

# Touch the rubble

## Anne Spanjaards

The pavilion will be a place/landscape in the extension of the road, as transition between land and water. It's a place where you can get in touch with the reused materials, but where you also can escape the big city and just be there for a moment. Where the wind will glide true your hair and where you can feel the sun heated stones.

What the pavilion shows is that the inexhaustible is also exhaustive, that the largest source for building materials is found around us above the ground. The raw materials are running out, the earth nearly has raw materials left but we can reuse everything that has already been used. Instead of a linear material flow we turn it into a circular flow, building eating buildings. The pavilion consists of different layers and heights. The slopes are forming a landscape made out of rubble and reused materials. Just like the waste processing centre Bnext where the research started. The different building rubble is distinguished by height differences and runs the same way as the way you enter a building. From brick to roof tile.

The idea behind the pavilion is that you can escape from the busy and crazy life at the city and enjoy the easy and quiet. There is a big sitting pit where it is possible to meet people but there are also a lot of spaces where you can just be by yourself. When you walk through the pavilion in the direction of the water the fine terrazzo texture will change into big concrete slabs that are reused from buildings. Furthermore there are sun chairs which are made out of rubble and are pointing in the west direction so you can watch the sunset at the waterfront.



### **Close-up of the rubble**

Bigger pieces of rubble combined with smaller pieces in between and reinforcement sticking out of the rubble mountain.



### **Mountains of rubble**

All the rubble together divided in different mountains with a excavator.





### **Deviding the rubble**

Machines dividing the finer rubble into different piles.





**Location in the direction of the city centre of Rotterdam**

Photo from the site in the direction of the city centre of Rotterdam. A important line of sight to the site.



### **Location quay Nieuwe Maas**

Photo from the quay to the Nieuwe Maas as transition of the land and the water.





### **Location**

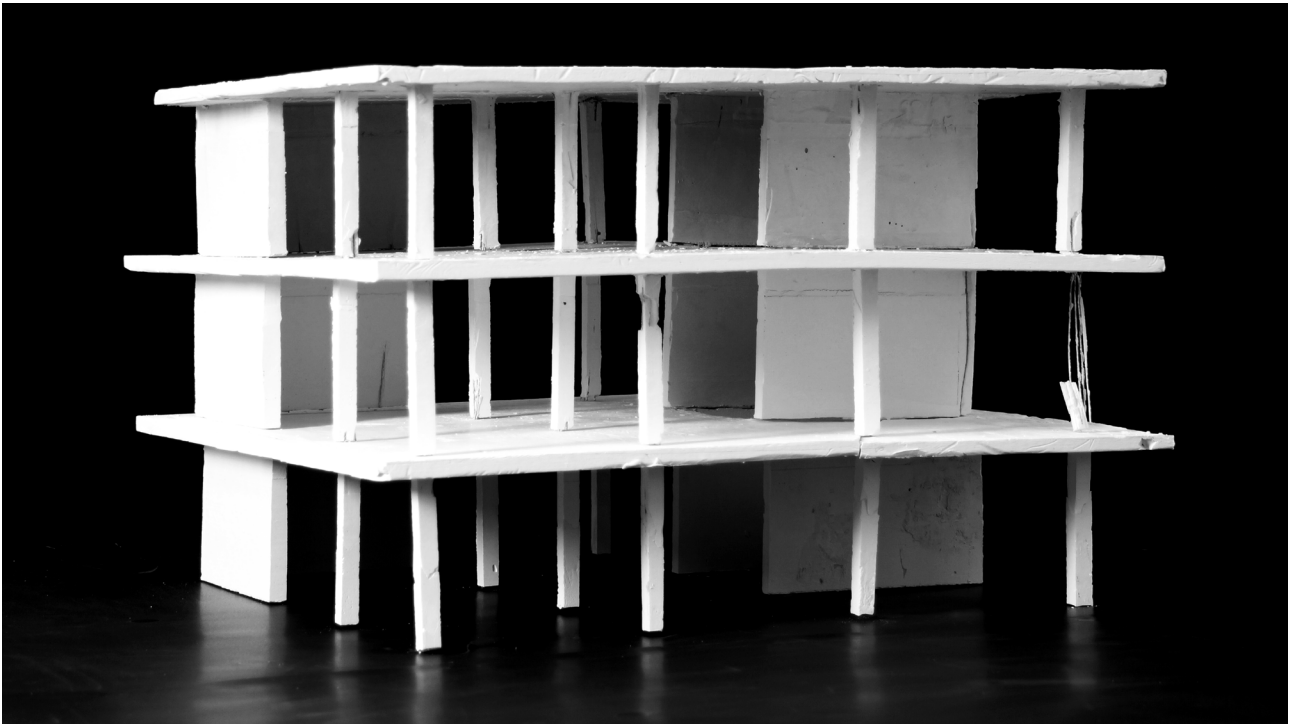
Photo of the chosen spot on the site.





### **Airphoto**

Photo taken from the ait with a pinpoint on the spot of the site.



**Foto beginstand**

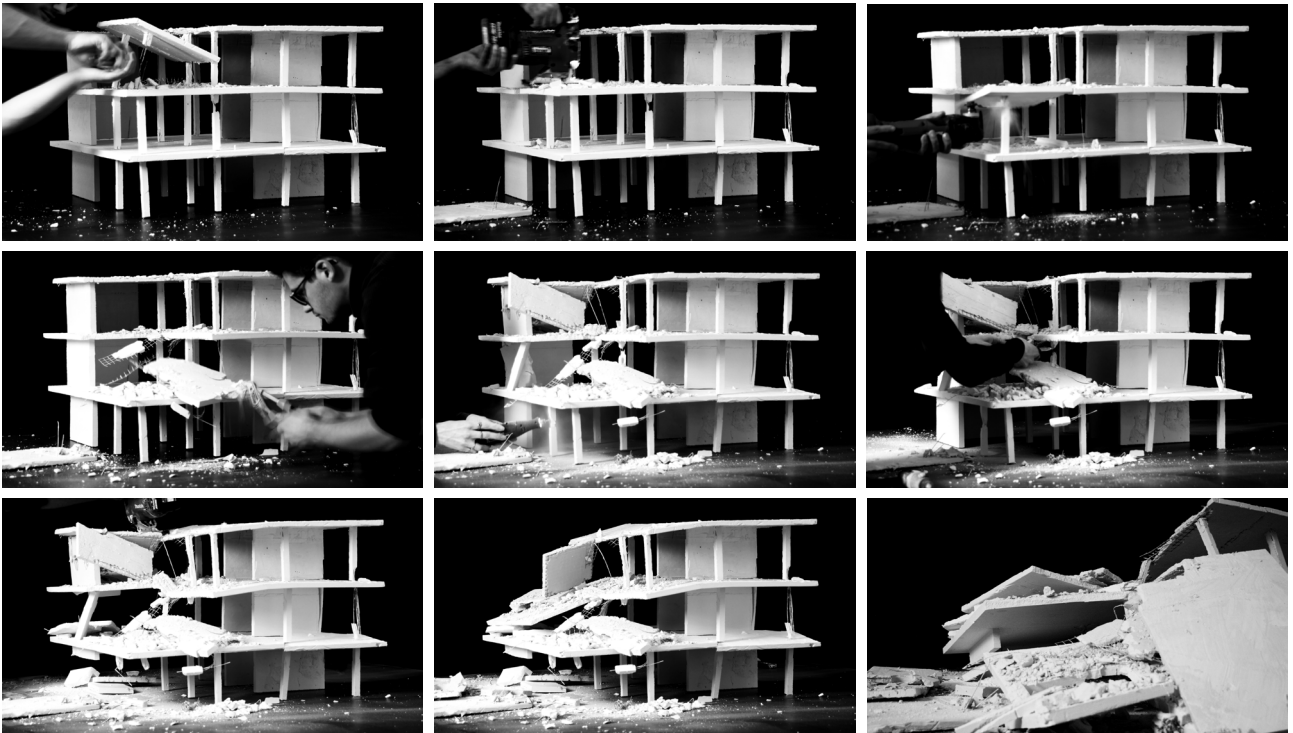
In gips gegoten maquette 3-laags schaal 1:20 in hele toestand.



**Foto eindstand**

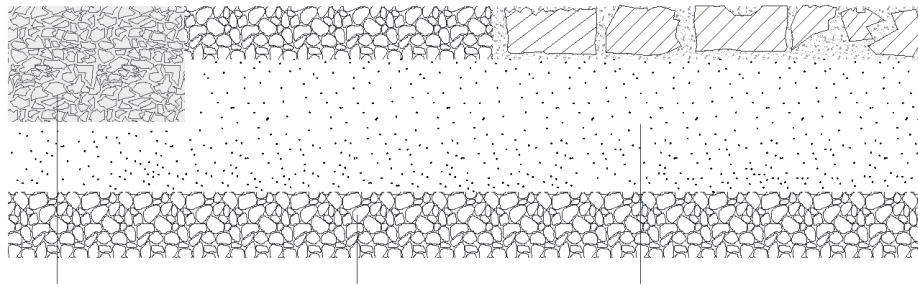
Brokstukken van de in gipsgegoten maquette schaal 1:20. Zo  
realistisch mogelijk gesloopt.





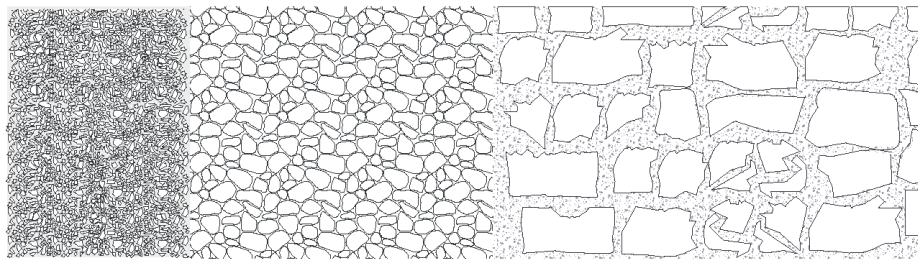
### Matrix

Sloopproces in gips gegoten maquette schaal 1:20. Gebruikte slooptools zijn onderandere kniptang, waterpomptang, decoupeerzaag en dremel.



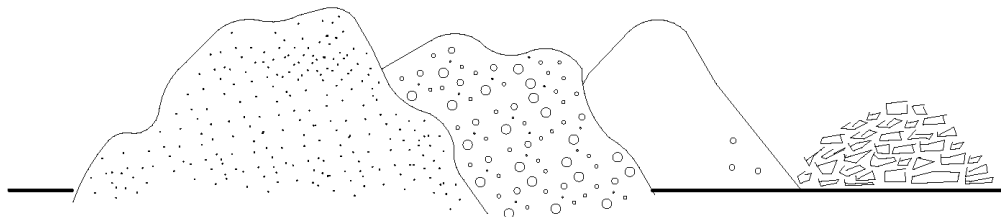
TERRAZZO WITH NEW BINDER      CONCRETE GRANULATE AS FOUNDATION (SUBBASE)      CRUSHED RUBBLE AS PACKED SAND (BASE)

SECTION



TERRAZZO FROM RE-USED TILES      CONCRETE GRANULATE      BRICKS WITH CRUSHED RUBBLE

PLAN

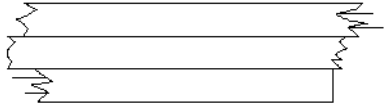


CRUSHED TILES      CONCRETE GRANULATE      CRUSHED RUBBLE POWDER      BRICKS

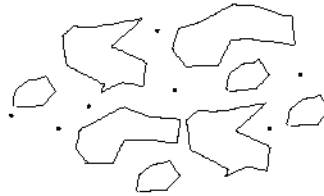
### The rubble transforming from pile to principle detail

The different kinds of rubble transforming each in their own way into a pavement principle detail.

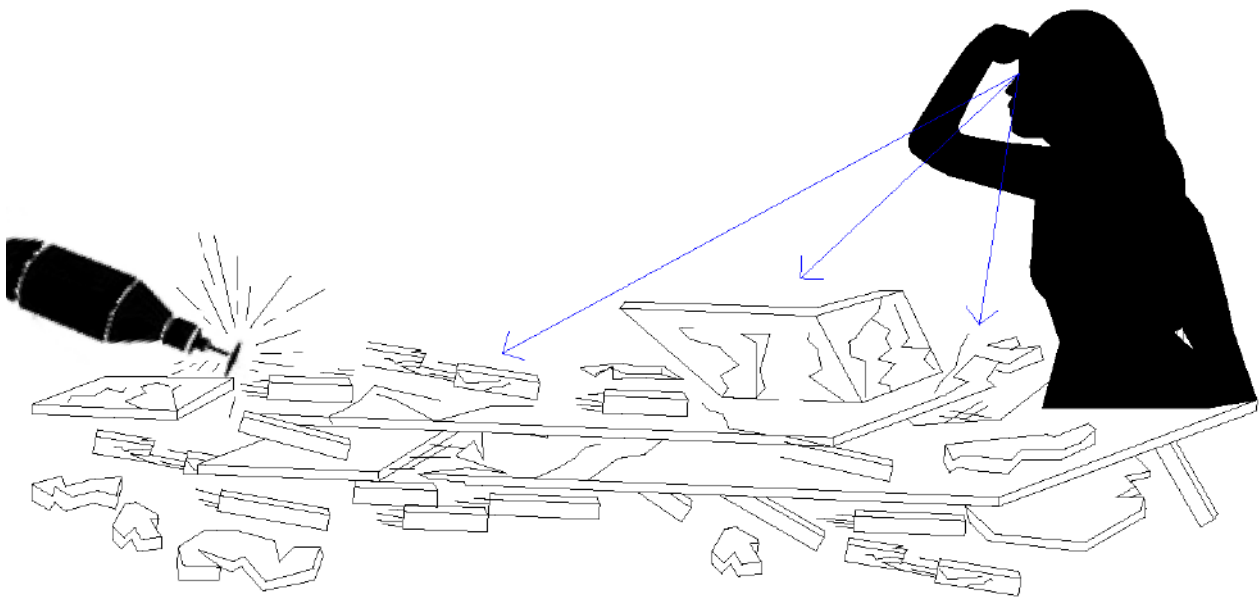
Concrete slabs



Bigger pieces of rubble



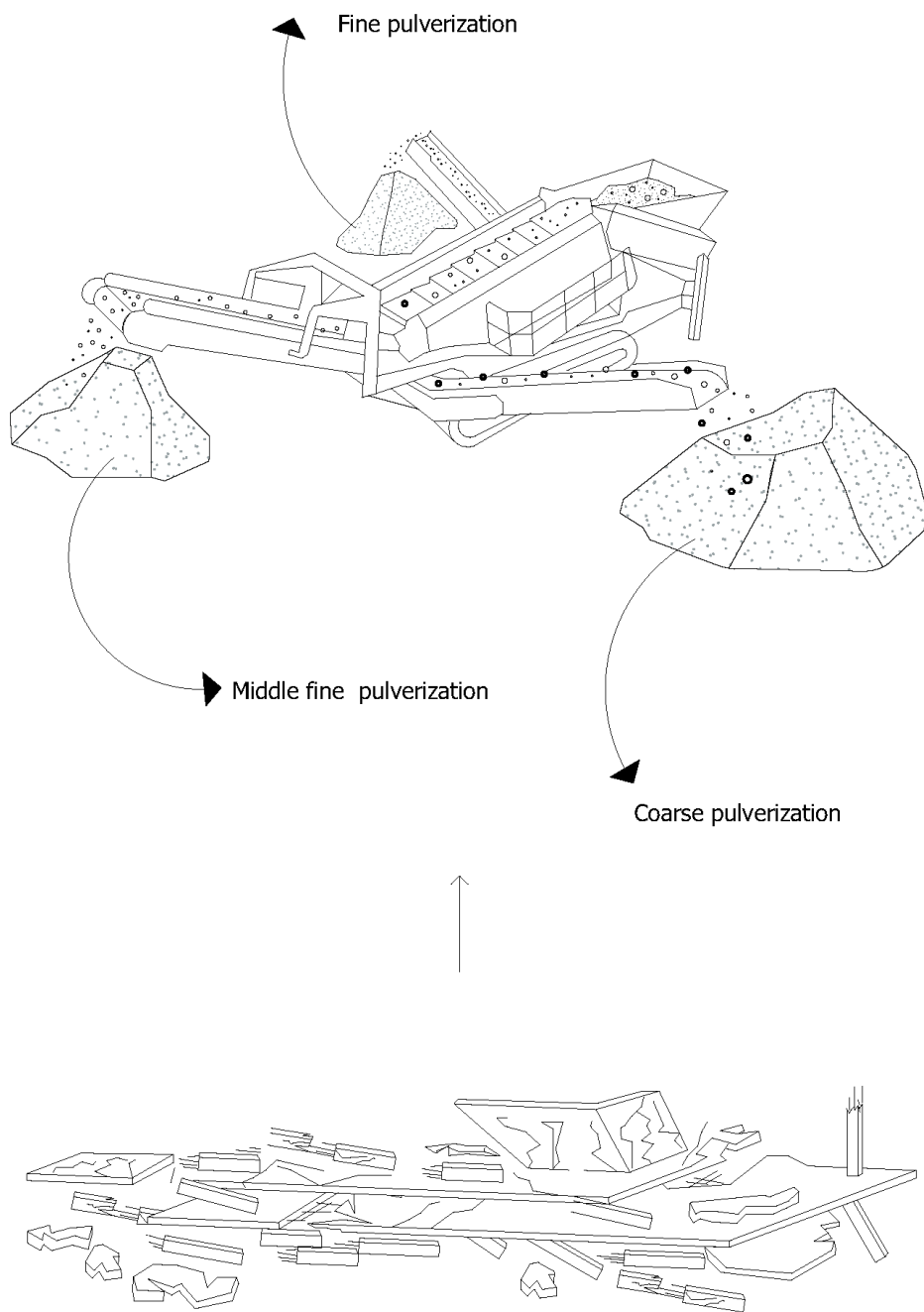
Fine and smaller pieces of rubble



### **Selection on the site which pieces of rubble can be used**

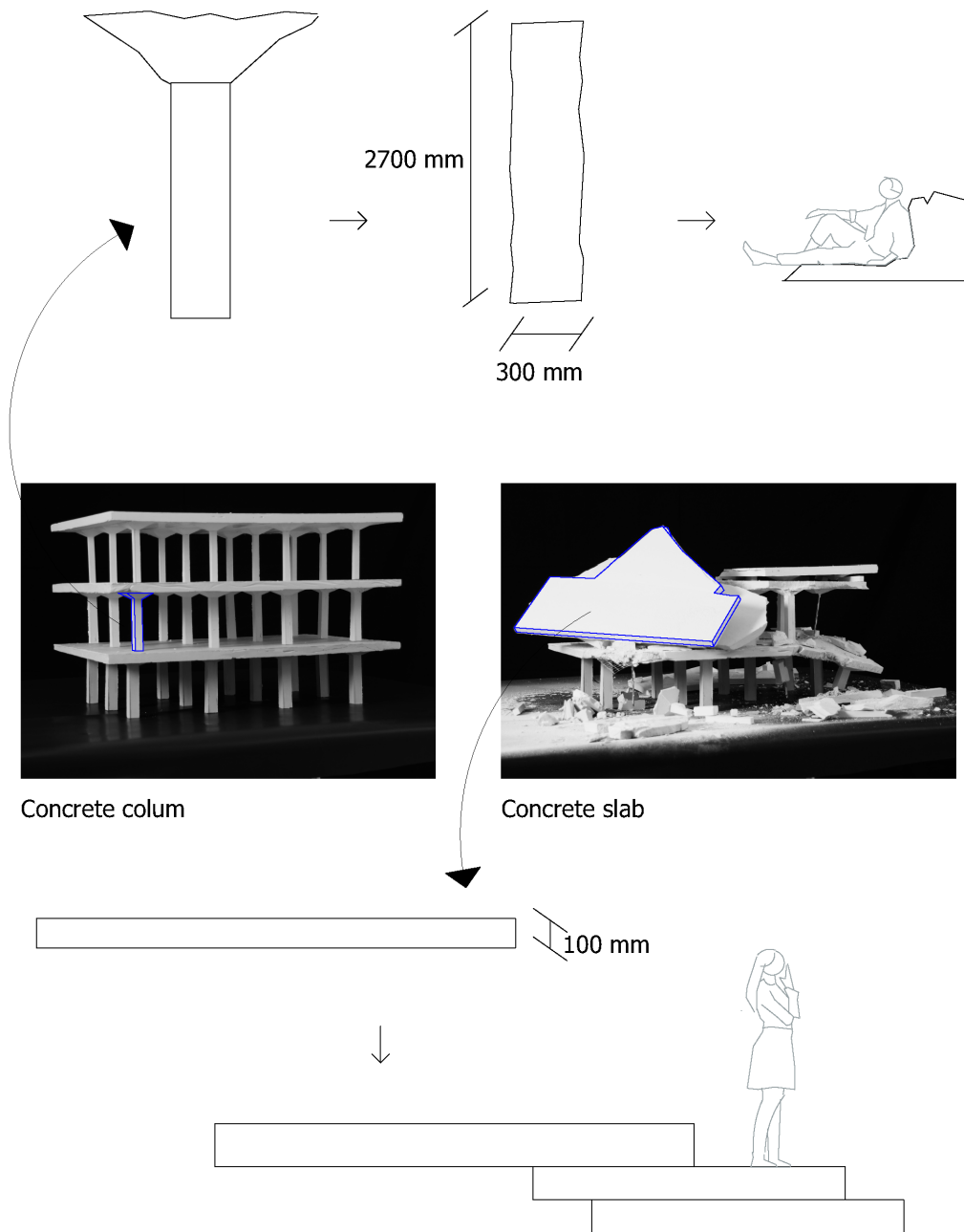
Searching for the right pieces of rubble and otherwise process them so everything can be used eventually.





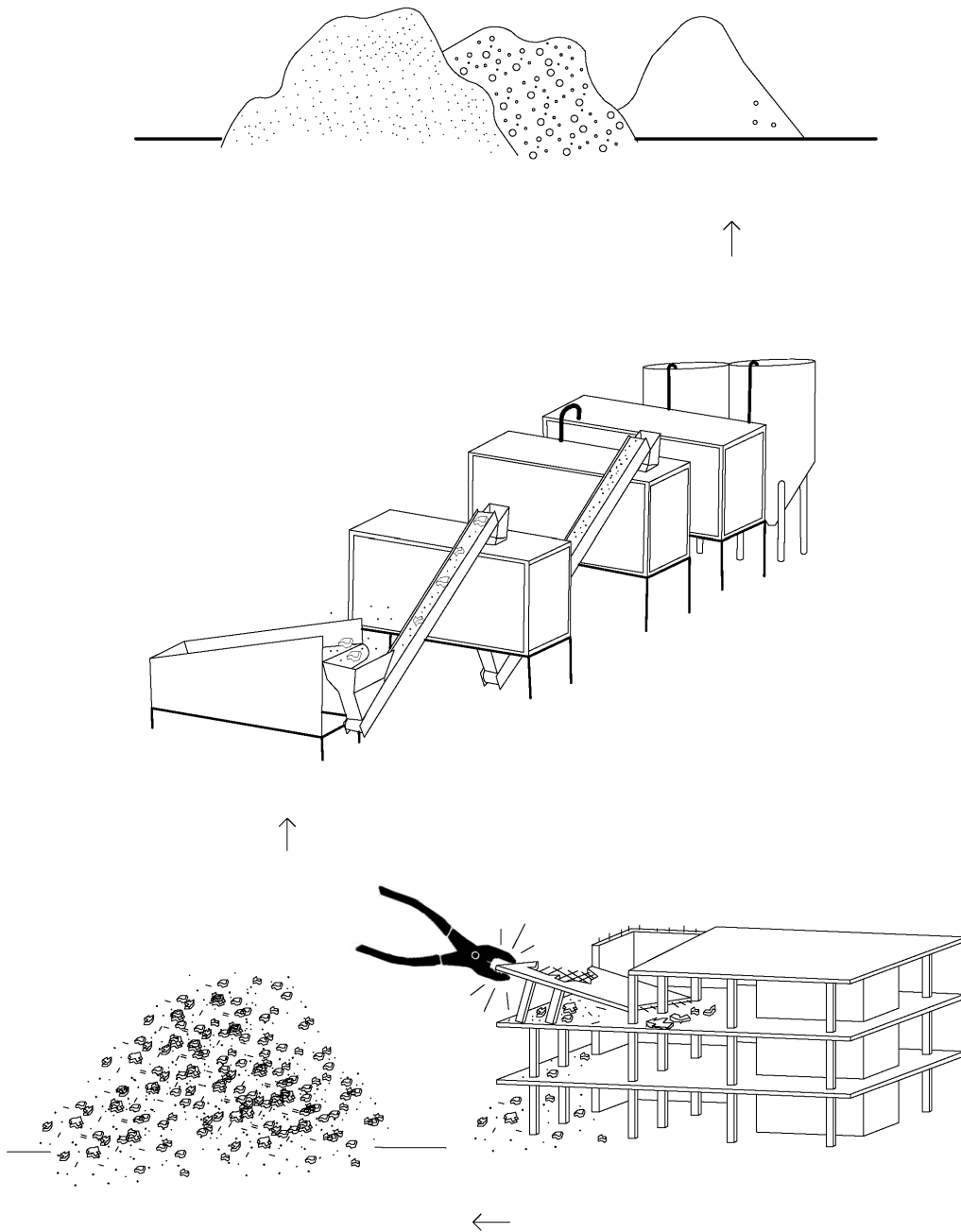
### **Crushing the rubble and deviding them by size**

The rubble from the site can be used in the crusher and organized in different sizes so they can be used by size and roughness.



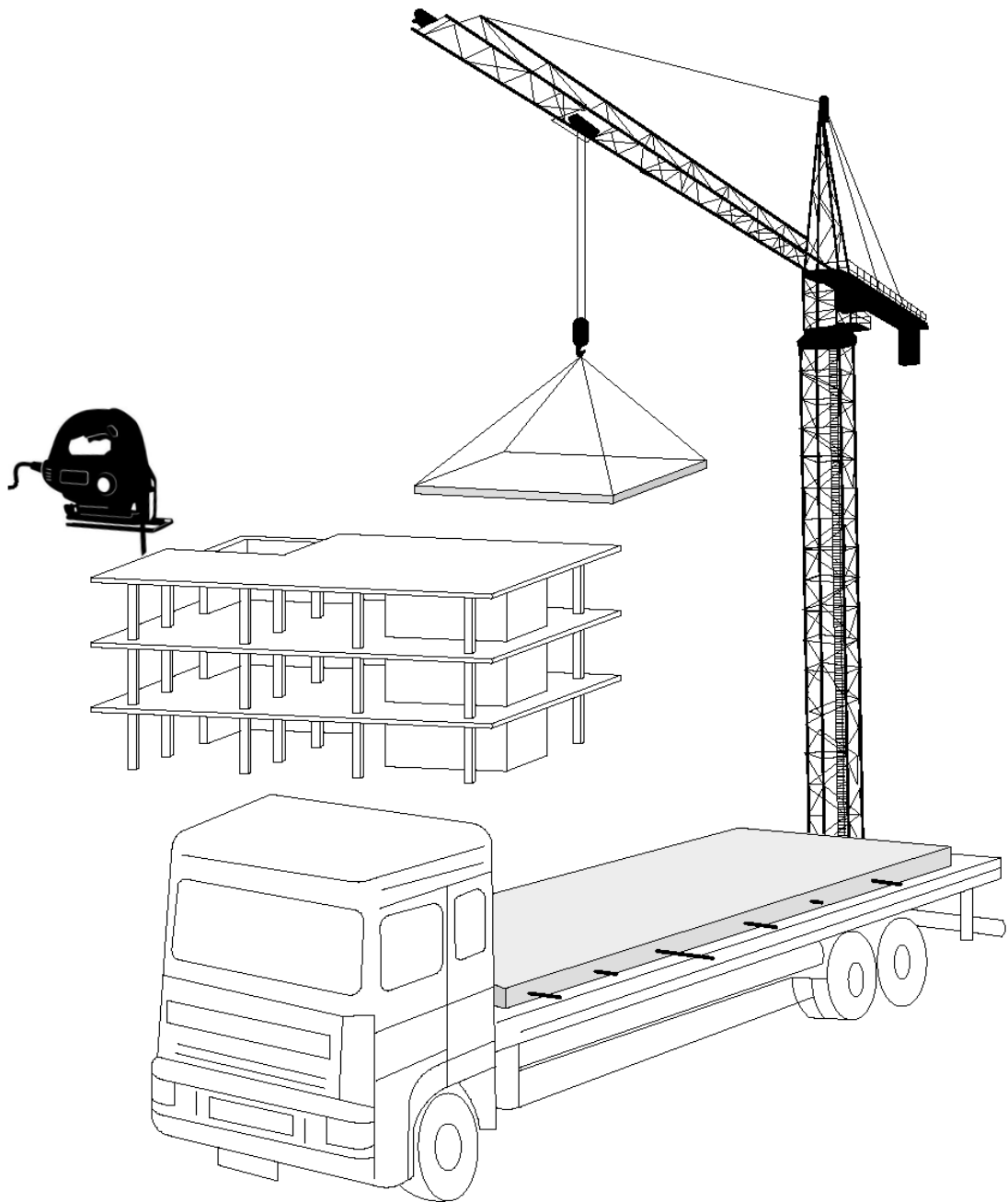
### Using the rubble from other models

The rubble that had been used in the pavilion is from multiple models and mostly selected by size and thickness.



### **Dividing the different types of materials**

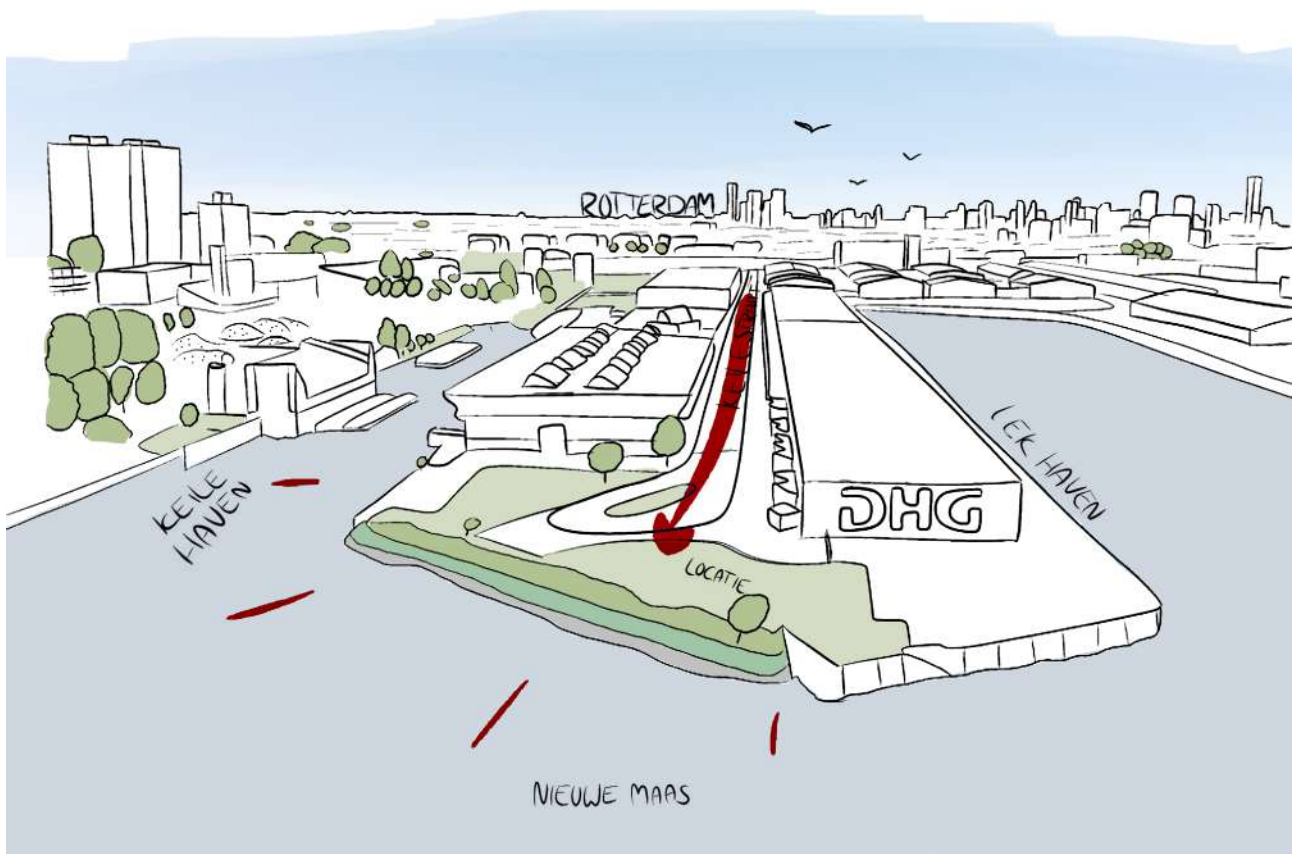
When a building is demolished there will be different kinds of rubble and in order to use it in the pavilion it has to be divided into different piles of materials.



### **Transportation**

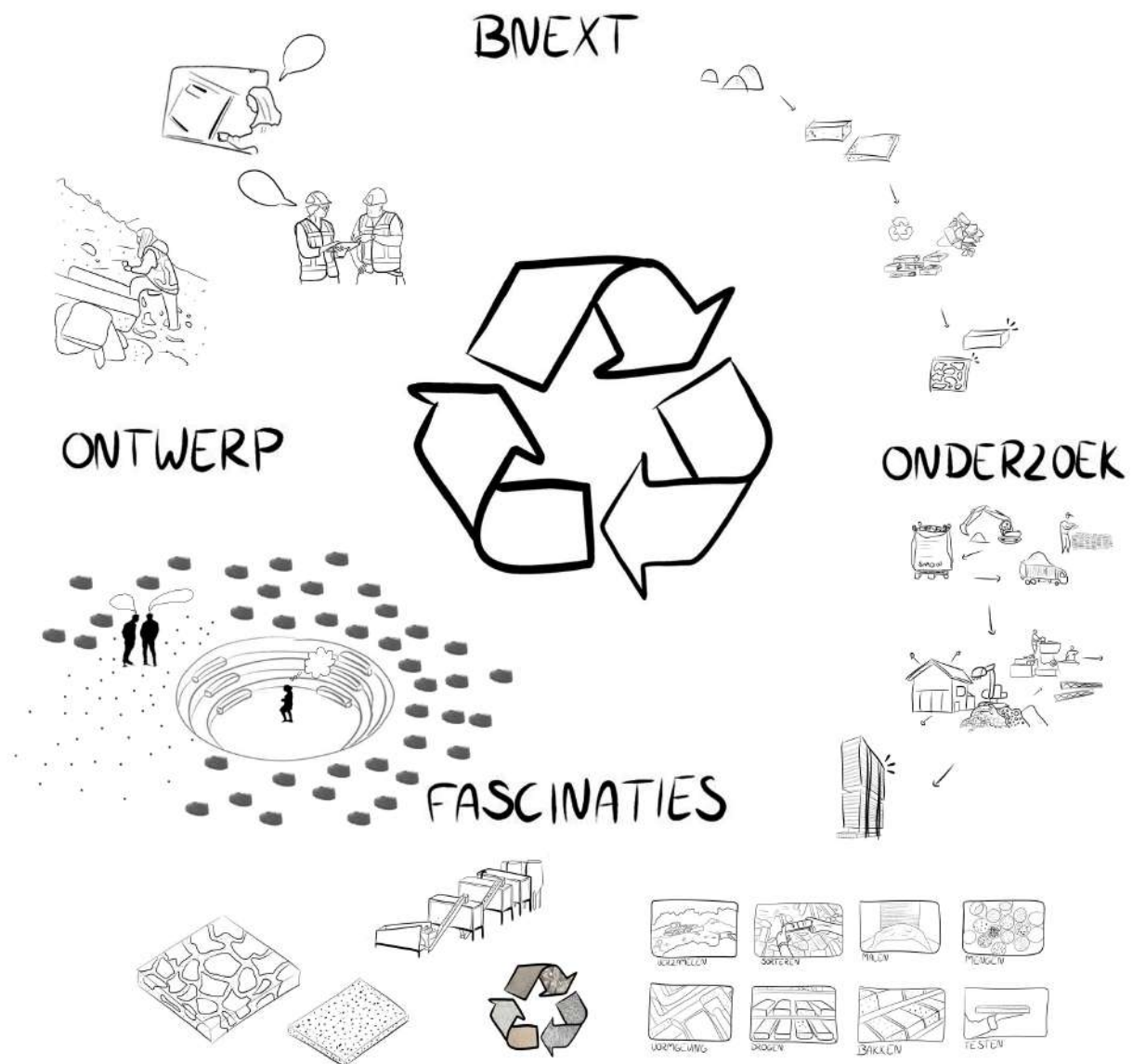
The bigger concrete slabs that will be used in the pavilion are going to be sawn from the building and transported by truck.  
(max. 16,5 m x 2,55 m)





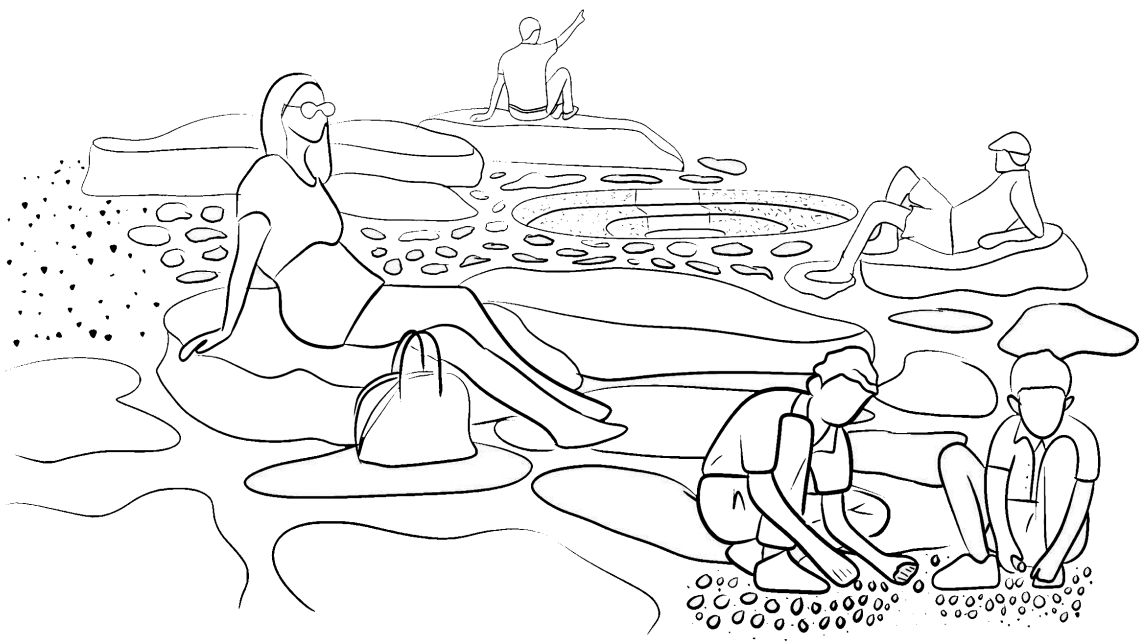
### Site

The site is on the edge of an arm from the harbor and in a view line with the city centre of Rotterdam. The site had a 360 degrees view over de Nieuwe Maas and is facing towards the RDM and harbor of Rotterdam.



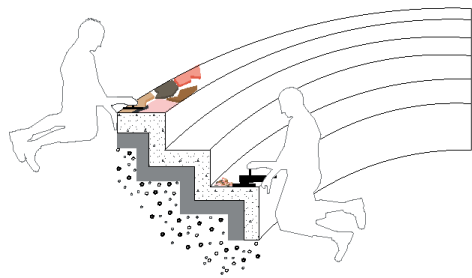
**Designing procedure**

The circle of designing and how it started with a conversation at Bnext and eventually ends there as well, to show how to rubble can be used in the building proces.

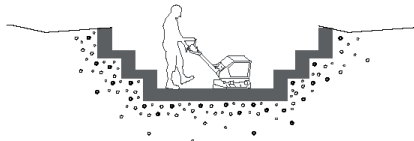
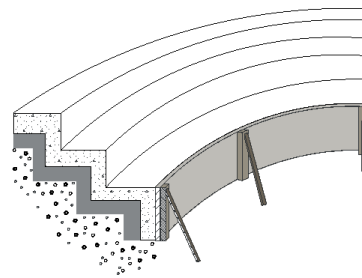


### **The human touch**

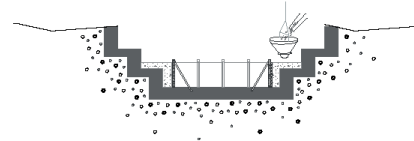
A sketch that shows rubble can be touched and is not only dirty but can be beautiful as well.



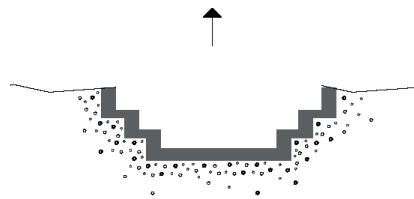
Polish the fine terrazzo and joint the bigger terrazzo tiles



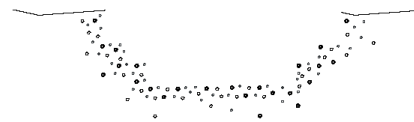
Equalize and stamp to make a flat substrate



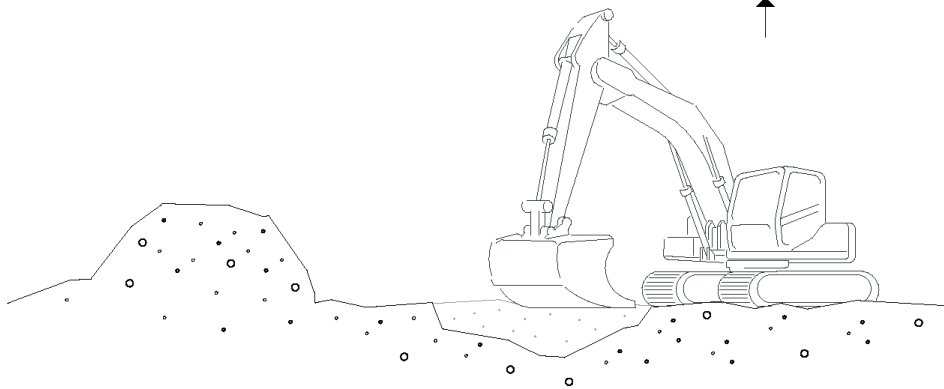
Add wooden formwork and pour concrete



Adding crushed rubble as packed sand granulate as equalizer



Adding concrete granulate as a foundation



Digging a hol with a excavator

## How it's made

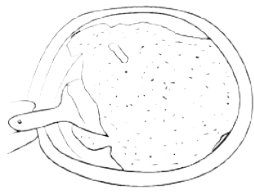
The proces of making the terrazzo sitting pit with new concrete which is poured into a hol filled with packed sand as a formwork surarounded by a formwork made out of reused wood.



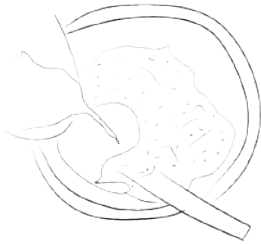


## Collage

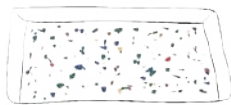
The human touch showed in a collage during the building process, demolition process and rebuild process.



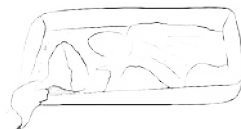
1 Mix the cement, sand and oxide



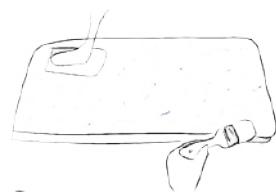
2 Combine the dry mix and a bonding agent



3 Fill the formwork with rubble (tile, glass or brick)



4 Fill the formwork with the mix

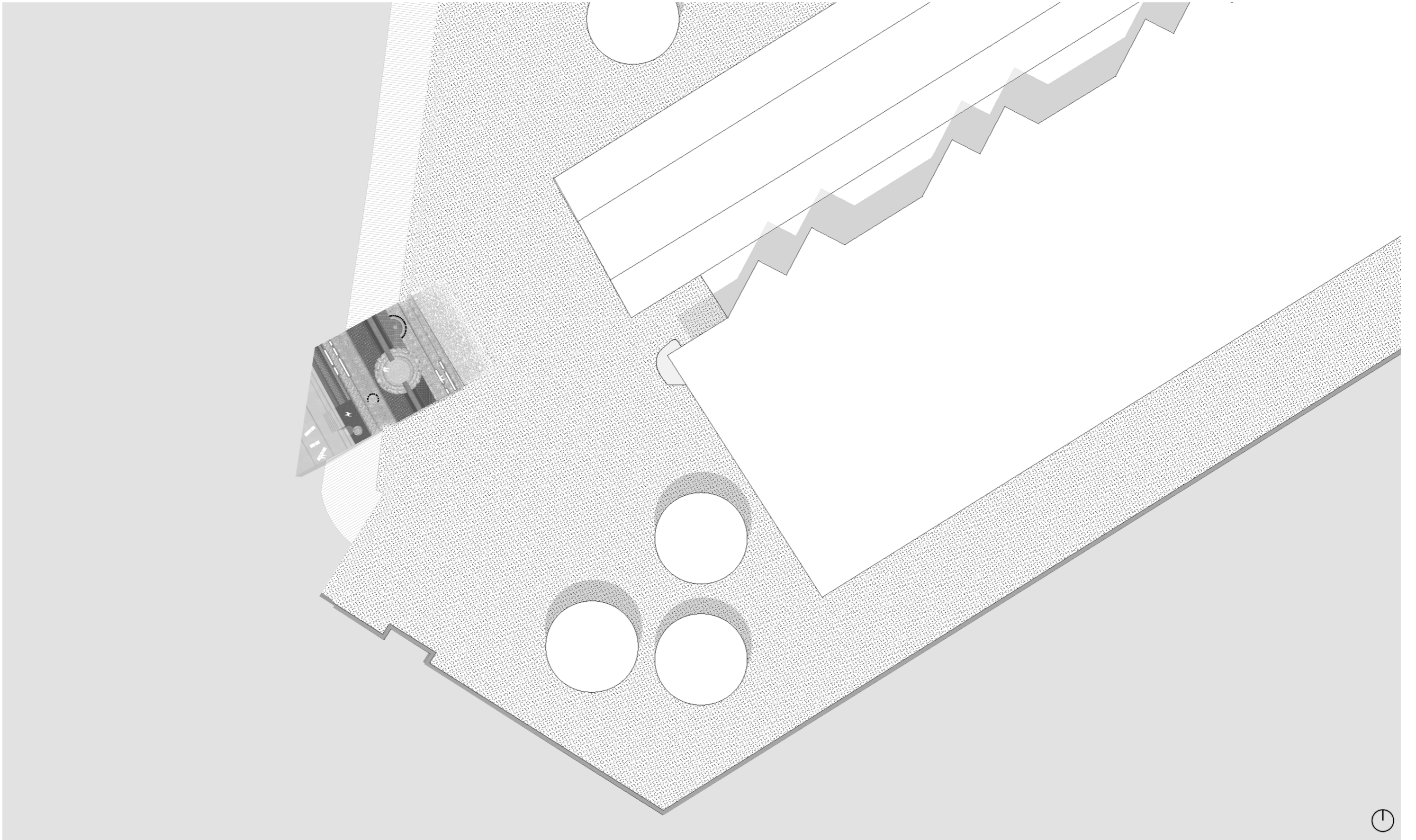


5 Extra option; sand and polish the terrazzo

## Making process of terrazzo

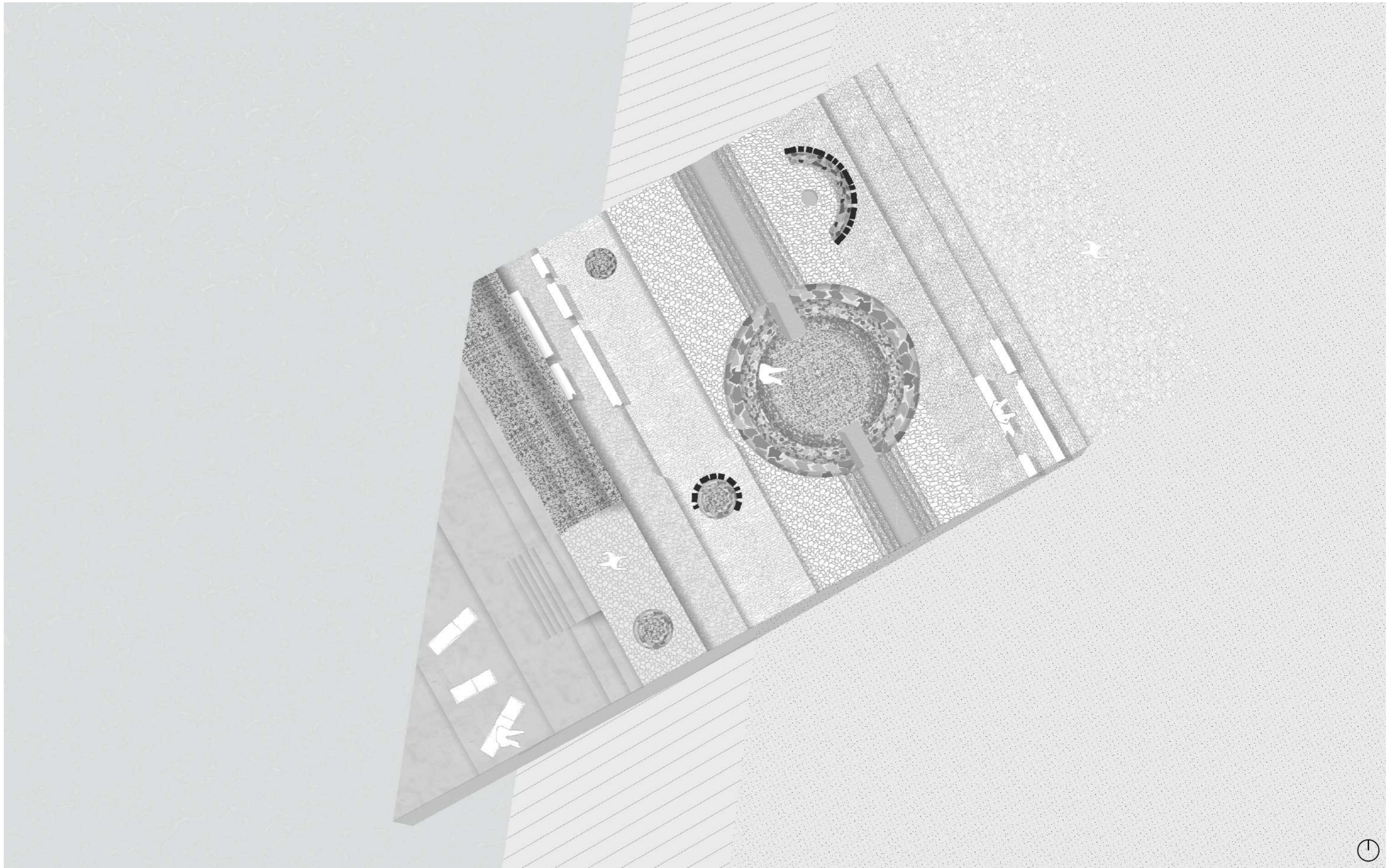
Showing the different kinds of pavement that are going to be involved in the pavilion and the process of how terrazzo is made.





Site scale 1:500

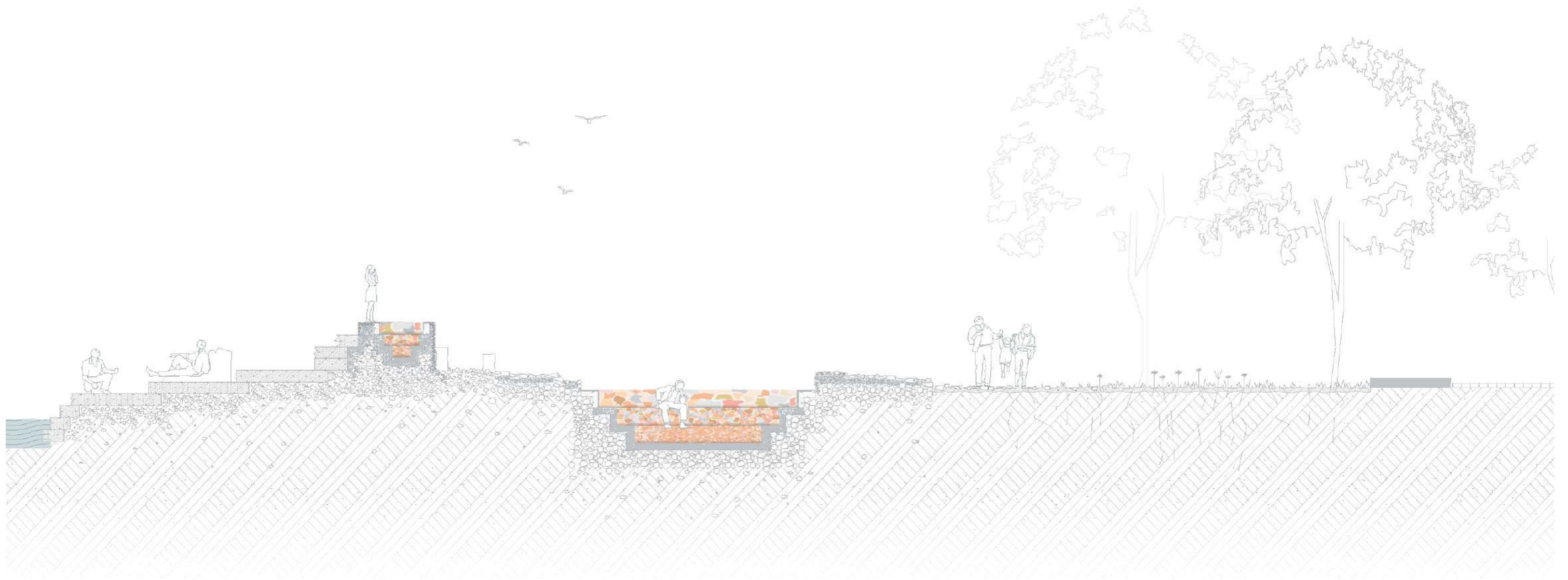




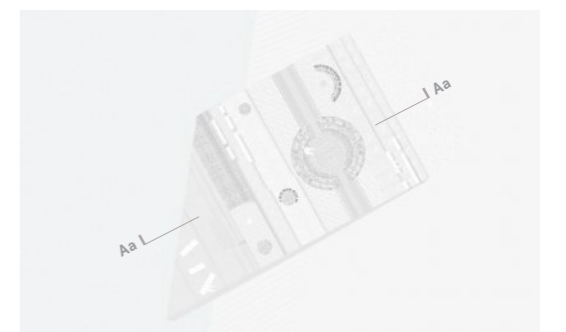
Plan scale 1:100

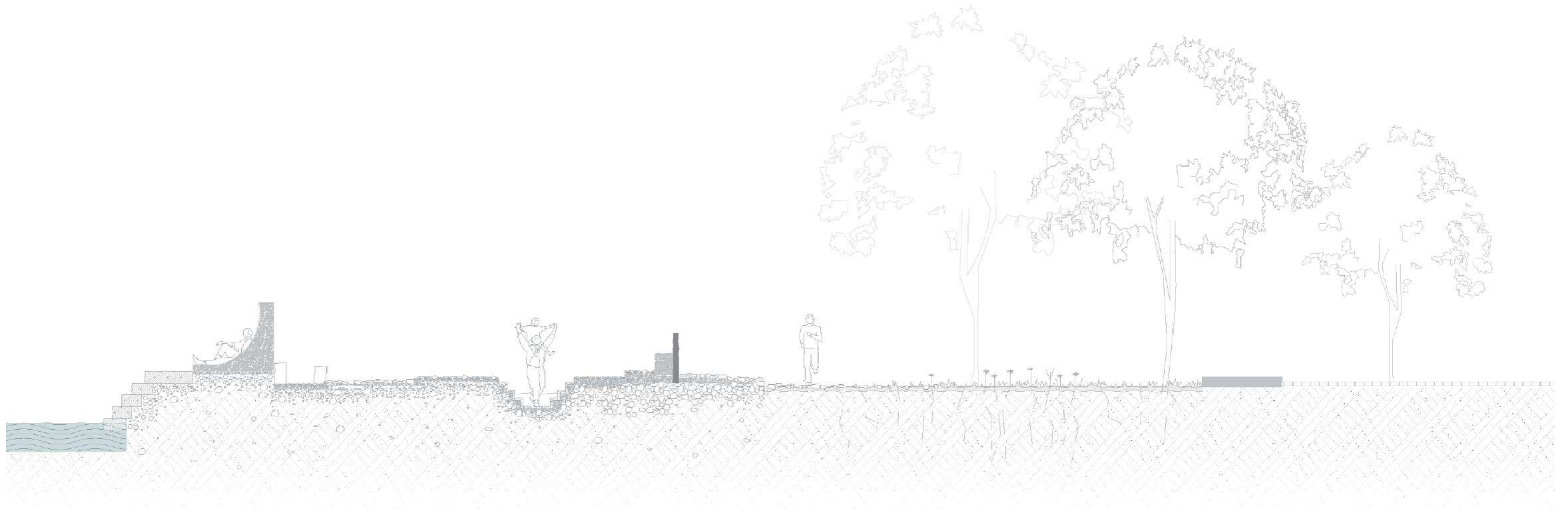




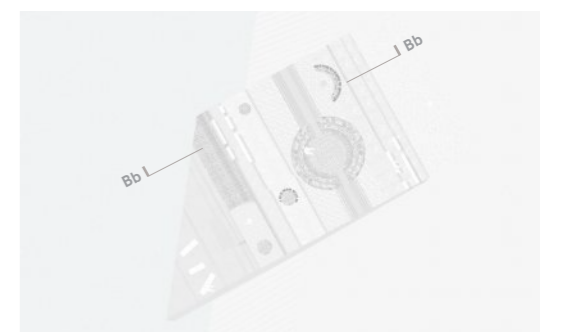


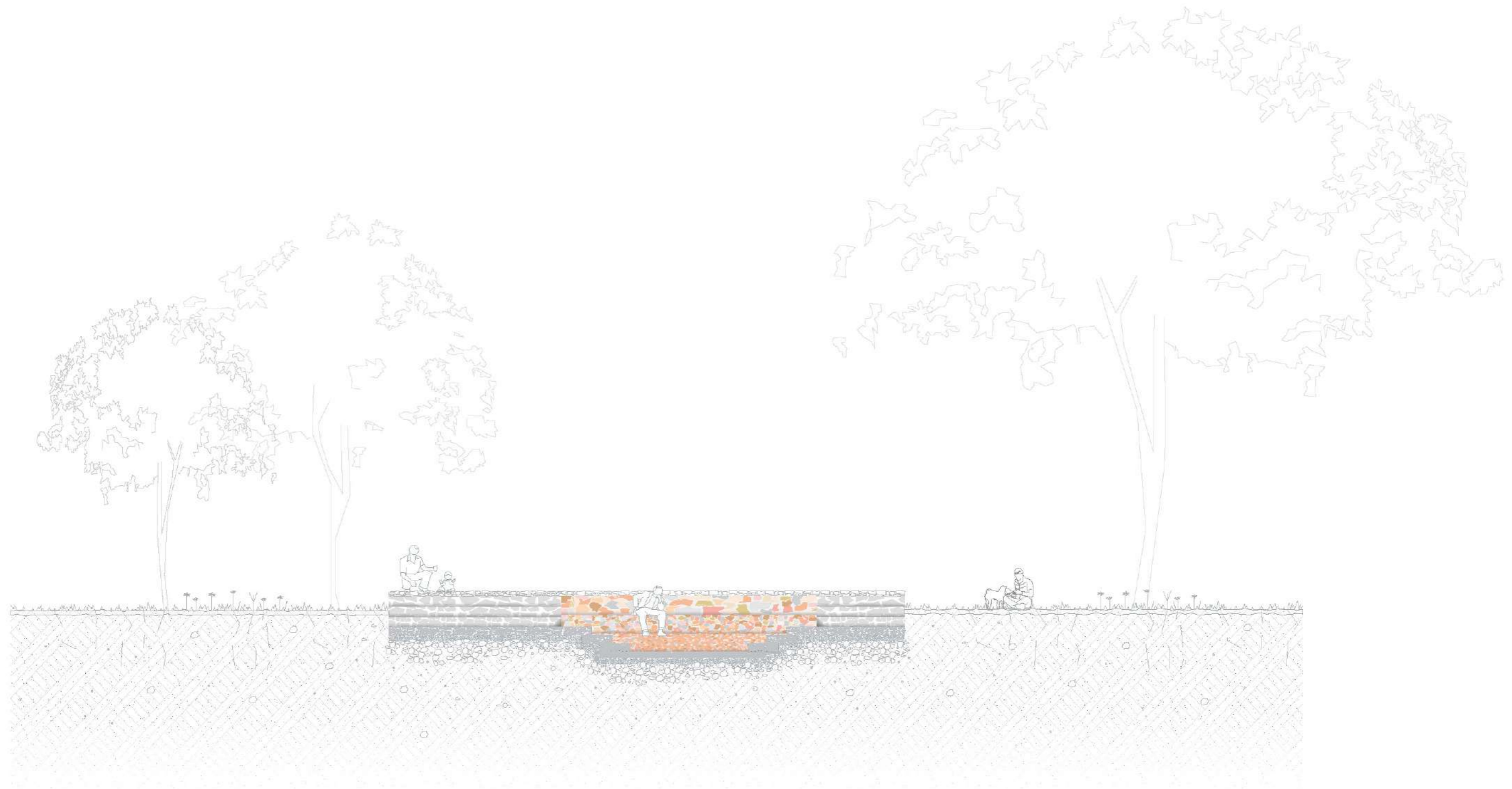
Section Aa scale 1:100



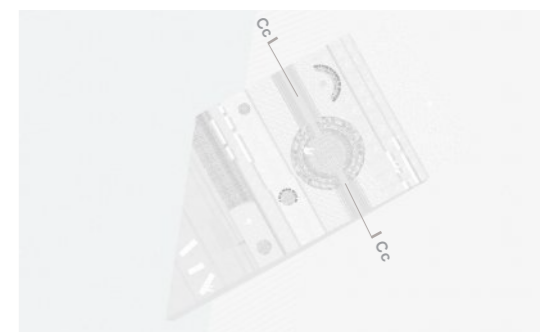


Section Bb scale 1:100

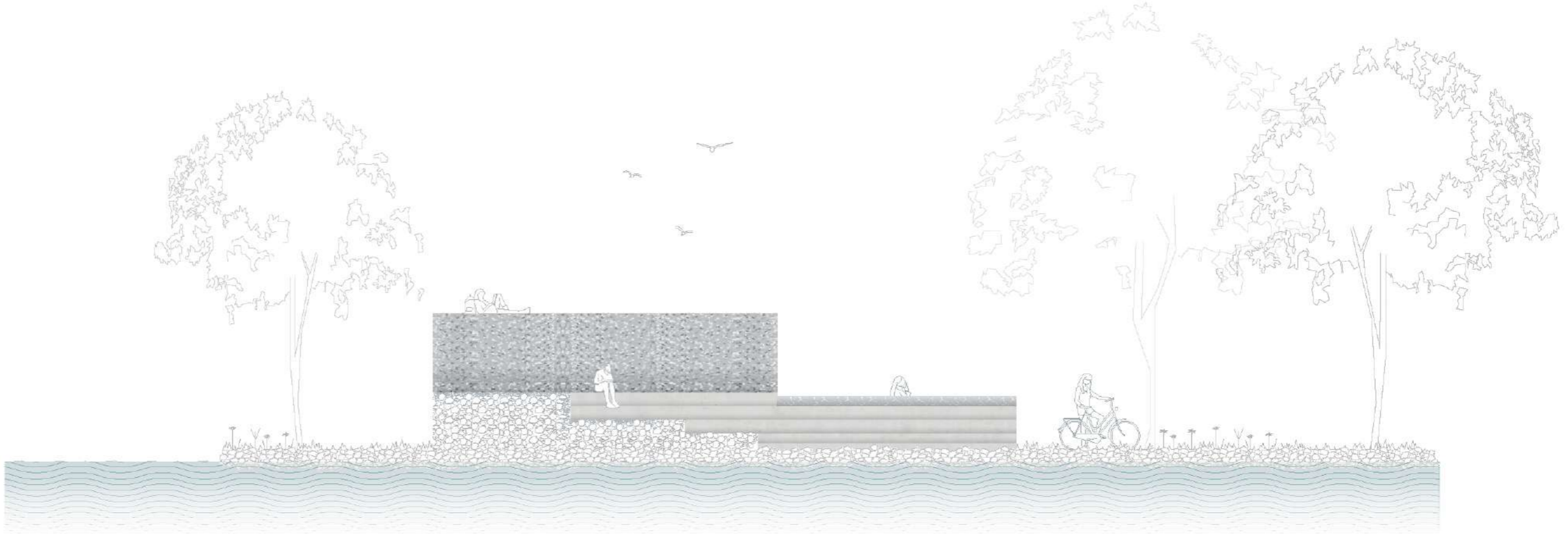




Section Cc scale 1:100





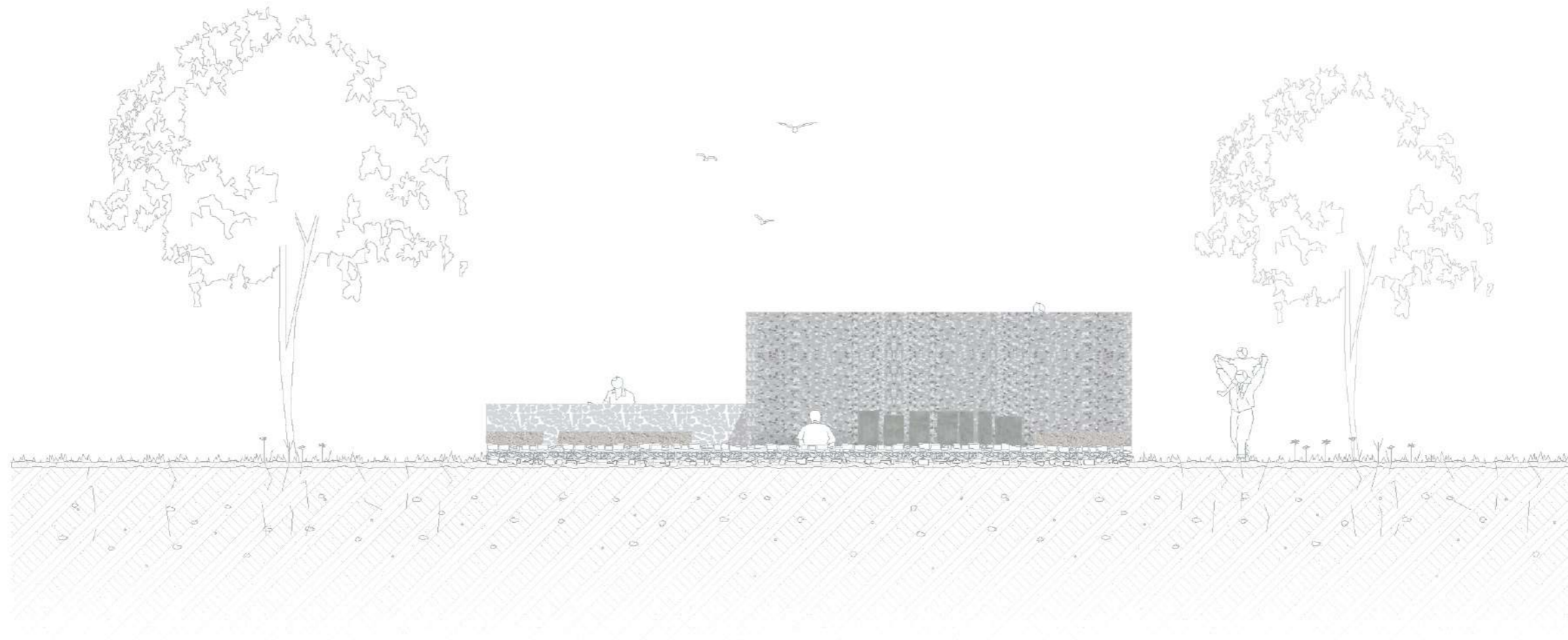


Elevation west scale 1:100





Elevation north scale 1:100



Elevation east scale 1:100



Elevation south scale 1:100

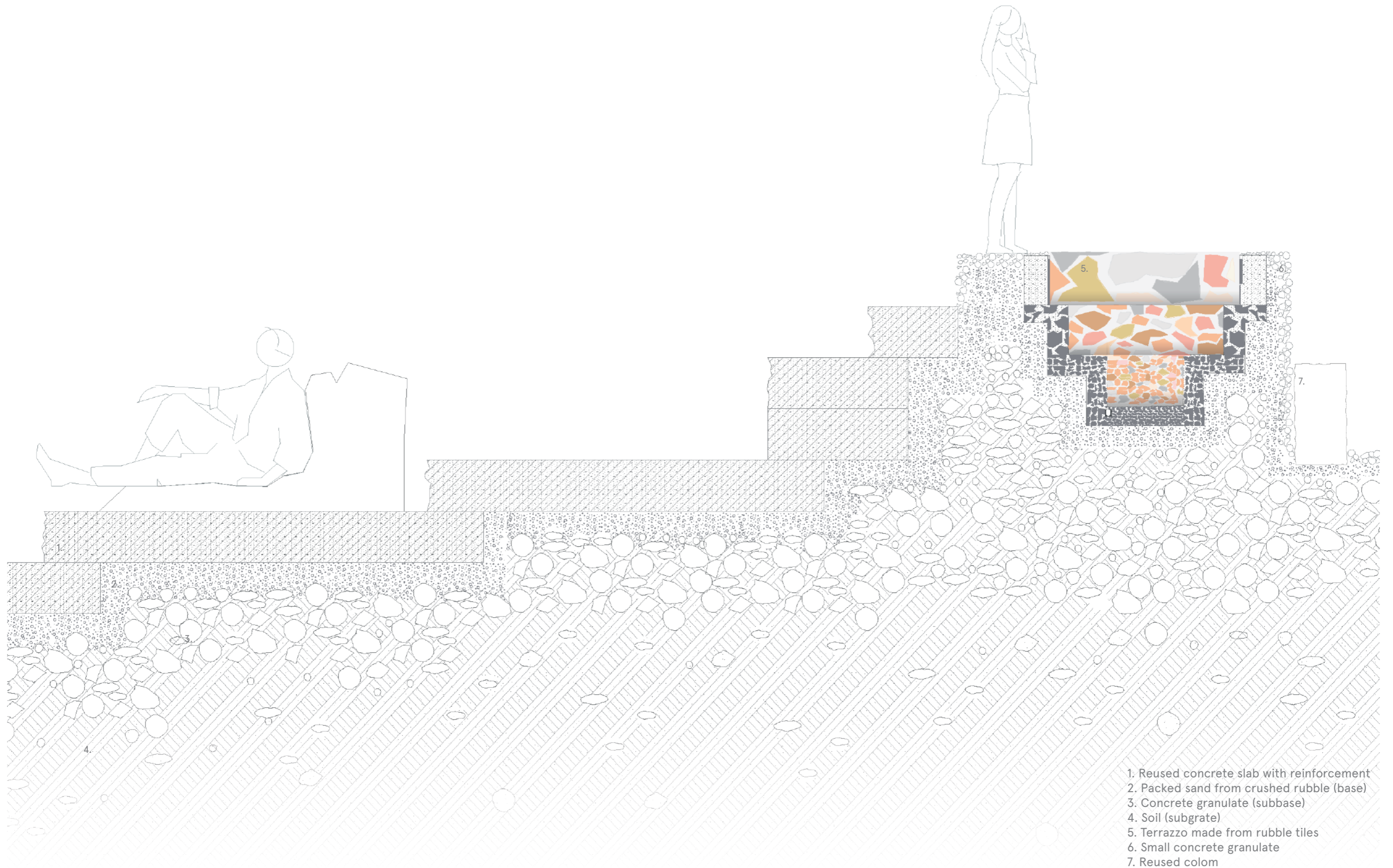




Plan scale 1:20

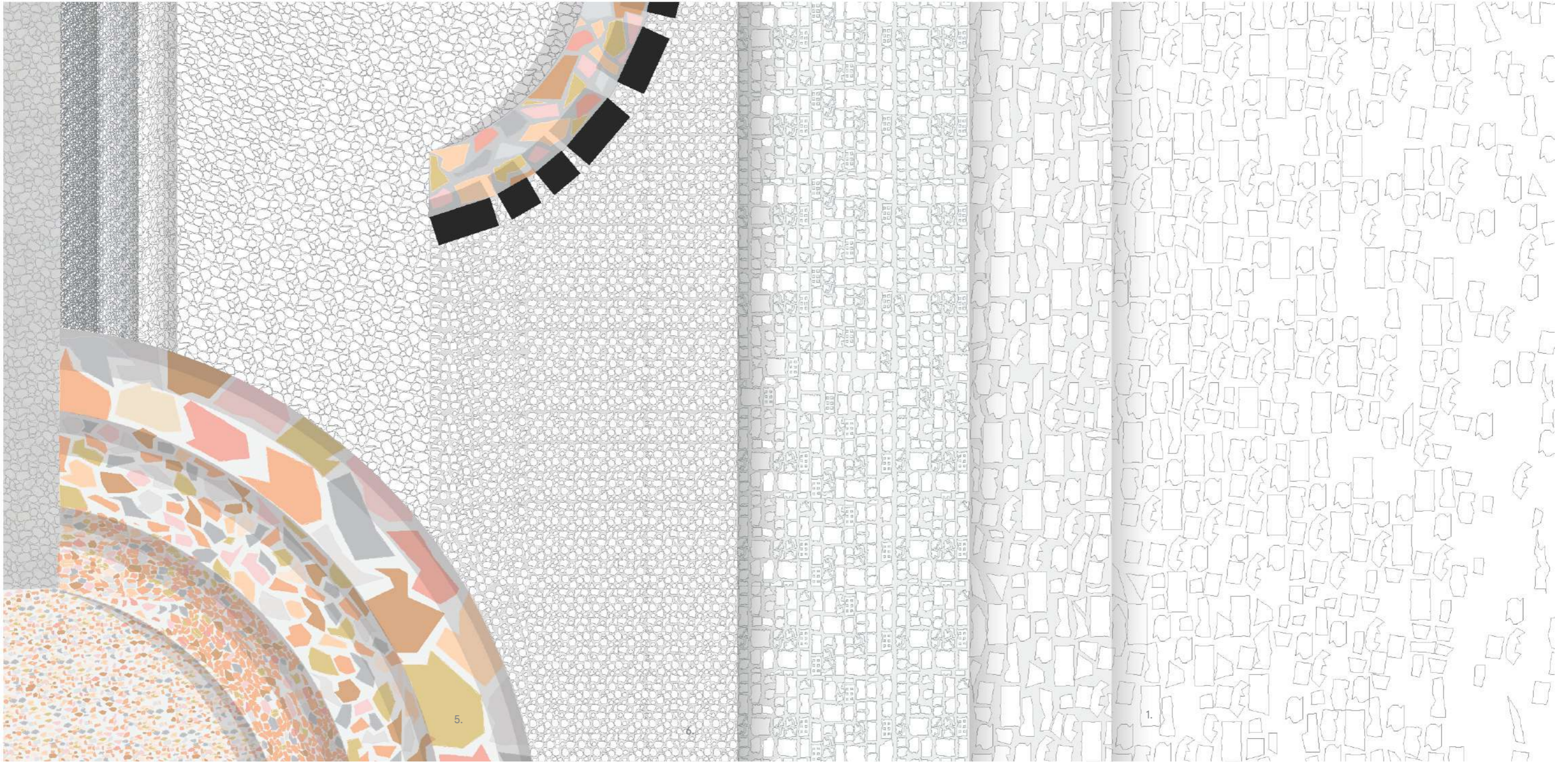






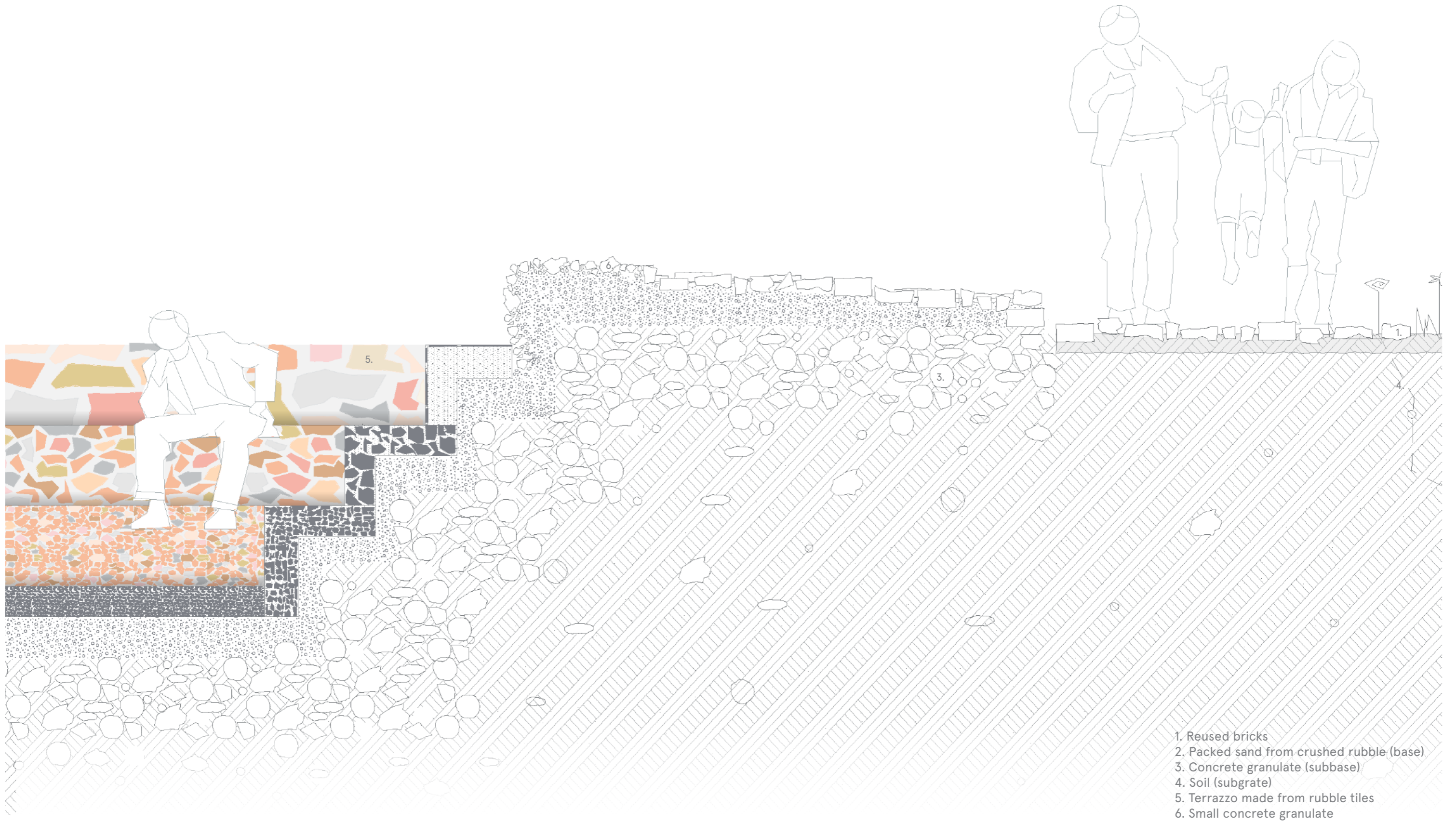
Section scale 1:20





Plan scale 1:20





Section scale 1:20



Model photo scale 1:20



**Model photo scale 1:20**





**Model photo scale 1:20**





**Model photo scale 1:20**



**Model photo scale 1:20**



**Model photo scale 1:20**





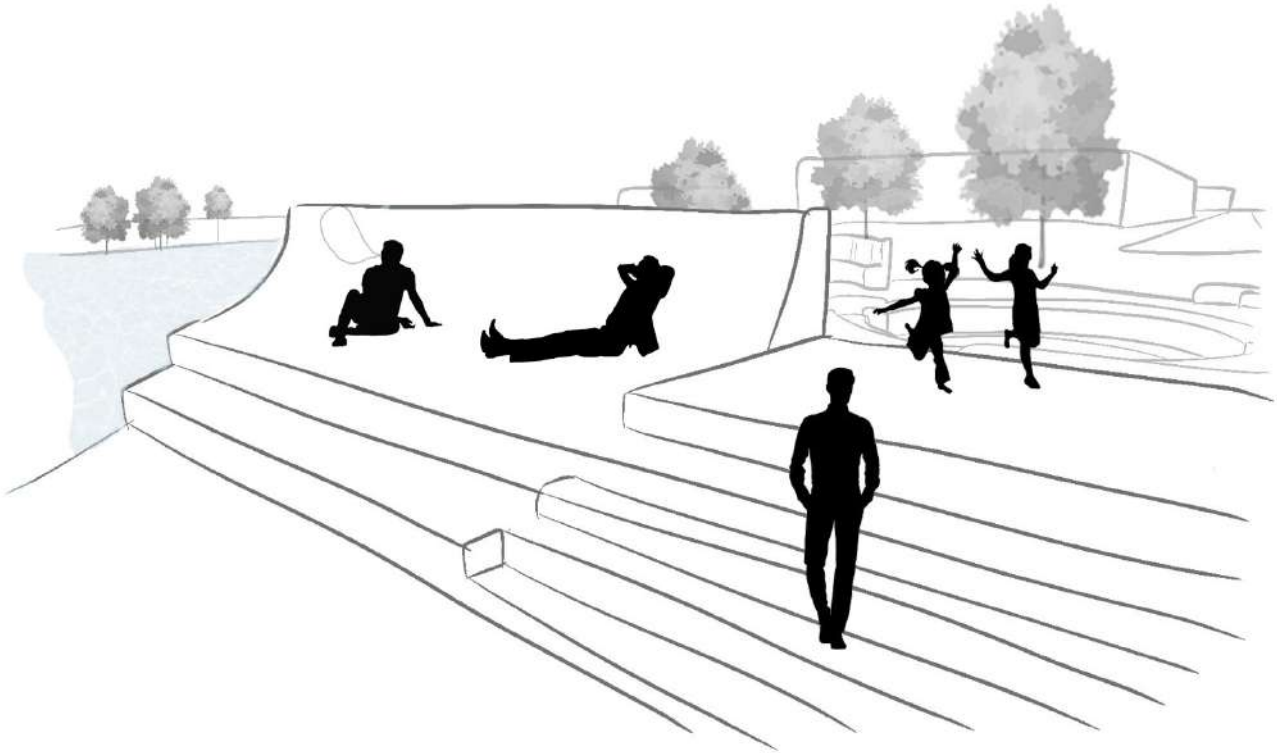
### **Axonometry**

Showing the pavilion pulls people towards the water in axonometrie.



### Collage

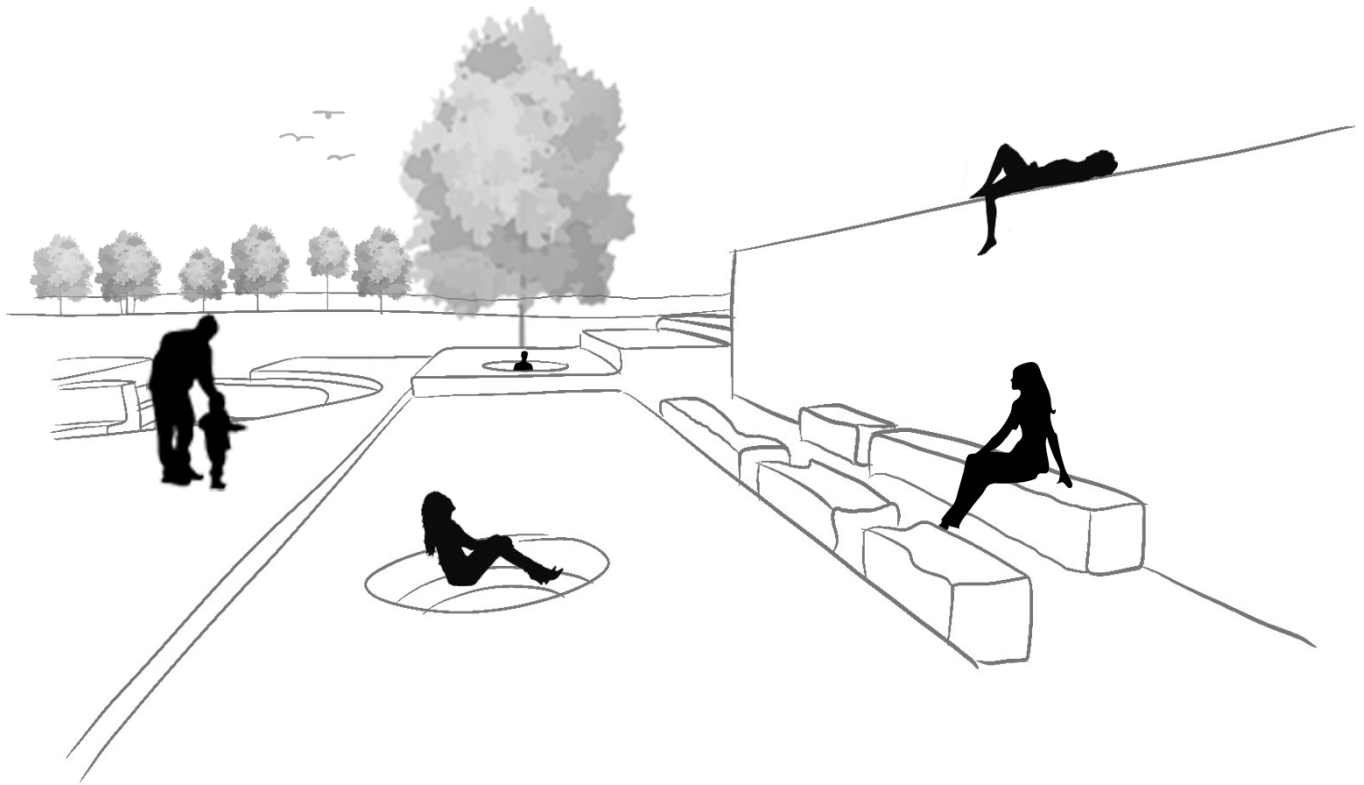
Showing the pavilion standing on it facing te road to the city centre of Rotterdam.



1.

Showing the part of the pavilion that is inspired on a skate half pipe. The terrazzo piece will be heated by the sun and nice to feel the heat coming from it.





2.

Showing the part of the pavilion that is equipped with the reused columns, which is functioning as sitting elements.



3.

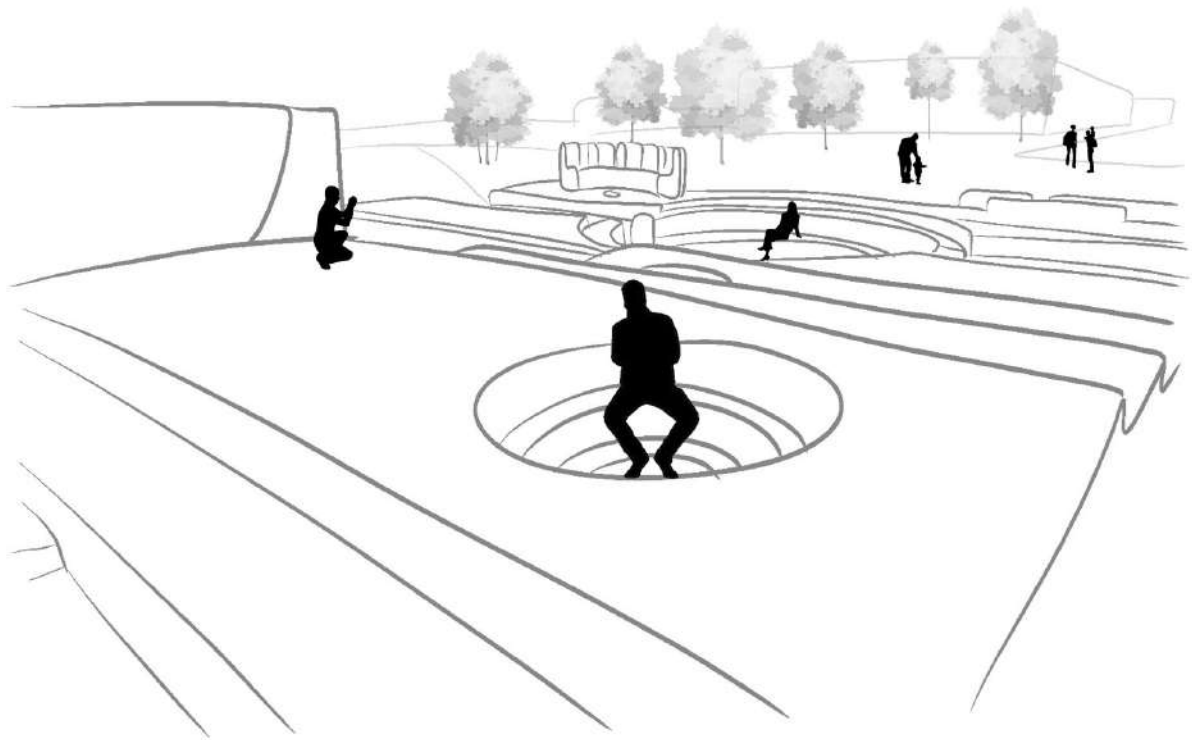
Showing the rubble couch that is inspired on a sitting pit by Aldo van Eyck. It contains pieces of walls and a terrazzo concrete sitting area.



4.

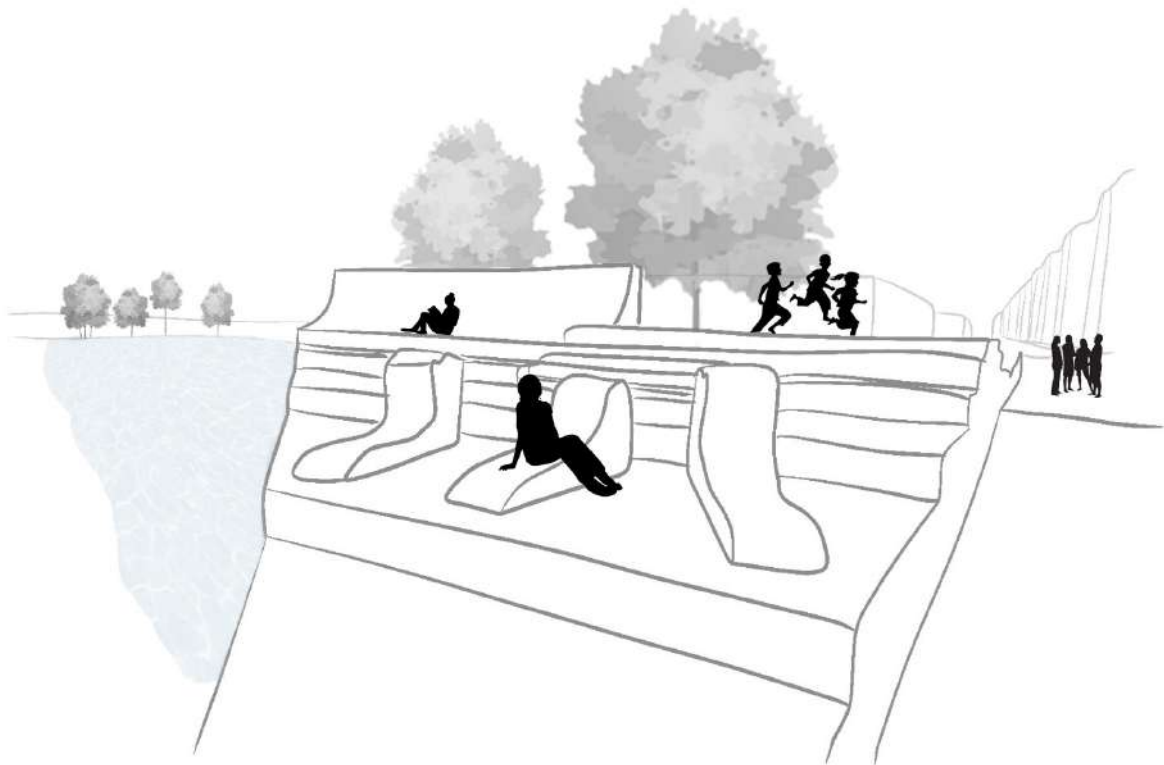
Showing the big sitting pit and meeting point of the pavilion. The pit consist of terrazzo that is going from big to fine as you walk down.





5.

Showing the personal sitting pit. The pavilion also had a few personal sitting pits where you can relax and chill alone or with someone.



6.

Showing the part of the pavilion that consist of reused concrete slabs and faces the RDM and harbors across the Nieuwe Maas. There are also sun chair which are made from old columes and adparted to chairs.



### Collage

Showing the pavilion facing RDM and the harbor. From the land to the water - transition zone.