

THE BOTANICAL DISTILLERY

'Back to man made spirits'

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Programme and site

To revive the history and the past of the London canal museum's location, gin distillery project focuses on the restoration of manufacturing and man made goods where the production of gin is more dependant on people rather than factories and innovative machinery.

Visitors and local community

By creating a more open space and including voids between different levels, visitors are more exposed to the production of gin and can become a part of the whole experience by getting involved in gin work-shops and visiting the botanical garden which educate them about the history behind it and help to enforce a stronger sense of community.

Sustainability approach

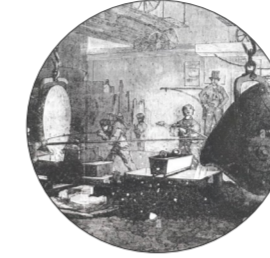
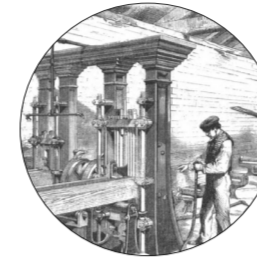
Keeping in mind the waste produced from the gin infrastructure during the process of distillation, various sustainability factors have been considered allowing to re-use as much waste inside the building as possible. Using excess heat produced to heat up the botanical garden will help certain plants to grow which will later on be used in the gin production creating an interesting experience for visitors as the plants will travel between the floors through a see-through pneumatic tube from the garden to the distillery. Left over waste from gardening will be turned into soil fertiliser or will be used in the biomass boiler that heats up the copper still with base ingredients.

The project explores and tests out different design ideas as part of design development with the help of physical 3D models where the scale and detail of them increases as the design proposal stages progress further. Starting from sketch models 1:100 scale and ending up in 1:50 the 3D model shows the spatial layout and key spaces in the building as well as how the main spaces are interconnected.

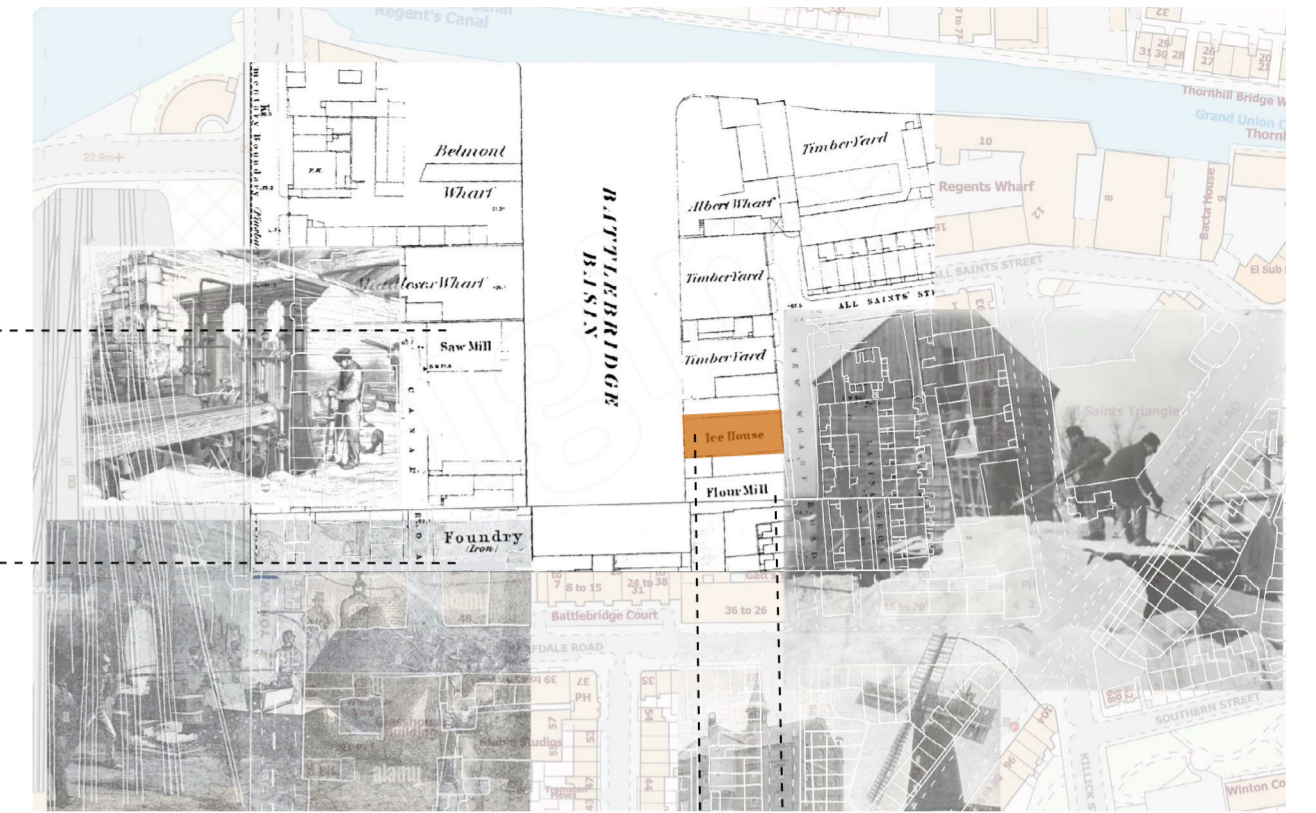


Historical link to the site

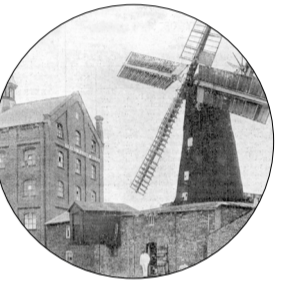
Water or wind operated sawmills would cut tree trunks which were taken from timber yards opposite the basin



Iron would be transported to foundries through the canal where it would be used for metal works and the canal water helped to cool hot metal



Ice cutting in Norway and transportation to the 'Ice house' in London through the Regent's canal

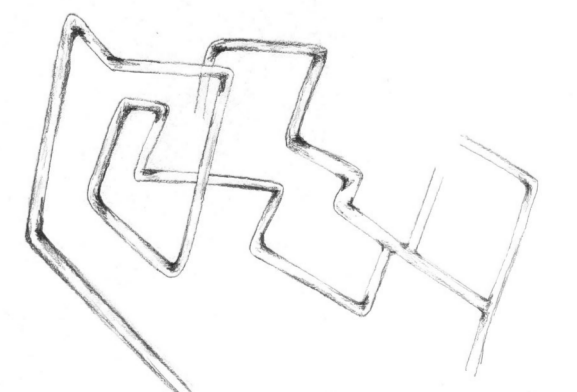
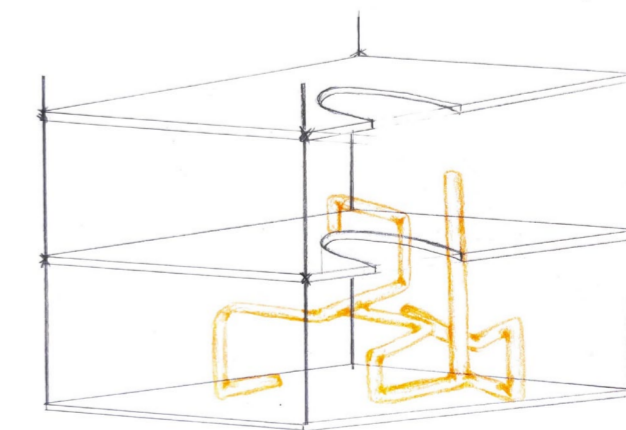


Making of flour with the help of flour mill

3D developmental model



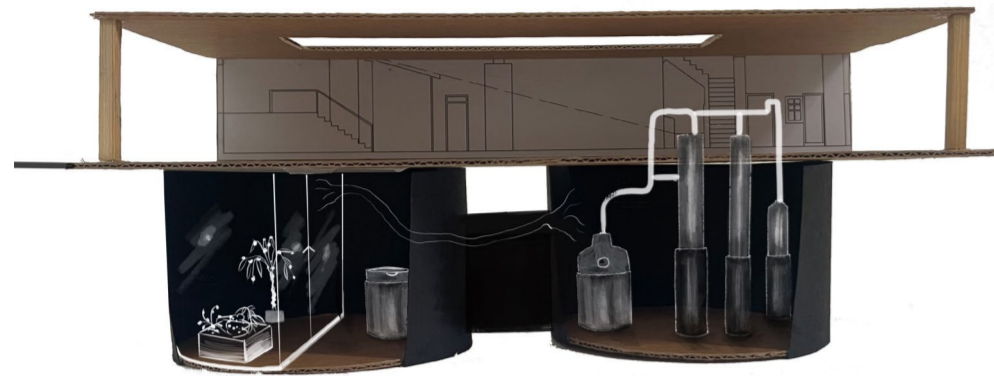
To start visualising the spatial experience in 3D, I converted the 'main' areas of the concept collage into a 3D form where I included a representation of different levels in the buildings with an opening on each floor, where the pipe structures that represent the gin distillery are exposed to the visitors and extend upwards from the ice well.



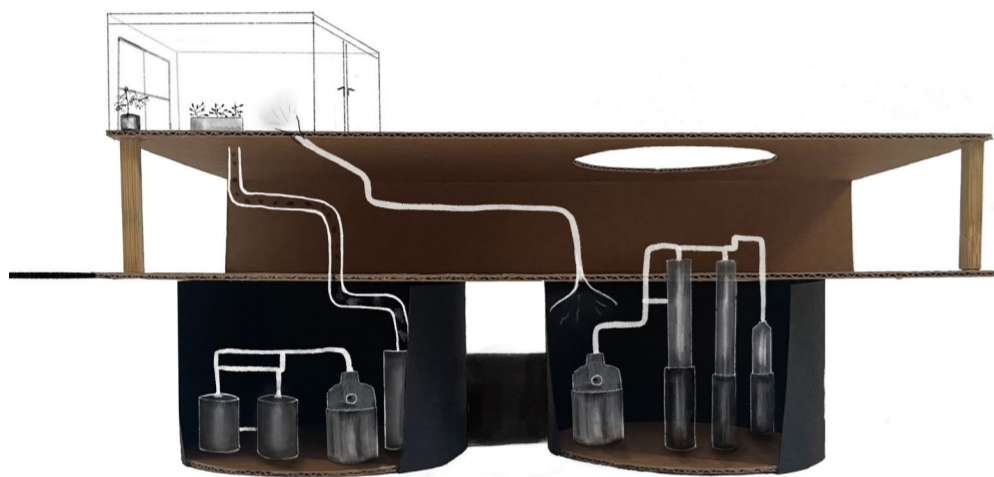
DESIGN DEVELOPMENT

To guarantee the best relationship between related spaces I tested out different ways where the botanical garden can be placed with the help of model making and digital drawing. As a result I was also required to test out floor opening variations to ensure that the pipes connecting the two spaces can go through.

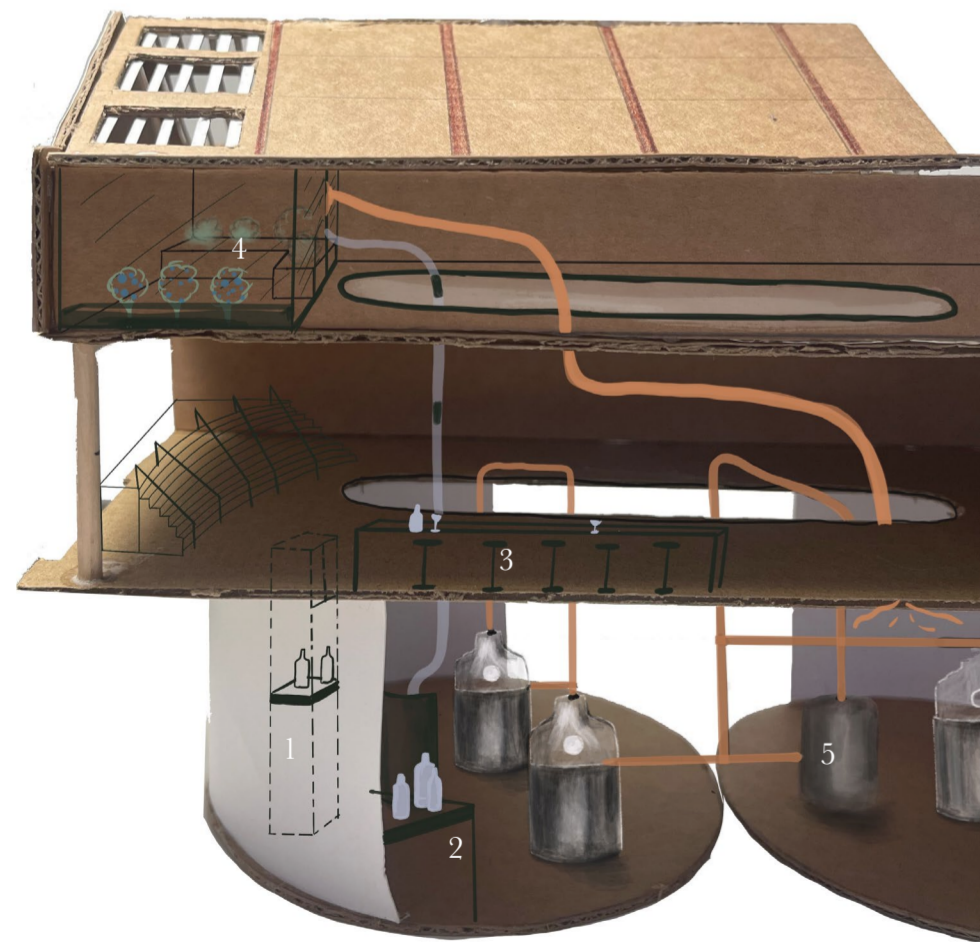
Connection between the botanical garden and the gin distillery with the help of 1:100 sketch models



Gin distillery and botanical garden located in the ice wells



Gin distillery and botanical garden located on separate floors



Key

— Thermal pipe for heat transfer

— Pneumatic tube for botanical transportation

1- dumb waiter for easier bottled gin transportation to the bar

2- gin bottling area

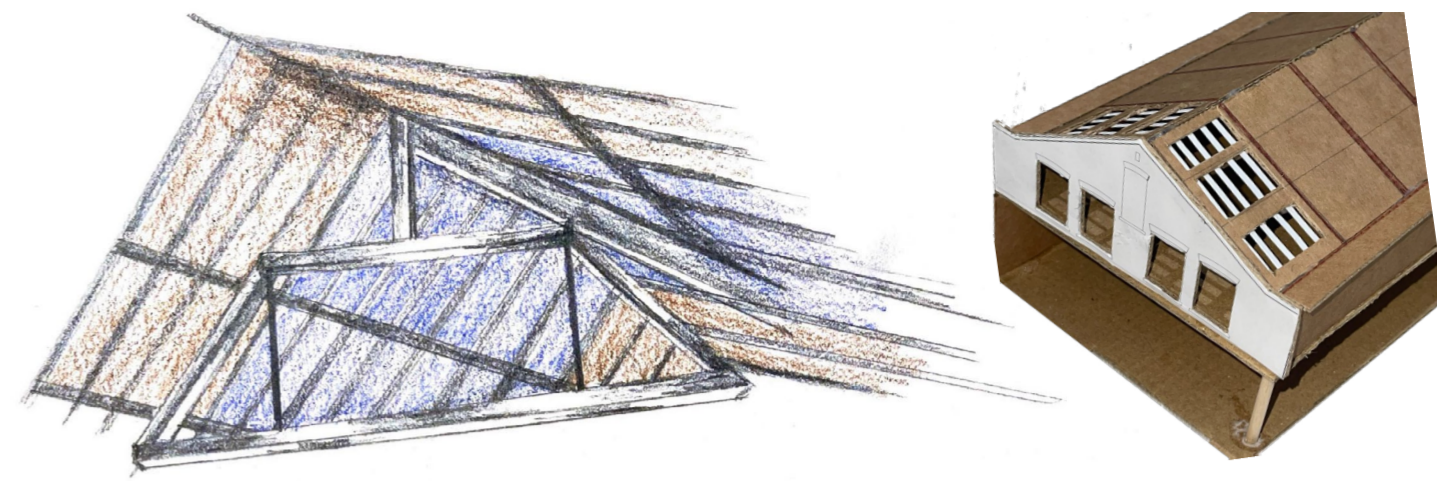
3- gin bar

4- botanical garden

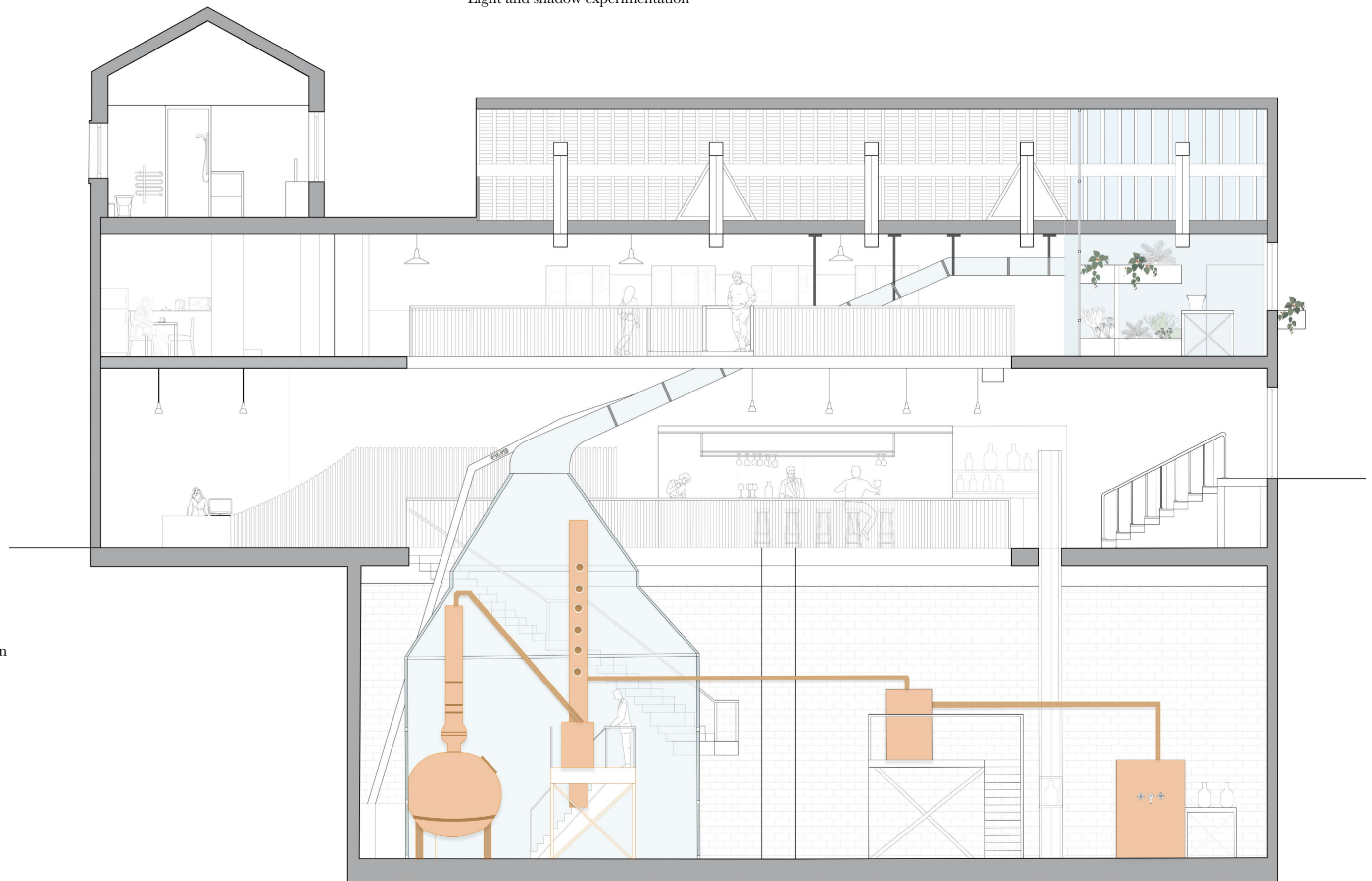
5- gin distillery

Roof opening tests

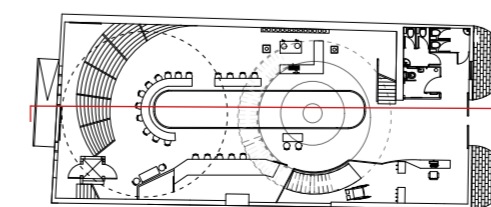
To ensure that botanical plants have the required conditions to grow, testing out additional ways of including natural light was an important element to explore. The first floor roof structure does not consist of many openings that let more light to come in therefore I sketched out different window placements in the roof structure right above the botanical garden to test out the best option for the garden to make sure it fulfils its function properly and the gin distillery is provided with the best quality and variety of botanical plants.



Light and shadow experimentation



Long section

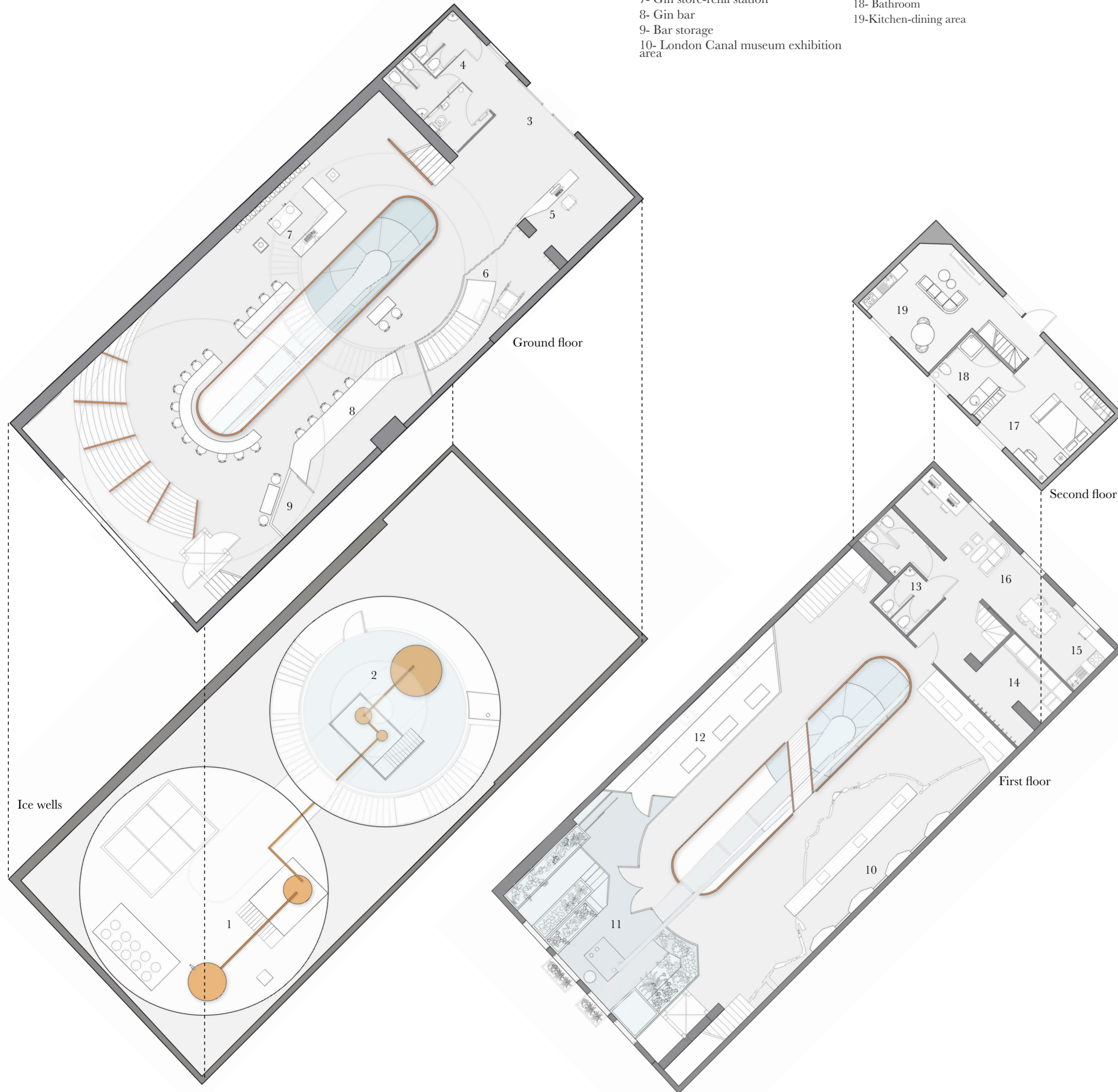


0m 1m 2m 5m 10m

PROPOSED EXPERIENCE

- Key
- 1- Gin distillery-heat house
 - 2 - Gin bottling
 - 3- Main entrance
 - 4- Visitor's bathroom
 - 5- Reception
 - 6- Entrance to the ice wells
 - 7- Gin store-refill station
 - 8- Gin bar
 - 9- Bar storage
 - 10- London Canal museum exhibition area

- 11- Botanical garden
- 12- Gin laboratory
- 13- Staff bathroom
- 14- Storage area
- 15-Staff kitchen
- 16- Staff socialising area
- 17-Bedroom
- 18- Bathroom
- 19-Kitchen-dining area



Gin bar area



Access to the ice wells



Main entrance area



First floor- the view of the pipes coming through the void

THE CONNECTION BETWEEN THE LEVELS



The connection between different floors through pipes and voids



View of the gin bar and voids between the floors



Botanical garden



Staircase to the ice wells-gin distillery



First floor with a luminous canal 'crack'



Gin distillery room inside a heat house

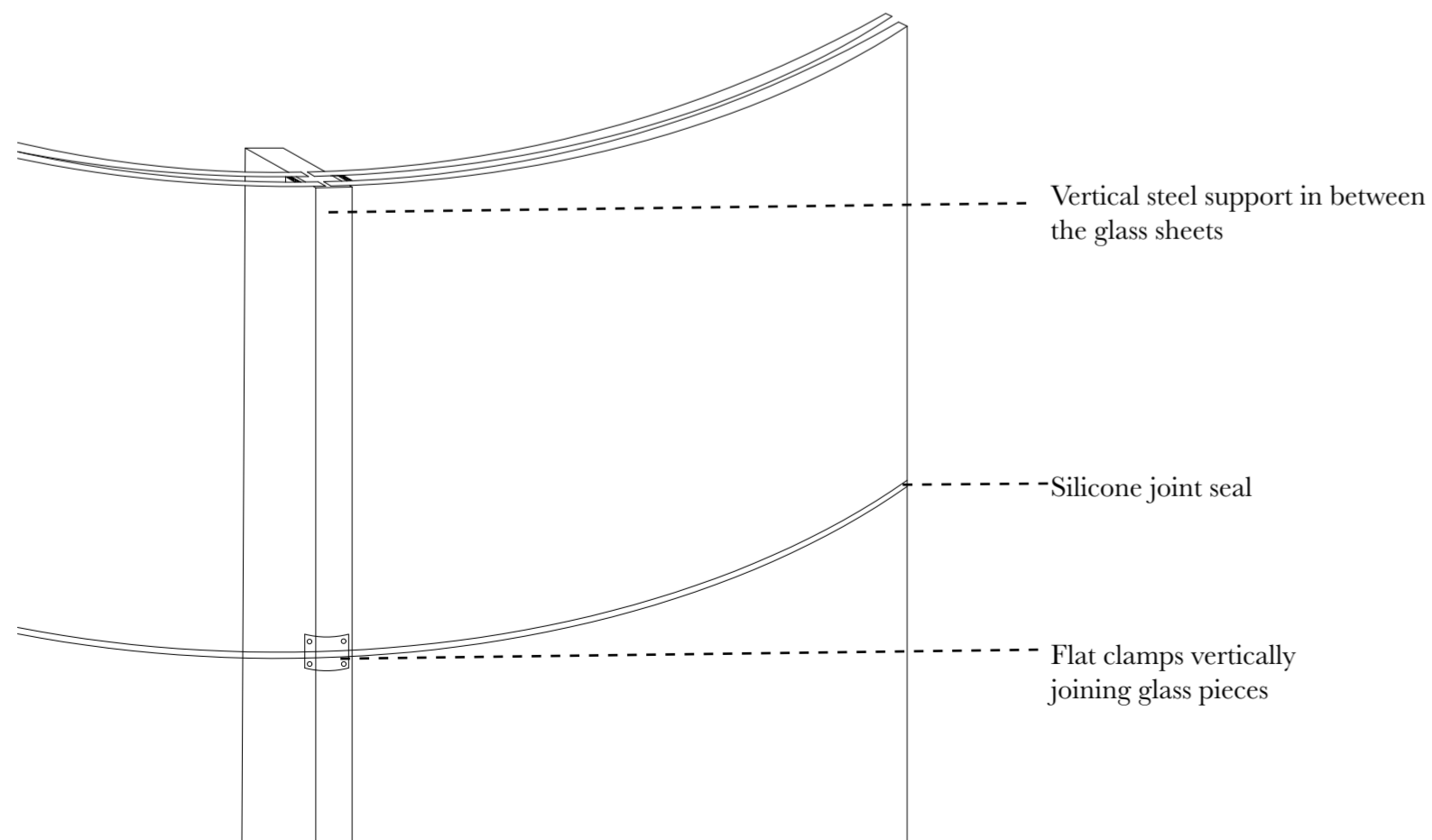
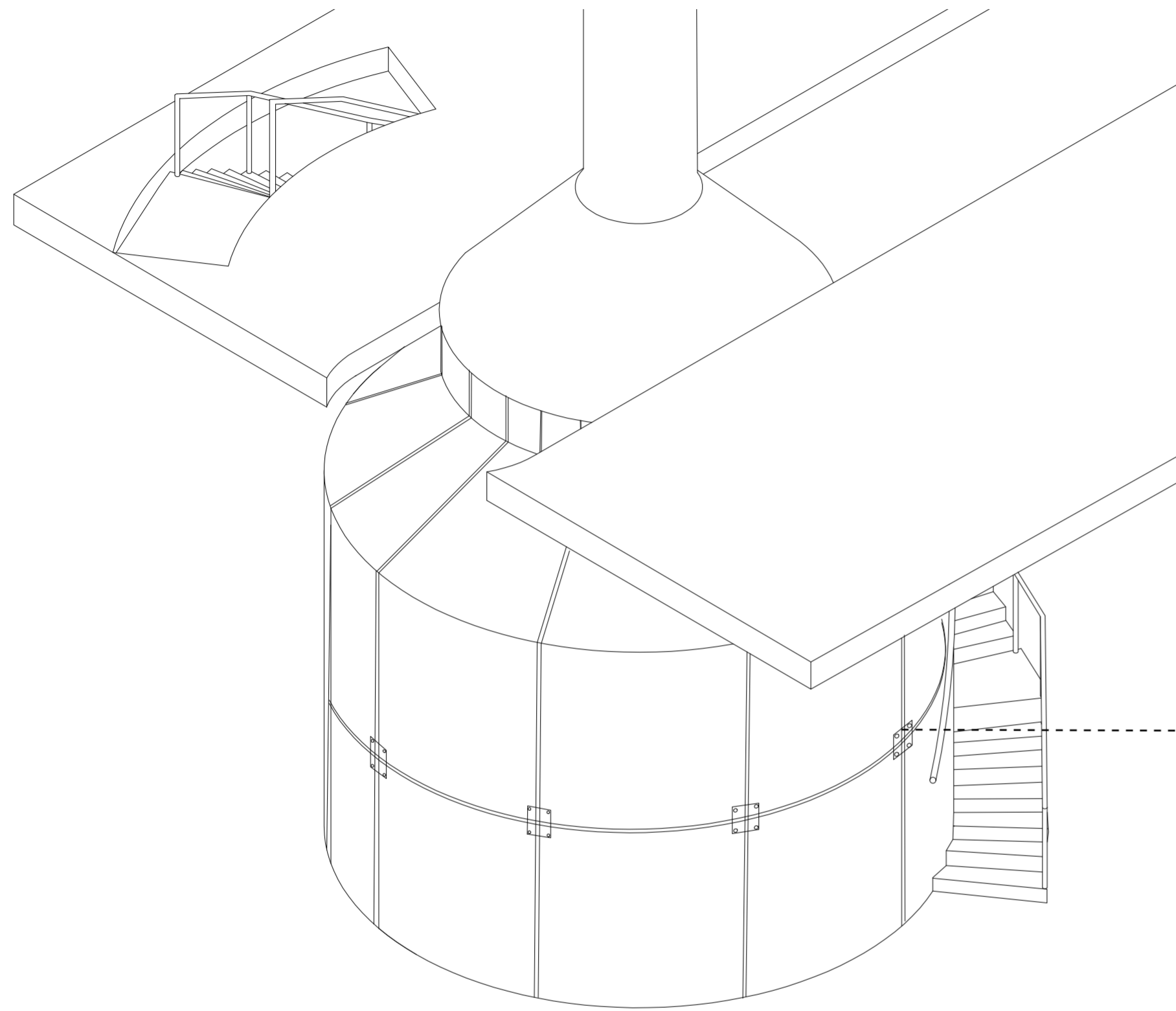


View of the space from the canal's side



Roof top window view from the bridge

DETAIL DESIGN/DRAWINGS-HEAT HOUSE

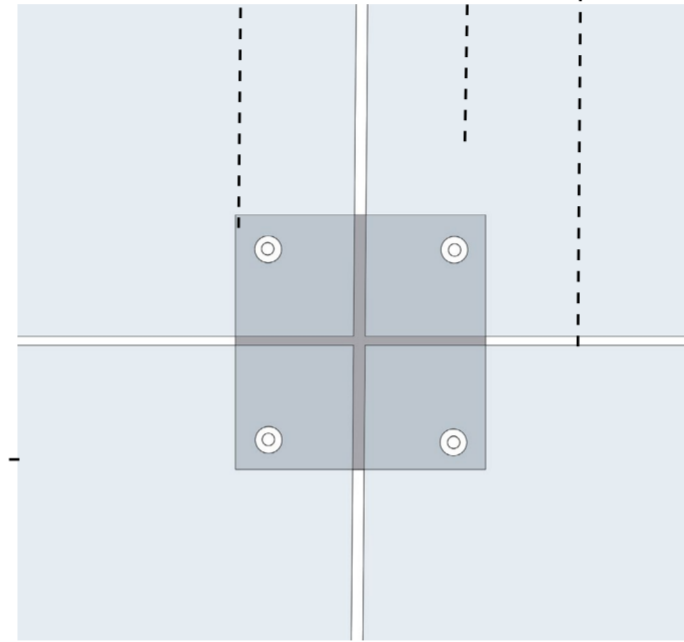


Vertical steel support in between the glass sheets

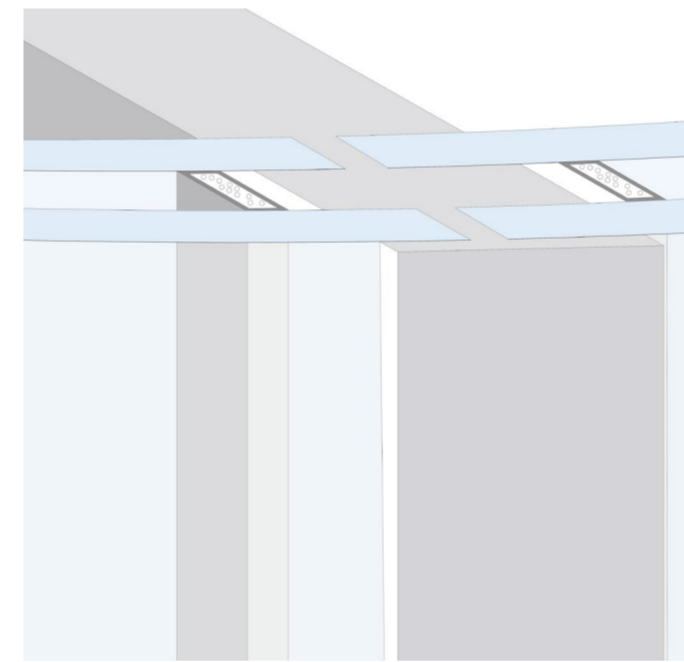
Silicone joint seal

Flat clamps vertically joining glass pieces

Silicone joint seal
Glass panel
Stainless steel screws

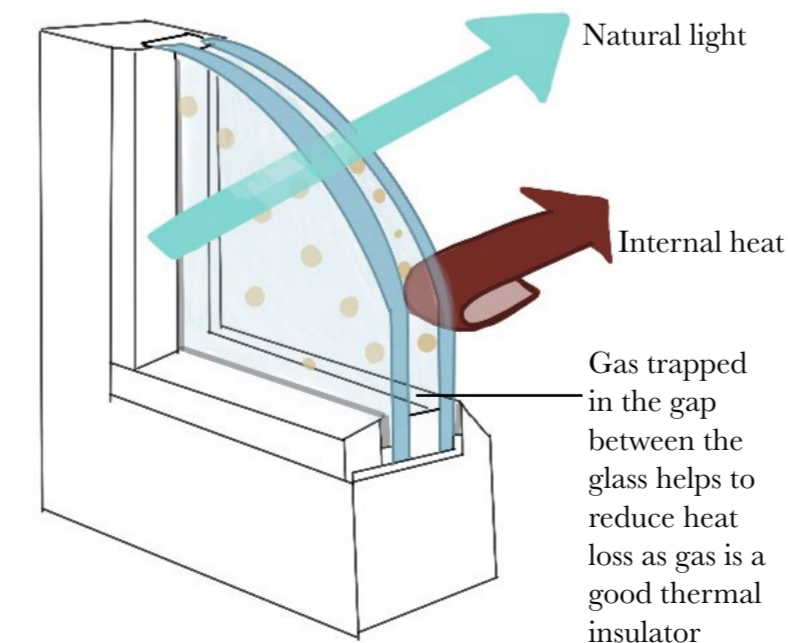


Front view of the flat clamps joining the glass sheets together creating a seamless appearance



Close up detail of the double glazing in the 'heat house'

Double glazed glass sheet

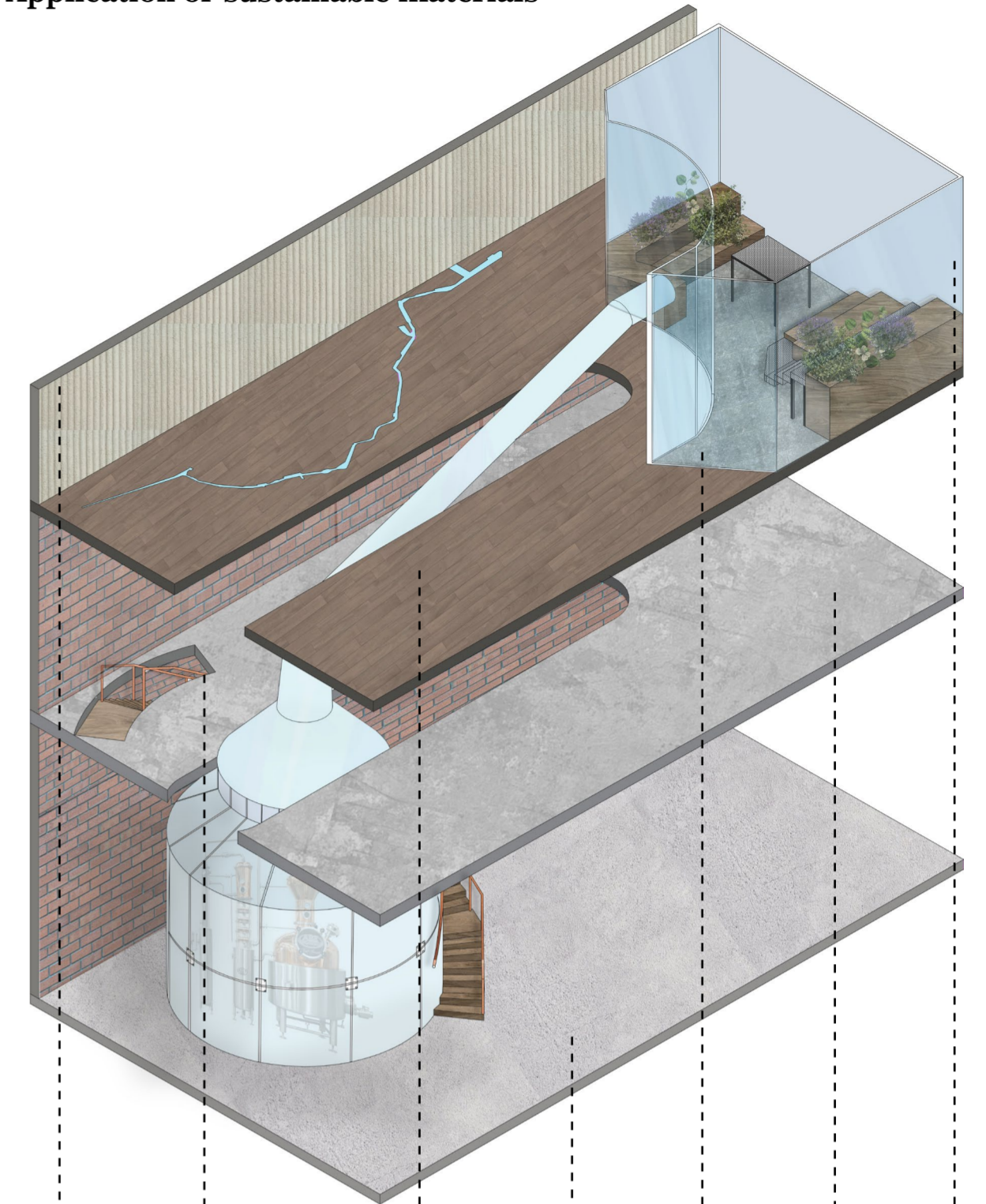


Natural light

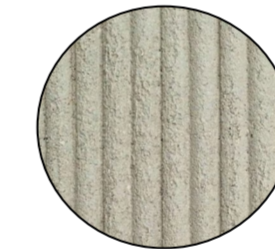
Internal heat

Gas trapped in the gap between the glass helps to reduce heat loss as gas is a good thermal insulator

Application of sustainable materials



CLAY PLASTER



A sustainable wall finish which is recyclable and repairable. They allow buildings to breathe, attenuate acoustics and help regulate humidity and temperature

OAK FLOORING



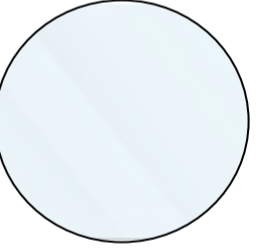
It's truly renewable if sourced from a well-managed and sustainable forest and is a durable and sustainable flooring choice

STONE TILES



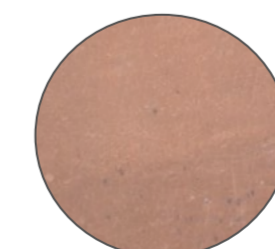
Do not require replacement for a long time and is a sustainable flooring choice, especially suitable for botanical gardens

GLASS



A fully recyclable material which provides great environmental benefits and allows natural light into the building

COPPER



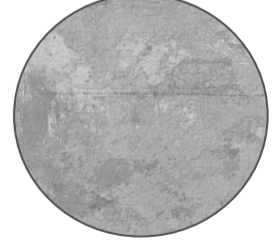
Copper is 100% recyclable or upcyclable and can be used for multiple purposes to help create the desired spatial aesthetic.

URETHANE CONCRETE



Suitable for wet environment and has chemical and thermal resistance.

CONCRETE



Long-lasting and dependable, affordable, and adaptable to many designs. Plus, concrete's thermal stability can also create more energy-efficient buildings