

Introduction

Cities are often defined by what is visible — buildings, streets, and infrastructure — yet many ways of living exist quietly alongside them. Along London's canals, a different rhythm unfolds, shaped by movement, constraint, and a close relationship with water.

This project begins by looking at one of these overlooked conditions: a community that lives in between permanence and transience, where space is limited, boundaries are fluid, and daily life is constantly negotiated.

Rather than imposing a new system, the aim is to observe, understand, and respond — exploring how architecture can engage with these subtle, shifting ways of living.

The Interior in MOTION



On the way to the canal it felt like we were walking up and down, alternating between different surface levels.

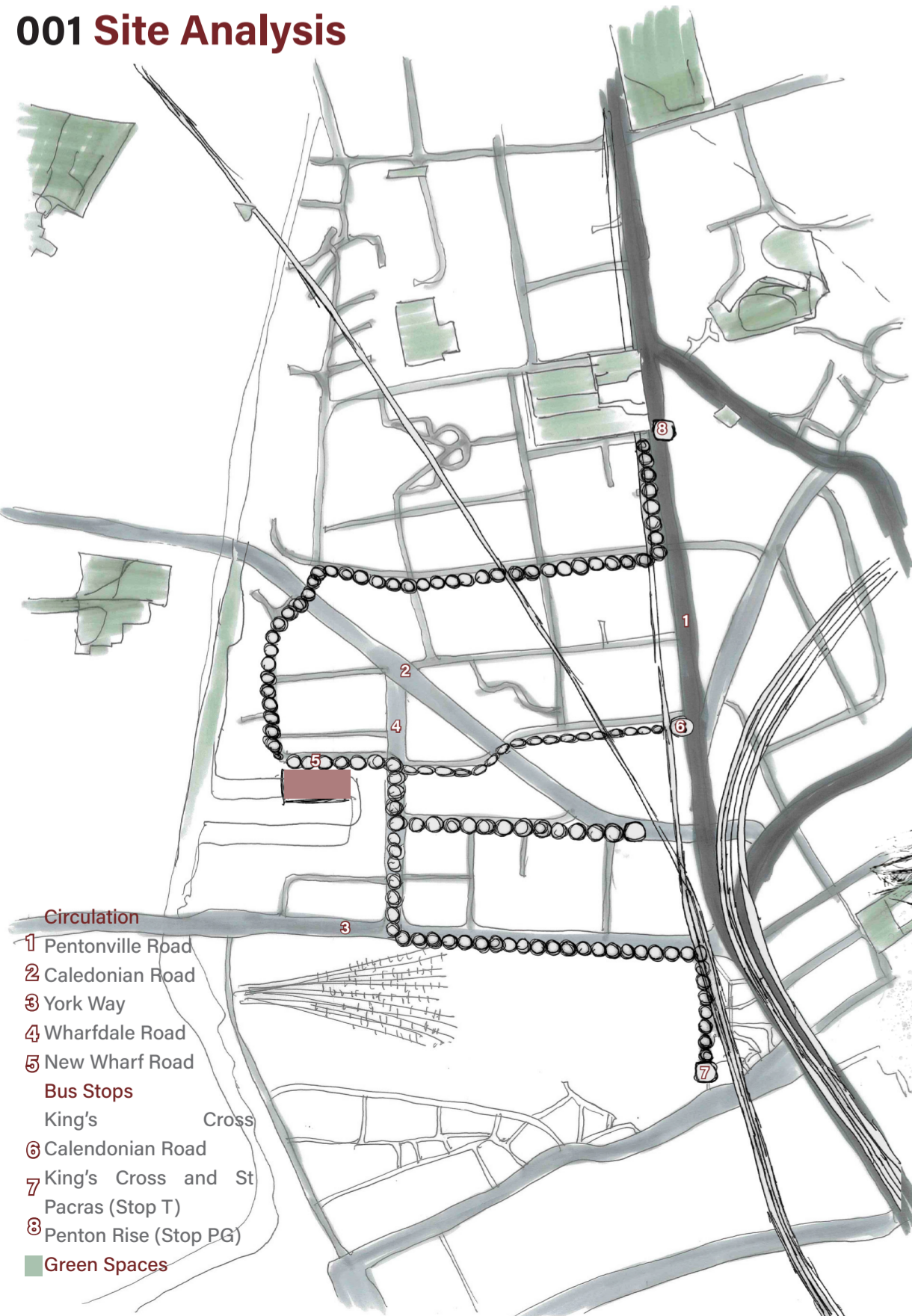
Once we got to the main part of it, I was mesmerised by the amount of boats acting as living spaces parked over there. Another part that became evident is the towering buildings along the canal that gave it a strong central presence. The main entrance from the street point was almost vacant making me wonder how once a time it was a spot thriving with activity and passer-by's. The space itself felt overcrowded with the exhibited elements. I was particularly curious about the ice vault that was hidden underneath the floor so I walked up there. The vault was only excavated 3-4 metres deep but it already presented an intimidation, feeling scared to drop my phone. As I looked over the windows overlooking the canal I finally had a sense of the significant height drop between the floors.



Reading the Site

Noise Levels
75.0 and over
65- 74.9

001 Site Analysis

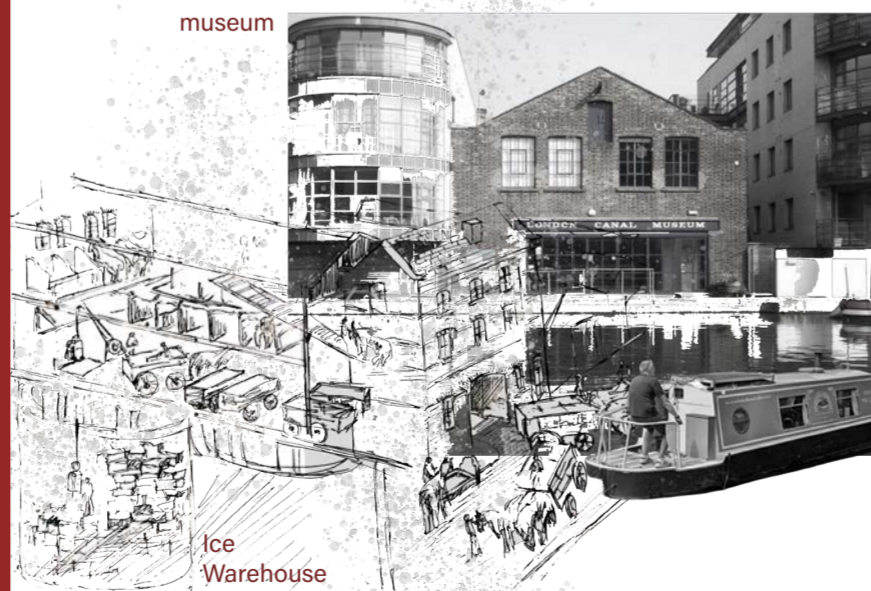


002 Architecture of storage

The building as part of a working canal system



museum



Ice Trade Process at King's Cross 1. Import & Arrival

Ice harvested from frozen lakes in Norway was shipped to London docks, transferred onto canal barges, and transported via Regent's Canal to King's Cross.

2. Unloading & Handling

Ice blocks were unloaded at the canal edge and moved into the warehouse using manual labour and lifting systems, where they were broken into manageable pieces.

3. Underground Storage

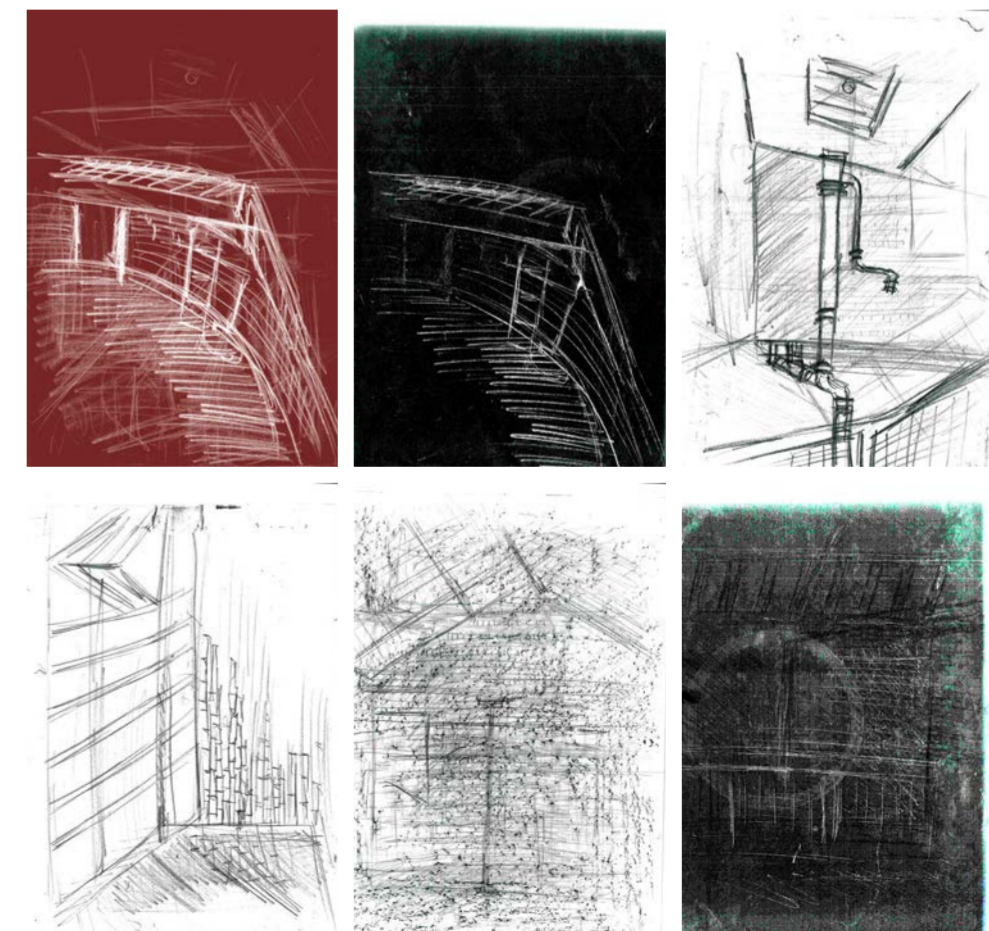
The ice was stored in deep circular wells below ground. Thick brick walls, subterranean depth, and insulating materials such as straw or sawdust helped reduce melting.

4. Passive Preservation

Without mechanical refrigeration, the wells relied on thermal mass, minimal sunlight, and restricted airflow to maintain low temperatures.

5. Distribution

Ice was lifted back to ground level and distributed across London by horse-drawn carts for food storage and commercial use.



003 Responding to the site



Winter enclosure

Summer openness

004 Statement of Intent conceptual collage

The project explores the relationship between **lightness** and **openness**, **enclosure** and **mass** within the heavy masonry structure of the existing ice wells. The thick brick fabric forms a stable and grounded architectural shell, while the spaces within it are imagined as lighter, adaptable elements capable of responding to environmental conditions.

Rather than remaining static, the architecture is conceived as a system that **shifts** with the **seasons**, which relates to the constant change and movement as a way of life, presented in the client reality. In colder periods the spaces contract inward, creating enclosed and protected environments. In warmer months the architecture expands, allowing air, light, and openness to enter the building. This seasonal transformation introduces a dialogue between **interior retreat** and **outward connection** to the surrounding environment.

Through this approach, the project investigates the coexistence of **light within mass**, **air within masonry**, and **movement within stillness**, using **buoyancy** and **natural ventilation** as guiding principles for a responsive architectural system.

Conceptual Framework

200 Precedents Research adaptability



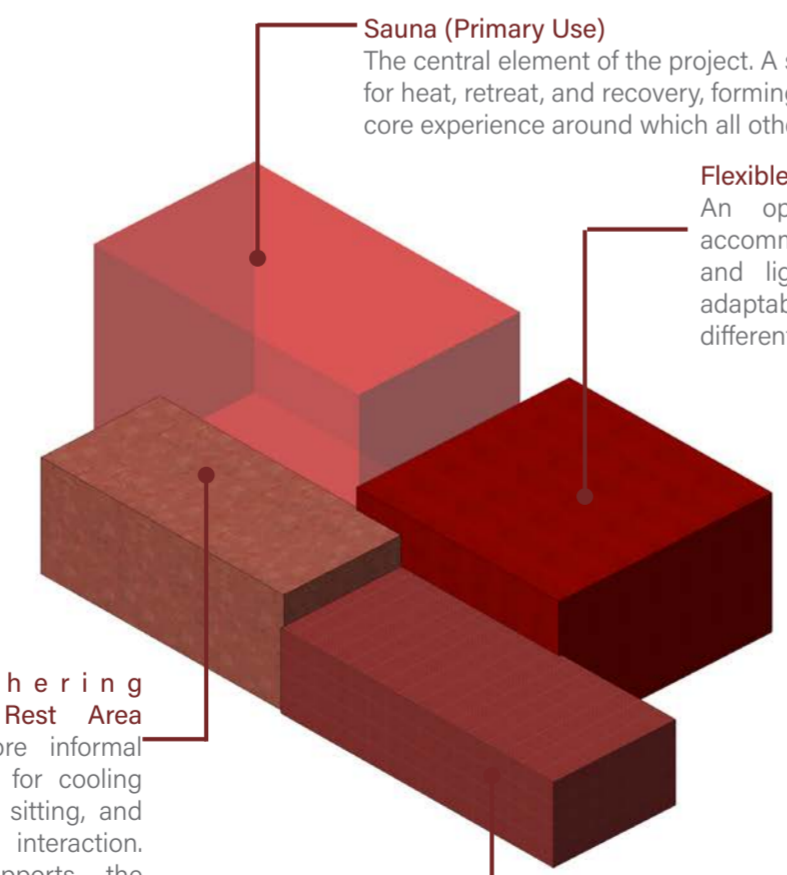
Dubai Apple Store by Kiefer Foster + Partners Technic Sharifi-ha House by Next Office-Alireza Taghaboni Giselbrecht + Partners Al Bahar Towers by Aedas Architecture

large bay window that opens up at nights and closes during day times providing shading dynamic facade that retracts in response to the weather configuration of the exterior based on seasons and floor scenarios responsive facade to the sun intensity, coated with fiberglass

005 Programme Strategy

Winter Time
Heat, enclosure, intimacy

Summer Time
Cooling, openness, permeability



Sauna (Primary Use)
The central element of the project. A space for heat, retreat, and recovery, forming the core experience around which all other

Flexible Activity Space
An open area designed to accommodate yoga, breathwork, and light fitness activities. Its adaptability allows it to respond to different uses throughout the day.

The initial programme helped map out the range of needs I aimed to address within the project. While it explored a wide variety of activities, it became clear that the number of proposed functions was too ambitious for the limited space available.

In response, the focus shifted toward a more essential and coherent set of uses. The design prioritises a sauna area as the primary function, supported by key amenities such as showers, changing rooms, and toilets.

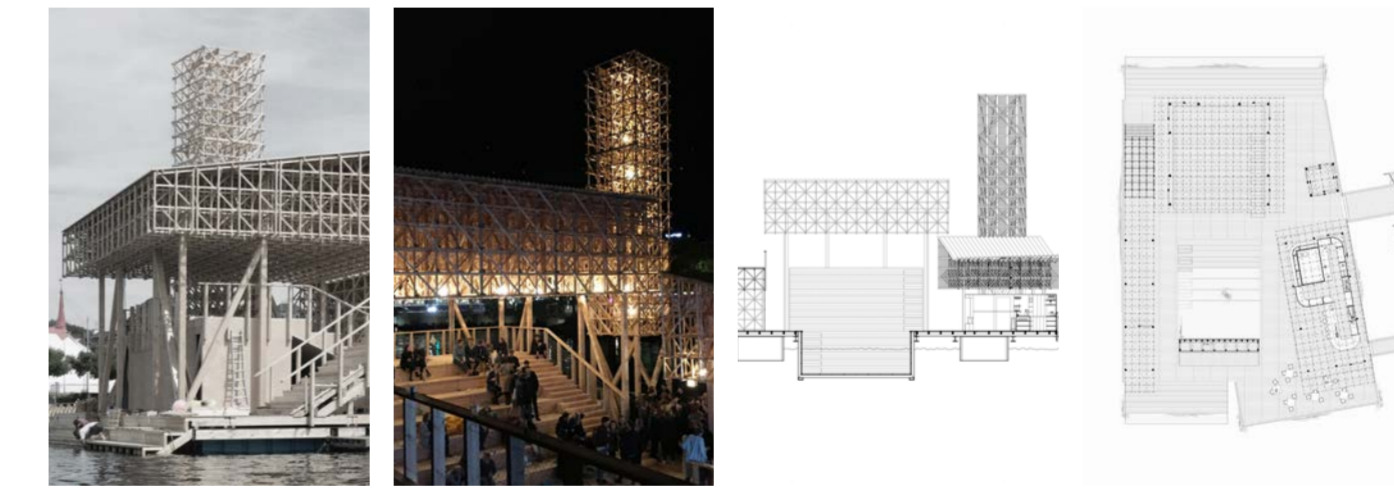
Support Spaces
Essential amenities including showers, changing rooms, and toilets. These ensure the sauna can function comfortably and practically within a public setting.

Gathering and Rest Area
A more informal space for cooling down, sitting, and social interaction. It supports the transition between activities and encourages a slower, communal rhythm within the building.

“ There were definitely elements of living on the canal which I loved — the summer months where you could have people over to drink on the roof, or while you moved the boat, or for no real reason. But for the rest of it, I think I’ve served my time. ”

User Insight

600 Precedents Research buoyancy



Pavilion of Reflections, Manifesta 11, Zurich, 2016

Architect: Studio Tom Emerson + ETH Zurich students

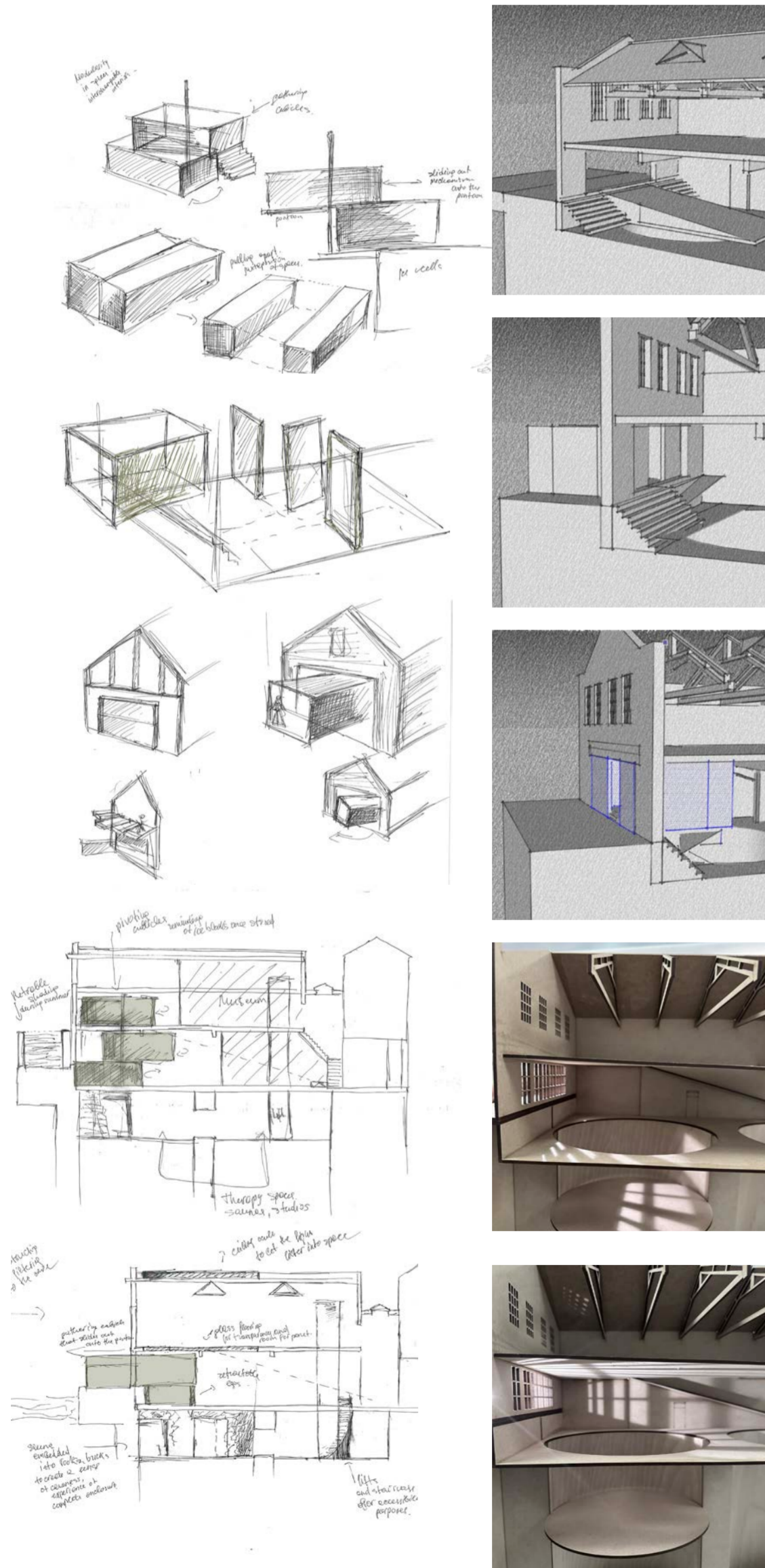
A temporary floating platform on Lake Zurich combining gathering, performance, and bathing spaces. Constructed primarily from timber, the project explored water as a civic stage, dissolving boundaries between land, audience, and occupation.

Loyly Floating Sauna, Lake Geneva, 2021

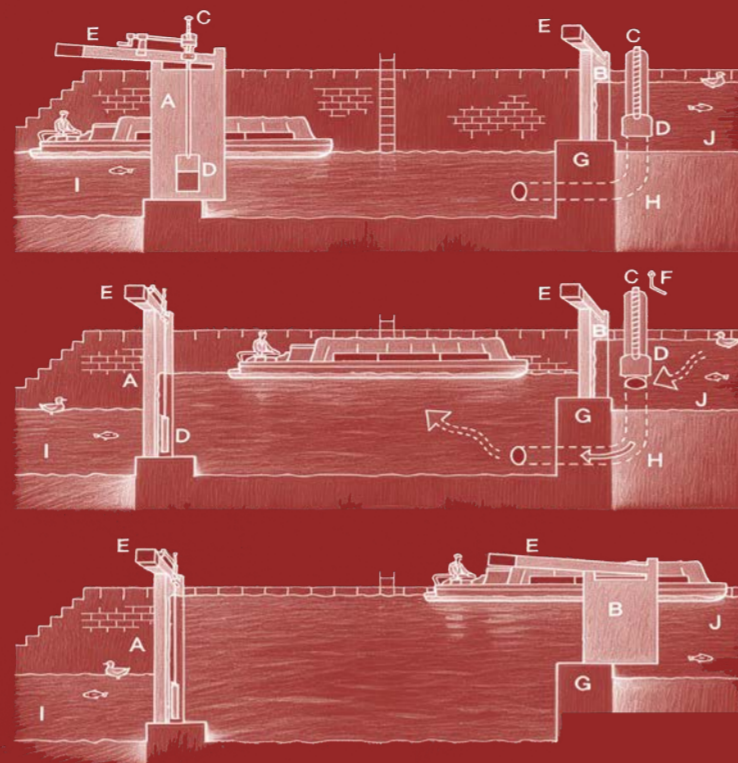
Architect: Trolle Rudebeck Haar

A compact floating sauna organised around heat, transition, and immersion. Constructed from Swiss Douglas Fir on a pontoon base, the project explores sensory relationships between sauna culture, water, and landscape.

Design Development



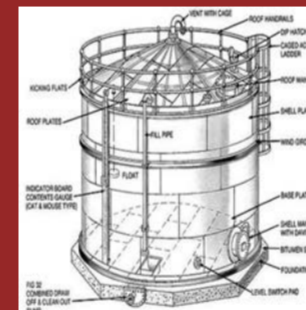
008 Understanding Canal Lock Systems



Rising platform driven by water pressure



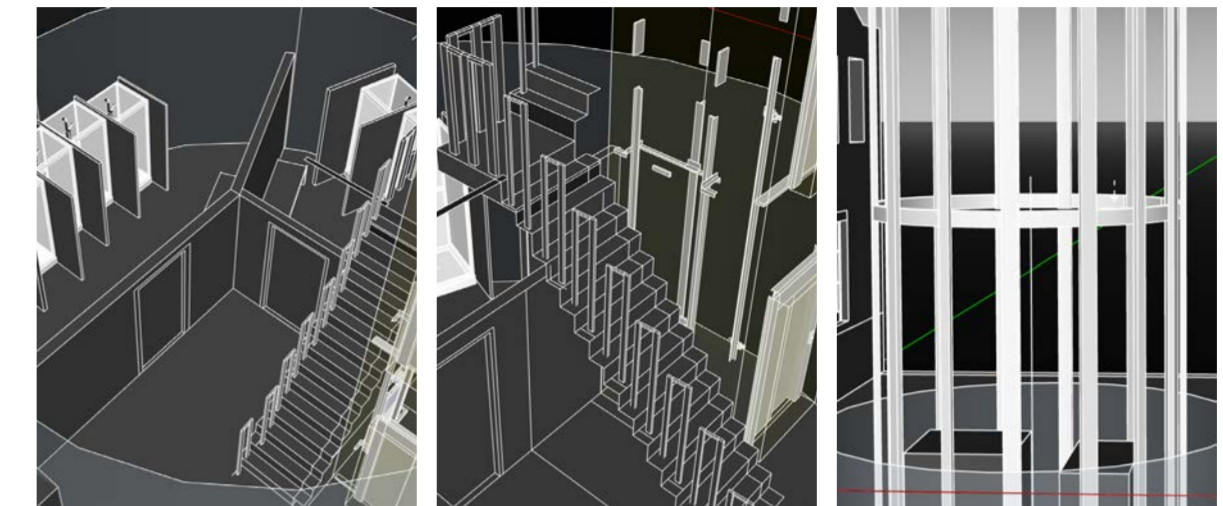
- FIG 1
- Raise or wind up the paddles in each of the bottom gates so water flows out and the lock is 'empty'.
 - Open the bottom gates, which have a pivot on the base, by pushing the Balance Beam.
 - Drive boat in.
- FIG 2
- Close the bottom gates.
 - Drop or wind down the paddles to shut holes in bottom gates.
 - Raise top paddles in the canal bank to open the holes into the pipes either side.
 - Water flows through the underground pipes into the lock so the boat floats up.
- FIG 3
- Wait until the water level is the same both sides of the top gates.
 - Open the top gate. It is impossible to do this until the water levels are the same due to the pressure of the water !
 - Drive the boat out.
 - Drop/wind down the side paddles to shut off the pipe.



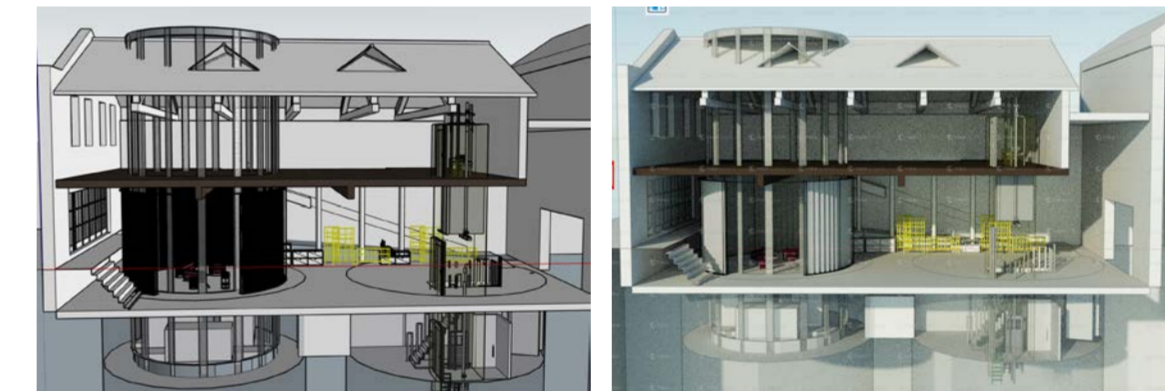
The gas holders at King's Cross operate as early examples of kinetic infrastructure, where storage, structure, and movement are fully integrated. Composed of a fixed steel guide frame surrounding a vertically moving gas bell, the system allows the container to rise and fall in response to gas volume. This vertical movement regulates pressure within the network, making the structure both a storage device and a mechanical regulator. The exposed steel frame stabilises and guides this motion, while the cylindrical form enables efficient expansion and contraction. As a result, the architecture is defined not by enclosure, but by controlled movement and internal volume. In their contemporary reuse, the retained frames at King's Cross preserve this structural logic, transforming a former industrial mechanism into a spatial framework for new occupation.

009 Iterative development circulation

Staircase

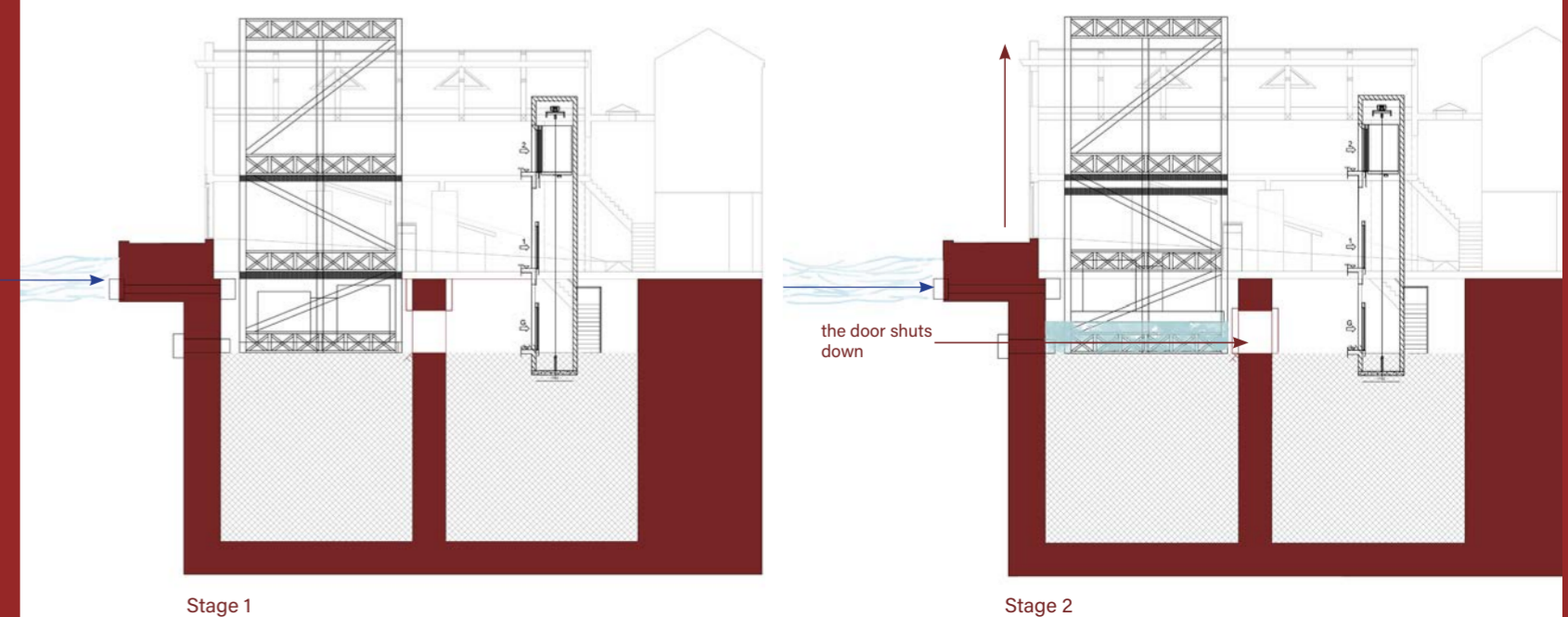


Lift



In this stage, I focused on improving how people move through the space, especially by testing different positions for stairs and lifts. The goal was to make circulation feel clear and natural, responding to entrances, level changes, and key areas of the project. Another key part was exploring the balance between filled and empty space. Open areas bring in light and emphasise the height of the existing structure, while more solid elements help define edges and transitions.

Seasonal Transformation

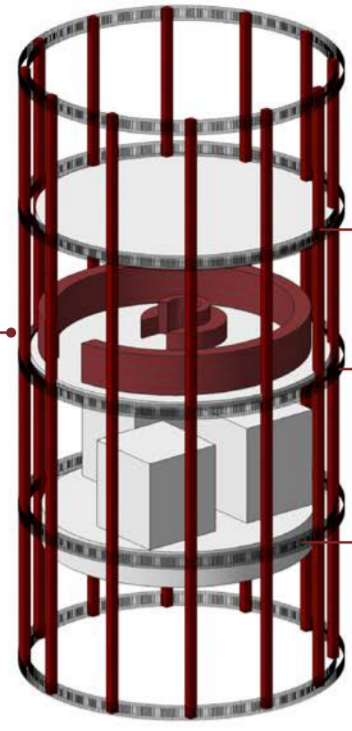


Stage 1

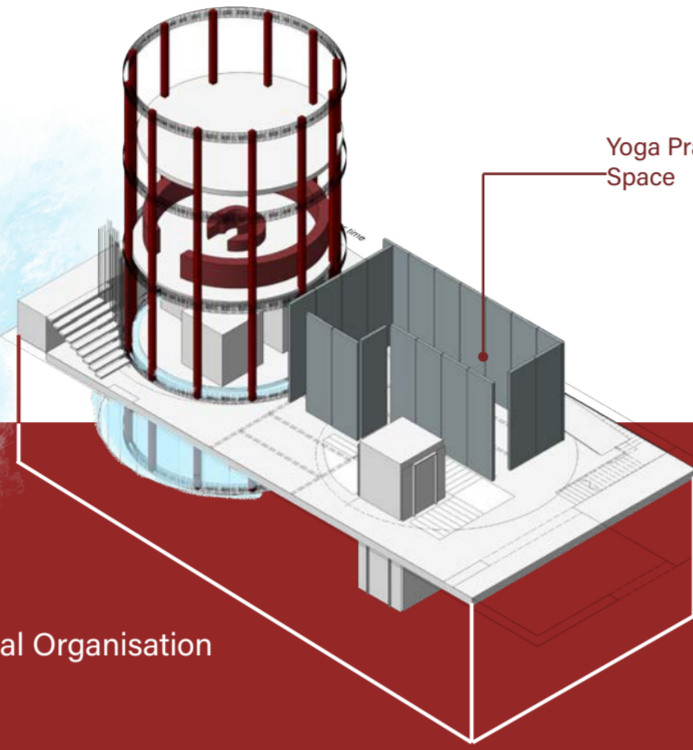
Stage 2

Design Proposal

Gathering Area

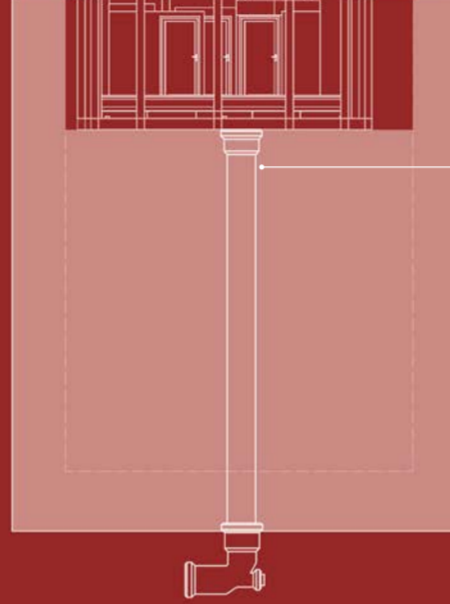


Yoga Practise Space



Winter Spatial Organisation

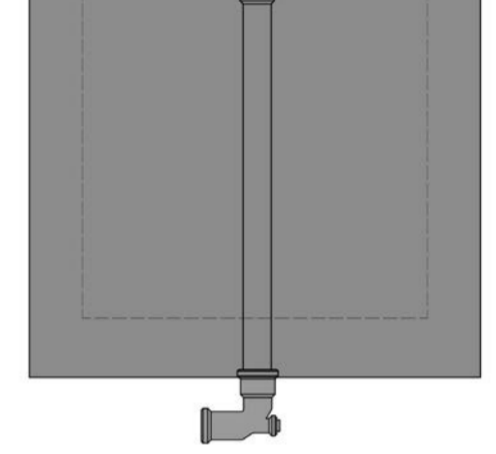
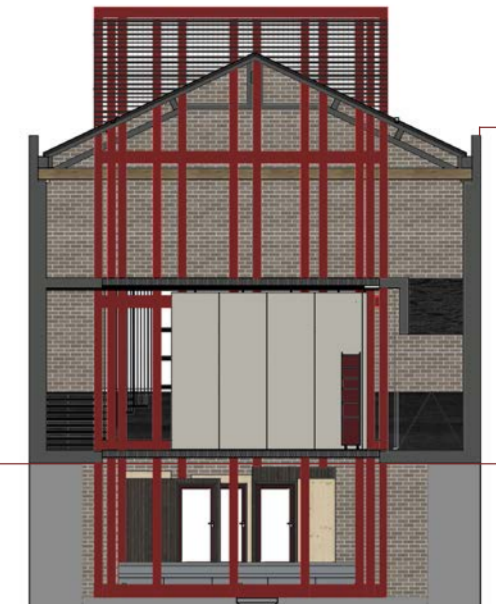
Summer Spatial Organisation



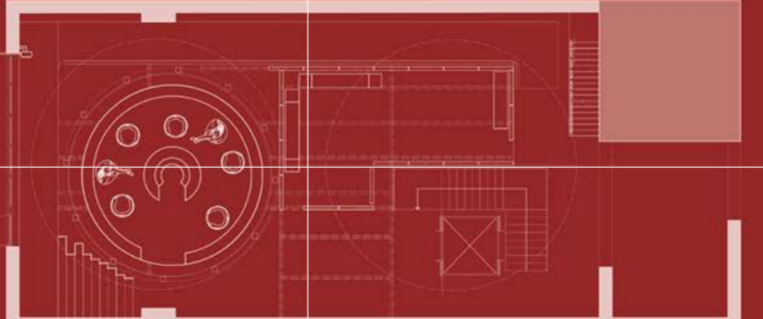
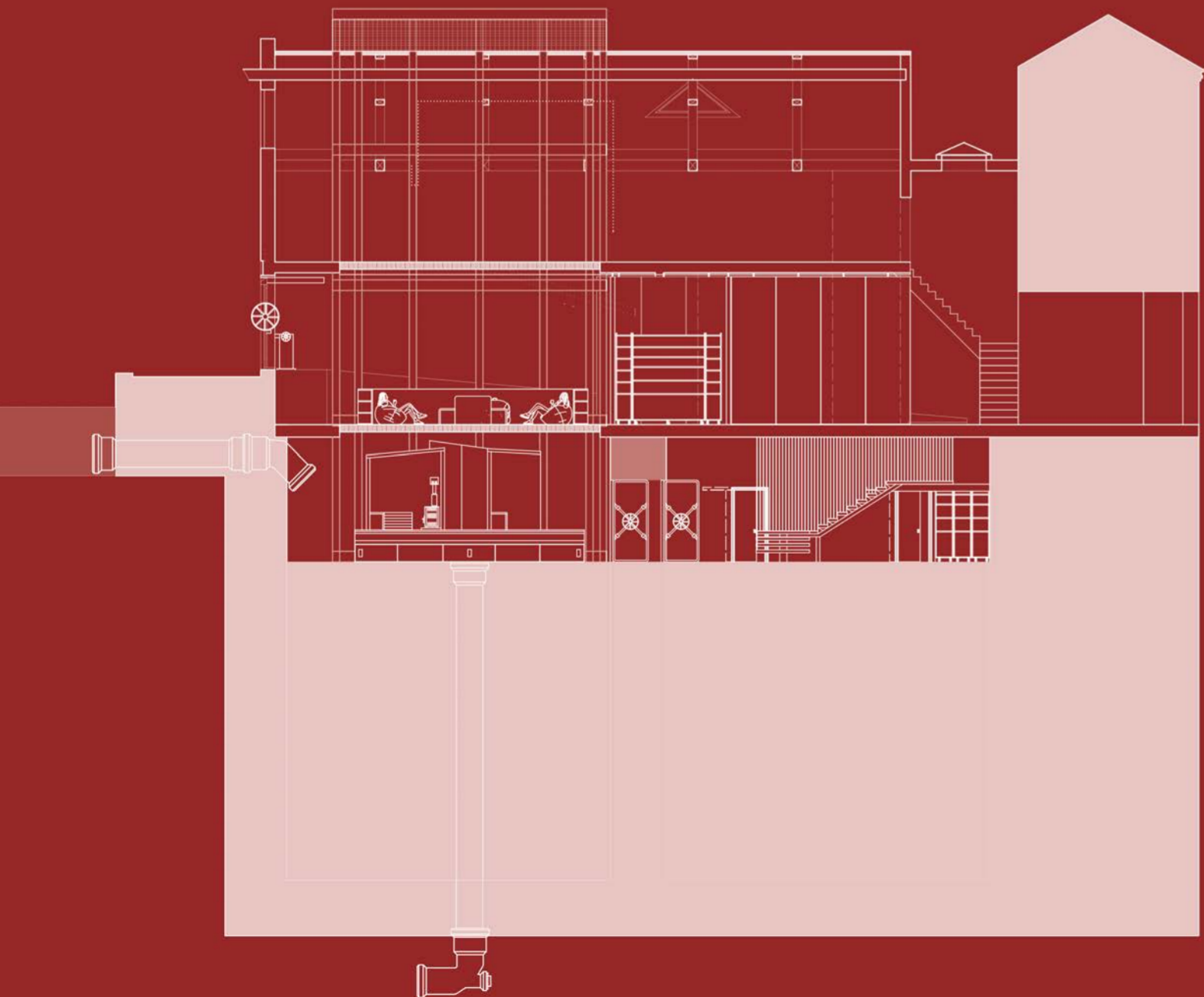
Drain Outlet Pipe

The drainage system was relocated from the side wall to the floor, allowing water to drain from the lowest point. This works more efficiently with gravity and hydrostatic pressure, creating a controlled flow during the lifting and lowering of the platform.

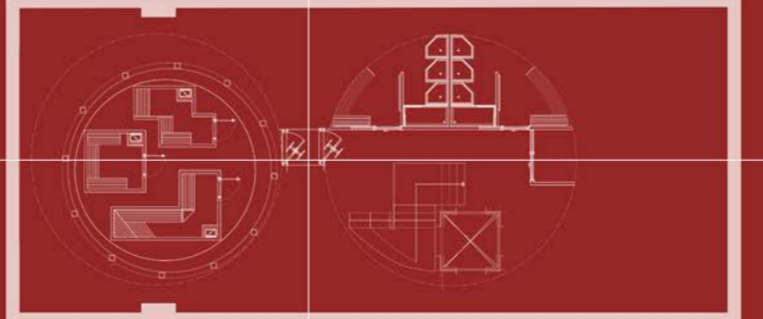
Section BB (Summer Time)



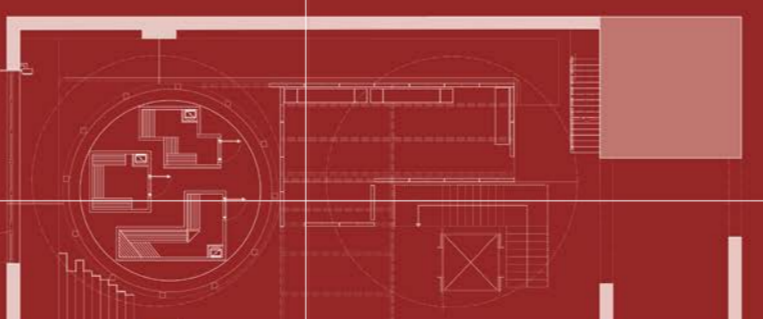
Section AA (Winter Time)



Ground Floor Plan (Winter Time)

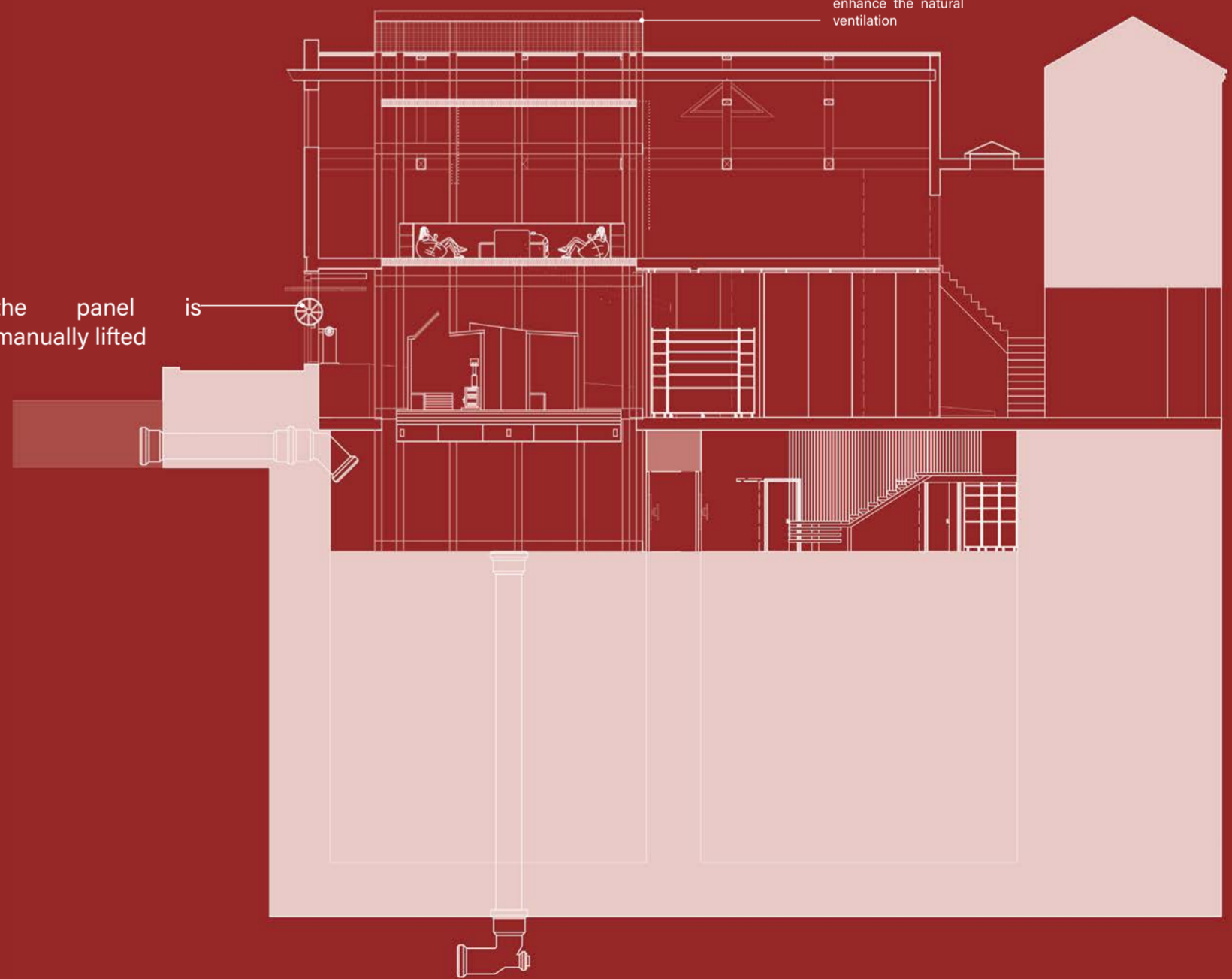


Lower Ground Floor Plan (Winter)



Ground Floor Plan (Summer Time)

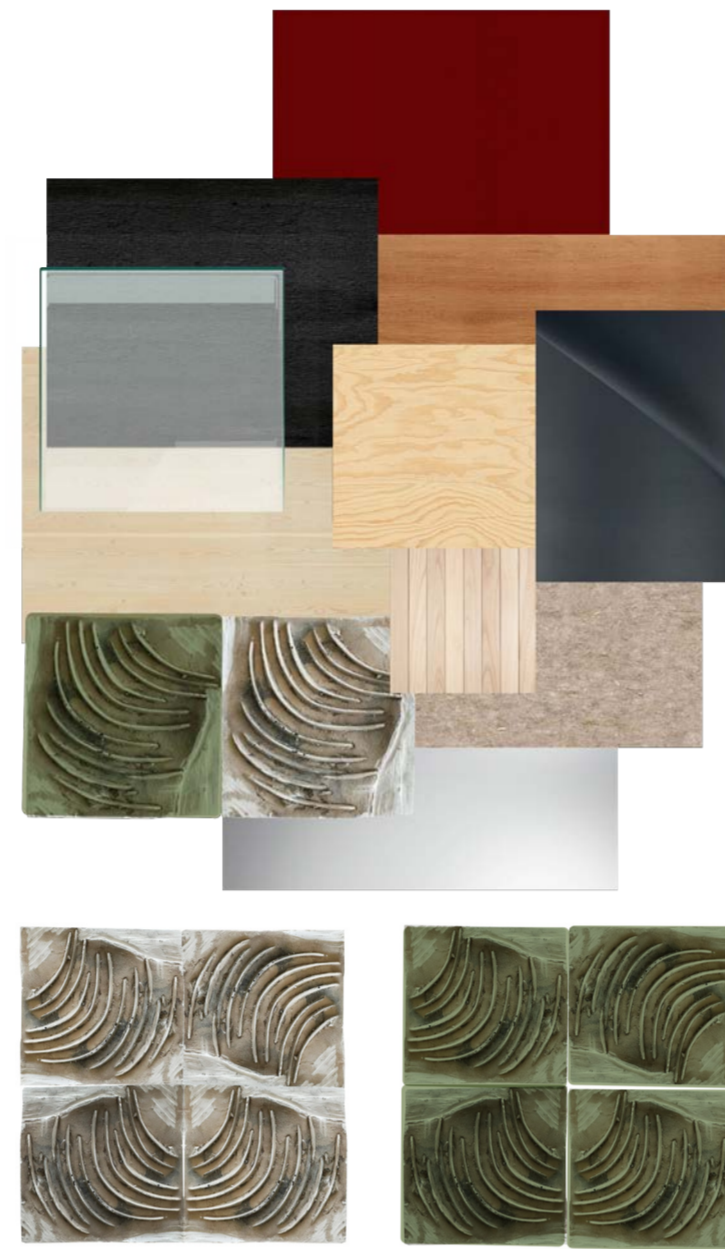
Section AA (Summer Time)



shutters open up to enhance the natural ventilation

the panel is manually lifted

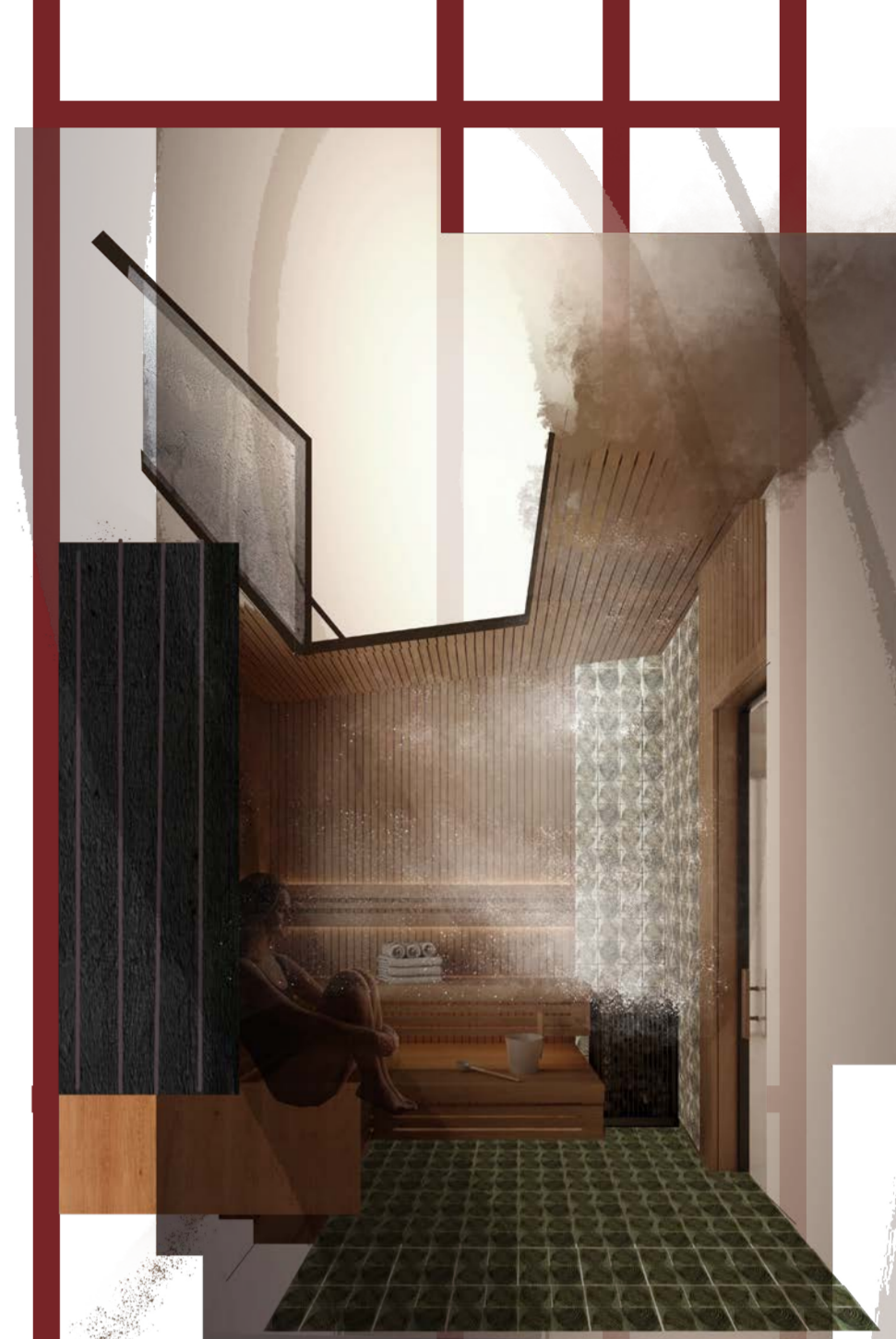
Synthesis



Material Palette

The material palette combines robust industrial elements with warm tactile surfaces to reflect the character of the canal infrastructure while creating a calm sensory environment. Natural materials such as Douglas fir, timber, hemp insulation, and bespoke ceramic tiles introduce warmth and texture, contrasting with structural steel and toughened glass that reference the site's mechanical and industrial heritage. The palette balances durability, moisture resistance, and sensory comfort, supporting the project's relationship between water, movement, and inhabitation.

The bespoke ceramic tiles are designed to evoke the movement of water through subtle ripple-like relief patterns embedded into the surface. Used across both floor and wall applications, the tiles create a continuous visual language throughout the interior. On the floor, the textured undulations produce a gentle sensory experience underfoot, while on the walls the reoriented patterns draw the eye vertically, reinforcing fluidity and spatial movement within the space.



Floating Sauna

Winter



Summer

