

ESALA 2025

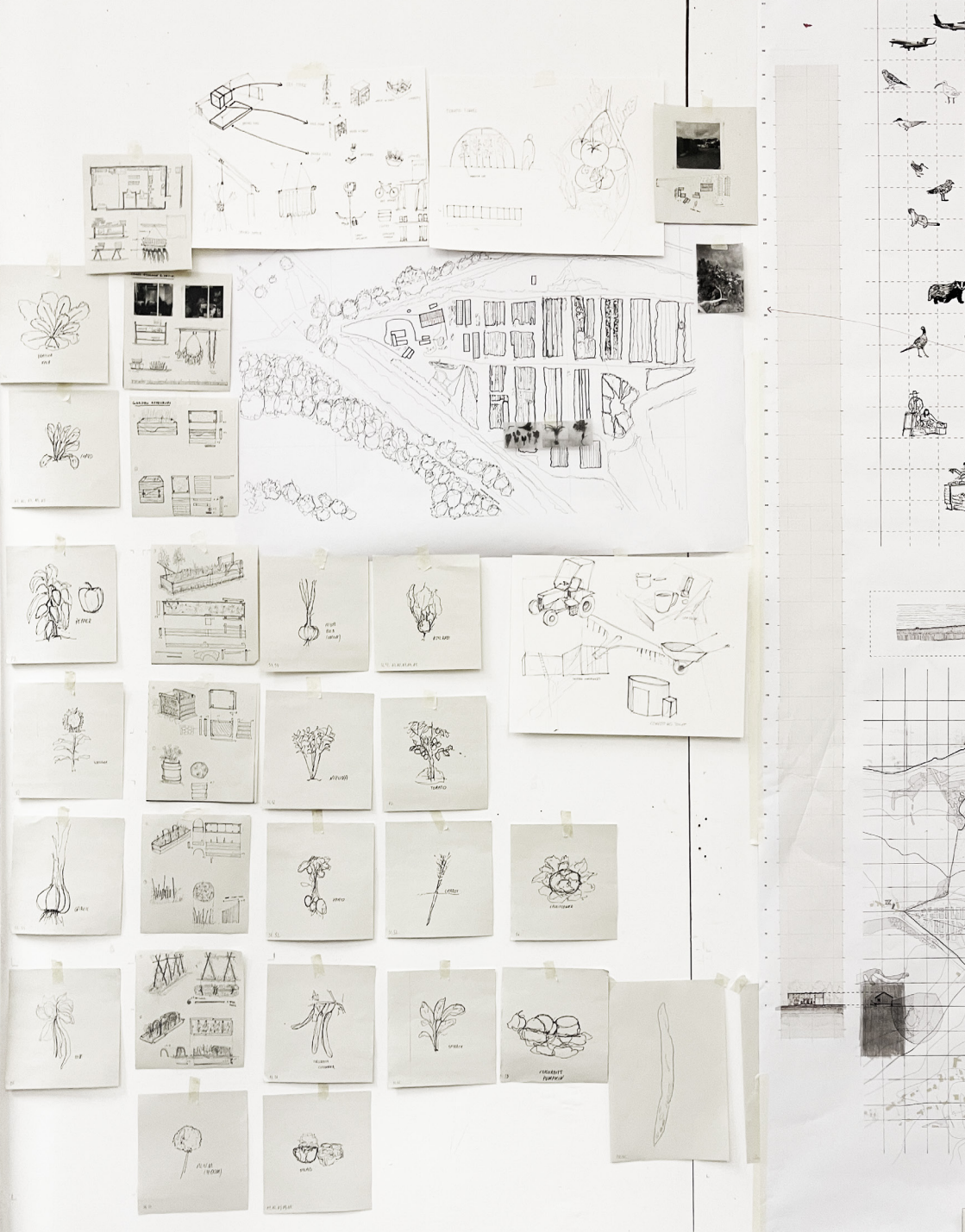
Master of Architecture

**RADICAL HARVEST:  
EARTH/CARE/REUSE  
VOL. 2**

Simone Ferracina  
Asad Khan

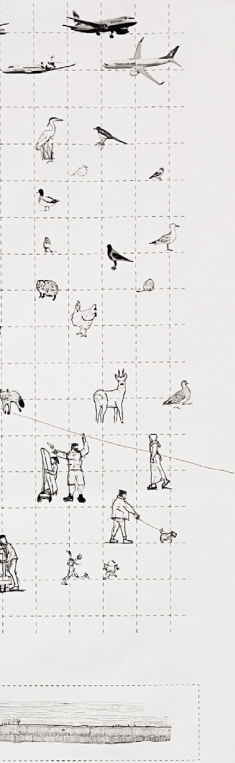
**EDINBURGH**





**Mapping at Lauriston Farm**  
Uwais Hafizal, Hazwan Husain, Jarek Matt Wozniak







This catalogue is part of a collection published by the Edinburgh School of Architecture and Landscape Architecture (ESALA), Edinburgh College of Art, University of Edinburgh. It documents student design work produced in the Master of Architecture (MArch) programme in 2024-25. Each catalogue describes one of the following design studios in the MArch programme. The full collection is available to view online at [issuu.com/eca.march](https://issuu.com/eca.march).

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Doing Enough with Less: Leith

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**Radical Harvest: Earth/Care/Reuse, Vol. 2**

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**Radical Harvest: Earth/Care/Reuse, Vol. 2**

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Simone Ferracina  
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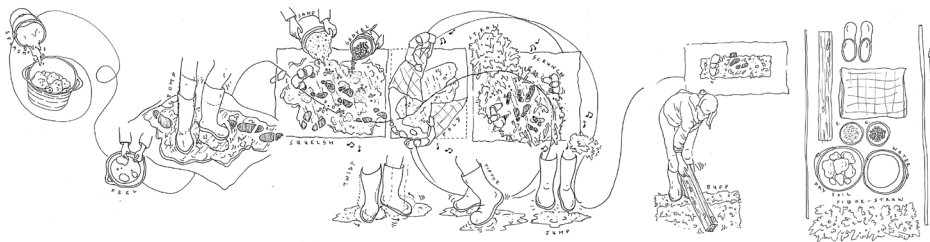
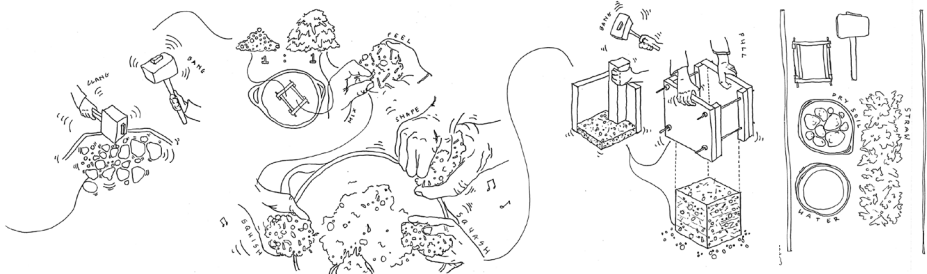
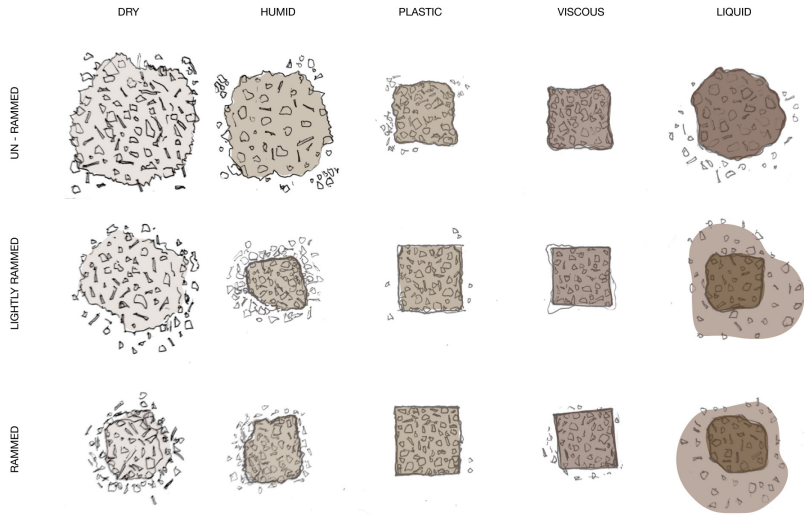


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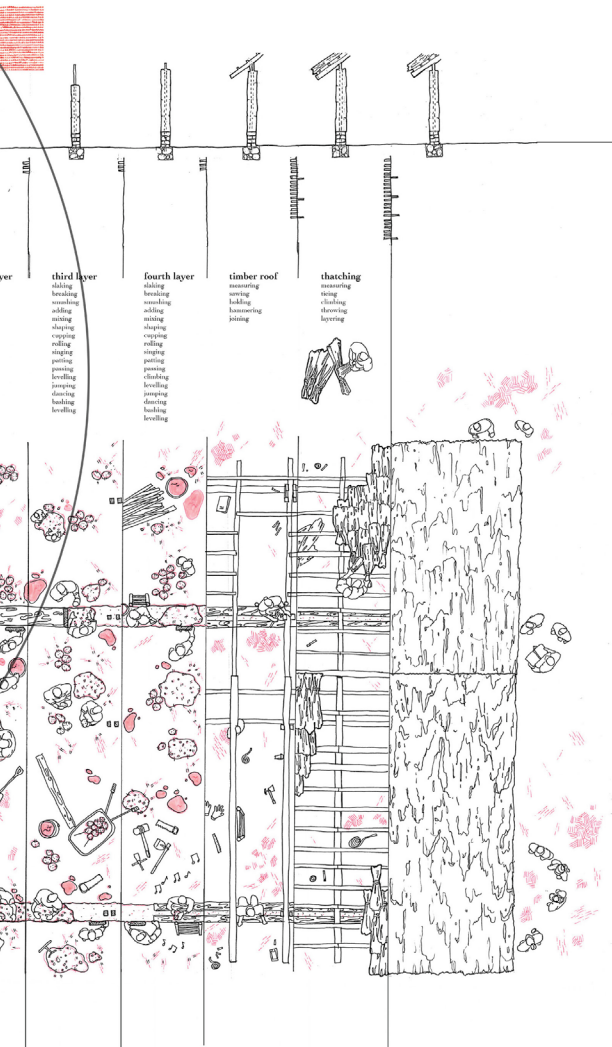
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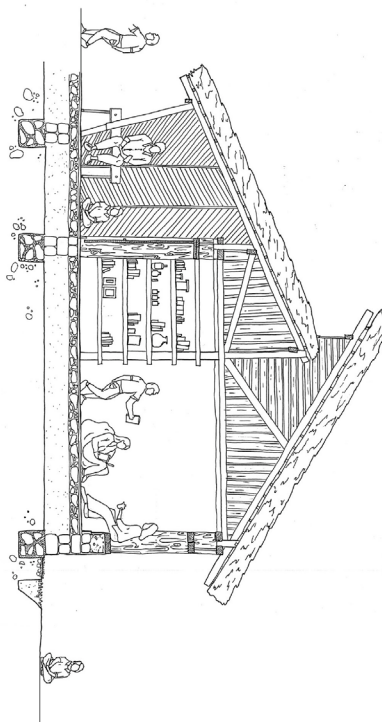








1:50 Plan @ A3



1:50 Section AA @ A3



Children's Centre XEWA SOWE, L'Hartmann Achitecture. Precedent detail model, 1:20. Siya Kulkarni



## RADICAL HARVEST: EARTH / CARE / REUSE<sup>1</sup>

*radical* From the Latin radix, root. 1. Relating to or forming the root, basis, or foundation of something; 2. Characterized by independence of or departure from what is usual or traditional; progressive, unorthodox, or innovative in outlook, conception, design, etc.

*harvest* 1. The reaping and gathering in of the ripened grain; the gathering in of other products. 2. The product or ‘fruit’ of any action or effort: a supply produced or appearing, a ‘crop’.<sup>2</sup>

For a number of years, the Radical Harvest studio has promoted reuse and repurposing as forms of architectural attention and care; as modes of encountering, reimagining and revaluing that which already exists; as ways to engage with the spatial and temporal specificity of sites, materials, and communities; and as tools for prototyping new design practices, methods, and assemblies.<sup>3</sup> Recognising the political nature—and often violent effects—of design decisions, and their vast contributions to environmental injustice and climatic collapse, the studio has aimed to explore, learn about, envision, and prototype novel forms of inclusive, bioregional, and low-carbon architecture for the 21<sup>st</sup> century. In the 2023-24 academic year, and in the context of the Master of Architecture’s modular pathway, the scope of the studio had

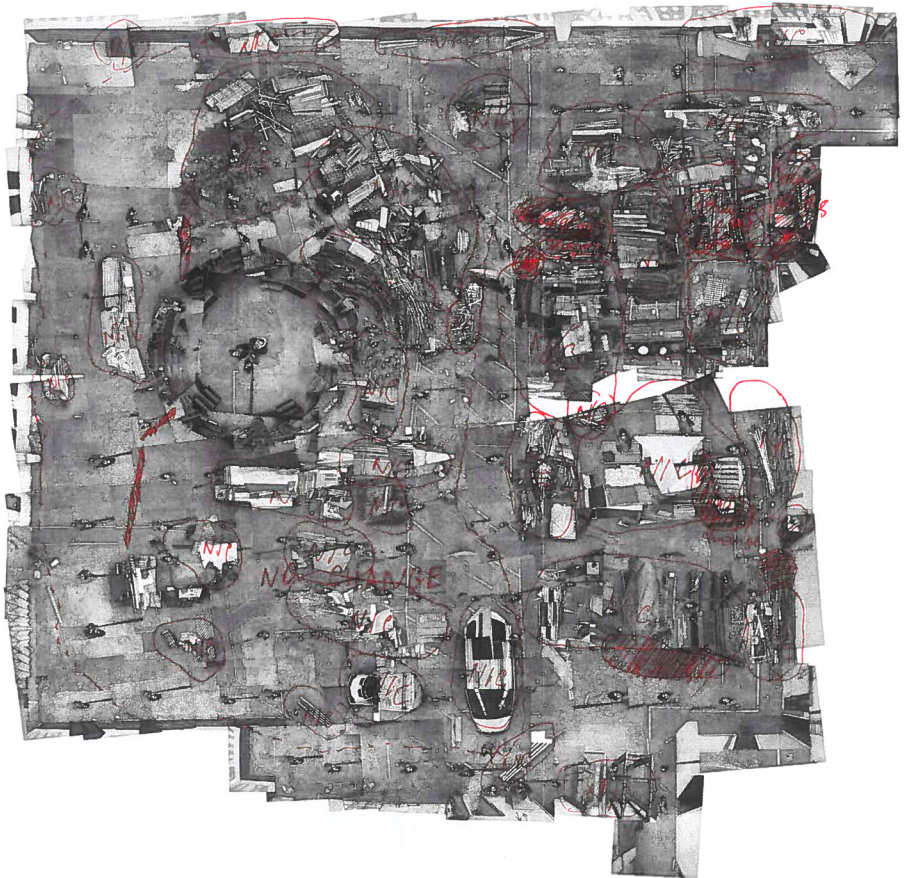
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<sup>1</sup> This text borrows from the previous Radical Harvest catalogue (2023-24) and is modified in relation to changes in the brief and to specific sites, clients, and students.

<sup>2</sup> Oxford English Dictionary, July 2023.

<sup>3</sup> Simone Ferracina, *Ecologies of inception: Design Potentials on a Warming Planet* (Abingdon: Routledge, 2022), 126-135.

du bag appeared



**Capturing movement in the warehouse.** Annotated collage.

Nina Moisan, Diana Morozova, Finlay Stewart.

broadened to foreground natural and bioregenerative materials (raw earth and fibres in particular) and a year-long engagement with community groups, charities, and social enterprises in Edinburgh. In the 2024-25 academic year, these aims and commitments were renewed and further developed for the first year of the Programme's integrated pathway, which links four semesters of study. This resulted in a grounding of architectural ambitions and imaginations not only in conceptual underpinnings, but in the persistent and empathic encounter with local and situated materials, communities, contingencies, risks, and opportunities.

In the Radical Harvest E/C/R studio, making is not, or at least not only, a practice of embodiment—a translation from abstract ideas and intents into physical objects—but the result of caring forms of co-habitation and 'staying-with' (spending time with community groups, volunteering, discussing ideas); of the transmission of knowledge and skills from builders and building traditions (a workshop with EBUKI introduced the spectrum of earth-building technologies to students); of local contingencies (the students were given a £100 budget for their live-build project, and supplemented it by diverting and revaluing discarded or donated materials); and of iterative processes of material and tectonic experimentation and negotiation with that which already exists. To make is to encounter a physical substrate, and to learn or test ways of establishing a dialogue with it. We followed Katie Lloyd Thomas in understanding materials not as generic lumps of stuff, or as given substrates, but as ones that have been socially constructed; ones that architects shouldn't passively receive, but creatively mobilise towards the construction of buildings.<sup>4</sup>

The studio continued to challenge the perceived separation between design and construction—between conceptual motives and technical or logistical implementations, architects and builders, intellectual and physical labour. It invited students to engage with materials and to get their hands dirty, to recouple design decisions with their effects on environments and bodies, but also to adopt a responsive, exaptive, playful and intuitive design methodology.

How does one begin to design, and to develop new skills and tectonic assemblies, starting from the labour and risks involved in their construction?

4 Katie Lloyd Thomas, *Building Materials: Material Theory and the Architectural Specification* (London & New York: Bloomsbury, 2022).



How can we learn to value our engagement with community stakeholders as much as the architectural objects resulting from the design process, or the outputs developed to represent them? And how do we develop non-extractive forms of architectural design, and promote the use of bioregenerative and circular materials such as hemp, straw, and clay, and the reclamation, reuse, and repurposing of discarded or devalued materials and components? What does it mean to use materials harvested locally, and to organise their movement and progressive transformation—to take the local availability of buildings, materials, components, and skills as the starting point of design? How does design practice change if architects take responsibility not only for the construction and assembly of buildings, but also for their maintenance, deconstruction, disassembly, and for their eventual disposal? What protocols might emerge if we were concerned not only with present programmes, objectives, or conditions, but with those that might emerge in the future? What if our sense of professional responsibility extended to future generations, and to nonhumans? These are some of the questions the Radical Harvest E/C/R studio probed, supporting students in elaborating nuanced and imaginative responses.

Following a week-long workshop with Becky Little and Rowland Keable of Earth Building UK & Ireland (EBUKI), the leading earth-construction experts in the country, the students became literate in different techniques (mass, light, framed, moulded and rammed earth) and in the corresponding recipes and terminology, iteratively inventing and testing mixes, tools, building components and tectonic assemblies. Further lectures by Becky Little, Tom Morton, Lisa Moffit, and Lucy Benjamin, a workshop with NADA NOVO's Jonny Pugh and Cláudia Escalera, and structural tutorials with Elham Mousavian facilitated a process of experimentation and prototyping that progressively gained focus, both pursuing specific questions (finishes, textures, and colours; wall assemblies; the prefabrication of components; the fabrication of formwork; etc.) and addressing the needs and constraints associated with specific sites and clients. Indeed, these experiments were accompanied, during the first semester, by prolonged engagements with local charities and social enterprises, which eventually resulted in the development of the design for a live-build project on their premises—a 1:1 output that will survive the course and be managed, used, and enjoyed by local communities and stakeholders.

Over the course of the second semester, five groups of three students constructed small projects across the city of Edinburgh: Uwais Hafizal, Hazwan Husain, and Jarek Matt Wozniak developed a reciprocal canopy and shelter for the Lauriston Community Farm in North West Edinburgh (*Doirneag*); Grace Carney, Kiran Pamar and Shannon Townsend built, for Bob Giulianotti and the Abbeymount Studios artists and makers, a sheltered outdoor community space (*Poball Plaza*); Nina Moisan, Diana Morozova and Finlay Stewart designed, for EALA Impacts (Joanne McClelland, Aythan Lewes), a multifunctional room for a nascent circular hub, which was first installed in a warehouse in Granton managed by the Pitt Market (*Dariia: Shaping In|Tension*); Daisy Foster, Siya Kulkarni and Mhairi Dickie worked with Richard Wilkins and the Friends of Lochend Park to curate an intervention for nonhuman habitation (bats, birds, insects) that contributes to the park's ecological and social reclamation and revival (*Building for the Nonhuman*); and finally, Ollie Howell, Jaaziel Kajoba, and Joseph Simms collaborated with artist Jonathan Baxter to place a series of benches and waymarks on the grounds of St. Mary's Episcopal Cathedral in Edinburgh, combining new facilities for gathering and spending time together with warnings—and a call to action—about impending habitat extinctions in Scotland (*On Sacred Ground*).

The Radical Harvest studio has tentacles that extend far and wide—our pedagogies and student projects depend on the support provided by the many people who have shared their expertise and time, who have donated materials, and who have contributed—in a myriad of ways—to the life of the studio. These networks, alongside the students' brilliant outputs, give us hope. They confirm that architecture can, indeed, become a form of stewardship and care.

Simone Ferracina and Asad Khan







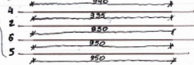
- 
- Left. **Mixing straw and earth for cob.** EBUKI Workshop.  
 Top left. **Testing water content.** EBUKI Workshop.  
 Top right. **Herringbone prototype.** EBUKI Workshop.  
 Bottom right. **Carazas test.** EBUKI Workshop.

# PIANO STRINGS

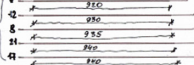
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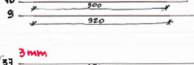
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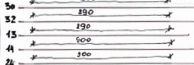
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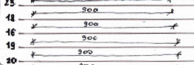
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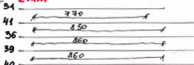
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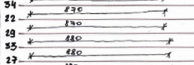
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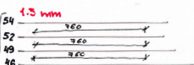
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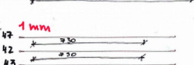
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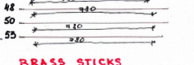
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BRASS STICKS



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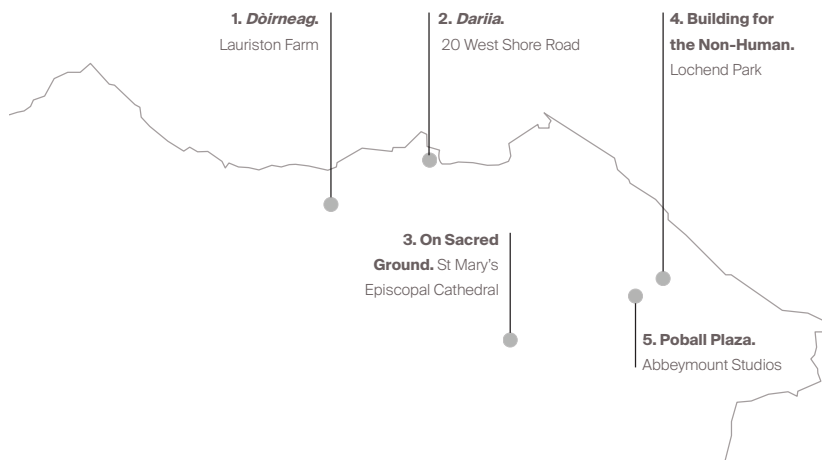
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With Thanks to:

Lauriston Farm (Lisa Houston, Agnes Taiti, Emma Brierley, Dav Shand, Allotment Holders and Volunteers); Elham Mousavian; EBUKI (Becky Little, Tom Morton, Rowland Keable); University of Edinburgh Servitorial Services (Giuseppe Agnello and Steve Downes); Move On Wood (Craig Meldrum); BE-ST; Talbot Rice Gallery (Colm Clark, Holly Morton); ESALA Maltings technicians (Malcolm Cruickshank, Paul Charlton and Paul Diamond).

# 01

## DOIRNEAG

[SHAPING EARTH FOR THE SLIGHTEST DELIGHT]

UWAIS HAFIZAL  
HAZWAN HUSAIN  
JAREK MATT WOZNIAK

Growing, harvesting, congregation, regeneration, community and biodiversity. The complex circuitry of Lauriston Community Farm (LCF)—following Aldo Leopold’s definition of land as ‘a fountain of energy flowing through a circuit of soils, plants, and animals’—was carefully mapped through the direct participation in weekly volunteering sessions, allowing our designs to organically emerge from shared labour, understanding, solidarity, and participation.

The farm provides shared plots, skills and knowledge to diverse groups, regularly distributing resources and holding community events. This, and their ethos of no-dig farming, in addition to the sustainable sourcing and reuse of available materials, permeates each individual allotment—and inspired our live-build design.

The structure is situated on the Mound, and provides seating and a roof that, in conjunction with the existing Pagoda, offers opportunities for teaching, socialisation and events, both formal and not.

Sitting above a slope are gabion walls and tyre benches resting at a slant, filled with materials that level their top surfaces. The canopy—a reciprocal structure—lifts pallets overhead in three arches providing shelter whilst remaining permeable to the strong prevalent winds. Local clay covers the seating in a cob mixture, and multiple *dorodango* (Japanese shiny mud dumplings) made with community stakeholders are located throughout the entire structure. Willows are planted along the perimeter, and will grow to replace the pallet arches after their eventual degradation.









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Previous

**Reciprocal canopy and Pallet/Tyre seating.**

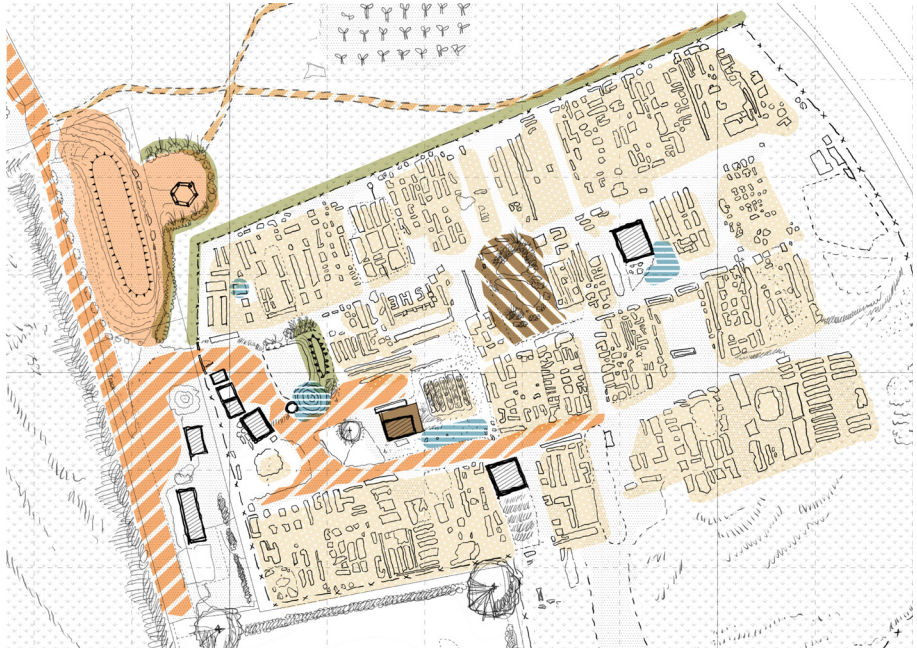
Above

**Seating above the Mound parallel to the Pergoda.**







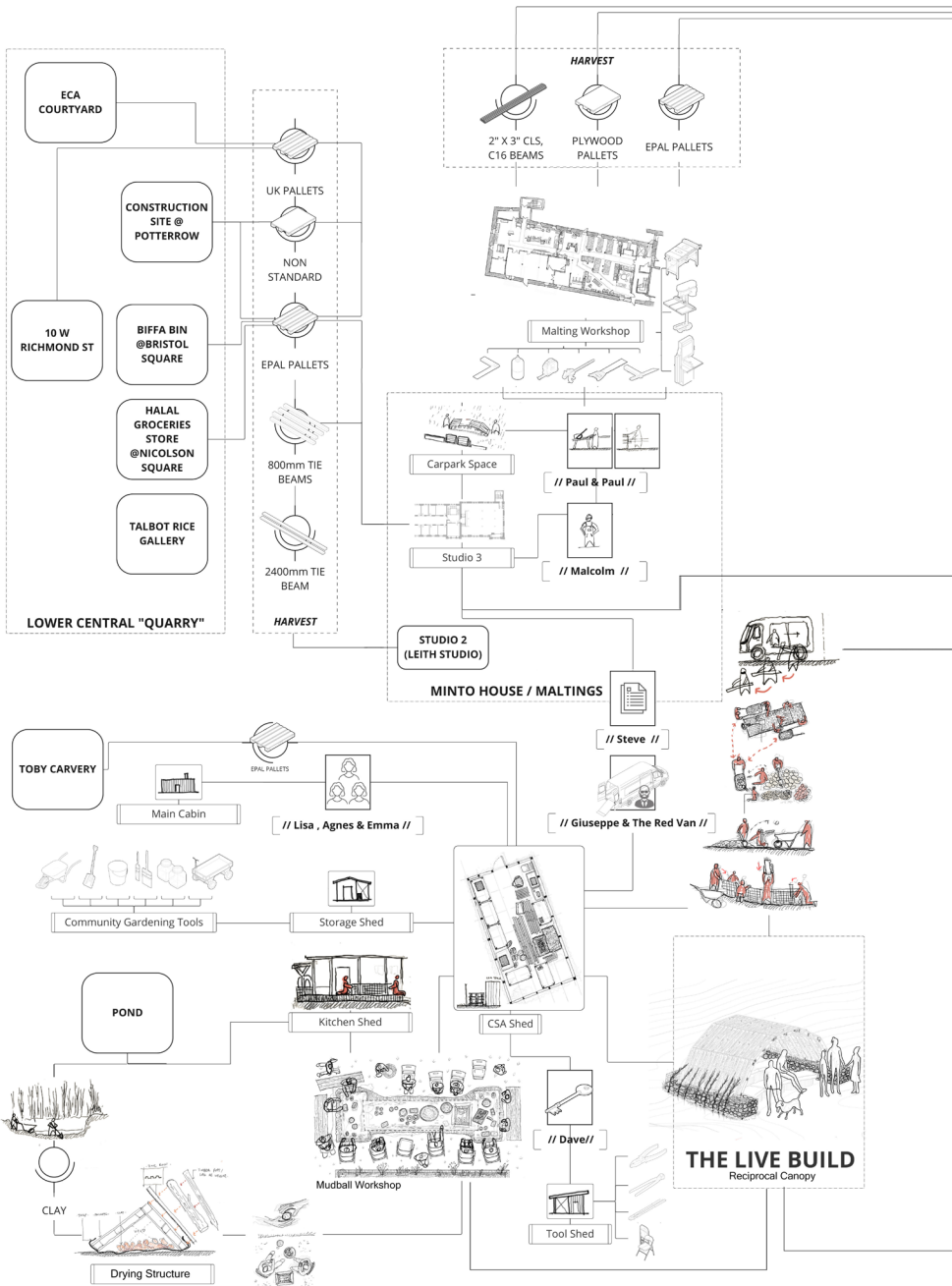




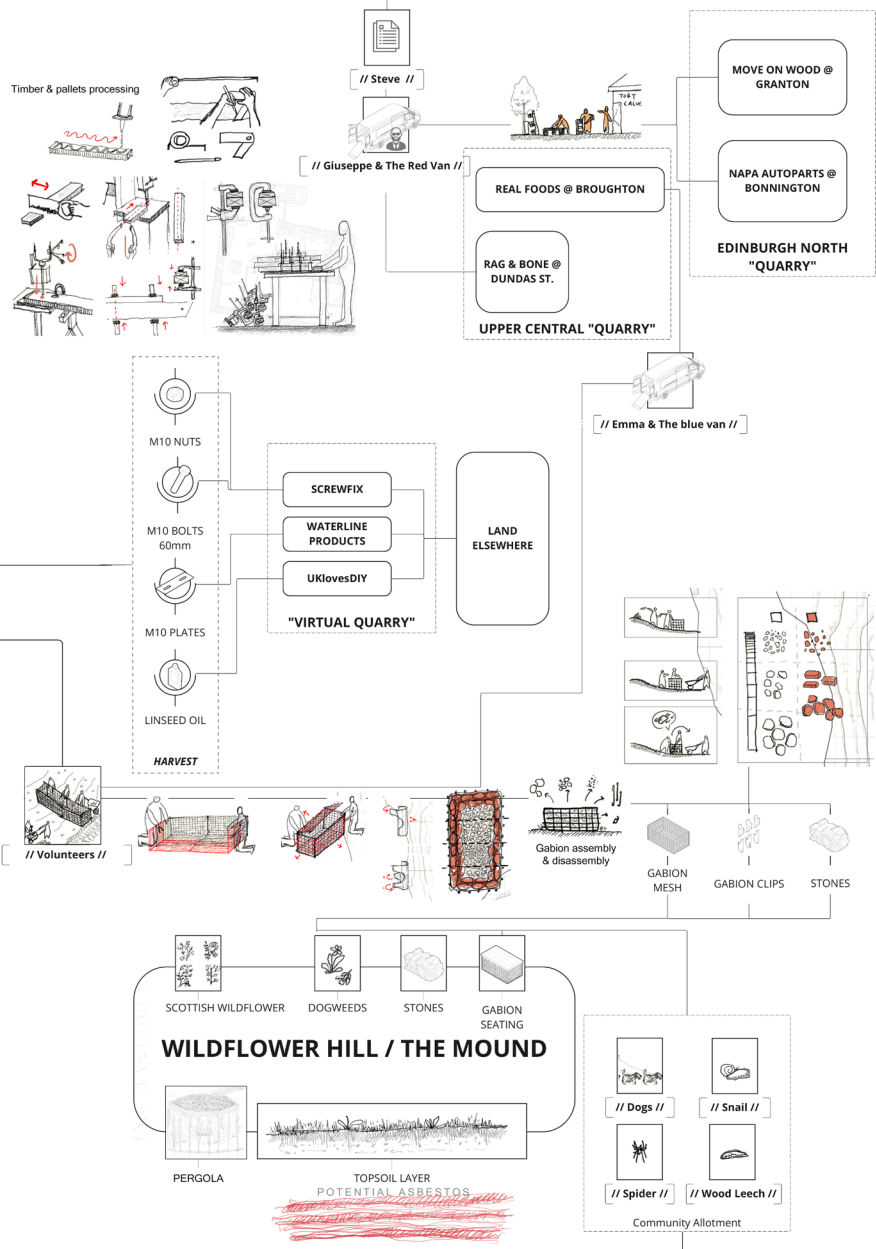
Left above **Material sources and destinations.** Plan.

Left below **Earth - From raw to valued.** Models.

Above. **Single arch canopy with cobbed tyre seating.** Prototype, 1:20. Model.

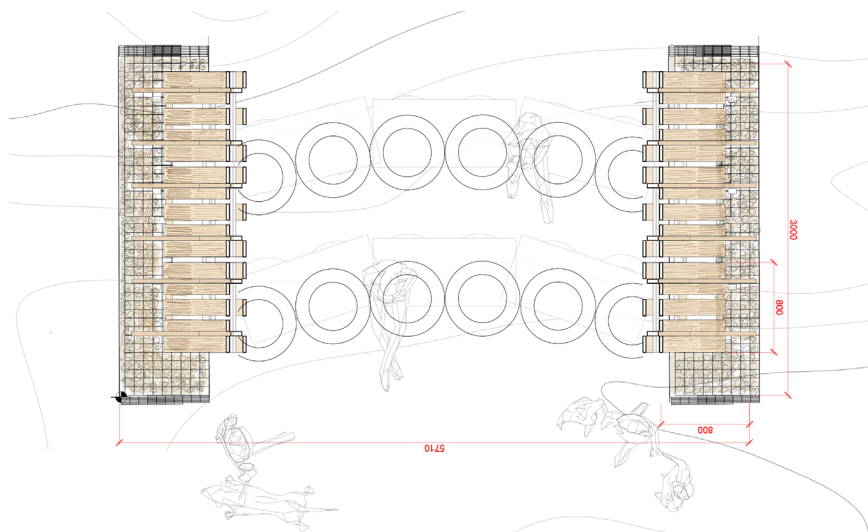
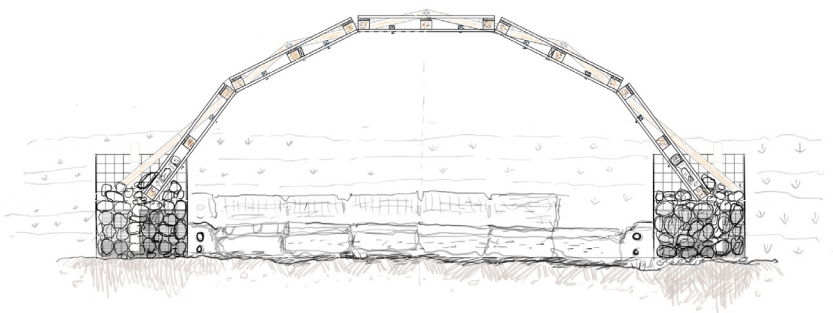




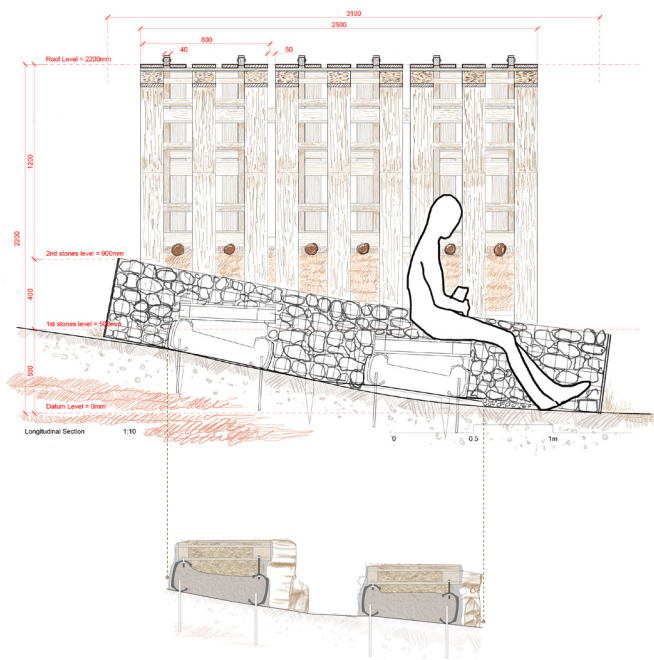


Above.

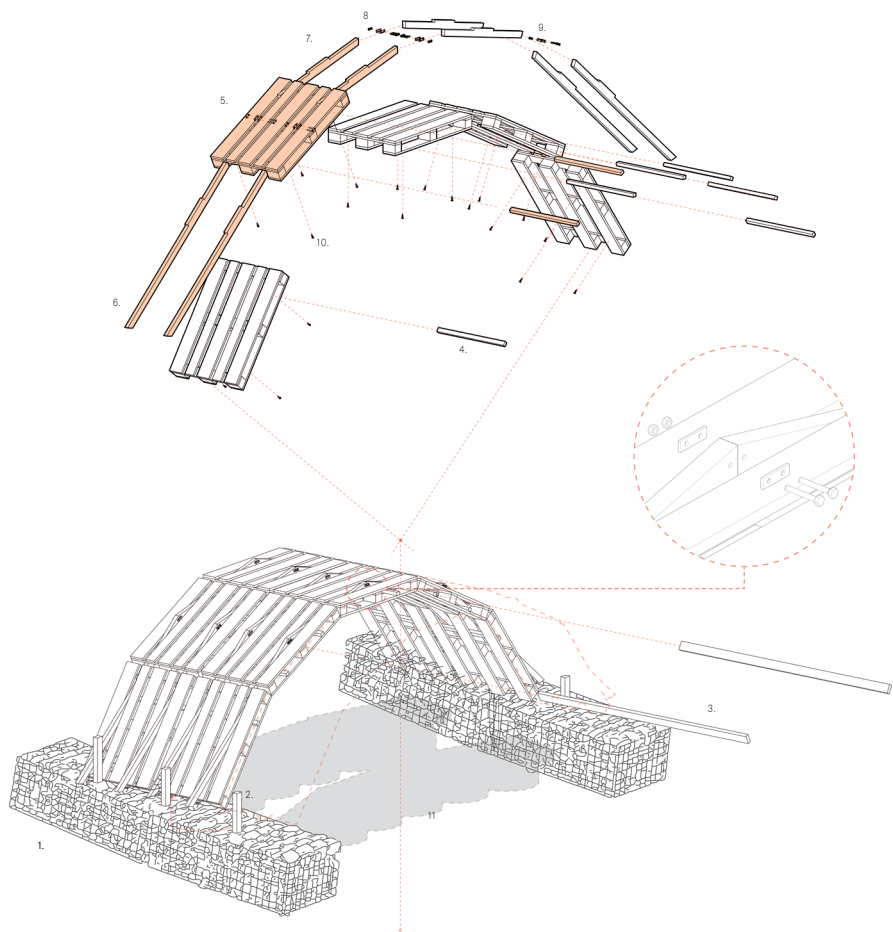
**The Live Build as a Circuit of Energy.**



Above. **Construction drawings. Plan and Section.**  
 Right above. **Reciprocal canopy seating.** Photograph collage.  
 Right below. **Longitudinal section of canopy and seating.**







1. Steel mesh gabion
2. Reclaimed timber post
3. 35\*50\*2400mm reclaimed timber joist
4. 13\*25\*750mm reclaimed timber joist
5. 800\*1200mm EURO pallet
6. 2030mm Type A CLS timber - longer (end beam)

7. 1270mm Type B CLS timber - shorter (intermediate beam)
8. 60\*10ø bolt
9. 100mm steel plate
10. 50\*5ø timber screws
11. Tyre seating

Above. **Reciprocal arch assembly.** Exploded isometric.

Right. **On site with prototype.** Screenshots of film.

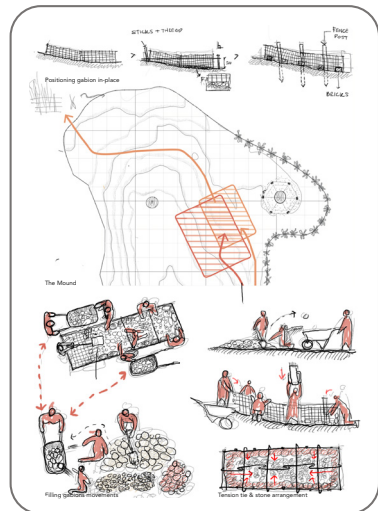
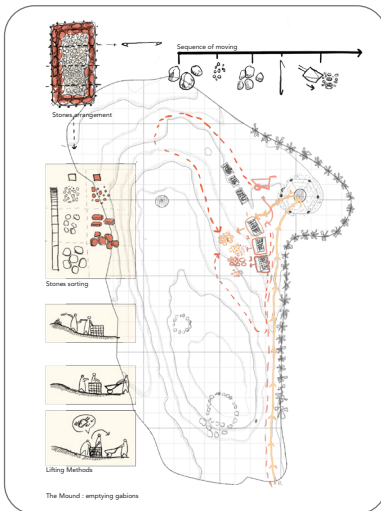
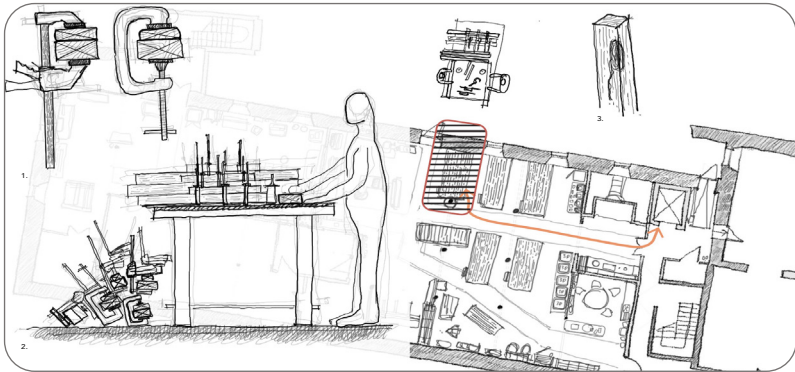
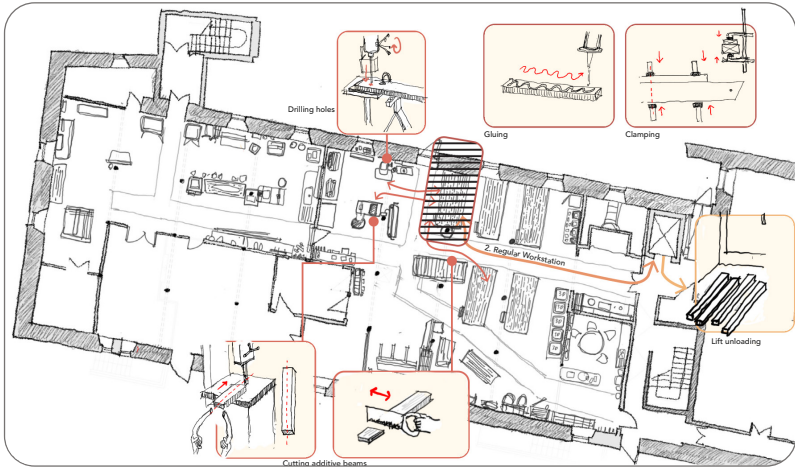


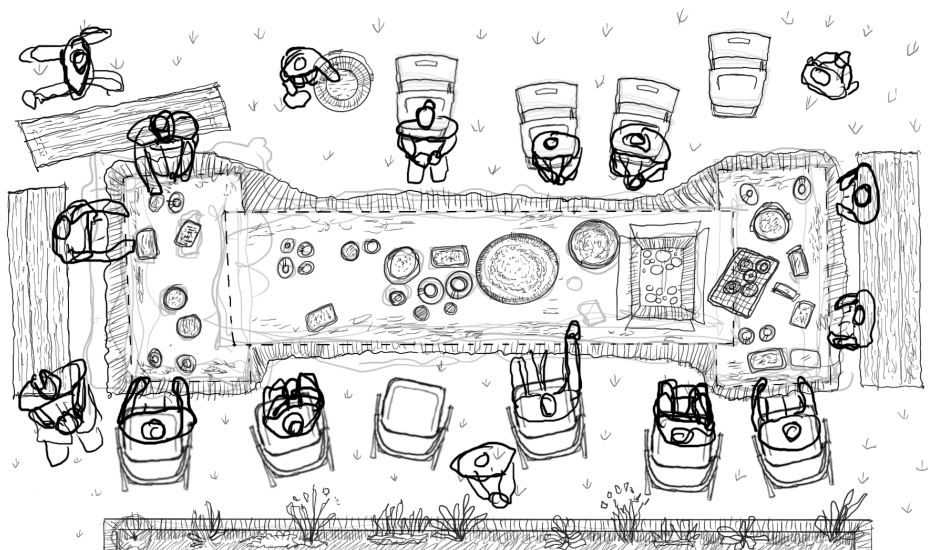




Above. **Construction Almanac.** Exhibition.  
Right. **Sketches from Almanac.** Sketch.







- 
- Above. **Dorodango workshop.** Almanac sketch.
- Below. **Multiple dorodango atop polishing vessels.** Photograph.
- Right above. **Dorodango volunteer workshop.** Screenshot from film.
- Right below. **Volunteer cob mixing process.** Screenshot from film.



UWAI, HAFIZAL + HAZWAN HUSAIN + JAREK MATT WOZNIAK | DOIRNEAG






---

Above. **Insetting jars into canopy.** Photograph.  
 Below left. **Underside of canopy and bench topper.** Photograph.  
 Below right. **Willow planting.** Photograph.



04:01



05:10



03:57



08:53



09:56



10:21



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13:24



13:36



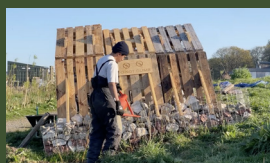
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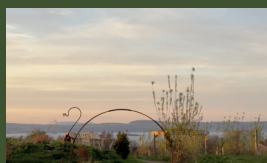
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23:50



24:34



29:11

UWAI'S HAFIZAL + HAZWAN HUSAIN + JAREK MATT WOZNIAK | DOIRNEAG



With Thanks to:

Abbeymount Studios (with an extra special thanks to Bob Giulianotti, Alison Williams, Frances Priest, Sew Ho Studios, Dried Florists); University of Edinburgh Servitorial Services (Steve Downes, Giuseppe Agnello); Bobby's (Jules); The Roofing and Building Supply Company Ltd (Brian MacInnes); Rosie Finch; Mhairi Welsh; and our four-legged pals - Tilly, Masie and Dexter.

# 02

## POBALL PLAZA

GRACE CARNEY  
KIRAN PAMAR  
SHANNON TOWNSEND

Situated on the premises of the Out of the Blue Abbeymount Studios—a multi-disciplinary facility for designers and makers—the project aims to provide a communal and sheltered space where the resident artists can relax and interact, promoting a sense of community and belonging.

The project is located in the disused playground of the 1800's primary school, next to the heavily trafficked Easter Road, and is constructed using primarily reclaimed pallets, timber, and a building technique that combines timber rods with woven textiles and fabric daubed in light earth—a combination of clay-rich subsoil and straw fibres.

Weaving acts as the central language of the project, both in the making and application of earth reels, which relates to traditional waulking techniques in Scotland, and to the history of weaving as women's work, as well as in how the acoustic and material properties of the reels are organized and represented into tapestry-like compositions.

Enclosed panels alongside the road screen the plaza's space visually and provide a barrier to the traffic noises, with different densities and compositions of light earth performing buffering and absorbing functions in relation to the human bodies standing or sitting within. The remaining sides open onto the playground, framing views towards Arthur's Seat.

Collaboration and adaptation were two key themes explored within the *Poball Plaza*—the design being centred around the reuse of materials and the demountability of components to allow for a maximum degree of future changeability and flexibility.













Previous.

**Rear elevation of Poball Plaza.**

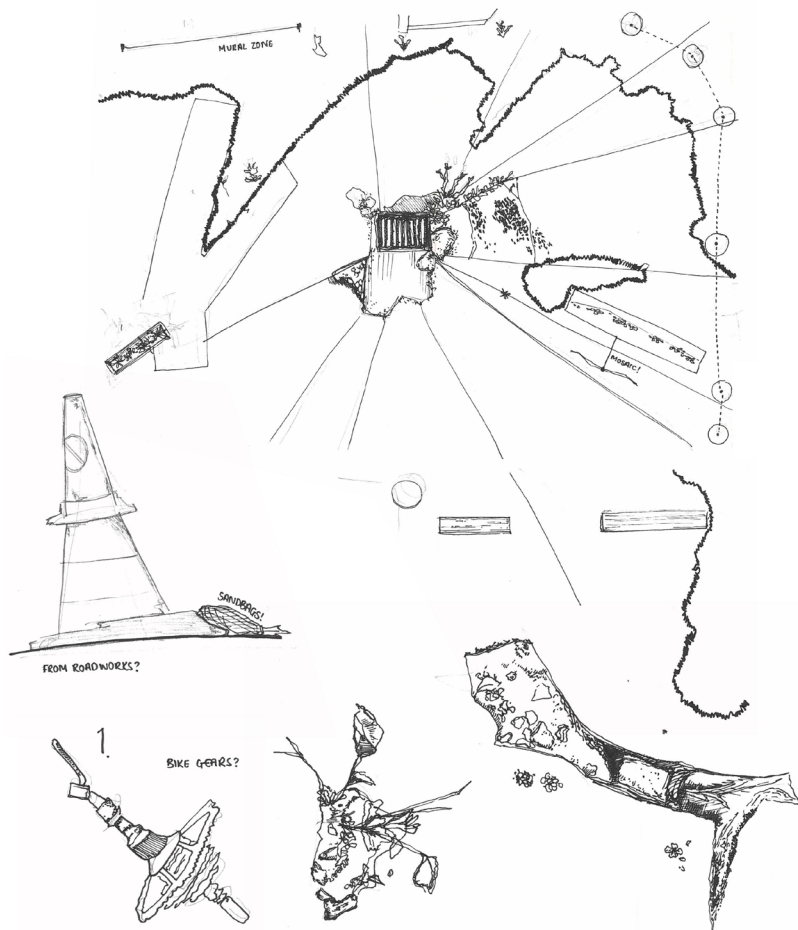
Left.

**Internal textures.** Live build celebrations.

Above.

**Live build from within the Abbeymount playground.** Photograph.





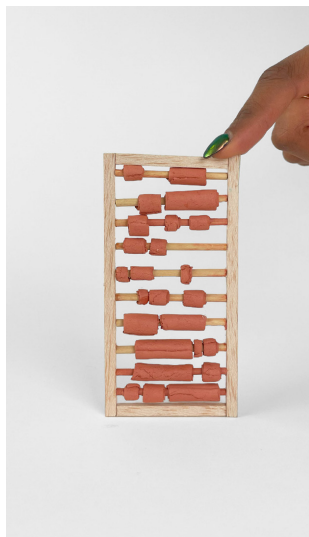
Above. **Mapping site conditions such as level, litter and overgrowth.** Sketches.

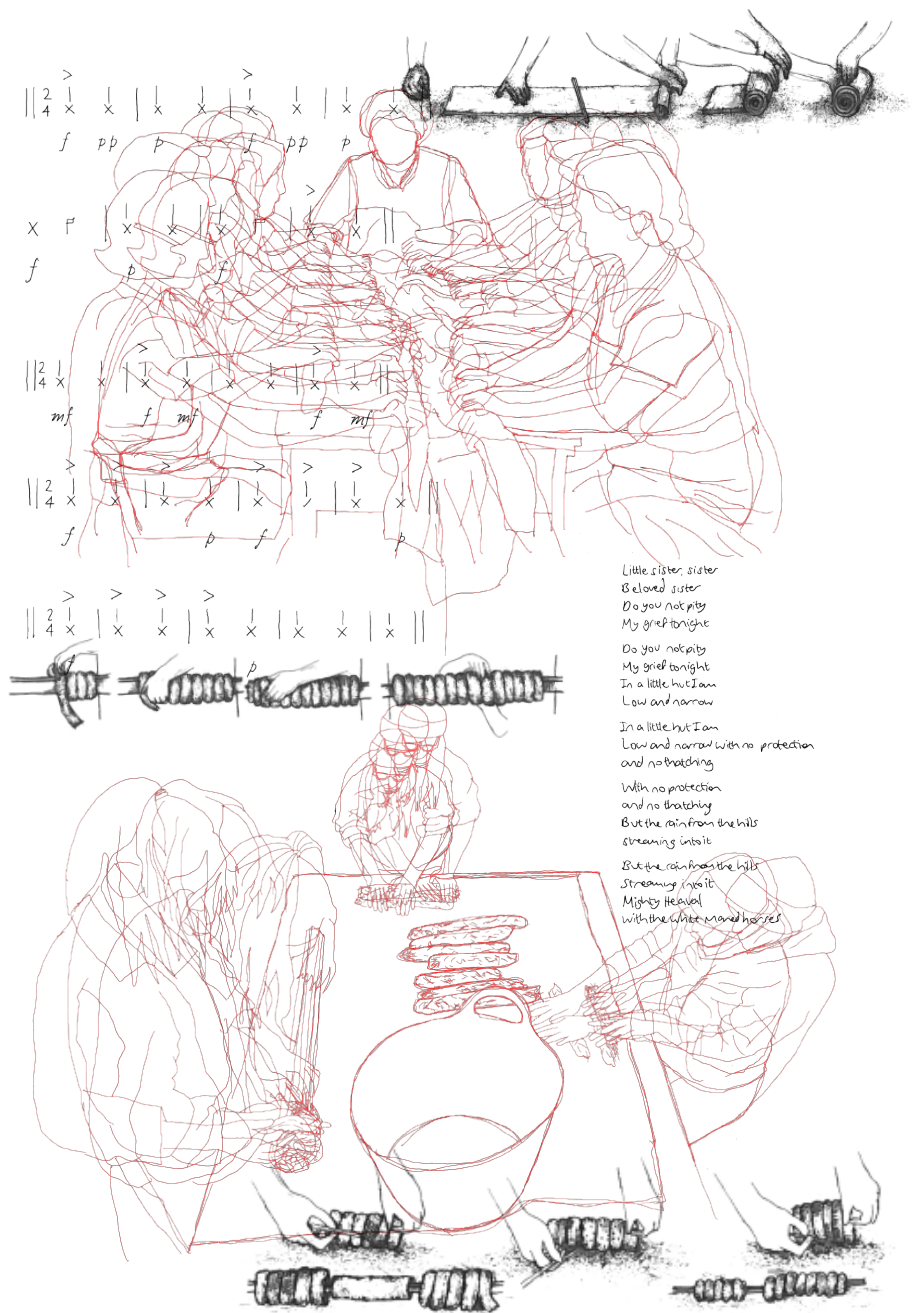
Below. **The Den, the Bazaar, the Dwelling and the Neighbourhood .** Model.

Right above. **'Kit of parts' assembled on site.** Model.

Right above. **Designing for ornamentation.** Model.

Right below. **Initial design.** Model.





Little sister, sister  
 Beloved sister  
 Do you not pity  
 My grief tonight  
 Do you not pity  
 My grief tonight  
 In a little hut I am  
 Low and narrow

In a little hut I am  
 Low and narrow with no protection  
 and no thatching

With no protection  
 and no thatching  
 But the rain from the hills  
 streaming into it

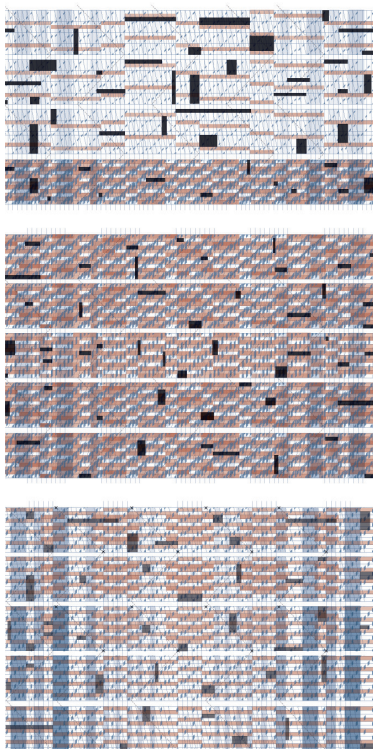
But the rain from the hills  
 Streaming 'neath it  
 Misty heaven  
 with the sweet mowed harvest

Above. **Traditional and contemporary - waulking, weaving and song.** Sketch collage.

Right. **Acoustic tapestry: A Language of Weaving.** Diagram.

Right. **Abacus panel.** Photograph.

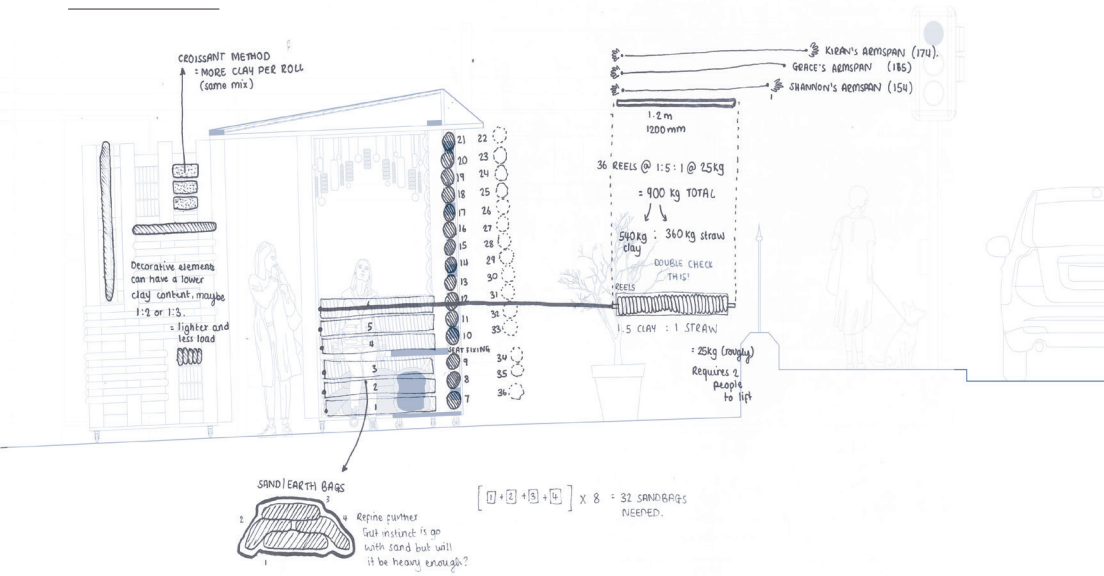




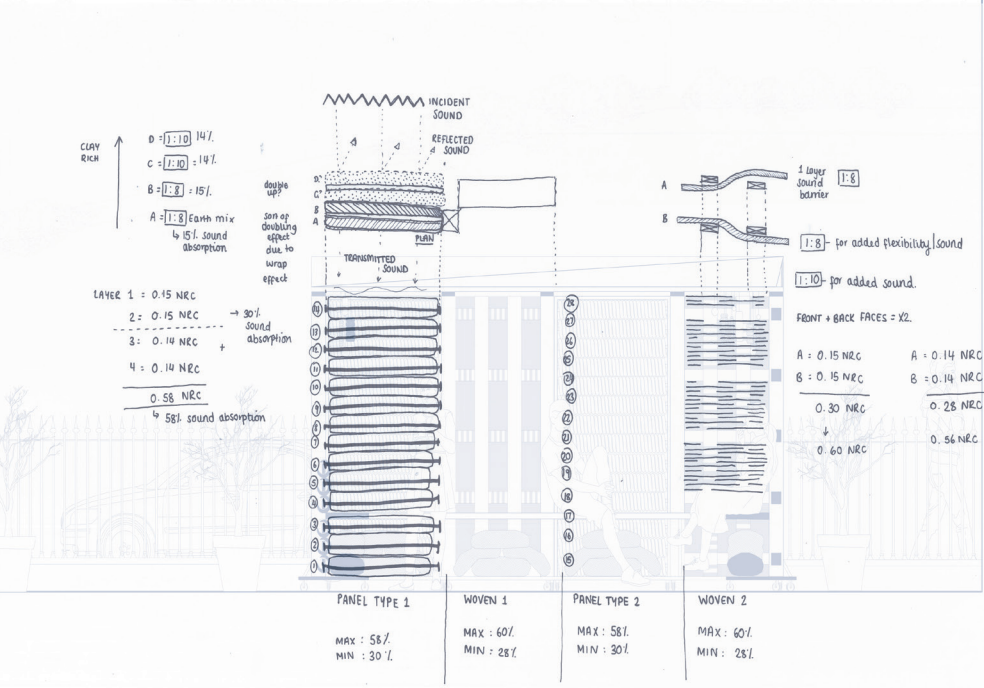
Above. **Acoustics and material notes. Section.**

Left below. **Column to joist detail.**

Right below. **Vista from within.**

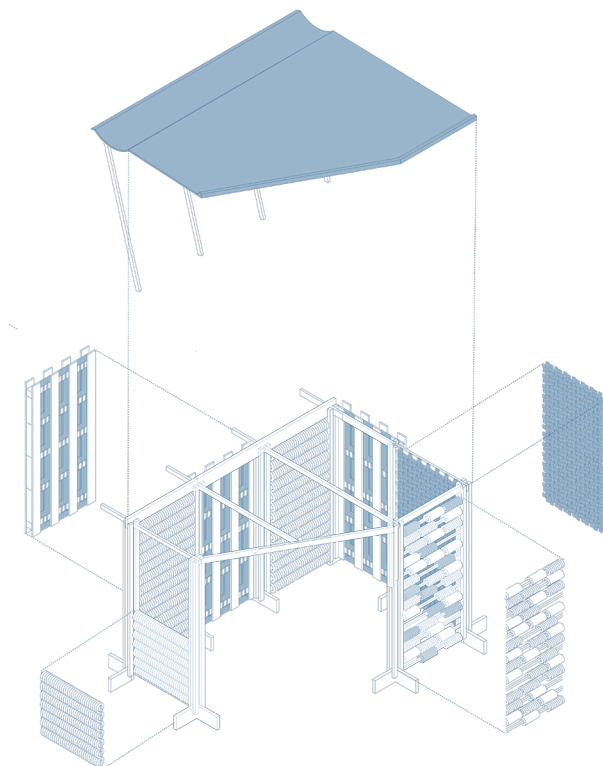








1. Pallet infill.
2. Woven infill.
3. Abacus infill.
4. Reel infill.





Left above **Panel typologies.** Exploded isometric.  
Left below. **1:20 model of final build.** Exhibition.  
Above. **Interior space.** Photograph.



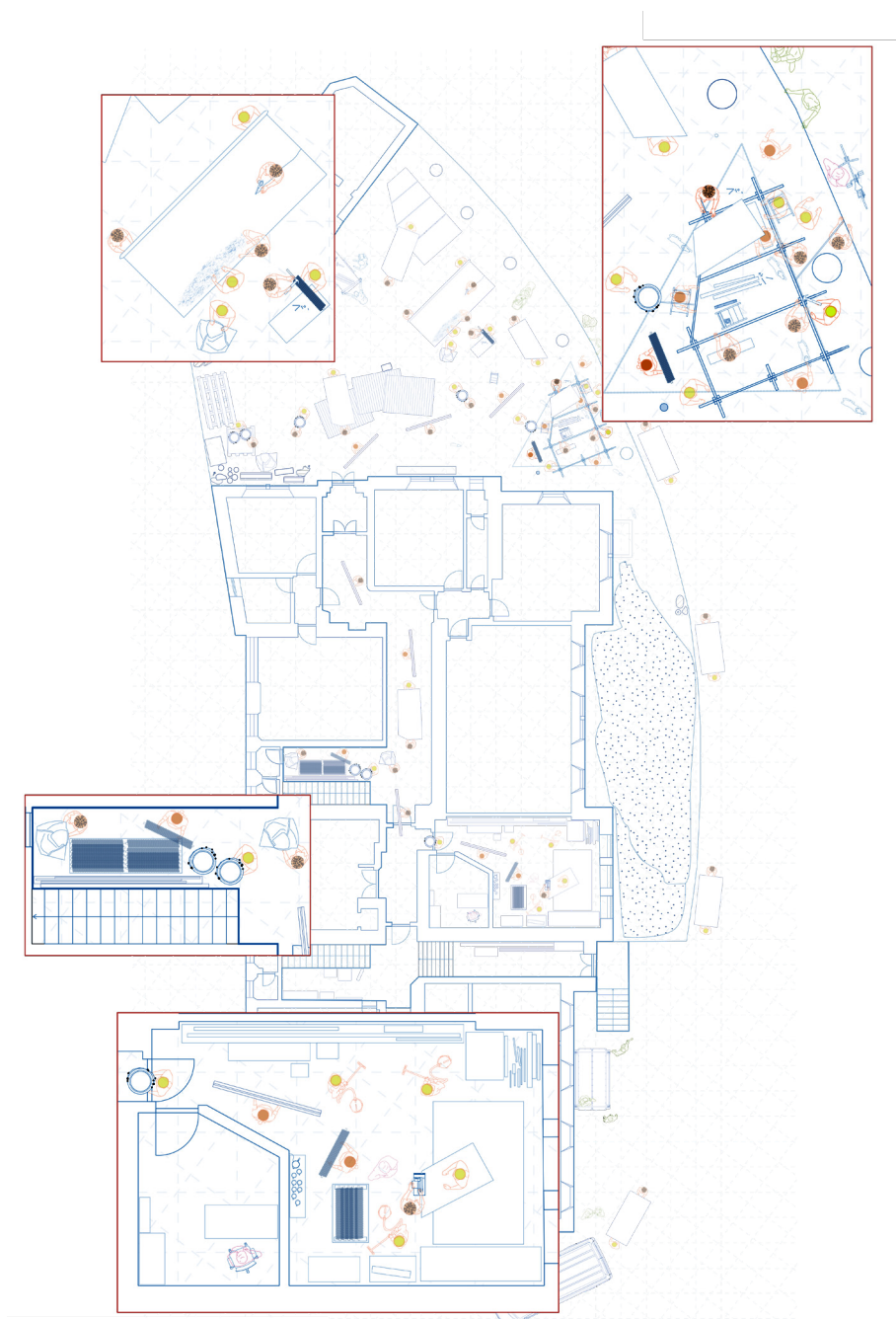
Above.  
Right.

**Poball Plaza, Abbeymount playground.** Photograph.  
**Transportation, prefabrication and assembly.** Process diagram.

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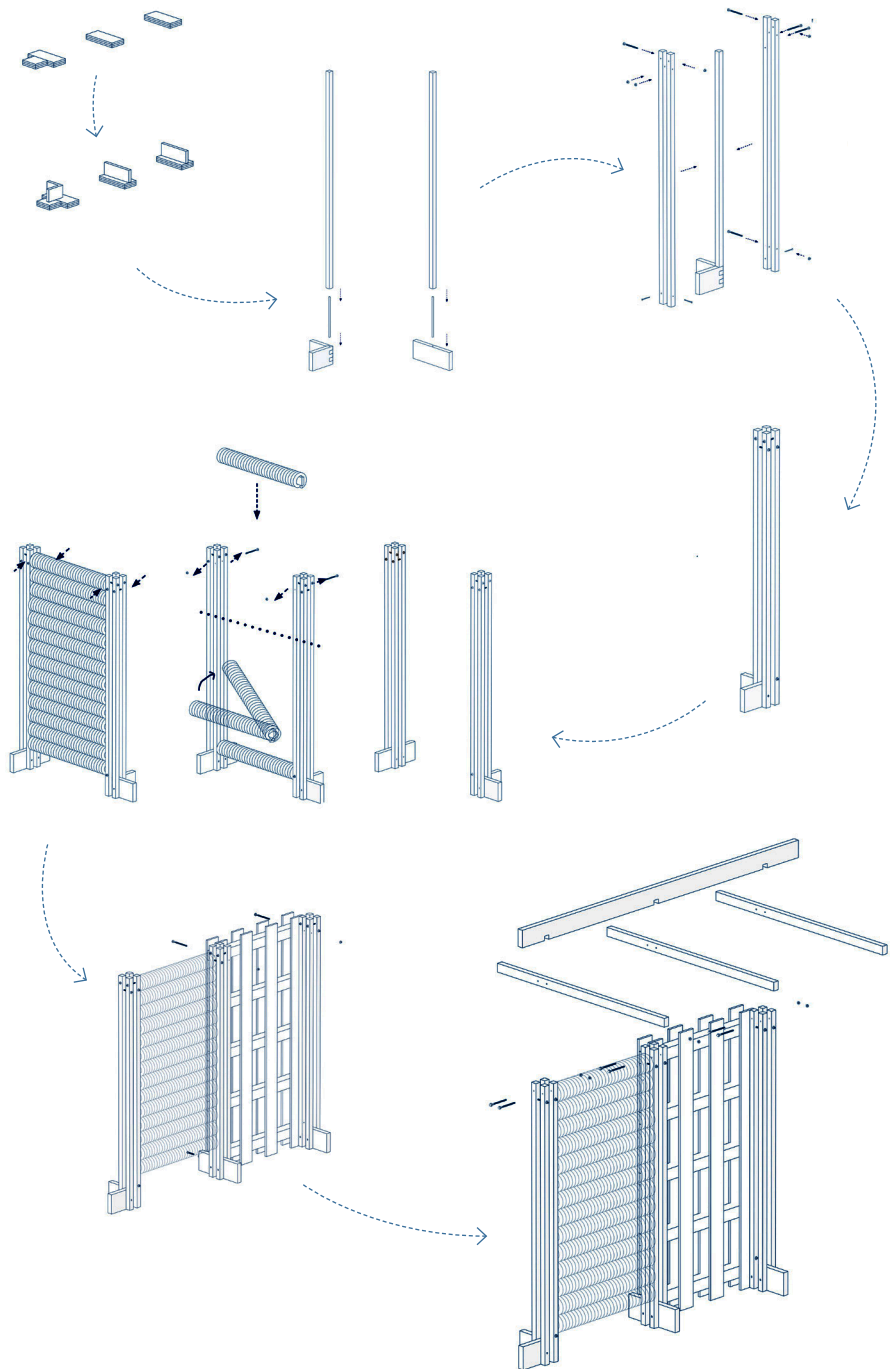


Cutting	Moving	Weaving
Sanding	Mixing	Wrapping
Drilling	Reeling	Repairing
Assembling	Stacking	Removing

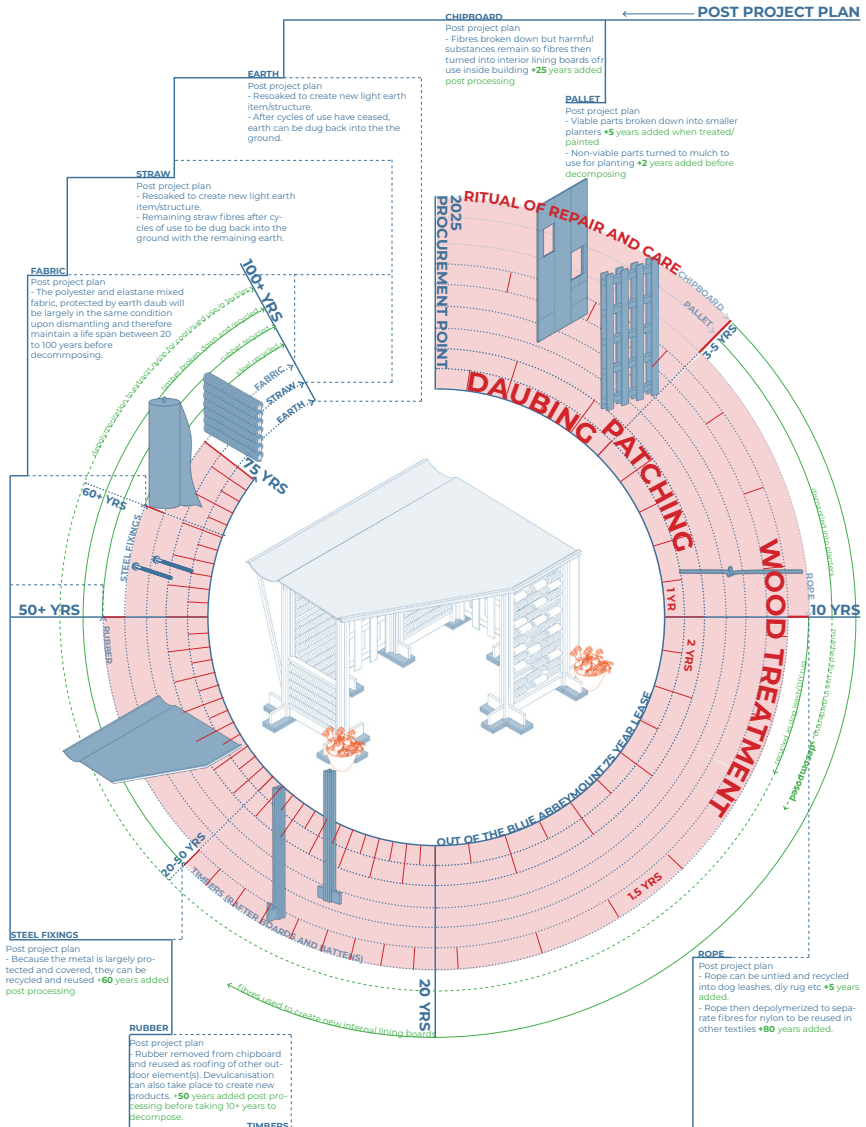
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Left. **Panel construction sequence.** Isometric.

Above. **The life-cycle of the Plaza.** Post-project plan.



Above.

**Timber footing detail.** Photograph.

Below.

**Inhabiting the Poball Plaza.** Photograph.



01:23



02:17



03:57



05:14



06:33



07:00



07:30



08:35



09:31



10:15



10:46



11:21



12:09



12:42



13:51



14:57



15:21



16:54

GRACE CARNEY + KIRAN PAMAR + SHANNON TOWNSEND | **POBALL PLAZA**





With Thanks to:

Pianodrome (Tim Vincent-Smith, Tom Nelson); EALA Impacts (Joanne McClelland, Aythan Lewes); Pitt Market (Navida Galbraith, Hal Prescott, Ewan Pennie); Elham Mousavian; EBUKI (Becky Little, Rowland Keable, Tom Morton); The ESALA Workshop Staff (Paul Charlton, Paul Diamond, Malcolm Cruickshank).

# 03

## **DARIIA**

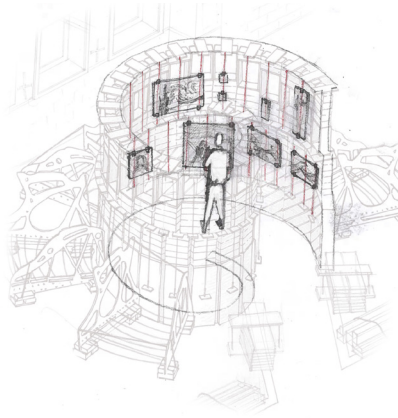
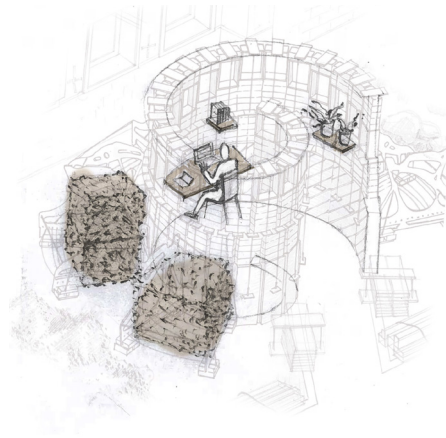
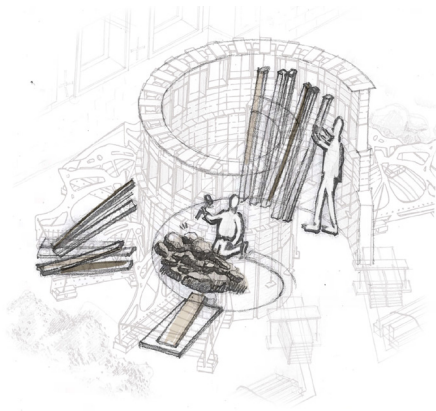
### SHAPING IN - TENSION

**NINA MOISAN  
DIANA MOROZOVA  
FINLAY STEWART**

*Dariia* is located within the 'Pitt' warehouse at 20 West Shore Road in Granton, a building constantly in flow due to fluctuations in occupancy and various local enterprises moving in and out. Due to the uncertain nature of the site, the program is left loose to some degree: a small room which could serve as storage, as an exhibition wall, as a private working space or perhaps even as a place for contemplation.

Throughout the semester, we studied storage as a model for architectural design, and for the easy assembly and disassembly of components. During an initial visit to Pianodrome, we realised that piano strings and tuning pins are the most challenging materials to reuse from discarded pianos. This informed our tectonic approach, which was geared towards the prefabrication of modules that could be post-tensioned into units and disassembled if needed. The structure consists of earth and hemp bricks formed using a handmade compressor, stacked and tensioned with piano strings secured to turnbuckles, atop a modular rammed earth base. Every tool and piece of formwork was fabricated using the parts reclaimed from the disassembly of four pianos, alongside subsoil diverted from a quarry in Cowdenbeath.





Previous. **Dariia.** Used as a study space

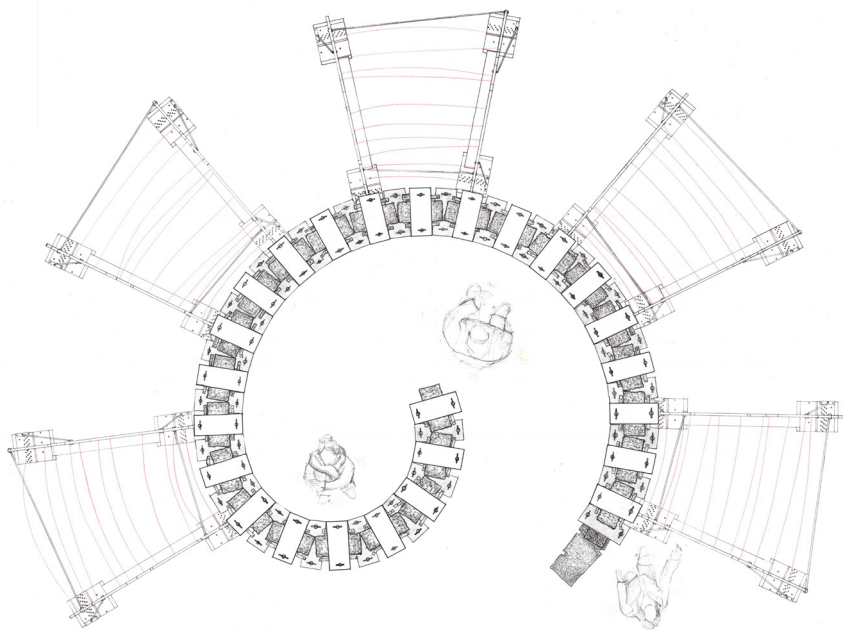
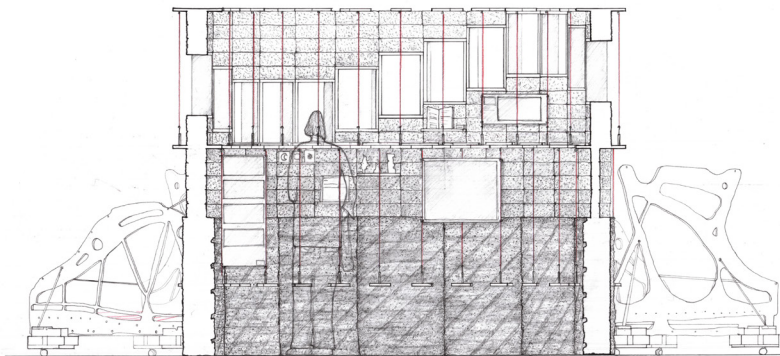
Above. **Uses of Dariia.** Design stage axonometrics.

Right above. **Dariia as storage.** Completed structure.

Right below. **Dariia as exhibition space.** Completed structure.







Above. **Draft section.** Hand-drawn, 1:10.

Below. **Draft plan.** Hand-drawn 1:10.

Right. **Testing tectonic rhythms.** 1:10 Model, made with Cowdenbeath clay.

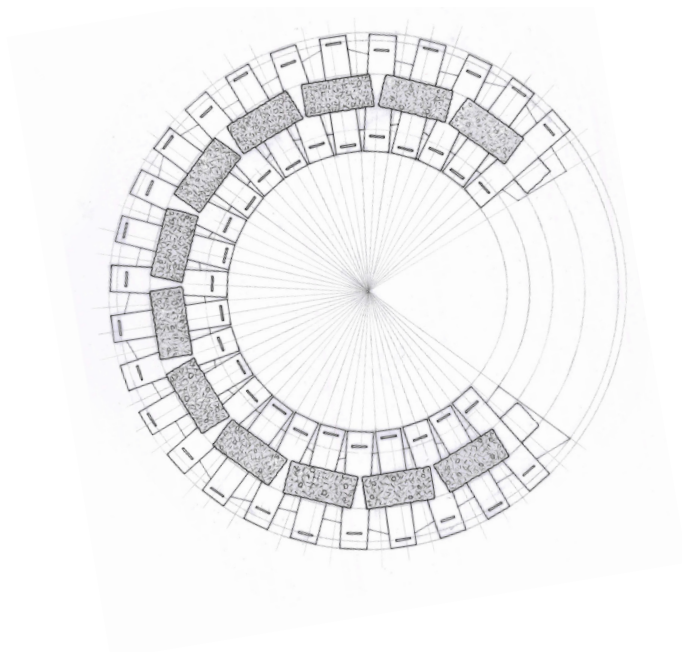
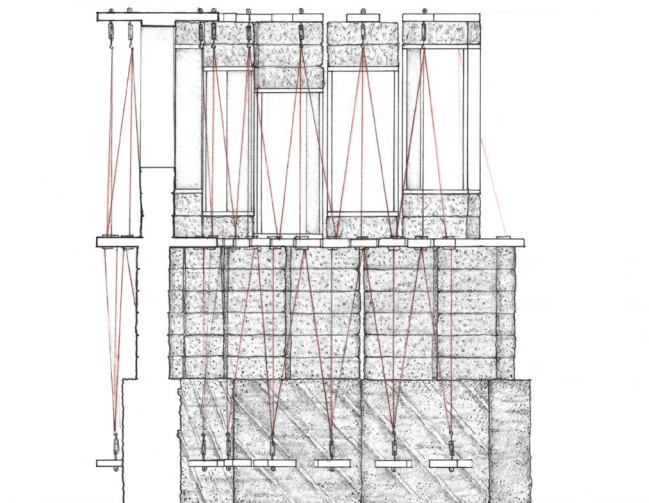




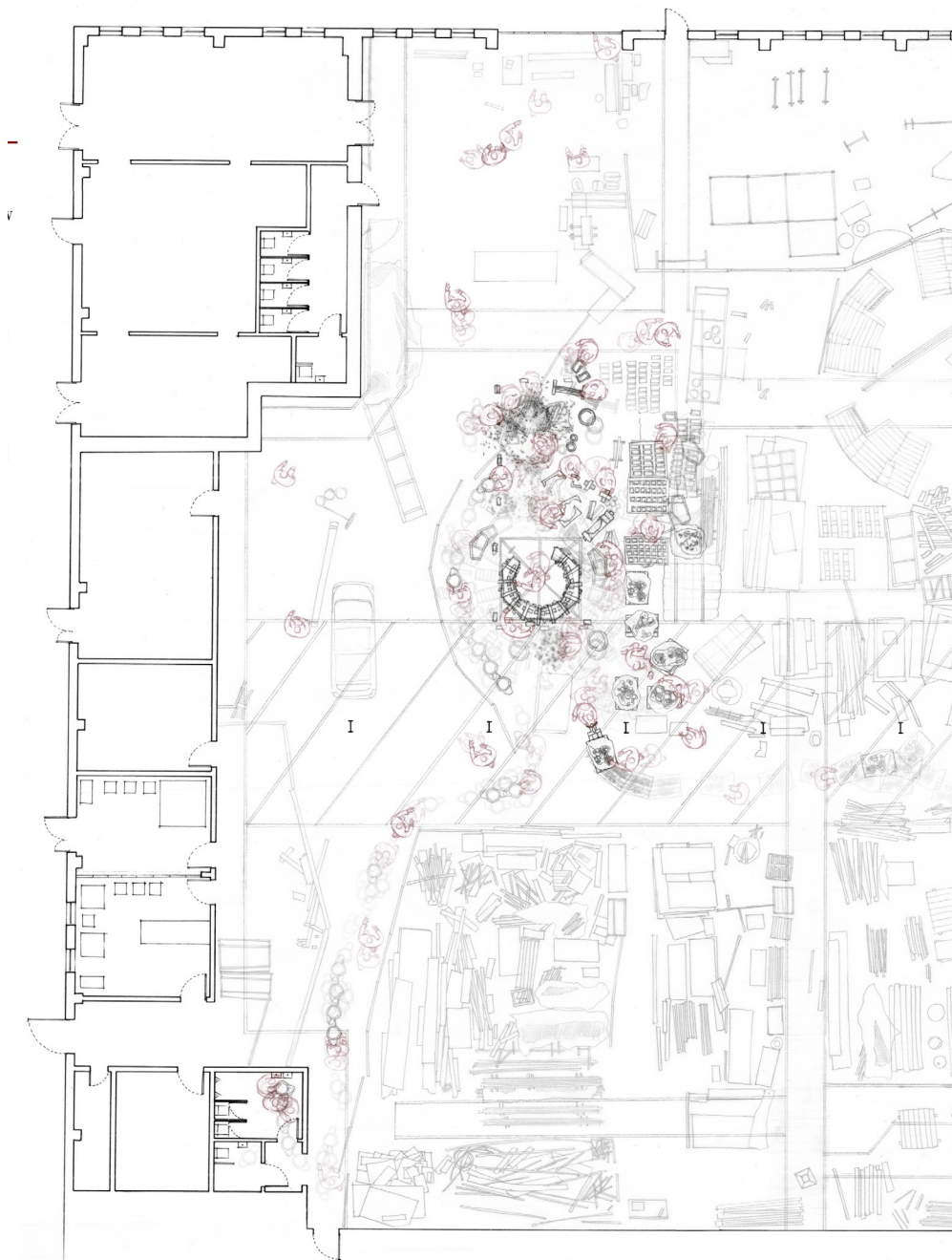
NINA MOISAN + DIANA MOROZOVA + FINLAY STEWART | **DARTIA**







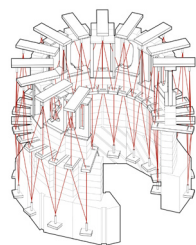
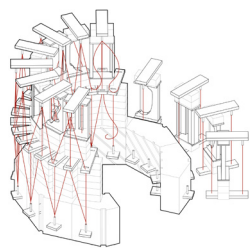
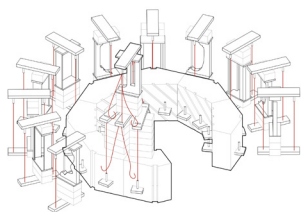
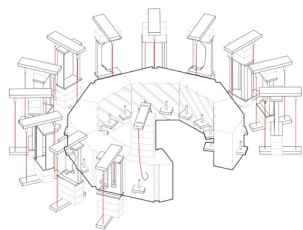
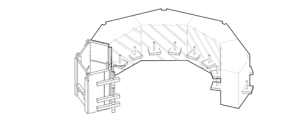
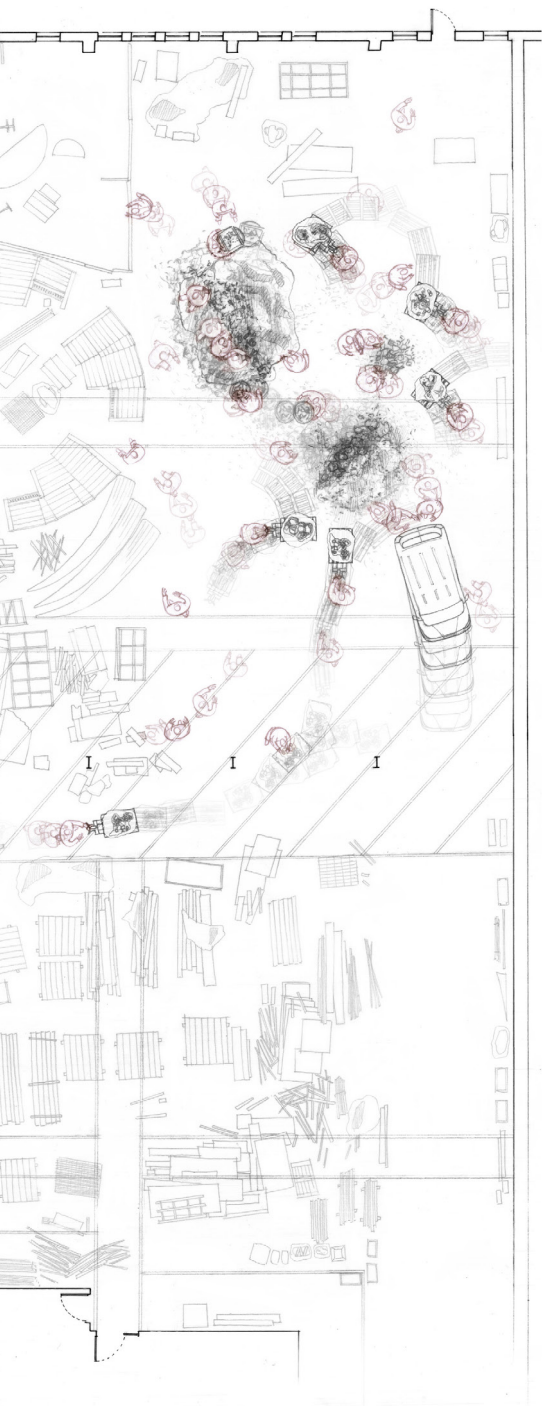
- 
- Left Above. **Tensioned bricks.** Close-up photograph.  
 Left Below. **Rammed earth base.** Close-up photograph  
 Above. **Section.** Hand-drawn, 1:10.  
 Below. **Plan.** Hand-drawn, 1:10.



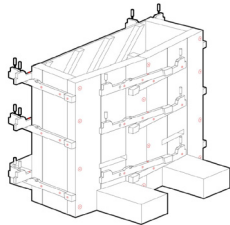
Above. **Construction processes in the warehouse.** Hand-drawn plan, 1:100.

Right. **Construction diagram.** Axonometric.

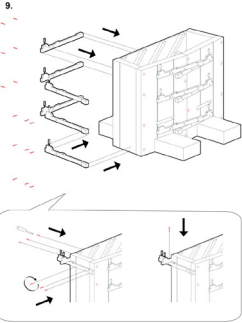
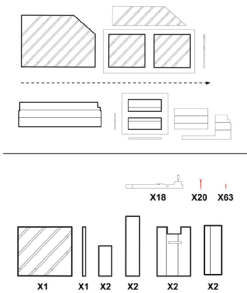




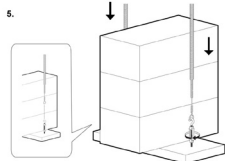
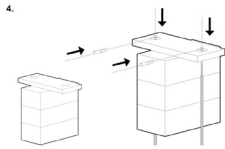
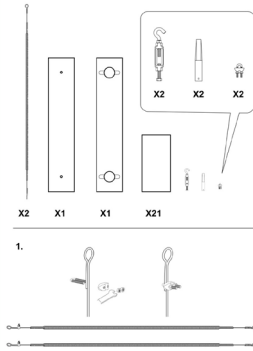
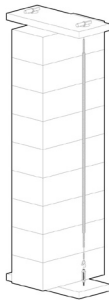
Patricia.



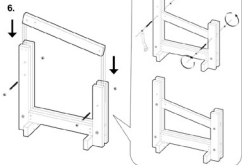
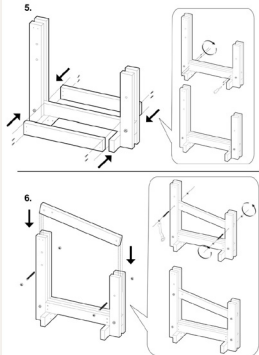
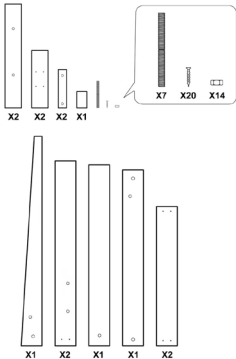
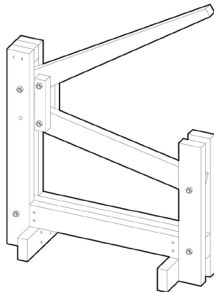
Material Processing .



Allison.



Ivan.





Left. **Project manual.**  
 Above. **Patricia.** Rammed earth base formwork.  
 Below left, **Allison.** First tension prototype.  
 Below right. **Ivan.** Earth brick compressor.





Above. **Ramming.** Process photograph.

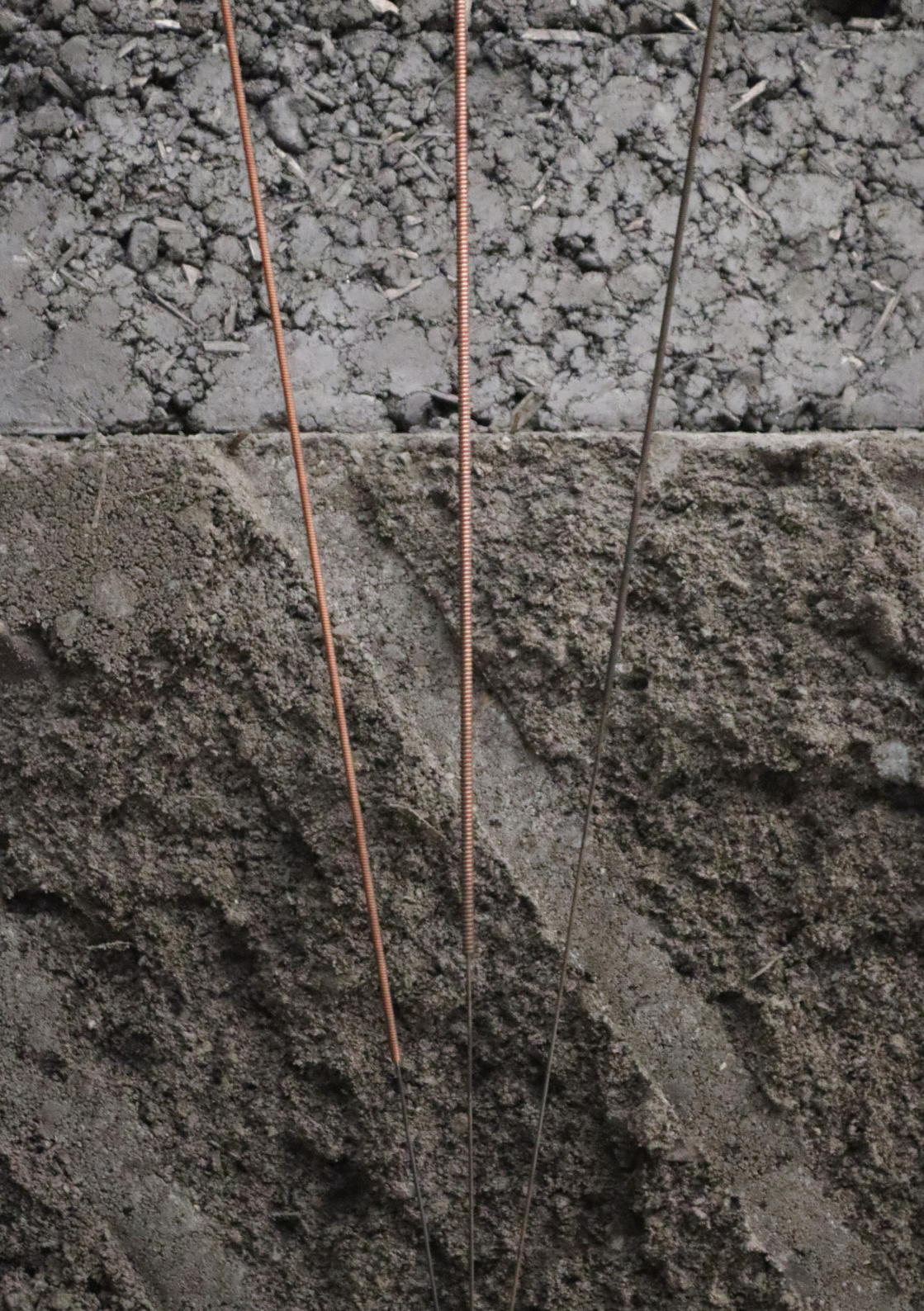
Below. **Formwork in use.** Process photograph.



Above. **Pitchfork and earth brick mix.** Process photograph.

Below. **Removal of brick from mold.** Process photograph.

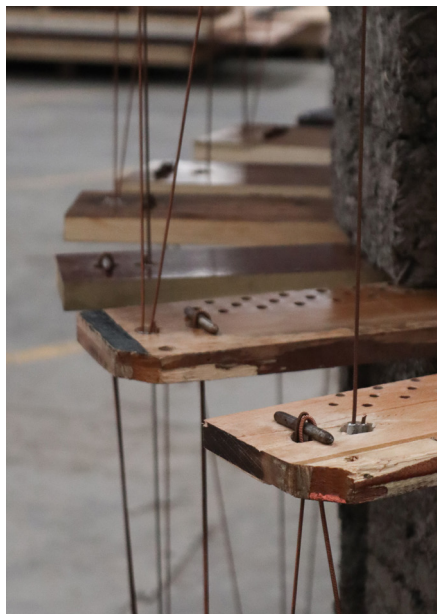








Left. **Piano strings and earth modules.** Detail.  
Right. **Complete Structure.** Detail.




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Above left. **Piano pin connection.** Detail.  
 Above right. **Turnbuckle connection.** Detail.  
 Below. **Daria used as storage.** Detail.





00:44



02:17



03:17



04:32



05:28



07:00



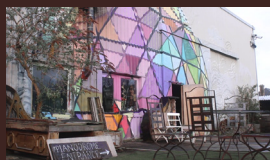
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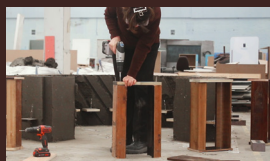
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12:06



14:32



15:19



15:38



16:08



16:12

NINA MOISAN + DIANA MOROZOVA + FINLAY STEWART | DARIIA



**DARIIA:** [https://media.ed.ac.uk/media/t/1\\_89ti7d9v](https://media.ed.ac.uk/media/t/1_89ti7d9v)



With Thanks to:

Friends of Lochend Park (Richard Wilkins); The ESALA Workshop Staff (Paul Charlton, Paul Diamond); Elham Mousavian; EBUKI (Becky Little, Tom Morton, Rowland Keable), Rachel Travers; University of Edinburgh Servitorial Services (Steve Downes, Guiseppa Agnello); Yukahiramine Dickie; Mure Dickie; John Foster; Ashwin Kulkarni; Facebook Marketplace Material Donators; Stuart Ogston; ECA Refurbishment Team (Gordon).

# 04

## BUILDING FOR THE NON-HUMAN

MHAIRI DICKIE  
DAISY FOSTER  
SIYA KULKARNI

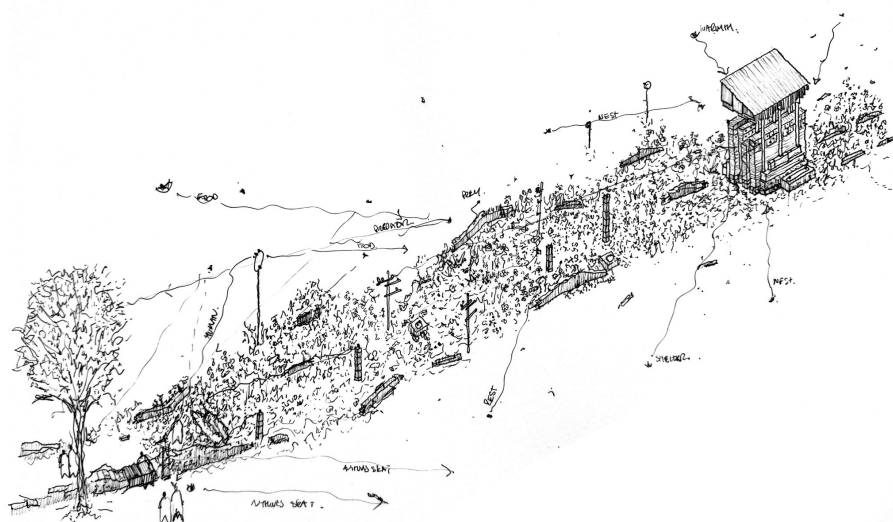
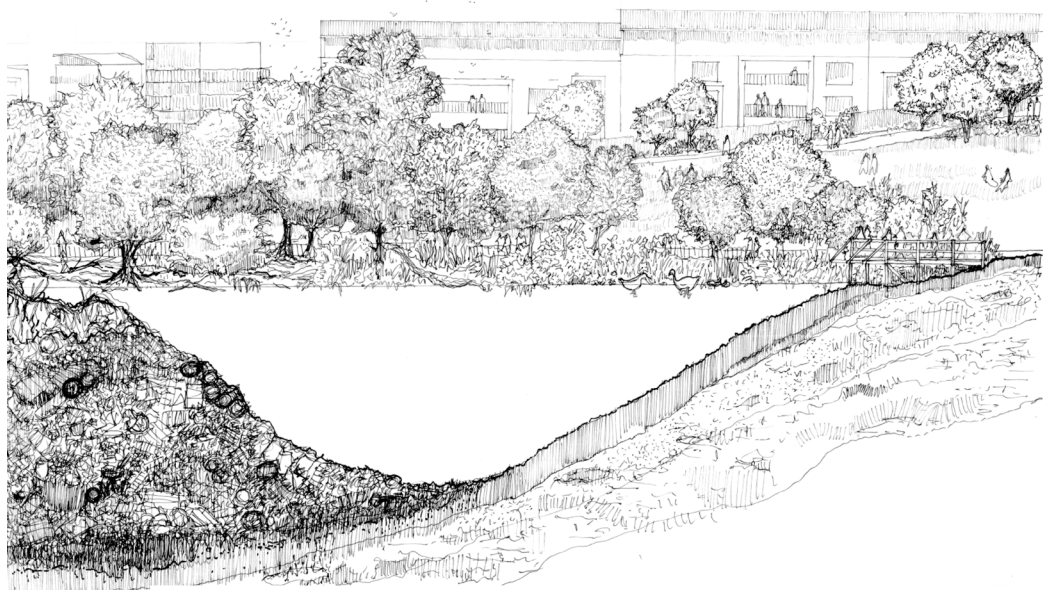
Lochend Park currently thrives as a wildlife sanctuary, yet beneath its green expanses lies a complex history—it was once a contaminated, and much neglected, landfill site. In a parallel act of revaluing and reclamation, we constructed a habitable tower for bats and birds by using rammed earth and salvaged timber, transforming overlooked resources into purposeful architecture for non-human inhabitants. The project was developed in collaboration with the Friends of Lochend Park (FoLP), a community group dedicated to the park's ecological and social revival.

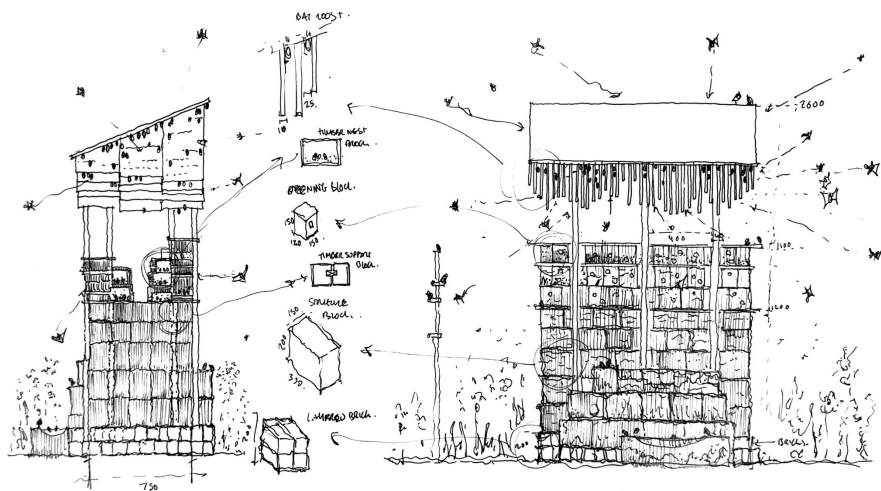
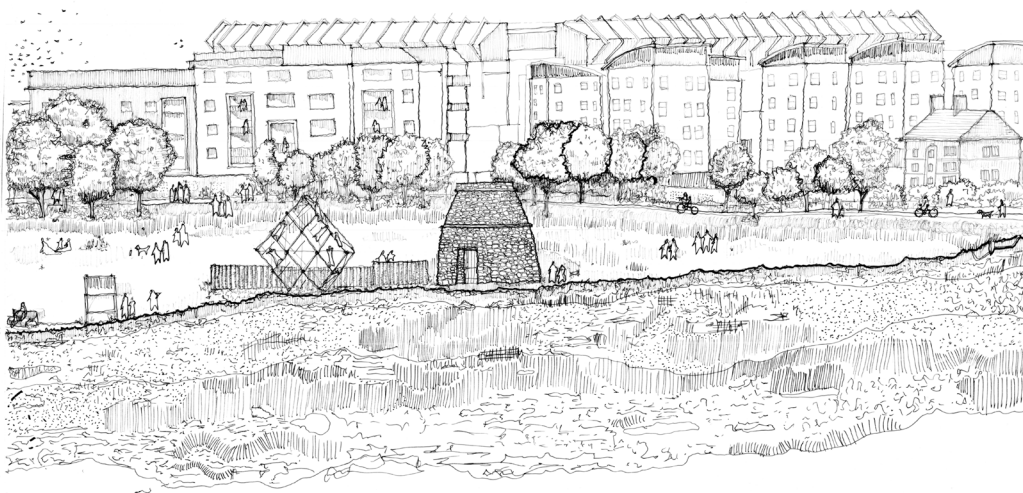
Rammed earth was deliberately chosen as a material and technology not only for its sustainable credentials, but also for its durability, to address the park's ongoing challenges with vandalism. Research on different mixes and iterative prototypes allowed us to develop prefabricated rammed-earth units that were resilient, easily transportable, and could be perforated for nonhuman habitation. A structure and roof were made from reclaimed timber and assembled with compression joints, with suspended panels curating habitats for bats. During construction, we encountered genuine community interest, with passersby engaging positively with the project's ecological ambitions.

This intervention demonstrates how architectural practice can respond to layered site histories and ecological tensions. By combining bioregenerative material strategies with wildlife-centred design, the project demonstrates that architecture can curate spaces for coexistence—ones that consider human and non-human needs equally.









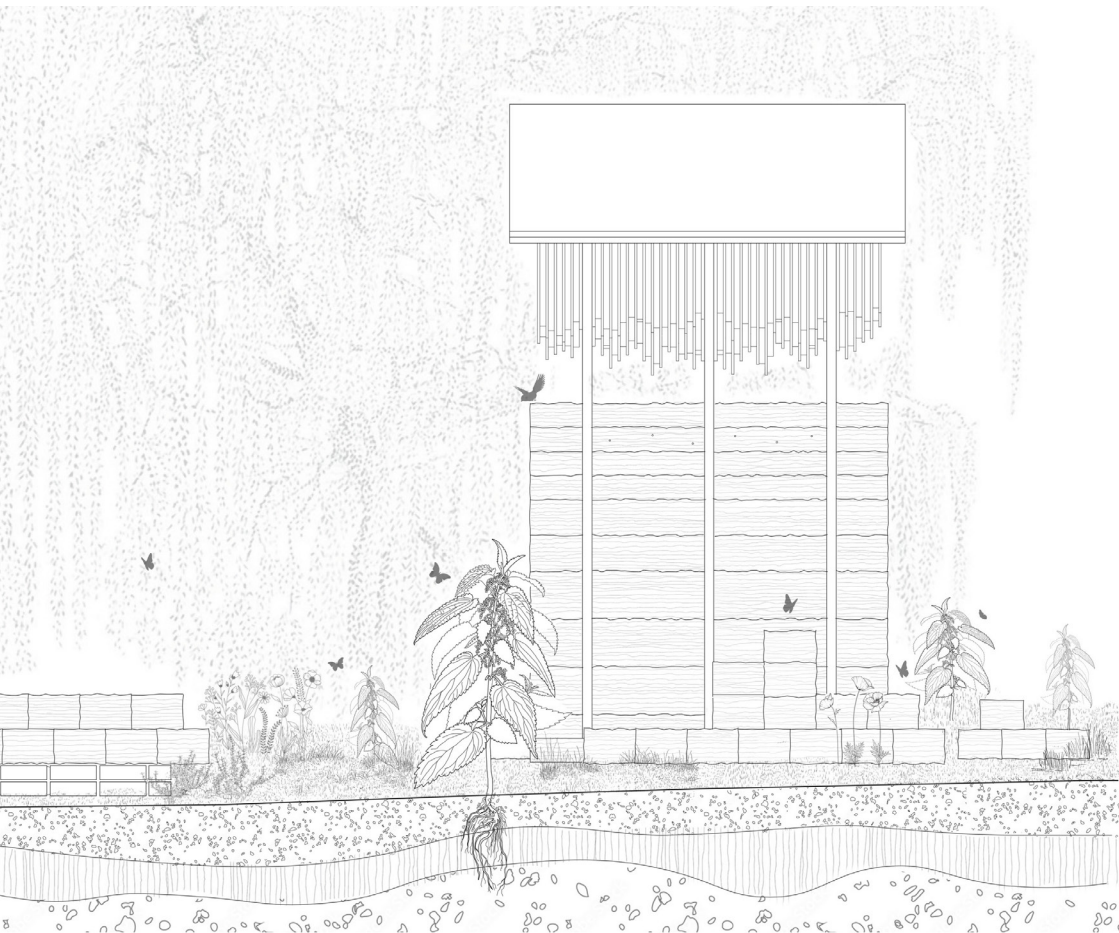
Previous. **Building for the Non-human.** Photograph of completed structure.

Above. **Historical landfill at Lochend Park.** Site section.

Left Below. **A space to observe and be observed.** Sketch.

Right Below. **Structural block types and placement**. Hand-drawn section and elevation.

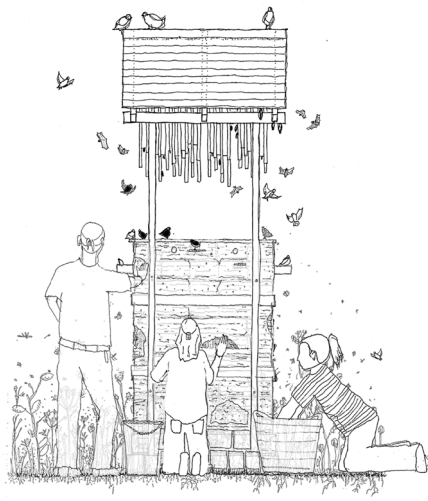
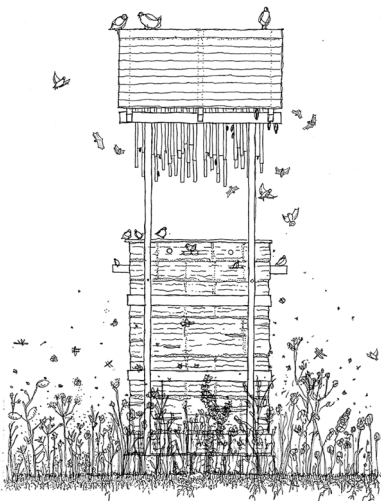
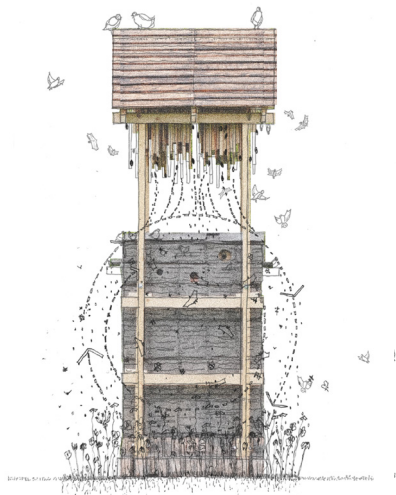
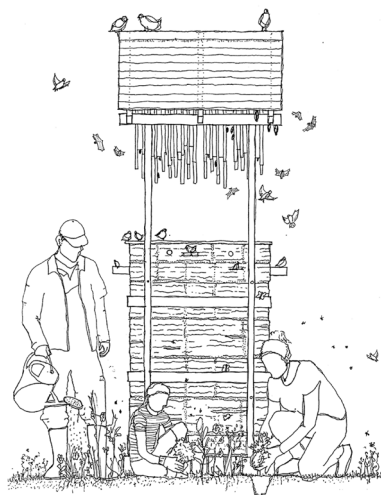






Above. **Concept stage.** Model, 1:20.  
 Left Below. **Elevation of final design concept.**  
 Right Below. **Timber structure and joinery.** 1:1 Prototype.

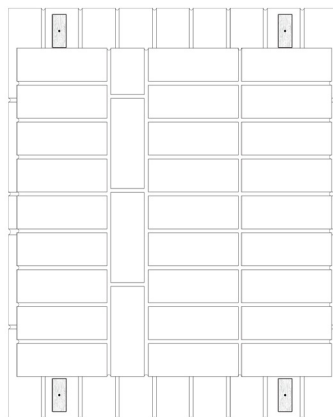
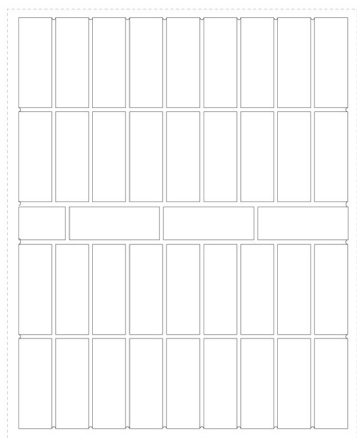
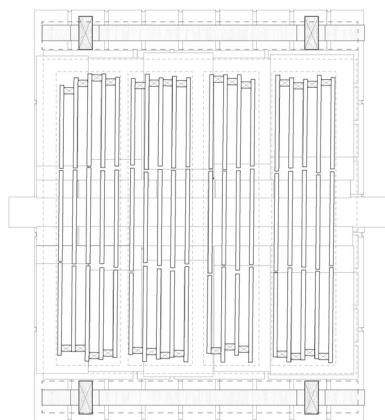
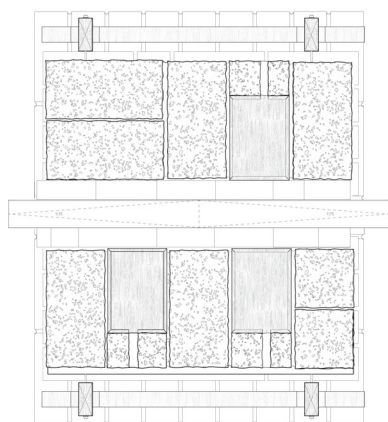




Above. **Guano cycle.** Hand-drawn elevations.

Right. **Bat flaps.** Detail.



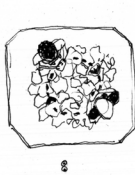
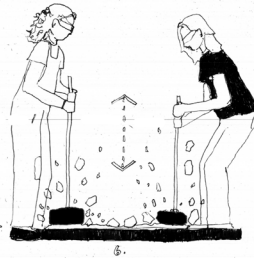
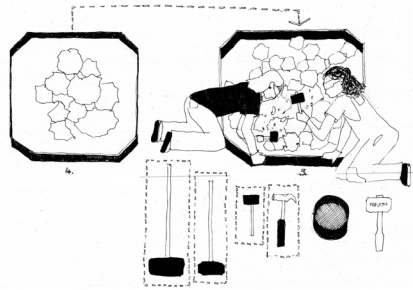
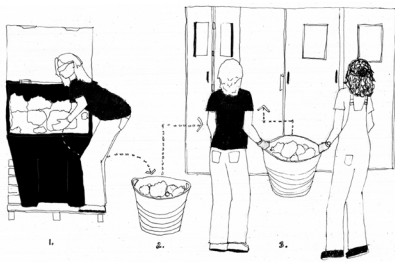


Above. **Plans at various elevations.**

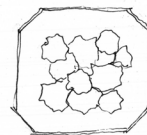
Right. **Roof joinery.** Detail.

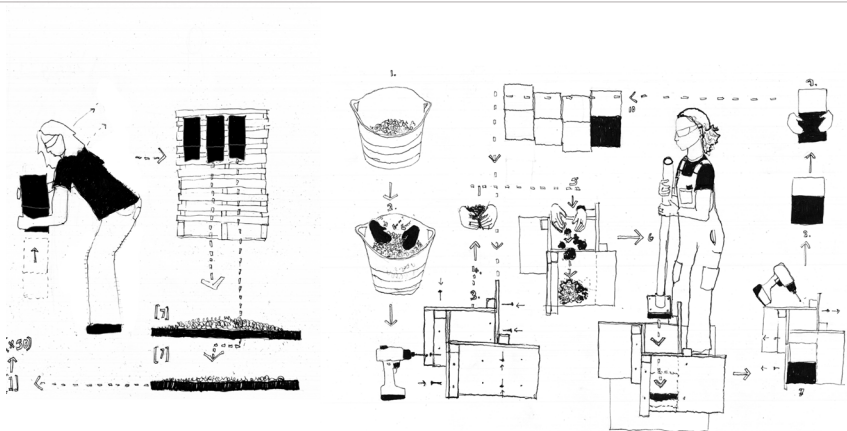
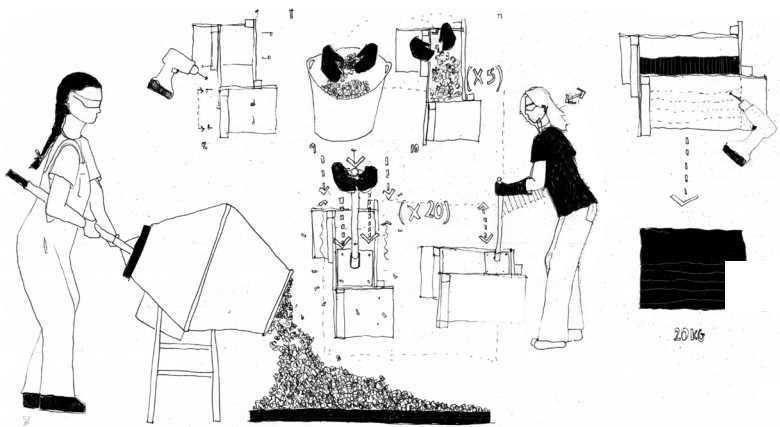
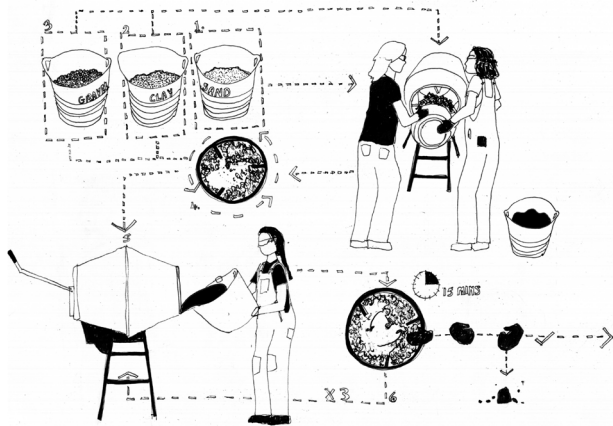




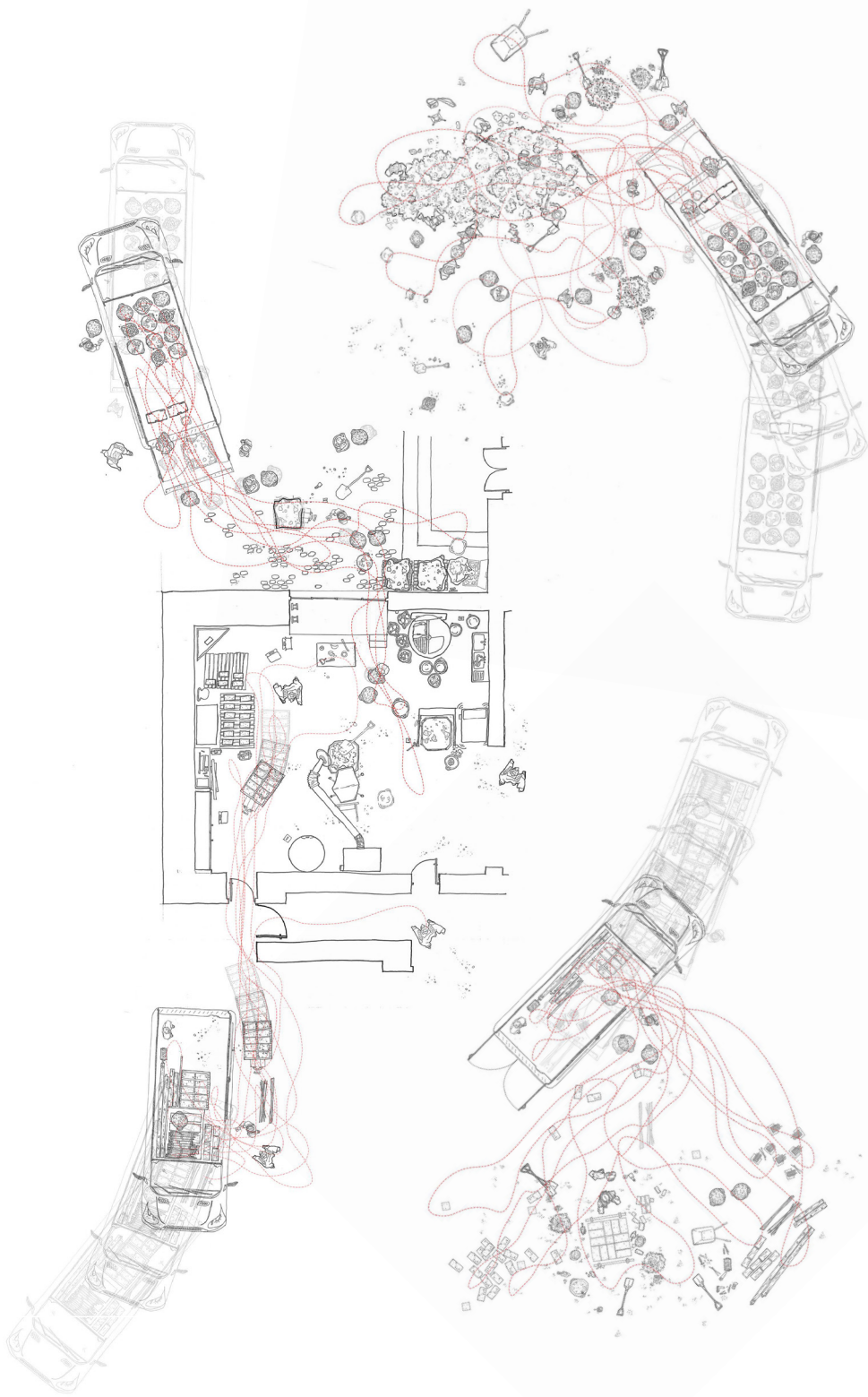


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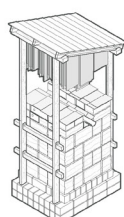
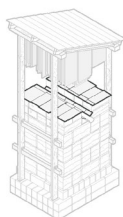
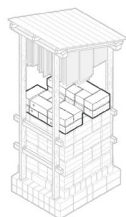
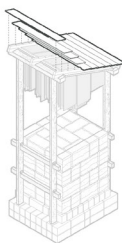
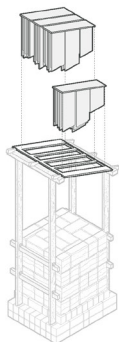
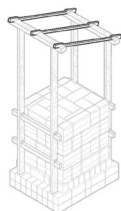
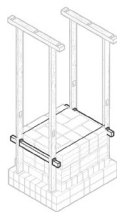
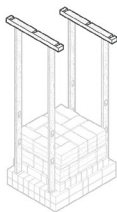
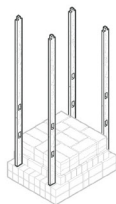
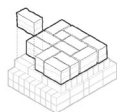
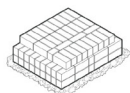








Left. **Movement of materials, people and tools.** Diagram.  
 Above. **Harvesting earth and sand.** Photograph.  
 Below. **Earth mix.** Photograph.

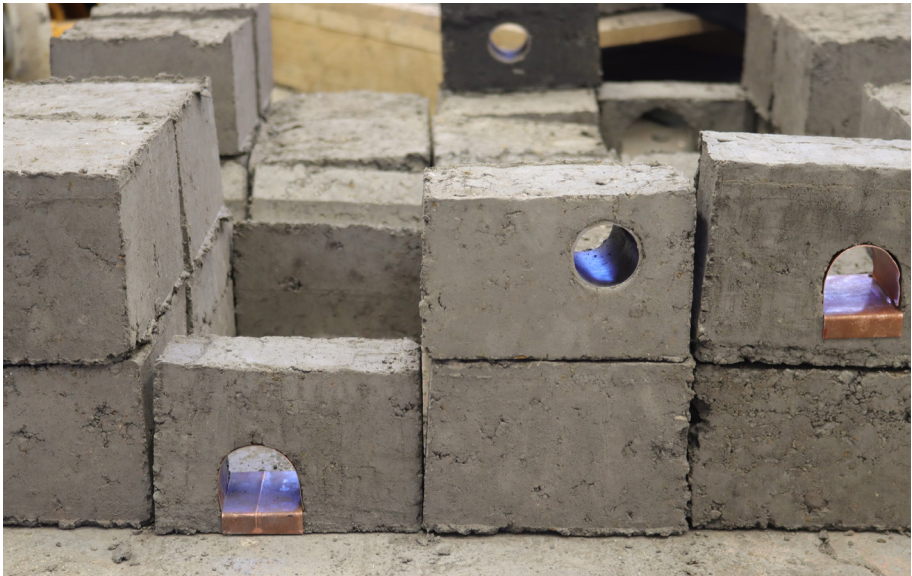


Above. **Construction diagram.** Axonometric.  
 Right. **Non-human habitation block.** Detail.









Above Left. **View of completed structure.** Photograph.

Above Right. **Detail of brick base.** Detail.

Below. **Block drying.** Photograph of prefabricated rammed-earth modules.



00:04



00:25



03:46



05:00



06:55



10:01



07:30



11:29



14:17



16:26



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20:15



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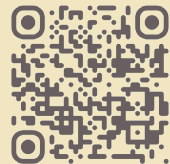


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MHAIRI DICKIE + DAISY FOSTER + SIYA KULKARNI | BUILDING FOR THE NON-HUMAN



BUILDING FOR THE NON-HUMAN: [https://media.ed.ac.uk/media/t/1\\_53g1iekn](https://media.ed.ac.uk/media/t/1_53g1iekn)



With Thanks to:

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# 05

## ON SACRED GROUND

OLLIE HOWELL  
JAAZIEL KAJOBA  
JOSEPH SIMMS

*On Sacred Ground* answers the need for seating and gathering spaces within the grounds of St Mary's Episcopal Cathedral. A cathedral is a powerful infrastructure for ritual and memorialisation.

Who is remembered in these spaces? Positioned as a celebration and reminder of the abundant biodiversity around us in Scotland, these small structures are pre-emptive memorials to the beings yet to be lost.

Across Scotland, we have identified five key habitats at risk due to climate change: Woodland, Marine, Fresh Water, Moorland and Mountain. Each habitat is memorialised by a corresponding bench and waymark pair. Inscribed into each bench are the names of the species that reside in the given habitat—remembered through the act of casting their names in earth. Each bench faces a waymark, orientating visitors towards the habitat these beings reside in. The Waymarks form a set of playful furniture pieces that prompt novel interactions, both with distant landscapes at risk and with the grounds of the cathedral. Each habitat is celebrated through gothic ornamentation drawn directly from the cathedral and altered to represent the species found within them, combining prefabricated mud blocks with digital technologies such as 3D scanning and printing. Together, these five benches and waymarks form a dial for relating, and paying attention to, these Scottish landscapes and the nonhumans that call them home—a space to gather, to contemplate, and to remember.



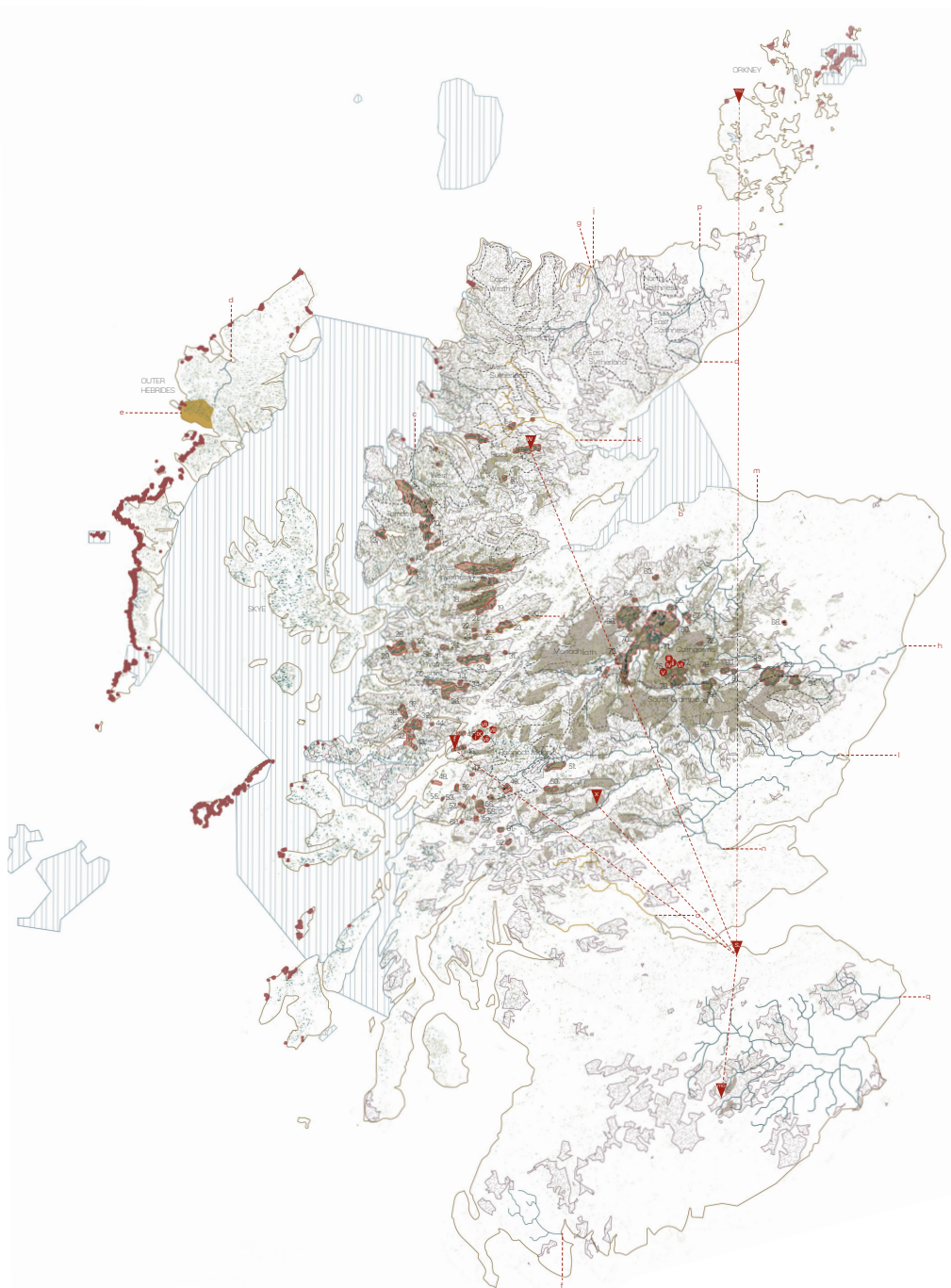




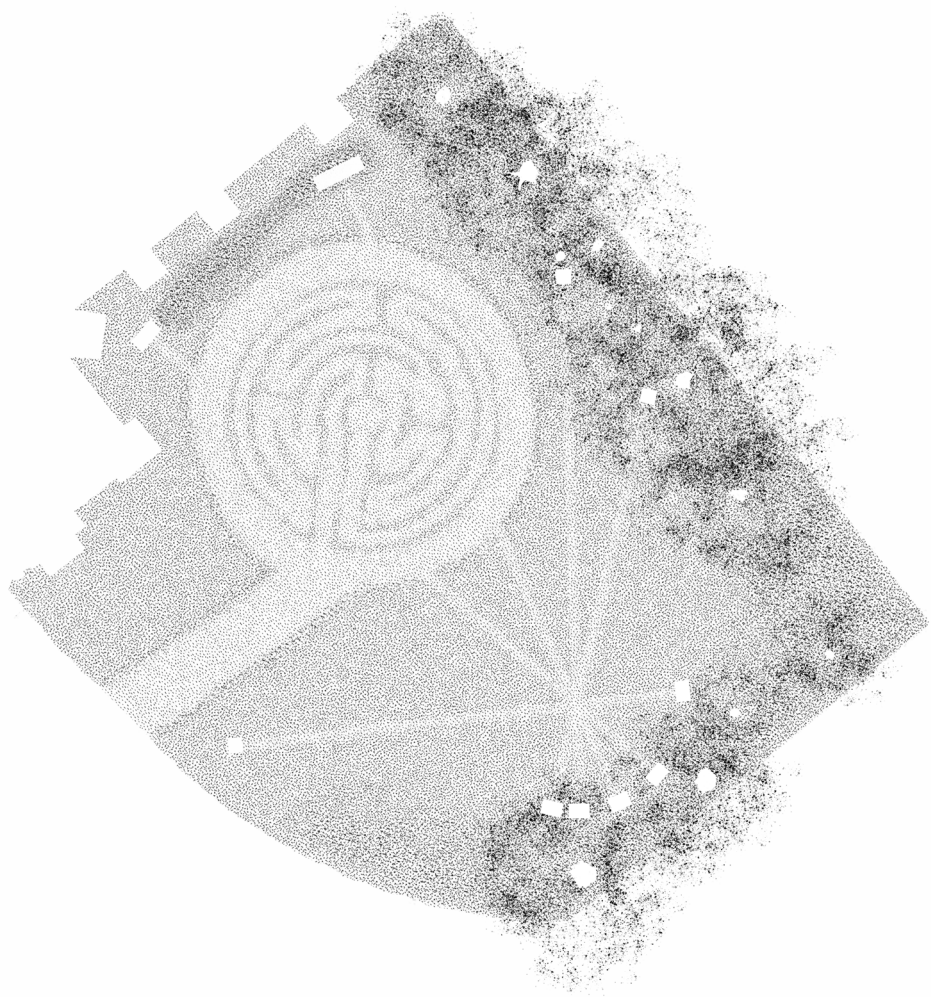




- Previous **Marine waymark.** Photograph of completed structure.  
 Left. **Marine memorial bench.** Detail.  
 Above. **Workshop with *Ring Out*.**  
 Below. **Block making at workshop.**

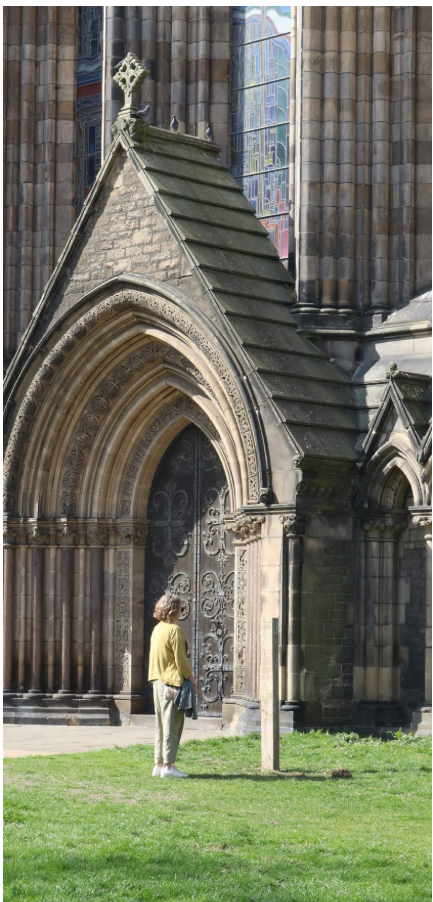






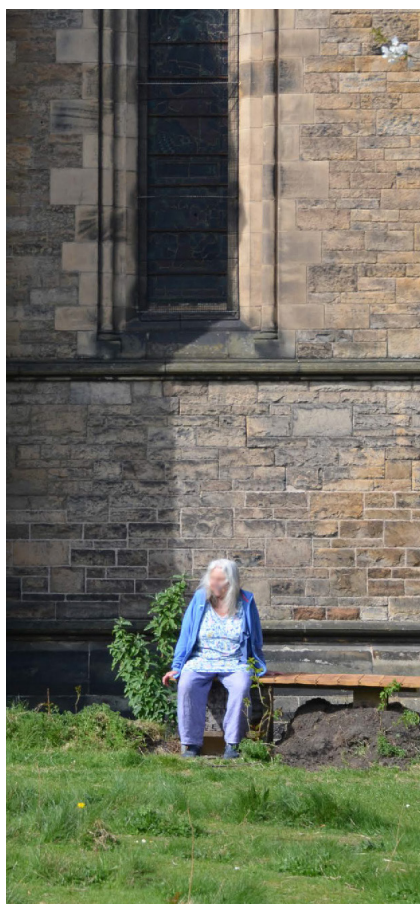
Left. **Species and habitats at risk in Scotland.** Map.  
 Above. **On Sacred Ground.** Final plan.





Left.  
 Right.

**Freshwater waymark.**  
***On Sacred Ground* sign.**

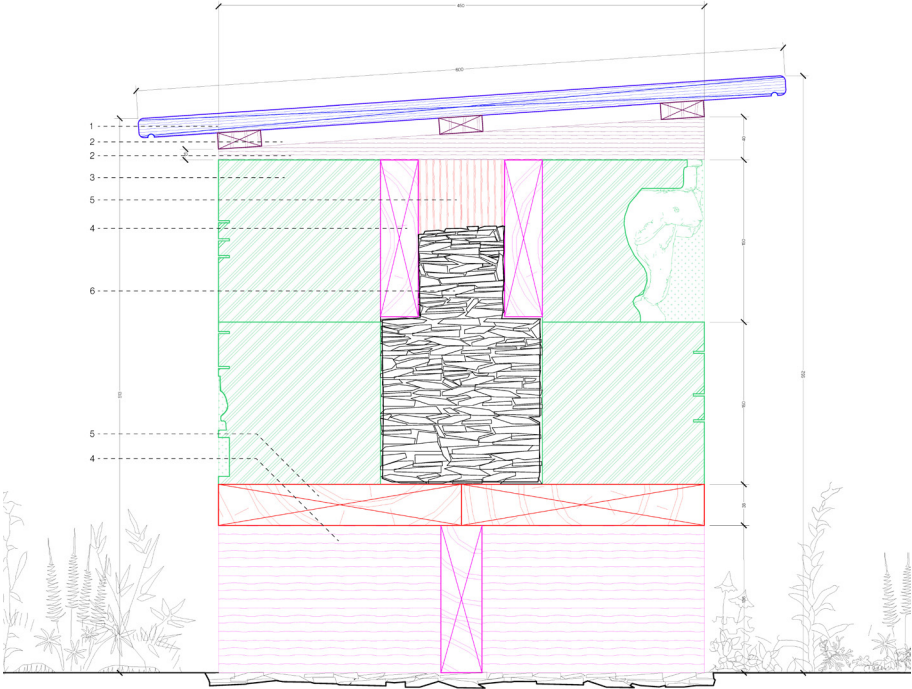


Left.  
Right.

**Mountain waymark.**  
**Woodland waymark.**



- Earth
- Scaffold
- CLS
- Batten
- Floorboard





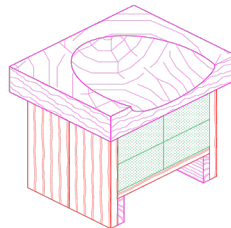
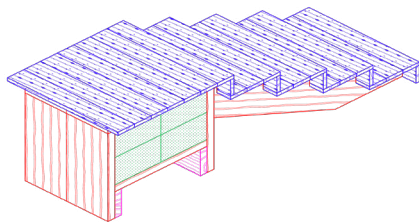
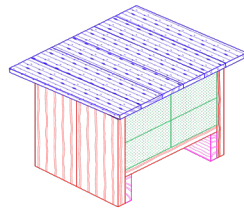
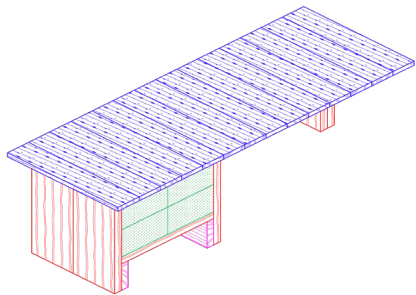
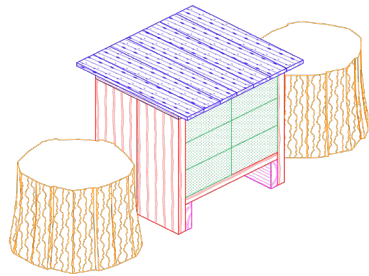
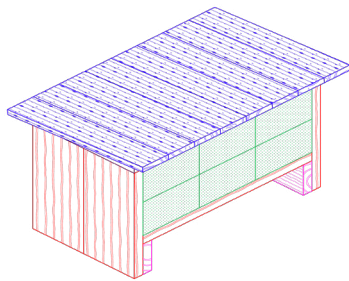


Left Above. **Typical bench.** Detail section.  
Left Below. **Marine memorial bench.** Detail.  
Above. **Completed structure.** Photograph of benches.









Left Above **A Liturgy for benches**  
 Left Below. **Main benches around dial.**  
 Above. **Bench and waymark typologies.** Axonometrics.



Above. **Memorialising species at risk.** Gothic-inspired clay sculptures.

Below. **Marine waymark.** Detail.

Right. **Marine waymark.** Photograph of completed structure.









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Above. **Lettering arrangement.** Process photograph.

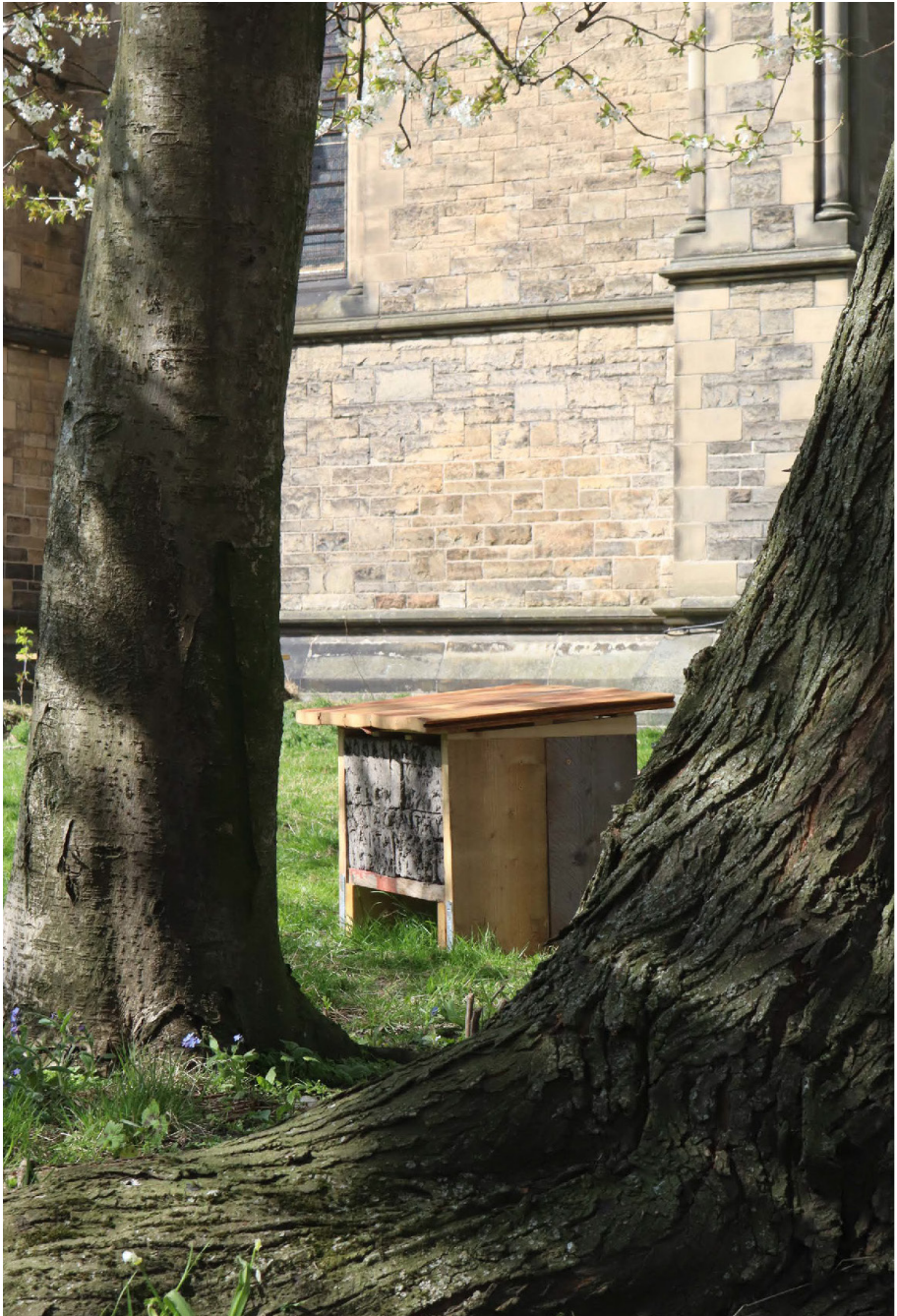
Below. **Laying the foundation.** Process photograph.





Above. **Application of mortar.** Process photograph.

Below. **Fixing joists.** Process photograph.



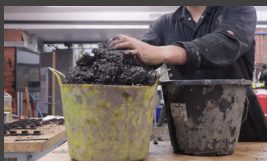
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Above. **Moorland waymark.** Photograph of completed structure.





04:42



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05:35



05:46



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07:43



08:11



08:30



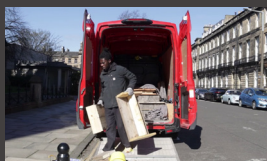
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16:44

OLLIE HOWELL + JAAZIEL KAJOBA + JOSEPH SIMMS | ON SACRED GROUND



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# IMAGE REFERENCES

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Archaeology museum Dehlingen, NUNC architects. Precedent study model, 1:20. Joseph Simms.



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KEEP SOLIDS OUT OF SINKS  
NO ACID  
NO CLAY  
NO SAND  
NO CONCRETE  
NO PLASTER

WASH TOOLS AND  
HANDS IN A BUCKET,  
AWAY FROM SINK. DIRTY  
WATER MUST BE  
THROWN INTO SKIP

DISPOSABLE  
GLOVES

Fin

Kiran

Shan

Testing subsoils and water ratios. EBUK workshop.





# ESALA



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