

Photosensitivity is a skin condition that affects 11 to 21% of Northern Europeans, with up to 31,000 in Dundee alone, often impacting wellbeing.

Through adaptive reuse, the West Ward Works is reimagined as an inclusive environment that translates outdoor qualities into a safe interior setting for photosensitive individuals. Inspired by komorebi, dappled light, and skin reaction patterns, the design uses fragmented and layered forms.

Interconnected spaces support social, educational, active and quiet uses, informed by user engagement and an interview with a photobiology researcher. The design also involves immersive simulations of natural transitions and seasonal change. While filtered daylight, adjustable lighting and an in-door car park ensure accessibility.

A Dappled Oasis offers a safe, engaging and inclusive alternative to the outdoor experience.

A DAPPLED OASIS

Rethinking shared spaces for photosensitive individuals.

Social & Cultural Agency



SITE PLAN



The West Ward Works is originally a 19th century jute mill, and have been left vacant since the closure of the DC Thomson printing press in 2011. The building temporarily hosted the Dundee Design Festival twice and is currently up for sale, making it a site with significant potential for adaptive reuse.

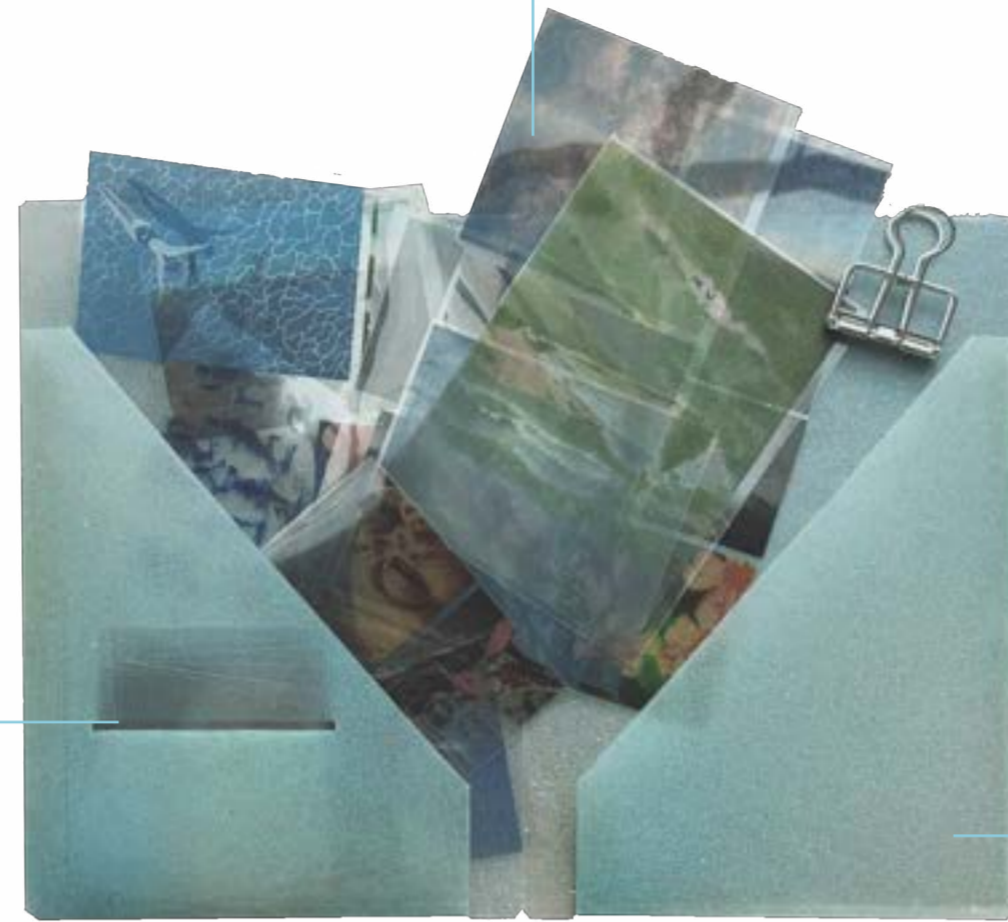
Dundee is a unique location for such a project because it is a global hub for photobiology research. The Scottish Photobiology Service (SPS) is located at Ninewells hospital.

West Ward Works
19 Guthrie Street,
Dundee, Angus,
DD1 5BR



blank acetate for writing/drawing on

images printed on acetate as prompts/ for collaging

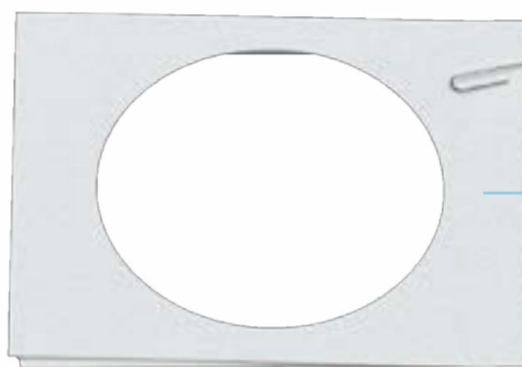


ENGAGEMENT TASK

Inspired by tunnel books, this engagement task allow each participant to create a personal narrative of the outdoor elements they value most. This helped to inform the design with activities and outdoor elements that people enjoy.

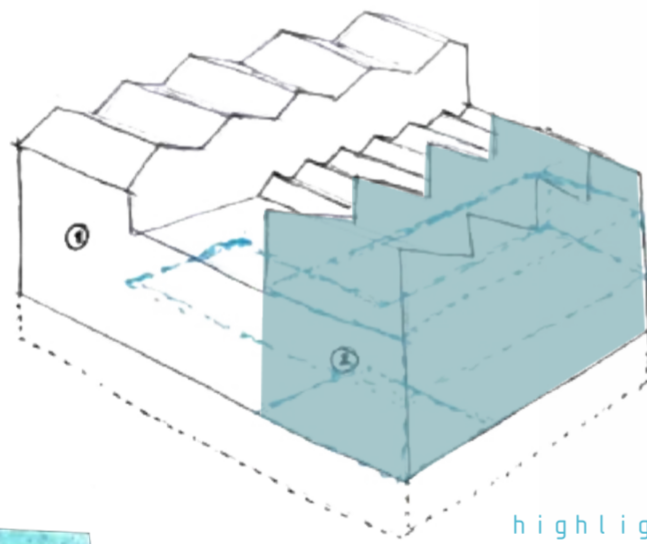
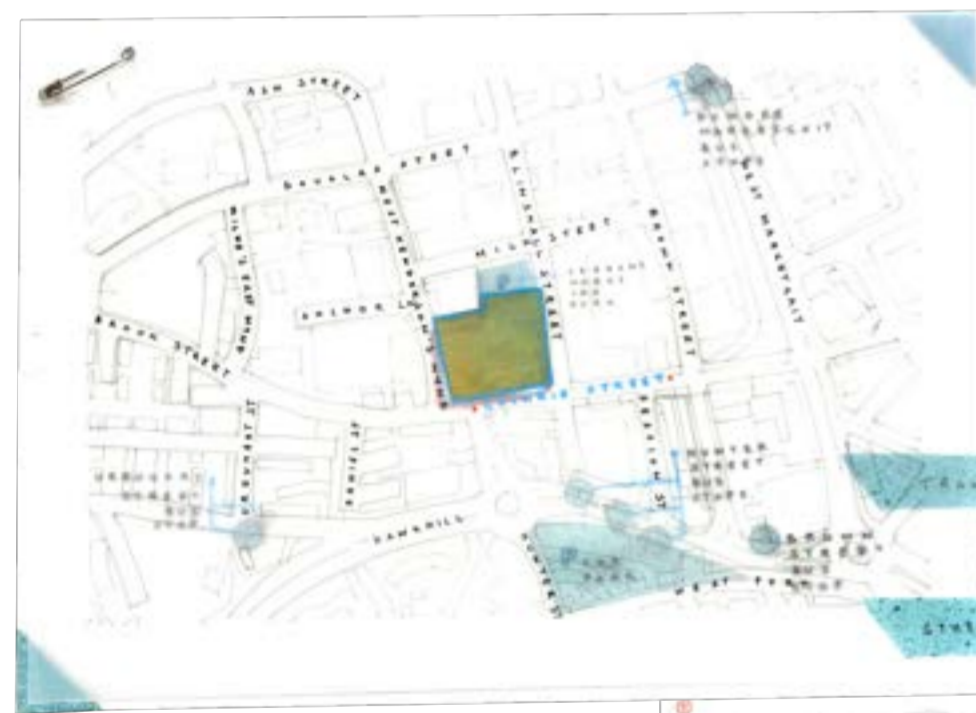


folder



frames for assembling

instructions



highlighted section of the building is chosen for its distinctive roof structure and appropriate scale.

CASE STUDIES



Olafur Eliasson
- The Weather Project
- An Encyclopedia



teamLab



Silo Lab



Waterlicht
- Studio Roosegaarde



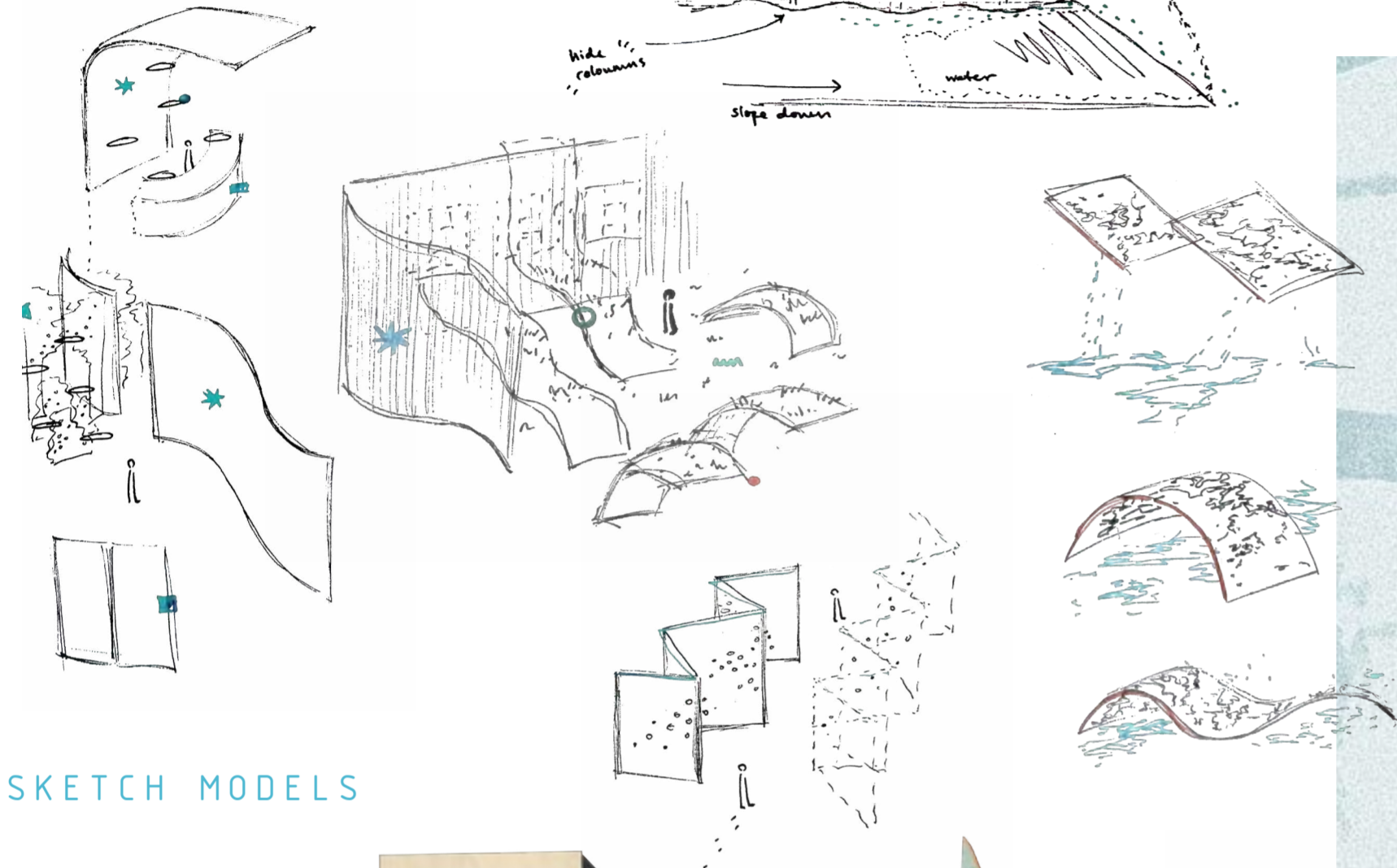
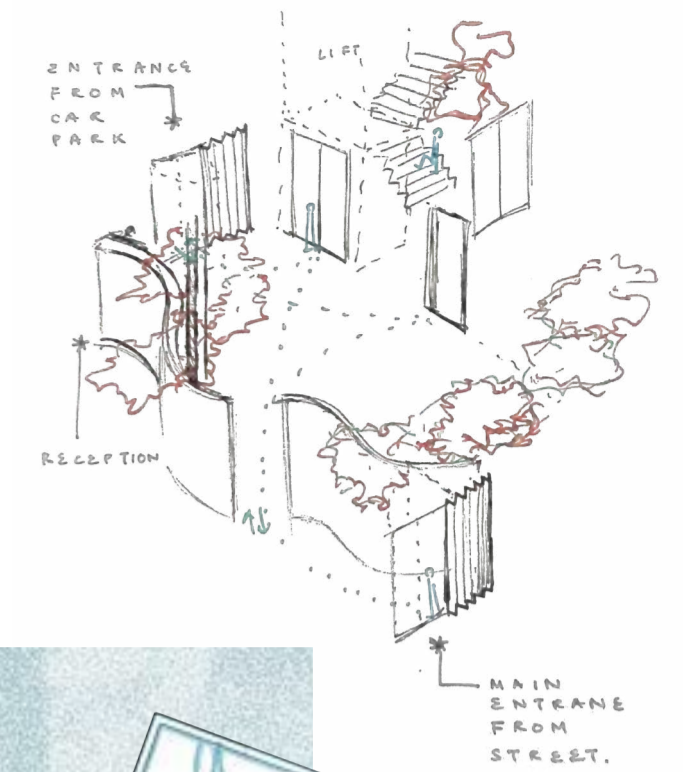
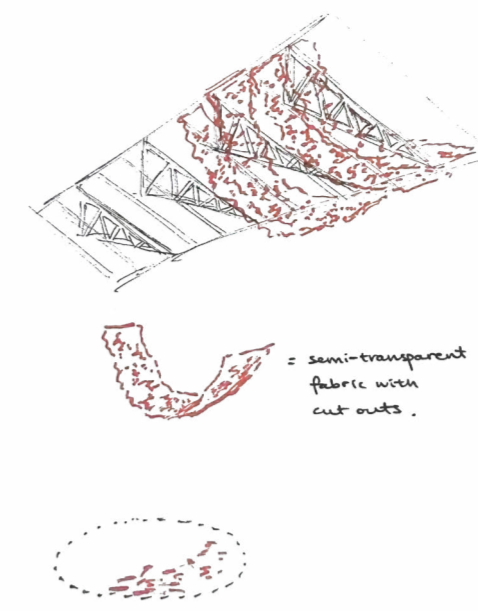
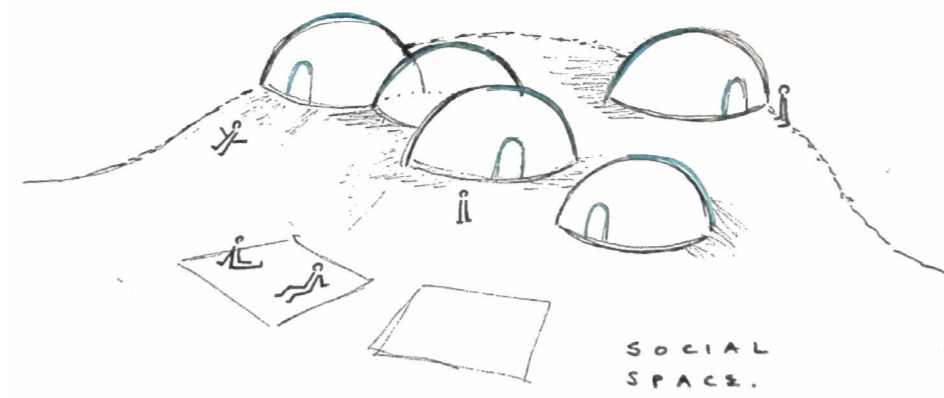
Results past
- Karla Black

SITE ANALYSIS

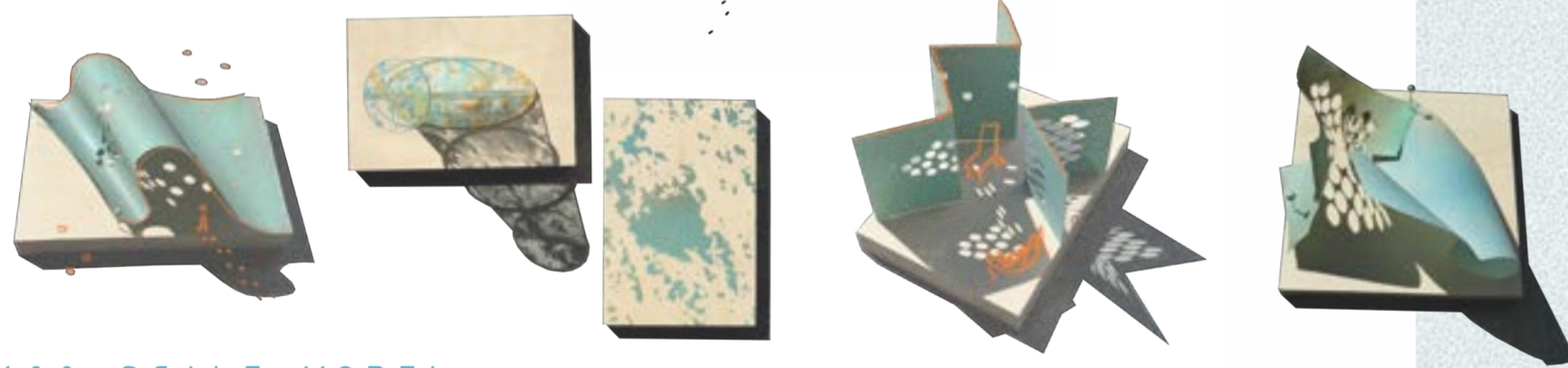
- history of the site
- street map
- surrounding infrastructure
- transport links/ car parks
- street lighting
- sun path



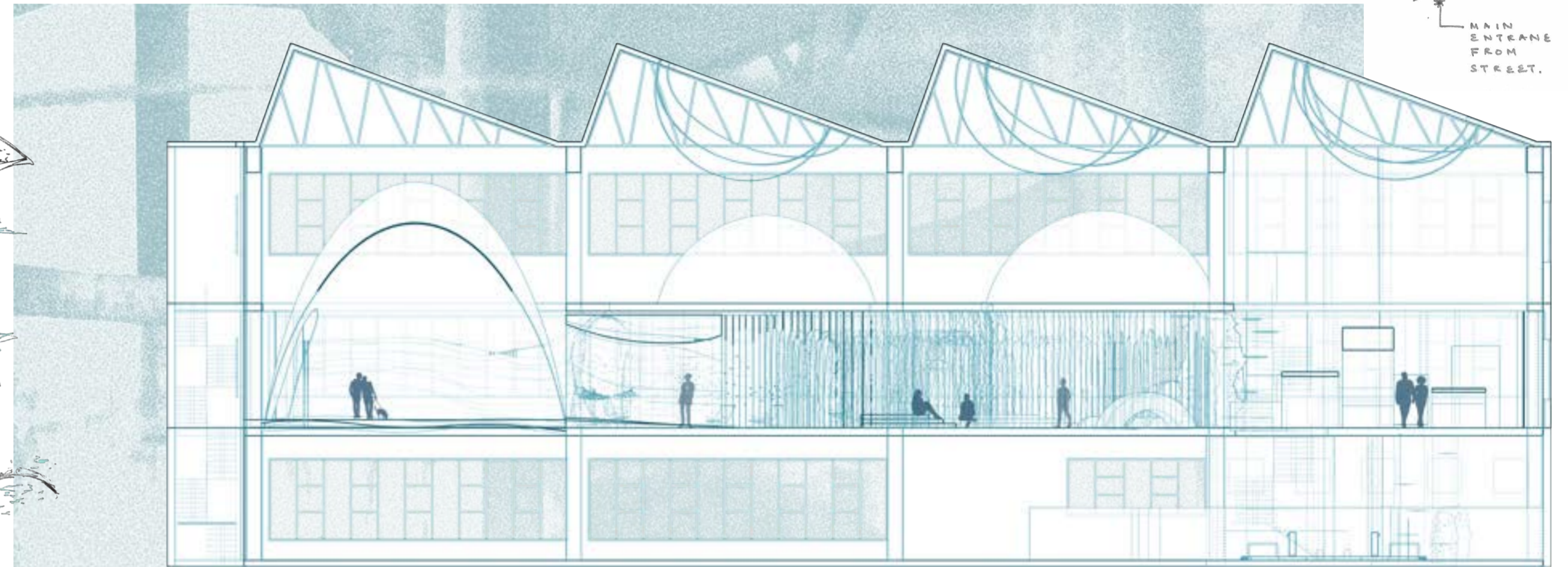
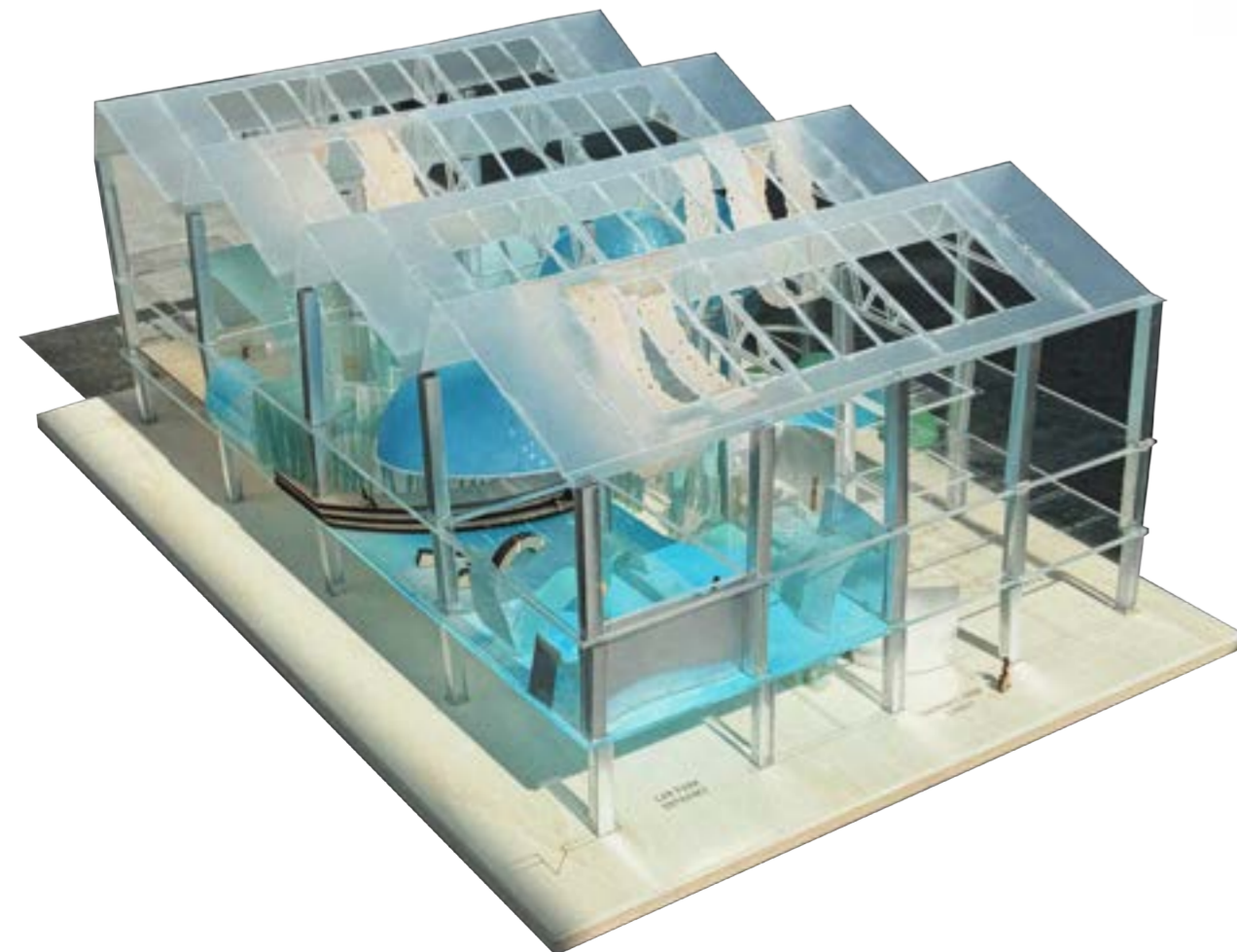
SKETCHES + DEVELOPMENT



SKETCH MODELS



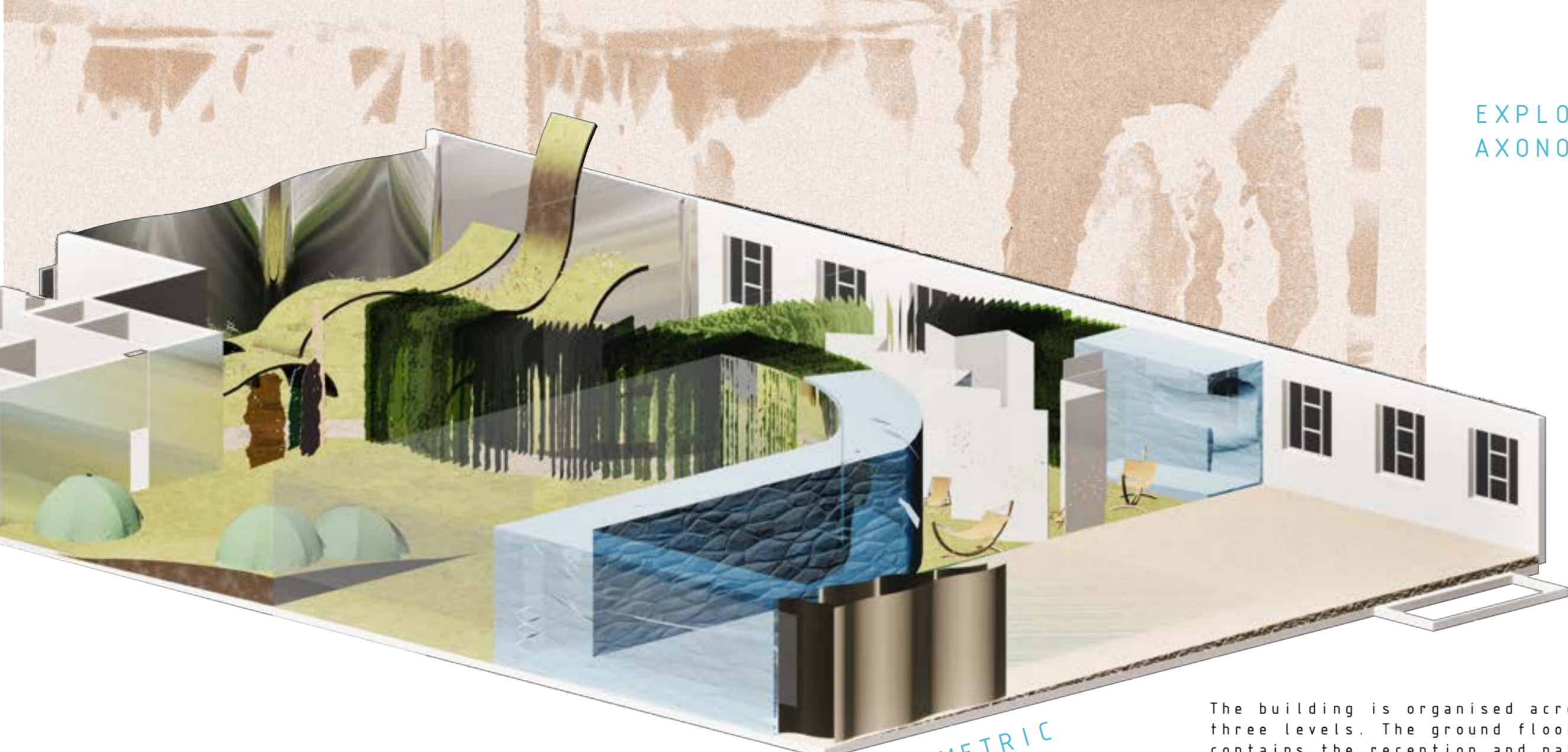
1:100 SCALE MODEL



SECTIONAL ELEVATION - LEFT



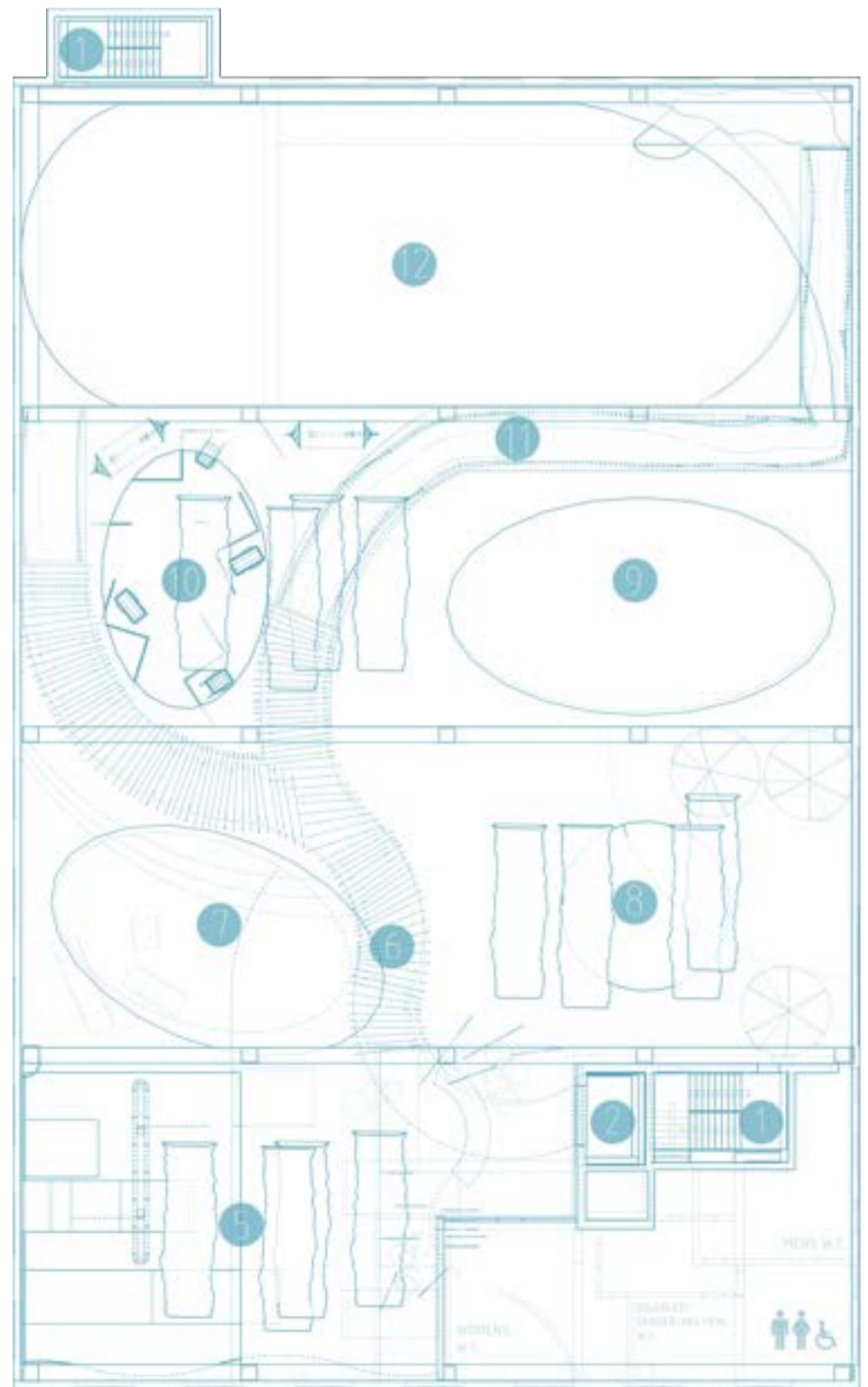
SECTIONAL ELEVATION - RIGHT



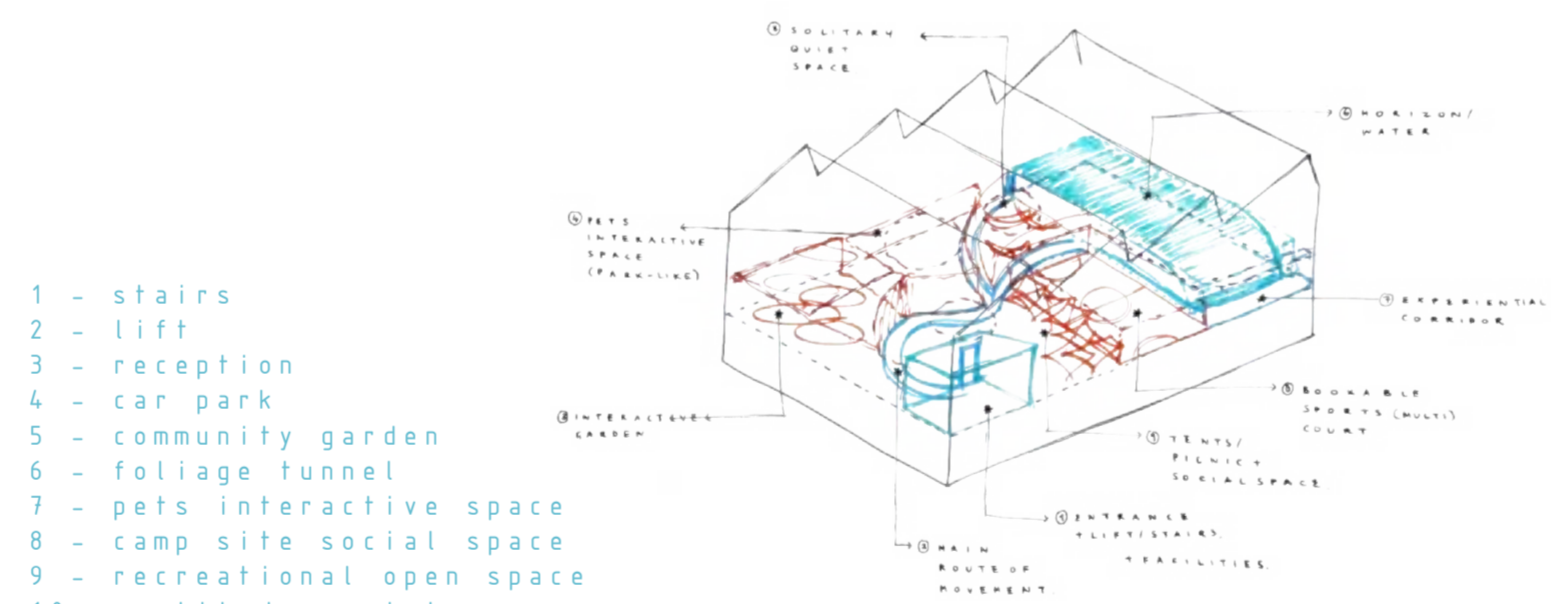
AXONOMETRIC

EXPLODED AXONOMETRIC

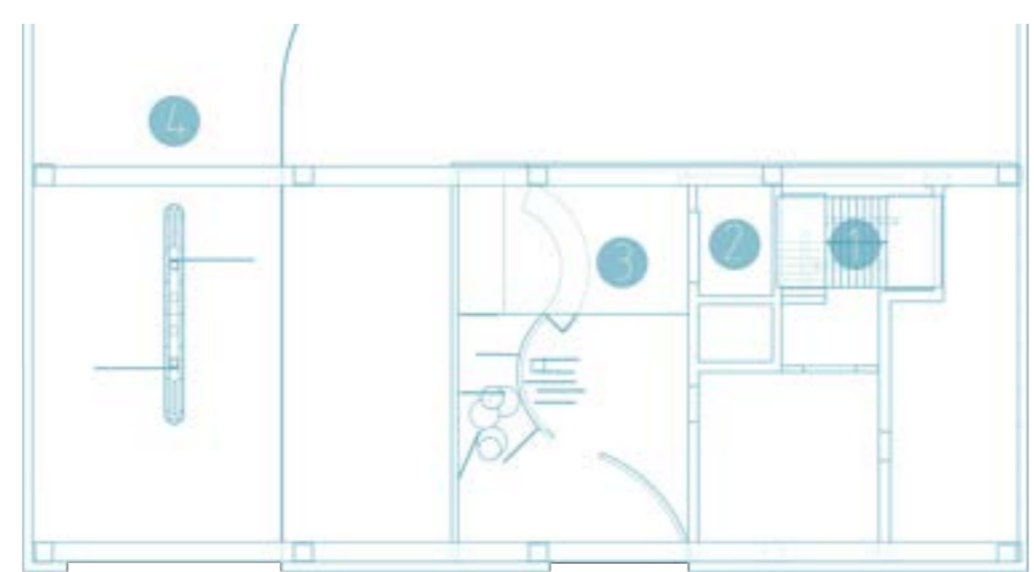
The building is organised across three levels. The ground floor contains the reception and parking, allowing users to enter without outdoor exposure. The first floor houses the main spaces and facilities, while the second floor introduces double-heights and skylights through a series of voids.



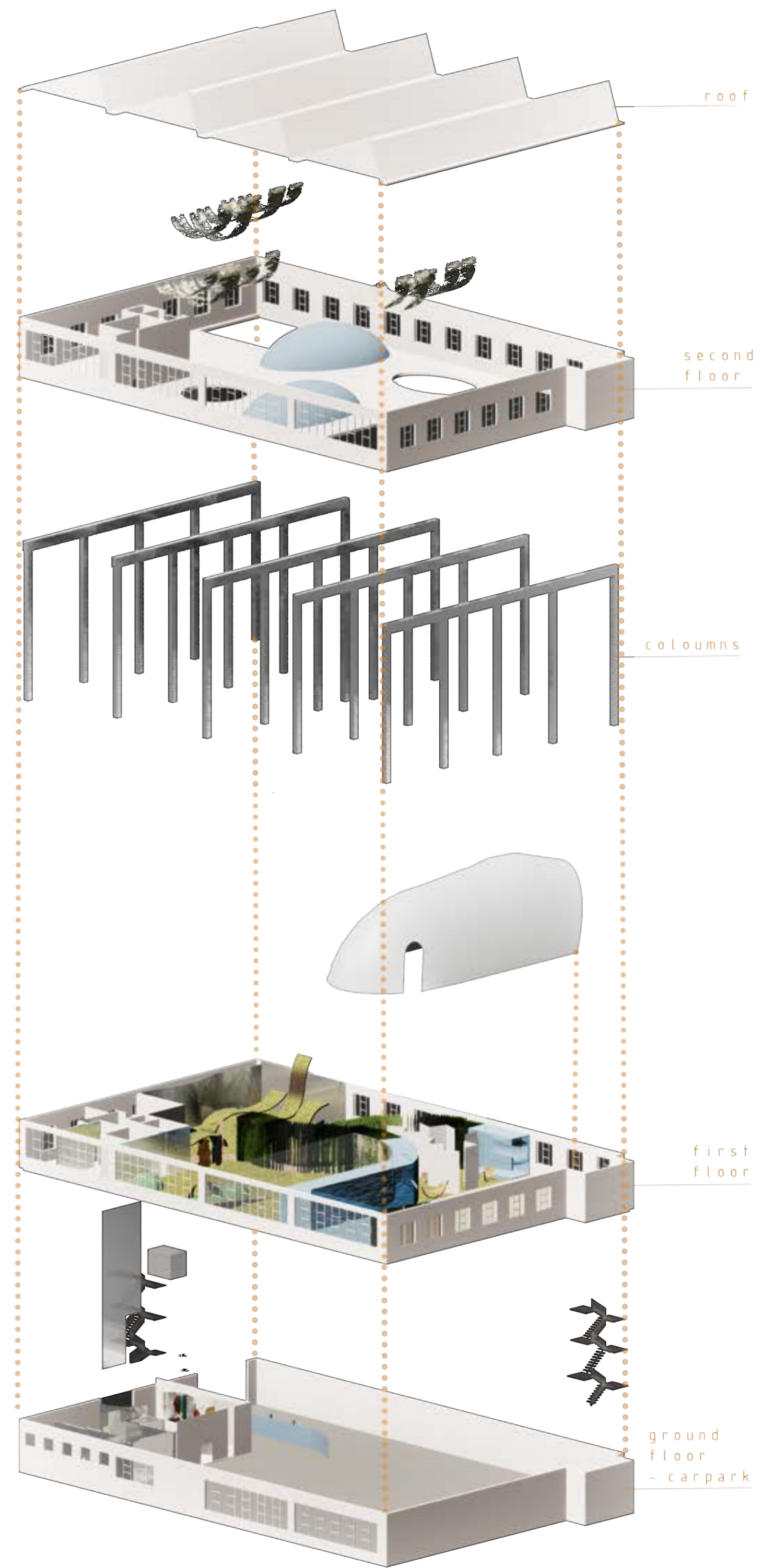
PLAN : FIRST FLOOR



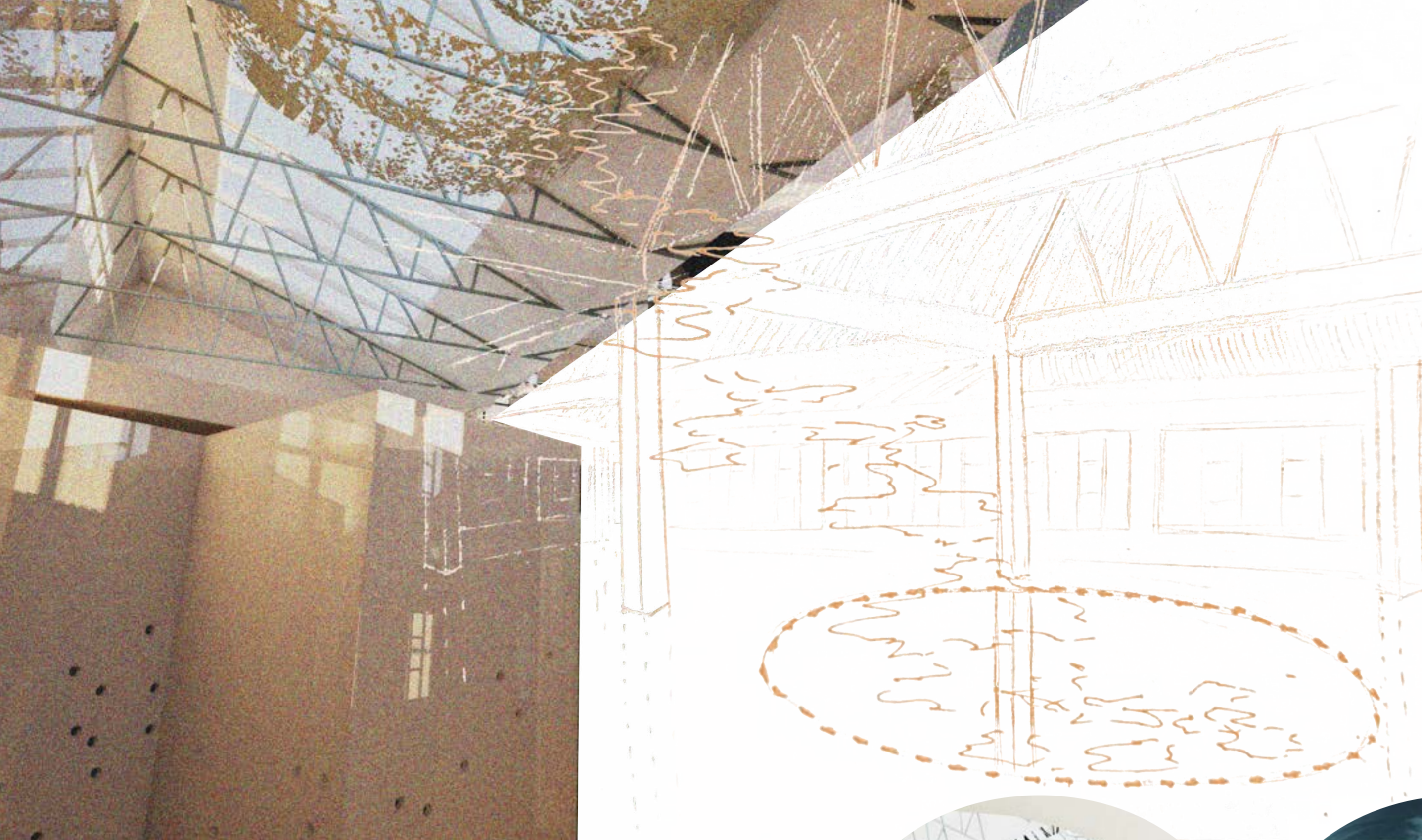
- 1 - stairs
- 2 - lift
- 3 - reception
- 4 - car park
- 5 - community garden
- 6 - foliage tunnel
- 7 - pets interactive space
- 8 - camp site social space
- 9 - recreational open space
- 10 - solitude, quiet area
- 11 - water tunnel
- 12 - dynamic immersive space



PLAN : GROUND FLOOR



- roof
- second floor
- columns
- first floor
- ground floor - carpark



DAPPLED LIGHTING EFFECT

RENDERED VISUALS



FIRST FLOOR ENTRANCE:
foliage tunnel + garden



SOCIAL + OPEN SPACE



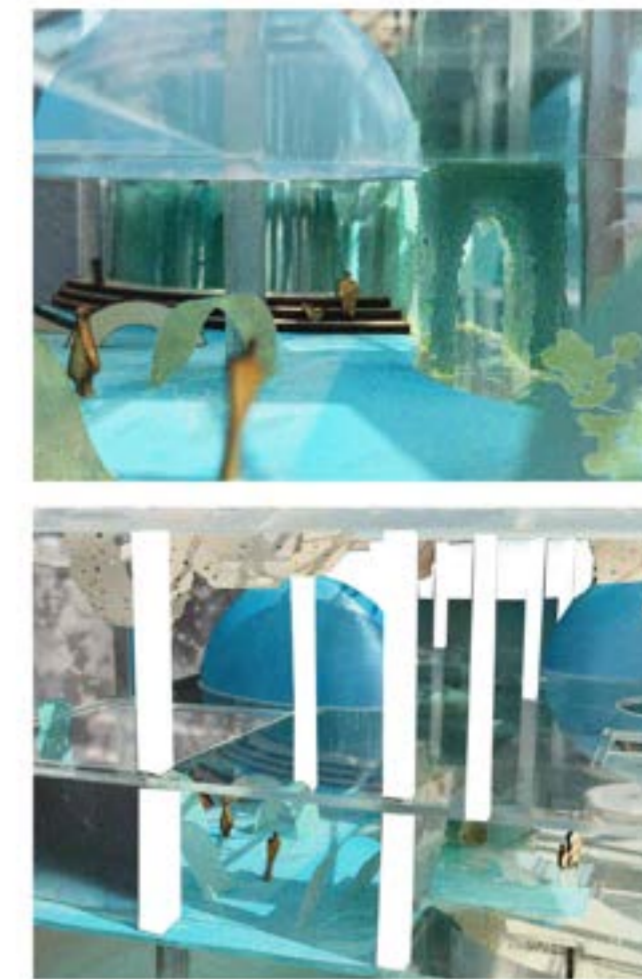
WATER TUNNEL



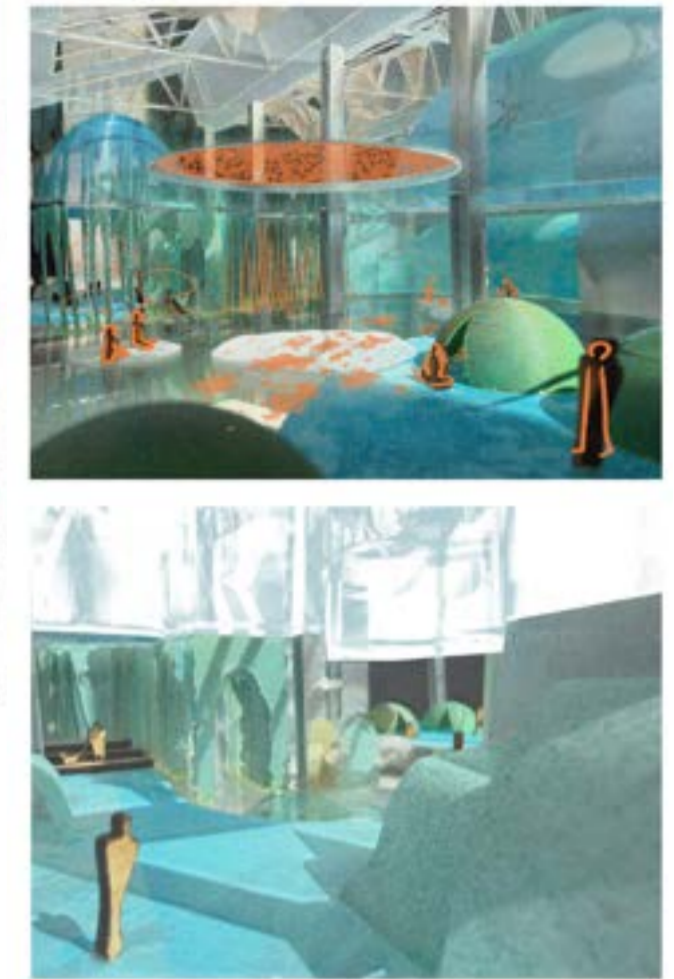
SOLITUDE QUIET
SPACE:
projection +
layered
lighting



DYNAMIC IMMERSIVE SPACE
- simulates temporal
+ seasonal changes



VISUALS FROM
SCALE MODEL



MATERIAL SAMPLE BOARD



- 1 - water ripple glass
- 2 - light grey masonry paint on existing concrete structure
- 3 - semi-transparent rear projection film
- 4 - Teflon-coated fiberglass
- 5 - UV filter window film
- 6 - mirror stainless steel
- 7 - toughened glass
- 8 - recycled plastic - SMILE PLASTICS: MAWN
- 9 - water pattern laminated glass
- 10 - customised recycled laminated glass
- 11 - resin gravel flooring
- 12 - semi-transparent acoustic fabric
- 13 - textured + coloured laminated glass