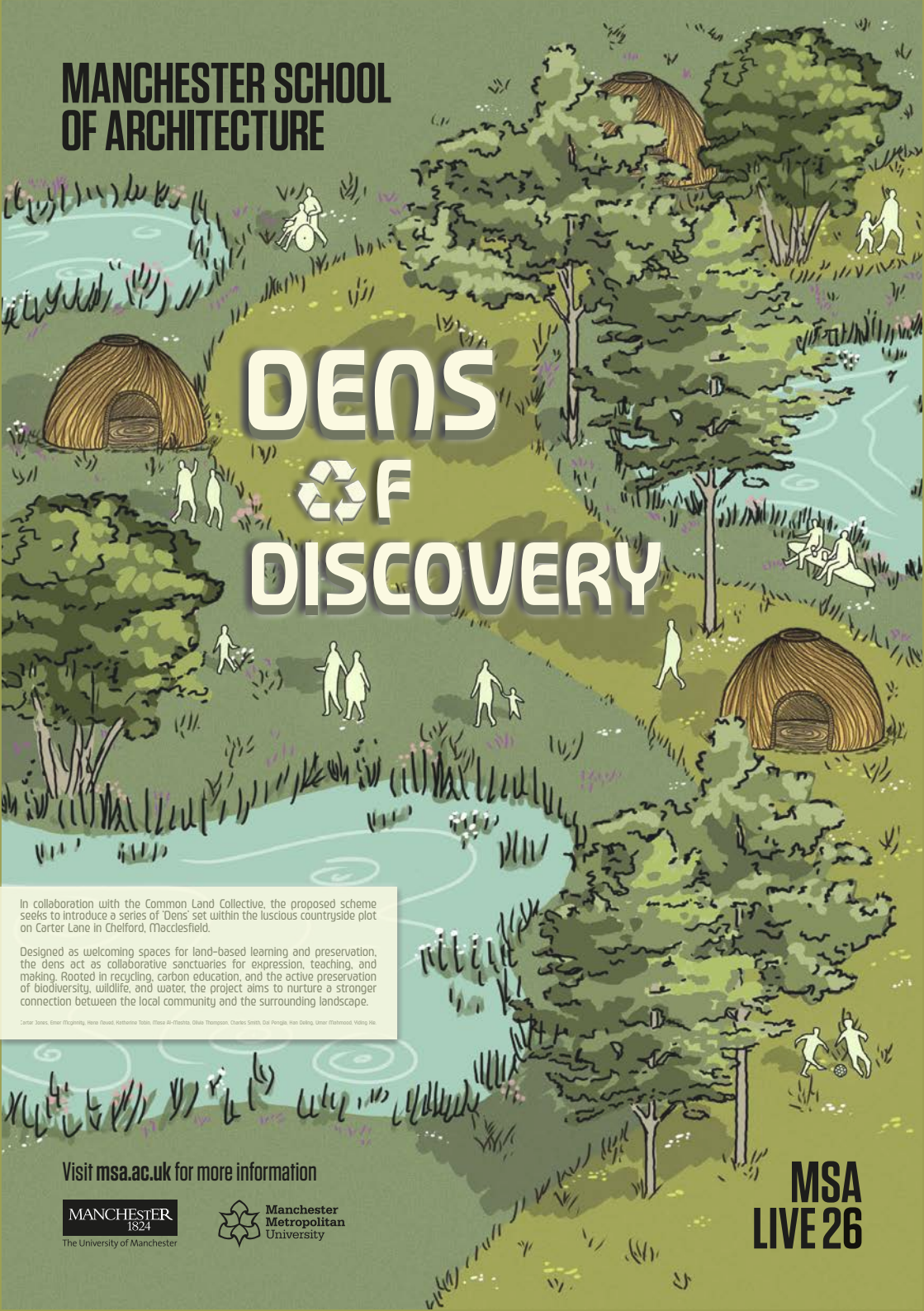
MANCHESTER SCHOOL OF ARCHITECTURE



DENS OF DISCOVERY

In collaboration with the Common Land Collective, the proposed scheme seeks to introduce a series of 'Dens' set within the luscious countryside plot on Carter Lane in Chelford, Macclesfield.

Designed as welcoming spaces for land-based learning and preservation, the dens act as collaborative sanctuaries for expression, teaching, and making. Rooted in recycling, carbon education, and the active preservation of biodiversity, wildlife, and water, the project aims to nurture a stronger connection between the local community and the surrounding landscape.

Carter Jones, Emer Mcginnity, Hana Fawad, Katherine Tobin, Musa Al-Mashta, Olivia Thompson, Charles Smith, Dzi Pongla, Han Deling, Umar Mahmood, Yiding Xia.

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MSA LIVE 26

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Collaborators

The Common Land Collective (CLC) is a community interest company focused on architecture, land, and making, with an emphasis on shared ownership, reuse, and collective authorship. The practice balances new technologies alongside traditional craftsmanship, hands-on making and local knowledge.

Community engagement is central to CLC's approach; by collaborating with residents, communities, and businesses, projects are shaped collectively and grounded in their social context. Equally important is the reuse of waste as a resource; by mapping local waste streams and adopting circular design principles, CLC aims to deliver projects that are environmentally responsible and minimise impact on natural ecosystems.

Collaborators include Remi Phillips-Hood, a designer, lecturer, and MSA graduate championing climate-aware architecture, with the option to draw on the assistance of Tony Broomhead, an architect, educator, and BBC on-screen designer whose work pioneers accessible, playful, and interactive architecture across the UK.

The proposed site is a small plot off Carter Lane in Chelford, Macclesfield, characterised by dense woodland and heavy grass coverage. It is to be developed through four-phases: phase 1, *Tame and Occupy*, involves clearance, access, and site preparation. to reveal the land, establish access, and prepare for future making; phase 2 focuses on survey and masterplanning, including drainage, vegetation, and land coverage; phase 3 develops conceptual design proposals; and phase 4 focuses on construction through prototyping, full-scale builds, and collaborative on-site making.

At its core, the proposal introduces a series of small, easily-buildable dens dispersed across the woodland. Built from recycled and natural materials, the dens are intended to accomodate both people and wildlife. Each den must provide habitat for bees, insects, or birds; use recycled or waste materials; collect or interact with rainwater; possess a distinct character while remaining coherent within a wider set; and carefully respond to its immediate surroundings.

Introduction

Dens of Discovery

As established within the collaborator's brief, the principal focus of the project is the development of a series of 'Dens' throughout the Carter Lane site. These interventions are intended to function not only as spaces for human interaction, but also to support wildlife habitation and encourage a closer relationship between the community and the surrounding woodland environment.

A major ambition of the proposal is to explore the potential of recycled and reclaimed materials. Through connections with local businesses, farmers, and manufacturers, the scheme will investigate how waste materials can be repurposed through collective acts of making and construction. This process introduces the possibility of a small-scale cottage industry founded on repair, reuse, and group participation. In addition to material experimentation, the proposal must respond directly to the site's ground and soil conditions through masterplanning, incorporating unique methods of rainwater collection and irrigation.

Adapting the brief to these requirements, the group identifies the dens as spaces for land-based learning and community engagement. Rather than functioning solely as architectural placeholders, the interventions are envisioned as spaces of sanctuary, making, learning, and teaching, where residents of Chelford and surrounding areas can engage closely with craft, local ecology, and the landscape.

By promoting carbon-conscious education, material reuse, and ecological preservation, the proposal seeks to strengthen the connection between the local community and their surrounding landscape. The intended outputs consist of architectural drawings, physical and digital models, a website, and accompanying promotional material to support the CLC and raise awareness of their activities and ethos.

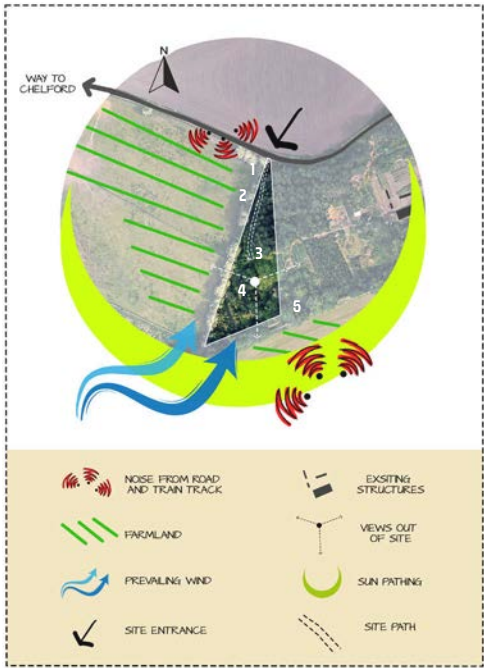
// Bi-weekly Blog Posts Spreading Awareness

Site Analysis

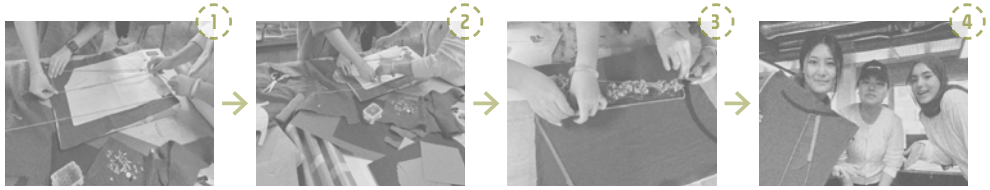
Our site visit revealed key insights into the topography, tree locations, access paths, and surrounding land use, highlighting both challenges and opportunities to inform the design process.

We identified five key areas: Area 1 marks the entryway, serving as the primary access point to the site and one of the lowest, most poorly drained areas. Area 2 is an existing route through the site with sandy ground conditions, allowing ease of movement and access. Area 3 forms an open central space for transition and gathering. Area 4 is densely vegetated with established plant life, contributing to the site's ecological character. Area 5, the lowest point of the site, is where water naturally drains, offering potential for seasonal pooling or a water feature.

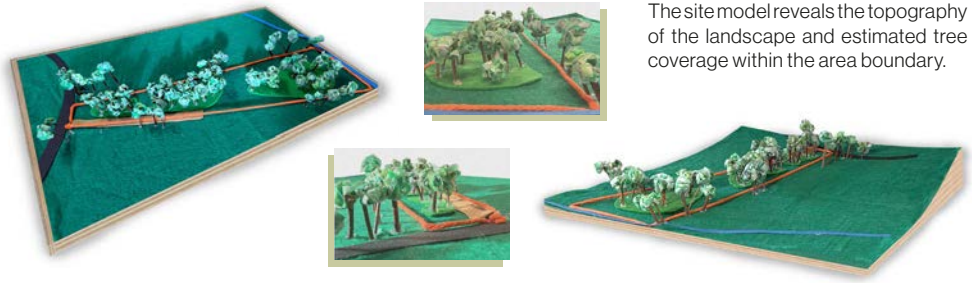
Site Visit //



Site Modelling



Marking the measurements. *Cutting the fabric and gluing.* *Finalising the model details.* *The model-making team.*



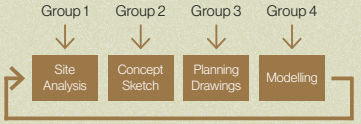
The site model reveals the topography of the landscape and estimated tree coverage within the area boundary.

Phase 1 - Concept Design

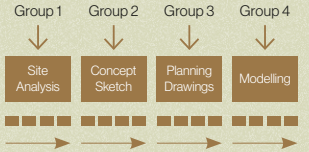
Design Strategy

After visiting the site and reviewing the collaborator brief, we determined that four dens would suit both the scale of the site and the capacity of our twelve-person group. We then held a planning session to define each den typology, focusing on form, recycled or reused materials, function, and the most suitable site location. The outcomes were: a twig weave den thatched from branches and twigs gathered on site, serving as a wood and carpentry workshop within the densely wooded area at the top of the site; a timber pallet den built from repurposed pallets, functioning as a food market and cooking area in the grass clearing; a textile fabric den draped from recycled clothing and fabric beneath the cherry blossom, serving as a textile workshop; and an earth mound den of mud and rammed earth, positioned by the stream at the bottom of the site as a secluded reading nook.

We trialled two approaches in organising the work before settling on the second. The first divided the project into four sequential stages: site analysis, concept sketching, planning drawings, and physical and digital modelling, with sub-groups assigned to each based on preference and skill. This quickly proved uneven, concentrating workload on some students while preventing the group from working simultaneously and sharing ideas across the project.



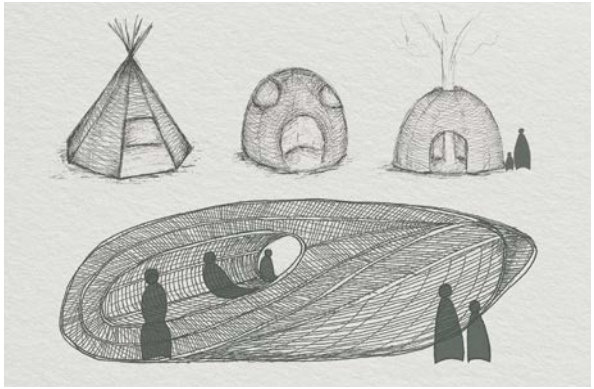
The second approach instead divided us into sub-groups by den, with each team built around a deliberate mix of experience: at least one master's student to lead, and bachelor's and foundation students distributed across the typologies that resonated with them most. This worked well as it allowed every member to take a den from conception through to resolution while learning from peers at different stages of their studies.



Group A - Twig Weave DEN

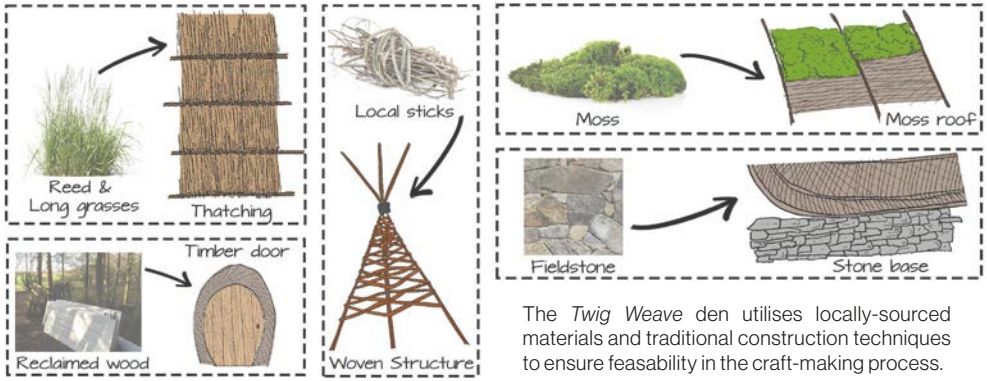
Phase 1

Initial Concept Sketches



Group A developed four initial design concepts shaped by the brief, aiming to create a sustainable, handcrafted structure. We also researched materiality to demonstrate that all resources could be sourced locally and sustainably.

Material Sourcing



The *Twig Weave* den utilises locally-sourced materials and traditional construction techniques to ensure feasability in the craft-making process.

Precedent Studies

1

Stickwork by Patrick Dougherty - large woven stick sculptures inspired by nests, shelters, and natural forms. Using woven saplings and traditional techniques.

2

Auerworld Palast by Marcel Kalberer - large woven willow domes and pavilions that explore sustainable natural construction and community building.

Group B - Timber Pallet DEN

Phase 1

Initial Concept Sketches

Material Collage

Sourced from the site and local businesses, the timber pallets form the base to support a willow leaf canopy that both shelters and intertwines with nature. This circular form equally encourages conversation.

Precedent Studies

1

Living Pavilion by Ann Ha and Behrang Behin - a pavilion that uses milk crates as the exterior framework for growing planted surfaces on the interior.

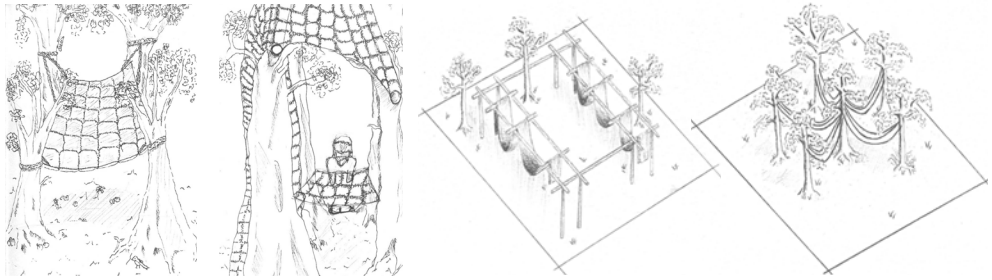
2

Pallet House by Schnetzer Andreas Claus and Pils Hregor - reuses pallets to create modular, energy efficient and affordable housing for $11 USD per sq. ft.

Group C - Textile Fabric DEN

Phase 1

Initial Concept Sketches



Group C produced a series of sketches exploring the textile den's form and structure while remaining mindful of the surrounding wildlife. Ideas included the use the existing trees as structural supports as well as standalone timber frames. The fabric itself would be sourced from clothing scraps that would otherwise be discarded.

Chosen Design

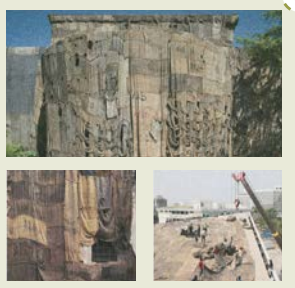
Materials Collage

Precedent Studies

1

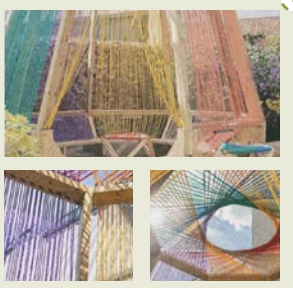
The *'Abakans series' by Magdalena Abakanowicz* - building with woven natural fibres of sisal and hemp.

2



'Out of Bounds' by Ibrahim Mahama - building with reclaimed sacks hand- stitched together seamlessly.

3

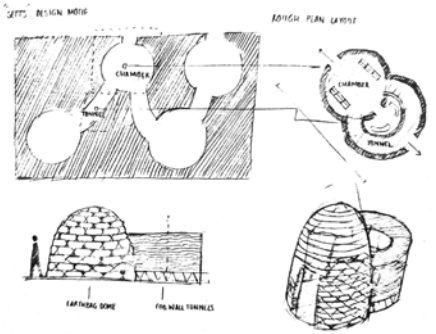


'In Pride of Idleness' by Foster + Patners - building with hand-woven reclaimed rope and salvaged timber.

Group D - Earth Mound DEN

Phase 1

Initial Concept Sketches



Badger sett logic
chambers + tunnels

Two connected parts
dome + cloister

Refined sketch
above-ground reading space

Material Sourcing

	Local Clay soil	Straw / Hemp Fibre	Local Fieldstone	Reclaimed Timber
Local Material Source				
Translation /Process	 Earthbag + Cob	 Cob Reinforcement	 Stacked Base	 Simple Joinery
Building Application For DEN	 Dome Chamber/ Walls	 Strengthens Earthen Walling	 Stone Plinth Foundation	 Door / Bookshelf/ Seating

Precedent Studies

1

Community-building through rudimentary building techniques.

'Tiny Farm Fort' by Tiny Farm Labs - building with cob (clay soil/straw/ sand/water) for thick natural walls.

2

Dome structure provides comfortable atmospheric experience.

'Majara Complex' by ZAVArchitects - building with stacked layers of sand bags to form a simple structure.

3

Amenities for reading are provided through simplistic bookshelf.

'Quilombo da Gamboa Library Pavilion' by AA + DF + GM Labs - experimental cultural activity space.

Community Engagement

Initial Preparation

In discussions with our collaborator, we considered several community engagement options: going door-to-door, speaking to schools, and setting up at a community council. We initially opted for the door-to-door approach, but the collaborators were uncertain, given the small scale of the Chelford community and how residents might react. They sought a more creative and playful solution, one that conveyed the atmosphere of the dens while remaining informative about recycling and sustainability.

The result was a temporary stall outside Tatton Perk coffee shop in Chelford, intended to draw locals into conversation about our proposal. It was important to make clear that this is a university project still in its conceptual phase and therefore open to all ideas. Having previously divided into four groups, A to D, each developing a den with a distinct function and form tied to its chosen recycled materials, each group prepared a concept design and information board to present to the community. We hoped to gather feedback on the designs and materials, and to learn whether any locals had contacts who could supply recycled materials of their own.

// Engagement Boards

Community Feedback

The feedback gathered at Tatton Perk was overwhelmingly positive. A recurring theme was accessibility, not of the dens themselves but of the site, which proved an important consideration given our ambition for the project to be inclusive. Many locals saw the dens as a family-friendly destination that could introduce children to basic hobbies and skills, and several offered thoughts on materiality and structure, suggesting local businesses and residents who might supply resources. Overall, the community were friendly, engaged, and clearly enthusiastic about the prospect of an educational space on their doorstep.

One local, Jenna Perry, raised the issue of "accessibility and consideration for disabilities of physical and sensory impairment," highlighting concerns we had not fully addressed, such as: while the dens themselves were designed to be accessible, the site approach was not. This was importnst to her personally, as her son is a wheelchair user, and she noted that 'inclusive' does not always mean accessible. Another local, Ash McDonagh from the PTA, was exploring the idea of a "Trim Trail" to teach primary school children about nature and resources. She was keen to learn more about our project and expressed enthusiasm for future workshops and events at the site. Together, these conversations made clear that disability inclusion and educational provision for children are priorities for the community.

The Engagement Team //

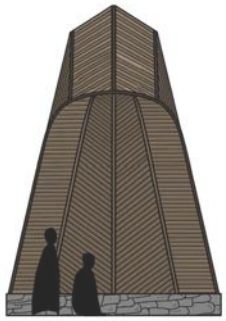
// Engagement Posters

Group A - Twig Weave DEN

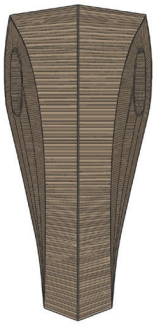
Phase 2

Proposed Drawings

// Rear Elevation



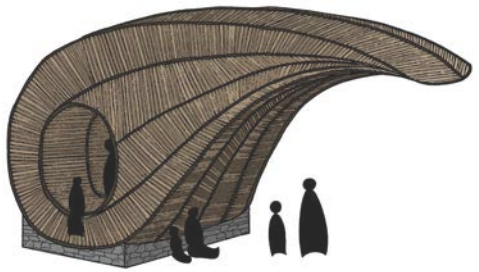
// Front Elevation



// Plan

Group A's Twig Weave DEN utilises local material collected from the site, such as: flexible sticks, branches, and twigs, that are thatched and weaved to form a unique shape providing both immersion and cover. The hollow core act as a teaching zone for wood-working classes, with the extended cover acting as a shelter to the users below.

Perspective



Elevation

Construction Sequence

1. *Materials*

Gather naturally-sourced materials including sturdy structural sticks, flexible twigs for weaving, rope for tying the frame, and moss/dried reeds for the roof coverage.

2. *Structure*

Arrange and tie the primary poles together to create a free standing framework that defines the overall form and scale of the installation.

3. *Weaving*

Interweave thinner twigs horizontally around the frame to strengthen the structure and create enclosed walls while still allowing airflow and light through the den.

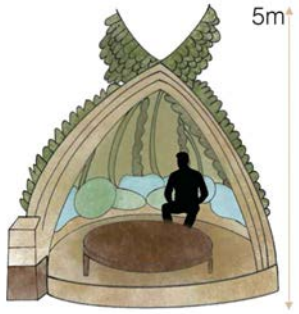
4. *Roofing*

Apply layers of moss and dried reeds to the upper section of the structure to improve shelter, insulation, and protection from wind and rain.

Group B - Timber Pallet DEN

Phase 2

Proposed Drawings



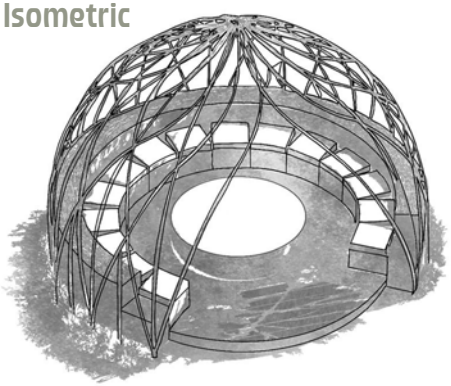
// Front Elevation

// Rear Elevation

// Plan

Group B's den features a tall, arched entryway, to invite the outside within. The back of our den appears mysterious, entirely covered with willow roots. These act as a shade from harsh wind while still allowing slithers of sunlight through. This sunlight combined with a large entryway counteracts the confinement of a closed back view and helps keep the space feel light and open, crucial for a den which is designed for eating.

Isometric

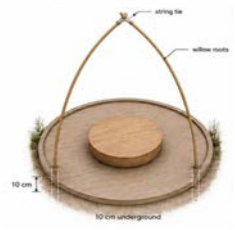


Model

Construction Sequence

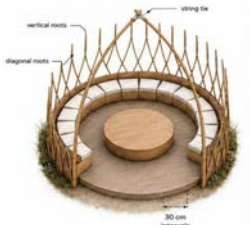
1.

Form the entrance by planting willow roots 10 cm underground and tieing them together with string.



2.

The outer frame is constructed by planting vertical and diagonal roots at 30 cm intervals.



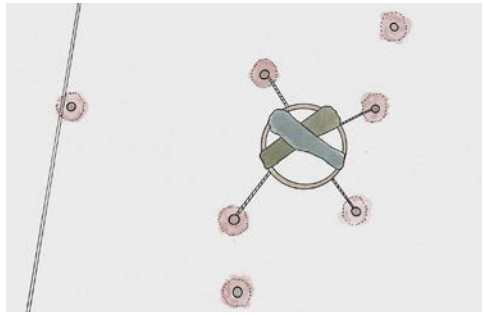
3.

The roof is then completed by tieing opposing roots together with string to fix in place.

Group C - Textile Fabric DEN

Phase 2

Proposed Drawings

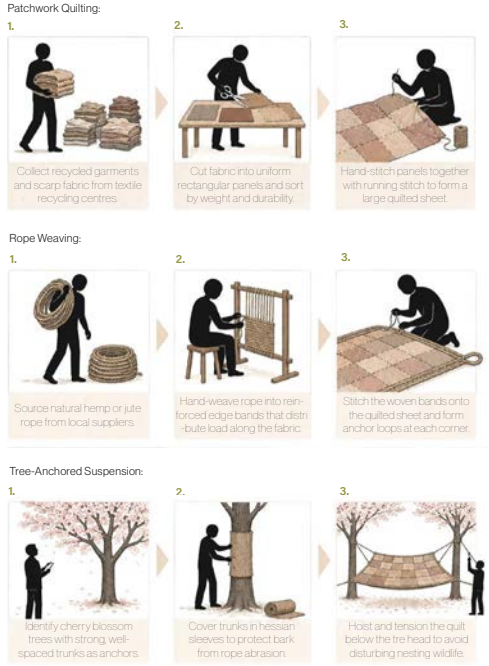


Rendered Visual

This den provides an ideal environment for embroidery and textile workshops, hidden within the trees and shaded beneath the fabrics.

Construction Sequence

There are three methods that use fabric sourced from local textile recycling centres and charity organisations.

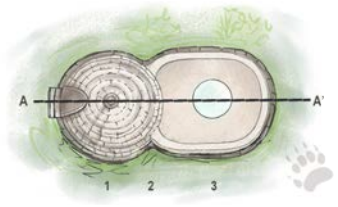


Group D - Earth Mound DEN

Phase 2

Proposed Drawings

Plan //



Section A-A //

Elevation //

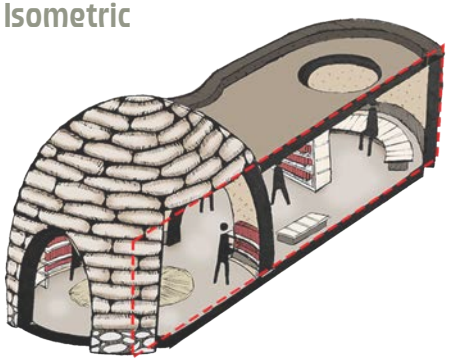
// Spatial Experience Sequence

1. Discover
The domed book space sparks curiosity for its users

2. Enter
Passing through the narrow tunnel, with filtered light and shadow

3. Arrive
Enter the bright reading space and settle in with comfort

Isometric



Model

Construction Sequence

There are three methods using locally-sourced earth from the site clearance to construct the earth den.

Concluding Thoughts

Final Presentation Review

Throughout the course of this project, we were faced with various challenges and many harsh realities of the architecture and design industry, such as time management, community pushback, and site-imposed limitations. Despite these challenges, the outputs produced by our group for our collaborator are thorough and visually engaging, providing a consolidated vision for *The Common Land Collective* to carry forward.

From the outset, the bold aspirations of our collaborator established a collective vision which we carried forward and materialised throughout the various stages of the project. We feel that our DENs are designed to be feasibly built and sensitive to the environment they will be immersed in, allowing a common harmony to be established between the community and the fauna of Macclesfield's flourishing land. Furthermore, we have established clear procurement and assembly strategies for the raw materials that the DENs will be built with. Looking ahead, we have also established a long-term development goal with the promise of additional events and features to be added on-site, such as pop-up camping areas and outdoor cinemas. After a challenging and iterative process, we also introduced the project to the community nearest to the site, receiving valuable feedback and establishing potential connections with schools and health foundations.

While challenging, the project has been immensely rewarding and an invaluable learning experience. For the younger members of the group, it has provided a testbed for experimental design ideas and an introduction to the nuances of the process. For the more experienced members, it has provided insight into the experience of overseeing a project, with their skills tempered by realistic expectations and client feedback. We have emerged with a deepened enthusiasm for architecture and hope for the future of the *Dens of Discovery*.

ABOUT

Each year the MSA LIVE programme unites Masters Architecture year 1, Masters of Architecture & Adaptive Reuse students, BA foundation and year 1 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 students take the lead in the project conception, brief development, delivery and co-ordination of a small project. The projects are celebrated in presentations 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 400 students from 5 cohorts in MSA have worked on 34 projects with partners.

QUESTIONS

For questions about MSA LIVE please contact the MSA LIVE team, Emily & Julie:
e.crompton@mmu.ac.uk and j.fitzpatrick@mmu.ac.uk

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