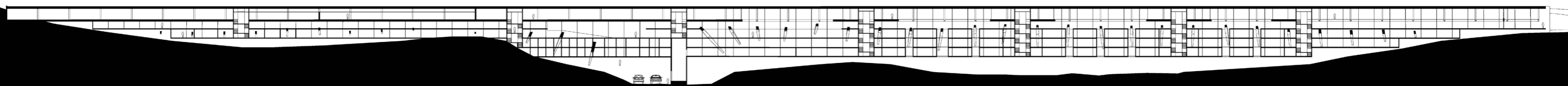


THE FIFTH PLATEAU

DEFINING THE TRESHOLD FOR A THIRD INDUSTRIAL REVOLUTION IN LUXEMBOURG VILLE



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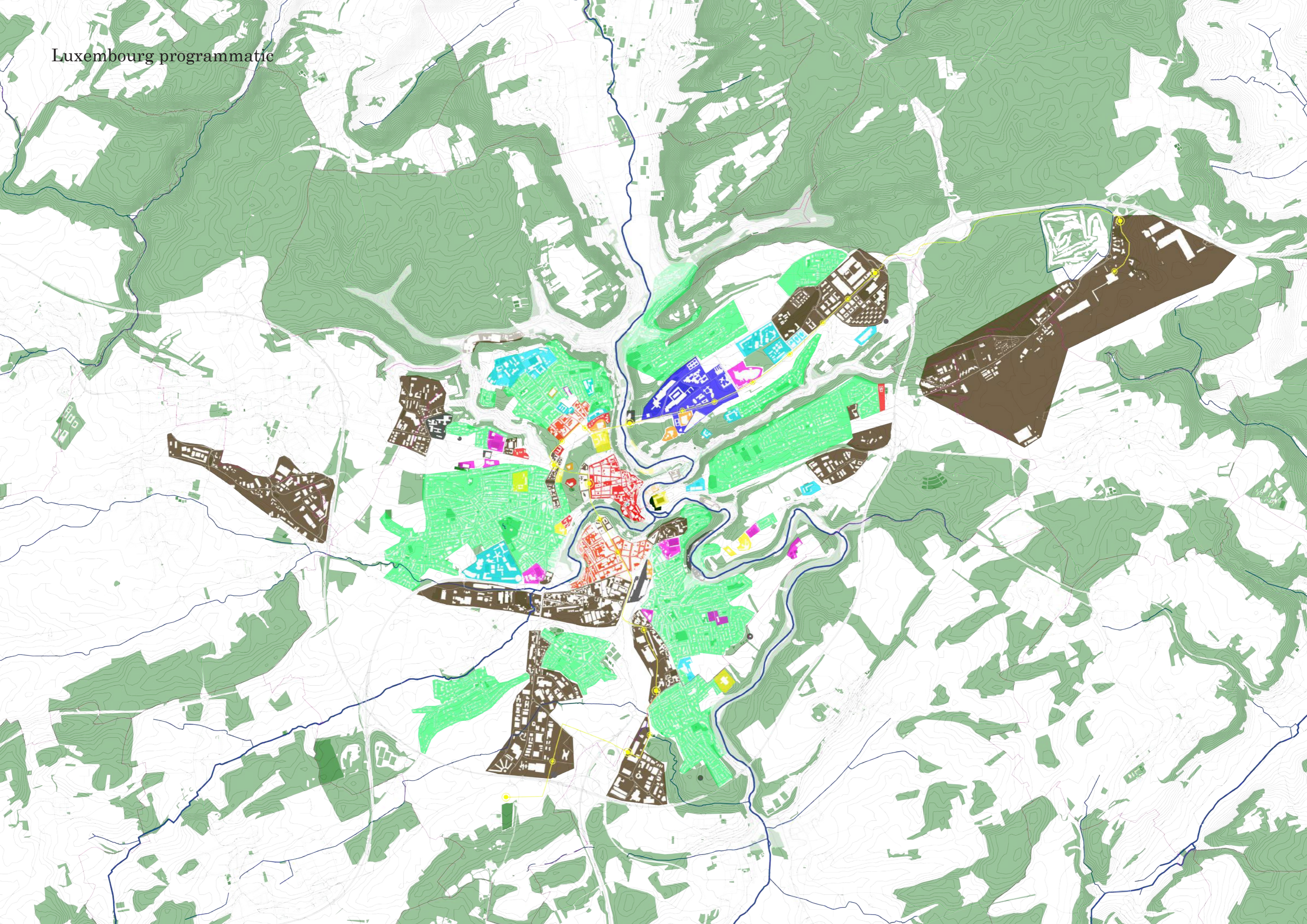
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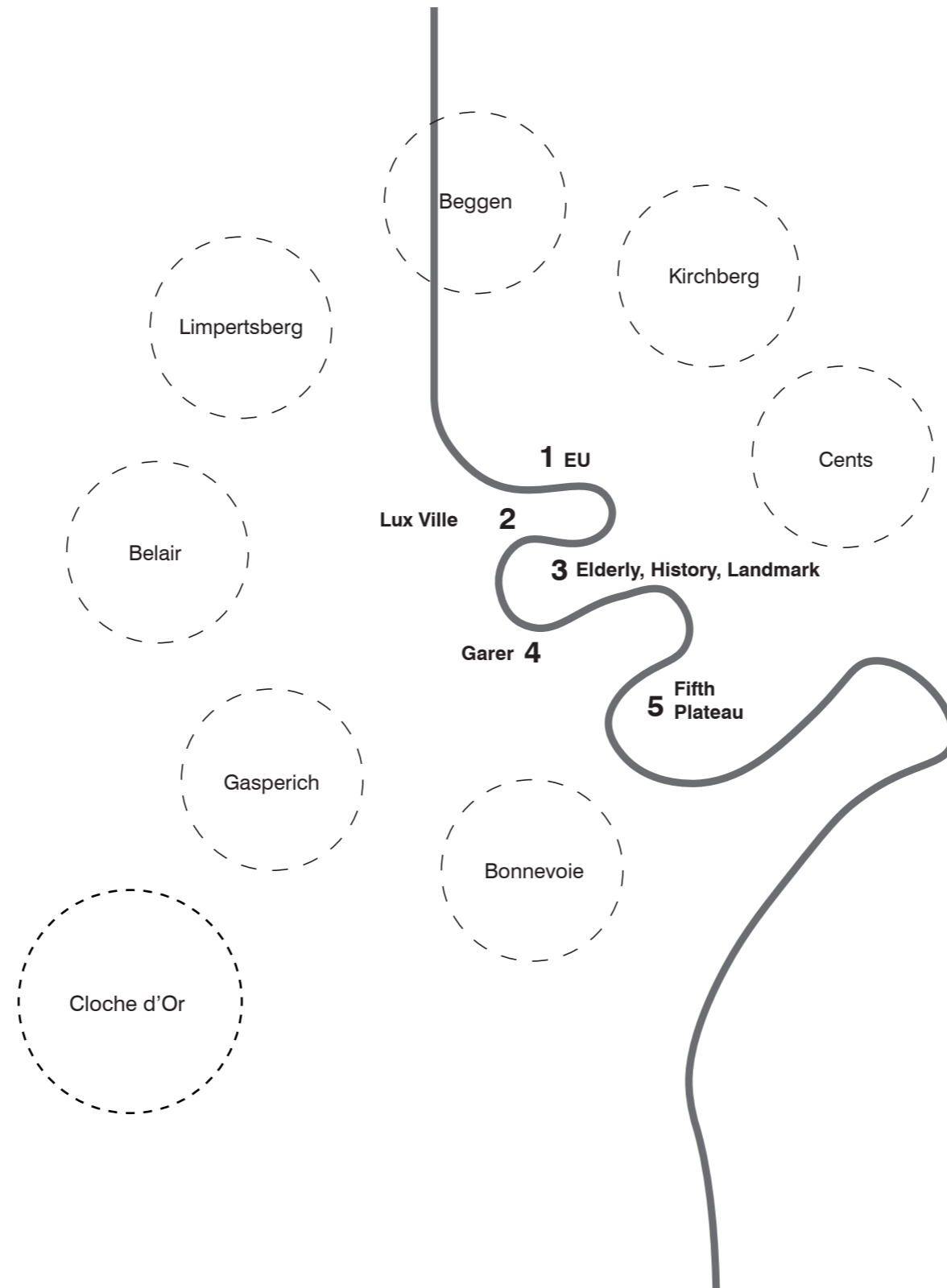
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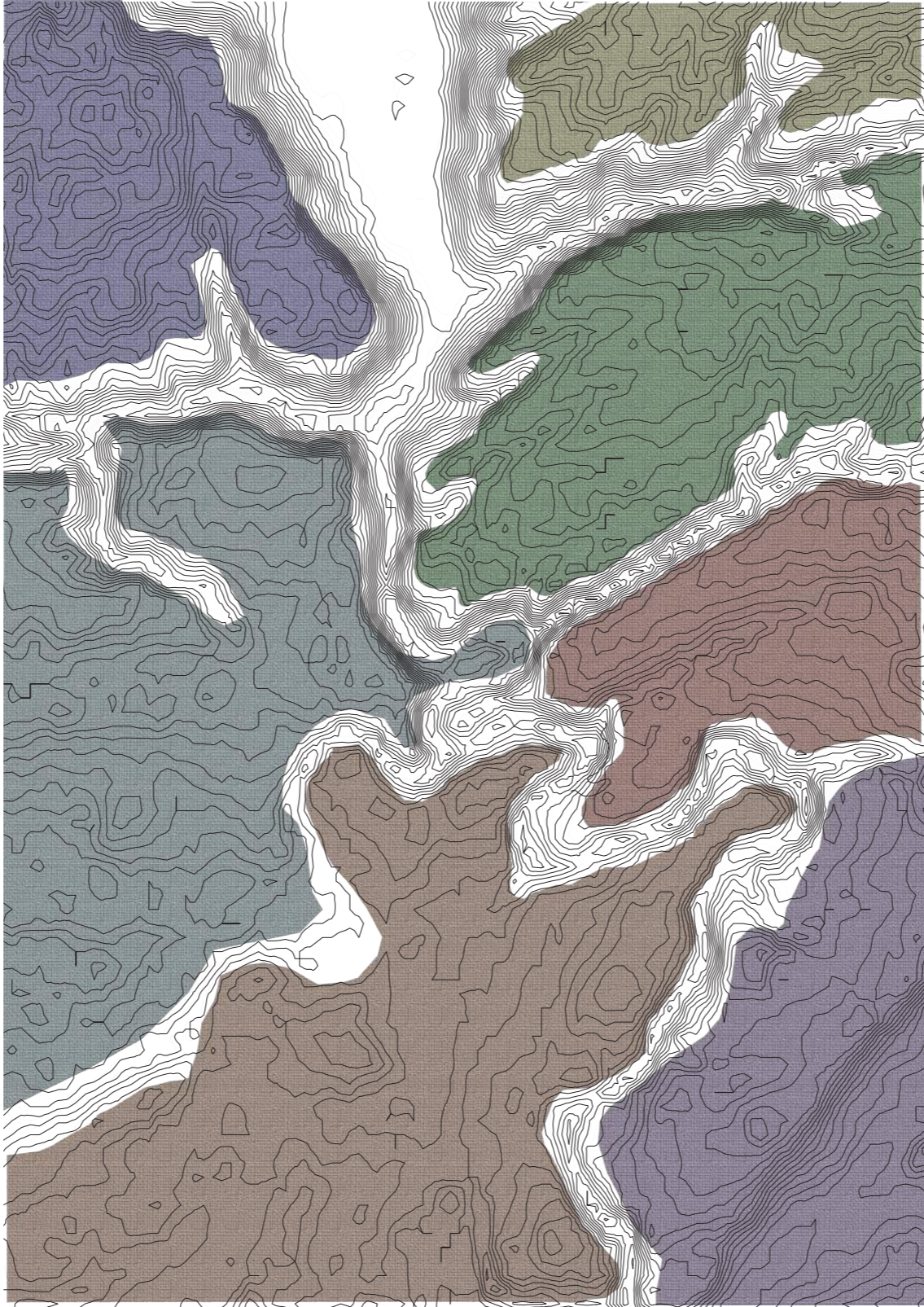
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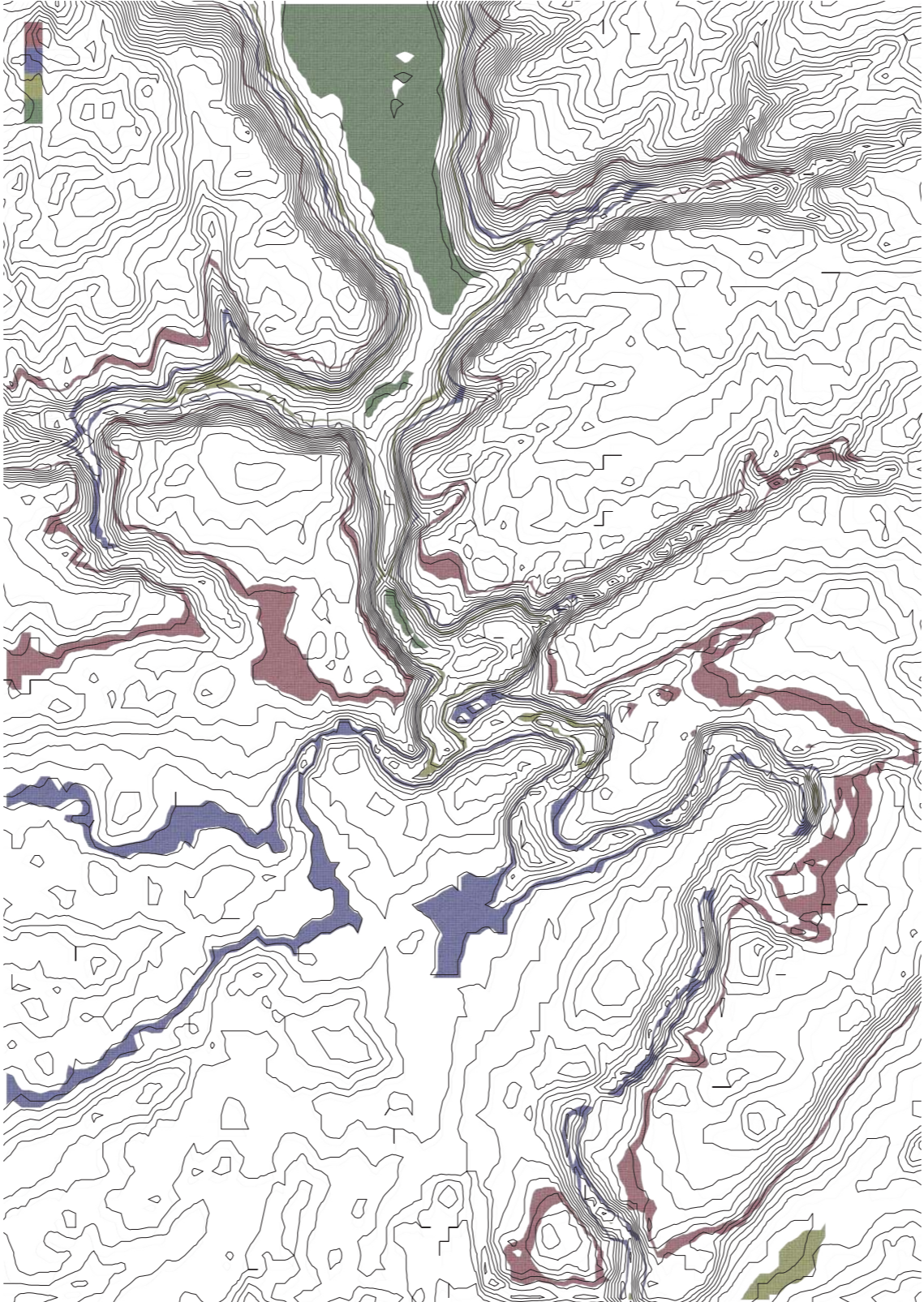
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The Plateaus of Luxembourg



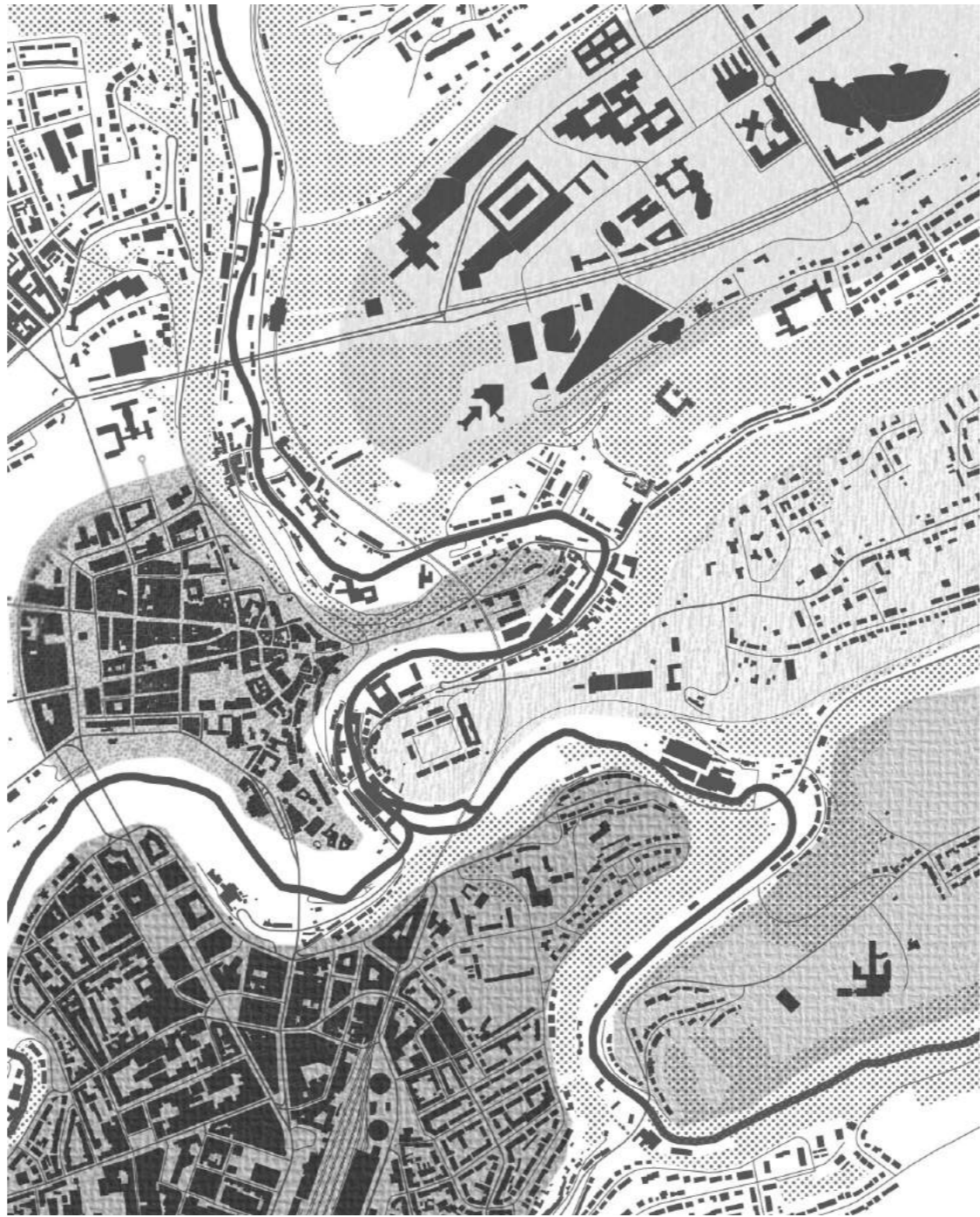
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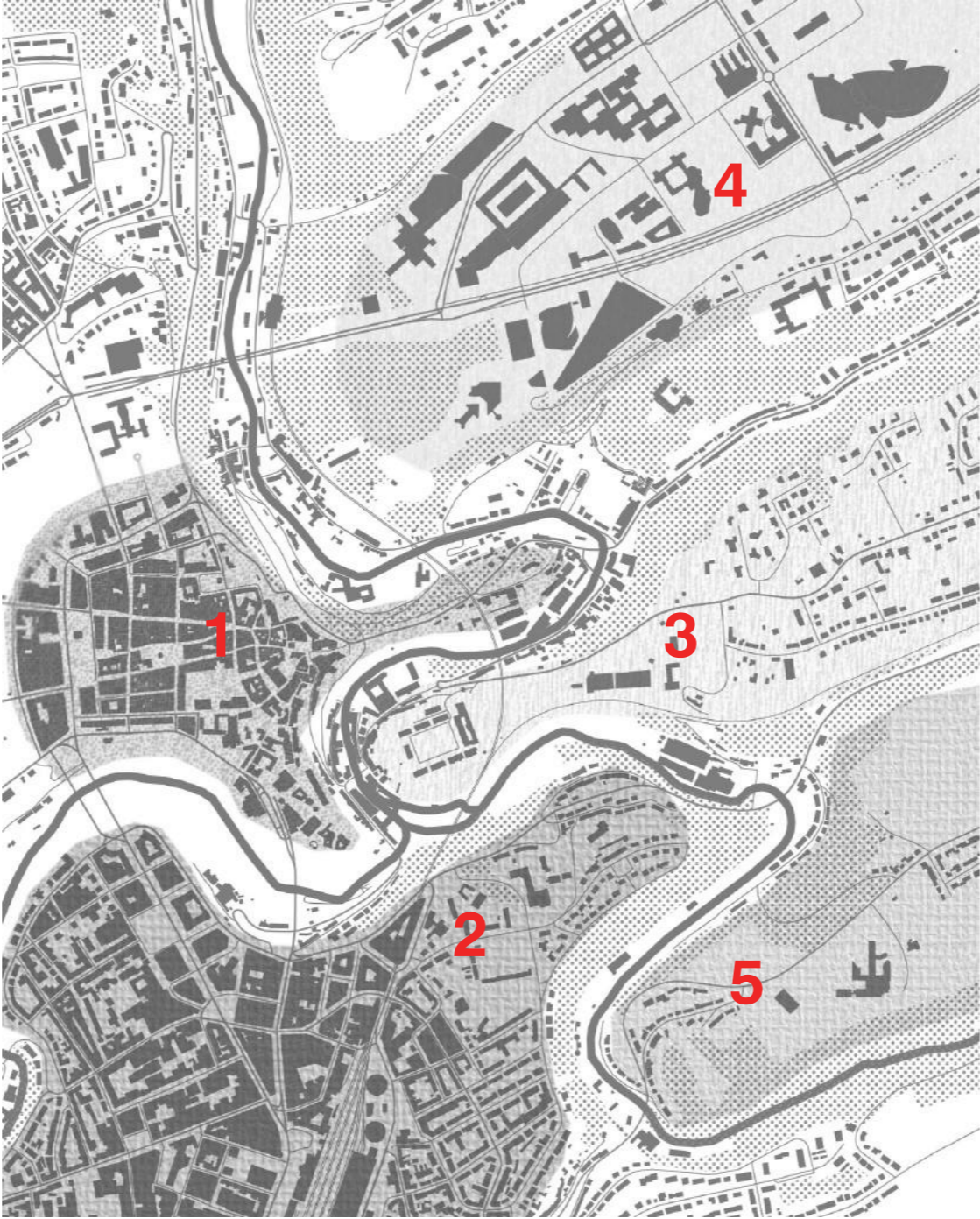
The five plateaus



The five plateaus



The five plateaus



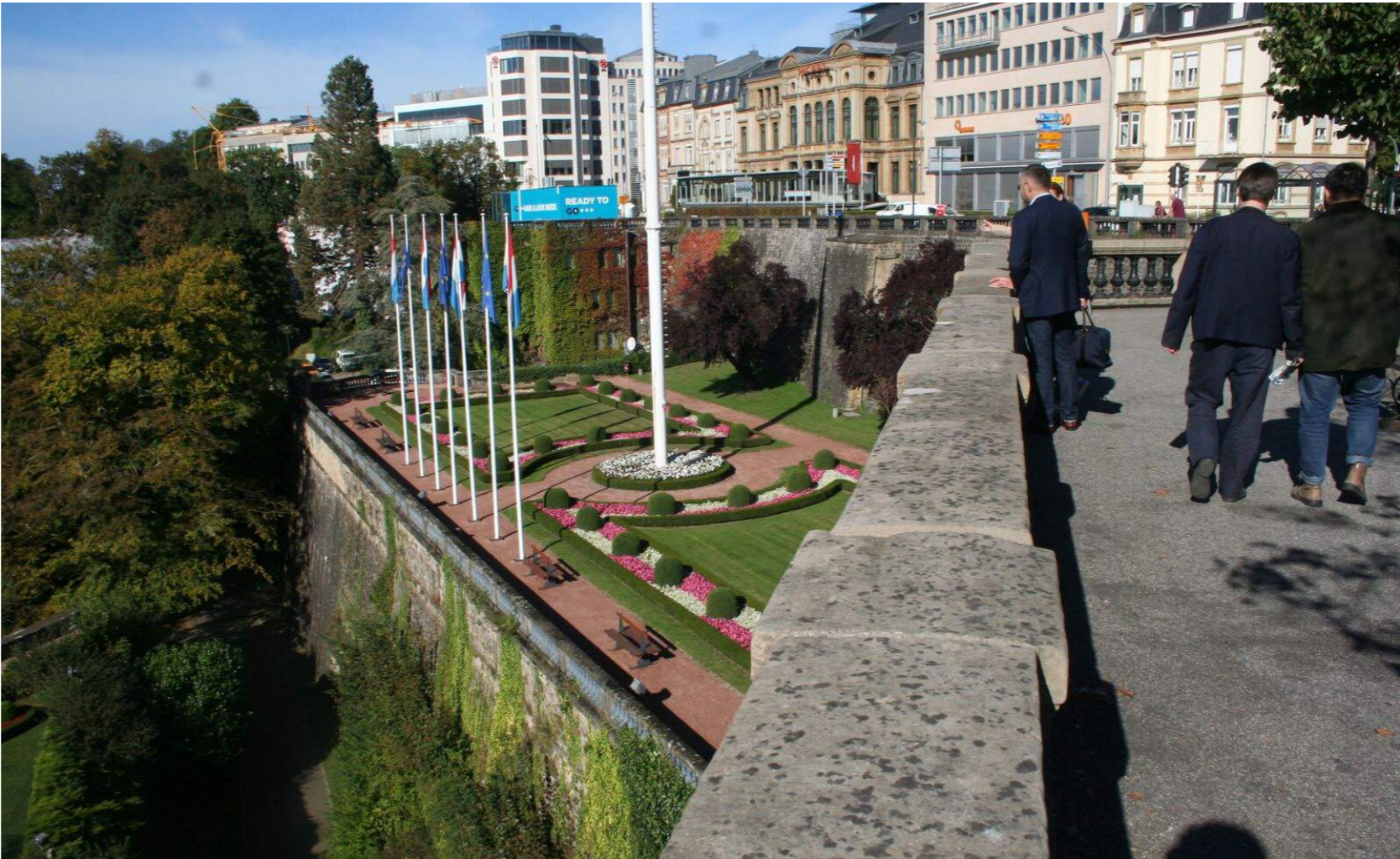
Ville Haute: The urban fabric



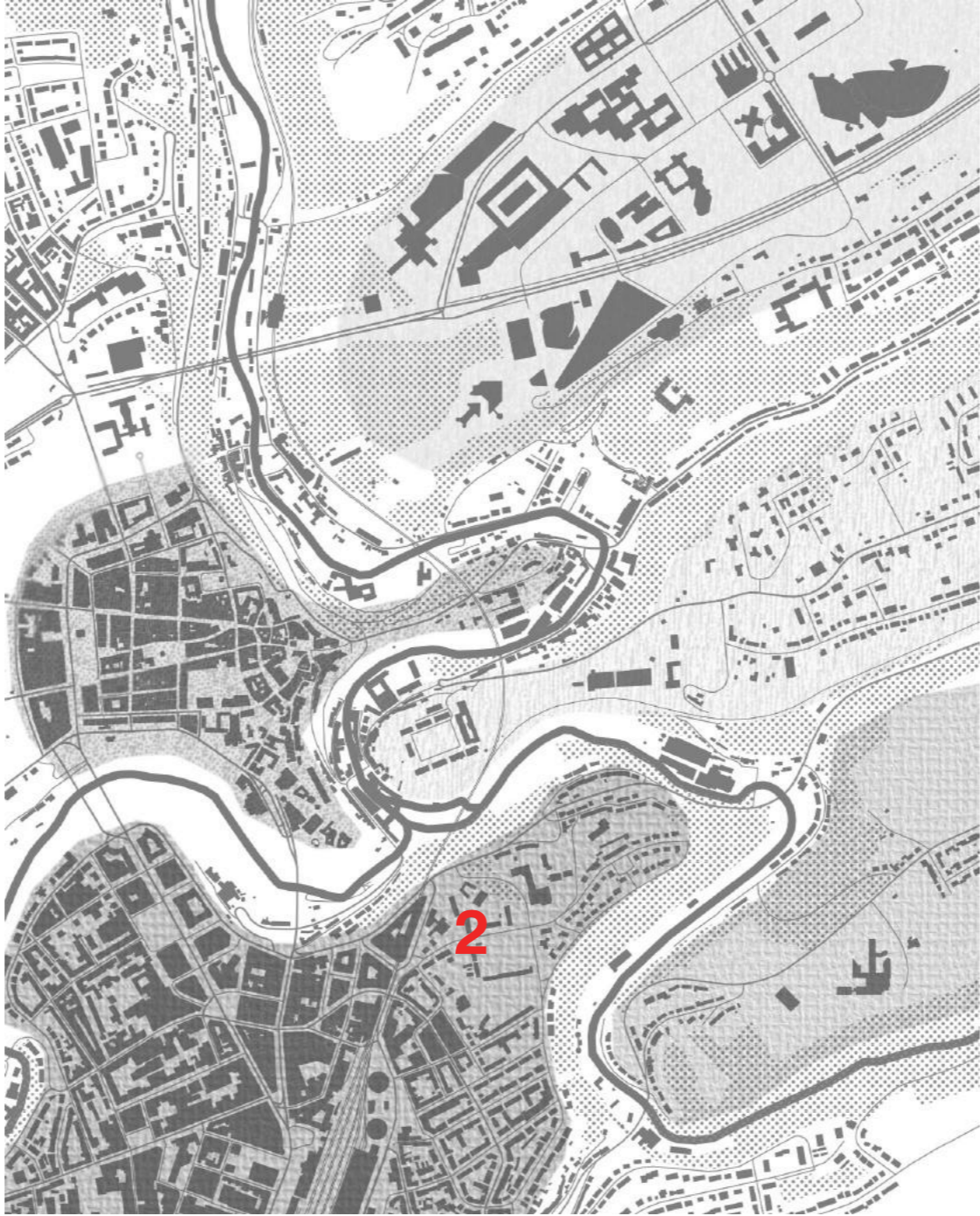
Ville Haute: The fortifications



Ville Haute: The fortifications and public space



The five plateaus



Garer Quartier: The Urban fabric



Garer quartier: The infrastructure for occupation of the Garer Plateau



Garer quartier: The infrastructure for improvement of accessibility



Garer quartier; The Second Industrial Revolution



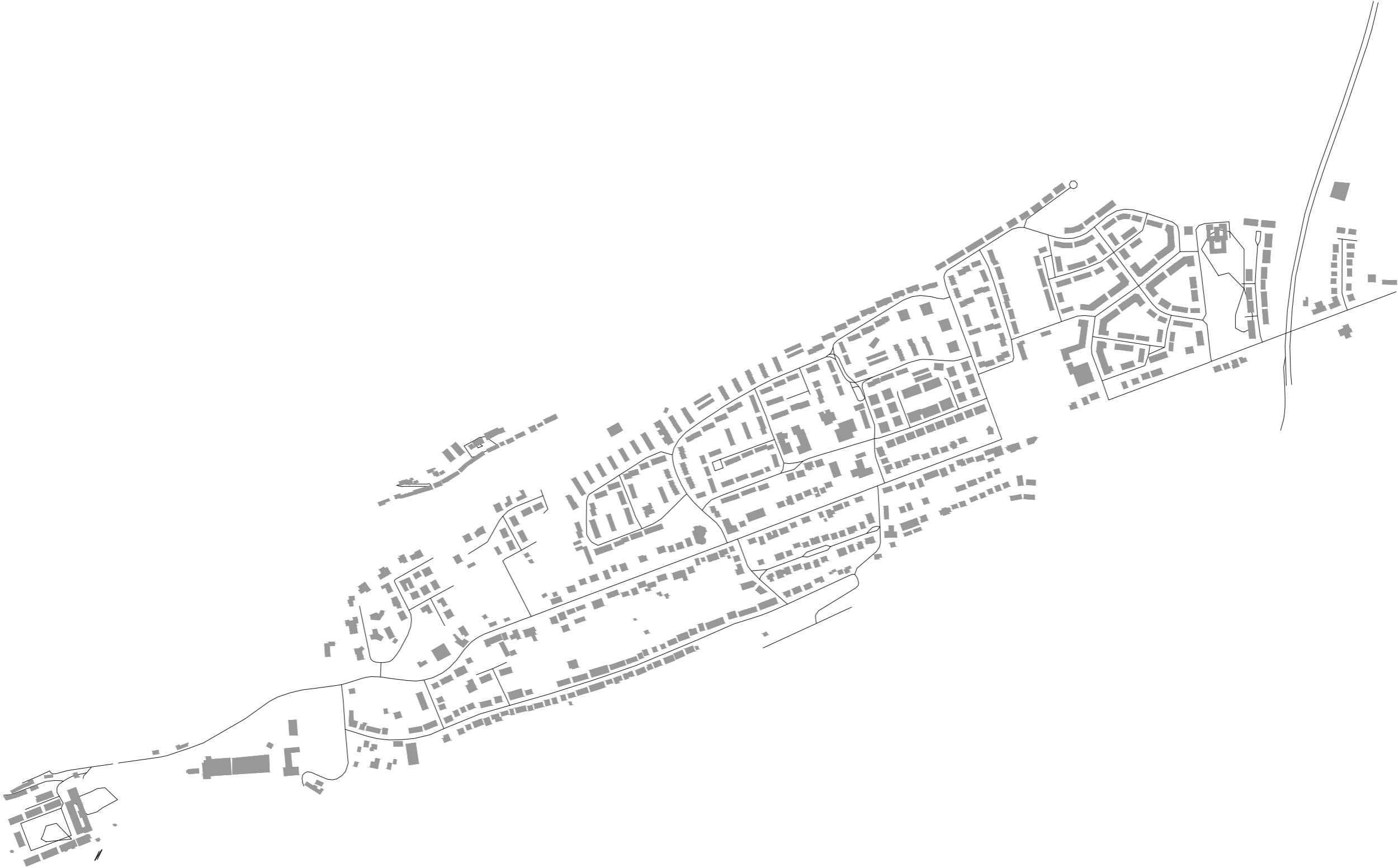
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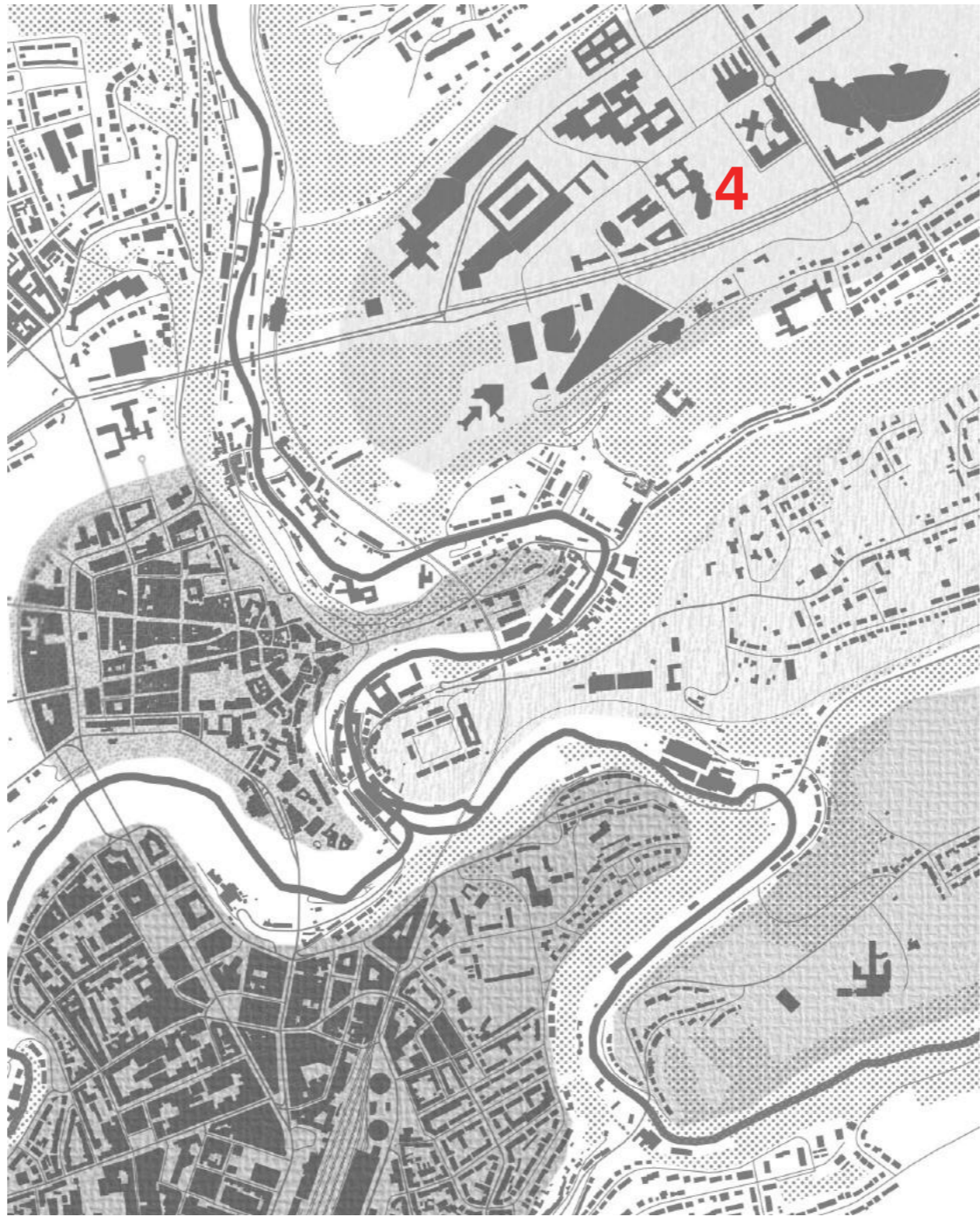
The five plateaus



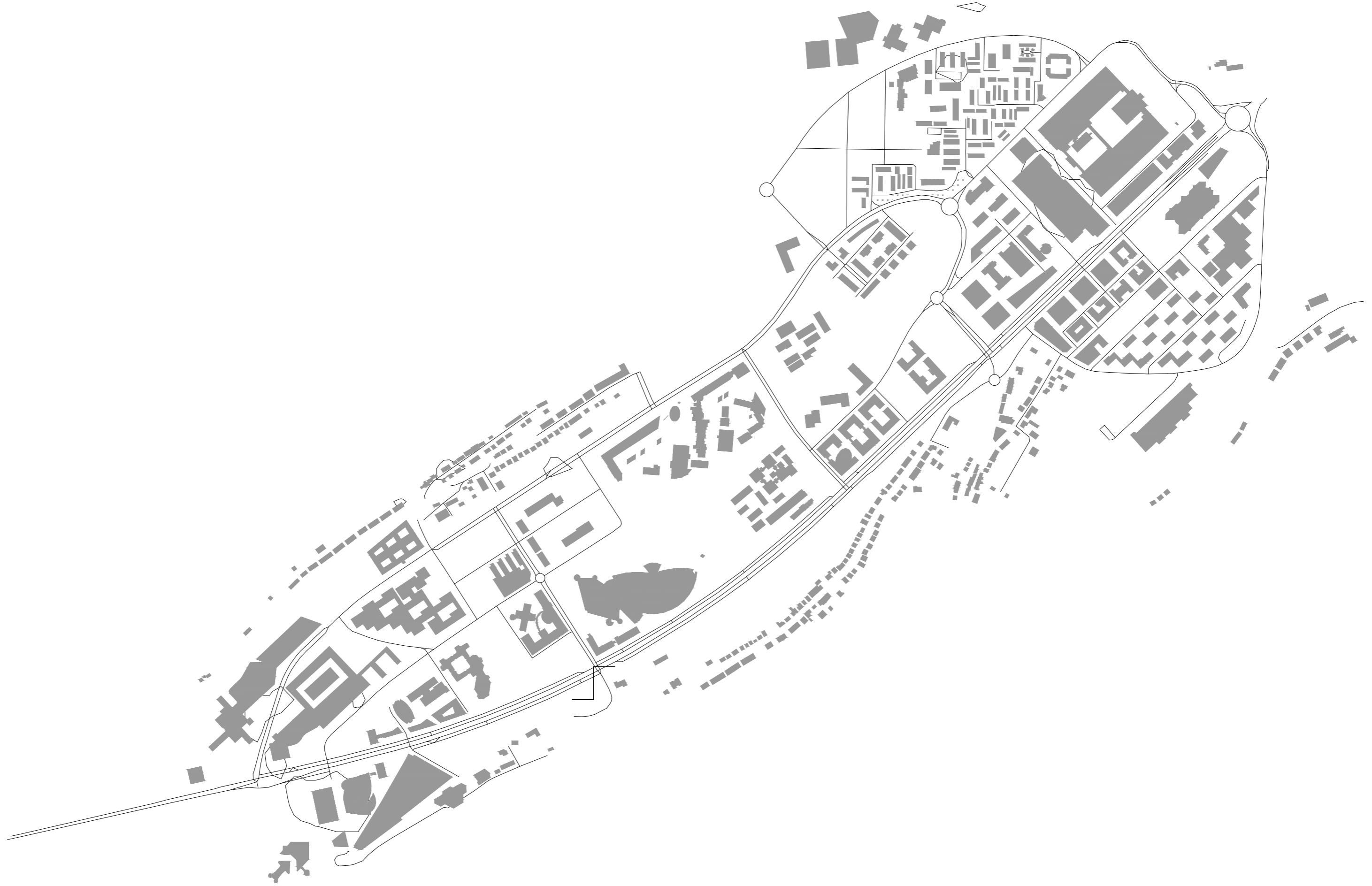
Cents: The urban fabric



The five plateaus



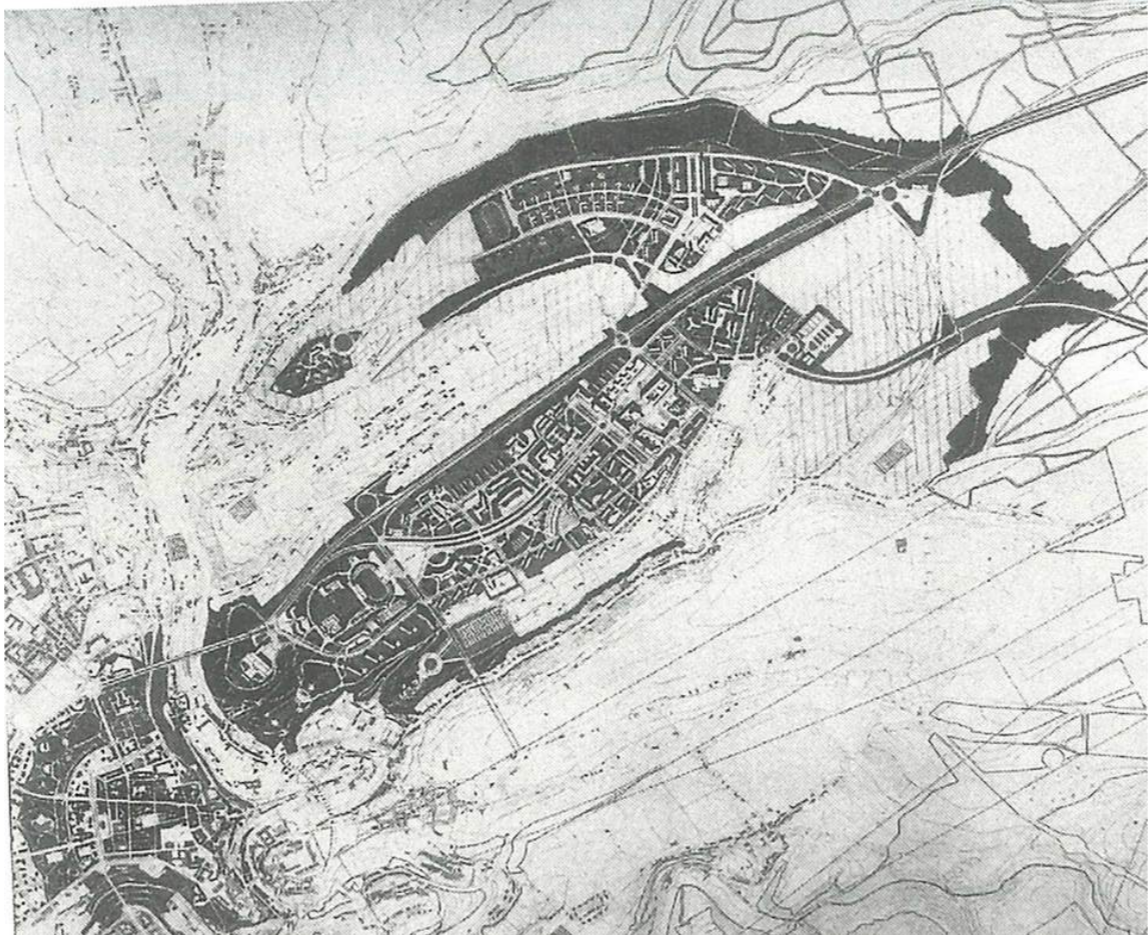
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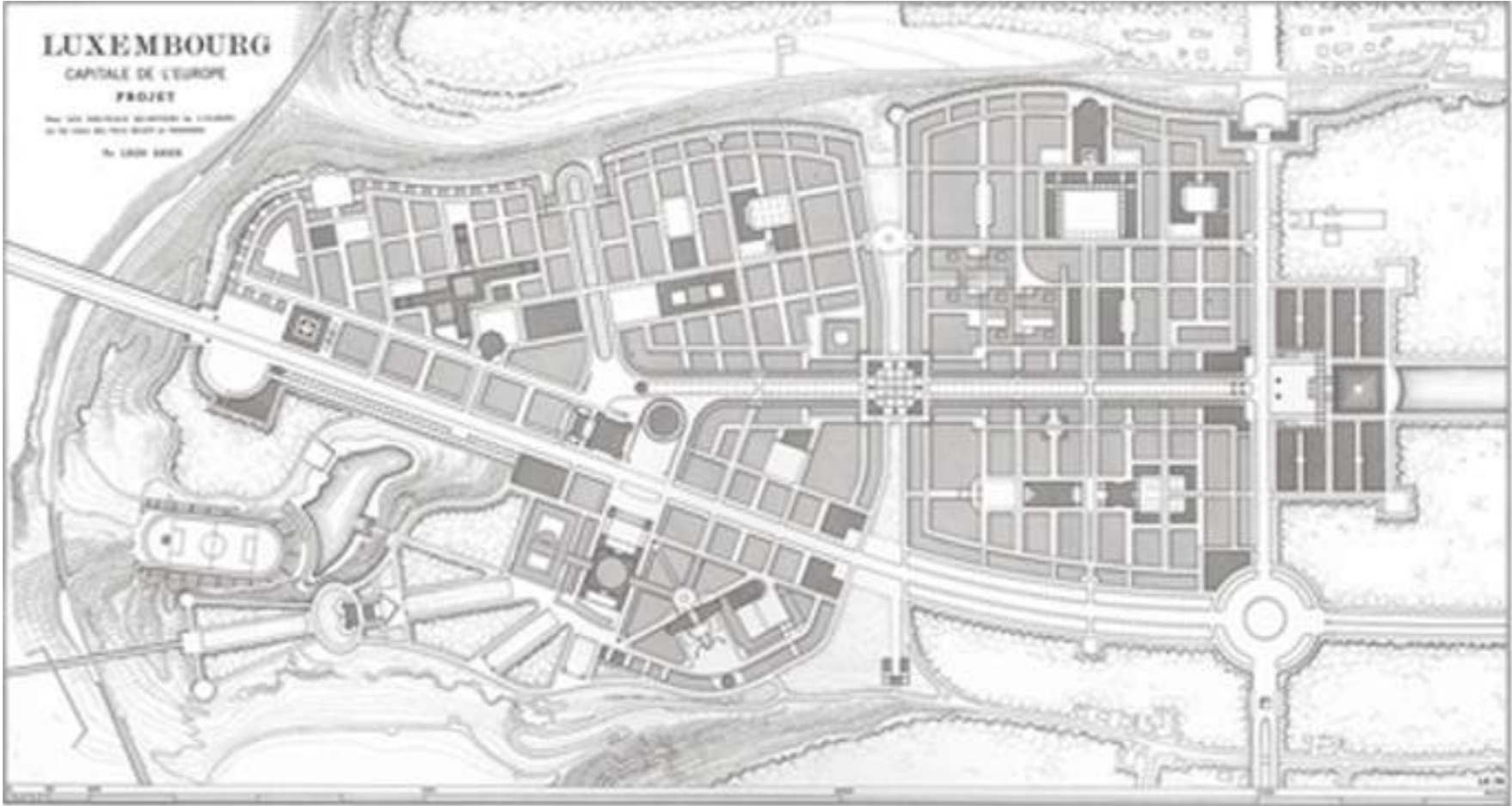
Kirchberg: The infrastructure for occupation of Kirchberg



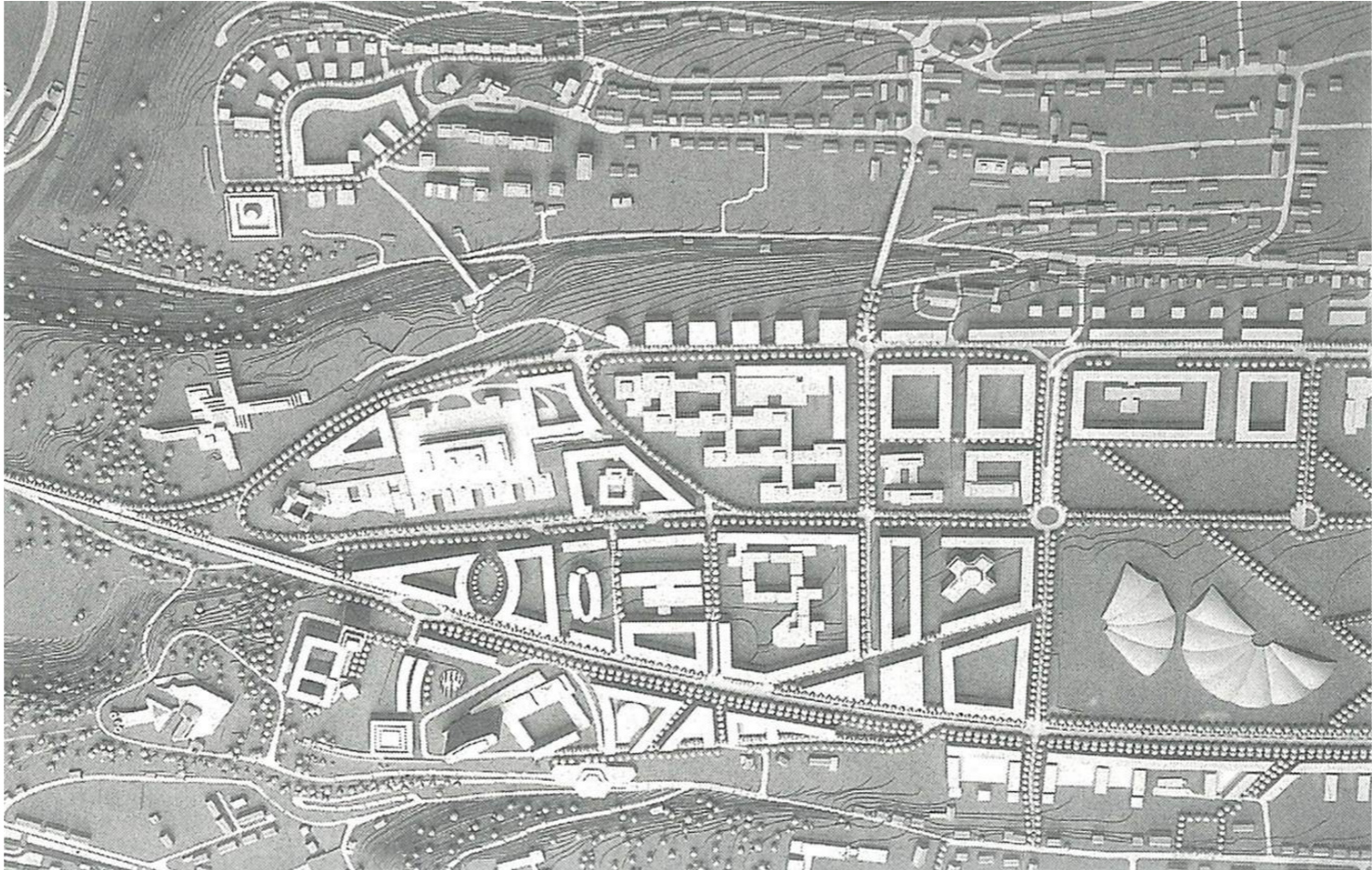
Kirchberg's urbanization, Luja's Masterplan



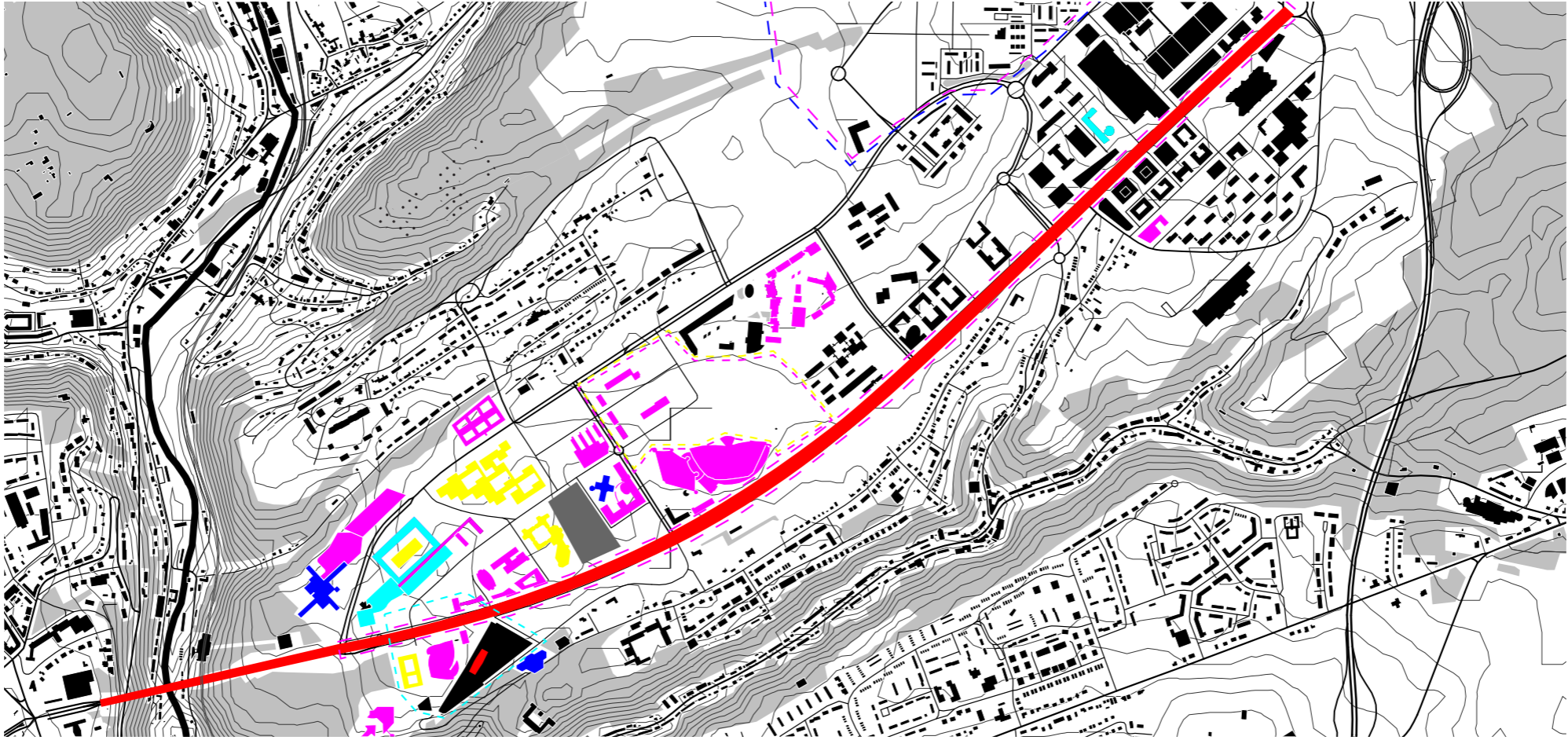
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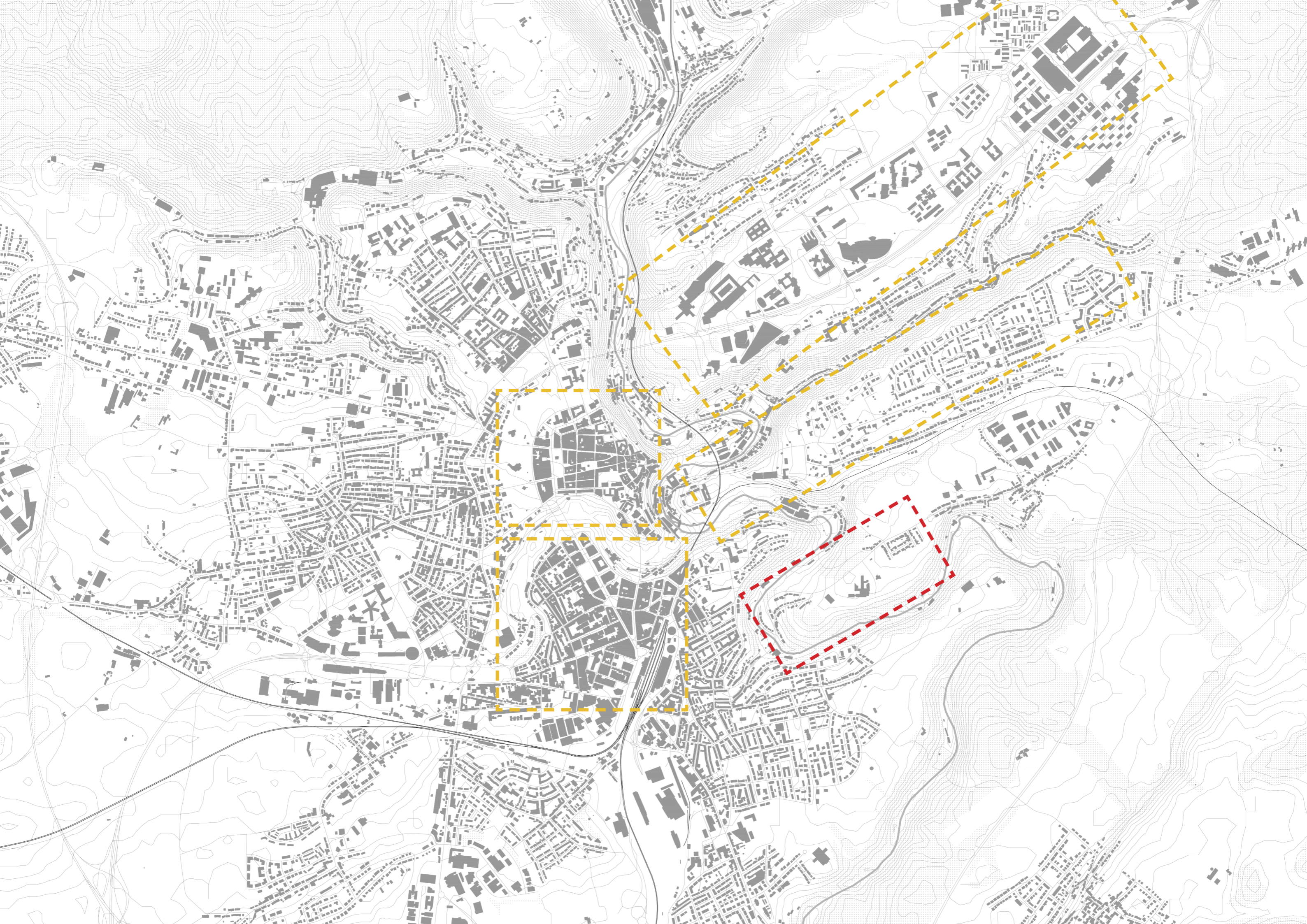


Kirchberg's urbanization, Masterplan of 1993

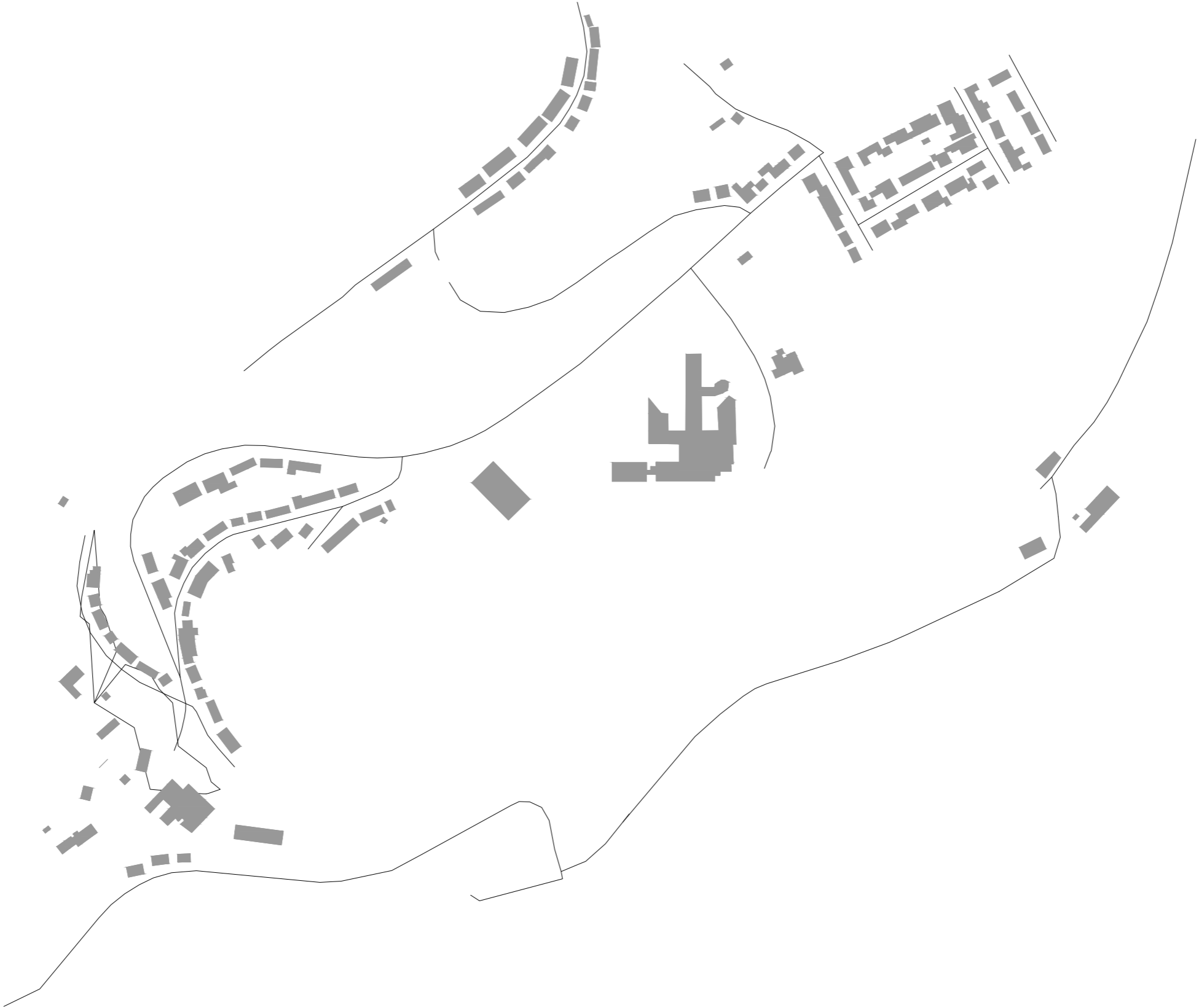


Kirchberg's urbanization, Current condition

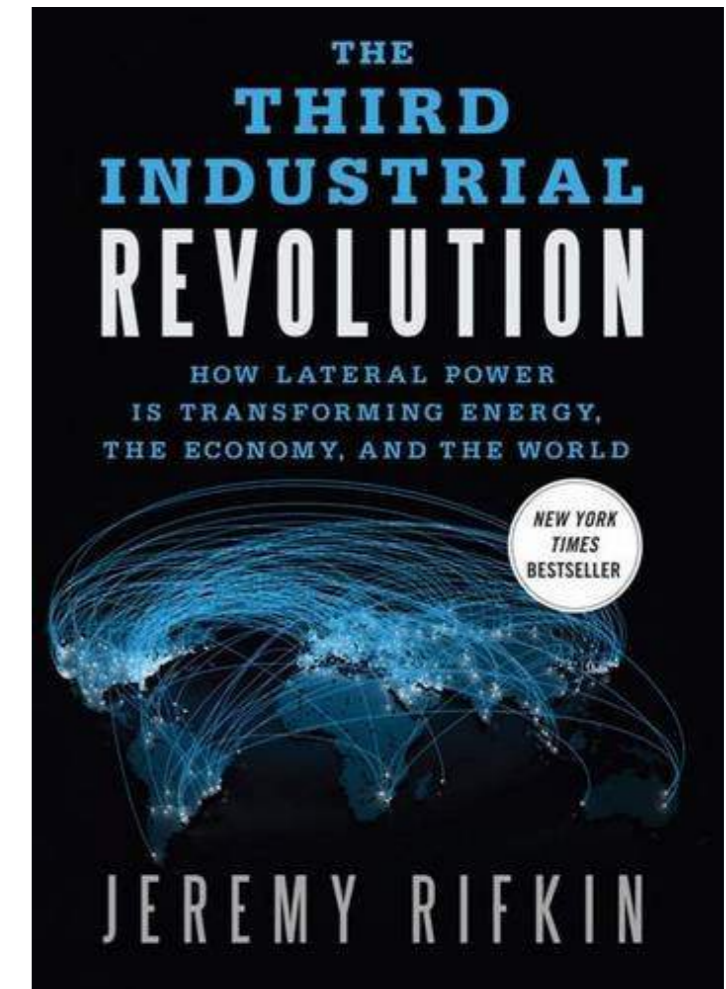




The Fifth Plateau; an empty plateau within the system of plateaus in Luxembourg Ville



This empty plateau in Luxembourg on a central location with both the airport and the train station in close proximity seems to be interesting. We could consider this deserted island as an opportunity for Luxembourg to start the next chapter in their long history of occupying plateaus with as main driver new economic ambitions and urban desires.



“The Ministry of the Economy, the Chamber of Commerce and IMS Luxembourg officially launched in September 2015 the Third Industrial Revolution project for the Grand-Duchy. This project, inspired by Jeremy Rifkin’s theory, aims at defining a new long term economic model in which three technologies converge: new information and communication technologies, new sources of energy, and new modes of transportation.”

http://imslux.lu/eng/nos-activites/pole-de-specialites/8_the-third-industrial-revolution-in-luxembourg

What we learned from the development of Kirchberg is that planning for uncertainty is never an easy task. Therefore I propose an architecture of specificity on the fifth plateau as an element of programmatic and infrastructural certainty, that might guide future developments in a more elaborate manner.

DEFINING SPECIFICITY

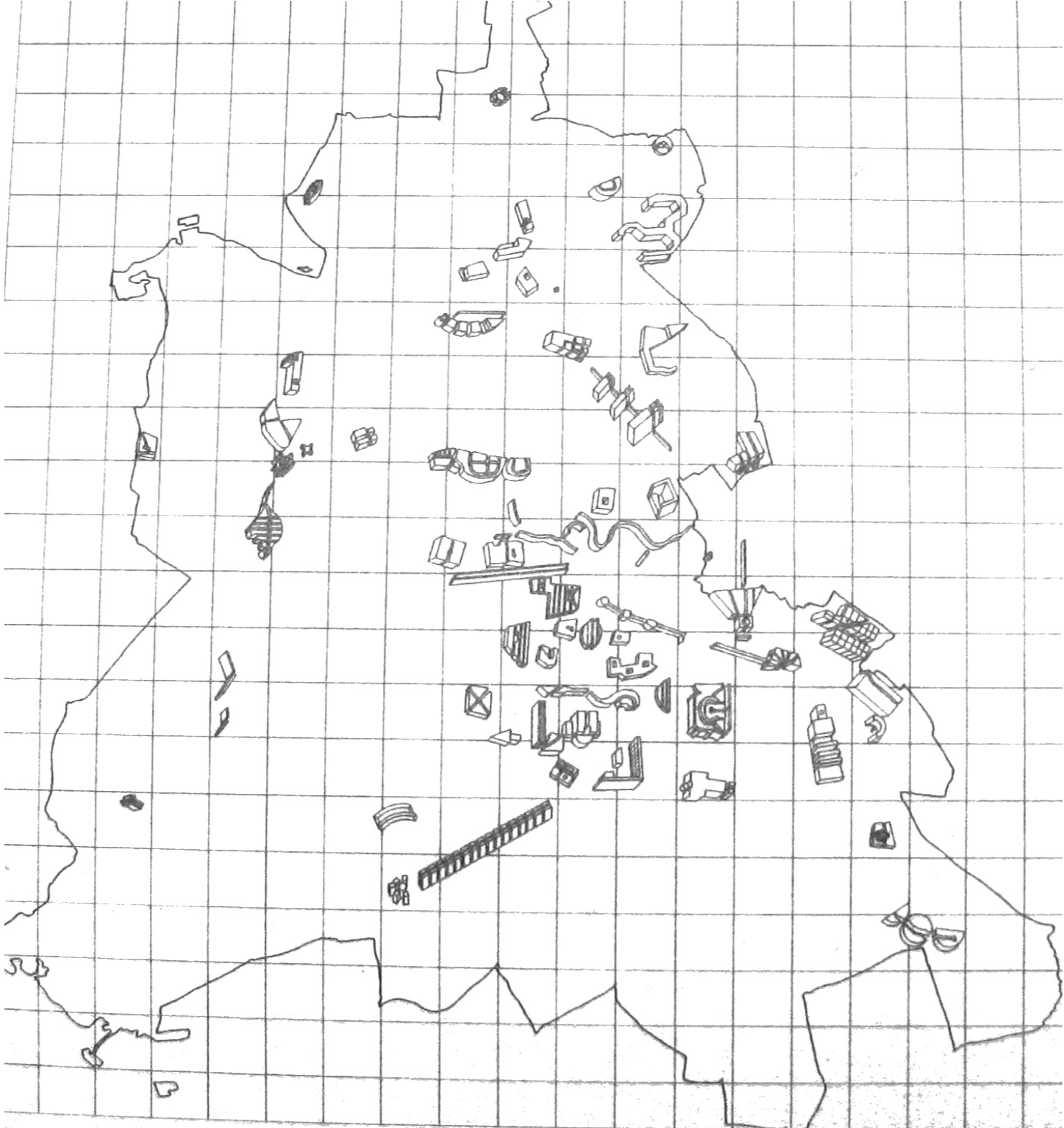
SIGNIFYING ELEMENTS

Theoretical framework

Luxembourg's specifics

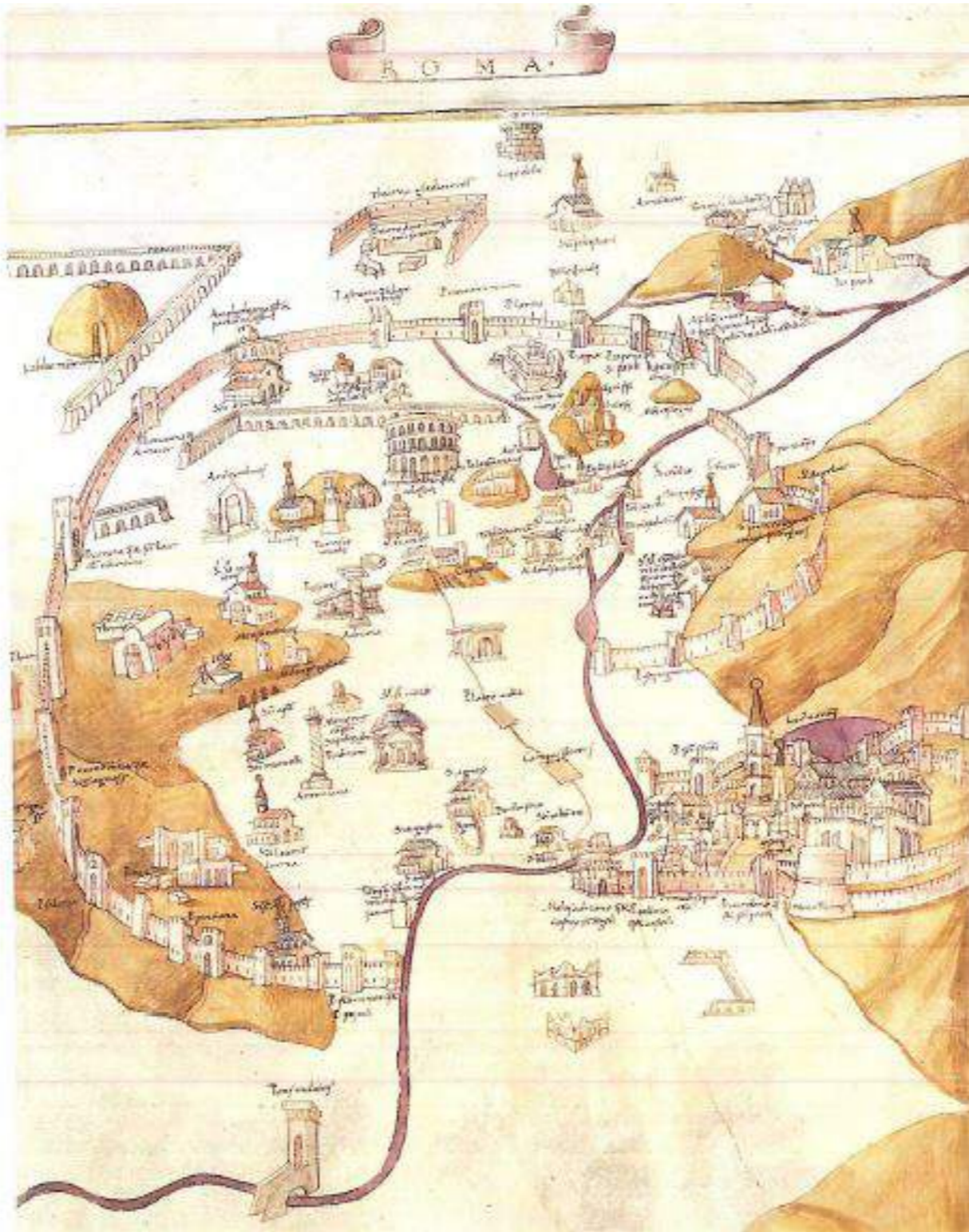
Impact on eye level

Reduction of Berlin to the most essential architectural elements



Berlin a green archipelago - O.M. Ungers

Reduction of Rome to the signifying elements

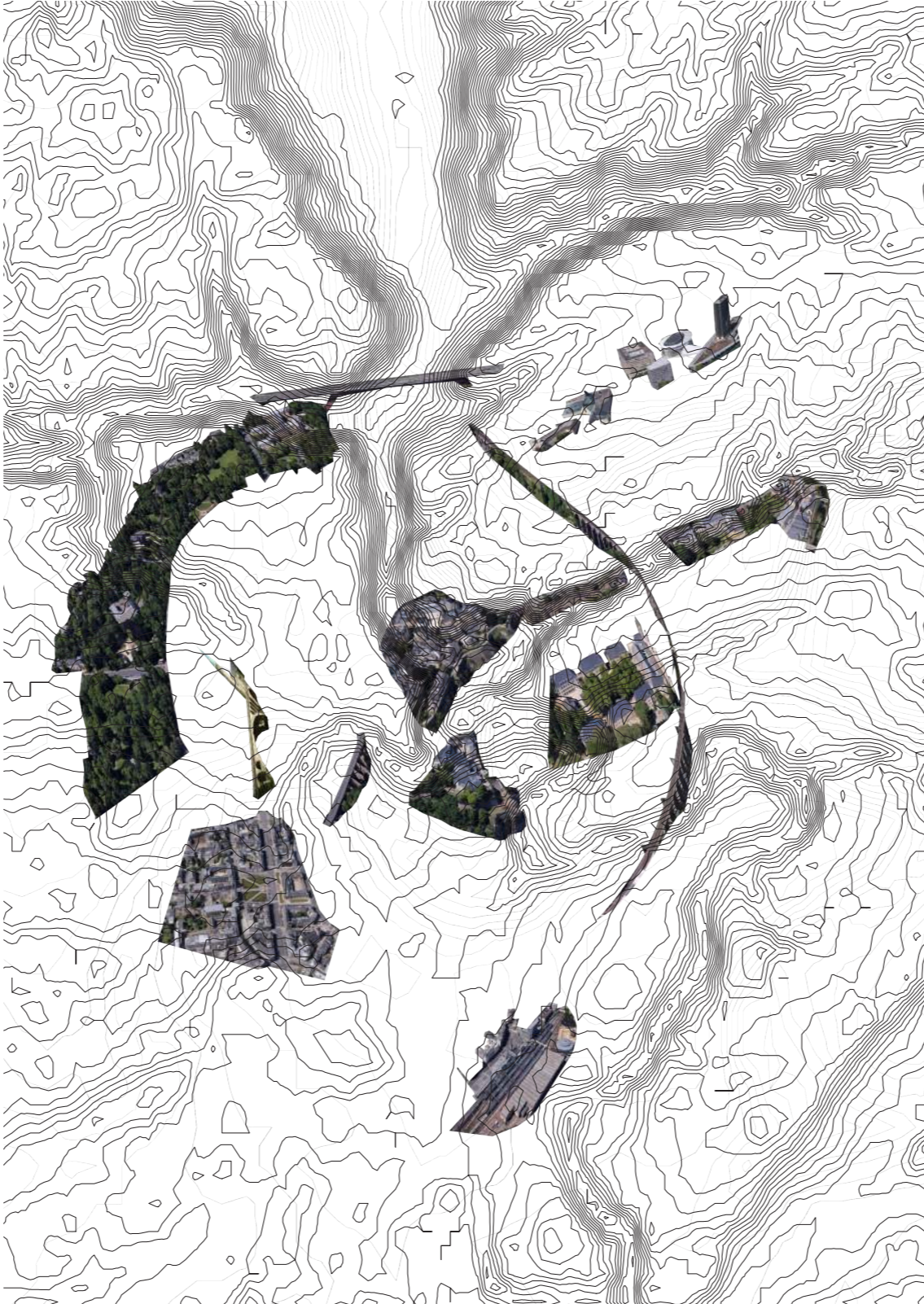


Map of Rome - Strozzi

A manifesto for the specificity of the ground, the thing underneath the urban

SÉBASTIEN MAROT
**SUBURBANISM
AND THE ART
OF MEMORY**

Signifying elements of Luxembourg



The Stoppers, Connectors and communicators of Luxembourg



Communicators, stoppers and connectors of Luxembourg

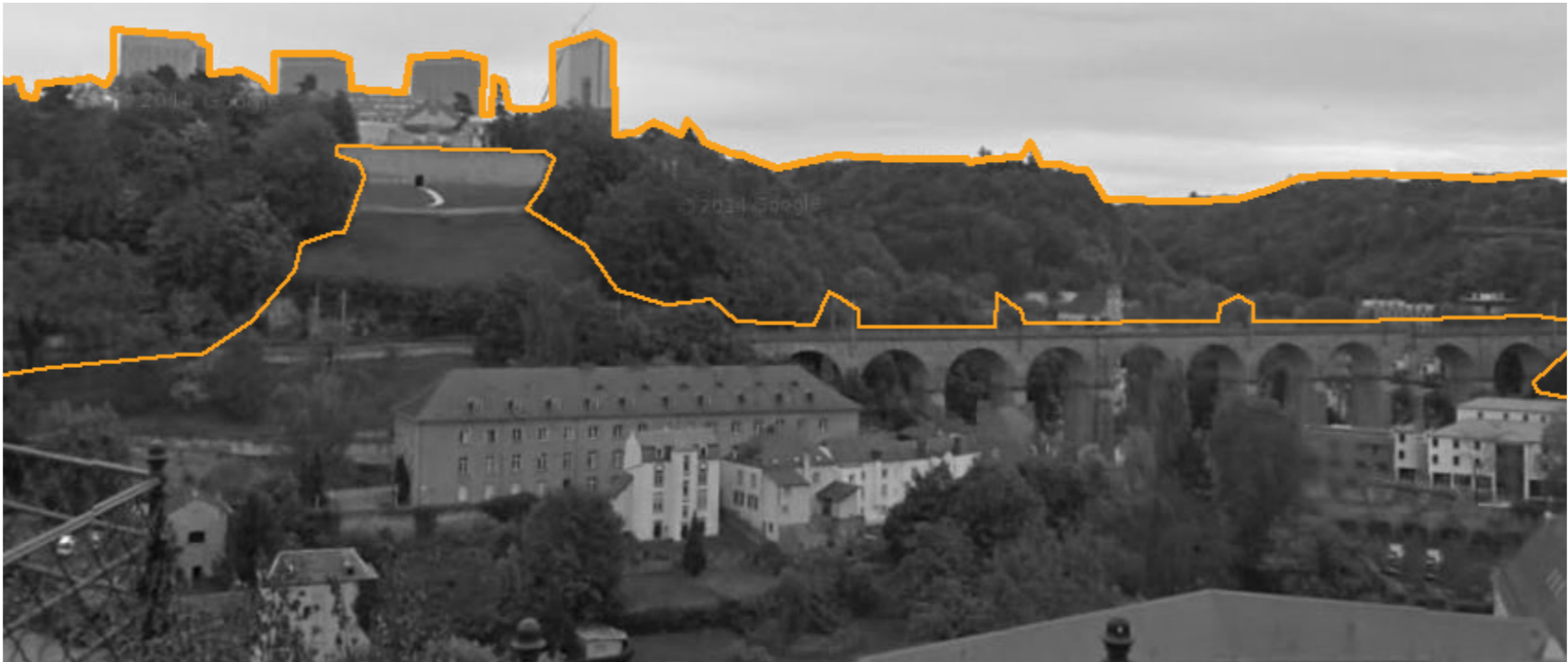
View on Ville Haute and Kirchberg from the Cents plateau



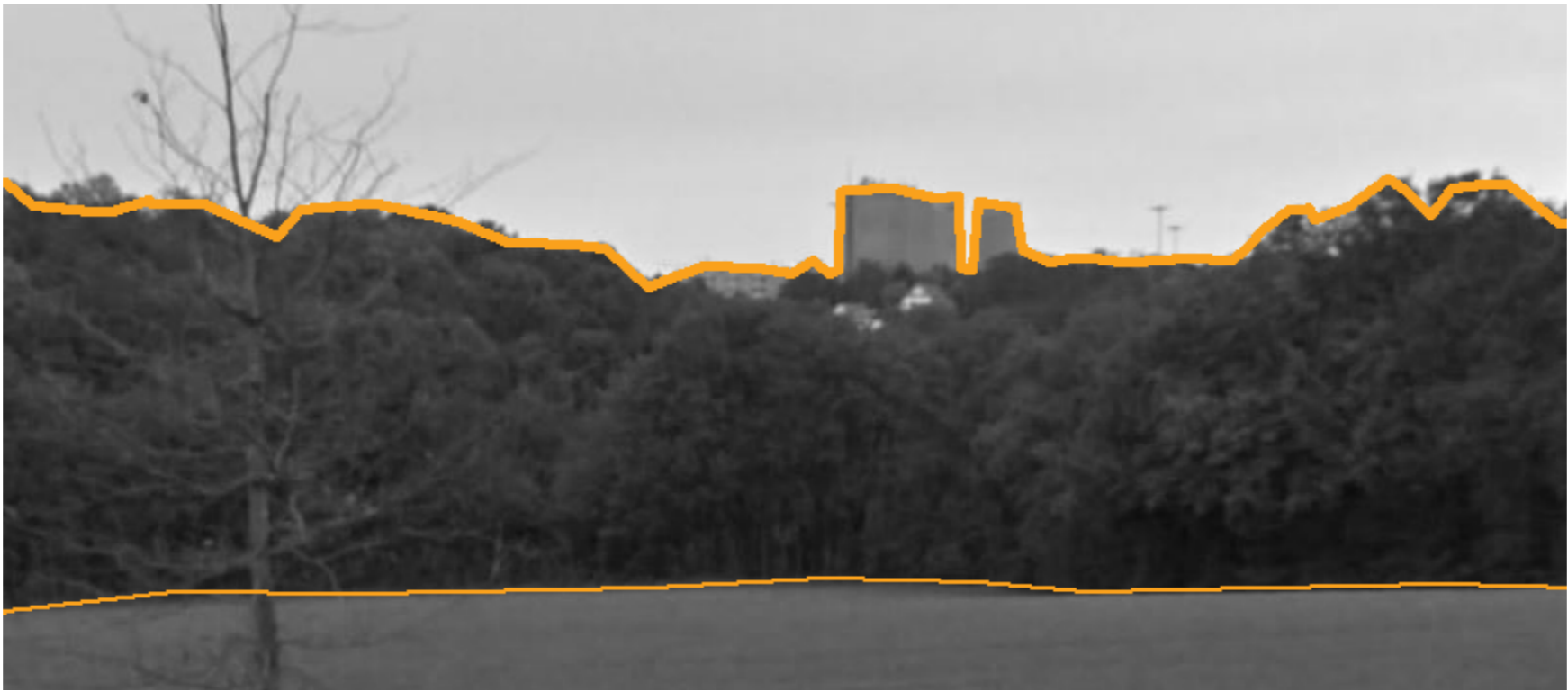
View on Ville Haute from the Garer plateau



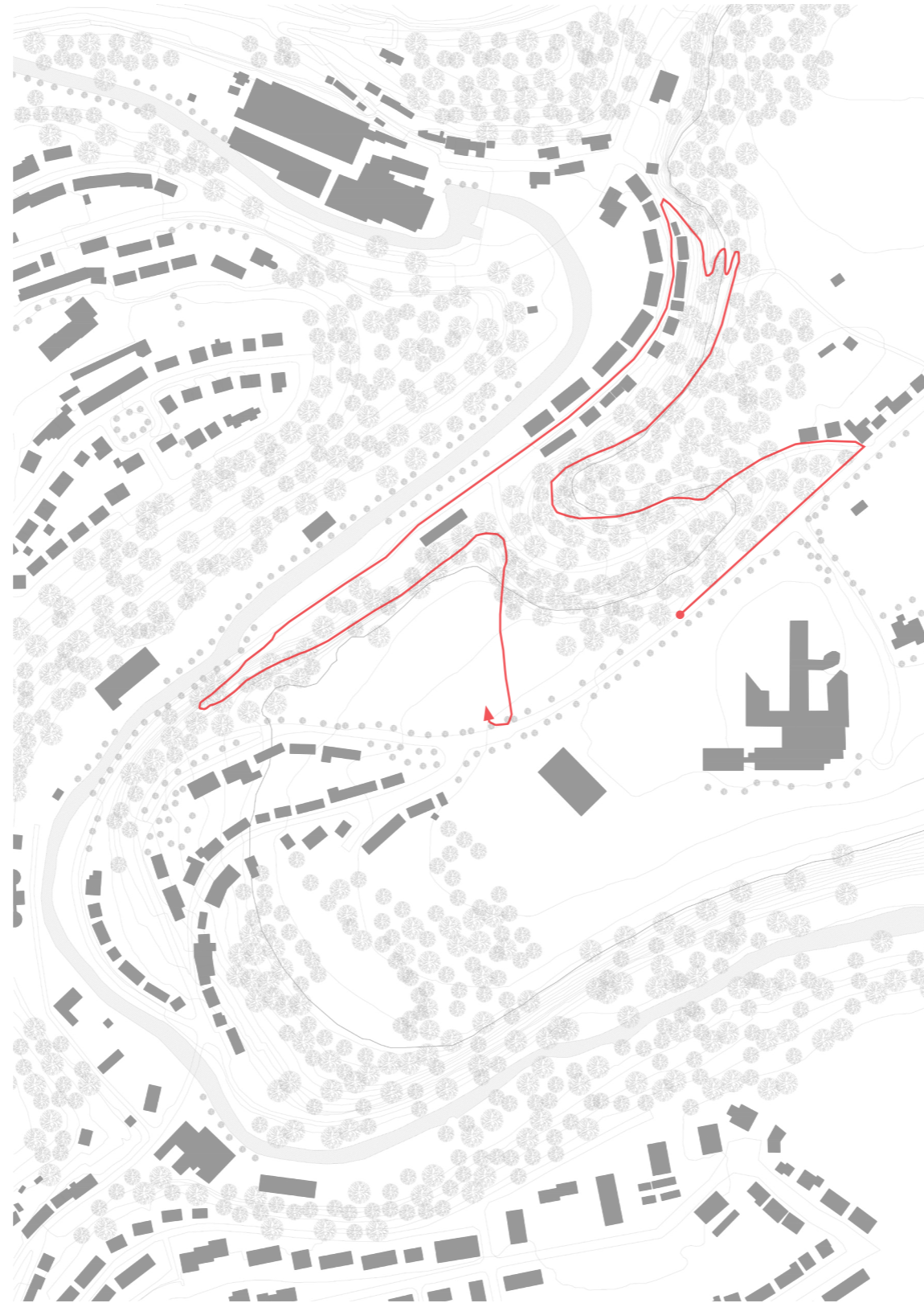
View on Kirchberg from Ville Haute



View on Kirchberg from the Fifth Plateau



What about the specifics on the fifth plateau.



Sloping down towards the valley



Long views towards the Cents plateau



The edge of the fifth plateau



The unpaved pedestrian paths along the contour



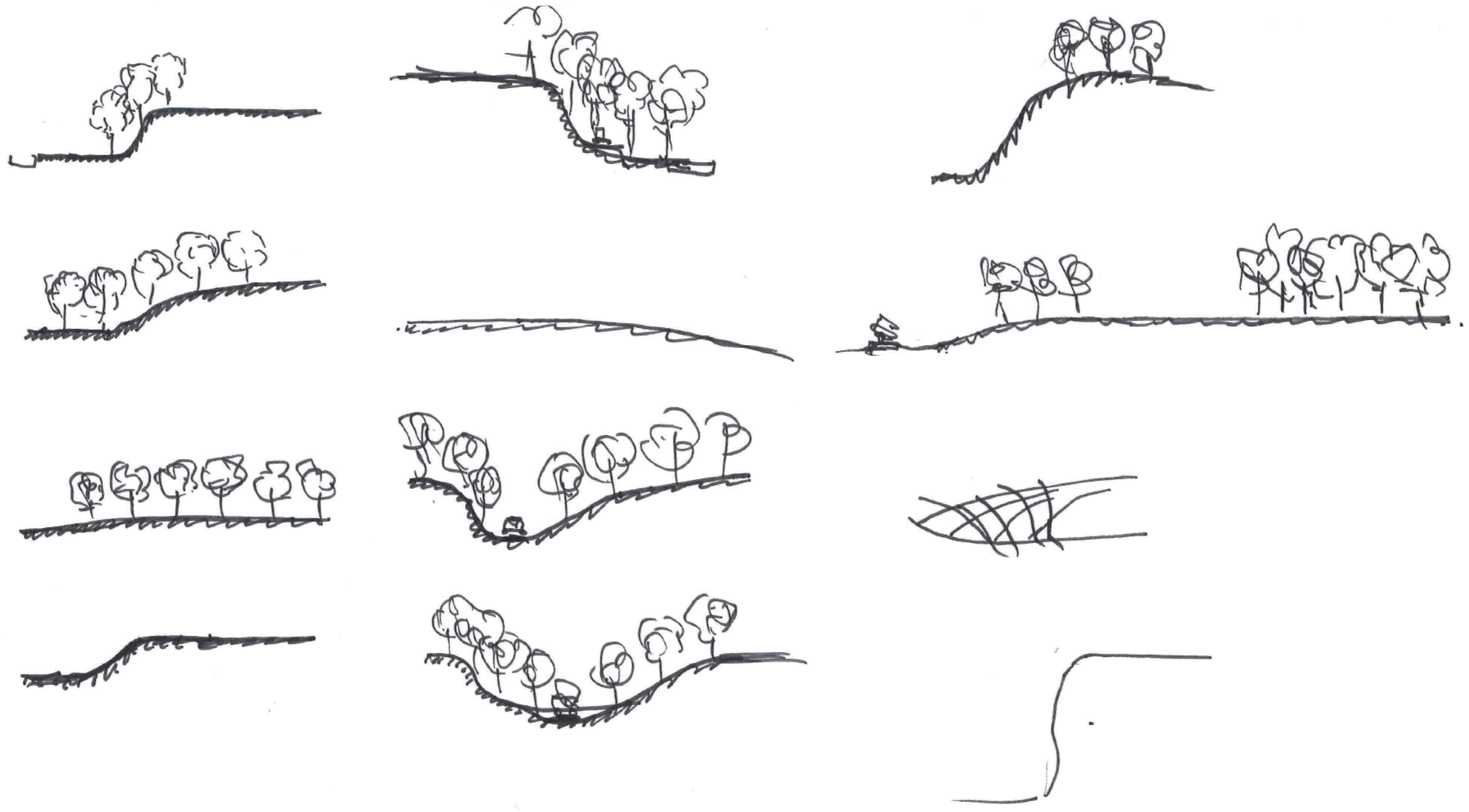
View from the fifth plateau over the edge

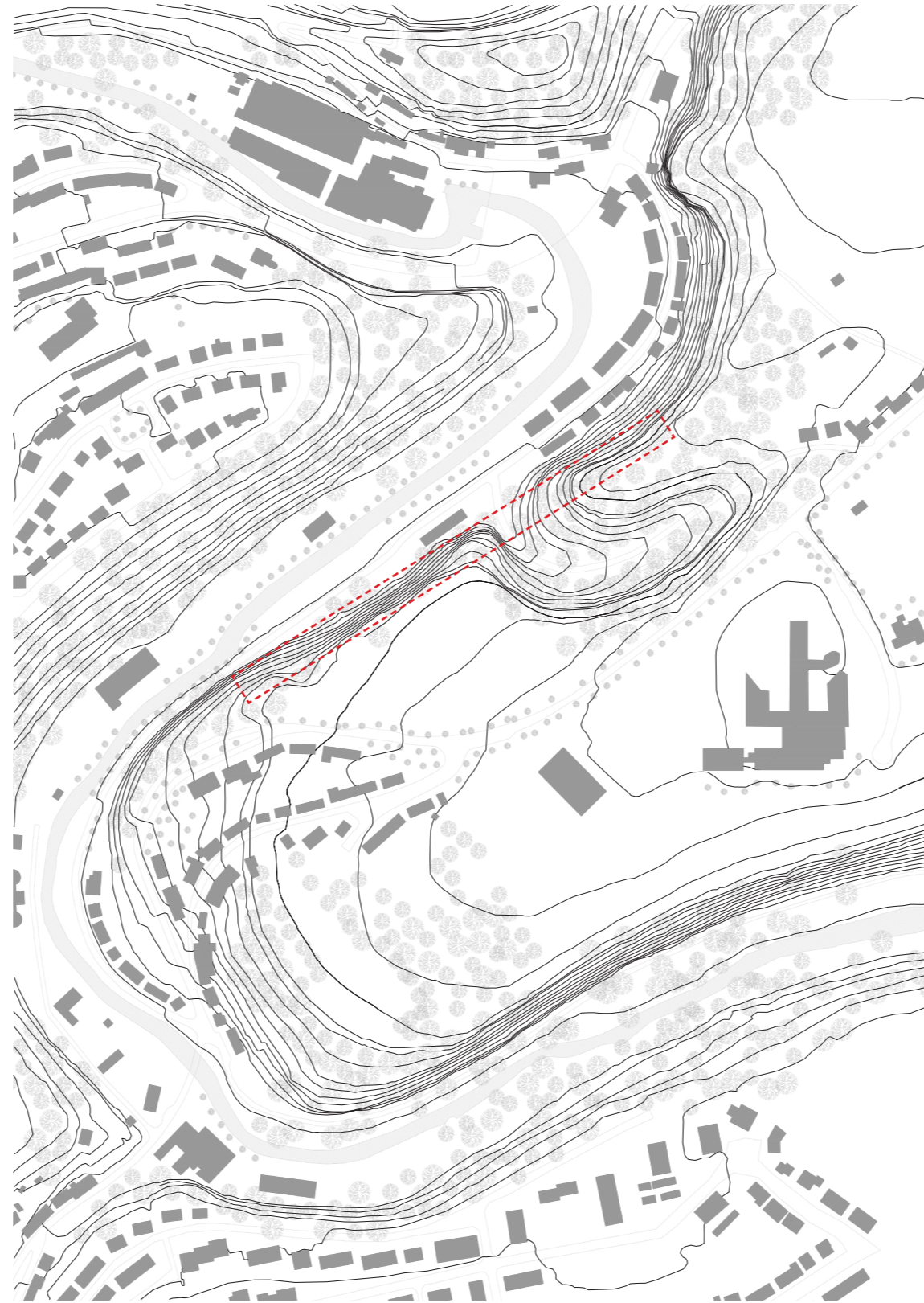


The Fifth Plateau



View from the fifth plateau over the edge





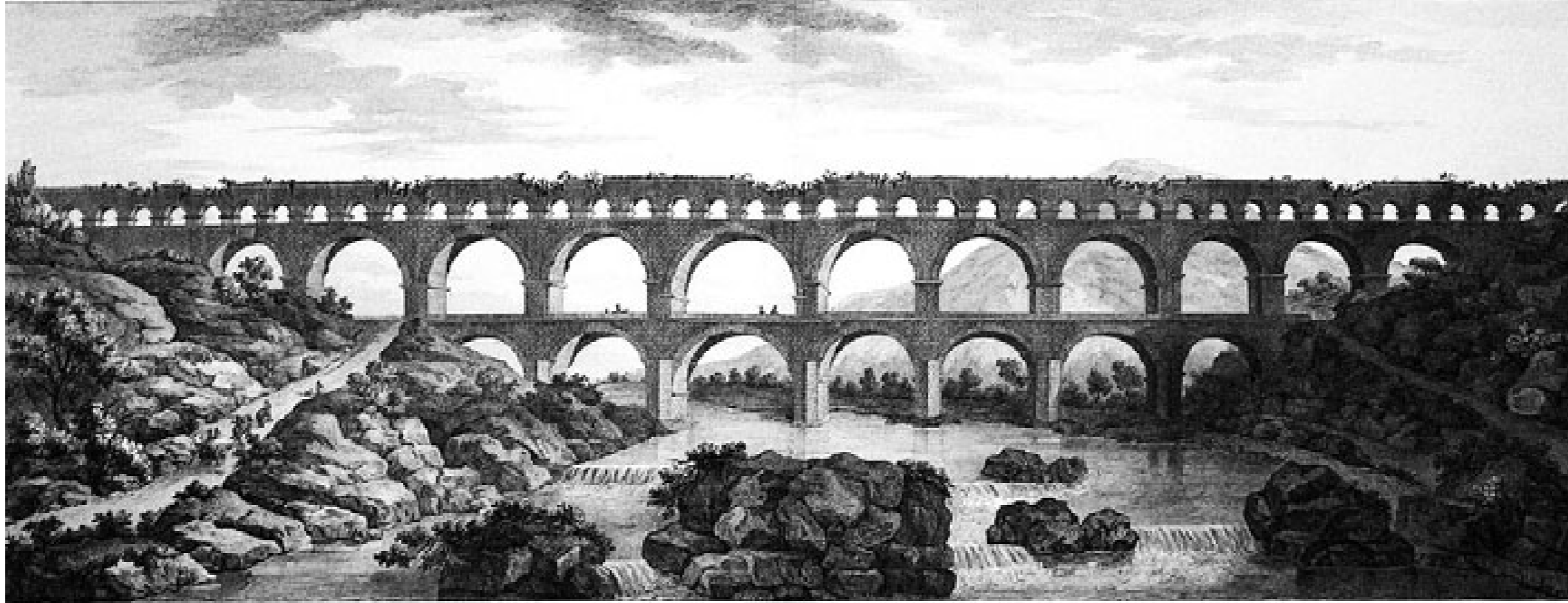
THE STRAIGHT LINE IN THE LANDSCAPE

Richard Long





Pont du Gard



Vue générale du Pont du Gard



Plan des marches supérieures



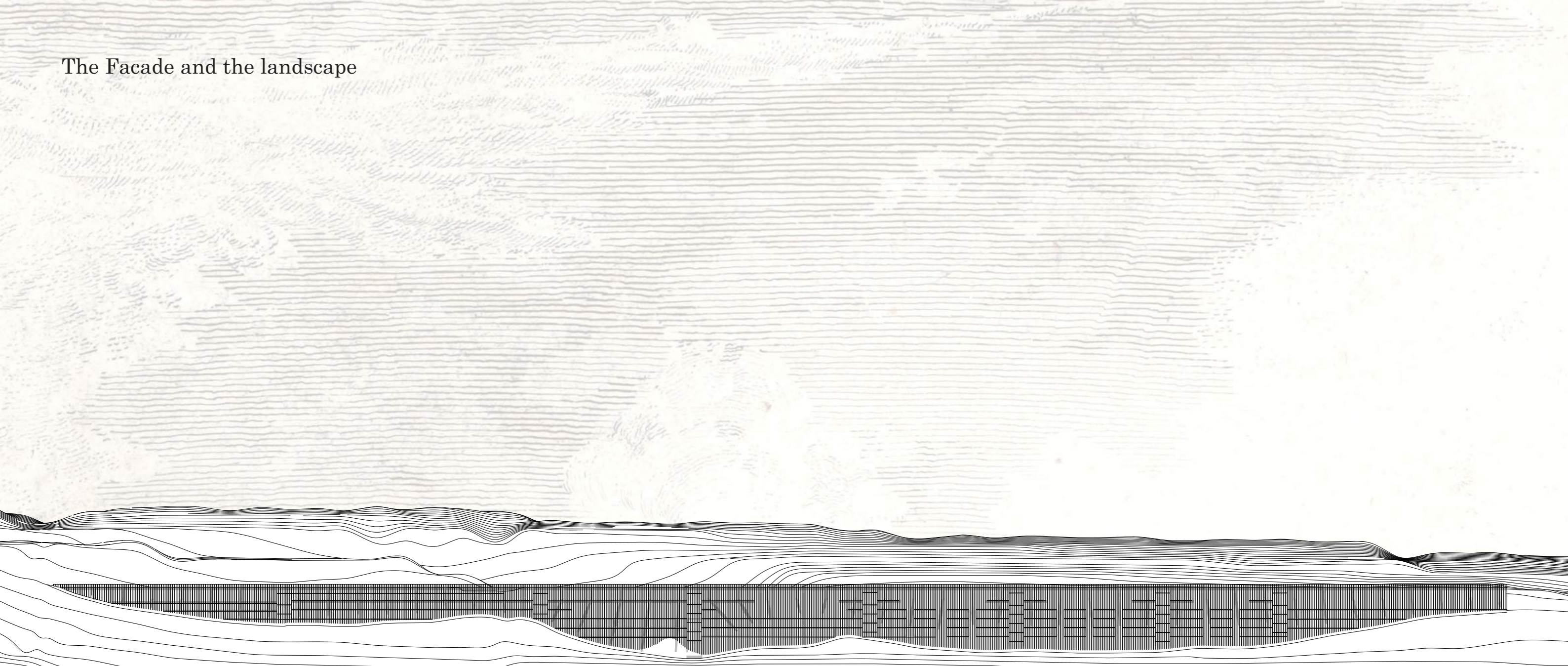
“Y a-t-il rien de plus élégant que la ligne pure d'un viaduc dans un site mouvementé et de plus varié que ses substructures s'enfonçant dans les vallonnements à la rencontre du sol?”

- Le Corbusier -

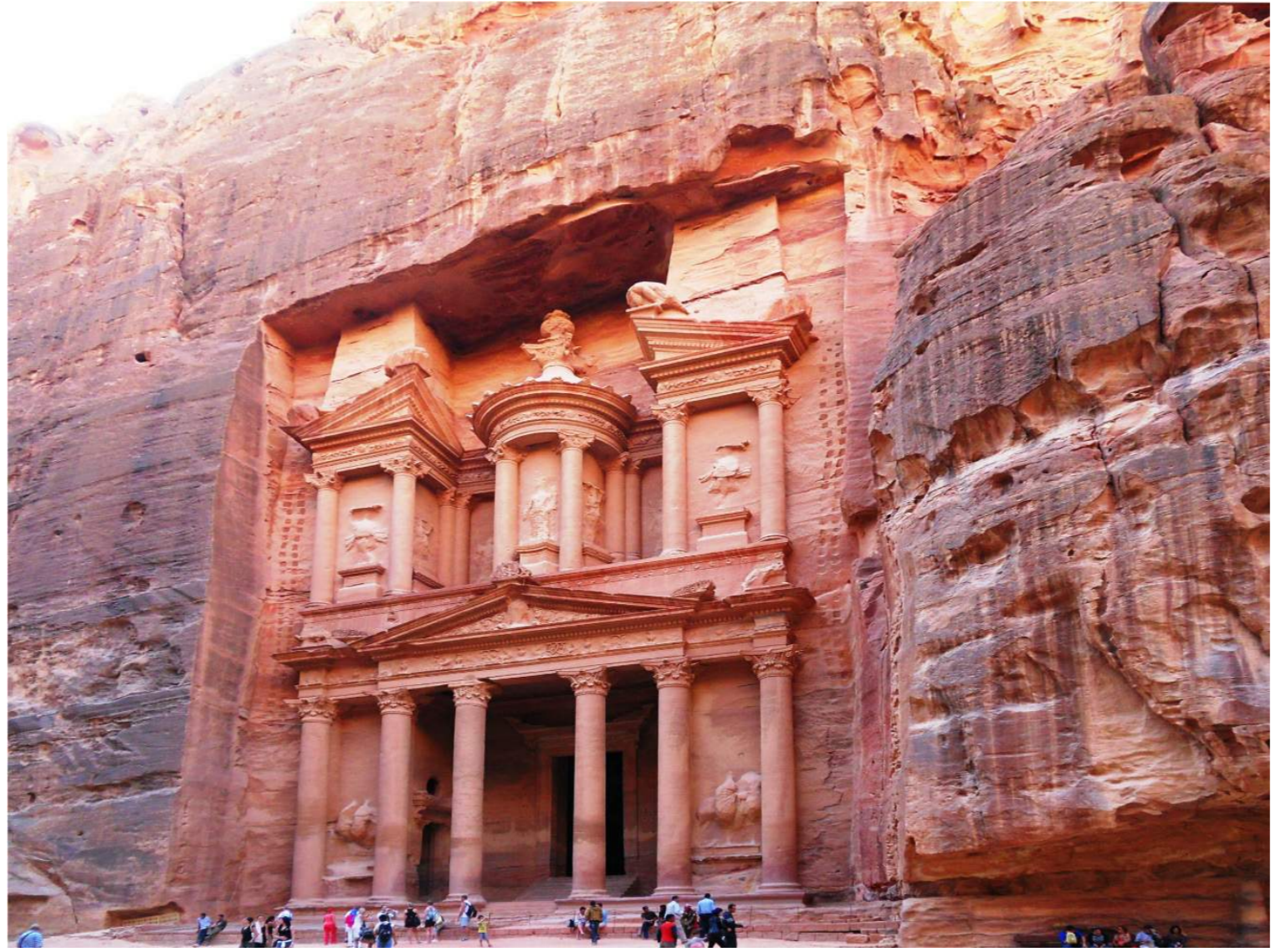
The line in the landscape



The Facade and the landscape

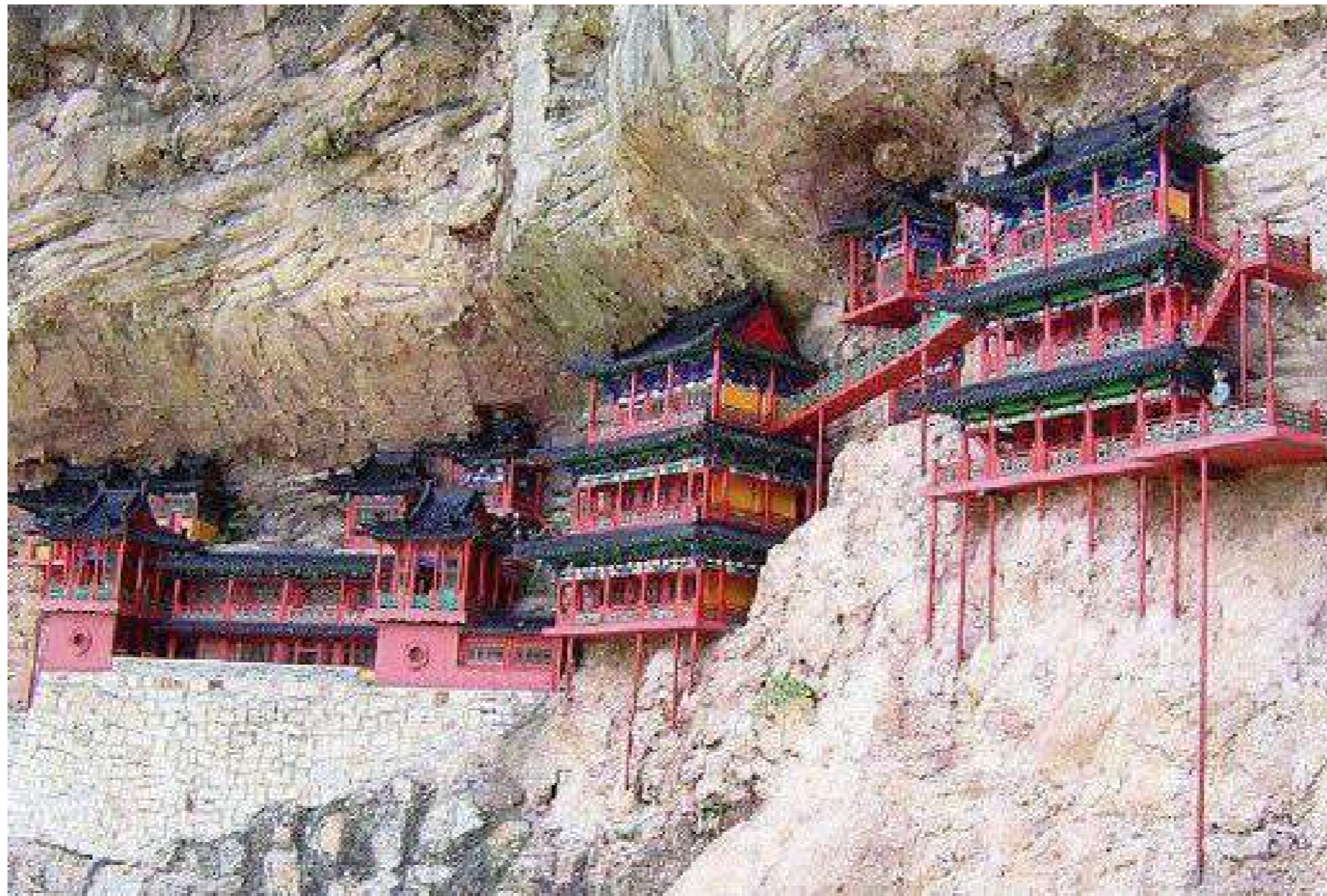


BUILDING WITH THE THE GROUND





Building with the mountain



Hengshan Hanging Temple in Xuankong si, China

Lightweight steel building

The Load bearing principle

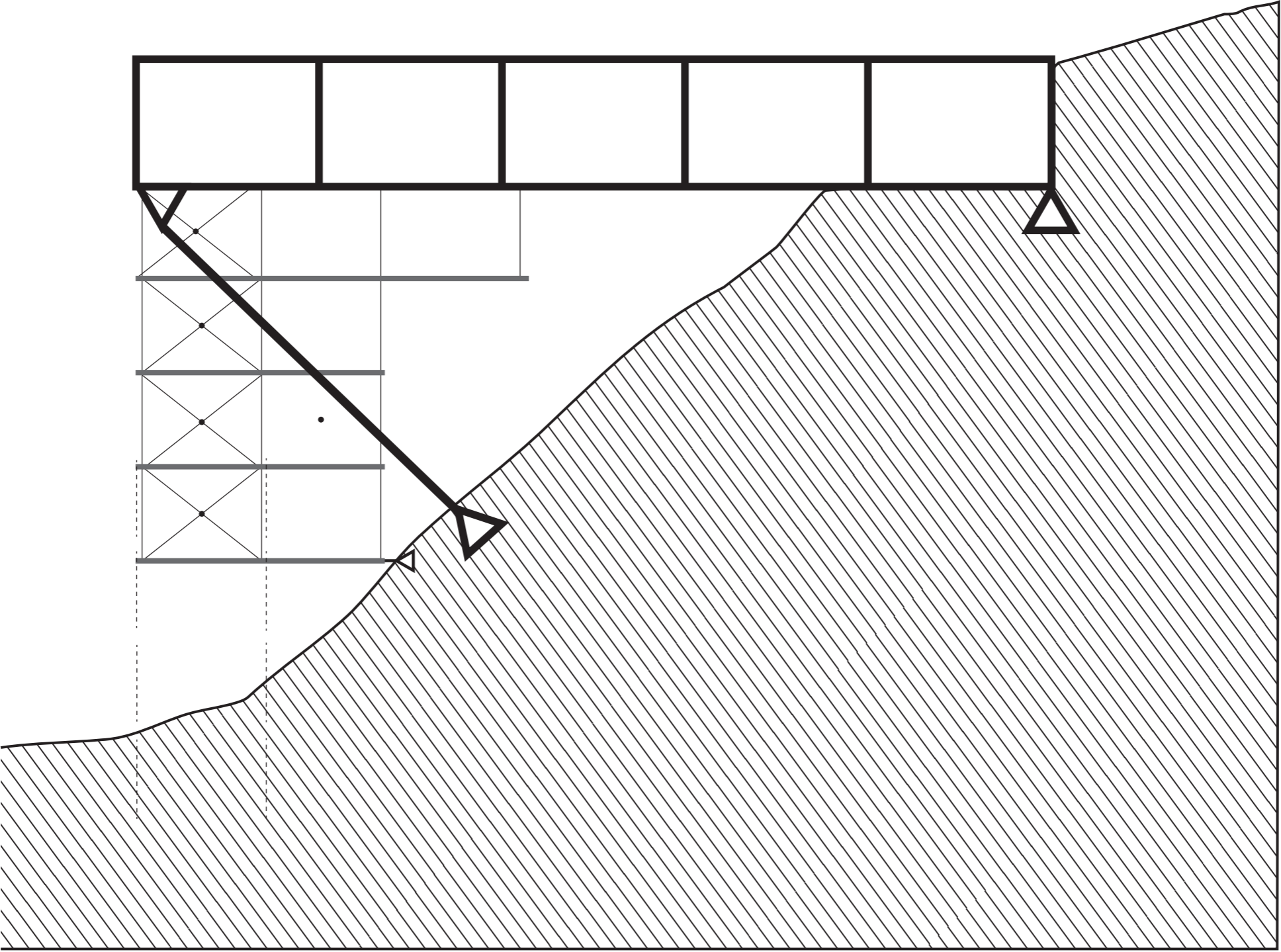


Mountain goat on balancing on a cliff

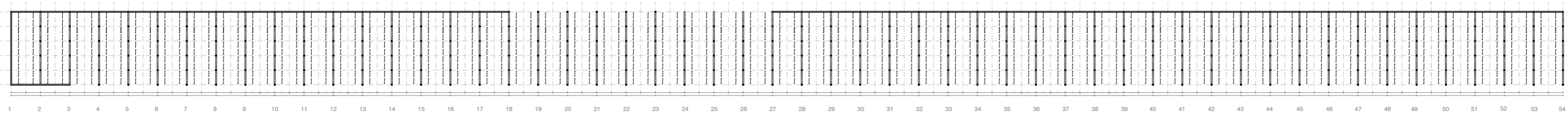


Tripod on a cliff for rescue work

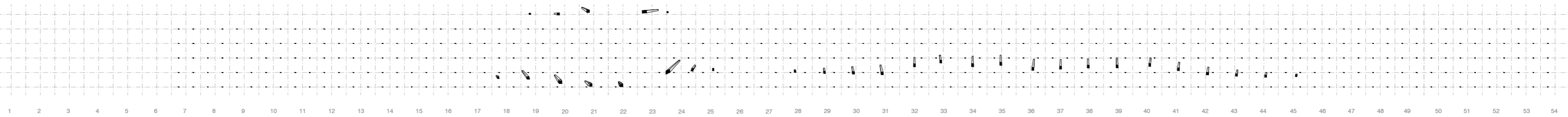
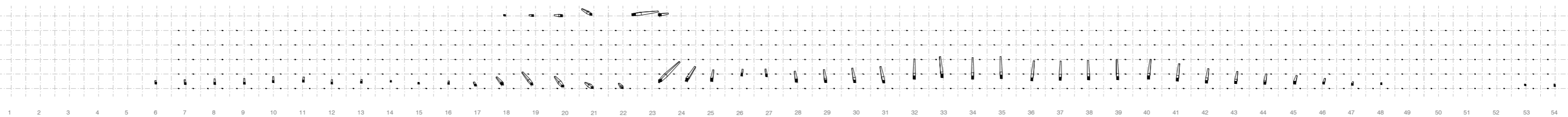
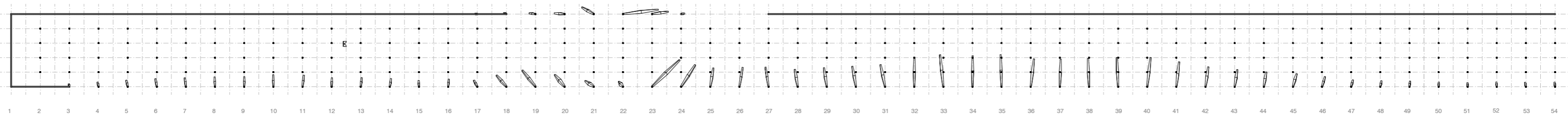
Load bearing principle



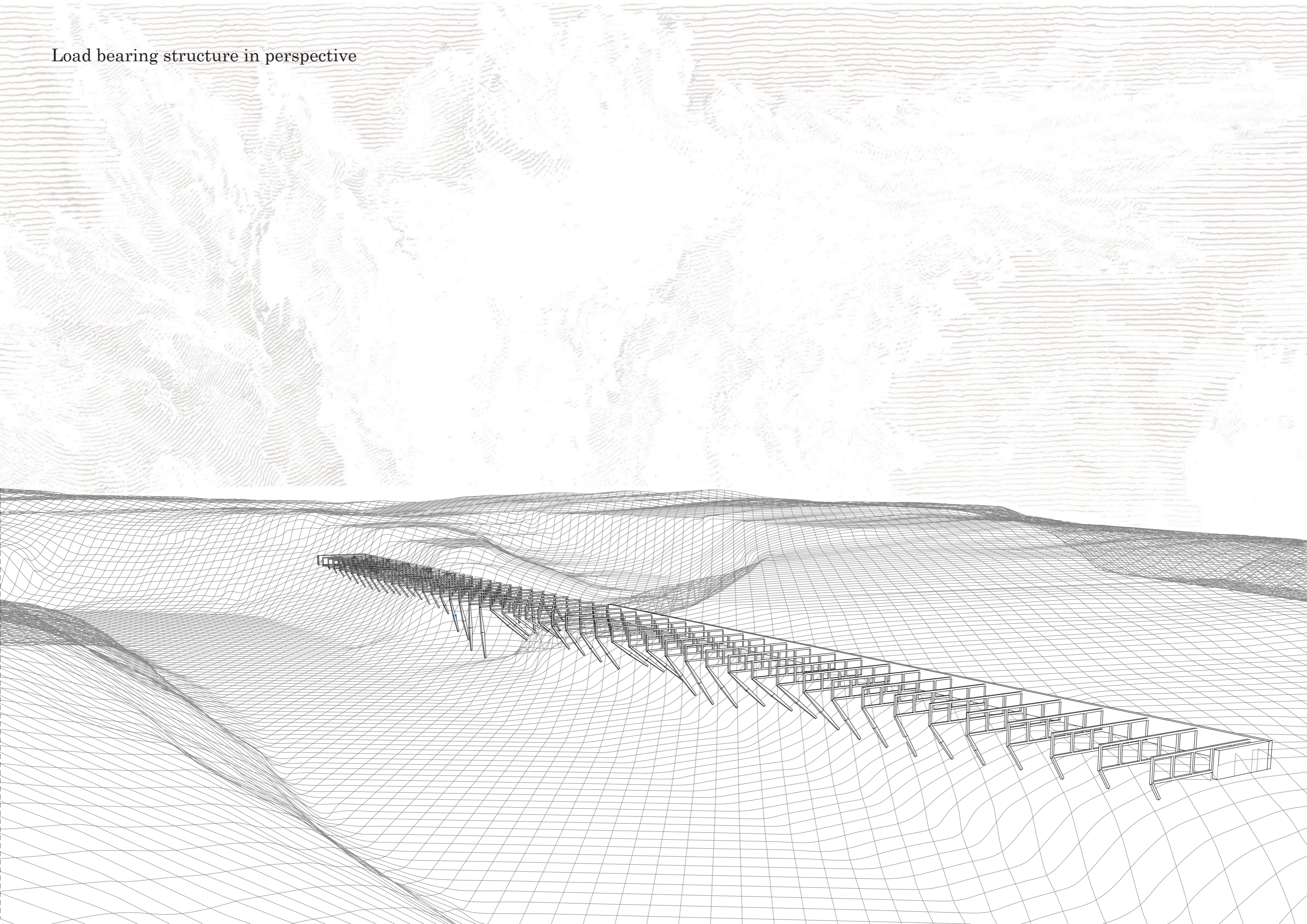
Structural plans: the interface



Structural plans: the columns and the cables



Load bearing structure in perspective



Structural detailing



- Roof finish
- Anodized aluminum
 - black horizontal mullion 60x180mm
 - Anodized aluminum
 - black horizontal mullion 60x180mm, varying depending on span

- Roof
- Accessible wearing concrete tiles 600x900mm l.c.w.
 - One-way weather Py-lite 600x900mm
 - Waterproof layer
 - Thermal insulation 200mm
 - Vapour barrier
 - Layer for leveling and falls
 - Concrete composite slabs 300mm
 - H&S200 beams every 2.5m
 - Vertical steel 600mm

- Hinge detail
- Tensile steel with a 20mm steel plate on 45°

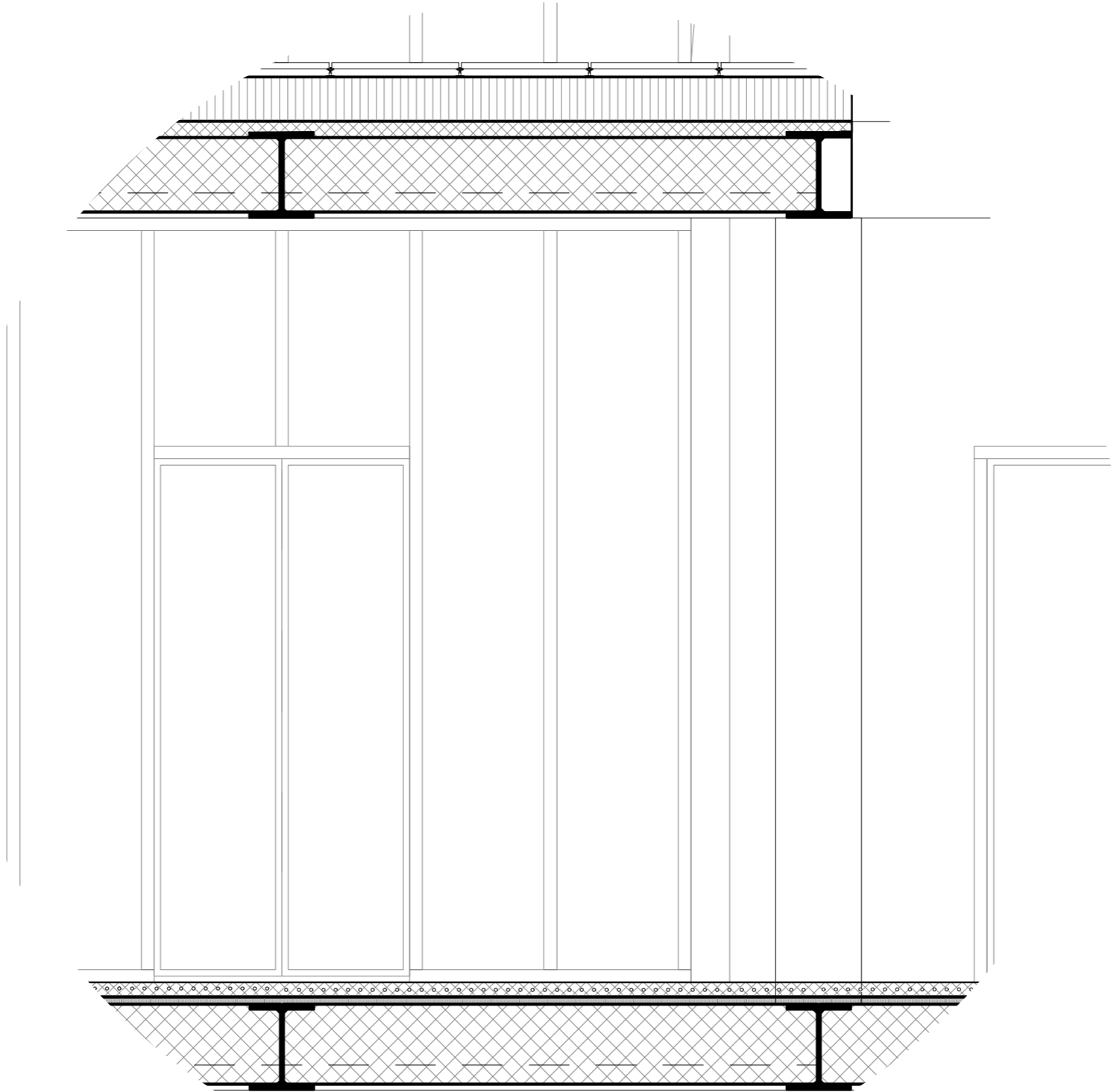
- Facade detail
- Operable window, full level height, push mechanism
 - Incorporated in vertical mullion
 - Metal finishing plate
 - Triple glazing

- Facade to ground
- Vertical mullion anodized black aluminum various depths, and depth 180mm
 - Metal finishing plate
 - Triple glazing

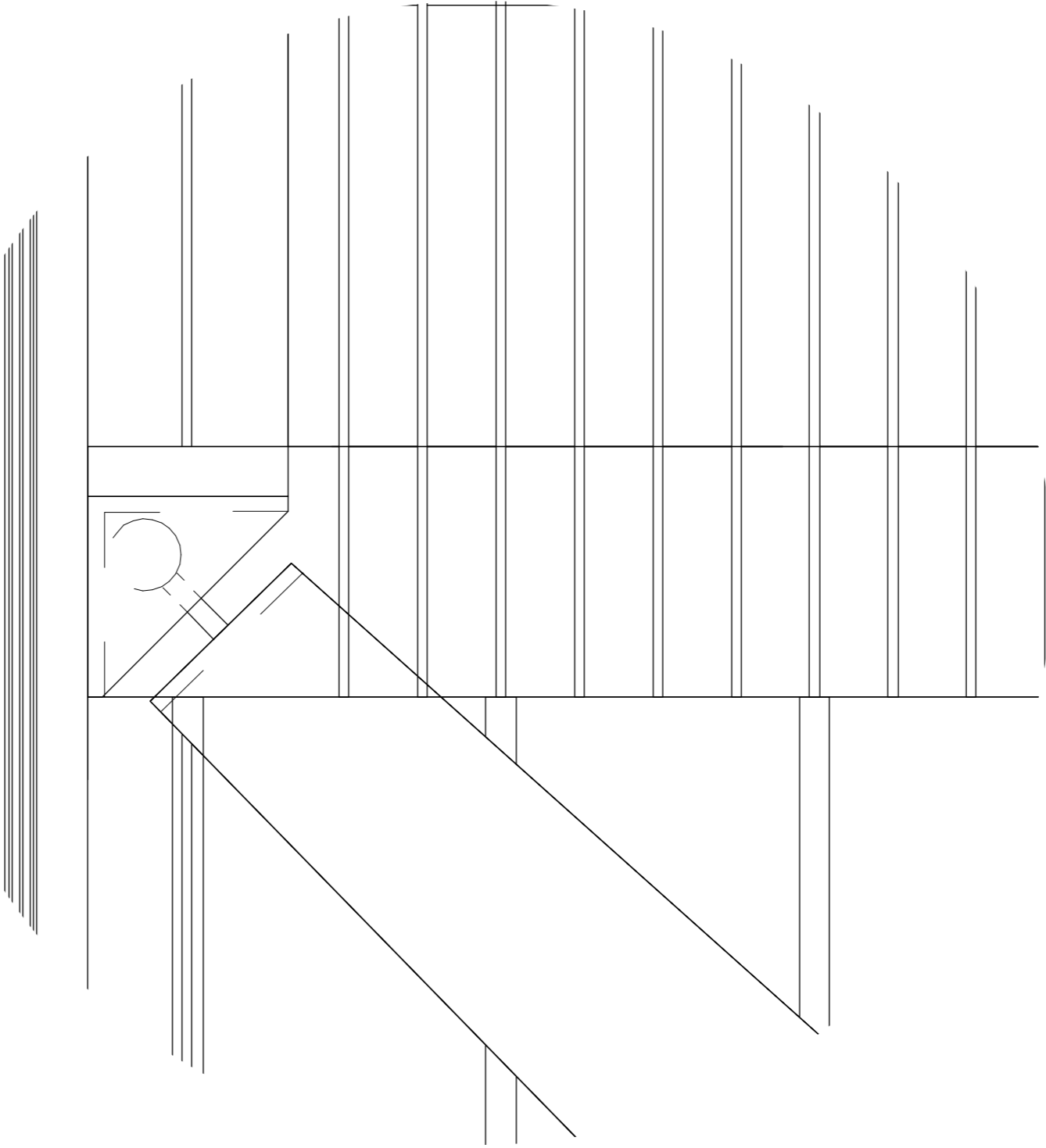
- Corridor
- Metal Grid
 - Right stabilizing cross
 - Mullion 60x180mm with triple glazing

- Rock building
- Stabilizing rod pinned in rock
 - Gutter
 - 200mm insulation in drilled cavity
 - Mullion 60x180mm with triple glazing

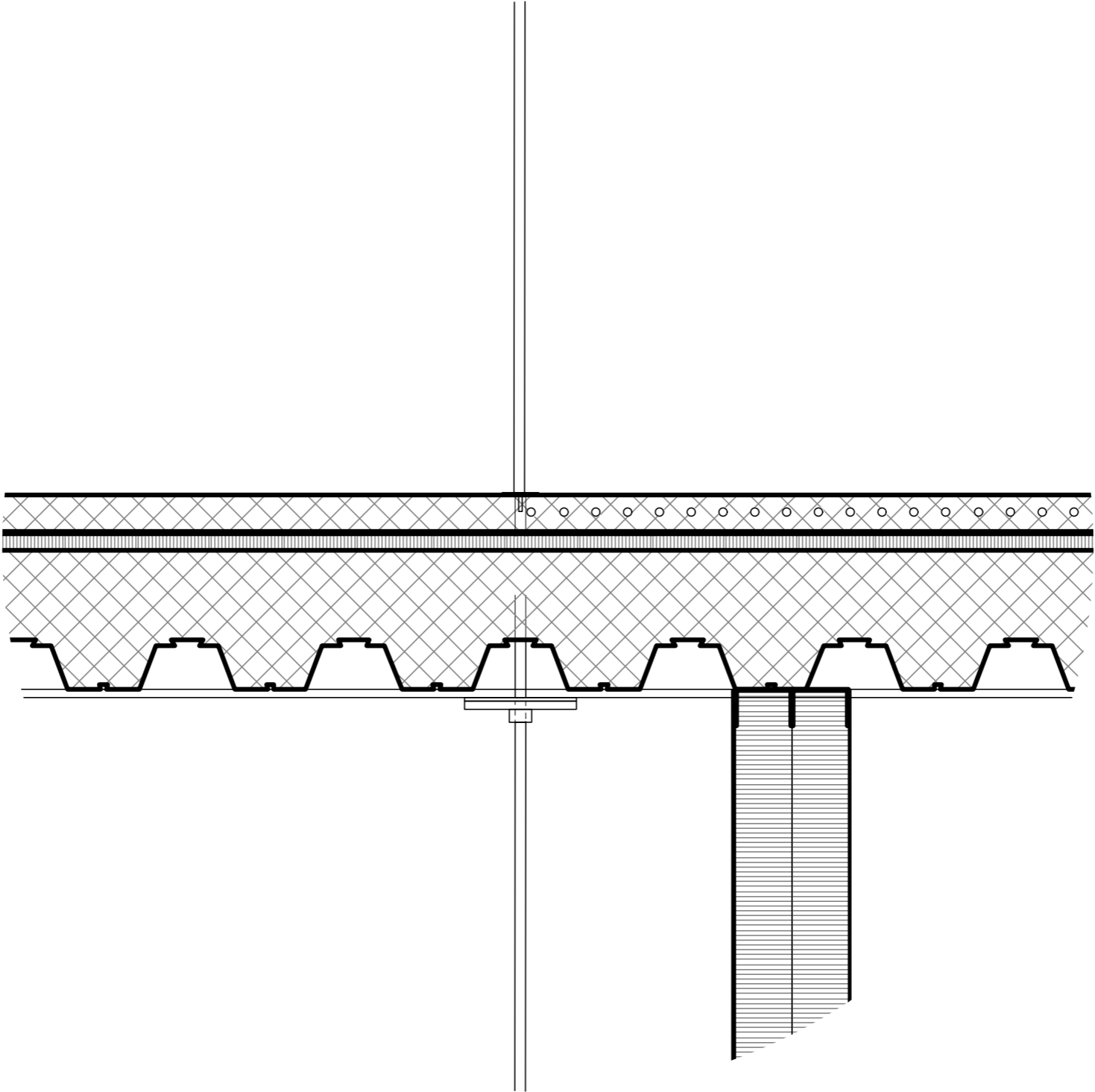
The rigid interface



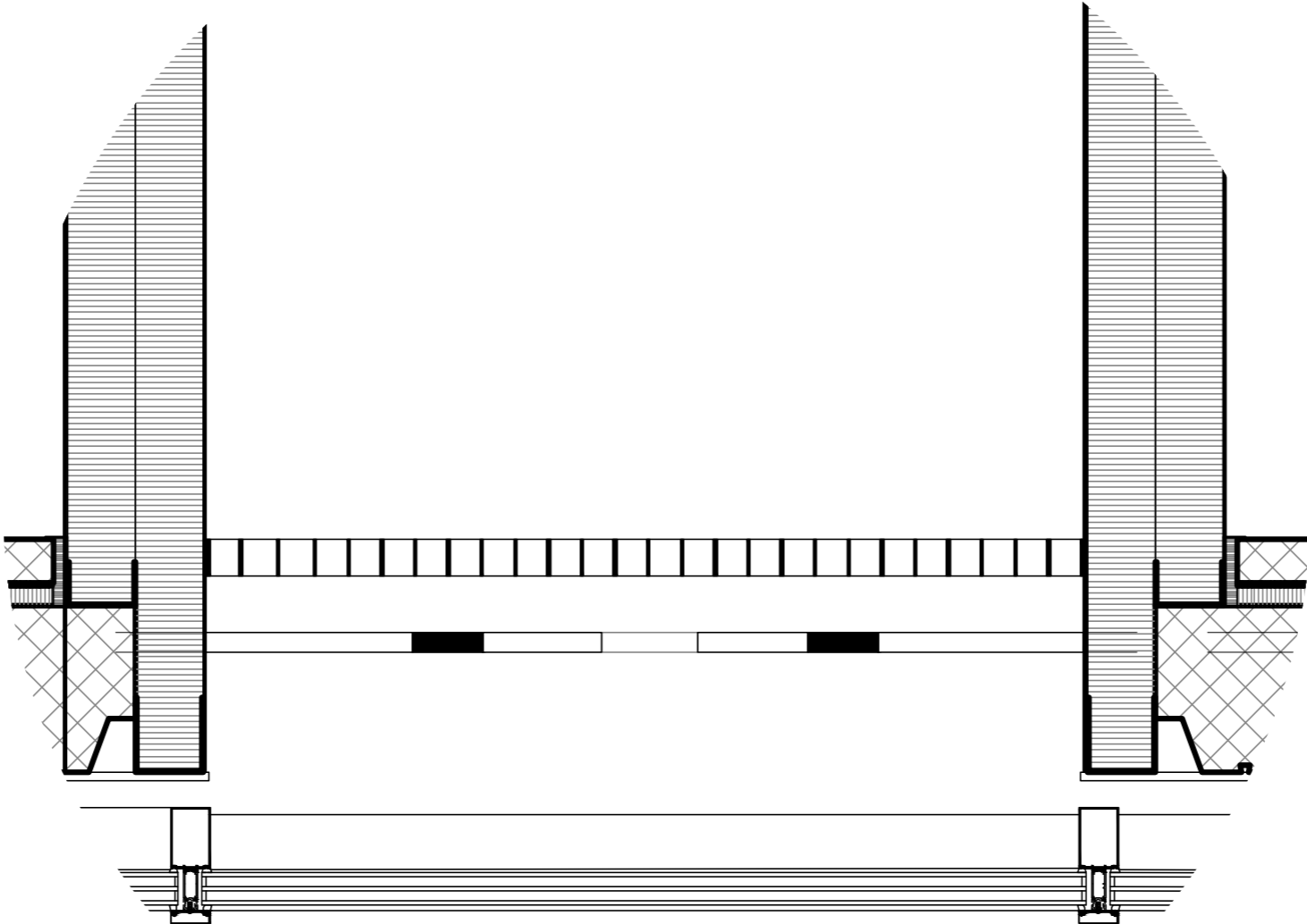
The multi directional hinge



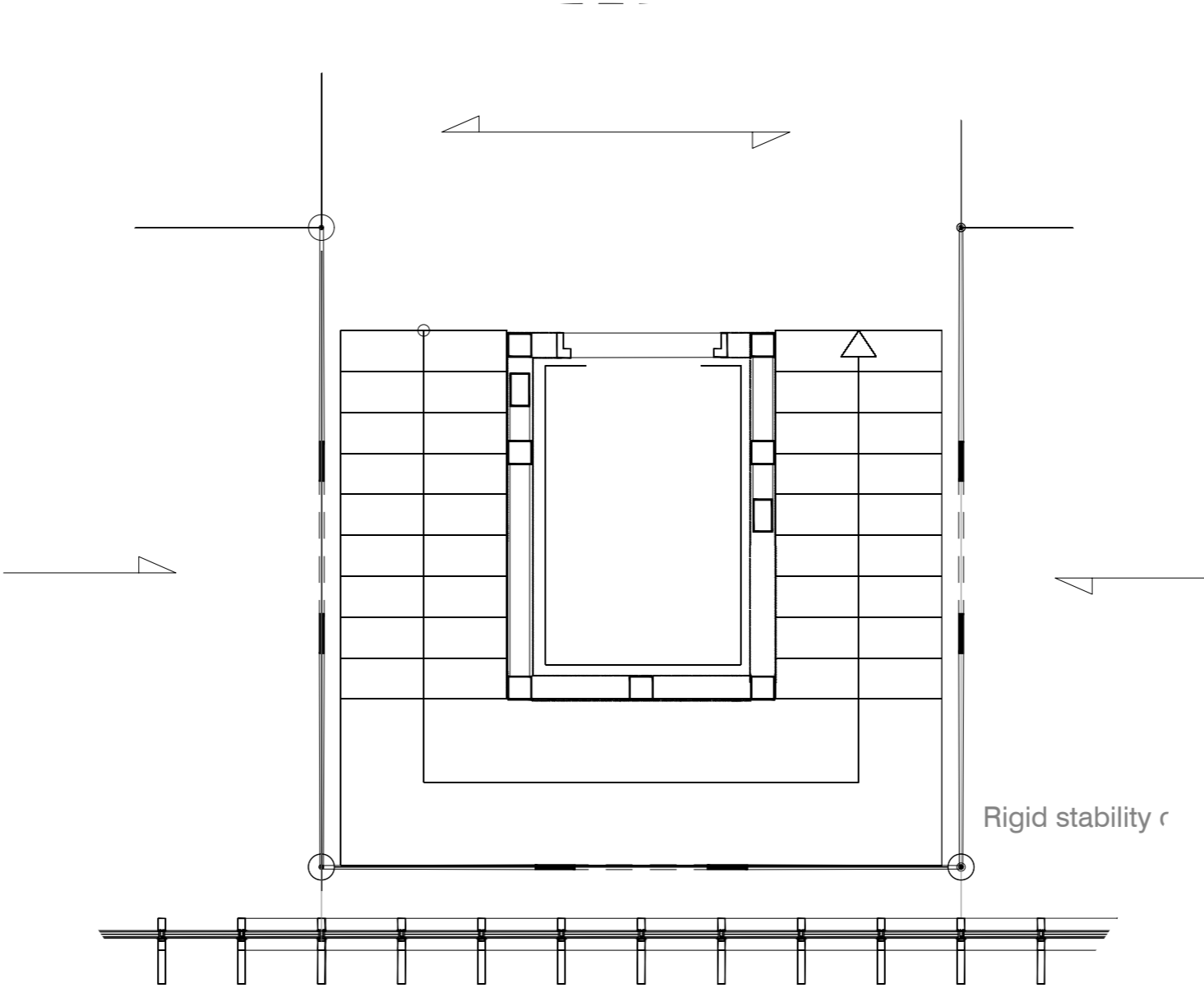
The cable and the carrier



Stabalizers



Stabalizers

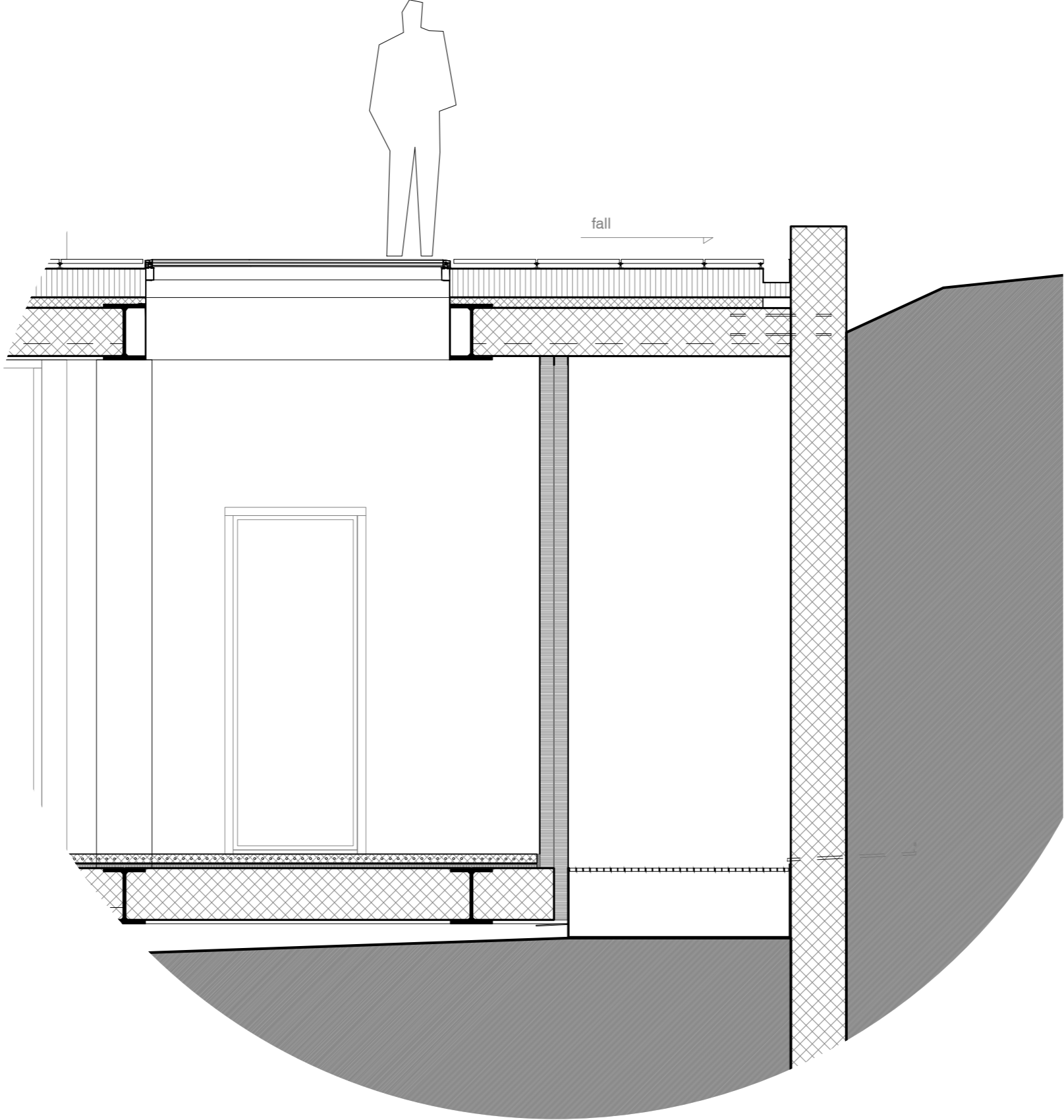


Ground detailing

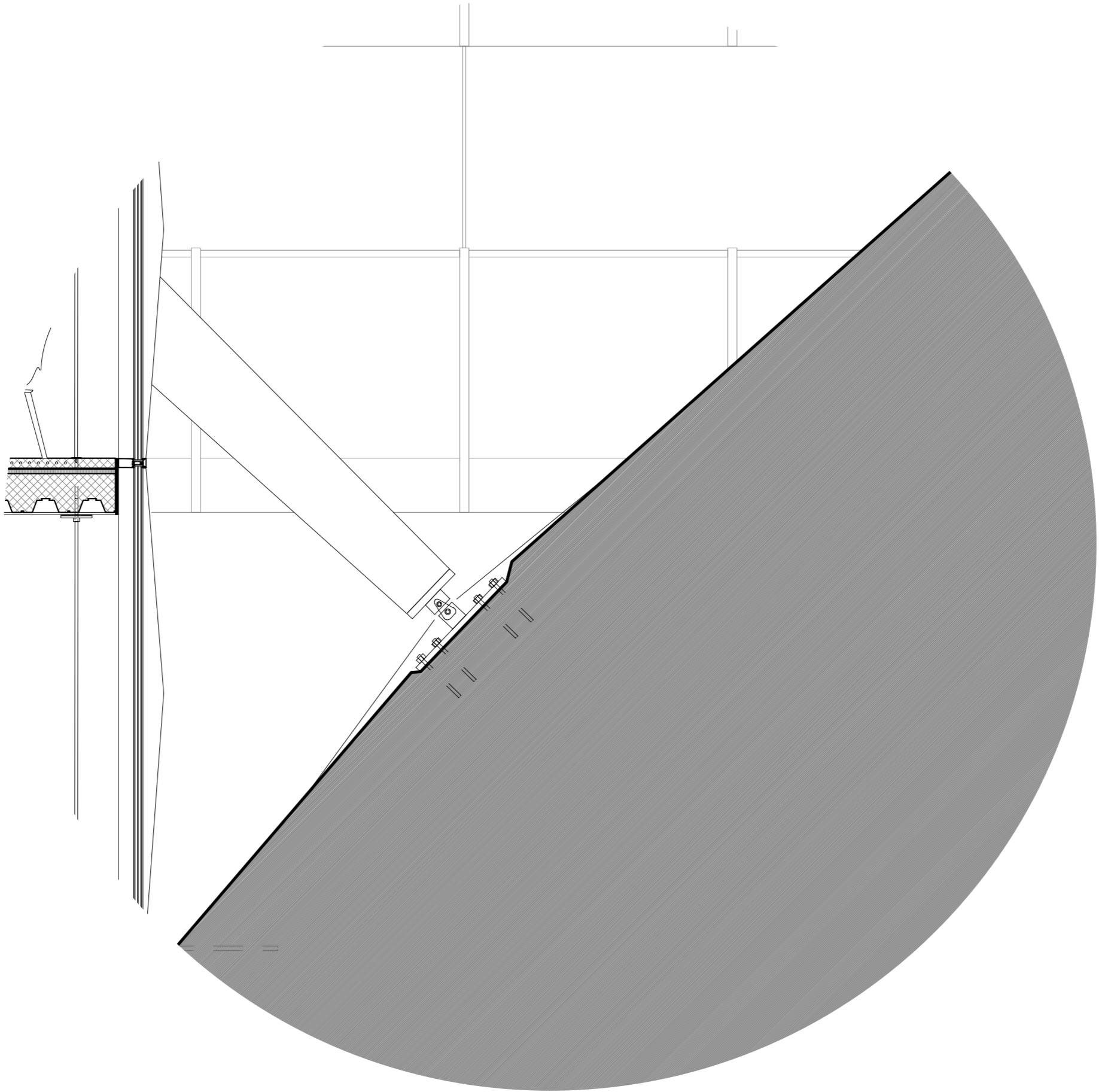
Encounter with the ground



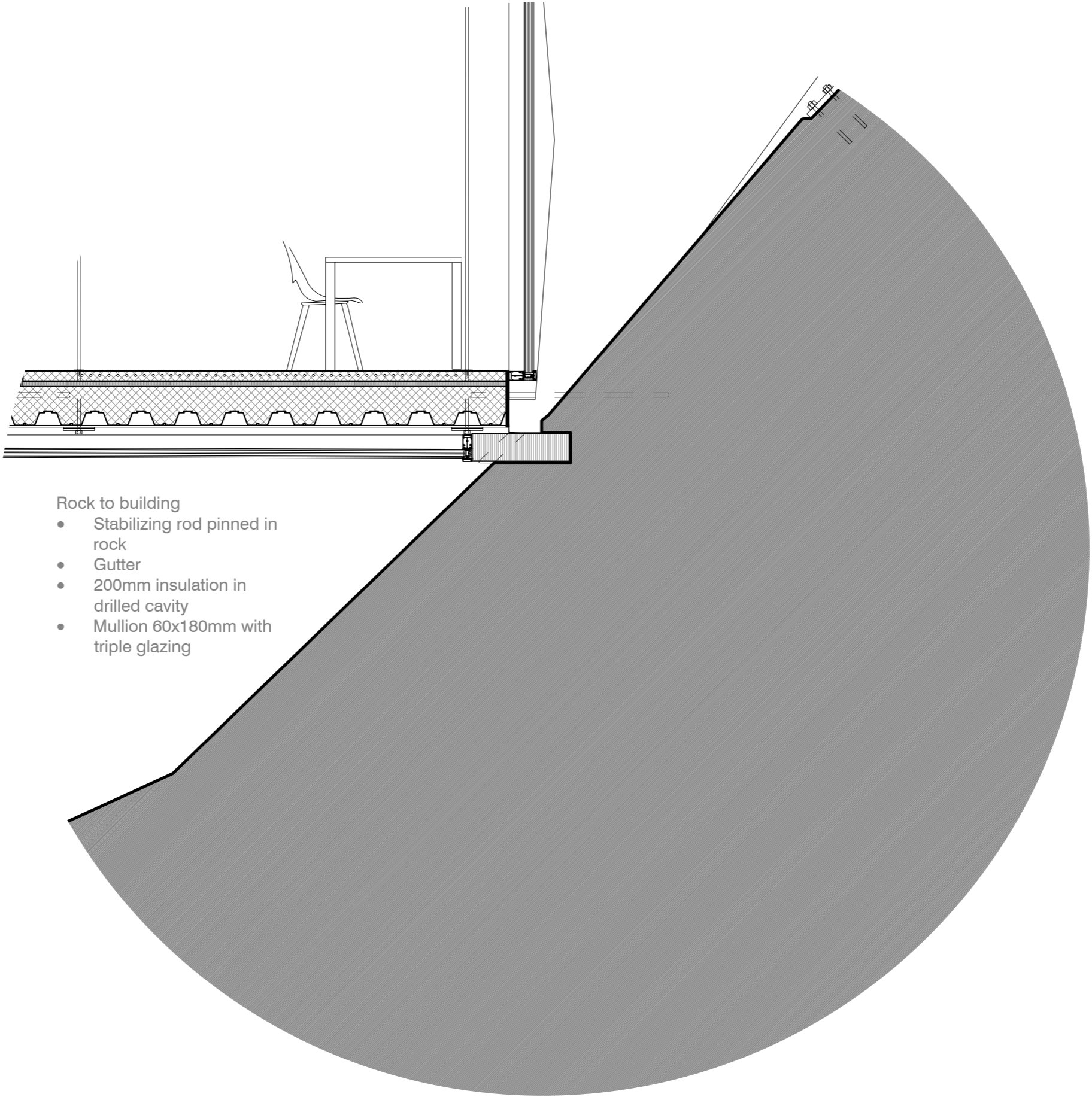
The retaining wall and interior water collection system.



The column touching the rocks



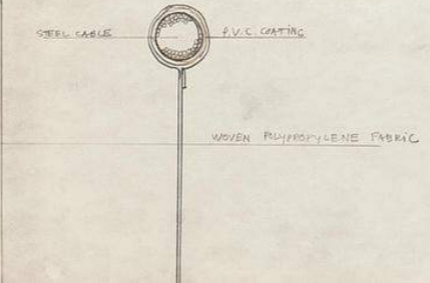
Closing of the interior and water outlet



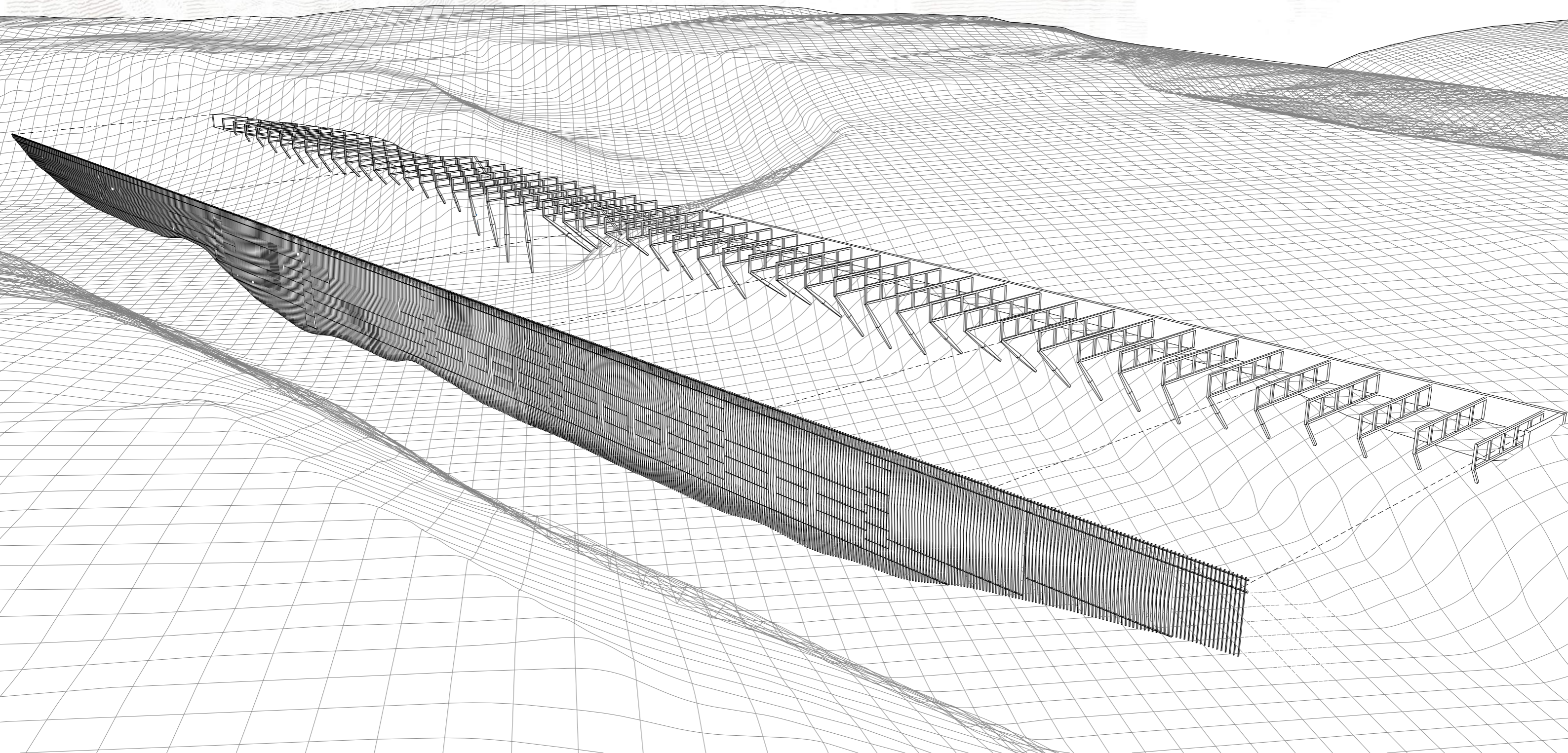


VALLEY CURTAIN (PROJECT FOR COLORADO) WIDTH: ABOUT 1100' - 1500' ; HEIGHT: 160' - 180'

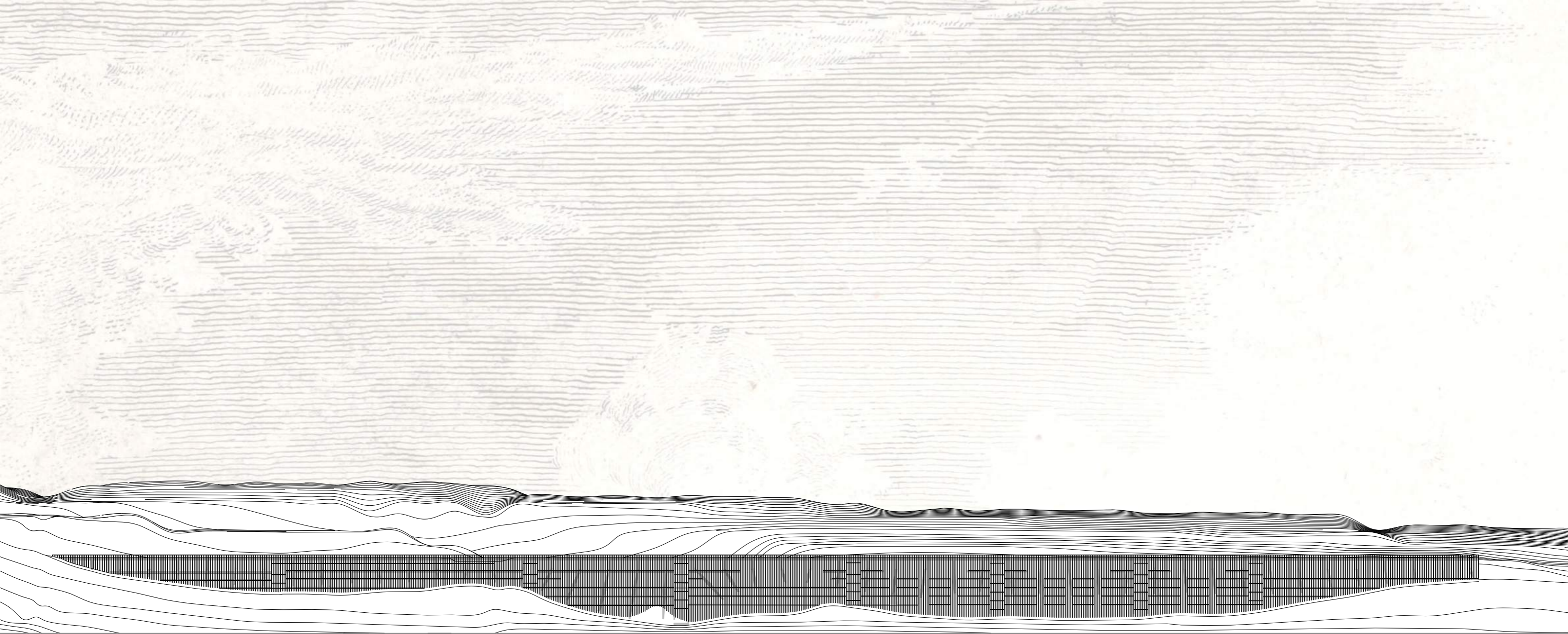
Christie 1970



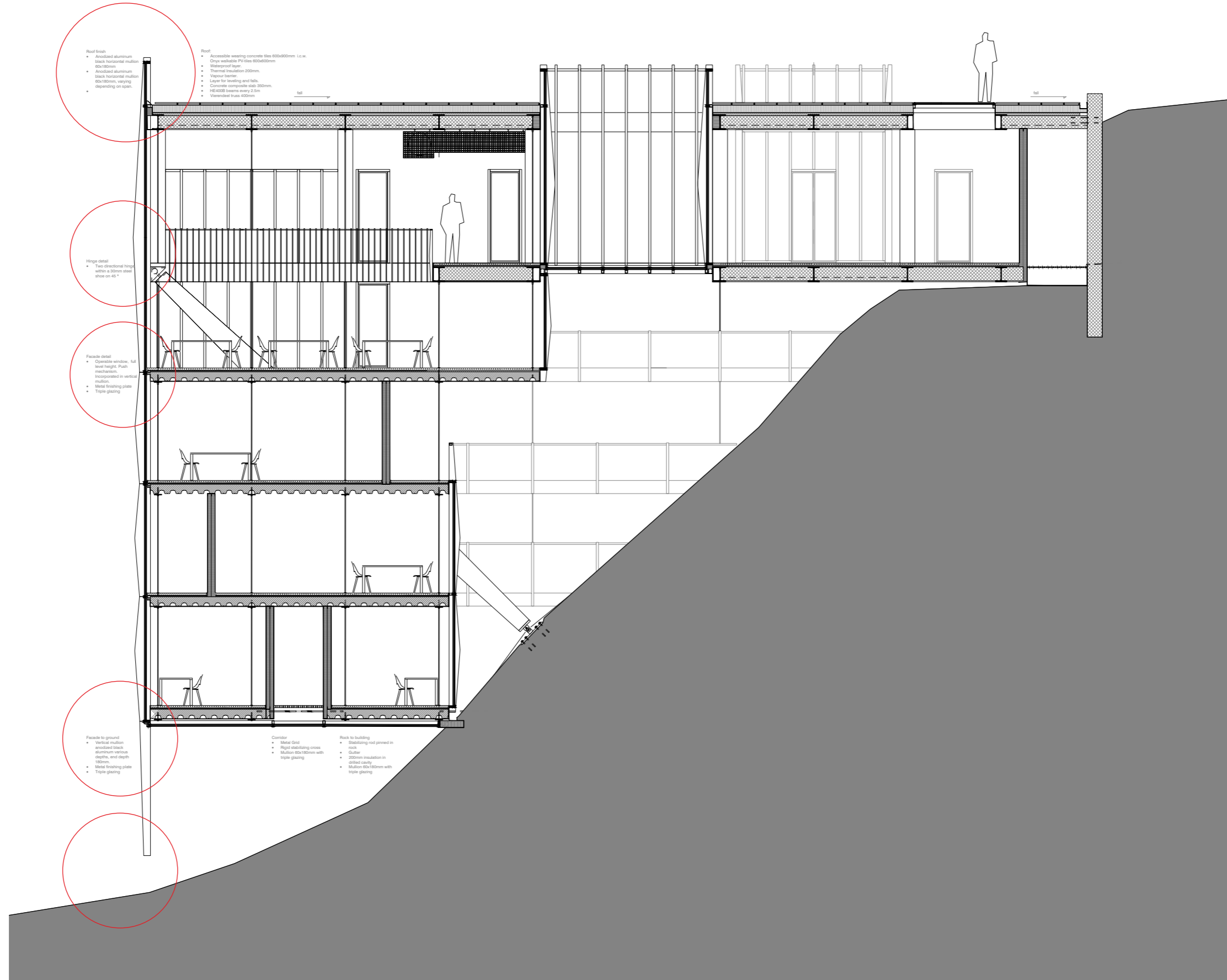
The curtain wall



Facade detailing

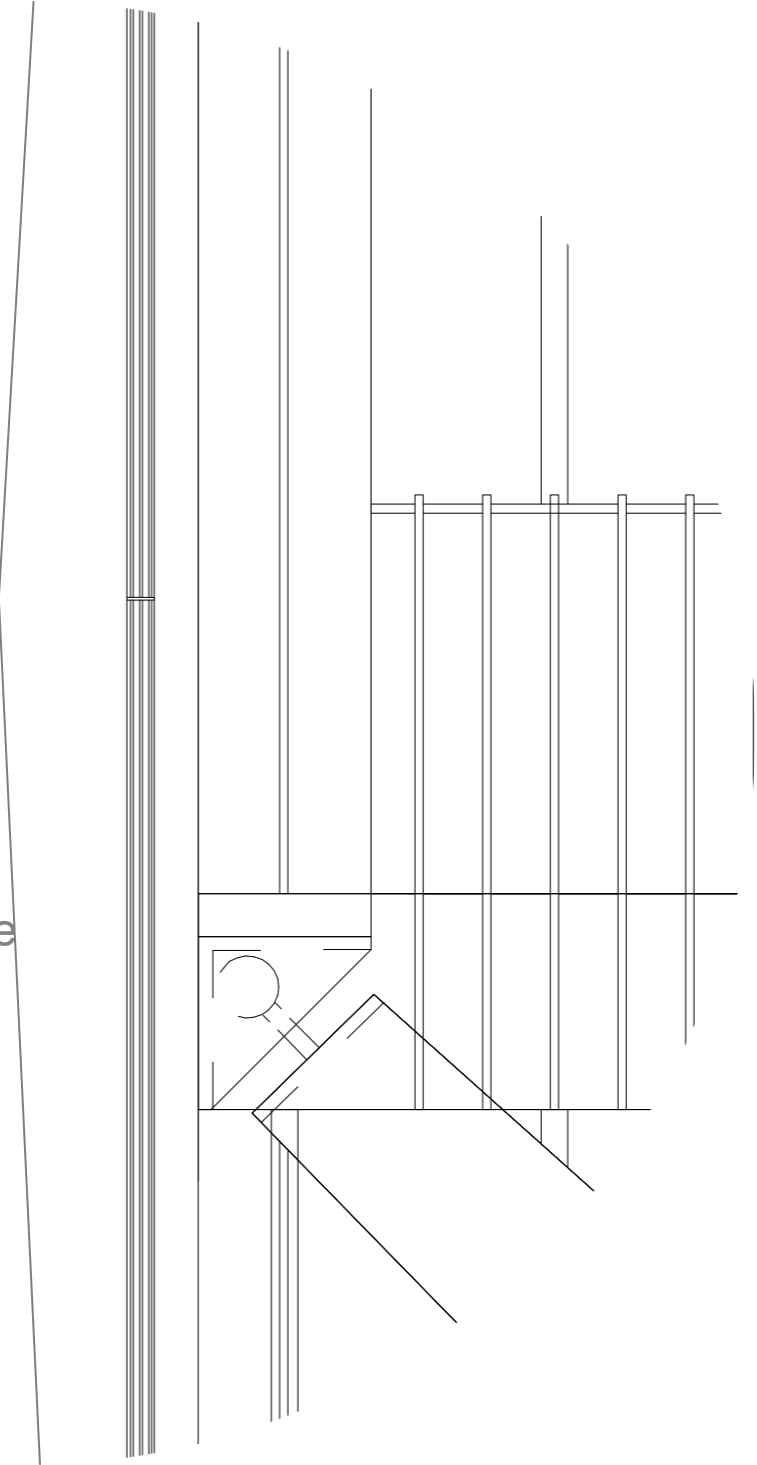


The curtain wall

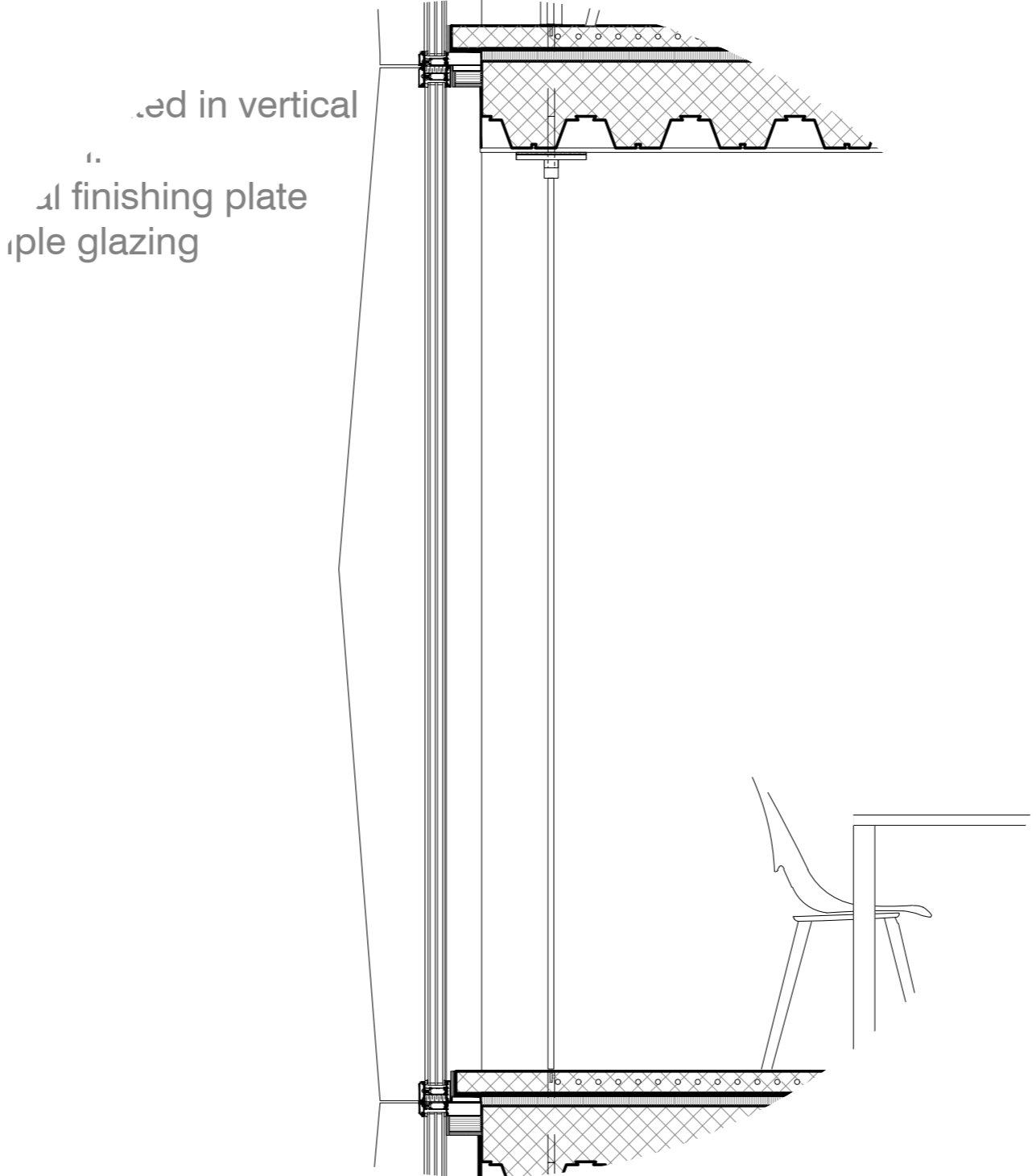


Saving material costs, and the dynamic facade

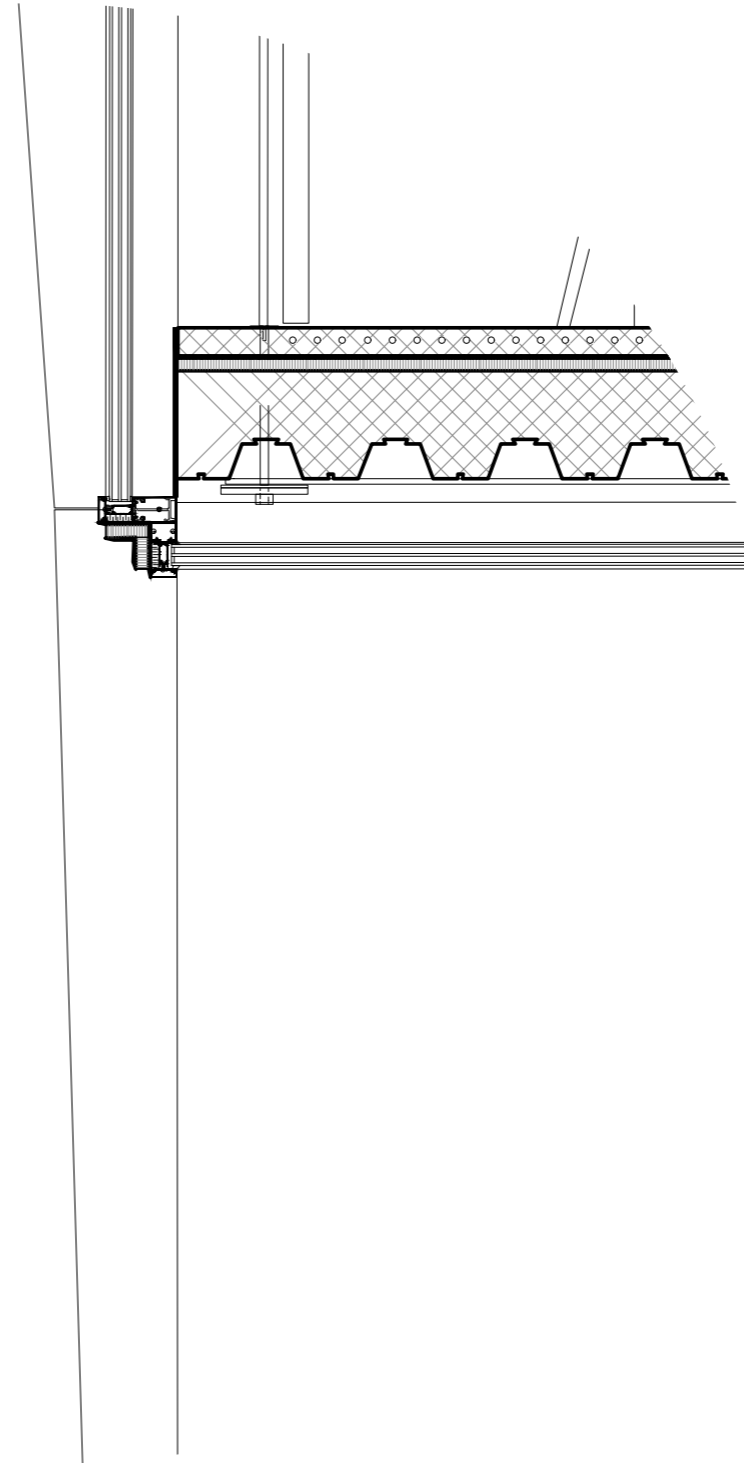
- Hinge detail
- Two directional hinge within a 30mm steel shoe on 45 *



The horizontal corner



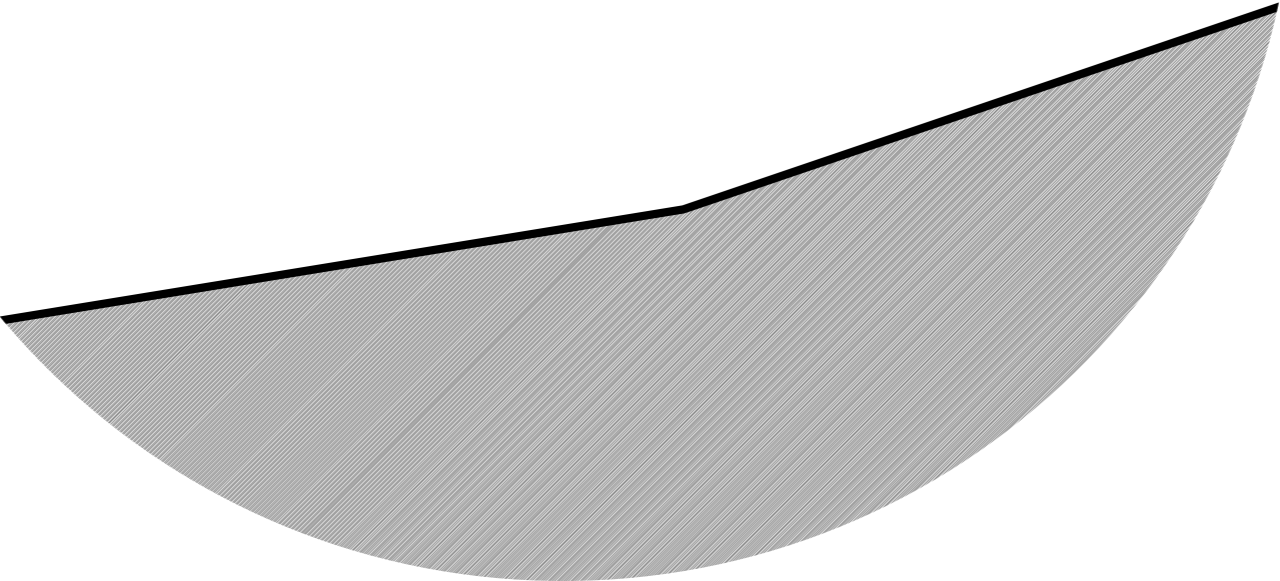
Operable windows



Facade to ground

- Vertical mullion anodized black aluminum various depths, end depth 180mm.
- Metal finishing plate
- Triple glazing

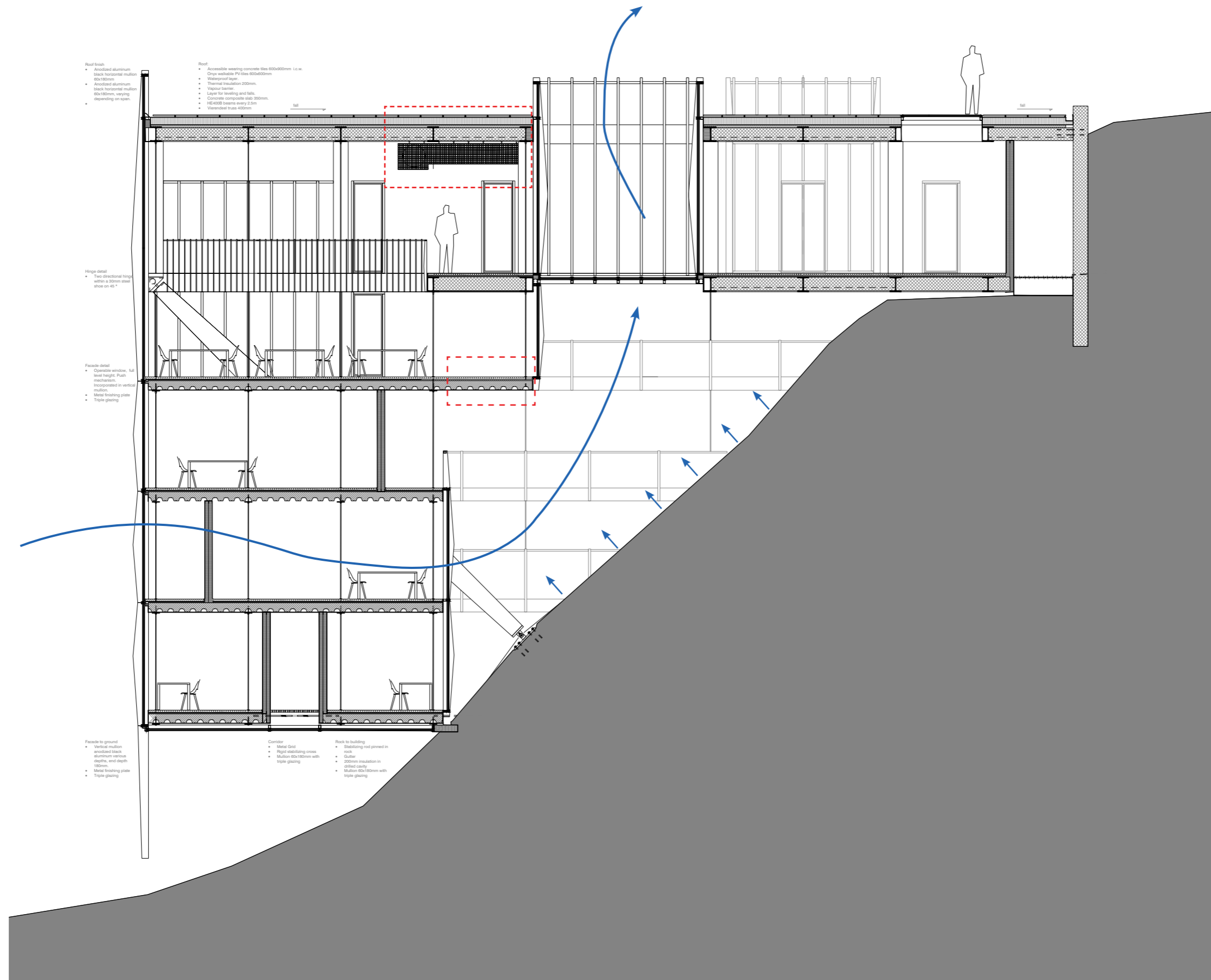
End of the curtain





INTERIOR CLIMATE

Natural ventilation, rock as buffer and night flushing



PROGRAM AND LANDSCAPE

Marot

Parts

Interface

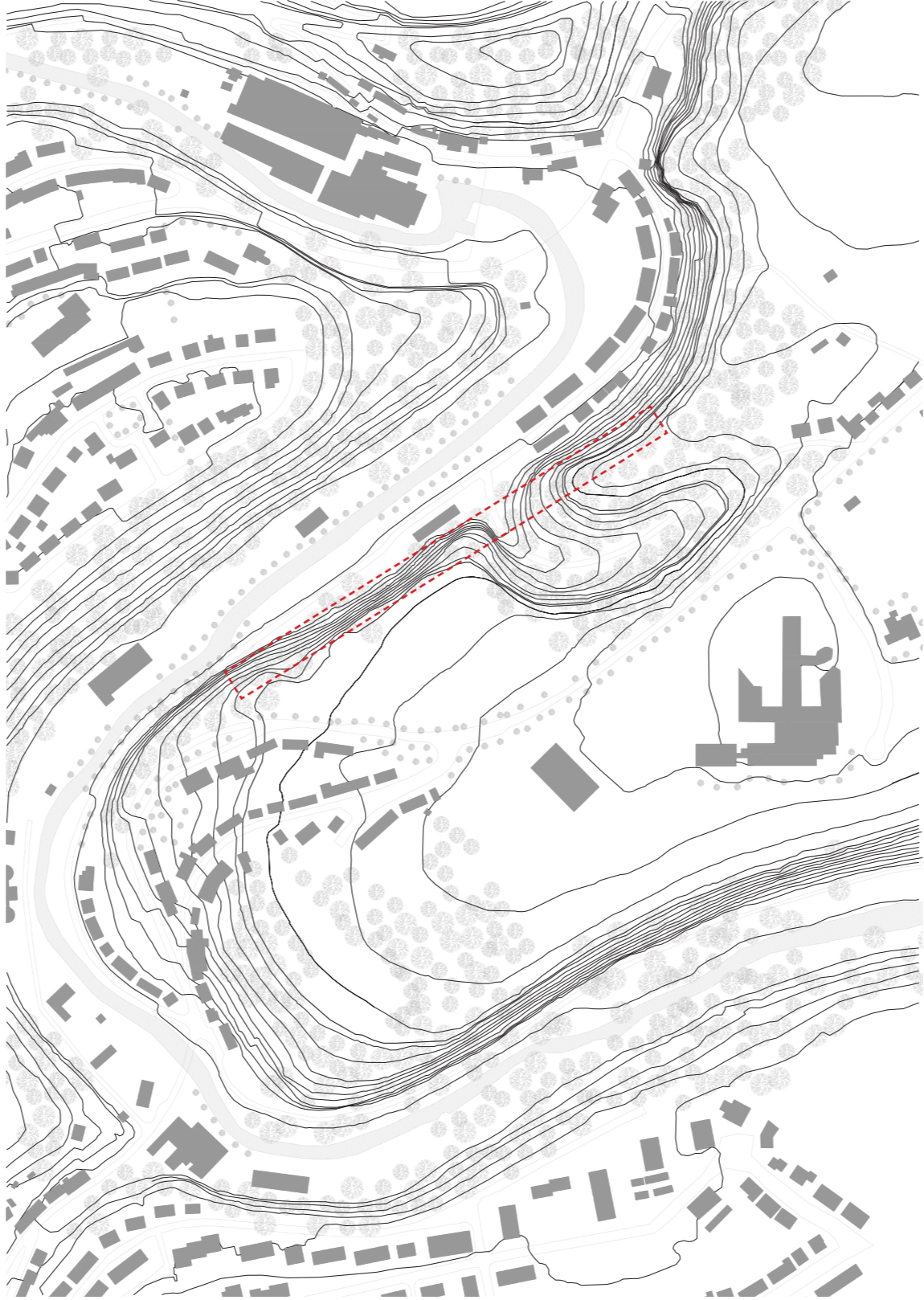
Surface

Machine

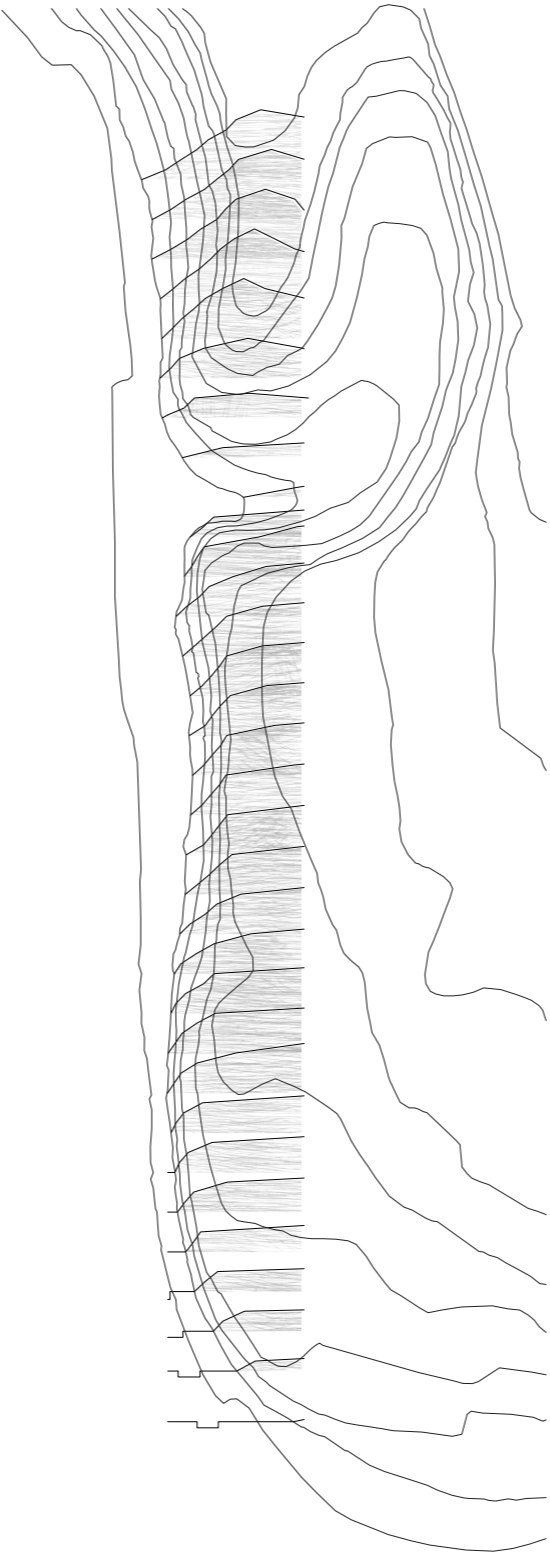
“(...) site as the matrix of design, and programme as a tool
to explore, read, reveal, invent and ultimately represent the
site.”

(Sebastien Marot, 2003, Sub-urbanism and the art of Memory)

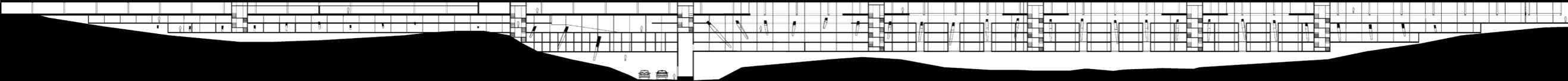
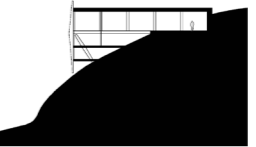
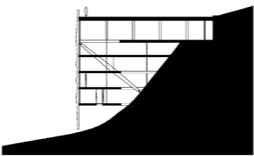
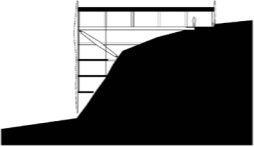
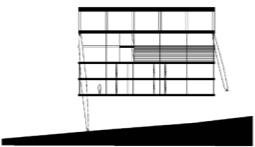
Diverse topography



The slope typologies

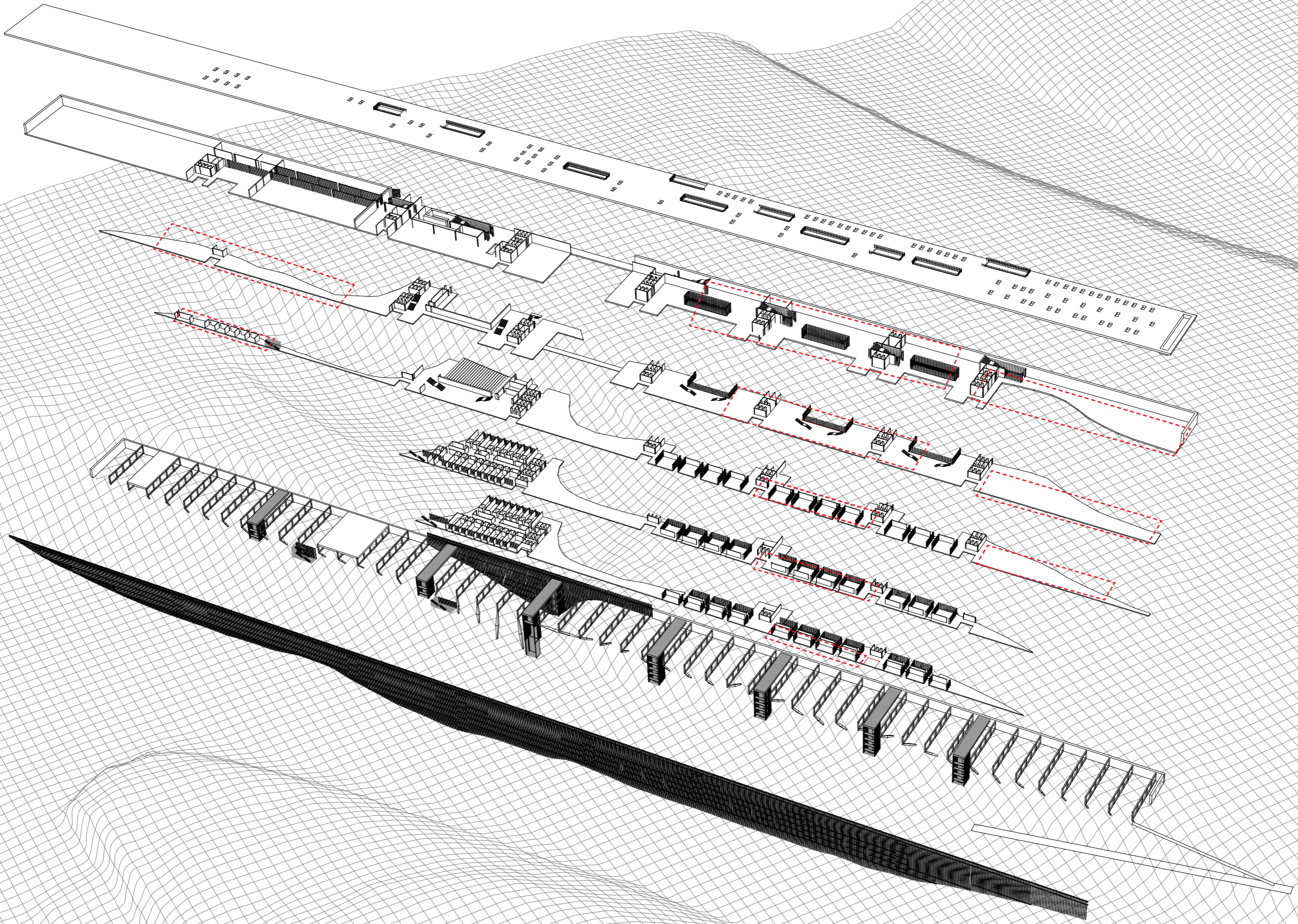


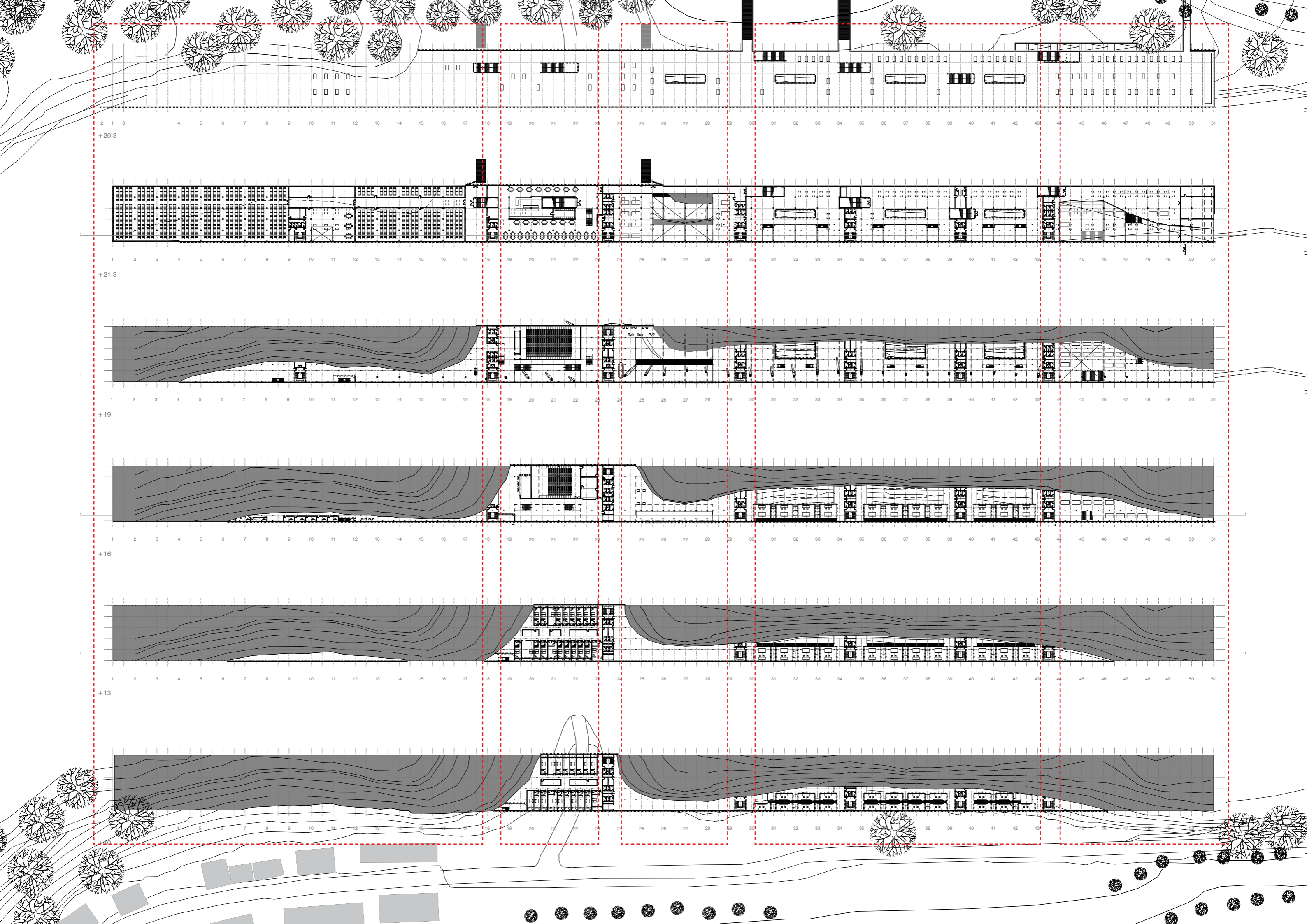
Five slope typologies, five programs



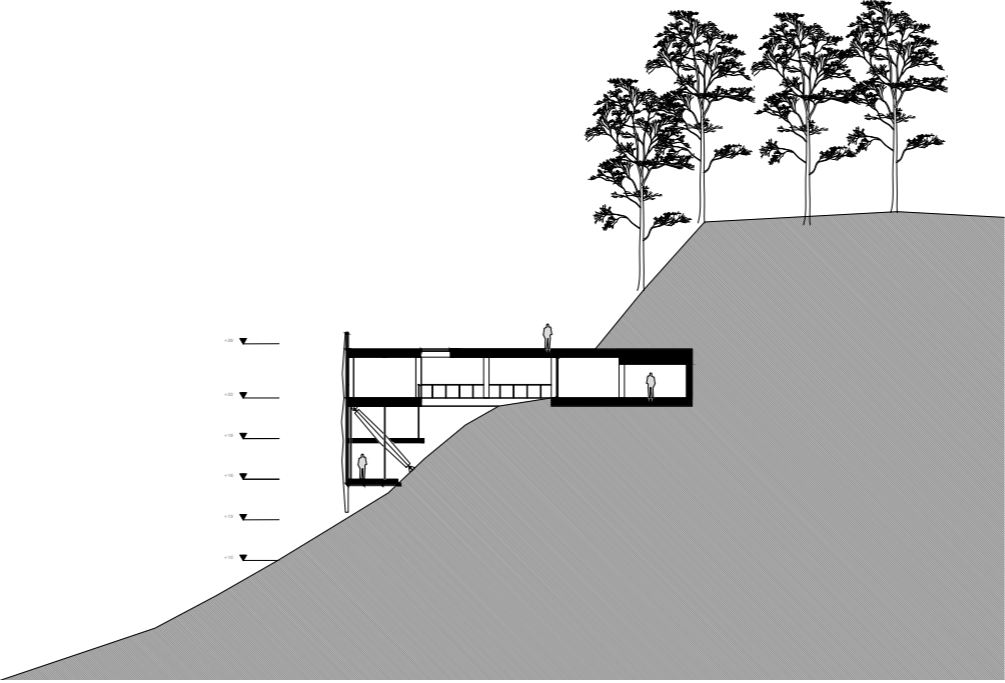
THIRD INDUSTRIAL REVOLUTION
THE CONTEMPORARY FACTORY

S,M,L,XL

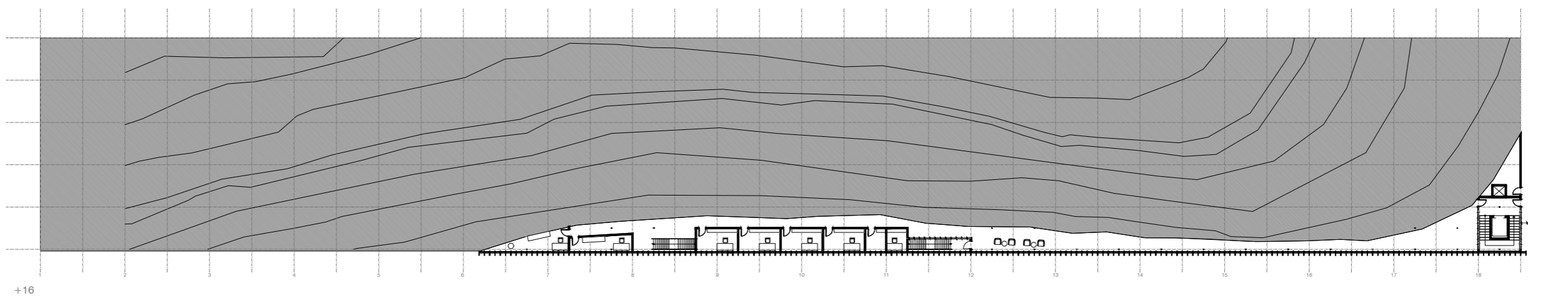
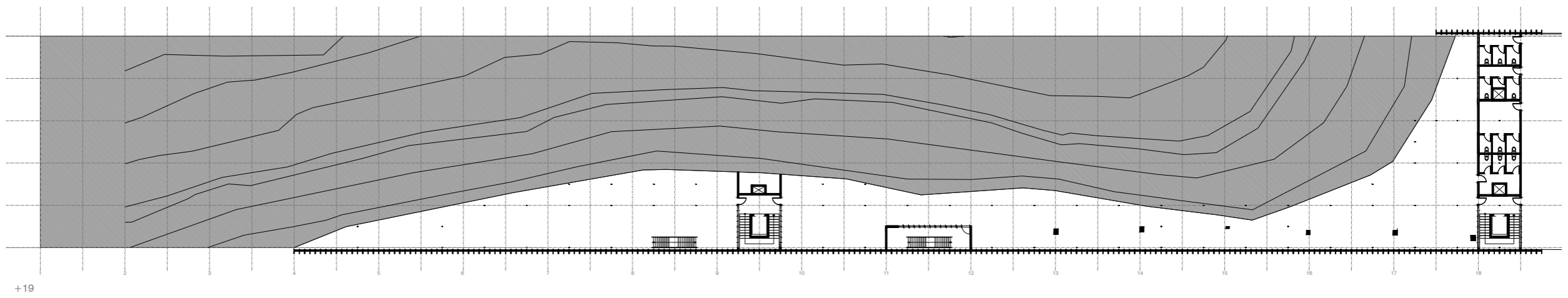
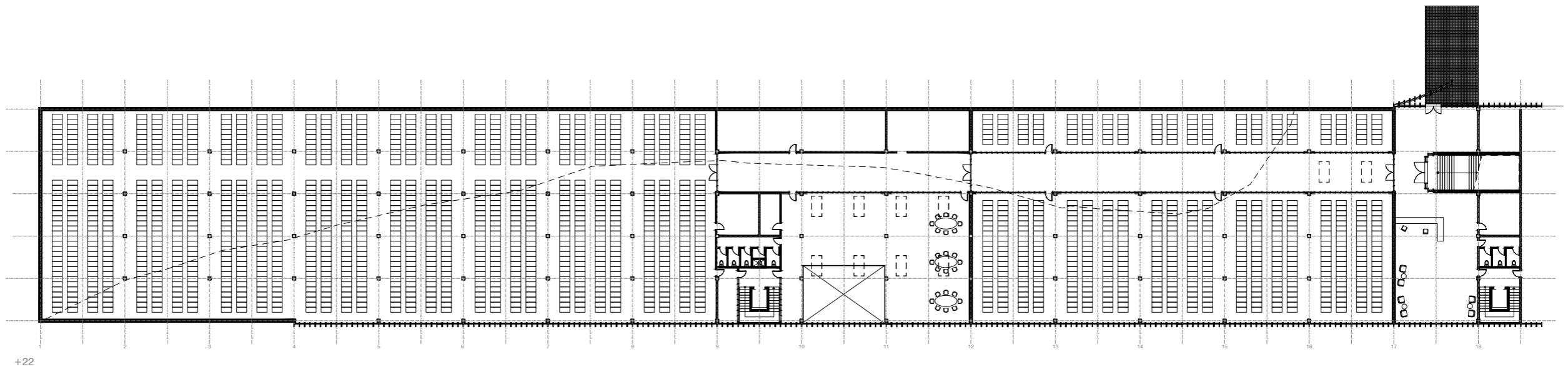




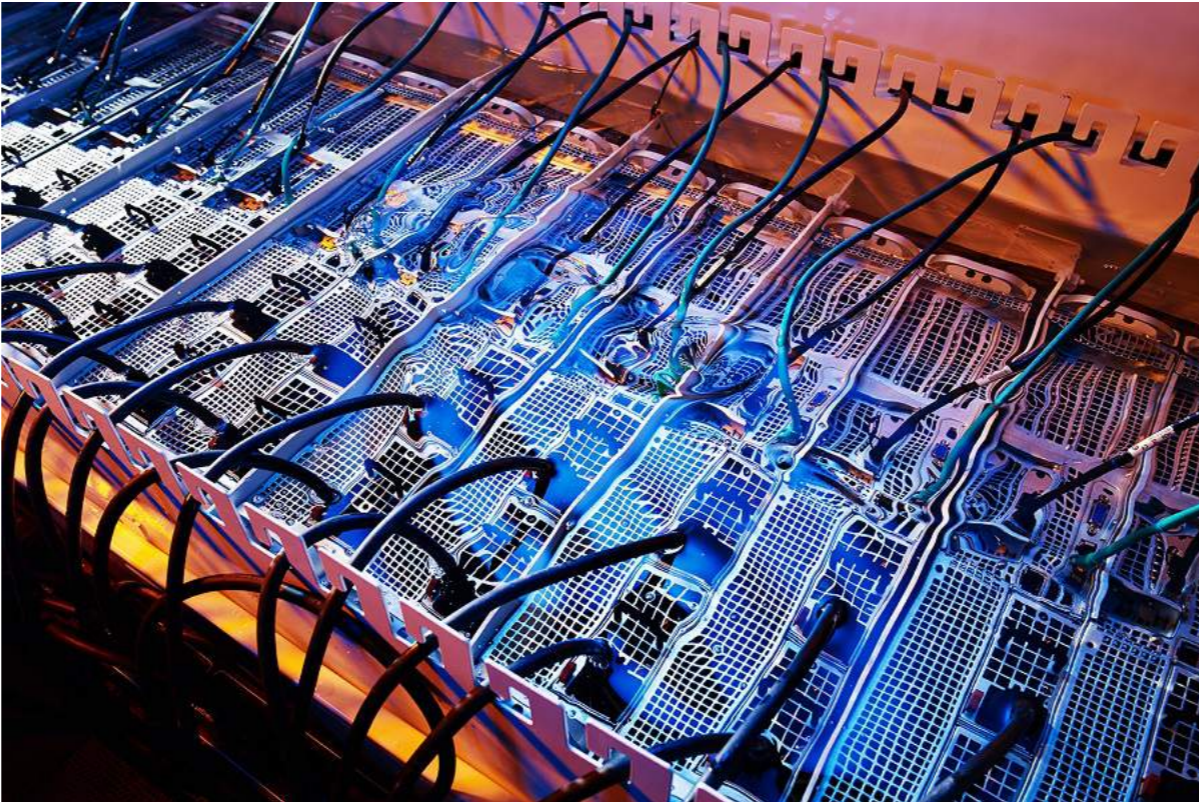
Underground data center



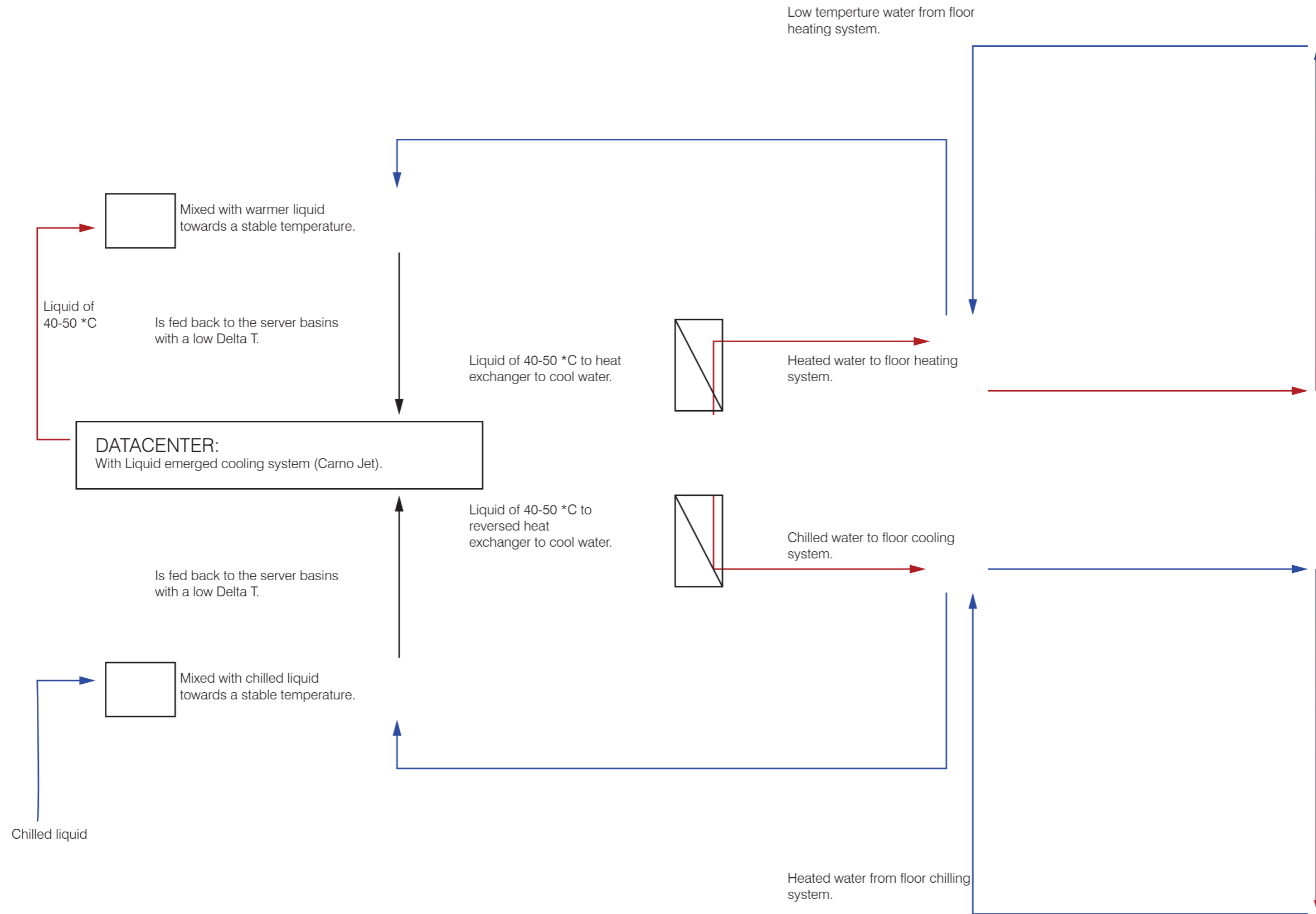
Underground data center



The data center as engine of the building

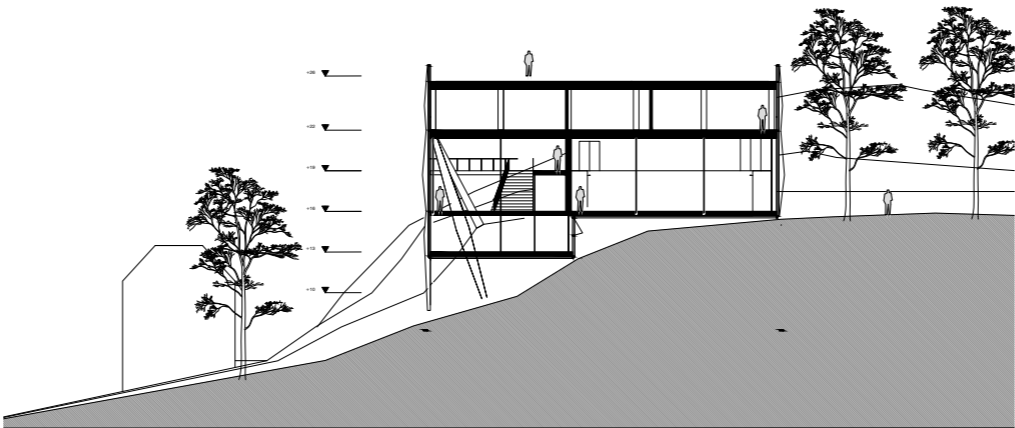


The data center as engine of the building

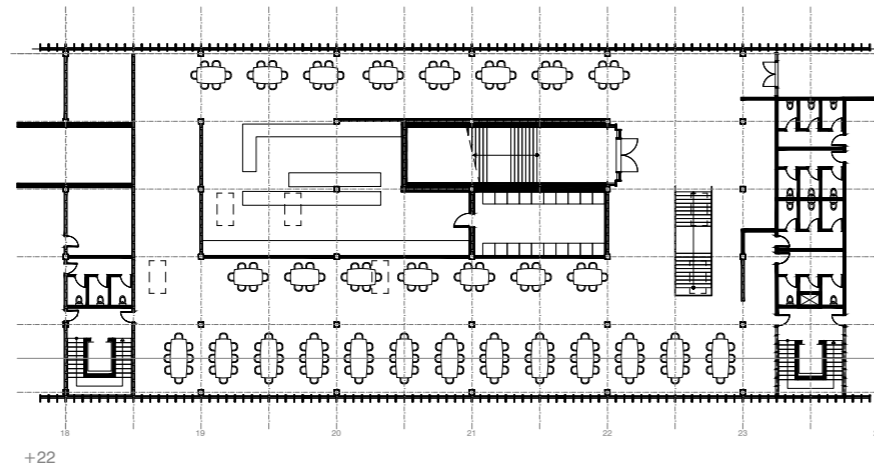




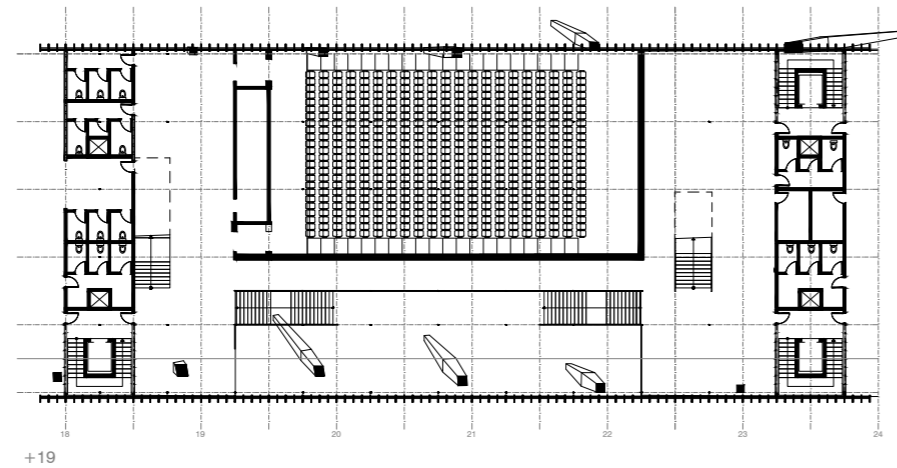
Bridging restaurant, conference hall and hotel



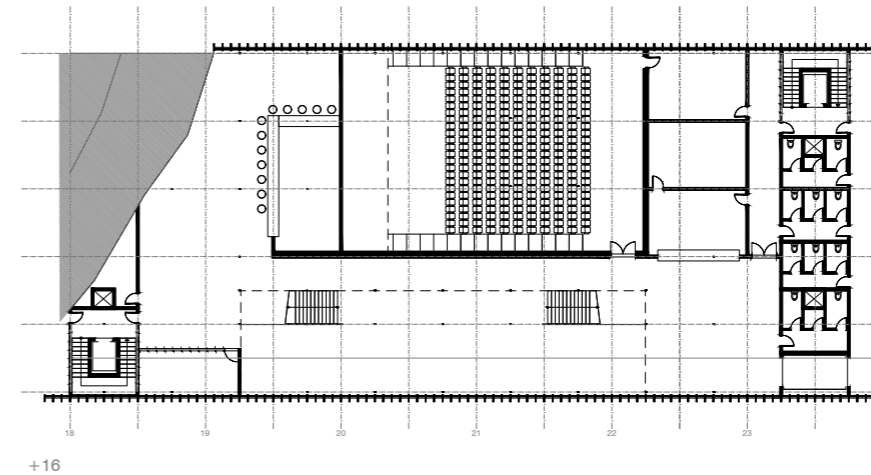
Bridging restaurant, conference hall and hotel



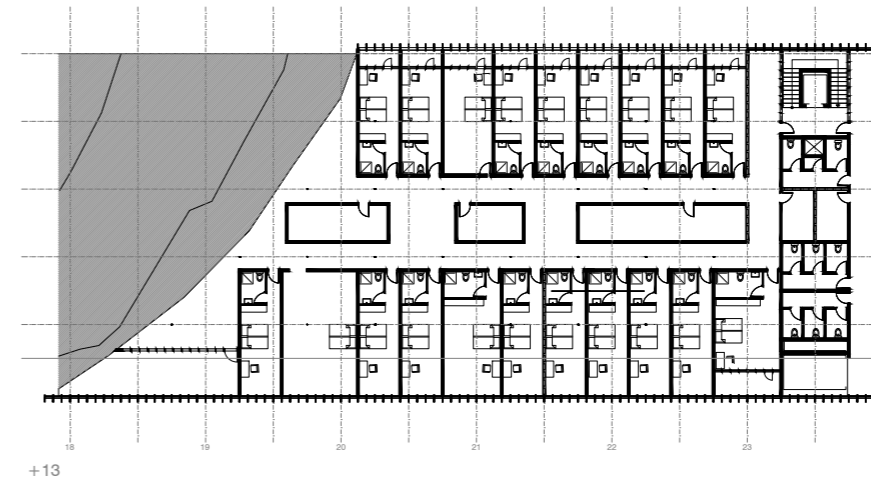
+22



+19

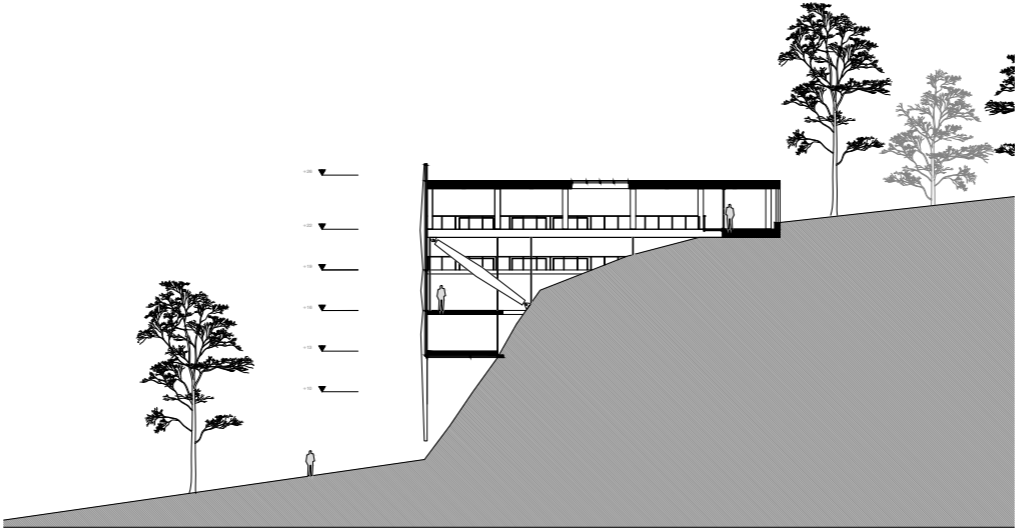


+16

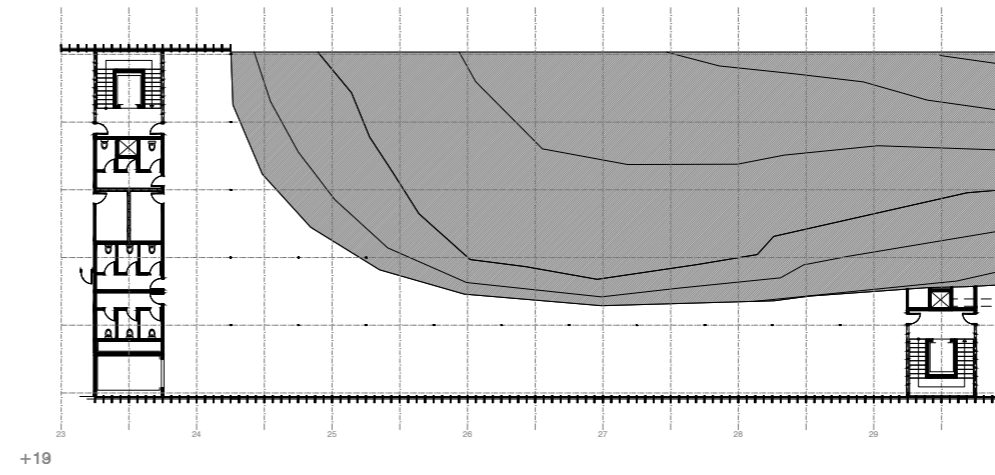
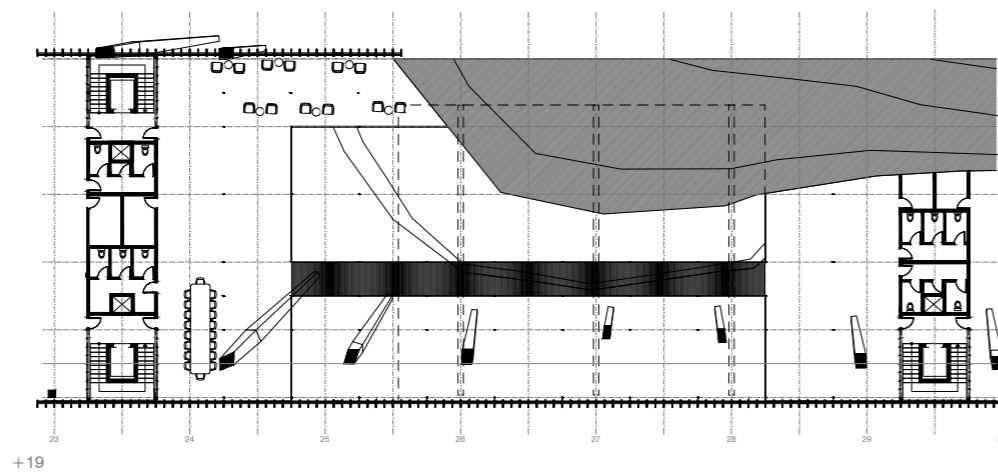
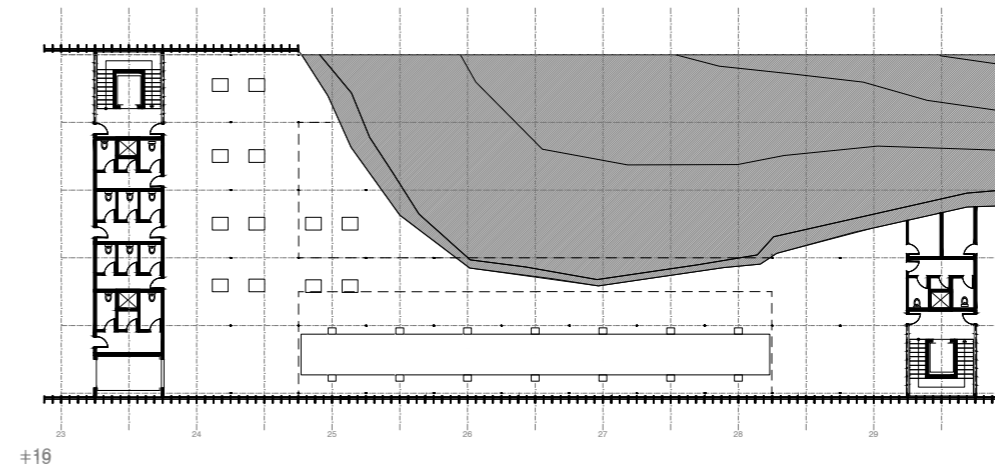
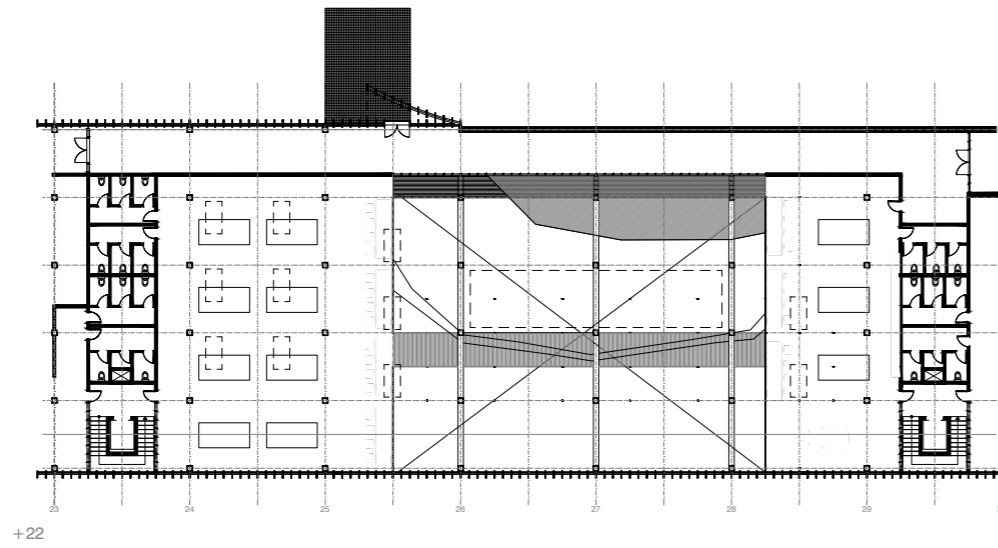


+13

Concave robotics lab

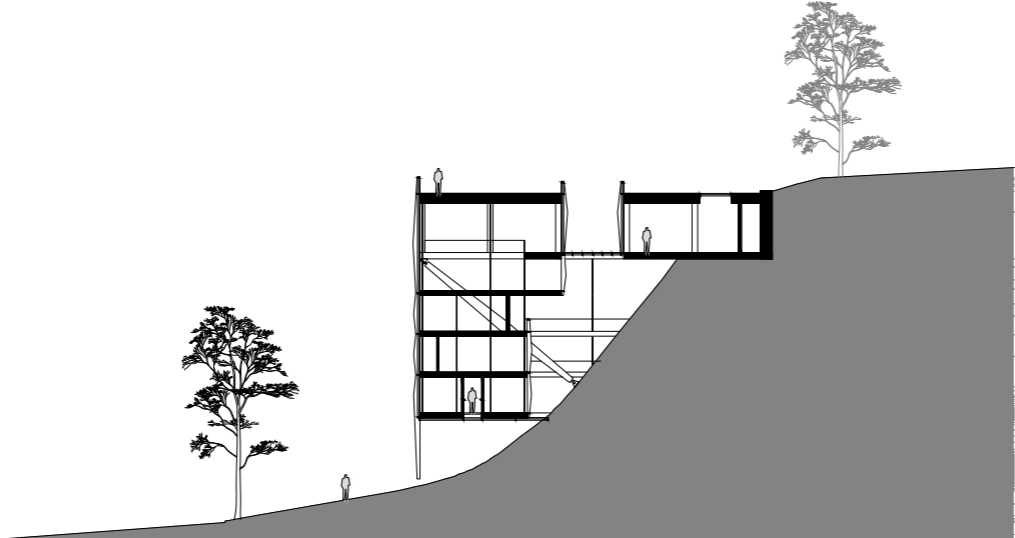


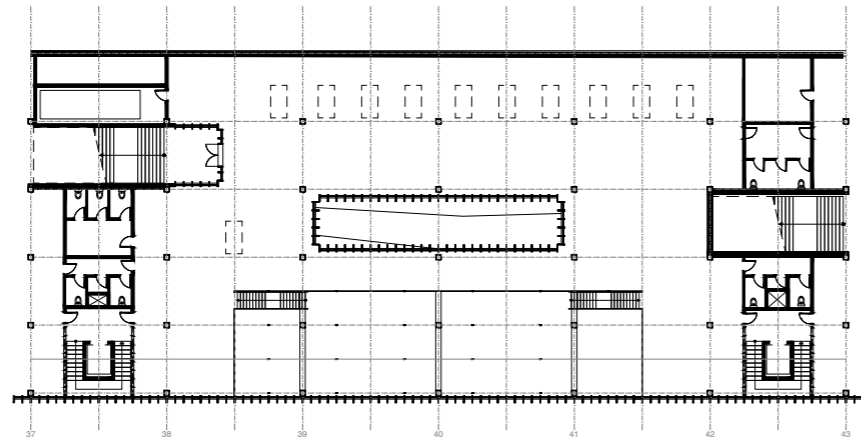
Concave slope robotics lab



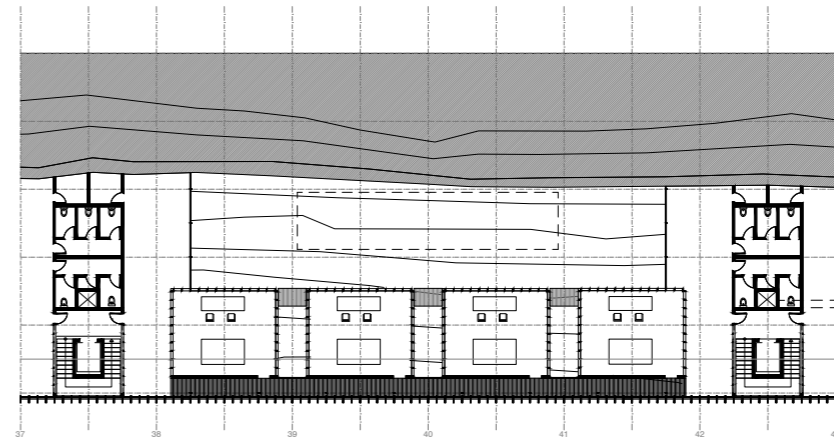


Cliff laboratories

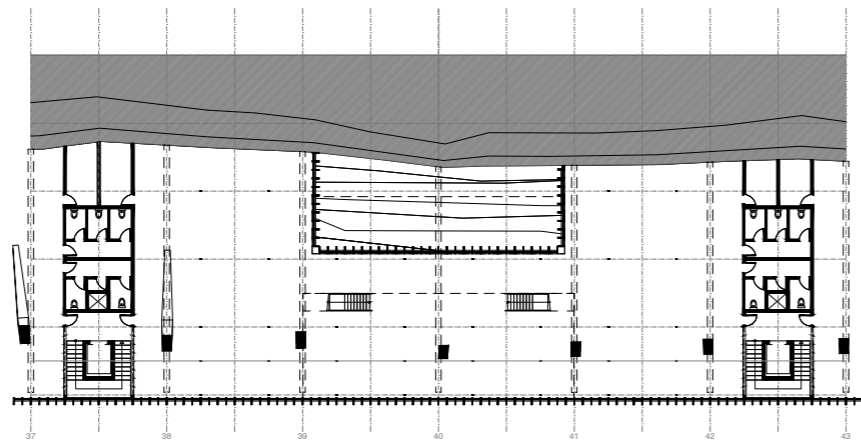




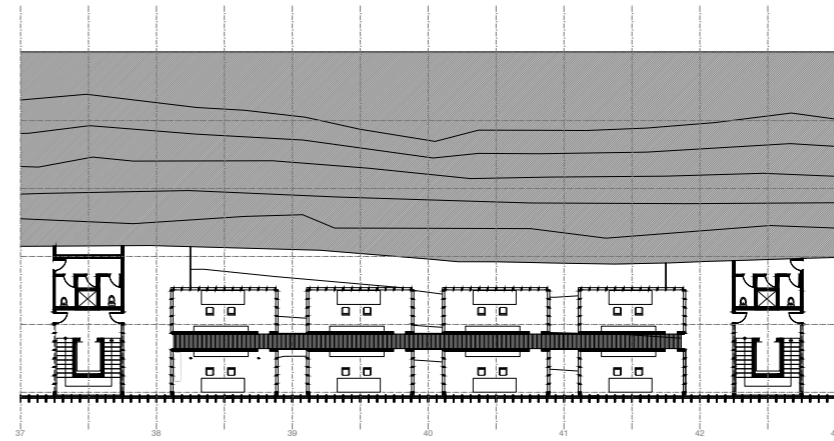
+21



+16



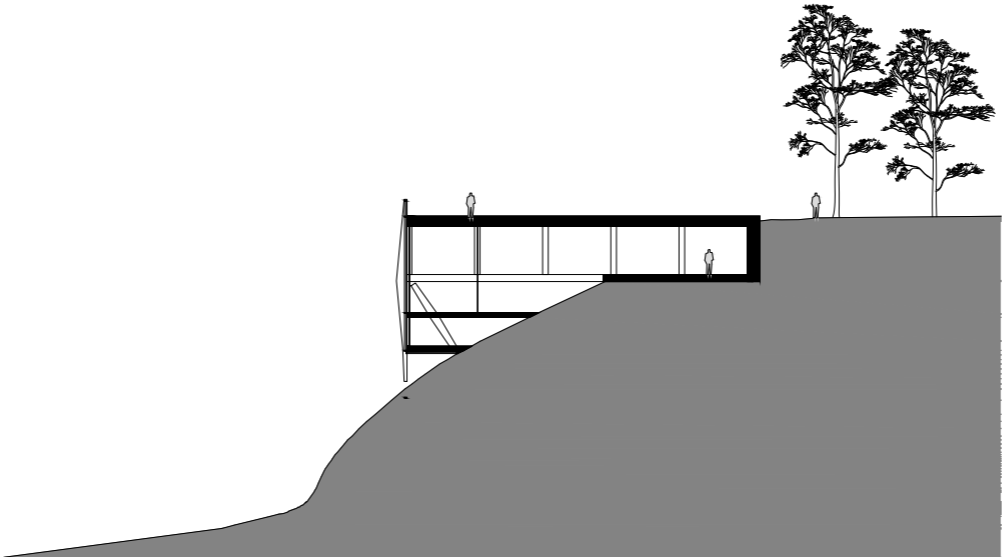
+19

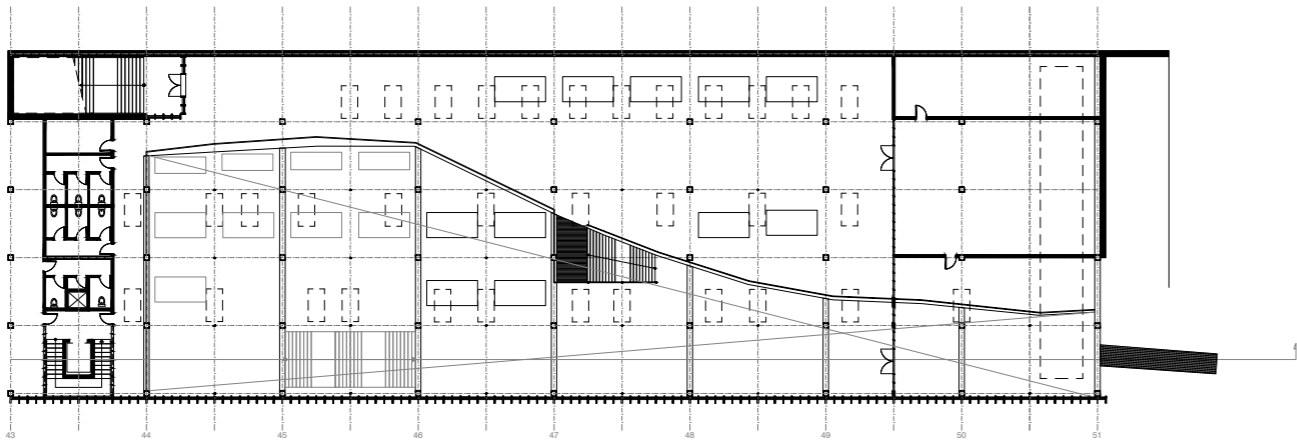


+13

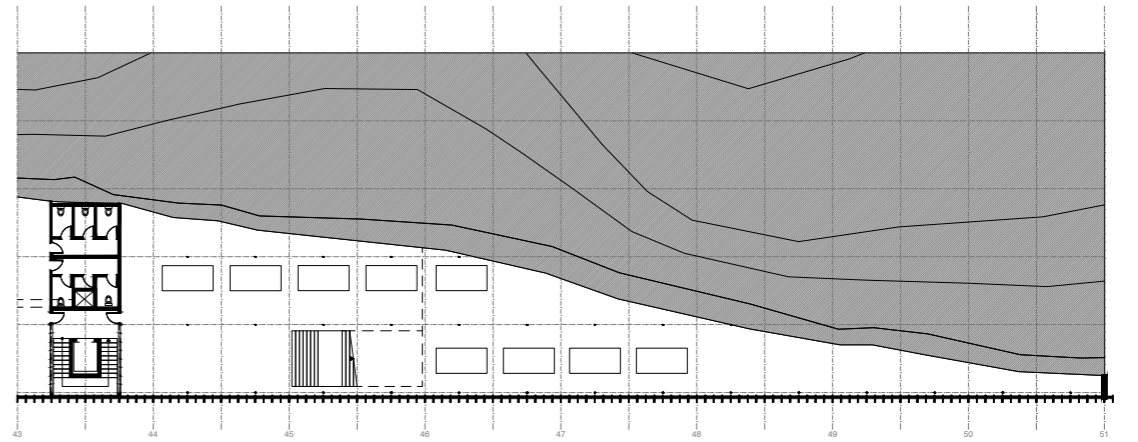


Soft slope maker space

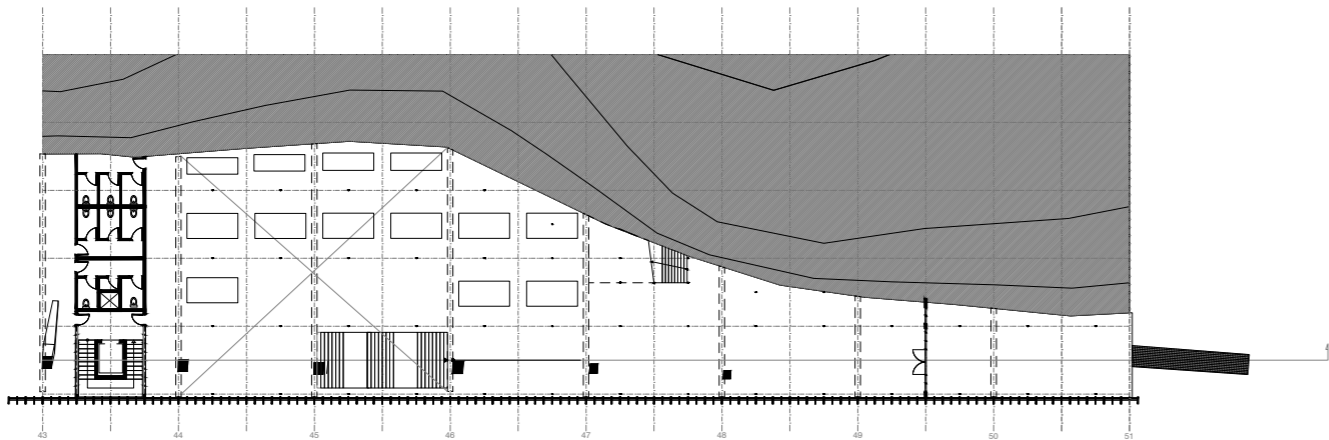




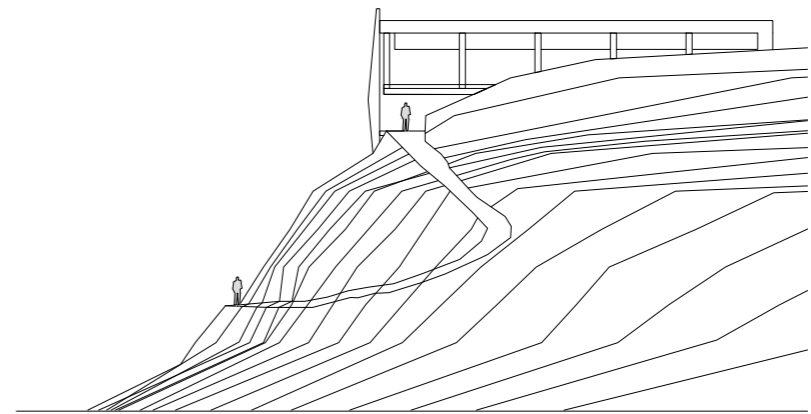
+21 and +19

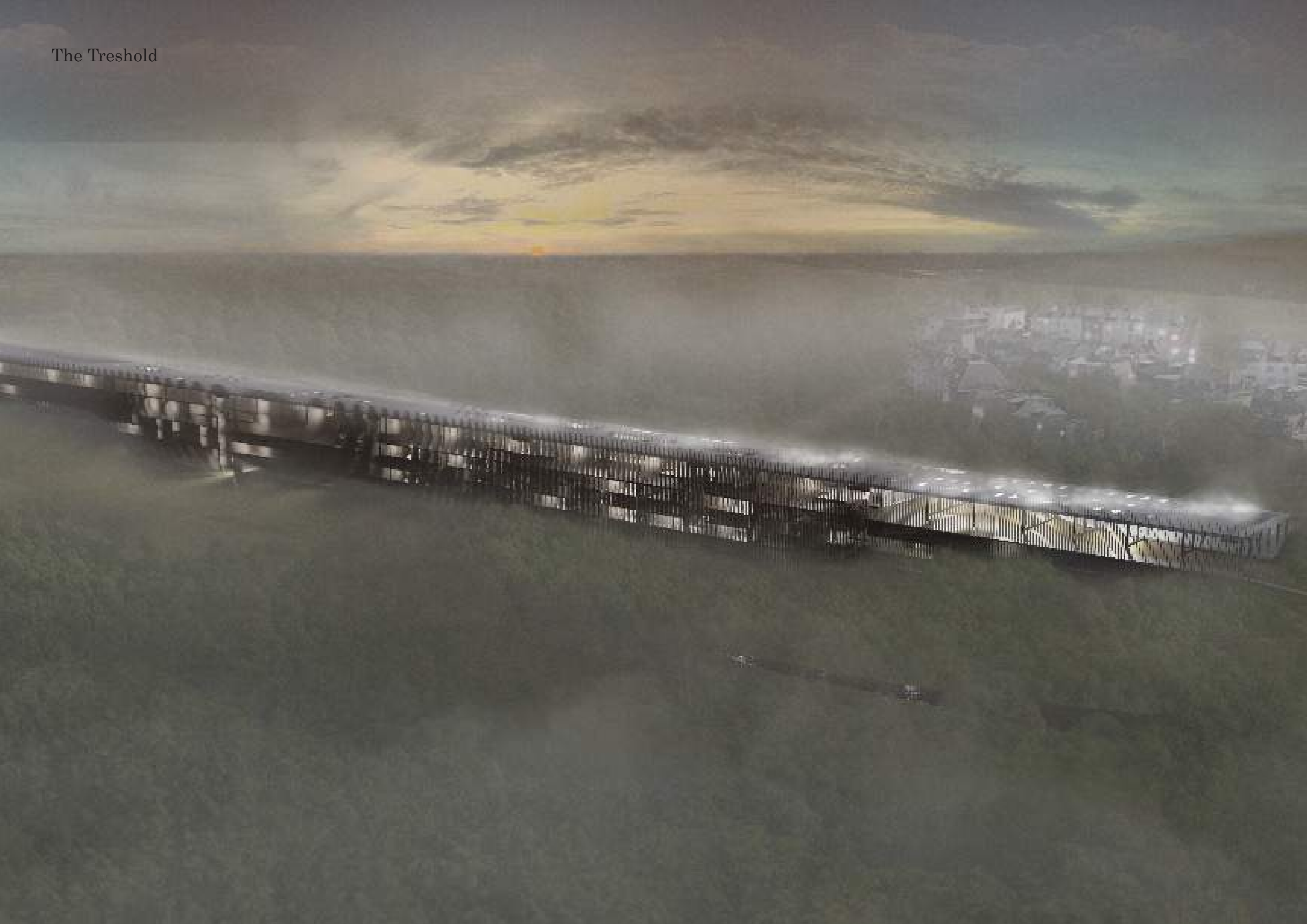


+16



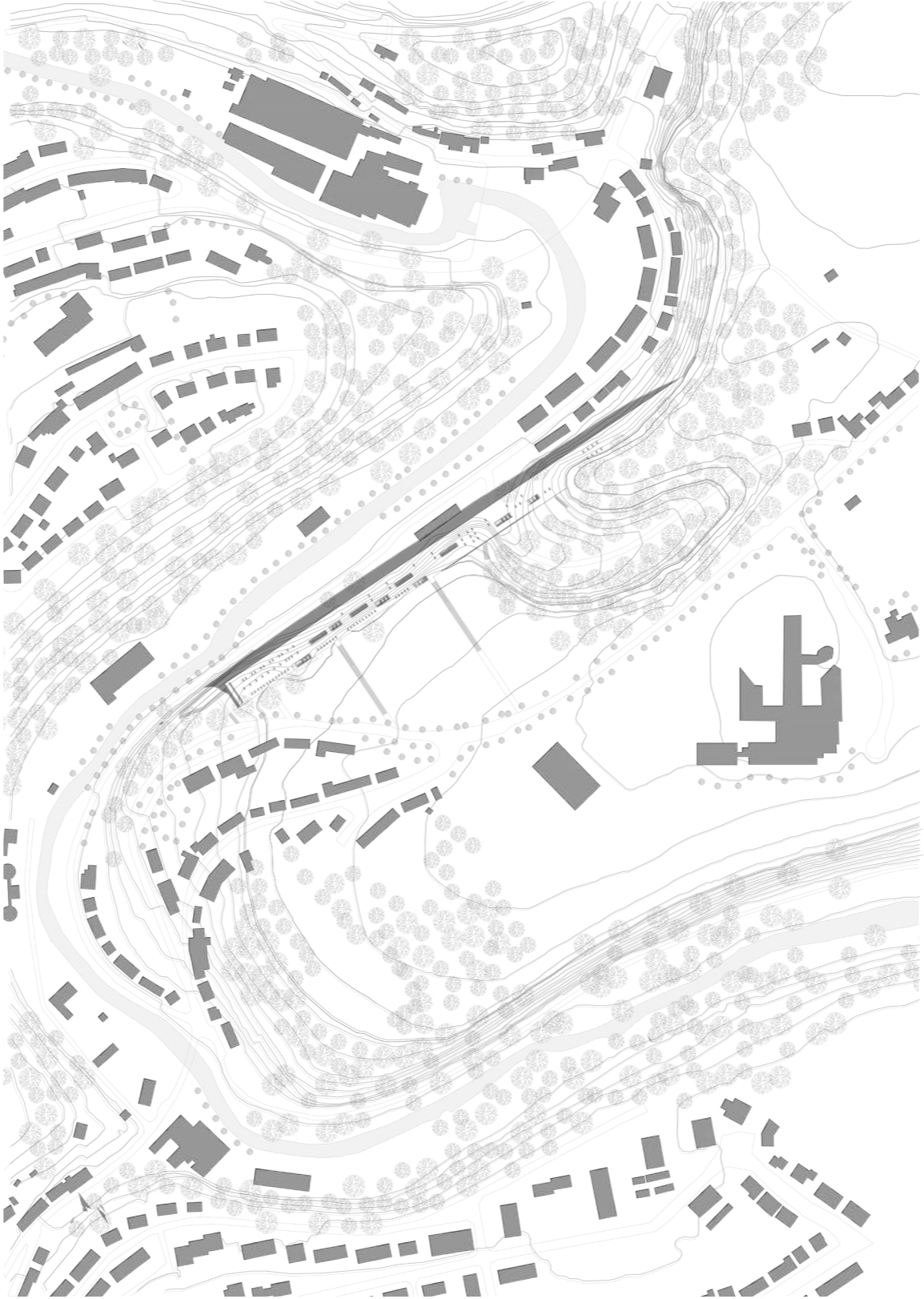
+16



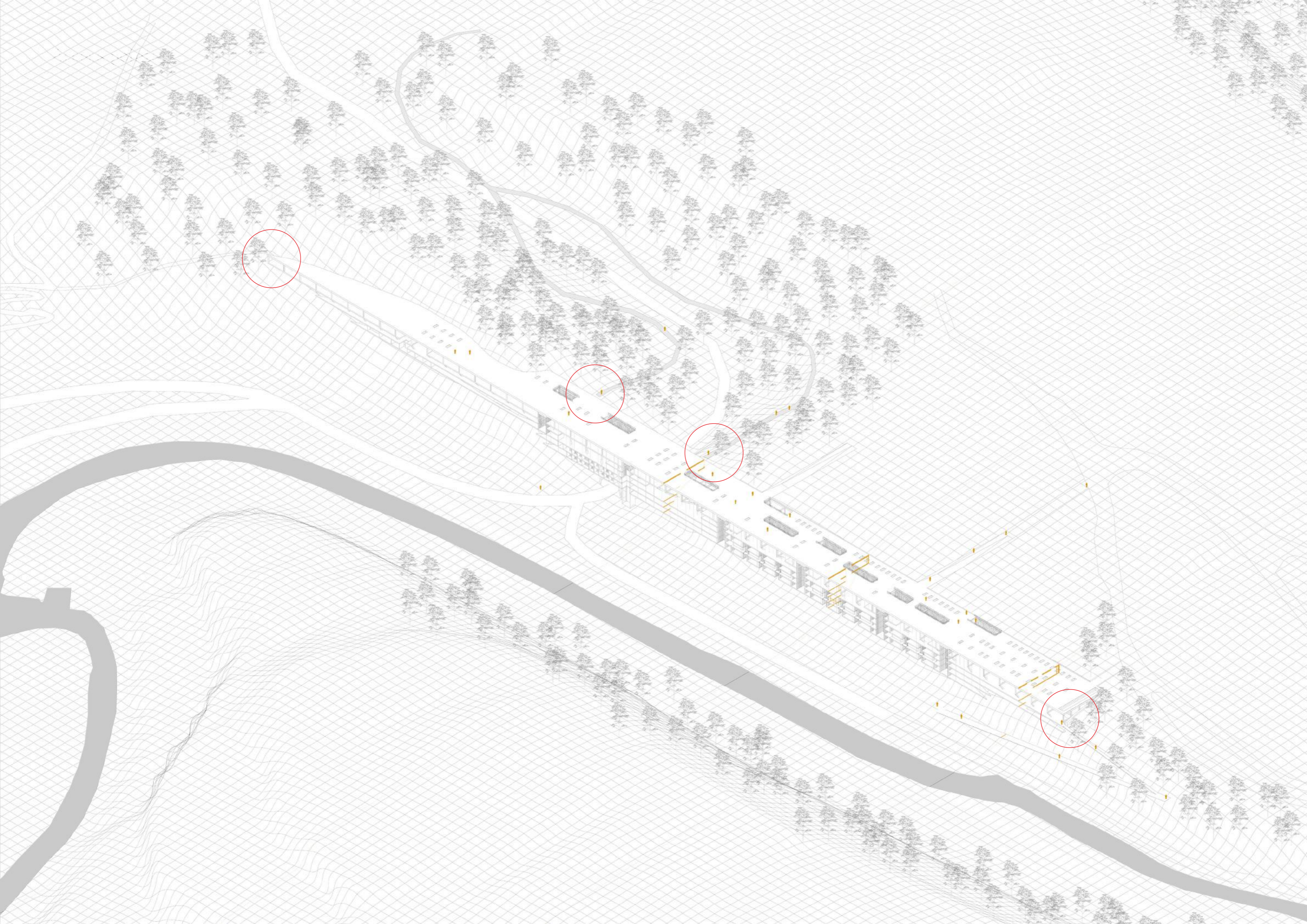


THE SURFACE AND THE INTERFACE

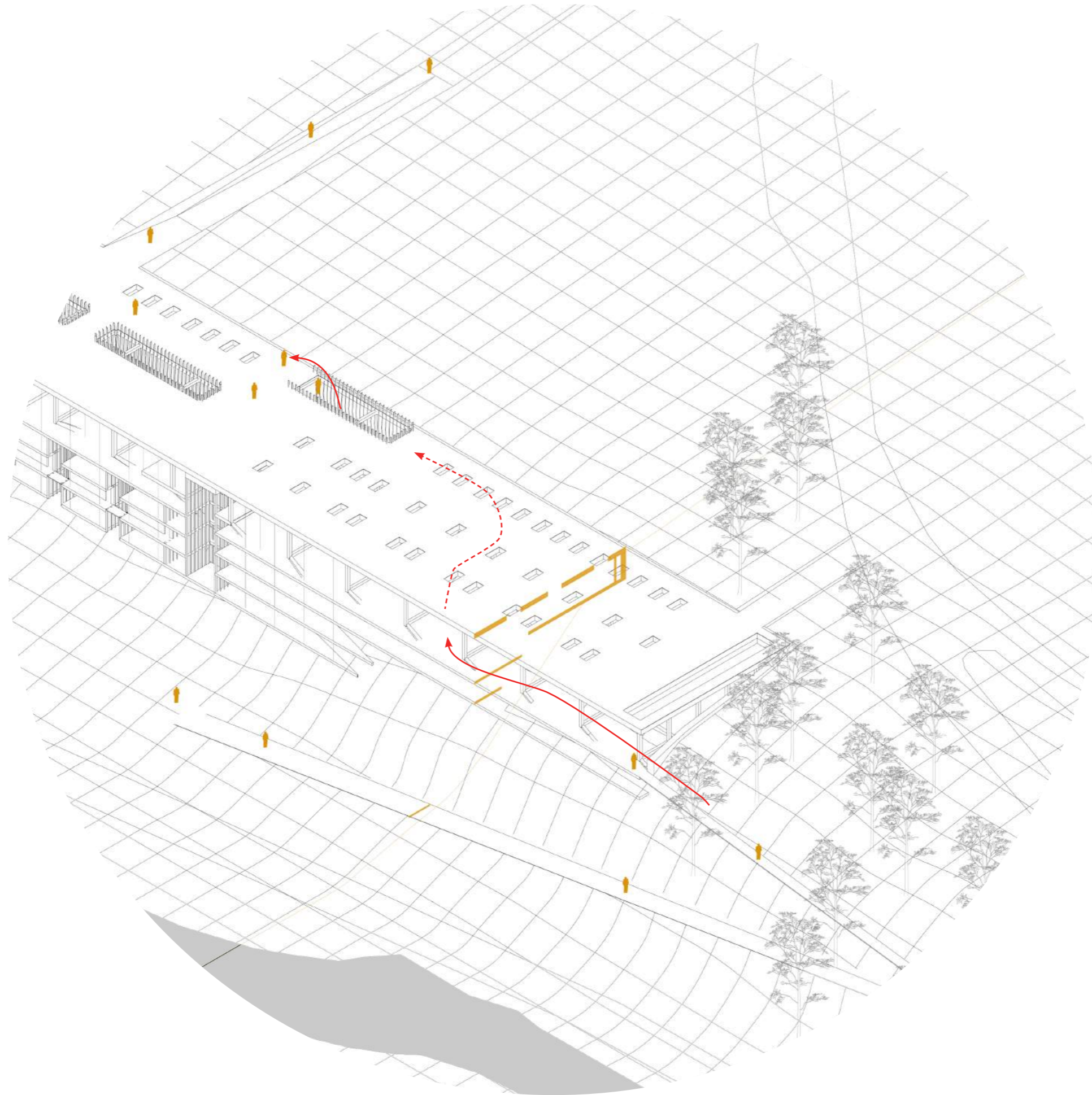
Site plan



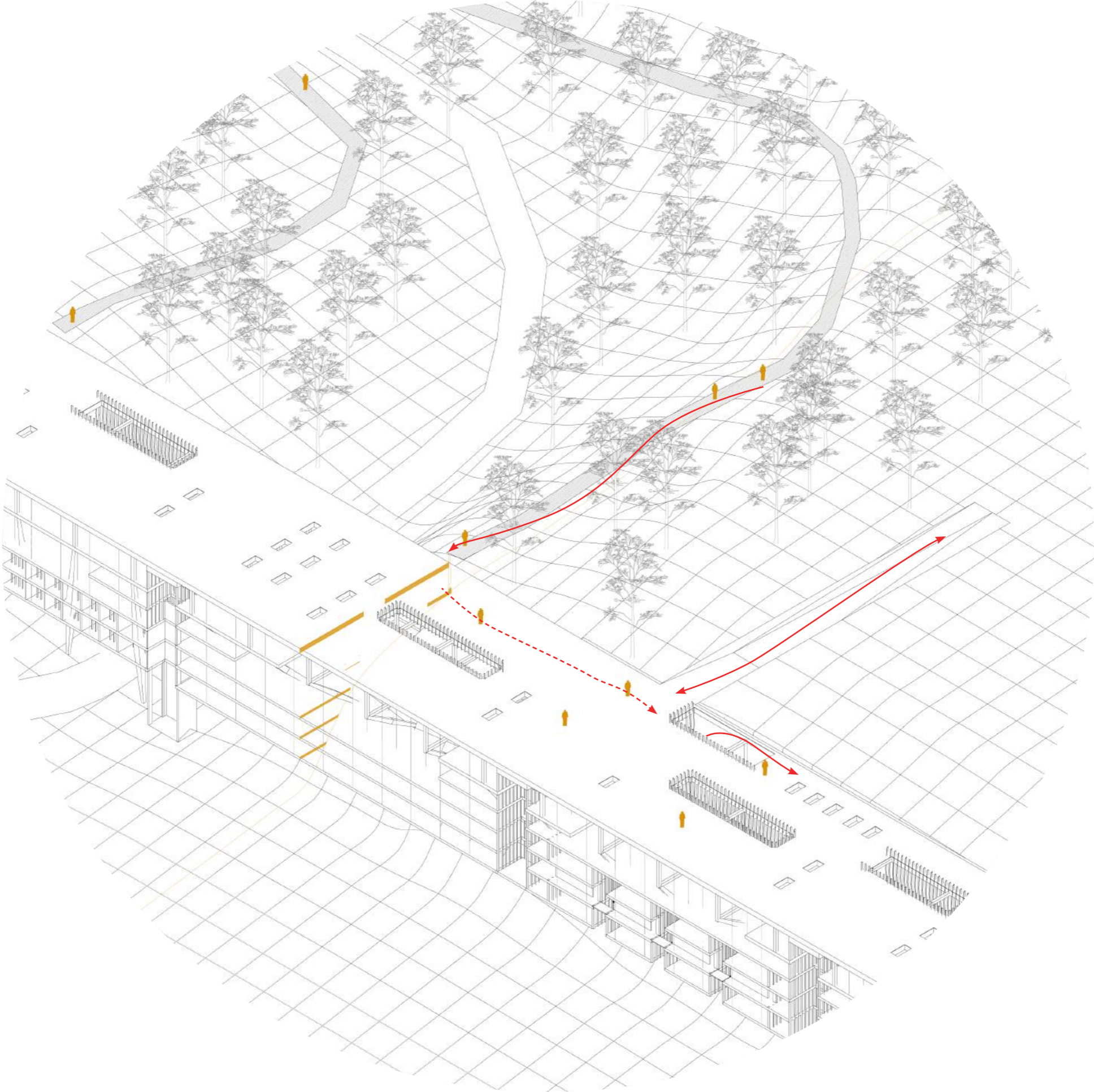




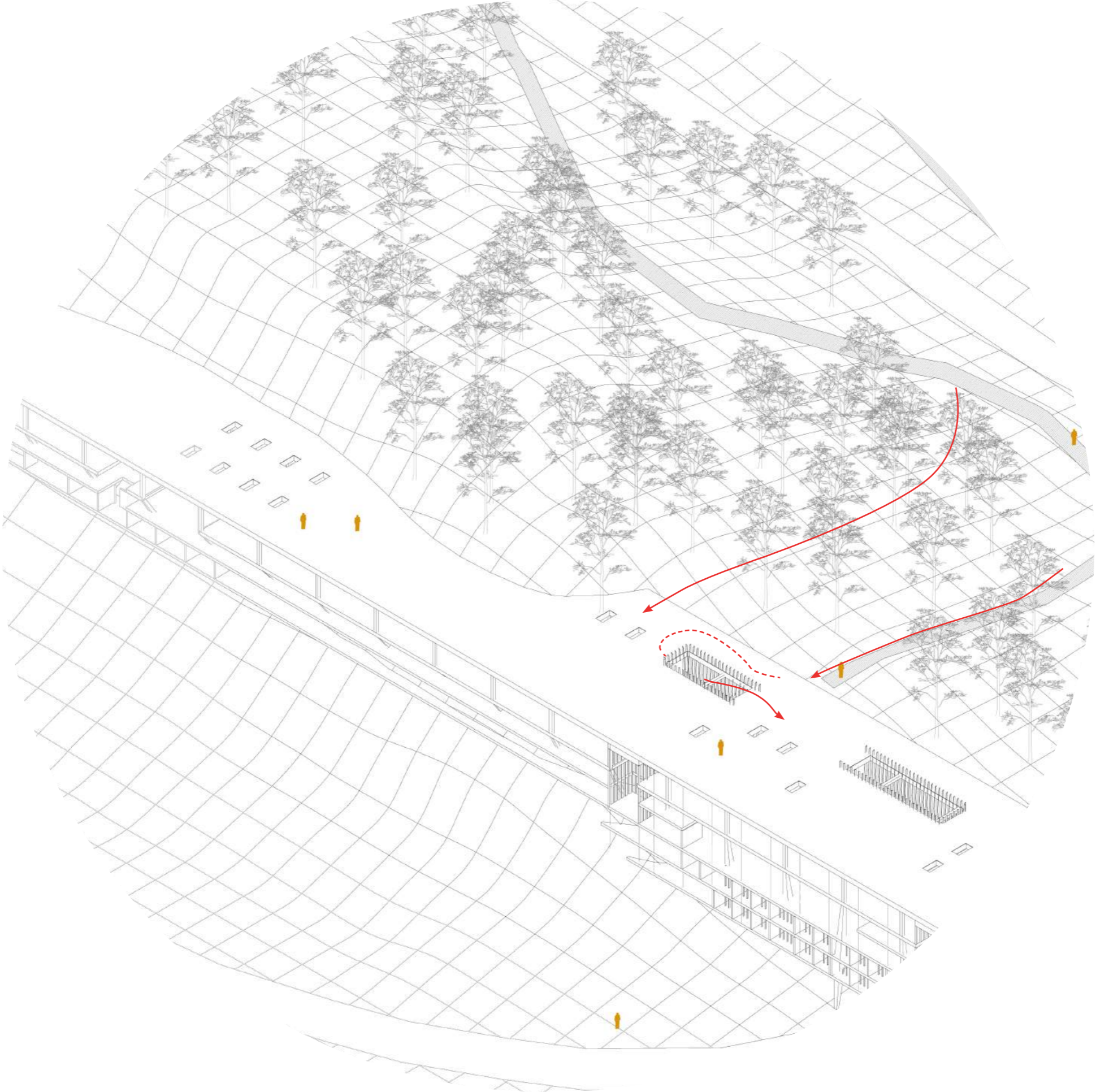
Entrance at the head, public maker space



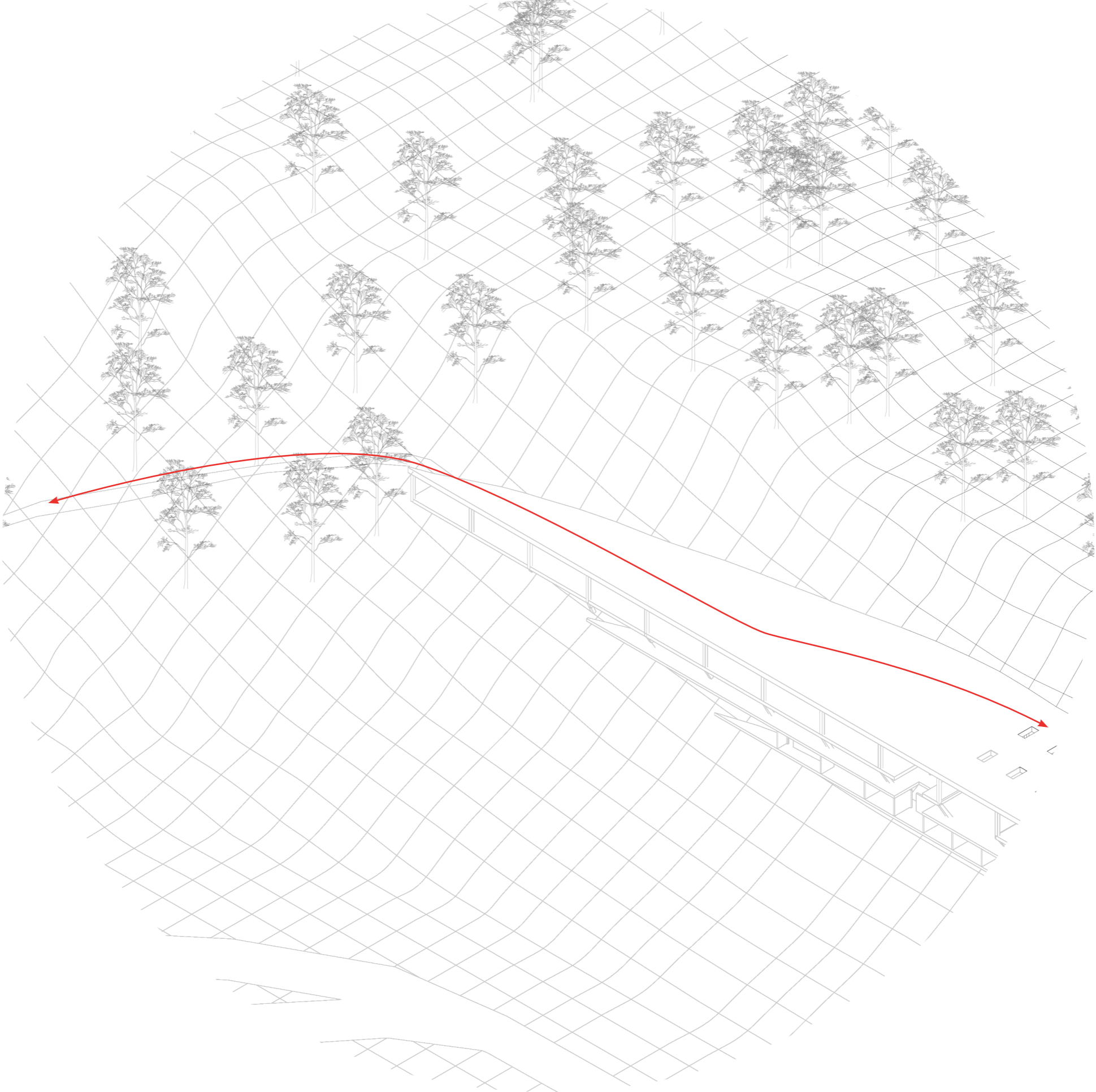
Side access point to restaurant and the surface



Side access point to the datacenter and the surface



The surface disappears in the pedestrian system



The surface as access point, public space and power plant.



The Surface

