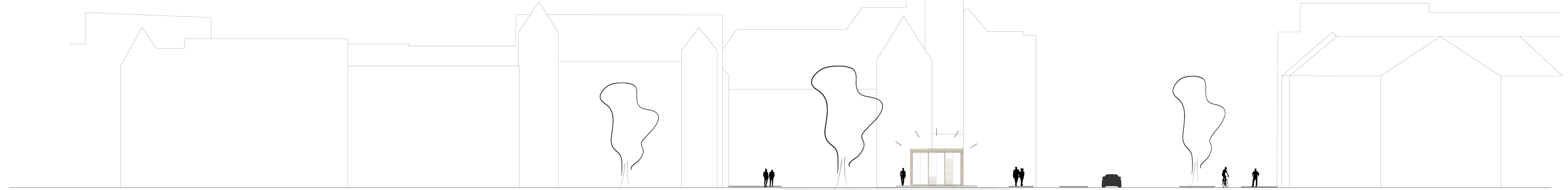


EARTH CORE PAVILION - A PUBLIC ROOM

SOPHIE DE RIDDER

Studio Grounded Matter // Rotterdam Academy of Architecture // 22 12 21

Site / Located in front of the Rotterdam Academy of Architecture
Pieter de Hoochweg - Pieter de Hoochstraat - Westzeedijk
Rotterdam, The Netherlands



1/200



1/500

Rammed earth is a technique for using local earth as building material. A formwork is used where different layers of earth can be rammed on top of each other. It allows for free, continuous shapes with gradients in color, which creates a natural, warm look and feel. The construction is sustainable and fully recyclable.

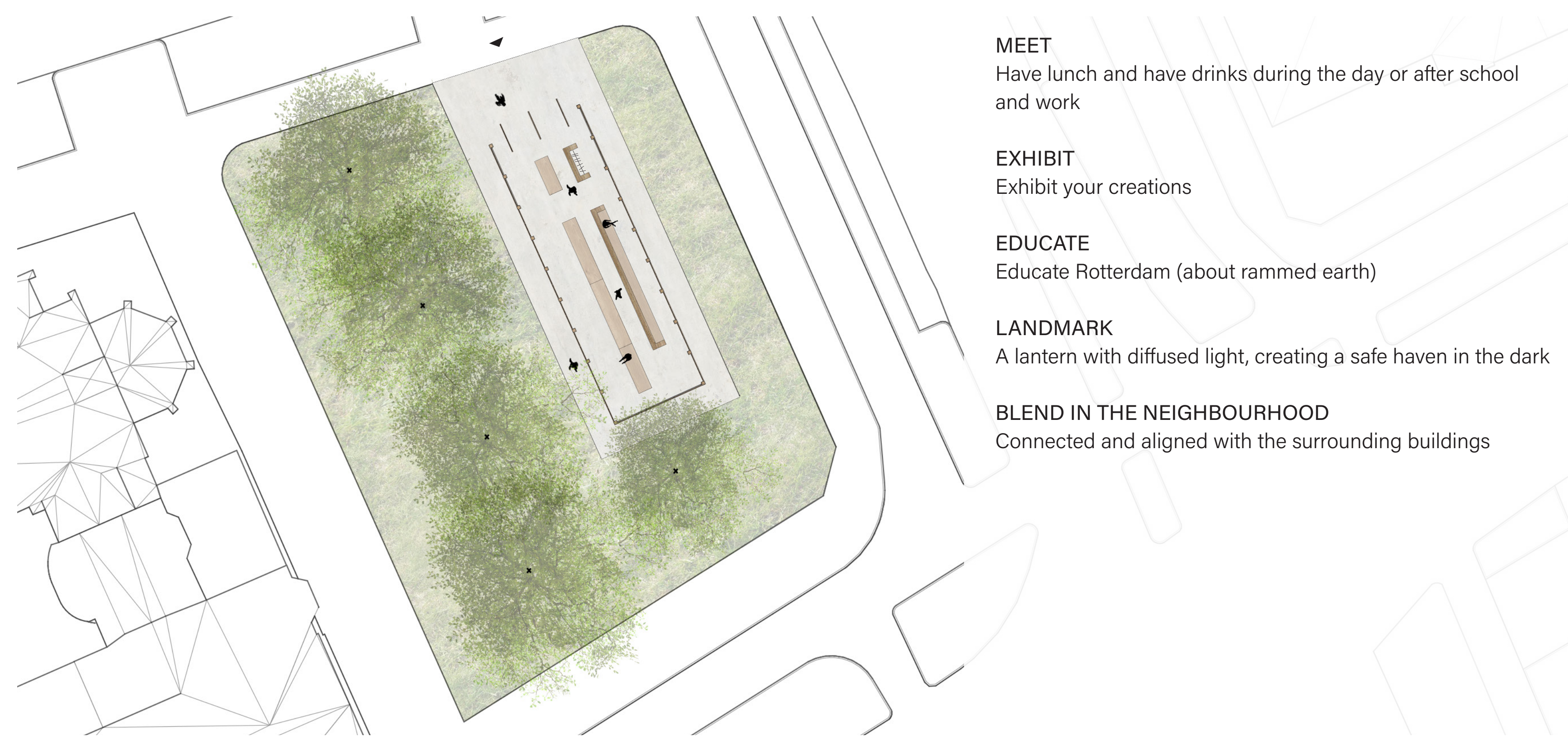
Rammed Earth is mostly associated with building practices in developing countries, where earth is widely available, locally sourced and locally used. But now, in more industrialized developing countries, rammed earth has been rediscovered as a building material with surprisingly good sustainable characteristics, which makes it a serious alternative to more traditional building materials and techniques.

In the Netherlands, rammed earth is not the most obvious construction method because of the climate. Rammed earth is sensitive to, and has to be protected against moist and wind. Besides being able to build structures with earth, you can do more with it, like using it for interior walls, floors, bars, benches, etc. In this Public Room, Rotterdammers are introduced to the possibilities of rammed earth while using it.



samples

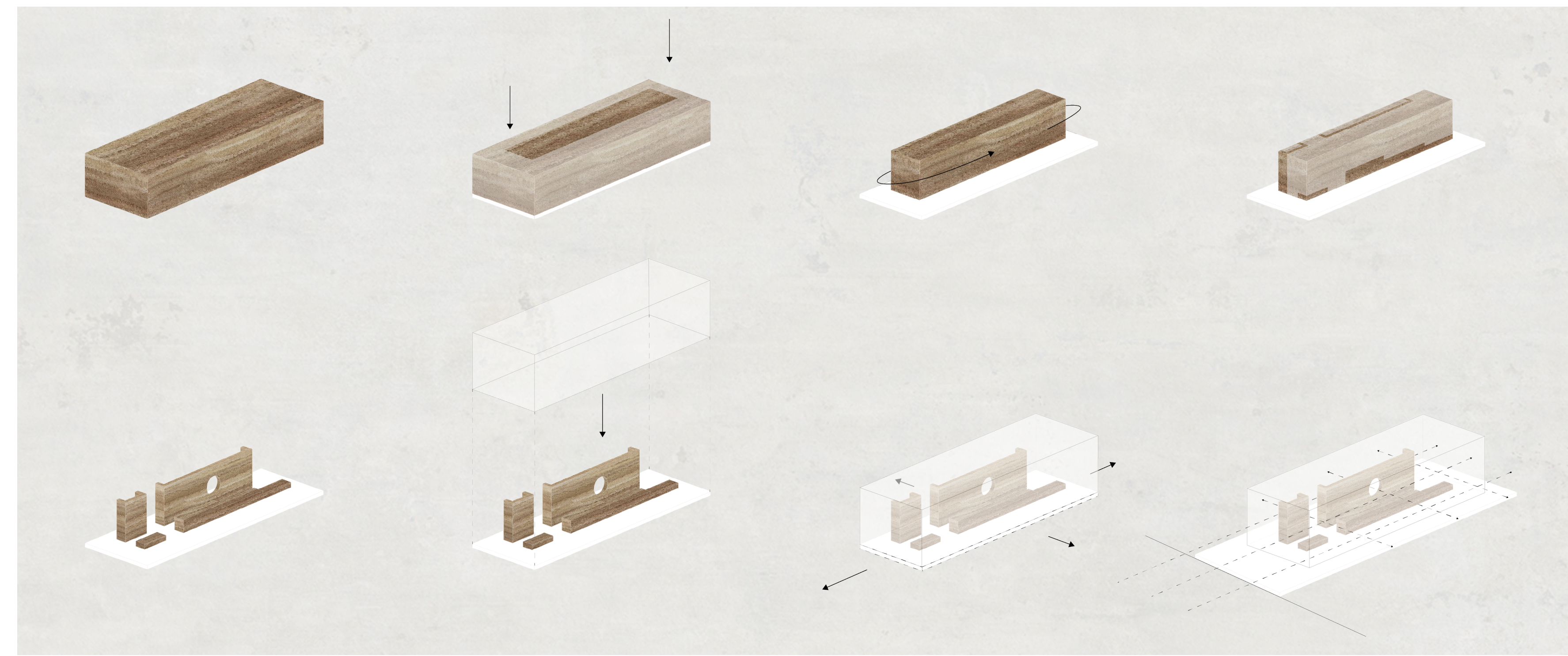
From least to most material, the basic recipe of rammed earth consists of clay, gravel, sand and silt. After these materials are mixed, a sticky substance is made from them by adding a small amount of water. Depending on the local materials, the percentages per mix will just vary a bit.



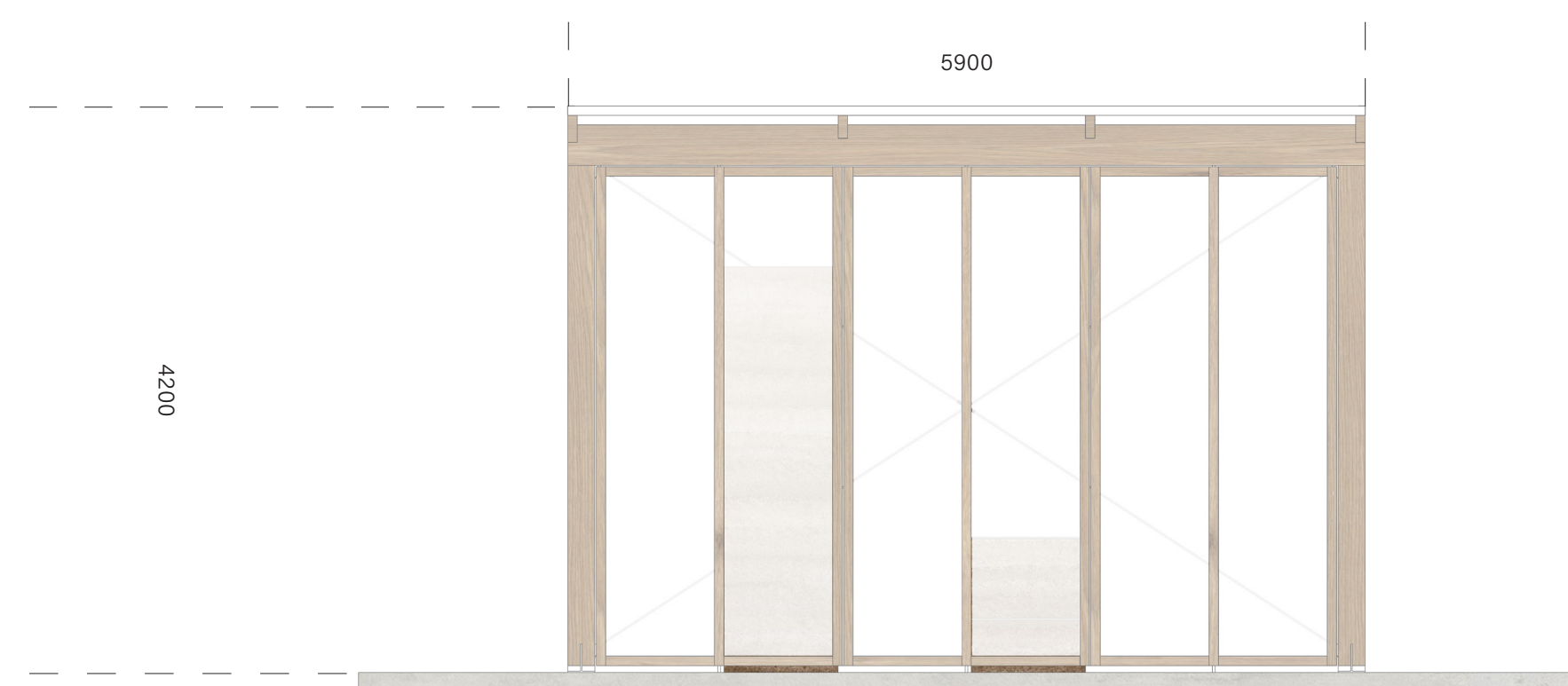
1/200

- MEET**
Have lunch and have drinks during the day or after school and work
- EXHIBIT**
Exhibit your creations
- EDUCATE**
Educate Rotterdam (about rammed earth)
- LANDMARK**
A lantern with diffused light, creating a safe haven in the dark
- BLEND IN THE NEIGHBOURHOOD**
Connected and aligned with the surrounding buildings

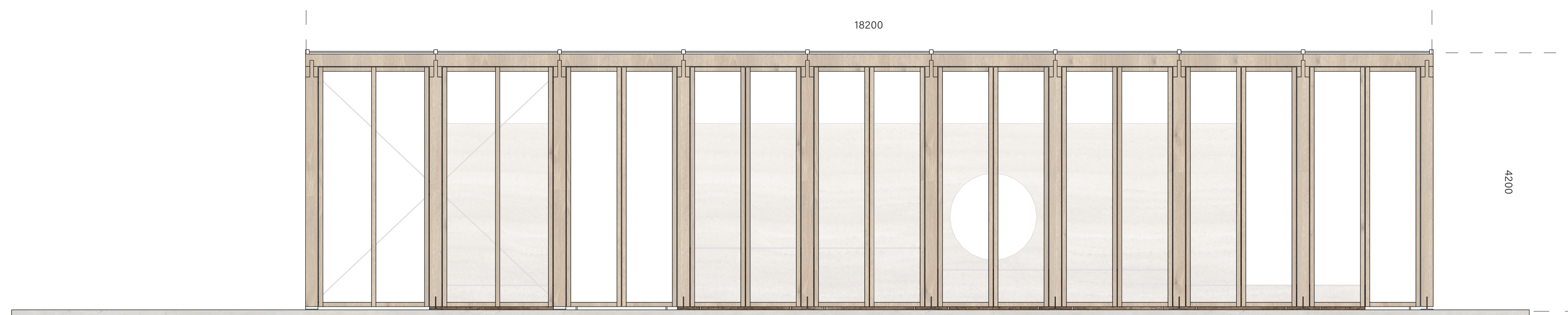
functions



Rammed Earth as centrepiece



1/50 view north - entrance

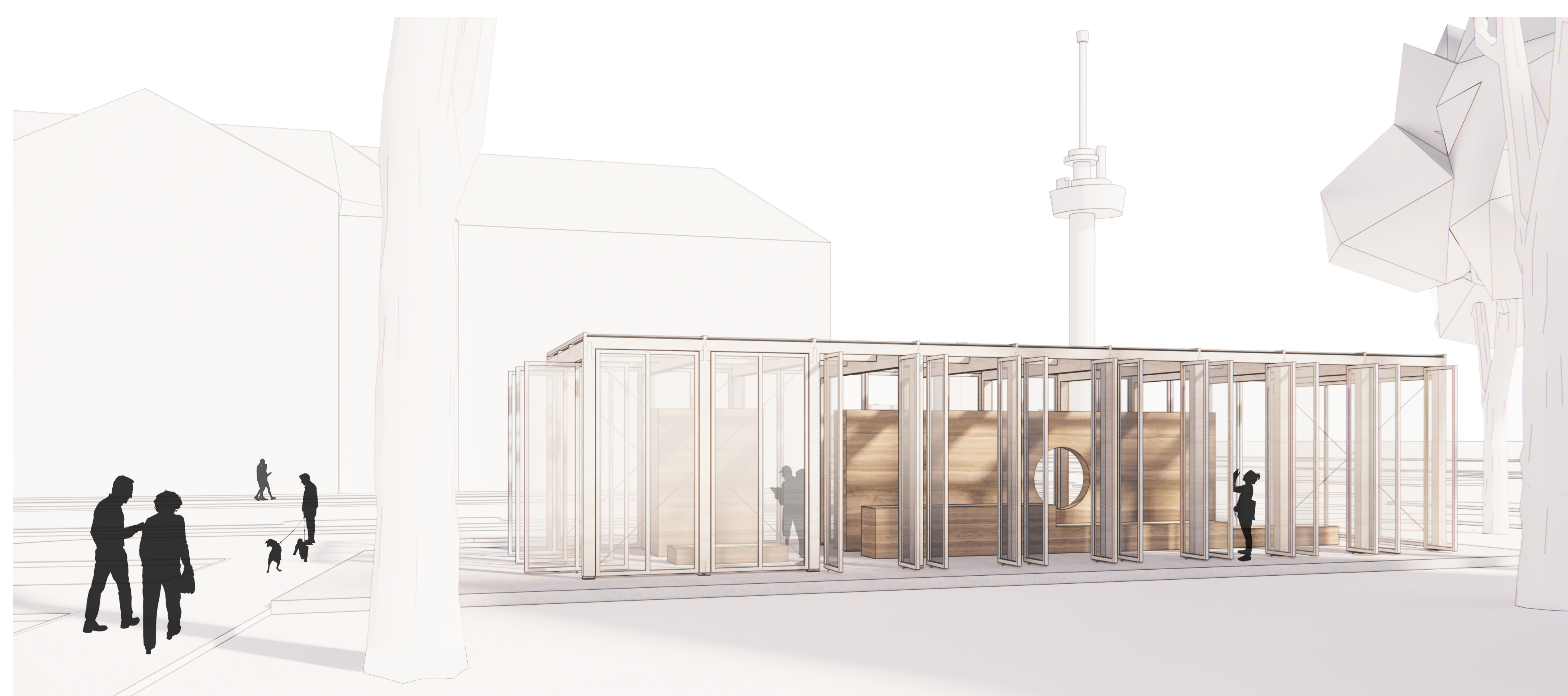


1/50 view west



1/50 view north - entrance

1/50 view west



- WELCOMING ENTRANCE**
The entrance aligned with the entrance of the Academy
The entrance accentuated by the pivot doors and the extended base plate to the pavement
- TRANSPARANCY**
Desired transparency created by the openings along and through the Rammed Earth components
See through with opposite placed patio doors - the park invited into the building
Recycled polycarbonate as semi-transparent façade panels to create diffused light
- MATERIALS**
The Rammed Earth as the core protected by a wooden casing
Experience and feel sustainable building with rammed earth
- UNIQUE**
A unique building with unique materials in a unique surrounding



1/50 maquette

EARTH CORE PAVILION - A PUBLIC ROOM

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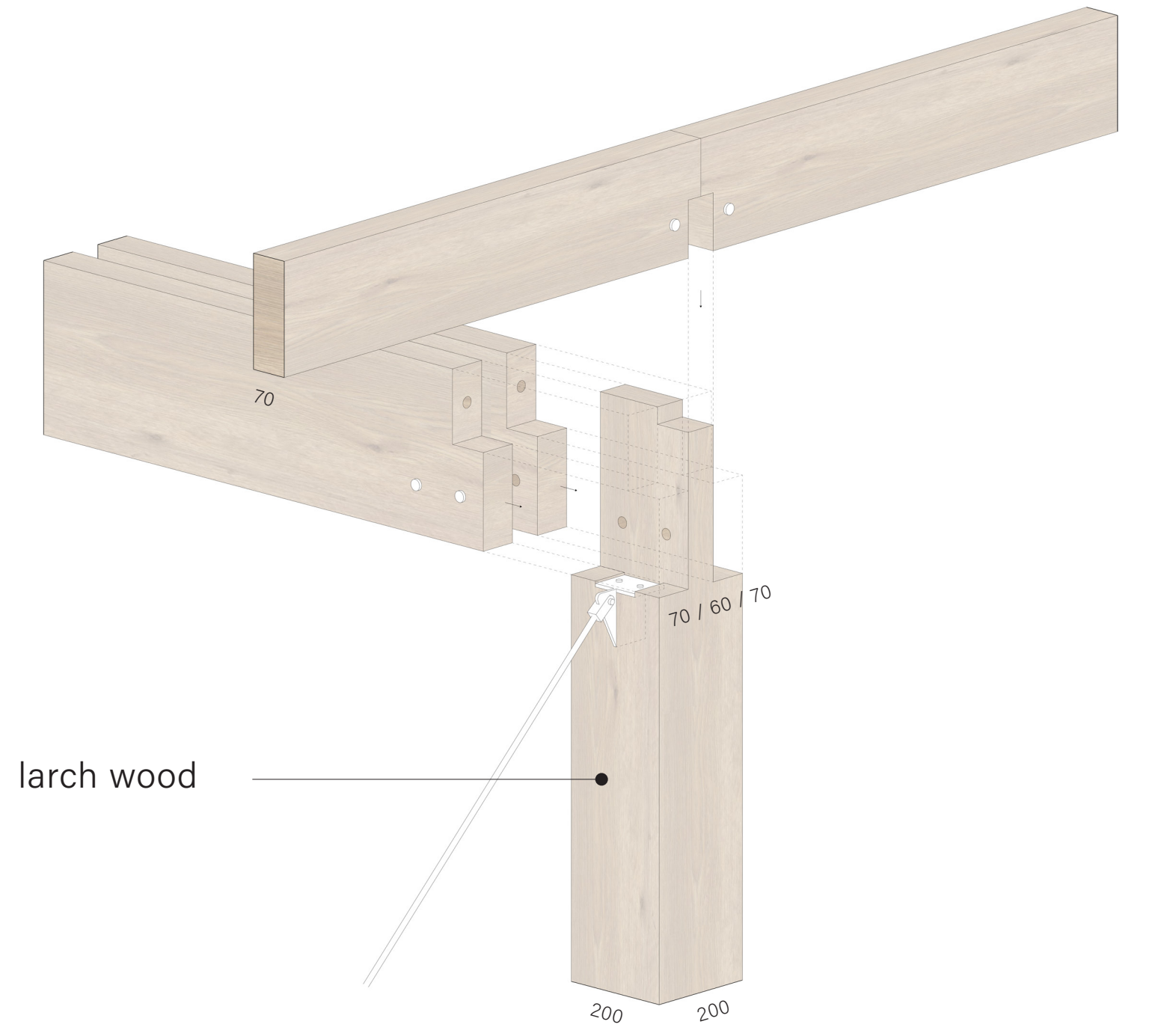
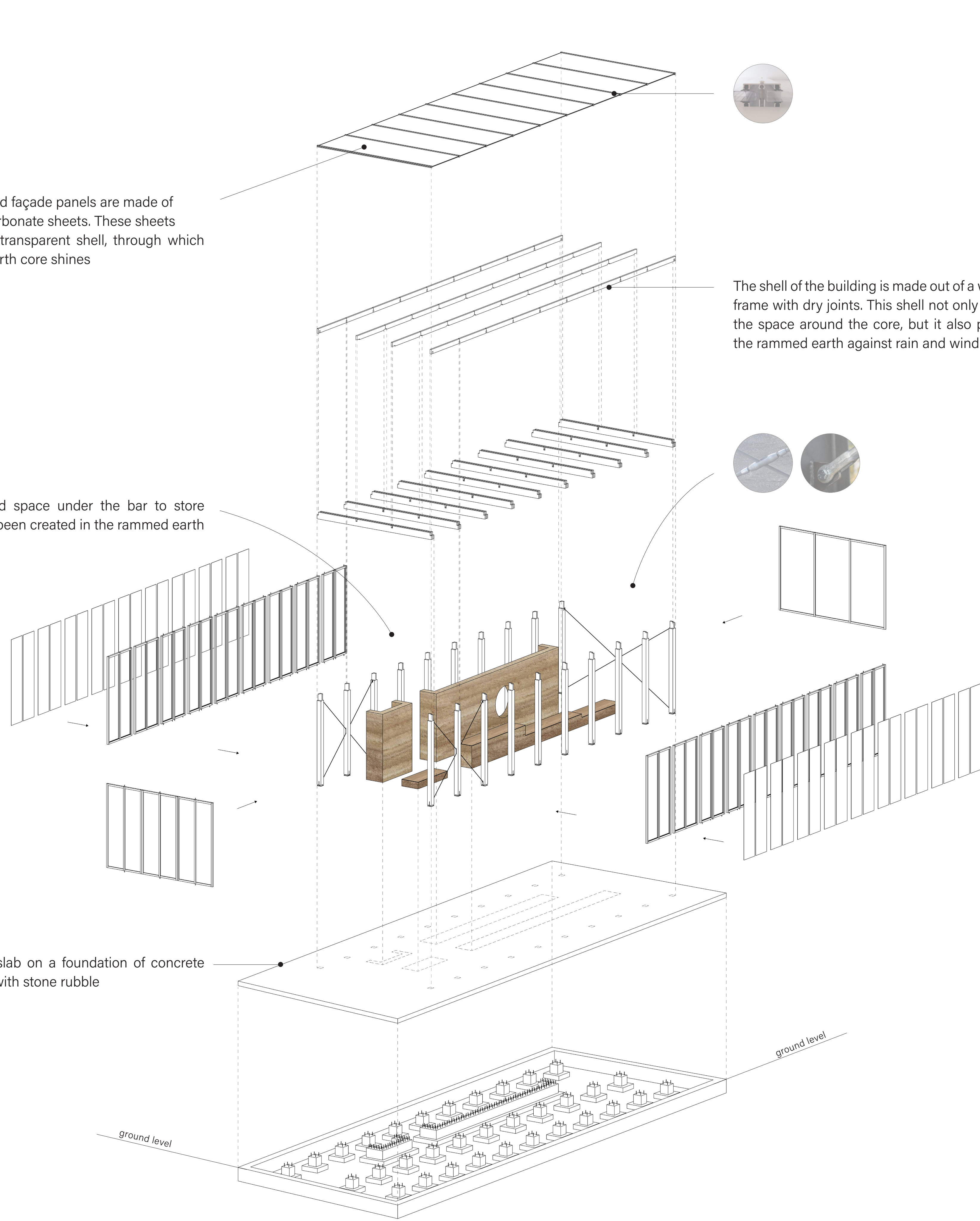
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Both the roof and façade panels are made of recycled polycarbonate sheets. These sheets provide a semi-transparent shell, through which the Rammed Earth core shines

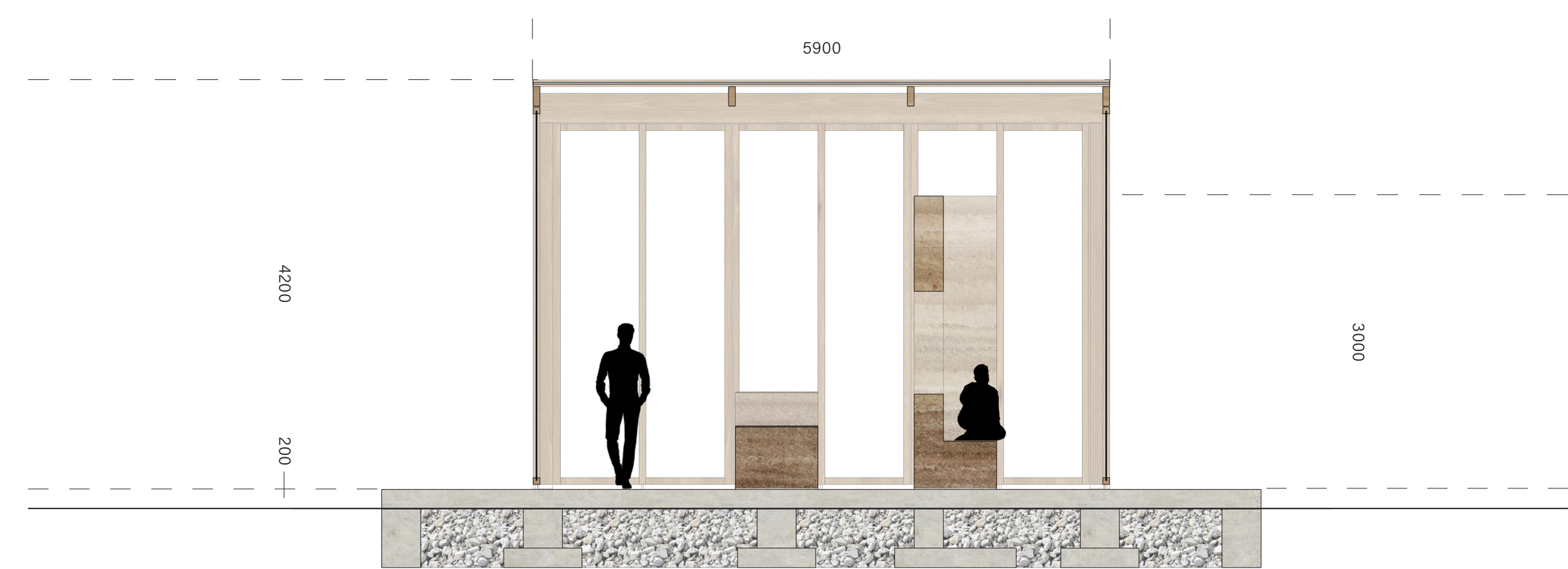
A wardrobe and space under the bar to store things has also been created in the rammed earth elements

Concrete floor slab on a foundation of concrete elements filled with stone rubble

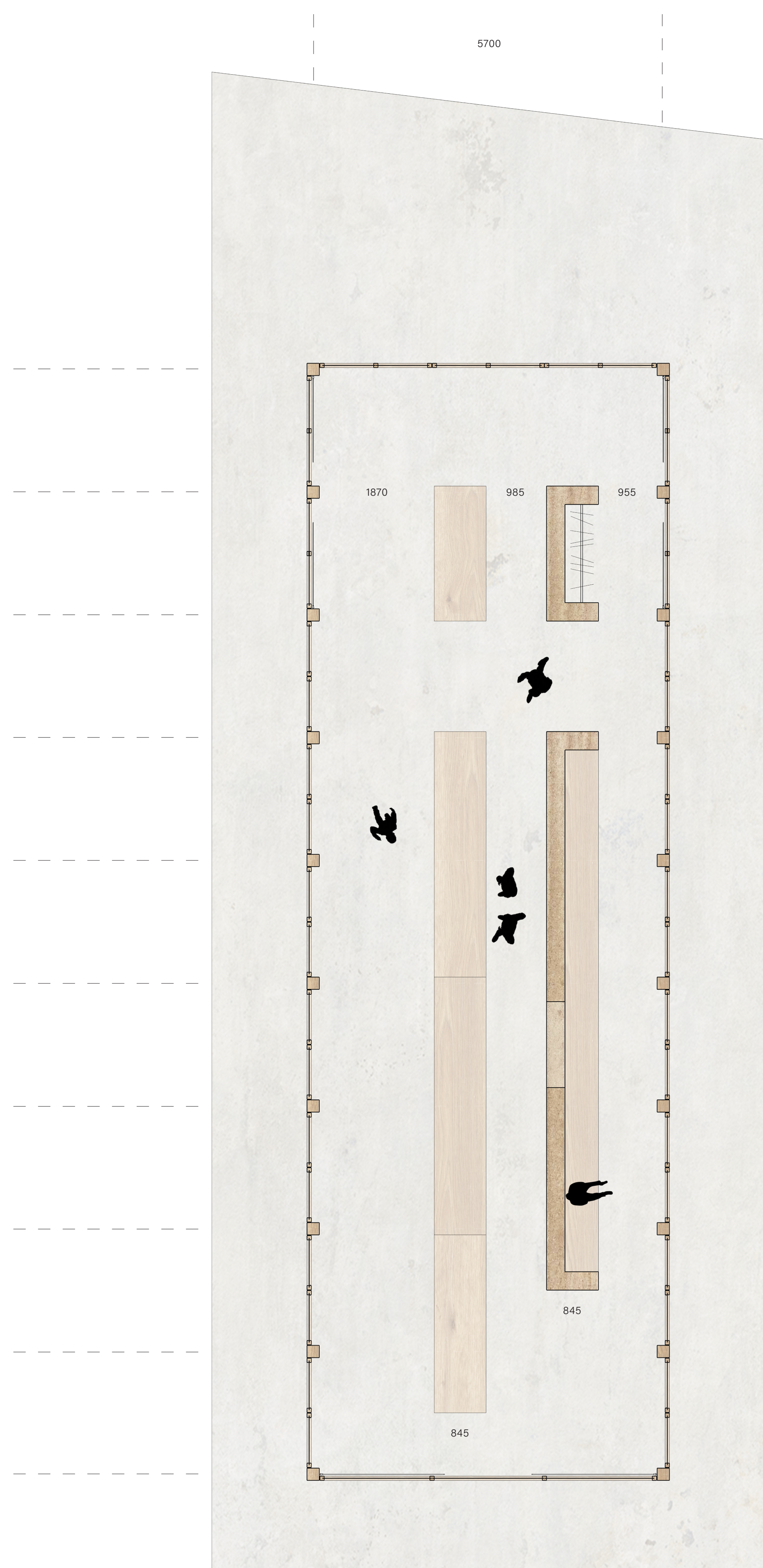
The shell of the building is made out of a wooden frame with dry joints. This shell not only creates the space around the core, but it also protects the rammed earth against rain and wind



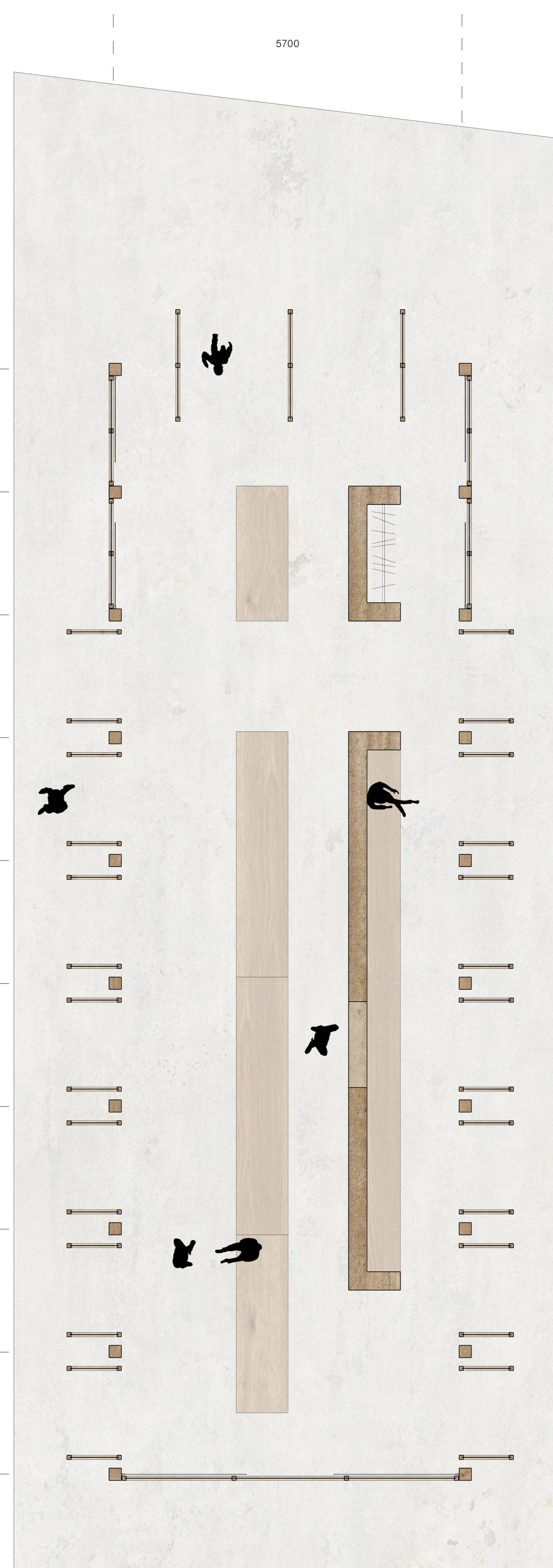
wooden joint



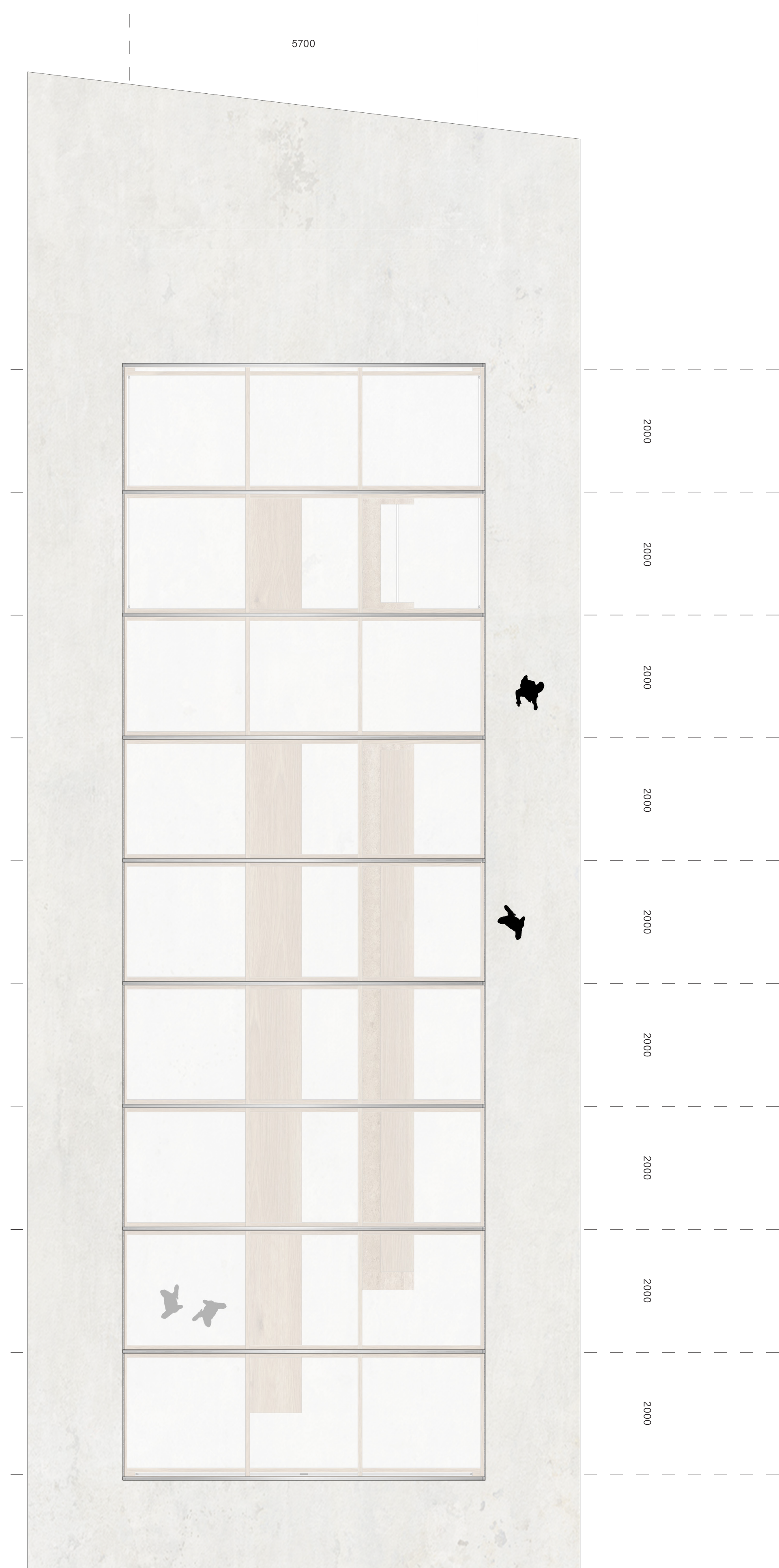
1/50 section



1/50 plan - closed



1/50 plan - open



1/50 roof