

MANCHESTER SCHOOL OF ARCHITECTURE

THE SHED AT THE LANDING



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MSA LIVE 25

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Partners

The Landing was originally conceived as a vegetable garden providing agricultural products for Where the Light Gets In, but it soon demonstrated its potential and was more than just a rooftop garden above the Merseyside area. In September 2023, The Landing was officially recognized as a Community Interest Corporation (CIC). As a Community Innovation Center (CIC), its main mission is to create green Spaces in the urban environment, making it a vibrant community center. These Spaces are designed to promote people's participation in food and natural resource management. By integrating creative, scientific and conversational approaches, the rooftop garden offers community residents opportunities for personal health, education, artistic expression and relaxation.

The core concept of The Landing is to fully utilize all the benefits that the garden can offer, draw on expertise in planting and cooking, and collaborate with artist artisans, educators and other experts to transform the garden space into a place that reflects on the use and distribution of food and natural resources in society. At The same time, support the goal of Where the Ligne Gets In and Manchester Urban Diggers: promoting food sovereignty, community participation in local food systems, and enhancing biodiversity in the constantly expanding urban environment.

The Landing is committed to providing a nurturing environment where people can get in touch with nature, acquire knowledge and participate in meaningful conversations about sustainability and resource management..

Introduction

THE SHED AT THE LANDING

Brief

Before the MSA Live Action Weeks began, MArch 1 and MAAR students worked closely with the collaborator to define a clear and achievable brief. The Shed was envisioned as a functional workshop space that would heating, insulation, a communal table, and a small kitchen area. It was essential to provide access to electricity and water, as well as secure storage. In line with The Landing's sustainable values, we also explored the use of natural materials and construction methods that could enable a future self-build by the community. This led us to investigate materials that were accessible by collaborator, environmentally friendly such as mycelium, hempcrete, sheepswool and timber.

Process

Our process began with a site visit to understand the atmosphere, take measurements, and develop initial design ideas. During the first week of MSA Live, we split into smaller groups to produce three distinct design proposals. These were presented to the collaborator on Wednesday, 15.06.2025. Based on their feedback and answers from a participant questionnaire, we moved forward with a refined and final design. The second week involved intensive collaboration within various teams working on GA's, 3D modelling, renders, and masterplanning. This studio-style environment helped us to work efficiently on the design. Alongside design work, we researched sustainable insulation materials suitable for community use. We identified mycelium as a promising solution and studied its application. Based on that, we researched the methods of mycelium bricks and prepared a hands on

workshop for volunteers.

Throughout, we maintained a collaborative and inclusive approach, embracing the diverse experiences and ideas of all team members while staying focused on the community's needs.

Outcome

Our final proposal reflects the shared values of MSA and The Landing: sustainability, collaboration, and inclusivity. The Shed is designed using natural materials, primarily timber and mycelium, and prioritises functional space for workshops and storage.

Key design features include:

- Bifolding doors on both sides, allowing the space to open fully for events.
- Sash windows with liftable tables beneath them to enable indoor-outdoor interaction.
- A butterfly roof, which facilitates rainwater harvesting via a tank integrated into a living wall facing the composting area.

The design emphasises self-build construction, enabling the community to take ownership of the build in the future. Ultimately, The Shed is intended as an inclusive, adaptable, and interactive space that will support The Landing's ongoing growth as a community-led initiative.

To conclude the project, we hosted a workshop at The Landing where we introduced volunteers to the final design and demonstrated how to create mycelium bricks. This sunny, collaborative session was a valuable opportunity to engage with the community, gather final feedback, and share in the making process together.

Action Week Timeline



Divided into three large groups and discussed the initial ideas in each group

Divide into three groups and work



Introduced the proposals of our three groups to the collaborator Nathan and obtained feedback



The final design structure was discussed in different groups

Structural discussion



Today, we focused on preparing for the on-site workshop with volunteers on Thursday. We spent the day getting everything ready, including creating the forms for the bricks and sourcing all necessary materials.

Preparing workshop



We formatted and organized our outputs to improve each part of the project.

Final check

D1 Meeting and site visit

Today, we had the first team meeting. Brief introduction to the project. Then we went to the site to familiarize yourself with the location and its background.

D2



D3 Prepare for the presentation

D4



Today, we continued working on our proposals for the presentation.

D5 Determine the final design

Based on the feedback from the collaborator Nathan, the final design was discussed and determined.

D6



D7 The design is in-depth

Today, we focused on further refining the practical aspects of our shed, particularly regarding water collection and the foundations of the shed's structure.

D8



D9 On-site workshop

Went to the site to introduce the latest design to collaborators and volunteers, and made mycelium bricks together with the volunteers

D10



Site Visit

All student members arrived at The Landing site together.



The group members visited the site; analysed planting structures and various materials on site.



We thought about the site in our own way and recorded the initial design ideas, while also documenting the details and features of the site.

Site Analysis



We used different measuring tools to record the dimensions of the existing greenhouses, bricks, pavement and planting boxes on the site to facilitate the subsequent process of drawings.



Group Work

GROUP 1



Sketch



Master Plan



Use sustainable materials as the main materials.....

Have a large enough storage space.....a comfortable working area for activities.



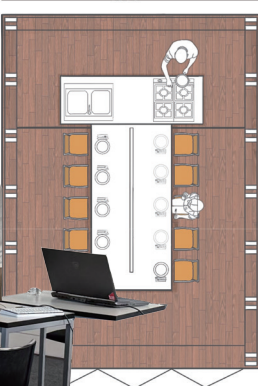
Sketch



The semi-open building space.....the use of environmentally friendly and recyclable materials.....and the roof with a certain slope to collect rainwater.

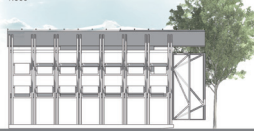


Master Plan 3500

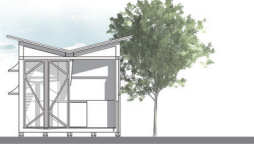


Elevations & Materials

East Elevation 1:500



North Elevation 1:500



NATURAL ELEMENTS



GRASS



OAK

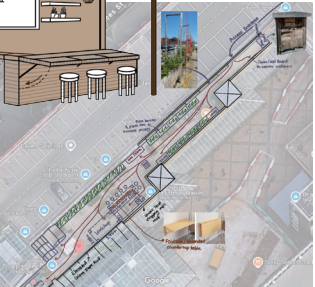
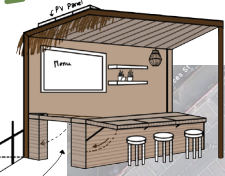
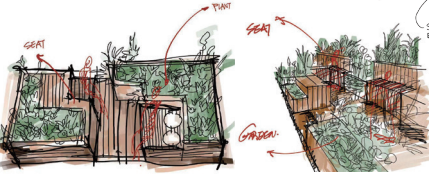


METAL MESH

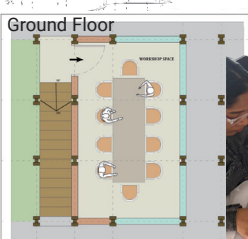
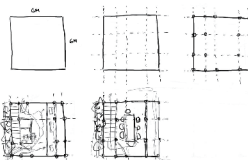
GROUP 2



GROUP 3



Sketch



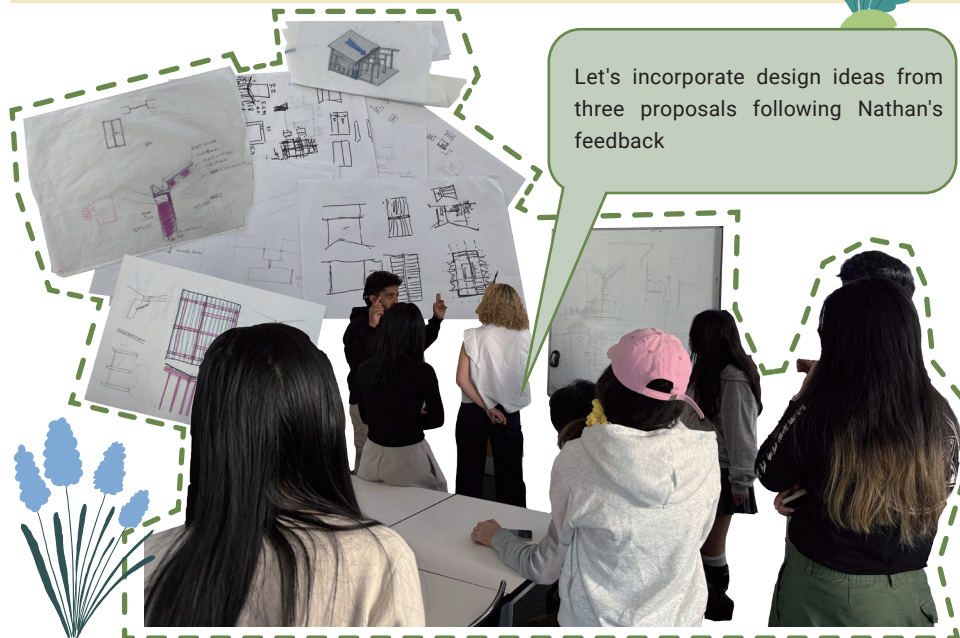
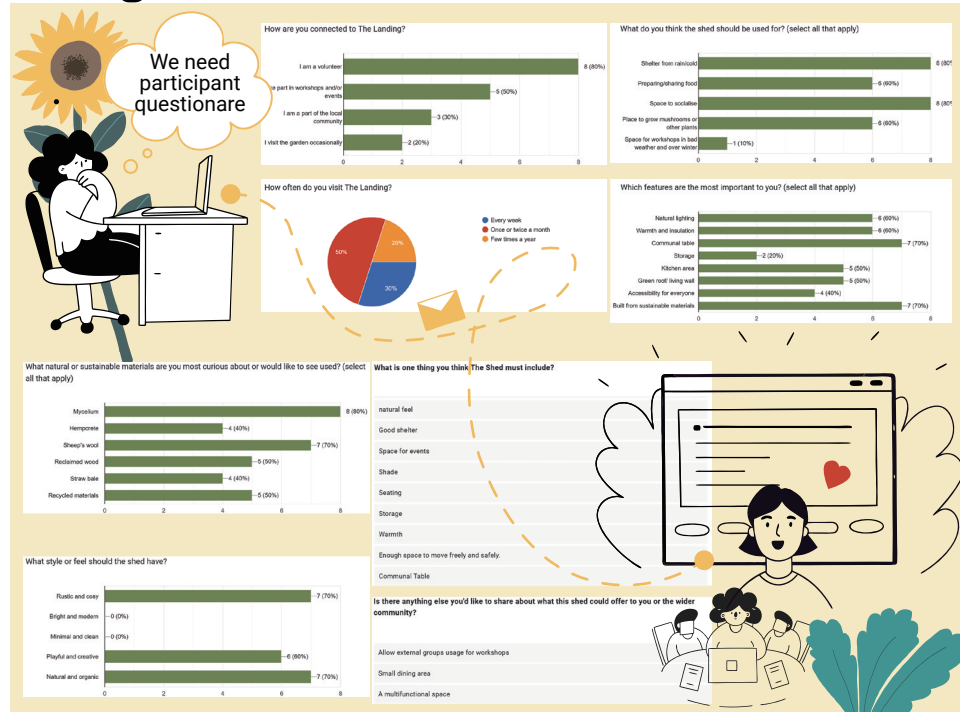
First Floor



A large workshop space.....requires a sheltered area.....a reasonable entrance.....and the relationship between the kitchen and sales.



Design Process



Design sketch

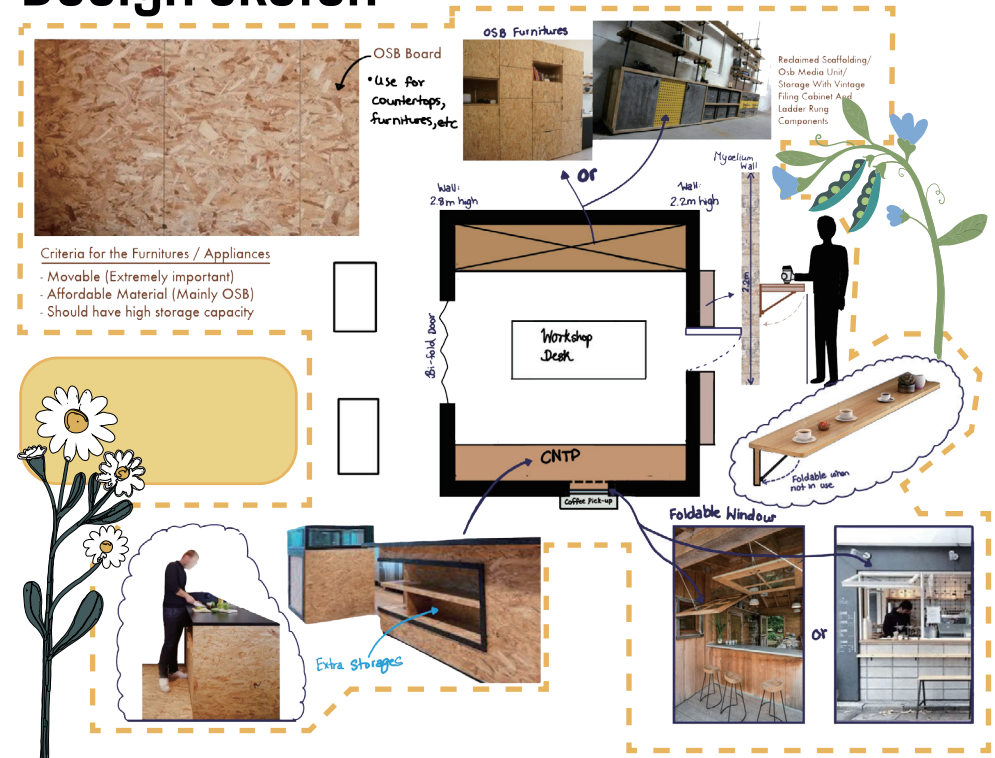
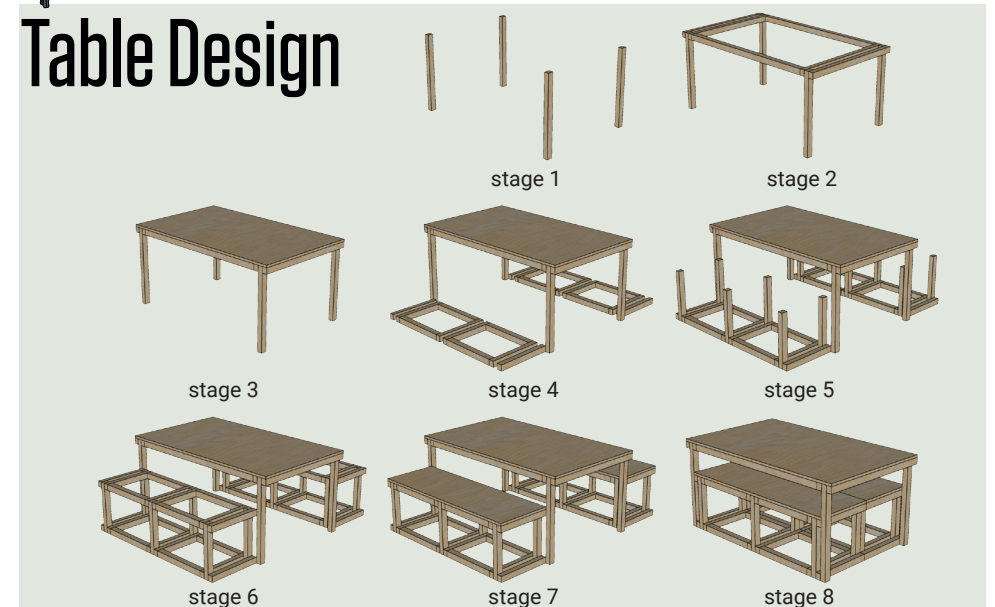
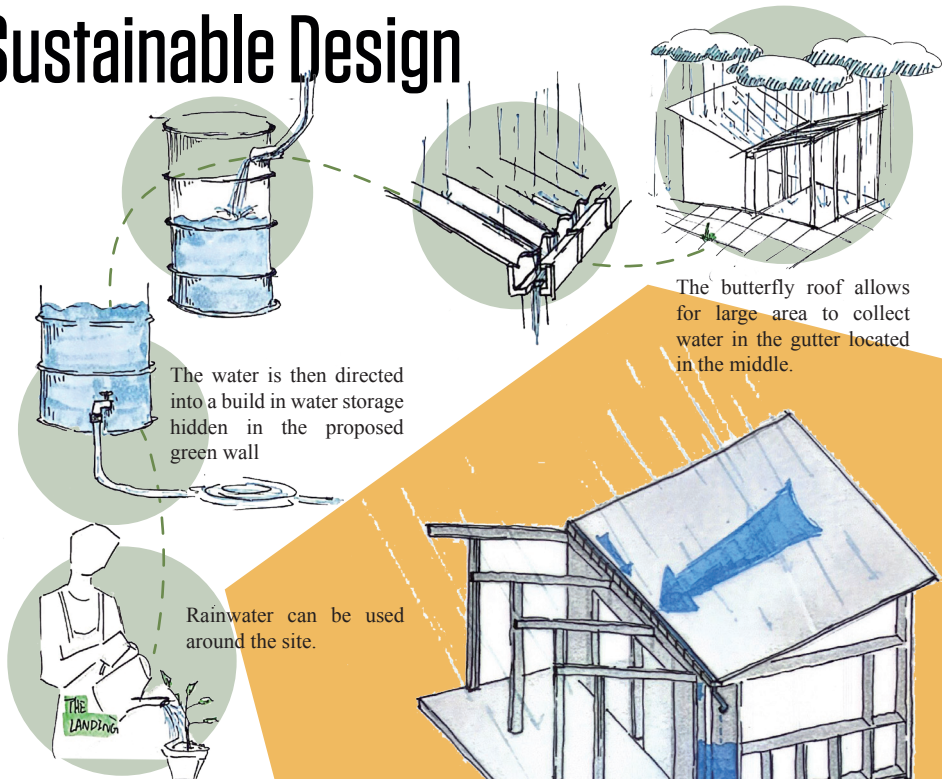


Table Design



Sustainable Design



Properties	Mycelium's Pros & Cons	Mycelium Brick's Pros & Cons
Sustainability	Grown from agricultural waste + fungi (Fully biodegradable & carbon-negative)	Grown from agricultural waste + fungi (Fully biodegradable & carbon-negative)
Thermal Performance	Thermal conductivity around 0.03-0.05 W/m-K (Comparable to polystyrene and wool)	Thermal conductivity around ~0.05 W/m-K (Considered as good compared to hempcrete or concrete block)
Installation & Cost	Grows without the need for heat/high energy - Suitable for DIY-scale projects.	Grows to exact form -> minimal cutting waste; - Considered affordable if for DIY-scale projects.
Fire Resistance	Naturally fire-resistant & can self-extinguish without releasing toxic fumes.	Naturally fire-resistant & can self-extinguish without releasing toxic fumes.
Carbon Waste	Zero waste-No offcuts, no industrial waste; compostable after use.	Zero waste-No offcuts, no industrial waste; compostable after use.
Noise Cancellation	Absorbs sound effectively-great for small spaces like the shed.	Absorbs sound effectively-great for small spaces like the shed.
Moisture Handling	▲ Needed to be protected from wet/dampness	▲ Needed to be protected from wet/dampness
Structural Advantage	Non-structural, but can be utilized in the form of mycelium bricks	✗ Weak (non-loadbearing); But very lightweight

Making Mycelium Bricks



Mycelium Brick Workshop Guide

- ① Preparing Ingredients:

(Mycelium) (Coffee Grounds) (Wood Shavings)
- ② Portioning the ingredients (1:1:2)

Mycelium Coffee Ground Wood Shavings
- ③ Mixing the ingredients evenly

→
- ④ Adding Water & mixing evenly
(Pis note that the mixture's consistency is moist, not watery)

- ⑤ Filling it into the mould, then gently add pressure

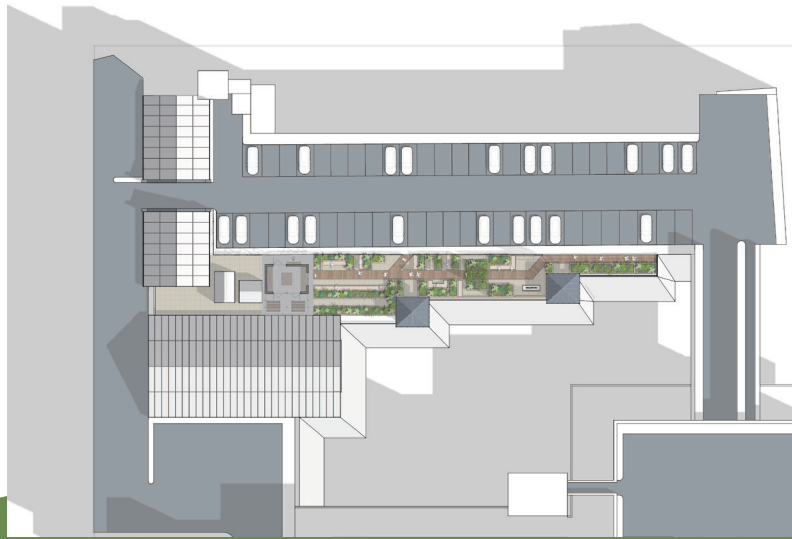
Fill in Press into the mould firmly
- ⑥ Spraying the filled mould with water once per day (for 2 weeks)

Water Once per Day (For two weeks)
- ⑦ Baking 30mins at 180°C

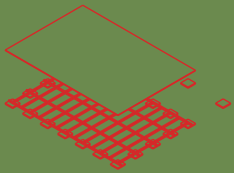
180°C After 30mins (Completed!)

Design Plan

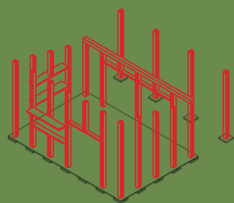
Landscape plan



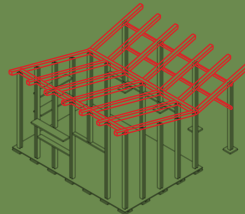
Model making process



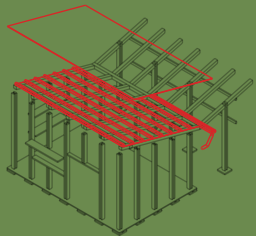
The foundation consists of a concrete base, a wooden frame with a wooden floor laid on top of the frame



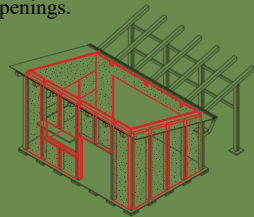
After completing the foundations, two 50mm by 150mm timber posts will be erected on top of each concrete foundation and reinforced with an over-beam at the location of the openings.



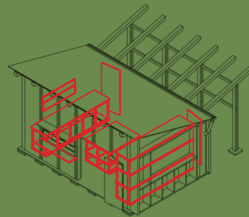
Installation of 150 mm by 150 mm mullions on posts



Installation of one layer of osb boards over the beams, followed by 75mm by 75mm purlins, followed by the installation of metal roofing

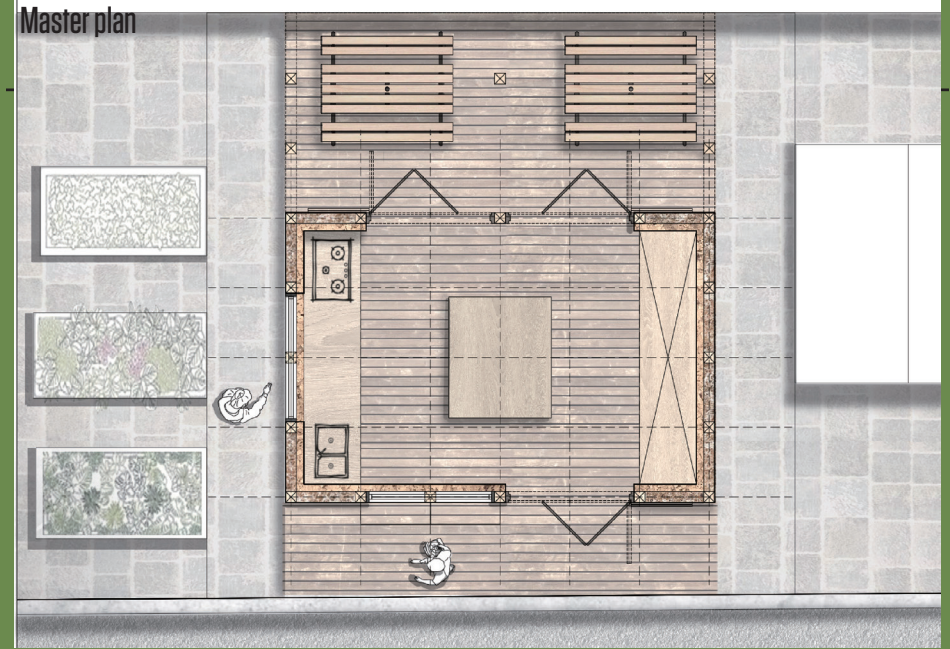


Infill mycelium between the columns, with a layer of 11mm osb board as the interior finish surface after installing the infill

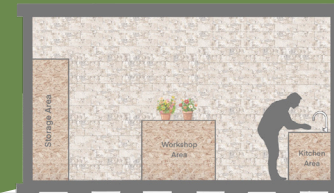


Once the structure is complete, arrange furniture, doors and windows

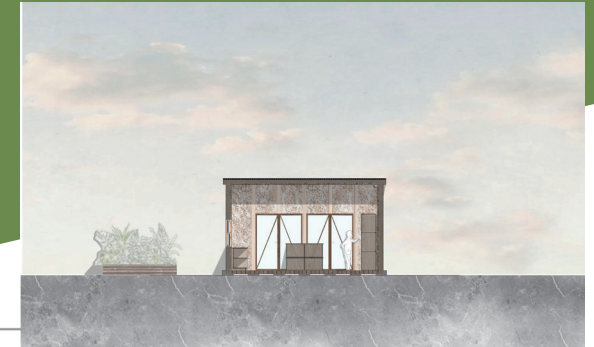
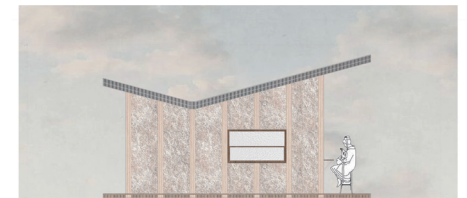
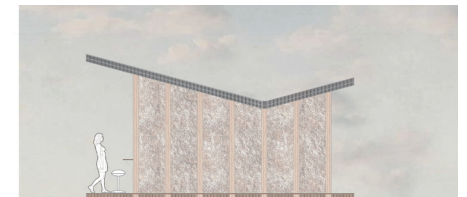
Master plan



Section



Elevation



Final Design



Scan the QR Code to see the outcome!

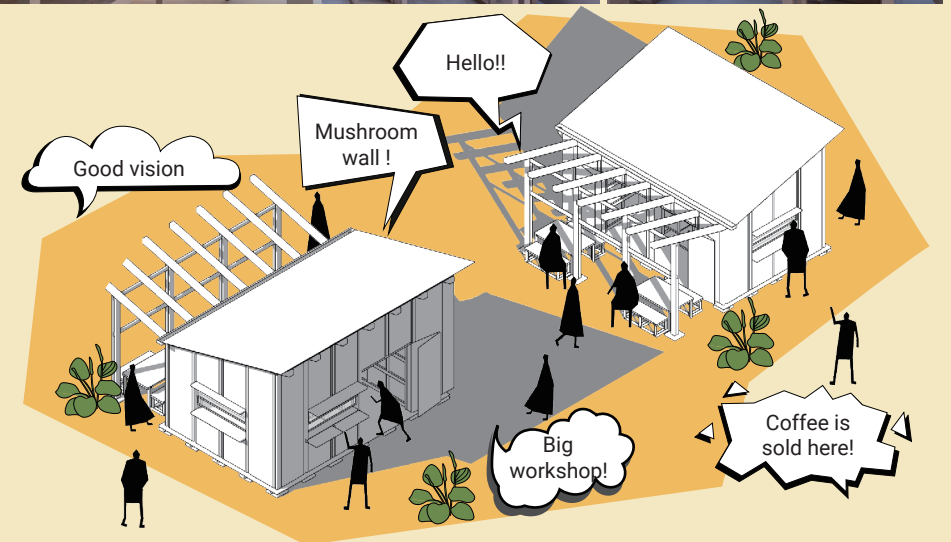


Reflection

From early site visits and design proposals to experimenting with natural materials and engaging the local community, the project has been a rewarding journey. Working across five cohorts; MArch 1, MAAR, MLA 1, BA1, and BA2; our interdisciplinary team brought together diverse skills and perspectives, resulting in a collaborative design rooted in sustainability

and community needs.

Looking back, clearer task delegation early on and more structured time for feedback could have improved our workflow. Nonetheless, we're proud of the outcome and hope to see The Shed built, offering a lasting, self-built space for the community to enjoy.



ABOUT

Each year the MSA LIVE programme unites Masters Architecture year 1 and Masters of Architecture & Adaptive Resuse students with those in BA year 1 and year 2 and Masters Landscape Architecture 1 in mixed-year teams to undertake live projects with external partners to create social impact.

LIVE PROJECTS

All MSA LIVE projects are live. A live project is where an educational organisation and an external partner develop a brief, timescale, and outcome for their mutual benefit.

SOCIAL IMPACT

All MSA LIVE projects are for community benefit or have social impact. Social impact is the effect an organization's actions have on the well-being of a community. Our agendas are set by our external collaborators.

EXTERNAL PARTNERS

MSA LIVE projects work with many organisations: charities, community groups, social enterprises, community interest companies, researchers, practitioners and educators.

STUDENT-LED

Our MSA masters students take the lead in the project conception, brief development, delivery and co-ordination of a small project. Other cohorts joined for an eventful 2 weeks of activities at the end of the academic year.

KNOWLEDGE TRANSFER

Working in teams within and across year groups and courses; MSA students participate in peer to peer learning. In addition, collaborators, participants and students engage in the transfer of tangible and intellectual property, expertise, learning and skills.

LARGE SCALE

This year approximately 650 students from 5 cohorts in MSA have worked on 40 projects with partners.

QUESTIONS

For questions about MSA LIVE please contact the MSA LIVE team:

msalive@mmu.ac.uk

BLOG

live.msa.ac.uk/2025

SOCIAL

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