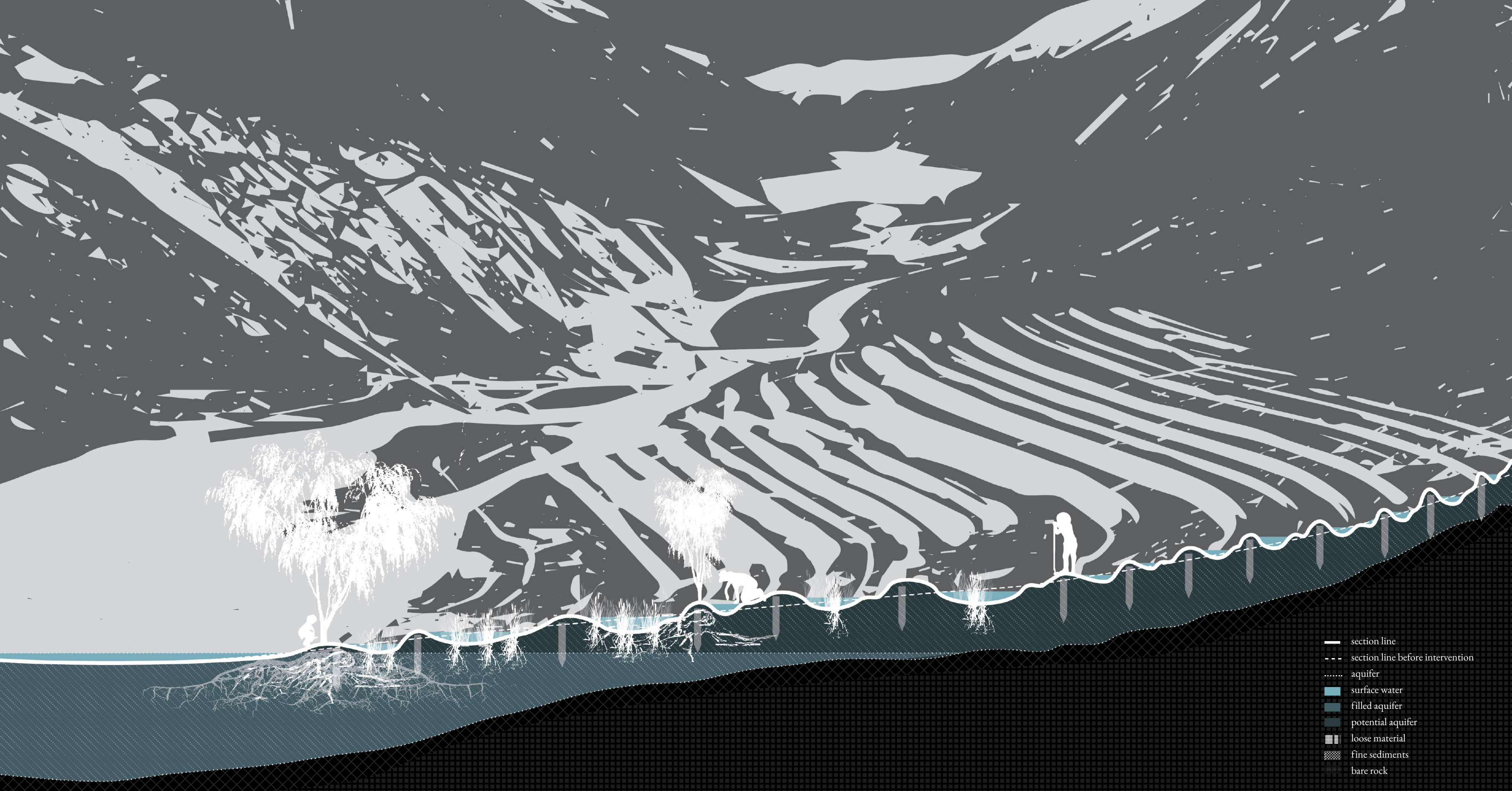
A change of matter
the Alps our living freshwater
source and reservoir

P5 Presentation
Emilie Stecher
5392519
Transitional Territories



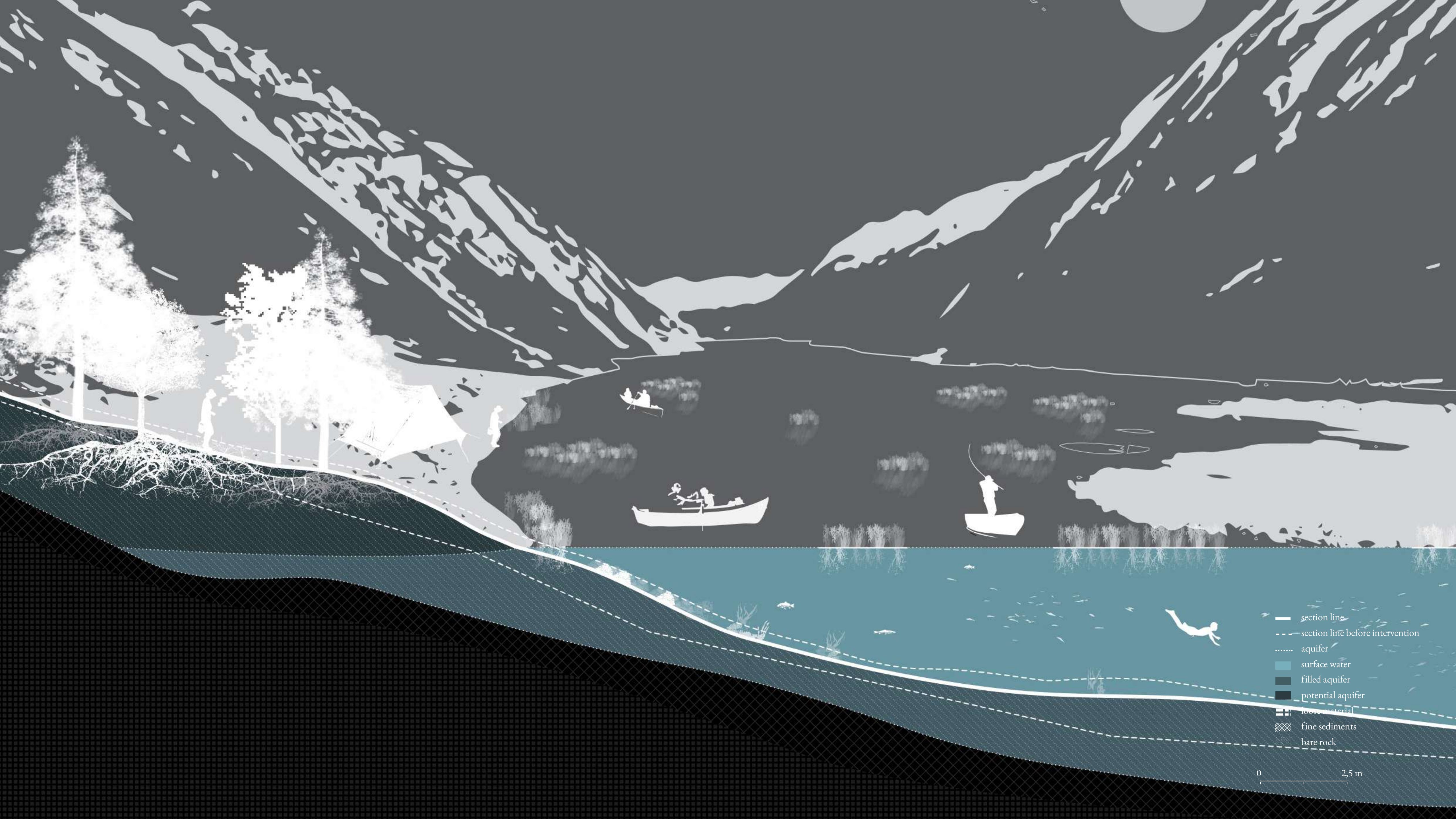
- section line
- - - section line before intervention
- aquifer
- surface water
- filled aquifer
- potential aquifer
- ▨ loose material
- ▩ fine sediments
- ▧ bare rock

0 2,5 m



- section line
- - - section line before intervention
- aquifer
- surface water
- filled aquifer
- potential aquifer
- ▨ loose material
- ▩ fine sediments
- ▧ bare rock

0 2,5 m



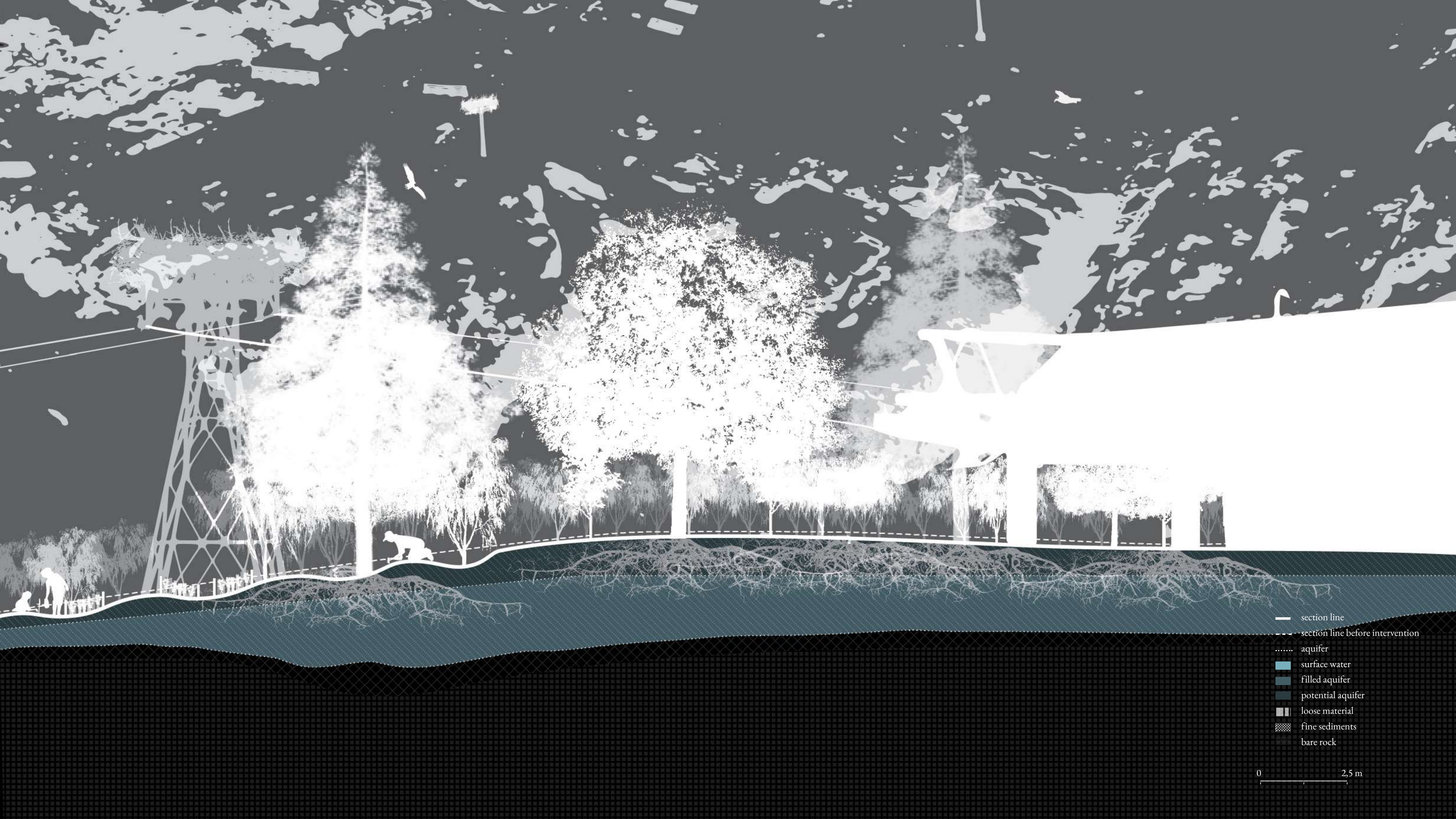
- section line
- - - section line before intervention
- aquifer
- surface water
- filled aquifer
- potential aquifer
- ▨ loose material
- ▩ fine sediments
- bare rock

0 2,5 m



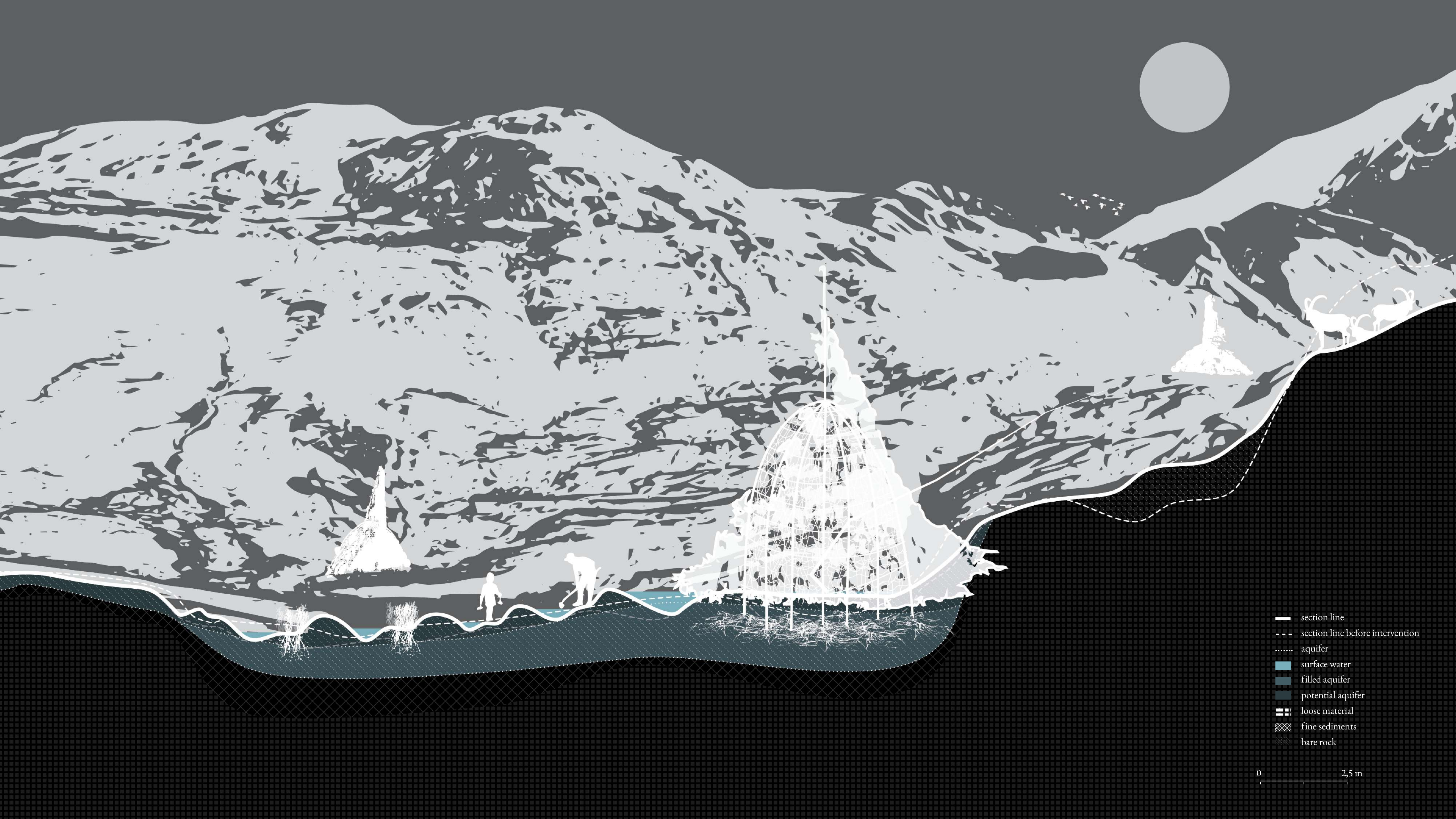
- section line
- - - section line before intervention
- aquifer
- surface water
- filled aquifer
- potential aquifer
- ▨ loose material
- ▩ fine sediments
- ▧ bare rock

0 2,5 m



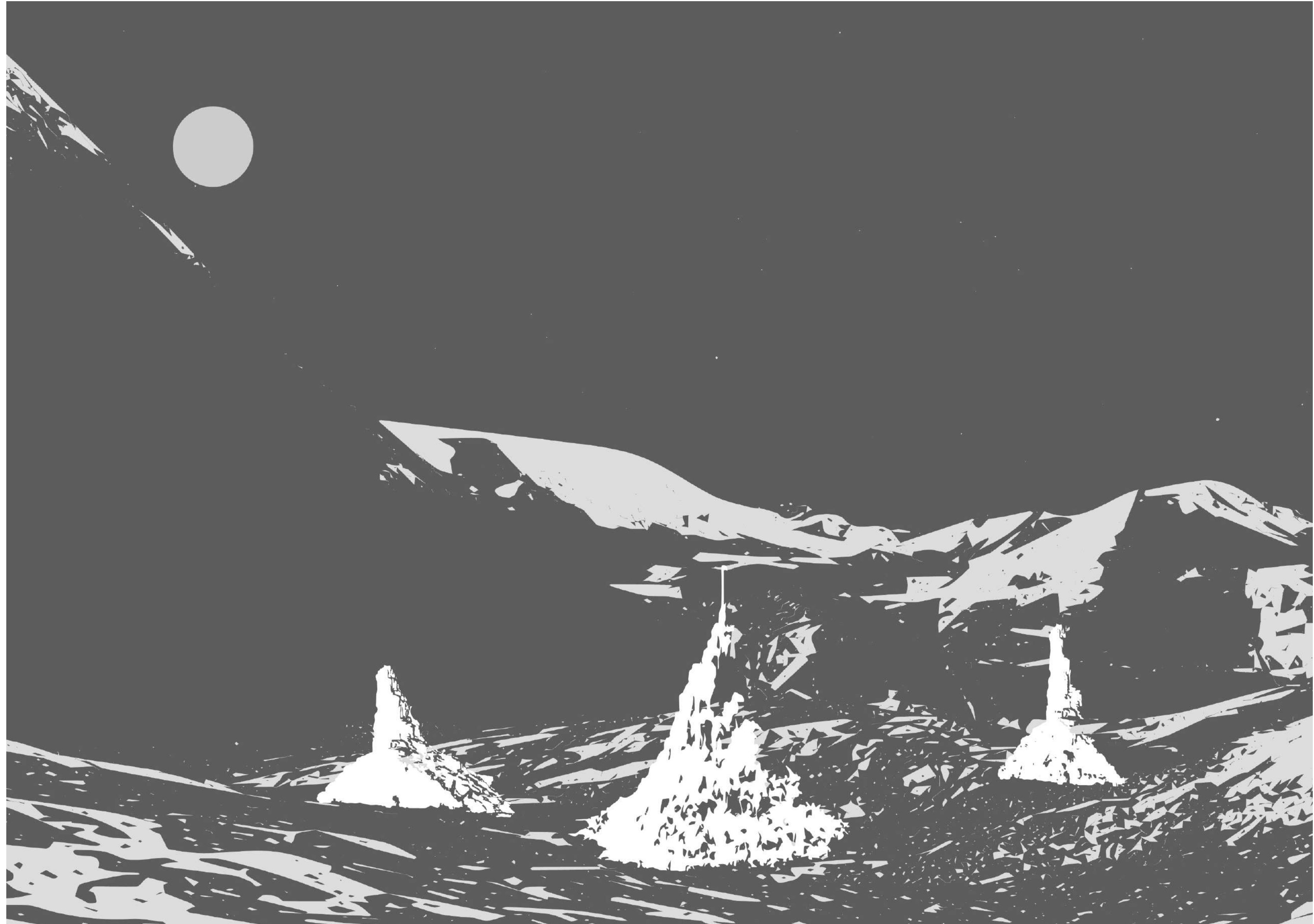
- section line
- - - section line before intervention
- aquifer
- surface water
- filled aquifer
- potential aquifer
- ▨ loose material
- ▩ fine sediments
- ▧ bare rock

0 2,5 m



- section line
- - - section line before intervention
- aquifer
- surface water
- filled aquifer
- potential aquifer
- loose material
- fine sediments
- bare rock

0 2,5 m

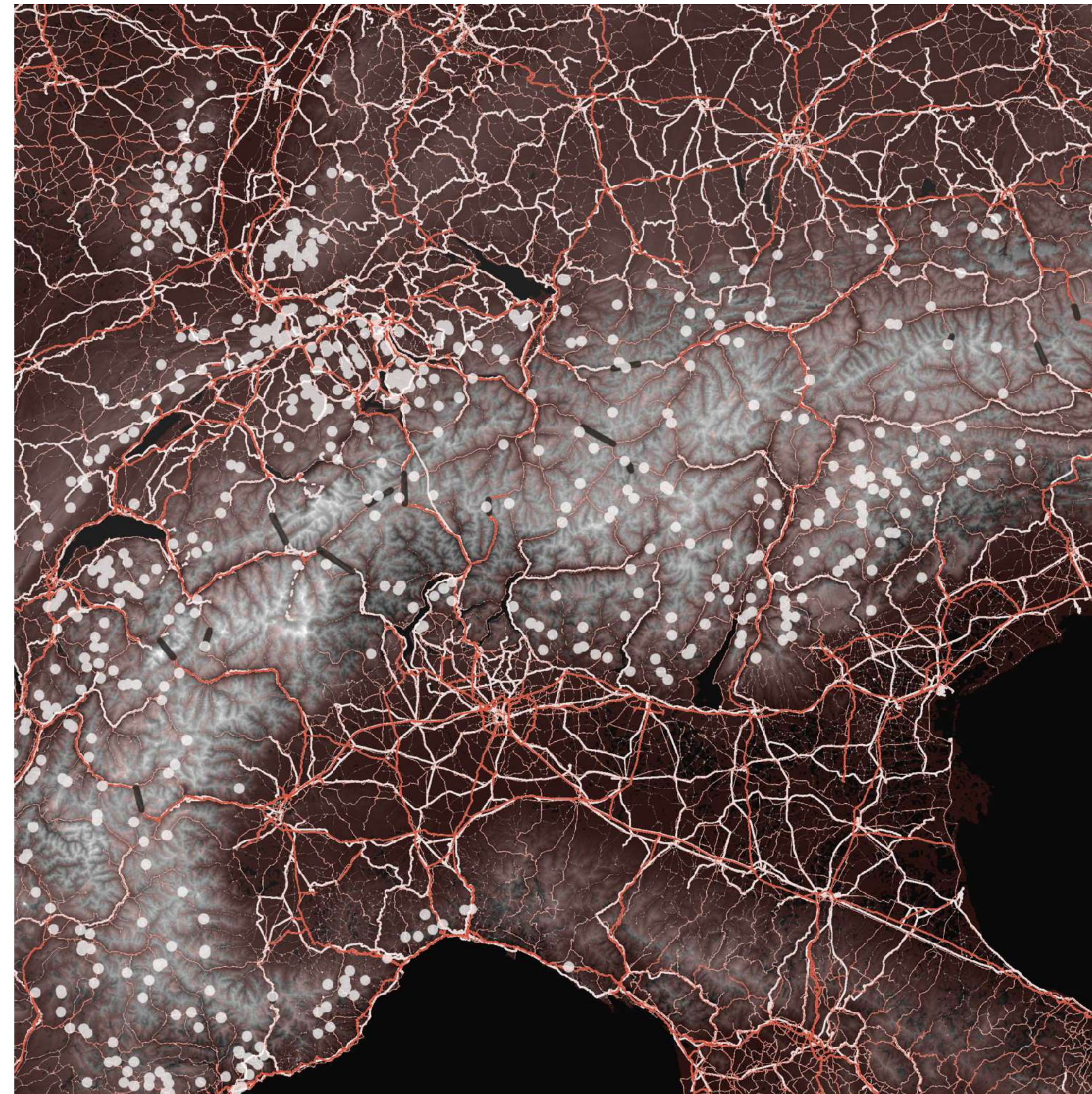


Alps are an object



Hannibal crossing the Alps, 218 BC
Tancredi Scarpelli (1866-1937)

Alps are an object



- walking paths
- highway, primary and secondary roads
- trainrouts
- tunnel
- mountain pass

0 75 km | N



Scars in the landscape, 2022
Dolomites, Italy

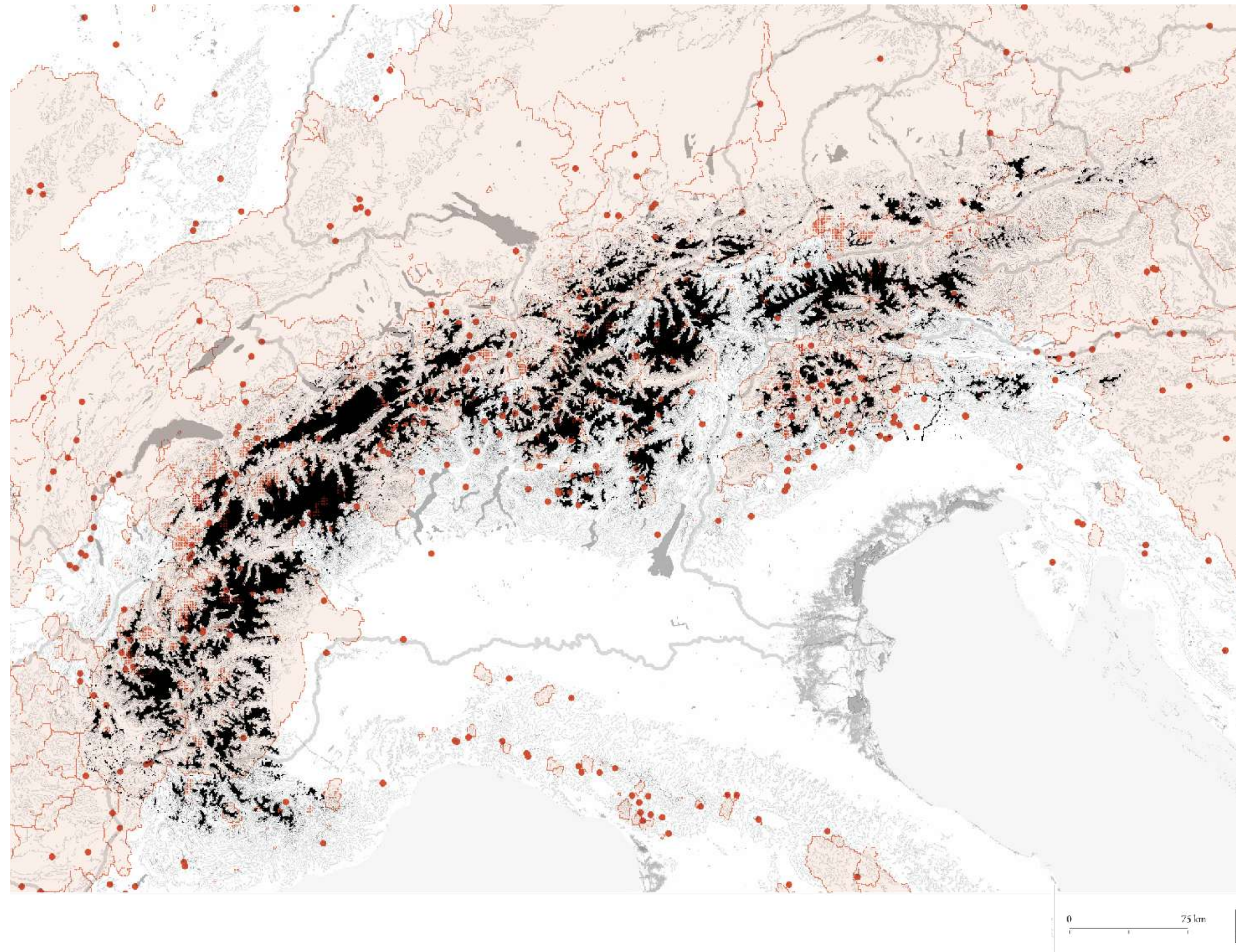


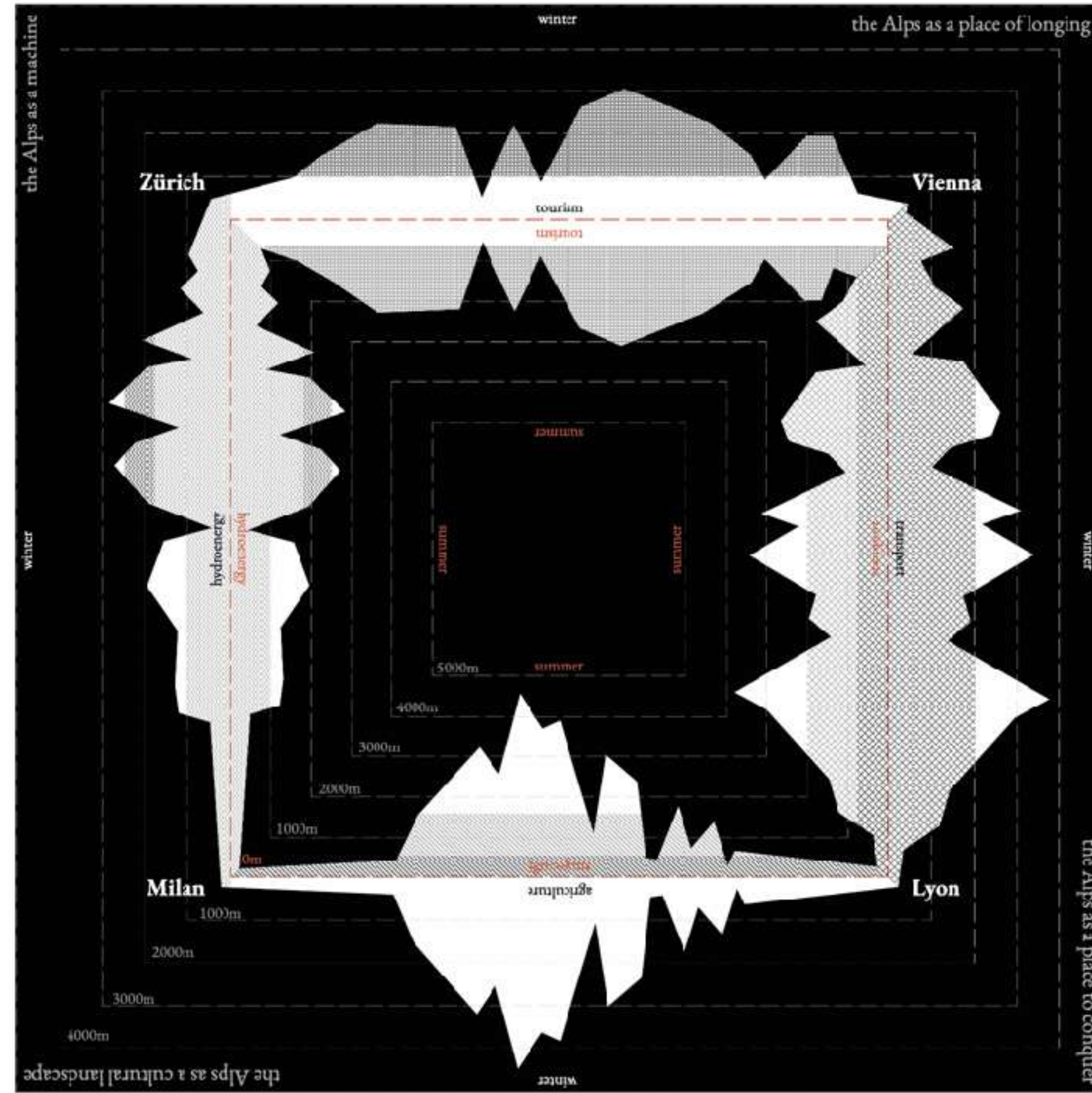
Ski Arlberg pist plan, 2021
Arlberg, Austria



Dammed river in Switzerland (Jérémy Toma)

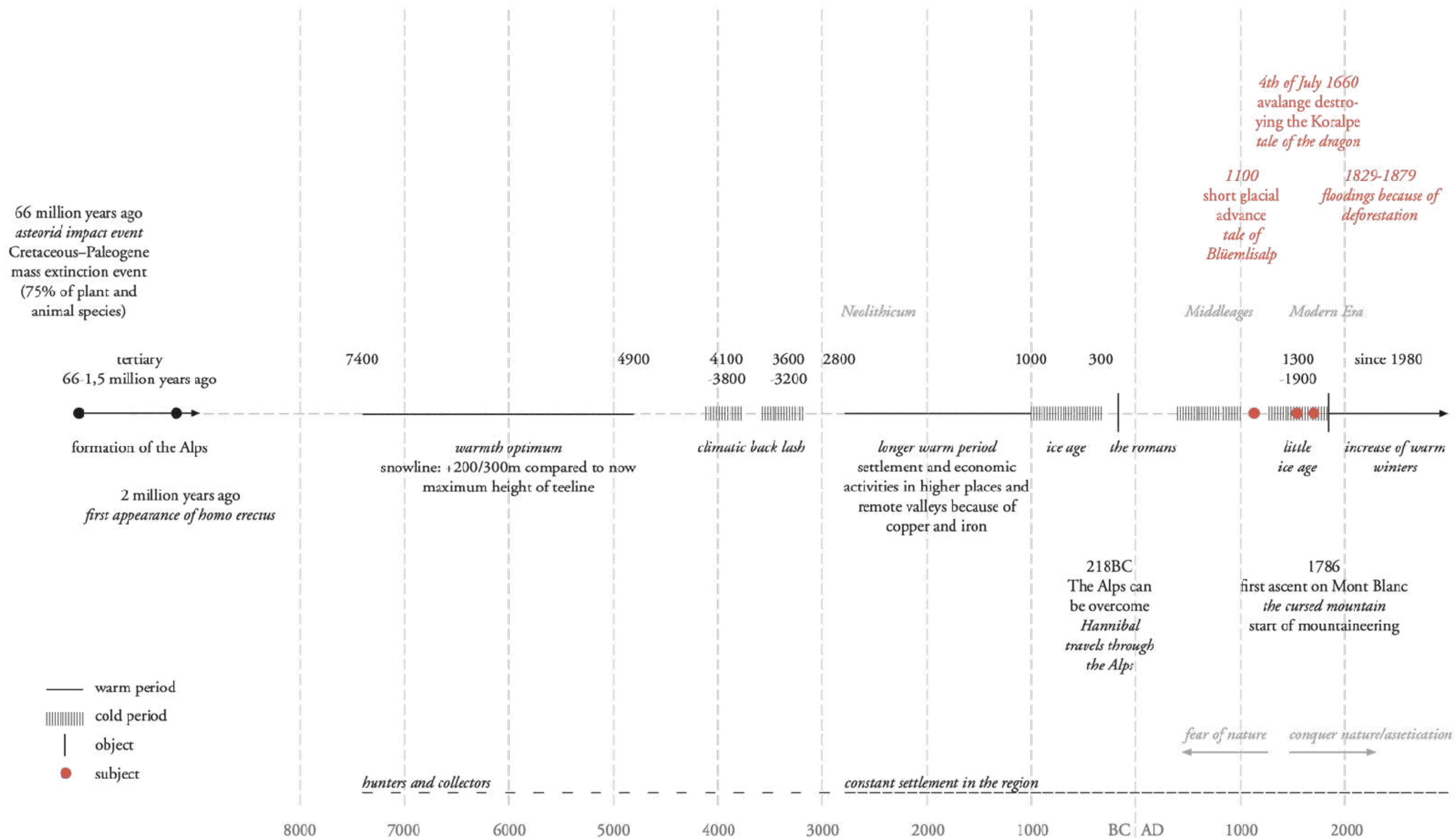
Alps are an object



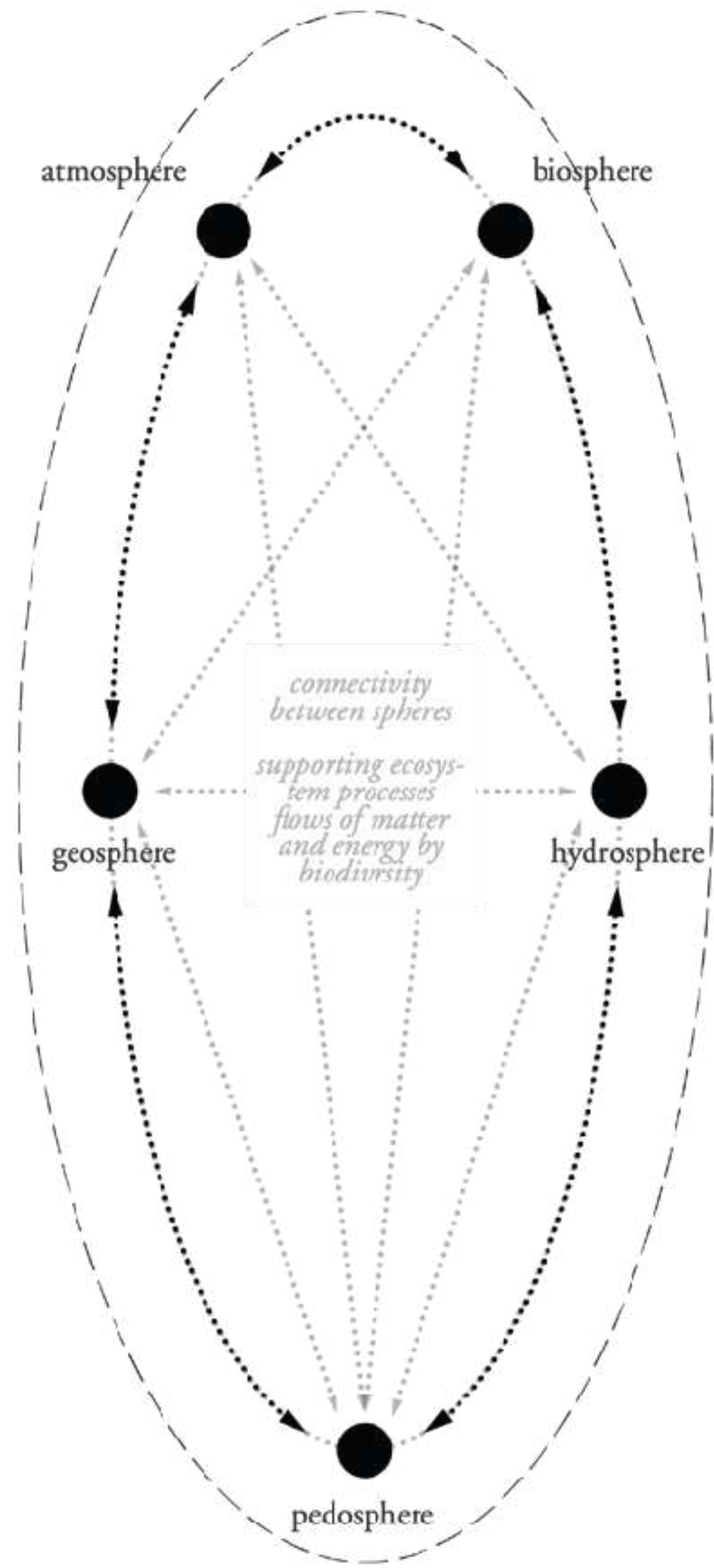



- - - 0m line and division between summer and winter
- - - altitude in meters
- activities**
- transport
- tourism
- hydroenergy
- agriculture
- intensity of activity

Living in the Alps



A new cosmology





“One has no claim on landscape, just as one has no claim on people. There is no claim. You simply have to understand that you are part of the whole. As soon as one formulates a claim, I place myself above the object. And that is, I think, what we are doing now.”

Ernst Partl, manager of the Kaunergrat Naturpark

In light of historical objectification and increasing pressure on the body of the Alps due to global and local changes,

how can the emerging "new order" of the Kulturlandschaft be formed by the Alps as an active subject?

Objectification

How have the Alps been manipulated, appropriated and colonized over time and how did it change their identity and agency?

Global Changes

How will the current vertical and horizontal borders and thresholds change due to climate change?

What are the environmental, cultural, economic and spatial consequences of temperature rise?

In light of historical objectification and increasing pressure on the body of the Alps due to global and local changes,

how can the emerging "new order" of the Kulturlandschaft be formed by the Alps as an active subject?

Methods

What methods can be used and/or developed throughout this project to aid listening to more-than-human subjects present in the Alps?

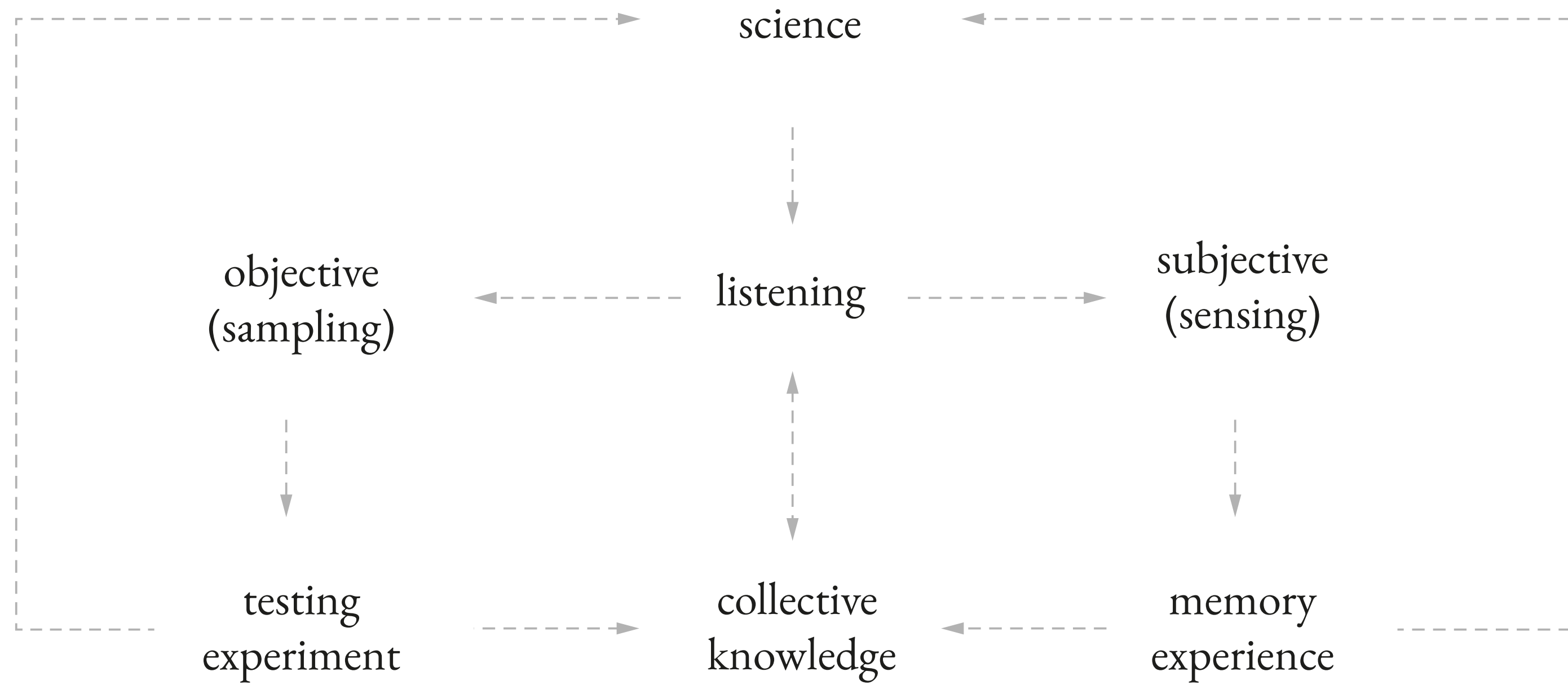
Objective

What are the spatial, cultural, environmental and economic implications if one projects the findings of the natural identity of the Alps onto their territory?

listening
to the Alps

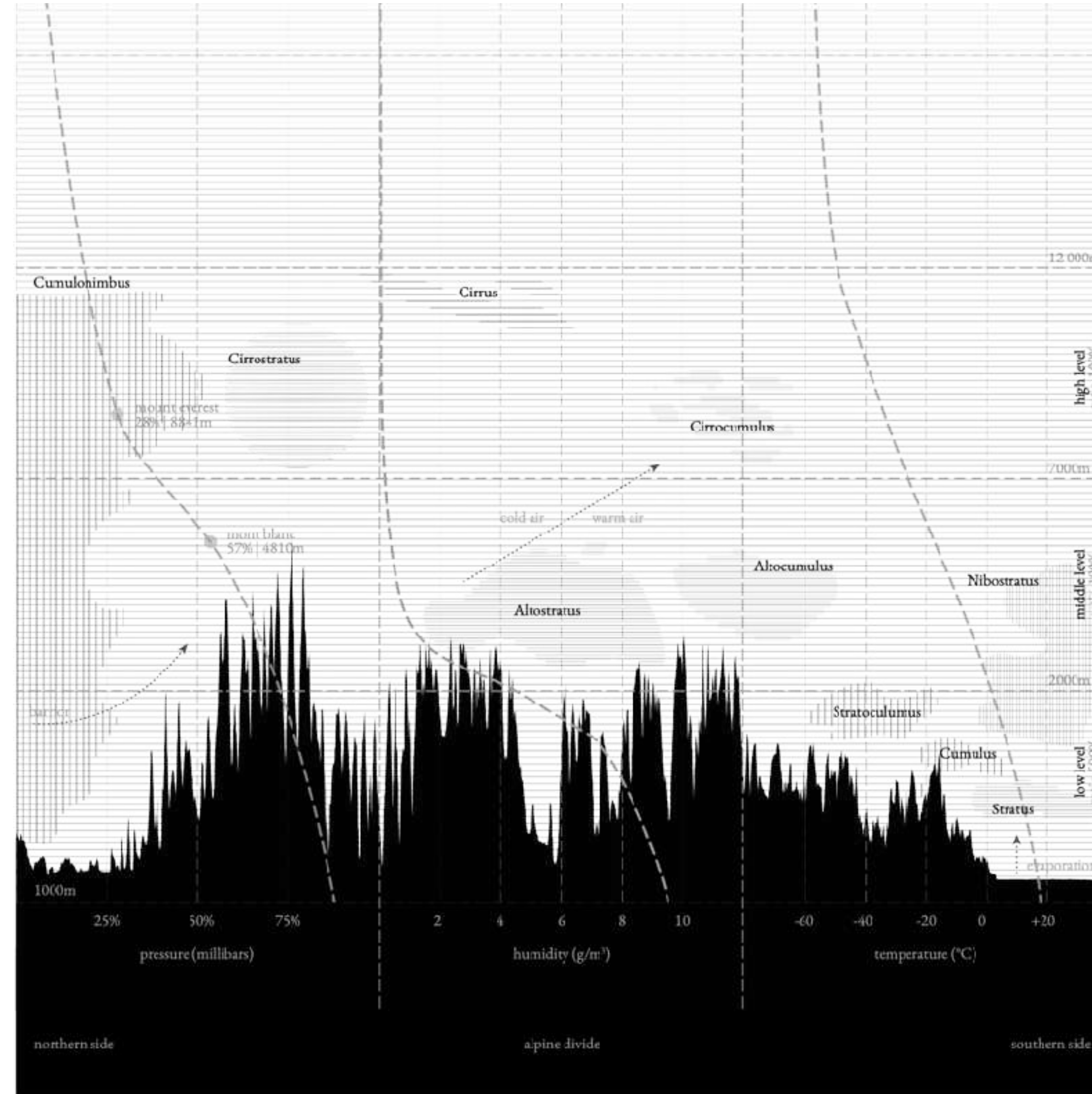
“To listen to and tell a rush of stories is *a method*. And why not make the strong claim and call it a science, an addition to knowledge? Its research object is contaminated diversity; its unit of analysis is the indeterminate encounter. To learn anything we must revitalize arts of noticing and include ethnography and natural history.”

Anna L. Tsing (2021), in *The Mushroom at the End of the World*



who are the Alps?
agency in the web of life





Descriptions of clouds

Stratus/strato: flat/layered and smooth

Cumulus/cumulo: heaped up/puffy, like cauliflower

Cirrus/cirro: high up/wispy

Alto: medium level

Nimbus/Nimbo: rain-bearing cloud

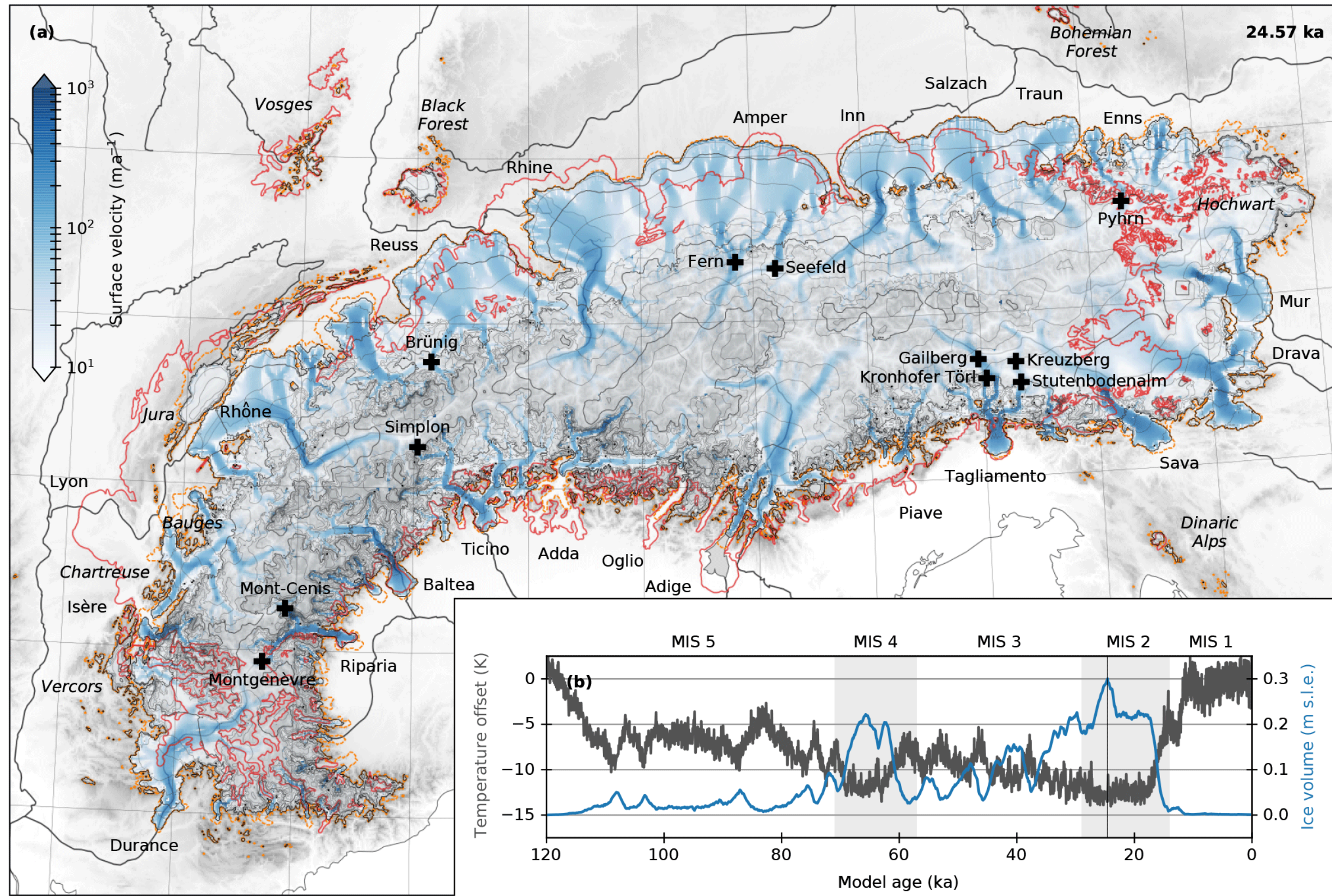


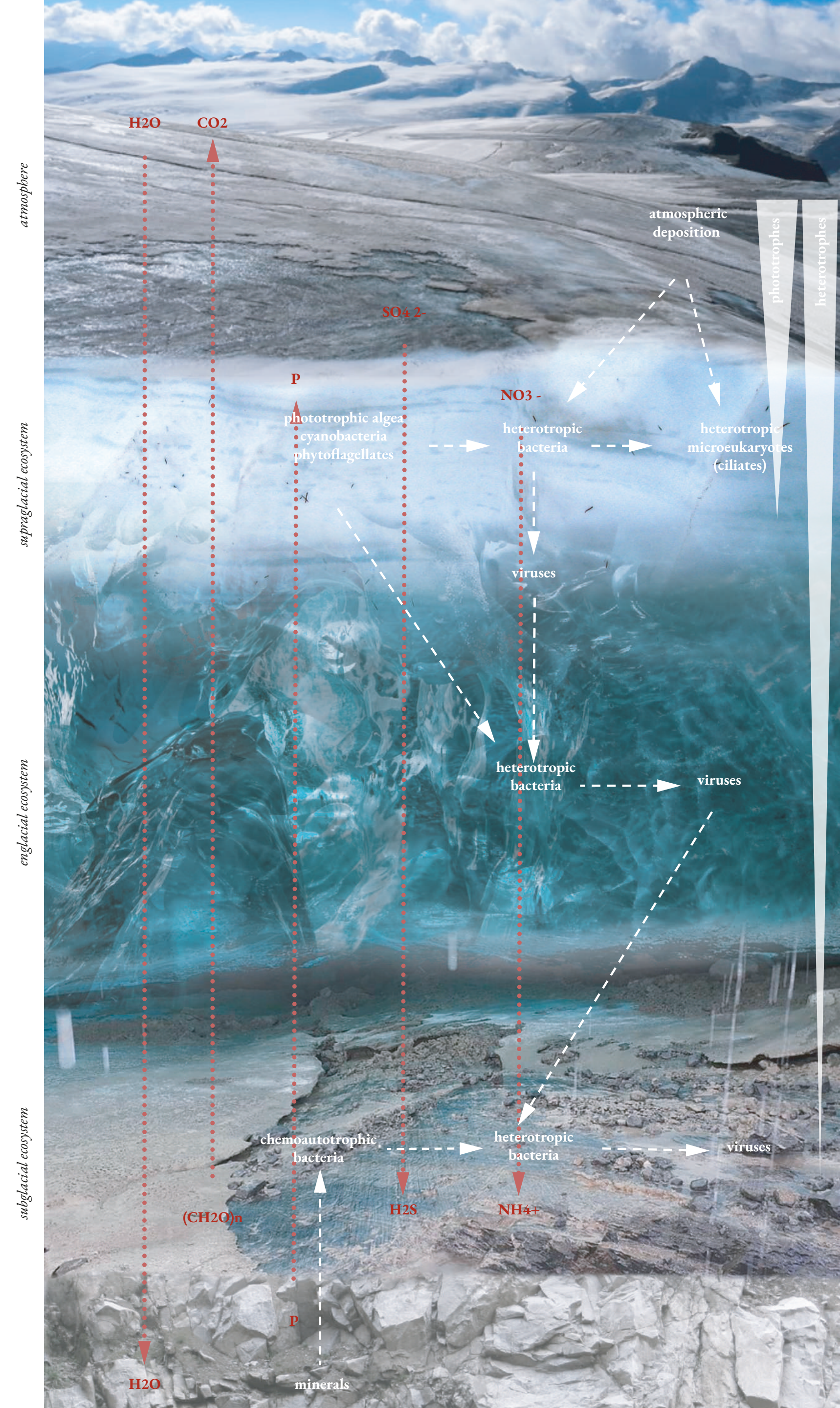




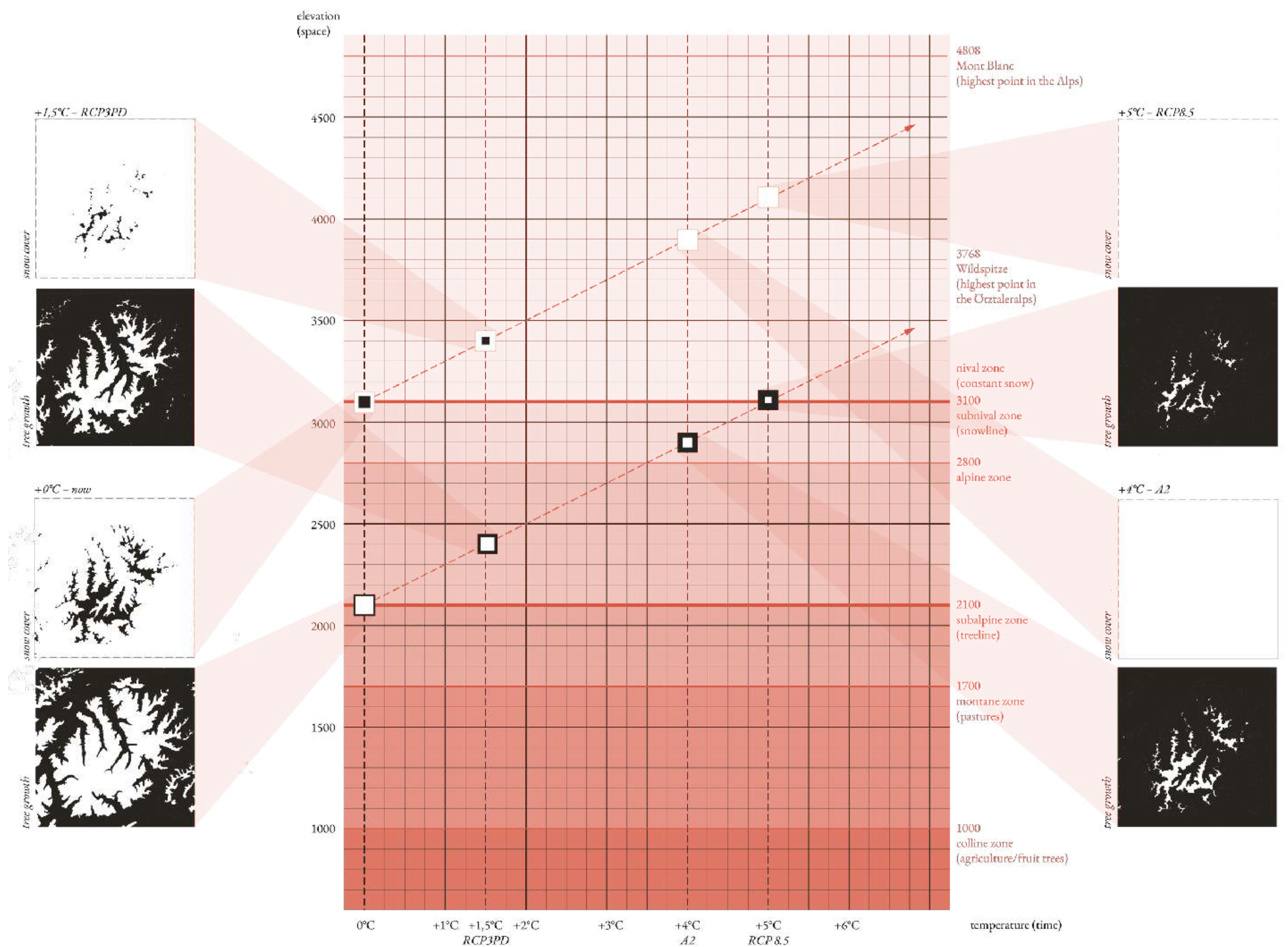








Visualization of the glacial ecosystems of the Gepatsch glacier in the Ötztaler Alps through descriptions in: Garcia-Lopez, E., & Cid, C. (2017). Glaciers and Ice Sheets As Analog Environments of Potentially Habitable Icy Worlds. *Frontiers in Microbiology*, 8



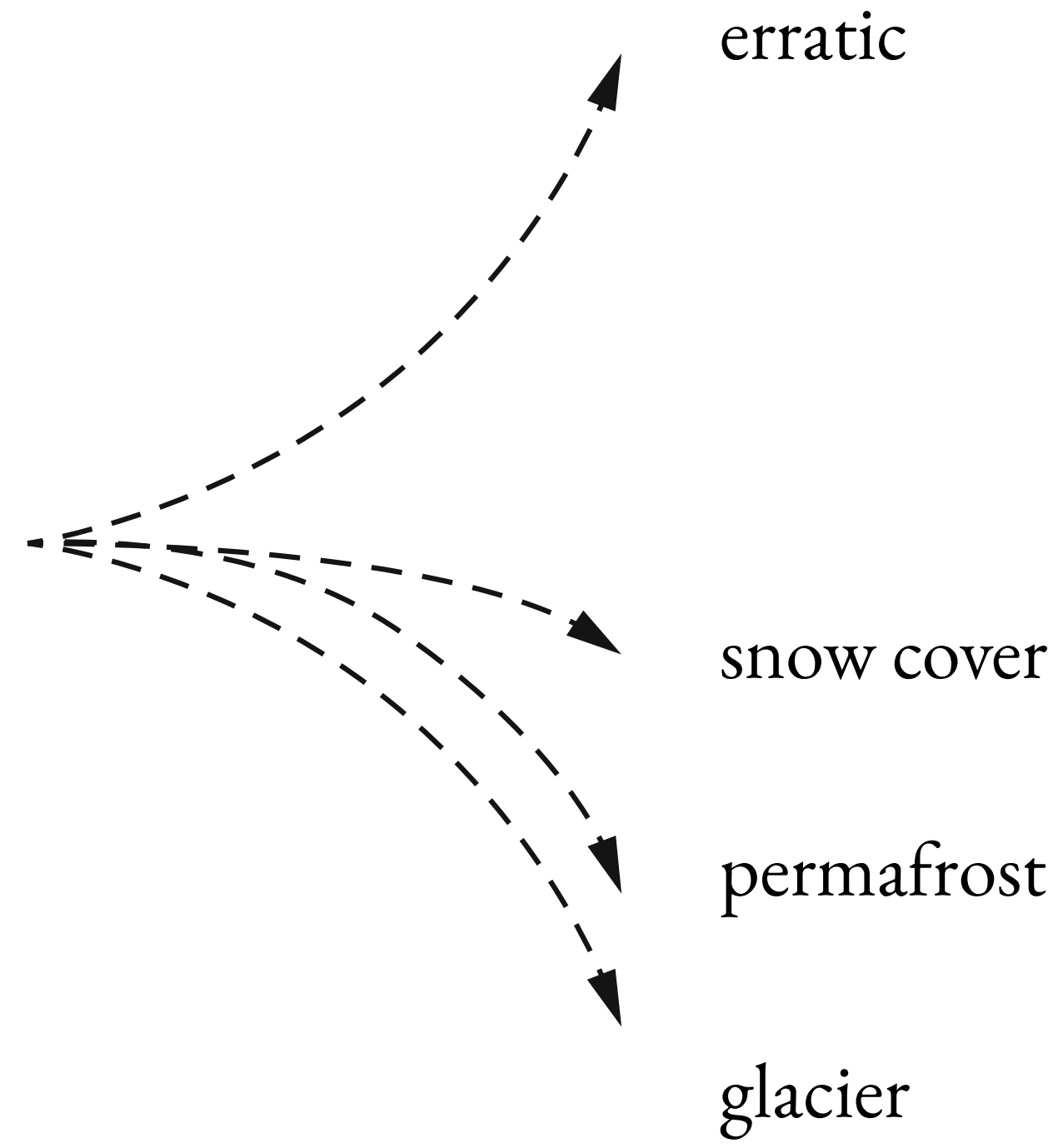


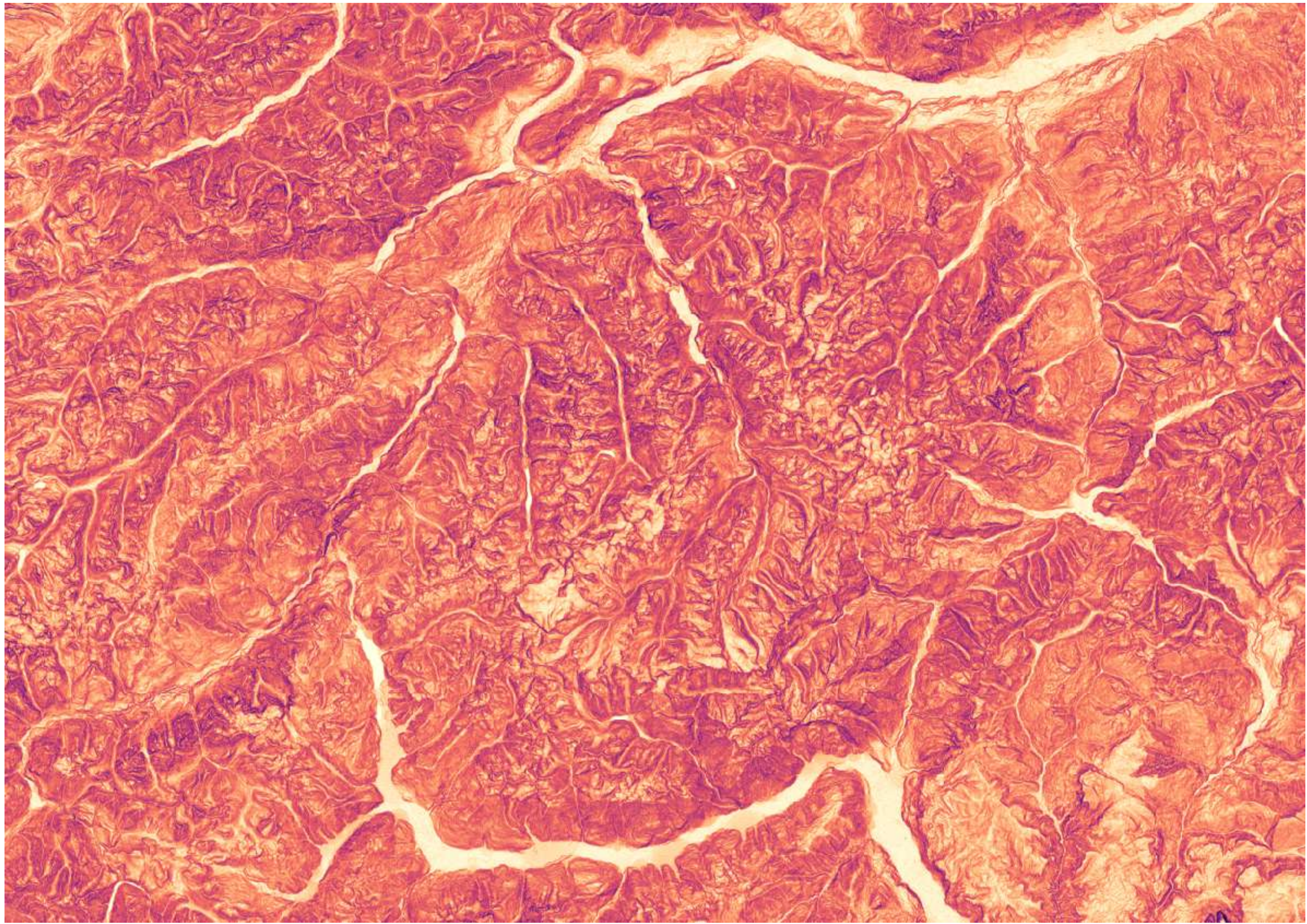
1920
(M. Frey)



2019
(M. Altman)

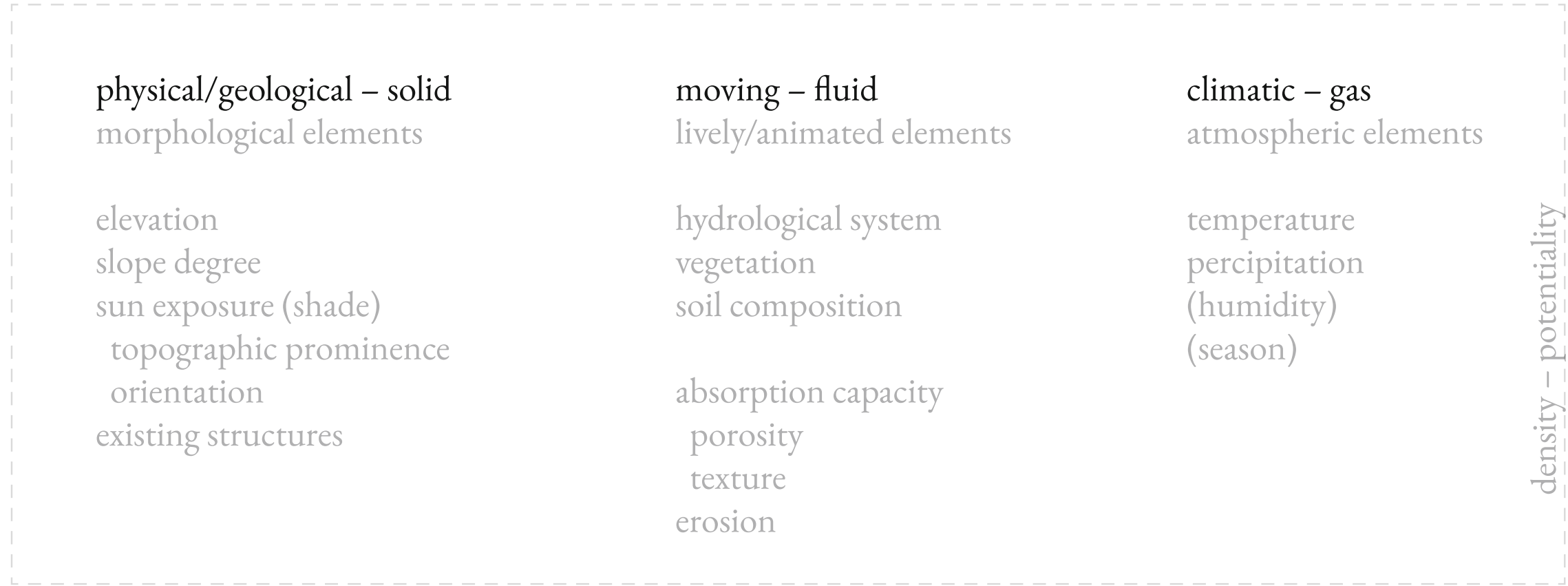
loss of solid state of water



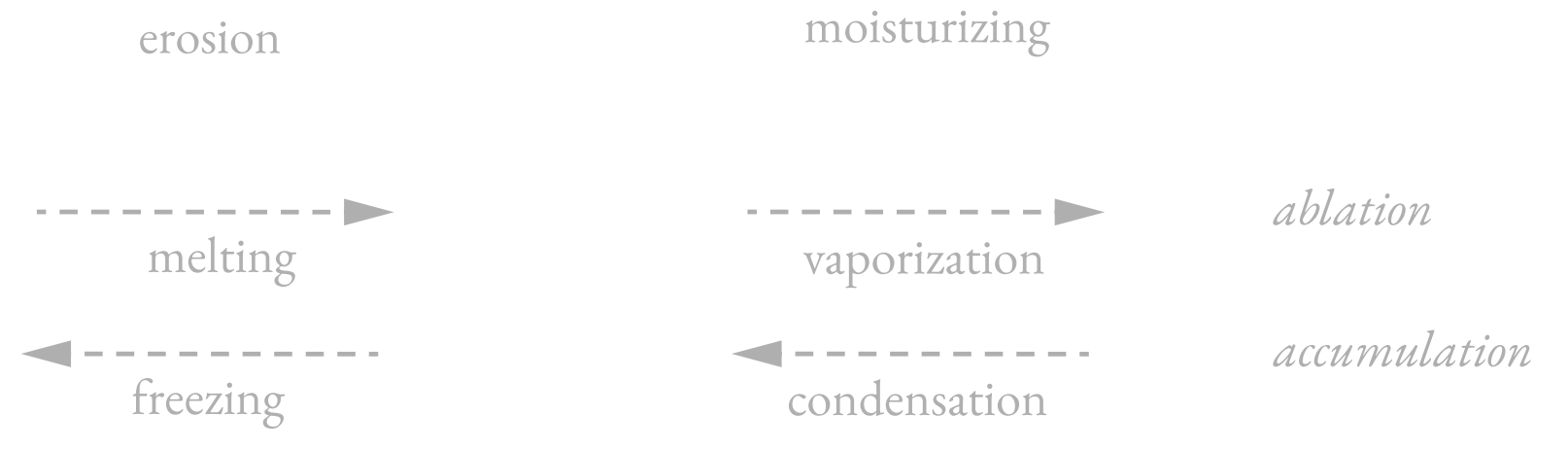


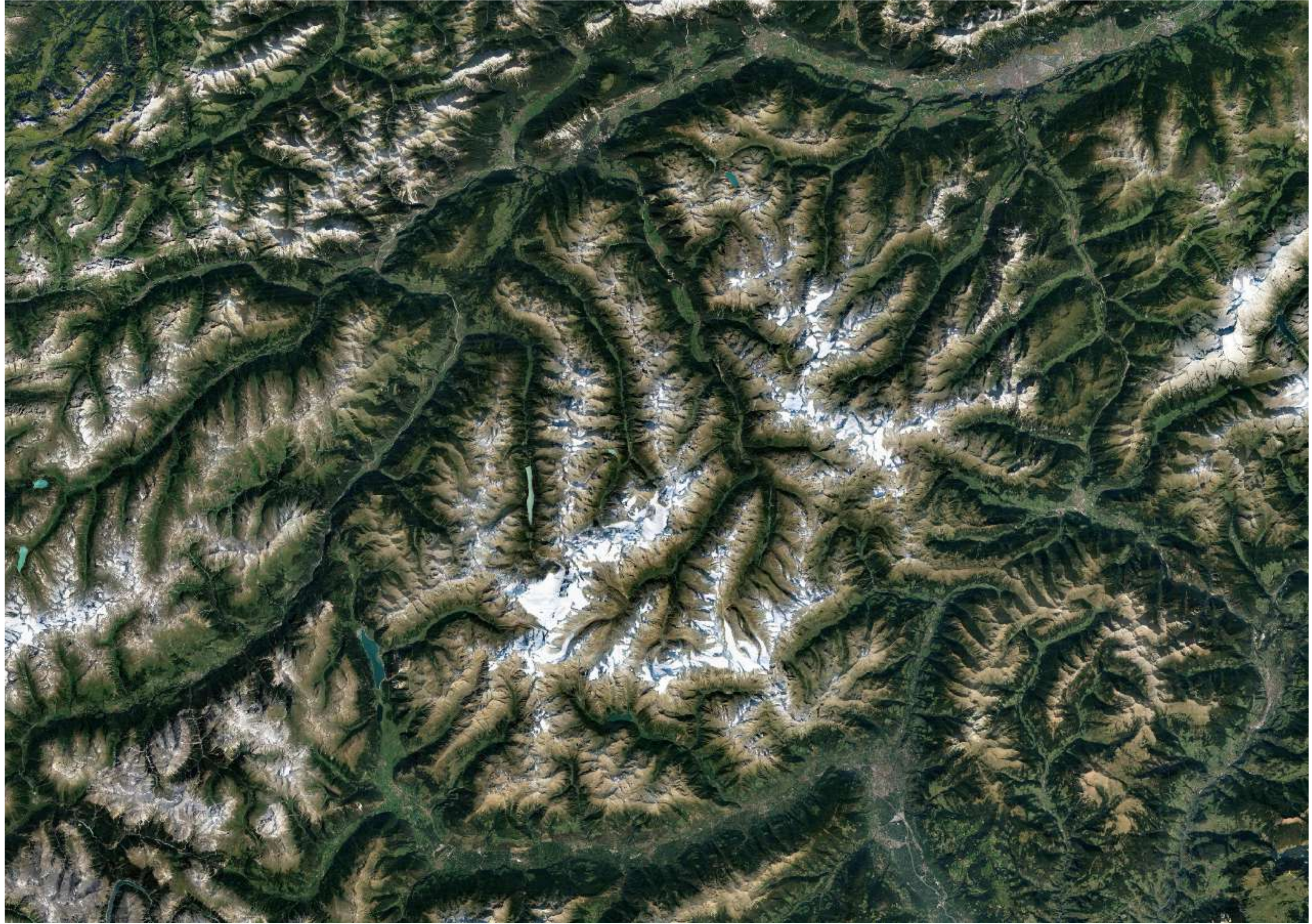
10 km N

slope portraits



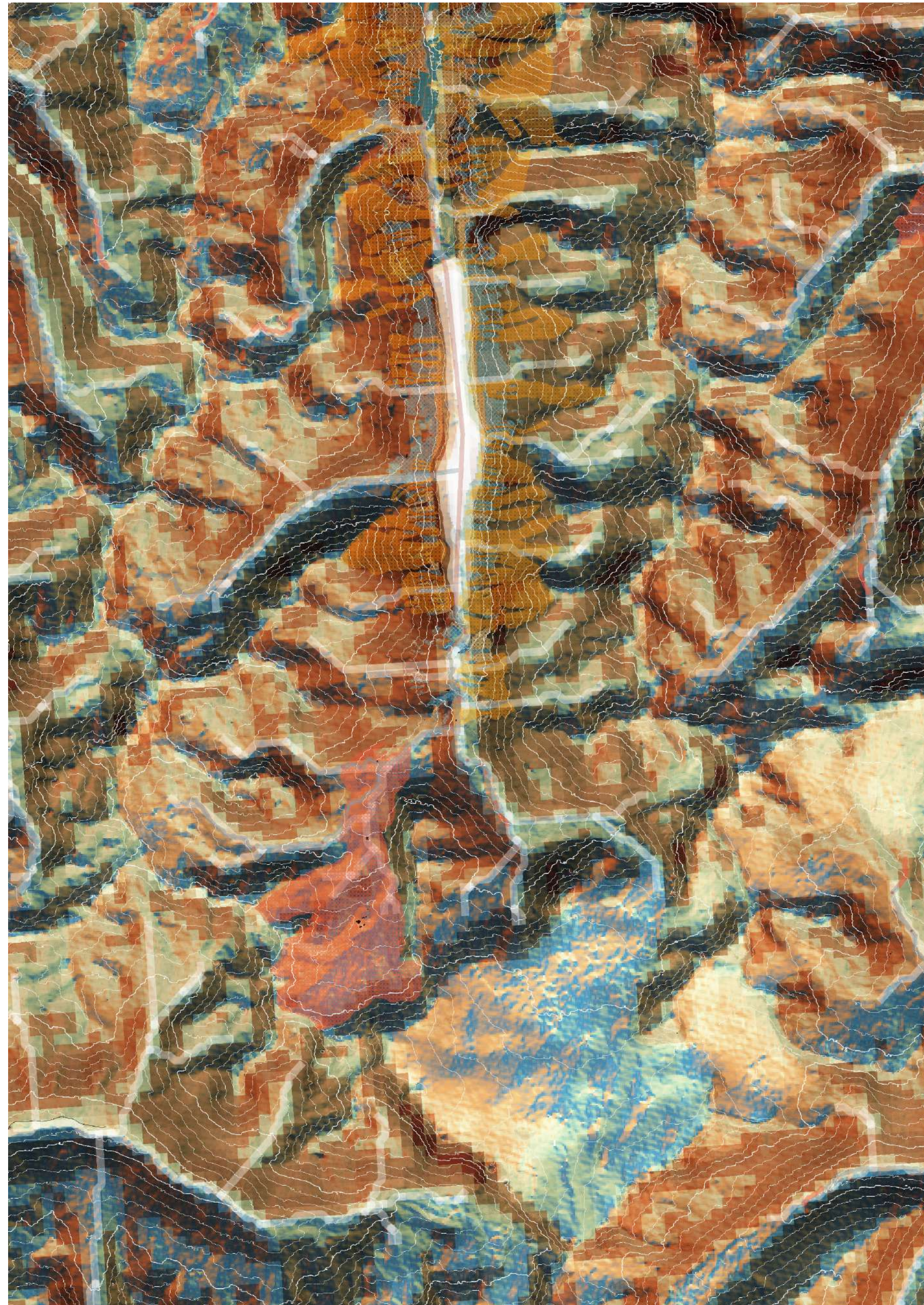
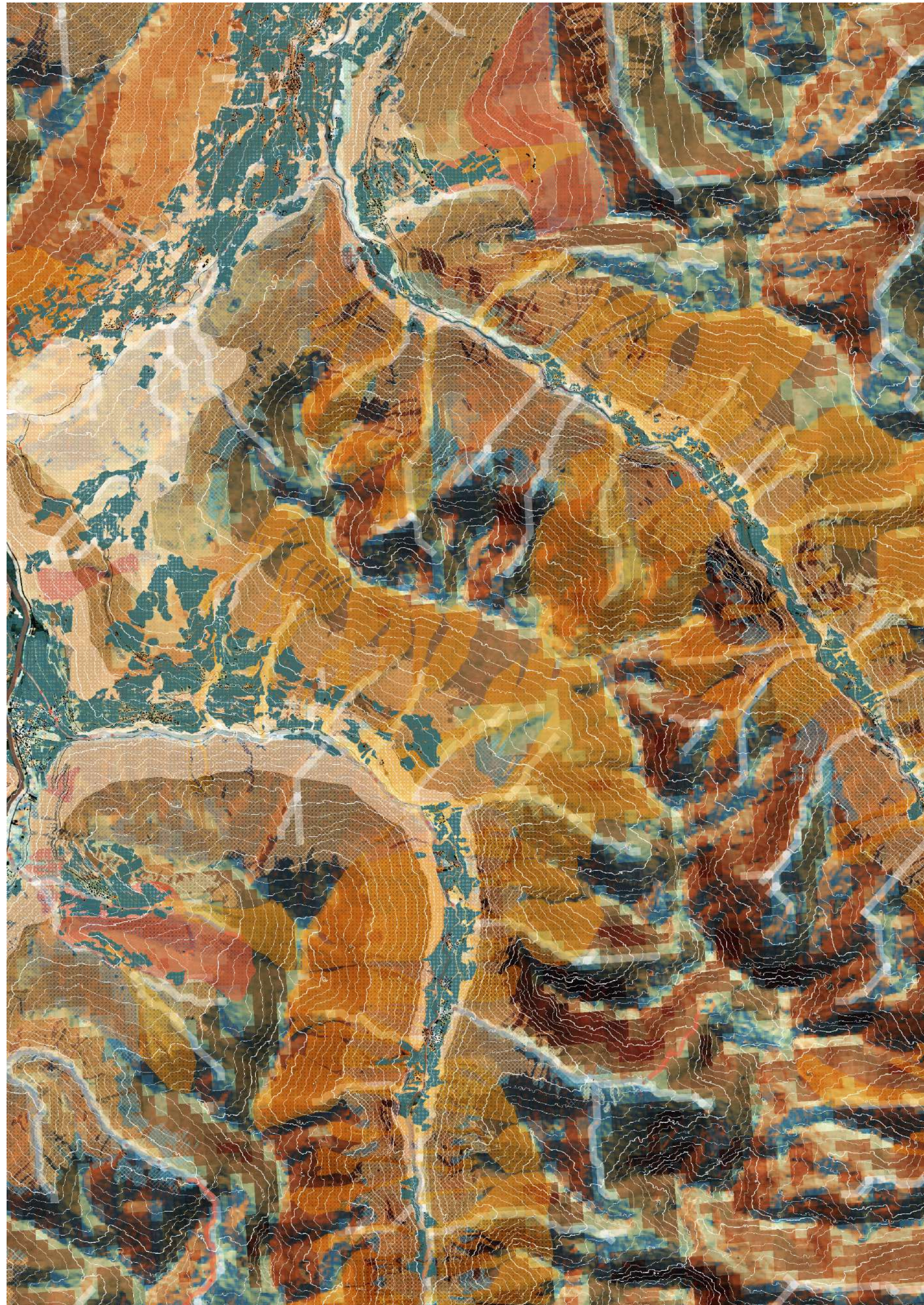
density – potentiality







Kaunertal valley



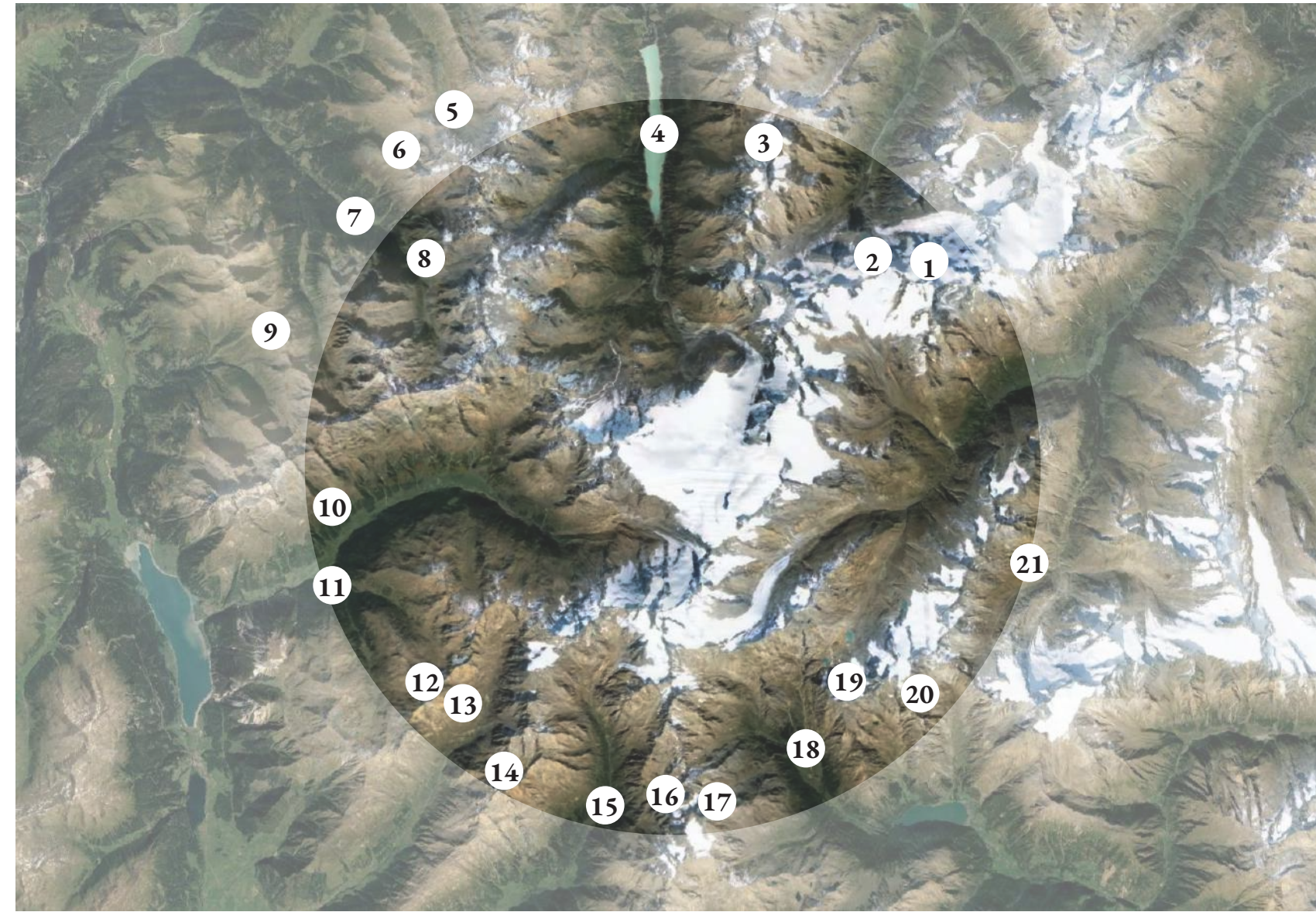
Slope portrait
Kaunertal valley, Austria

Solid elements

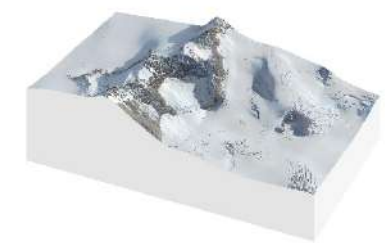
- slope degree
- <5
- 5-15
- 15-30
- 30-45
- >45
- slope degree
- 0
- 90
- orientation
- North
- East
- West
- South
- height line (500m)
- height line (100m)
- truck road
- primary road
- secondary/tertiary road
- building

Fluid elements

- river
- river morphology
- natural
- nearly natural
- obstructed
- far from natural
- dam
- flood zones or agricultural land
- avalanche cone
- skiing resort
- spruce forest
- green alder bush/-forest
- crooked wood stock
- larch forest/meadow
- softwood meadow
- pine forest
- protective forest out of yield
- protective forest out of yield – crooked wood
- protective forest in yield
- commercial forest – medium protective capacity
- commercial forest
- natural monument
- Biotope



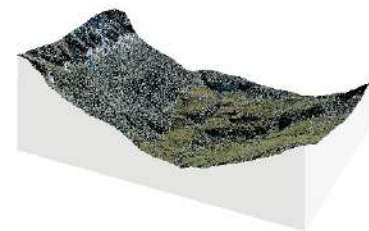
220 | Locations of the spatial quality axonometries



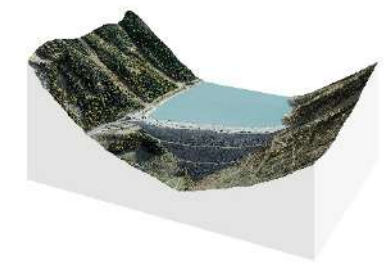
1 Pitztal glacier



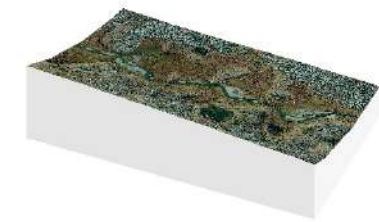
2 Pitztal skiing resort



3 Kaunergrat Marsh



4 Gepatsch storage lake



5 Platzertal



6 Wildmoos - Hochjoch



7 Wildmoos pasture



8 Wildnörderer



9 Nauderer - Tscheybach



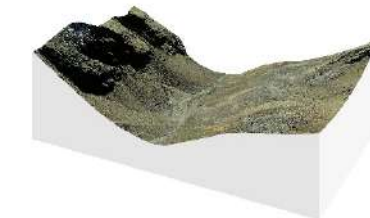
10 Melago lakes



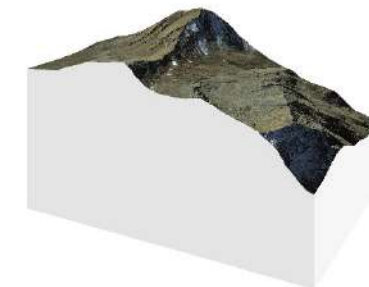
11 Tiergartenspitze pastures



12 Tiergartenspitze catchment



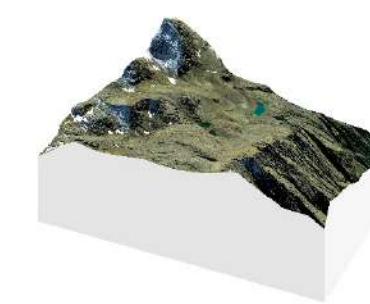
13 Planeital delta



14 crest between Planeital and Matschertal



15 Matschertal pasture



16 Lagaunspitze lake landscape



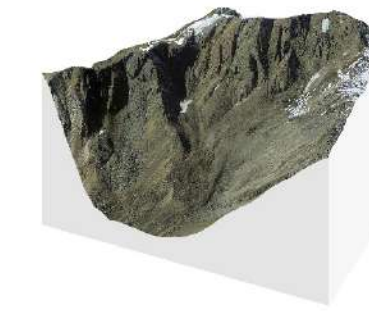
17 Lagaunspitze Maso Corto oriented



18 Maso Corto skiing resort valley



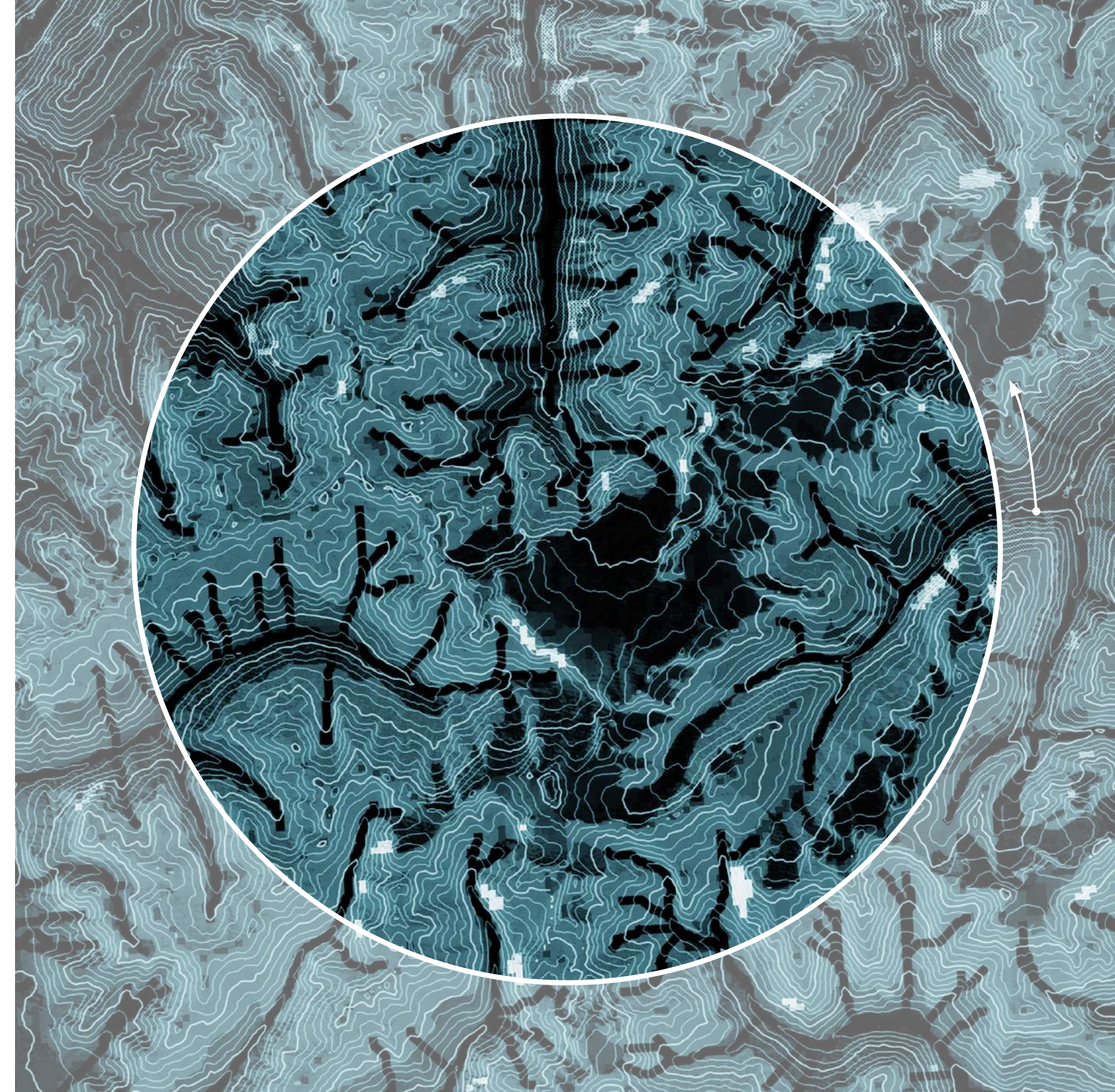
19 Maso Corto skiing resort

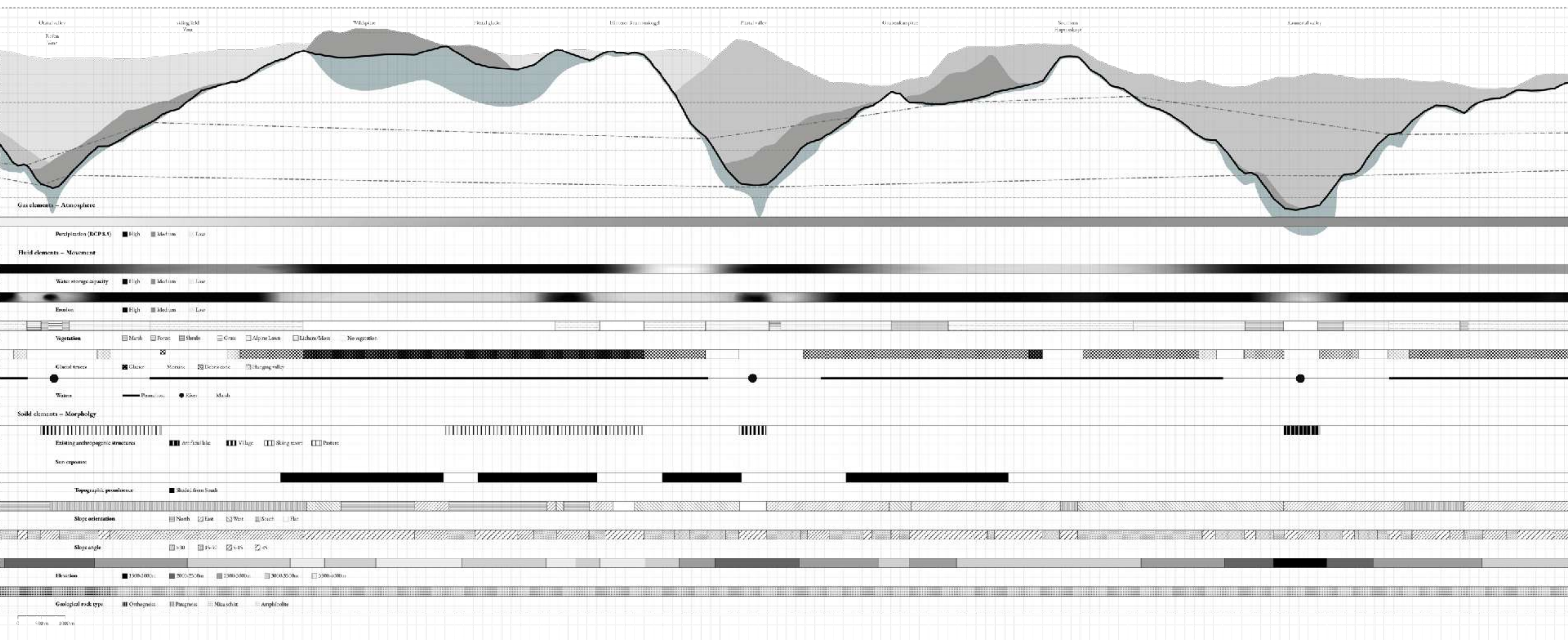


20 Ötzi the ice man place of discovery



21 Kreuzkamm mountain crest, Niedertalbach stream





Obwalden

St. Gallen

Waldgipfel

Plattfelder

Hörnli-Baumkogel

Plattfelder

Grödenkapelle

Southern

Emmental valley

moisture content
(% of water)

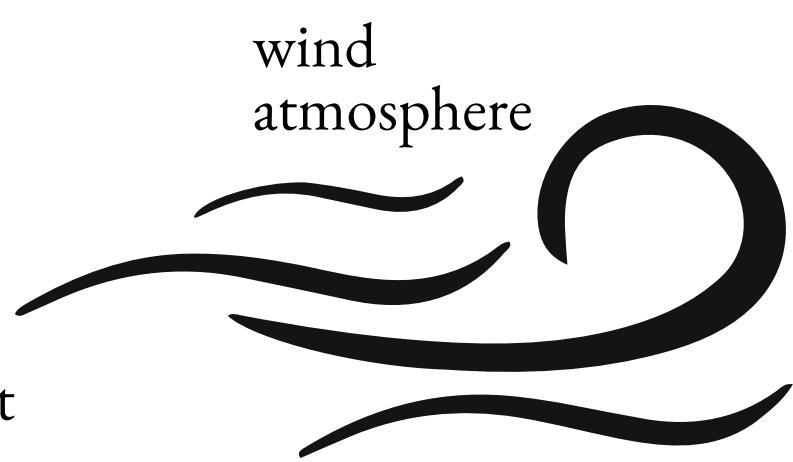
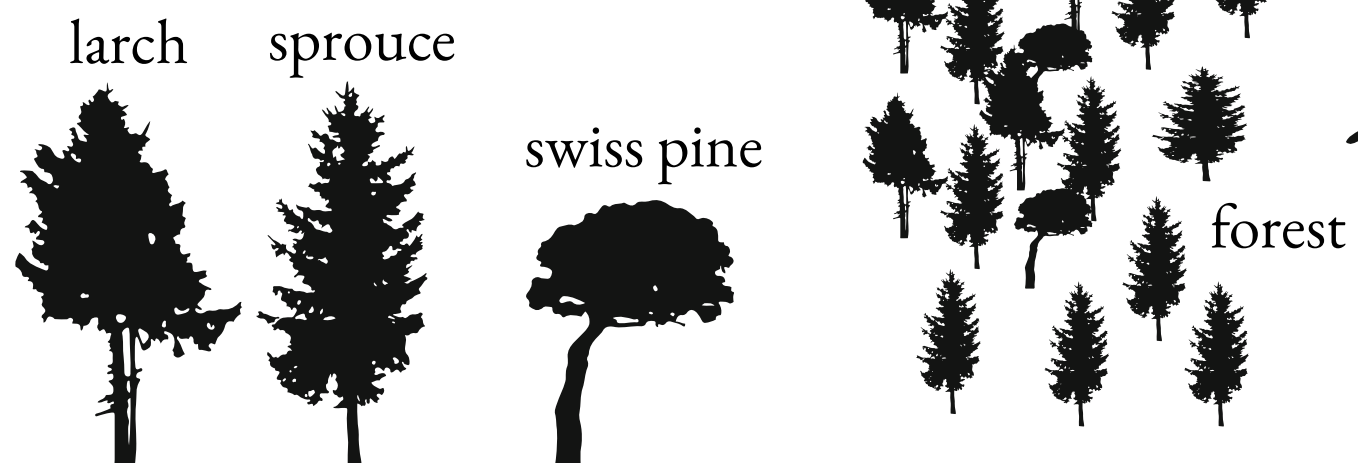
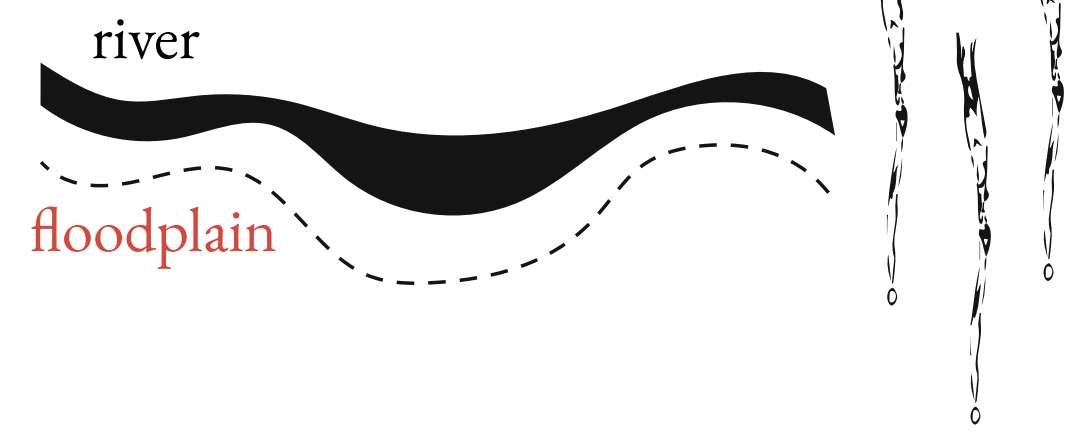
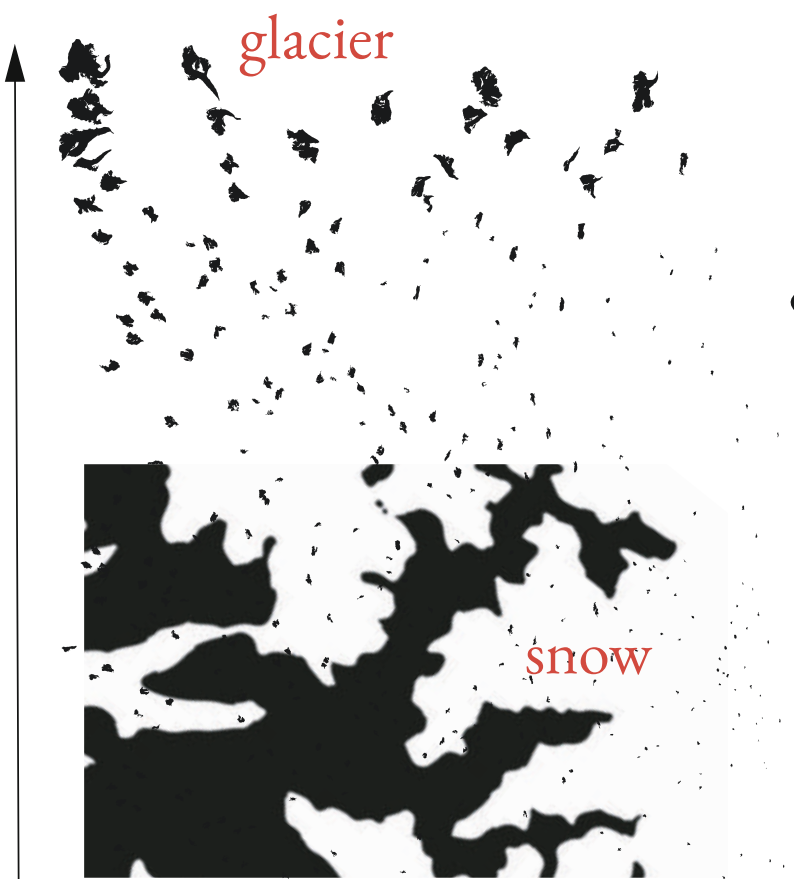
100

water

soil

0

standing still



lithosol
100
movement

erosion
(speed of water)

glacier

snow

lake

stream

river

floodplain

rain

larch

spruce

swiss pine

alluvial forest

terrestrial soil

forest

wind
atmosphere

hydromorph soil

marsh

lithosol

100

movement

erosion
(speed of water)



The ocean in the Alps
Otztal Alps, Austria and Italy

Ocean depth

shallow

deep

— height line (500m)

— height line (100m)

Shaping the Alpine Ocean

supporting

upwards shifting vegetation

retaining

run-off water

spreading

river beds

protecting

sedimentation deposits

reviving

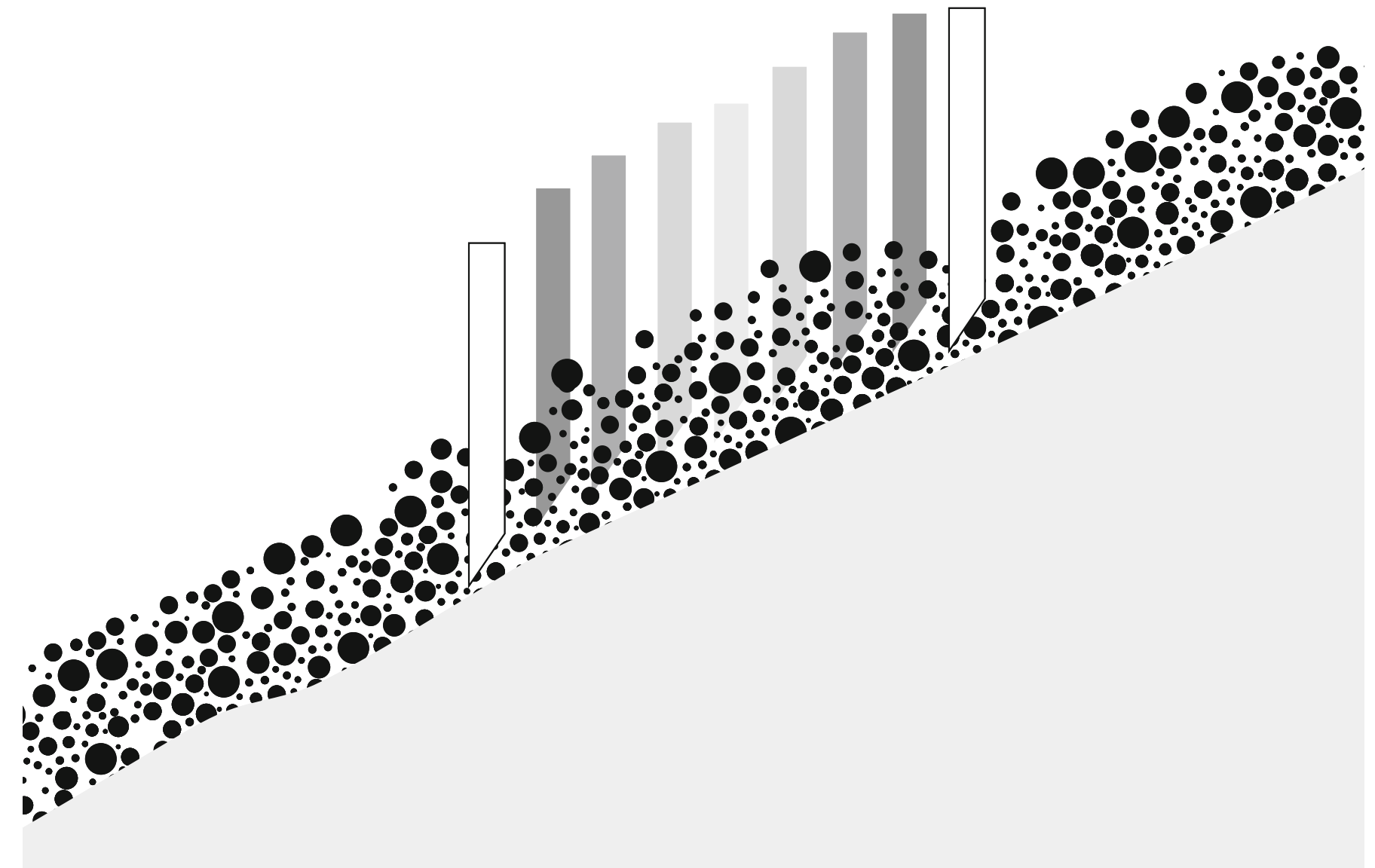
industrial landscapes

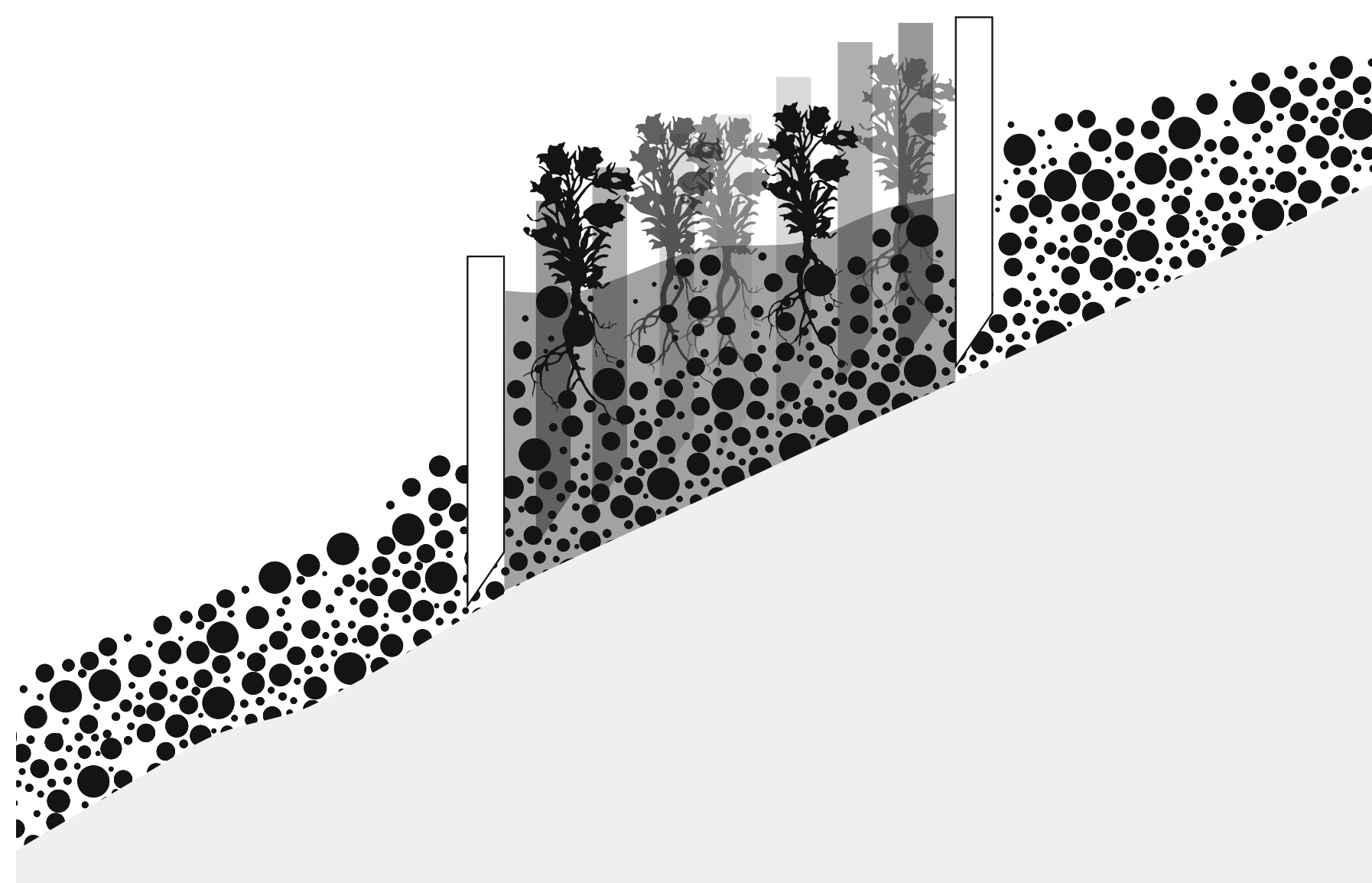
preserving

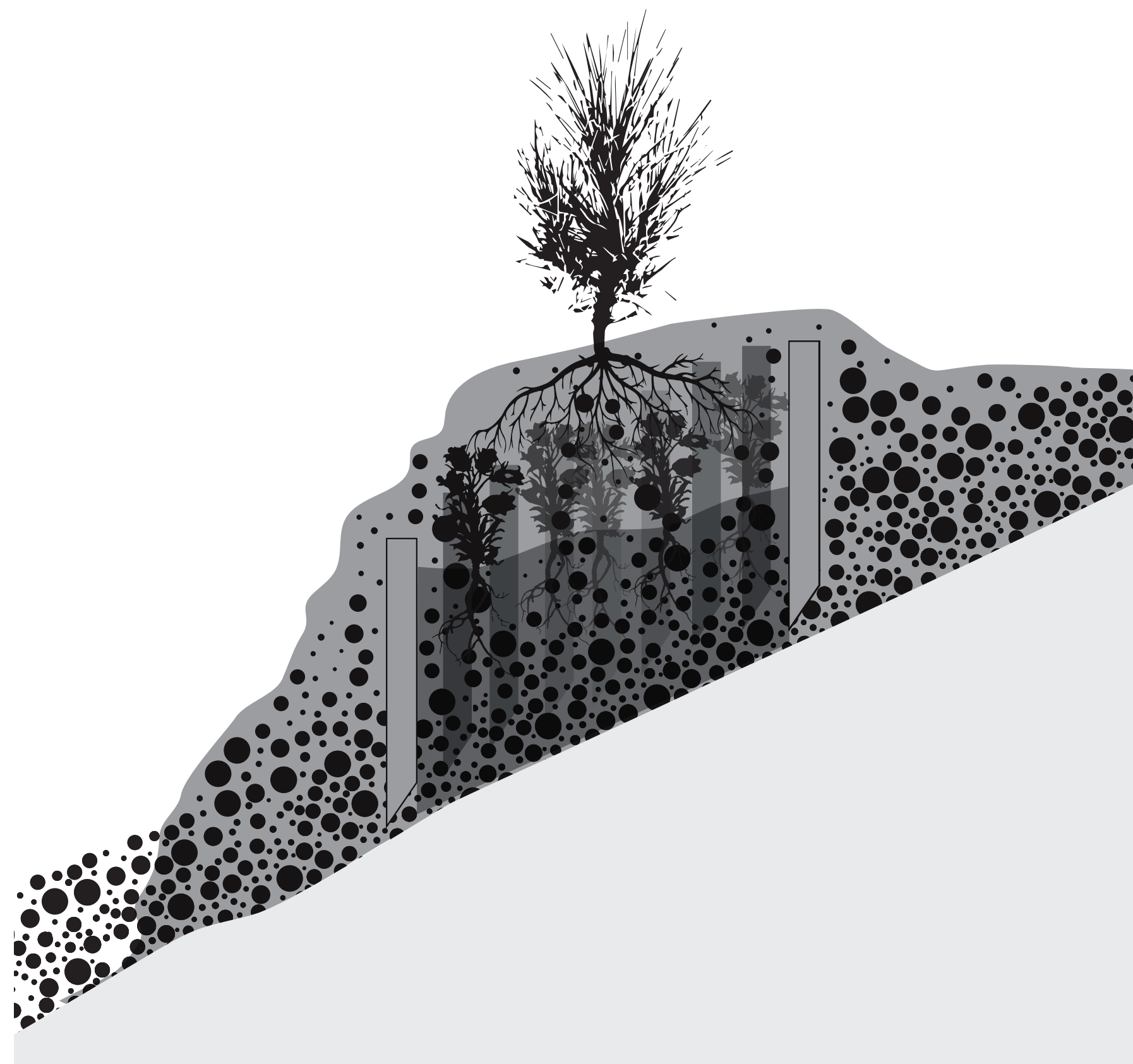
frozen freshwater

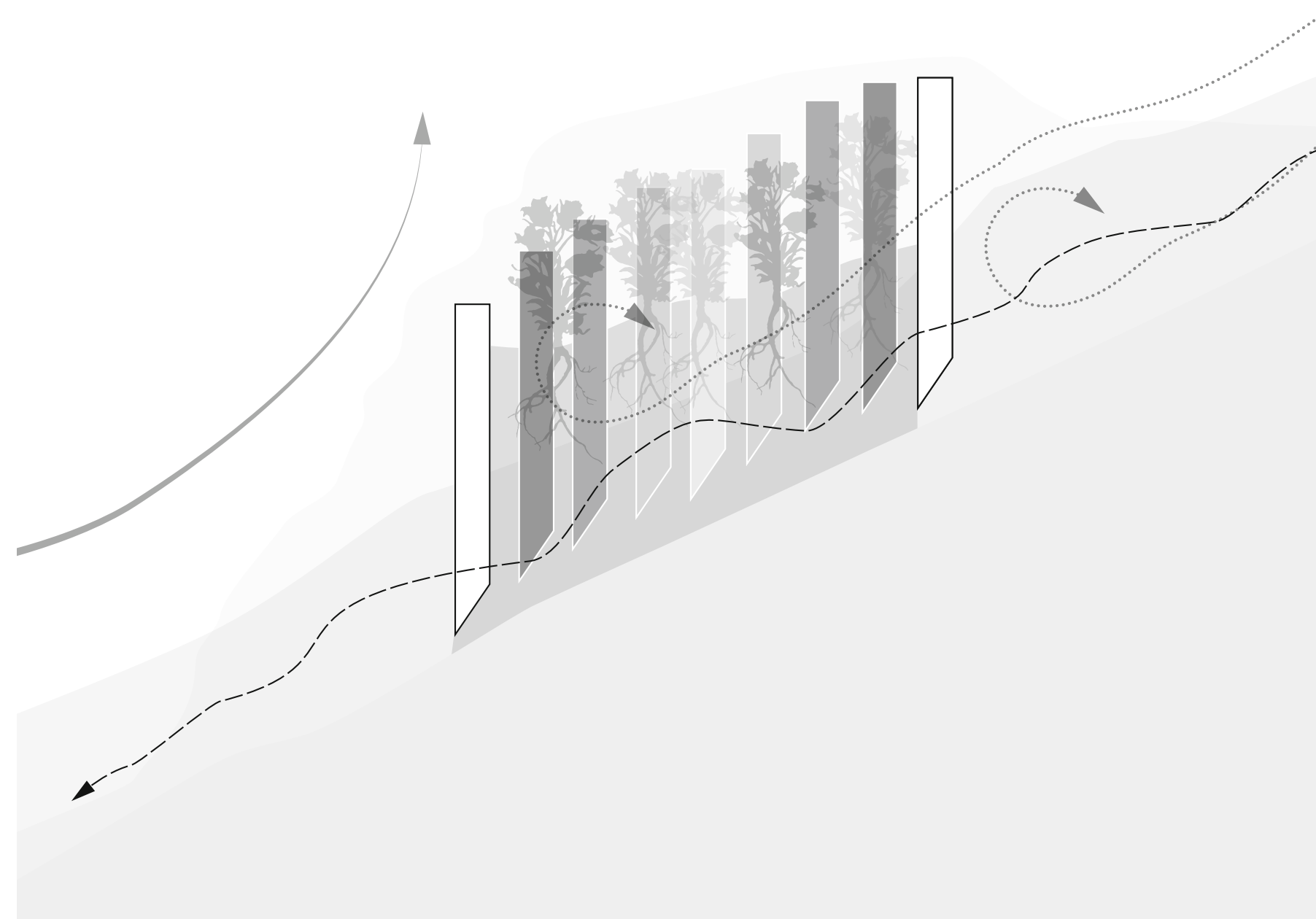


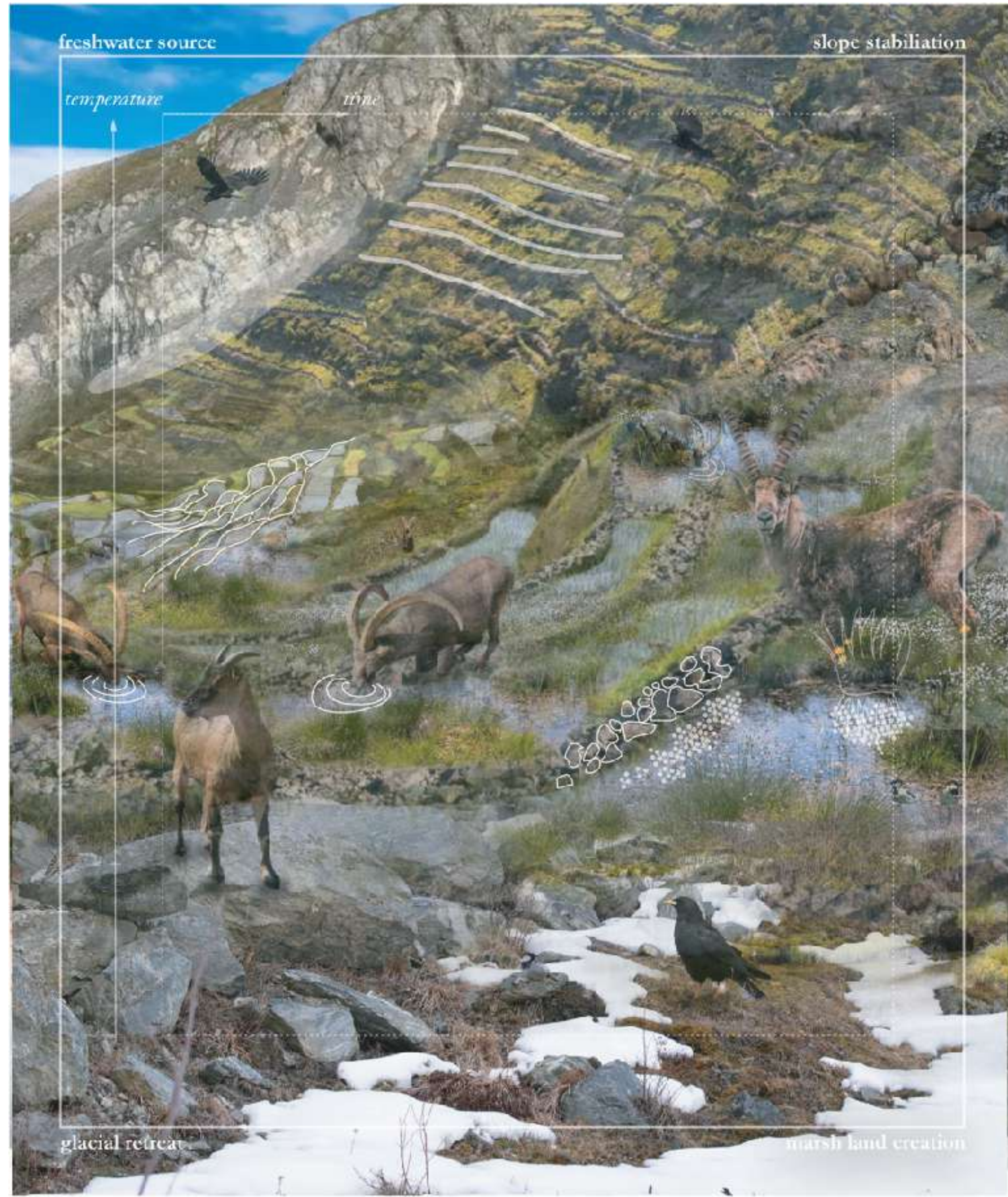
supporting
upwards shifting vegetation



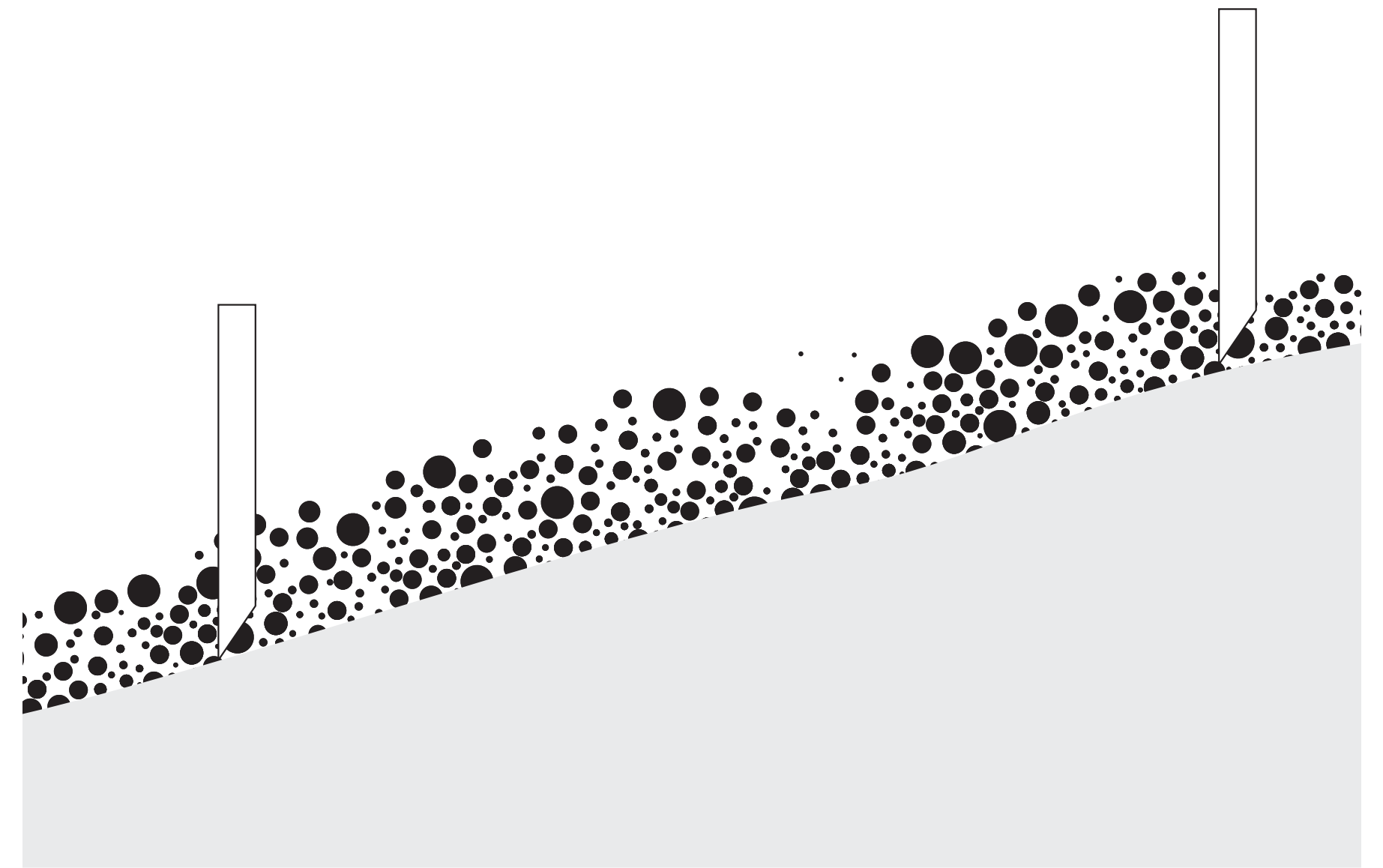


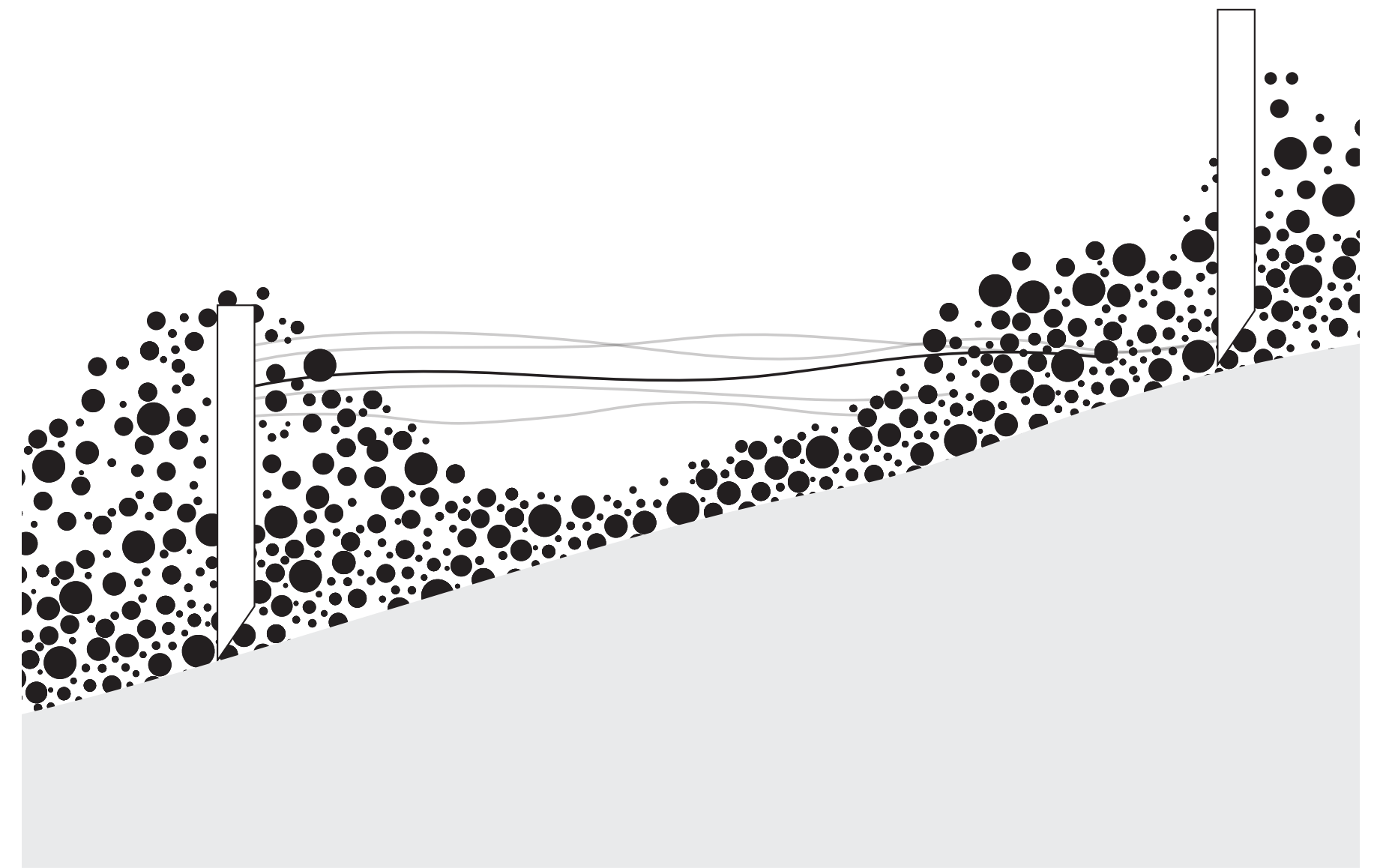




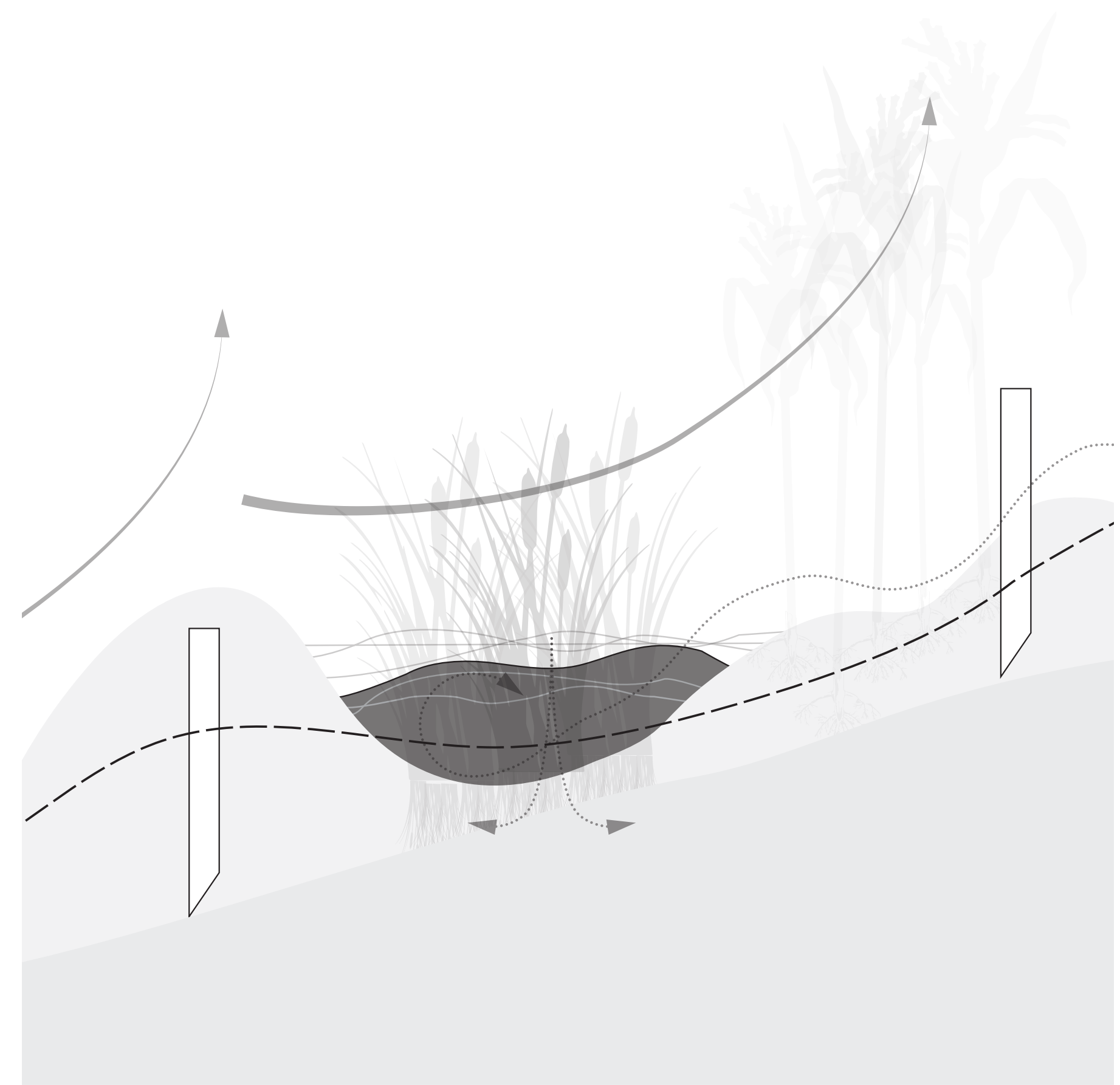


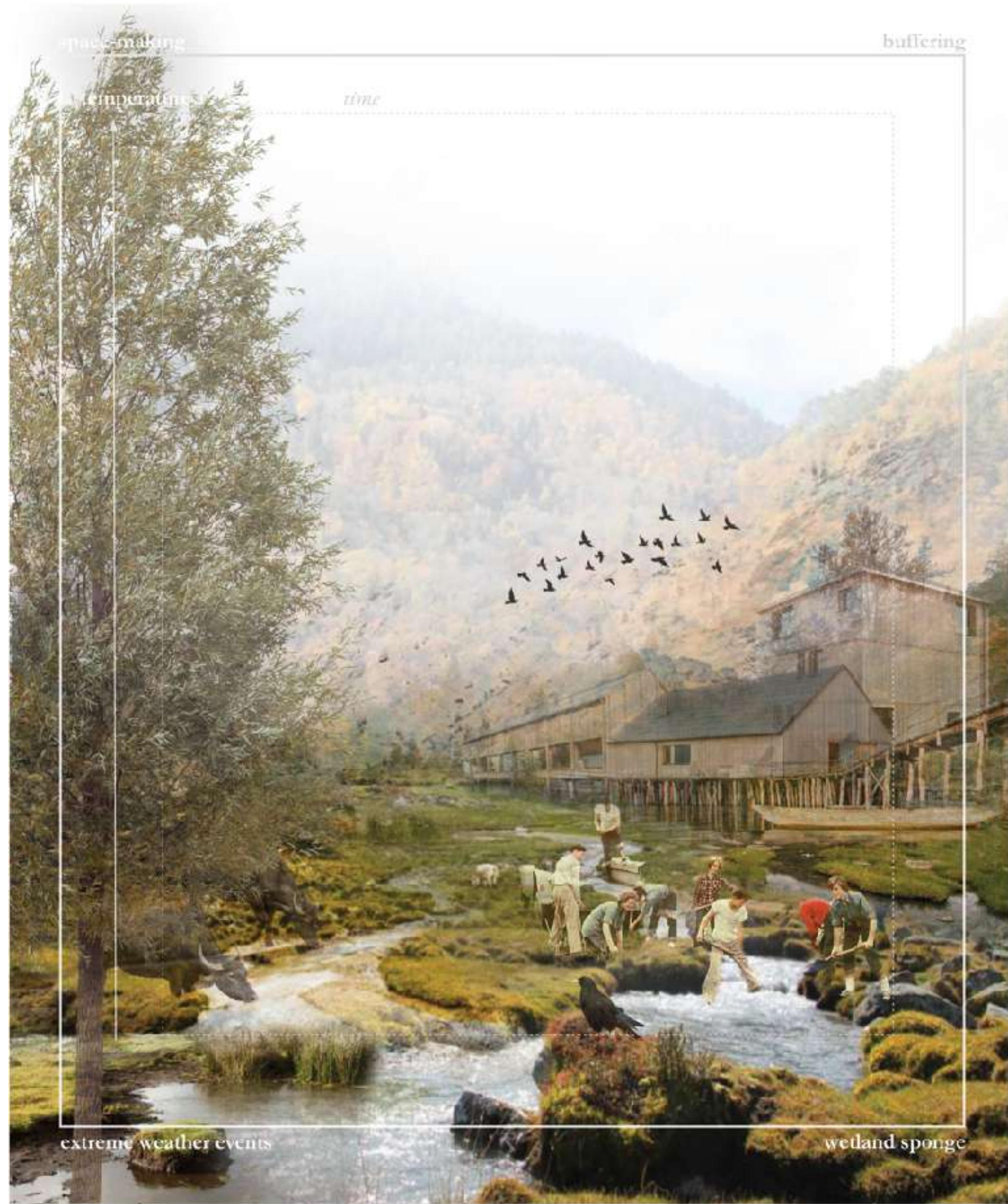
retaining
run-off water



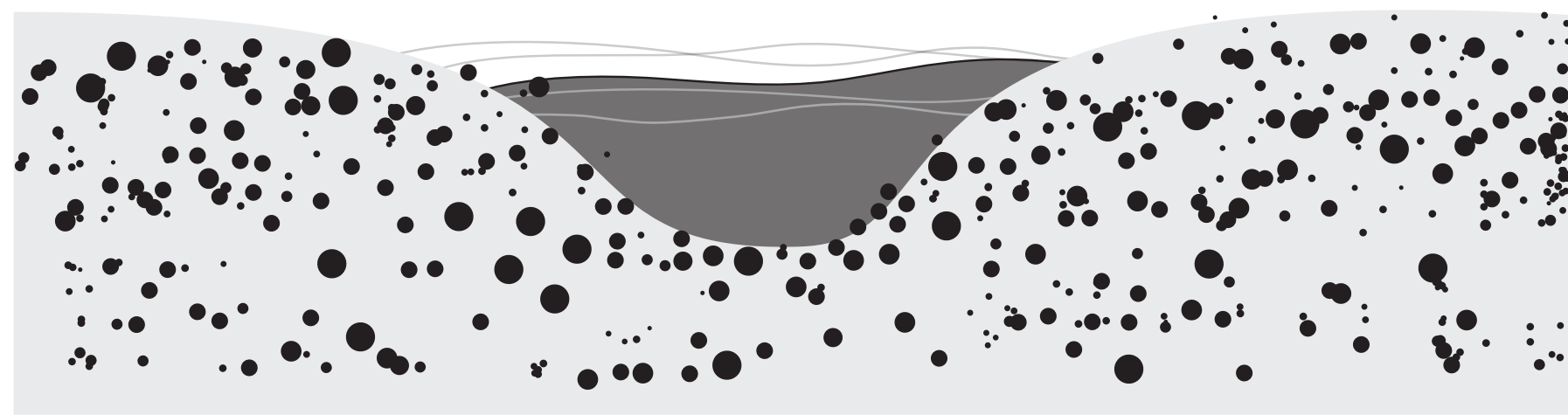


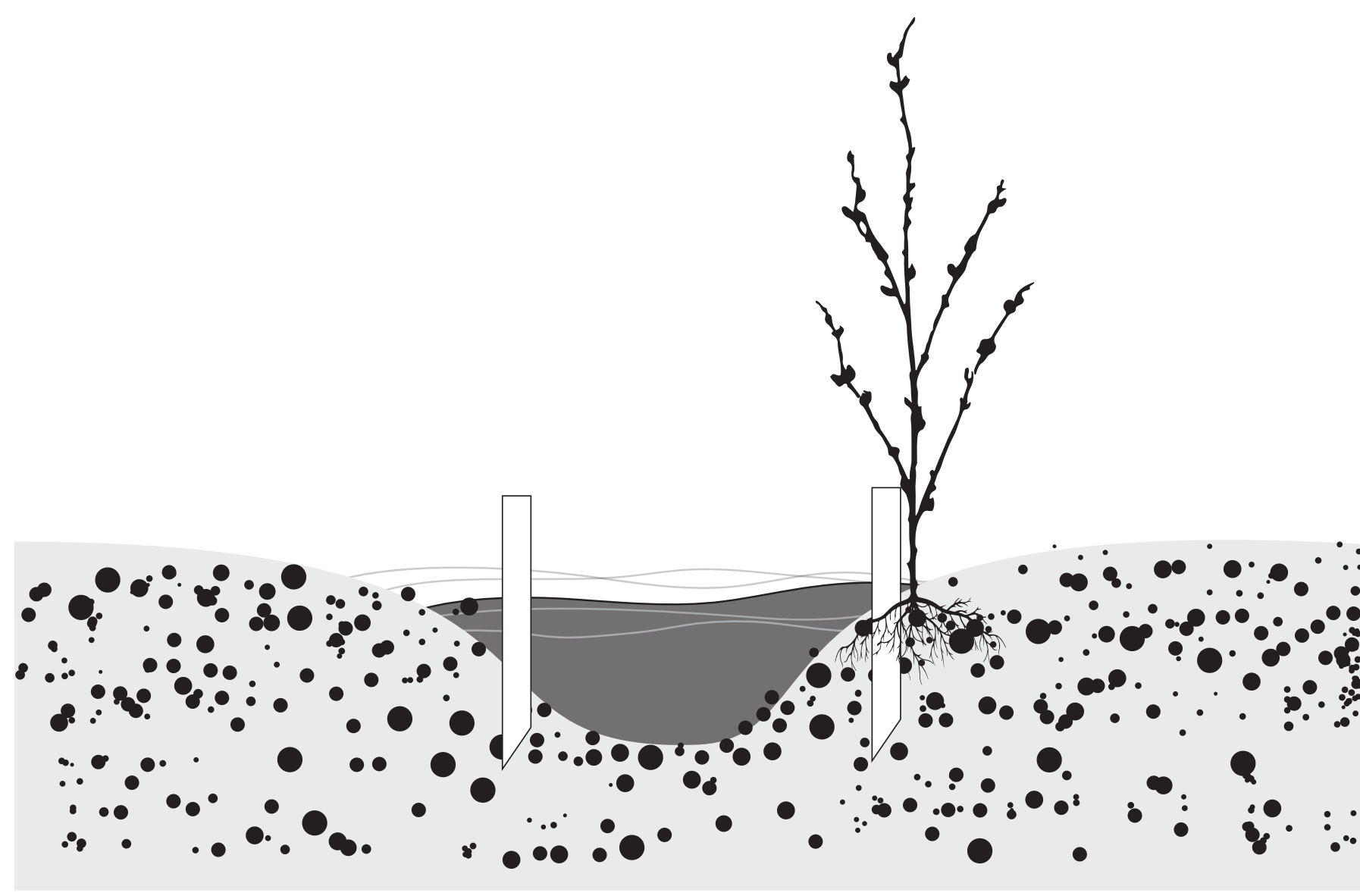


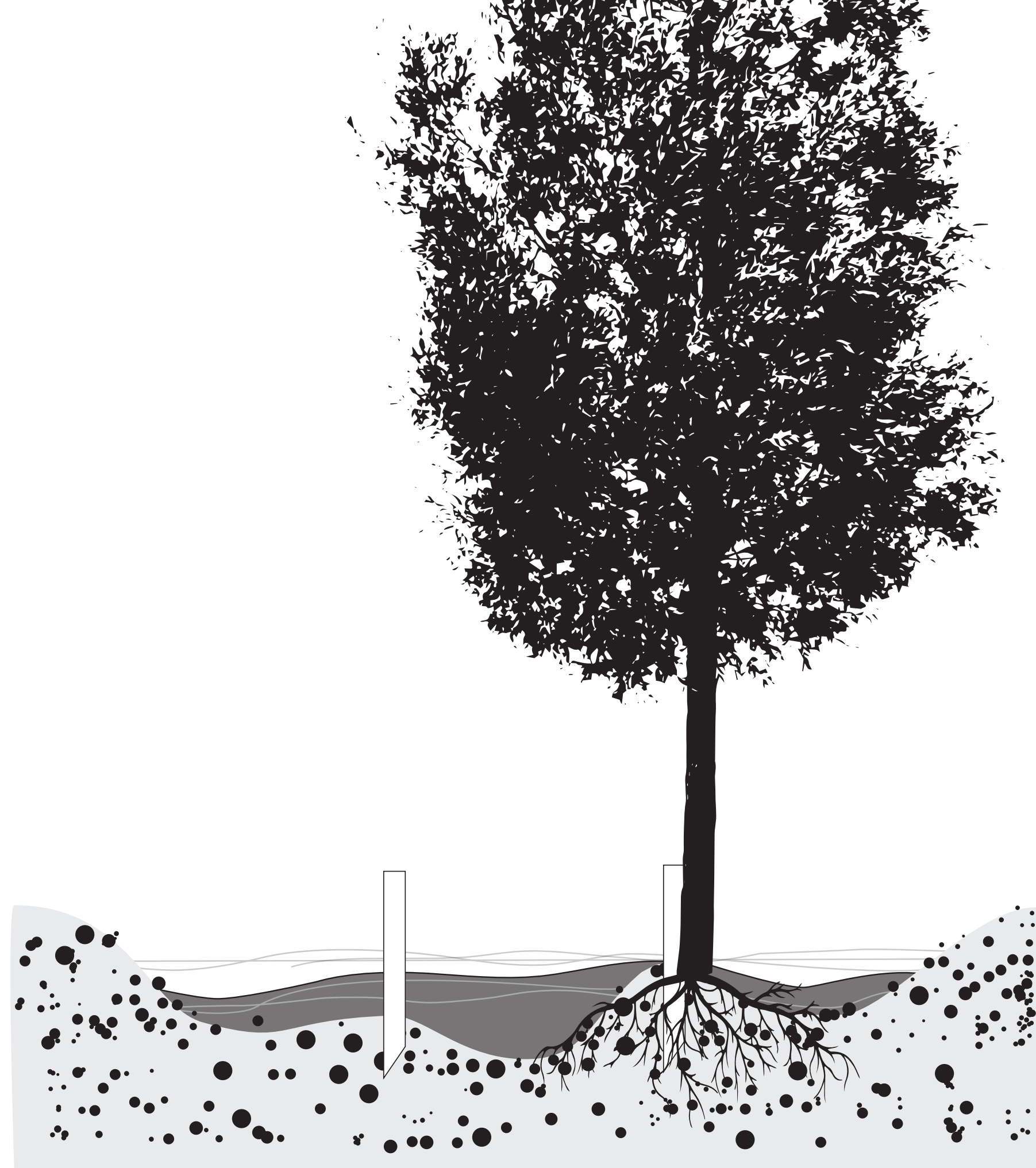


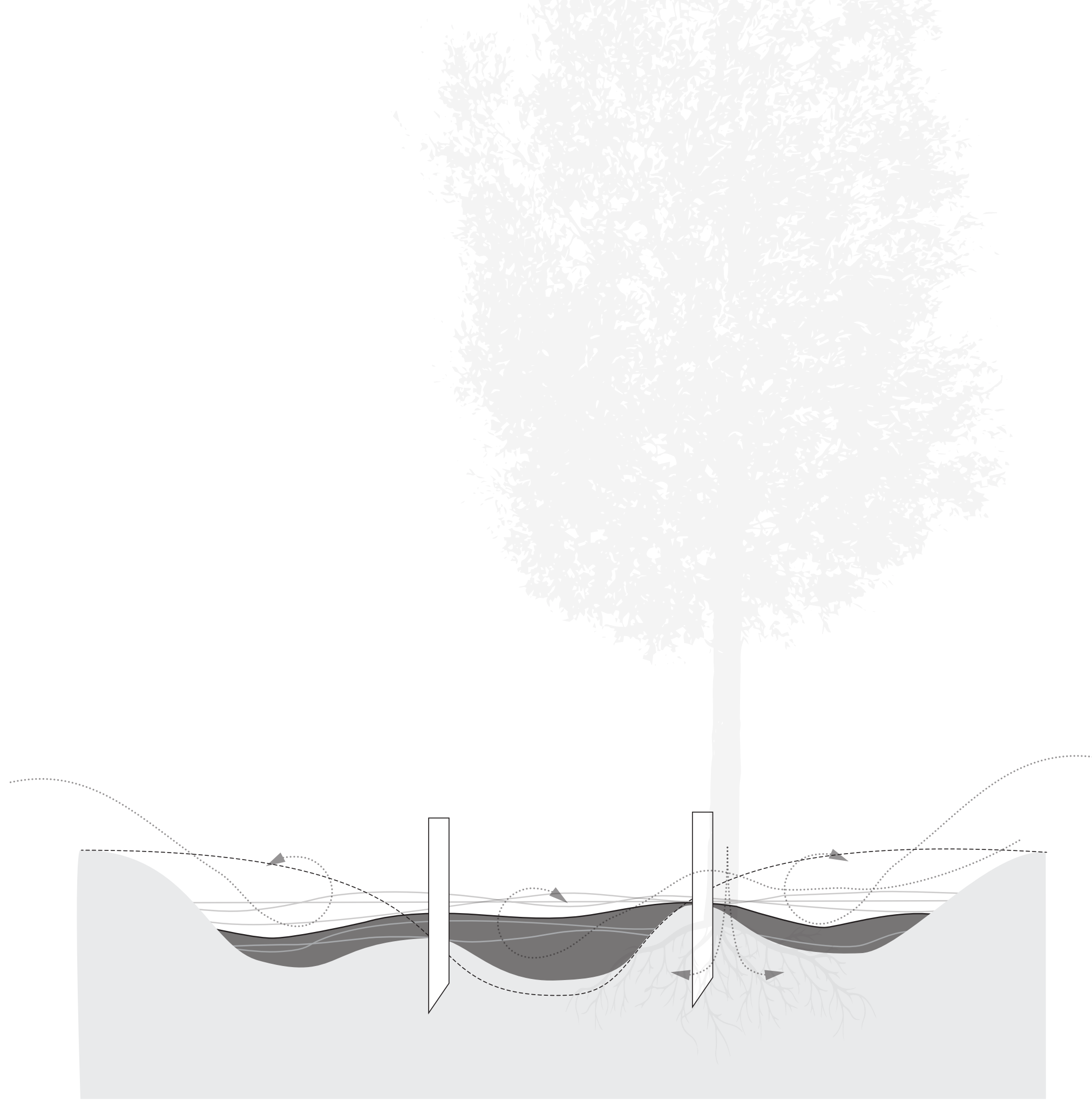


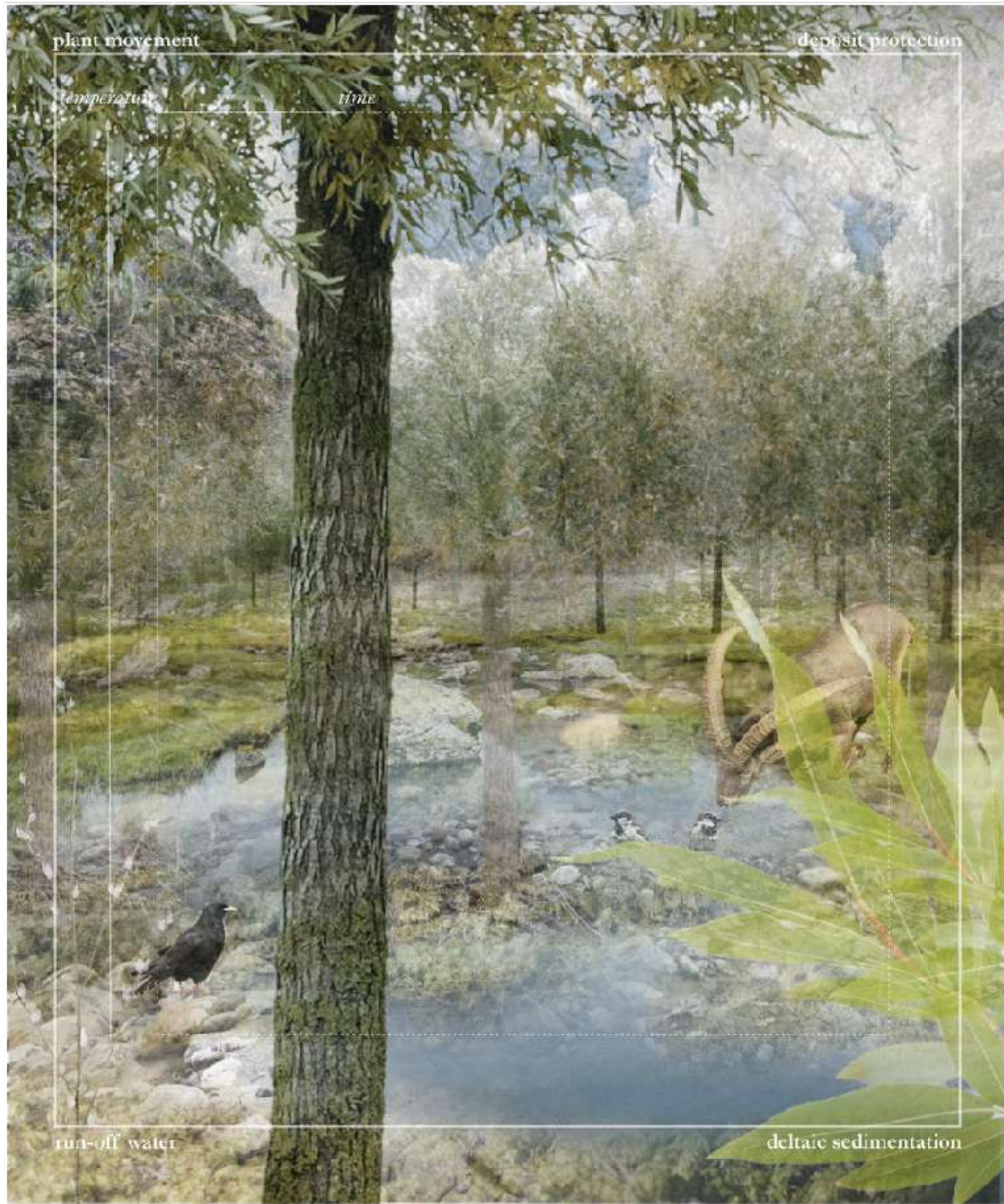
spreading
river beds



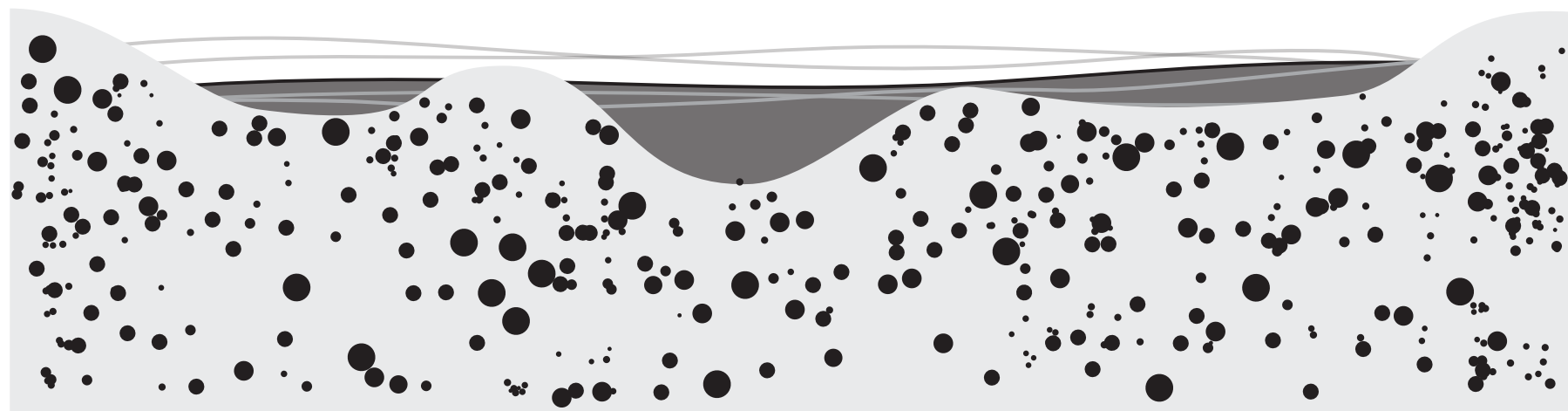
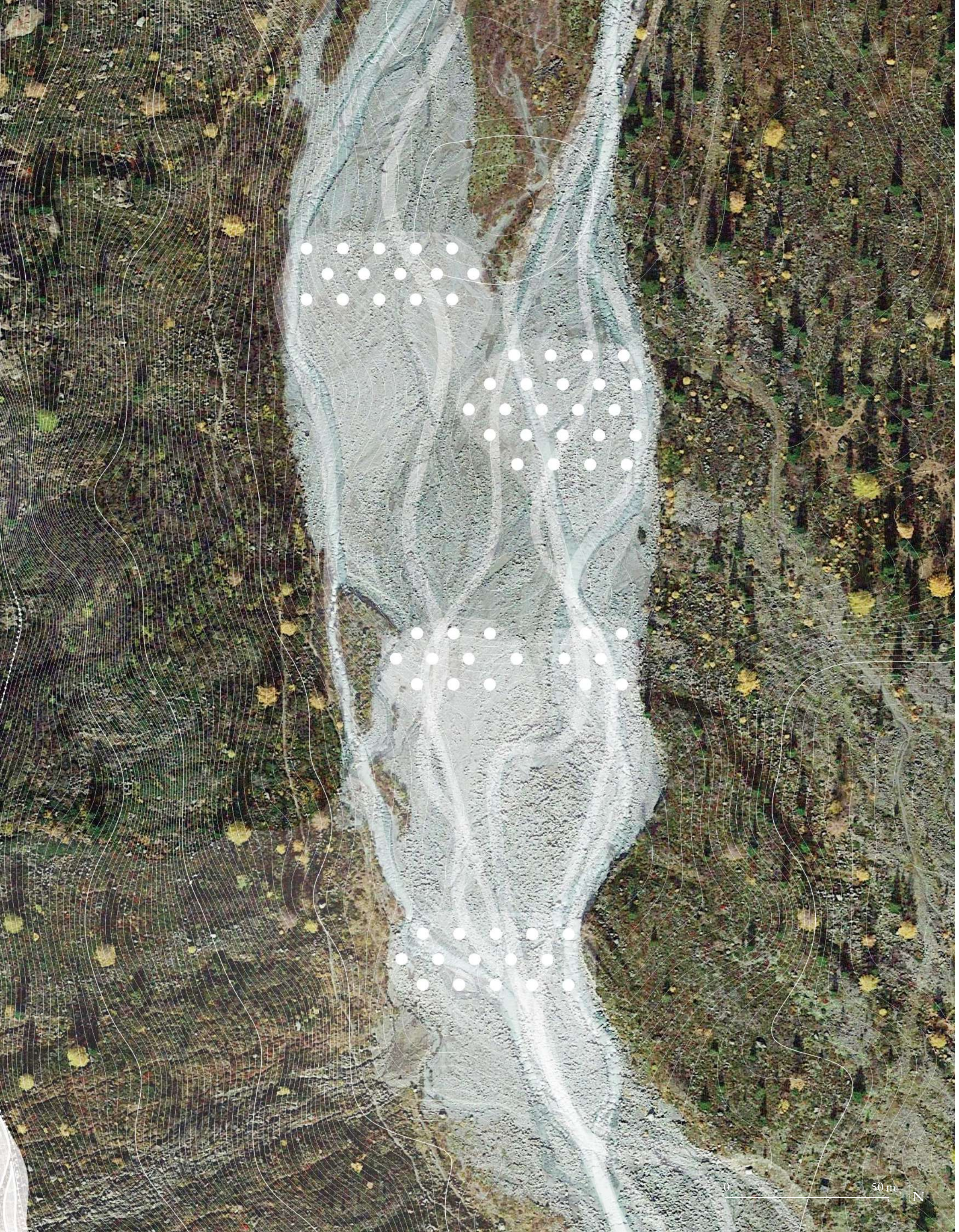


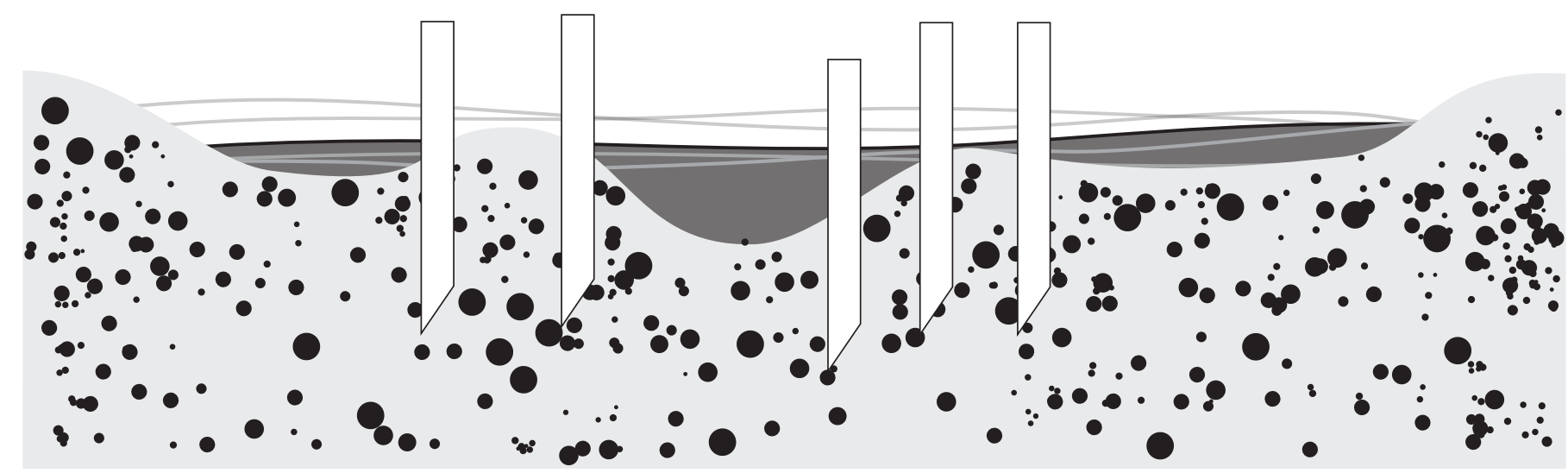
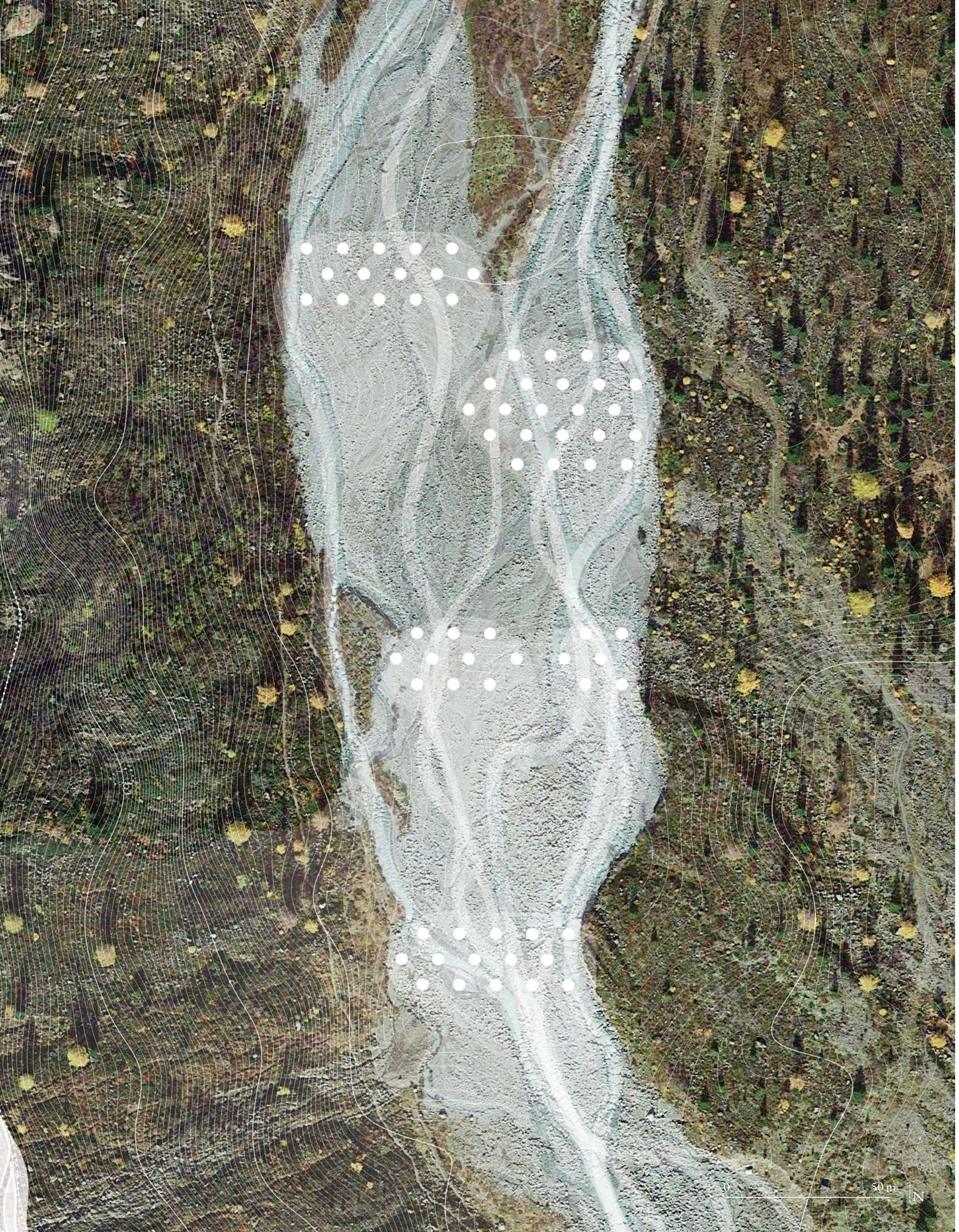


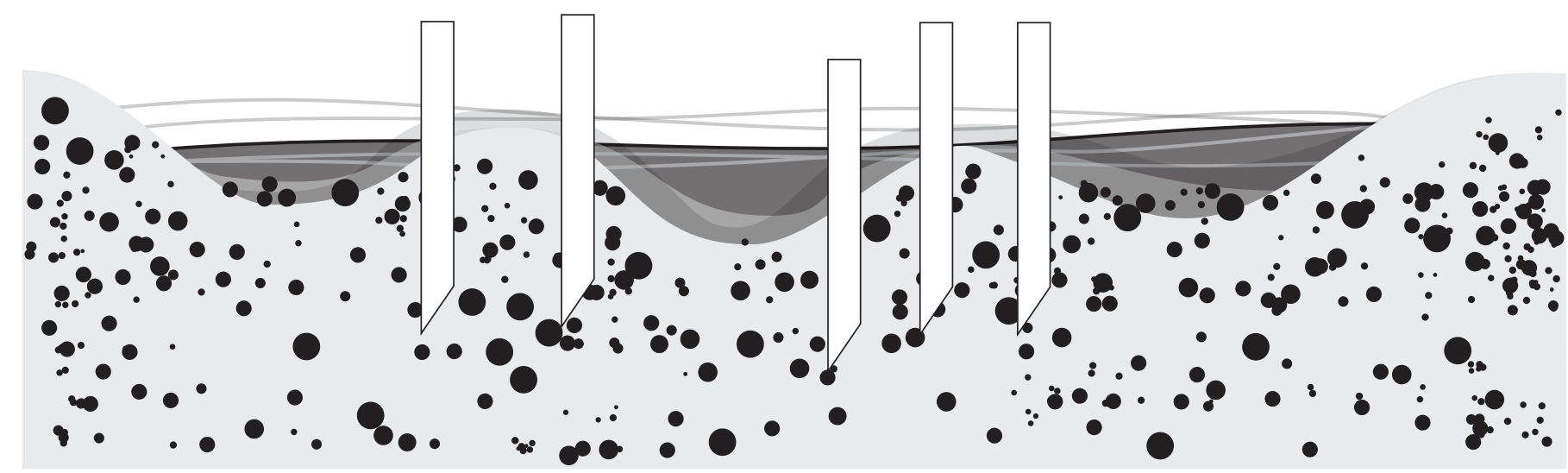
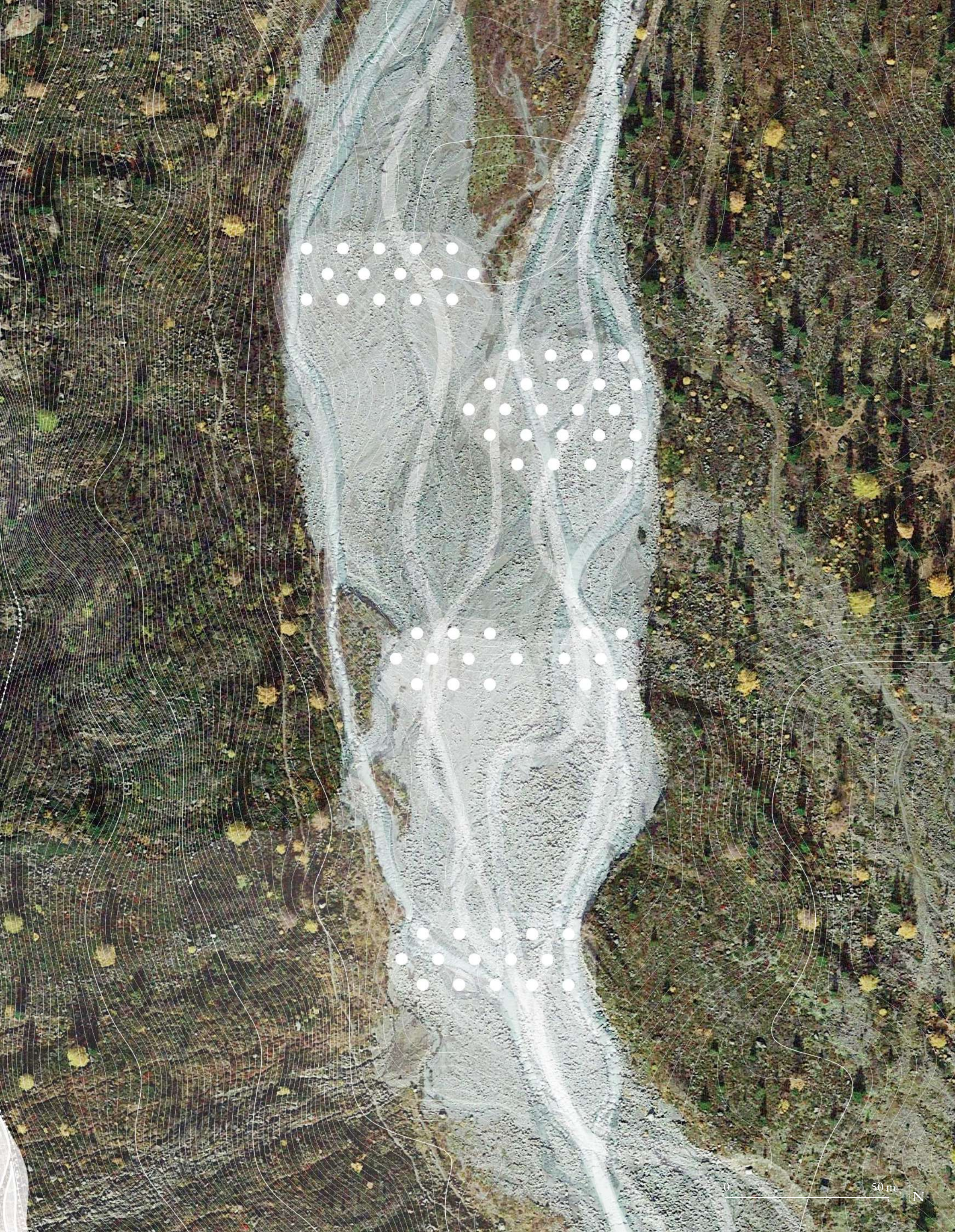


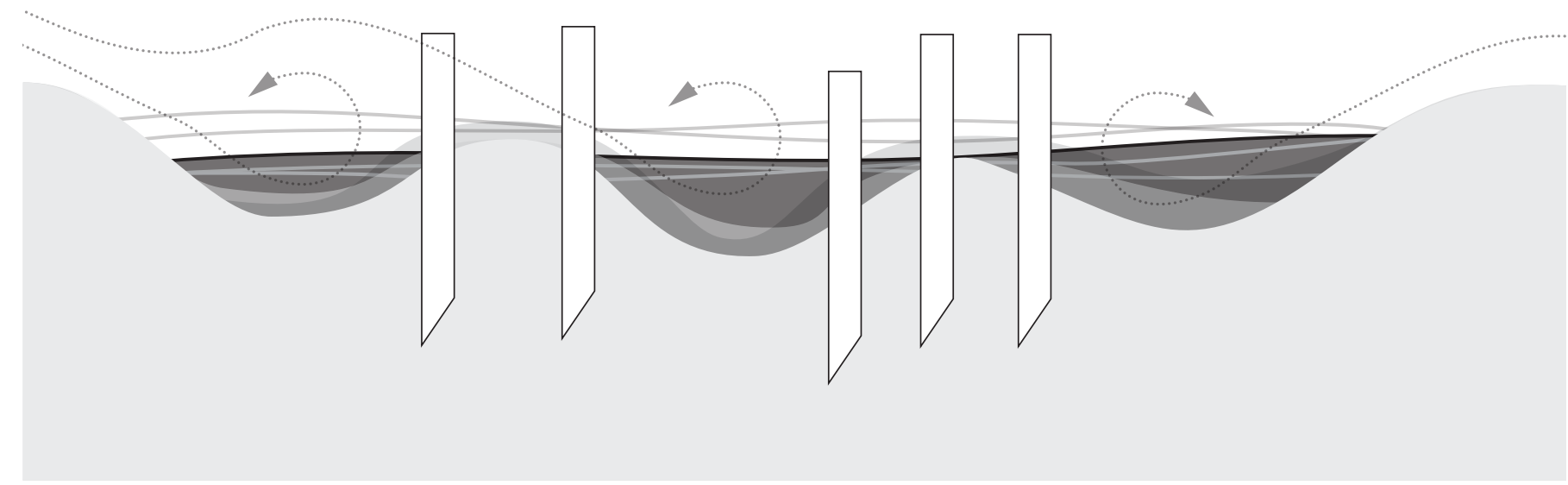
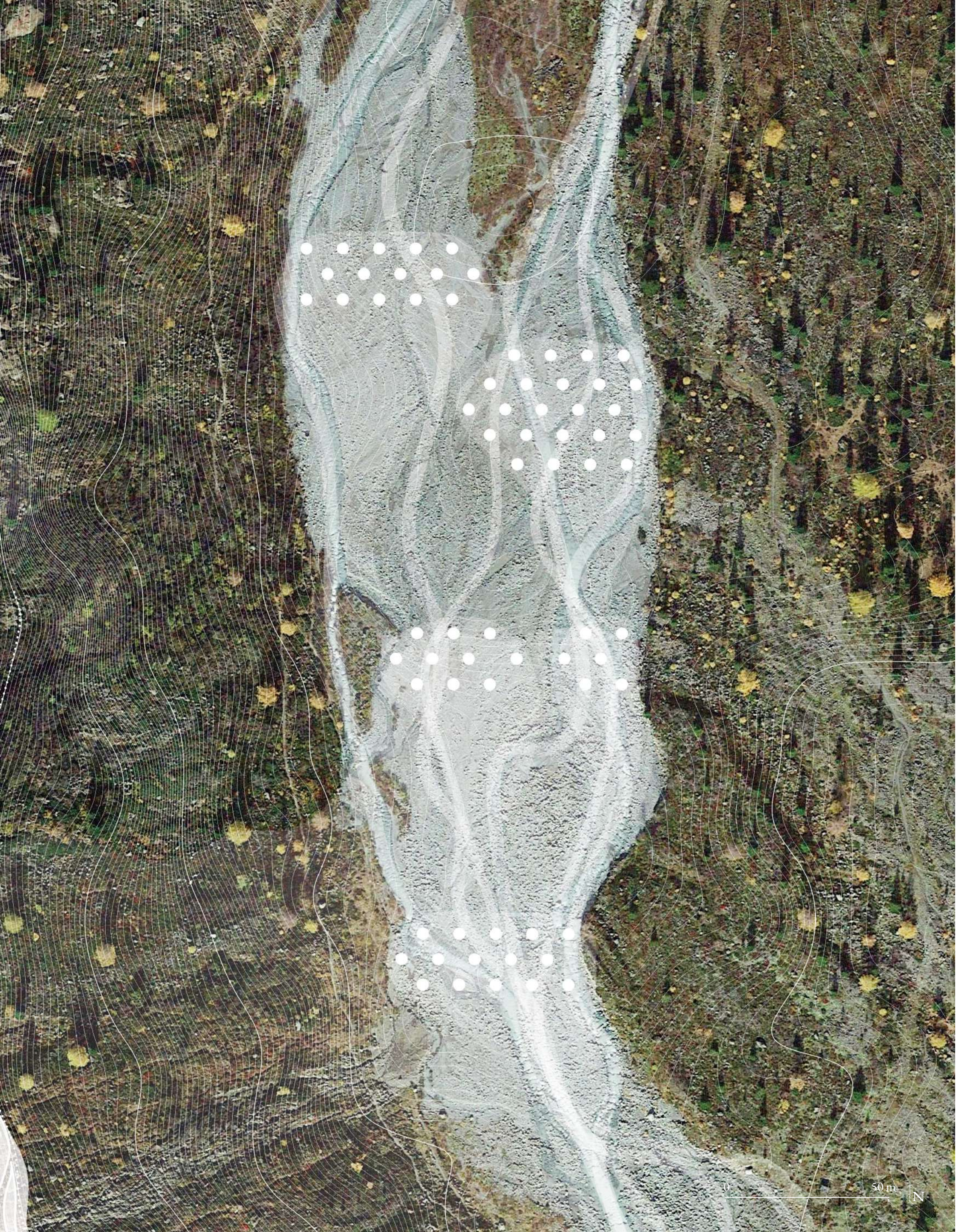


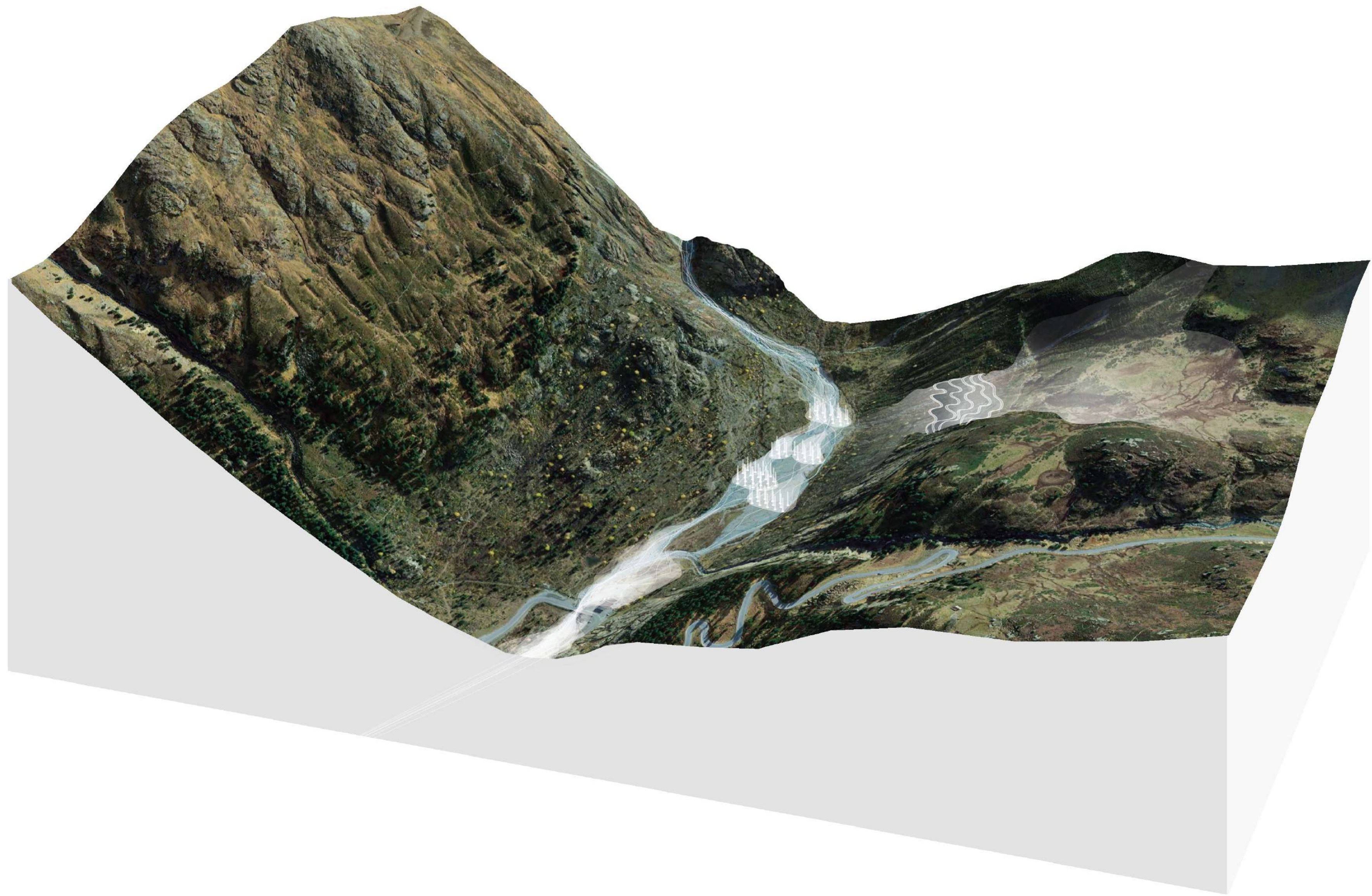
protecting
sedimentation deposits

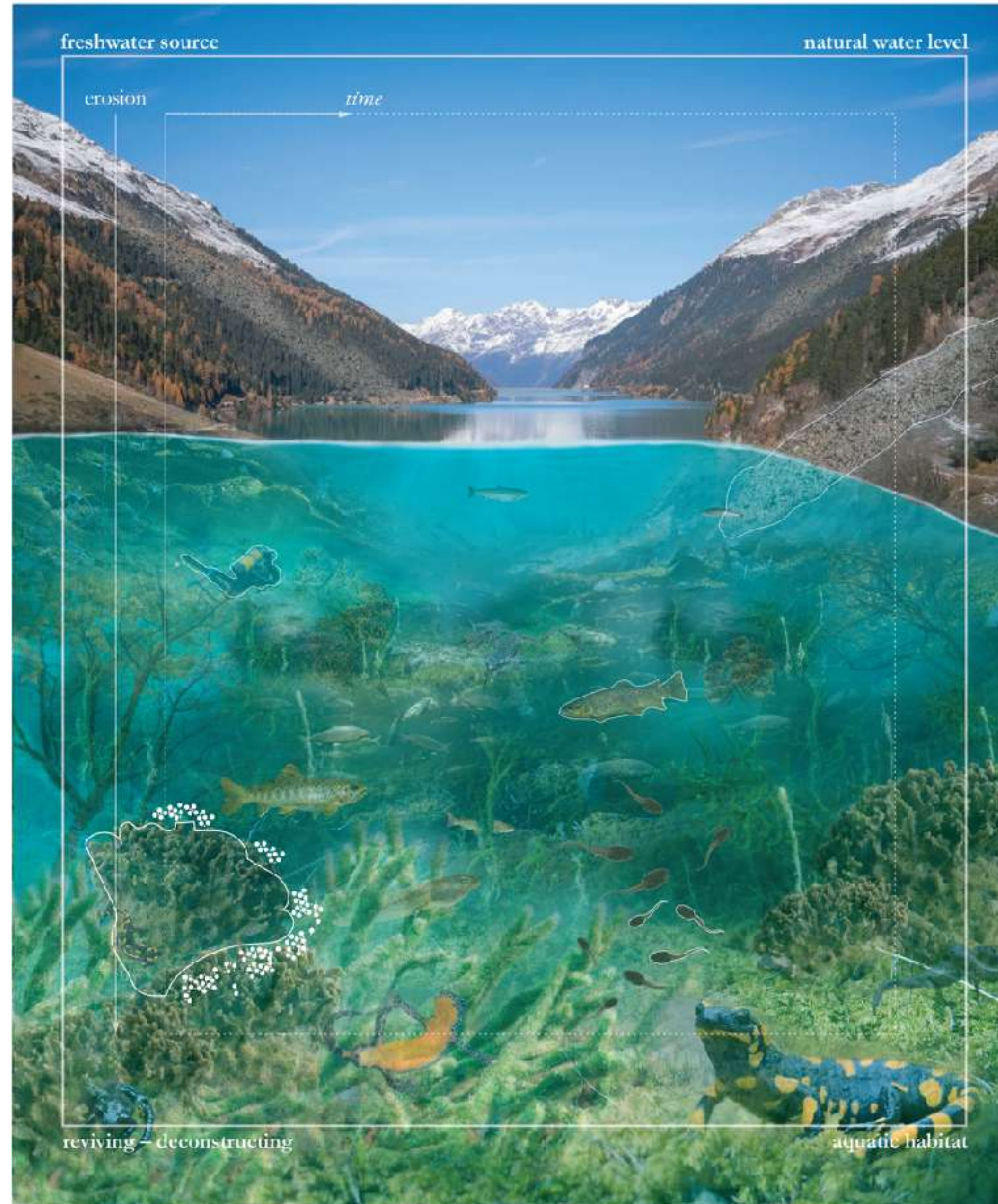




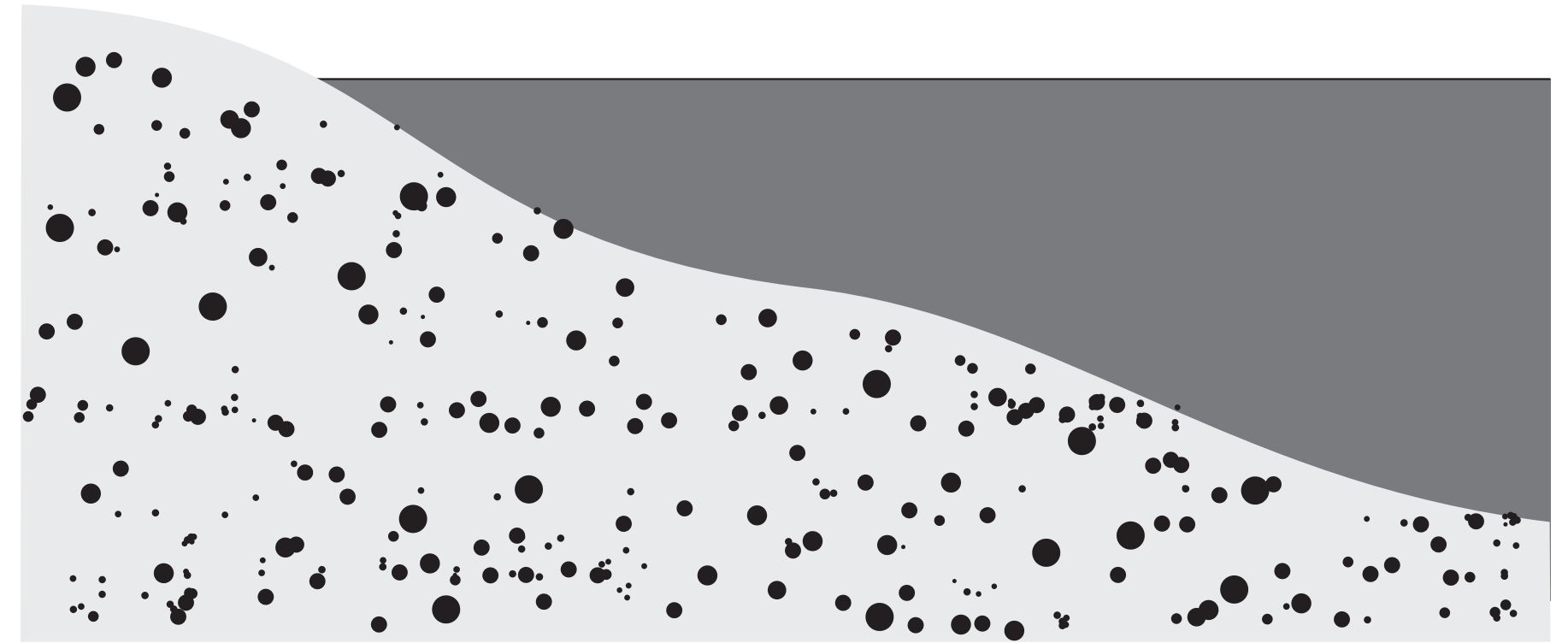


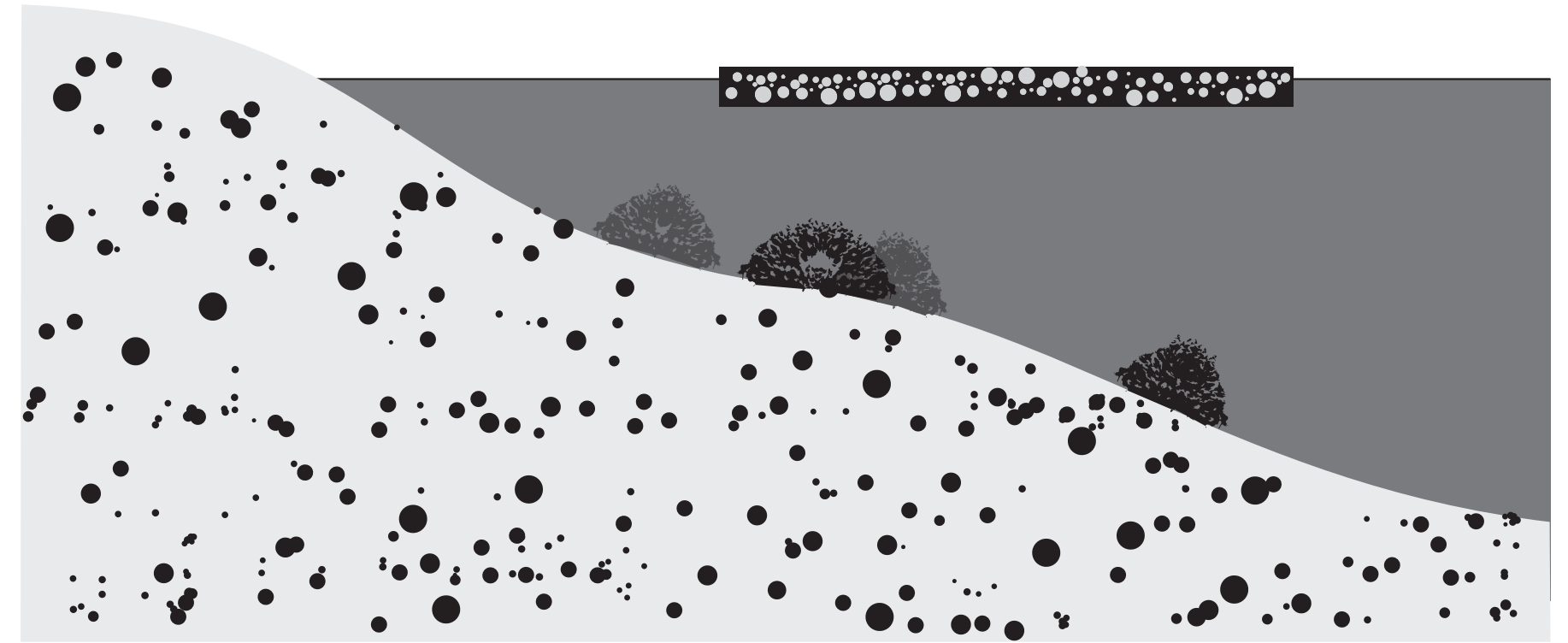


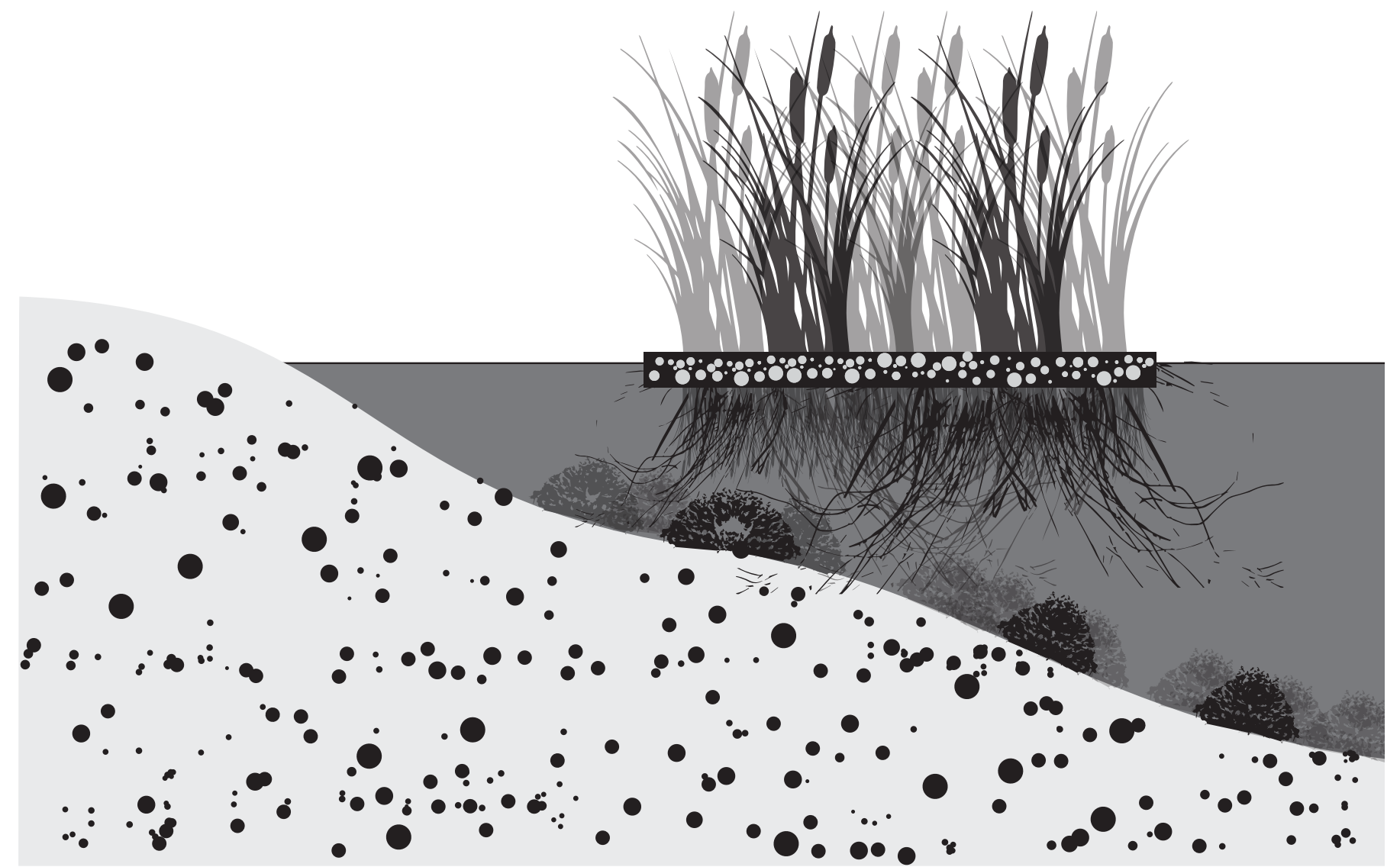


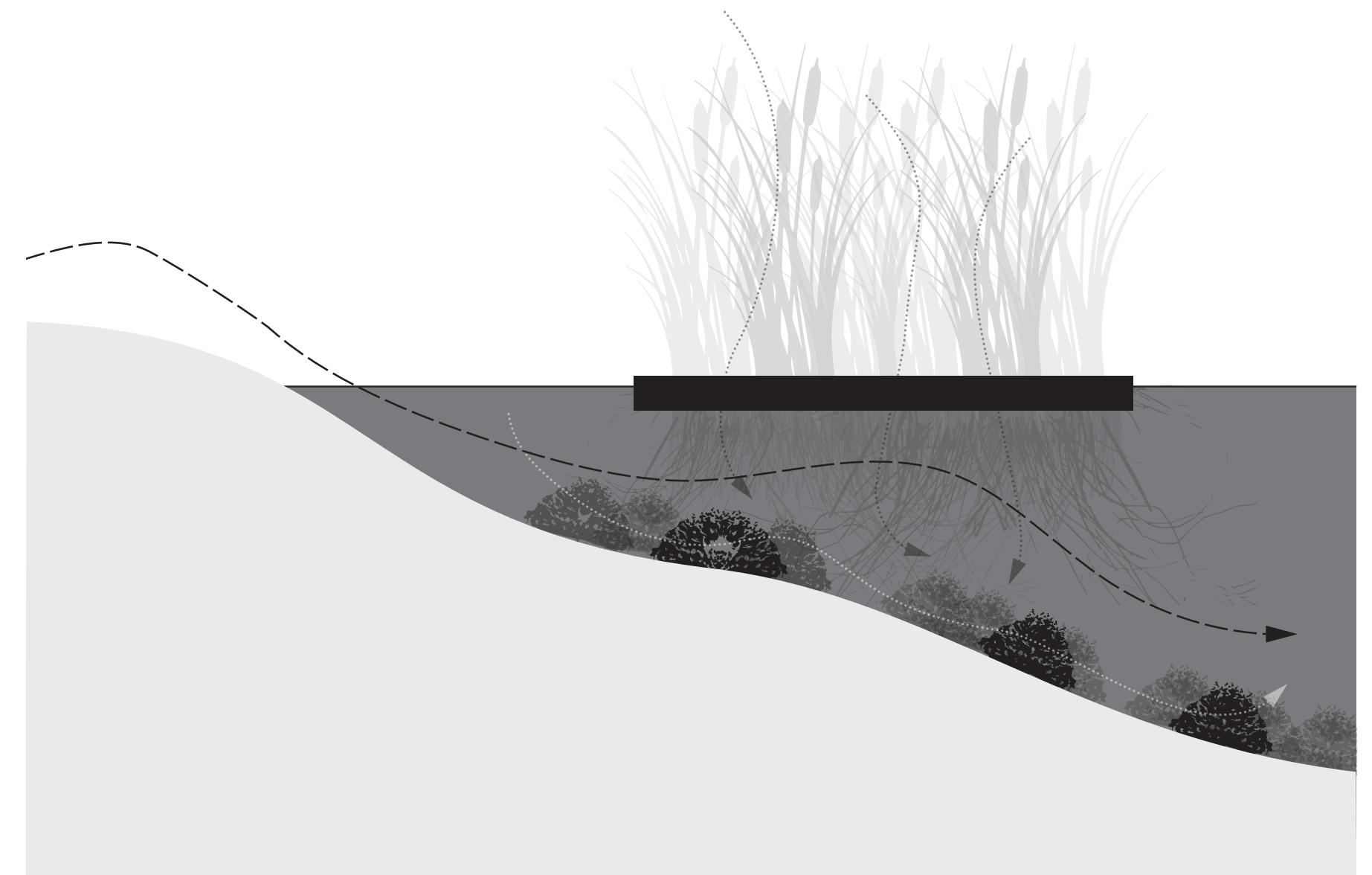


reviving
industrial landscapes



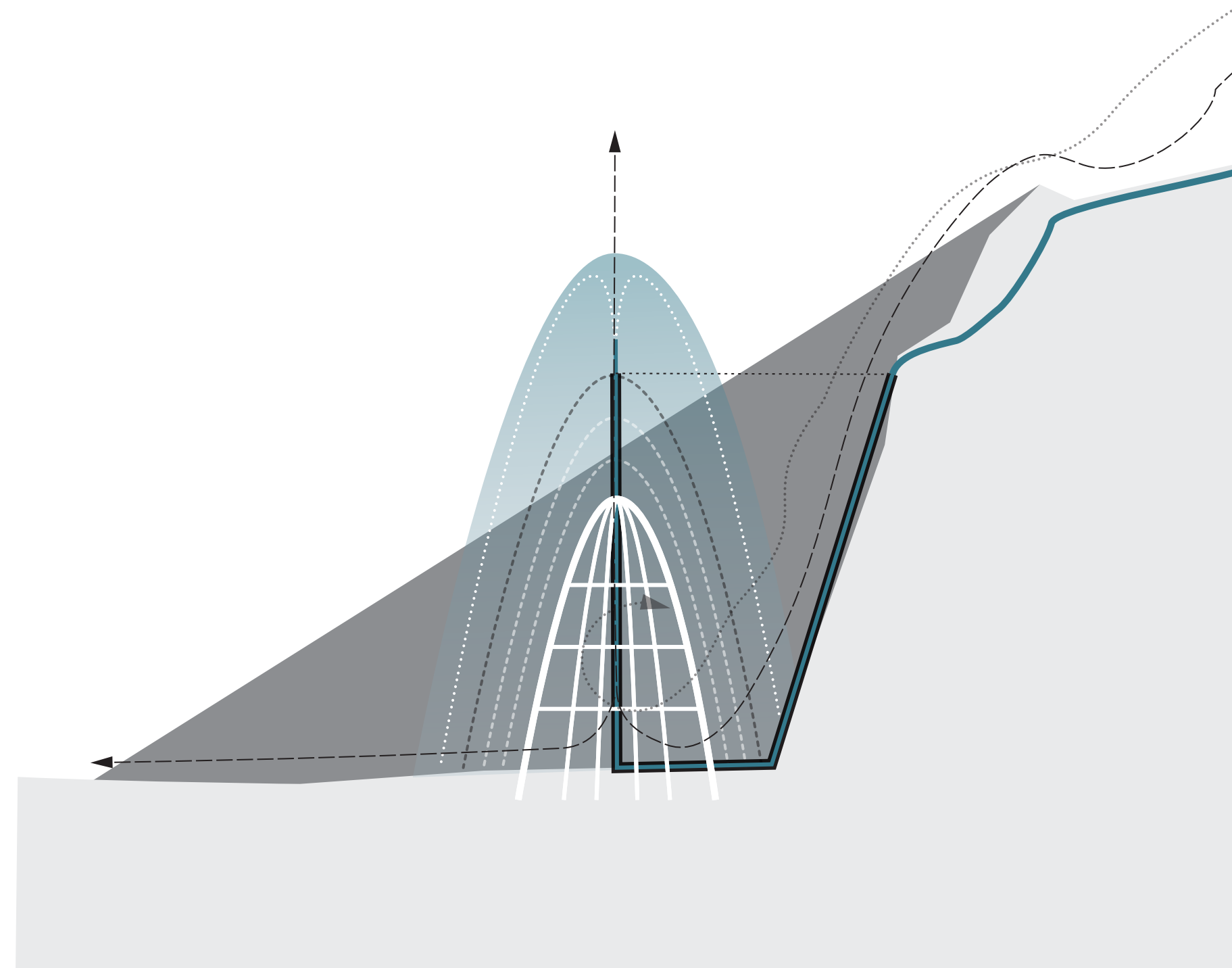


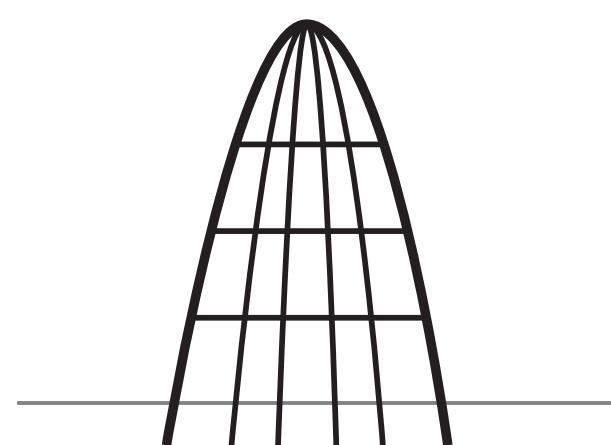


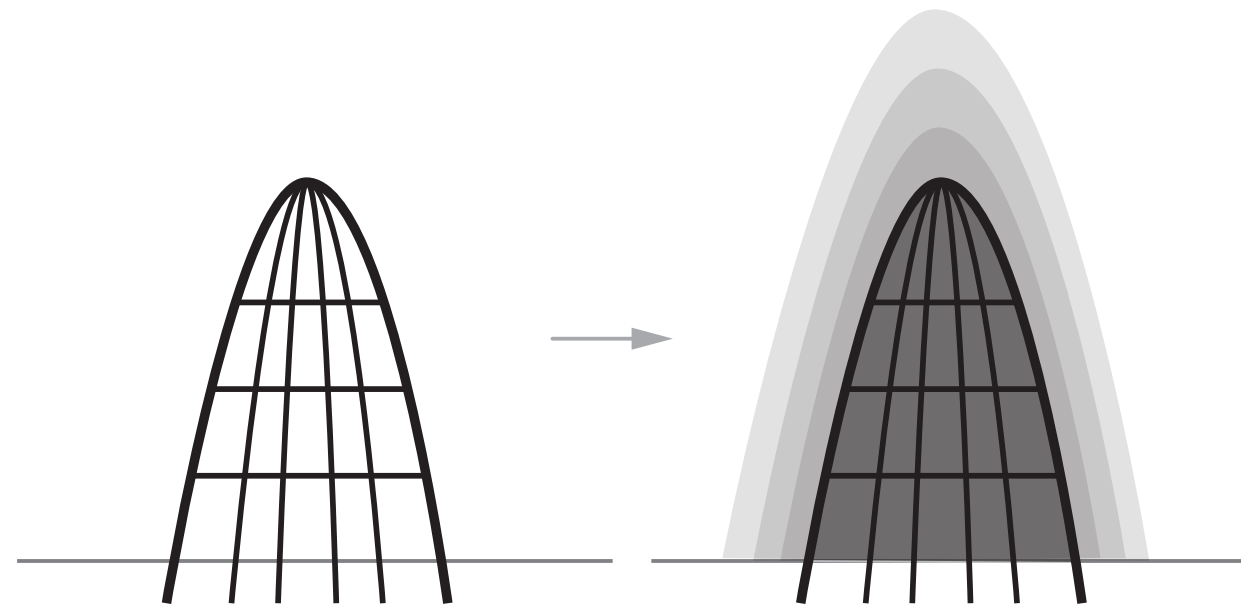


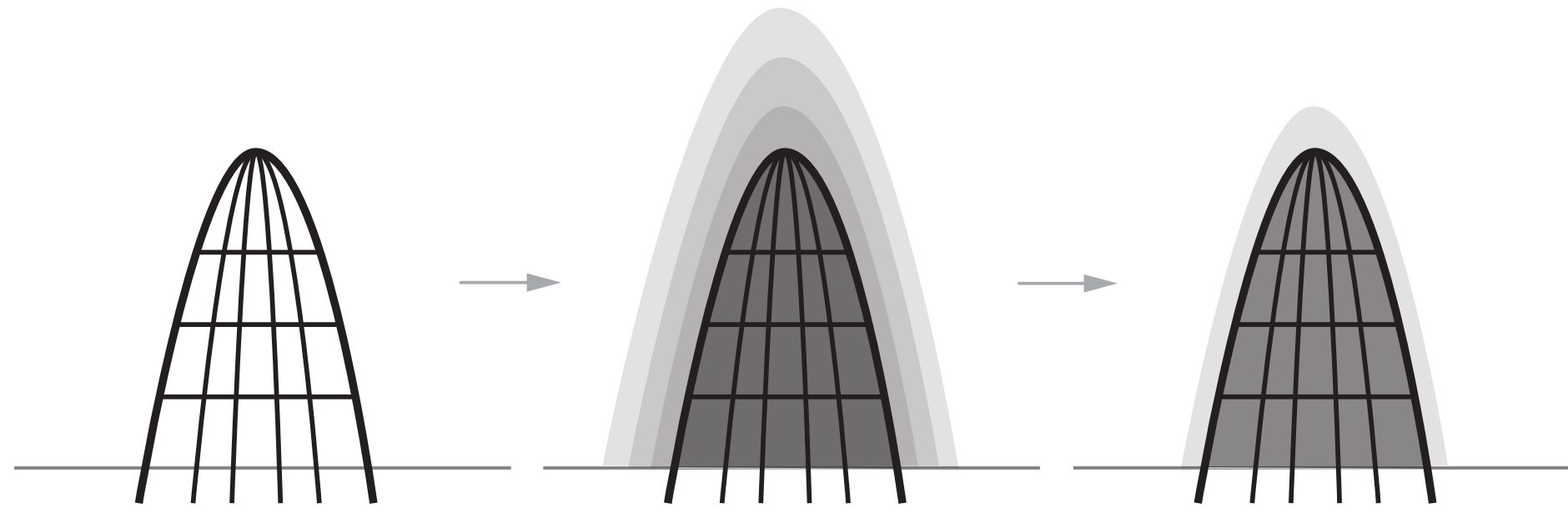


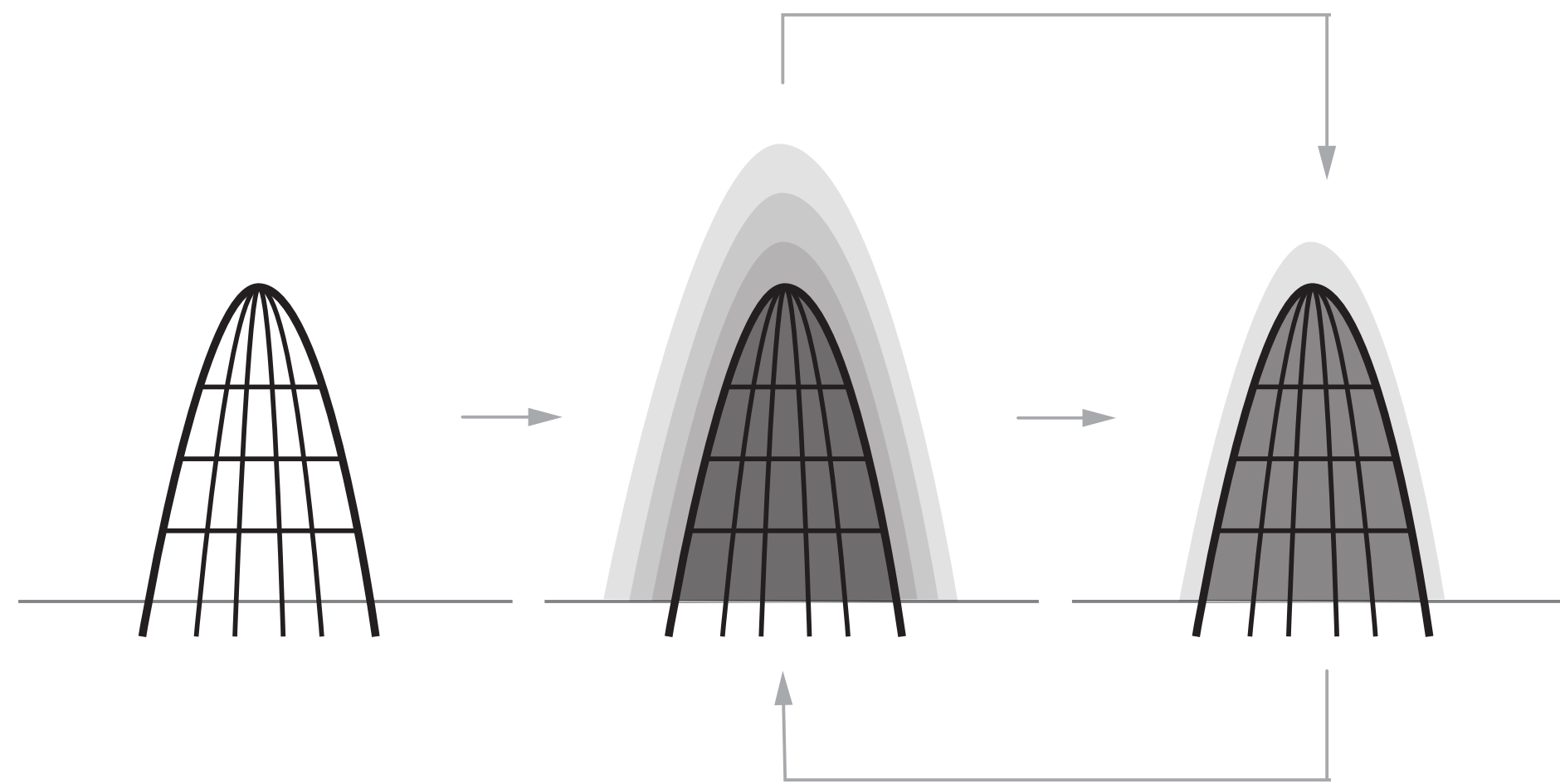
preserving
frozen freshwater

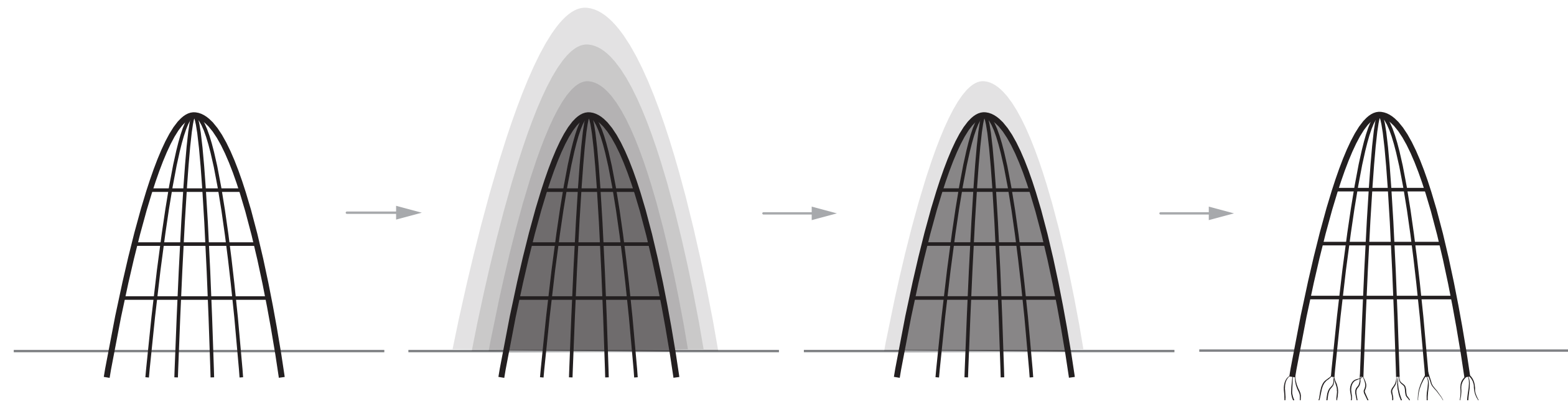


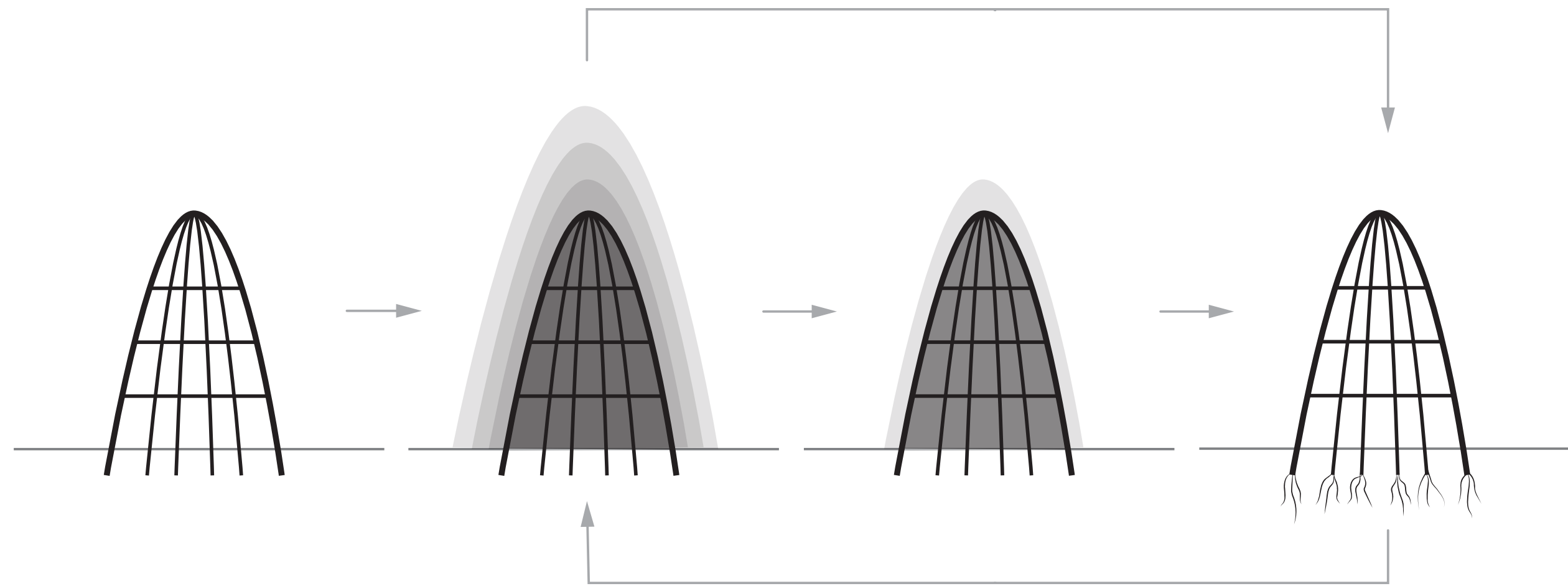


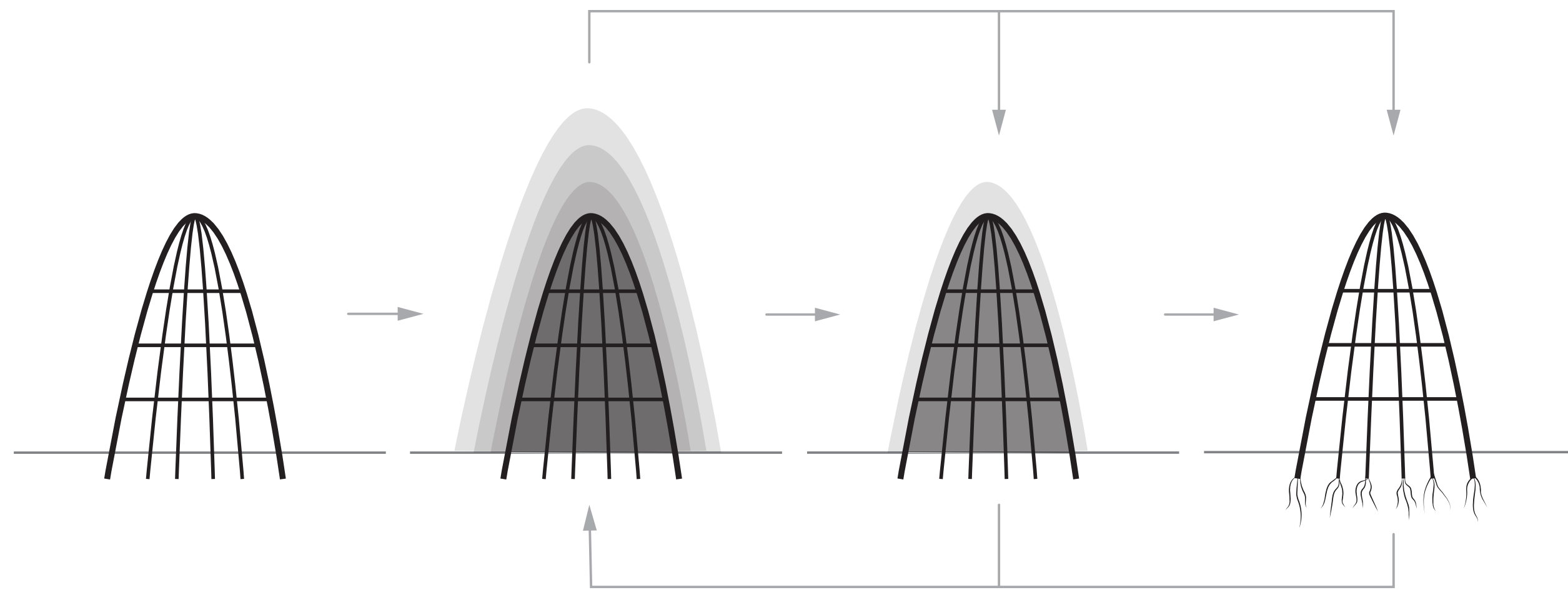


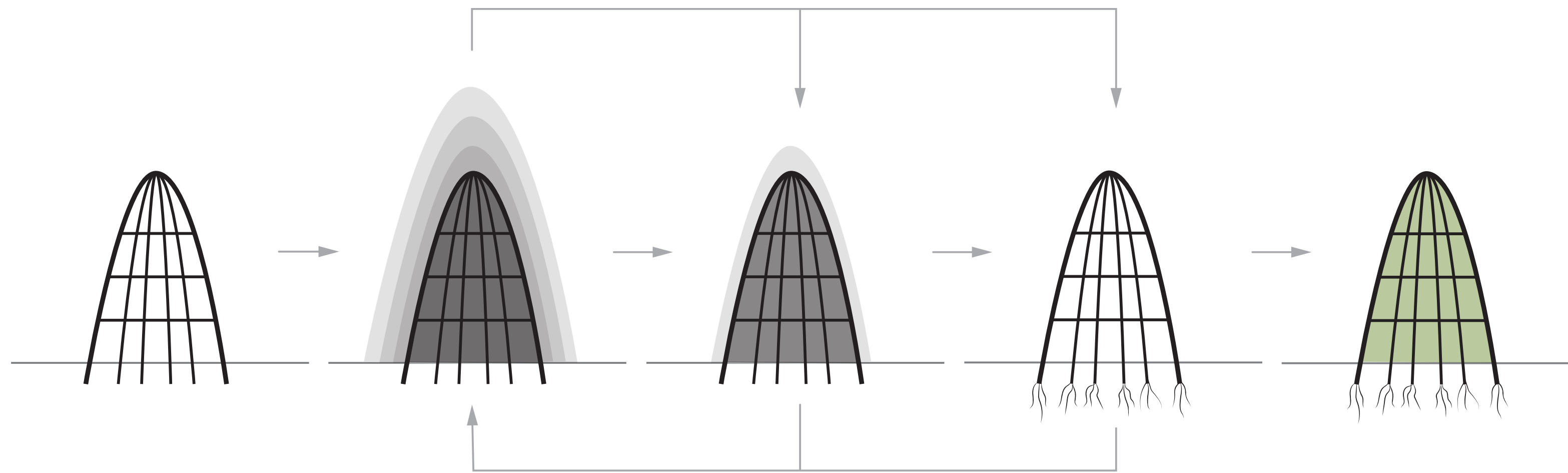


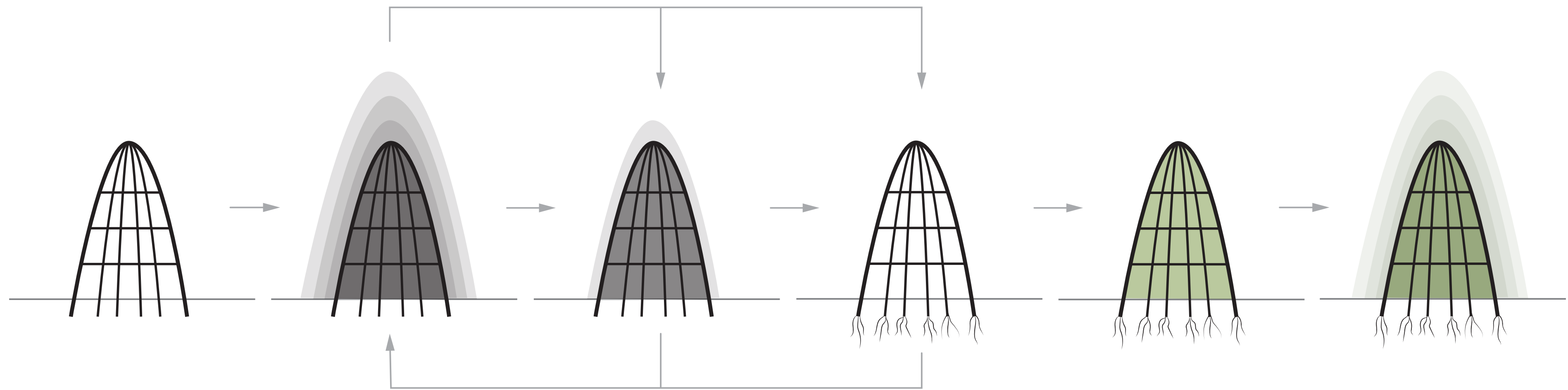


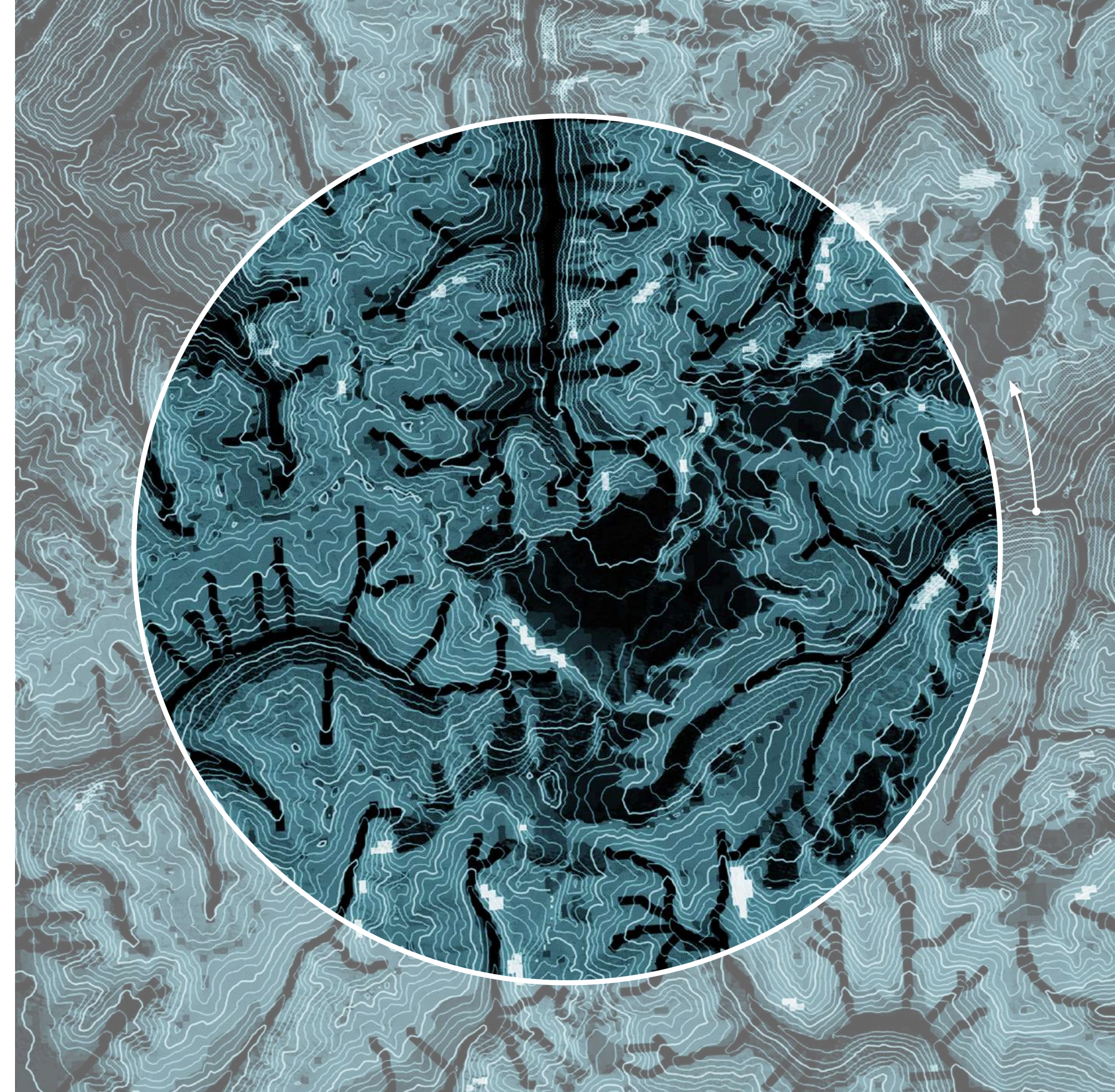


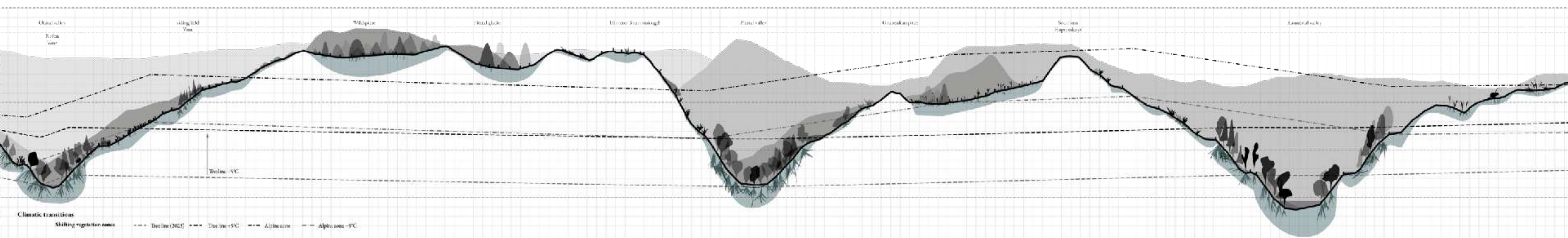






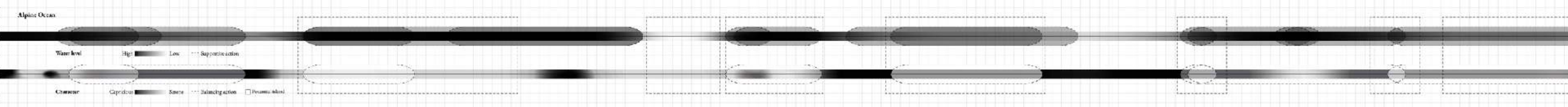
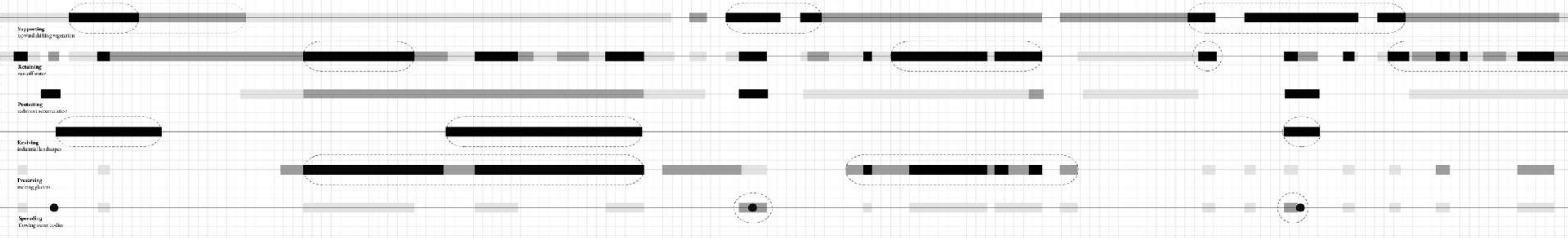






Climatic transitions
 Shifting vegetation zones Trelis (2021) Trelis +5°C Alps zone Alps zone -5°C

Actions - potentiality
 High Medium Low



0 500m 1000m





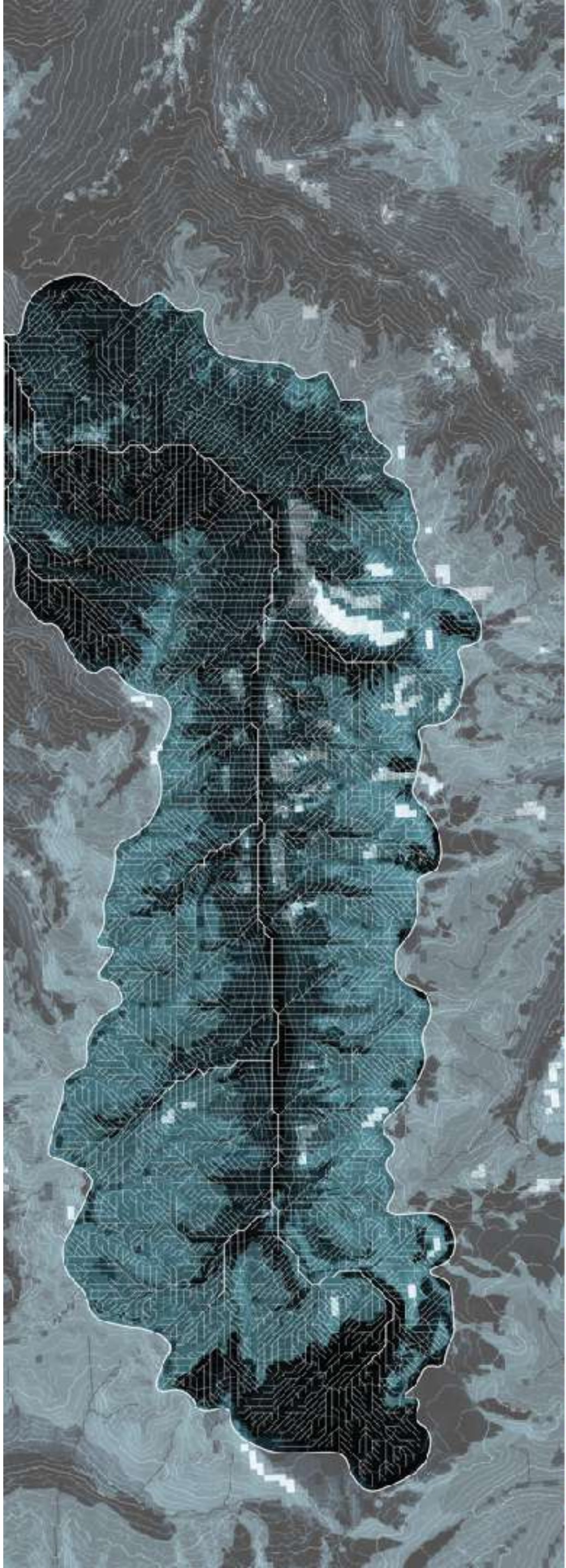


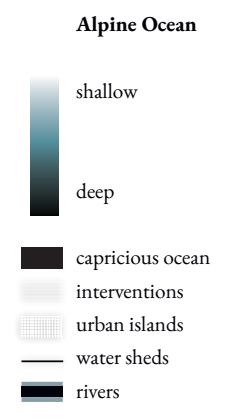
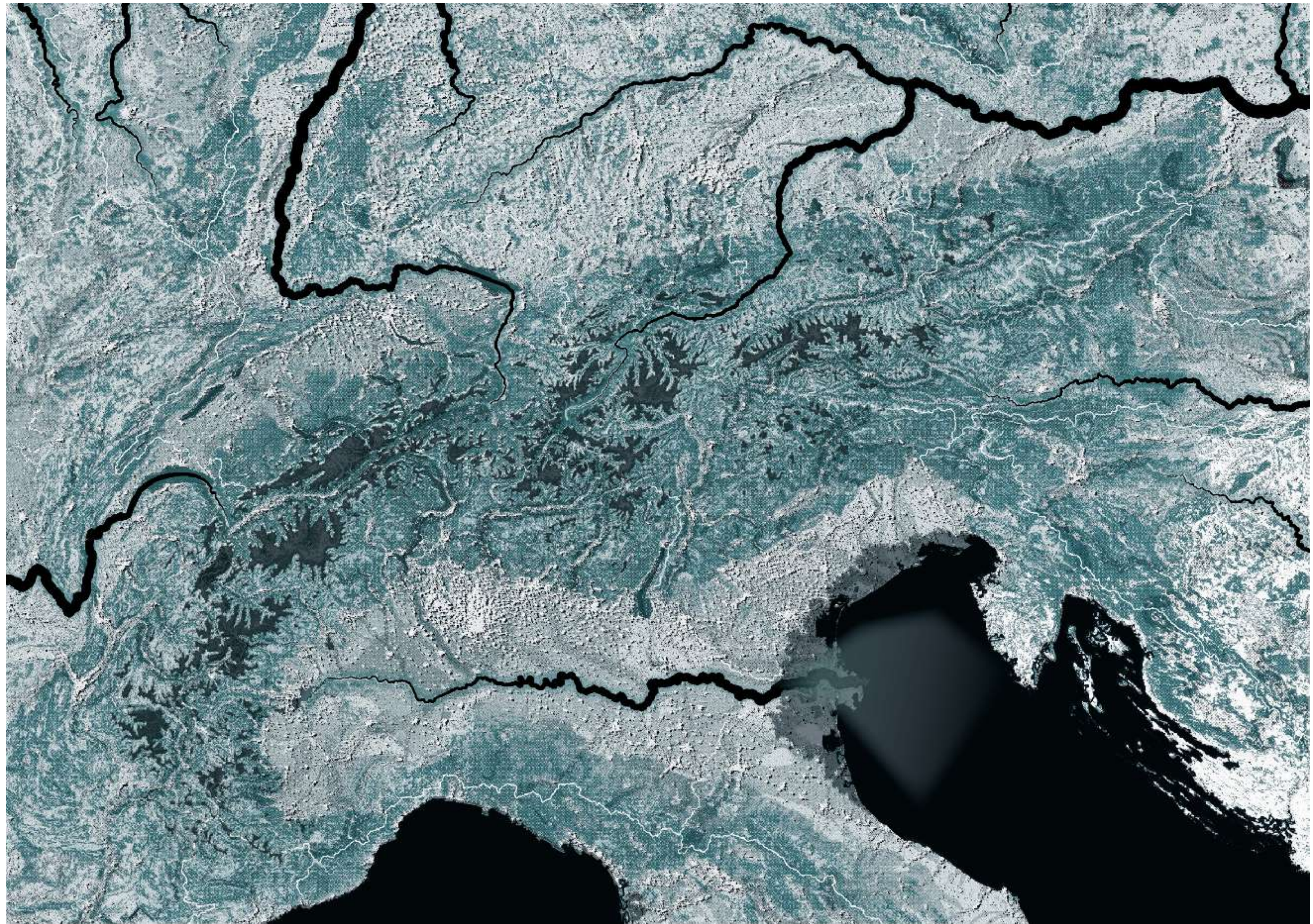


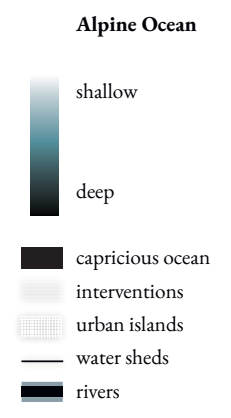
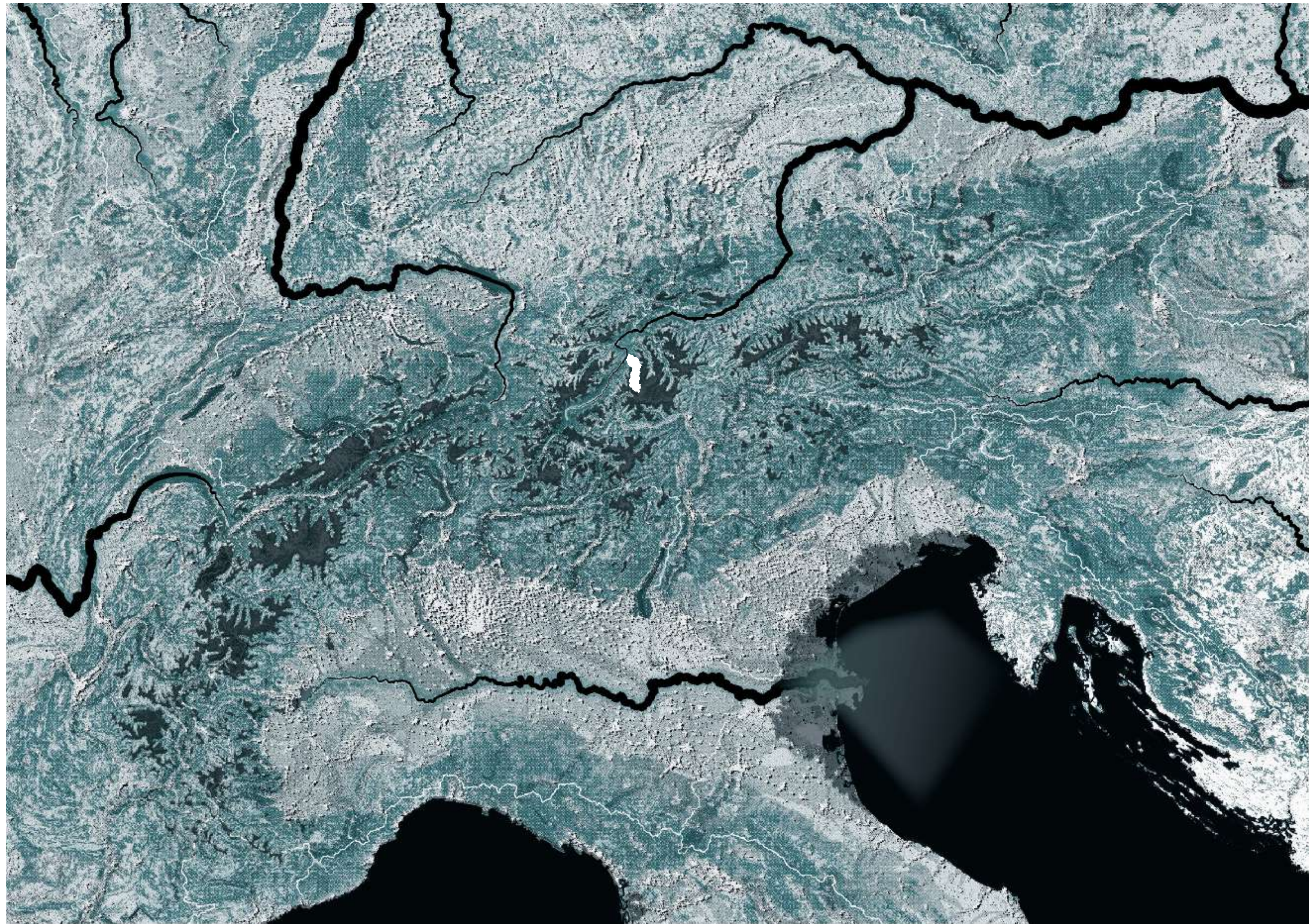


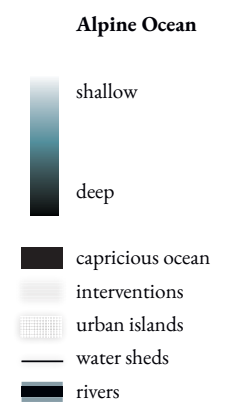


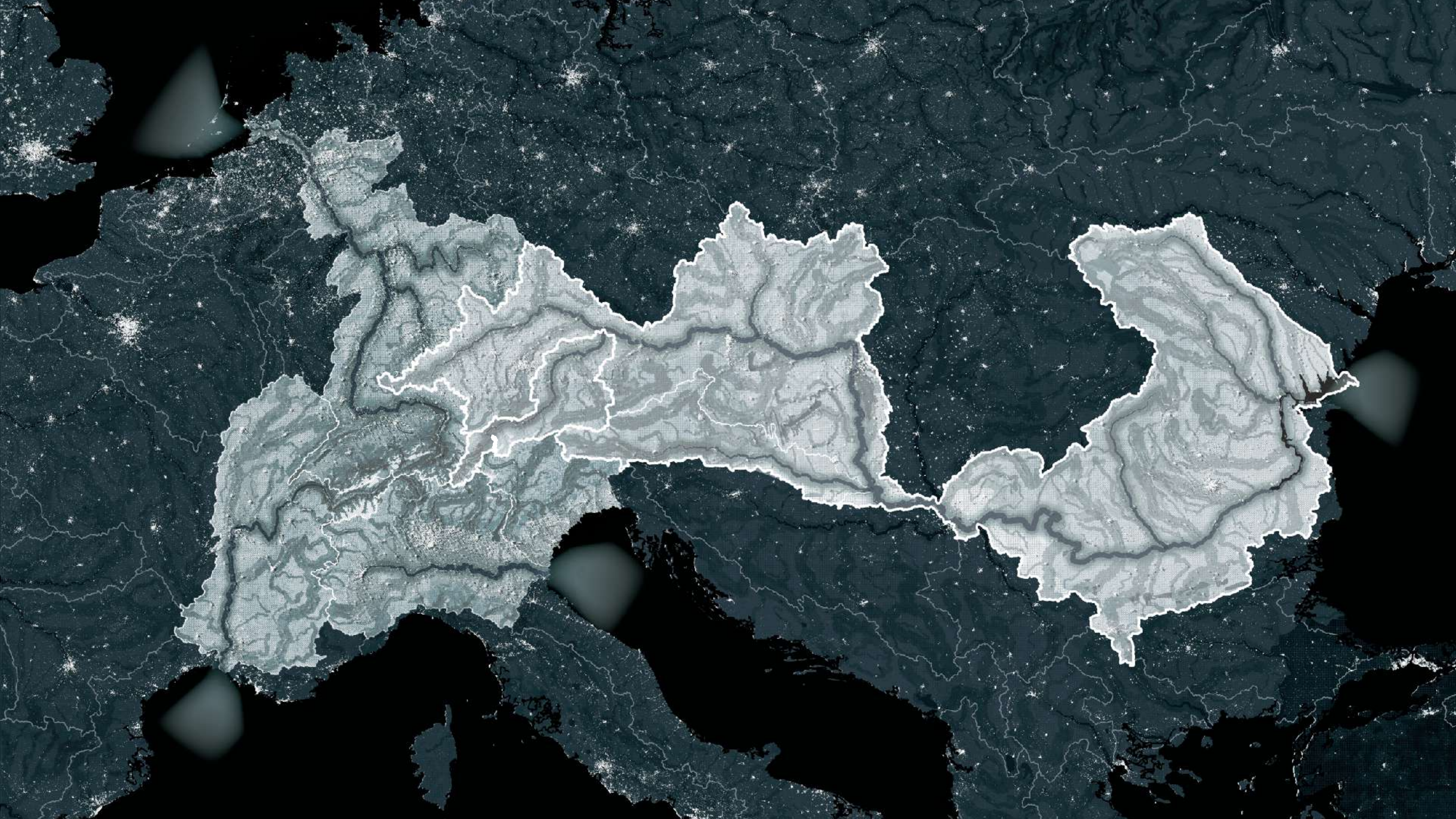


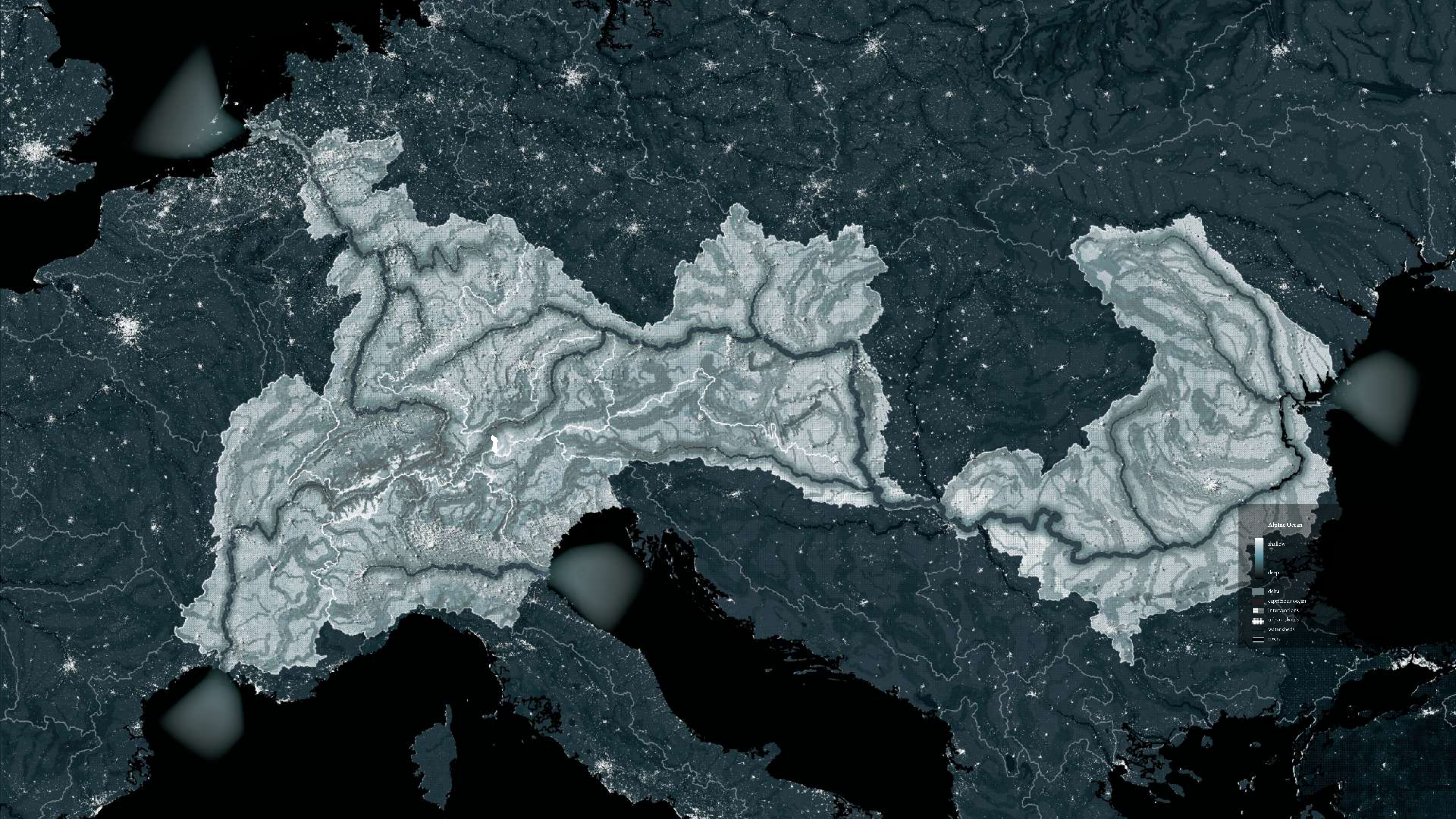


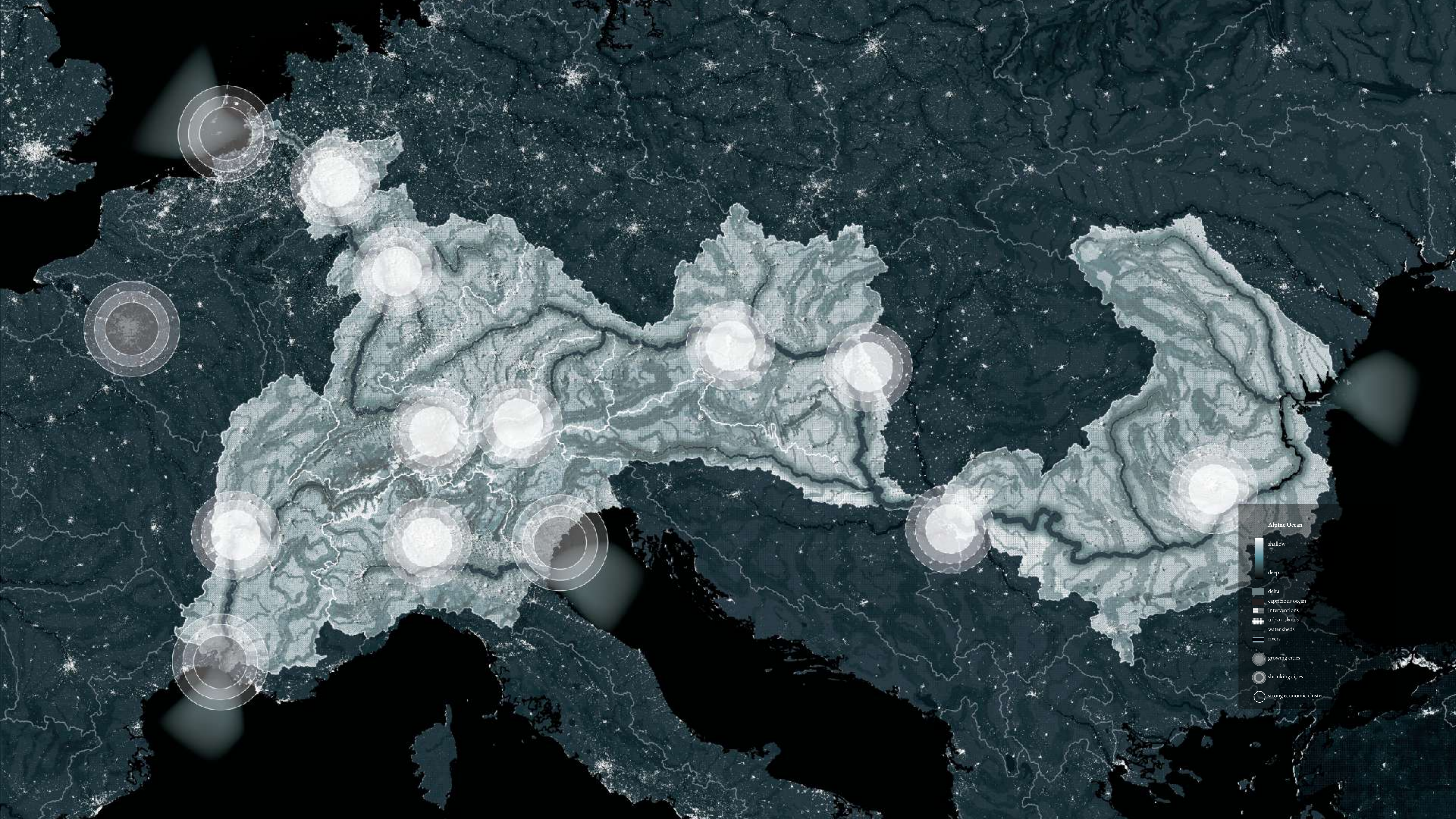


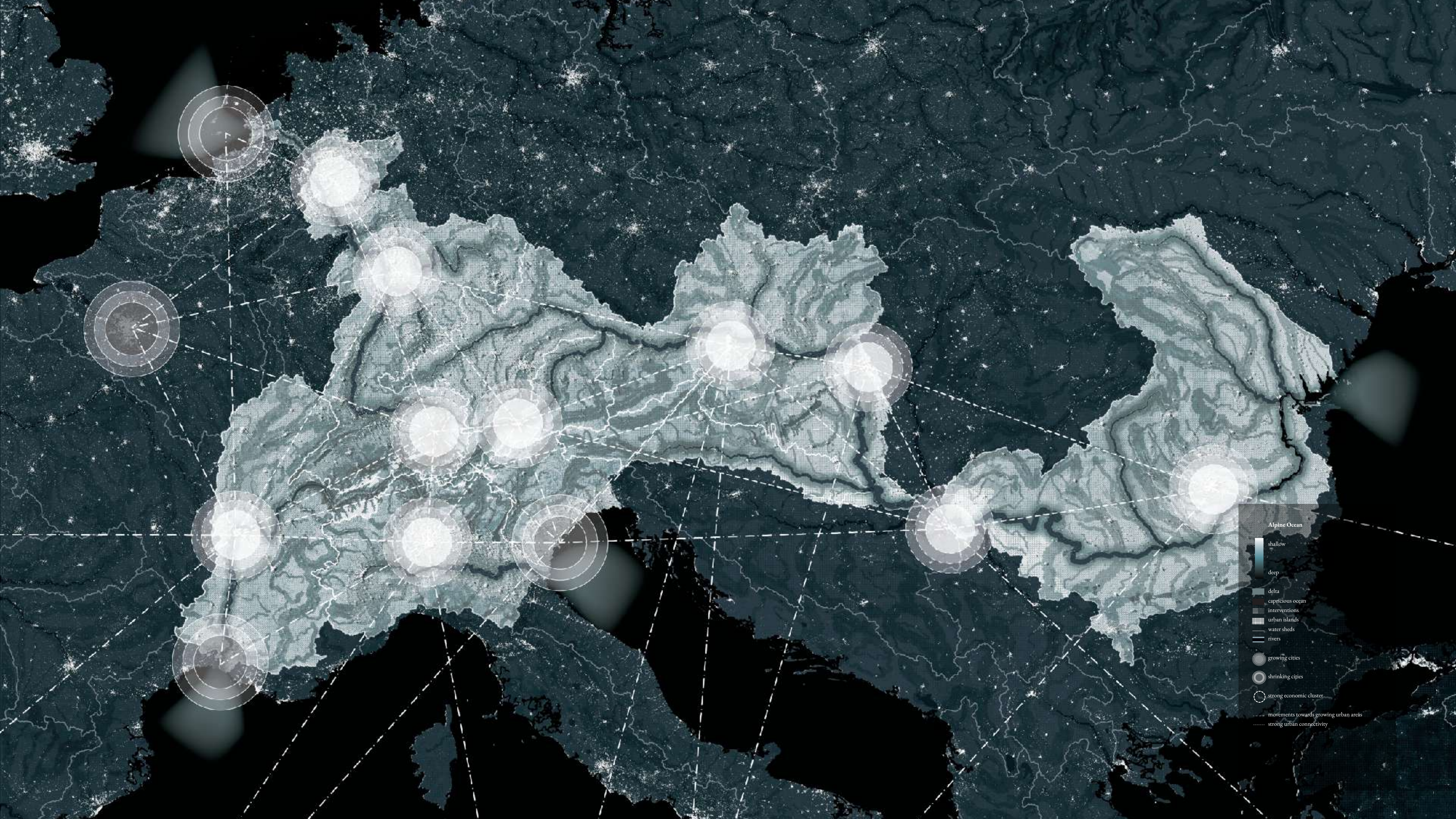






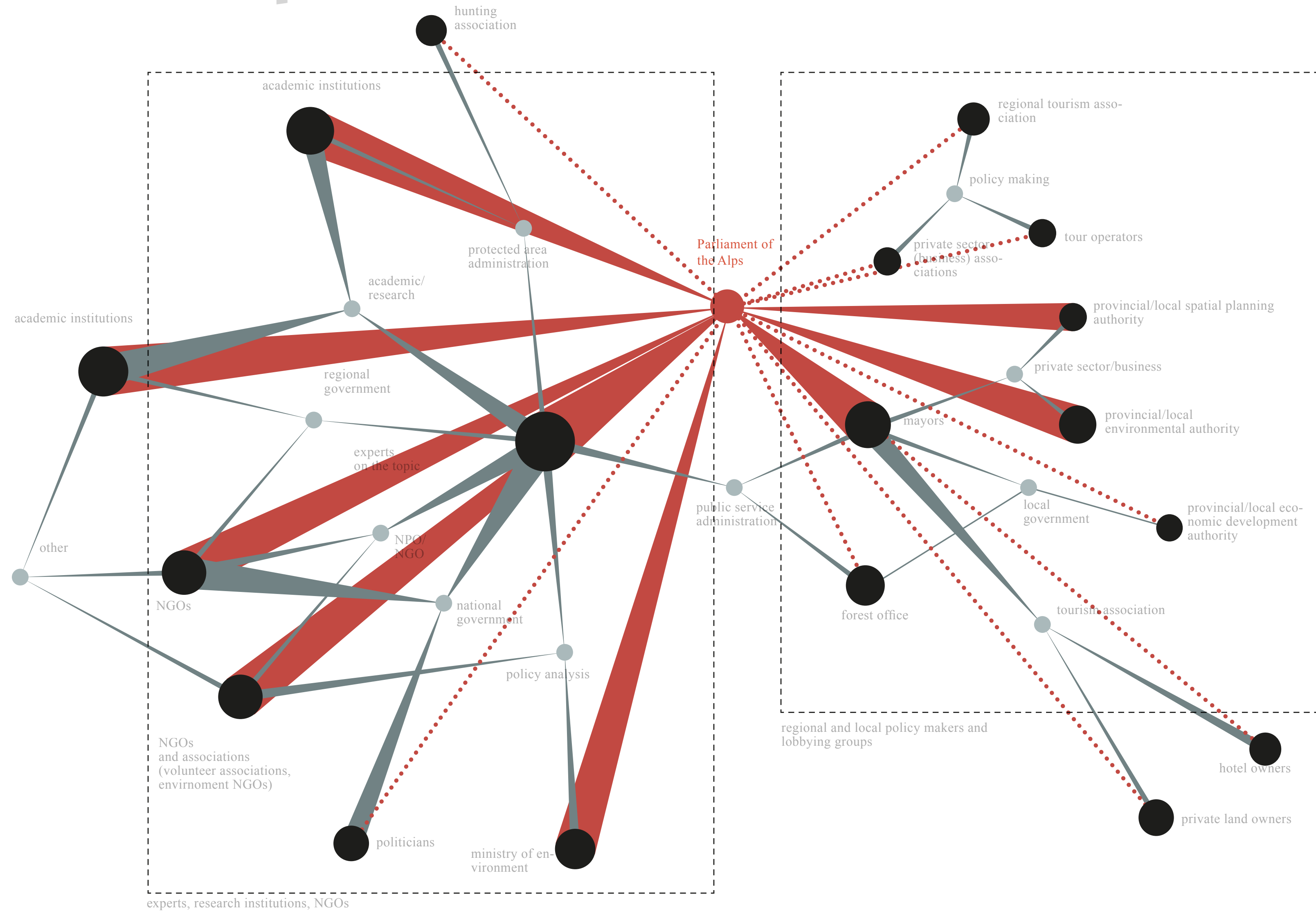




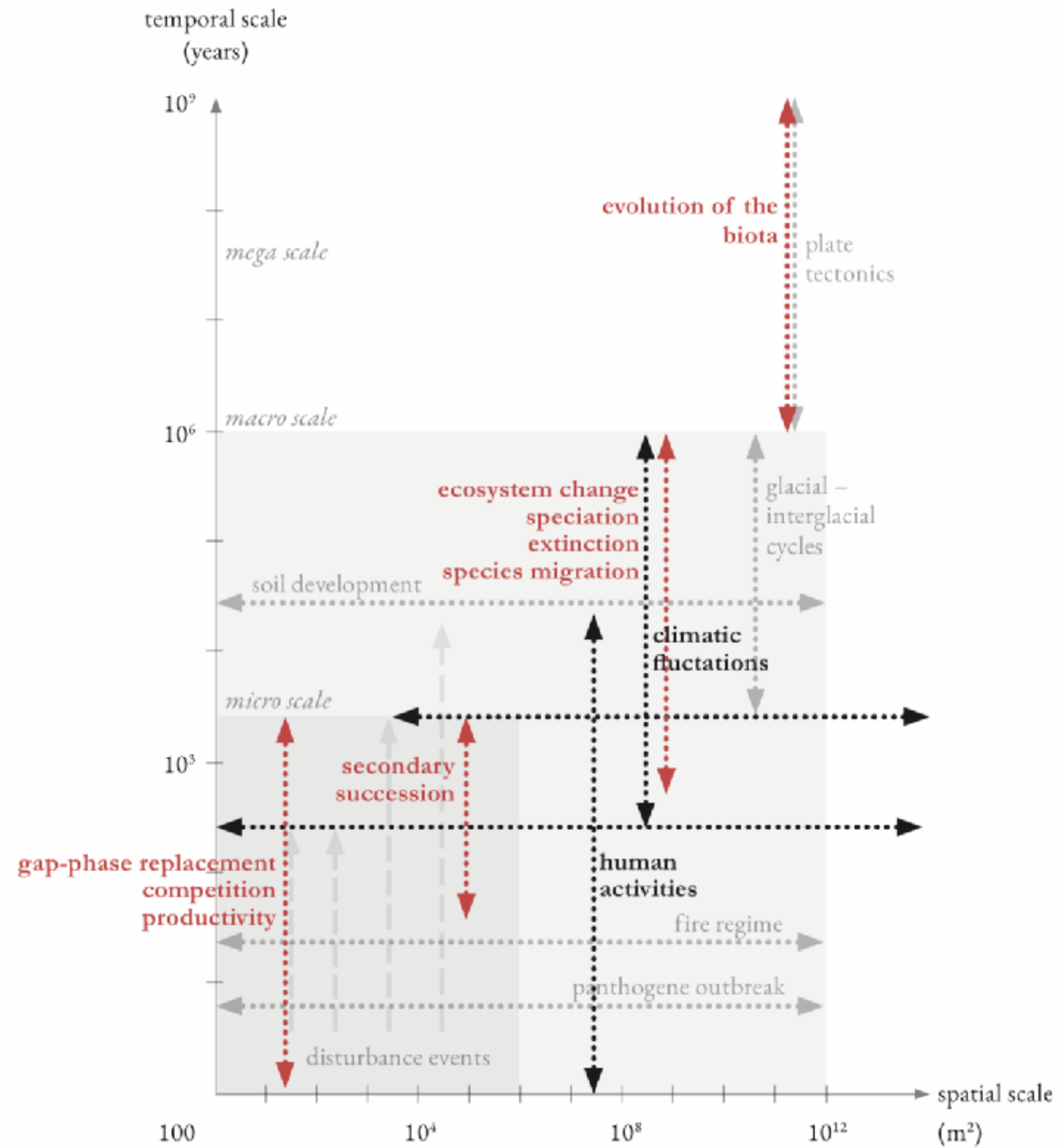


the Parliament of the Alps

political representation in the sense of nature



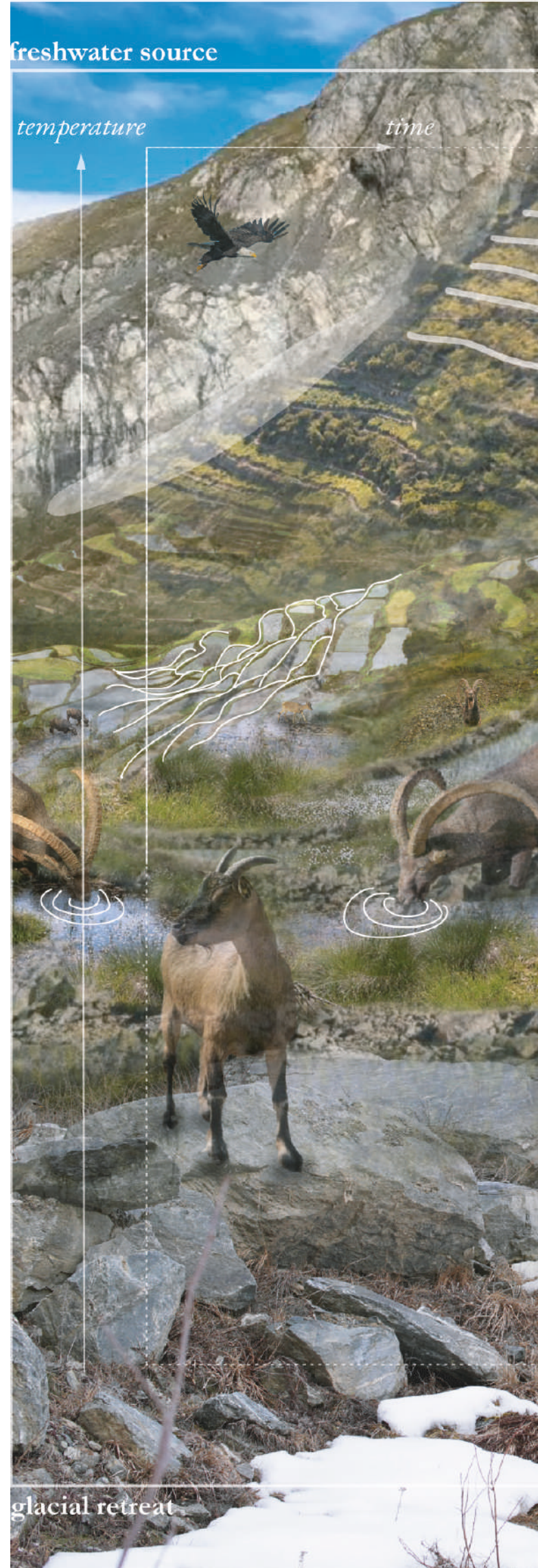
Human agency



environmental disturbance regimes



supporting



retaining



spreading



protecting



reviving



preserving