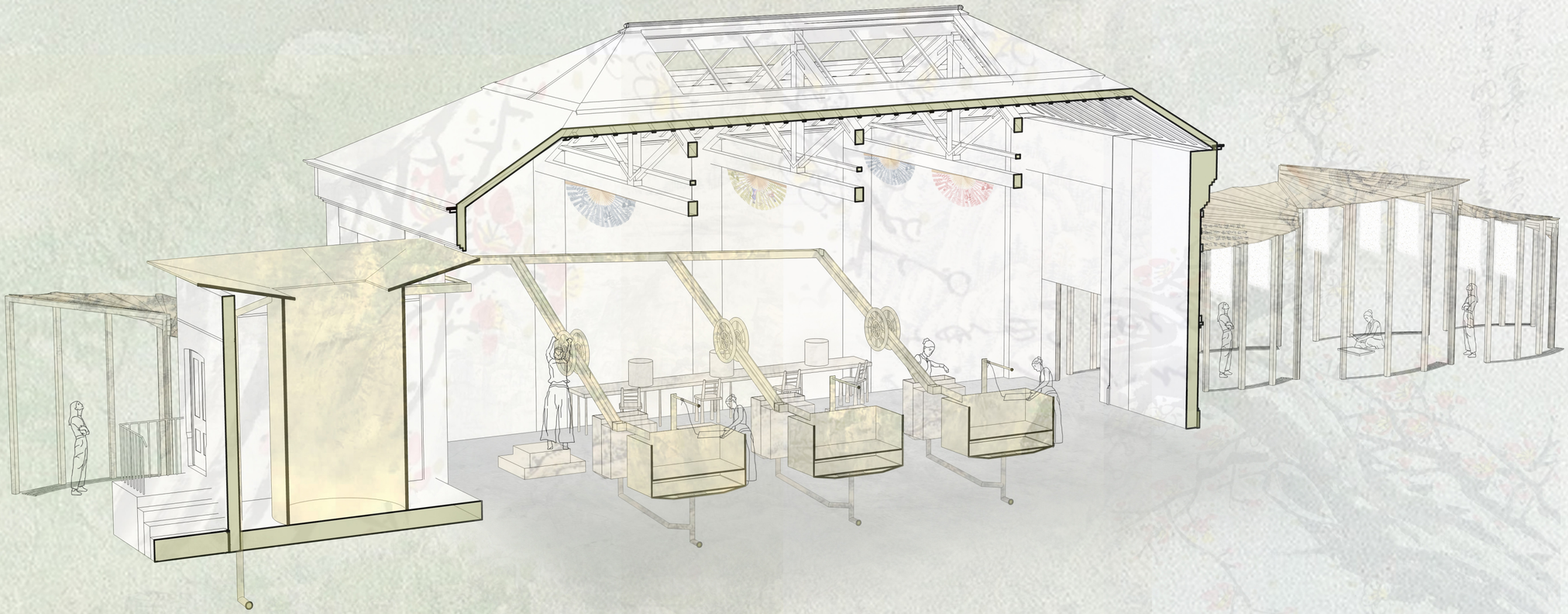
Paper to Buchae
Emme Teirlinck

Set within the historic Singleton's Goods Shed near Chichester, my project reimagines the space as a 'new museum'—not to fix craft in the past, but to let it evolve. Inspired by the ethos of Edward James and his College's commitment to making and innovation, the shed becomes a living workshop for Korean fan-making. This endangered craft, rich in memory and cultural heritage, connects to my own childhood through fans my father brought home from the East. By handcrafting paper and transforming it into Buchae (traditional Korean fans), the project celebrates both personal and collective memory. Fans are displayed in a temporary gallery built from upcycled Boomtown tents and South Downs oak, underscoring circular design, material reuse, and the craft's living future whilst rethinking the future of the site.



Hanji making process with my workshop proposal

Paper storage

Blending
60 seconds

Soaking 15 minutes
+
Steaming 15 minutes

Pounding
30 minutes

Paper lifting
1 hour, depending on how much paper is made

Separating sheets
10 minutes

Weighted rock draining and ironing
10 minutes

Sheets hung or brushed on wooden panel to dry in direct sunlight
12 hours

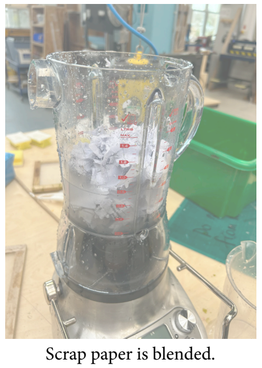
Dochim (pounding) to smooth the paper surface
10 minutes

Modern paper recycling and blending.

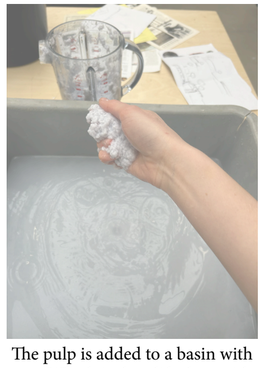
Traditional Korean paper making methods.

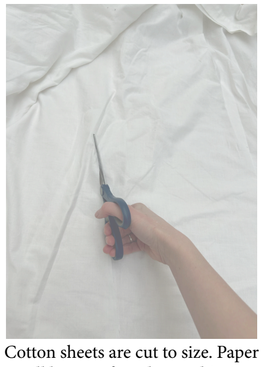
Hand making paper: I made paper to understand the materials and equipment I needed and the space that was required.

Tools needed:
- Scrap paper
-Blender
-Bucket
-Water
-Basin
- Mesh frame
- Cotton sheets
- Press/ rock
-Towels
-Timber panel


Scrap paper is blended.


The paper is then left to soak and pounded to make pulp.

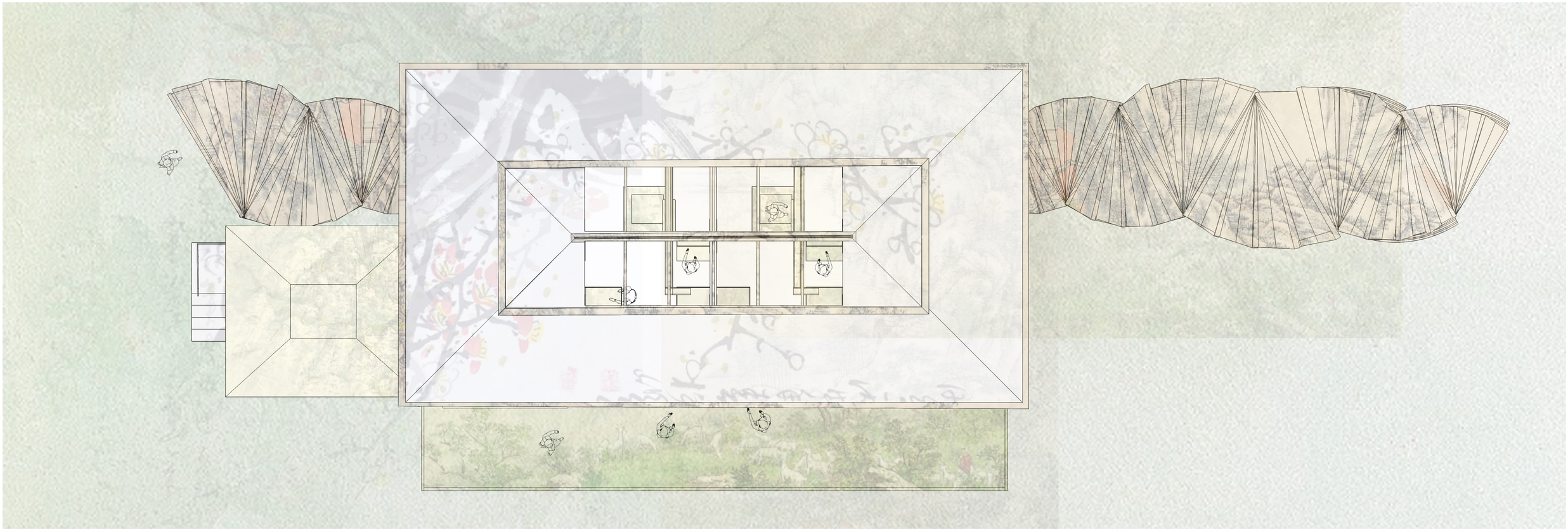

The pulp is added to a basin with water. Which is then lifted up with a mesh frame.


Cotton sheets are cut to size. Paper will be transferred onto this, to absorb any water.


Water is dabbed off the mesh to transfer the paper to the cotton sheet.


The sheets are piled up and compressed to remove liquids. They are then placed on a panel to dry.

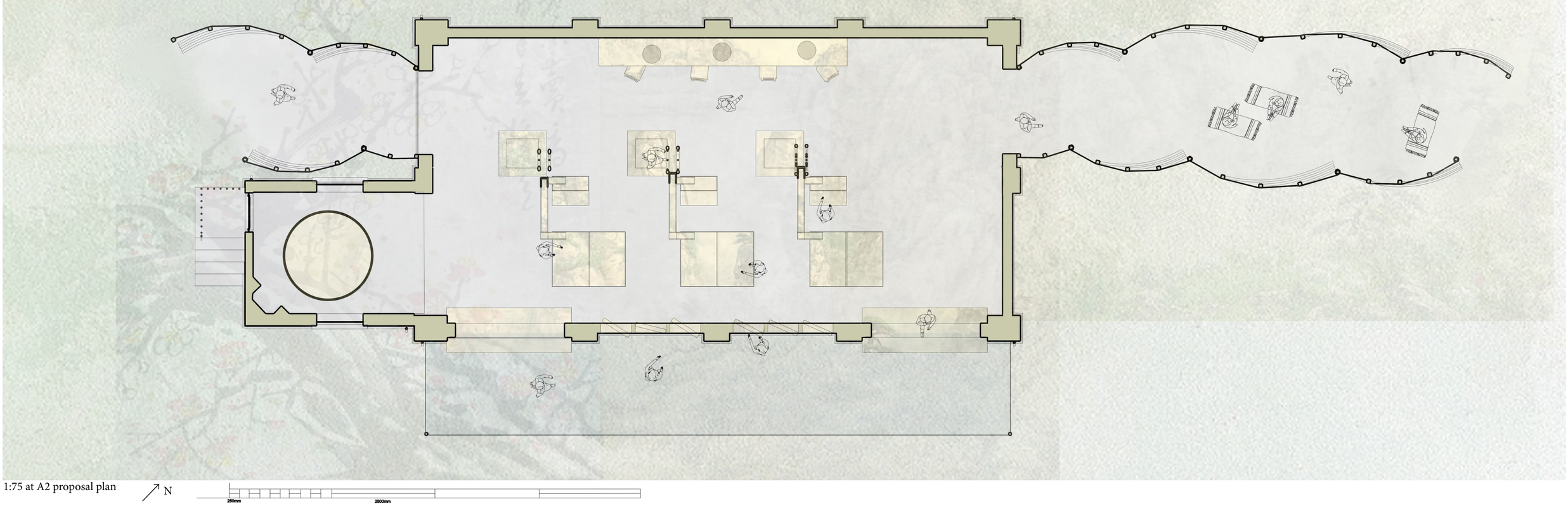

Once dried, the paper is ready for painting and folding.



1:75 at A2 proposal roof plan

N

250mm 2500mm



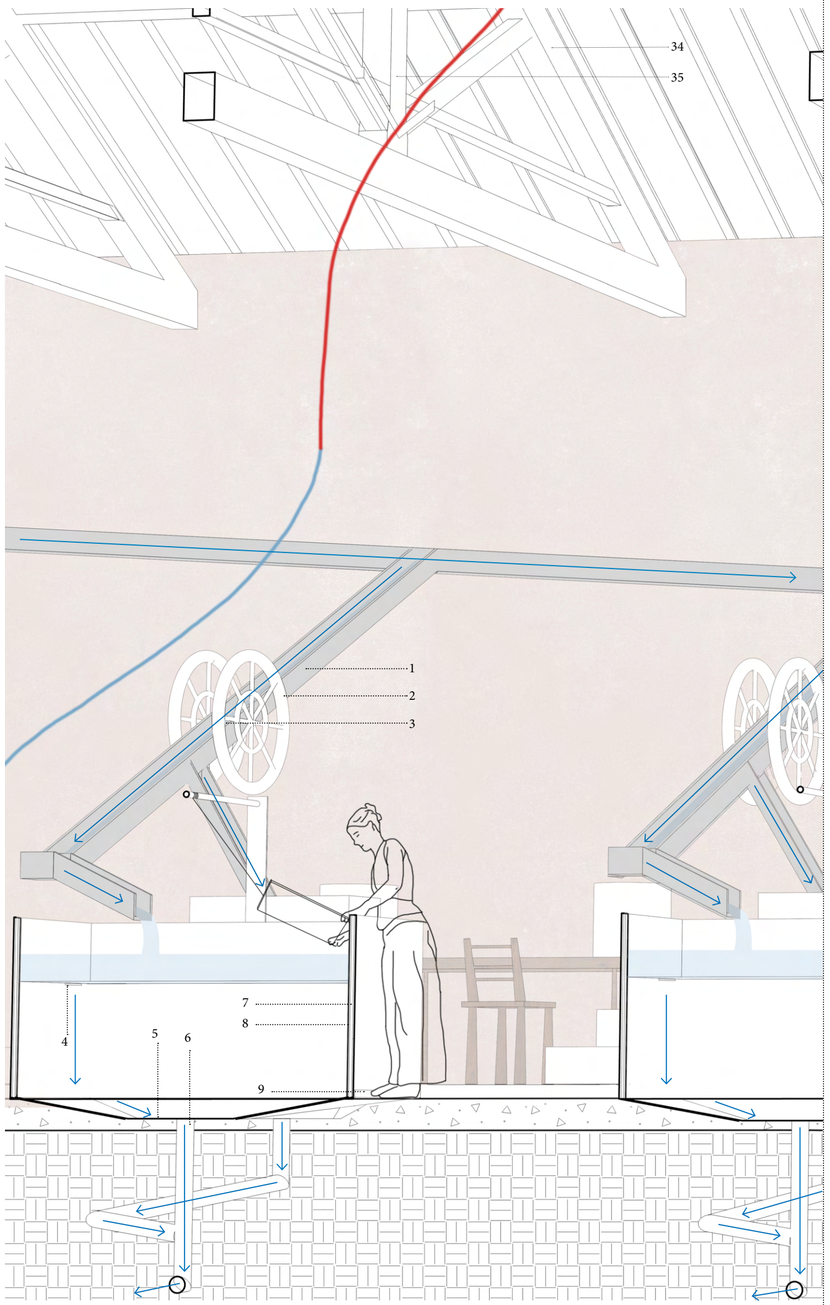
1:75 at A2 proposal plan

N

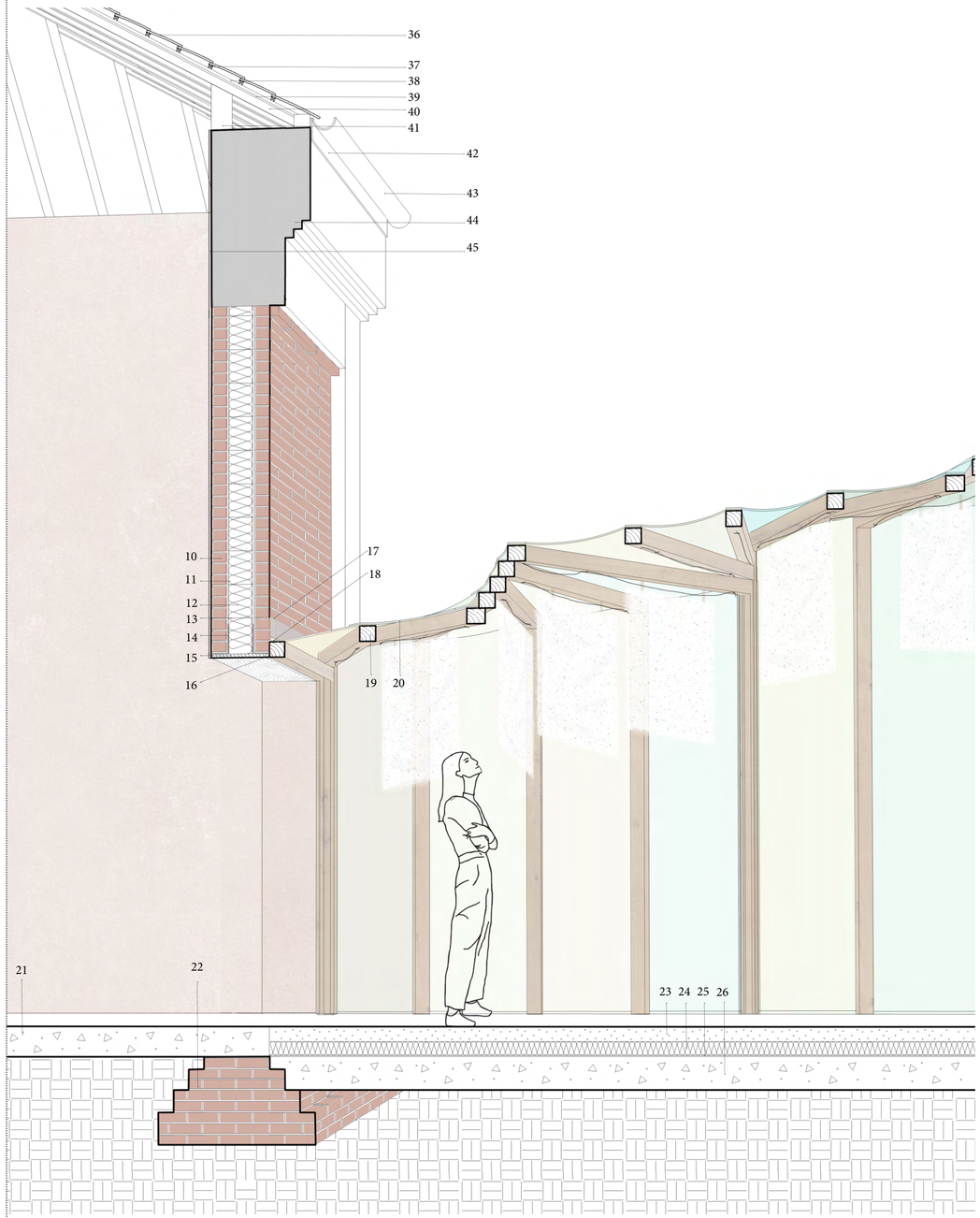
250mm 2500mm

Gallery Space in June at 12pm

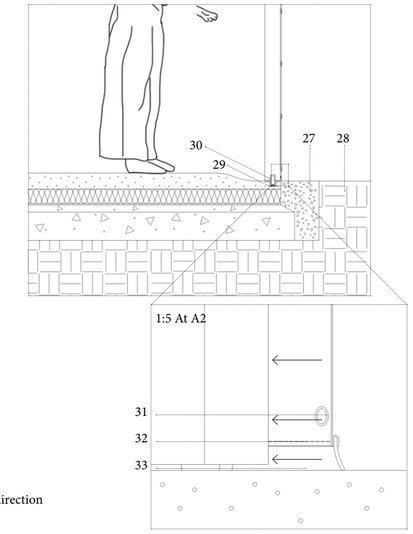
Section A 1:20 At A2



Section B 1:20 At A2



Section C 1:20 At A2



Water flow direction

Drainage. Section A

1. Stainless steel drains- selected because of the durable and lightweight properties
2. Stainless steel hand turning wheel- high corrosion resistance making it suitable in spaces involving water
3. Stainless steel valve
4. Plug
5. Galvanised steel sloping basin
6. Stainless steal drain
7. 36mm galvanised steel frame- durable and strong properties to frame the basins.
8. 2mm galvanised steel skin. Galvanized steel has a thin zinc layer acting as a barrier against oxygen and moisture.
9. 10mm silicone seal between basin and concrete floor

Proposal clay brick wall junction with timber structure. Section B

10. 65x100x215mm common brick bond- using the reused brick that has been taken out of the south wall for the openable paper drying panels
11. 10mm mortar
12. 150mm wood fibre insulation- good thermal and sound absorbing properties which works well with the blending sounds in my proposal
13. Brick ties
14. 6mm thick right angle steal lintels- holding the weight of the new load of my brick wall proposal
15. 400mm timber slab
16. 25mm LED strip- for aesthetic finish of lighting
17. Lead flashing- allows a sealant for water to run off into, avoiding issues like mould and leaks
18. 10mm thick rubber- working hand in hand with the flashing allowing water to run off
19. 100x100mm oak wood frames from West Dean making this a sustainable option for minimising transport emissions.
20. Up-cycled tent fabric- from tents collected at local festivals like Boomtown making this a sustainable up-cycling option.

Flooring and substructure. Section B

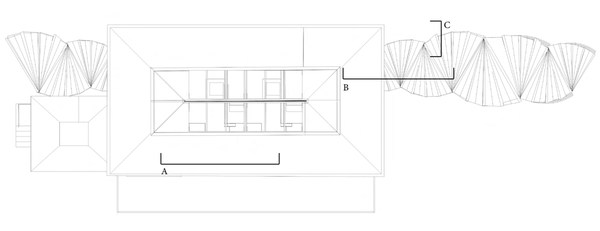
21. 200mm concrete slab
22. Brick strip footing
23. 100mm screed- allowing for a sloping shape at the edges of the tracks to avoid water entering far into the gallery- see section C.
24. 90mm insulation
25. 10mm damp proof membrane
26. 150mm concrete slab

Timber structure and up cycled tent fixing. Section C

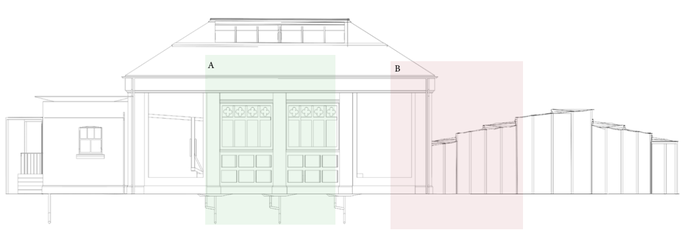
27. Gravel
28. Sub soil
29. Stainless steel tracks
30. Wheel
31. Steel snap fastener- easy to remove and put on the timber fan coverings
32. Stitching
33. 5mm thick rubber sweep- to help keep rain water out of the structure

Existing roof structure and proposed plastering

34. Oak timber truss
35. Oak timber king post
36. Terracotta tiles
37. 25mm thick batten
38. 25mm counter batten
39. 10mm sarking
40. 100mm rafters
41. Wall plate
42. Fascia board
43. Cast iron drain
44. Existing site clay brick wall
45. 10mm proposal plaster layer on the brick wall with a thin layer of tadelakt to waterproof the space.

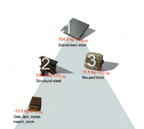


1:75 proposal plan originally done at A2 N



1:75 proposal elevation originally done at A2 N

Four main materials in the proposal include galvanised steel, stainless steel represented by the structural steel, reused brick and oak wood timber.
Galvanised steel is calculated from a side of the water basins. Structural steel is calculated from the length of the left drain to the basin.
The reused brick is calculated by the area of the whole proposal wall.
The oak timber is calculated by the smallest beam of the fan structure.
However, transport carbon emissions is not taken into account in the material pyramid.
Therefore, global warming potential will be higher than shown in the pyramid.



	material	group	impact / m3	volume [m3]		area [m2]		thickness [mm]		result
1	Galvanised steel	metal	23482.5 kg CO2eq/m3	0.03	m3	3	m2	10	mm	704.5 kg $CO_{2\,eq}$
2	Structural steel	metal	5403.2 kg CO2eq/m3	0.10	m3	0.66	m2	150	mm	534.9 kg $CO_{2\,eq}$
3	Reused brick	mineralsk	13.7 kg CO2eq/m3	1.14	m3	5.29	m2	215	mm	15.6 kg $CO_{2\,eq}$
4	Oak, ash, cedar, beech, larch (cladding)	trae	-473.0 kg CO2eq/m3	0.02	m3	0.23	m2	100	mm	-10.9 kg $CO_{2\,eq}$
										1,244.1 kg $CO_{2\,eq}$