

Pluvial

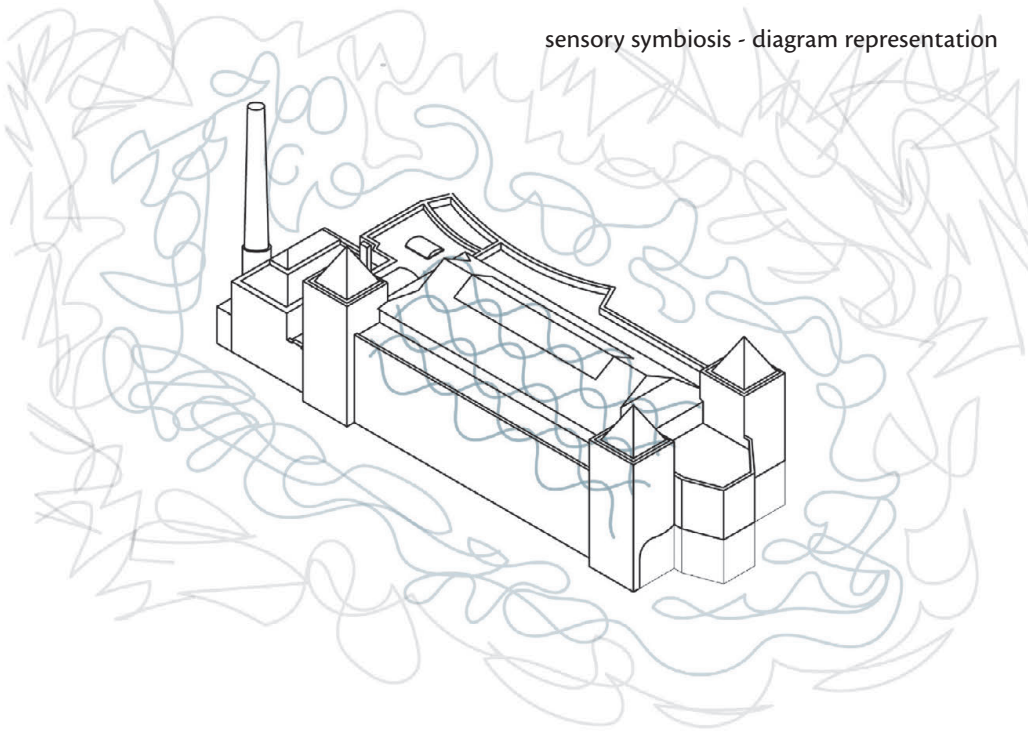
Converting Victorian baths in Edinburgh, UK into a space of retreat and refuge from the overstimulation of life, this concept uses pluviality and synaesthesia by creating a symbiosis between senses.

Though designed via and for synaesthesia, Pluvial is an intriguing experiential space and a place of refuge for both synaesthete and non-synaesthete communities.

Pluvial explores the ways in which negative ions liberated by rainfall and sensory stimuli evocating rain impact synaesthesia and our sensory relationship to the built environment.

Located in Edinburgh, Scotland, Glenogle Swim Centre is a 1898 public baths by city architect Robert Morham. Renovated in 2010, the building offers various routes of circulation with three main access points, 2 of which are on different floors. The building's construction on three levels embraces the hill it is embedded in and therefore presents unique spatial possibilities.

In this project, the structure and plan of the existing construction is used as the base for one promoting the symbiosis and seamless association of all spaces within the project, a tessellated spatial configuration. Inspired by Voronoi tessellation, which is used to measure rainfall and is present in many aspects of both flora and fauna (such as the pattern on a dragonfly wing or the veins in leaves and the way branches grow), this tessellation pattern governs all features of the project and is dictated directly from the existing structure, built and access points of the site.



sensory symbiosis - diagram representation



atmospheric concept development - digital collage



atmospheric concept development - digital collage



Long section • showing Entrance, Foyer, Pond, Underpond, Sensory Journey and Decompression Space

l e g e n d

- | | | | | |
|--|--|---------------------------|---|----------------------------------|
| 1 • Entrance | 5 • Foyer and meeting point | 7a • Refuge alcoves | 9 • Decompression Space | 11 • Pond entrance |
| 2 • Reception and information point | 5a • Glass curtain | 7b • Sit-stand formations | 9a • Rain and ripple steel basin features | 12 • Ponds |
| 3 • Ramp access to Sensory Journey and Foyer | 6 • Motion-sensitive rain curtain | 7c • Sit formations | 9b • Waterbeds | 13 • Office |
| 4 • Sensory Journey | 7 • Underpond entrance | 8 • Ramp access to Ponds | 10 • Black glass windows | 14 • Lift |
| 15 • Tessellated tiles | 16 • Tessellated motion-sensitive rain feature | 17 • Tessellated columns | 18 • Tessellated staircase | 19 • Tessellated steel structure |

0 5 1 2 3 4 5m



digital render of the Underpond space



model of the Underpond space



model of the Underpond space

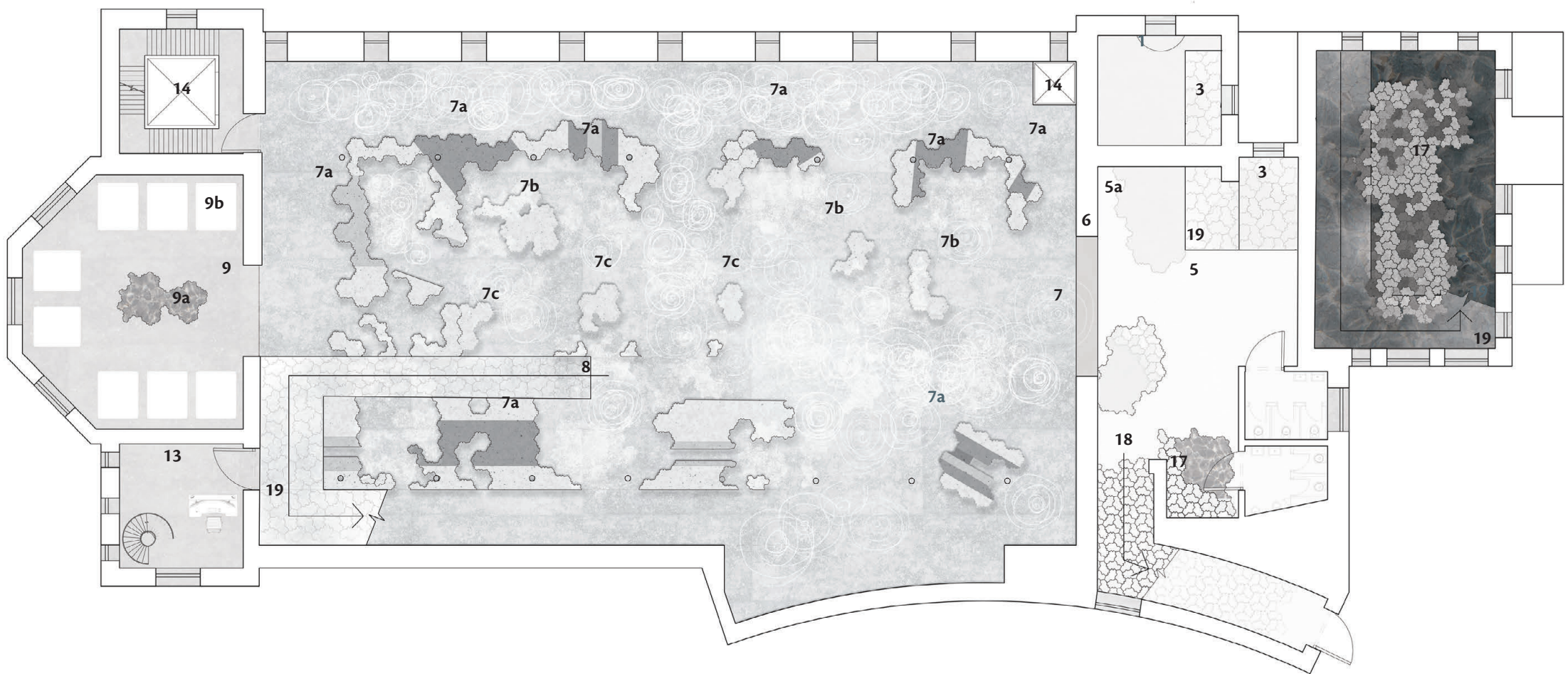
The **Underpond** is a space open to various uses, inviting the visitor to contemplate and rest. It provides nooks in which people can lounge, eat, work, talk, or read. At the back of the Pond is the Decompression room, mostly in the dark, equipped with water beds.

The tessellated columns, which also serve as alcoves, follow the disposition dictated by the ponds and structure of the building so as to best support the weight of the water in the ponds and create depth and ambiance in association to the placement of the glass at the bottom of the ponds.

A glass ramp on a tessellated steel structure provides access to the Pond.



model of an alcove in the Underpond space

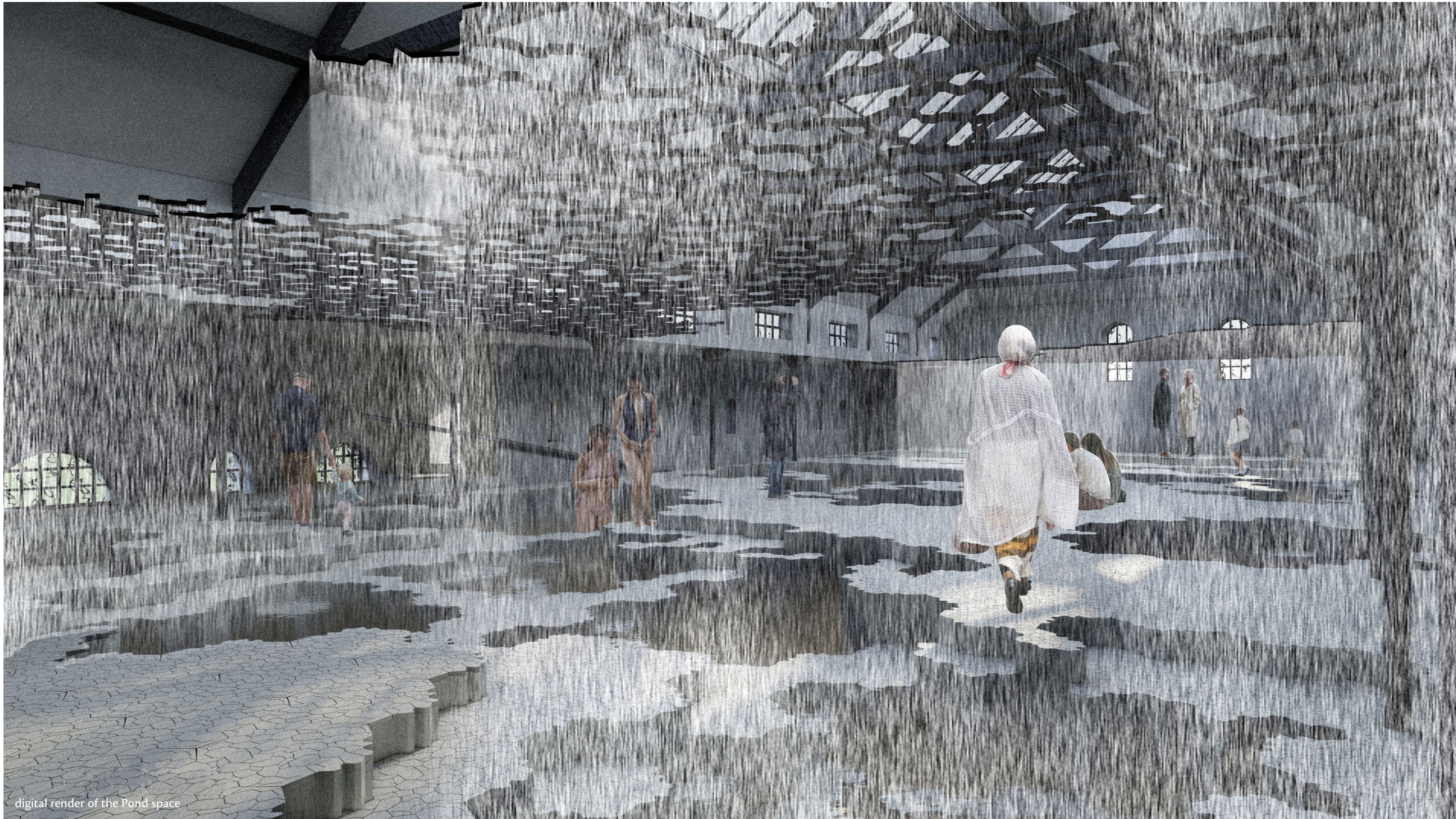


Ground floor plan • showing Foyer, Underpond, Sensory Journey, Decompression Space, ground floor office and access routes



l e g e n d

- 1 • Entrance
- 2 • Reception and information point
- 3 • Ramp access to Sensory Journey and Foyer
- 4 • Sensory Journey
- 5 • Foyer and meeting point
- 5a • Glass curtain
- 6 • Motion-sensitive rain curtain
- 7 • Underpond entrance
- 7a • Refuge alcoves
- 7b • Sit-stand formations
- 7c • Sit formations
- 8 • Ramp access to Ponds
- 9 • Decompression Space
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digital render of the Pond space



model of the Pond space



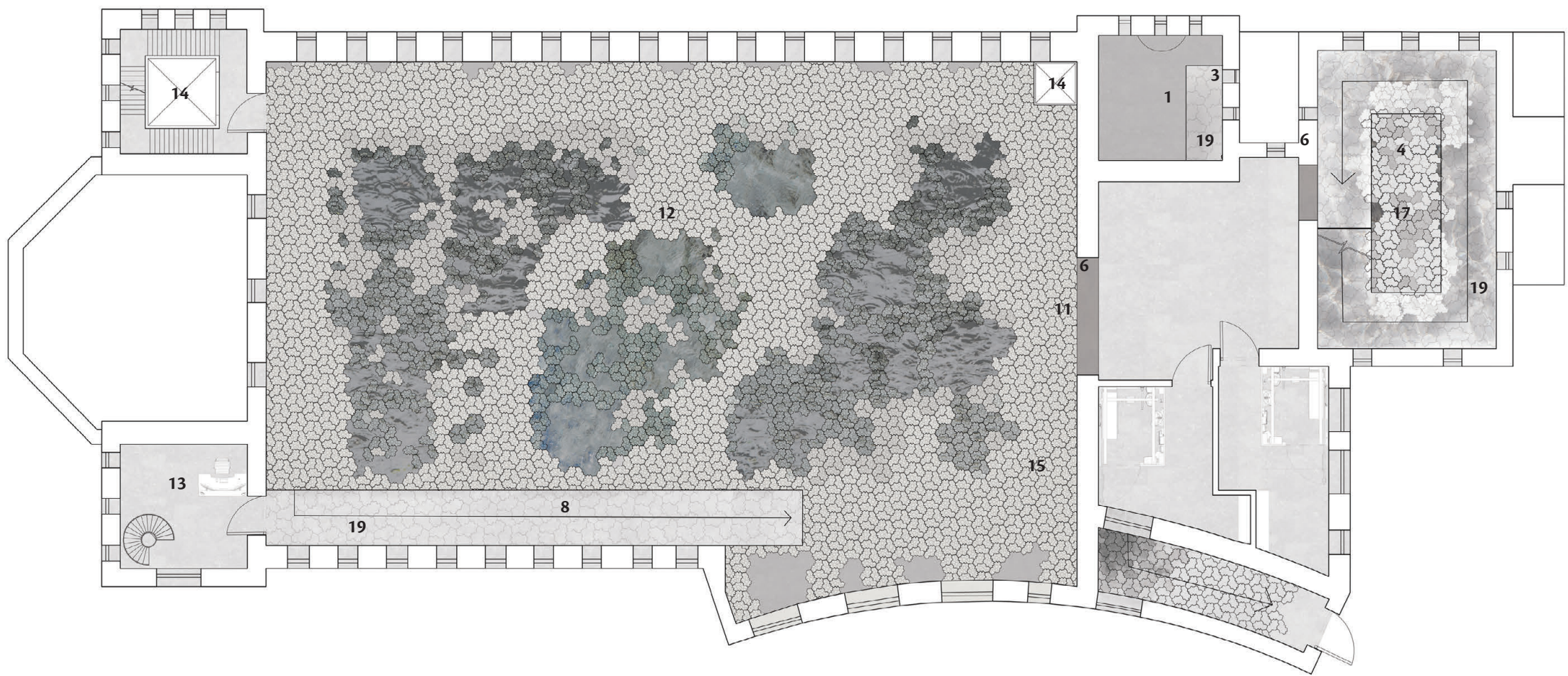
model of the tessellated staircase

Transitioning from the subterranean and submerged feel of the Underpond space, the **Pond** represents the cleansing breaths taken in the first instants of rainfall. The rain technology gives the visitors all the therapeutic advantages of rainfall without the inconvenient of getting wet. Motion sensors follow the movement of each person and turns off the sprinklers on their path. The glass ends of the ponds let natural light filter through the water and illuminate the Underpond.

Visitors can sit on the terrassed tiled floors, in the water or not, within the rain or further away. The Pond doesn't offer the same type of refuge as the Underpond but provides a social, unusual and playful space.



detail of the physical model

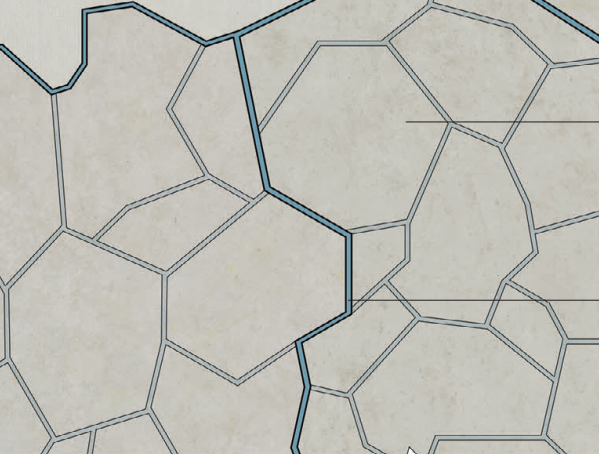


First floor plan • showing Pond, Sensory Journey, first floor office, changing rooms and circulation means



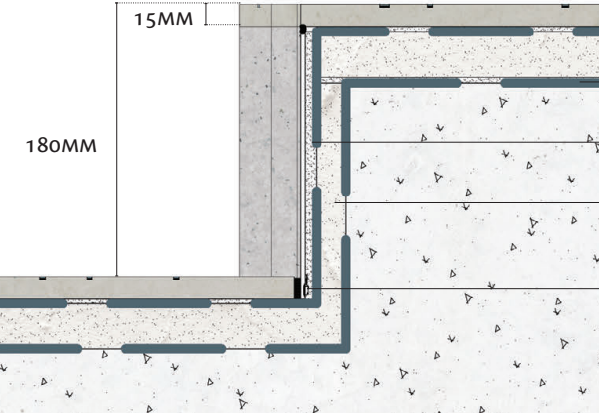
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 - 2 • Reception and information point
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Pond tile detail • scale 1:5



CONCRETE POURED TILES
2MM DEEP RECESS
WATER-BASED ACRYLIC SEALED

EPOXY GROUT



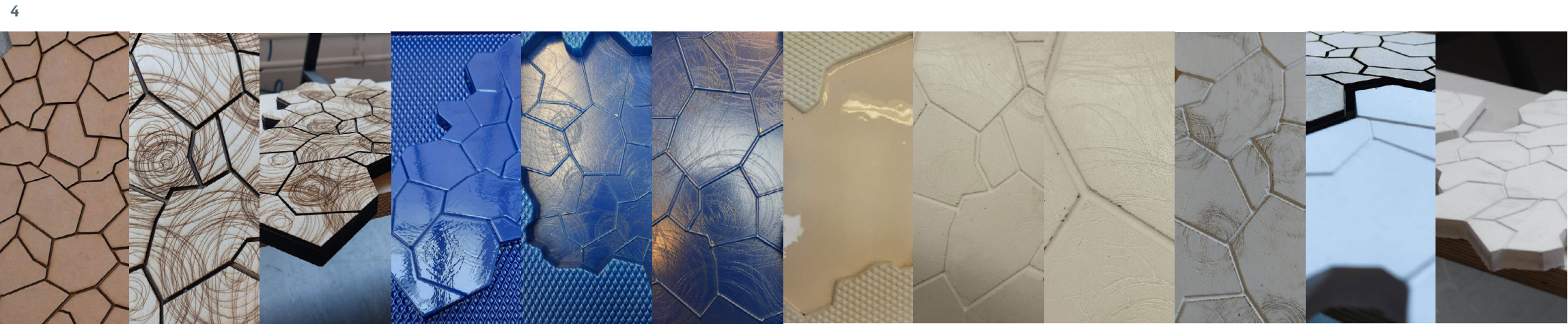
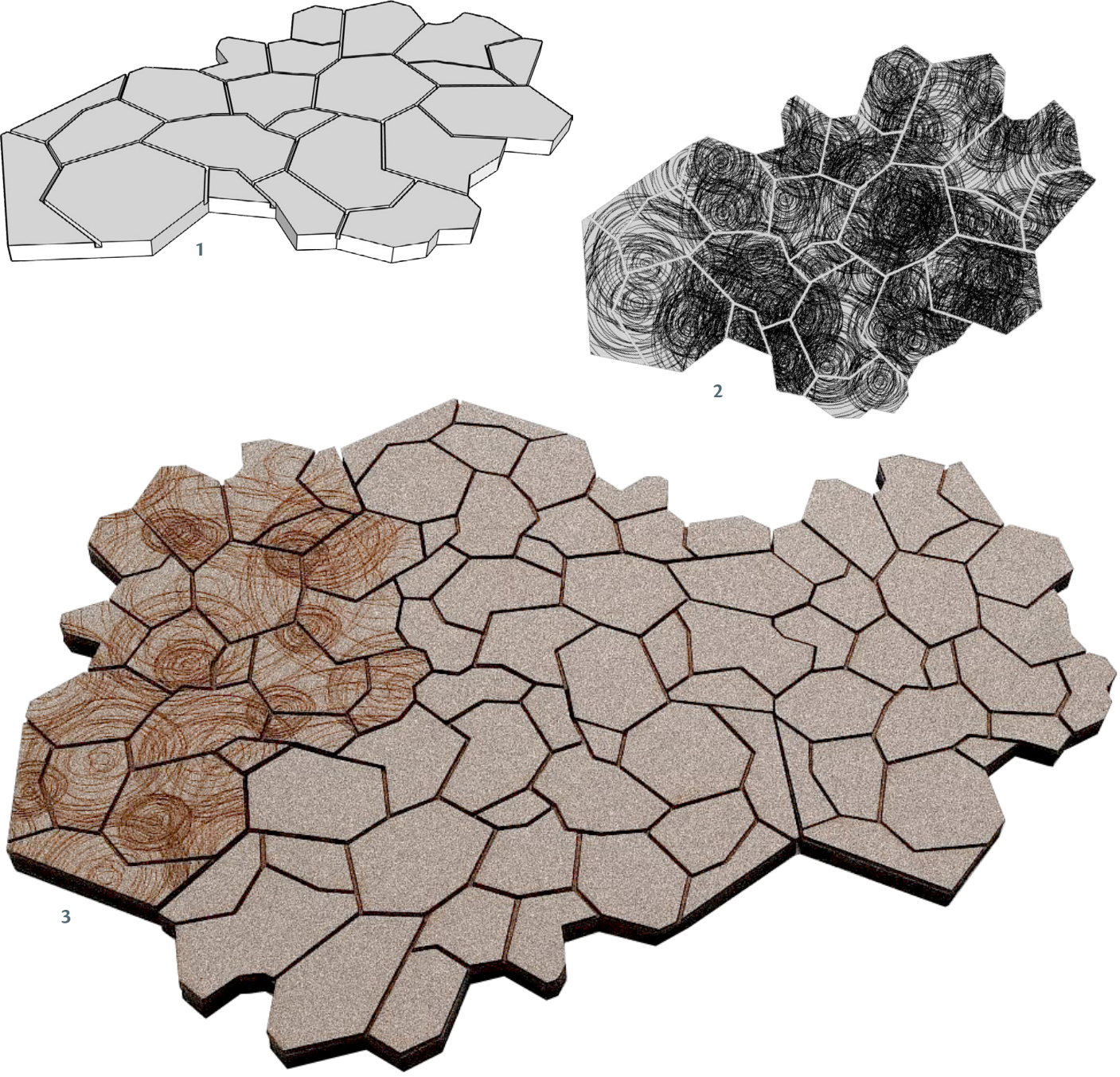
CEMENTITIOUS
WATERPROOFING MEMBRANE
BOND ENHANCING PRIMER
MORTAR BED (REINFORCED)
LED SUBMERSIBLE LIGHT

The Pond's floor is covered with tessellated concrete poured tiles. Like all other features in the space, they are inspired by Voronoi tessellation and are made of the same tessellated pattern. It allows for a small amount of randomization and a seamless experience of the space but also the repetition of the pattern in different techniques and materials.

To add to the cohesion of the terraces, each tile as a number of mock tiles on its surface, all lightly engraved with a pattern representing raindrops in puddles. Time and foot traffic will erode the tiles and the pattern will only remain visible on areas with the slightest amount of circulation.

l e g e n d

- 1 • Tile prototype - digital model
- 2 • Traced surface of tile
- 3 • First tile prototypes and disposition
- 4 • Texture study during making process
- 5 • Plaster molded tile, engraved.
- 6 • Demonstration of tile disposition
- 7 • Tiled tessellated terraces and tessellated rain technology - physical model



The **Sensory Journey** consists in the progressive ascension to the balance of the senses via the sensory evocation of pluviality.

First in relative darkness, the user hears the rain on the columns, then smells Petrichor, then sees the rain fall when ascending to the top of the space.



Short section • showing Sensory Journey

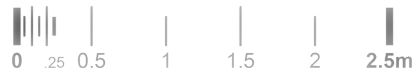
l e g e n d

9a • Rain and ripple steel basin features

17 • Tessellated columns

10 • Black glass windows

19 • Tessellated steel structure



Top half of journey



Bottom half of journey