



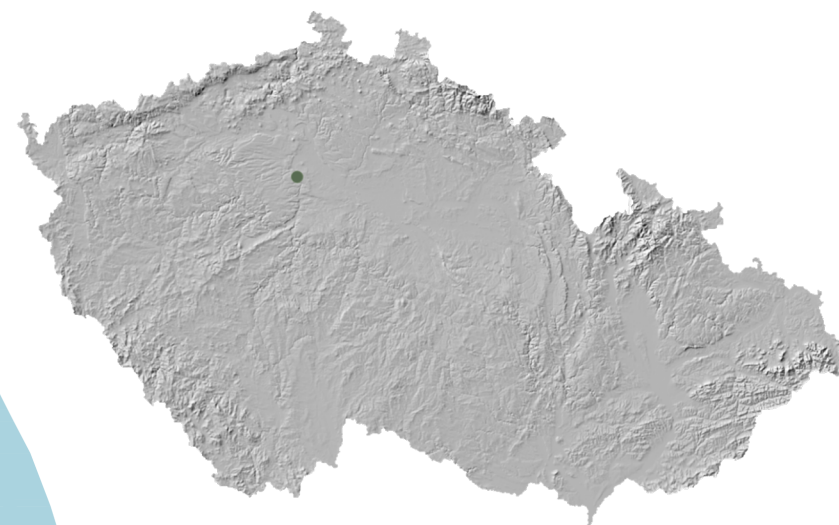
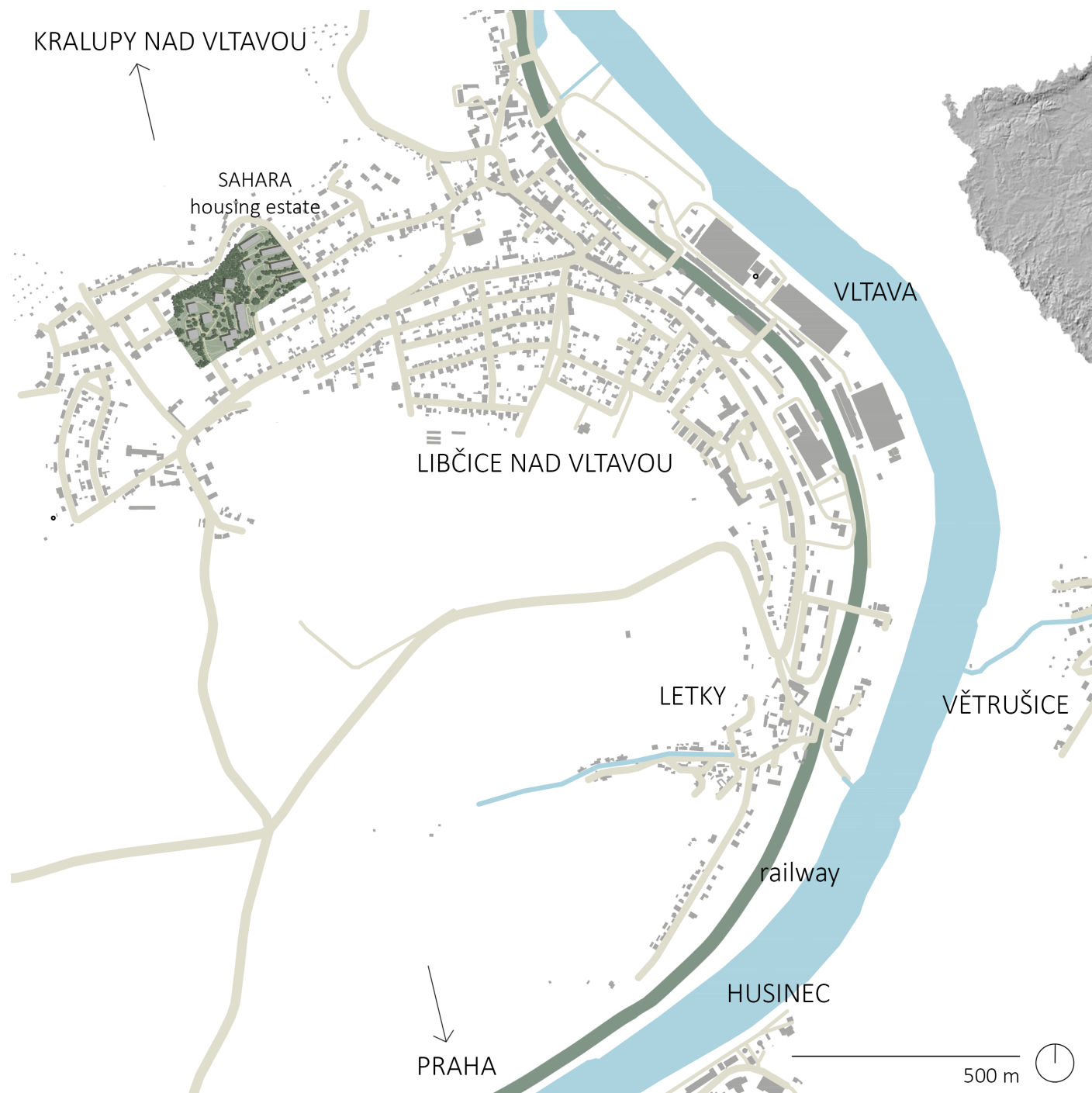
TWIST IN

LIBČICE NAD VLTAVOU
SAHARA HOUSING ESTATE

ATELIER REHWALD
ATKA1 ZS 2023_2024

LENKA SKÁCELÍKOVÁ

SITE



LOCATION OF THE DESIGN

Housing estate Sahara is located in Libčice nad Vltavou. This town is 13 kilometres north from Prague and six kilometres southeast from Kralupy nad Vltavou. Railway goes through the town with 2 stops (Libčice nad Vltavou and Libčice nad Vltavou-Letky) and it is the main connection. The area is also accessible on a road by a car or by public transport bus, however this connection is not sufficient. Cycling infrastructure is also pretty poor. Connection to west bank is only possible by a ferry, the nearest bridge can be found in Husinec (for pedestrians only).

CURRENT STATE PHOTOS



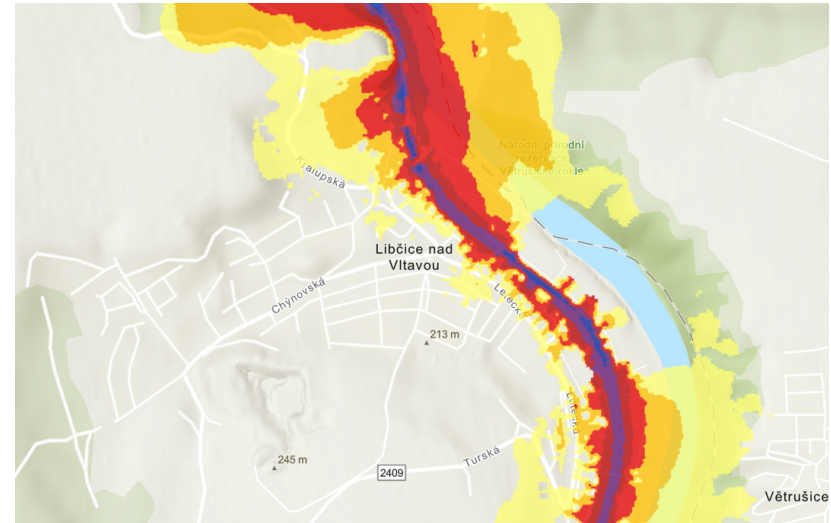
ANALYSIS

ANALYSIS

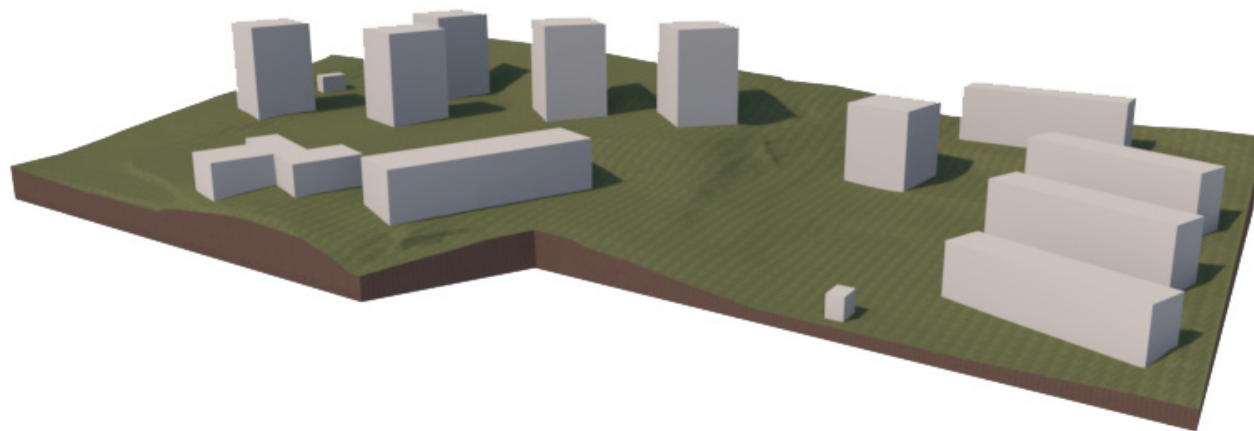
TOPOGRAPHY



NOISE MAP

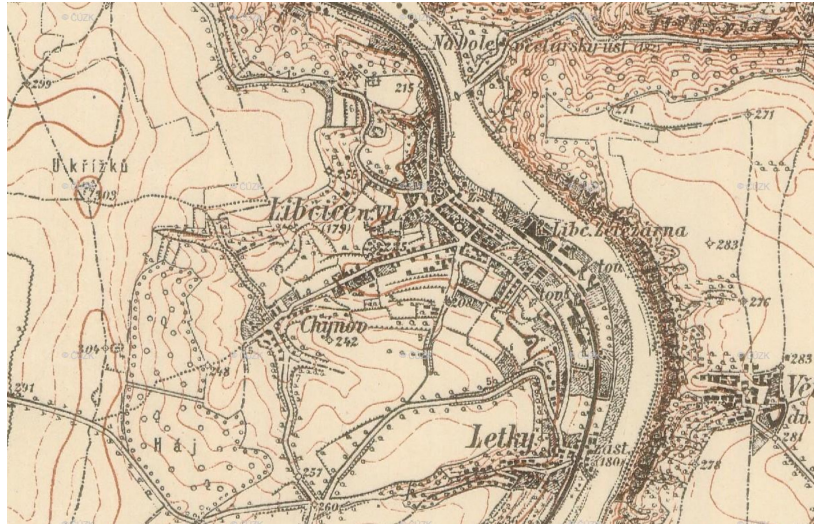


TERRAIN IN 3D



HISTORICAL MAPS

3RD MILITARY MAPPING (1869 - 1885)



2000



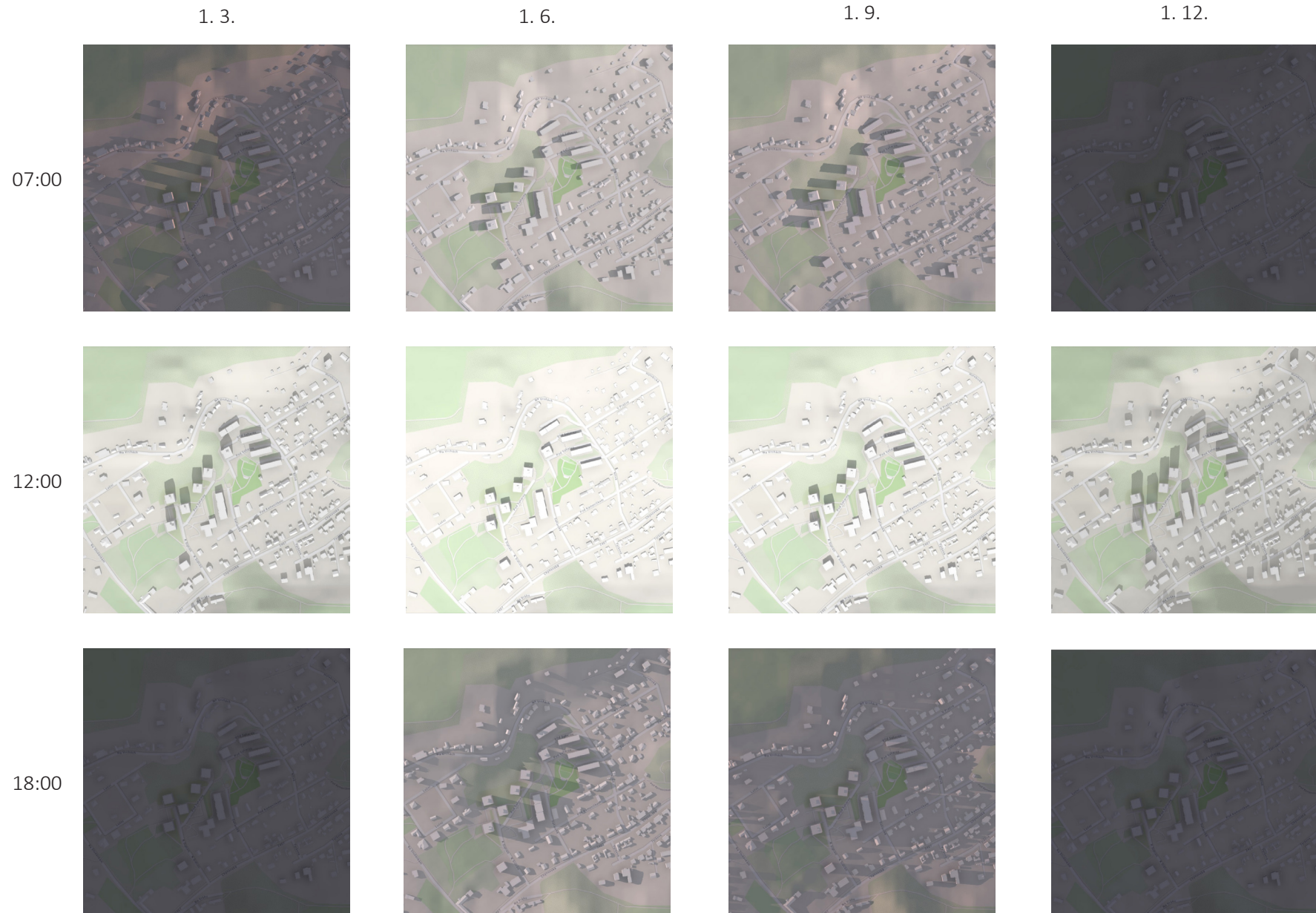
1950s



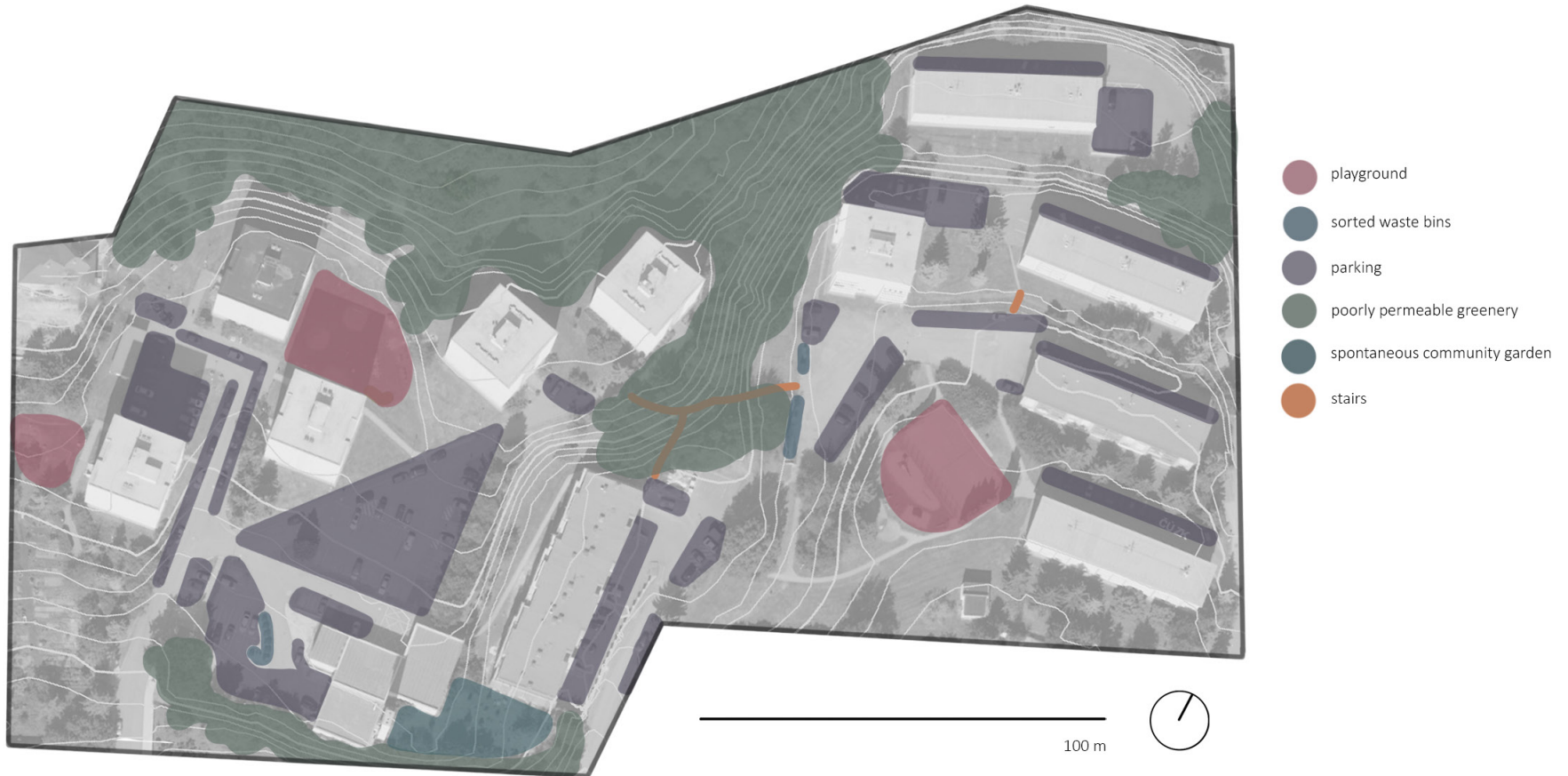
CURRENT STATE



SUNLIGHT AND SHADING



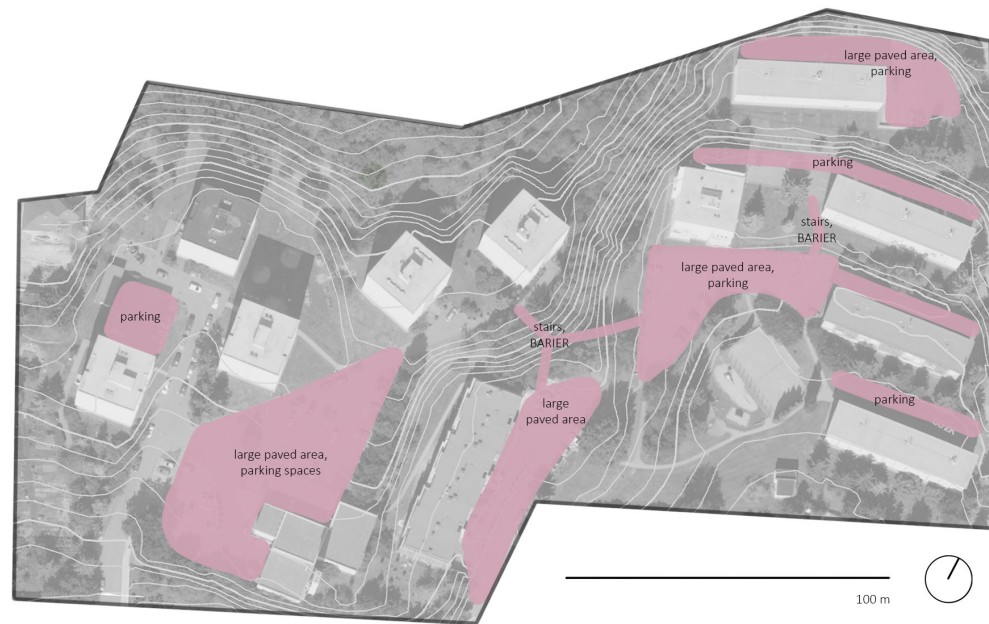
CURRENT STATE ZONING

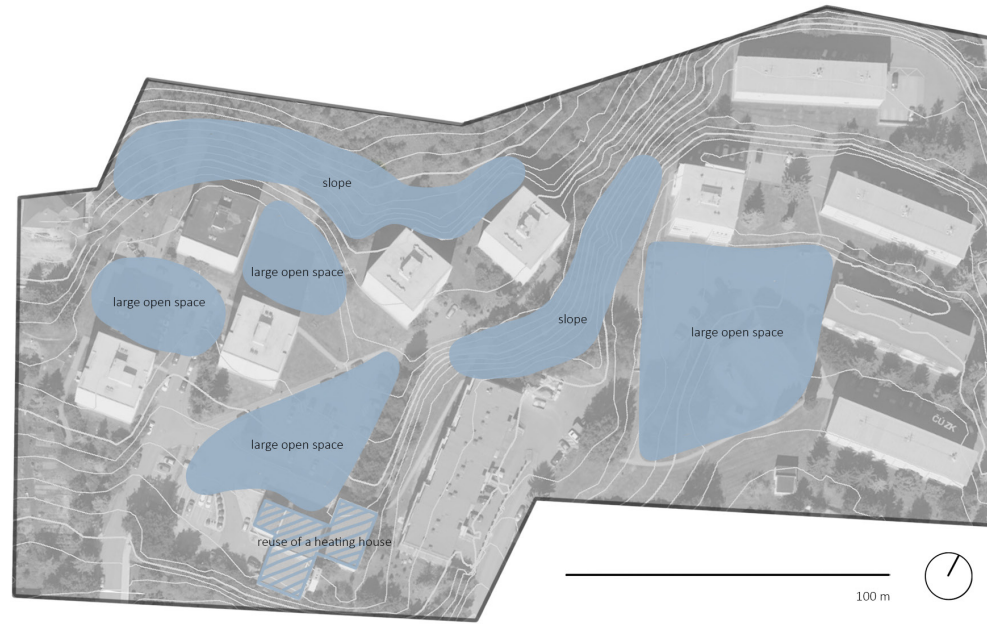


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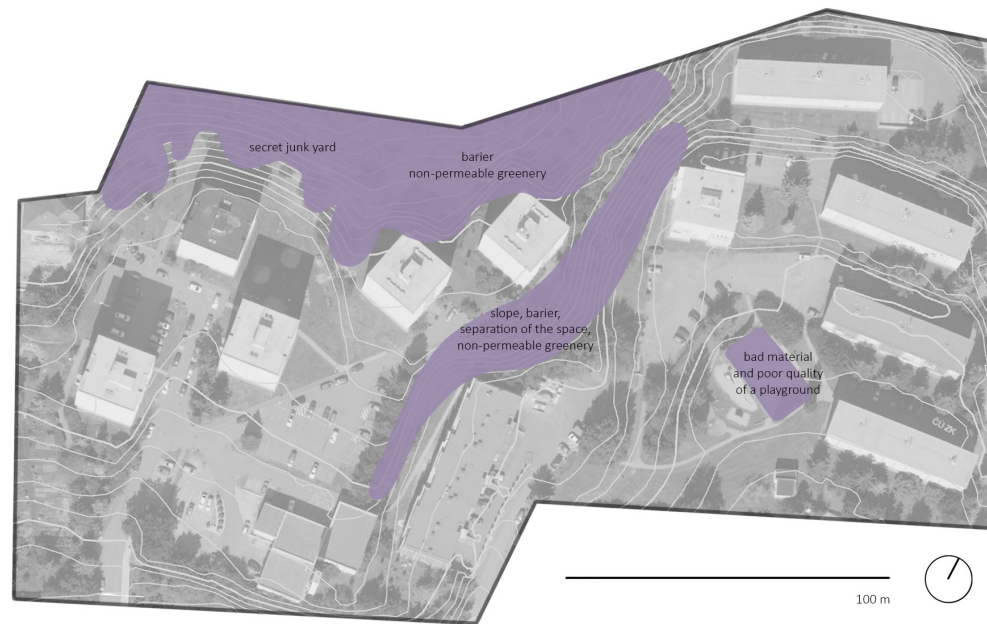


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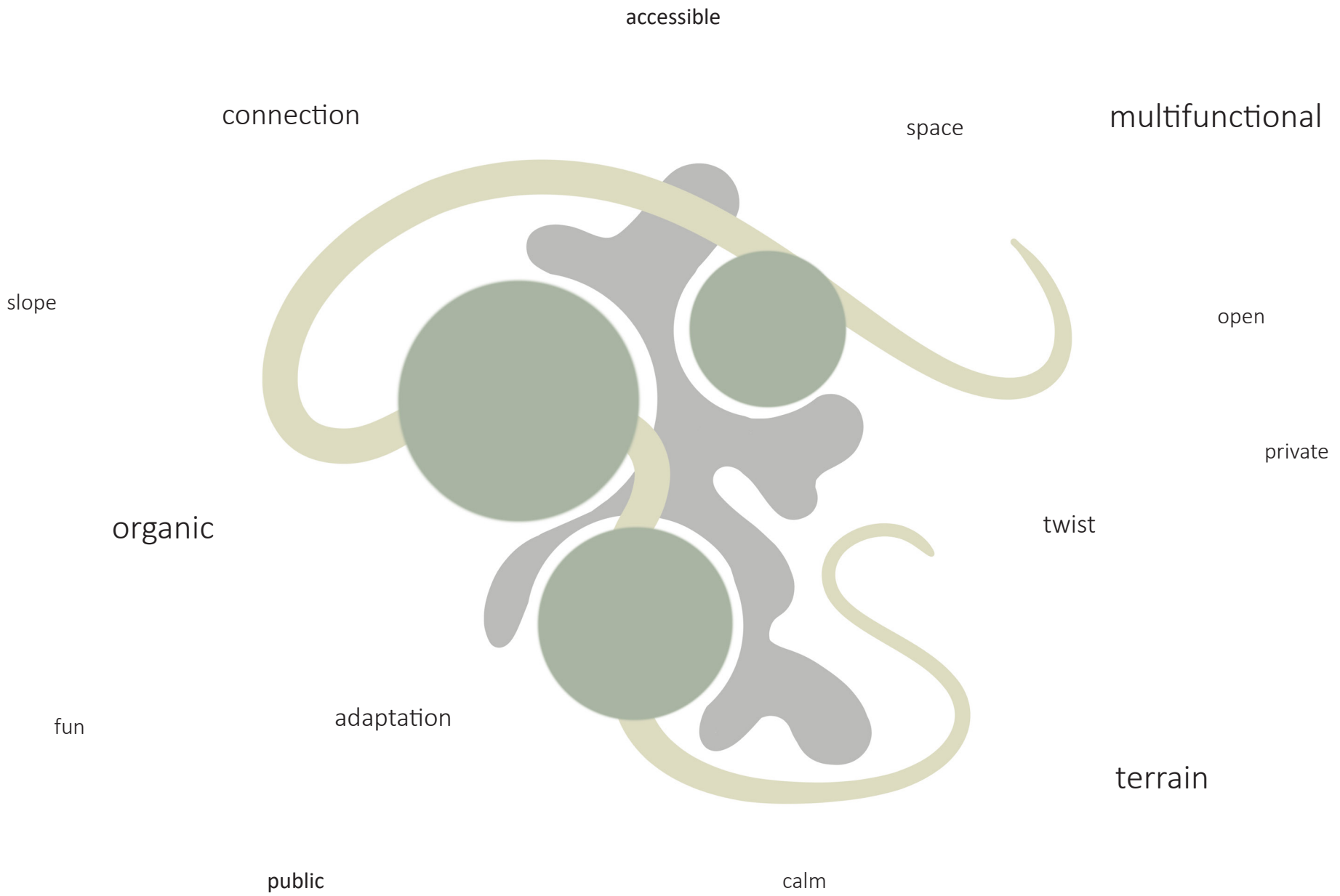
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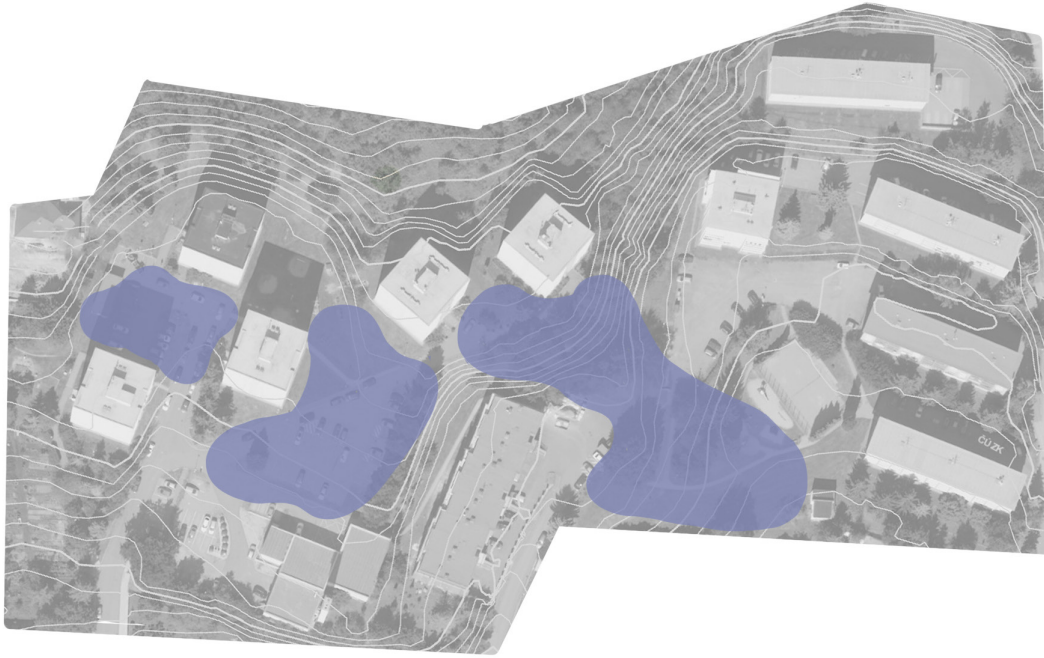
CONCEPT

TWIST-IN concept tries to connect the two disconnected parts of SAHARA, while also utilizing the slope, that creates the disconnection. All of the new elements are trying to respect already existing parts of the area.



New elements are organically „twisting“ in the provided space





The most **flat spacious** areas of the space should serve as **PUBLIC SPACES**. Overall the area should consist of **open grass space**, with the possibility of **seating** encouraging people to rest and gather there. Greenery can provide shade and more comfort, while also partially separating the space into smaller „bubbles“.

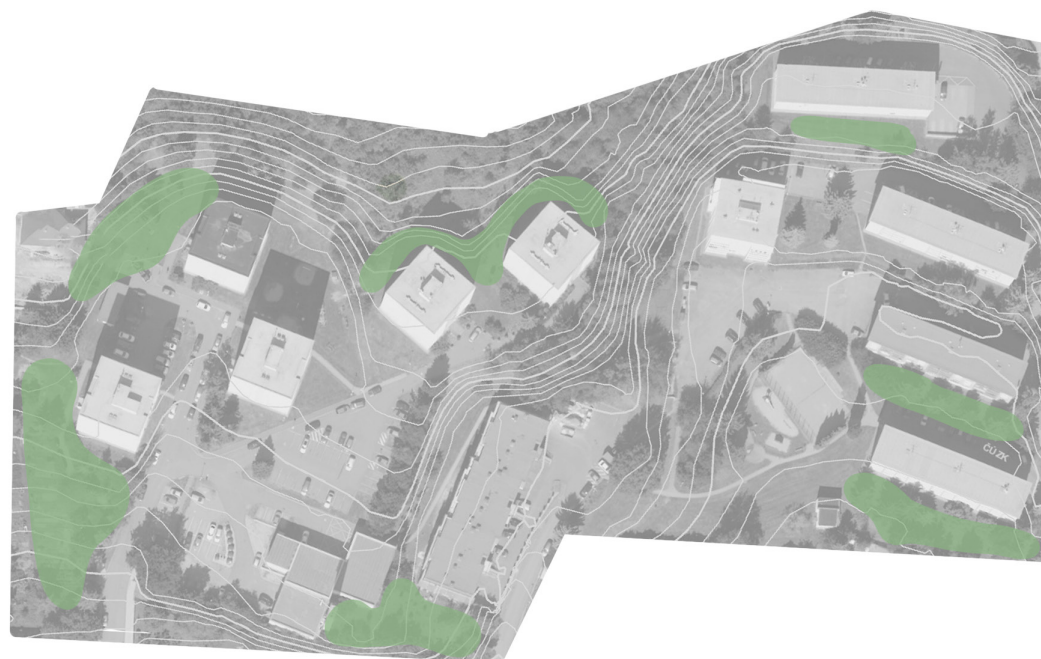
PLAYGROUNDS can be moved in to the **slope** to utilize its' potential. The terrain encourages people to climb, slide down and invent many new ways to overcome the hill. **Multifunctional sculptural playground** can **start** on a **slope** and **gradually „slide“** down to a **flat space**, where the sculpture becomes less radical and creates lightly curved surface, with holes, sand pits and trampolines. The rest of the playground area will be simply open grass space allowing the people to choose its' purpose - it could be used for sports, running around or sitting in the grass.





Today a big percent of Sahara is covered by paved areas, mostly parking spaces. To achieve more openness in the space the **PARKING** should be mostly moved to the **outside of the housing estate**. This will provide more room for other activities. To have enough parking spots **parking decks** will be introduced in the south of the area.

On the outside of the are more of **CALM SPACES**. That are disconnected from the middle, which is more busy. These spots provide a more **intimate** and **calm** environment. This type of place also suggest the possibility for **community garden**, however this decision would be left to the residents.



DESIGN

MASTERPLAN



Public space



Stairs with seatable parts



Playground area



Parking



Private part, with possibility for a community garden



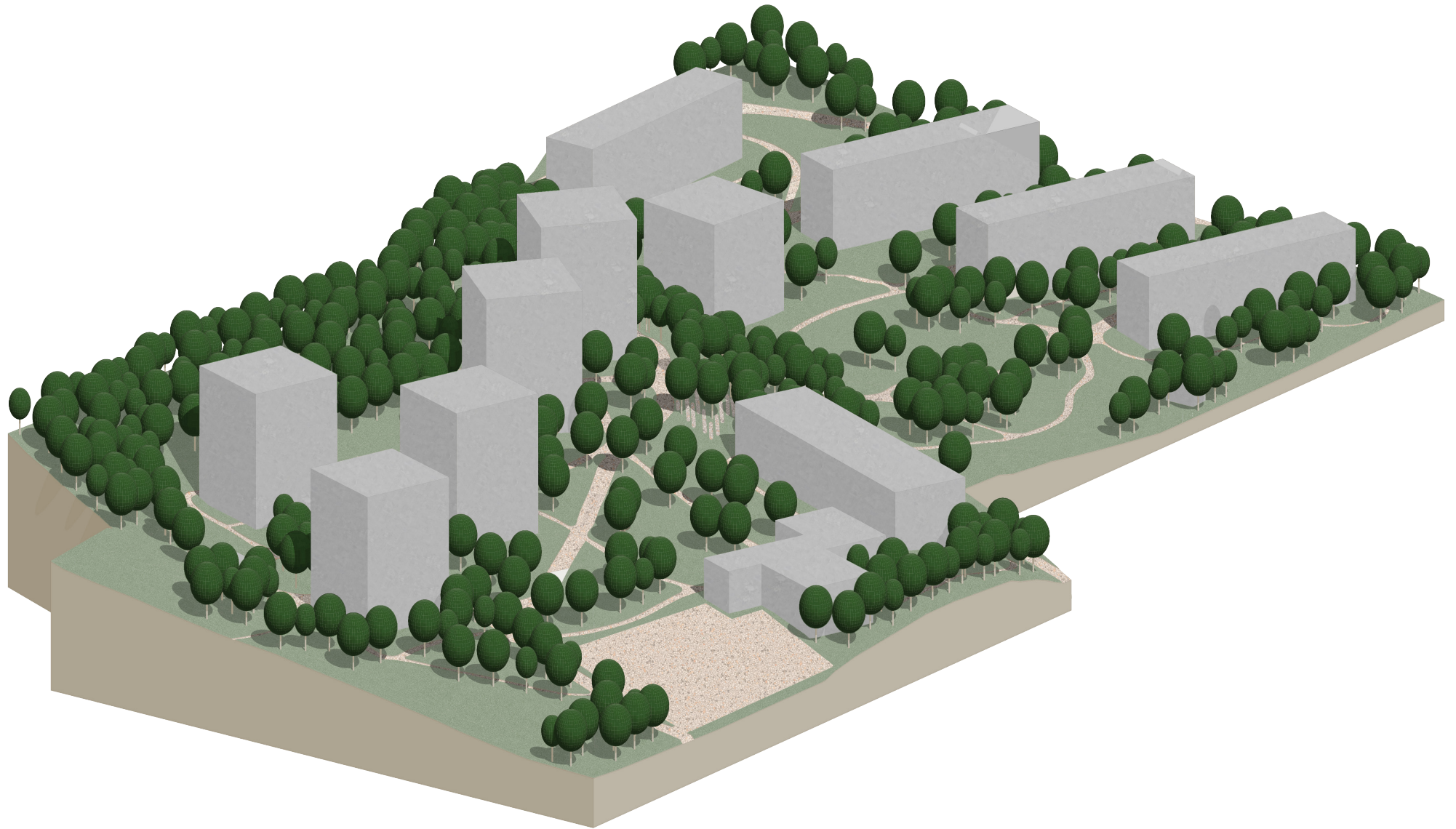
Access point to the area



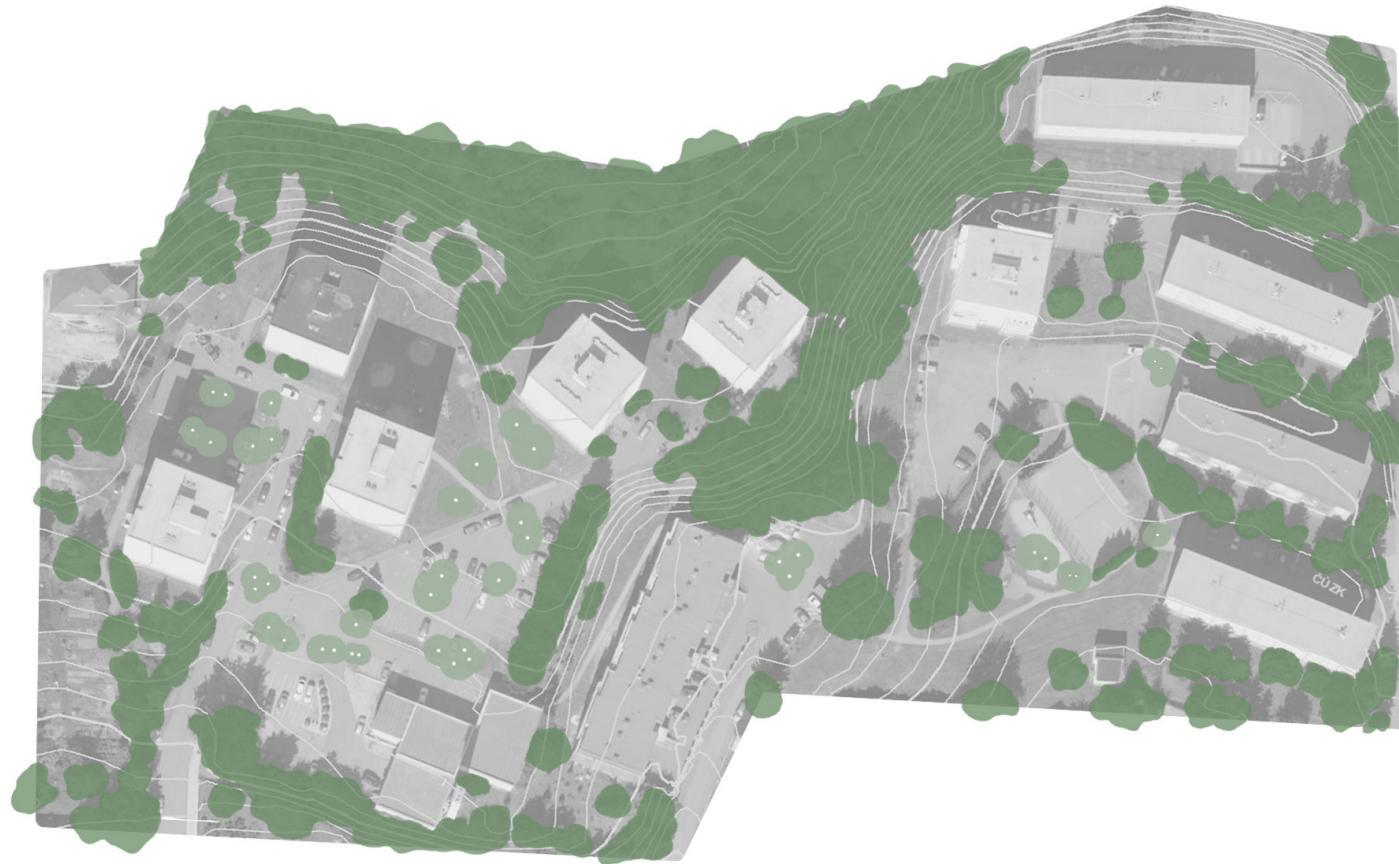
AXONOMETRY



AXONOMETRY



VEGETATION



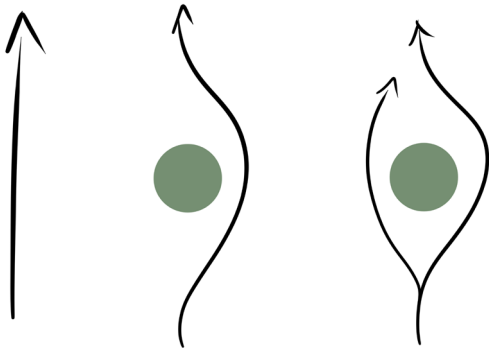
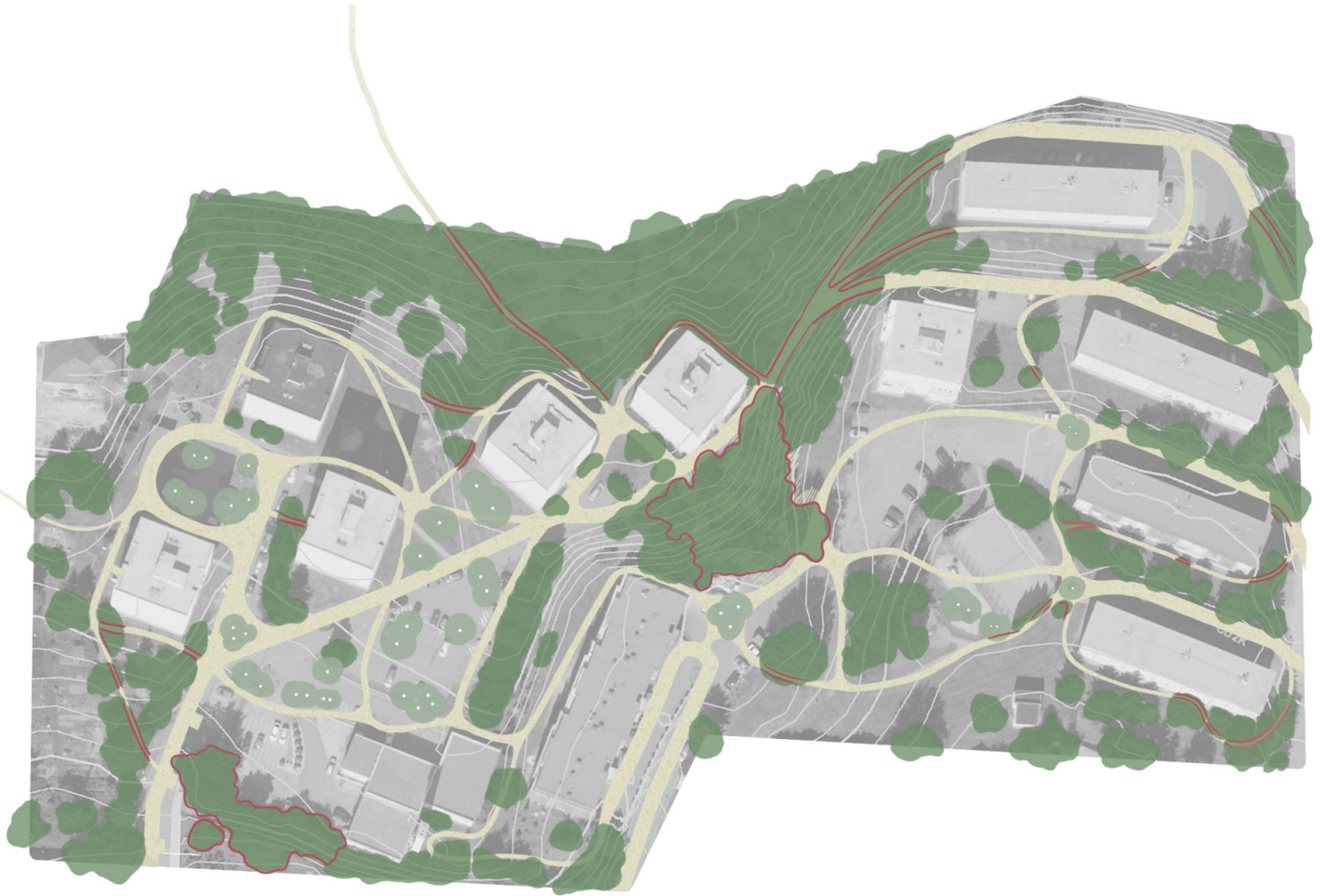
current vegetation



new vegetation

ADAPTATIONS OF CURRENT VEGETATION

In some places paths go through a point with high concentration of trees (marked red). In some of these spots the **paths** need to **adapt to the vegetation**. It either twists around the vegetation or separates and connects back together when possible. Seatable stairs in the middle of the area also **respect the vegetation** and twist between the trees and bushes.



TYPES OF VEGETATION



ACER
CAMPESTRE



BETULA
PENDULA



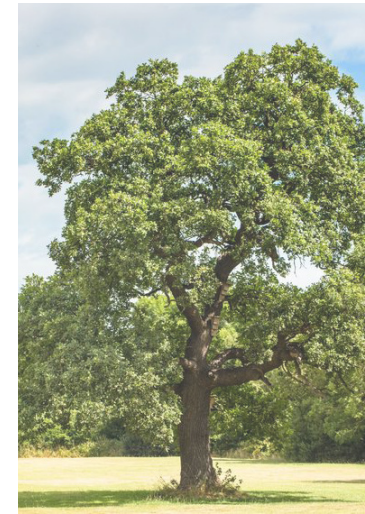
ALNUS
GLUTINOSA



POPULUS
TREMULA



CARPINUS
BETULUS



QUERCUS
ROBUR

PATHS



LEVEL 1 PATHS

Leading to parking for cars and also through the center of the area. Cars should only stay on the outside of the area with parking, the rest of the road can only be used for a car in case of an emergency. Pedestrians can also use these paths.

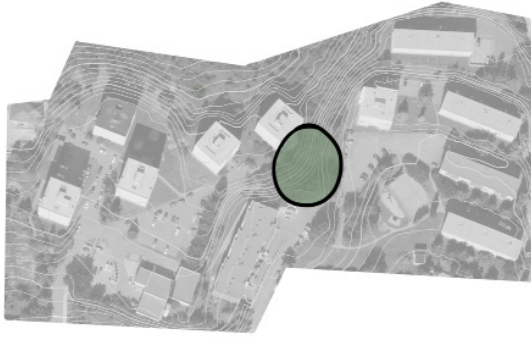
LEVEL 2 PATHS

Normal paths for pedestrians. They connect the whole area and its' main spaces. In the middle the slope is connected through stairs with seatable parts.

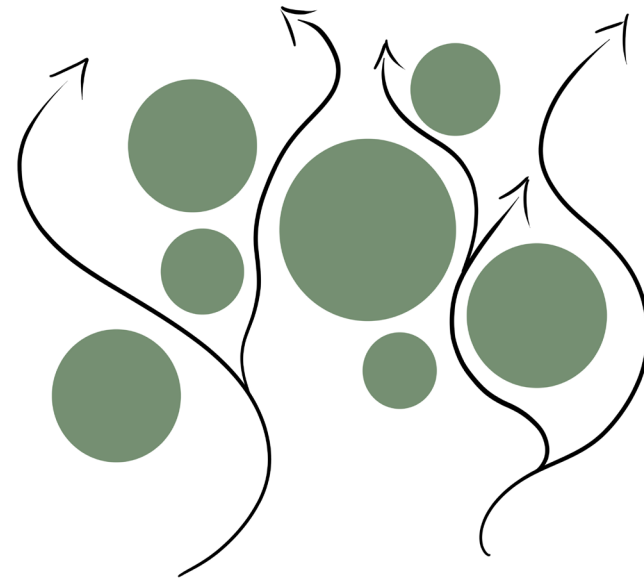
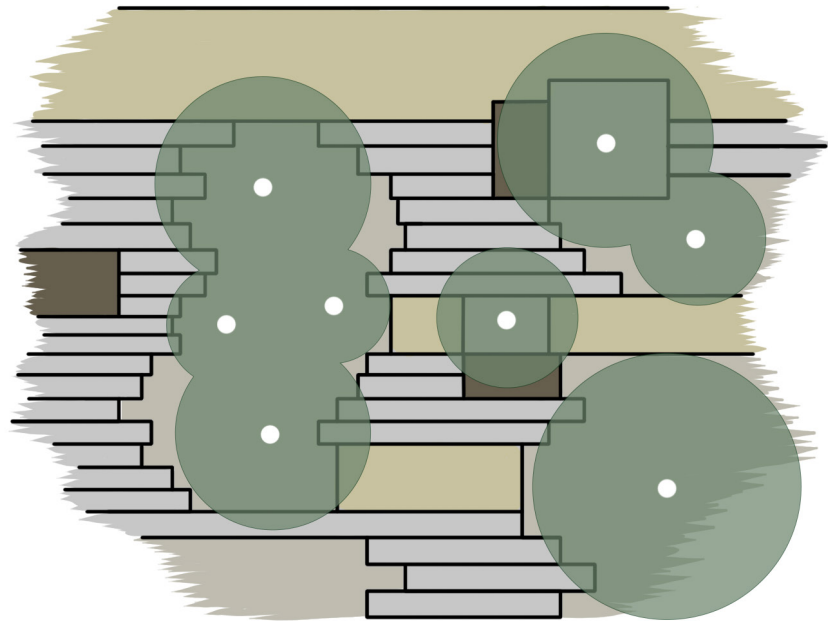
LEVEL 3 PATHS

Smaller additional paths connecting the rest of the space, mostly leading to „relax spots“ in the outside

SEATABLE STAIRS



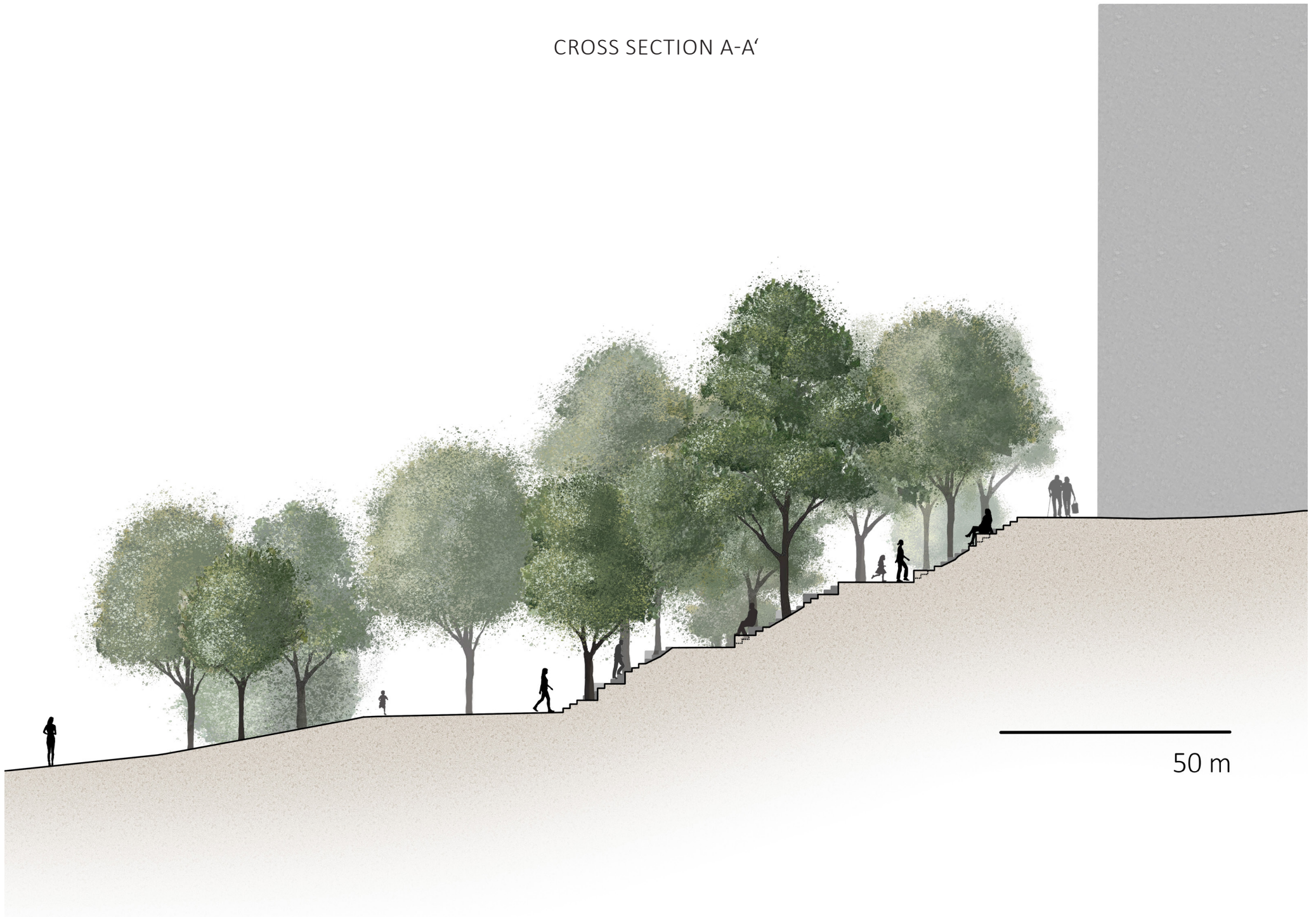
Stairs with seatable parts are located in the center of the area, connecting lower and upper part of Sahara. They are scattered between the vegetation, respecting the trees, so they do not get destroyed. Mezzanines are spaced on the terrain providing more space to rest. Seatable parts with wooden top are spaced randomly, providing spots to relax, gather, or simply sit down.



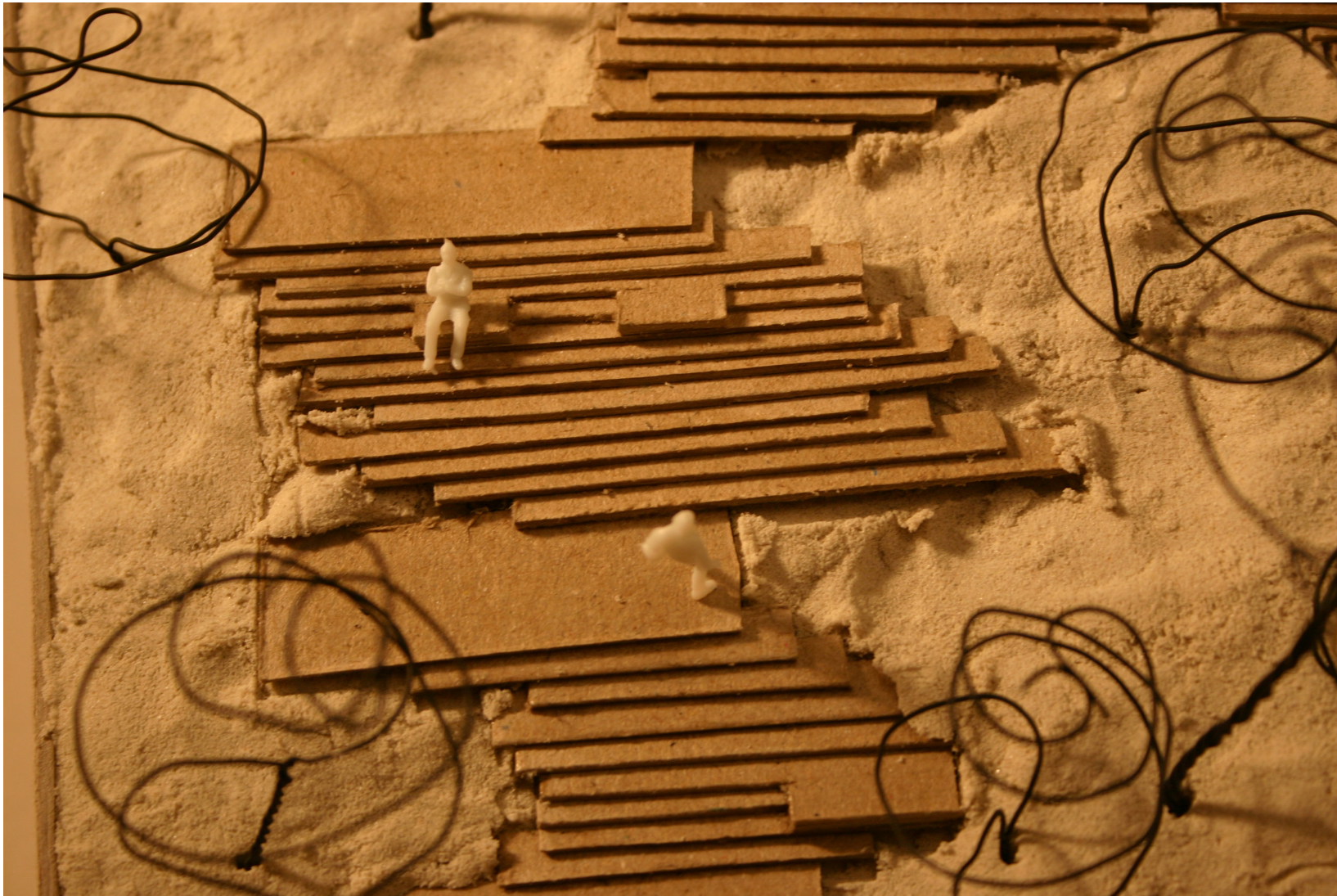
PERSPECTIVE



CROSS SECTION A-A'



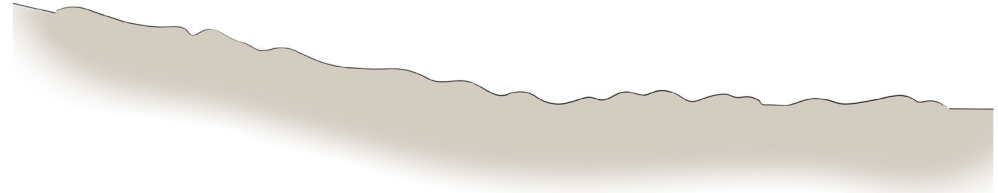
MODEL PHOTO OF STAIRS



PLAYGROUND AREA



CONCEPT CROSS SECTION



Playground area has two types. First one is multifunctional sculptural playground starting on a slope between trees and gradually sliding down to a flat spot where the sculpture lightly curves and creates a wavy surface. Whole sculpture is completed with slides, sand pits and small trampolines. Second type is simple open grass space in east part of the Sahara housing estate. It does not include any mobiliar. The completely open space should encourage people to play sports, run around, play games or they can rest in the grass if they wish.



MATERIALS



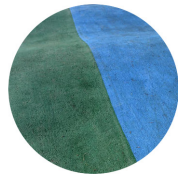
Paving for level 1 and level 2 paths



Thresh for level 3 paths



Grass paving for parking spaces



Tartan for sculptural playground



Grass



Wood for mobilliar and seatable parts of stairs

PUBLIC SPACE MOBILIAR



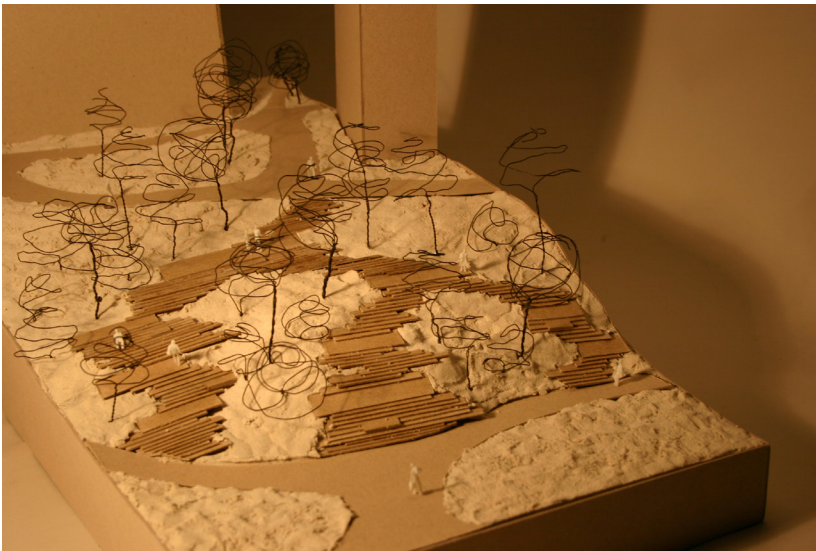
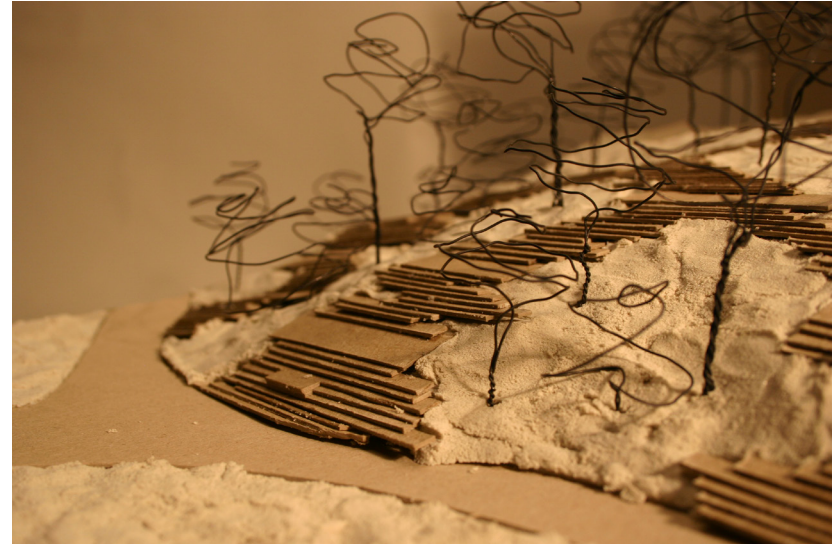
Slightly curved benches can create new smaller spaces in a big public space, various different sizes and lengths also contribute to the differentiation of the space. Benches can be two sided, so people can sit and be present in whatever part of the space they choose.

PRIVATE SPACE MOBILIAR

In more private spaces the benches should be hidden in the terrain. This would provide a bigger sense of privacy while also utilizing the terrain as much as possible.



MODEL PHOTOS



MODEL PHOTOS

