

Environmental Activism in the Museum

Art and Architecture displaying change

North Elevation 1:200



South Elevation 1:200



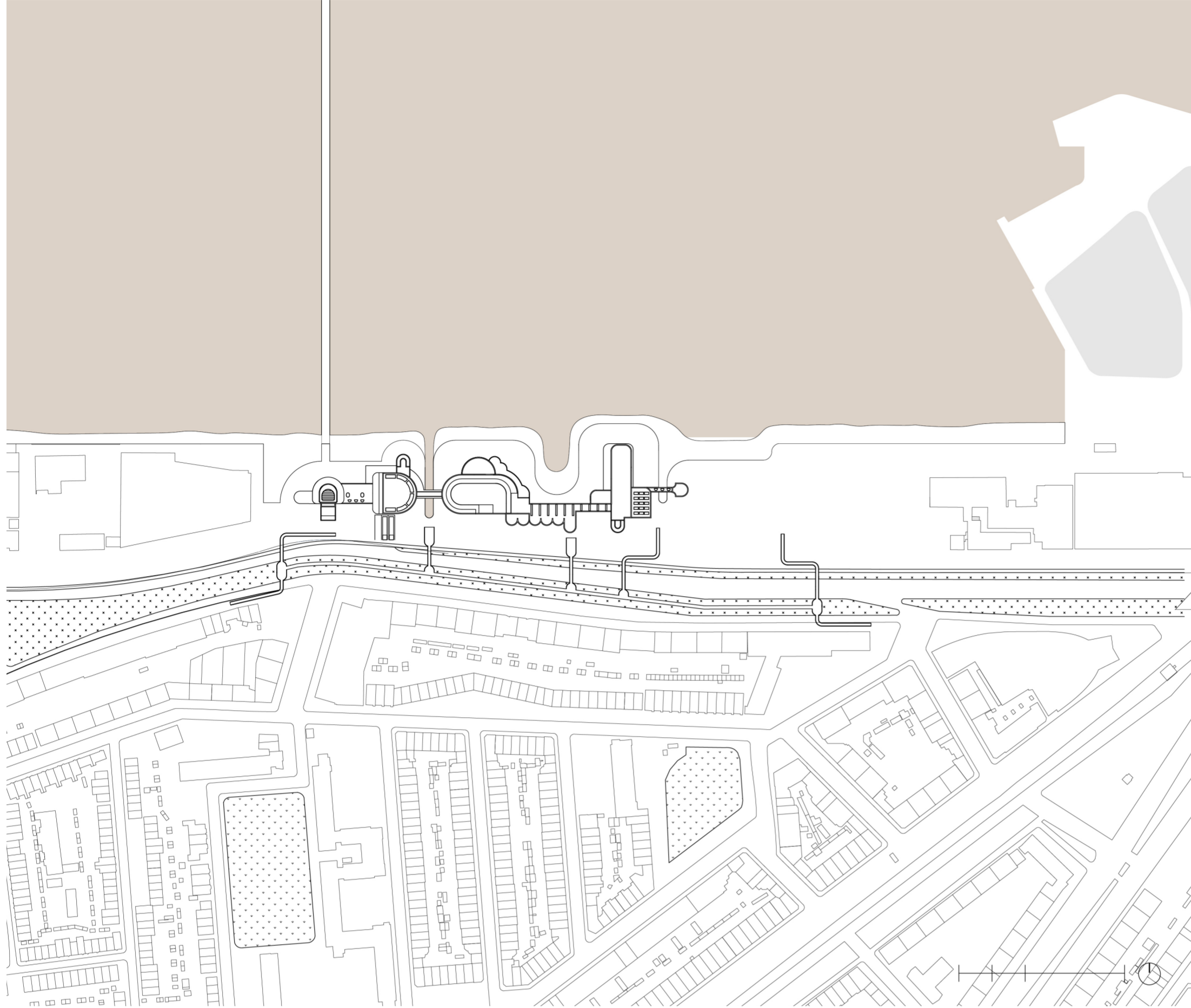
East Elevation 1:200



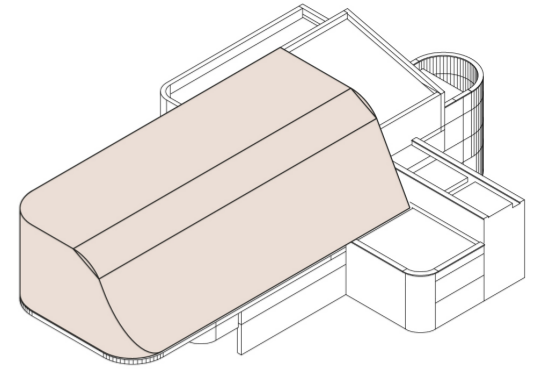
West Elevation 1:200



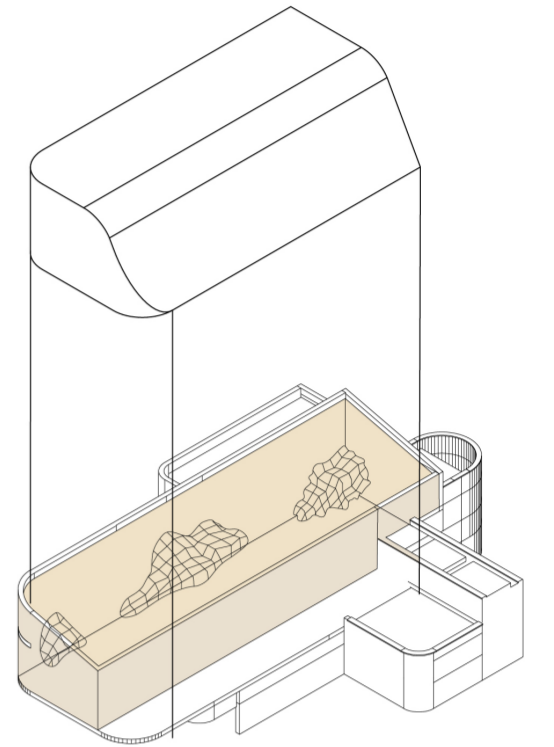
Site Plan 1:1000



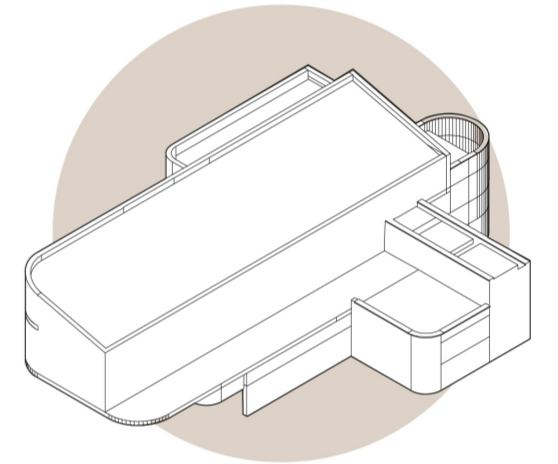
Multiplicity Concept



Responsive Design

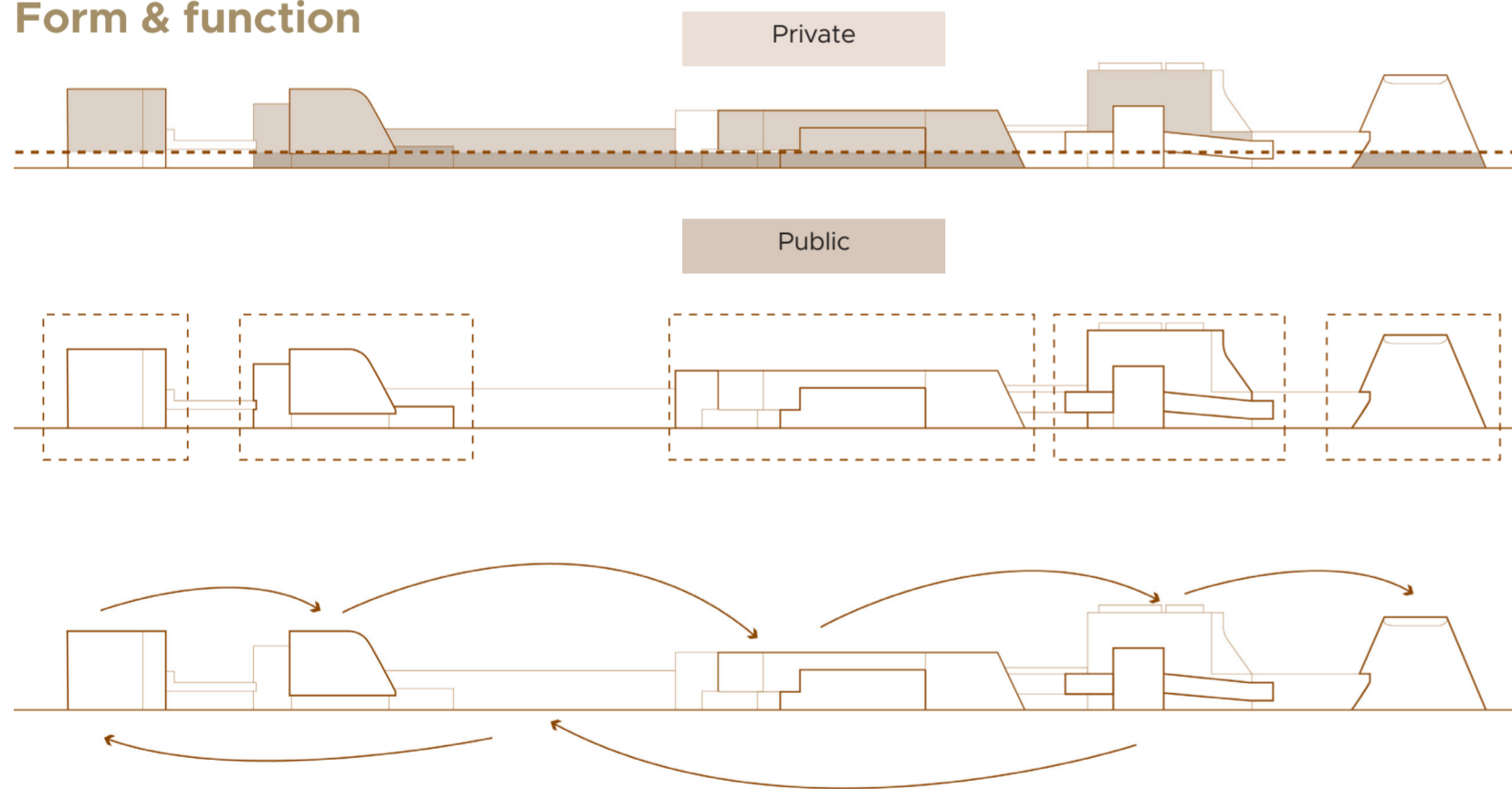


Simulation



Change over time

Form & function



Private

Public

Public/ Private division

Clear distinction between ticketed areas & freely accessible areas with the public functions located on the ground floor to be more engaging with the community

Modules

The program is divided into distinct modules, each expressing a different function and providing a unique experience.

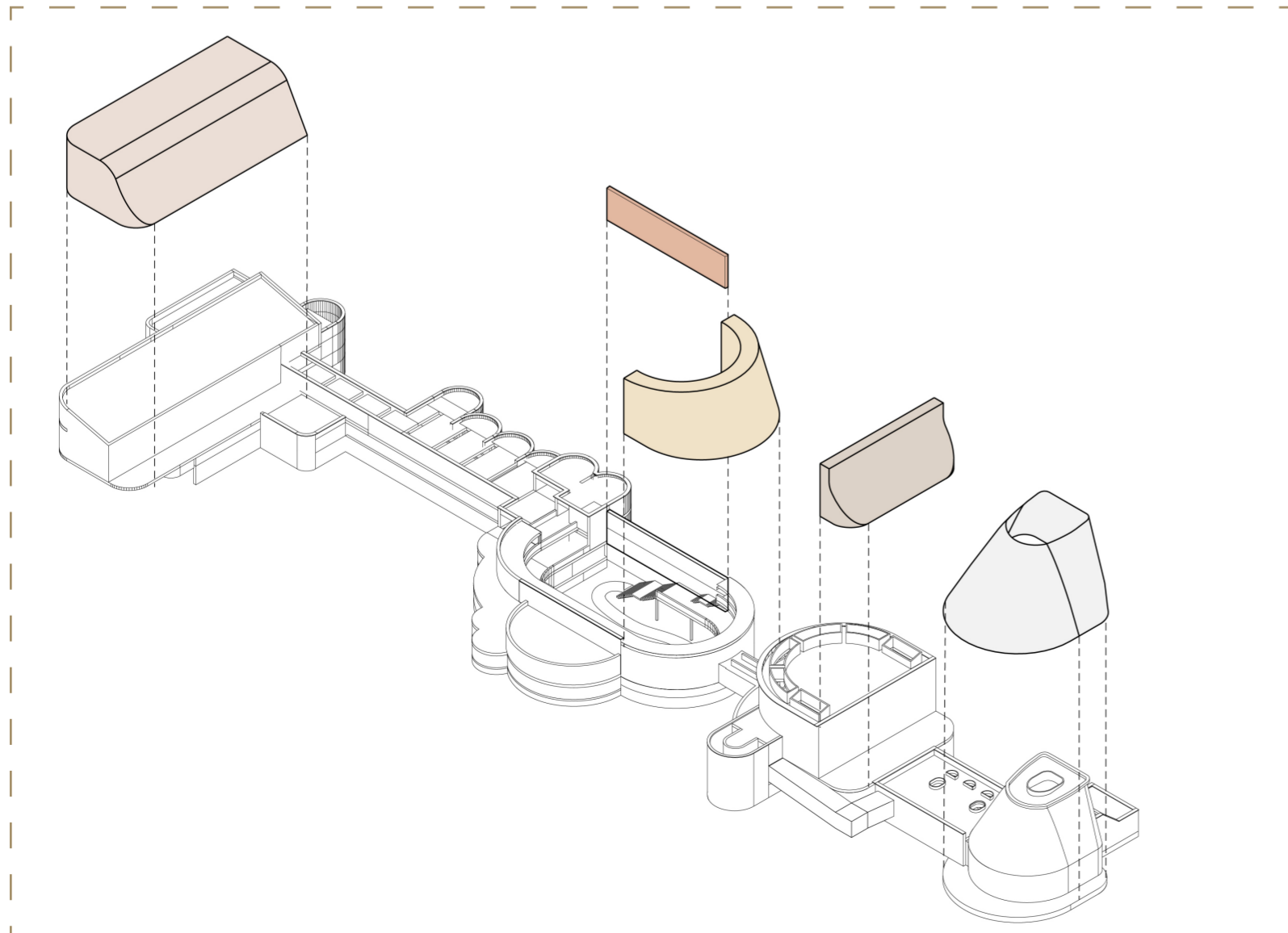
Singular path

The interior layout was designed as a continuous path with an evolving narrative in mind. The sequence of spaces aims to tell a story about the current environmental circumstances and to create a unique experience for the viewer.

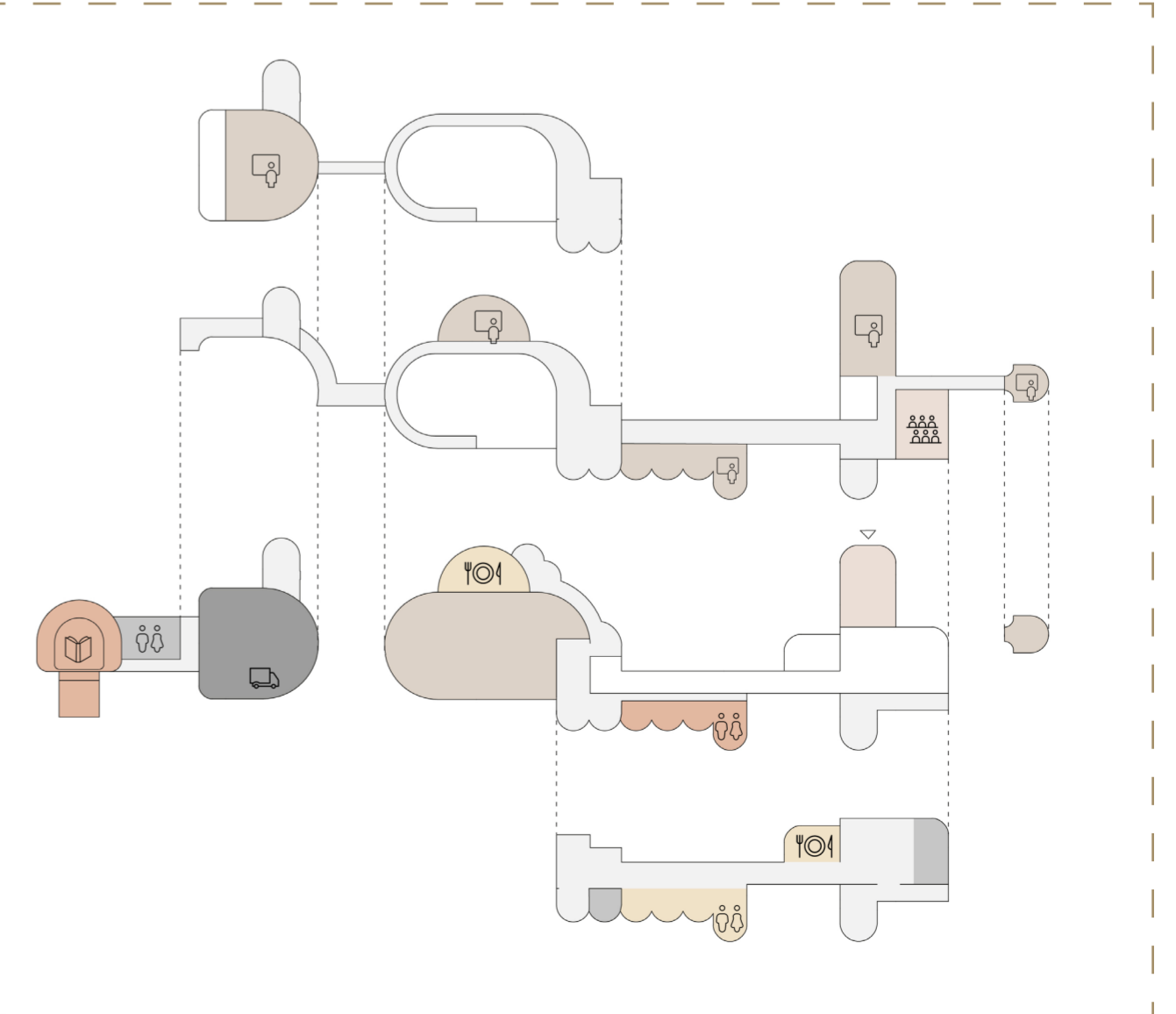
- Circulation
- Multi purpose rooms
- Educational Spaces
- Commercial spaces
- Recreational Spaces
- Administrative Spaces
- Logistical Spaces

Museum responds to changes in the environment through erosion. Exhibition rooms simulate erosion and highlight ongoing issues. Everchanging conditions provide a multitude of experience.

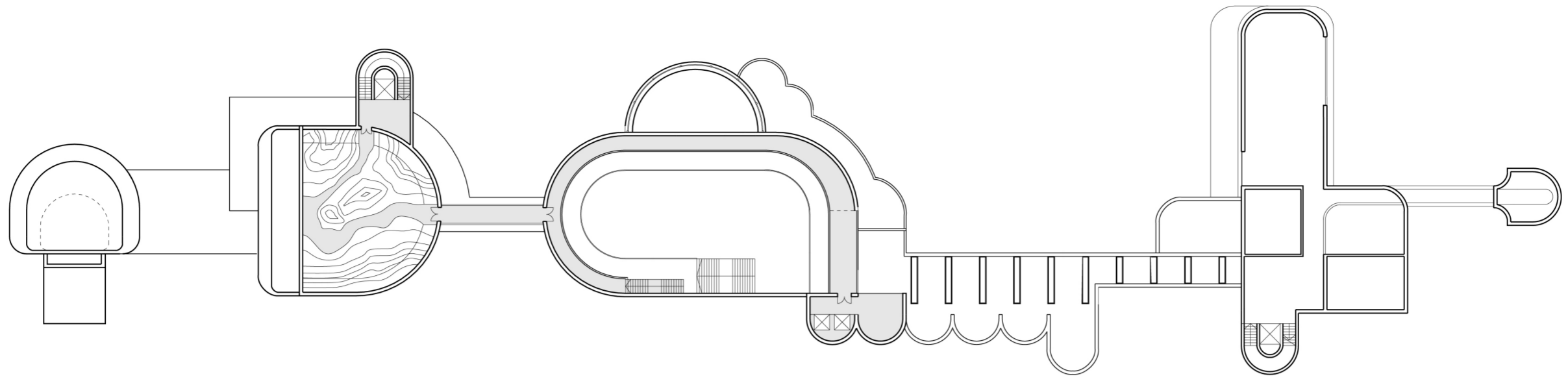
Erosion Elements



Program

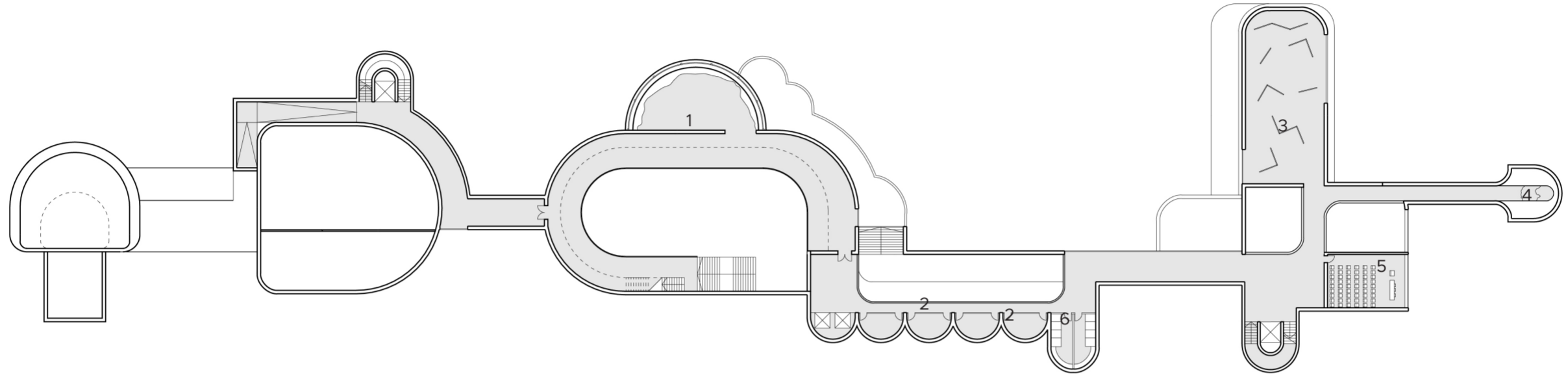


Second Floor Plan 1:200



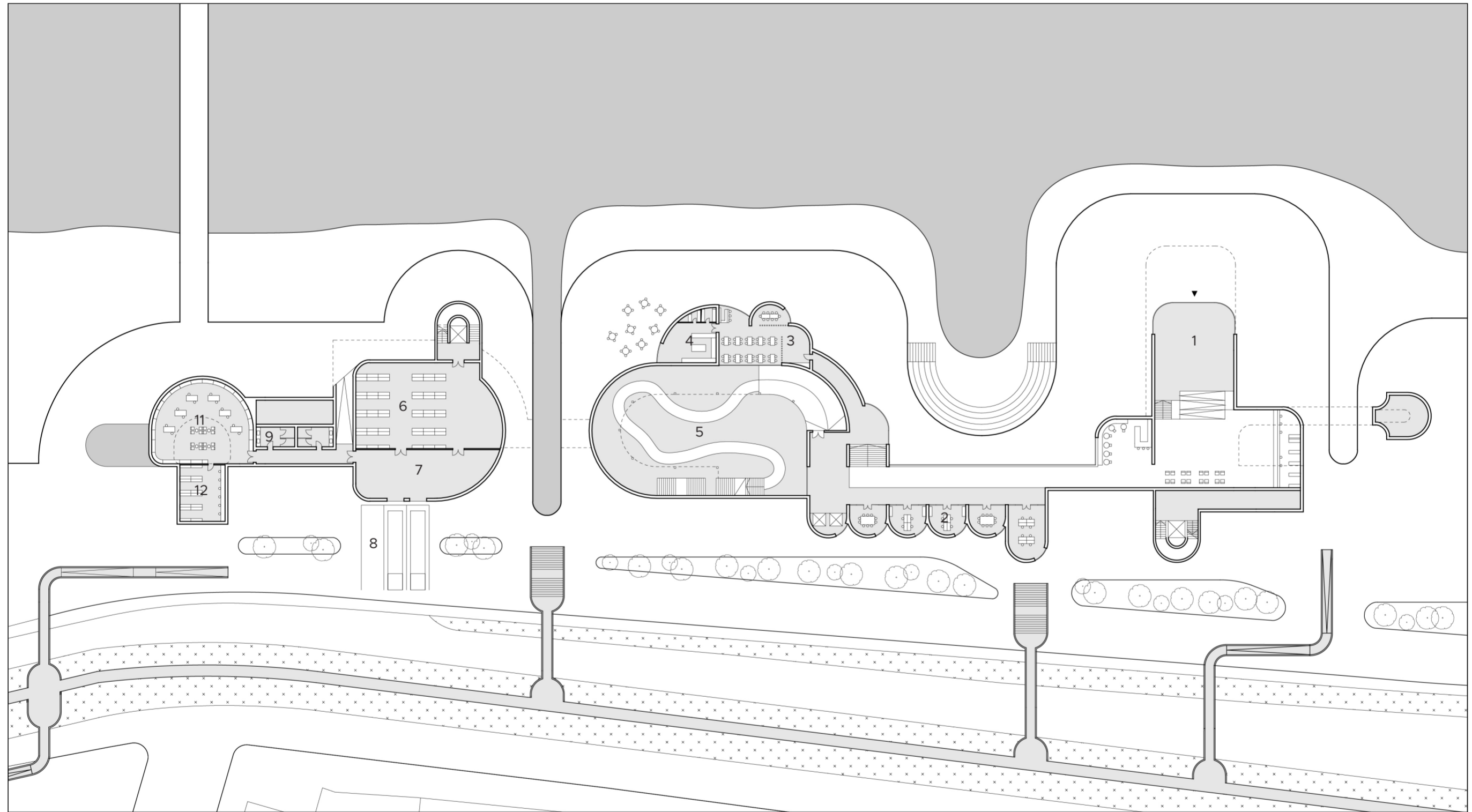
- Key
 1. Gallery B
 2. Storage

First Floor Plan 1:200

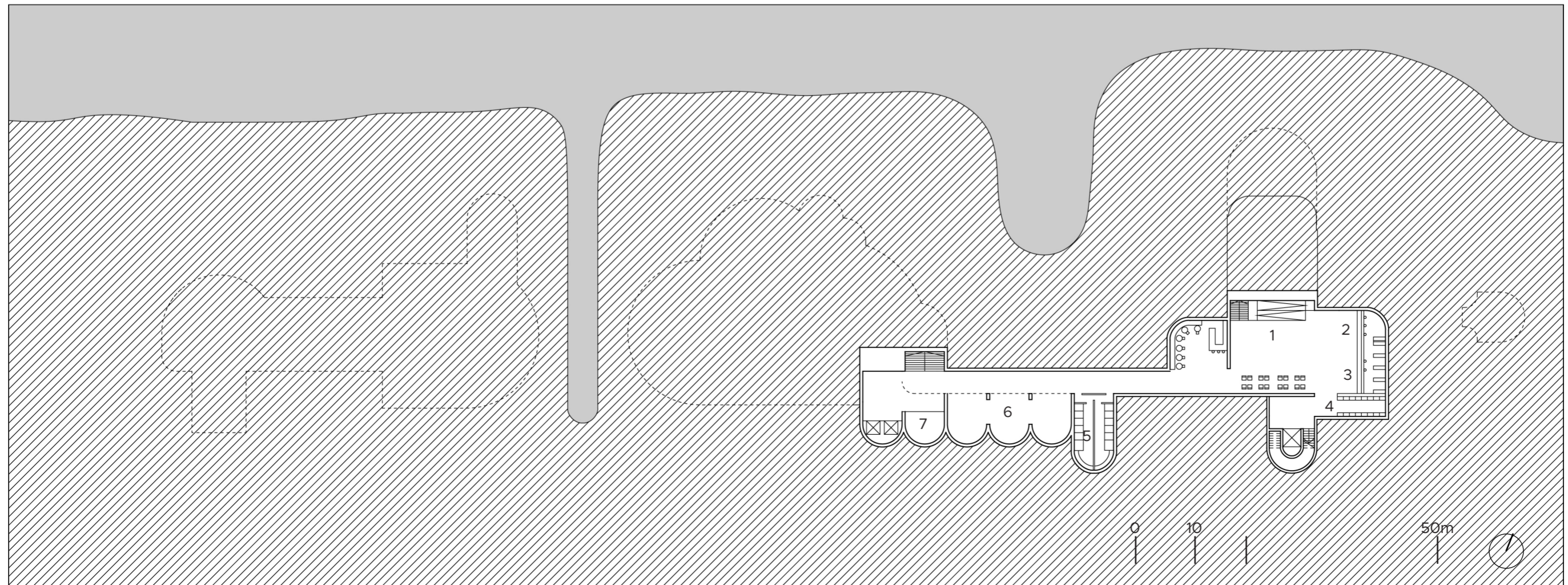


- Key
 1. Gallery C
 2. Gallery D
 3. Gallery E
 4. Gallery F
 5. Lecture Room
 6. Toilets

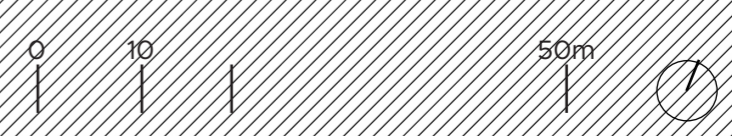
Ground Floor Plan 1:200

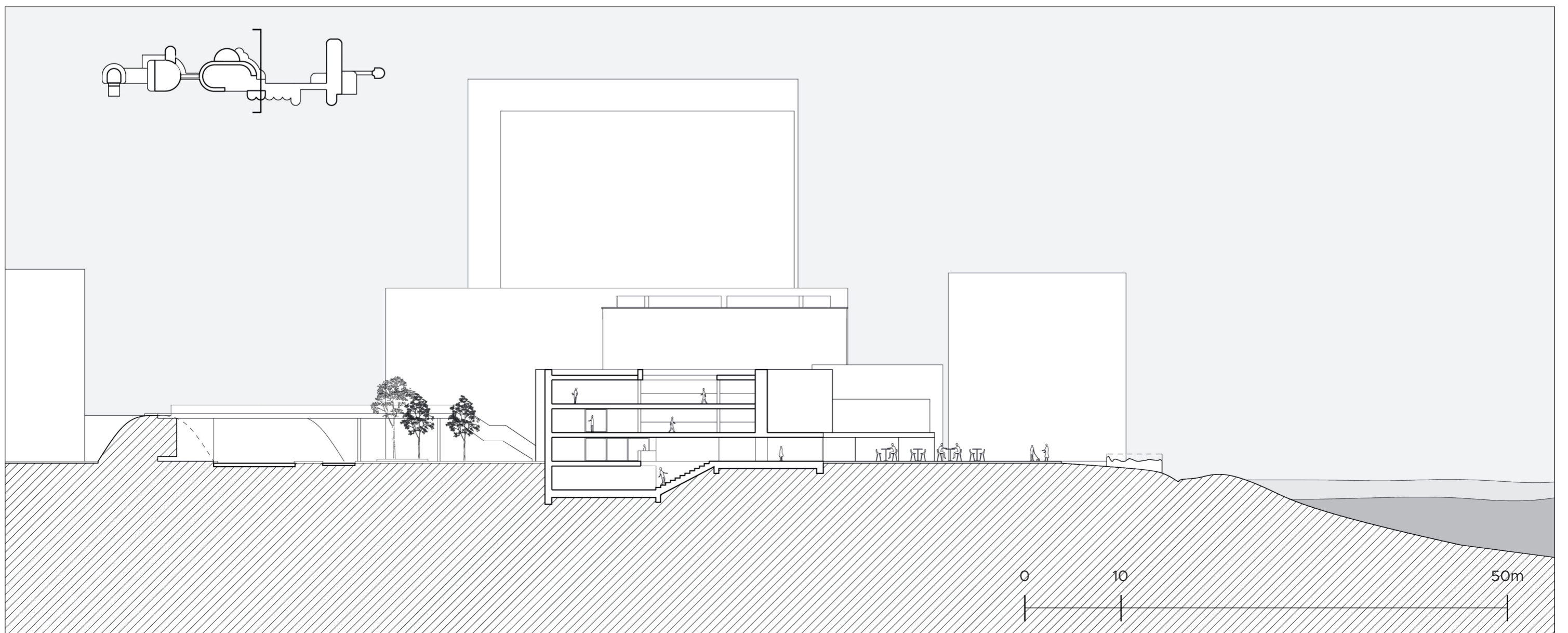
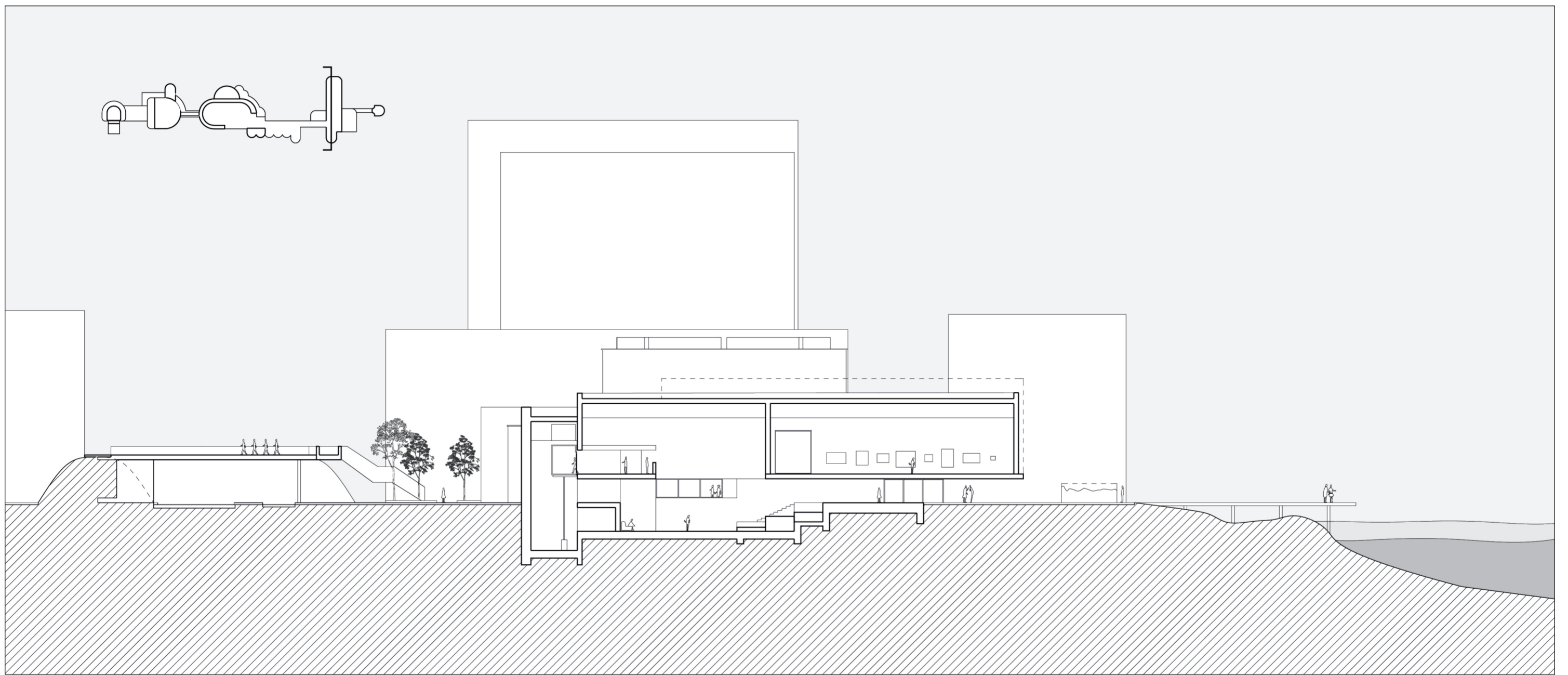
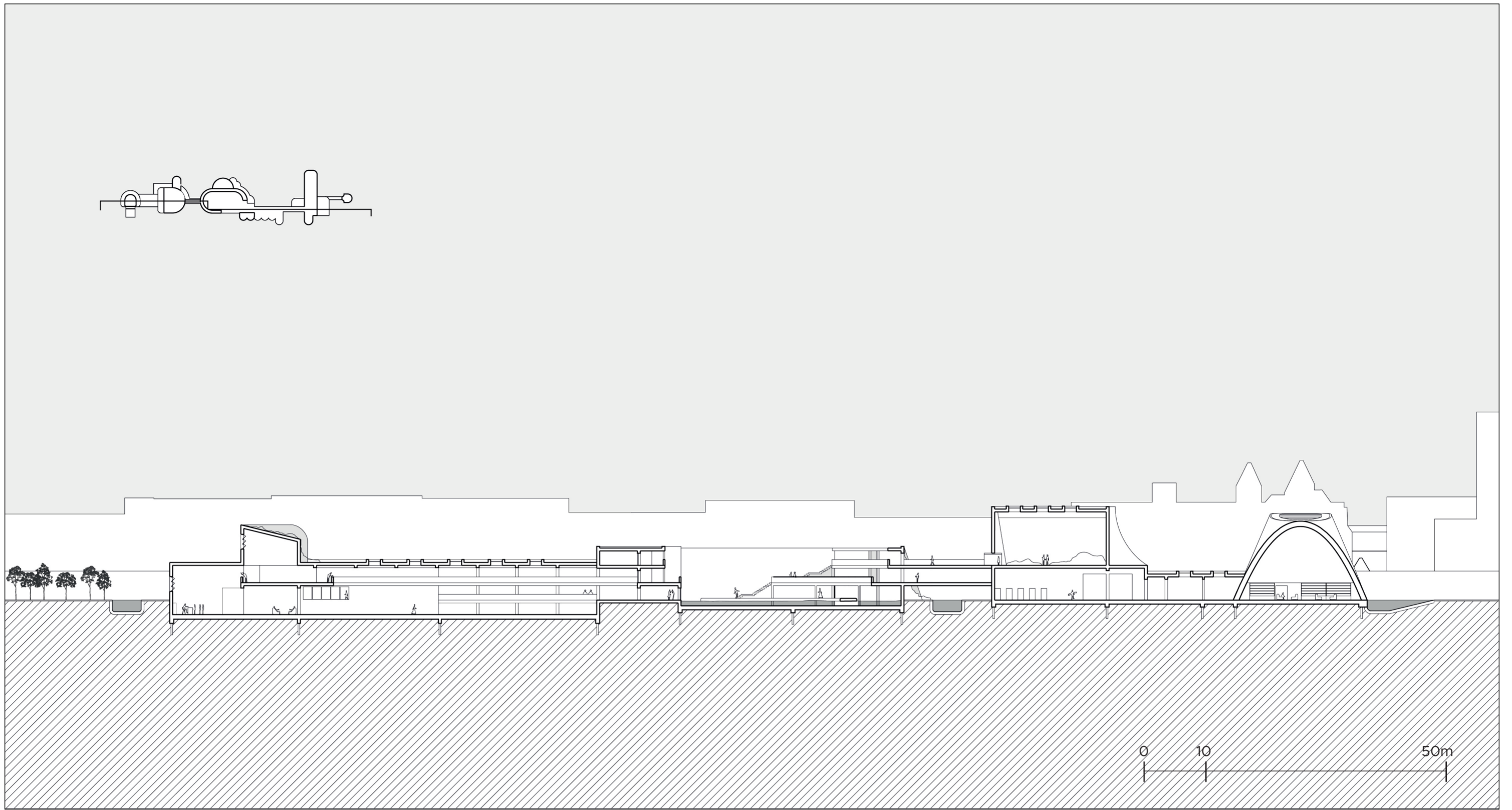


- Key
 1. Main entrance
 2. Workshop
 3. Restaurant
 4. Kitchen
 5. Gallery A
 6. Storage Room
 7. Plant room
 8. Loading Bay
 9. Toilets
 10. Library
 11. Archive

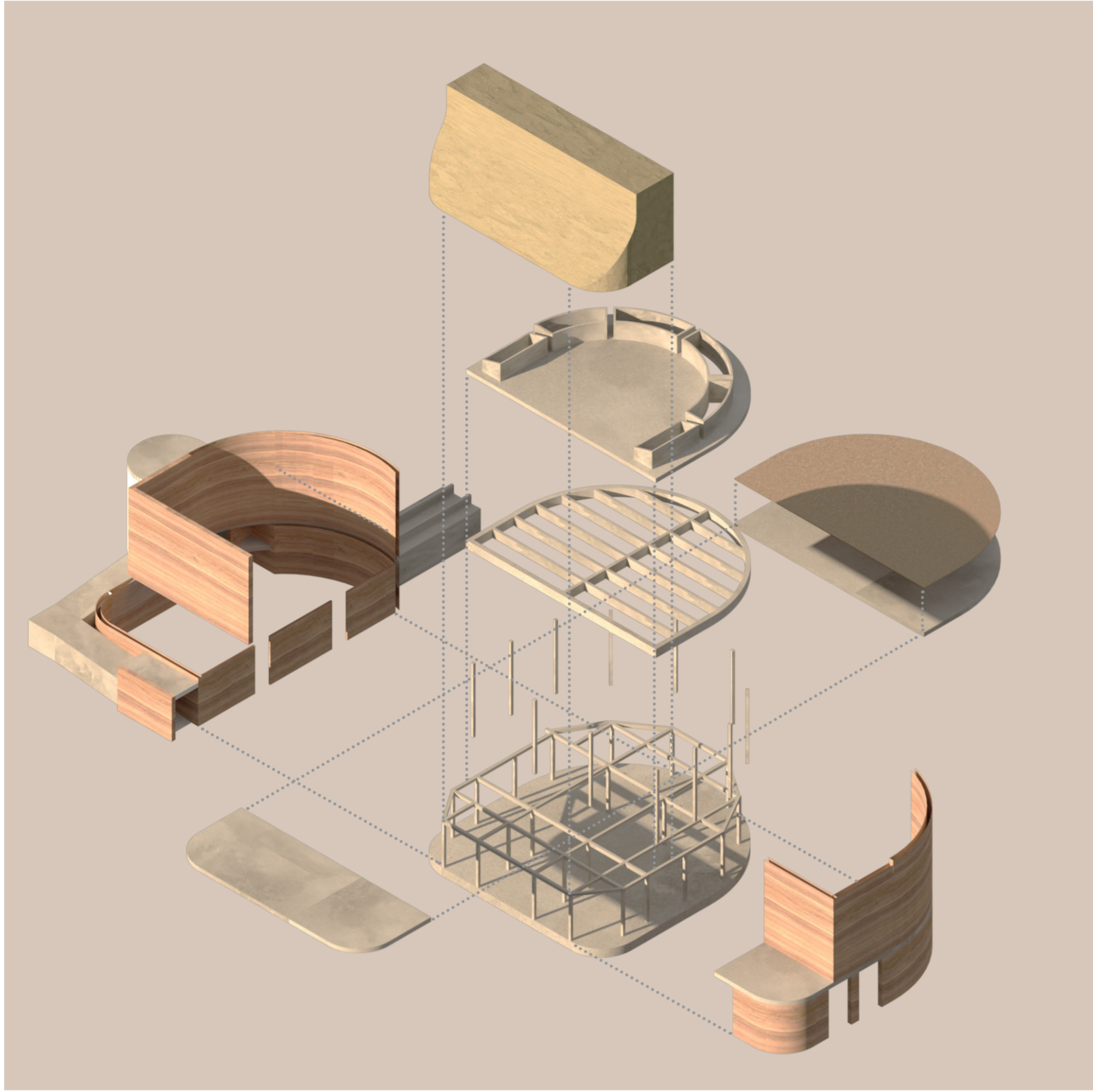


- Key
 1. Lobby
 2. Ticket Office
 3. Cloakroom
 4. Locker room
 5. Toilets
 6. Shop
 7. Storage

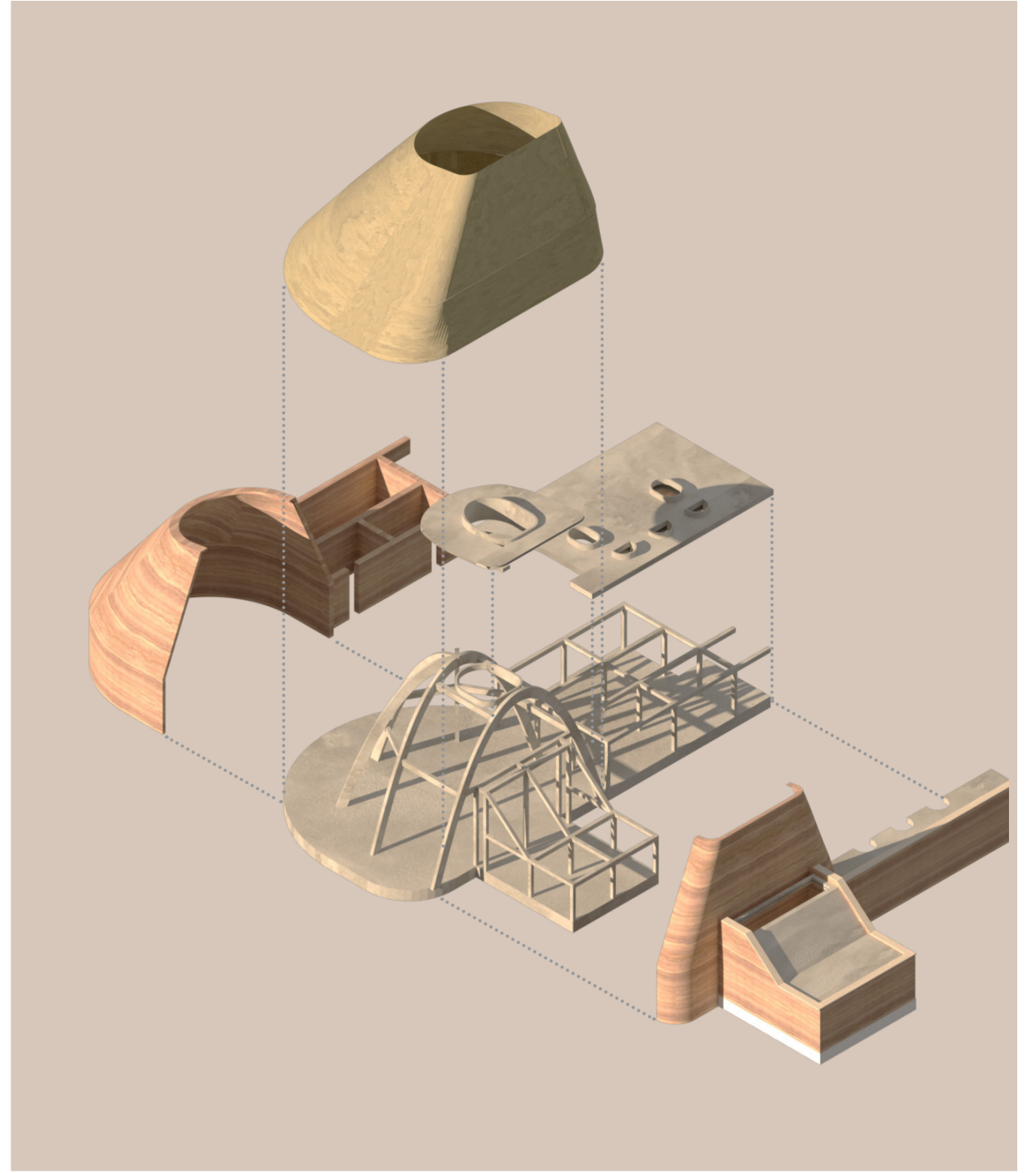




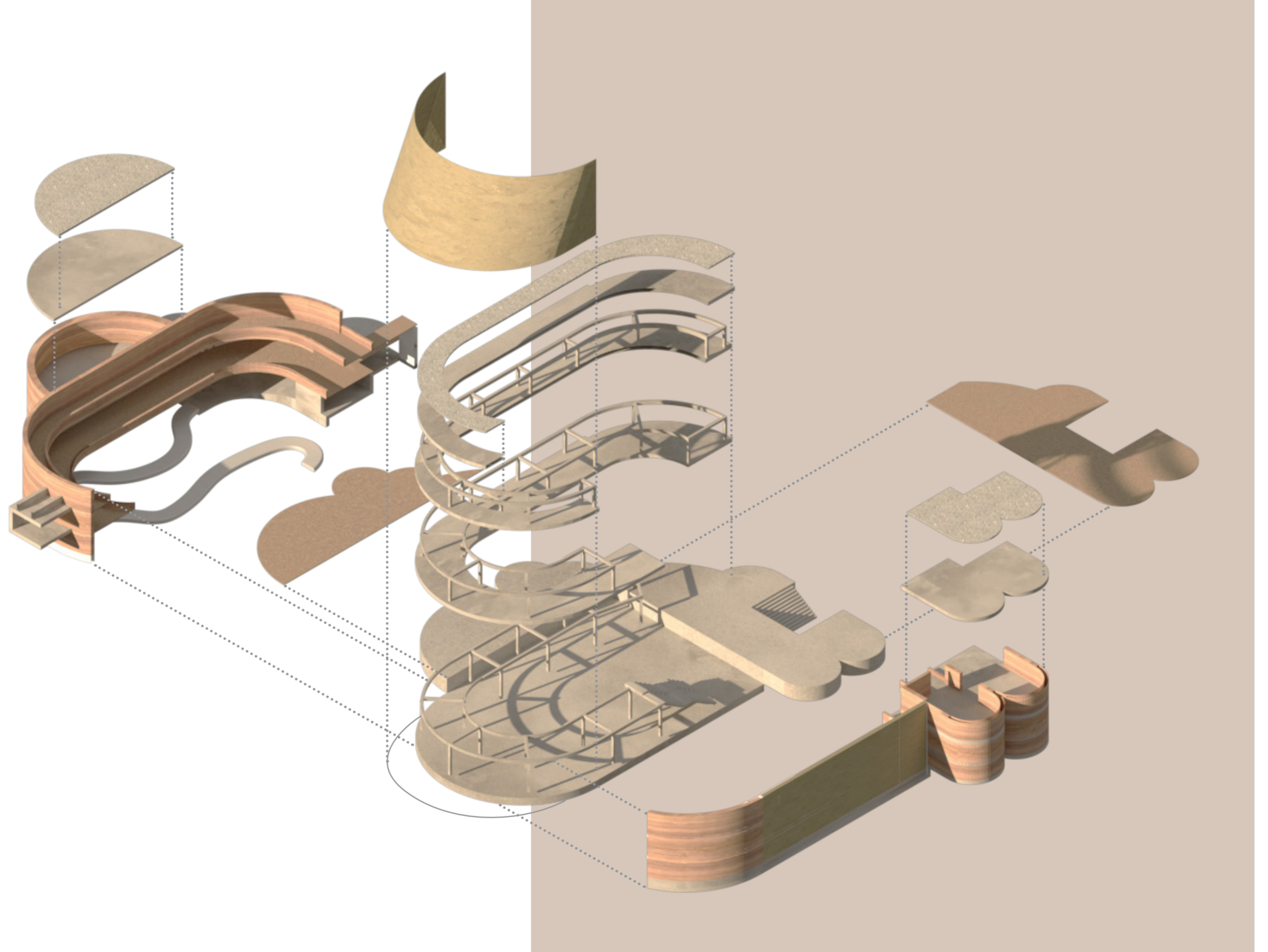
Structure (dis)assembly



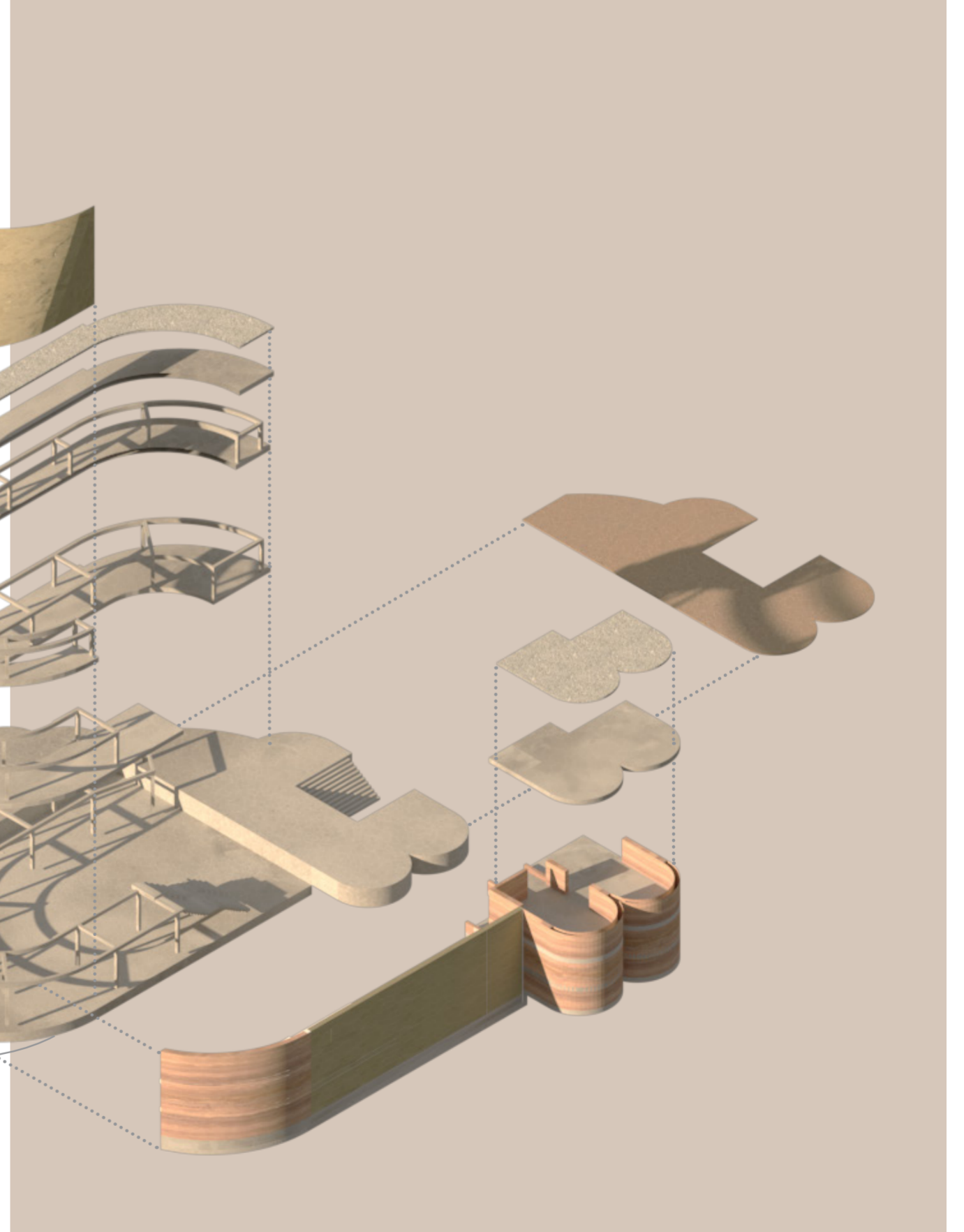
Module 2



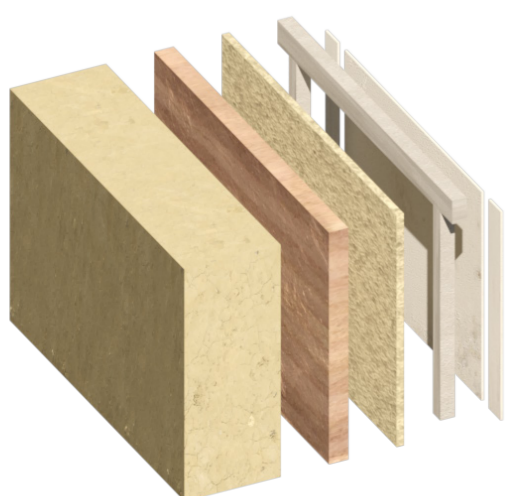
Erosion Process



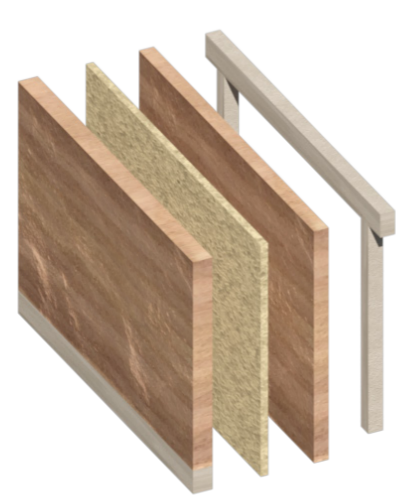
Module 3



Exterior Wall Composition



Short-term Erosion

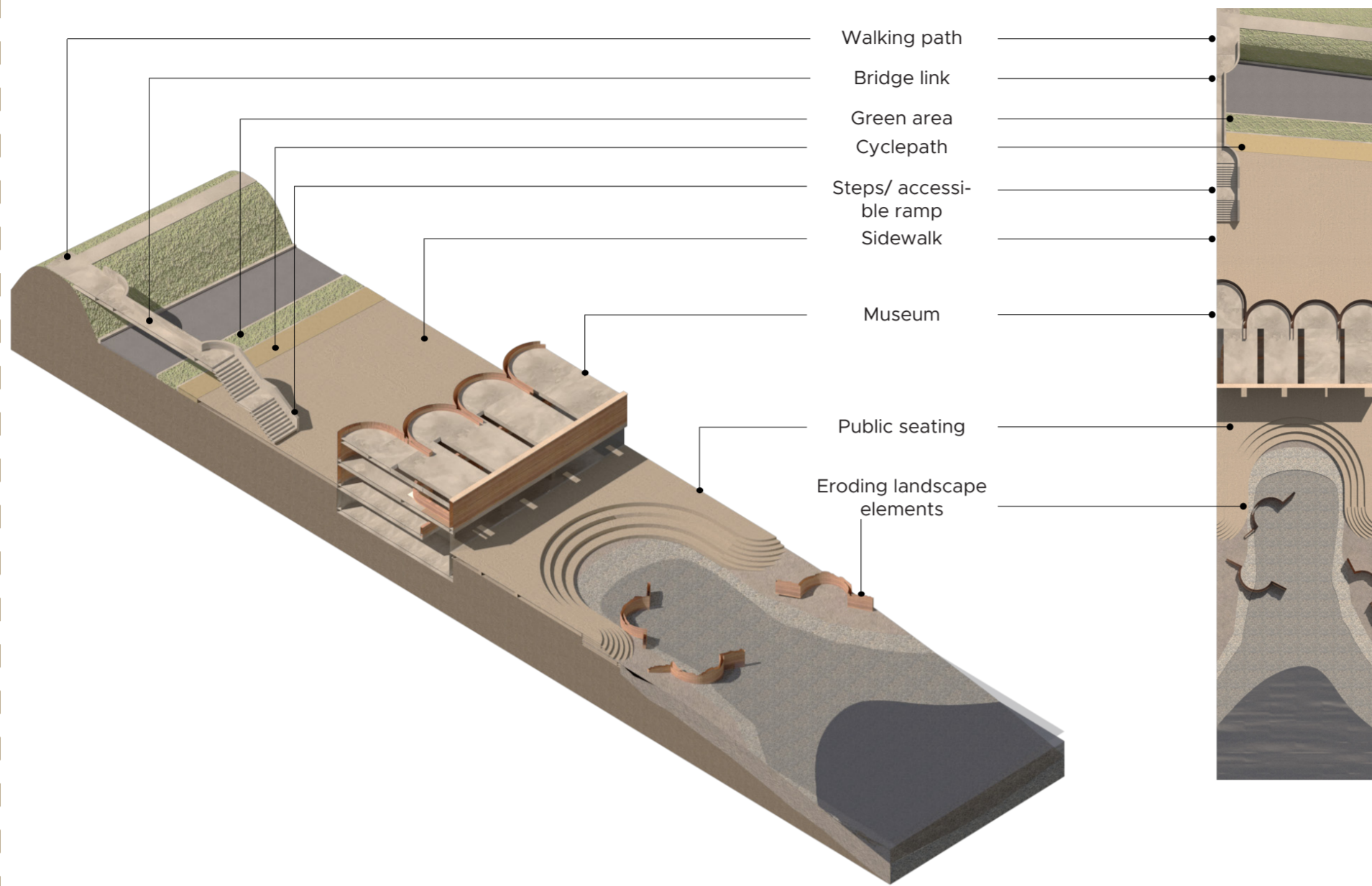


Long-term Erosion

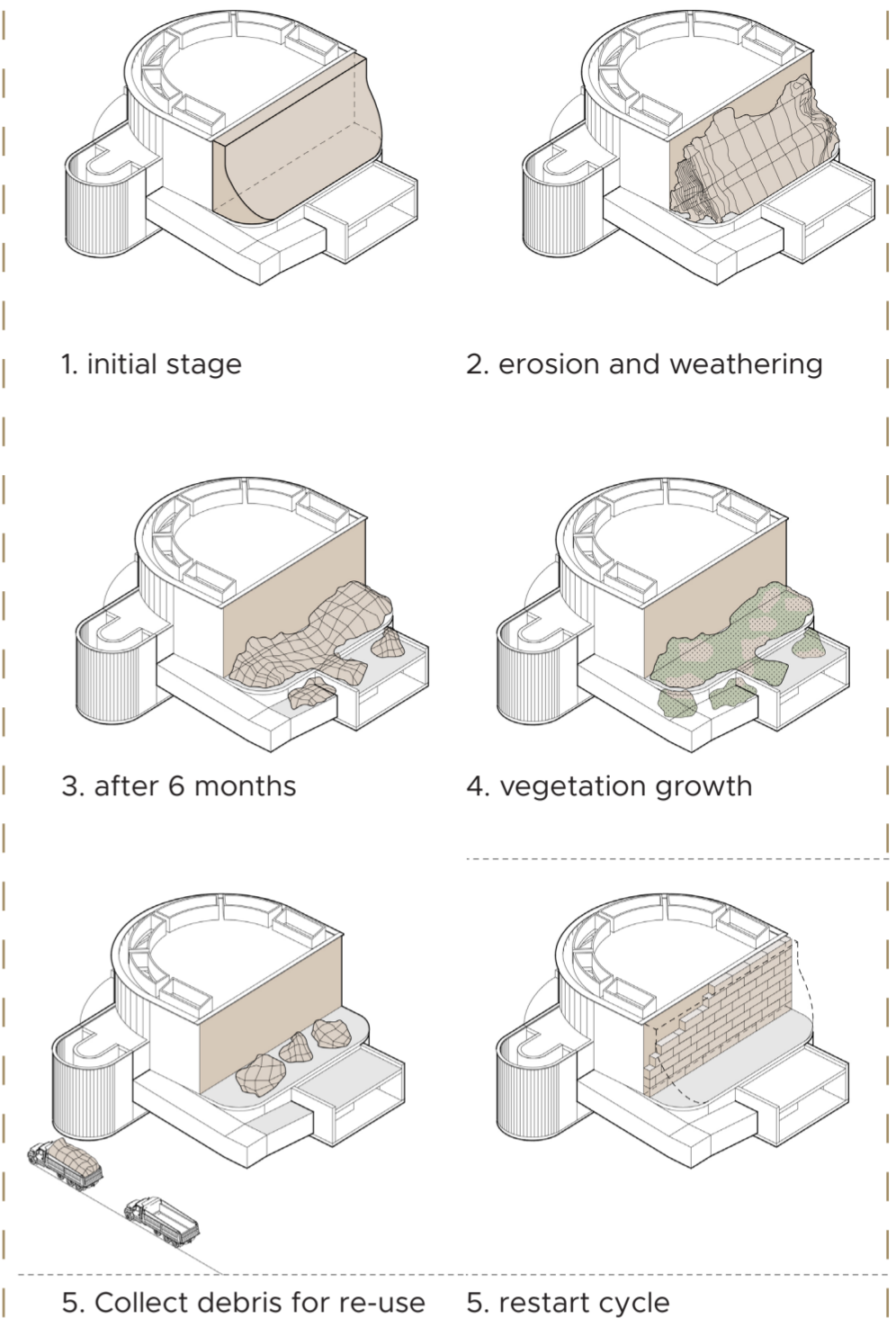
Material Palette



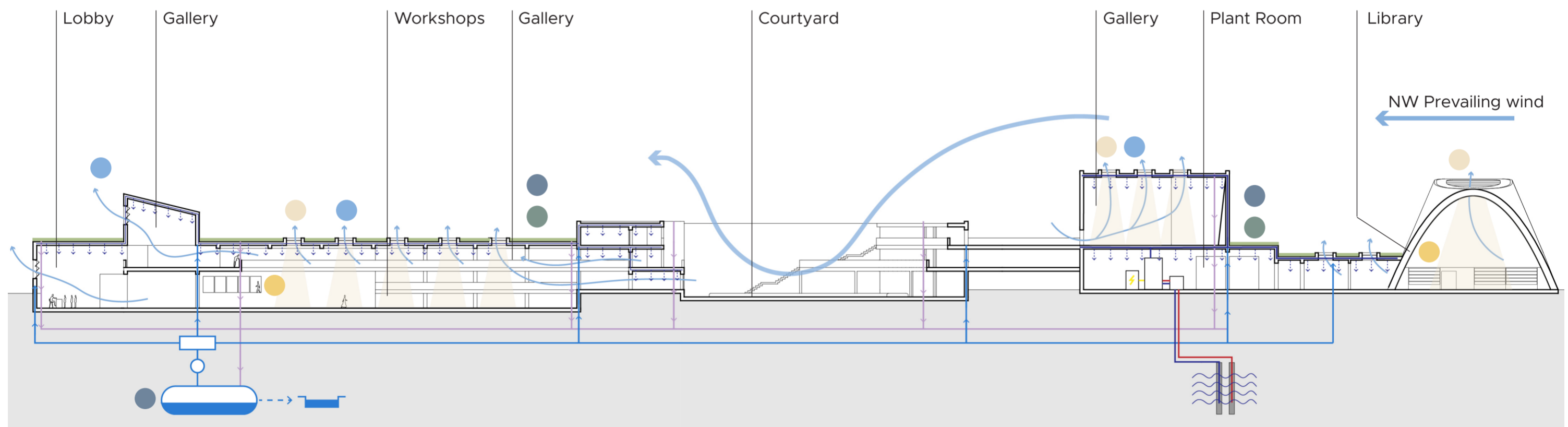
Landscape Strategy



Erosion Stages



Climate Strategy



Outdoor Comfort

Plants provide shading and comfort to outdoor social spaces. Also plants help regulate humidity levels and clean polluted urban air.

Natural Ventilation

The environmental design approach aims to maximize naturally ventilated spaces. This is achieved by ensuring every space has direct access to the exterior allowing for the cross flow of air.

Daylight Maximization

Natural lighting was prioritized throughout the building through the implementation of floor to ceiling windows and skylights to reduce the overall energy consumption. It is complemented with artificial lighting in heavily used spaces.

Solar Control (Shading)

Plants along the southern façade provide shading and help prevent overheating. There are fewer openings in façades with greater solar exposure and the openings there are setback to reduce direct lighting.

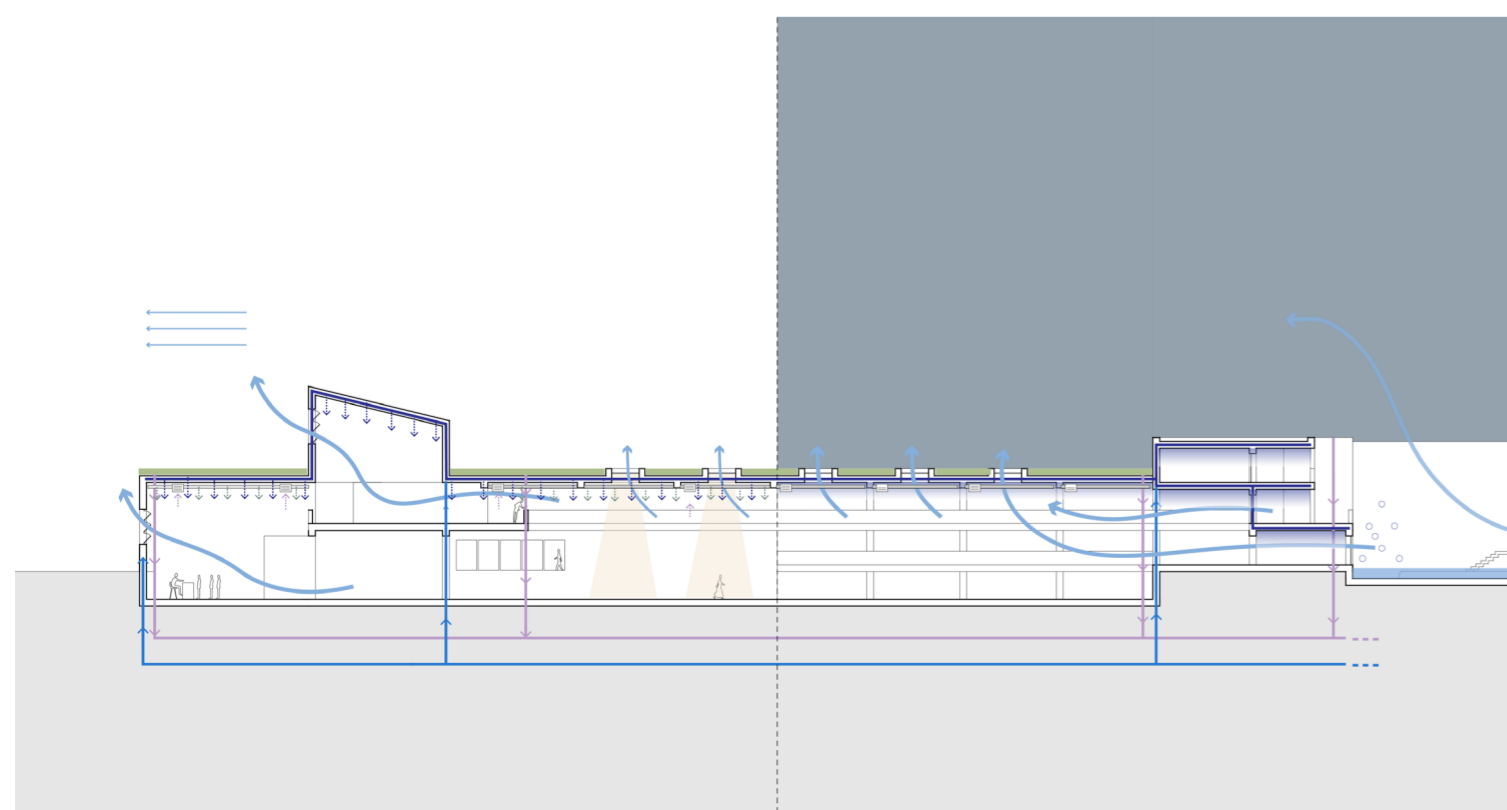
Green Roof

The design has a large roof surface so incorporating vegetation on the roof is crucial to help reduce solar radiation and thus reduce cooling demands.

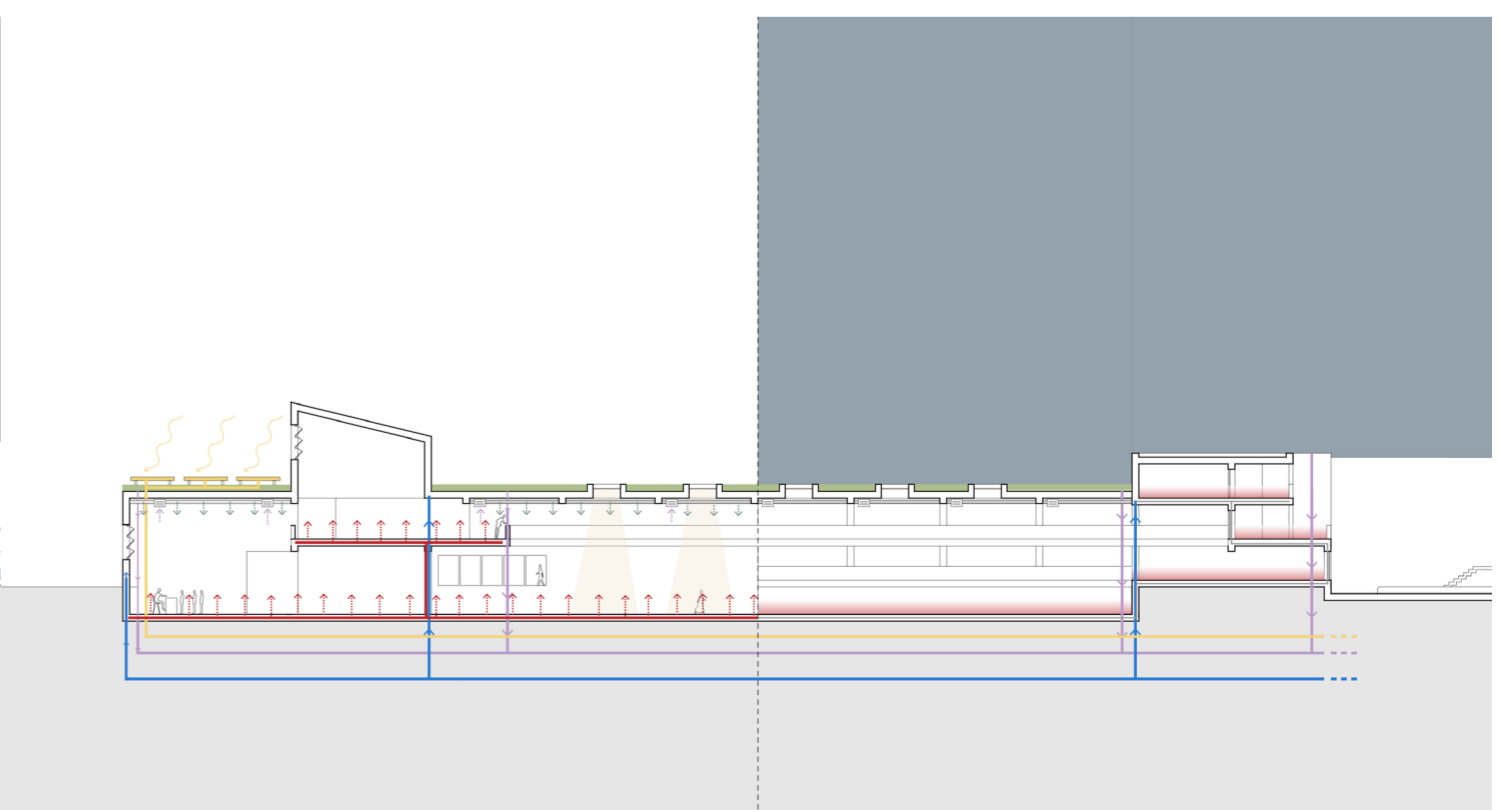
Rainwater Collection

Rainwater collected is filtered and re-used as gray water in the building and as to irrigate plants.

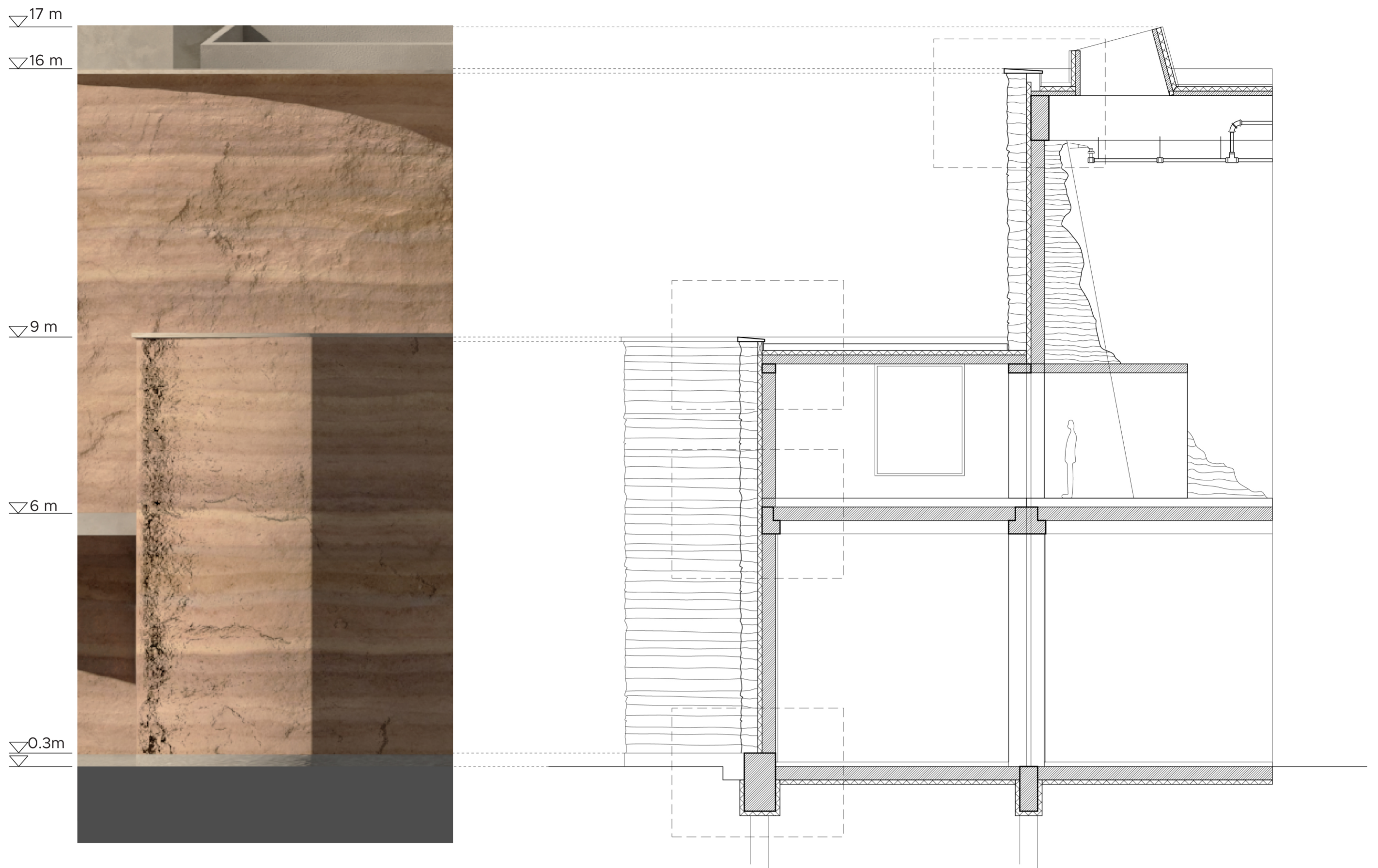
Summer



Winter



Building Fragment 1:20



R1

Stone covering 3% slope 3 mm
Waterproofing layer 5mm
Metal fixtures

R2

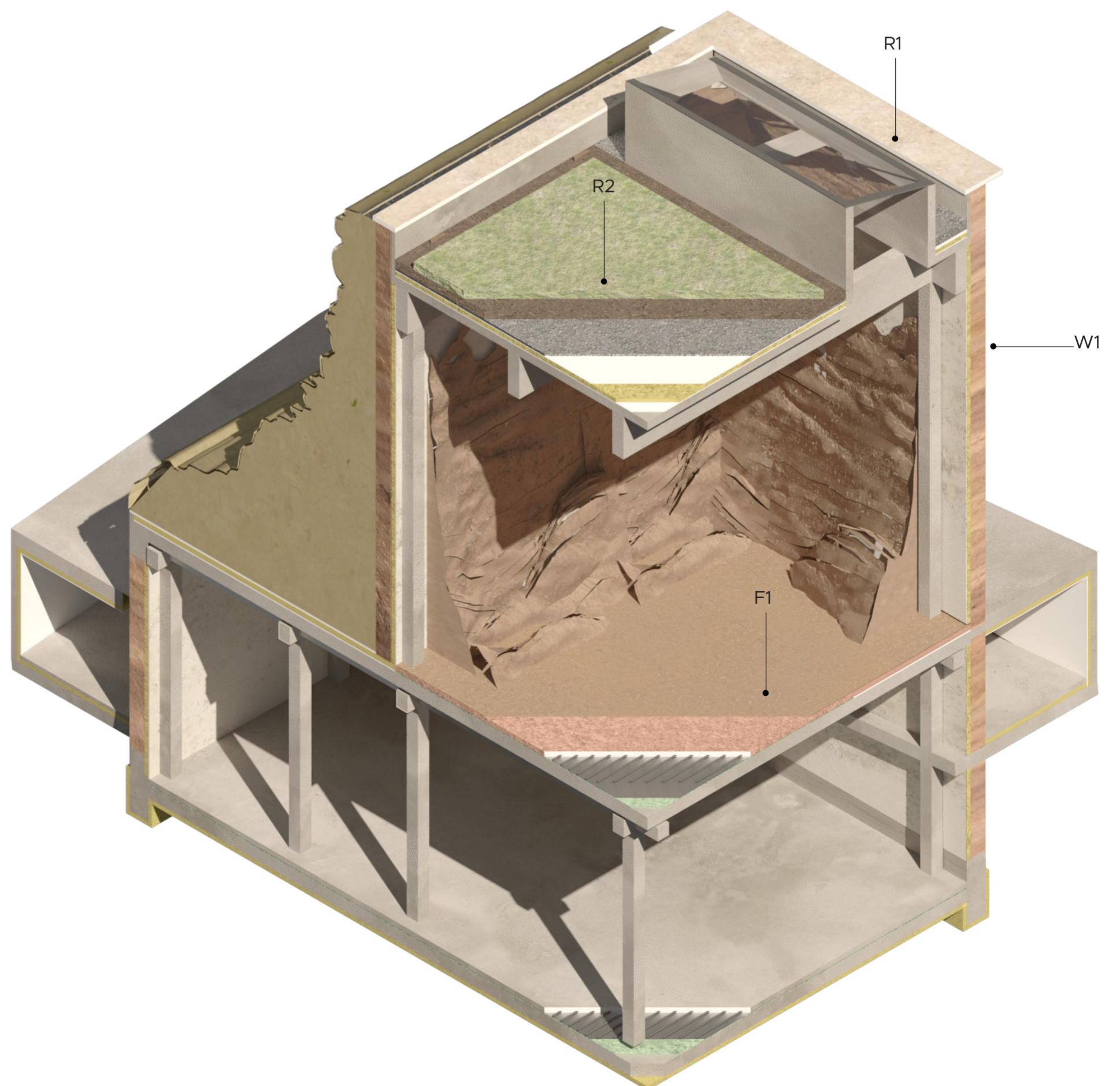
Drainage cells at a slope 50mm
Protection layer 2mm
Flax Thermal Insulation 100mm
Waterproof membrane 2mm
Concrete slab 150mm
Galvanized steel skylight frame 100mm

W1

Rammed Earth Wall 400mm
Air gap 2mm
Flax Thermal Insulation 100mm
Concrete Ring beam 400x1000mm
Concrete Column 300x300mm
White Plaster 3mm
Erodable Clay composite Wall 500mm
Copper water spraying piping 32mm

F1

Surface finish 1mm
Rammed earth floor 100mm
Clay mortar 20mm
Heating pipe 10mm
Footfall Insulation 20mm
Foil 1mm
Concrete slab 200mm



Views before/ after

