

Gullbergsvälley

Creating a public landscape through the integration of
an existing structure with new connections

Erik Van Eyck

ARK-128 Architecture and Urban Space Design

Module 3 report

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SCOPE

Selecting concepts, selecting an object

Suprastructure principles



During the previous module, an extensive analysis of Gullbergsvass as well as the city of Gothenburg as a whole identified the abundance of urban assets that lay scattered within the central city area, but also the poor condition of connectivity that they are subject to today. As a vast and open landscape - difficult to read and crossed by remnants of industrial infrastructures - the site is not only hard to reach but also rough to traverse. Especially bikers and pedestrians suffer from the lack of adequate infrastructure.

The Centralenområdet area is key in the integration of Gullbergsvass with the rest of Gothenburg. The creation of new connections and pathways has therefore been a focal point for the students working within it. Together, their projects unroll a system of interconnected public spaces strengthening connectivity in terms of mobility, ecosystems and assets.

Taking part in this new network is thus a primary criterion in this project.

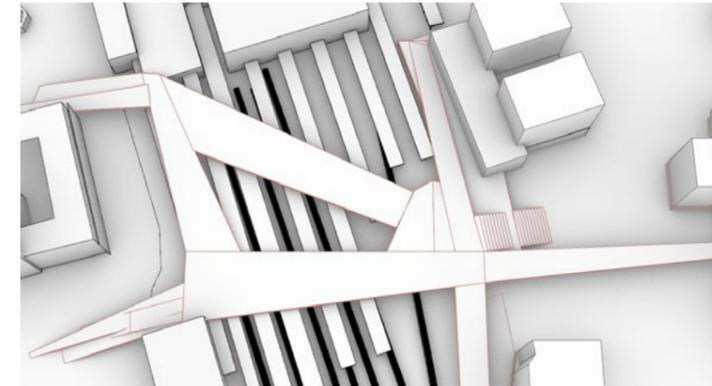
Suprastructure principles

Connect areas of the city

Connect assets in the city

Preserve/create important views

create
New paths



Create public spaces

Create green spaces

create
Sequence of public
spaces

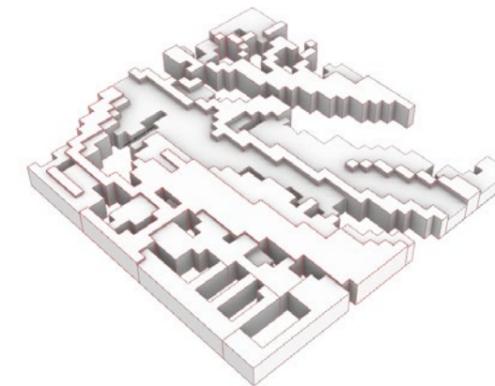


Protect from wind

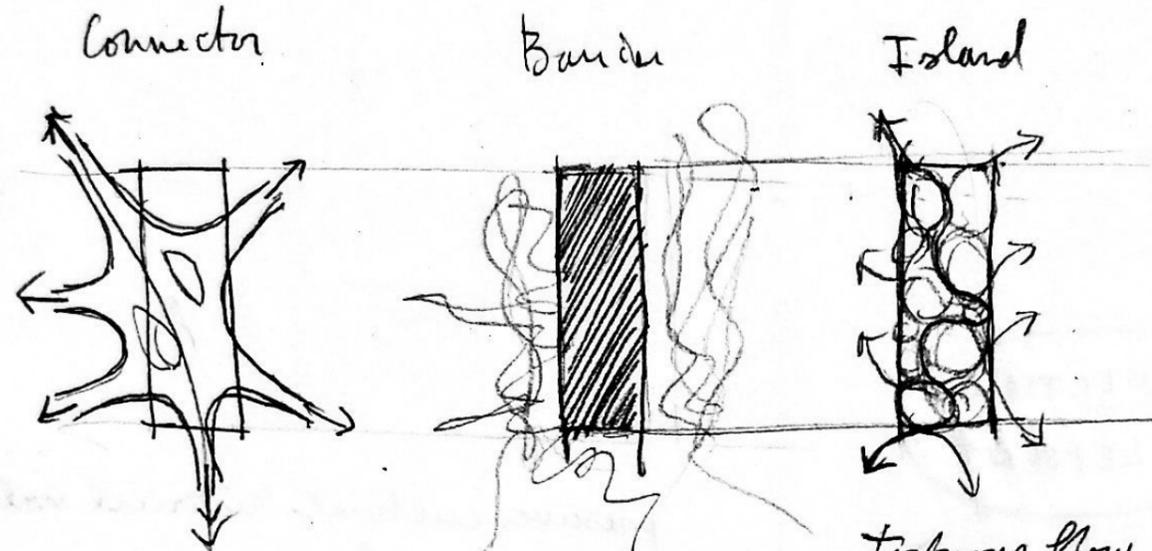
Mitigate noise pollution

Mitigate air pollution

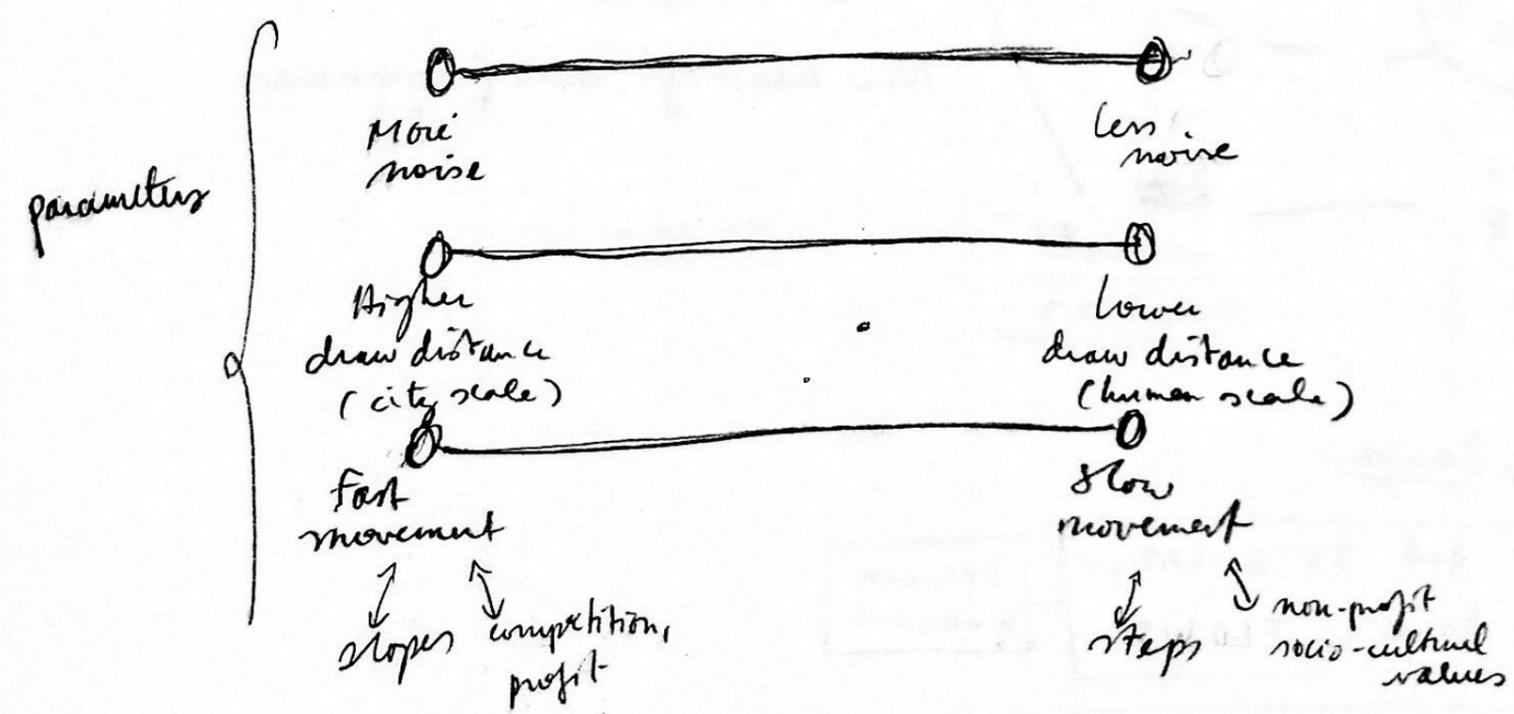
create
Elevated levels
(cartography massing)



Flows



Direct flow (TRANSIT)
 other assets, locations, city, river }
 "visitor" (community) }
 visual relations }
 profiles }
 Tortuous flow (USE)
 buildings, structure, history }
 "resident" (identity) }



Exploring different characters of flows within Gullbergsvass and potentially through the new proposal for the warehouse. These are correlated to gradients of parameters, like orienting views, comfort influenced by actants, speed and the relation to the building and its use.

Reference project: Yokohama terminal



Architectural hybrid, at once a public landscape and international ferry terminal. The experience of the building and its surroundings happens along a series of paths, which flow in and out, up and down and expose users to a range of different conditions and opportunities.

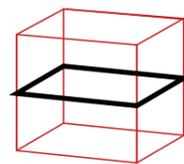
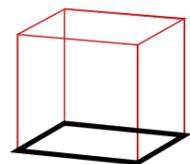
Designed by Foreign Office Architects

Situated in Yokohama, Tokyo, Japan

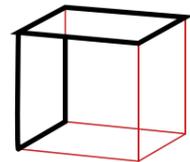
Reference project: Yokohama terminal

Elements of the landscape

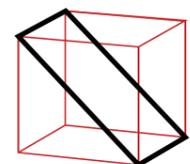
Within the flowing landscape, specific elements can be identified that make up the pathwork of spaces and give different opportunities for use and movement.



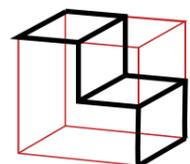
Platform



Shed



Slope



Terrace/stair/bench

Evolving experience

The pathwork of landscape elements and sloping paths create an evolving experience. At every point, views and exposure to actants wind, noise and rain are different.



Different experience
of

views
wind
noise
rain

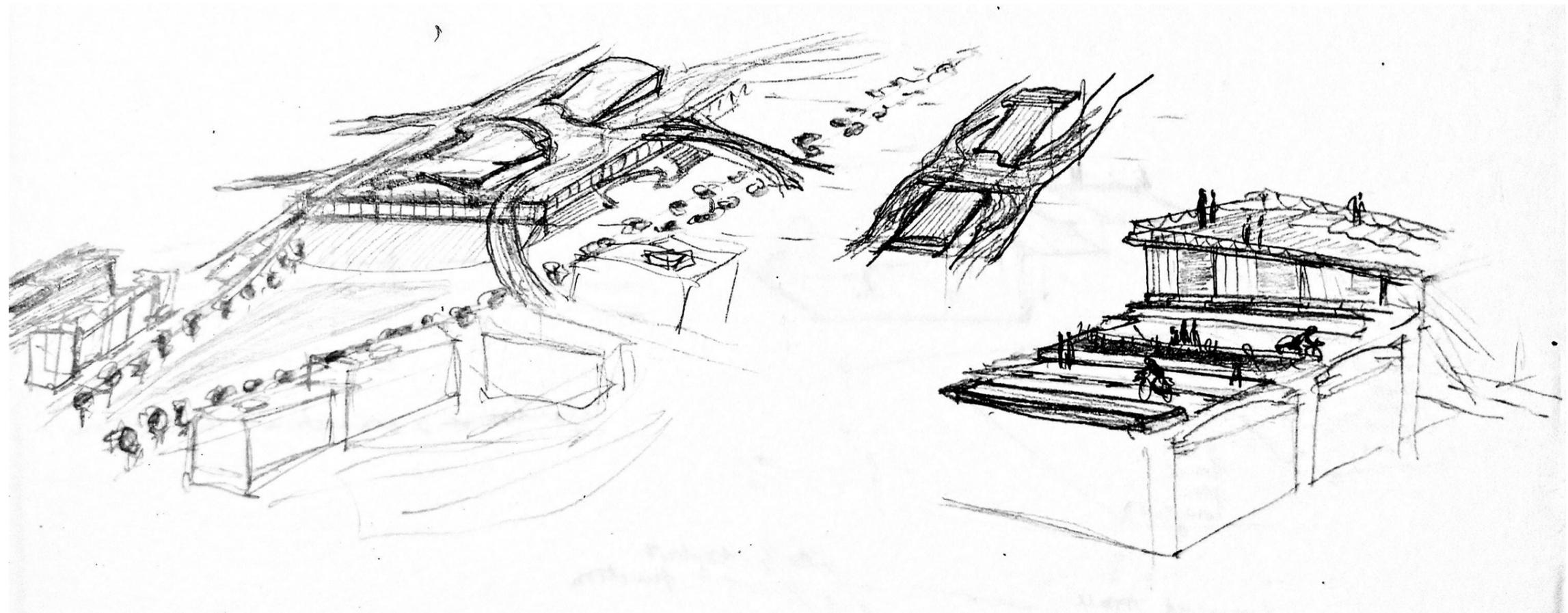
Spaces

The folds of the building create a spectrum of inside- and outsideness. Landscape flows over into function. The covered spaces strongly frame views of the surrounding cityscape.



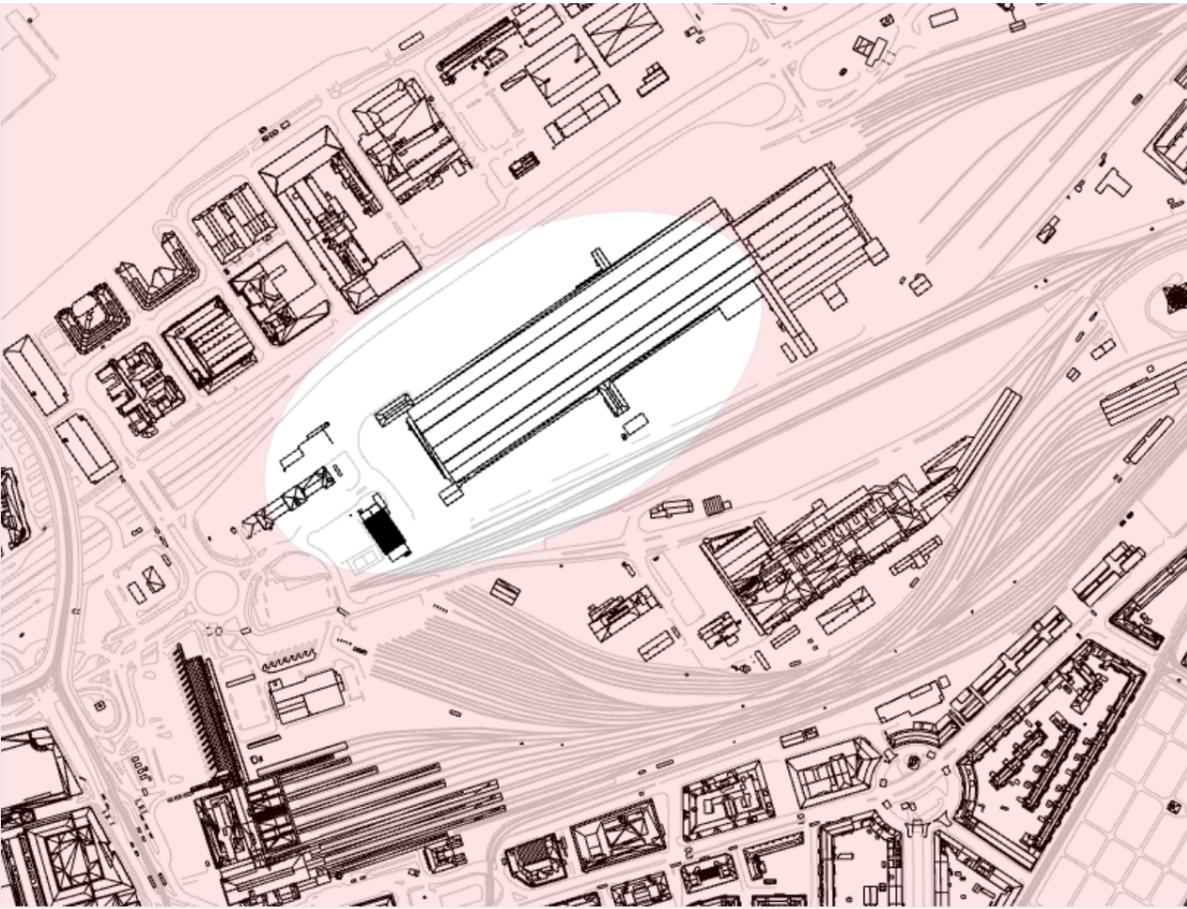
Different spaces

inside-outside
visual relations
different uses



Yokohama in Gullbergsvass?

The warehouse



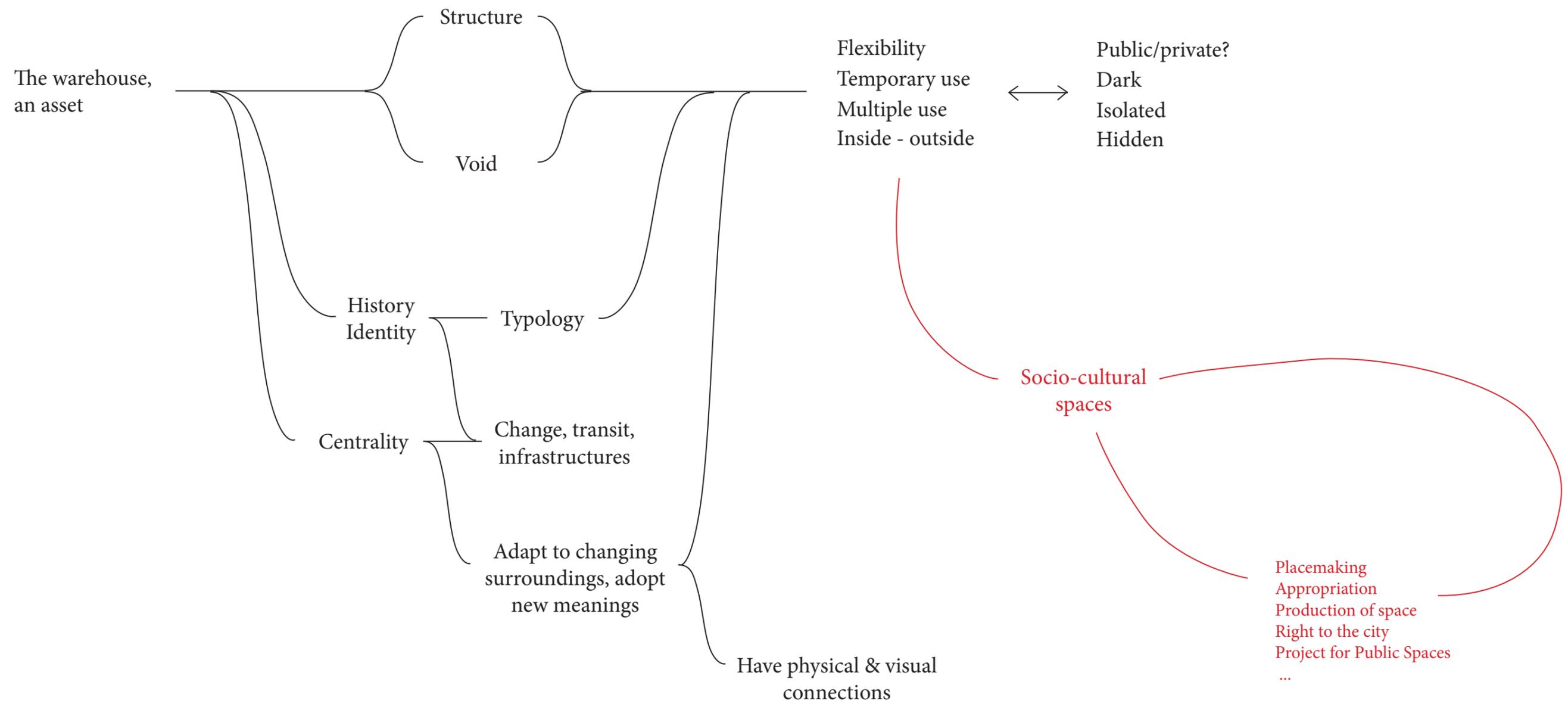
At the heart of Gullbergsvass, an enormous storage structure persists as a sleeping remnant of the area's agitated past. The 60 000 square meter space lays open and largely unused.

As a space, it has an intriguing potential for urban activity.

As an object, it is an obstruction for most traversal across Gullbergsvass.

I decided to work with this structure and to investigate in what way its qualities can be maintained in the new Gullbergsvass. while still working towards realising the principles set forth in the module 2 suprastructure.

The warehouse, an asset



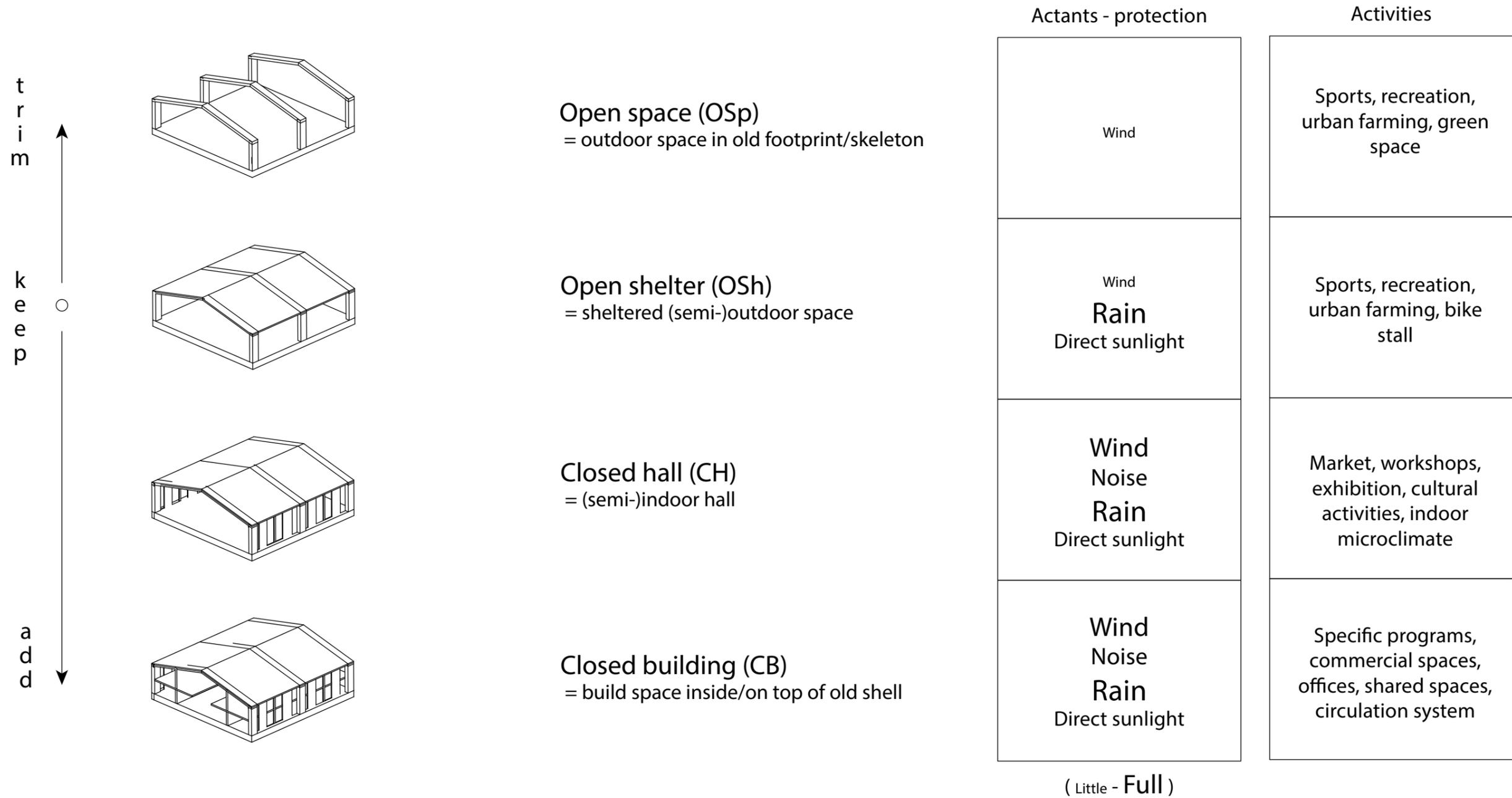
Activities and interventions

Finding the right intervention

How to approach the old structure?

What programmes increase the socio-cultural potential?

What actant conditions are related to intervention and programme?



Ateliers des Capucins, Brest



Characteristics: closed building, significant architectural renovation, strong public/commercial character

Activities: cinema, tech lab, shops, events, media library

Matadero Madrid, Madrid



Characteristics: closed hall/closed building, uninvasive intervention, staging and framing of the building in different ways

Activities: cultural programmes, exhibition space

Grindbakken, Gent



Characteristics: open space, temporary occupation of industrial remnants in transforming harbor area, reconnecting to history, function, materiality, displaying temporality

Activities: exhibition

Gare Maritime, Brussels



Characteristics: closed hall/closed building, separate structures inside old shell, indoor microclimate, strong public/commercial character ('indoor city')

Activities: offices, food market, events, public space, cultural spaces, transit

Abattoirs, Brussels



Characteristics: open shelter, old structure - new use, strong link to history, identity, space has residual and undefined character

Activities: weekly market, local community work and events, playground

Mercat Santa Caterina, Barcelona



Characteristics: closed hall, old facades kept, distinctly new roof form and structure, formal juxtaposition of old/new, different spatial relations to context

Activities: market hall

Old industrial infrastructures can play important roles in urban redevelopment projects. Their versatility and size offers opportunities for a wide range of socio-cultural occupation.

Synthesis

The void inside the warehouse is a growing bed for new urban activities. With both a strong relation to the identity of the area and its accessibility and centrality, it can transform into a new urban hub where once a one-dimensional space is reappropriated and used by different groups and citizens. In a way, performing a large spatial intervention inside it would be disregarding this unique potential. Also, the suprastructure principles, like the need for a new node of soft transportation infrastructures at the warehouse's location must be incorporated in the intervention.

Therefore, I (re)defined my goal as to design a complementary structure that strengthens the warehouse's qualities and consolidates its potential, while enhancing the connectivity within Gulbergsvass. The design process will aim at mutually integrating these elements into one suprastructure.

Create connections between neighbourhoods



Flows

Create conditions for re-activation of the warehouse



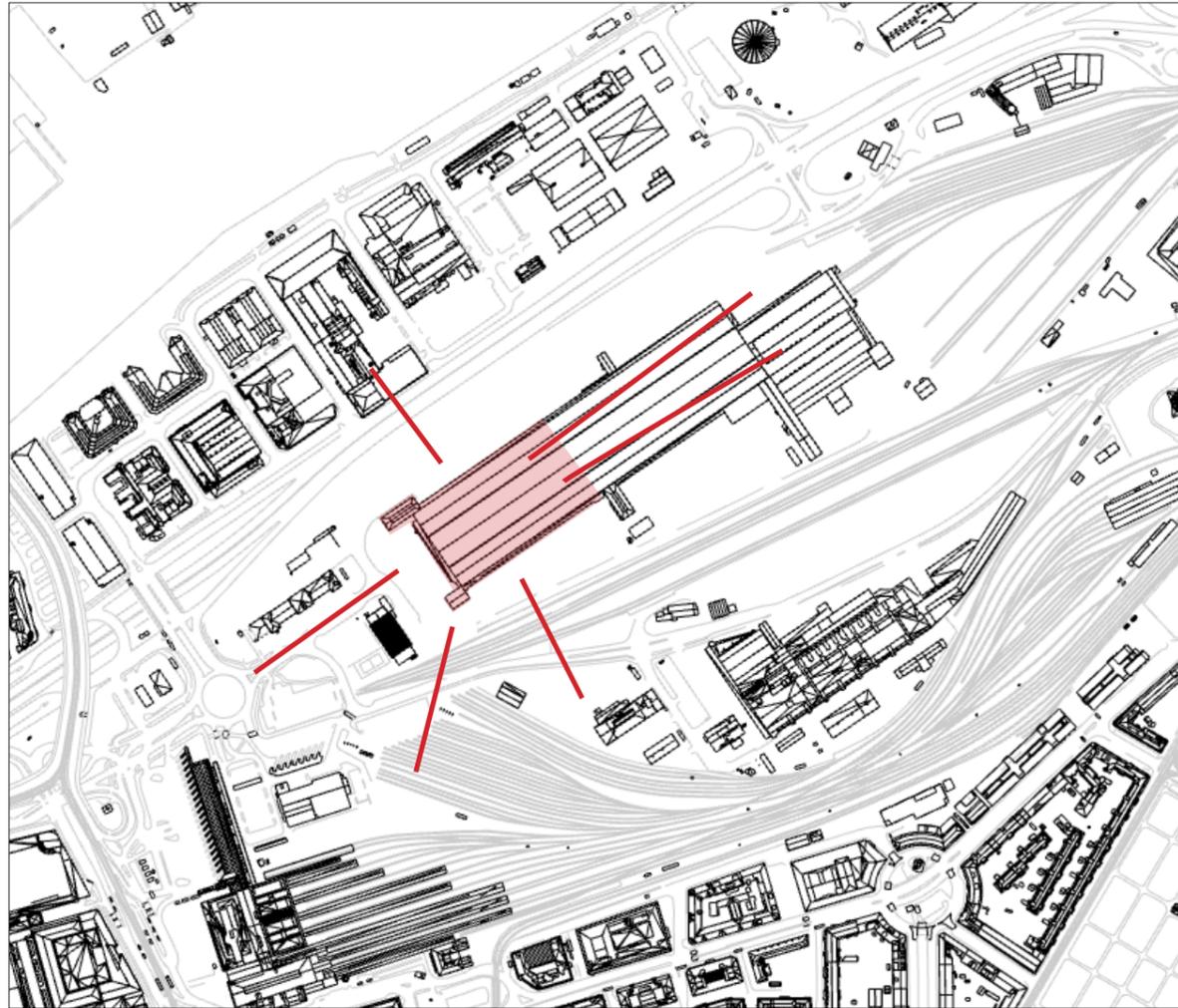
Warehouse

Public Space

Create new public spaces with better conditions for use and comfort



Boundaries and common goals



Both me and my colleague Antoine were captivated by the warehouse and the way it serenely overlooks its surroundings. We therefore discussed the approach that our interventions would take towards the building.

We were both convinced of the warehouse's potential for repeated transformations, and looked to not make invasive alterations, but complementary additions. We also shared the desire of creating connections between the areas of Gullbergsvass through our projects.

Other goals, like supporting the network of green spaces and preserve visual relations to important elements of the surroundings were also common.

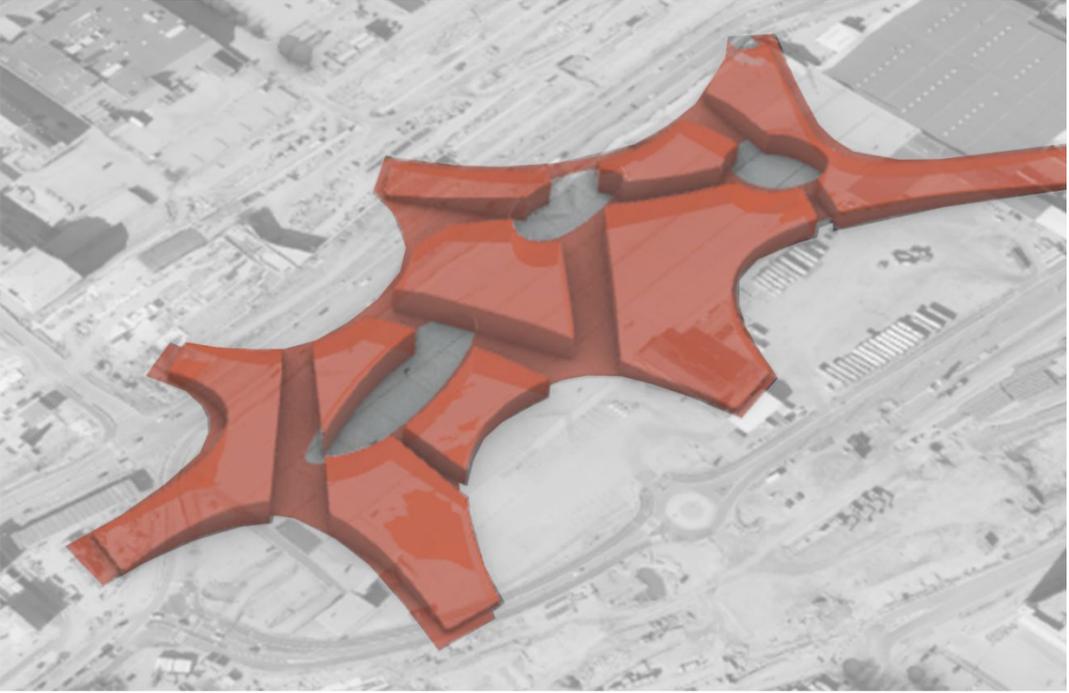
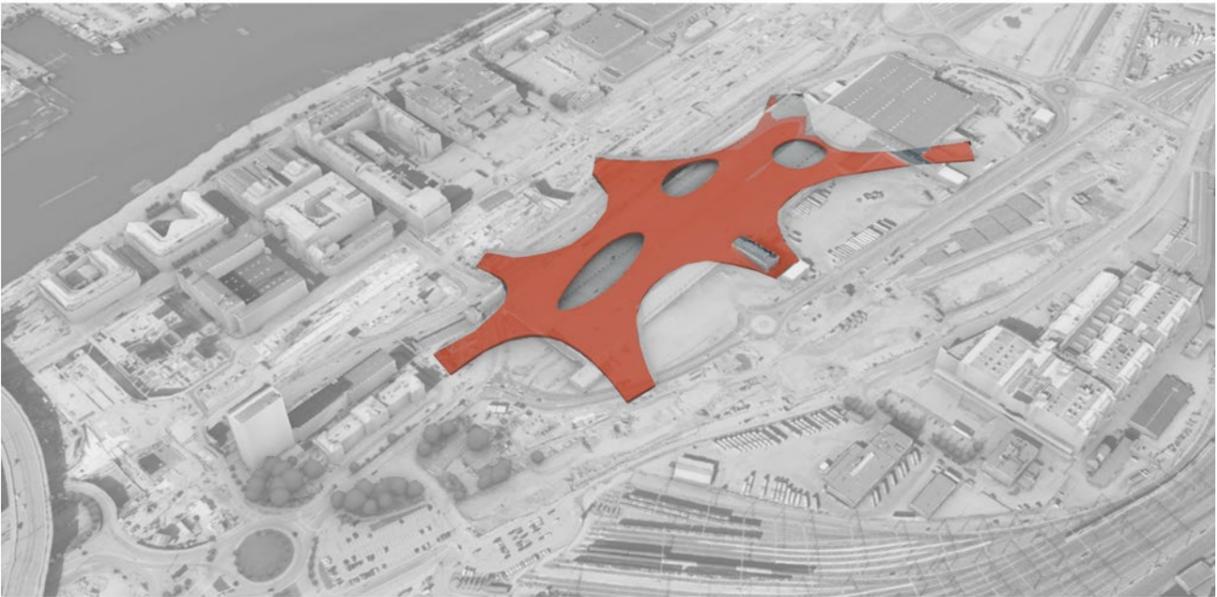
As a result, I continued working with the southern half of the building while Antoine took the northern half, as this logically followed out of our respective module 2 neighbourhoods. From there, my project connected to the surrounding neighbourhoods, including Miska's project, and by extension, the rest of the city.

METHOD

Design steps and iterations

First experiment -
elevate paths

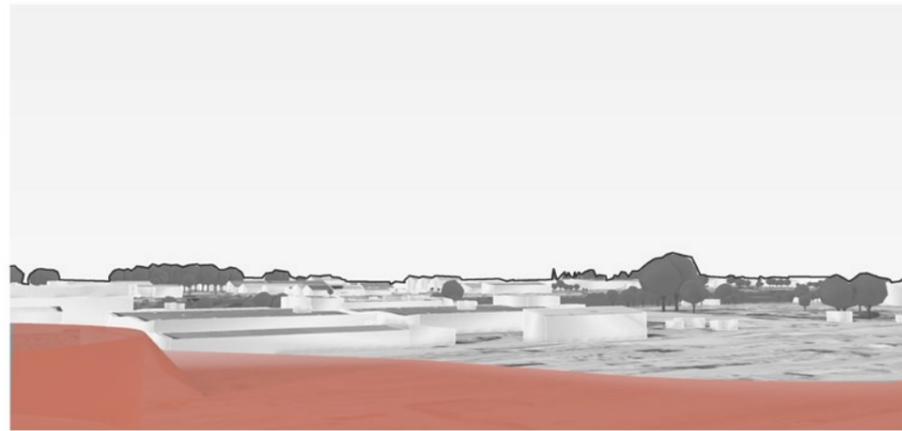
“Shell” - Literal articulation
of the flows.



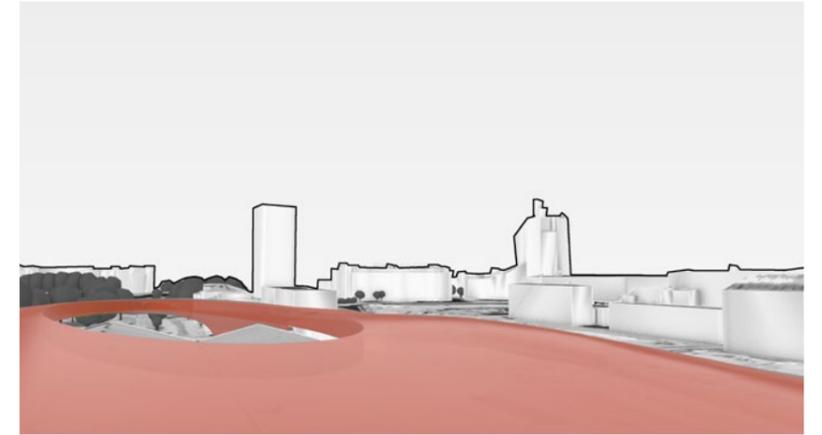
Orienting views



Skansen Lejonet



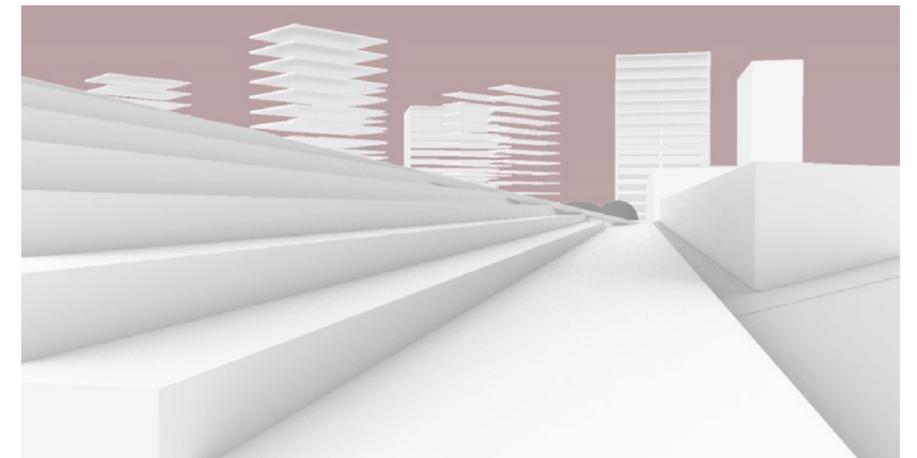
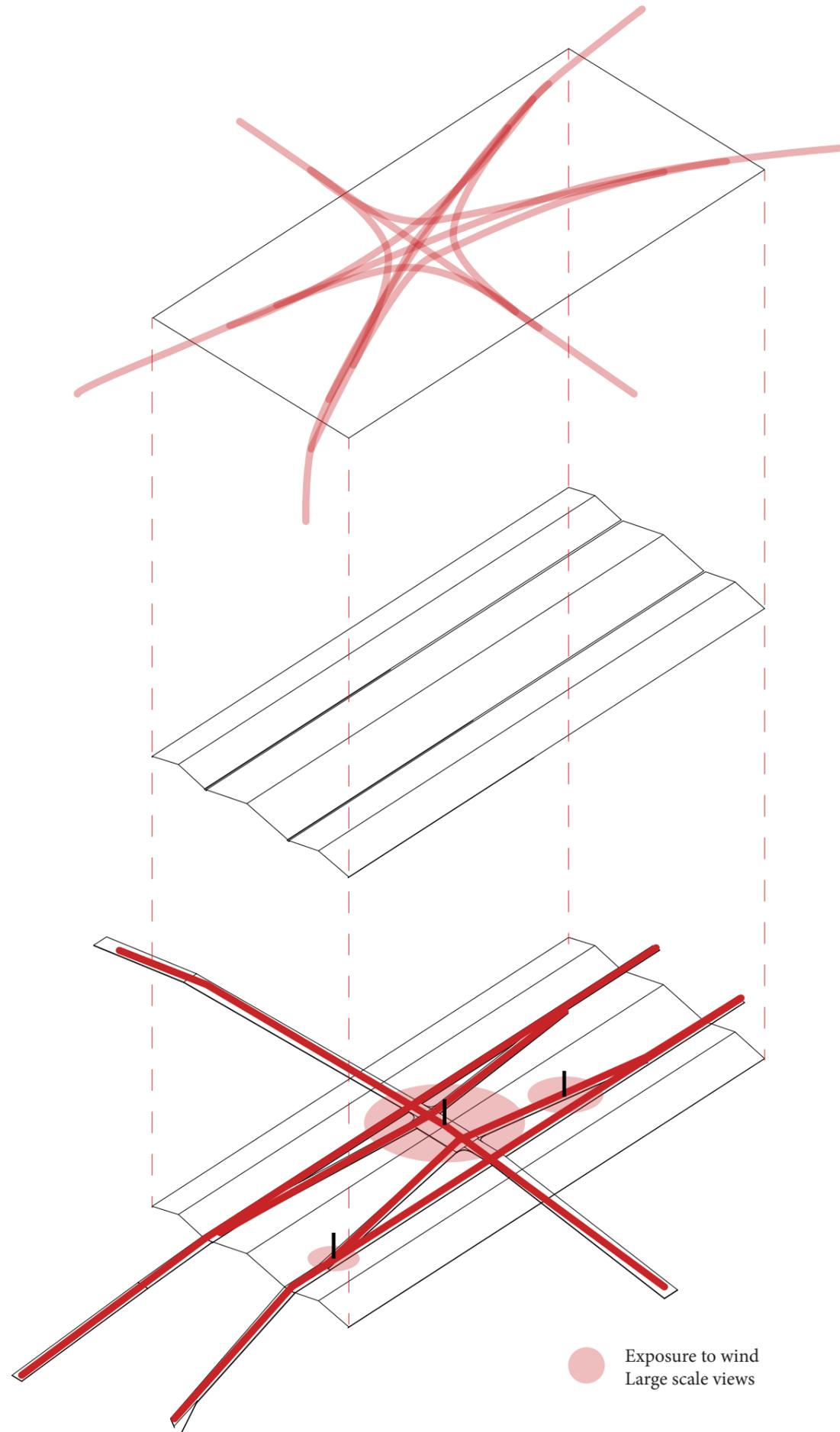
Göta Älv



Lippstiftet tower
Region tower

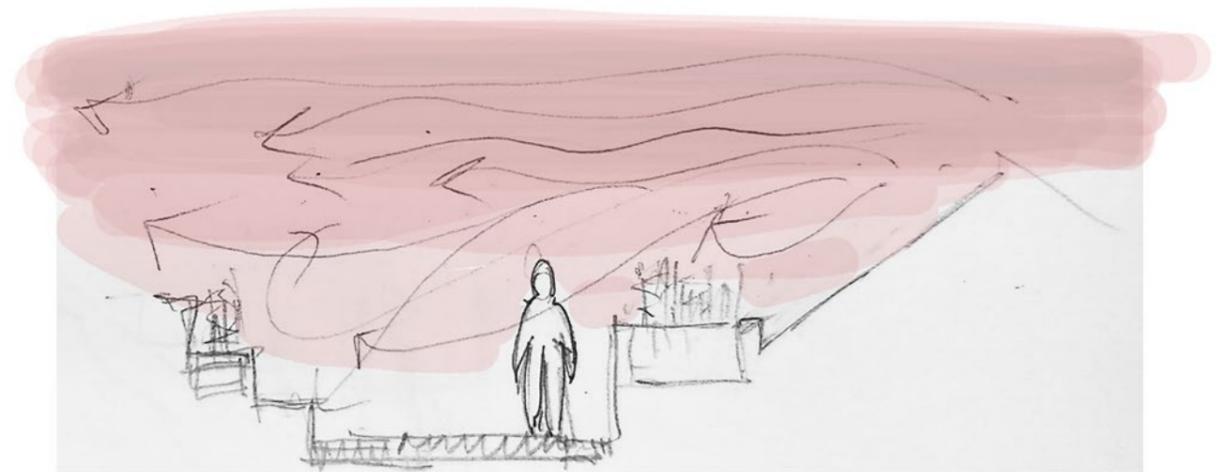
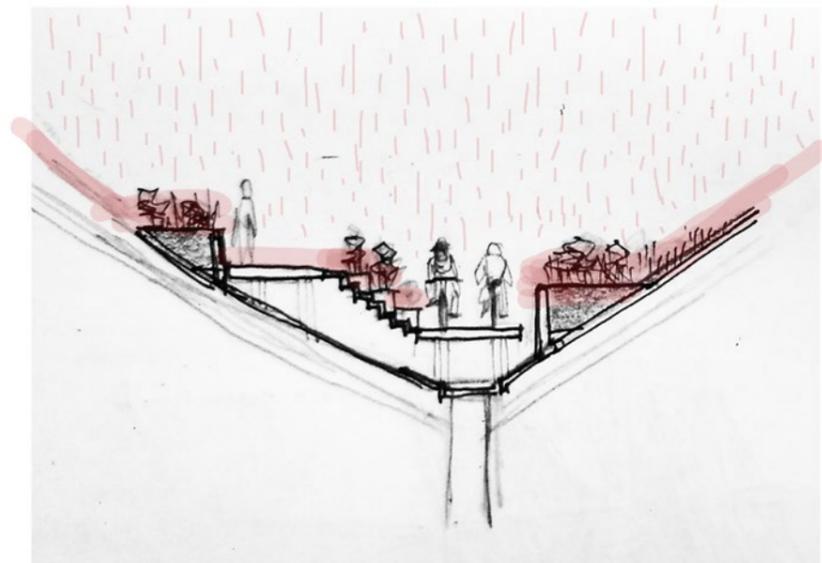
Second experiment - paths + roof

Projecting the paths to the surfaces of the roof. This allows to take advantage of its form to create levels at different heights, and with different levels of wind protection and access to certain views.



Using the shape of the roof to:

- shelter from wind, noise
- ascend to change direction, achieve long views
- create gradual height transitions



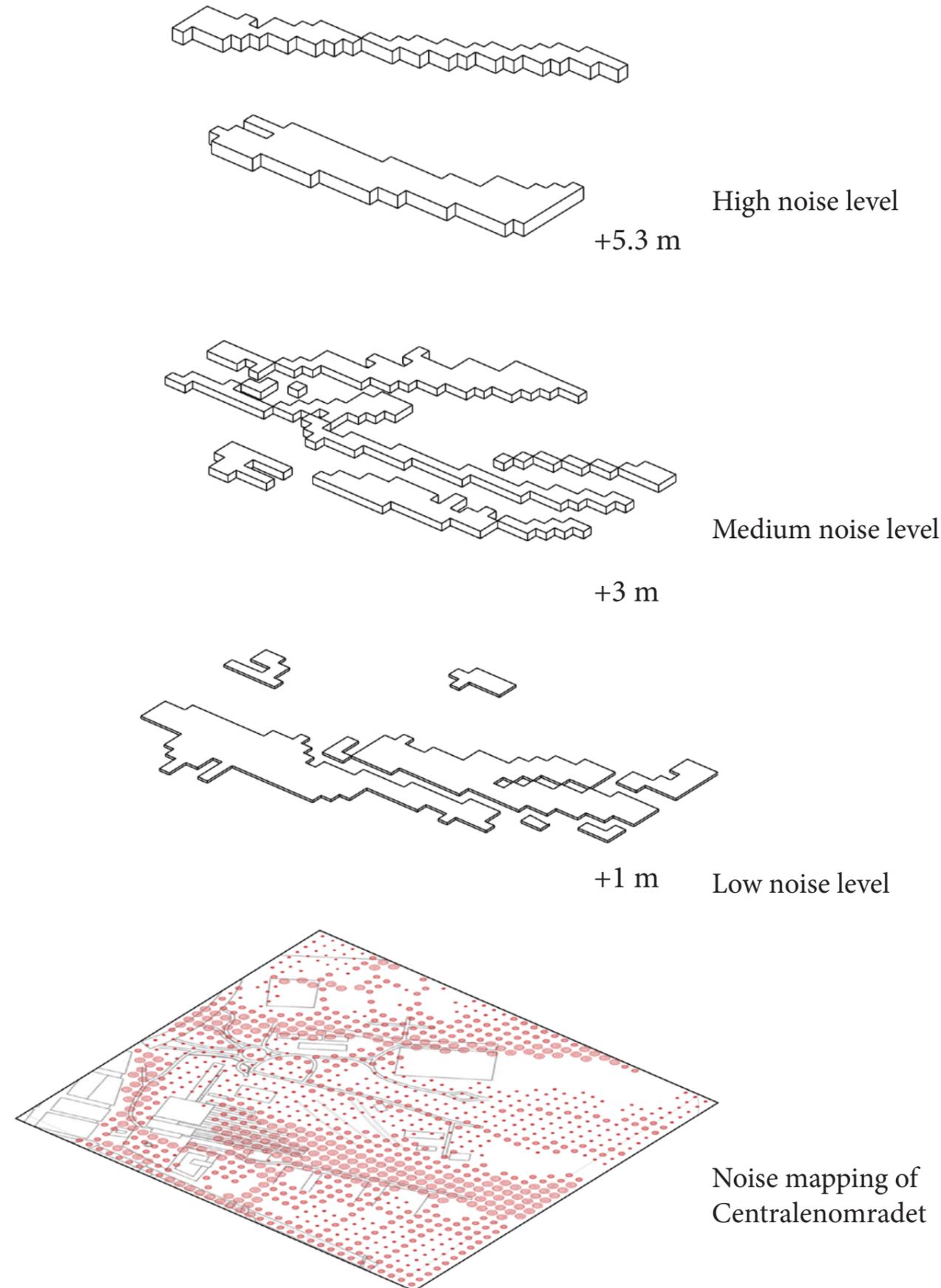
Introducing different height levels allows to start working with grading, green elements and rain runoff management.

Generating a landscape

During this third step, in analogy to the suprastructure, an artificial landscape is generated using the levels of noise pollution in the area as a parameter.

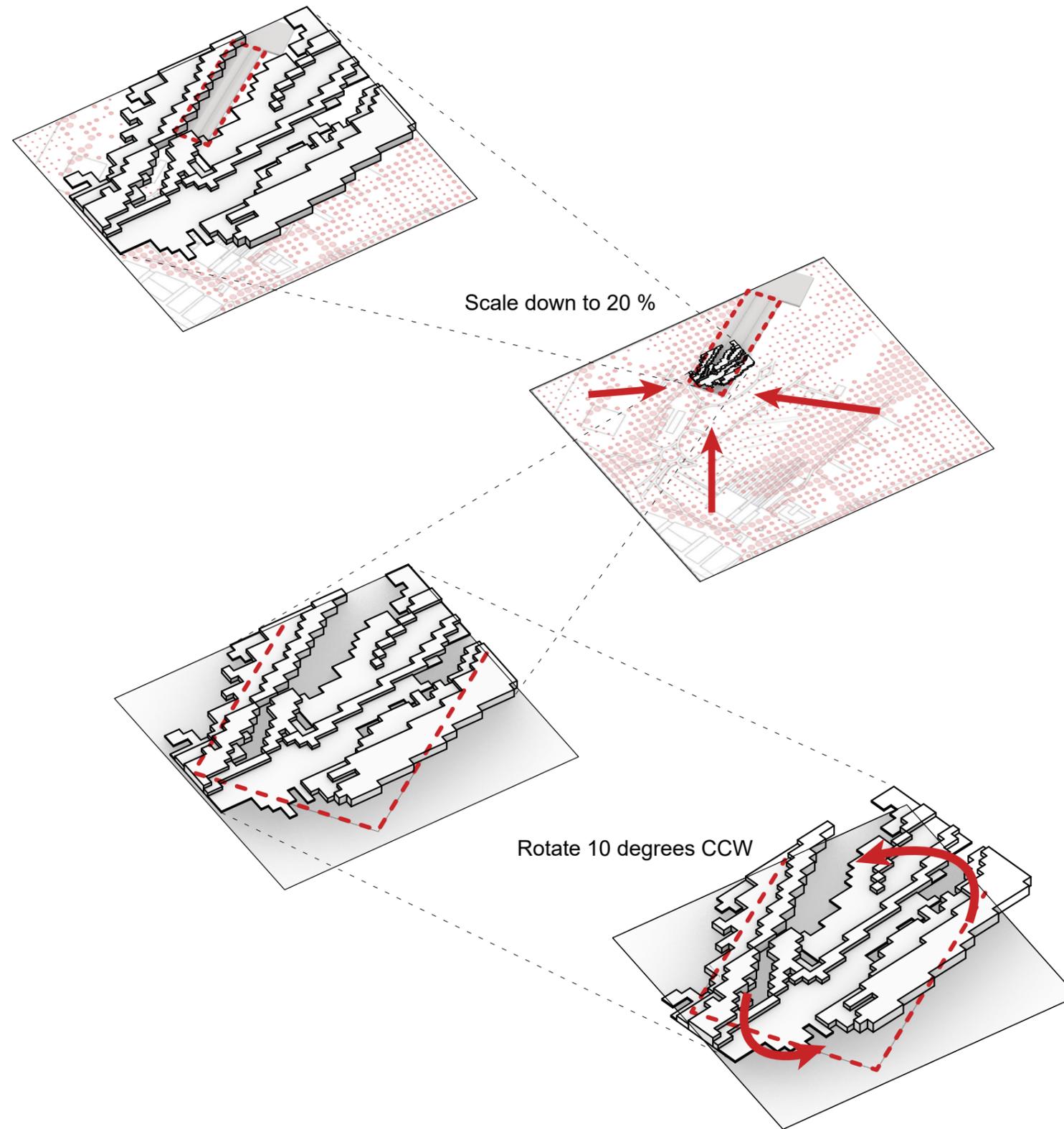
Afterwards, the project-specific elements - paths, structure, views - will collide with the geometry and become integrated.

Step 1: elevate surfaces according to noise level



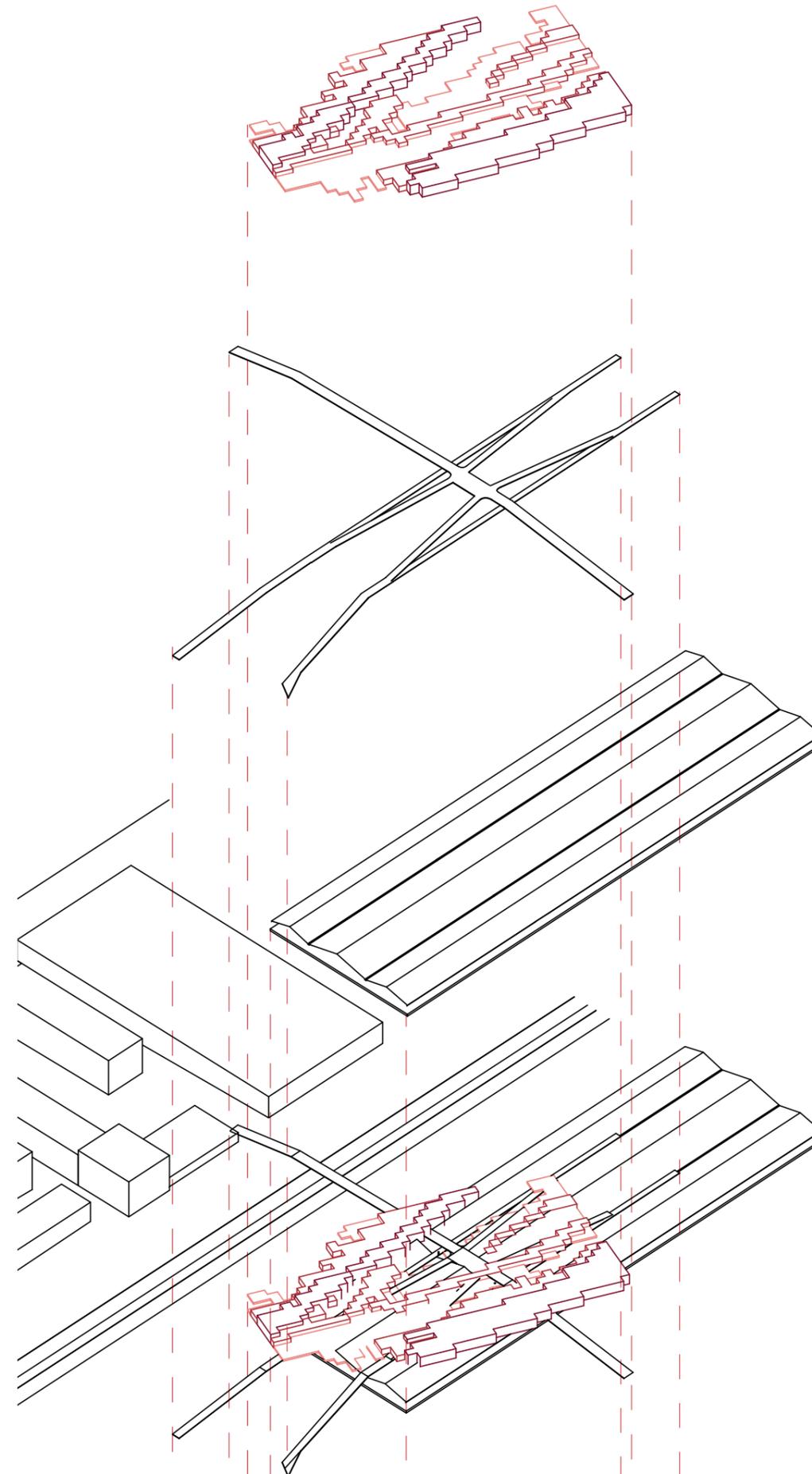
To achieve a more complex system of levels, a massing of noise actant cartography is performed by elevating surfaces according to levels of noise pollution. The heights are scaled to the height of the warehouse's roof.

Step 2: rescale cartography to building



In a second step the resulting topography is scaled down to the scale of the warehouse's footprint. Rather than being a result of what happens directly beneath it, it is now a mirror, reacting to the actant conditions in the surrounding area.

Step 3: Superimposition
Integrating massing + roof shape +
paths



Cartography landscape

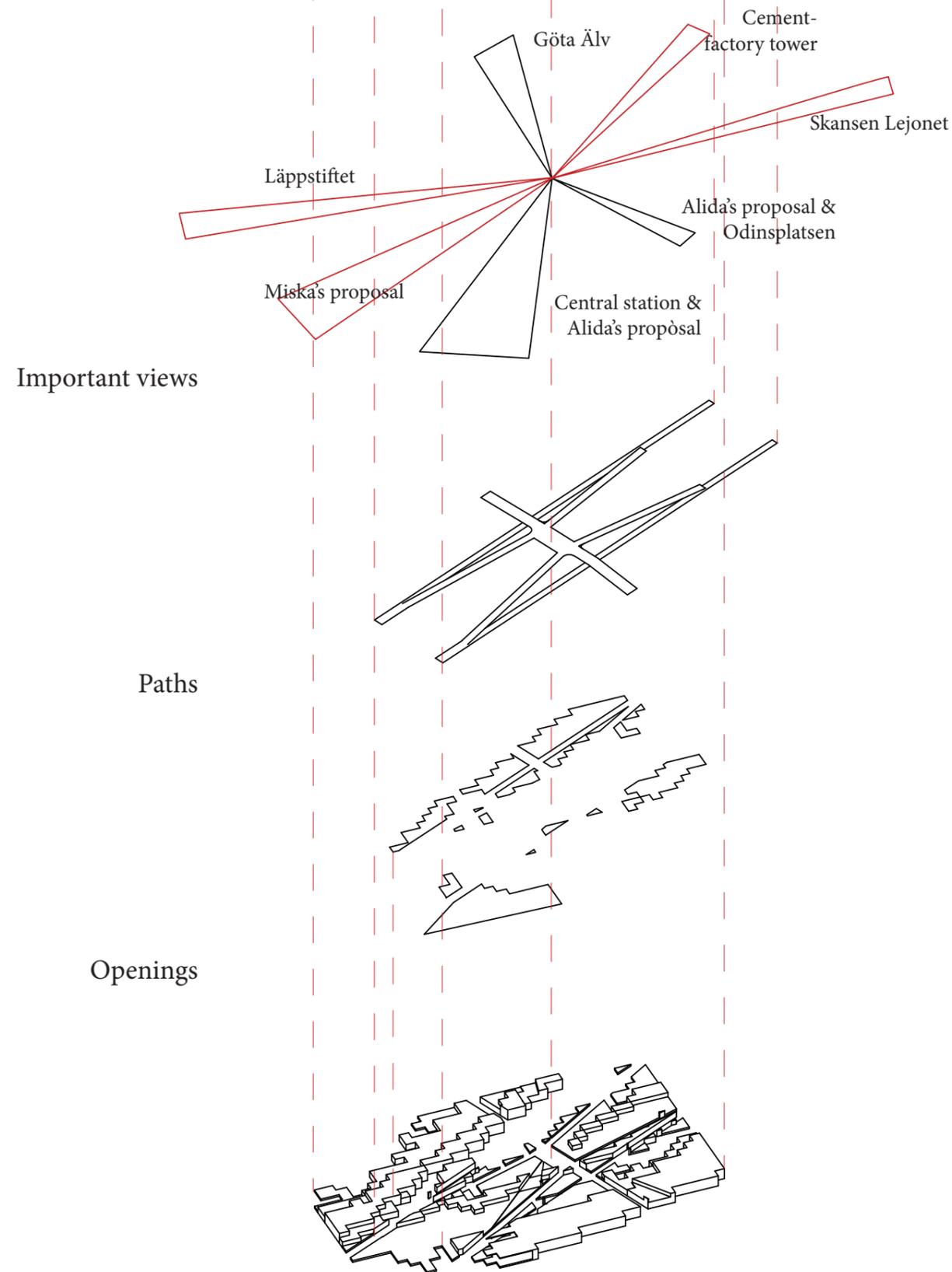
Paths

Warehouse

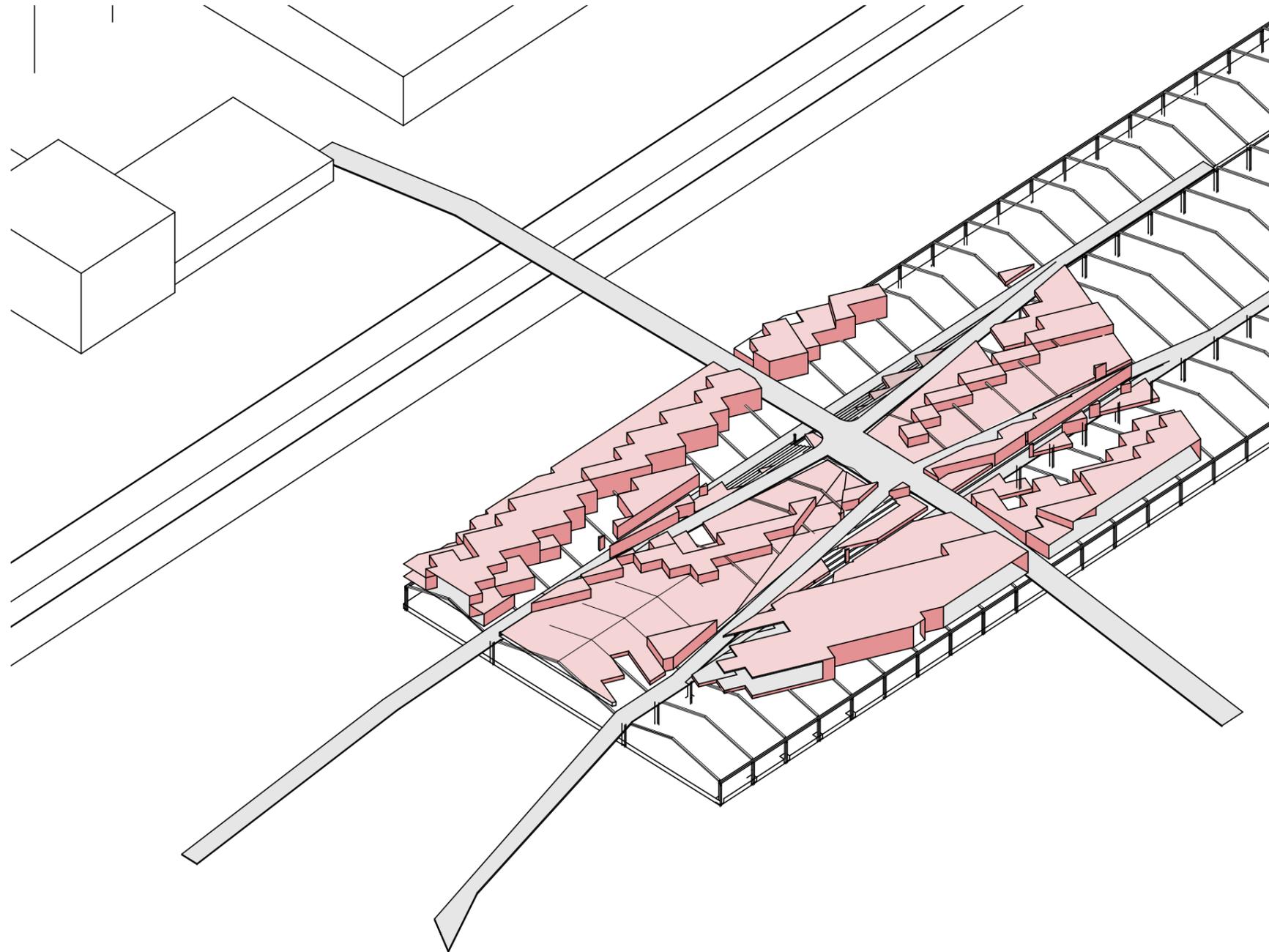
Superimposition

Step 4: Subtraction

Subtraction of views, openings and paths



Result



Massing and roof form a new landscape, in which the bike paths are now embedded. Flanked by the irregular topography they enjoy protection from strong winds. Interesting spaces are created.

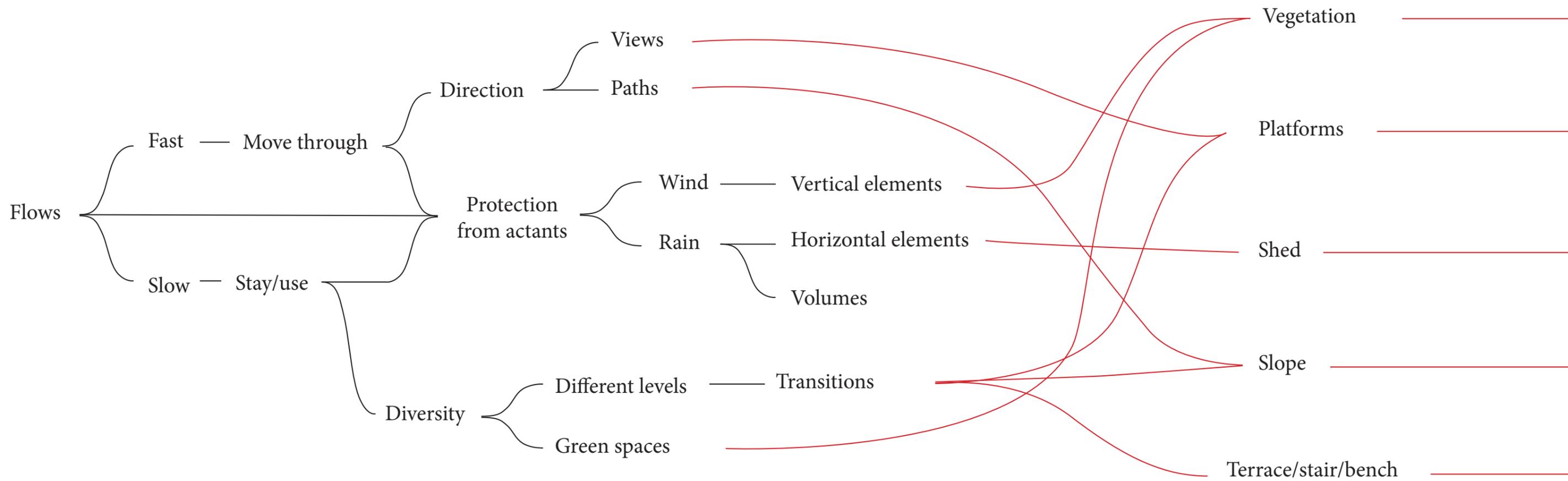


IN-DEPTH

Crystallisation of concepts

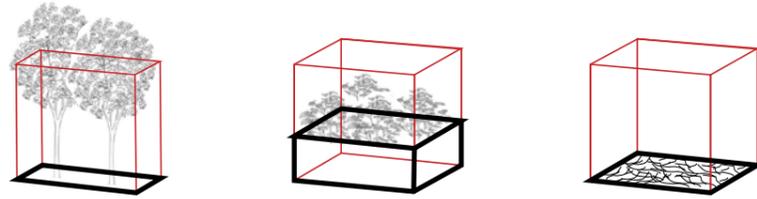
Identifying elements of the landscape

How can the remaining surfaces and levels be manipulated in order to create public spaces?

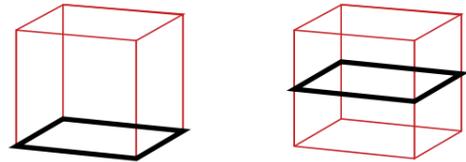


Assigning and/or reshaping

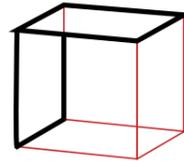
Vegetation
High - Medium - Low



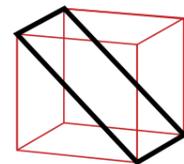
Platforms



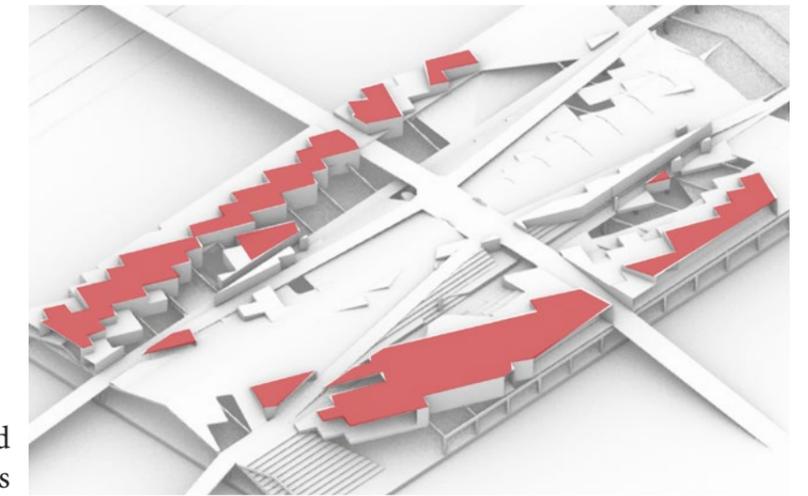
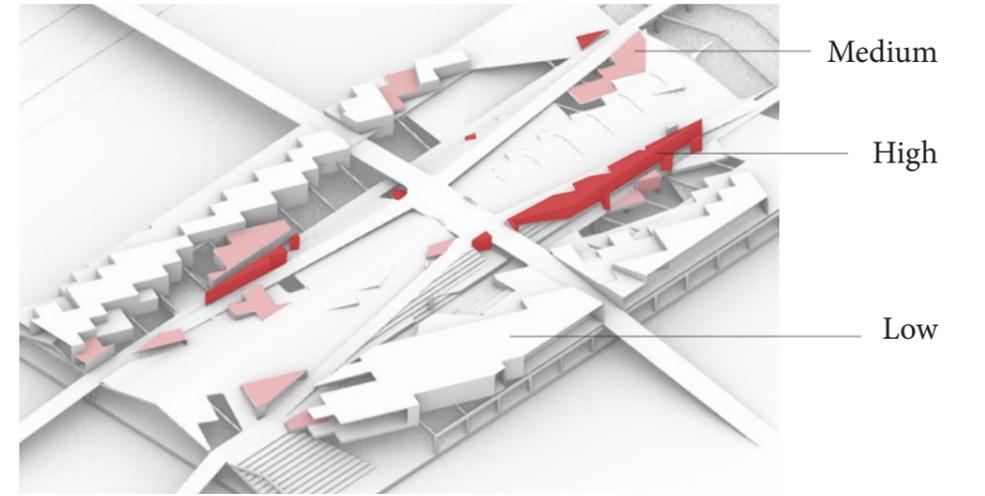
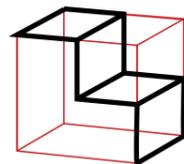
Shed



Slope



Terrace/stair/bench



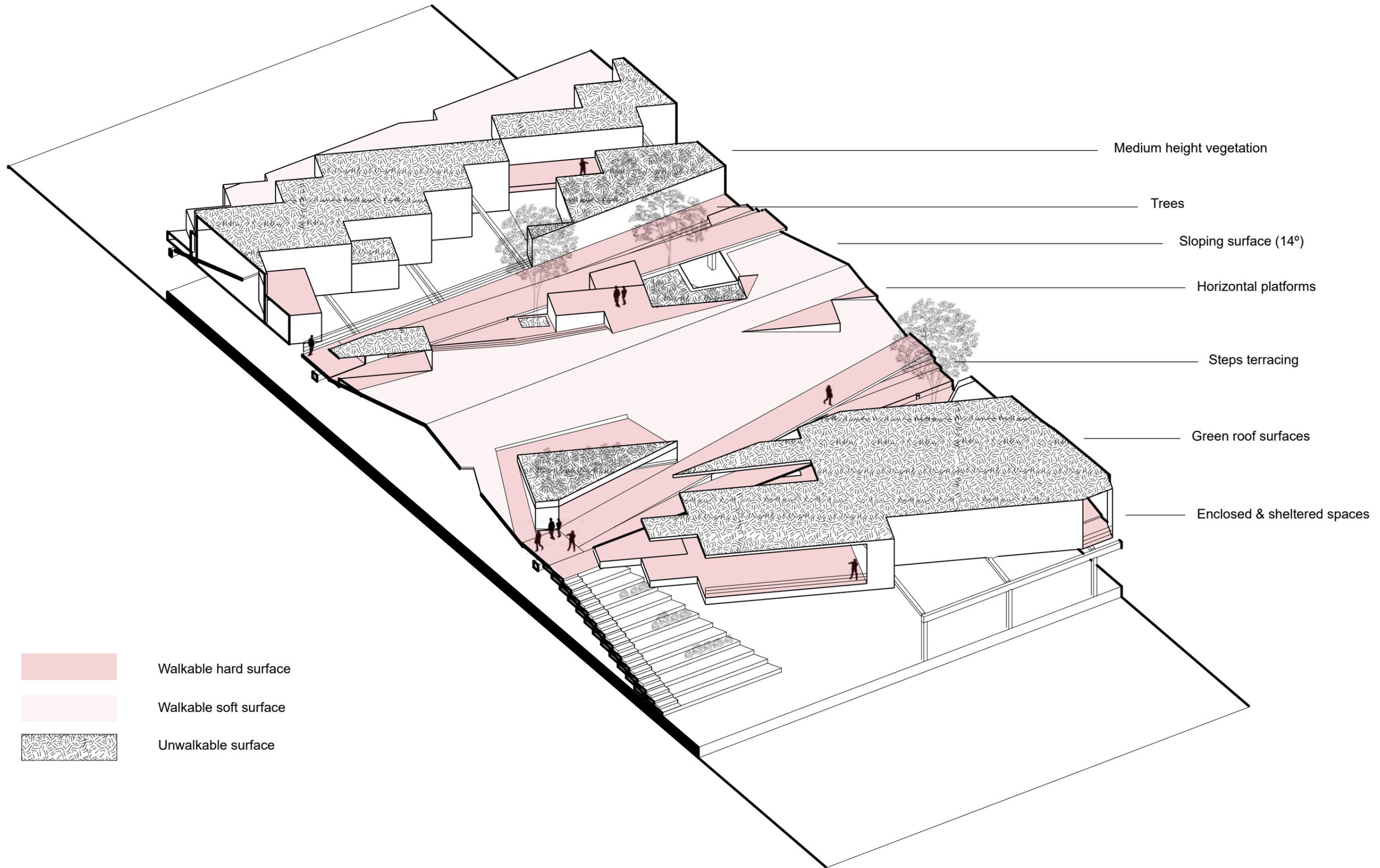
Sheltered space

Yokohama Terminal, FOA

Slope + terracing
Wooden cladding



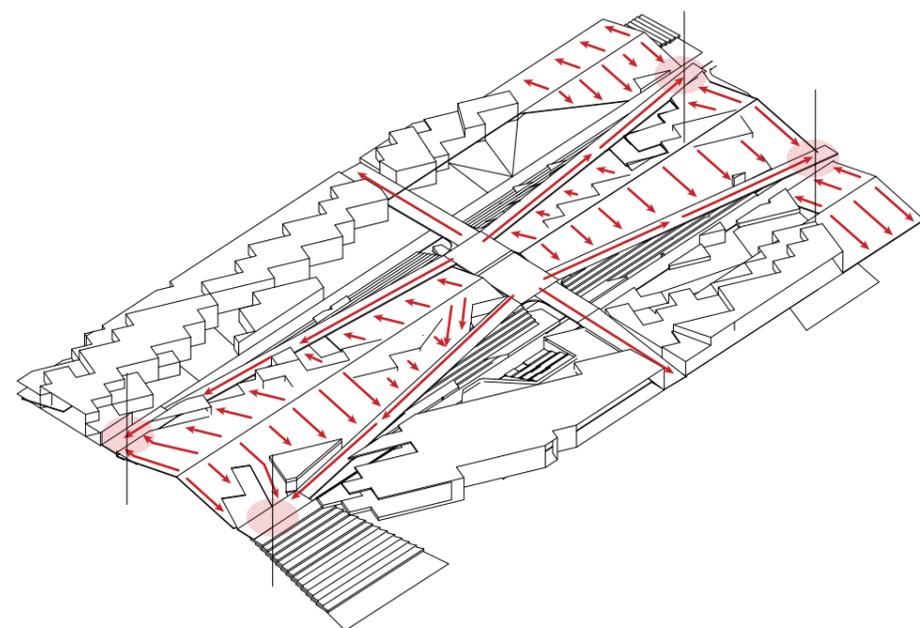
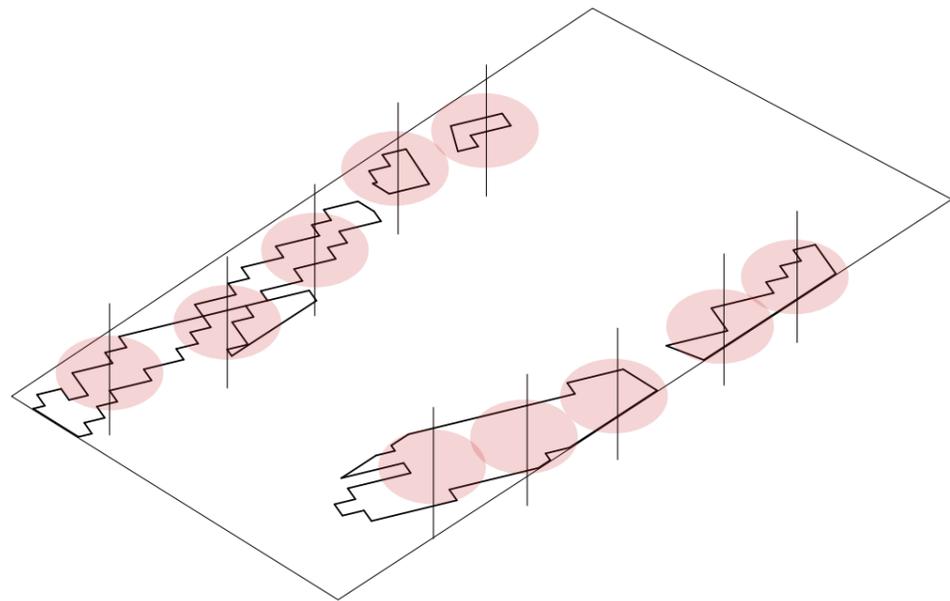
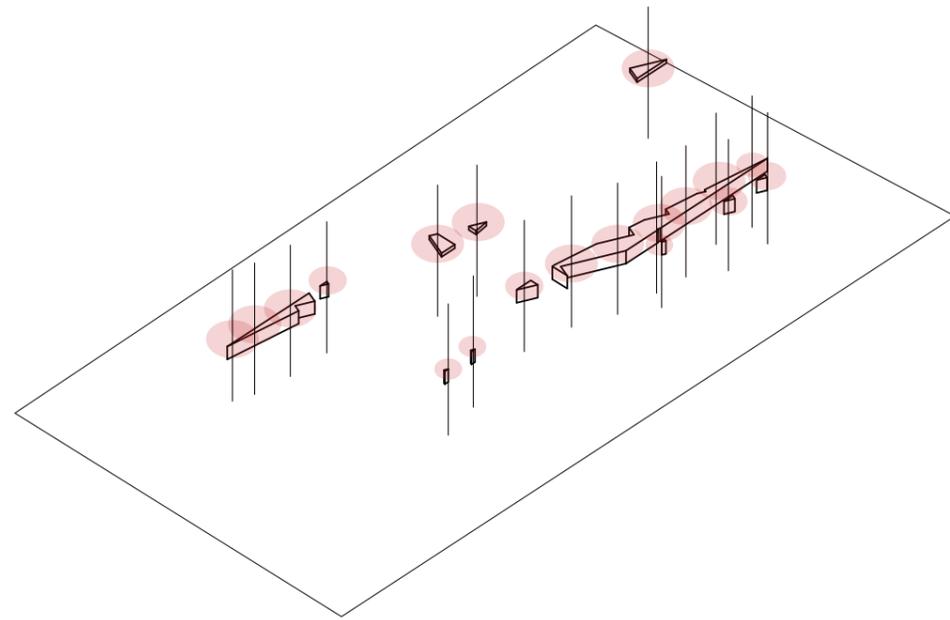
Overview - green space, meeting areas, paths, slopes, sheltered spaces, volumes



Structure

Although the existing structure of the warehouse takes part in forming the landscape above, an additional structural system is needed.

To create a starting point for a structural concept, the areas of highly concentrated loads are mapped. Additionally, there are a few points where large amounts of affluent rainwater are collected, and thus need to be led to ground level through vertical elements.



Trees

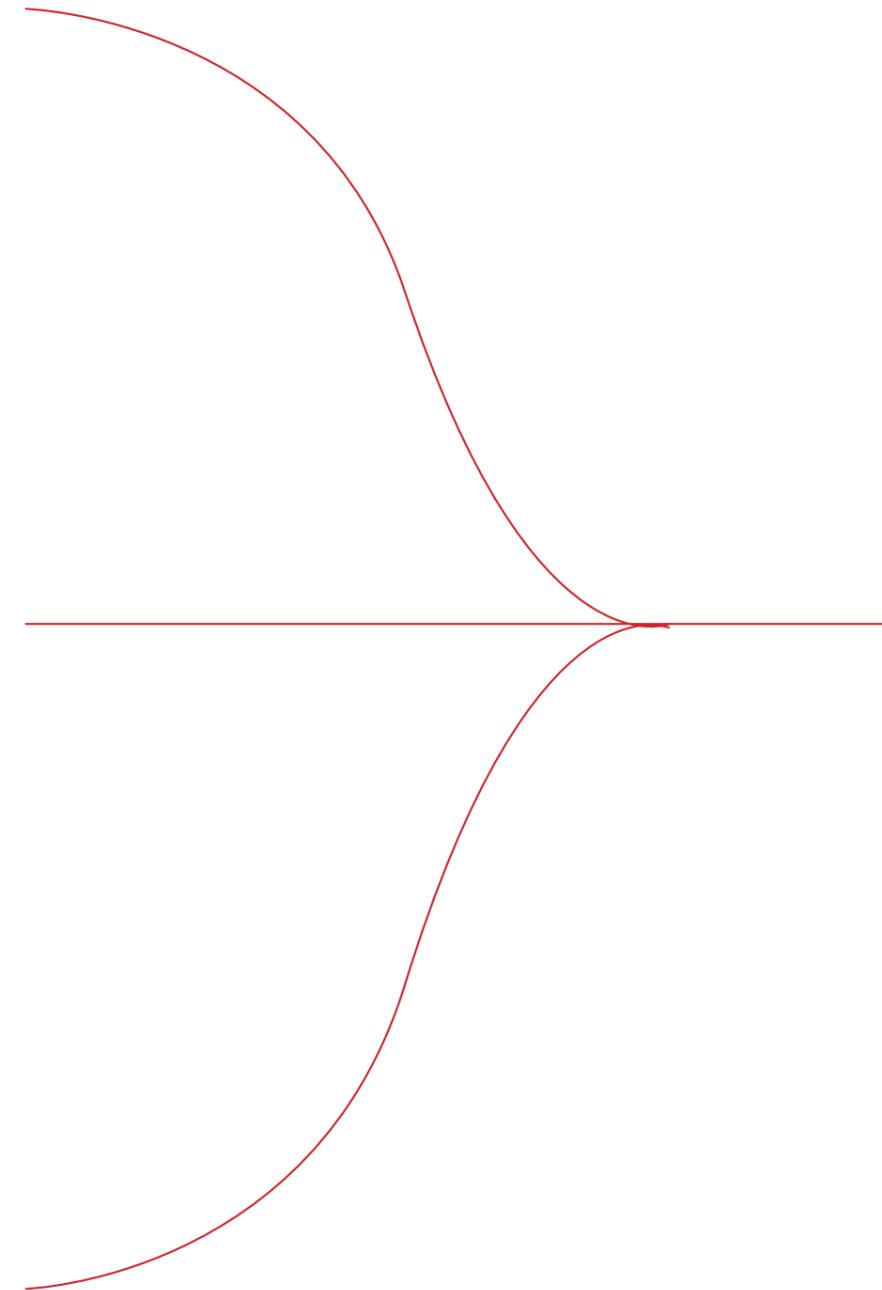
Vertical obstructing elements converted into high vegetation

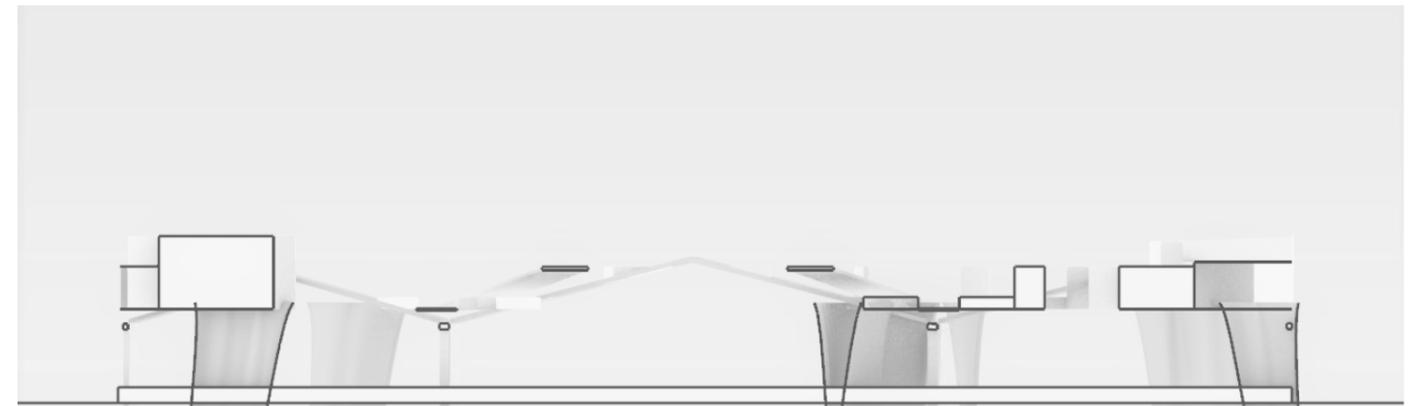
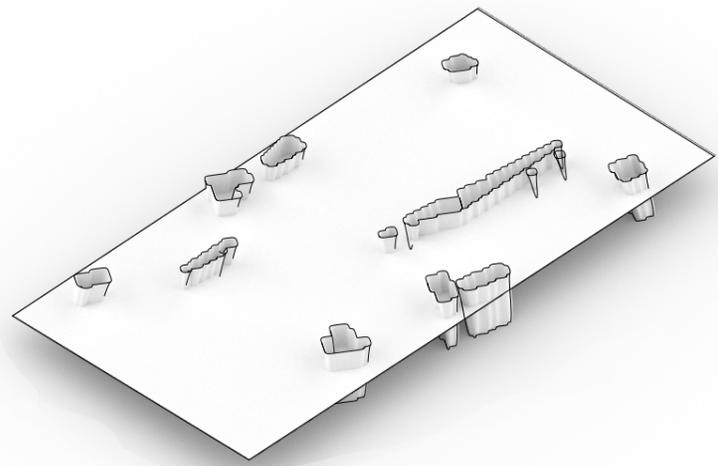
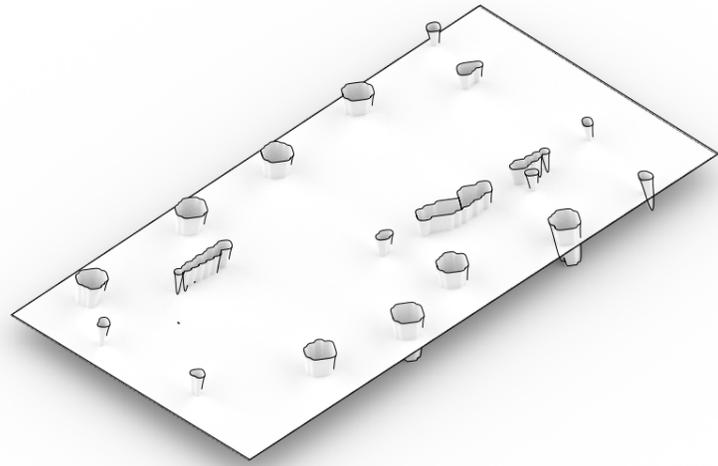
Volumes

Concentrated static loads

Rainwater

Points of high rainwater collection





Combining areas of concentrated loads with rainwater collection points yields interesting forms, with a high irregularity and a certain organic character., and opportunities to suggest a contrast between the old and new structure.

Large spans, thinness and a parasitic element suggest an approach inspired by shell structures and vaults. Different configurations were experimented with.

More work is needed to develop a structure which in form and materiality is coherent with the landscape above.

Overview



Current condition



Suprastructure



In-depth projects

Göta Älv

Gullbergs Kaj

Cement factory

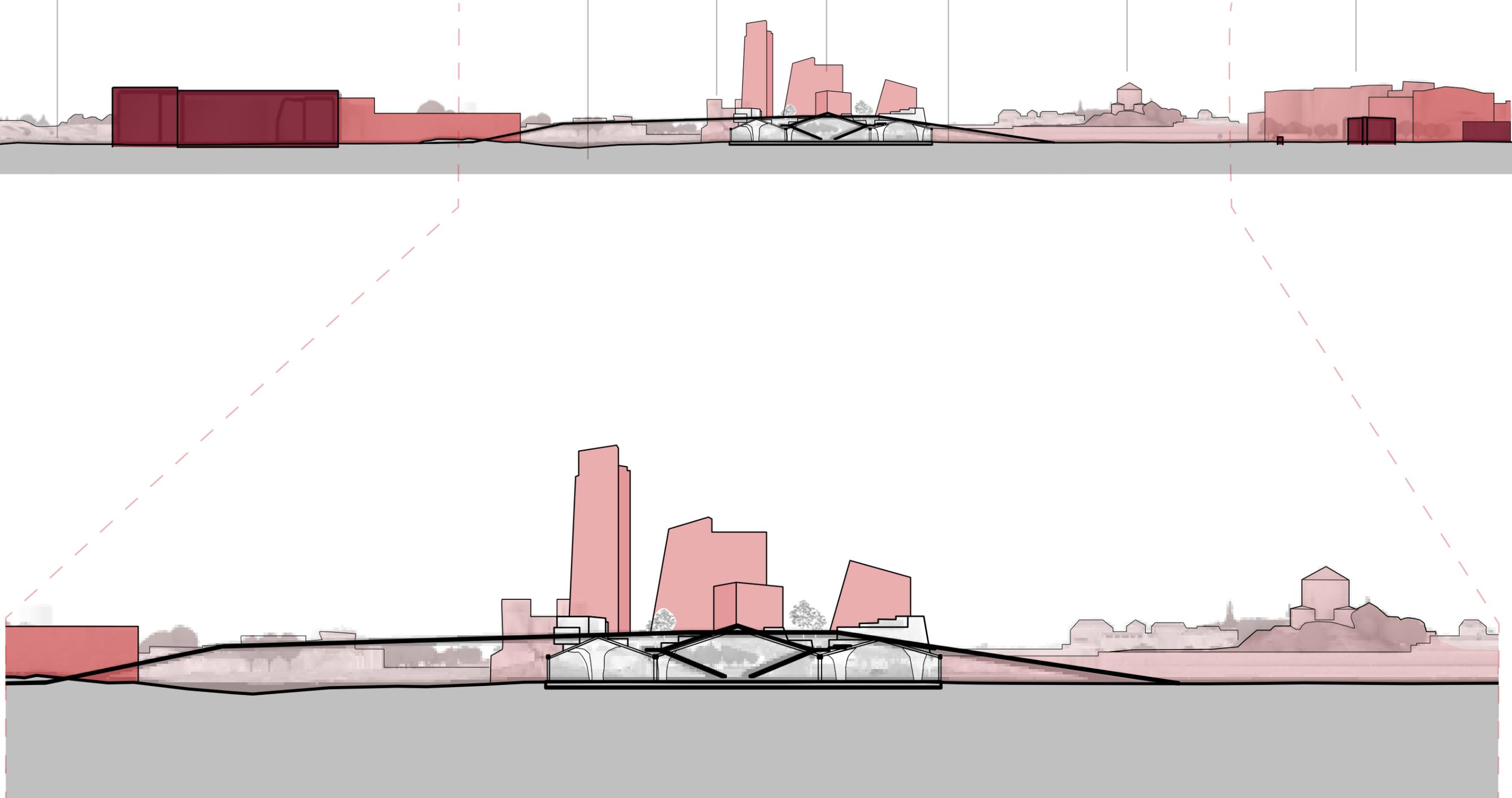
Antoine's proposal

Skansen Lejonet

Postterminalen

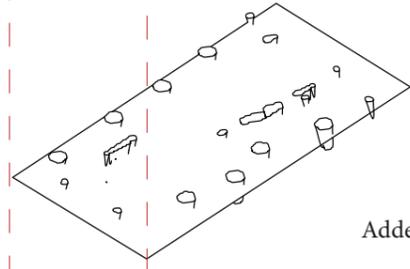
Surface road,
sunken E-45

Nelson's proposal

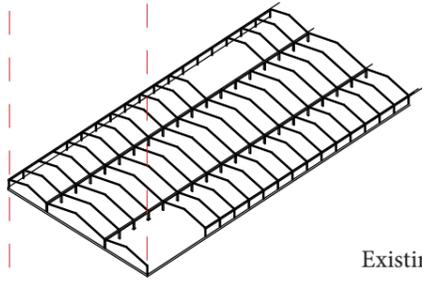


Transverse section

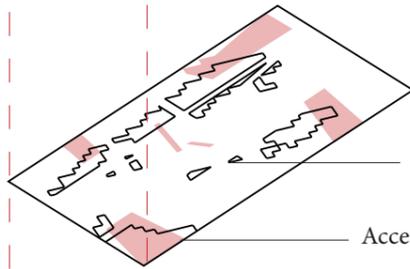
Components overview



Added structure

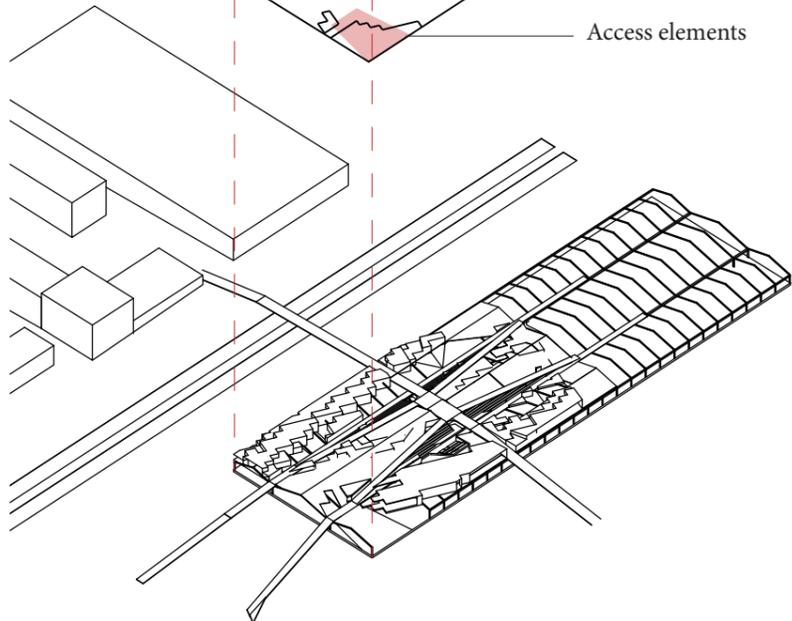


Existing structure

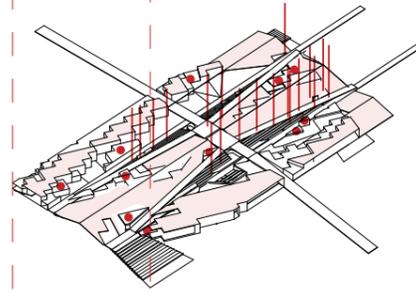


Openings in the structure

Access elements



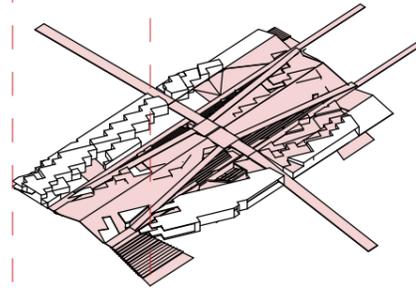
Warehouse



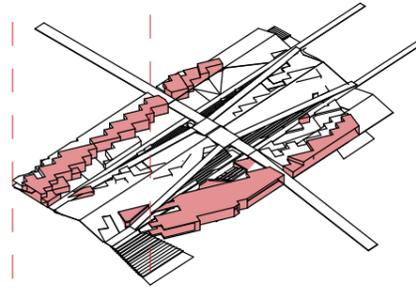
Medium height vegetation

Trees

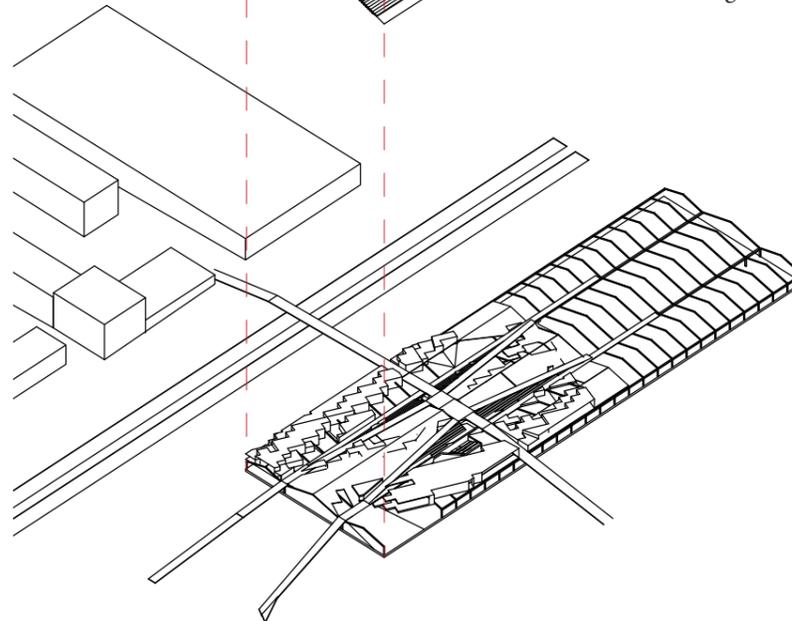
Low height vegetation



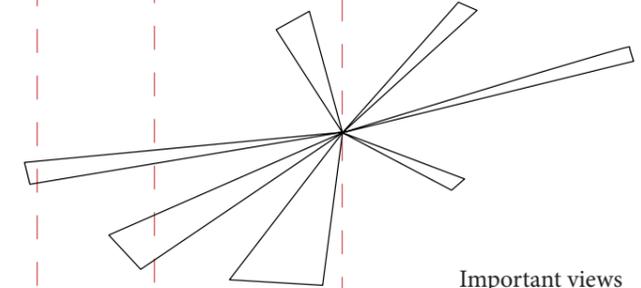
Open public space



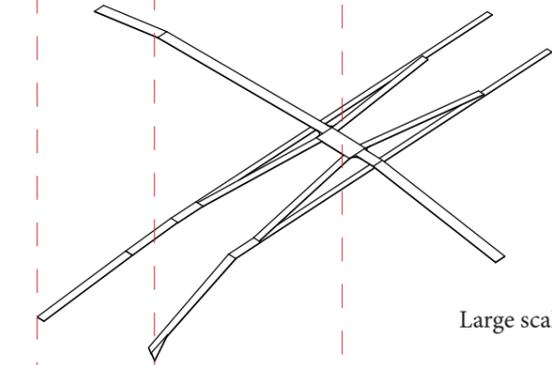
Sheltered spaces
Programs



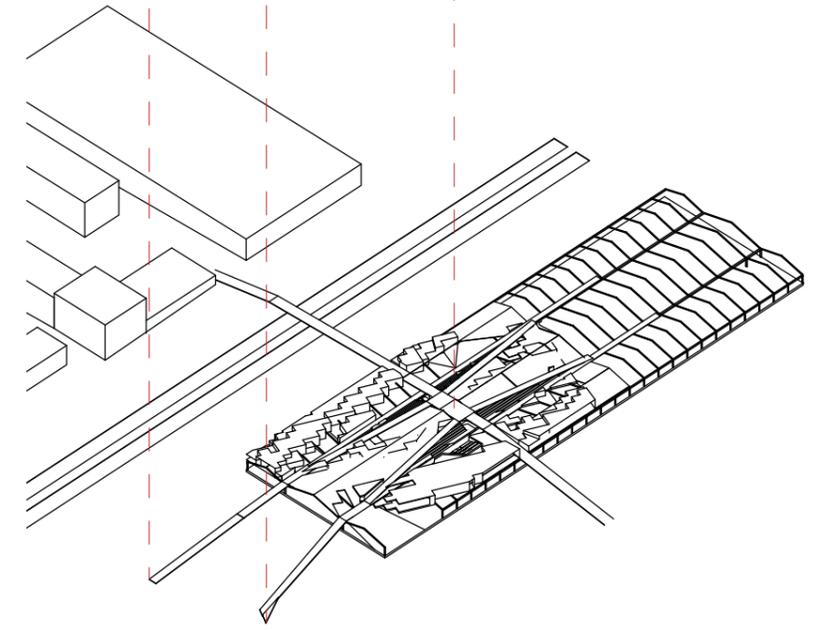
Public spaces



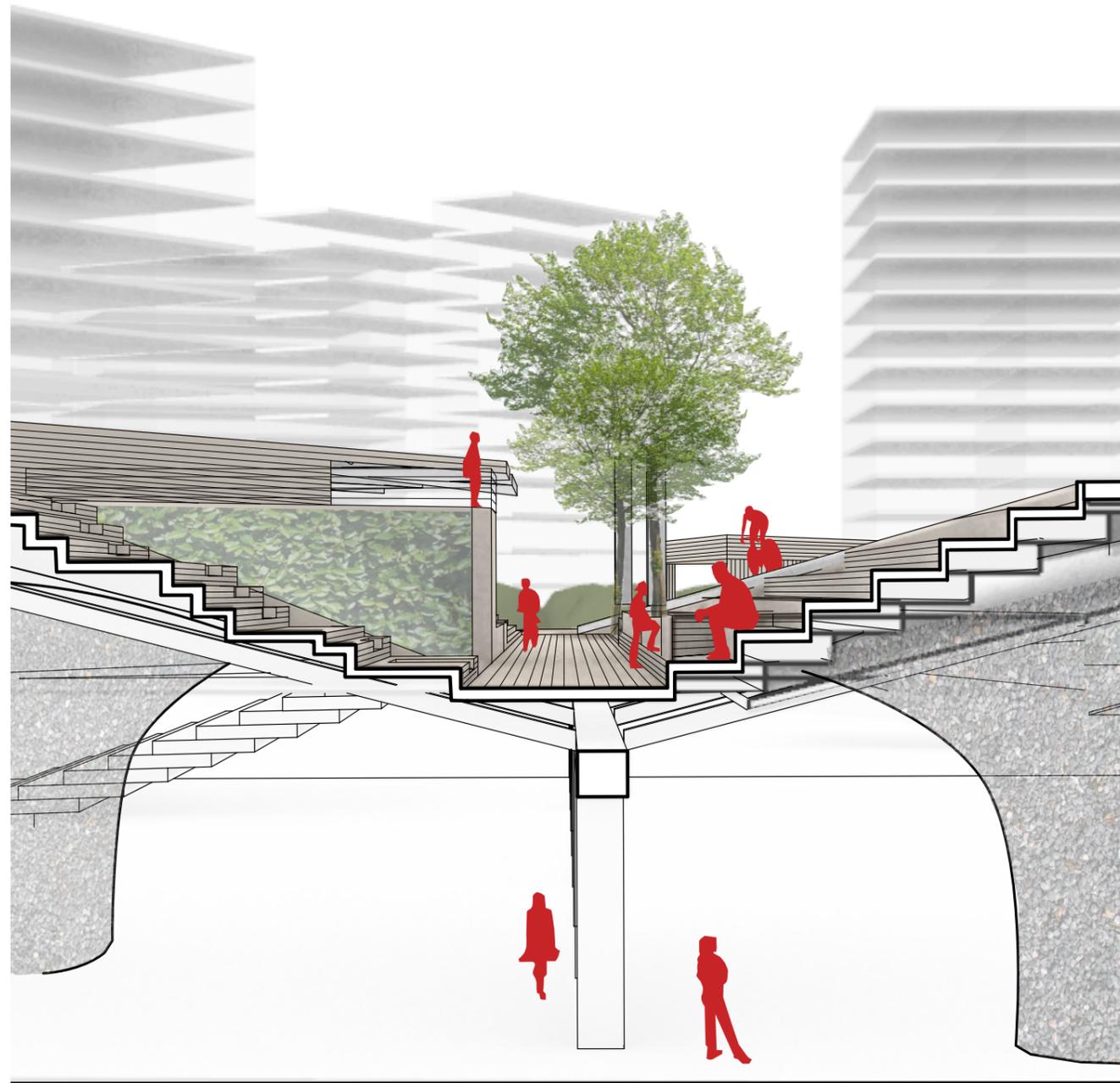
Important views

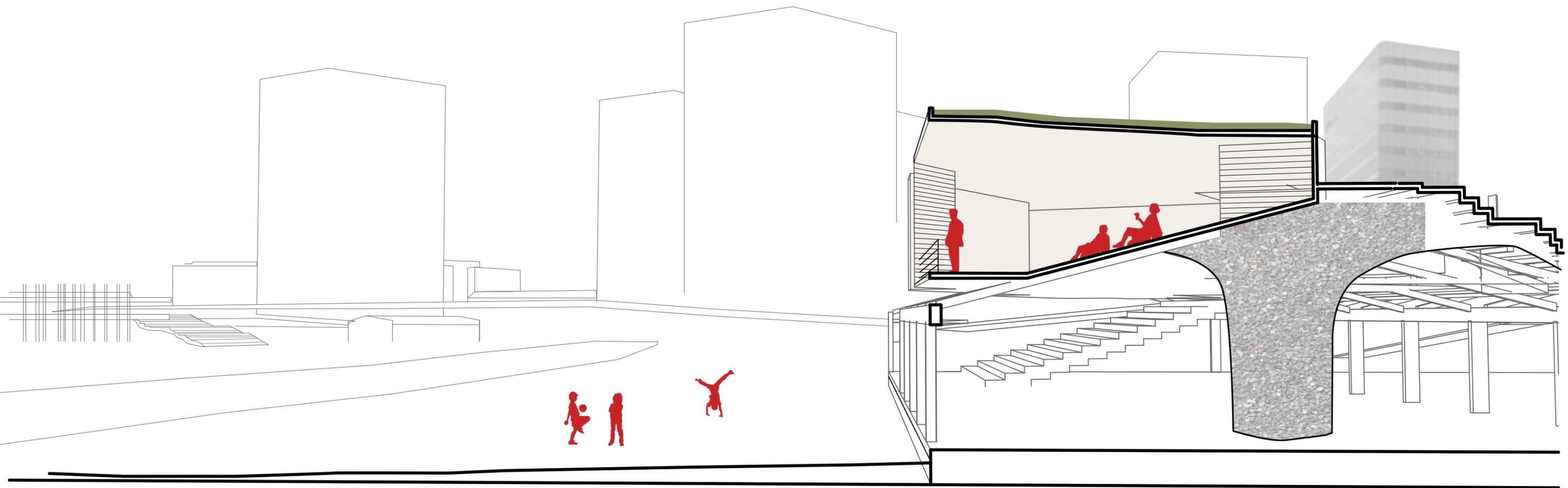


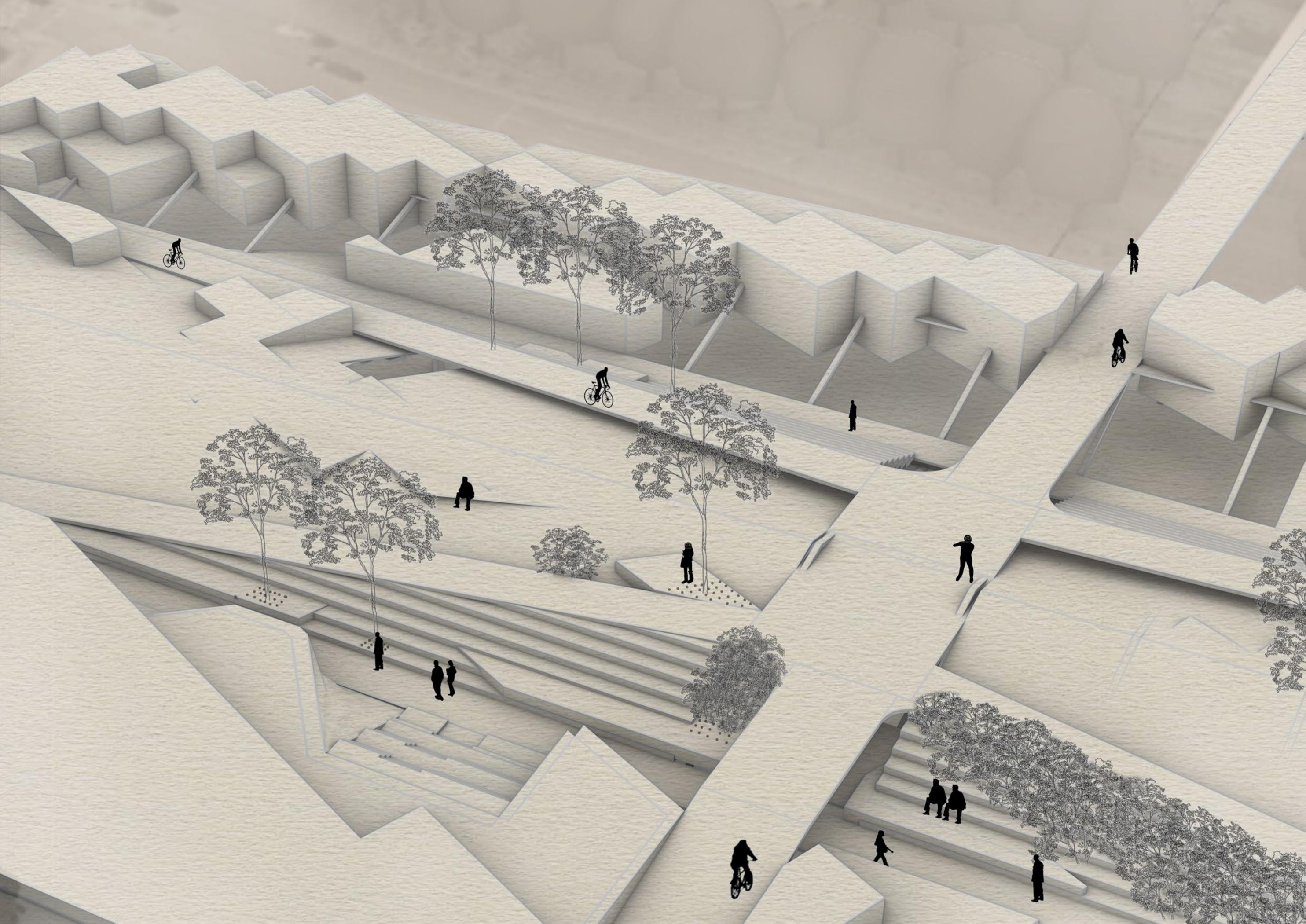
Large scale connections



Flows







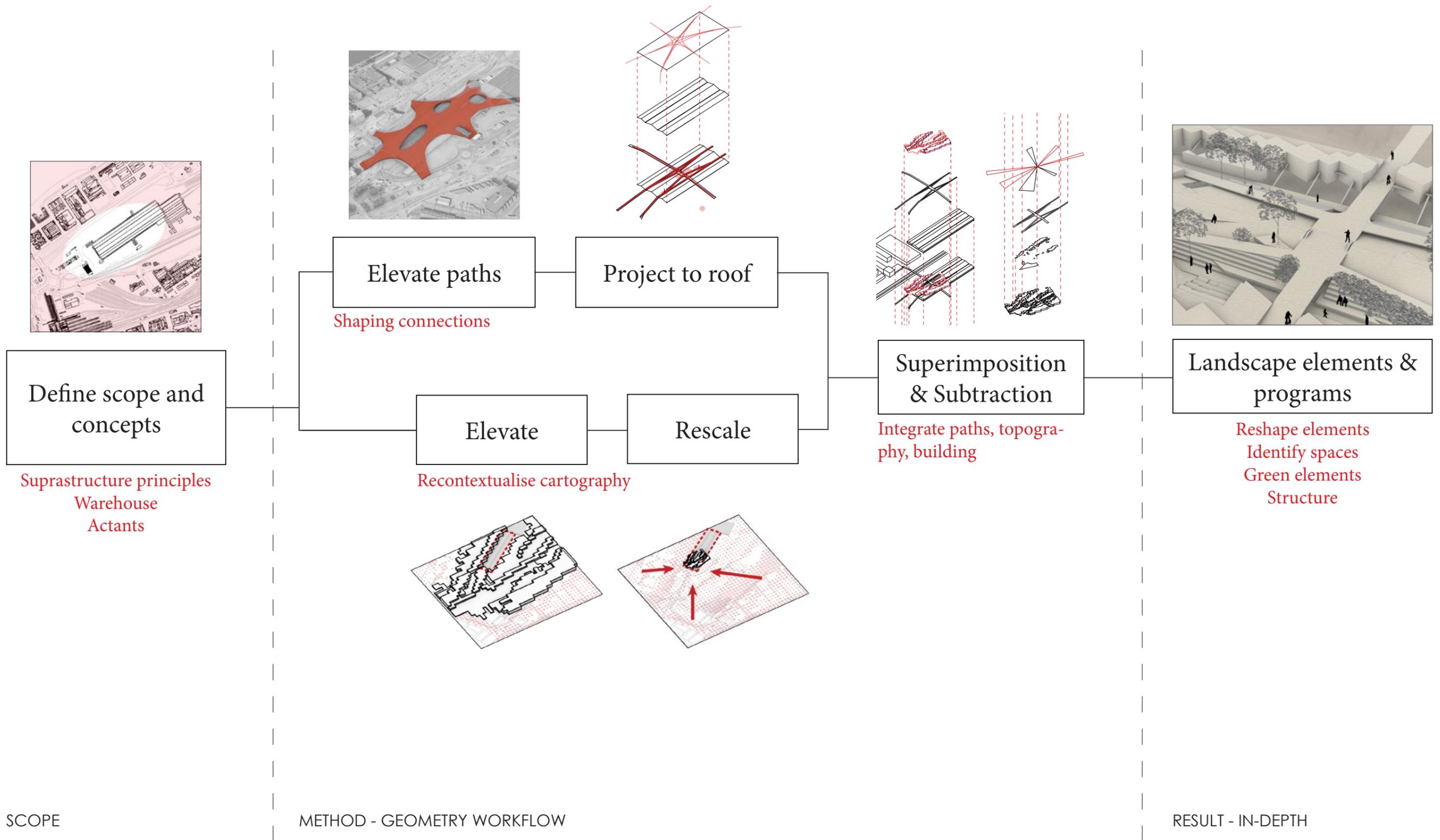
Final considerations

In the following decades, the area of Gullbergsvass will transform from an industrial wasteland into a vibrant and integrated part of the inner city. This will include large urban interventions, like the creation of new infrastructures connecting places and assets that were separated before.

During the process of this module, I explored how a central node in this new infrastructure can be combined with an existing asset - the warehouse - in a way that new public space is created, which through its play between levels creates a variety of opportunities for use and experience. Considering the key actants - wind, noise, views and rainwater - a series of massings, carvings and manipulations were performed which resulted in a landscape of paths, slopes and spaces, which stages the ephemeral character of the area in different ways.

Although the process mostly reached only an experimental stage, I think the resulting design offered a structure with an abundance of points with interesting spatial features. In a next iteration, the different aspects of use, comfort, actant performance and structure could be crystalised into a more coherent and performant design. Also the relation to the warehouse and its periferial spaces was, although explored during the first weeks, left underdeveloped. Yet, the way in which it acts on a series of different scales is one of the most interesting aspects of this project and its location.

Evolutionary Tree



References

Reference literature

Rem Koolhaas, *Whatever happened to urbanism* (from *S,M,L,XL*, 1995)

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