

t u r s a s



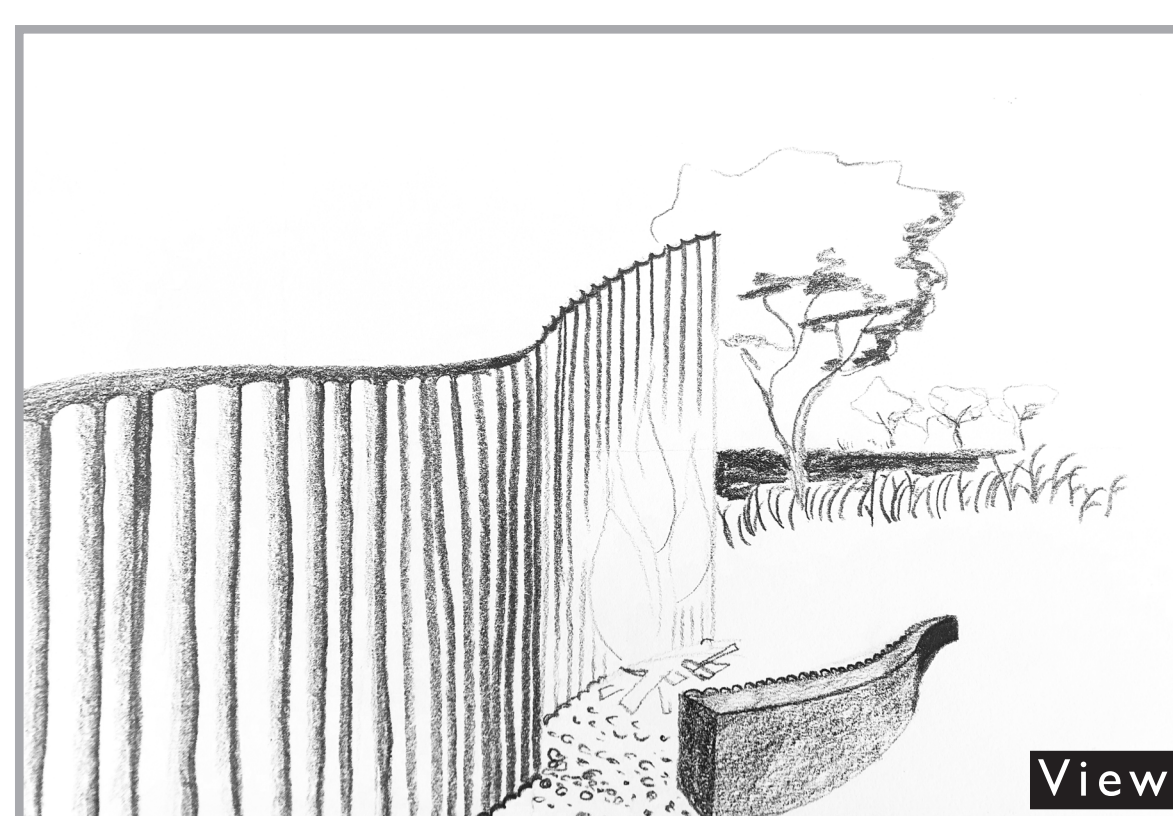
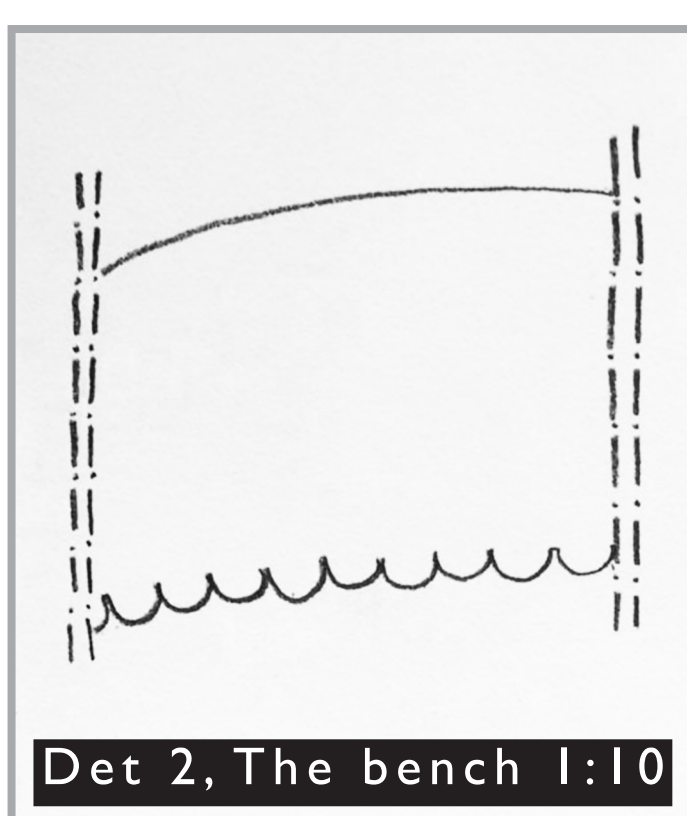
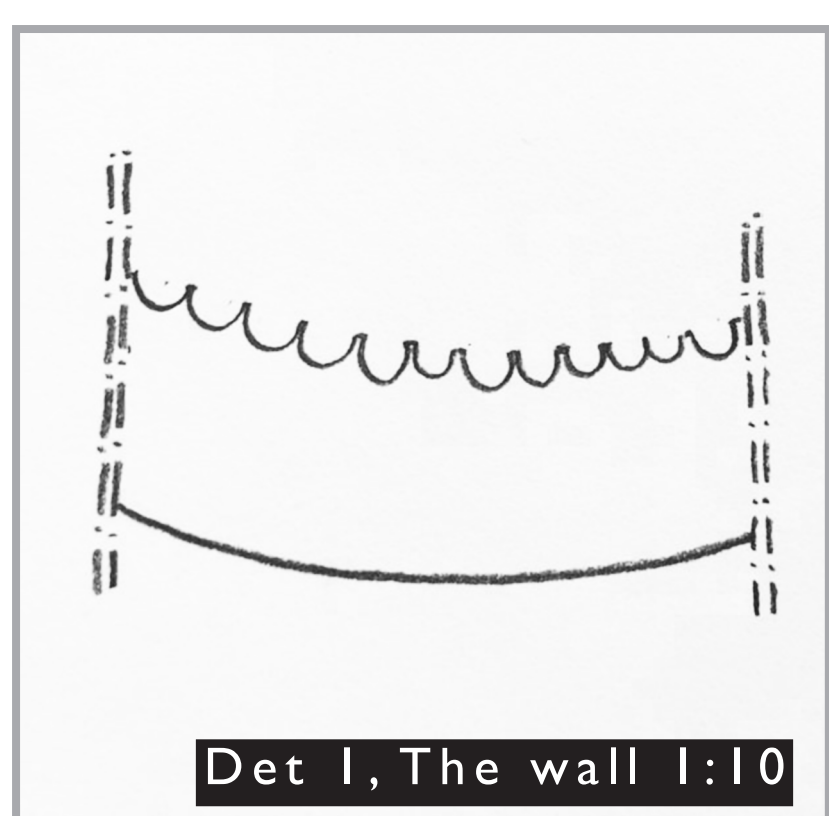
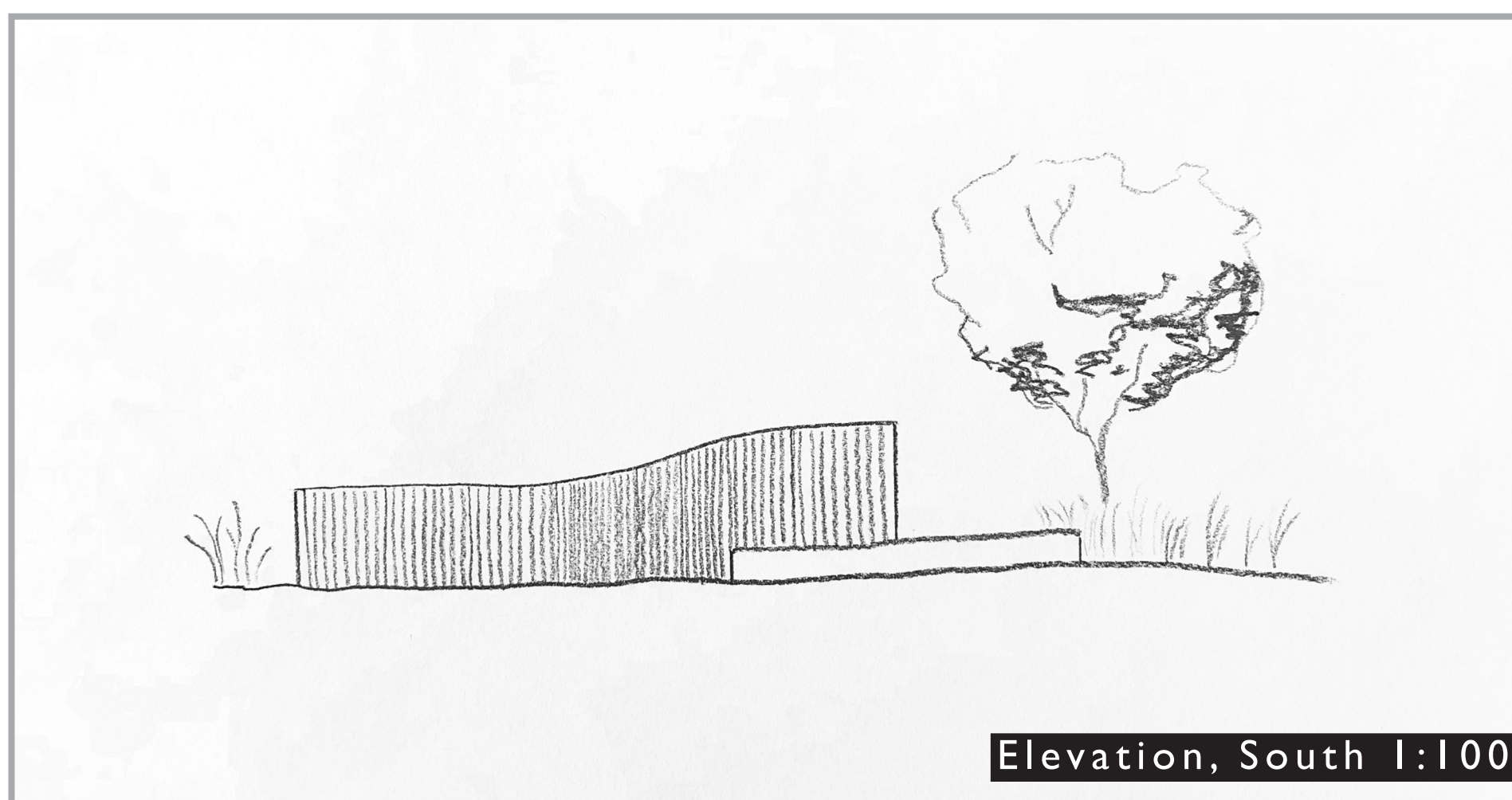
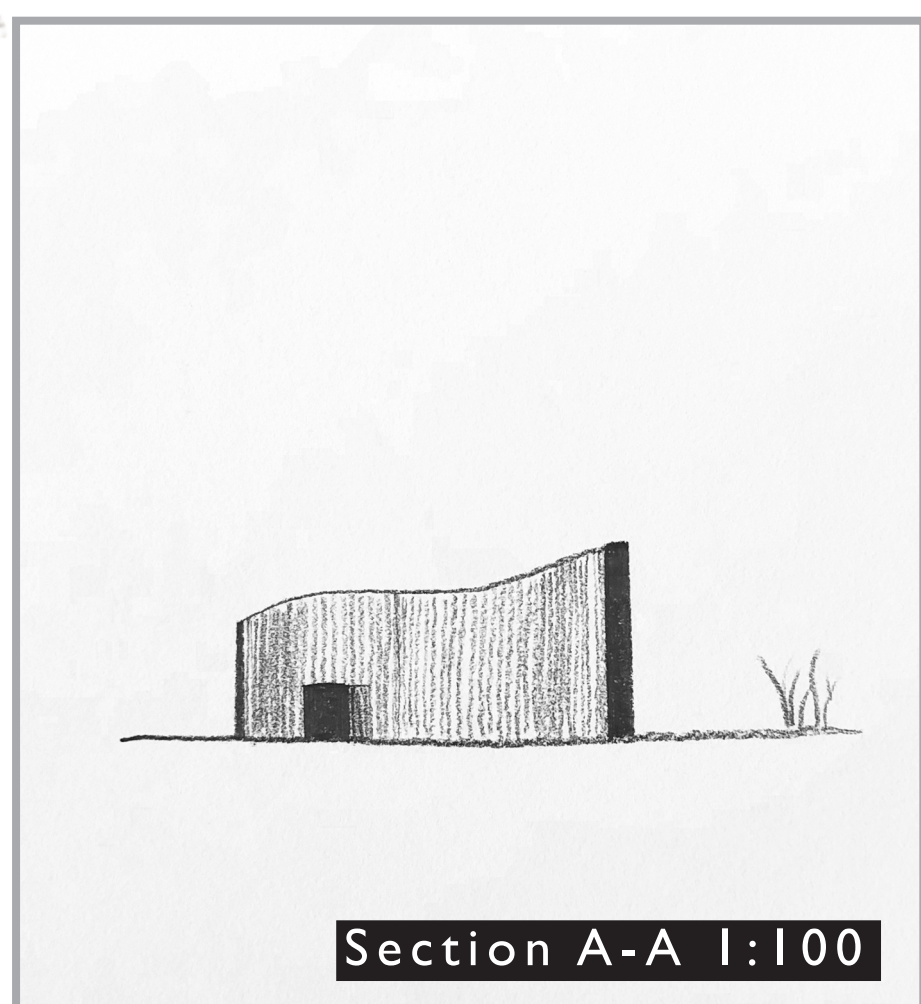
Tursas is a fireplace located to the southern side of Ossinlampi, Otaniemi. It is formed of two free, simple shapes that compliment each other. A wall and a bench. The surface textures would fit together if re-placed. The shapes of the elements have come from the forms of Ossinlampi, the wall-like taller mass frames the view to the lake by hiding the building masses behind itself from the viewer who sits on the lower shape. There is a floor between the two shapes, made of small stones.

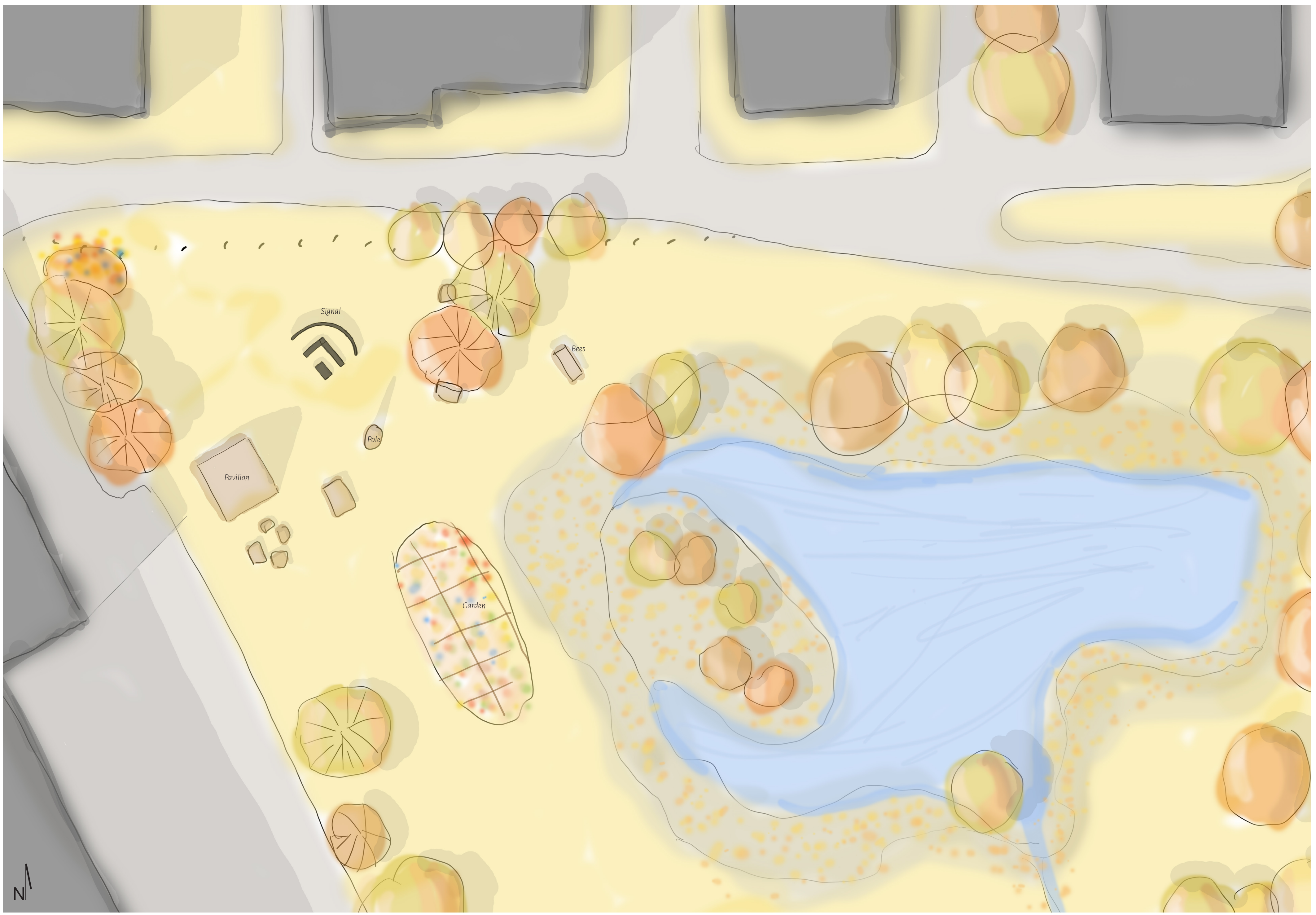
THE WALL

The wall is rammed earth and made of red clay that takes its colour from the surrounding brick buildings. The mold of the wall from the side of the bench is made of young tree trunks, and when the wall has dried, the tree trunks are burned away to give the wall a characteristic look of the fireplace. The actual fireplace is on the curve of the wall.

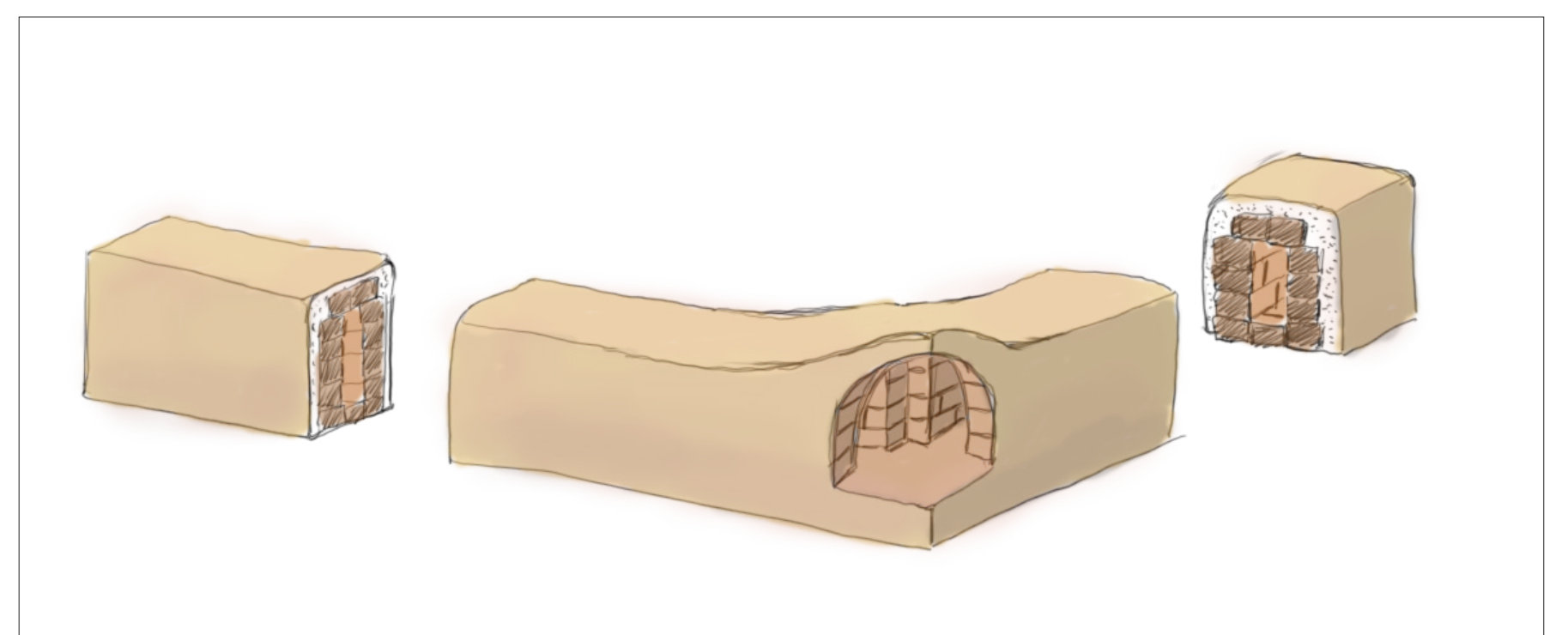
THE BENCH

The bench is carved by hand. The pipe-like structure from the wall-side gains a soft look this way, that is in contrast with the ruff, burned wall. The color of the bench is light gray to inspire people to sit without getting their clothes dirty.

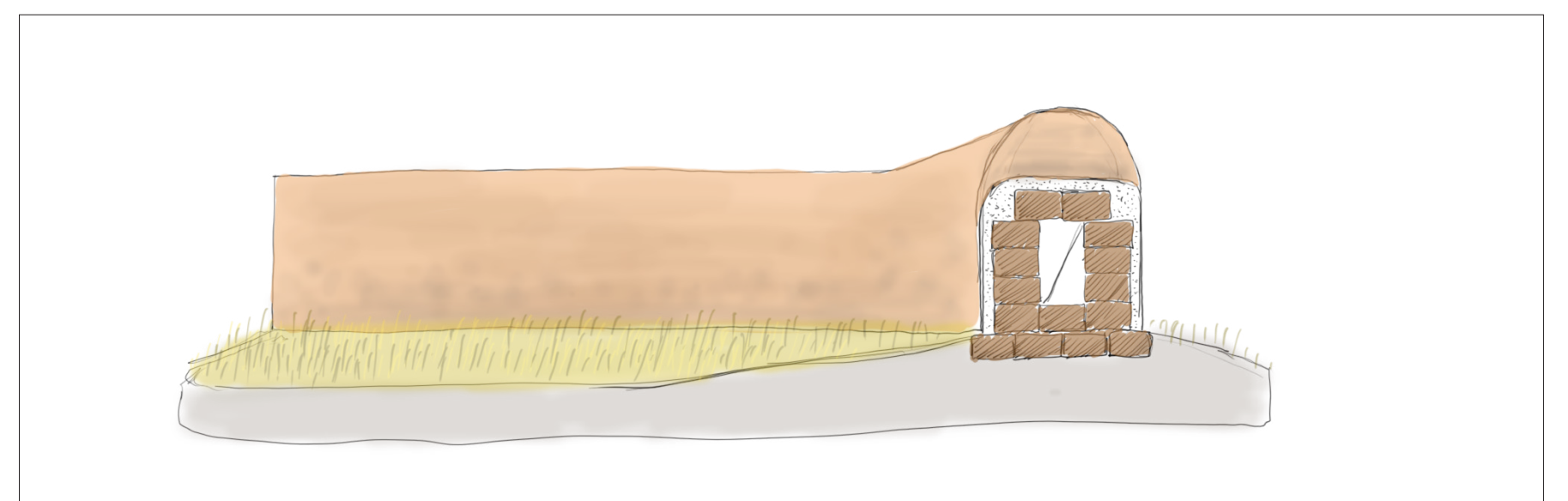




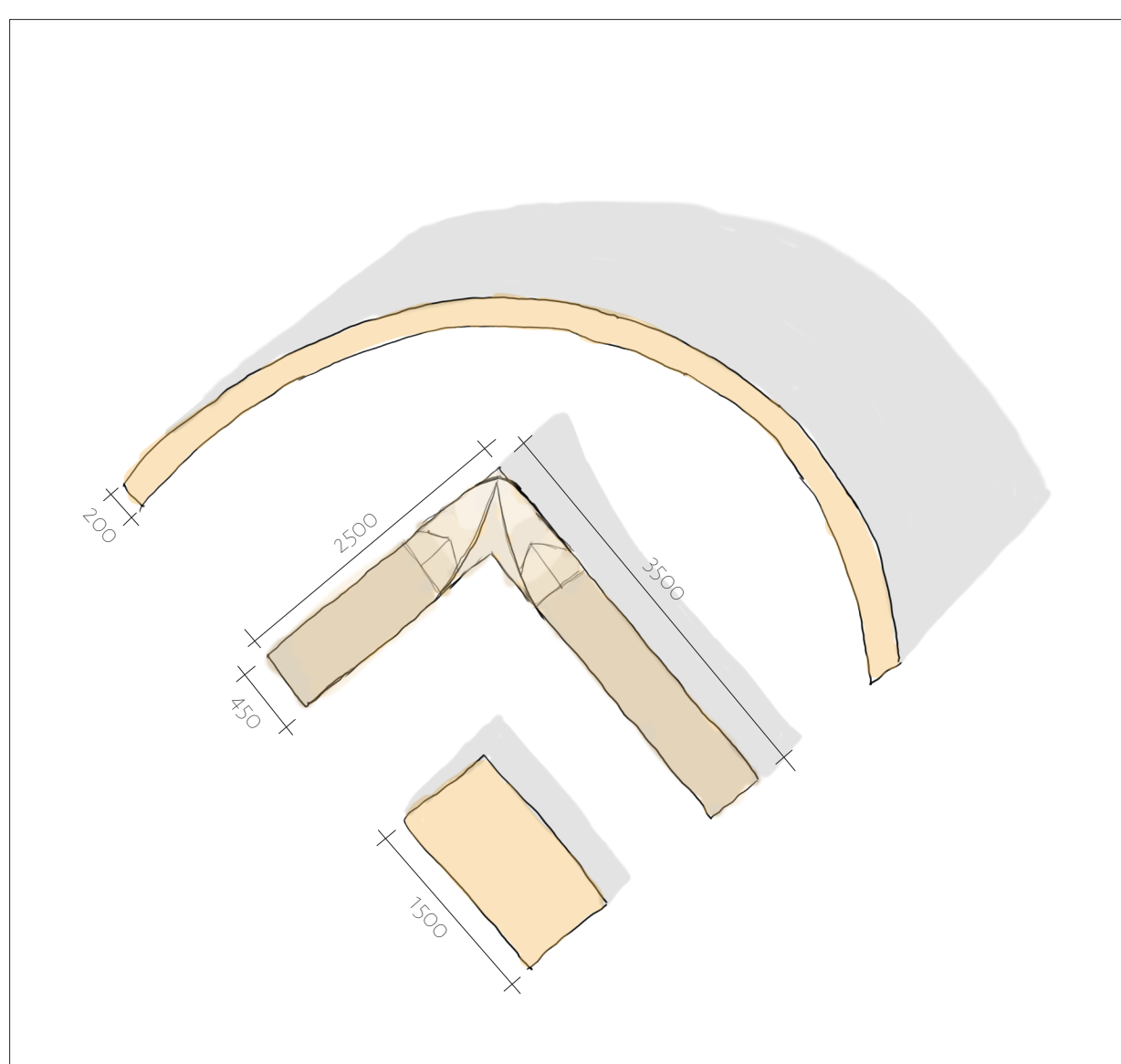
The Signal



Air ventilation core



1:20, Section



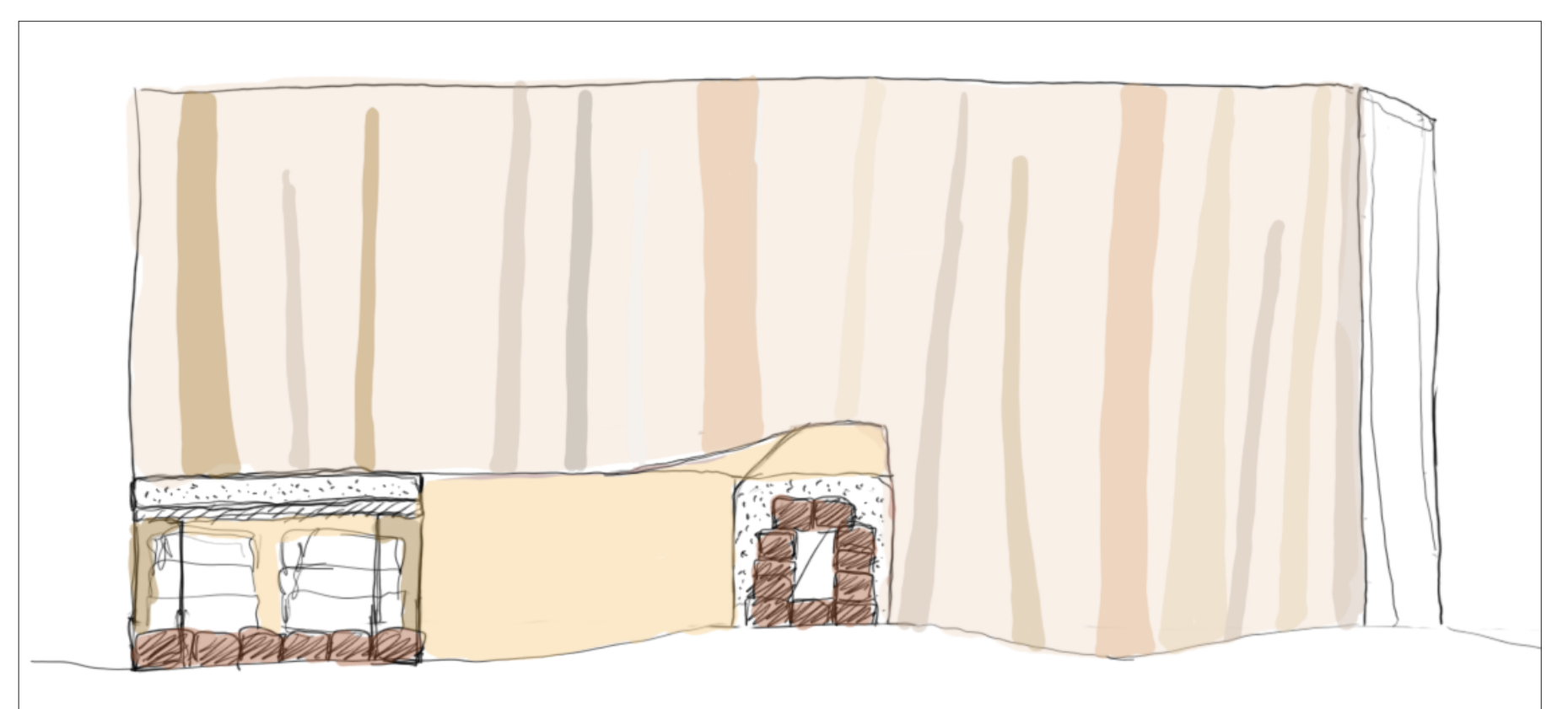
1:20, Plan

The new gathering point

The Signal is the new gathering spot for the Otalampi test site. It is located to the northern side of the existing structures and adds a new boundary corner for the area. Facing the actual site and Ossinlampi, it is the perfect place to observe the happenings of the area.

Signal consists three parts: the center block made from adobe which under the firewood can be stored and top used as a small table. The middle part, the actual seating and fire place and the outer most wall of rammed earth which offers some visual and wind cover. The fire light from the fire place is reflecting to the wall highlighting the different shades of earth creating living surfaces.

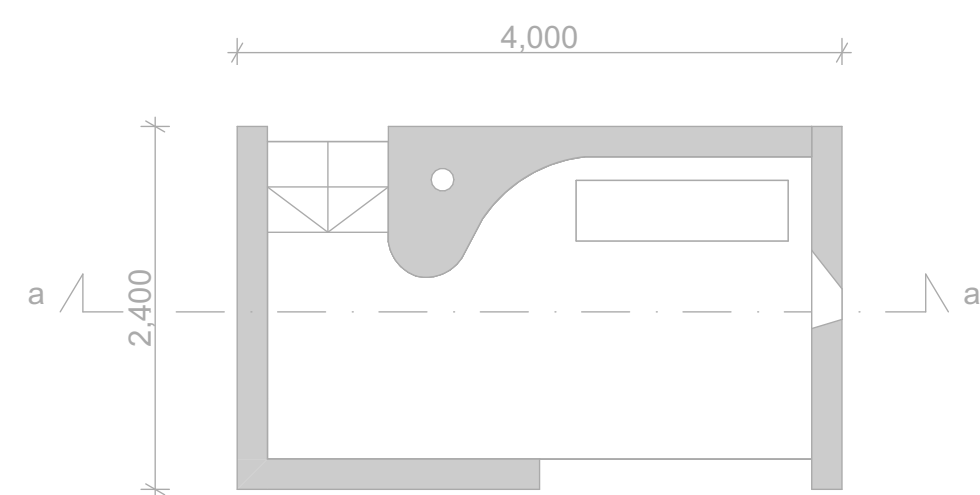
Signal's specialty is the brick core, which lets air ventilate through it warming up the seating on both sides. The seating is finished with clay with simple curves and tilted surfaces to let the water run off the surfaces.



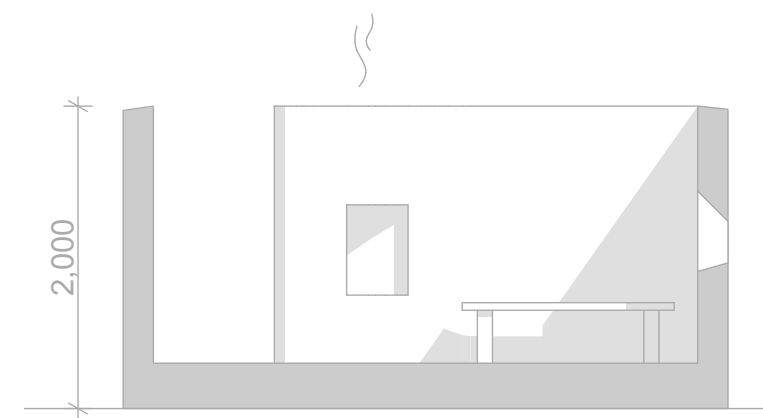
Section



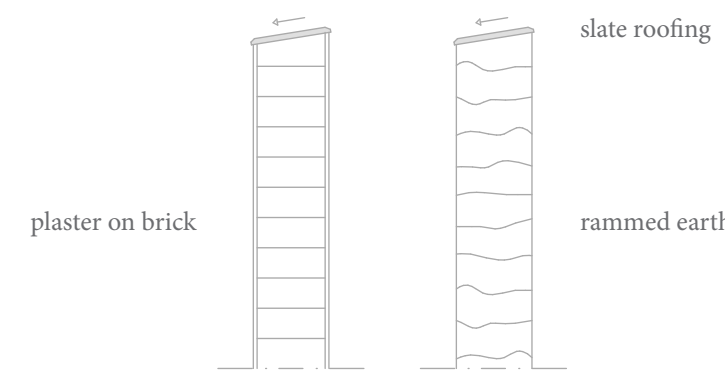
site plan 1:500



floor plan



section 1:50



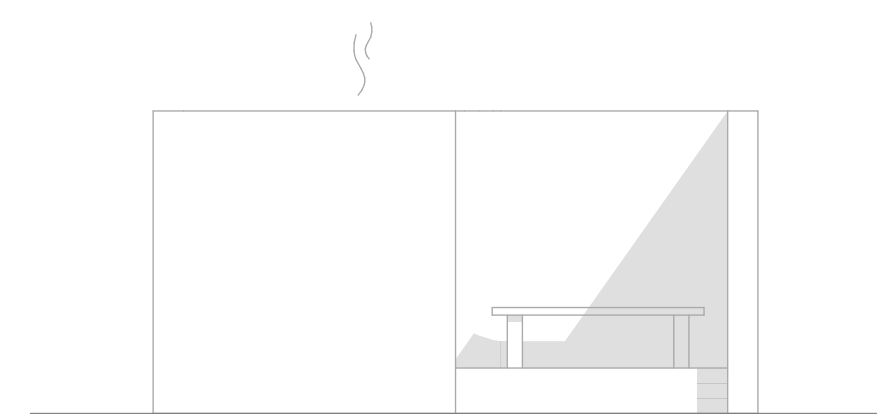
structures 1:20



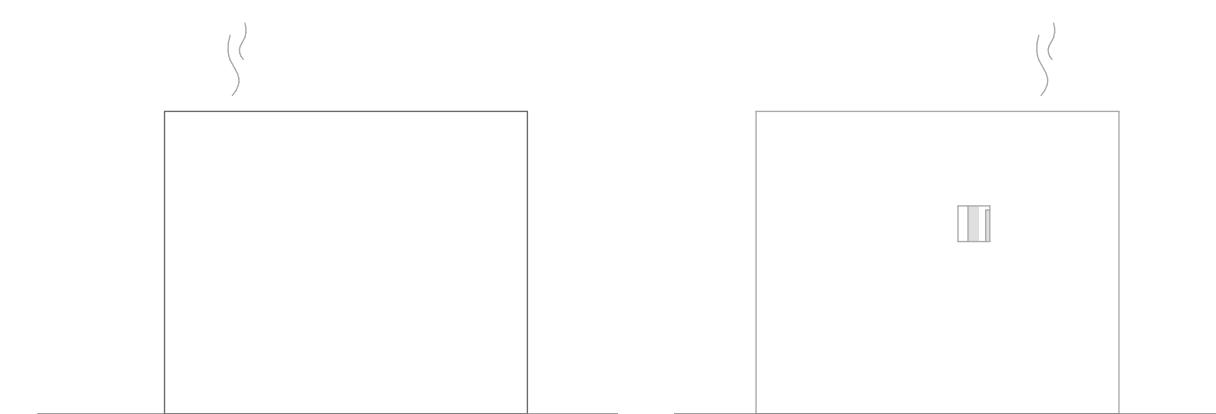
Experimental Earth House is a pavilion next to Ossinlampi in Otaniemi which is built by combining different methods of clay and earth materials. Each wall will be for example either rammed earth or clay brick walls covered with different clay plasters.

Every participant to the construction process will leave their own handprint on the pavilion for example on material selections or detailing the textures ect. which will give the pavilion an unique look.

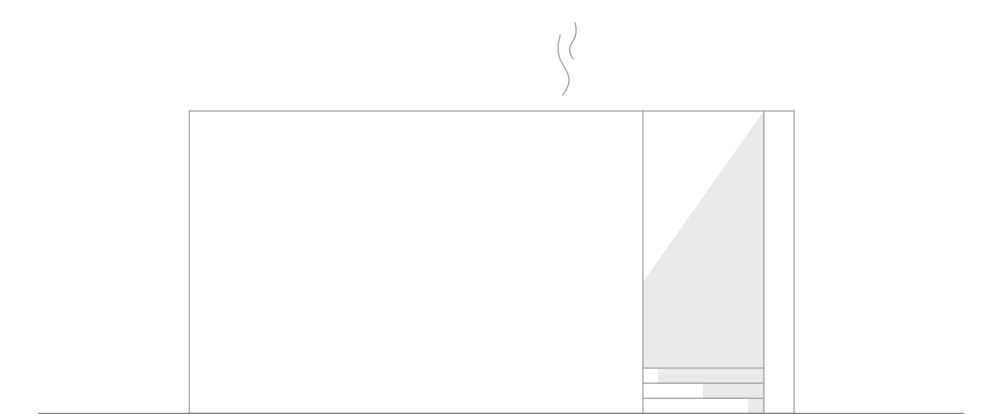
Pavilion is an experiment to see on practice how the different structures are built, what are their features and how they look and behave on outdoor circumstances.



lookout 1:50



sides 1:50



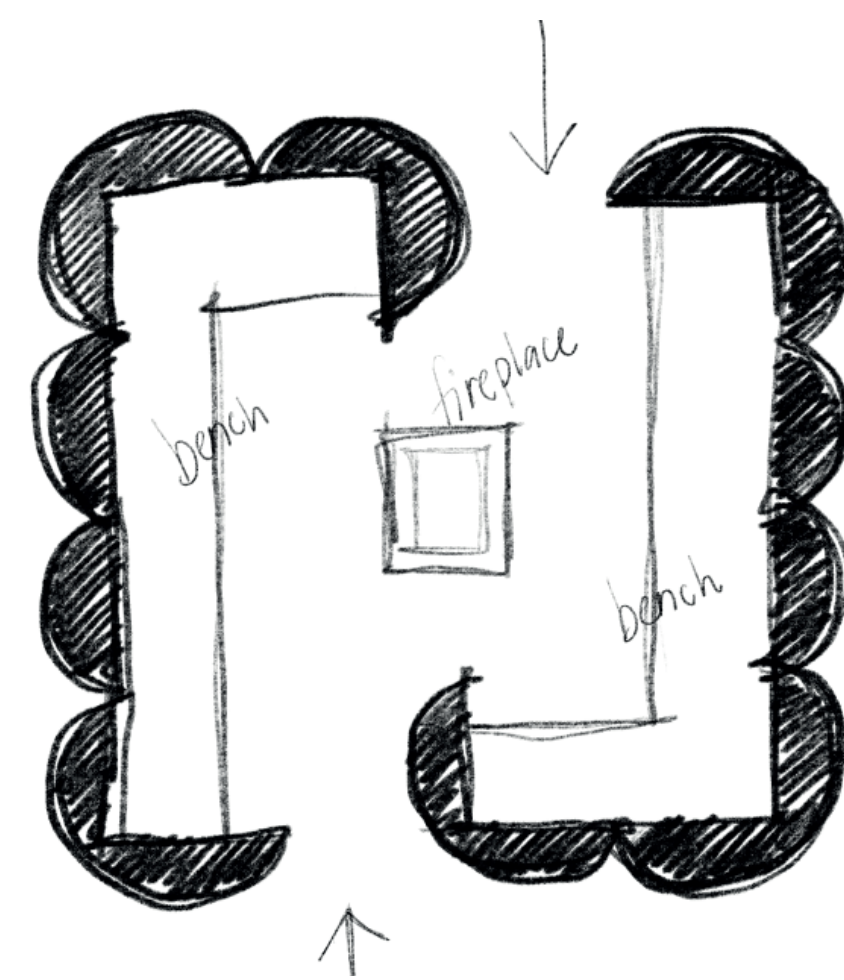
entrance 1:50



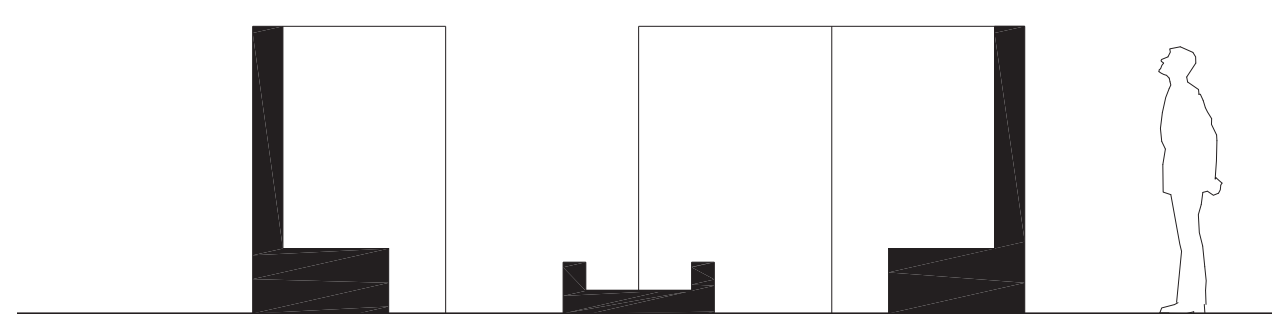
Site plan 1:500



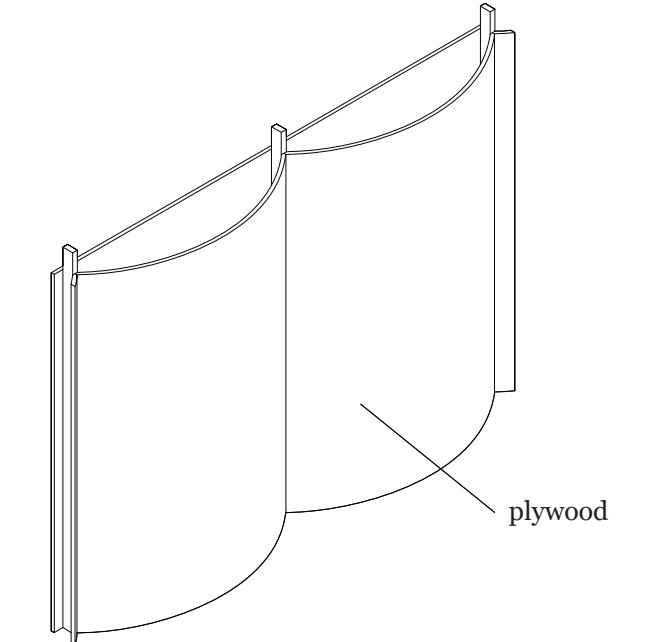
Wall texture



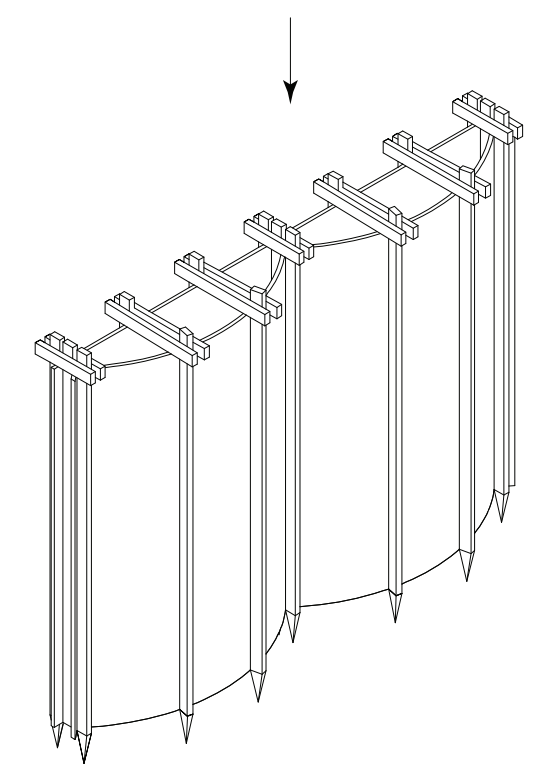
Floor plan 1:50



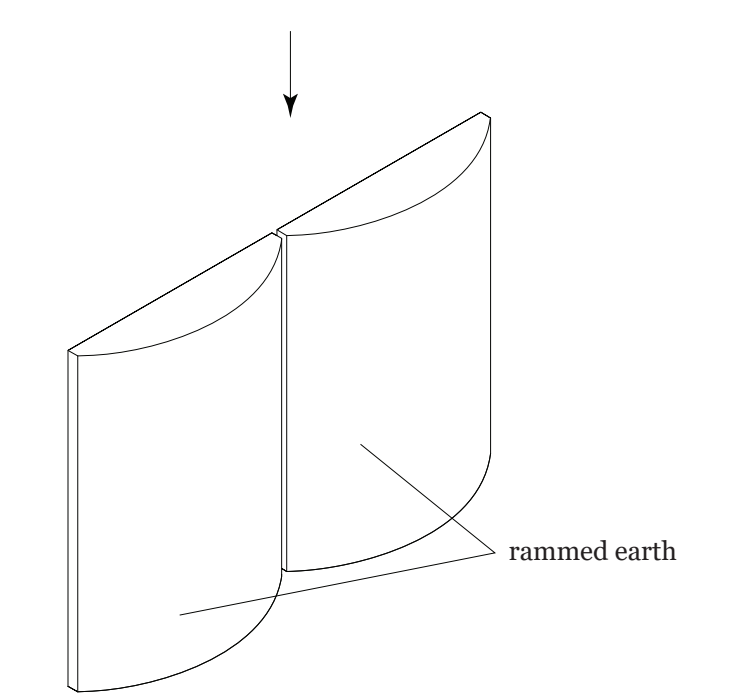
Section 1:50



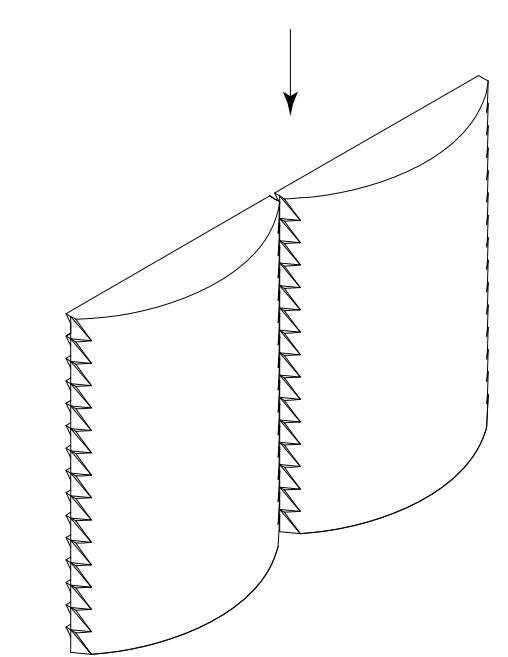
1. Surface formwork for rammed earth



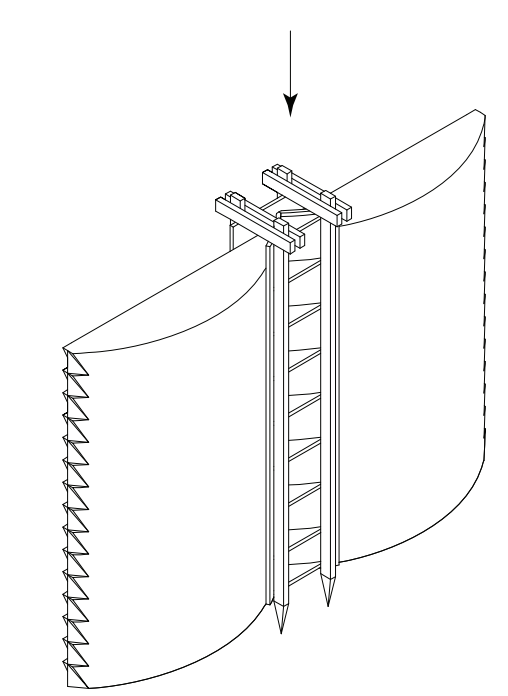
2. Support structure for surface mold



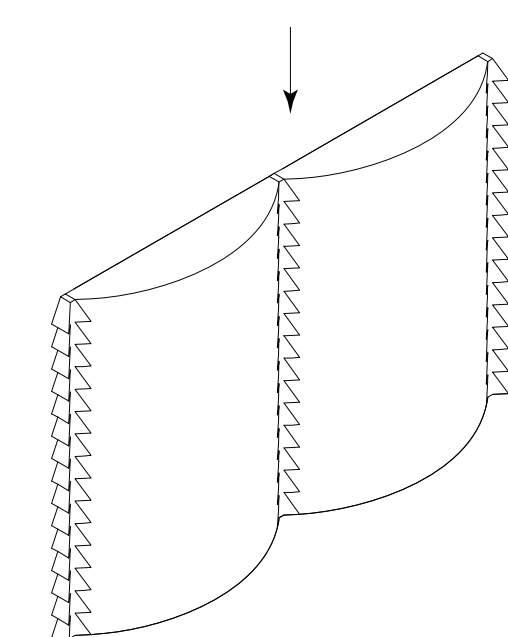
3. Finished rammed earth base wall



4. Engraved joint corners by hand tool



5. Mold for limestone (or other similar liquid material) cast



6. Finished wall: rammed earth between casted joint parts

Earth Pavilion

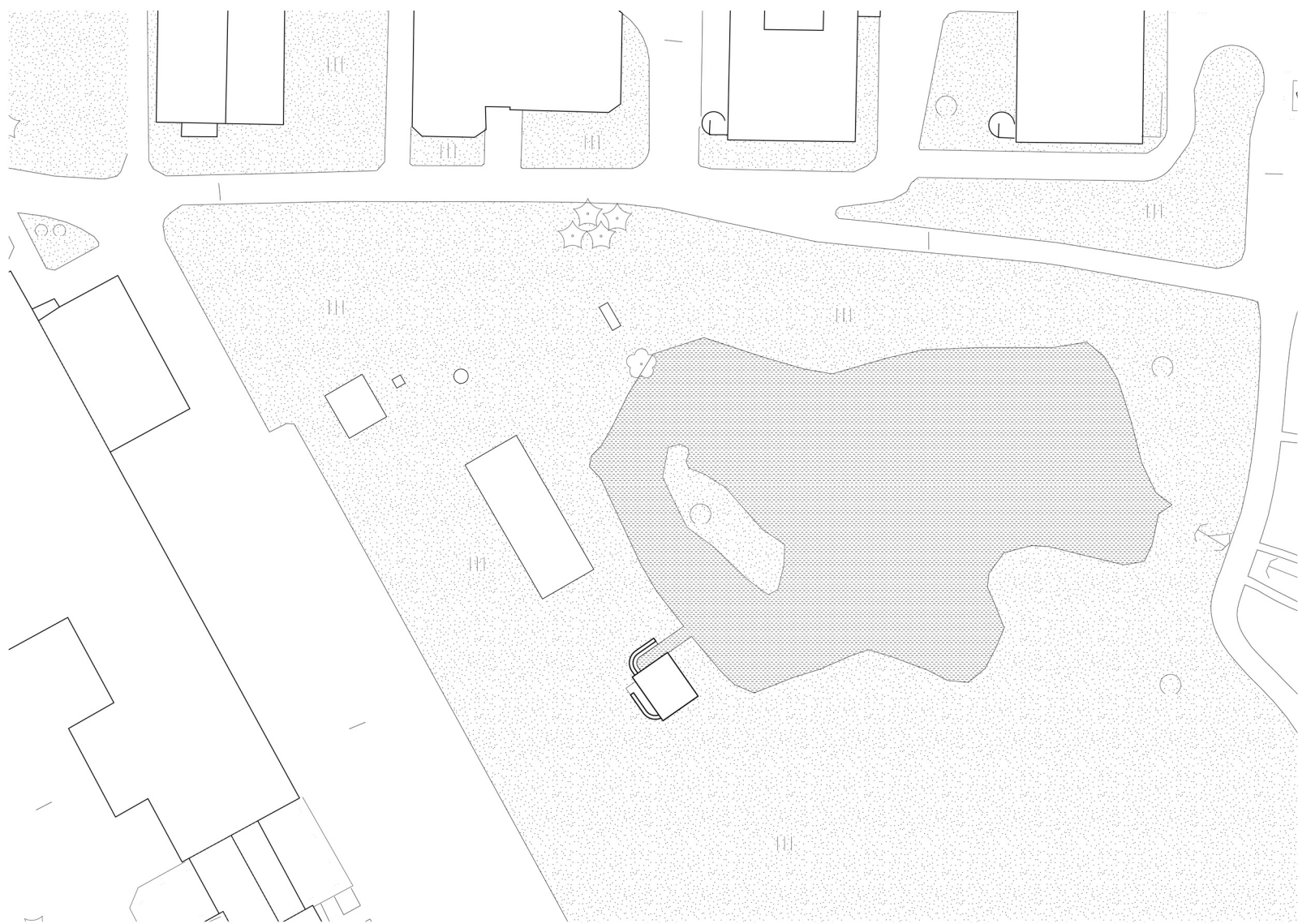
ARK-E0001 - Special Project of Architecture, Earth Architecture

Jiaqi Wang
797520

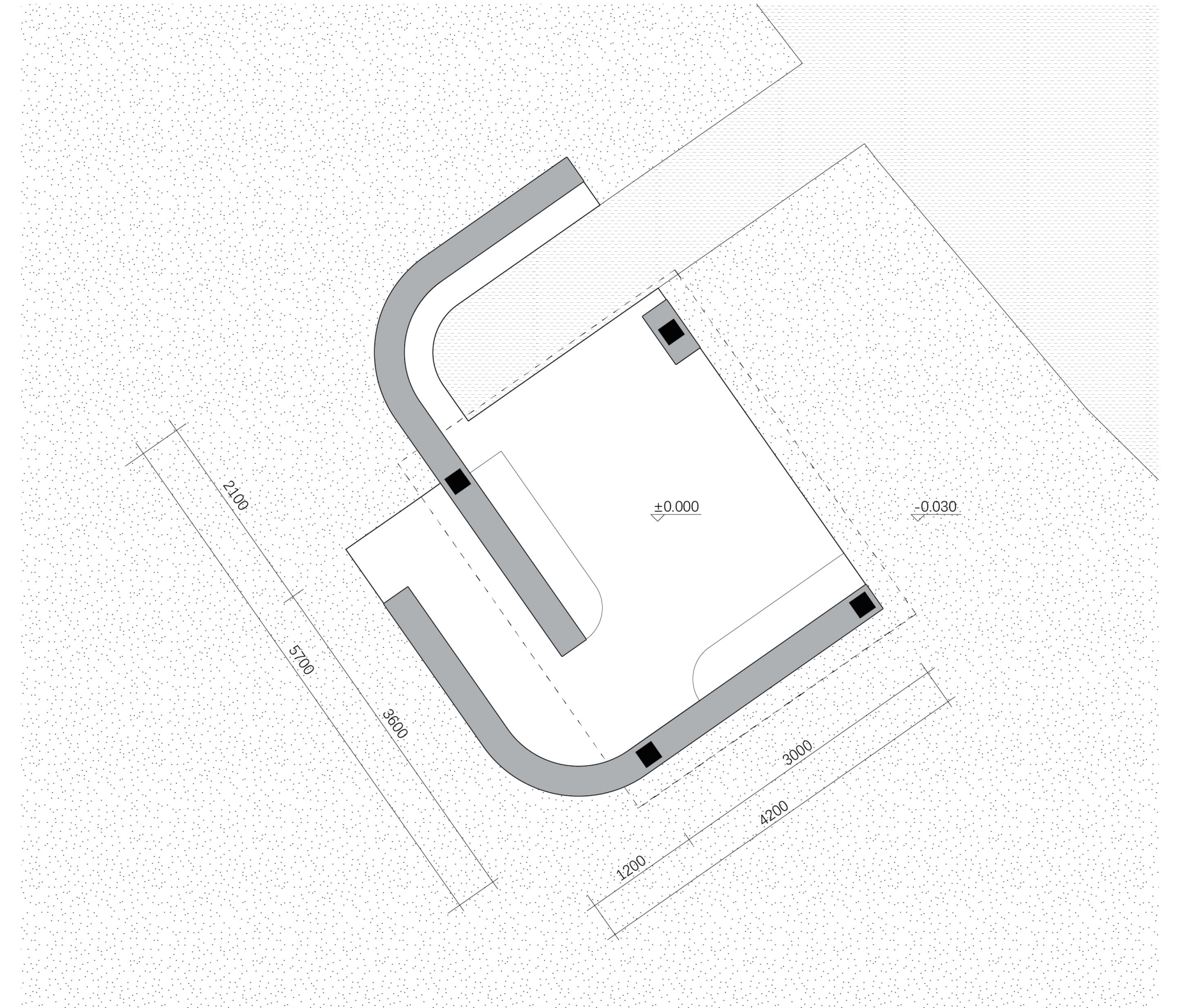
The basic idea is creating a quite and relatively private space for gathering. The narrow entrance leads visitors from the main road to the pond scenery.

In order to test the characters and erosion extent of different building technologies, one wall is built by rammed earth and another is made by adobe, and a half of them is covered by wood frame roof while another half are exposed to the nature environment.

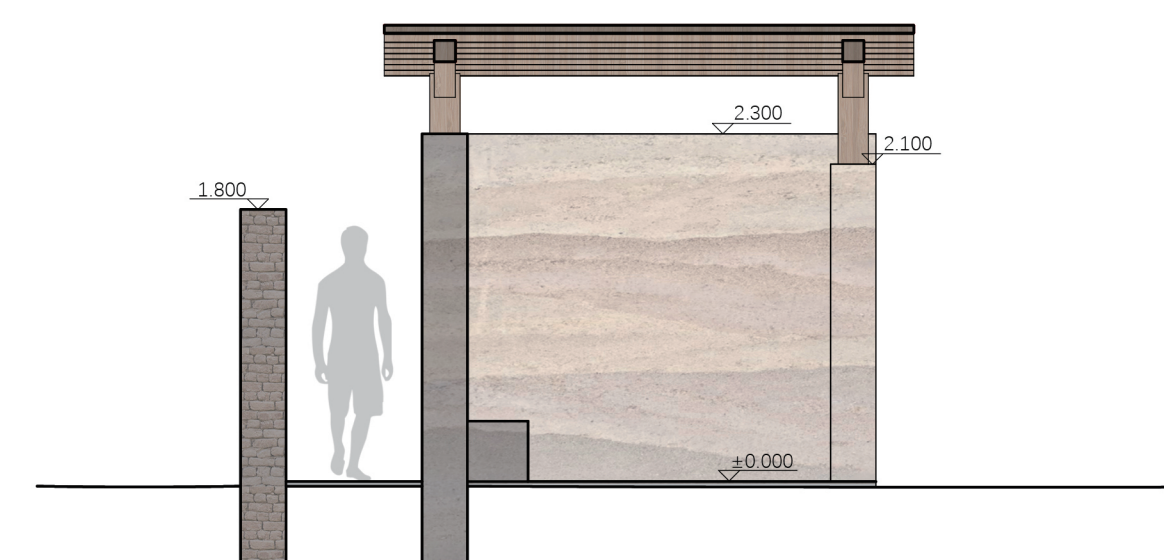
The tilt wooden roof can lead rain water to the inner small pond linked to the central pond, which can create a wonderful scenery in rainy days.



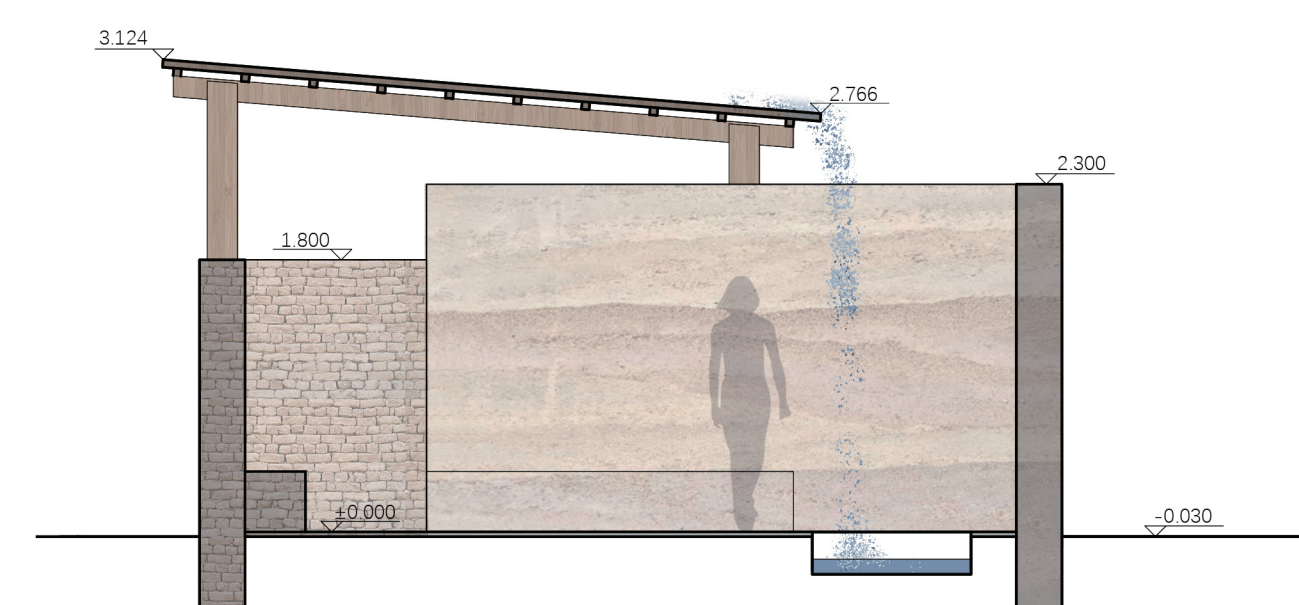
Site Plan 1:500



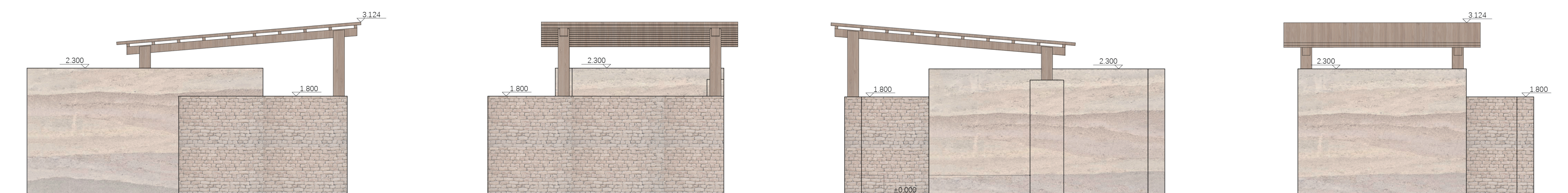
Plan 1:50



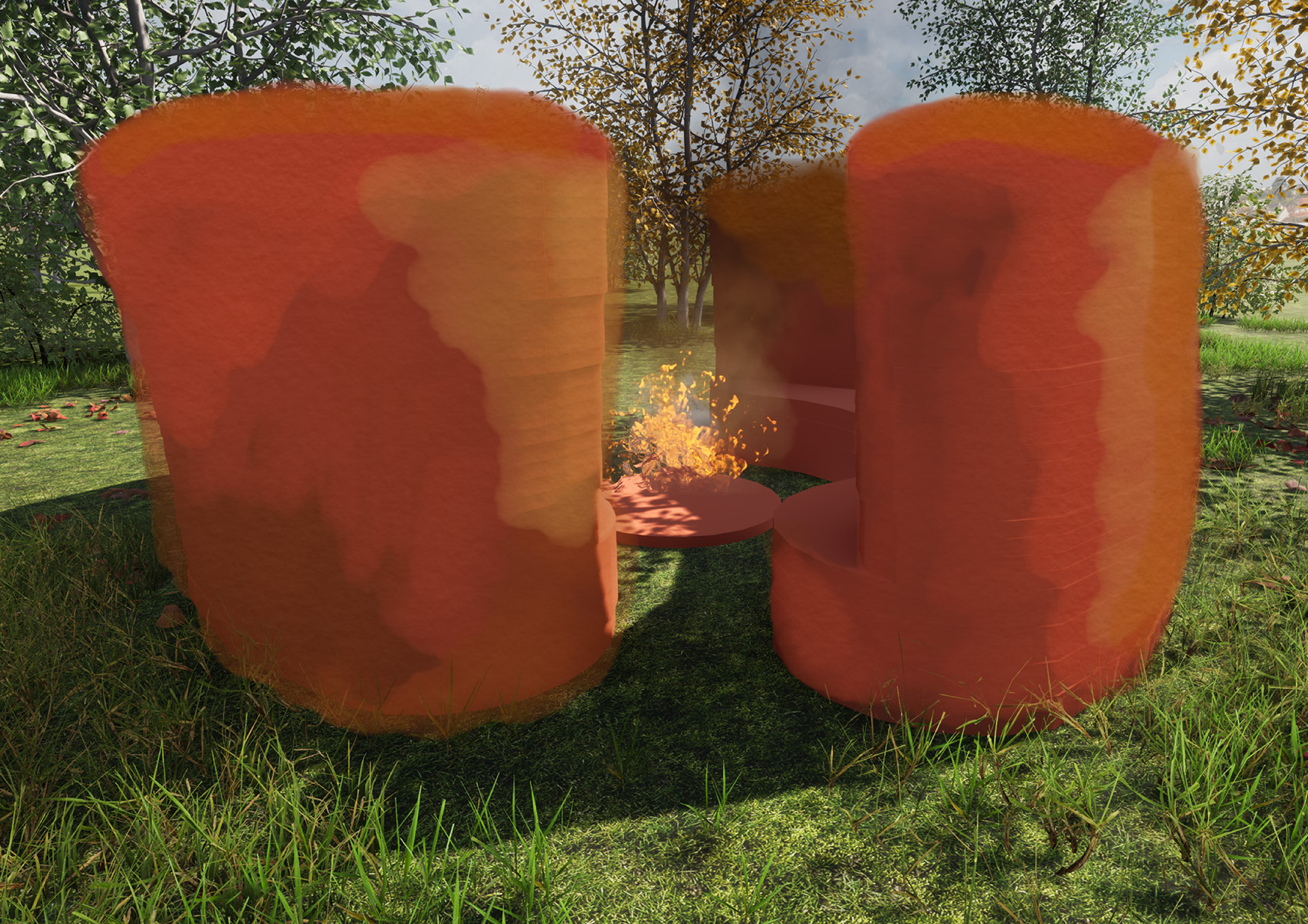
section A-A 1:50

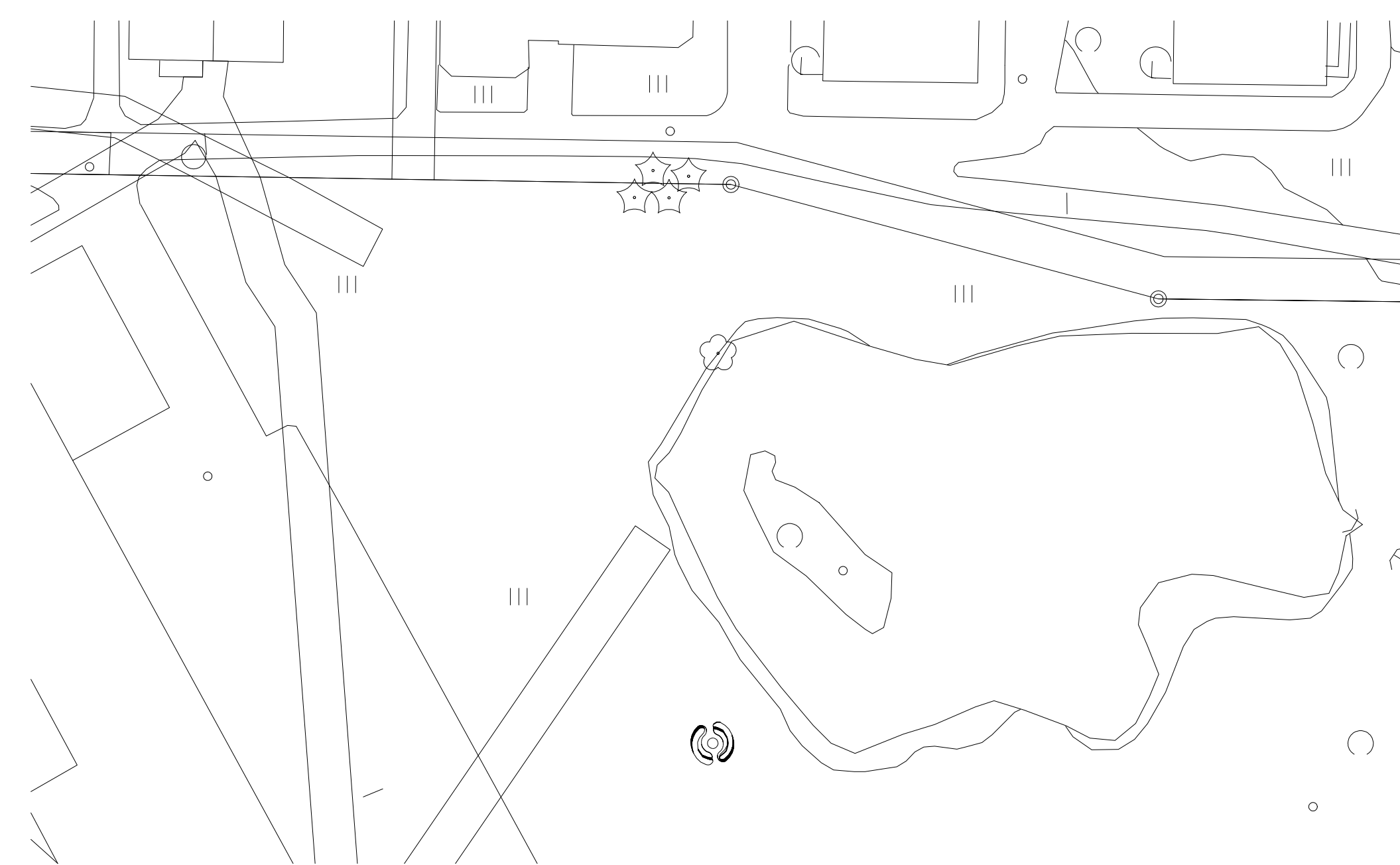
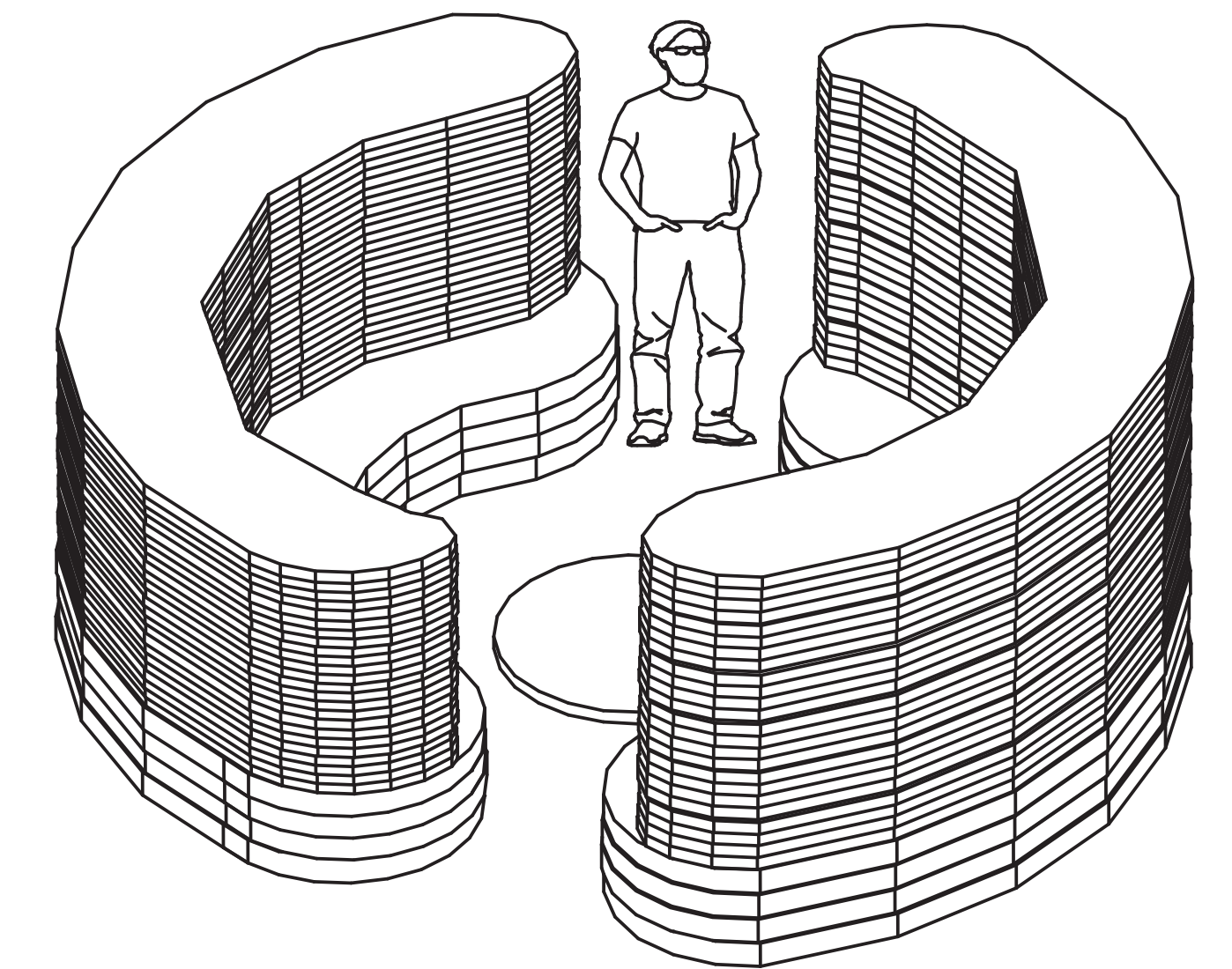
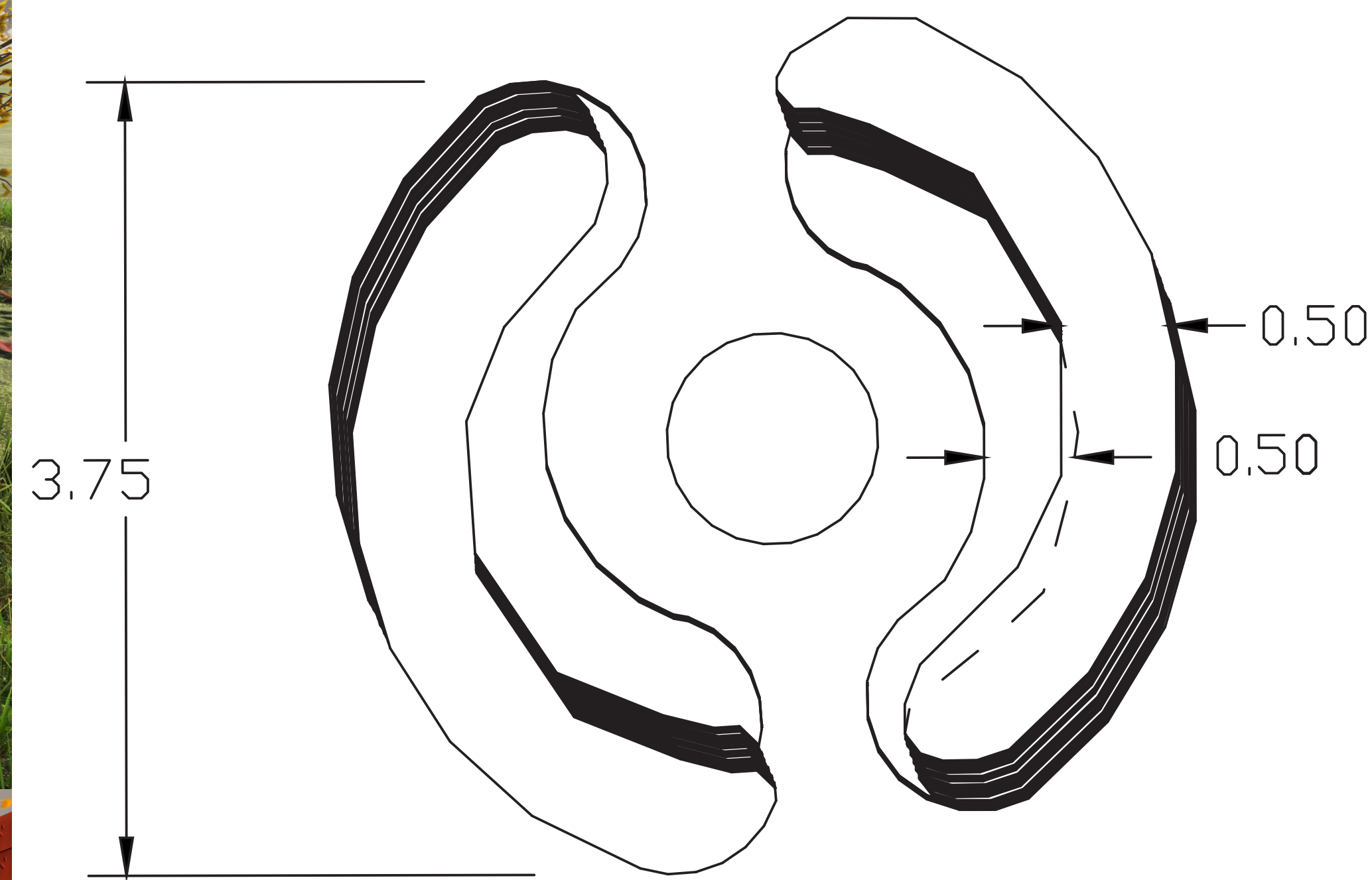
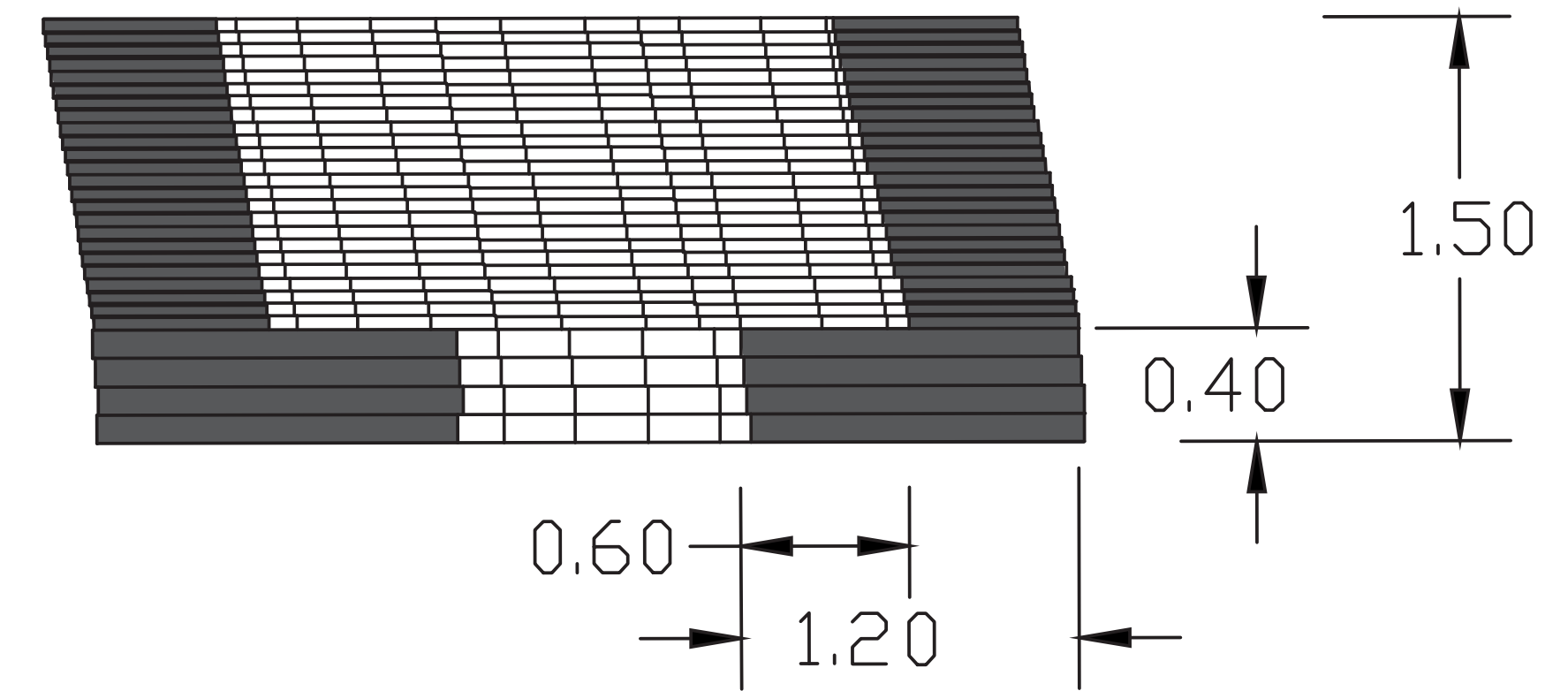
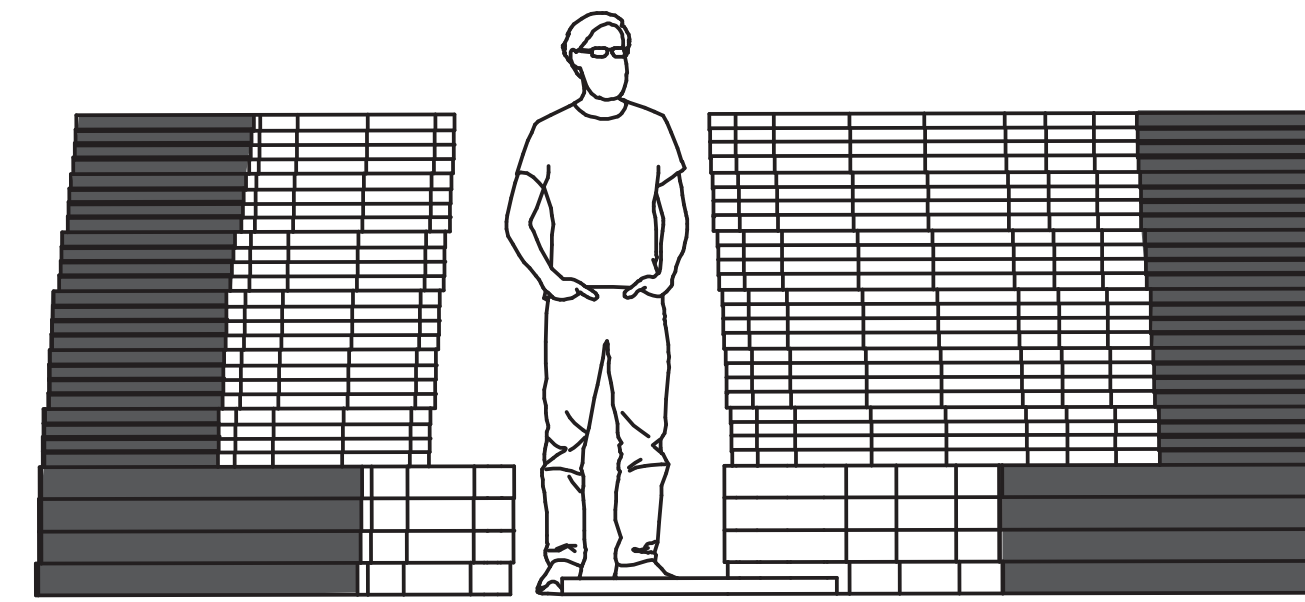
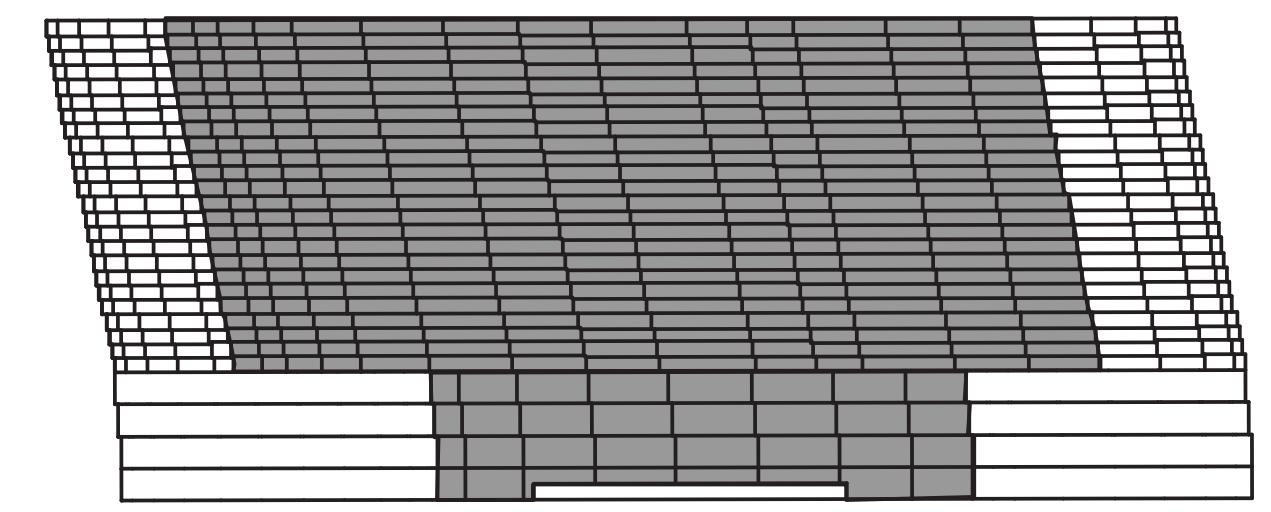
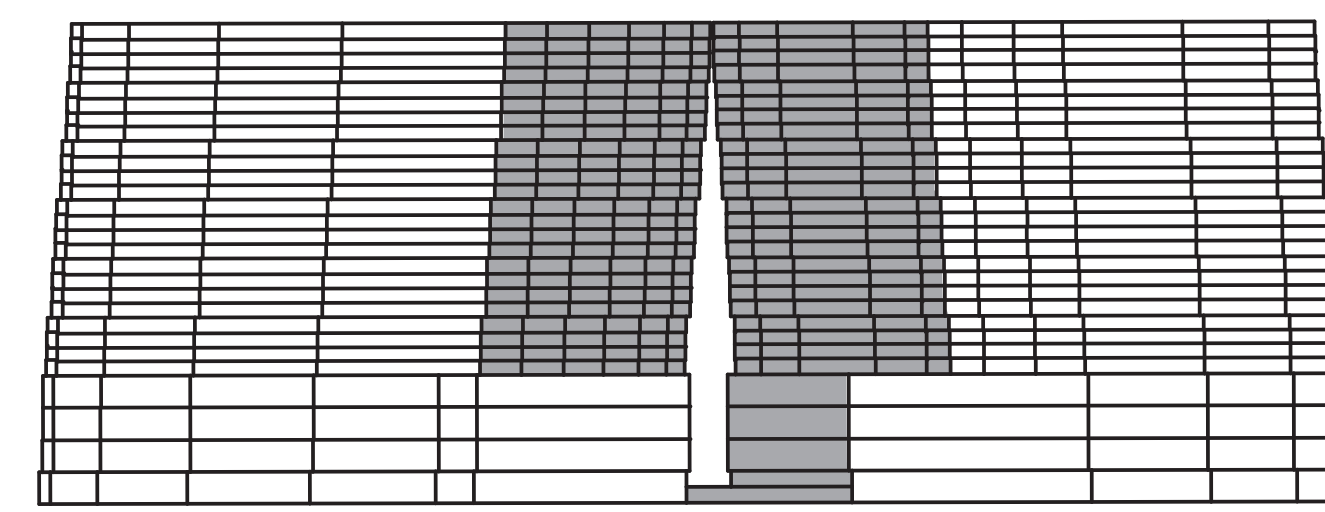
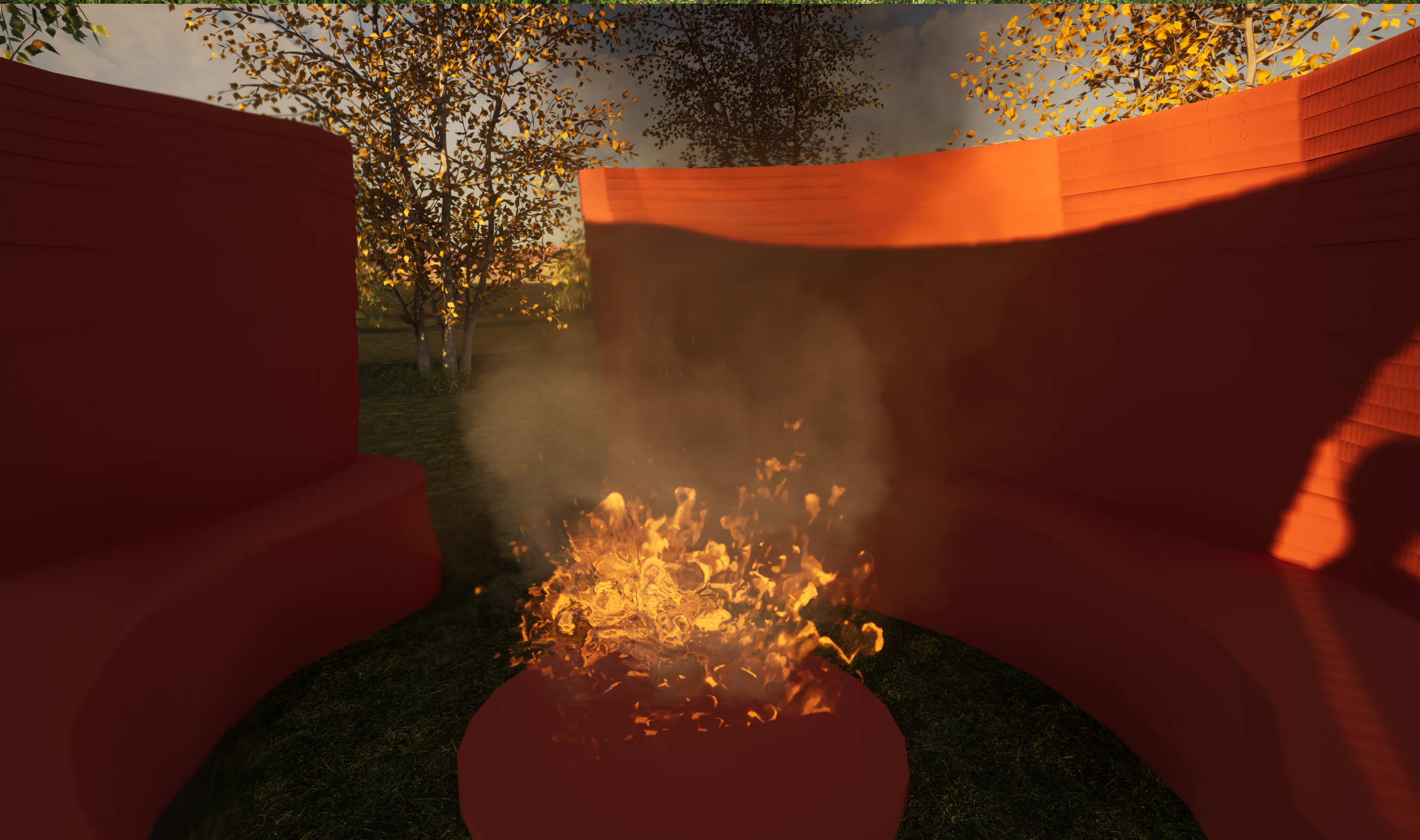
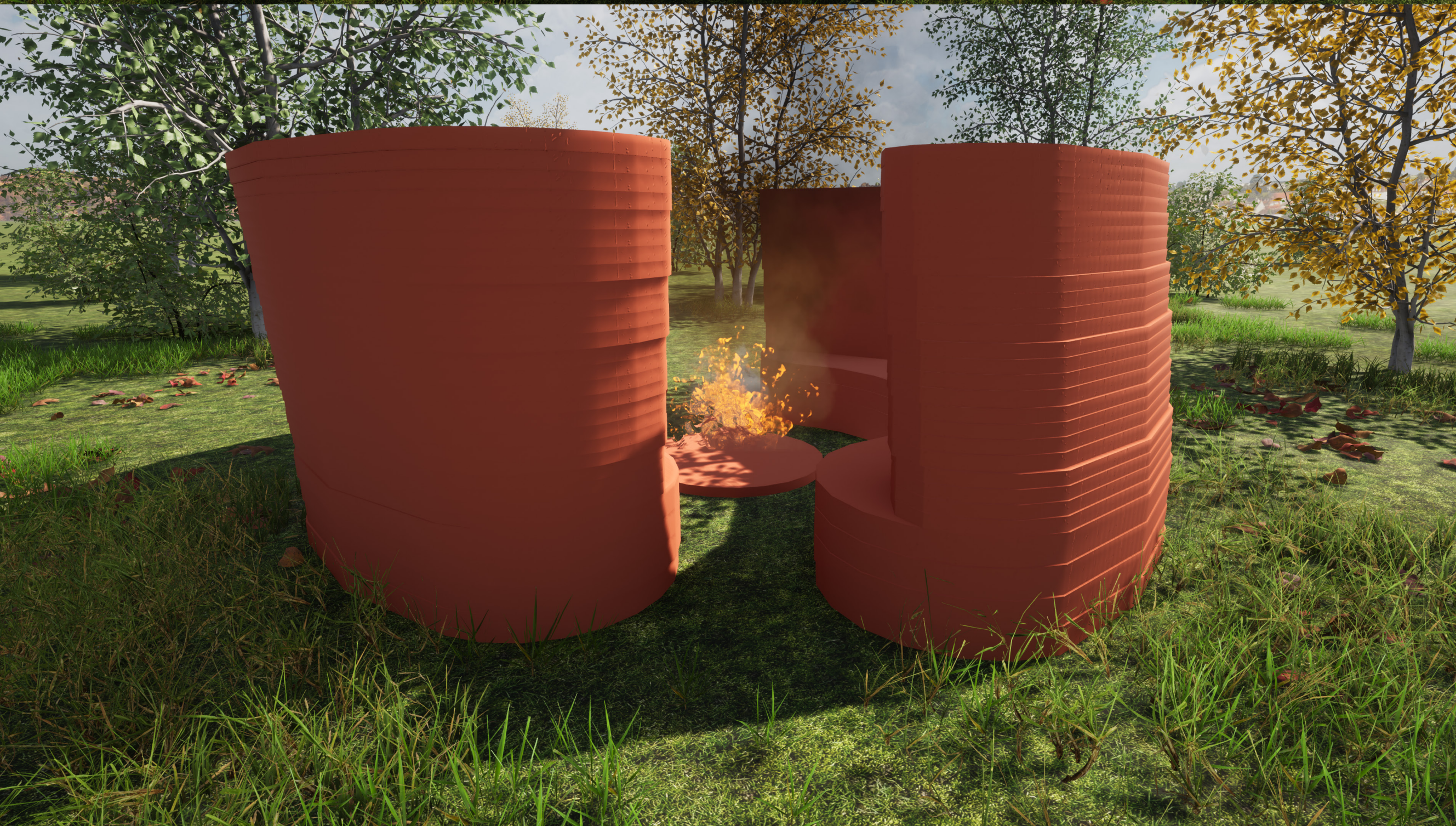
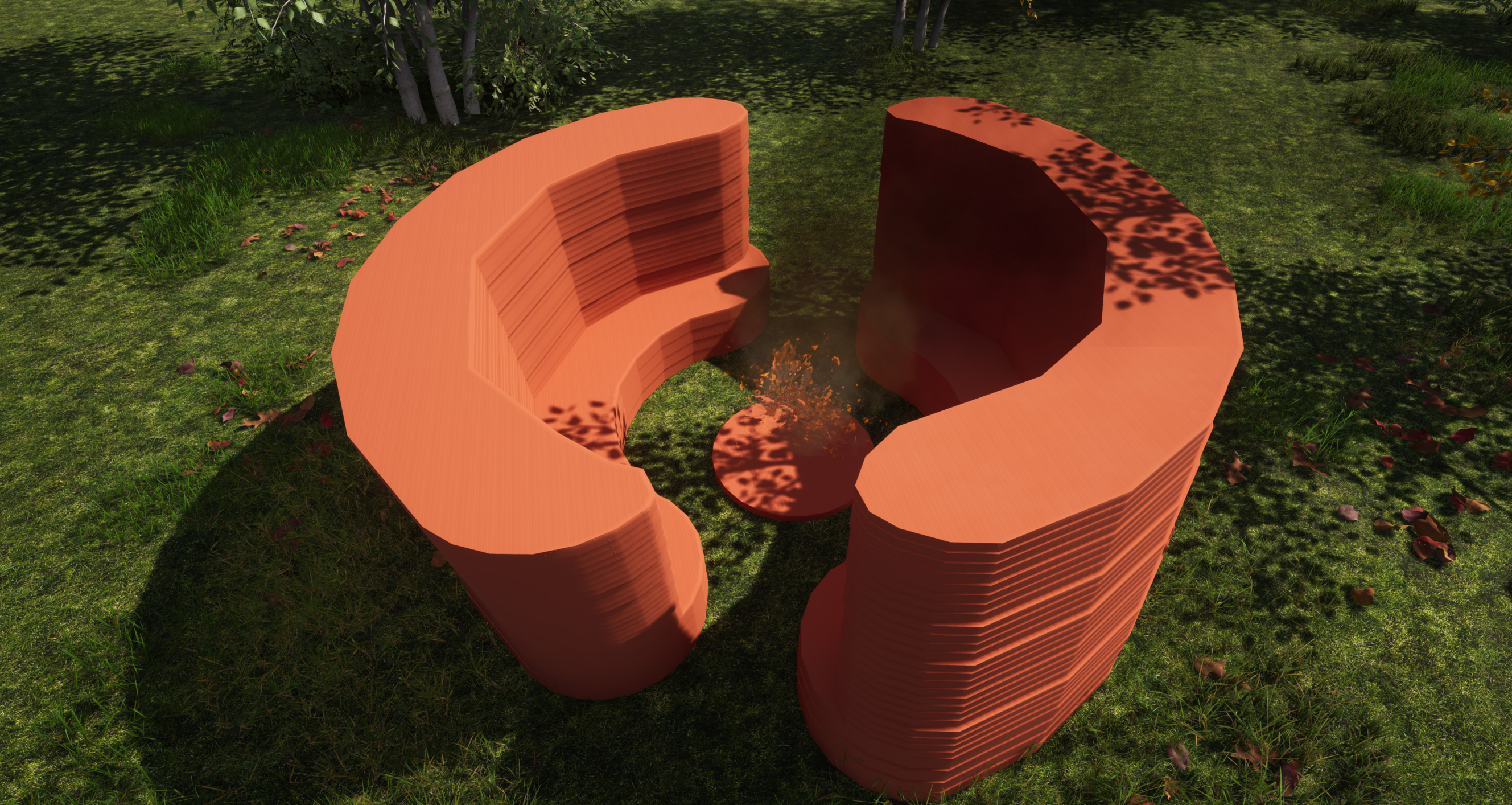


section B-B 1:50



Elevations 1:50

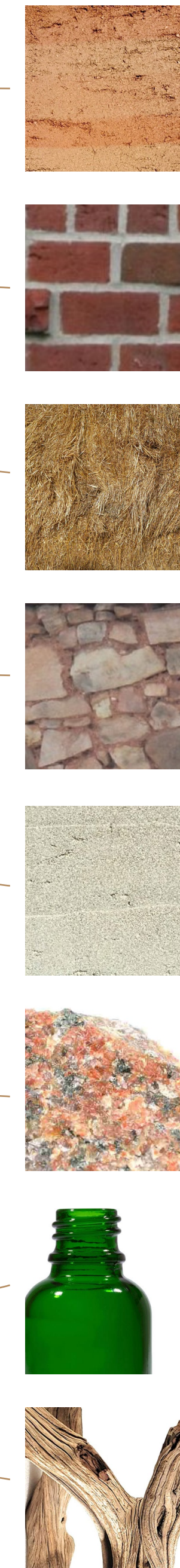
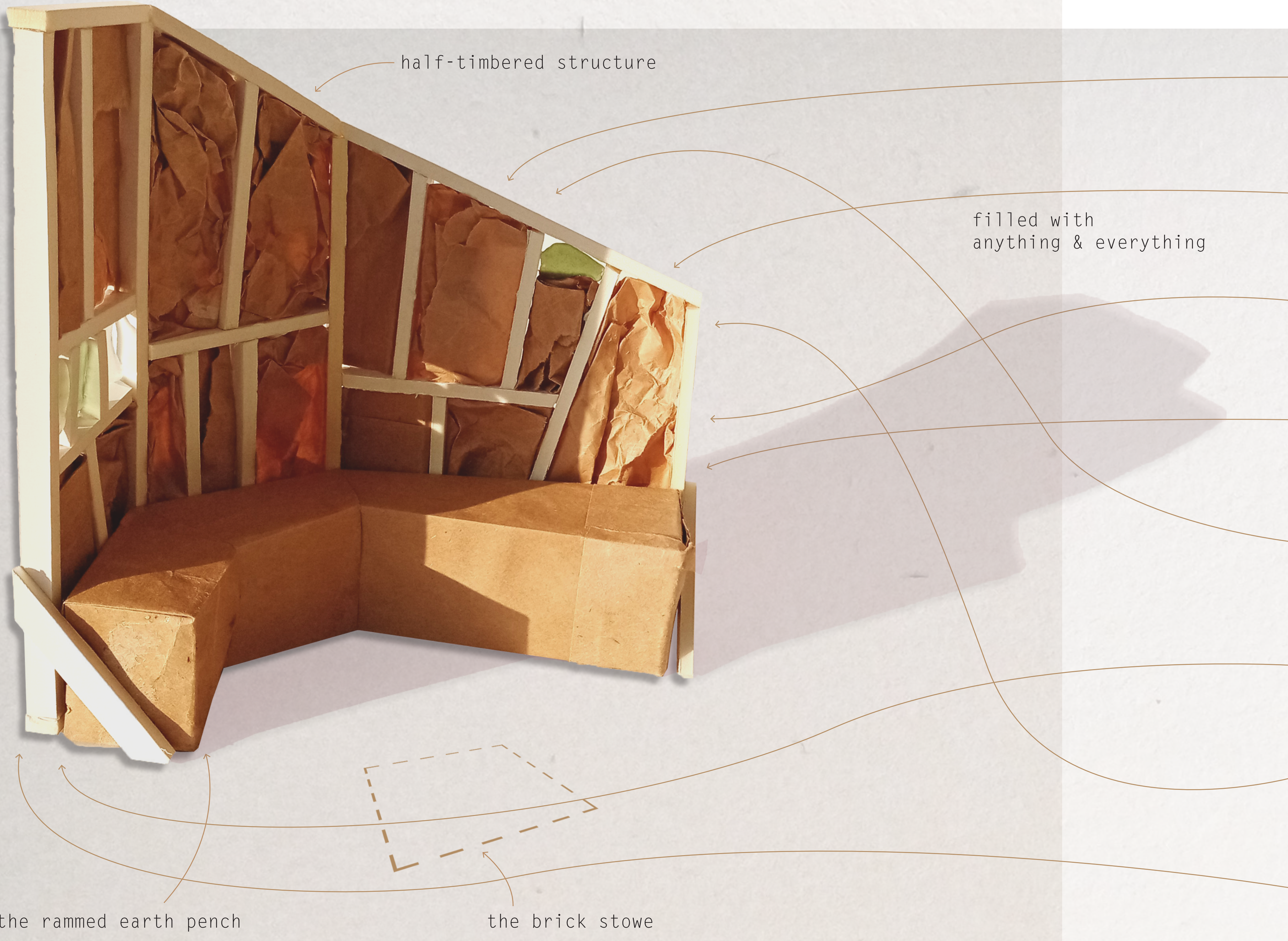




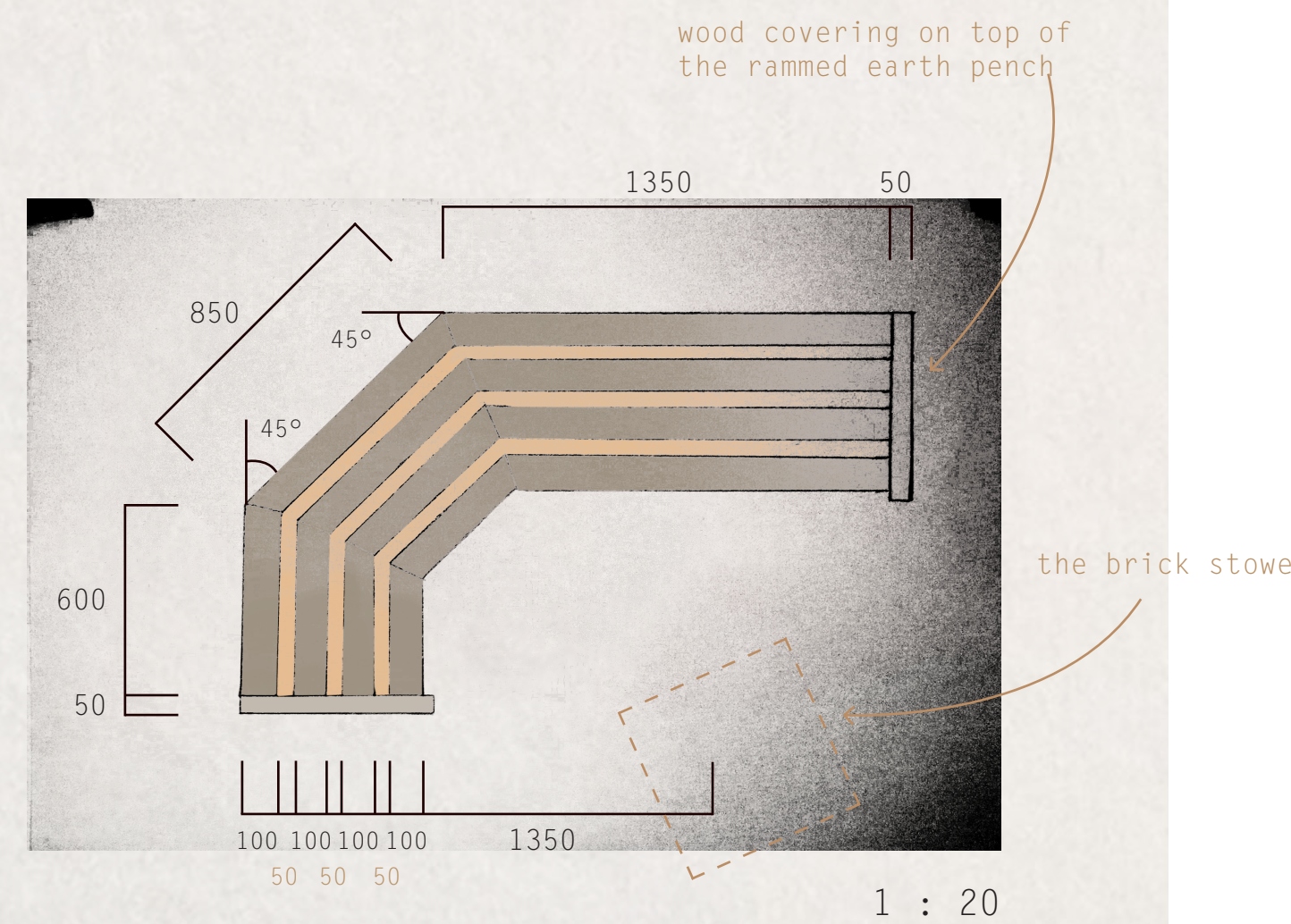
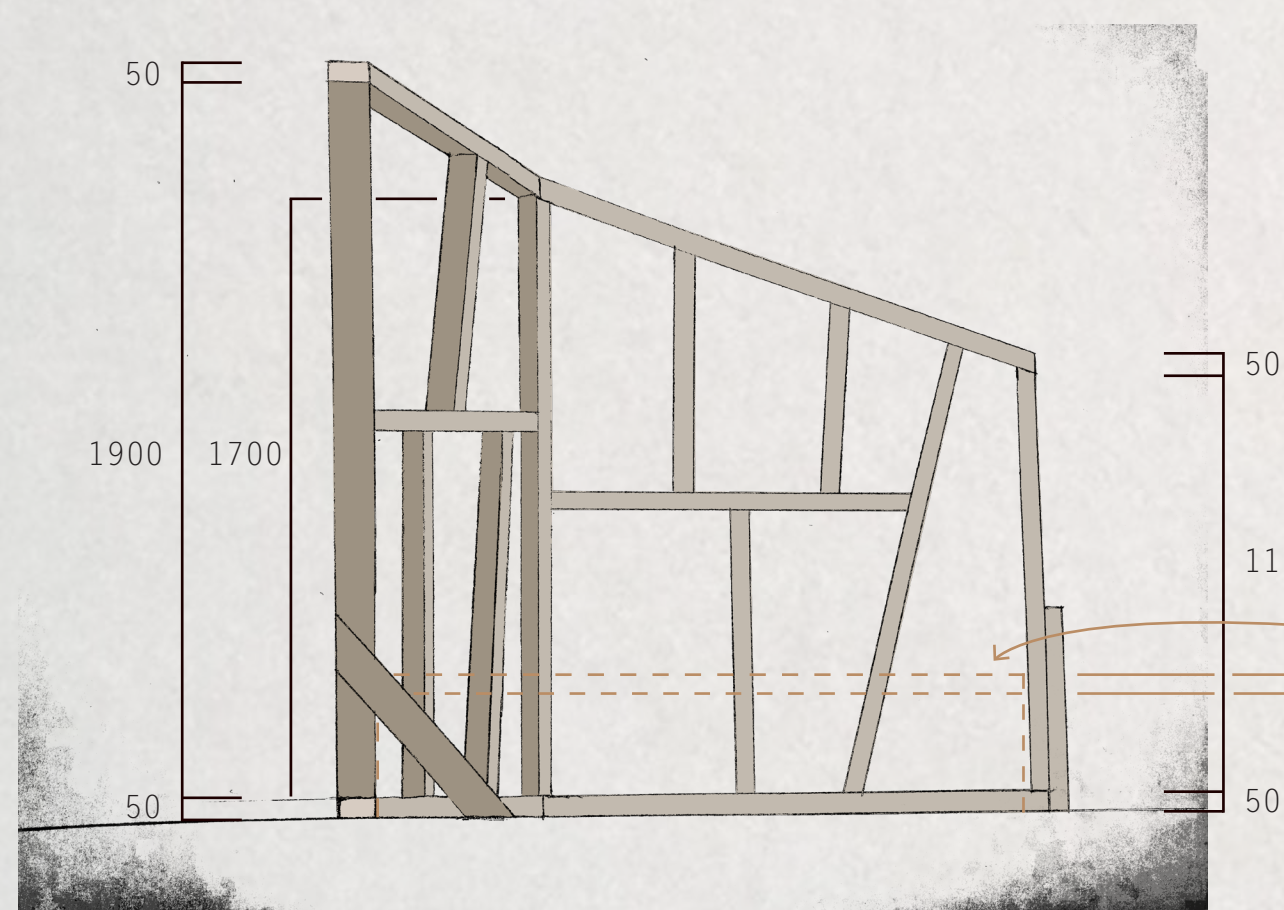
*Earth & fire / Ossinlampi
Salla Seppälä, 28.9.2020
A campfire place made out of earth.*

Technique: Super adobe sandback structure. Sandbags filled with moistened earth are layered on top of each others creating the shape of the structure. Strands of barbed wire/a mesh of wires are placed between each layer of sandbag to act as both mortar and reinforcement. The sandback structure is plastered over. Plastering is coloured in red to support the red-brick color-theme seen in Otaniemi. Finished plastering can be made by hand or with plastering shovels to create texture on the surface of the structure. Lime or stucco plaster on top with maybe a coat or two of latex or acrylic waterproof paint that is designed for roofs is ideal for waterproofing the structure.

Quilt

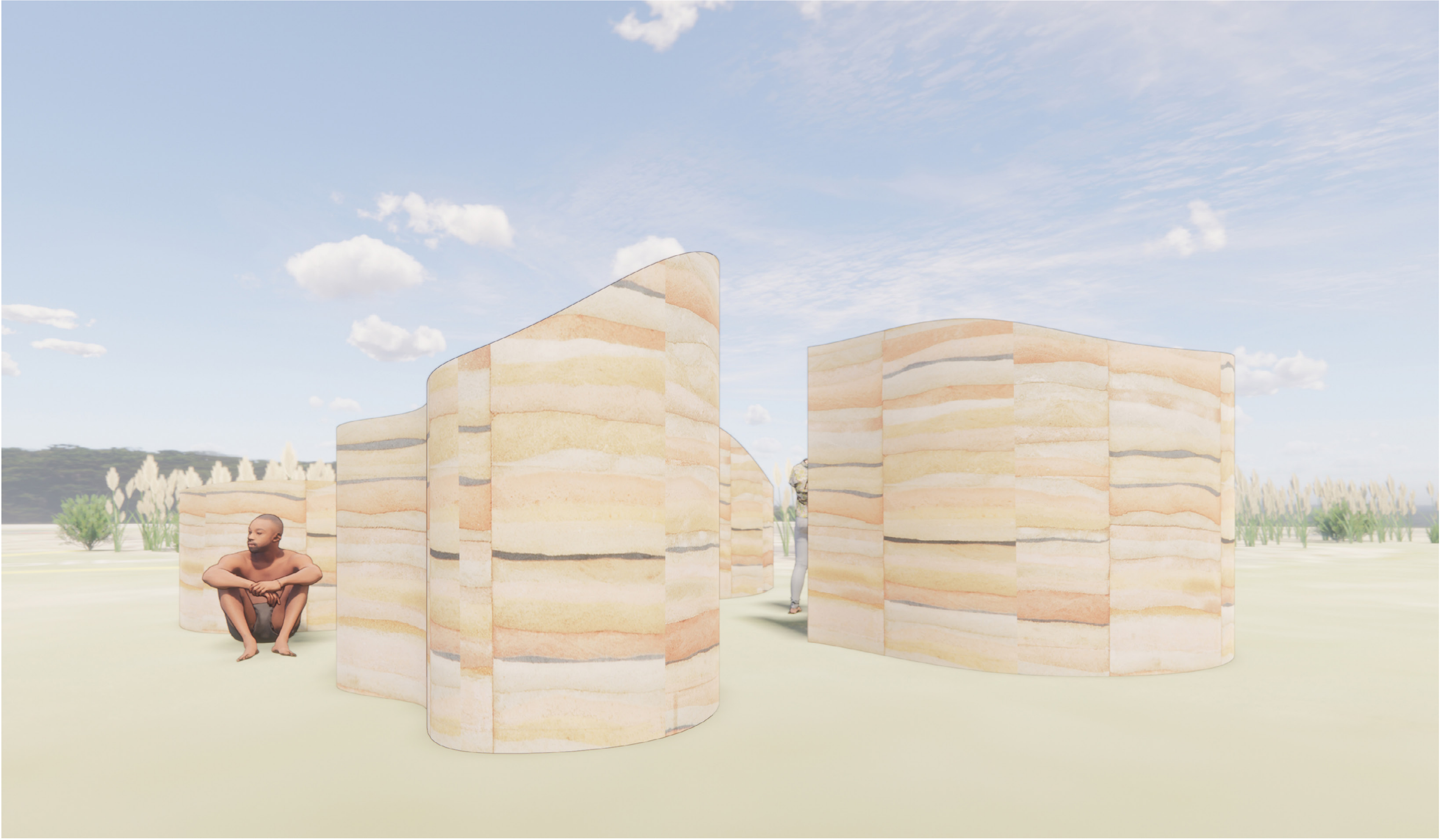


the brick stowe will be moved by the project site



The A Curve

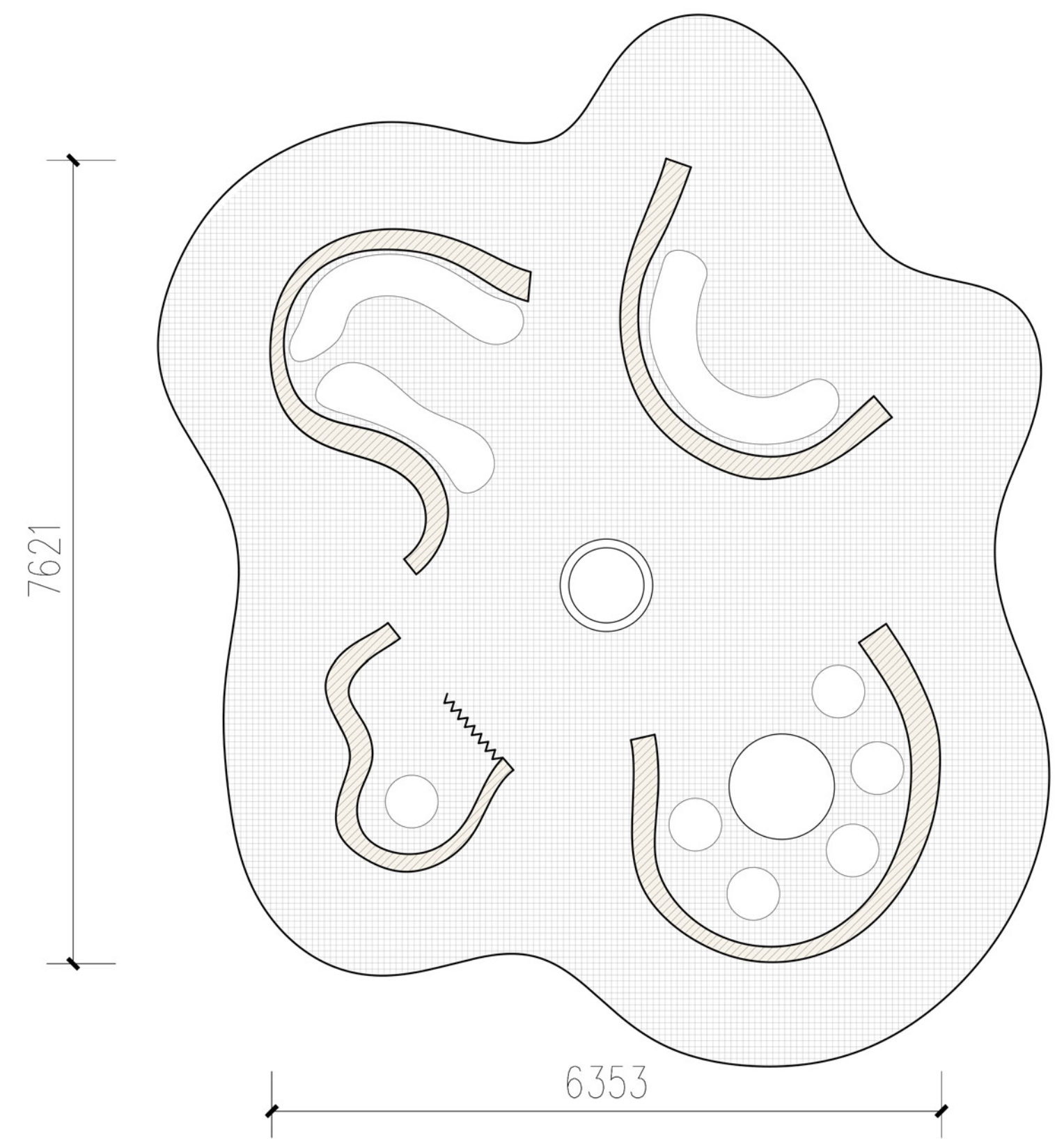
The Plan of this project is the recurring, decomposition, translation of Alvar Aalto's classical Curve. The height of the earth wall follows the same logic of the curvy plan, which brings the wall spiritual. Four segments of the wall provide four varieties of space, which supports diverse activities inside this construction.



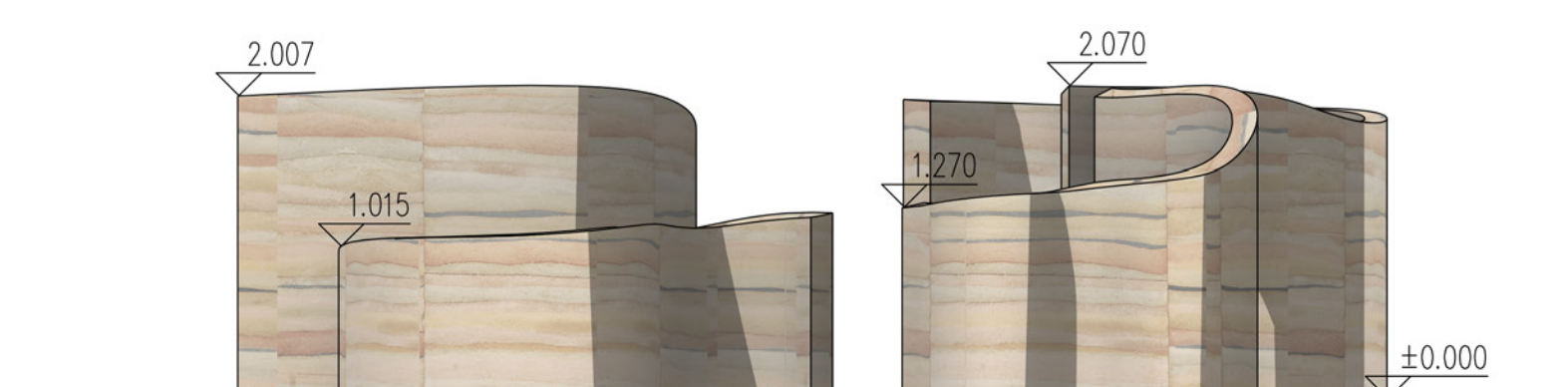
Site Plan 1:500



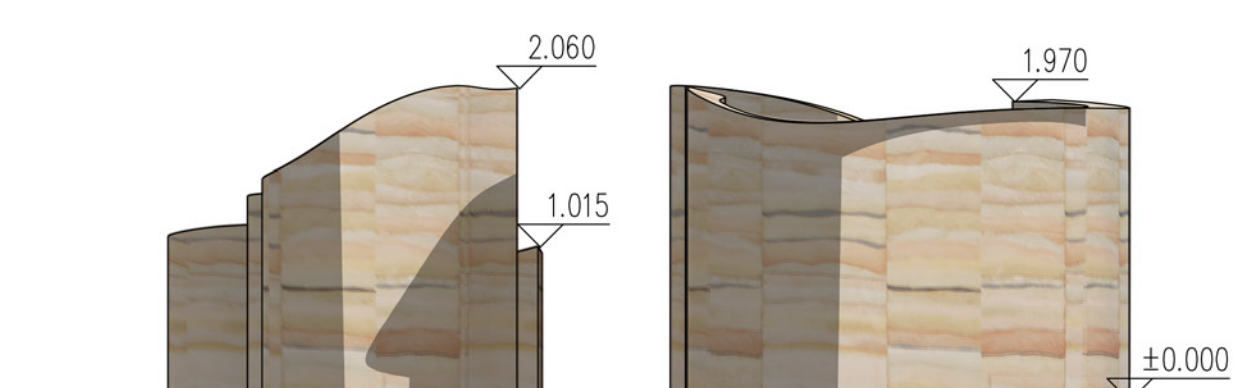
Plan 1:50

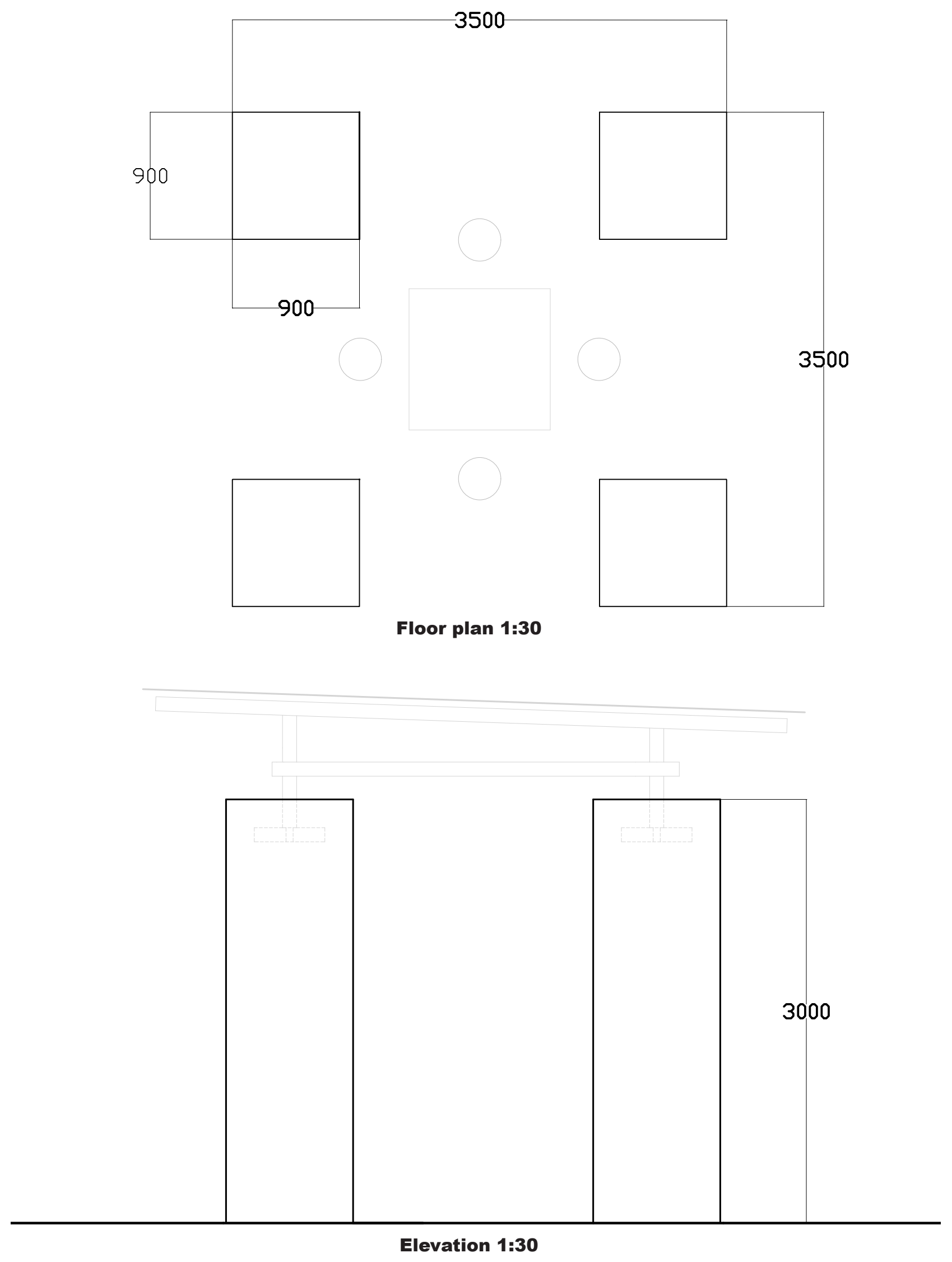


Elevation-1 1:50



Elevation-2 1:50



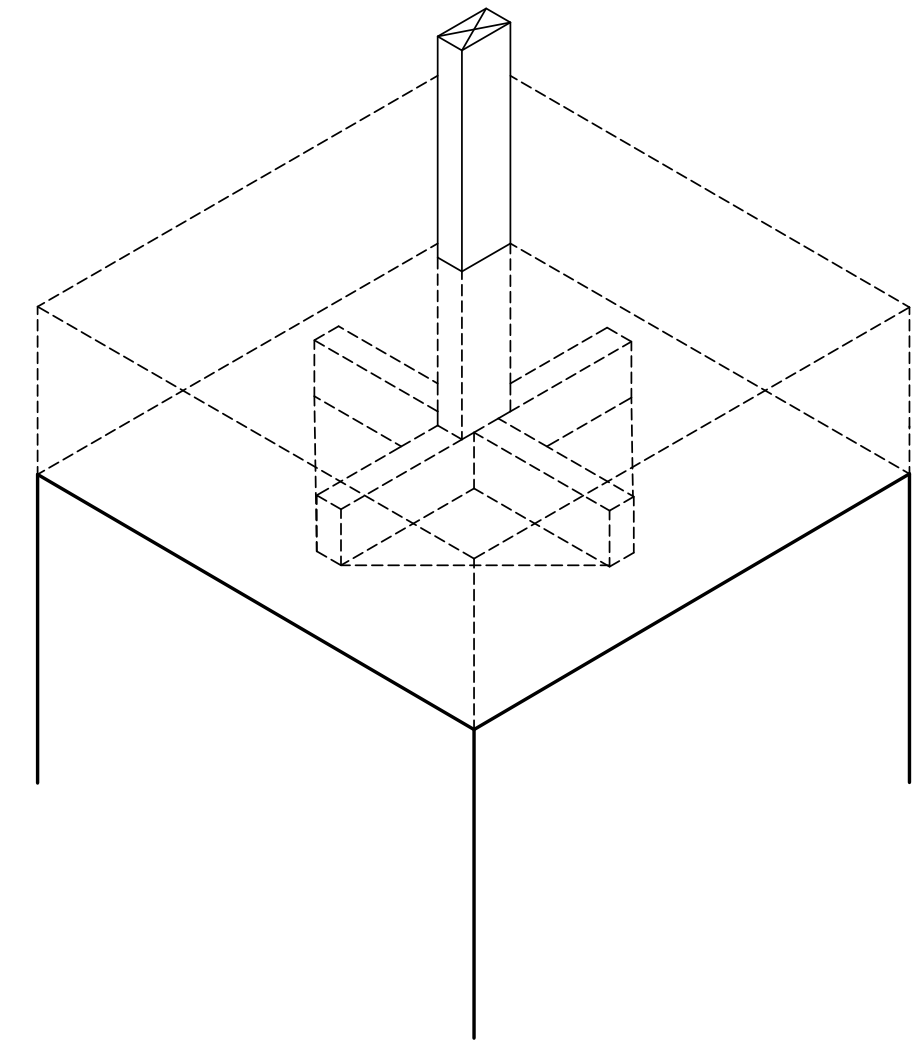


EARTH PAVILION

Idea of the pavilion is to present clay structures most appealing qualities; massiveness, materiality and texture. No additional finishes or materials are needed, and the clay is the protagonist. Pillars are designed to be individual and massive, so no other structural elements are needed. Contrasting light weight roof structure connects pillars together in transparent and almost floating manner when put against the voluminous pillars.

These four earthen pillars, made with rammed earth technique, define a hangout space around the fire pit that is centred in the middle. Roof structure made of wooden 2x4 beams with simple joints supports corrugated metal roof sheets to protect the pillars and users from rain and snow. Pavilion is located in the north-west side of Ossinlampi right next to a walkway.

Pavilion uses old and almost forgotten material in the modern building industry to make geometrical structures and precisely defined forms that are common in language of modern architecture. Columns and pillars are typically made from concrete or stone and they are used in more significant and monumental buildings. So making them from clay distracts our perception of the pavilion when it mixes familiar structural element with something not typically used in its construction.



Detail sketch of roof joint with 2x4



Site plan 1:500

CLAY IGLOO PAVILION

The shape of the pavilion was designed not only based on static issues, the weather of Finland, and the amount of precipitation but also based on the main idea of rematerializing the igloo.

As a matter of time of construction, the pavilion was designed with modular wooden adobe panels in a parametric way. Accordingly, in the designed system, Wall the parameters such as area, height, size, and the number of modules, the thickness of the wooden structure element would be modified to generate the desired pavilion based on needs, limits, and time of construction.



Aerial View

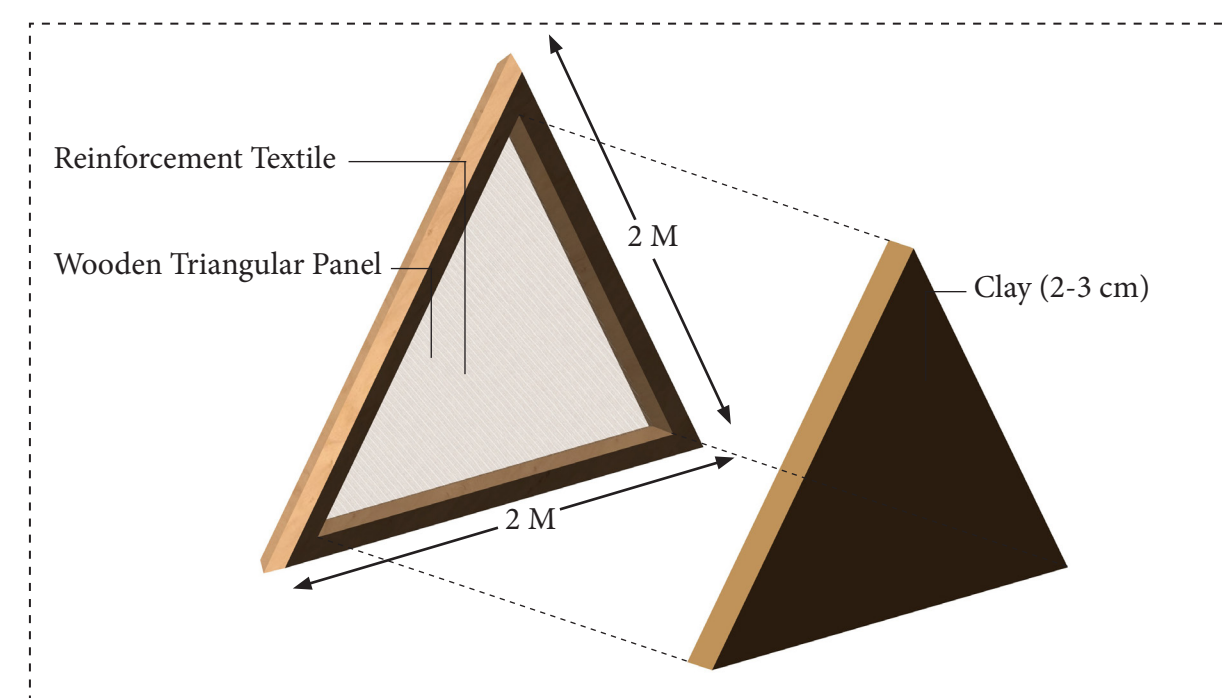


Site Plan

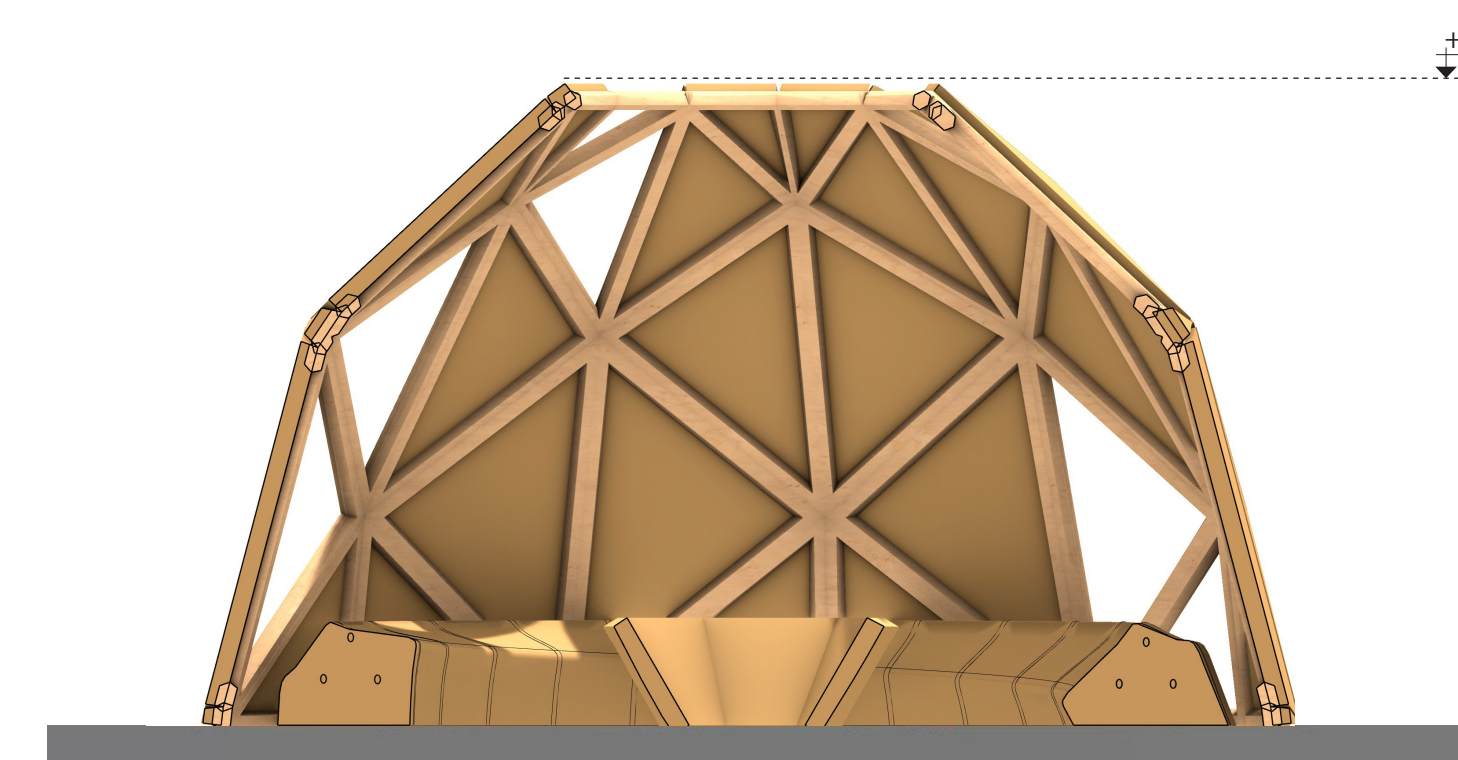
The pavilion is made of triangular modular wooden panels in 4 sizes that covered by reinforcement textile and clay. Some of the modules are left empty as windows of pavilion, the number and location of them can be modified based on the location of pavilion and views.

The bench made by rammed earth is also included different modular moulds. In the core of mould, the UPVC pipe is located to connect the parts.

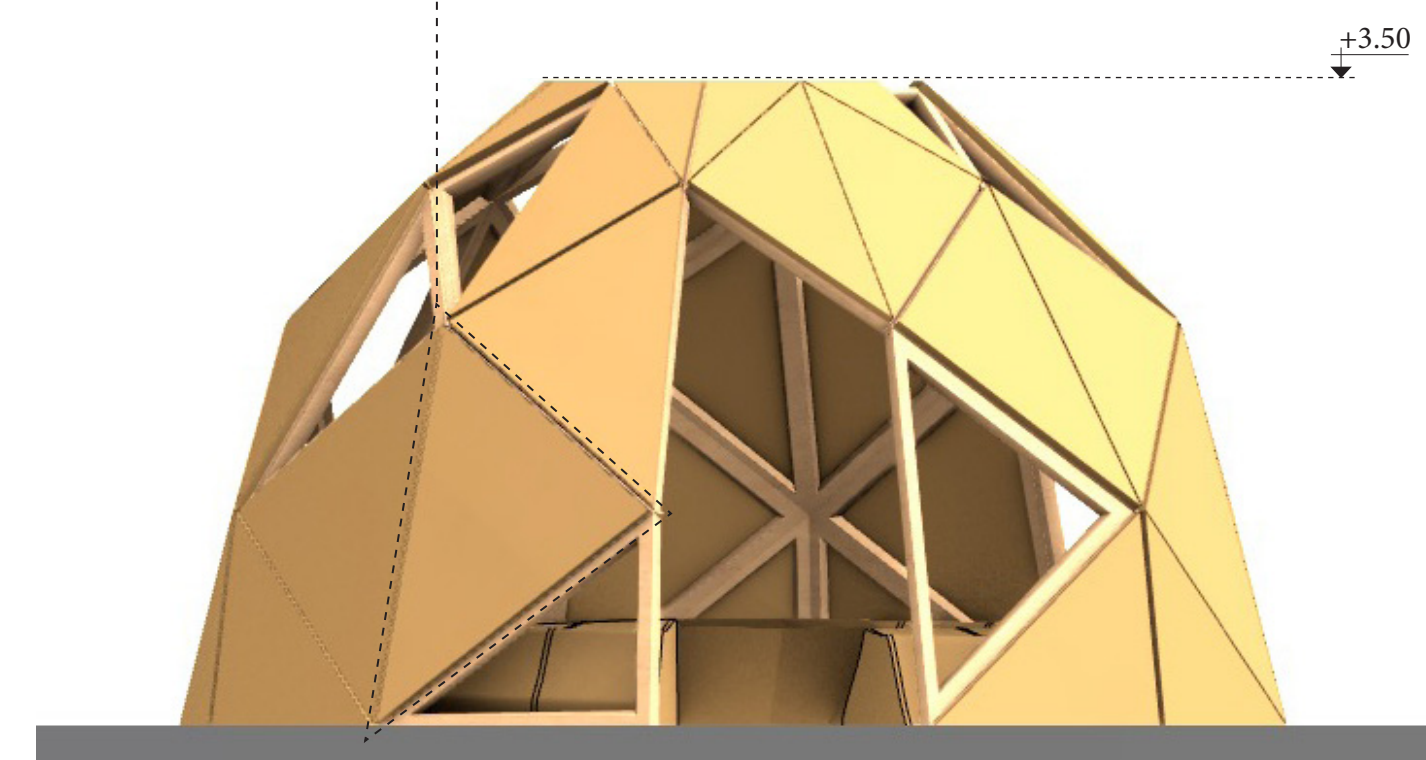
In the core of the pavilion, the rammed earth fireplace is designed that can e also used as a table in summer.



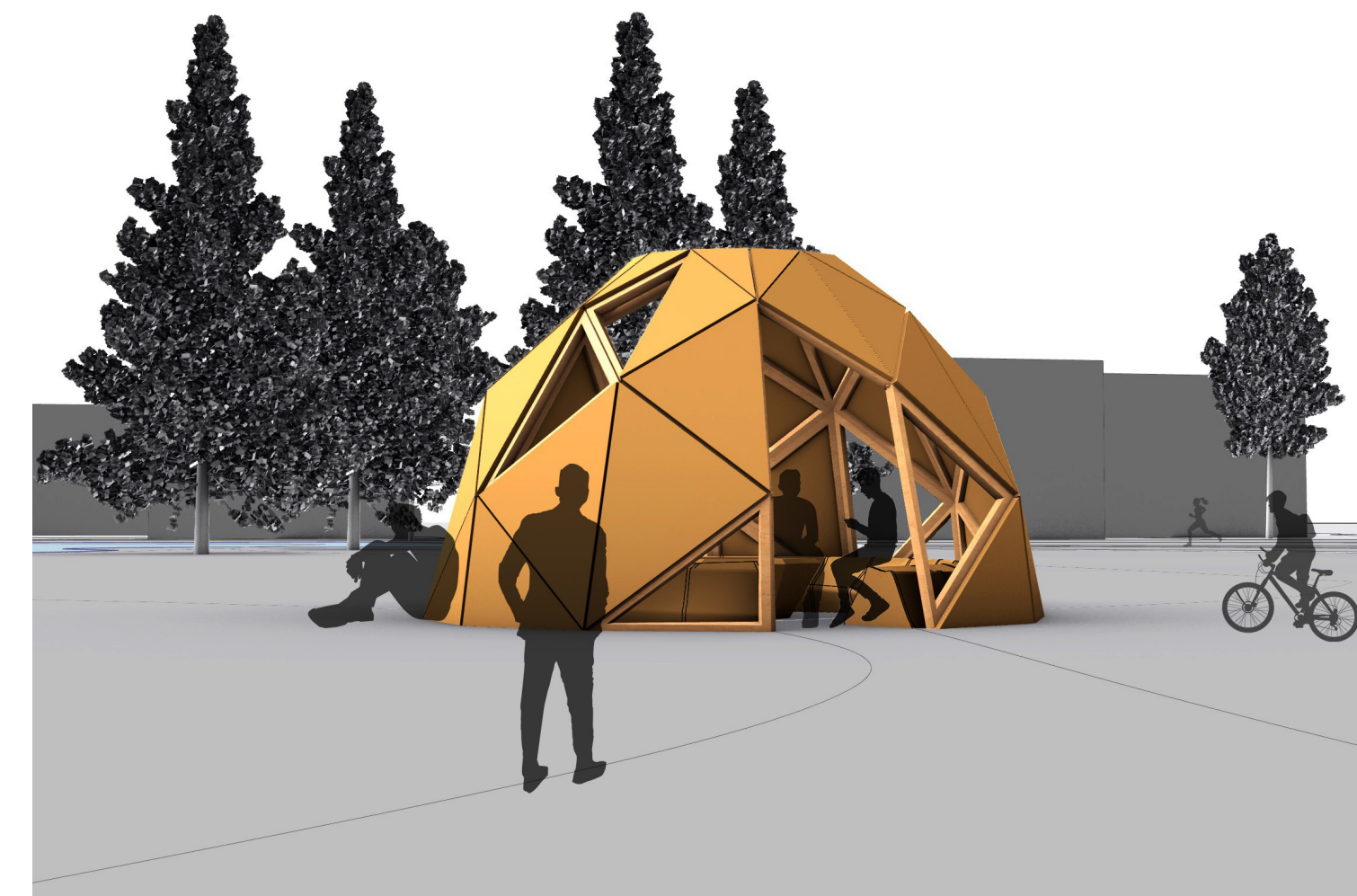
Modular Panel Detail



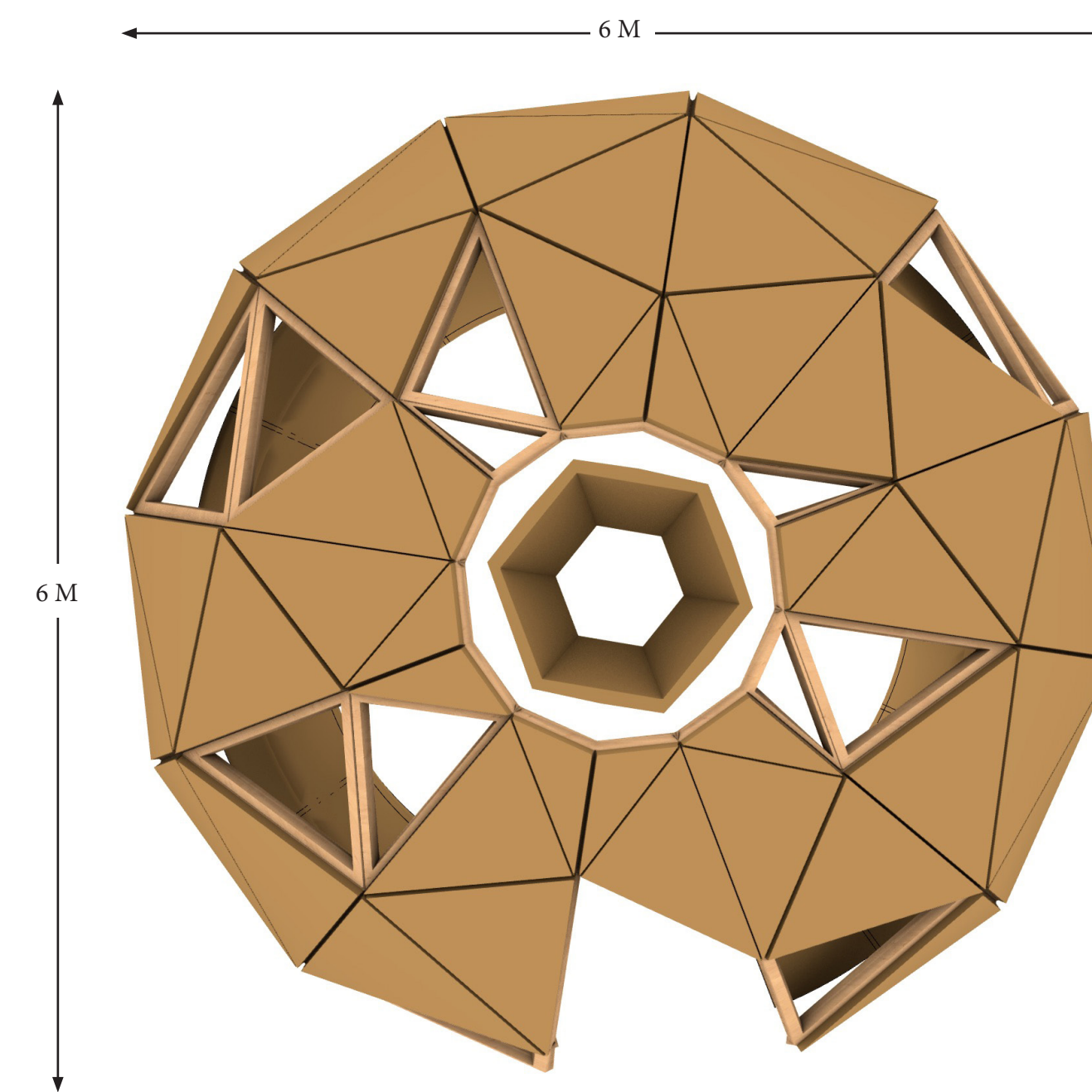
Sections



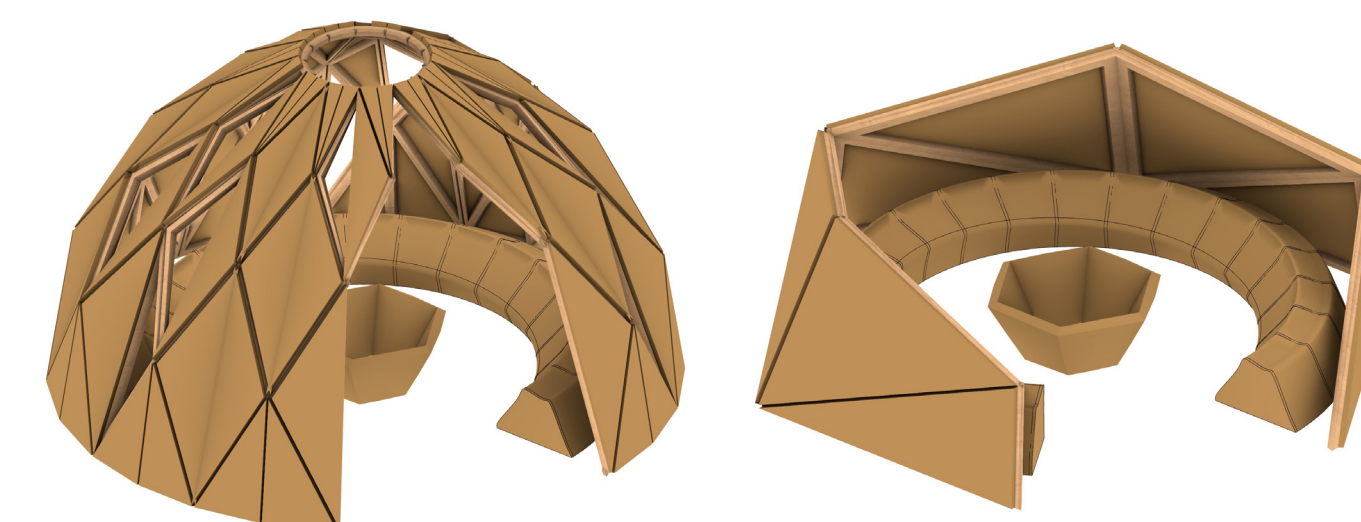
Elevations - Entrance View



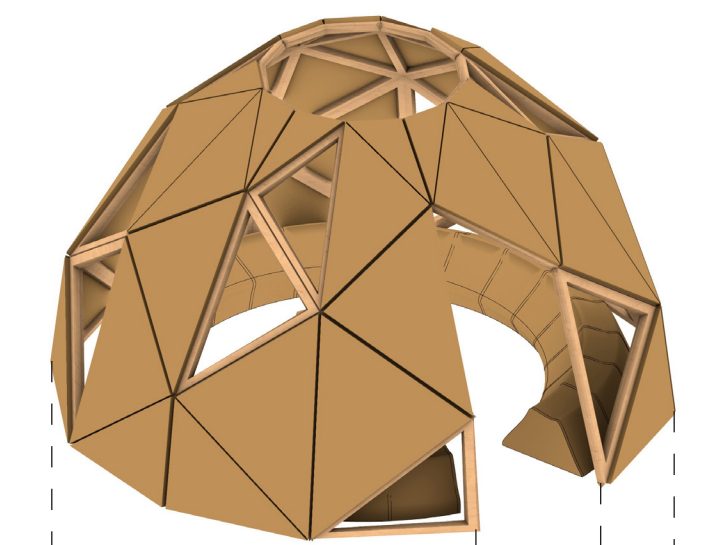
Exterior View



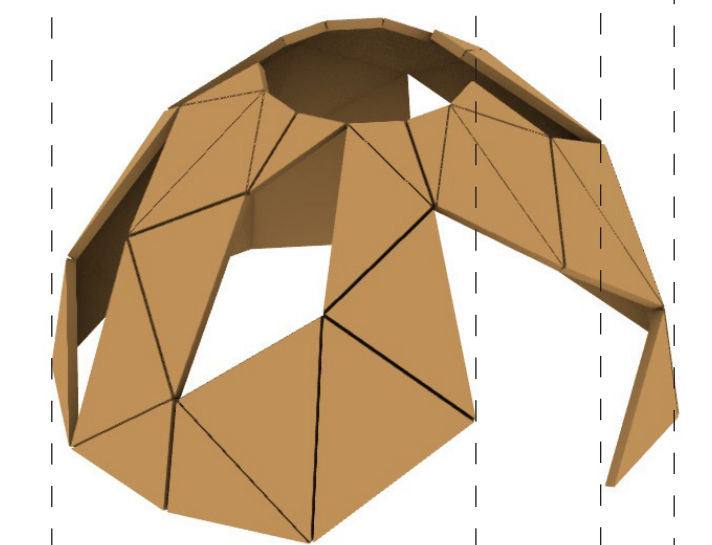
Floor Plan



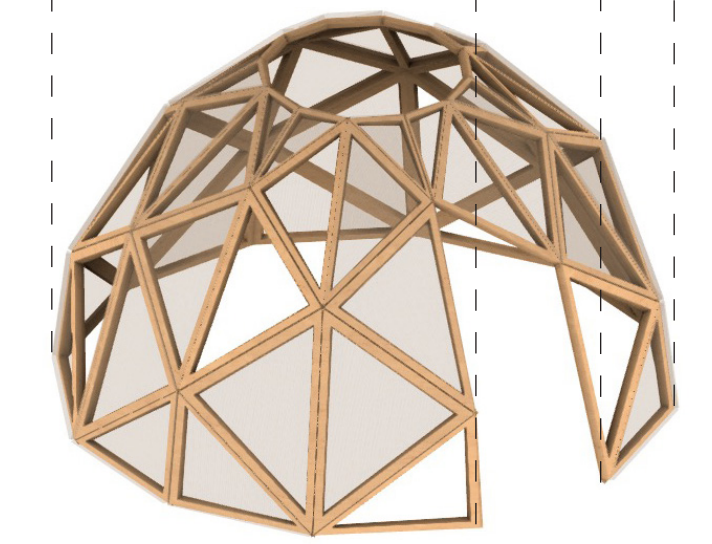
Different Iterations of Pavilion



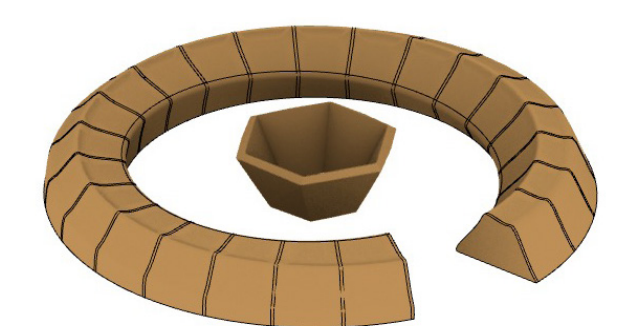
CLAY IGLOO



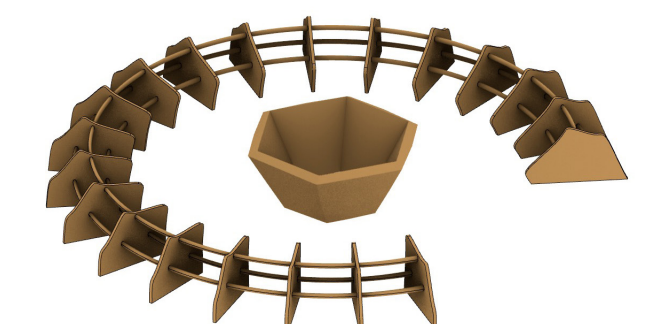
ADOBE CLAY



WOODEN STRUCTURE
with
REINFORCEMENT TEXTILE



RAMMED EARTH BENCHES

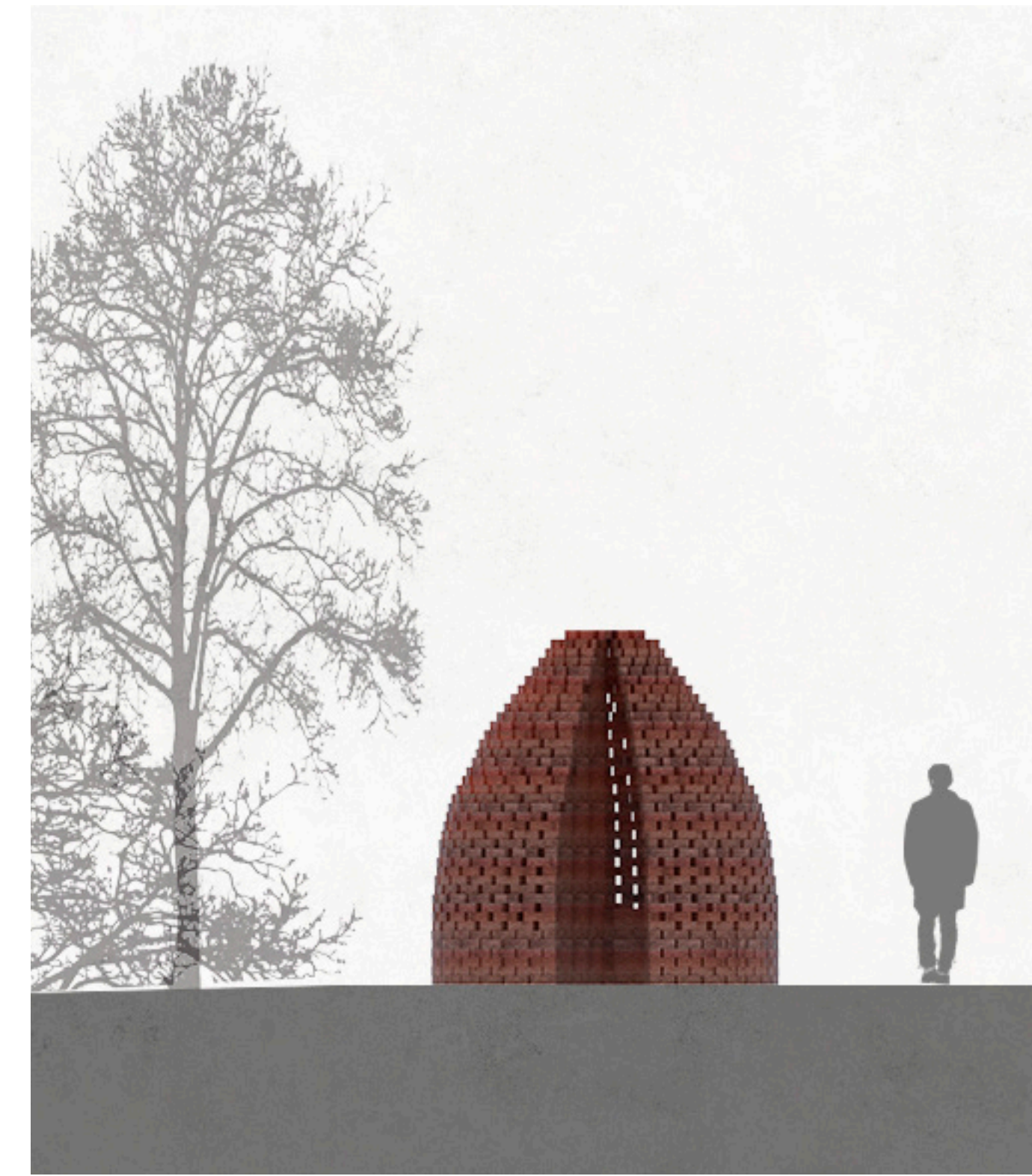


BENCH SECTIONS MOULD

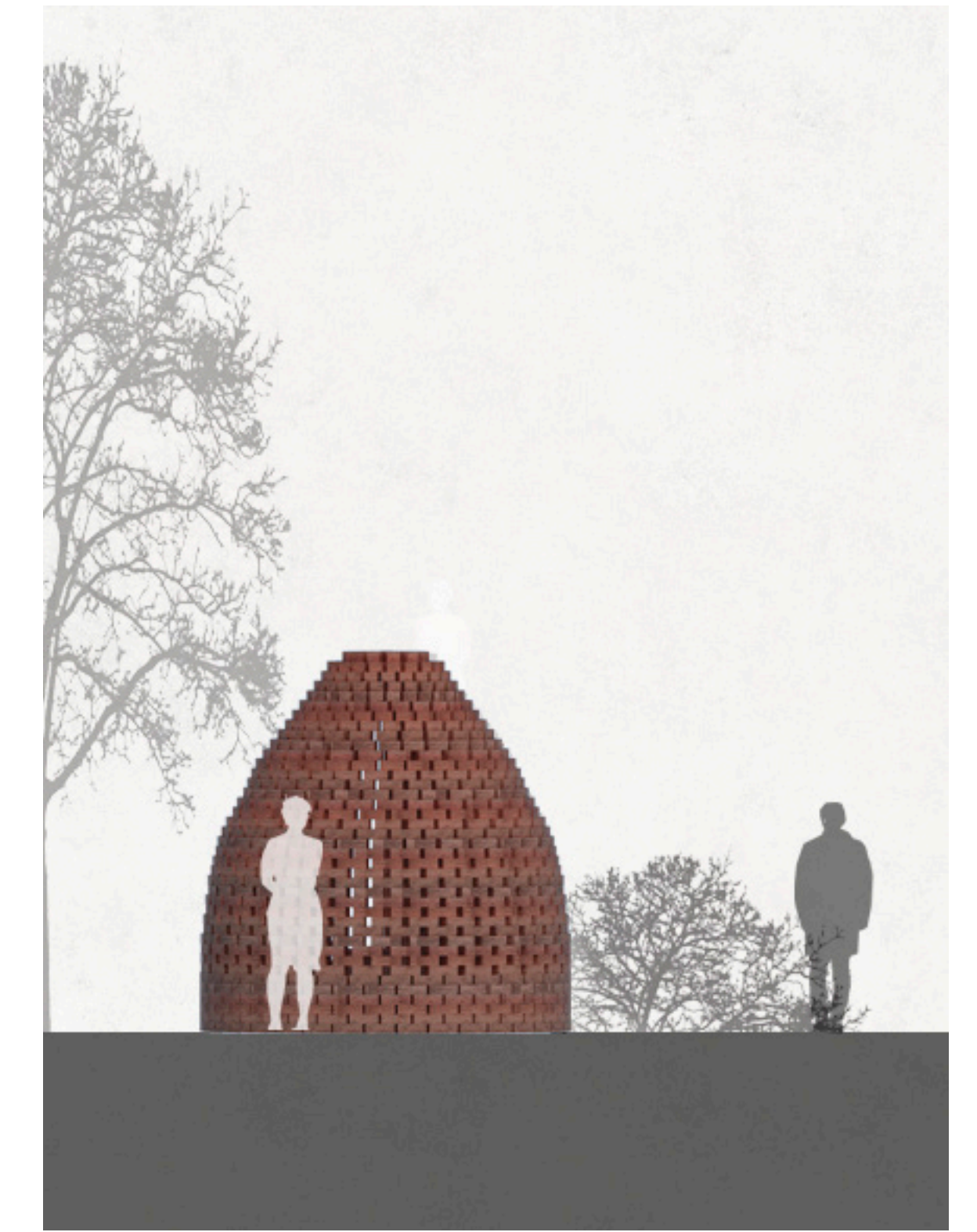


WOODEN MOULD FOR FIREPLACE

Exploded Diagram



Elevation (northeast), 1:50



Elevation (southeast, southwest, northwest), 1:50

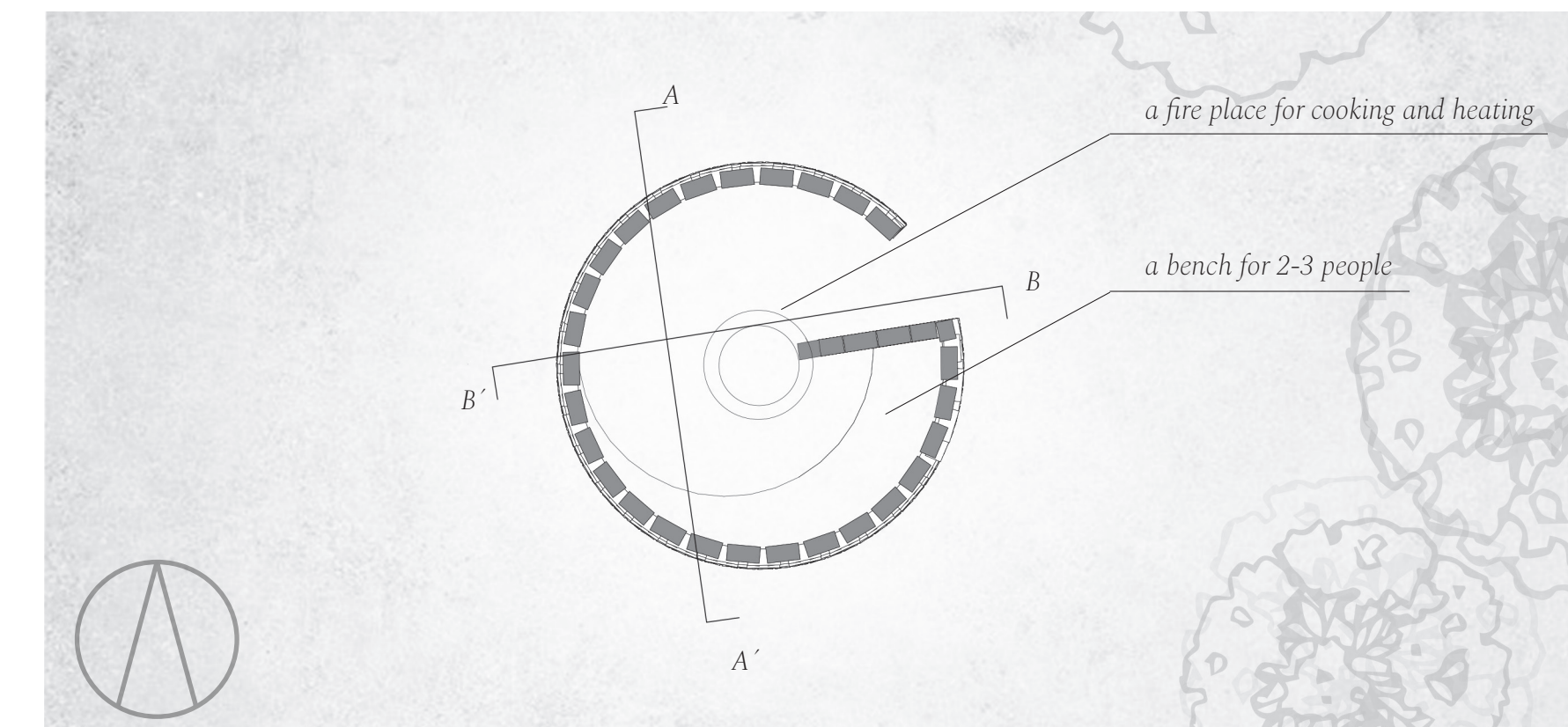
k o l o

ARK-E0001 - Special Project of Architecture, Earth Architecture
 Design task, 28.09.2020
 Ella Nikulainen

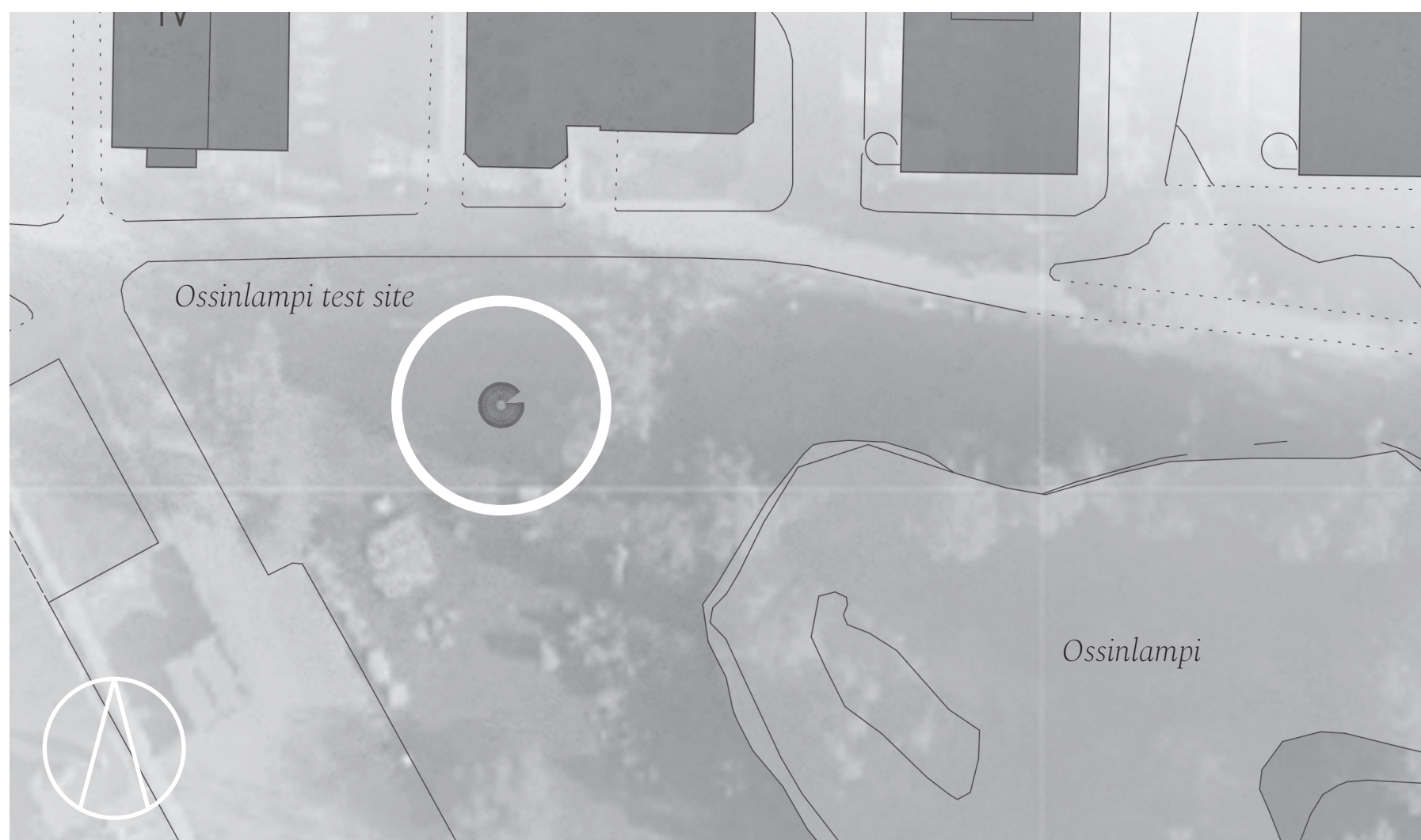
Kolo is a new hang-out place concept for Aalto community and it is located in Ossinlampi test site in Otaniemi.

Kolo is constructed of mud bricks and its dome-like shape is inspired by Syrian earth architecture tradition that dictates that every room in a house is topped with a conical dome. The base of these "bee-hive houses" is traditionally circular; layers of raw earth bricks are then added to create a spiral that tapers inwards as it approaches the top.

Finnish word "kolo" means a wild animal's hidden home. The name of the concept comes from the fact that I wanted to create a nest-like, small private space that hides from outside environment. Inside this brick-hut is a tiny space for grilling and sitting. The space feels safe and it allows visitors to relax and meditate.



Floor plan, 1:50



Site plan, 1:500



Section A-A', 1:50



Section B-B', 1:50

RED EGG

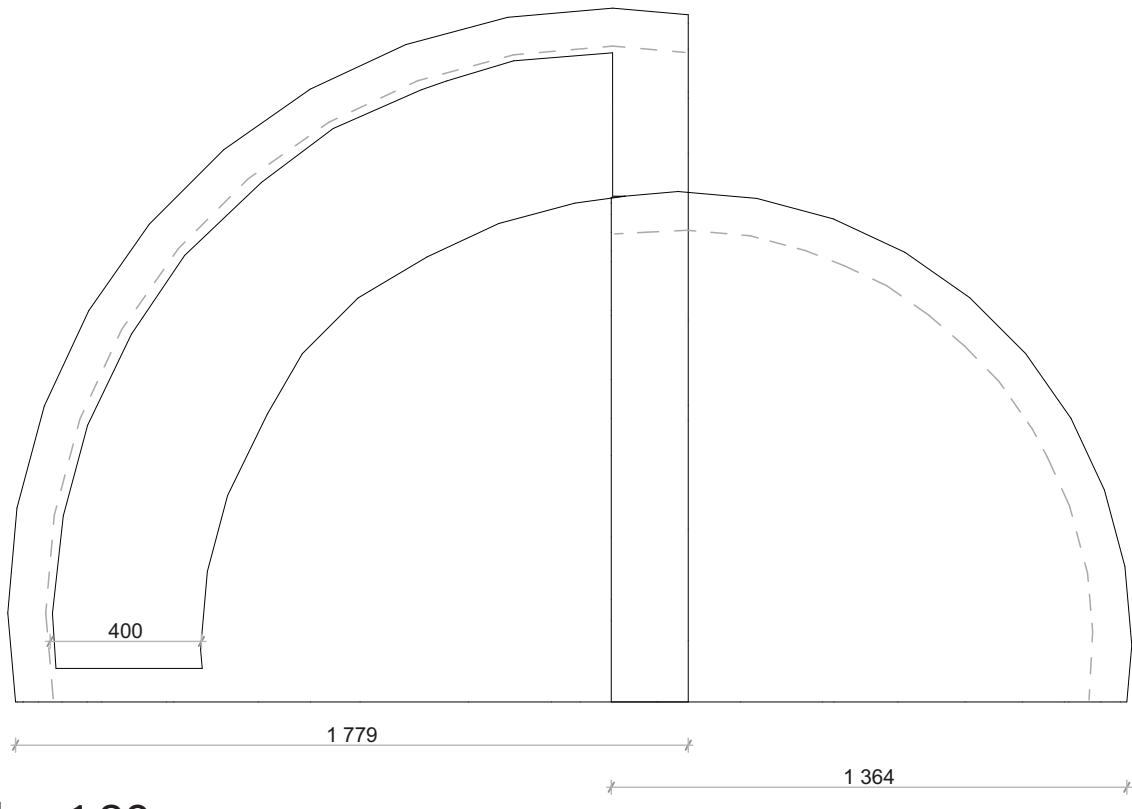
ARK-E001
Petra Minkkinen

RED EGG is a gathering spot for students of Aalto University and others who pass through Otaniemi.

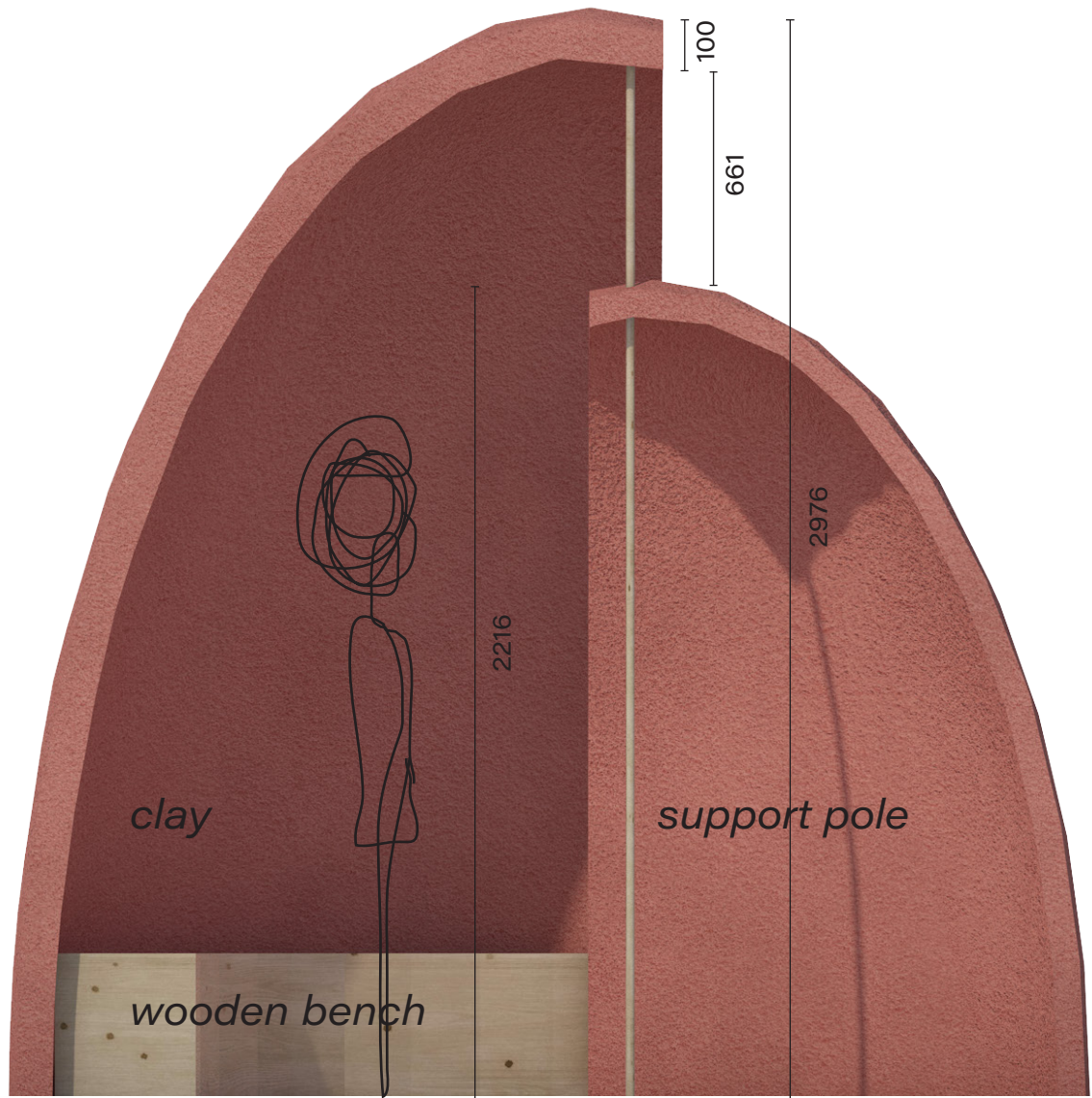
It consists of two quarters which remind egg shells. They interlace with each other creating a place to sit down and relax on a wooden bench. The shells confine a view to the Ossinlampi.

The shells are created by using an old method in which the structure is made by whicker and the clay is patted on top of it. The shell quarters are supported by a pole.

The RED EGG is a place to relax and feel the protection and cover of the clay.



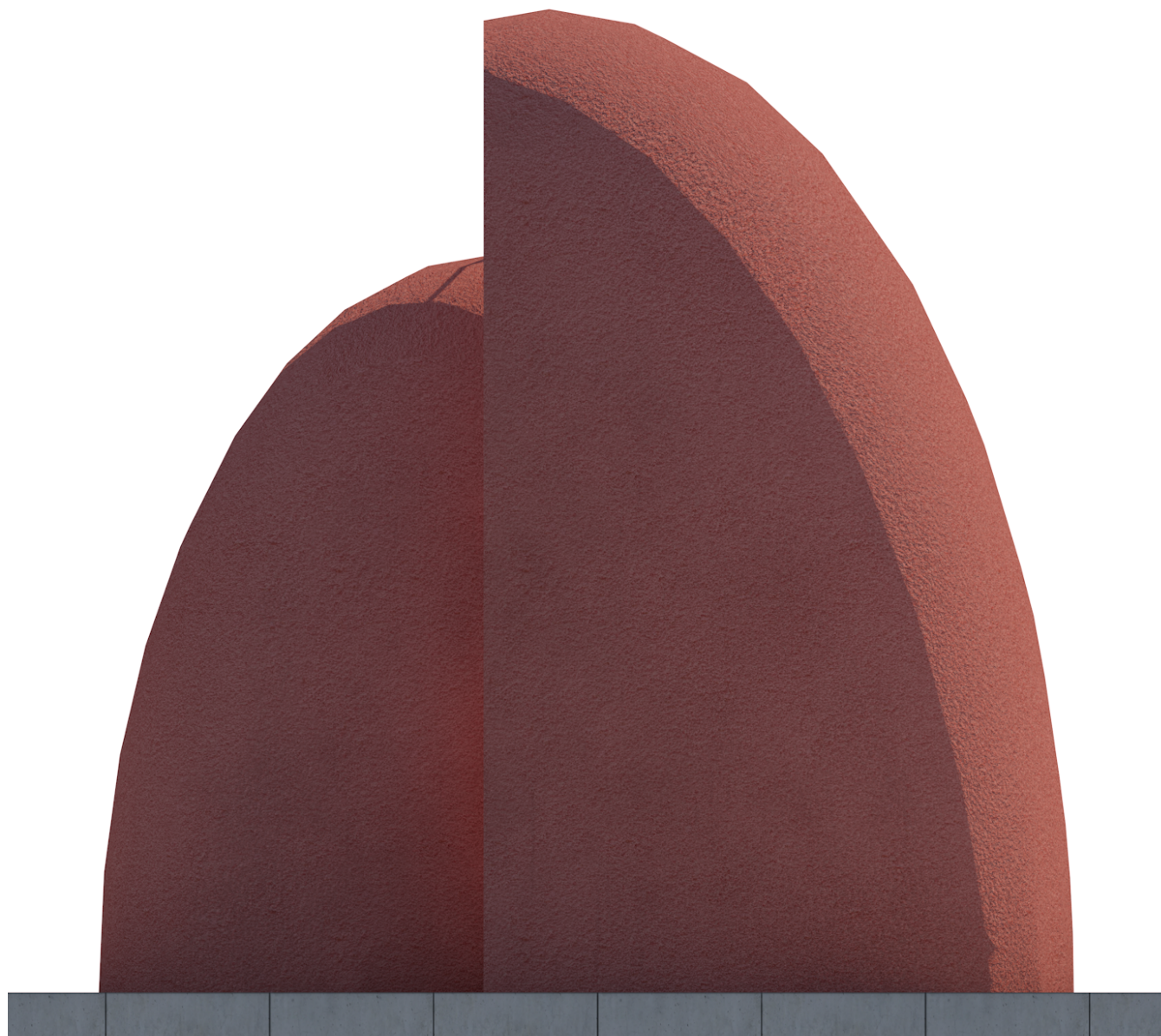
Floorplan 1:20



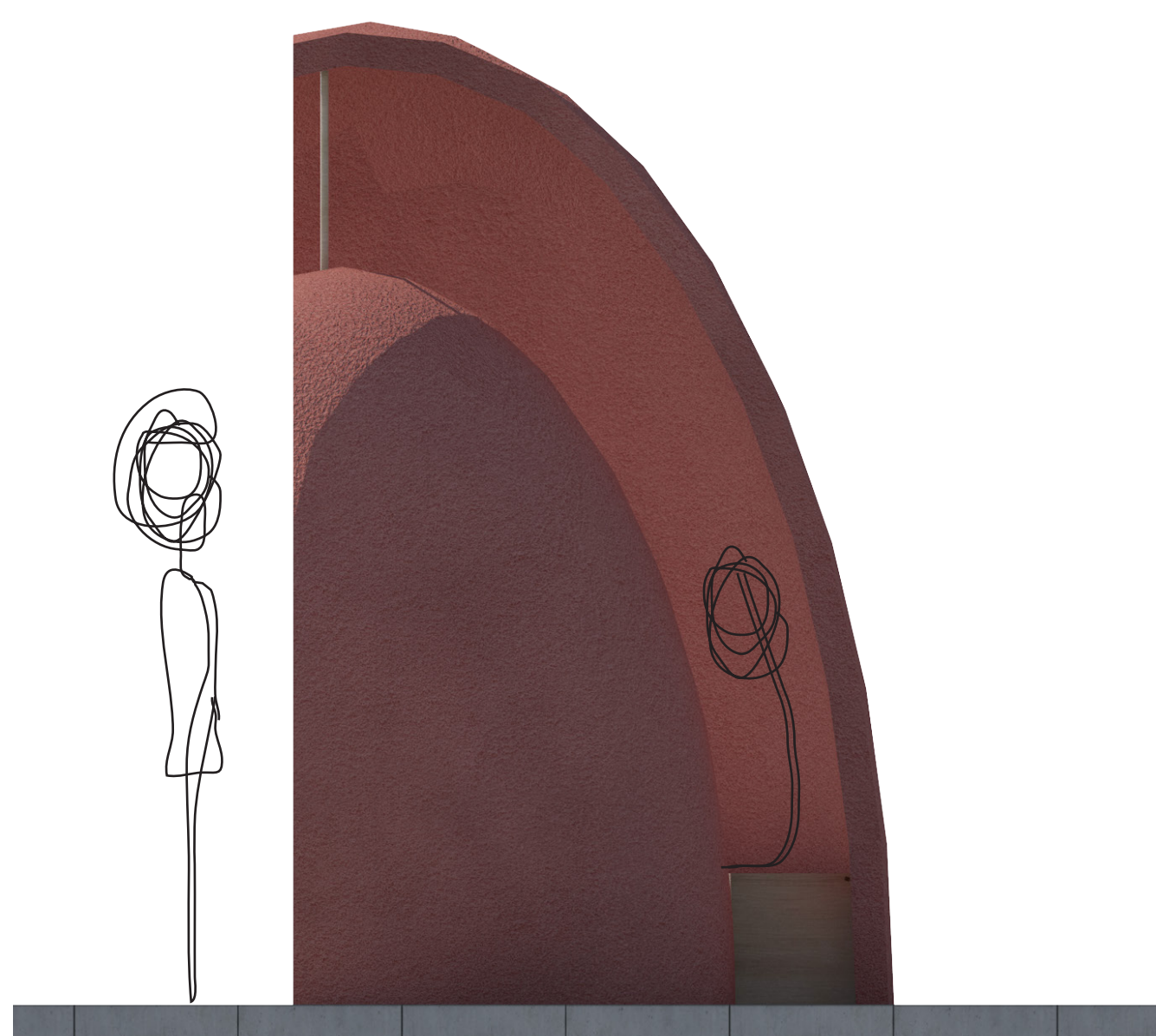
Facade from south 1:20



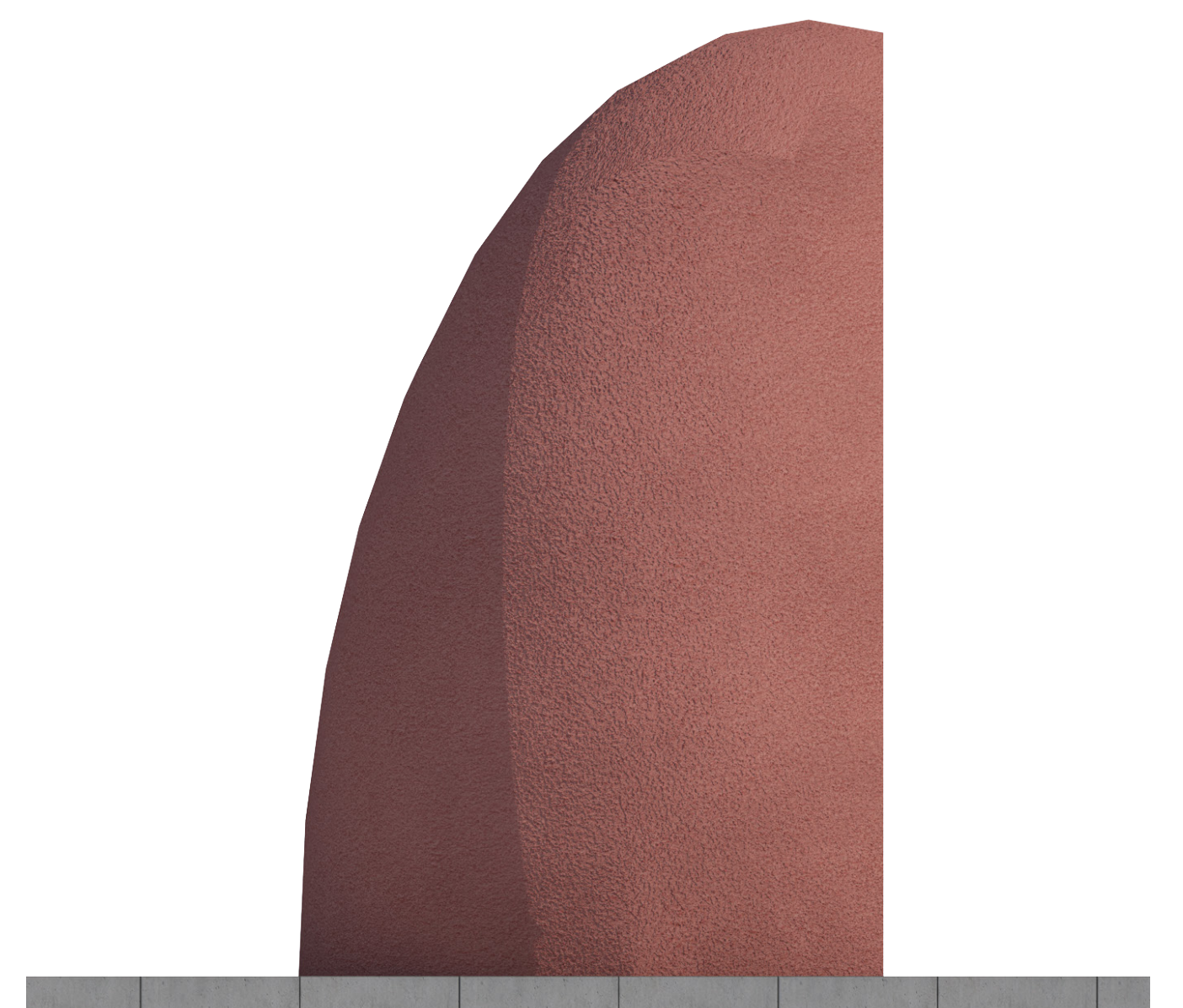
Site plan 1:500



Facade from North 1:20



Facade from East 1:20



Facade from West 1:20