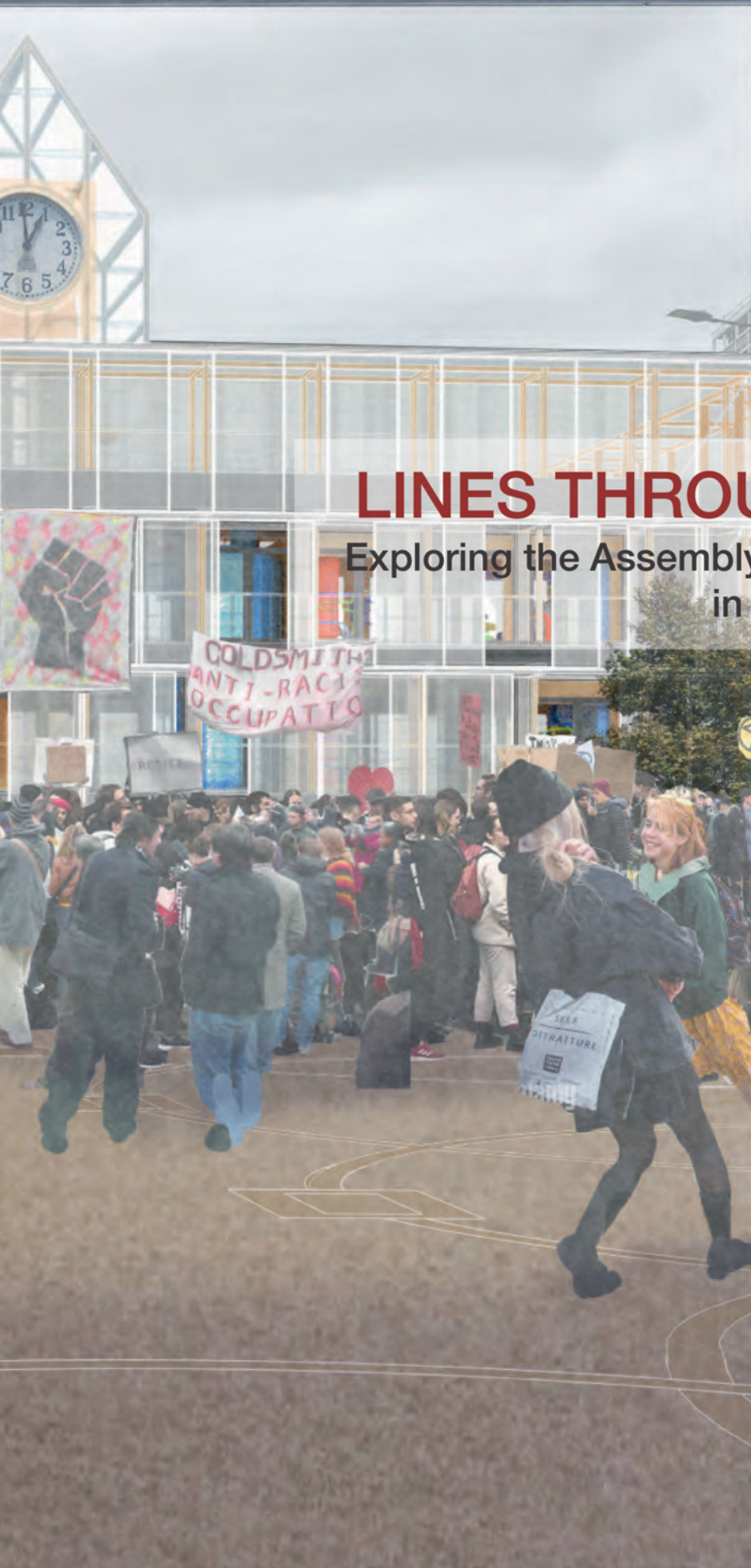


LINES THROUGH THE CITY

Exploring the Assembly of Social Infrastructure
in Loughborough Junction



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March 2023

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Athens, Greece

Sirius Training, Inter Alia

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The Architecture of Rapid Change and Scarce Resources (ARCSR) is a studio-based, teaching and research area within the practice and academic discipline of architecture. It examines and extends knowledge of the physical and cultural influences on the built environment, focusing on situations where resources are scarce and where both culture and technology are in a state of rapid change.

Suspicious of the tendency of strategic and large-scale policy planning to distil out rich but fragile local interactions, the studio encourages students to work outwards from the observed fragment of lived experience. ARCSR aims to explore how the urban landscape is inhabited, made and remade through personal and collective acts, events, memories and experiences; attempting to cut through the surface to expose the undercurrent of silent issues that constitute the everyday.

Since 2006 the School of Art, Architecture and Design at London Metropolitan University has been offering studio modules for its 2nd, 3rd, 4th and 5th year architecture students in this research area which have involved direct, on the ground, cultural and physical surveys of marginal urban settlements in India, Kosovo, Sierra Leone, Nepal, Athens and London. Latterly MA by Project and PhD by Project courses have also been run in this research area. Study is by project and has included live projects involving the construction of a number of schools and water and sanitation projects.

In considering how to recognize and envision the social dimensions of public space, design potentially engages with the formalized shapes and textures of place and with how local capacities are actively incorporated in the making and maintenance of public space.

Suzanne Hall, 2014

Never demolish. Transformation is the opportunity of doing more and better with what is already existing. The demolishing is a decision of easiness and short term. It is a waste of many things — a waste of energy, a waste of material, and a waste of history. Moreover, it has a very negative social impact. For us, it is an act of violence.

Lacaton and Vassal, winners of Pritzker Prize, 2021

Introduction

Social themes: Civic Engagement; Reclaiming the City;

Co-production; inserting social infrastructure

Formal themes: Borders, Boundaries, (Green) Lines, Thresholds, Edgelands

Material themes: Re-cycling and re-use of existing buildings, materials and physical topography; loose-fit, on-site, timber and stabilised earth-based construction

This year, Unit 6 students sought to assemble a piece of social infrastructure on sites at Loughborough Junction along a railway line which cuts through the city from Brixton to Peckham and beyond.

We started the year by introducing students to Unit 6's working methods during a field trip to the Centre for Alternative Technology (CAT) in Wales. We encouraged them to find new ways of representing their ideas, foster cooperation between fellow students and provoke new ways of looking, imagining and representing.

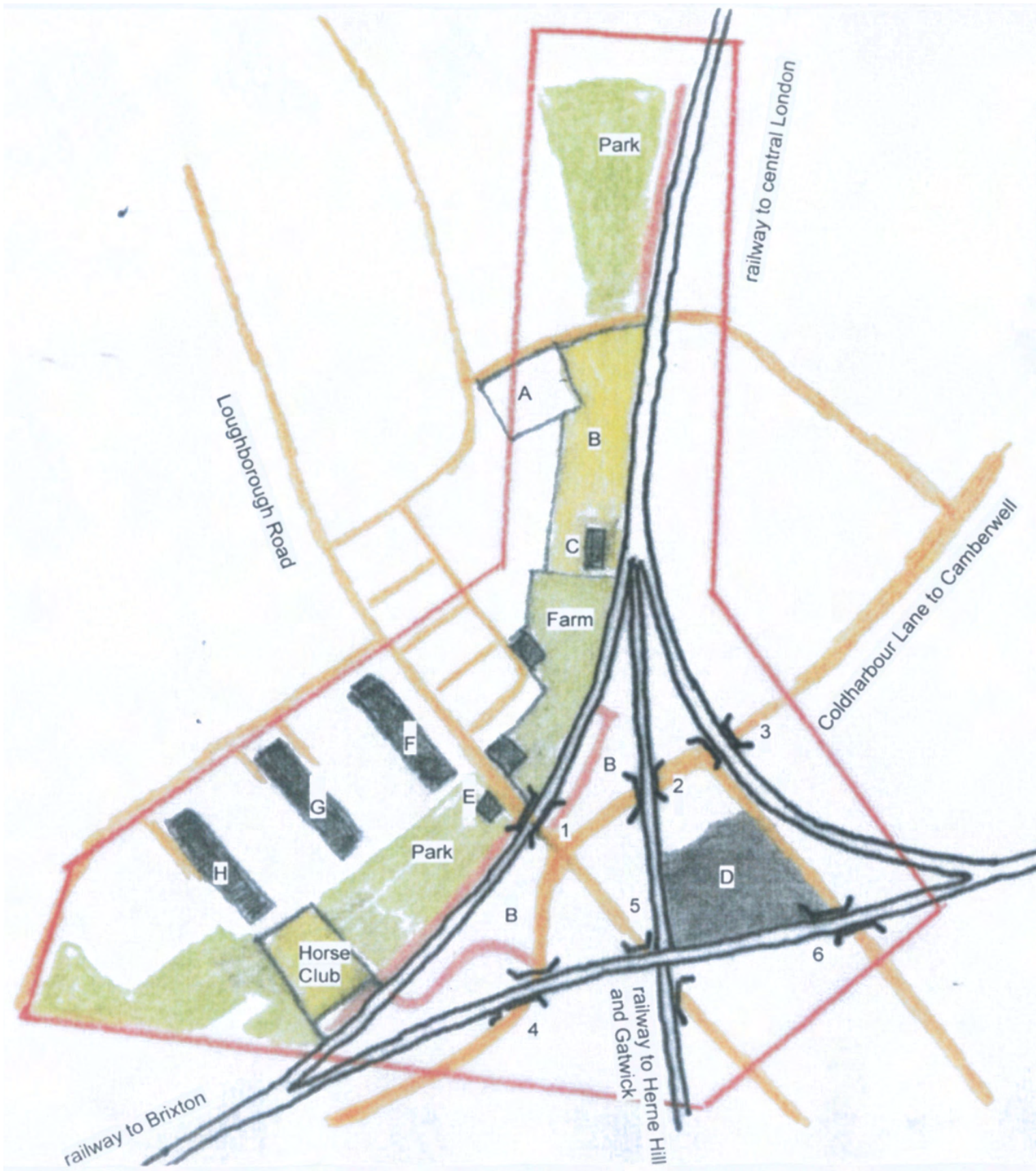
Three final (5th) year students chose to continue the unit's ongoing relationship with the setting of Belmonte in the Calabria region of Southern Italy.

Survey; precedent; narrative brief; design idea

Students, acting as architectural detectives, used the following techniques to create a narrative brief for their proposals:

1.0 Site Survey

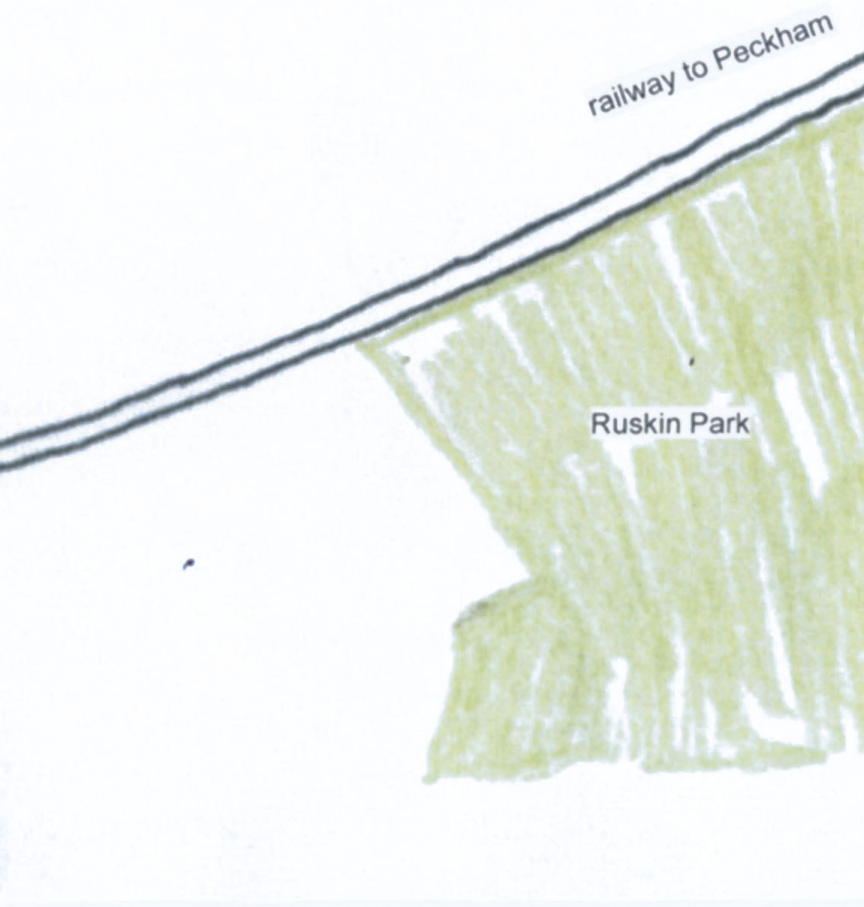
Survey of the area of investigation; identification of the physical context (as you interpret it perhaps through a memory map) and the people and things that give identity to the places. Identifying and naming the building forms (e.g. courtyard, backyard, tunnel, stair, hall, shed, domino frame), each built with a limited number of named materials (e.g. brick, steel, concrete). Production of an Interpretative Map of a part of the area of investigation. Identification of a building which could be adapted and adjusted to fit a new use. Sketching, measuring up and drawing to scale this building. Developing an understanding of how this building has been constructed and developing familiarity with the materials used and its spatial qualities. Identifying and recording the original intended use and whether this has been either abandoned and replaced or significantly modified as a response to material or social changes.



Above
Loughborough Junction area of investigation - the red line surrounds the area of investigation (Maurice Mitchell)

Loughborough Junction

Red Polygon	Area of Investigation
A	Adventure Playground
B	Scrap Yards and Mechanics
C	Large compelling redundant building
D	Site for new tower block
E	Platform Cafe
F, G + H	Large Council Slab Blocks
1, 2, 3, 4, 5, 6,	Rail bridges over roads



2.00 Precedent Study

Exploration (mapping and sketching) - Individual exploration, on foot and cycle, the south London setting outlined along the line of the railway. Choice of a building along this route which has had significant alteration and adjustment to its original form. Sketching the context and experience of this context to develop the mood and feel. Measuring up and photographing this building to understand its construction and how it has been altered. Production of a set of drawings at various scales (1:200, 1:50 & 1:20) in parts, to show how this alteration was achieved: how it was before and how it was after the change.

Unit visit to the Centre for Alternative Technology (CAT), Wales - Sketching, measuring up and drawing to scale an existing experimental building chosen from those at CAT, with a view to using similar technologies on the south London site. Practicing hands-on construction using the materials of construction of the chosen building at CAT. Recording this process.

3.00 Development of a Narrative Brief

Conversations with at least 3 people in the setting (area of investigation) to understand how they work and live and how they and their families might occupy all or part of the site. Taking care to triangulate by speaking to people who are different to yourself in age, background and experience. Identification of and conversation with a local community organisation who might help with access to the situation and the setting and moderate the conversations with local residents. Refer to Loughborough Junction Masterplan 2015, which is a description of the situation in the setting in 2015/16, for an overview of the competing interests and demands and the Local Authority intentions. Collecting ideas and producing an individual narrative brief for your site, matching the needs and aspirations of the residents, and your imagination of what is possible with the affordance provided by the existing materials and topography, resident skills and other available resources.

4.00 Representation of first Design Idea

Applying your narrative brief to make individual preliminary sketch proposals for change in the area of investigation at both the building and neighbourhood scales. An indication of the type of social of infrastructure envisaged would include: a library, studios, workshops, community kitchen, textile hub, urban farm. Changes to the built fabric should re-validate and re-purpose existing buildings.

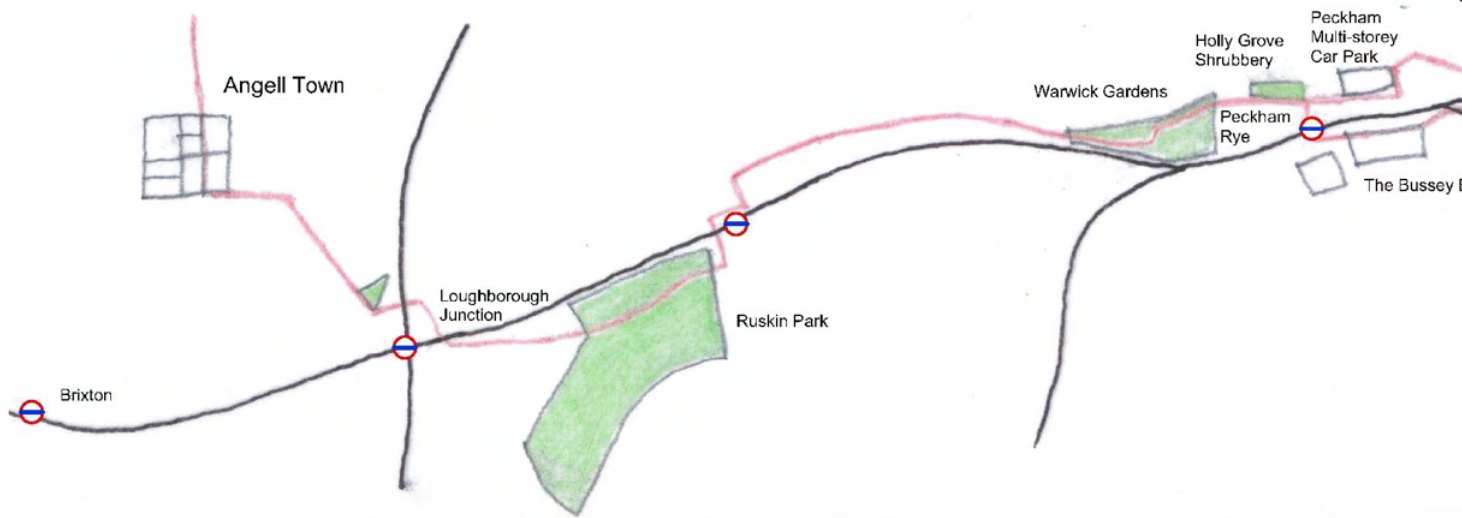
Crafting a Performance: Fitting Fabric and Form to Site and Inhabitation

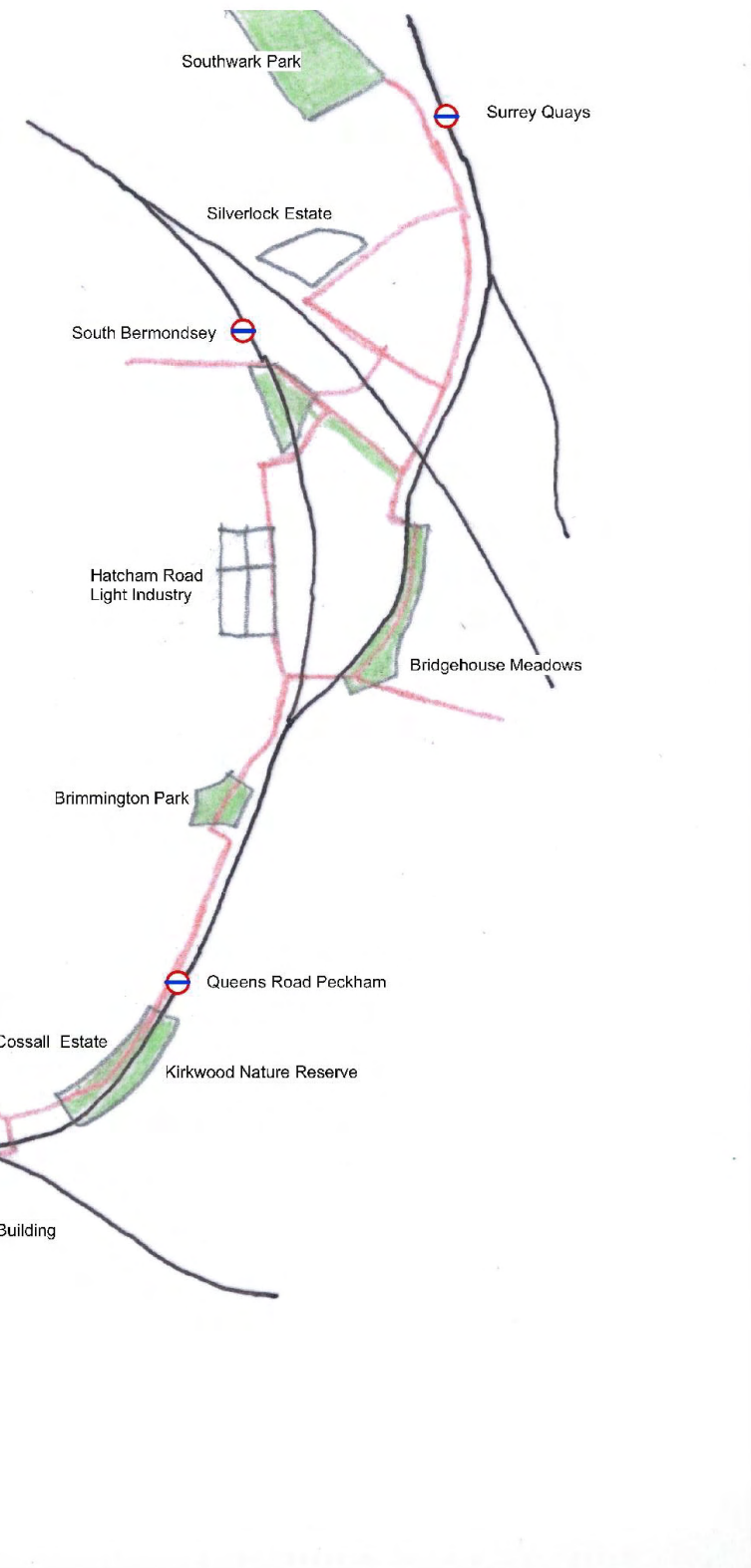
Student portfolio schemes were then presented as a performance. Working within the design ideas prepared, students proceeded to draw up a proposal to insert a new/re-conditioned building assembly to house a piece of social infrastructure within their chosen sites in the repurposed landscape topography.

5.00 Design Development

Development of individual schemes focusing on a particular building scale, assembly in context. This building assembly is likely to be an adaptation and/or adjustment of the existing built fabric plus a new extension, or be wholly new but fitting in with the ambition of the intentions developed in the first semester. Support through studio activities in Modelling Month.

Walking and Cycling (RED) routes along the Overground (BLACK) Railway
Connecting a string of green pearls
Separating neighbourhoods





6.00 Design Intervention

The fabric of the proposals should be an adaptation of the sustainable/green approach observed at CAT and the techniques of re-use observed and studied in term 1. Drawings, models and photographs for insertion in your portfolio should record your experience of place through measuring, narrative encounters and exploratory adventures as practiced in term 1. Individually your way of drawing should be consciously developed and crafted so that your technique and skill improves and becomes increasingly personalised with each successive drawing throughout the year.

As with other areas of investigation initiated by the ARCSR research area, these studies will be carried out with optimism, in the hope and expectation that the creative interplay between the energy of the students and the residents' ongoing act of dwelling will generate a valuable and meaningful architectural discourse around engagement with the opportunities and responsibilities available within civic topography.

Bo Tang & Maurice Mitchell
December 2022



A Way of Building Short Course

<https://cat.org.uk/events/a-way-of-building-using-locally-sourced-materials/>

During this highly practical, hands-on course participants work together to design and build a structure from the ground up, using locally sourced, found and low impact materials.

Through working on a real-life project, participants gain skills and experience in a wide range of natural materials, including timber, straw, stone and earth, and find out how to apply this knowledge in a range of scenarios to be adaptable to their projects.

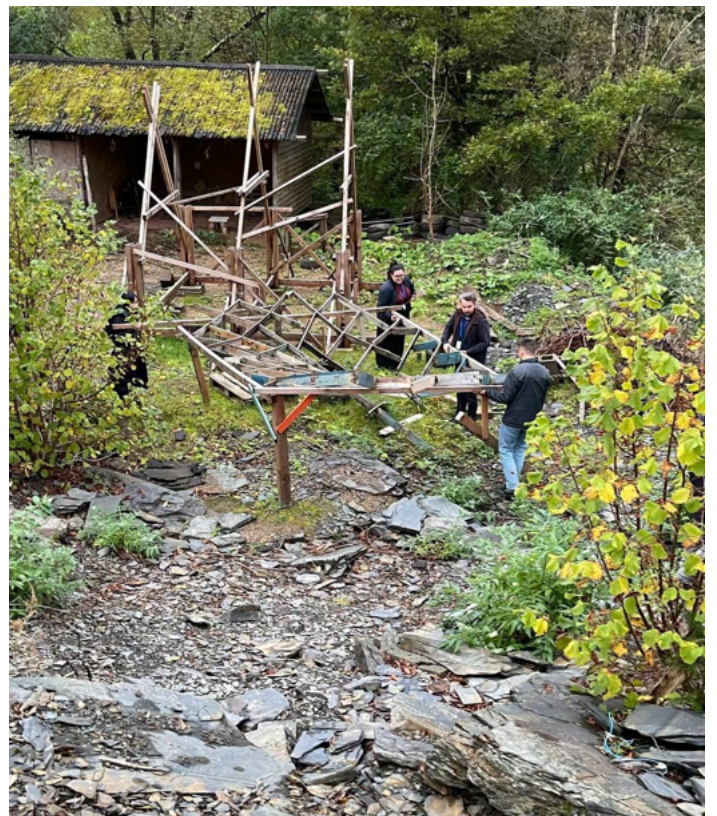
Every structure built on this course is unique. Over the four days participants experiment with different designs and work together as a group to come up with a blueprint, basing their ideas on the available materials and adapting their plans as they gain more skills and knowledge.

The course is aimed at anyone with an interest in sustainable building, and is particularly suited to architects and aspiring self-builders as it offers a hands-on experience of tools and materials.

The course also explores the culture of making, looking at the contribution this makes to effective change for transitional communities in situations of rapid change and scarce resources, particularly in informal urban settlements.



Left
Unit 6 students building at CAT (Abhiroop Bhattacharya)



Hands-On Workshop

At the beginning of the academic year, students visited CAT to undertake A Way of Building. The intention of the 4-day visit was to make a building or parts of a building which could be assembled together using materials found on site or available locally. Skills learned are site-based, focusing on those of mason (wet trades) and carpenter (dry trades). This involves all students in a cyclical process of experimentation and focused group criticism followed by modifications to the original proposal.

On the first day students organised themselves into small groups that would work on different building materials and forms: slate, willow branches, timber lamella and timber frame. Some groups were to build on existing structures left behind by previous participants, and other groups were to build their own new structures.

Top Left
Building a slate arch (Laura Roberts)

Top Right
Testing the arch by adding weight on top (Laura Roberts)

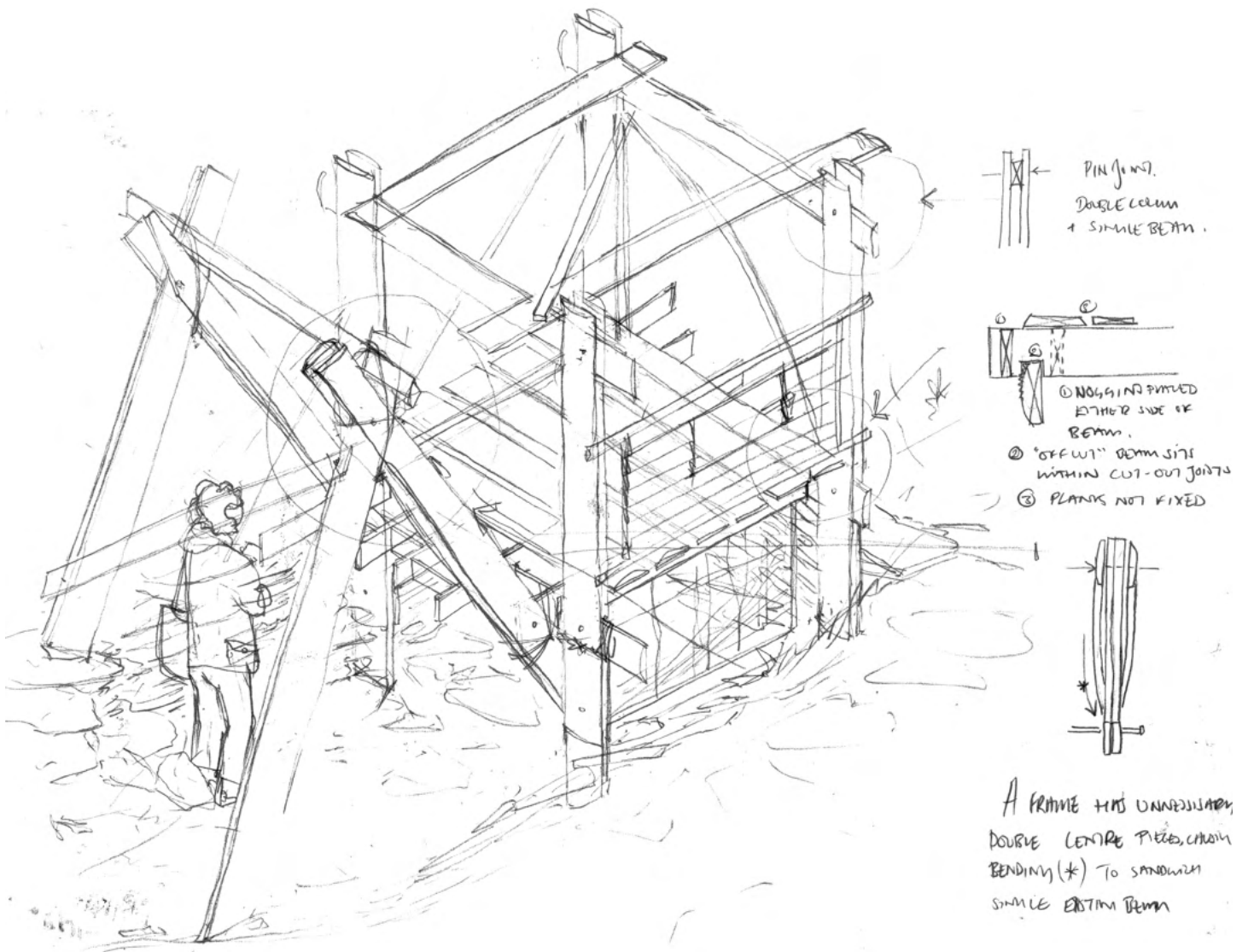
Bottom Left
Mended lamella structure (Anita Zarzycka)

Bottom Right
Carrying the structure to its proposed place on site (Rayka Kakavand)



As students' skills, ambitions and interactions became clear, unique built forms started to evolve. These forms, or building elements, could be put together to form something wholly new and greater than the sum of its parts.

The final product left standing on the site at the end of the 4 days was more large scale model than finished building. Its form, never predictable at the start of the process is a way of learning about the process by which technology and human agency are transformed into a culture of making.

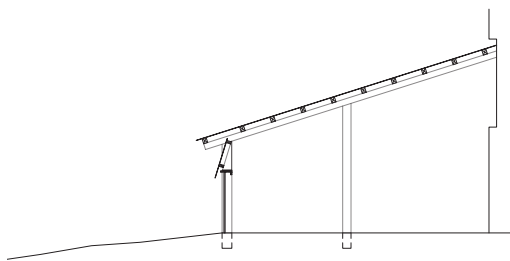
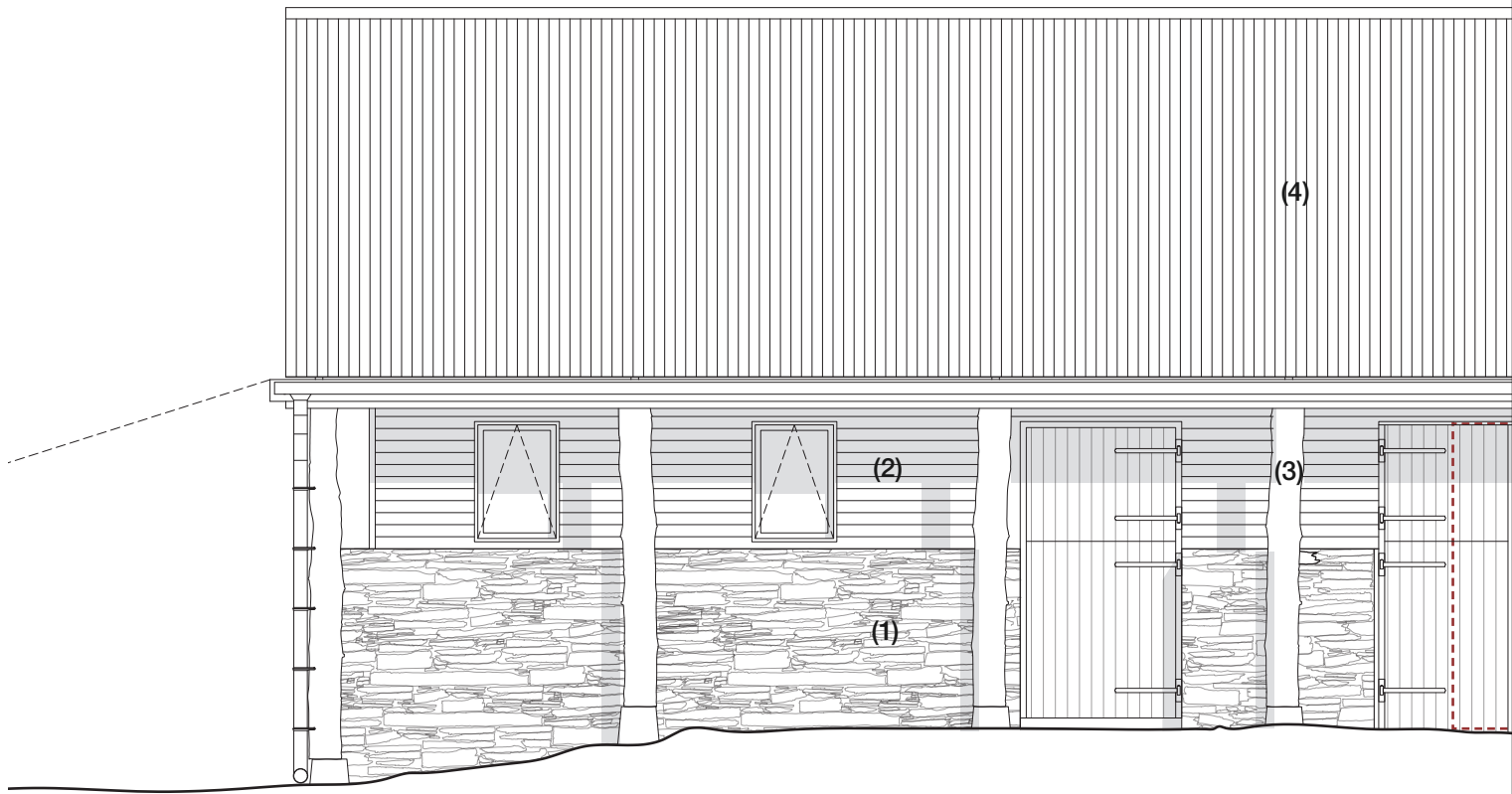


This Page
Timber frame (Morgan MacGregor)

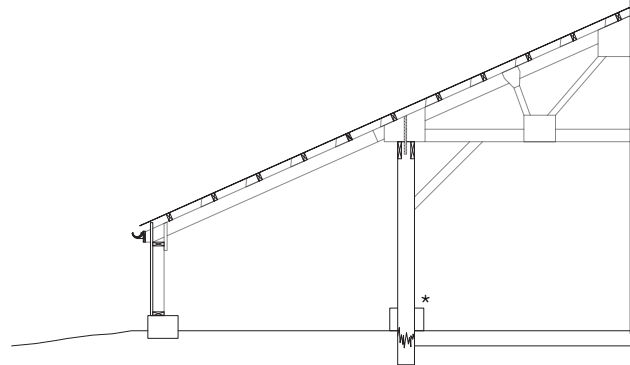
Facing Page: Top Left
Building a willow dome (Abhiroop Bhattacharya)

Facing Page: Top Right
Sketch showing elements of the willow dome (Sara Golnabi)

Facing Page: Bottom
Timber frame (Morgan MacGregor)



Section through the Wood Store lean-to structure



Section through the Pole Barn pole and truss structure

Top
North elevation, illustrating door relocation, 1:50

Bottom
Selected sections, 1:100

Facing page
The Pole Cottage: an assembly of loose fit components

Pole Barn and Cottage

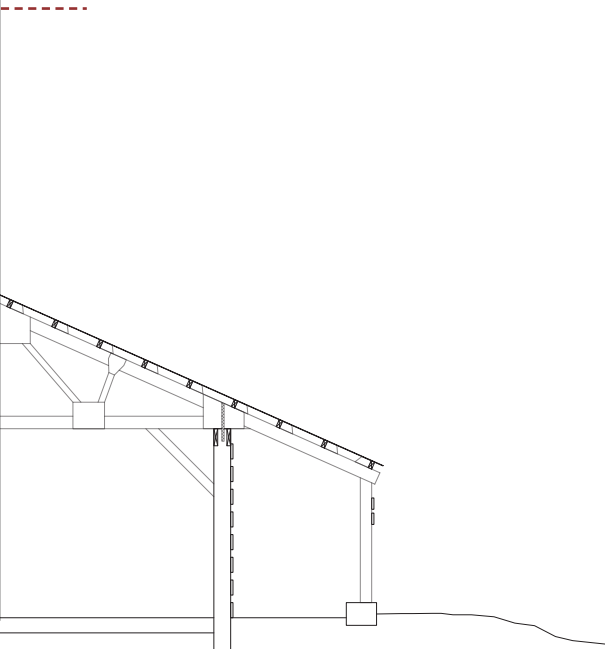
Building Survey by Usman Sattar
and Morgan MacGregor

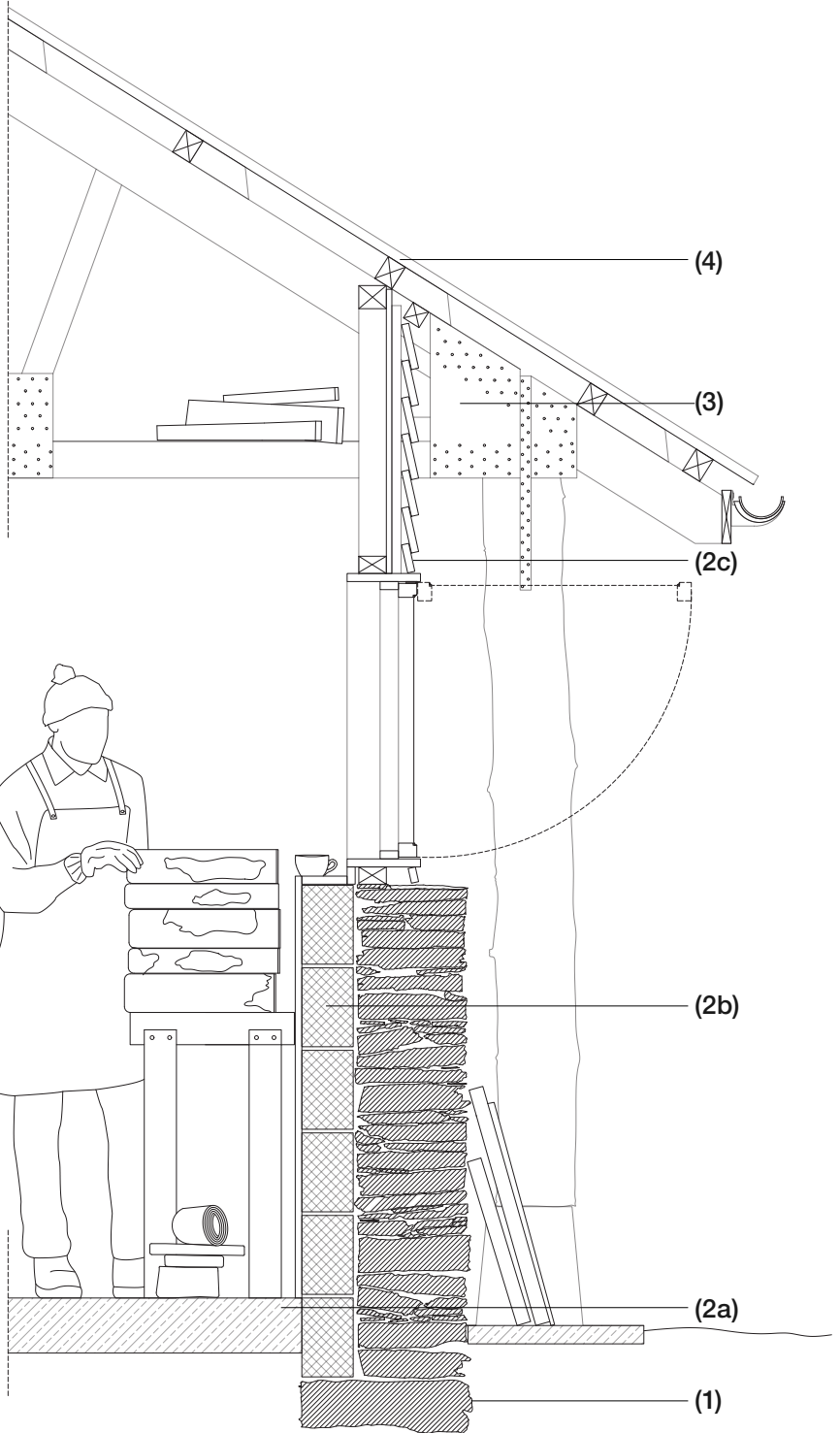
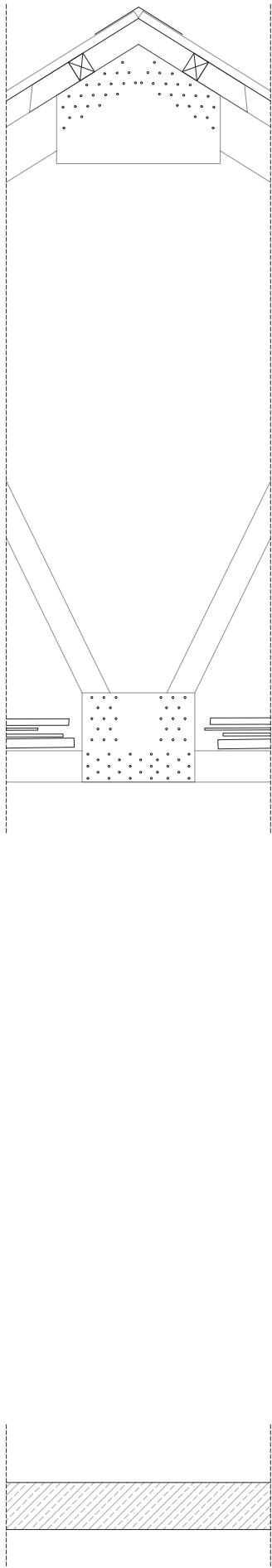
Whilst the timber barn remains relatively unchanged since its original construction in 2001, the cottage structure has been altered with various structures added onto it over the course of its life. There are 4 key components to the cottage: the original **(1) slate dry-stone walls**, with added **(2) timber stud rain-screen**, glazing and internal finishes. Offset from the stone wall are **(3) 12 timber poles and truss beams**, holding up the **(4) sheet tin roofing**.

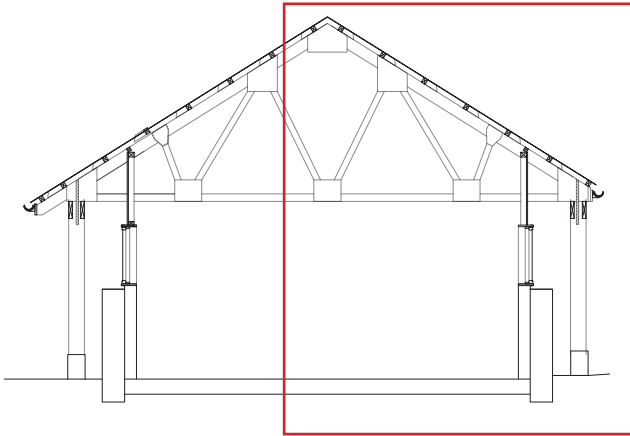
The stone wall has been cut into to allow for windows to be added and doors relocated. This building highlights the concept of loose fit design with the various components being changed over time to suit the users without compromising the building as a whole.

Due to the isolated nature of the building elements, repair and adaptation is possible without reconfiguring the whole. For example, the relocation of front door, (shown in **red dash**) is achieved without compromising the structural integrity of the roof or other walls, as they are completely self-supporting.

In the barn, rotting pole foundations have been repaired with in situ concrete footings.







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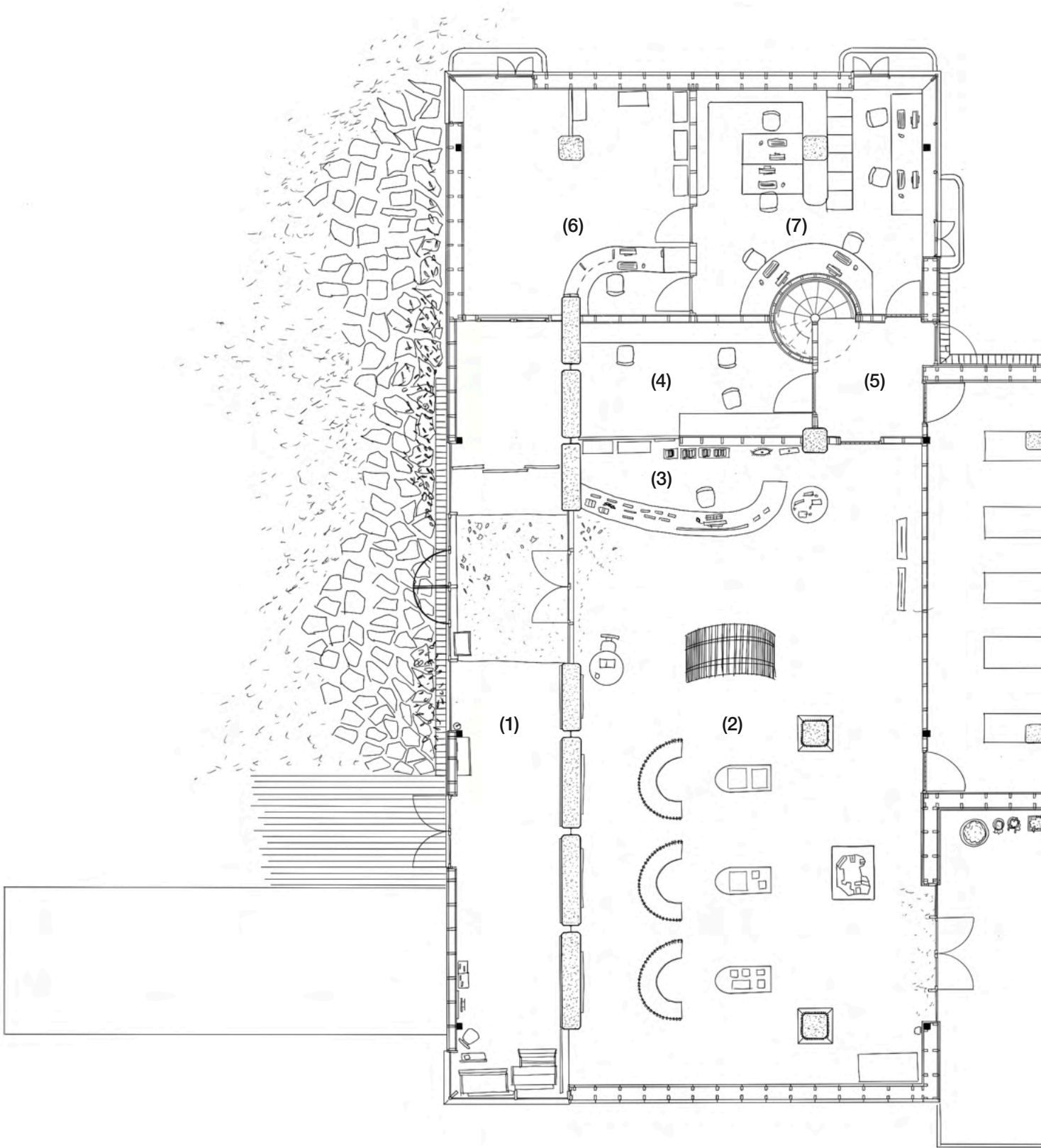


Top Left

Section through the Pole Cottage, with (facing page) construction detail highlighted in red, showing two independent structures.

Left

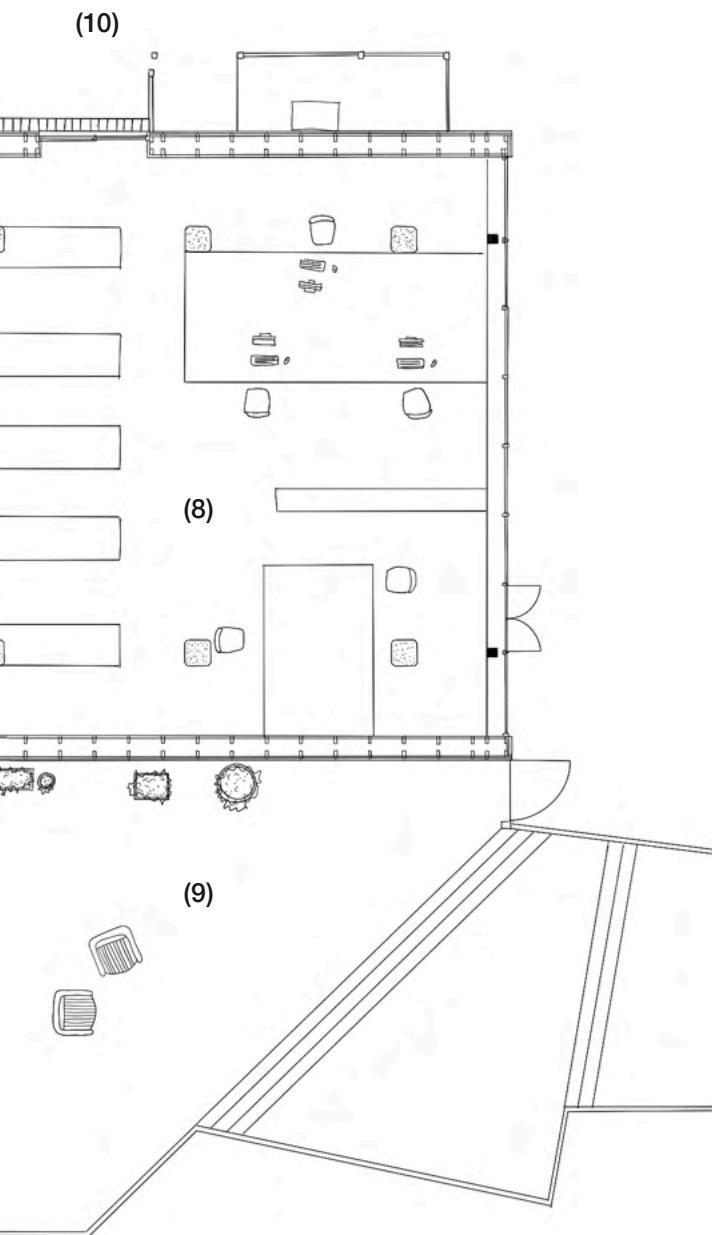
Three of the elements: the modified slate wall with rough mortar infill; the timber rain screen and door with strips wedged to fit the stone wall; and the pole frame sailing clear over the top, facilitating any modifications to happen underneath whilst protecting users from the constant Welsh rain.



The Centre for Alternative Technology constructed all of its buildings from 1986 to 1998 using timber frames. CAT has developed a method of timber frame construction based on the Walter Segal method. There was a sense of urgency that had developed when considering proposals for the **Autonomous Education and Information Centre** (AtEIC, also known as the Bookshop) - that a change of this kind would be a healthy outcome.

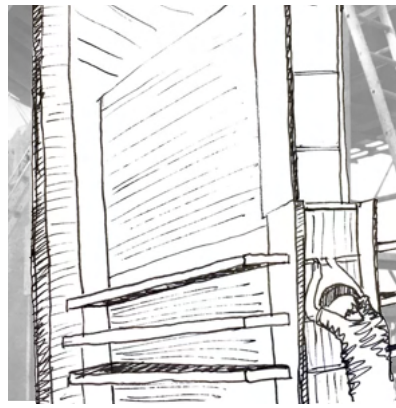
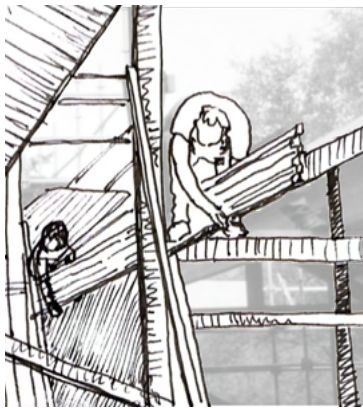
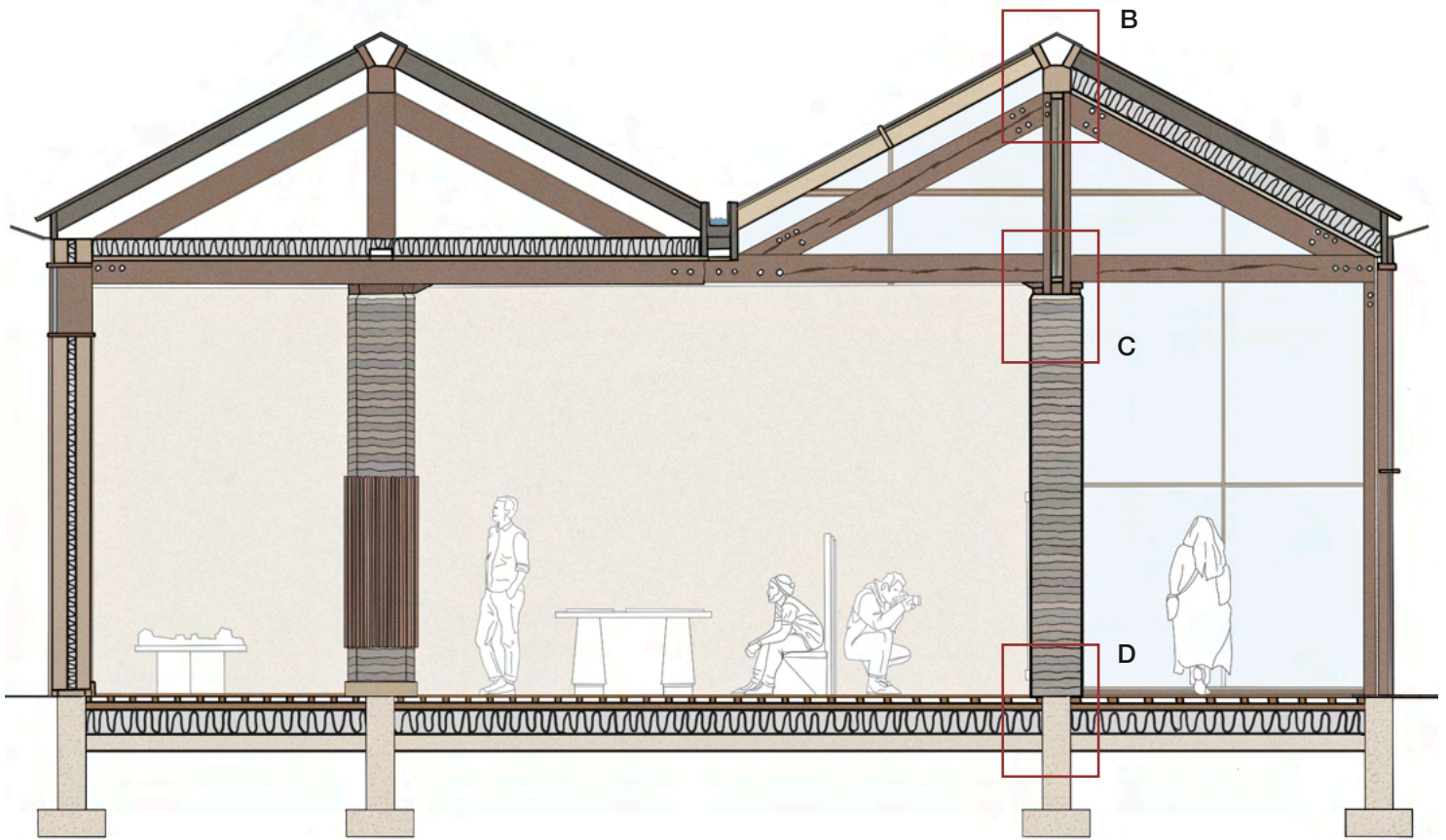
The case presented an opportunity to show other kinds of ecological construction. In addition, it demonstrated how to incorporate some thermal mass into a building without using materials that impacted the environment heavily. As a result, the designers and builders investigated the potential of earth, clay, and lime as structural building materials for the AtEIC project.

Several load-bearing rammed earth wall panels and columns are embedded within the footprint of the building and surrounded by an external super-insulated (sheep wool) timber stud wall. Due to the protection of the earth components from the elements, the demonstration project's value lies in the material's load-bearing capacity.



Drawing Key:

- (1) Loggia
- (2) Shop
- (3) Reception
- (4) Shop Office
- (5) Lobby
- (6) Public Access Information
- (7) Information Office
- (8) Store and Mail Order
- (9) Terrace
- (10) Deliveries



1

2

3

4



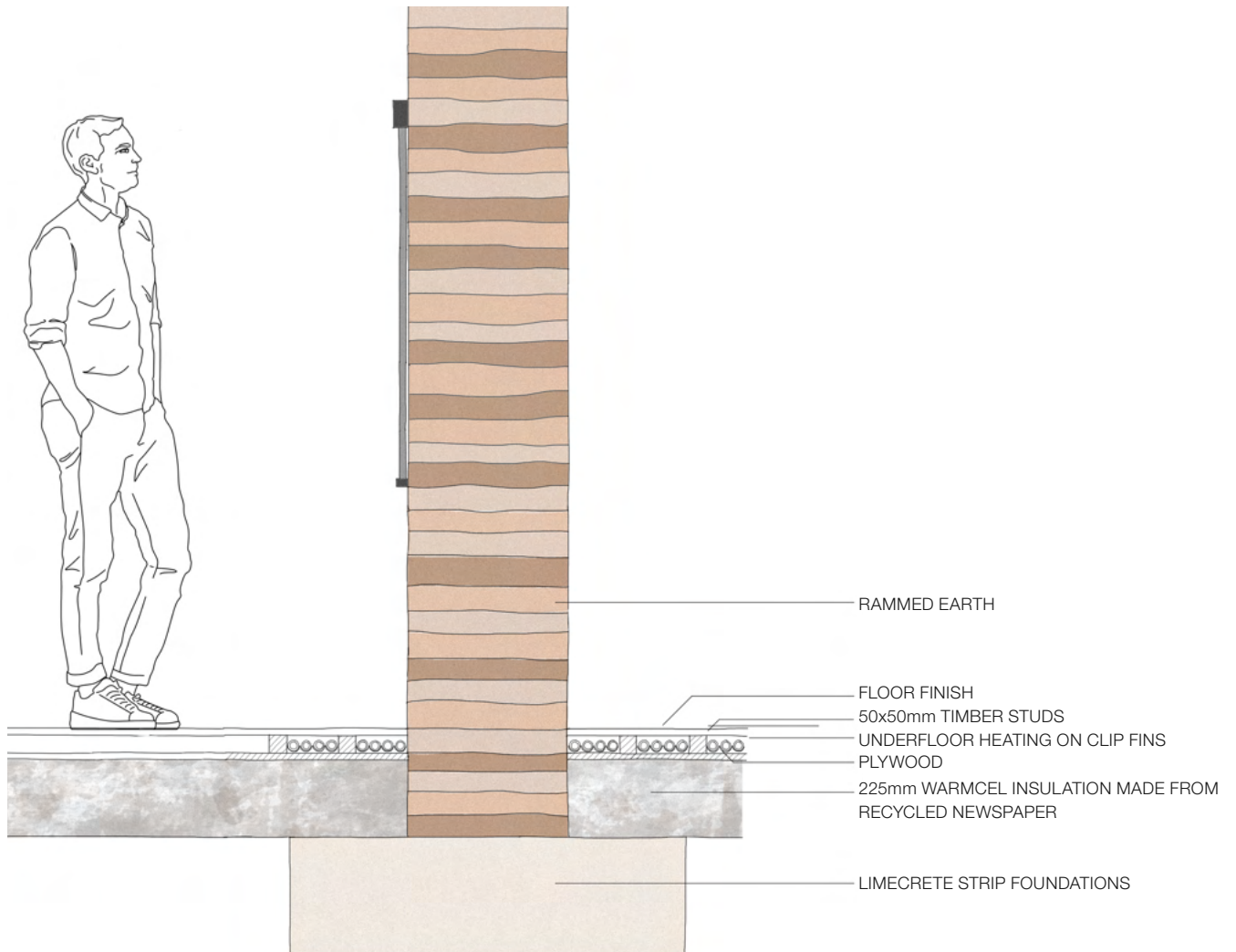
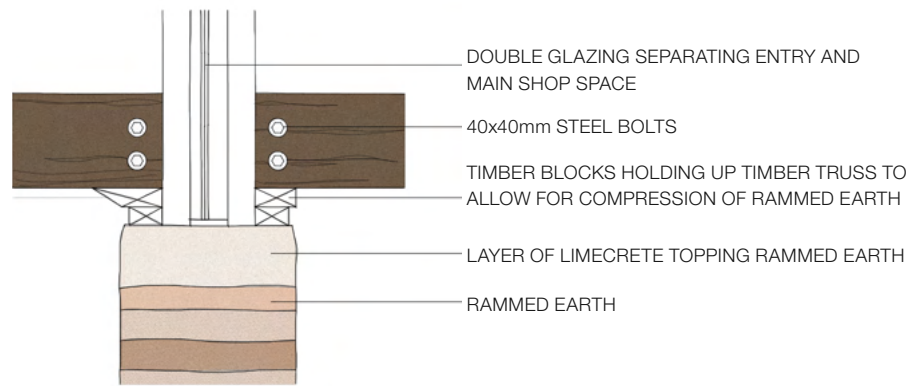
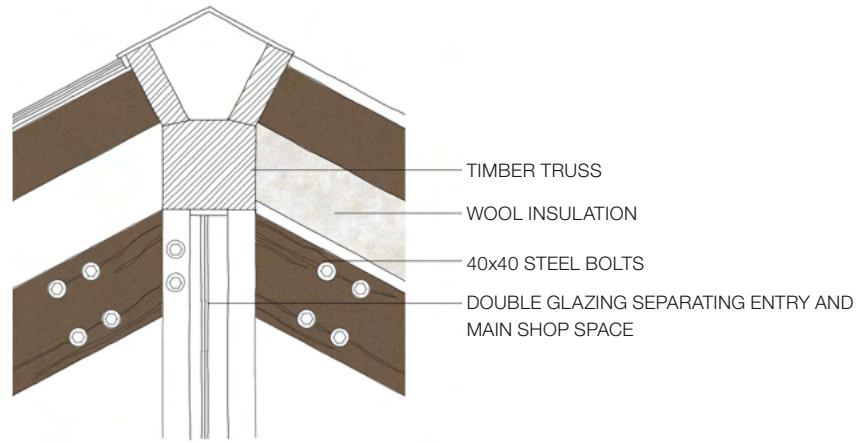
Construction Process

Keeping the soil dry was the biggest challenge for the AtEIC building's rammed earth construction, especially due to the large quantities involved and the limited space on site. On delivery, the timber frames with roof trusses were erected, the roofing felt and battens were applied, and the soil underneath was tipped. Upon commencement of ramming, it could be kept dry inside the building and be right where it was needed.

Post-and-beam framework construction enabled the roof to be constructed, propped up temporarily and made weather-proof before installation of the final load-bearing rammed earth walls.

1. External timber structure is constructed first, held up by provisional joists, providing shelter to the rammed earth
2. Each wall and column is cast separately with 150mm left in between for shutters. The construction is reused for each wall panel
3. The timber structure is used to allow access to the top of the shutters, making it easier to ram the earth
4. Timber blocks are sandwiched between the rammed earth wall and the timber truss, allowing for compression of the earth

Left
Photos of the AtEIC
Facing Page: Top
1:50 section through the AtEIC
Facing Page: Bottom
Construction process



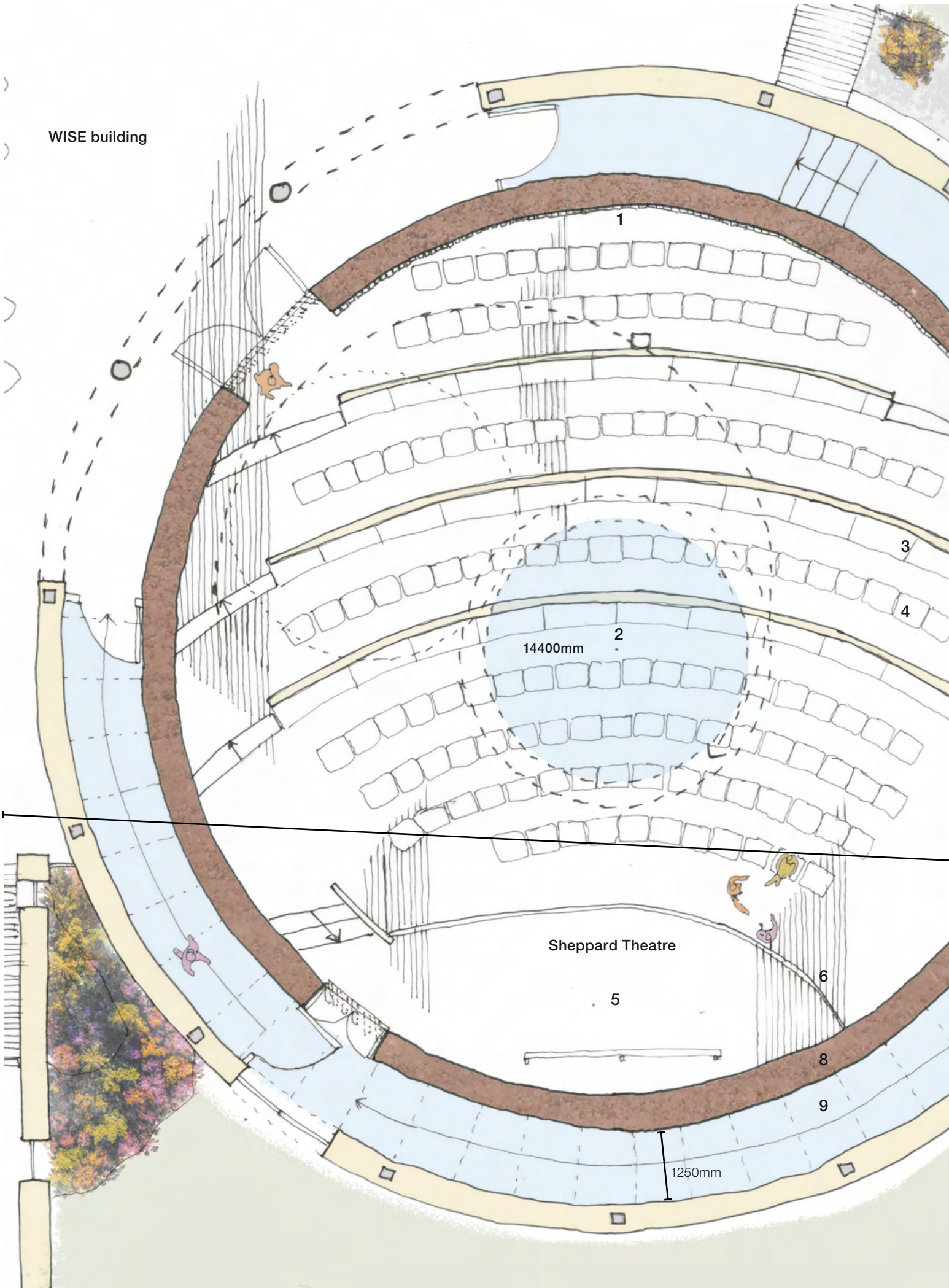
1:10 Detail Sections B, C & D

Wall panels and columns are only stabilized at the top 50mm, and a beam on the first floor is only stabilized at the middle of one column. Local point loads have been dealt with by adding 8% hydraulic lime to the earth mix at these locations. Since the columns will likely dry out and shrink over time, it is anticipated that the tie beams of the roof trusses will need continuous support, and wedges have been installed between the wall plates and the tie beams fixed down with metal bolts.

A barrow of rammed earth mix was filled and hoisted to a scaffolded platform to be tipped into the shuttering. A standard sheet of plywood measures 1.2m in width - the height of the mix for even the lowest layer. Additional sheets of plywood were added to the platform as the height increased.

Wall panels were fitted with special shuttering systems that were designed to fit as long as a standard sheet of plywood, with gaps of 150mm between each panel to accommodate the cramps that held the panels together. Initially, each layer was installed 100mm deep and rammed down 50mm deep. This compressed-air rammer had a plate that was around 125mm in diameter and operated with compressed air. Therefore, a special straight-edged ramming tool had to be devised at the edges of the columns, and human power had to replace mechanical power.

WISE building

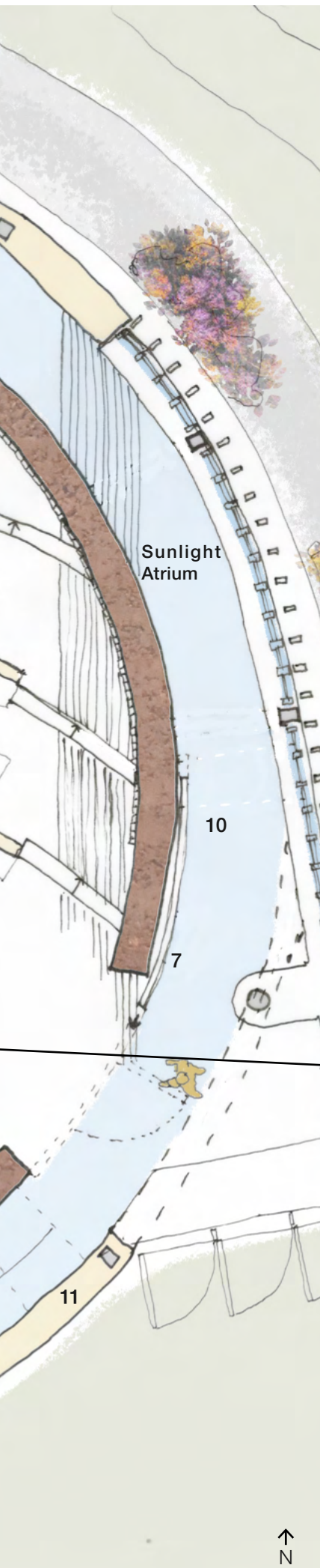


Rammed Earth Construction

To make rammed earth walls, loose, moist subsoil is compacted in thin layers between shuttering or formwork. The shuttering can be moved along or upwards as the wall is constructed. Mechanical compaction forces clay molecules to bond with the aggregate (a physical rather than a chemical bond), giving the wall its strength.

Particle size and grading, moisture content, and clay content are all critical to the performance of the finished wall. Over a period of time, perhaps up to two years, a rammed earth wall will dry out and become as durable as sandstone, as long as it is waterproofed top and bottom, which is why 'the Sunlight Atrium' is essential for the Sheppard Theatre.

At CAT they have used rammed earth only for internal walls, where it provides useful thermal mass. In the UK climate, earth by itself is not a good material for external walls. It's poor as insulation and will degrade in our weather conditions. Some techniques add cement to make 'stabilised earth', but as the process for producing cement is carbon intensive, it damages rammed earths sustainability.



1 - Acoustic timber panels with fabric to absorb sound and reduce reverberation time inside the hard rammed earth walled interior

2 - Moon Door

Circular roof light which can be closed using a mechanically controlled shutter attached to the roof

3 - Permanent benches

4 - Optional additional chairs

5 - Stage and projector

6 - Timber floor that continuous into WISE building

7 - Sliding door

8 - Rammed Earth wall

9 - Roof lights

They surround the theatre, allowing sunlight to penetrate and heat the rammed earth which, due to its high thermal mass, act as a trombe wall - absorbing heat in the day, keeping the space cool, before dissipating the heat during evening lectures

10 - A large area of south-facing glazing

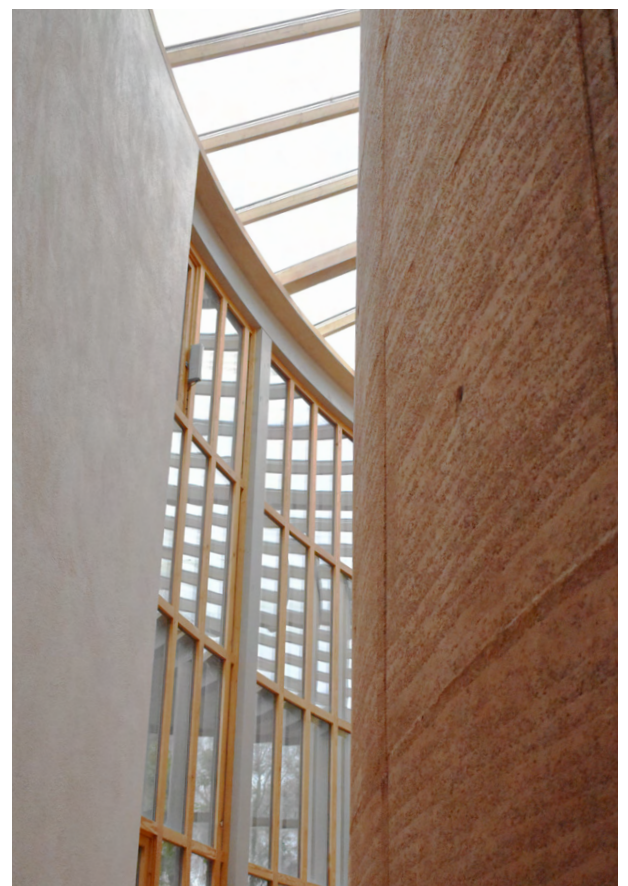
It allows the earth walls to soak up solar energy, particularly from the lower sun at cooler times of year. The earth walls prevent the building from overheating and buffer the temperature at colder times of the day by slowly releasing the captured heat.

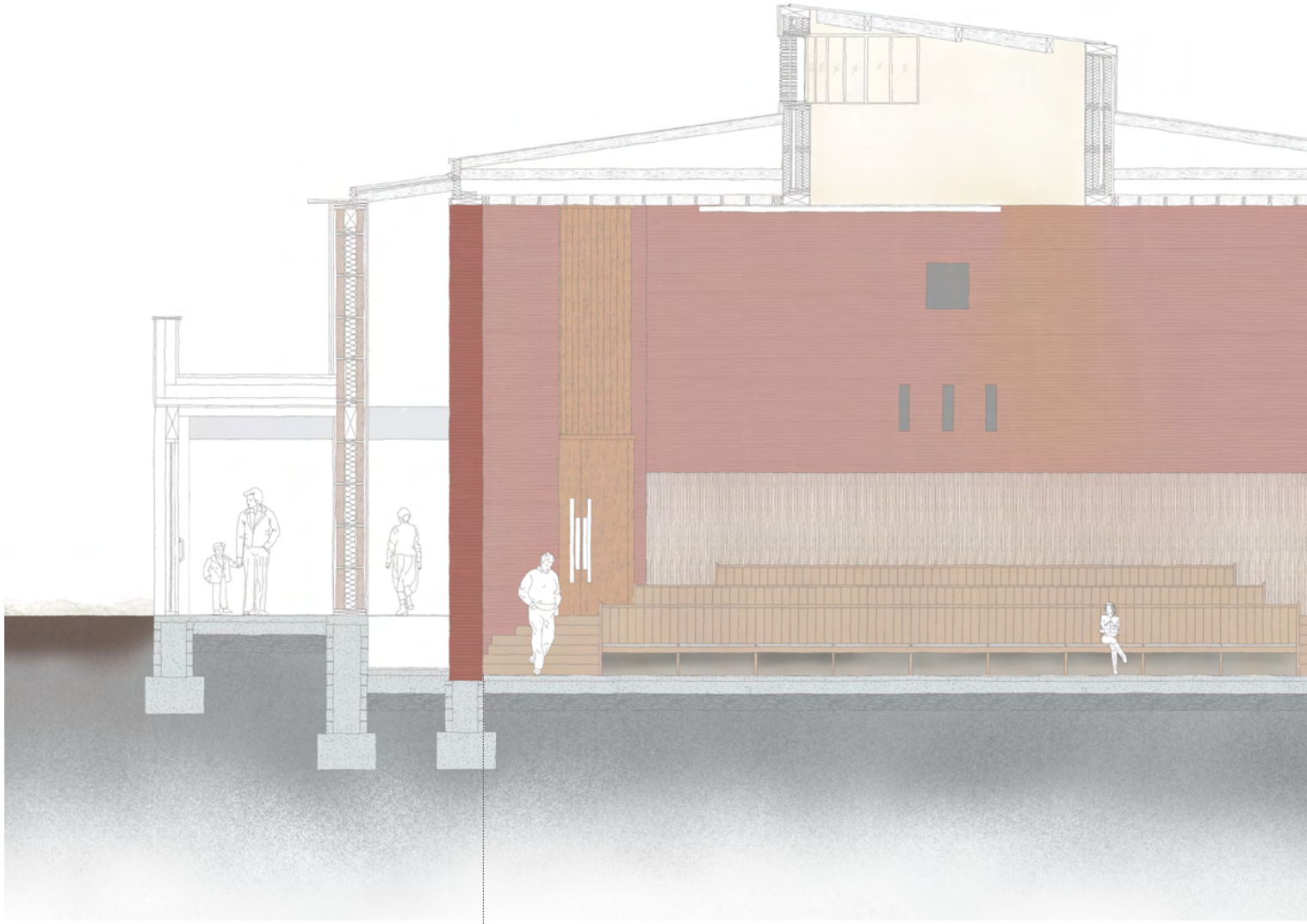
11 - Hemp and lime (Hempcrete) composite encases structural timber frame

Hempcrete walls give excellent insulation and air tightness, and their breathable, hygroscopic nature regulates humidity. The high thermal mass of hempcrete means it absorbs and stores heat, acting as a temperature buffer and reducing the need for artificial cooling. The walls are 500mm thick and have a U-value of about 0.14W/m²K.

Right
Rammed earth wall and south facing glazing within limecrete exterior skin - 'The Sunlight Atrium'

Left
Theatre plan

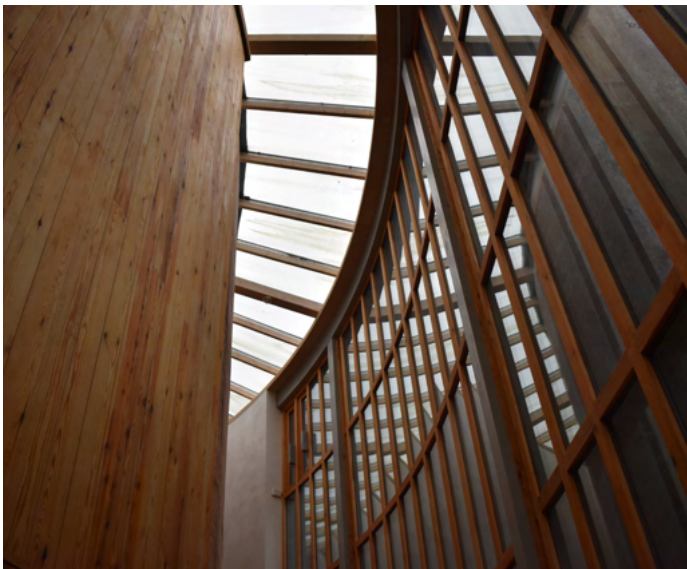




14341mm
Lecture hall

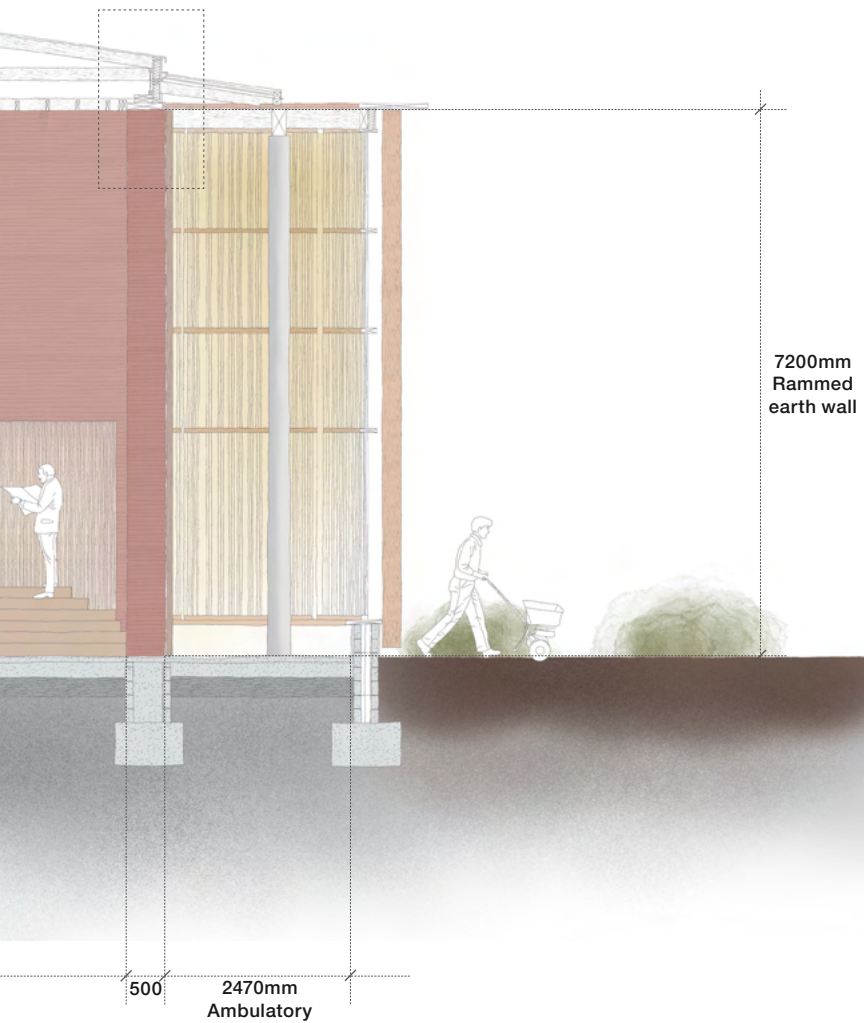
Top
Section through the Sheppard Theatre 1:100

Bottom: From Left to Right
The ambulatory with glazed roof; the glazed roof of the lecture hall that can be "closed" with the 'Mood disc'; the interior of the lecture hall; and the elevation of the ambulatory.



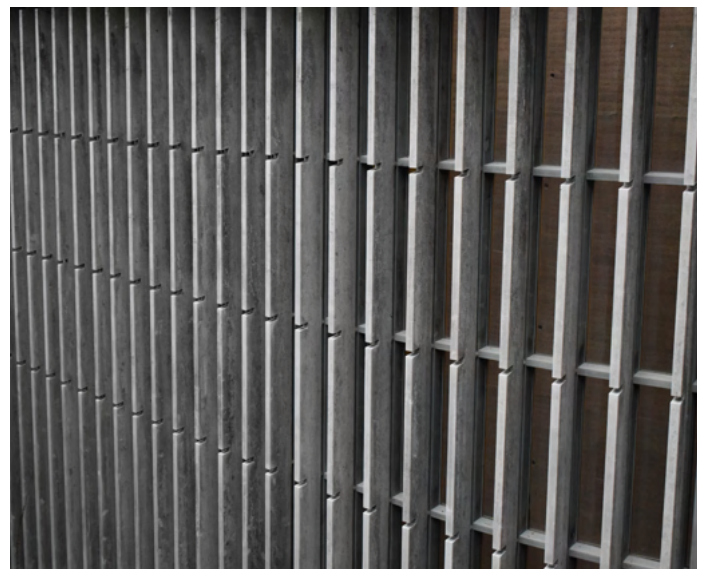
Rammed Earth Wall

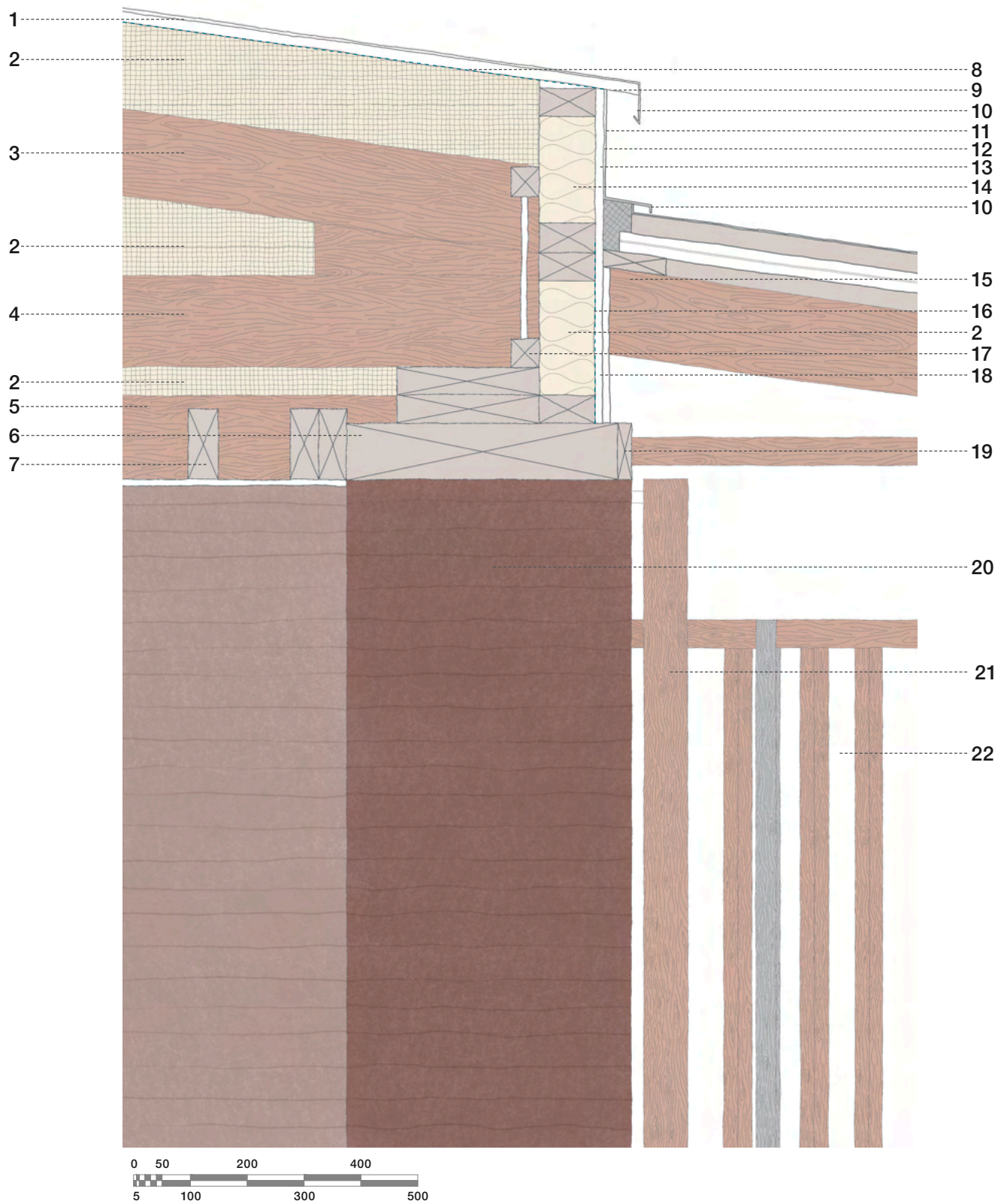
At 7.2 metres, the circular Sheppard Theatre has the tallest rammed earth walls in the UK. The walls are made using subsoil from Llyncllys Quarry near Oswestry. The shuttering for the theatre walls was a proprietary circular system with an adjustable radius. Workers compacted the earth from 100mm to 50mm layers using a hand held pneumatic ram. The walls are 500mm thick, include 320 tonnes of earth, and support the roof. The walls are chamfered at the corners to reduce cracking and damage.



Above

Photo of completed rammed earth wall and a worker compacting the layers within the concrete form-work with a pneumatic ram during construction

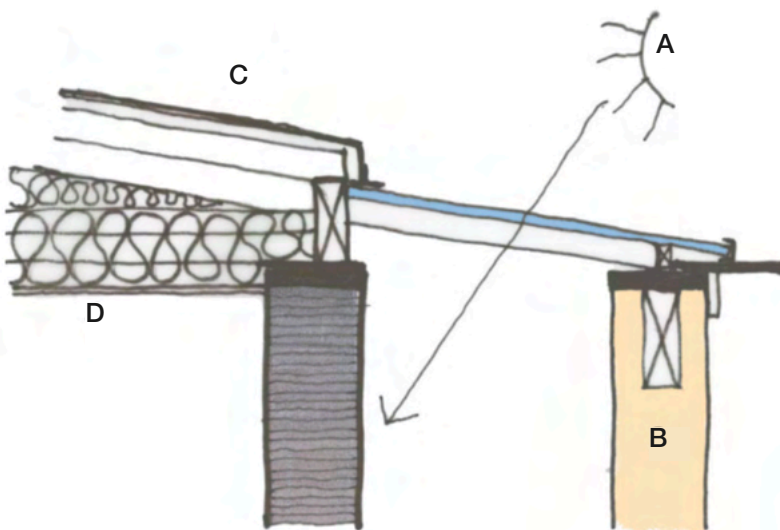




Above
1:10 Wall to roof detail

Wall to Roof Detail 1:10

1. Stainless steel roof sheet on 50mm timber battens
2. Insulation
3. Ply web radial beam
4. Ply web beam
5. Ply web beam to carry joists
6. 100mm glulam timber lintel
7. 125mm x 50mm ceiling joists hung from rafters to carry plasterboard ceiling
8. Vapour permeable underlay
9. 18mm ply decking
10. Stainless steel flashing
11. Stainless steel cladding
12. 12mm plywood
13. 38x45mm timber battens
14. 100mm x 50mm stud wall parallel to the curvature of the rammed earth wall
15. Solid timber beam
16. VCL sealed to structure
17. Masonite edge blocking
18. 2x 12.5 mm plasterboard
19. 25mm x 100mm redwood fascia
20. 500mm rammed earth wall
21. Sliding doors
22. Ambulatory with south facing wall to allow rammed earth to absorb and store heat.

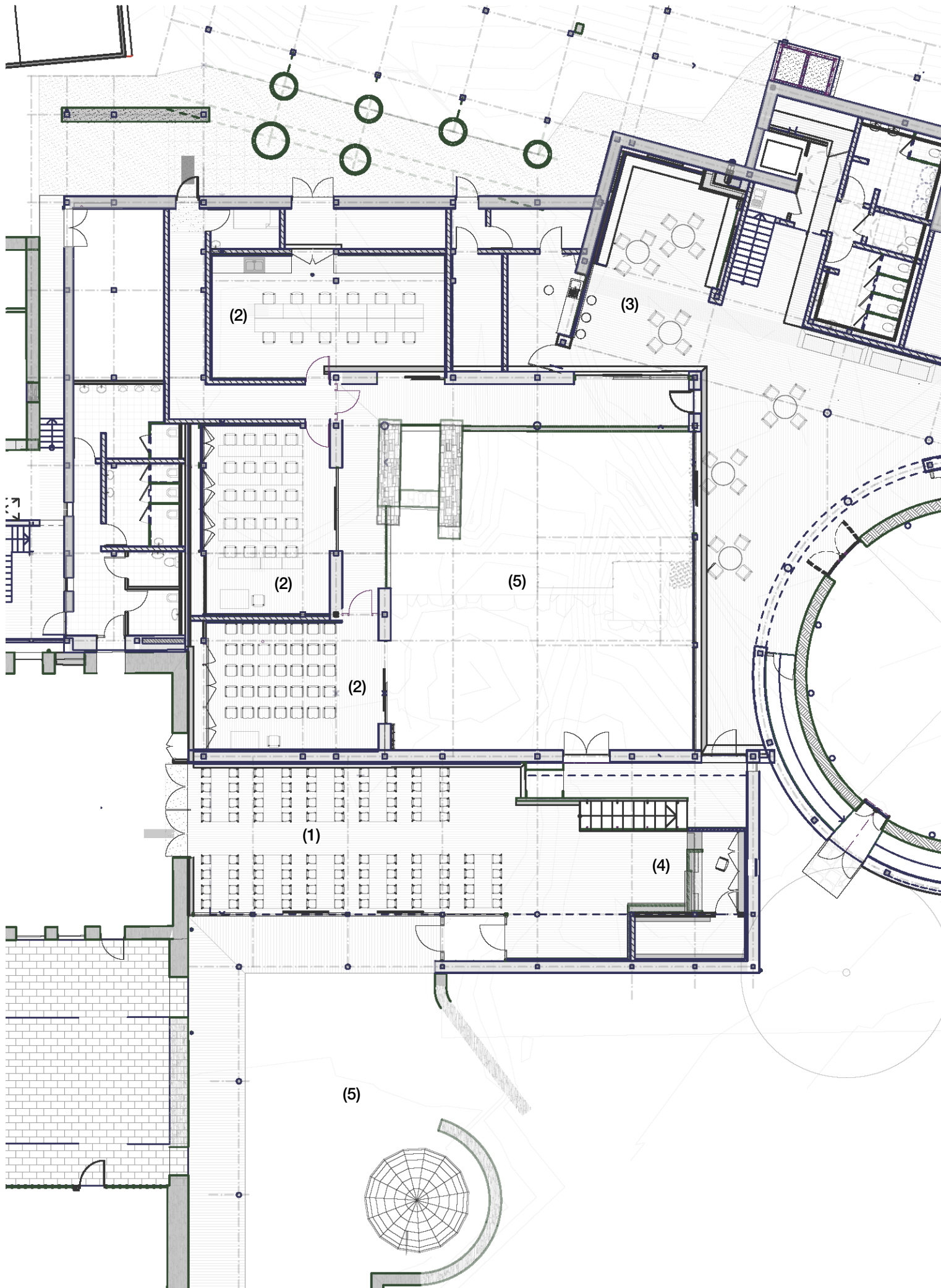


A - Sun penetrates roof light, rammed earths high thermal mass absorbs and stores heat. The high performance double glazing uses a low-e coating, argon gas fill and insulated spacers in FSC-accredited redwood and oak frames, and has a U-value of 1.1 to 1.4 $\text{W/m}^2\text{K}$.

B - 500mm limecrete wall within structural glulam timber frame

C - Recycled sheet stainless steel roof. Manufacturing process is energy intensive but as steel is durable it will have a long life (80 - 100 years) and will be recycled because of its high value.

D - 450mm of cellulose (recycled paper), giving a U-value of $0.09\text{W/m}^2\text{K}$. This has a very low embodied energy compared to conventional fibreglass or plastic foam insulation. Hidden within 200mm deep timber beams.

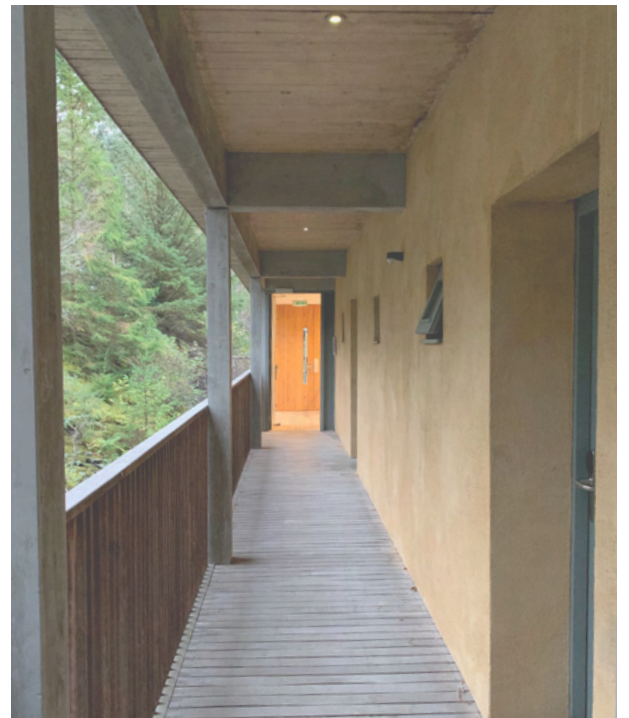
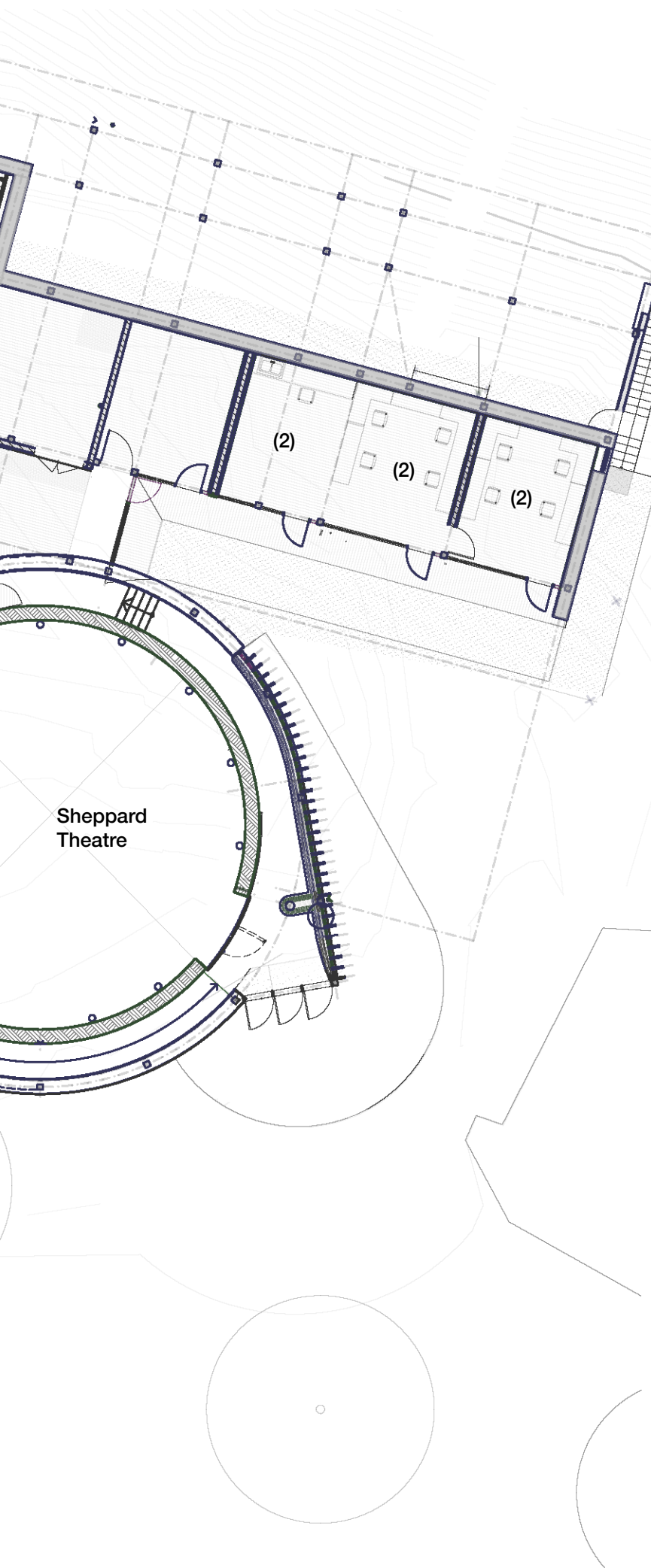


WISE Building

Building survey by Rares Tugui
and Luca Vincenzo Puzzone

Drawing Key:

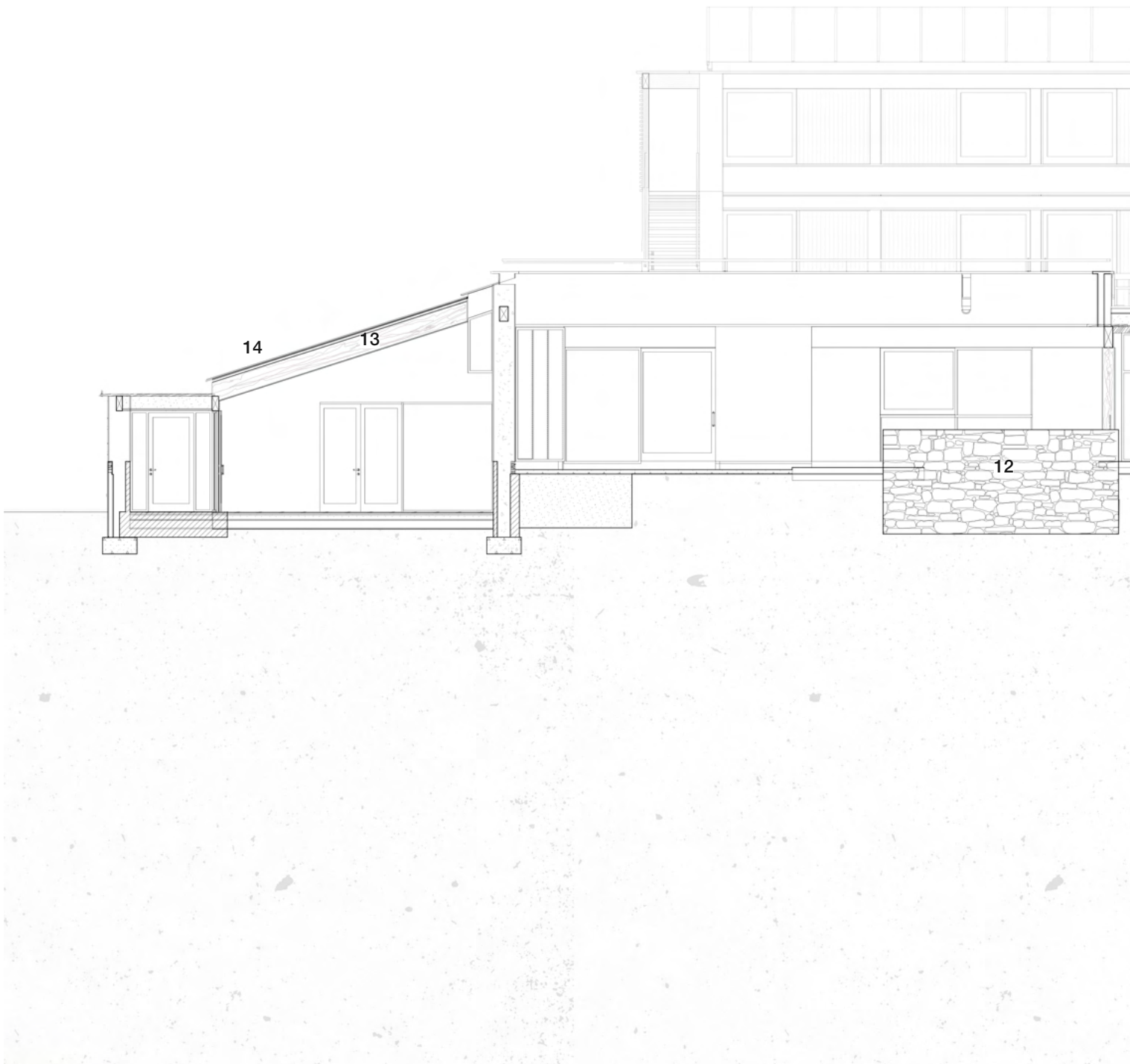
- (1) Dining area
- (2) Seminar room
- (3) Bar
- (4) Reception
- (5) Courtyard

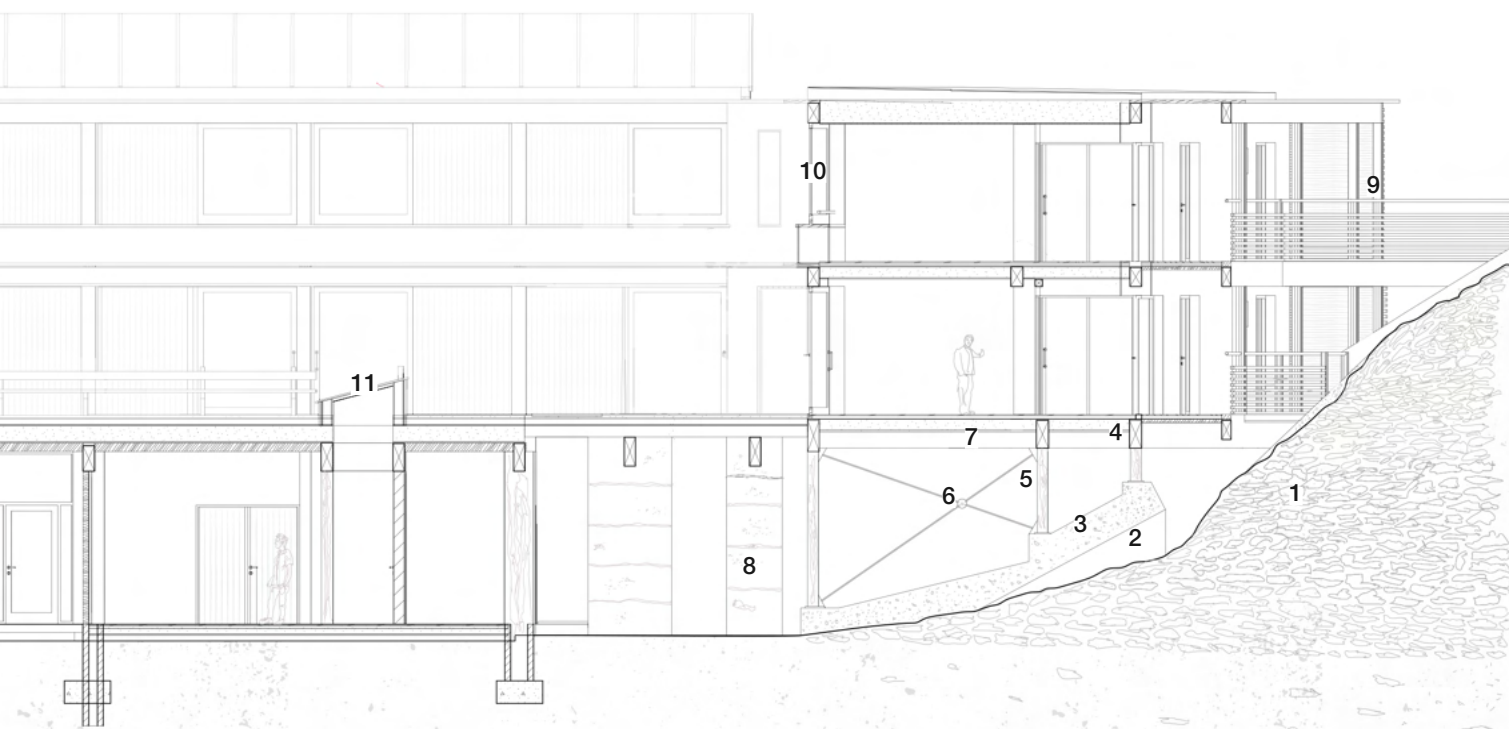


Left
WISE building ground floor plan

Inset Image: Top
Accommodation terrace in WISE building

Inset Image: Bottom
Outdoor corridor in WISE building





- 1 Slate quarry waste layer
- 2 Concrete (850mm)
- 3 Limecrete layer (850-500mm)
- 4 Timber beam (200 x 500mm)
- 5 Timber column (200 x 200mm)
- 6 Steel cross bracing
- 7 Timber beam (200 x 500mm)
- 8 Concrete column foundation (sewage pipe reuse)
- 9 Timber cladding (20x20mm)
- 10 Window
- 11 Roof window
- 12 Stone water feature/pond
- 13 Timber beam (200 x 200mm)
- 14 Timber frame roof



Allotments

Bedrooms and Bathrooms

Communal Living Space

Terrace

Communal Living Space

Bedrooms and Bathrooms



Time Share Building

Building survey by Laura Roberts
and Rayka Kakavand



The Time Share Building, also known as the Eco-Cabins, is a residential building used by secondary schools at the same time each year - hence the name Time Share Building. The space is also rented out for other residential groups who come to CAT to participate in courses.

The building has a communal terrace at the centre, with an accommodation wing either side, each housing shared living space, bedrooms and bathrooms. The semi-open terrace looks out over the allotments to the hills and mountains beyond.

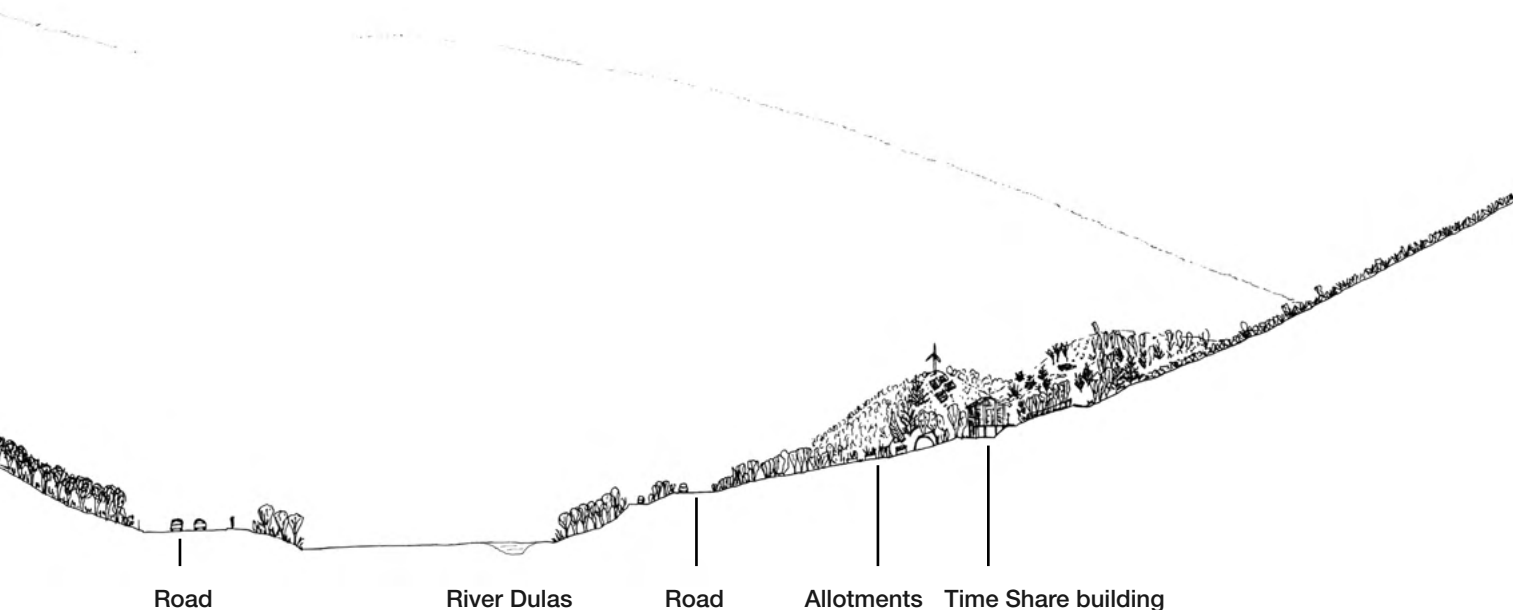


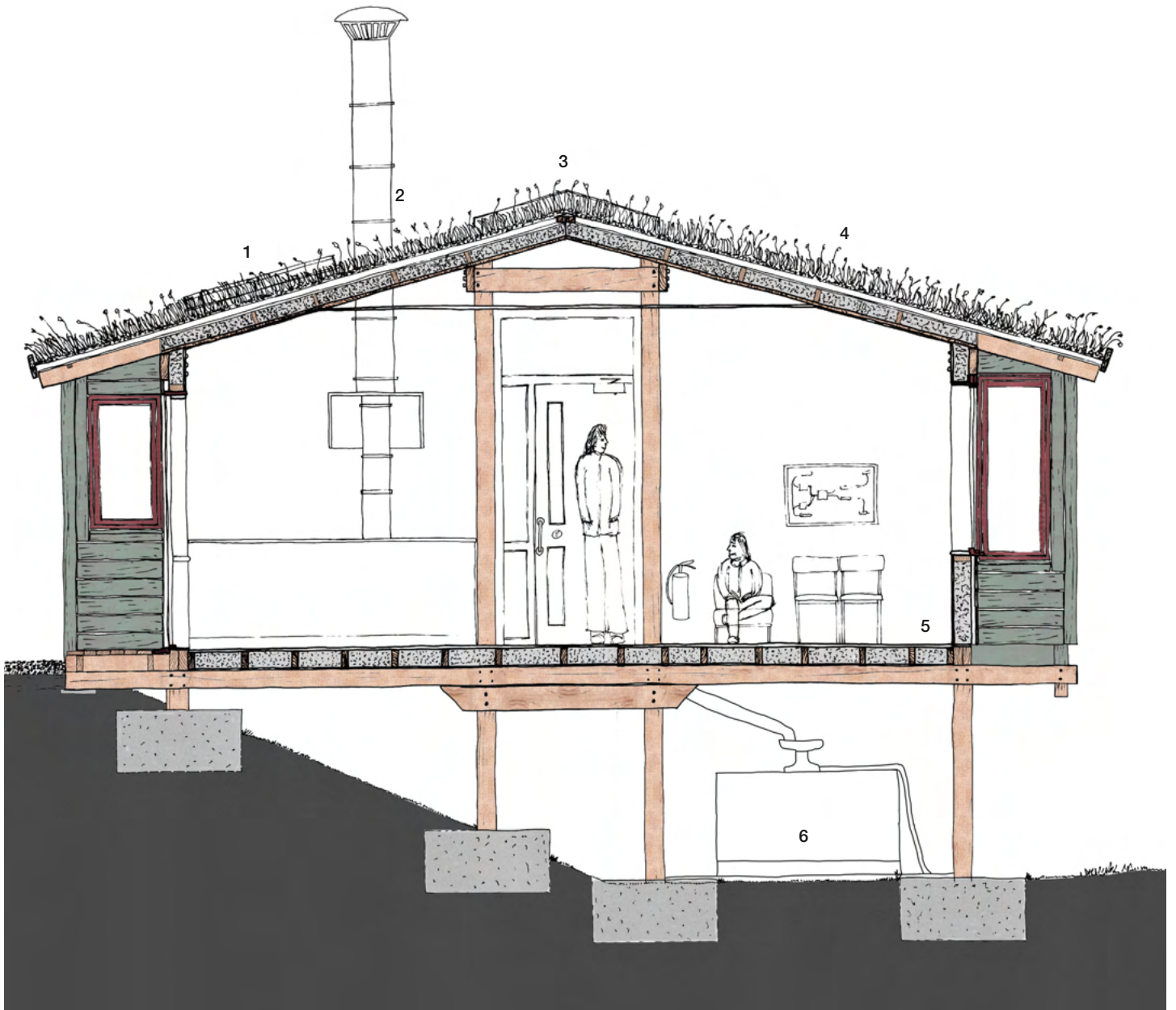
Facing Page
Plan, 1:200

This Page: Top
Panoramic photo showing the view to the hills from the terrace

This Page: Bottom
Photo showing the varied roofing materials

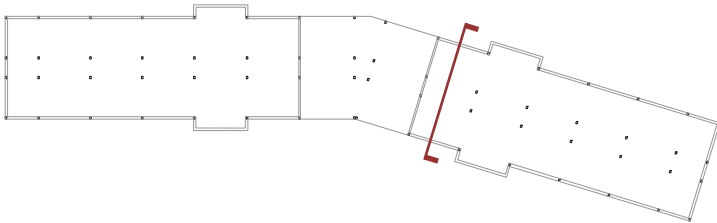
Main Image, both pages
Long section through the site showing the view from the terrace past the allotments, over the river to the hills opposite, 1:2000





Sustainability and Services

- 1 Solar Panels on the roof heat the water
- 2 Wood fired stove heats the building and the water
- 3 Sky light allows daylight in to the central corridor reducing need for electric light
- 4 Green roof provides thermal mass and insulation and adds to biodiversity
- 5 Warmcel insulation from waste newspaper is blown into cavities to provide insulation
- 6 Composting toilet tank stores and processes waste which is then used as a fertiliser on the allotment



There are two wood fired stoves which help to heat the building and solar panels provide electricity. Composting toilets are used, the compost from which is used on the allotments directly in front of the building.

The walls are clad in timber with warmcel insulation and a plasterboard internal finish. The walls are breathable so that an air gap between the cladding and the insulation provides space for moisture to escape and for air to circulate adding to the insulative properties of the building.

There are two roof types - one green roof acting as thermal mass on the occupied parts of the building to aid insulation; and a twin-walled polycarbonate roof on the terrace part of the building giving light to this area which doesn't need to be insulated.

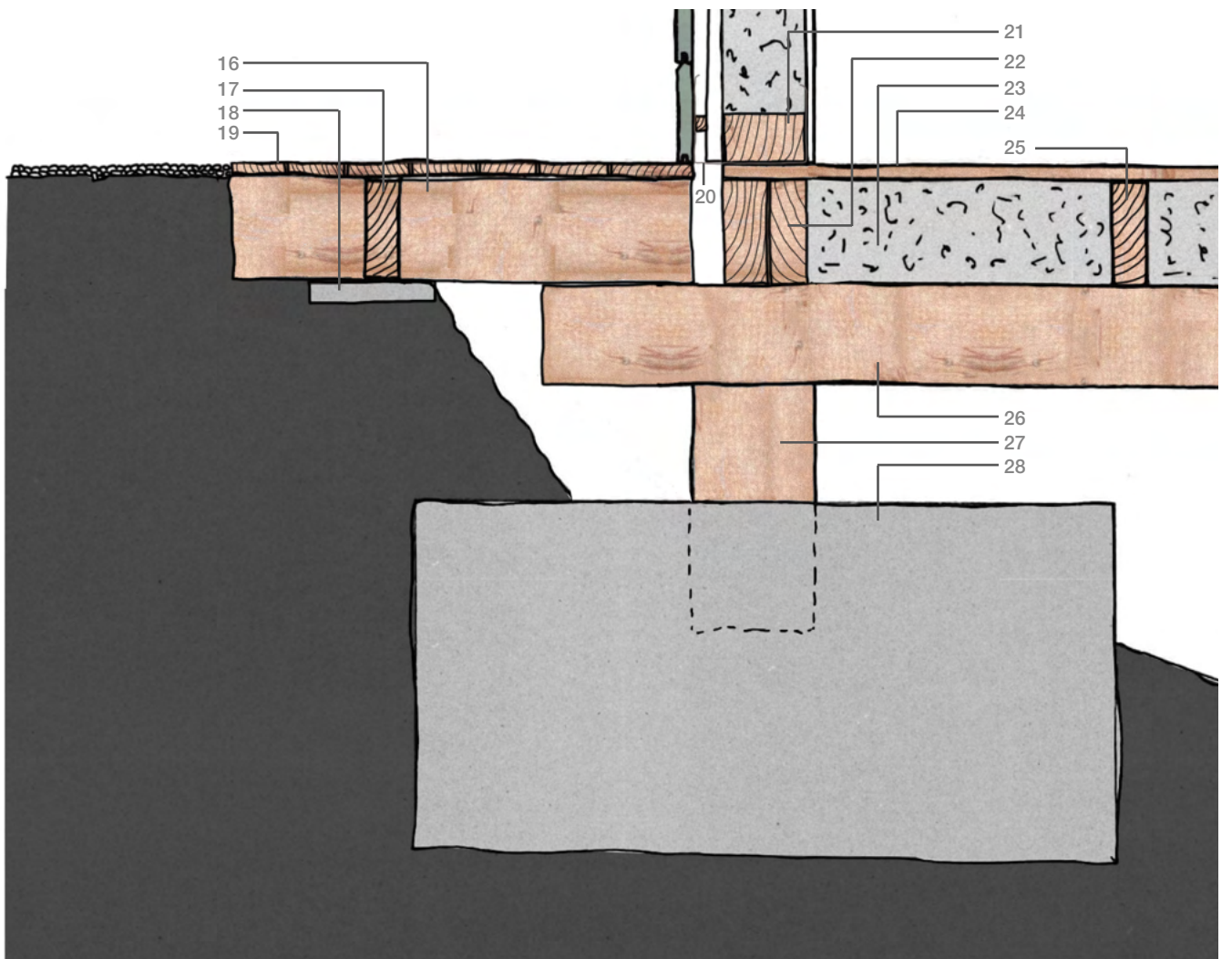
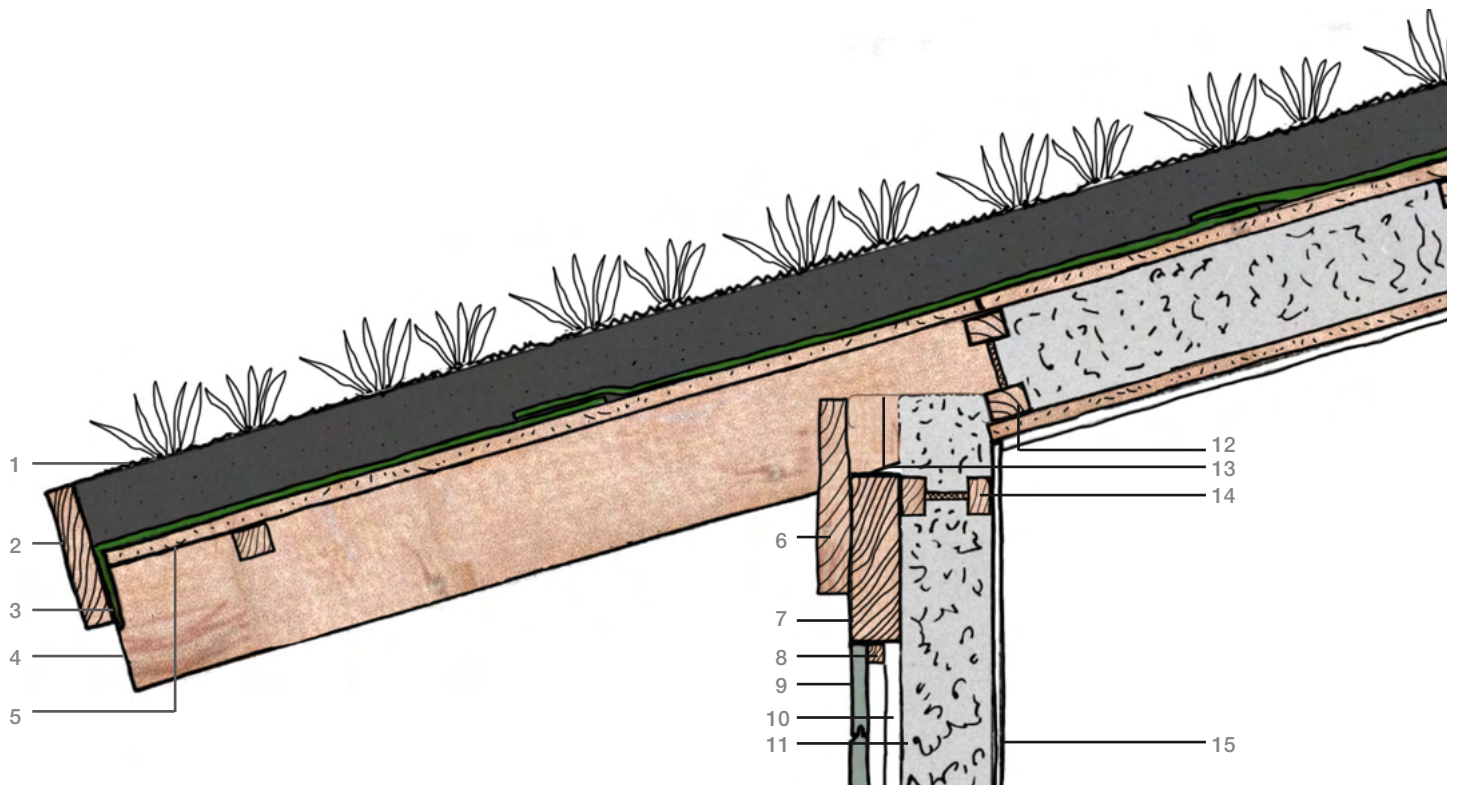


Facing Page Top
Section showing interior and green roof, 1:50

Facing Page Bottom
Panoramic photo showing the compost tank and the allotment where the compost is used

Left Top
Photo showing the green roof which acts as a thermal mass, with solar thermal panels for hot water

Left Bottom
Photo of the wood burning stove which heats the building



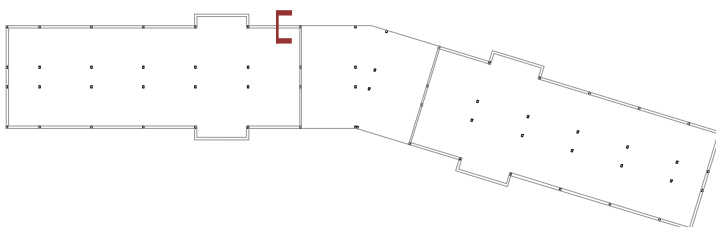
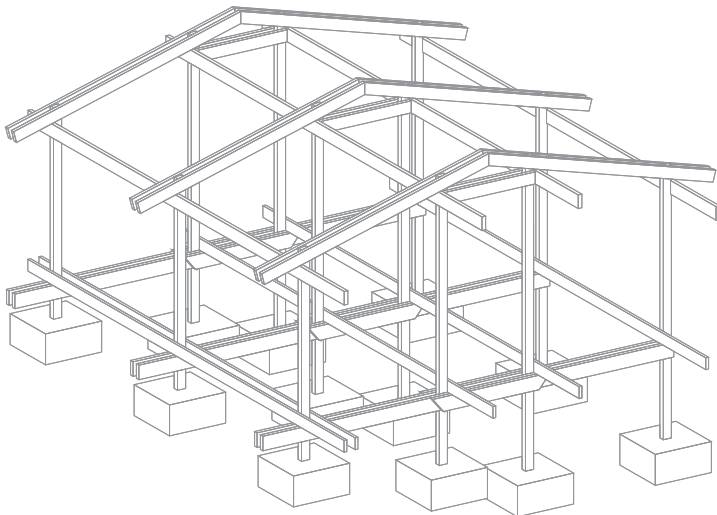
Structure

- 1 Green roof acting as insulation and thermal mass
- 2 Timber capping piece
- 3 Waterproof membrane with drip detail
- 4 Timber rafter 190 x 65mm in profile
- 5 Oriented Strand Board
- 6 Timber board
- 7 Timber wall plate 220 x 65mm in profile
- 8 Horizontal batten 25 x 25mm in profile
- 9 Timber cladding
- 10 Vertical soft board 25mm in width
- 11 Warmcel insulation
- 12 Masonite noggin as purlin
- 13 Insect mesh
- 14 Masonite noggin as top plate for stud walls
- 15 Plasterboard interior finish, 12.5mm width
- 16 Timber piece to hold up decking (at right angles to decking)
- 17 Timber piece to hold up decking (parallel to decking)
- 18 Paving slab separating timber from ground
- 19 Timber decking
- 20 Insect mesh
- 21 Bottom plate for stud walls
- 22 2 no. Primary floor beams 150 x 50mm in profile
- 23 Warmcel insulation
- 24 Timber floor boards
- 25 Timber floor joists 150 x 50mm in profile
- 26 Secondary tie beam 195 x 75mm in profile
- 27 Timber post 145 x 95mm in profile
- 28 Concrete pad foundation 1m x 1m assumed 500mm depth

We believe that the wall is a breathing wall filled with warmcel insulation which is recycled newspaper bonded with Borax. This allows the walls to breathe creating air gaps for cool air and moisture to escape keeping the warm air in the building.

The insulation warms the air as it comes through the wall trapping warm air in the wall to keep the interior of the building warm.

The structure is a timber frame set at 3-4m centres and is approximately 21m long at each wing, so a total length of 42-45m. The timber frame is approximately 6.5m wide. The roof has two types - there is a clear plastic roof over the terraced area in the centre of the building and the rest of the roof which covers the occupied internal areas has insulation and a green roof to keep those areas warm. The frame is bolted together with steel bolts. There are tie beams connecting to two central posts.



Facing Page
Structural section, 1:50

This Page Top

Axonometric drawing of the structure

This Page Bottom

Plan showing structural grid of timber posts

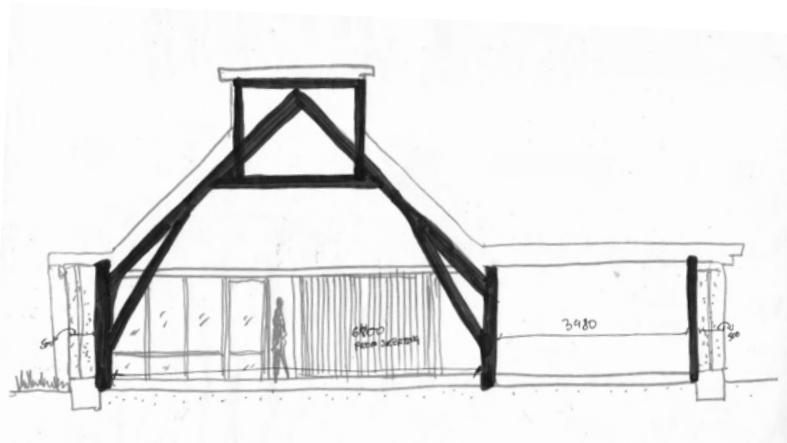


Strawbale Theatre

Building survey by Abhiroop Bhattacharya
and Usman Sattar

The Strawbale Theatre was built in 2000 on course and by volunteers at the cost of approximately £20,000.

Building materials locally available and the by-product of Agriculture so little energy in production provide very good insulation and are quick and easy to build using straw wall in place of brick and block will save between 0.6 and 1.2 tonne of carbon emissions. Construction can give us a U value of 0.15 w/m³k and as well as being good thermal insulation it is a good sound absorber. A typical 3-bed house needs £10,000 of brick or around 400 straw Bales at £600.

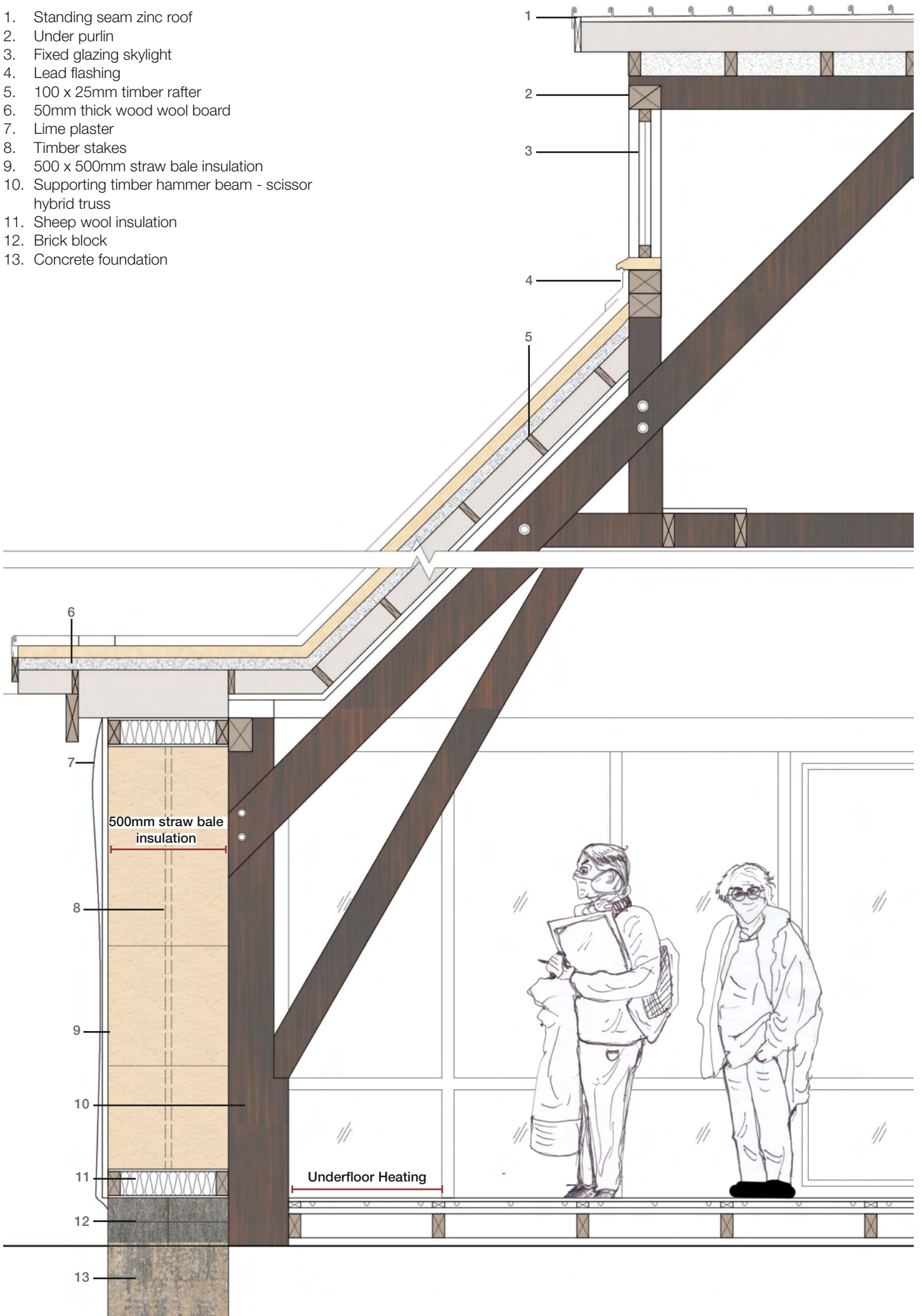


Facing Page
Exterior view of the Strawbale Theatre

Left Top
Section through the timber hammer beam -
scissor hybrid truss

Left Bottom
Interior view of the Strawbale Theatre

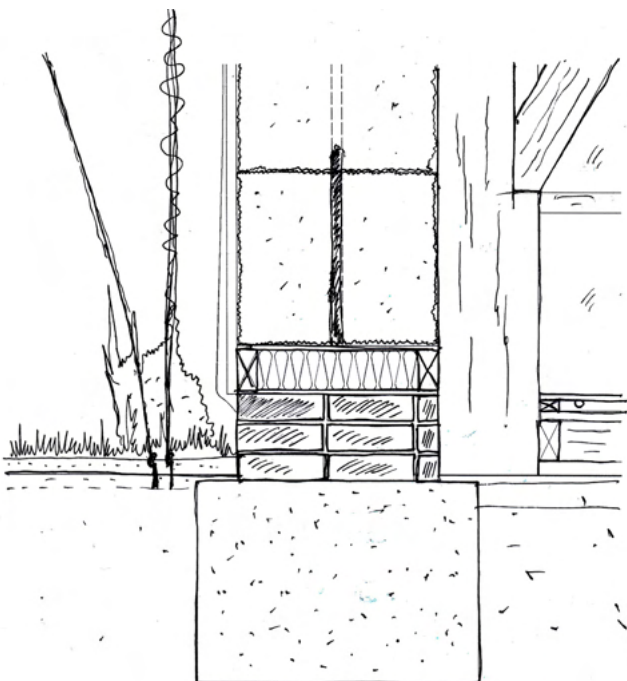
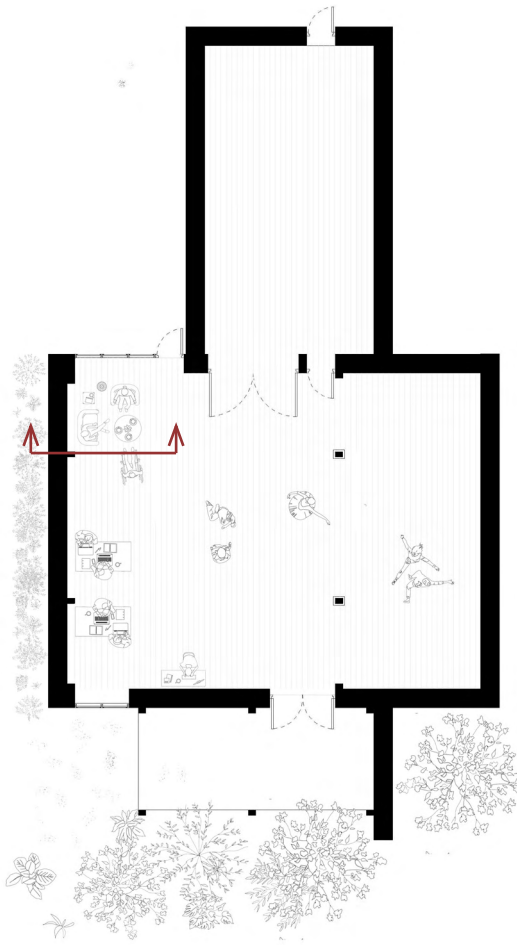
1. Standing seam zinc roof
2. Under purlin
3. Fixed glazing skylight
4. Lead flashing
5. 100 x 25mm timber rafter
6. 50mm thick wood wool board
7. Lime plaster
8. Timber stakes
9. 500 x 500mm straw bale insulation
10. Supporting timber hammer beam - scissor hybrid truss
11. Sheep wool insulation
12. Brick block
13. Concrete foundation



Timber Frame and Straw Bale

This a portal frame building. Two timber frame which acts as a hybrid structure and a load bearing.

Timber frame is local Larch with straw bale as infill. The larch frame what erected in to place on to their pad Foundation each has temporary strutting to hold them in place. Once the building took shape final adjustments were made to the position before they were fixed. The straw was incorporated. After 4 layers a large stake was driven through to hold them in each place. Each layer was stapled at corner with hazel rod and later on Larch poles were driven in on couple of weeks for all the walls to be completed there were some delays due to wet weather the straw must be kept dry.

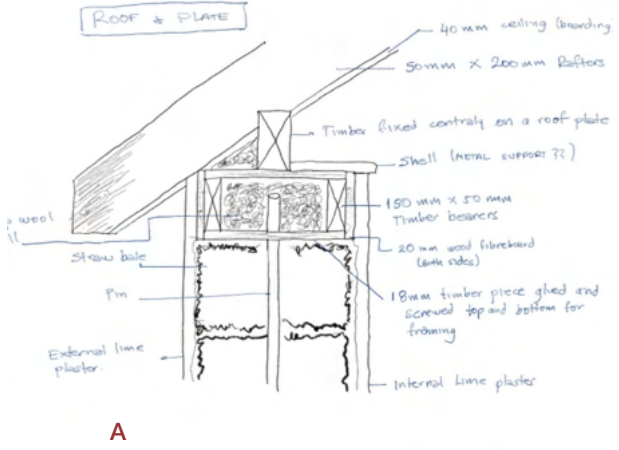
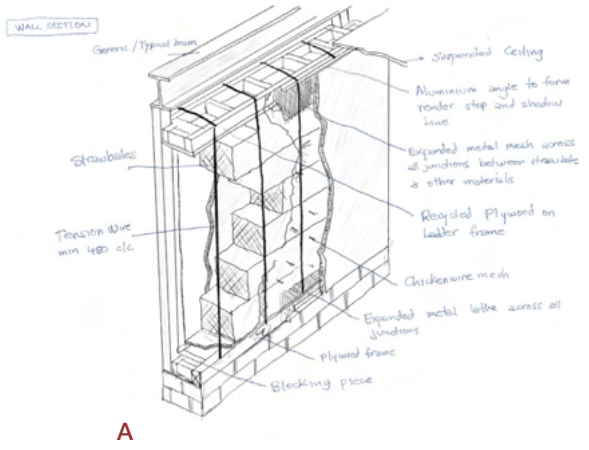
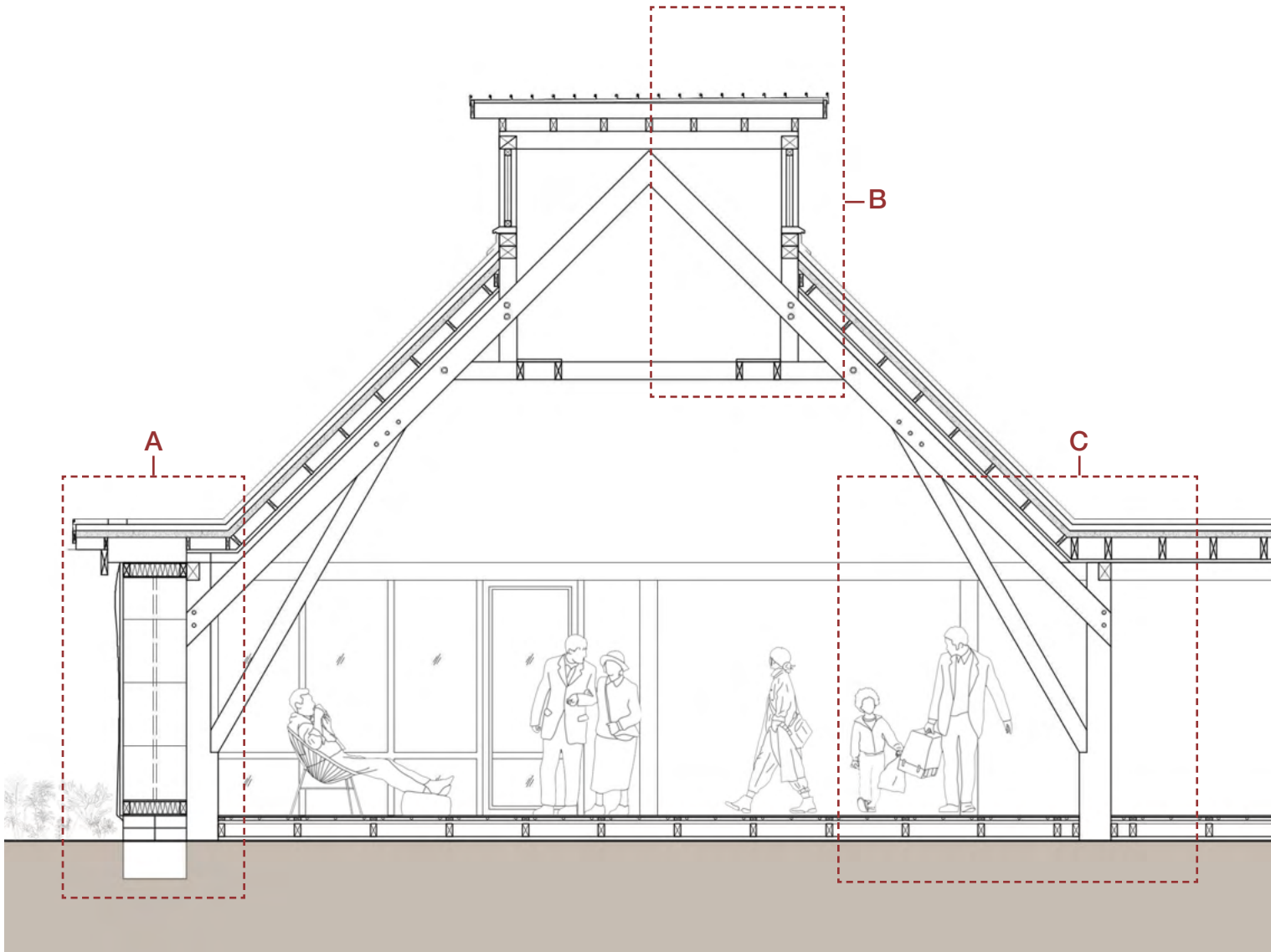


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Strawbale Theatre detail section 1:20

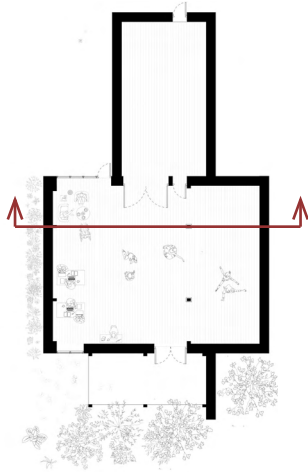
This Page Top
Plan view at 1:200

This Page Bottom
Insulation supported by brick block and concrete pad foundation

Above
Timber frame attached to plaster wall



Section 1:50 Spatial Exploration



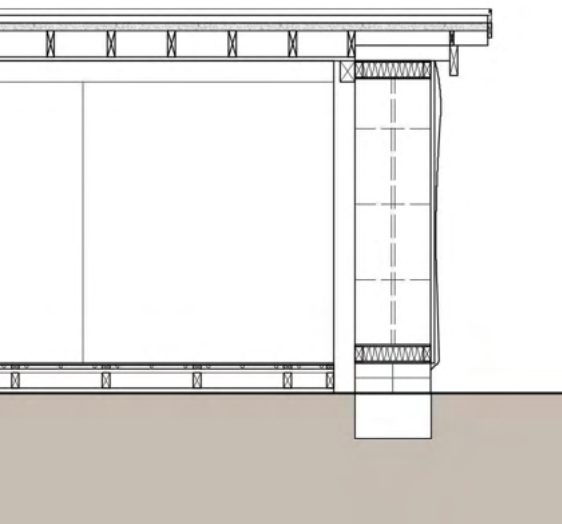
Then the roof was constructed a boxing type wall plate was put on the top row of the Bale the roof members were nailed into place and bolted at the top. Overhanging eaves protected Walls from the worst of the weather. The roof was covered with wood wool slab and then a Layer of EPDM. The Zinc finish was chosen as it is easy to work with hand tools and non-toxic. It is suitable for rainwater collection. The theatre was made from lots of recycled borrowed materials. The roof also needed to be lightweight. The theatre was built by volunteers and zinc was useful as it is fairly easy to work with hand tools. Compared to aluminium stainless steel or copper it does have a shorter life.

Construction process:

- A** Straw bale tied with timber framing. Ring tie is added to hold both straw and timber together.
- B** Stake was driven through to hold them in each place.
- C** Timber ring beam and skylight
- D** Timber scissor frame

Left
Section at 1:50 (and key plan)

Bottom
Construction details



B



C





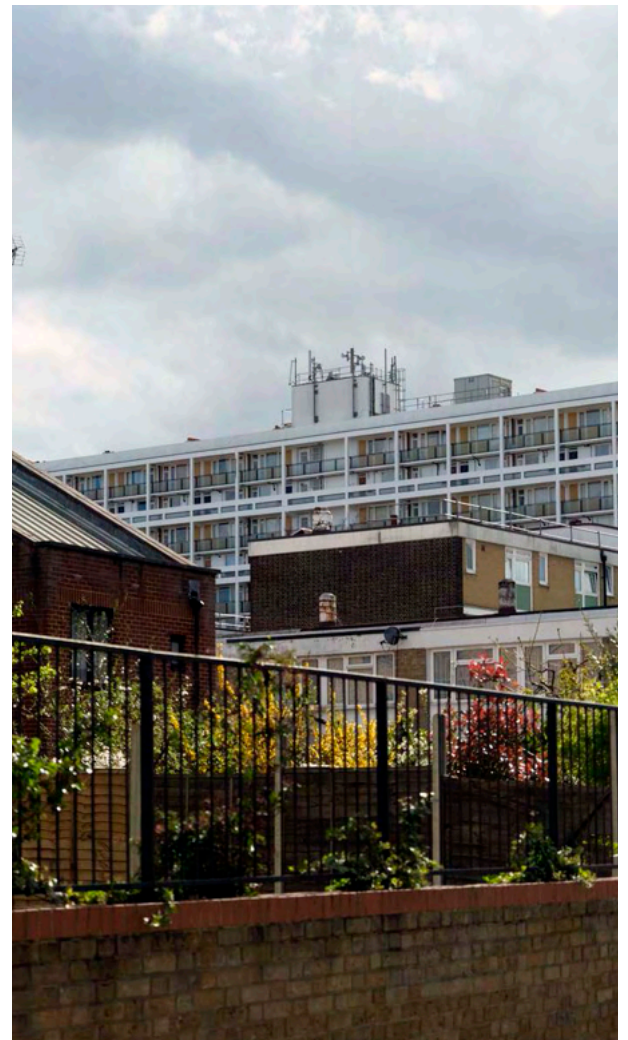
- 1 Community Forest Garden
- 2 Ebony Horse Club
- 3 Wyck Gardens
- 4 Platform Cafe
- 5 Loughborough Farm
- 6 Electrical Substation
- 7 Marcus Lipton Youth Club
- 8 Grove Adventure Playground
- 9 Gordon Grove Metal Company
- 10 Elam Street Open Space
- 11 Loughborough Junction Train Station
- 12 Sureway International Christian Ministry
- 13 Empty Lot
- 14 St Saviour's C of E Primary School
- 15 The Cambrian Explosion
- 16 Kingdom Hall of Jehovah's Witnesses
- 17 Clockwork Studios



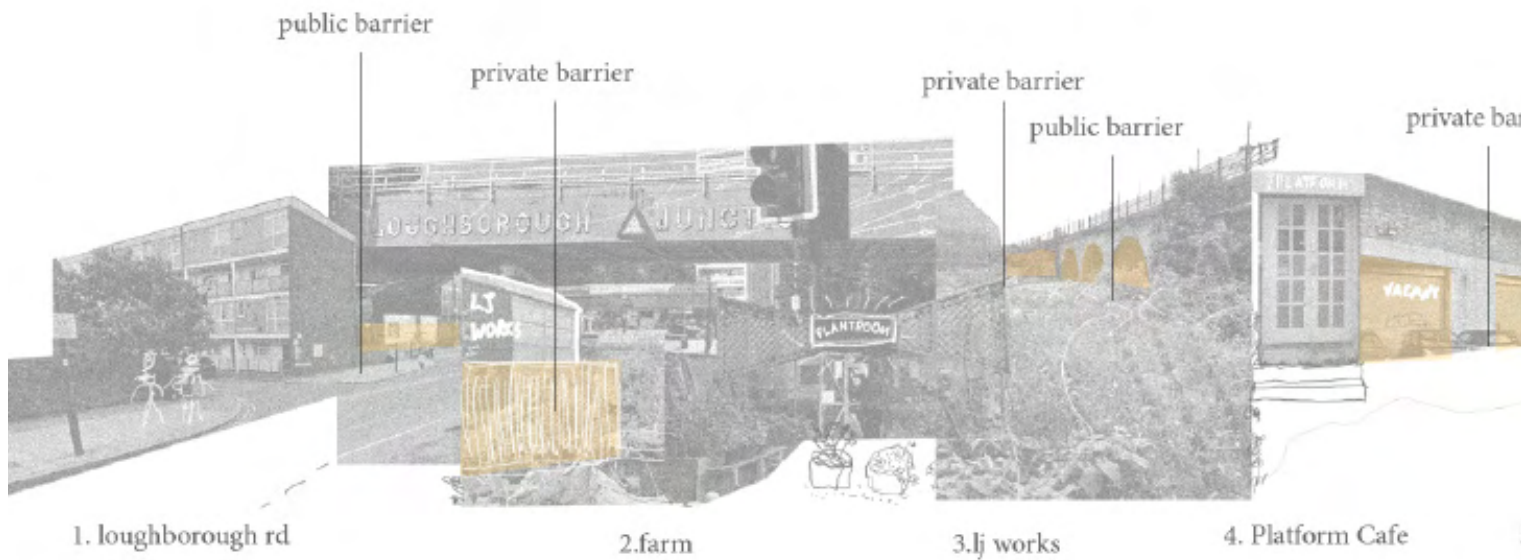
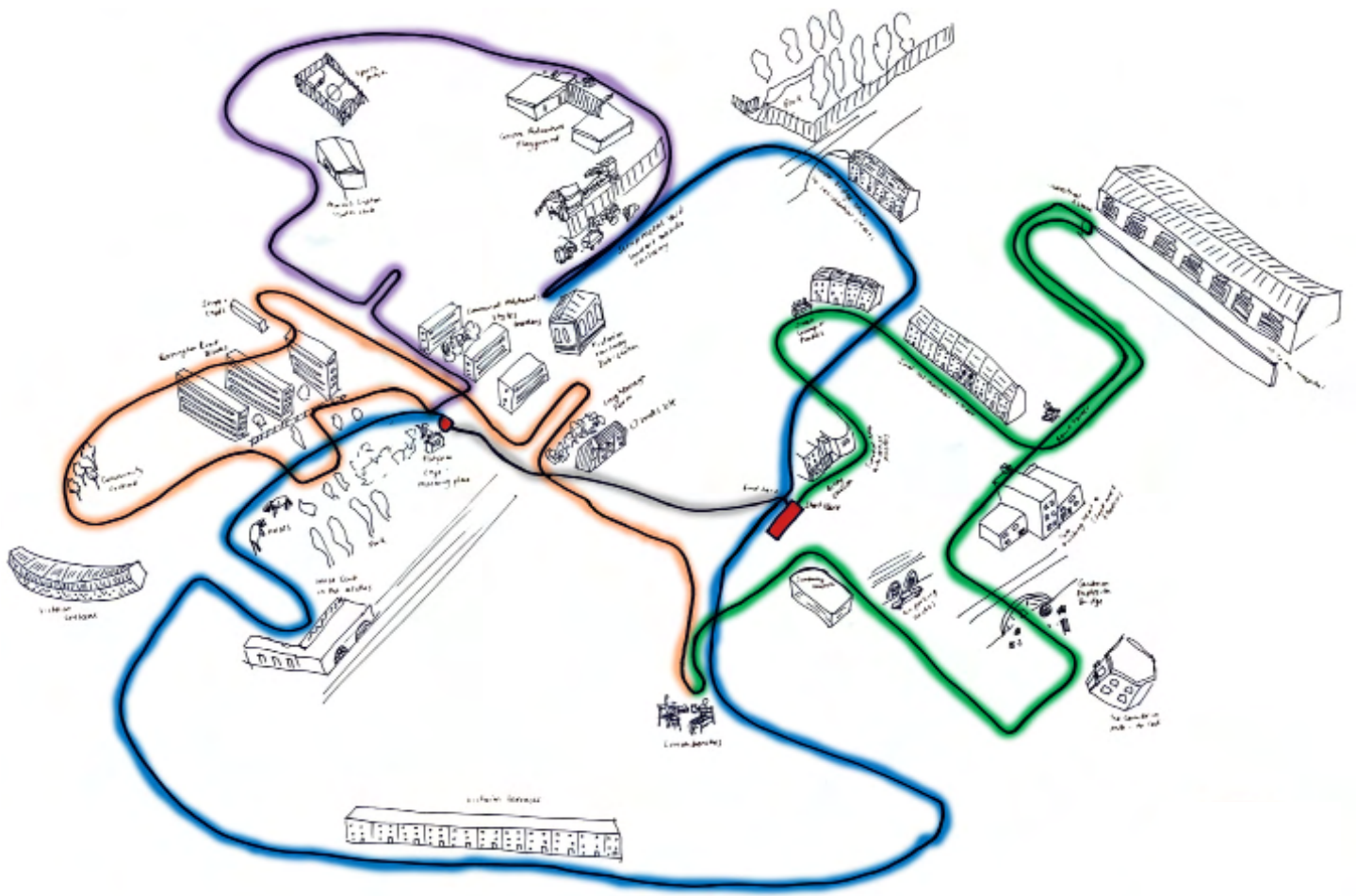
Loughborough Junction

London, UK

The majority of this year's student projects are located within the context of Loughborough Junction, an area in South London defined by a railway line which cuts through the city from Brixton to Peckham and beyond. The area is fragmented, not just physically but socially. Physical barriers segment areas of industry and residential neighbourhoods that house some of the most deprived members of London's society, despite the area's high levels of economic activity.



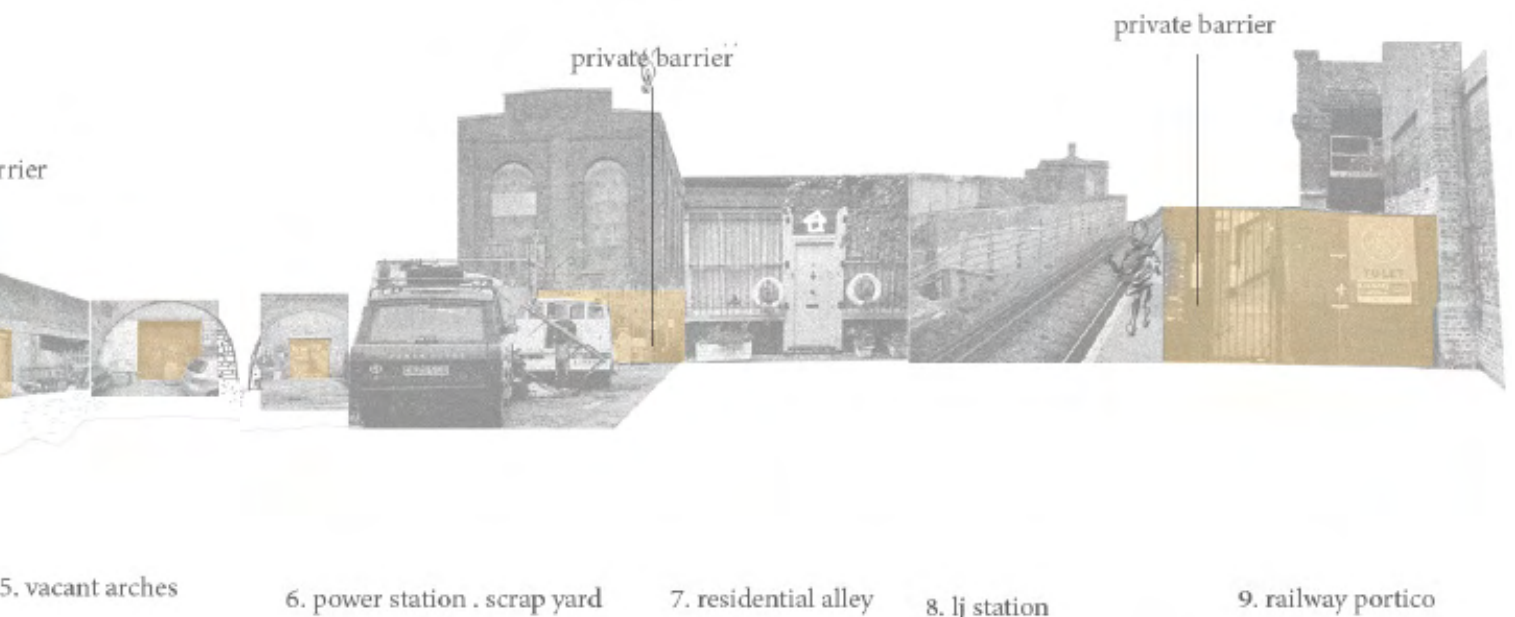
Left
Identifying key community actors (Daniel Stilwell)
Above
Loughborough Junction (Alyzza Valid)



We started our investigation of the area by walking in groups, using the lines of the railway as reference points but without planning where the walks would take us.

Through our walks we noticed physical barriers that segment Loughborough Junction. The most obvious are the railway lines and roads, also the arches, alleyways, gates to parks and gardens. These barriers weren't always visual, many allowed us to look through to an unknown function hidden behind.

Drawing memory maps of our walks uncovered Loughborough Junction's distinctive townscape and the parts of it that stayed with us. Tall housing blocks beside large gardens, scrapyards, a disused sub-station and railway line, rows of terraced houses, a farm and horse club. A collage of fragments starts to form which will help us understand this particular community.





Community Initiatives

The more time we spent in the area, we found more community projects aimed at bringing people together, learning skills and providing space for young people. These projects are run by the Loughborough Junction Action Group (LJAG), a group of volunteers that came together in 2008 following the murder of a young man in the area.

The projects we came across include LJ Farm and Cafe, where volunteers sell food with ingredients grown in the farm, an adventure playground and an art project spanning Loughborough Junction's seven bridges.

Outside of LJAG, there are other community initiatives with similar aims. A horse club offering lessons and mentoring to young people. LJ Works, adjacent to the Farm though not yet in use, provides co-working space for creatives. The Remakery is a not-for-profit maker-space that holds events, workshops and talks and focuses on upcycling and re-using materials.



Top: Sketches

Cultural Pockets (Usman Sattar)

Bottom Left

Community orchard (Laura Roberts)

Bottom Middle

Grove Adventure Playground and scrapyard (Laura Roberts)

Bottom Right

LJ Works (Laura Roberts)



Ruminating thoughts
under blue sky
warm summer breeze
gentle whisper
of fluttering aspens
silences our soul
sun's bright smile
kisses our heart
ephemeral nature
breathing life
shares her love and beauty
telling us what we need to hear

easing our mind;
everything is alive
everything changes
today fades into tomorrow
love and dream
love and dream
love and dream



Sara, The Remakery.

“We reuse waste materials and try to organize events to support and celebrate the variety of local cultures here in south. But the council doesn’t always cooperate. The most we can do is apply for funding and hope LJ doesn’t change too much”.

Ray, SIA Carnival Making:

“There’s three cultural points in the area. And there is artists and makers that are trying to bring them together. But it seems to me they just want to show beautiful objects rather than empowering our community”.



Maude, LJAC:

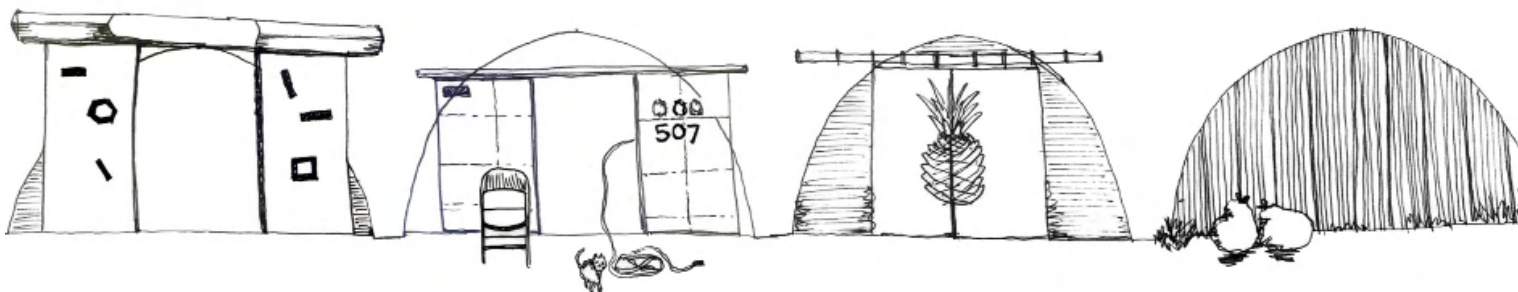
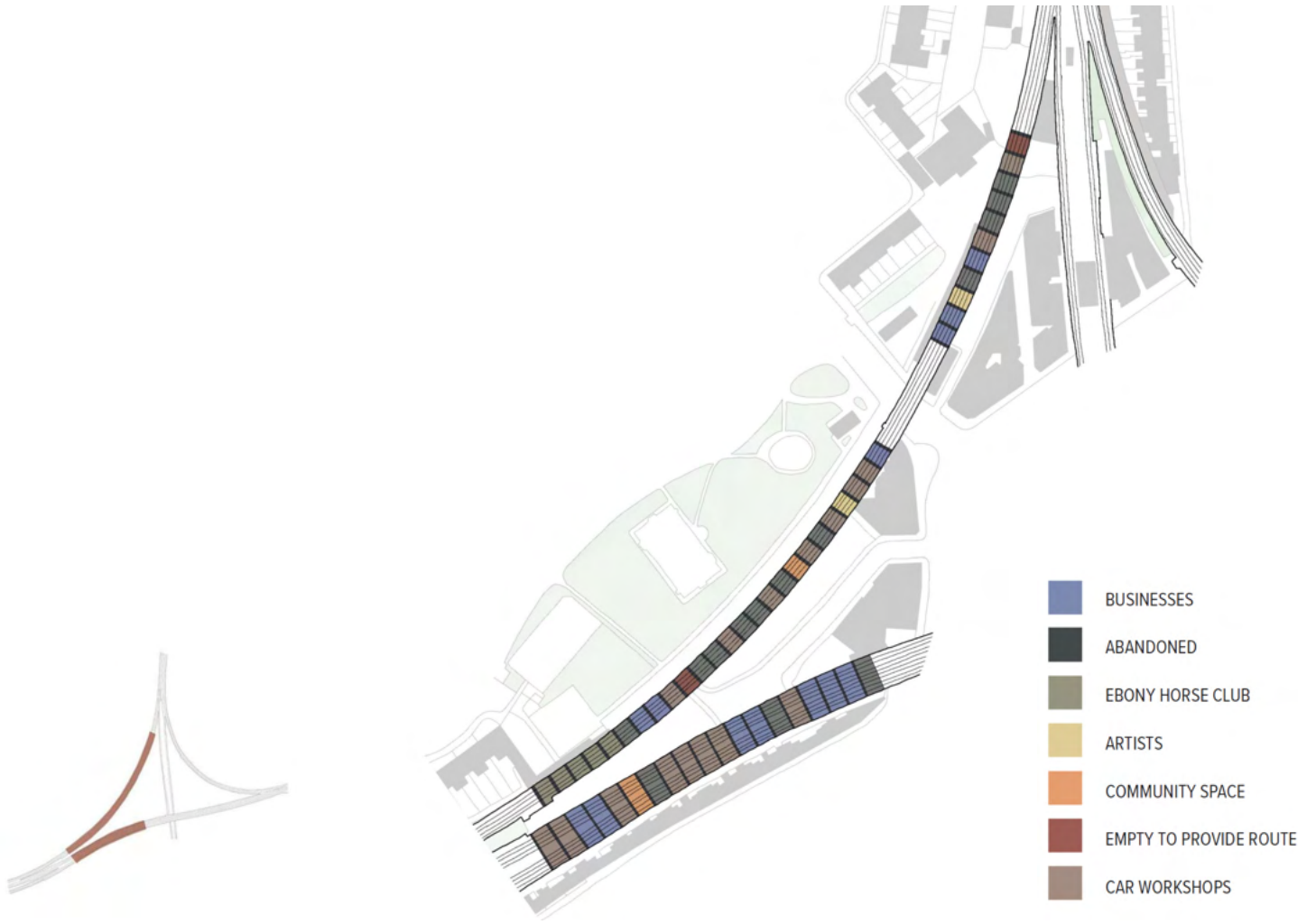
“They tried to take our playground with a massive scary redevelopment but through protesting we gained the council trust in leading regeneration with LJ Works”.



Steve Armah , Pastor at Sureway Int. Ministries:

“No one really stops at Loughborough to socialize”.



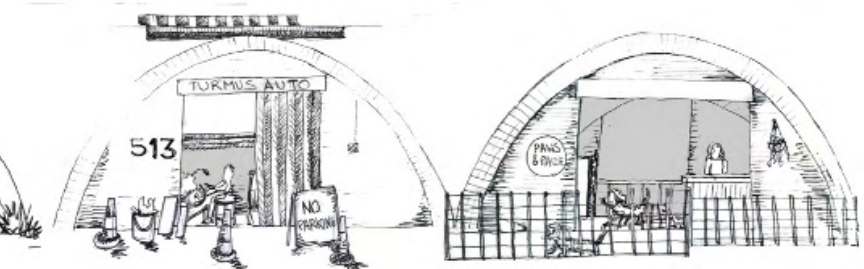
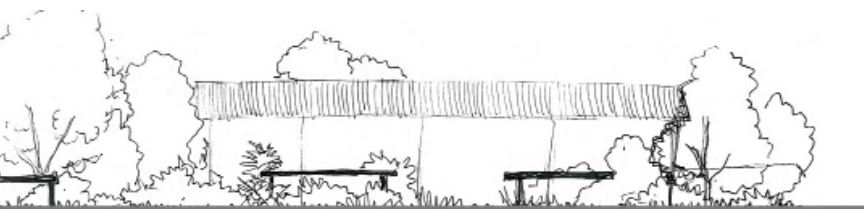
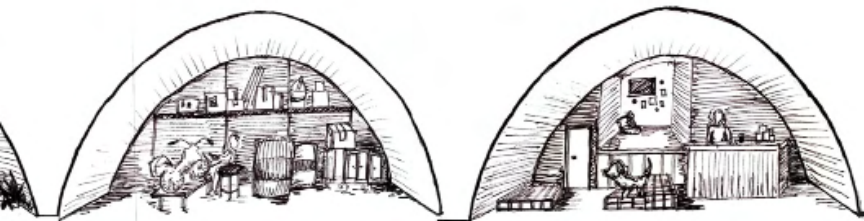




Railway Arches and Material Circularity

Through our collective investigations we soon realise that the businesses residing in the arches support each other and have formed a sort of network. They exchange skills and materials, and working within such tight spaces creates the need to share physical resources and communicate with each other. Many of the businesses and initiatives started before the Covid-19 pandemic and found their growth hindered, unable to fully develop the civic structure of the area.

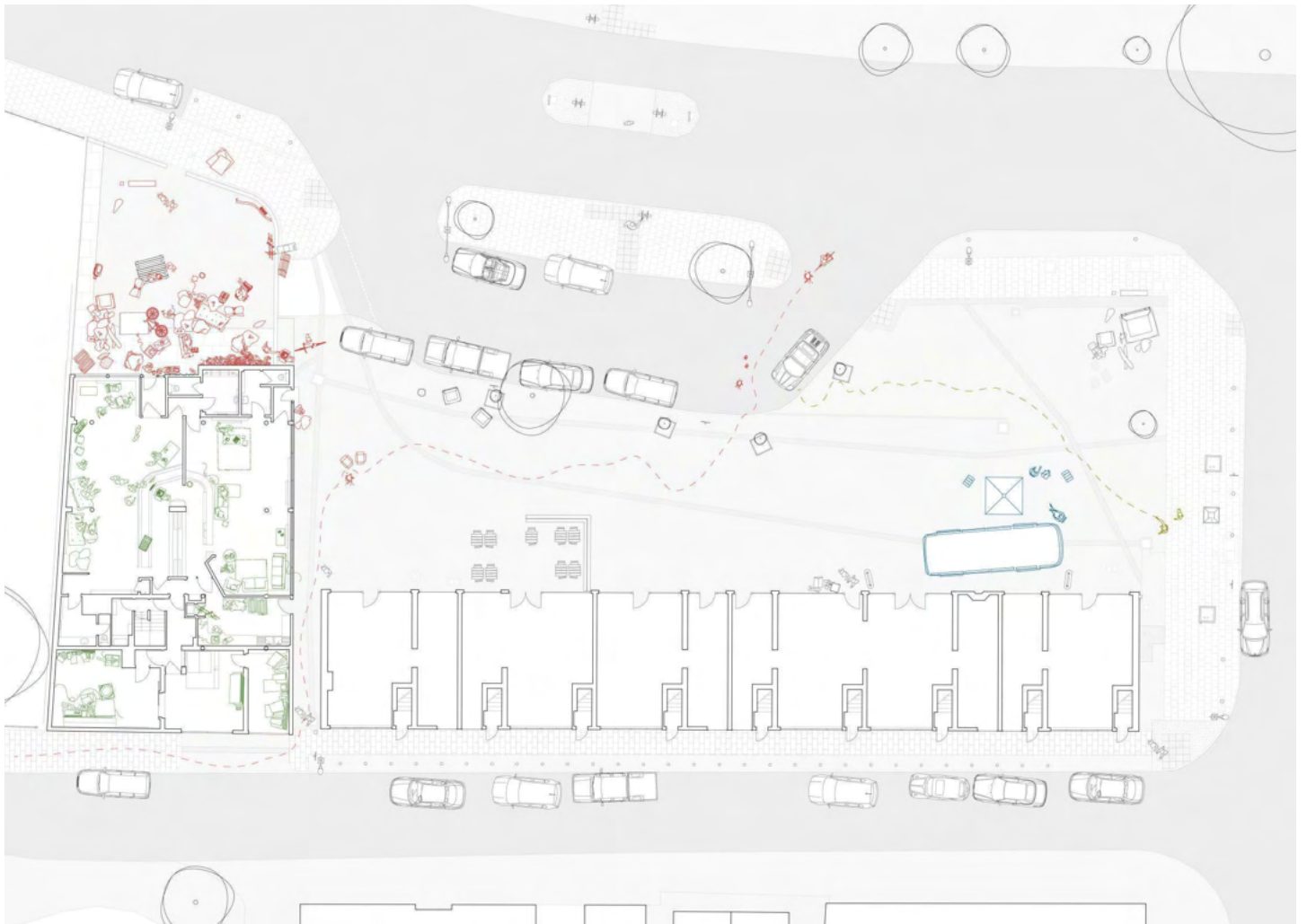
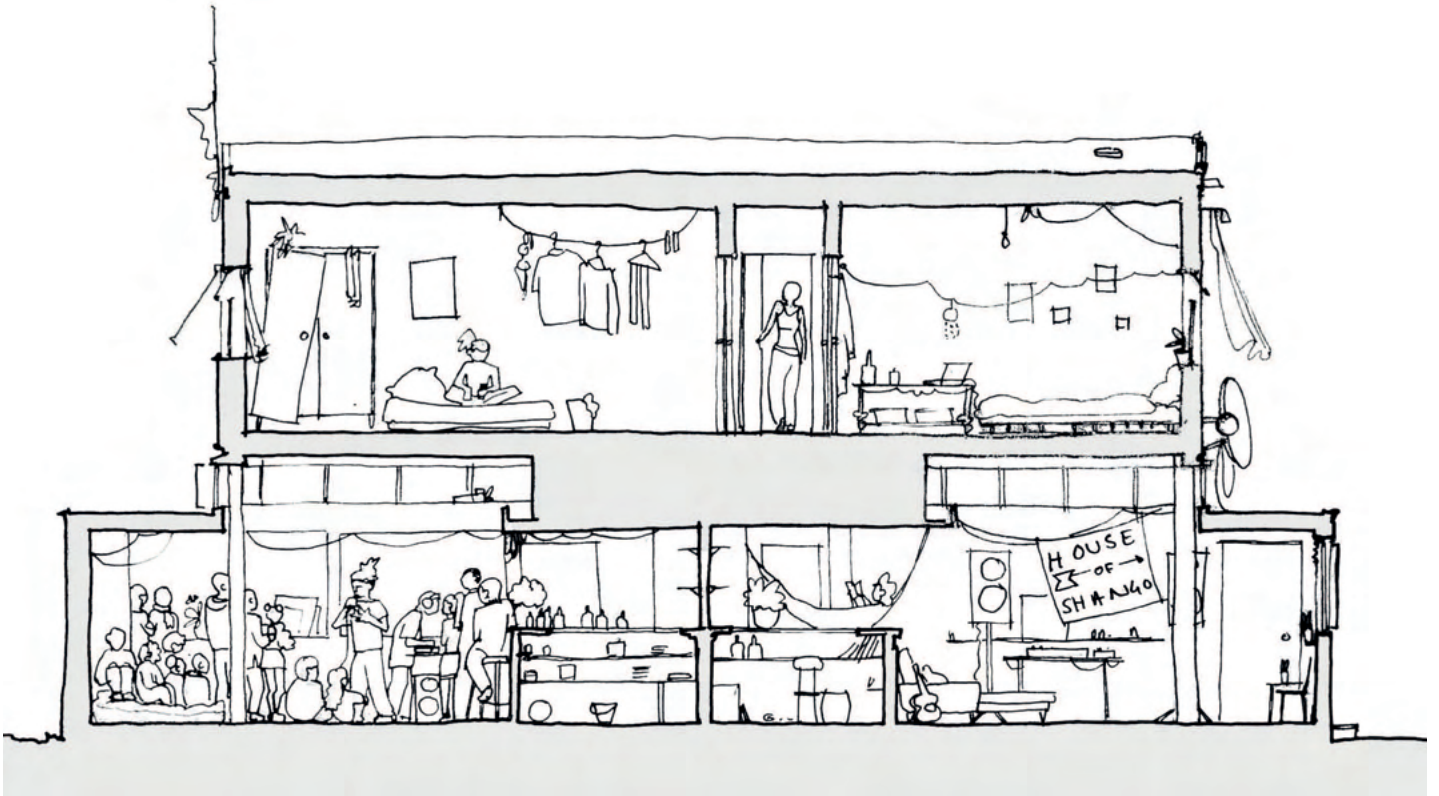
The railway lines have most of their elevations uncovered by buildings or fences. Most of the arches are used by mechanics and makers, who call the area the 'back of house' of the more popular, gentrified Brixton arches next door. Many of them have used found and cheap materials, such as corrugated metal, polycarbonate sheets and timber pallets to enclose their space within the arches.

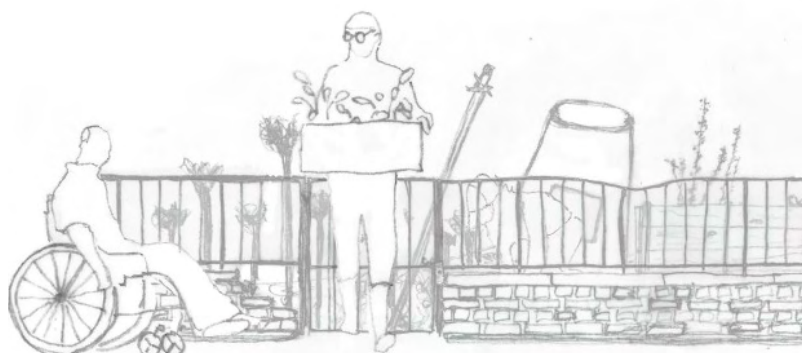


Facing Page Top
Arch inhabitation and use plan (Anita Zarzycka)

Left
Study of the existing arches (Sara Golnabi)

Above
Found materials (Usman Sattar)





Loughborough Estate was built between 1954-57 by LLC Architects, currently containing 1214 homes. Styles Gardens and Hero Square were two areas of investigation that relate to housing on the estate. Styles Estate was named after its gardens, which make the estate feel like a home rather than rented housing. Hero Square, with an open public space, a row of small shops and a group of active organisations focused around the square. House of Shango squats the pub on the corner of the square and holds events there. Hero Square is also used by the NHS as a base for their vaccination van and LJAG have links to the community centre next door.

Facing Page Top
House of Shango (Morgan MacGregor)
Facing Page Bottom
Hero Square (Morgan MacGregor)
This Page
Sketch studies of urban greening (James Lifely)

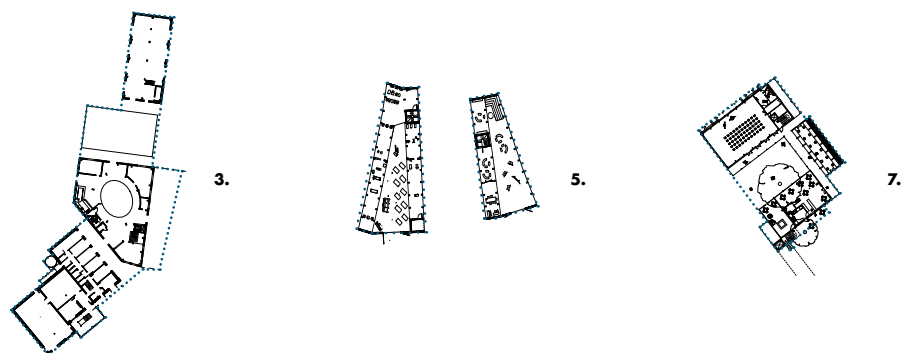
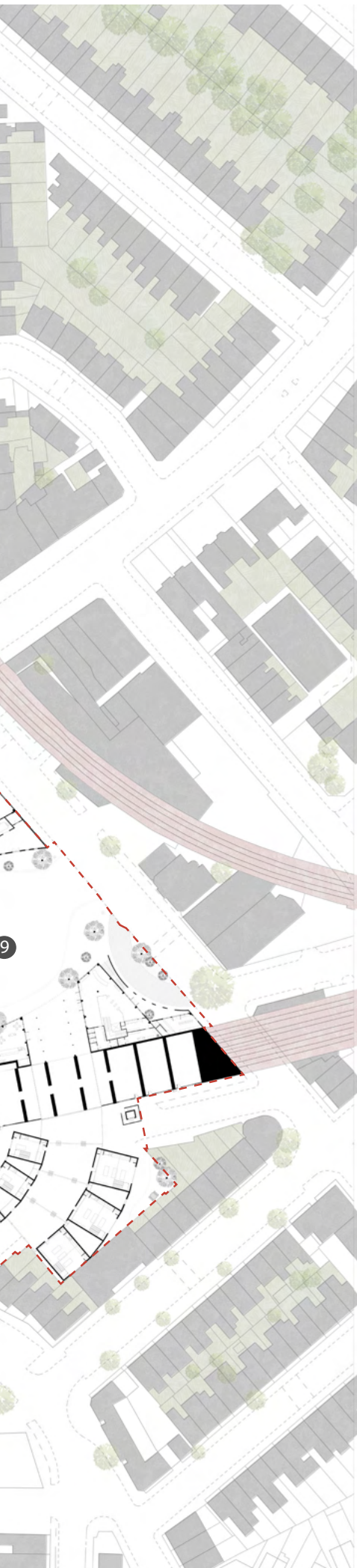


Thesis Proposals

Loughborough Junction

Unit 6 Tutors: Bo Tang, Maurice Mitchell

Students developed their own briefs from their cultural and physical investigations of the site. Proposals included: an Exchange facilitating local circular economies; a Retrofit Rewilding System involving three different garden typologies; and a ground source district heating system energy centre with civic marketplace, hall and clock tower. The proposed schemes came together to form a collage of fragments within the Loughborough Junction setting.



COLLAGE OF FRAGMENTS

UNIT 6 proposals across Loughborough Junction

1. Morgan MacGregor 2. Rares Tugui 3. Usman Sattar 4. James Lively 5. Luca Vincenzo Puzzone
6. Abhiroop Bhattacharya 7. Rayka Kakavand 8. Laura Roberts 9. Alyzza Valid

Opening Up

Laura Roberts

The project opens up the railway arches, the roads and the park creating opportunities to gather, to learn and explore, addressing three key issues - safety, skills training and play - through five phased elements.

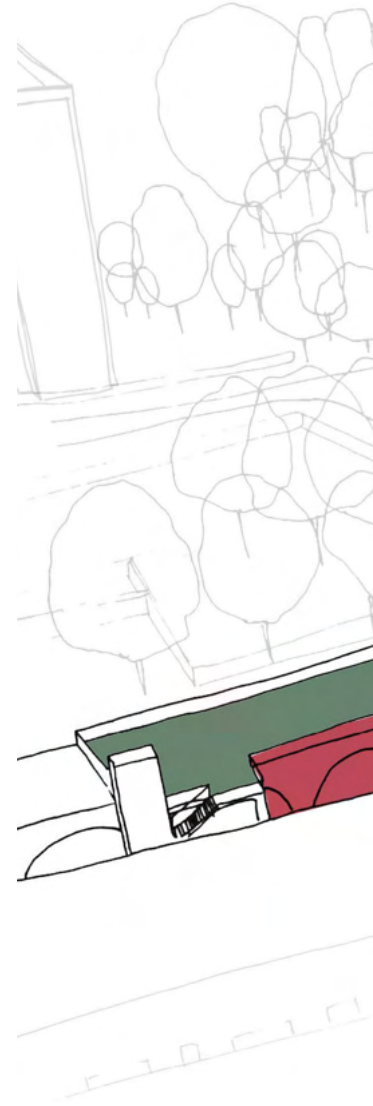
Cafe Collective: The existing café is re-built using some of the reclaimed bricks. It is extended upwards to create a separate events hire space freeing up the café for longer hours of opening. A kiosk is added to allow late opening for the safety of the staff. Public toilets are accessed separately to the café and a new stair and lift are in place allowing access up to the Green Walkway.

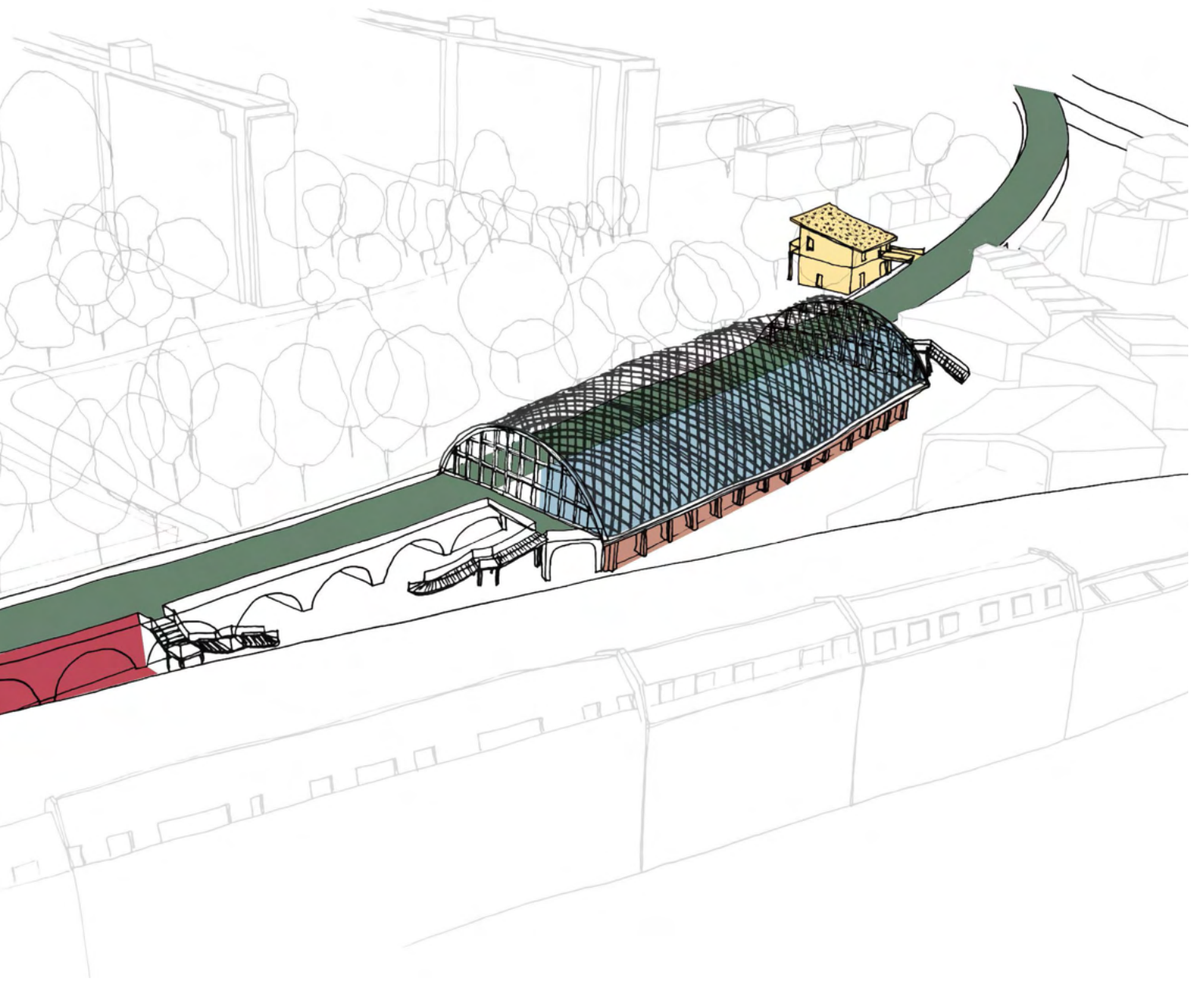
Green Walkway and Infrastructure: The Green Walkway is constructed to allow movement south along the railway to where the Scrapyard Playground will be. This could be extended in the north direction to arrive at the station. Note - this northern-most section of the walkway has not been included in my proposals as others in the unit are examining these connections more closely.

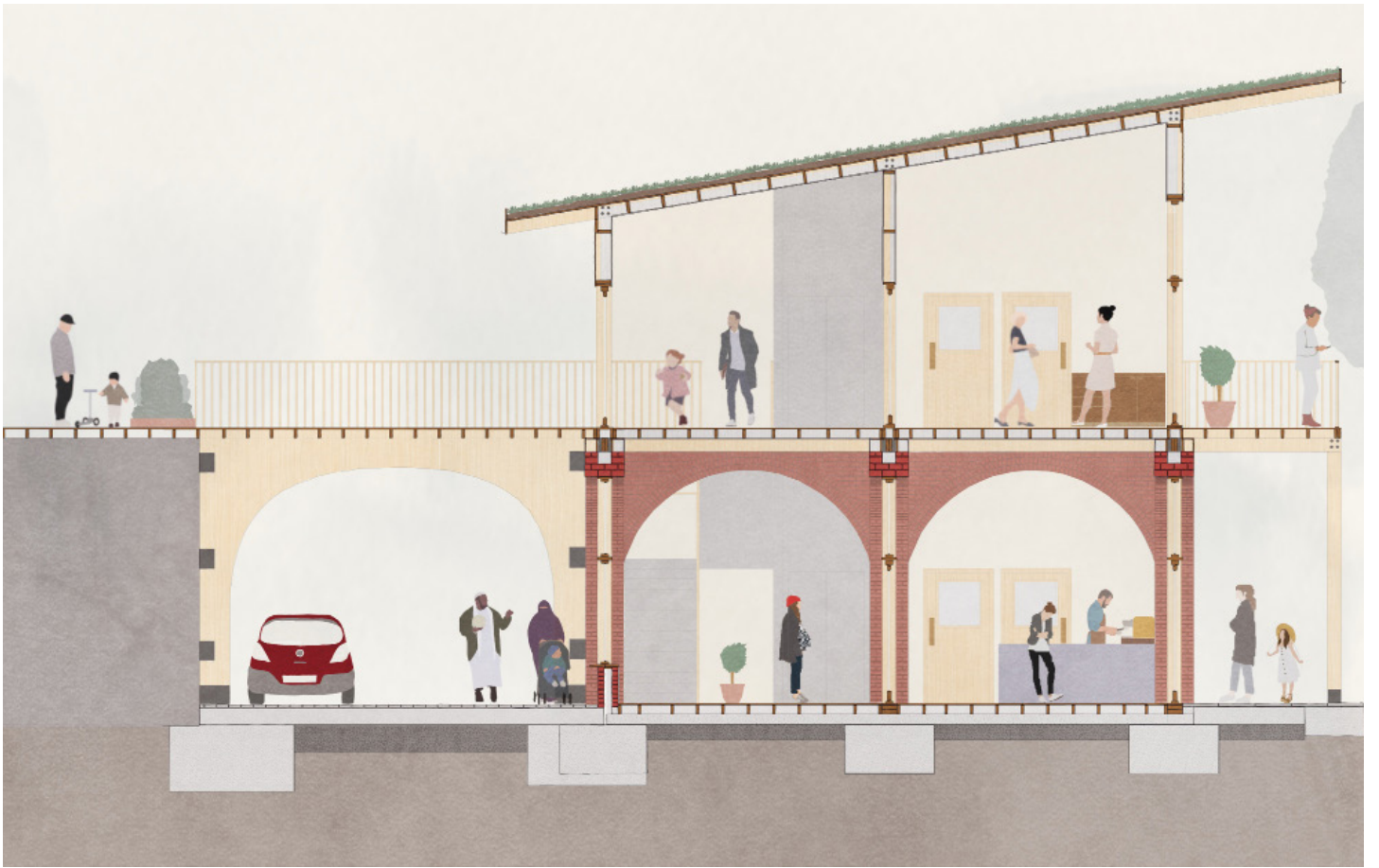
Market Hall: The Market Hall is a covered market held in brick arches. These arches also hold up the floor of the workshop above. These spaces can be kept open for market stalls or could be enclosed as shop units over time. They also contain public toilets and protected stairs and lifts up to the Green Walkway and Workshop above.

Covered Workshop: A gridshell roof is constructed over the brick arches with glulam supports connected to the brick columns. This is glazed and clad and provides a covered workshop and walkway giving a place for young people to practice skills and trades and the opportunity for other local people including younger children to observe their work.

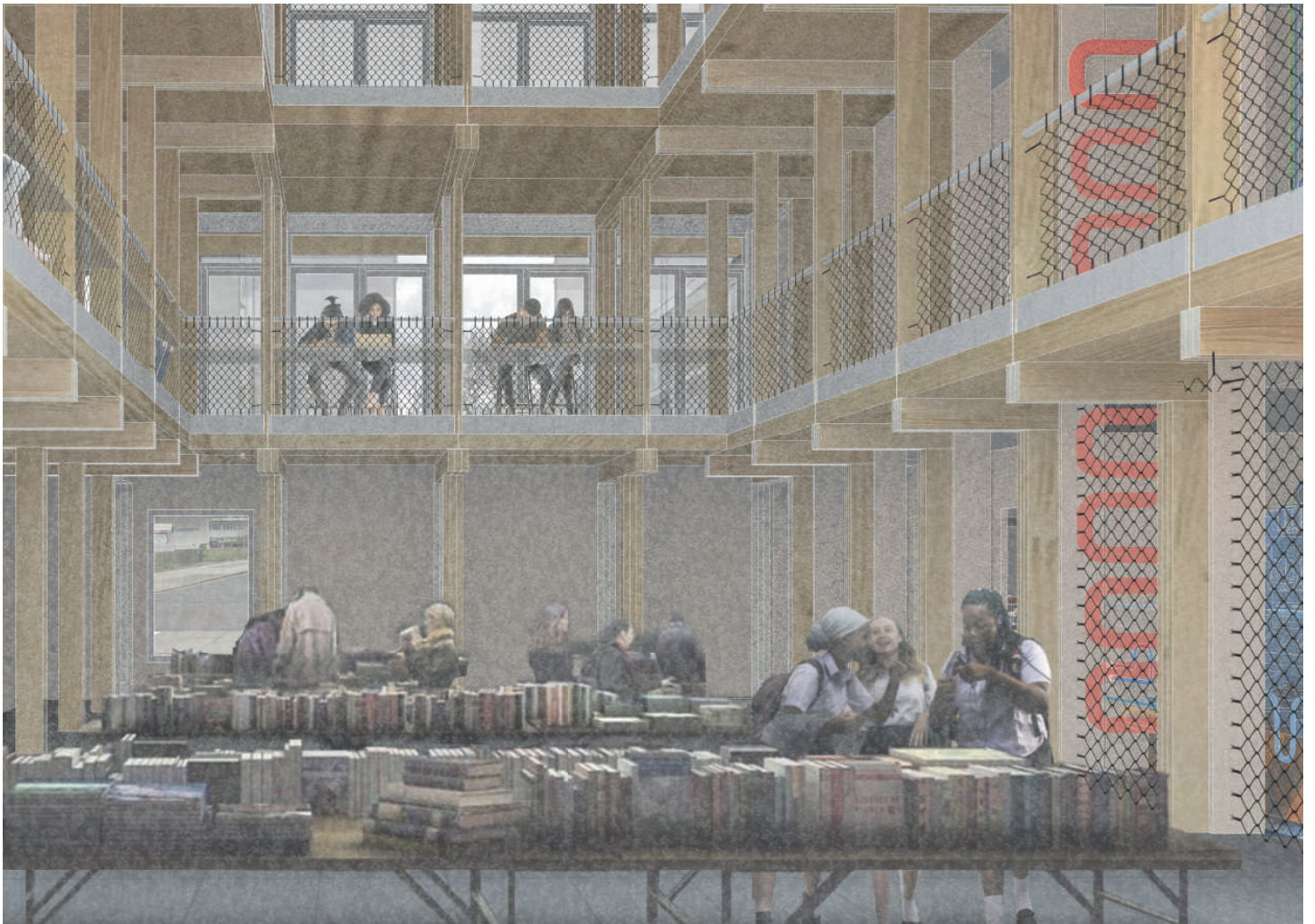
Scrapyard Playground: The playground will be constructed using reclaimed scrap material from the nearby breakers yard. This will be carefully created to ensure it is safe for the children to play with the scrap materials.





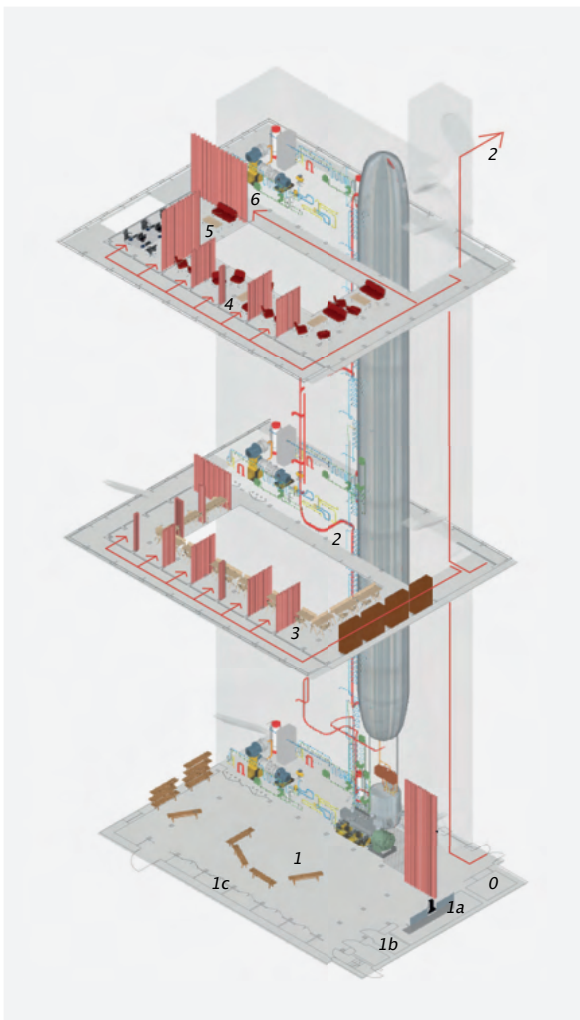






Hero Square: a (pro)TEST Site

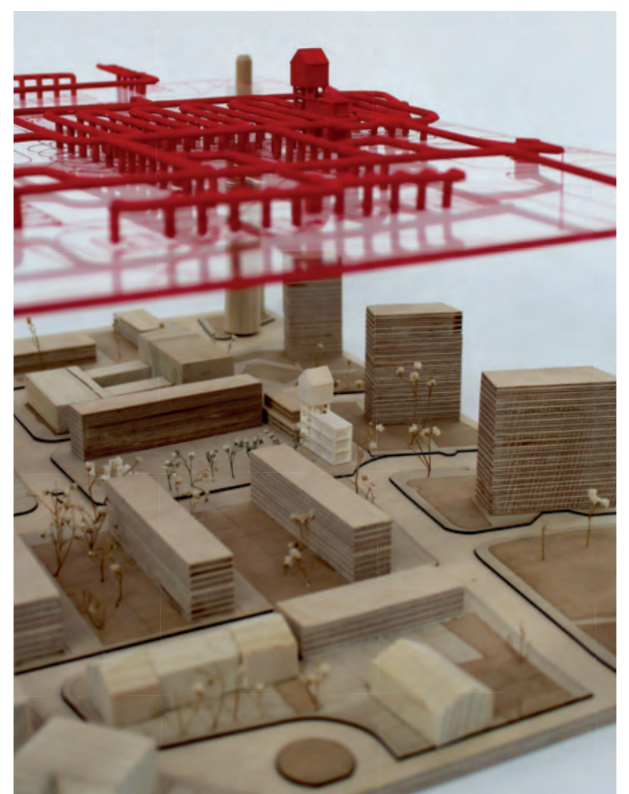
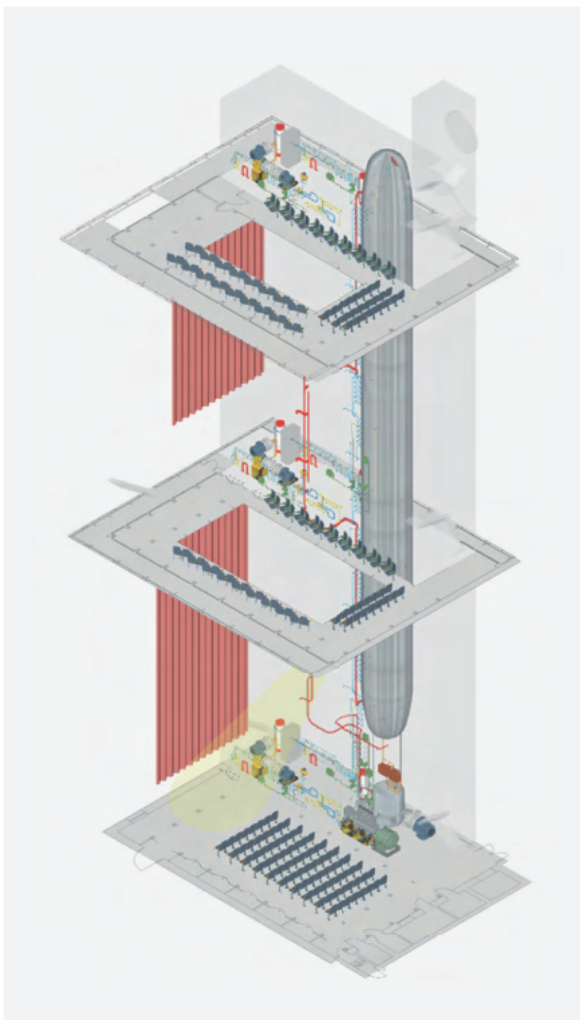
Morgan MacGregor



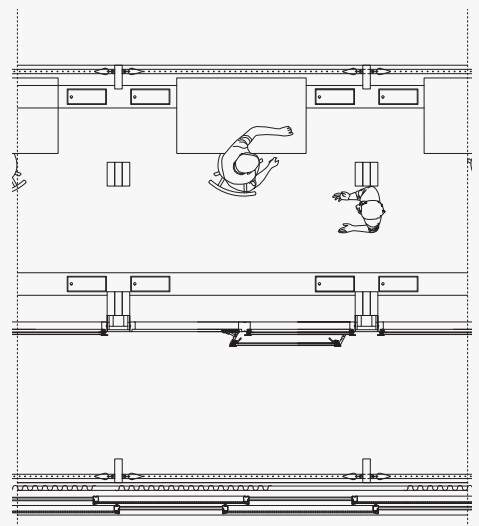
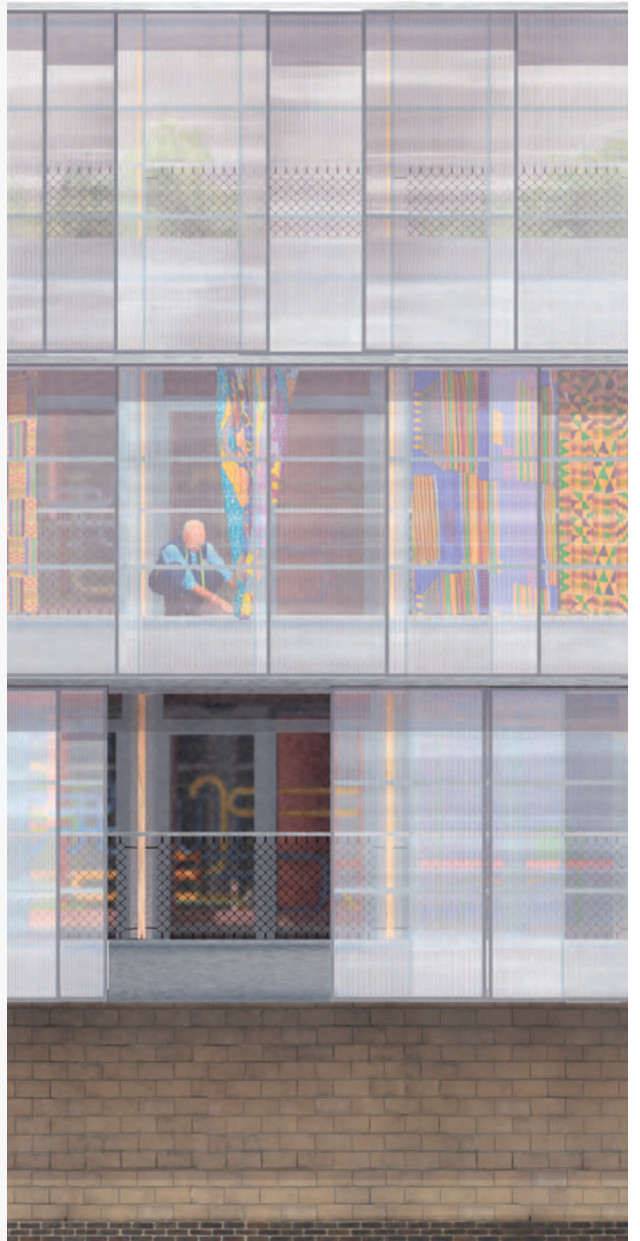
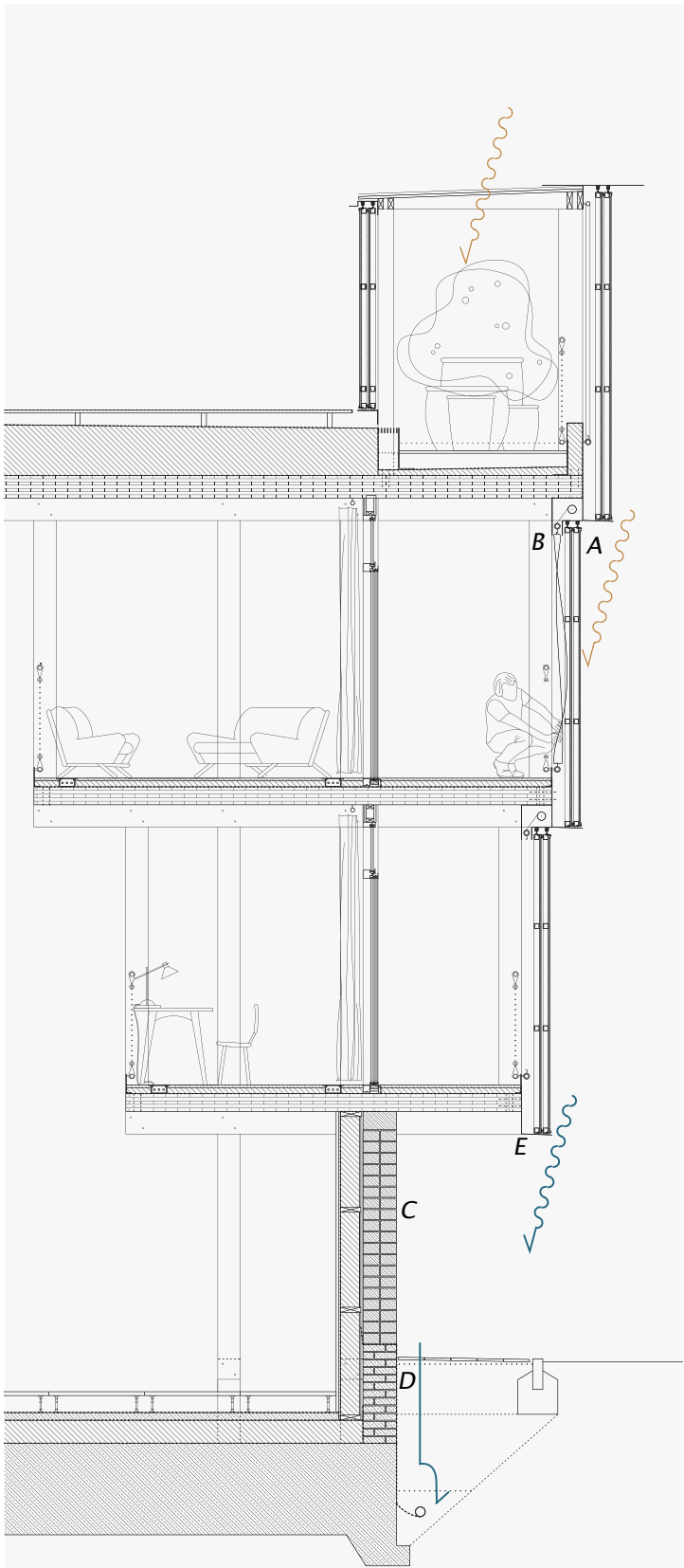
The (pro)Test Site proposes the introduction of a convivial, collective piece of social infrastructure, which, when combined with existing societal and physical infrastructure, catalyses bottom-up and top-down intervention across the Loughborough Estate. This is done through the introduction of ground source district heating system, clock tower and civic market space (1), utilising existing squatting groups and their capacity to experiment, facilitating a range of fabric improvements across the estate. These will be a combination of Council-led and self-built by residents, based around a retrofitted, filigree double skin and existing thermal mass interaction strategy (2,3).

The construction of a civic hall on the square will be a formal consolidation and celebration of principles, with a double skin wrapping around the energy centre block (6,7). The Energy centre housing and displayed instruments will remain visible from both inside and outside the hall (8). The external polycarbonate outer skin wraps around the outside of the frame, independent of the structural grid, and has been designed to be easily adapted and maintained (4).

By providing the catalyst for action, a space in which to test and critique, and a system with which to experiment, the evolution and strengthening of existing networks can produce a rich, resilient, and heterogeneous urban grain in Loughborough Junction (5).





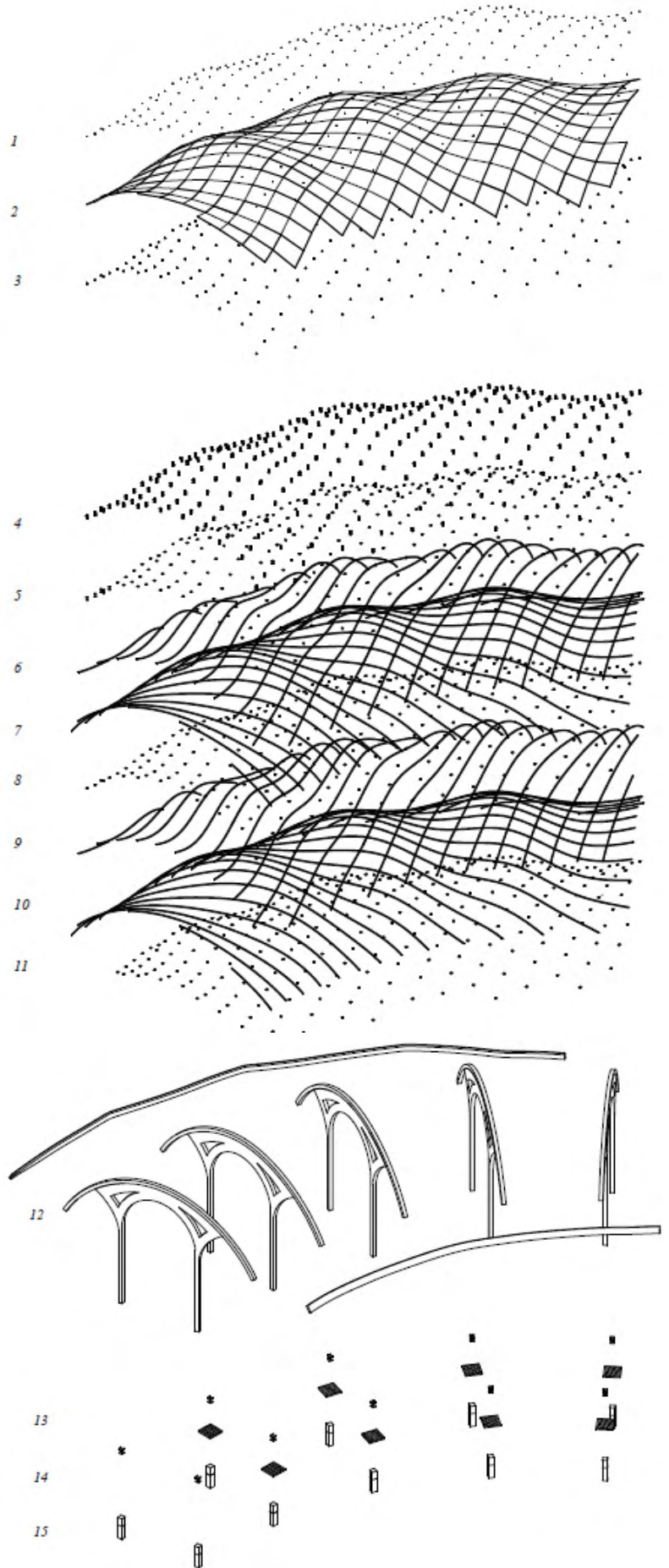
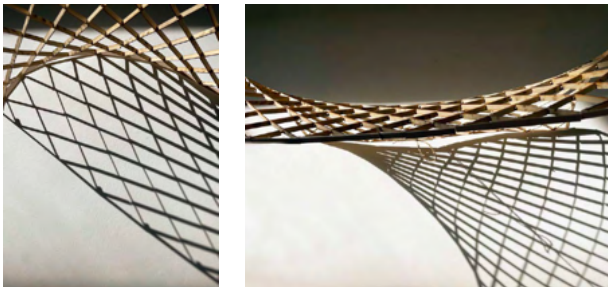


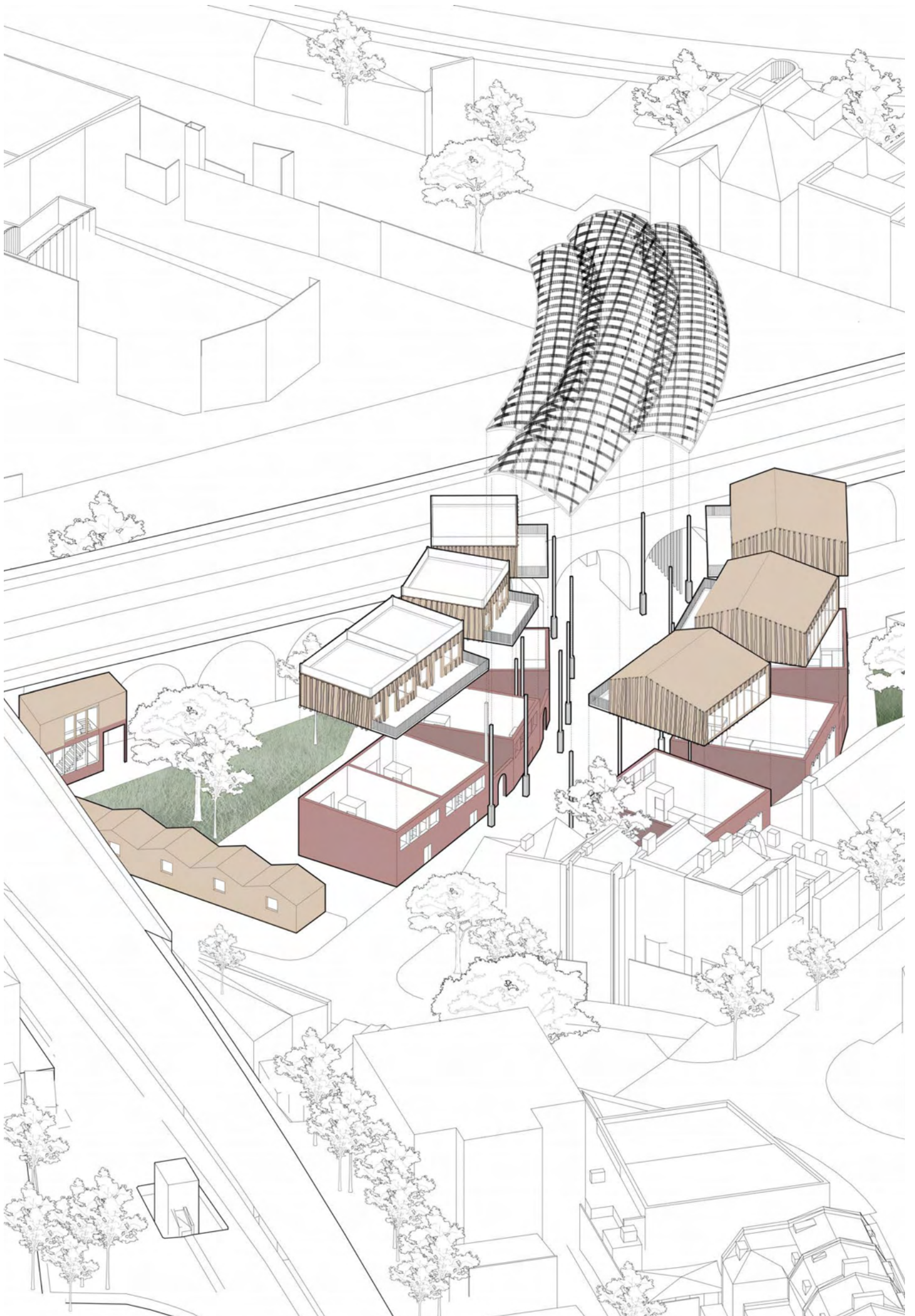
Civic Crescent

Alyzza Valid

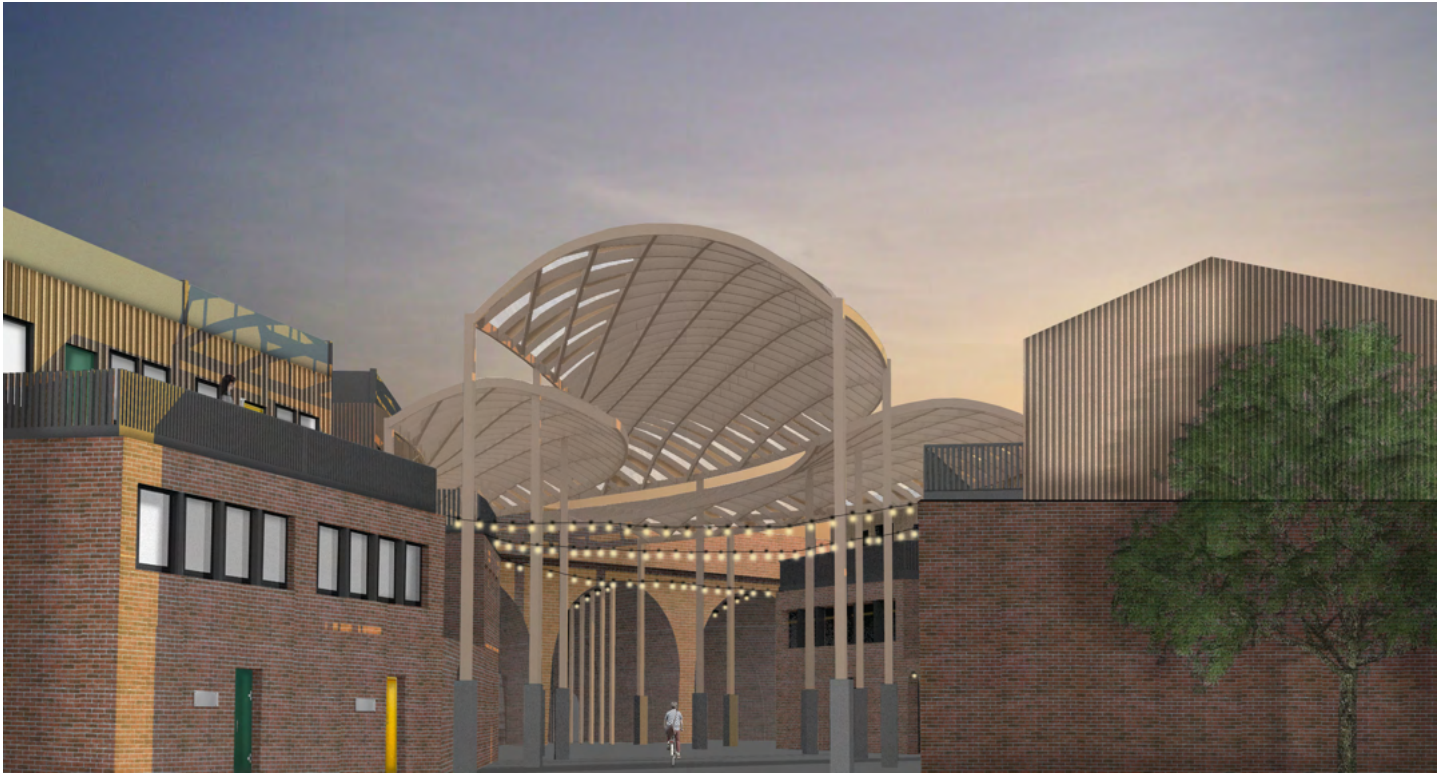
The scheme strives to create a 'sense of place' that has been a recurring conversation that is lacking at Loughborough Junction. In rejecting the development of 'another tower block' and re-imagining the site as an urban space dedicated to activating the arches to exploit its potential, to extend and open barriers for new routes and access, pocket gardens, and communal areas that also promote the area by showcasing the artwork within the arches.

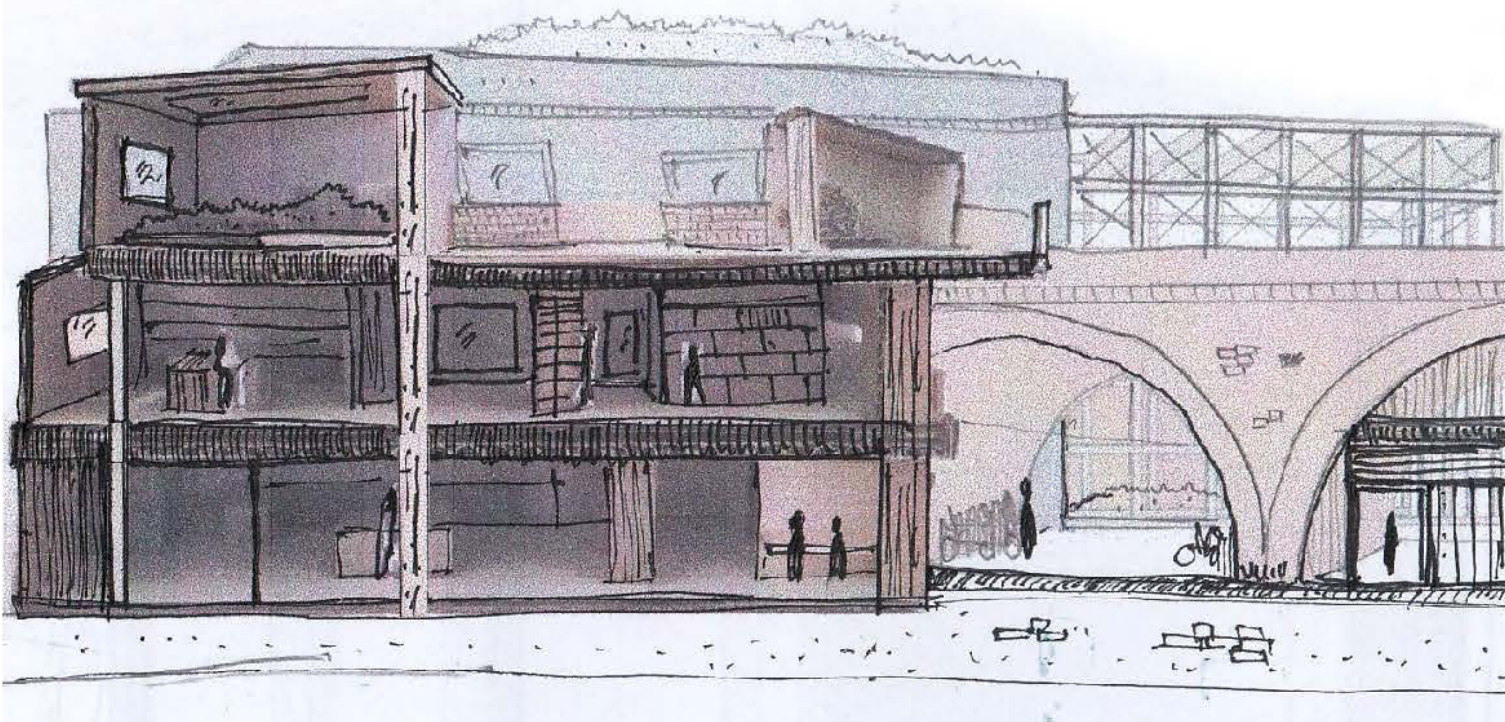
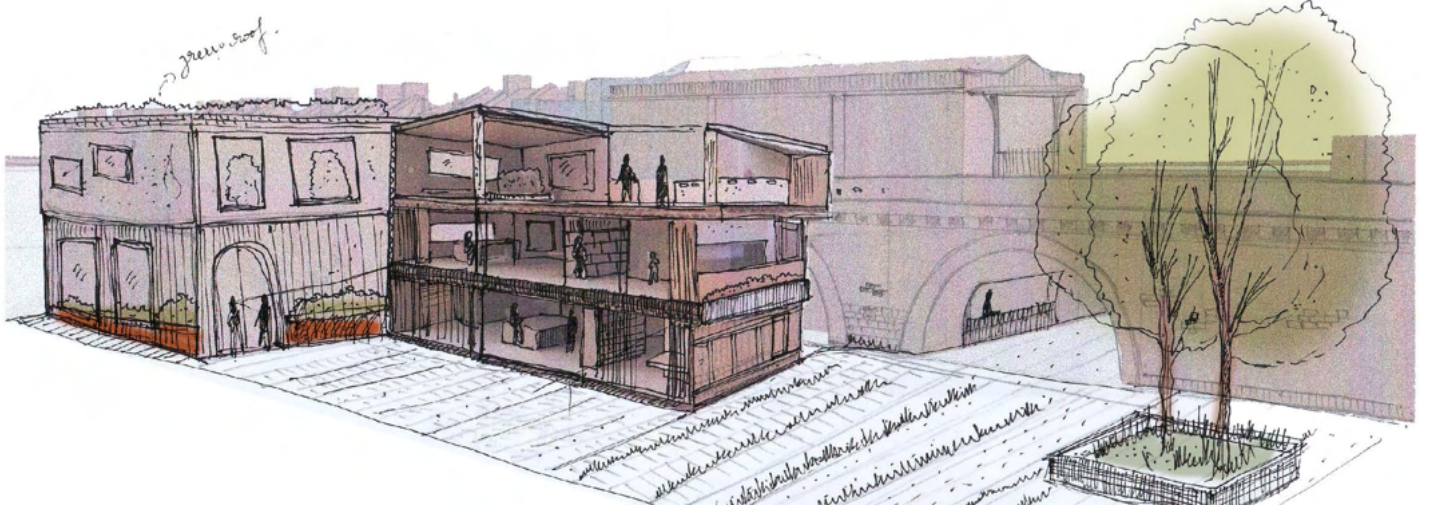
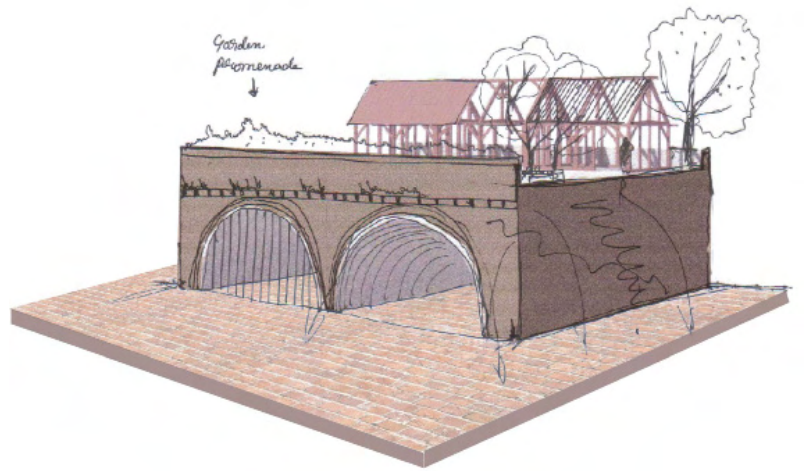
Under a lamella roof structure, the southern proposal offers a live-work arrangement for artists and crafts-people in similar living conditions. By opening up the arches as a new route, the northern proposal constructs a civic square that serves as a new meeting place at Loughborough Junction. Taking advantage of the site's proximity to two railway lines, the scheme also creates a new Overground station on the south and new platform access for the Loughborough Junction railway. Buildings surrounding the civic square such as cafes, art galleries, and a new entrance to the existing church give it a defined shape, interspersed with green spaces. Whether it is Saturday markets, outdoor exhibitions, film screenings and ice skating, the civic square will become a place of constant movement and gatherings throughout the year. A space where people can integrate, exchange and socialize.











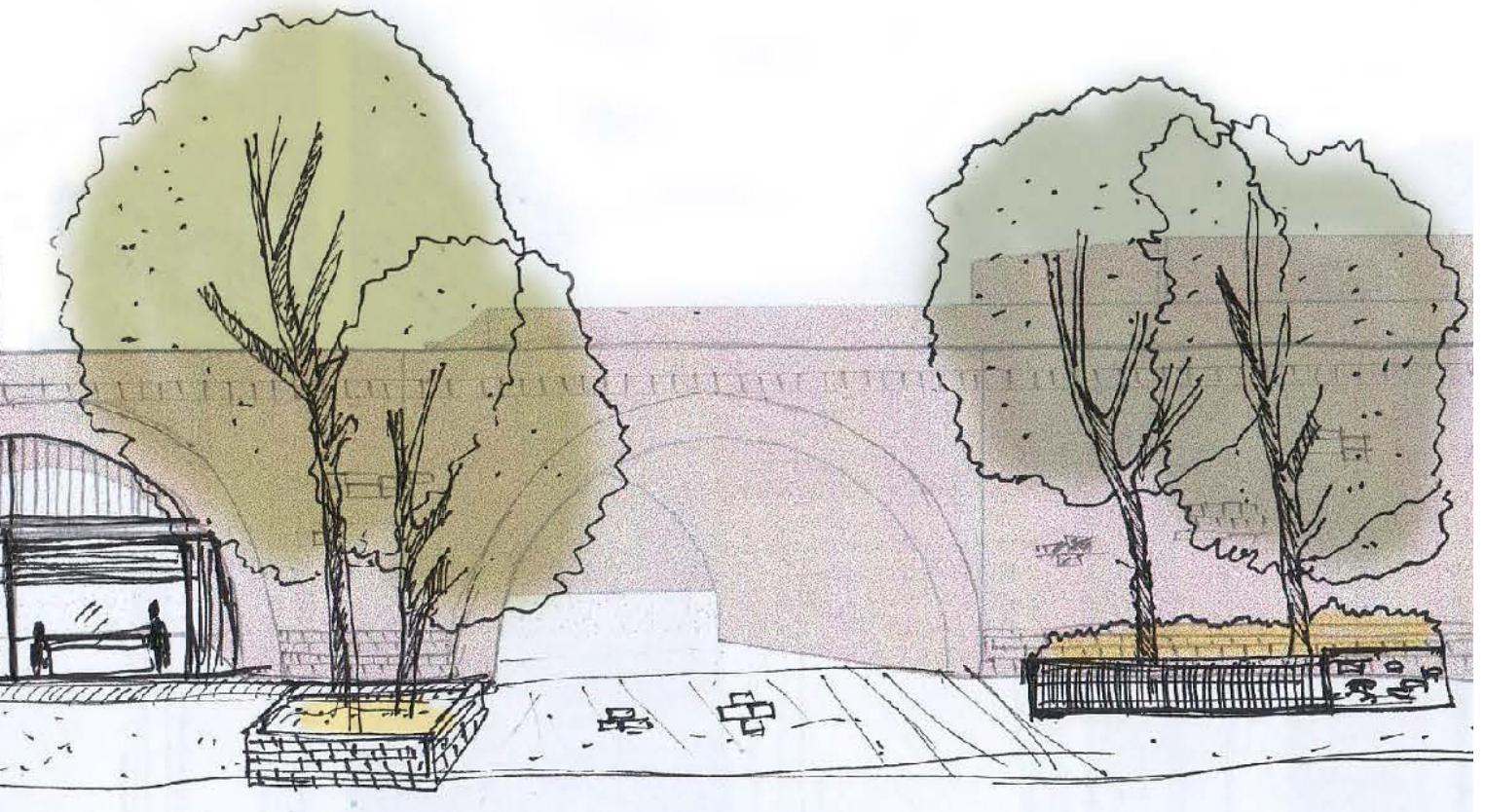
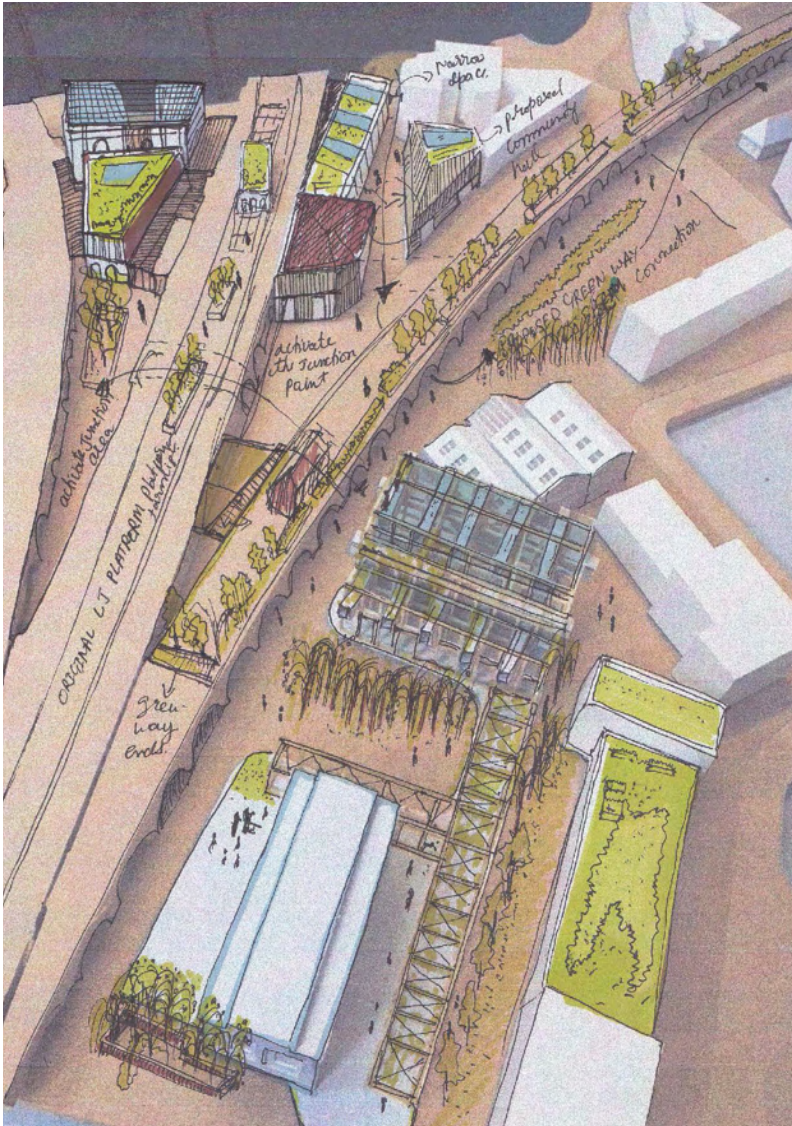
Platform for Symbiotic Relationship

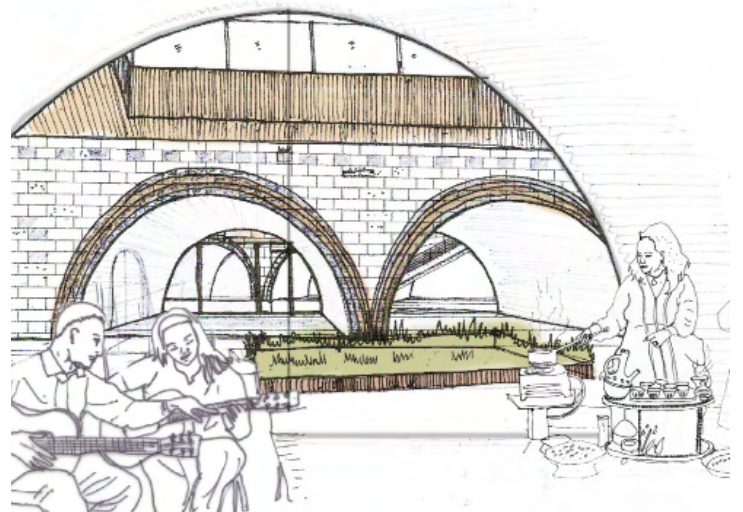
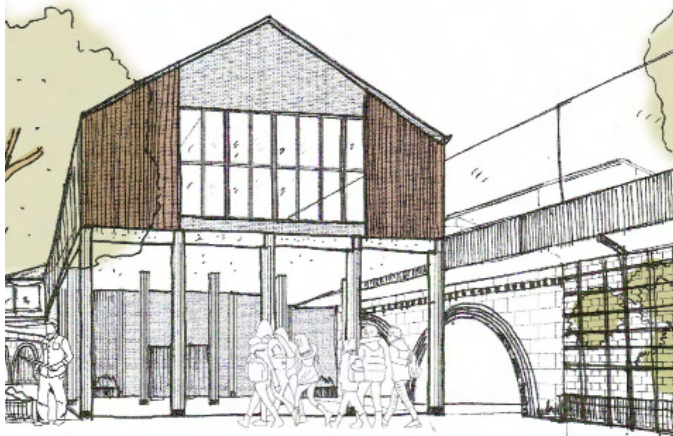
Abhiroop Bhattacharya

Train stations become a part of our daily lives as we take them for granted. Railway lines become part of Architecture fabric of the city. Loughborough Junction station is my site. South London has 10 viaducts; in particular I am looking at the conjunction point between three viaducts that runs from London Blackfriars all the way to the south. I am exploring how are train station could have more of Civic life and engage with community members within the area.

The project explores new ways of making disused railway track into a place of community opportunity williest maintaining a new integrated railway station. The design takes consideration into the masonry viaduct and how the in-between spaces are expressed so that station transforms into a new civic destination.

My design methodology is an extension of my 4th year of study where I have built the skill to communicate with different groups of people and understand their stories and narrative to drive the project forward and question my position as an architect and what our role is in designing an infrastructure that has commercial purposes and adds to environmental and social sustainable values.







Community Hub and Green Curve

Rayka Kakavand

Through Many site visits, observations, and conversations with local people, a brief was formed, consisting of two Programs going hand in hand. Firstly, proposing a Greenway on the partially disused railway track to create a physical connection between different existing community projects starting and landing on two green spaces at both ends of the Curve. The Greenway will offer different activities to people besides navigating them to the community projects as stops through proposed staircases and lifts. Creating this connection will also increase the pedestrian flow between the community projects, which creates an opportunity for National rail to make a better business from many vacant arches along the way.

Secondly, proposing a community hub by expanding the existing Platform Cafe, located on Loughborough Road and the east side of the Wyck Garden. The hub will allow for various functions for the community to use and get connected. Being in the middle of the railway arches, a playground, the community projects, and estate blocks makes the hub accessible for all the surrounding neighbours. The proposal would create a strong and active frontage to Loughborough Road and will bring life to the street. The project would also be a gatehouse to all the other community projects.











LJ Art Centre

Anita Zarzycka

Loughborough Junction is an interesting area, with many railways running through the site. The railways create an industrial atmosphere and bound the “triangle town centre”, where most high street activities occur. Despite many railways, there is only one station accessible via one entrance. Moreover, the northwest railway is unused, which creates an opportunity for blurring the “triangle town centre” boundary. Furthermore, Belinda Road lies within the “triangle town centre”; however, it has high crime rates and is under-utilised.

The project aims to transform the unused railway into an elevated linear park to improve biodiversity, add greenery and change the industrial atmospheres on Rathgar, Ridgeway and Belinda Roads. Moreover, creating a Greenway on the railway viaduct will improve the accessibility to the station. Loughborough Junction station lies close to the unused railway; therefore, creating a passageway between the Greenway and the platform will improve circulation around the site.

The major part of the project is located on Belinda Road, where the Powerday Waste Transfer Station site will be transformed into an arts centre to celebrate the artists within the Loughborough Junction. The art centre building will include a theatre, gallery and dance studios.







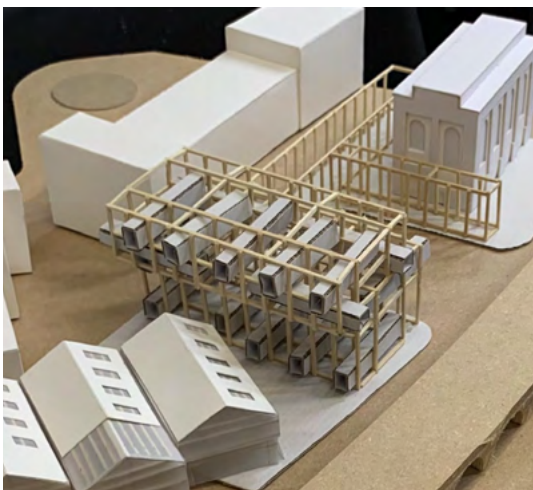
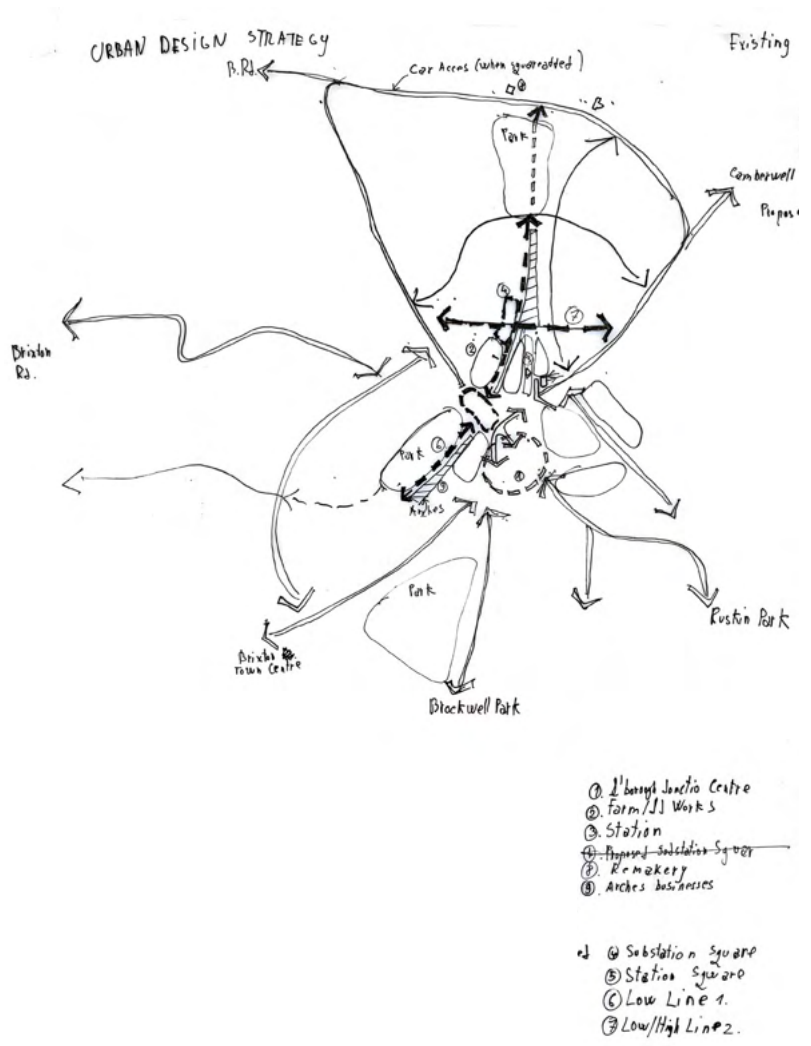
Shipping Containers Piazza

Rares Tugui

The area lacks in any public spaces for gathering and enjoyment, the only public spaces are parks.

On the thesis project I designed a residential led mixed use scheme in a railway opportunity area in Loughborough Junction, South London. At an urban strategic level connections between the site, neighbouring town centres and train station are improved via a high line across the railway arches as well as a new public square and interchange to the station. The architectural scheme uses locally available materials such as shipping containers and aims to tackle housing affordability and lack of public realm in the area.

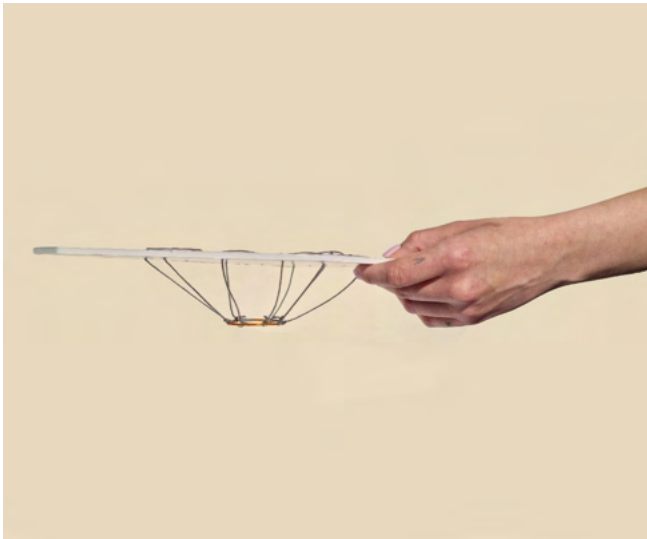
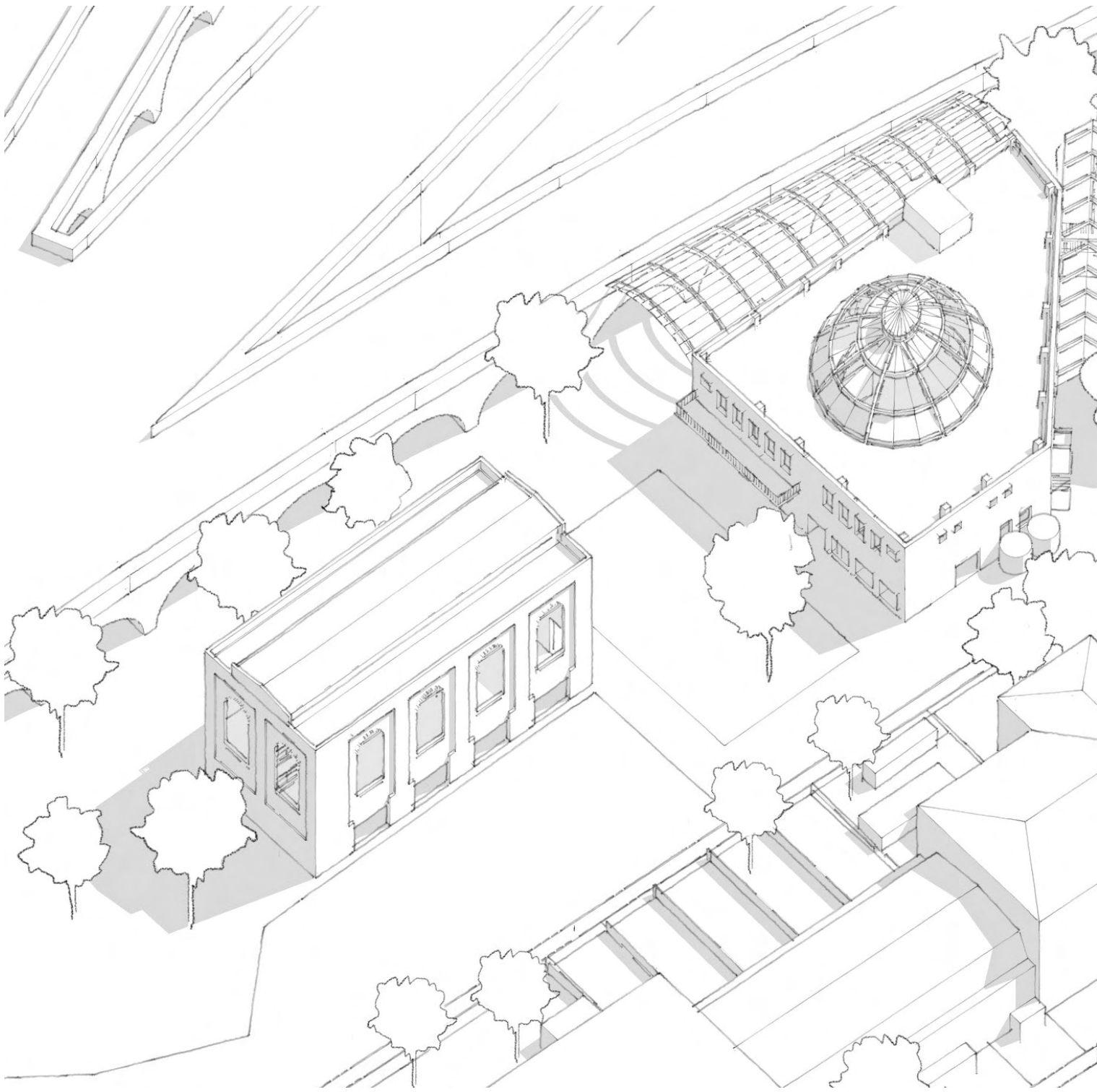
The scheme offers a public piazza and an open ground floor that can be used for a range of activities in this instance the piazza is show during a Saturday street market where business and organisations from the arches workshops, LJ Farm, LJ Work, Remakery and Soup Kitchen sell their products and food. In other days it can be just a public space for having lunch, or can host street festivals, community gatherings, cinema nights, protests.











The Loughborough Exchange

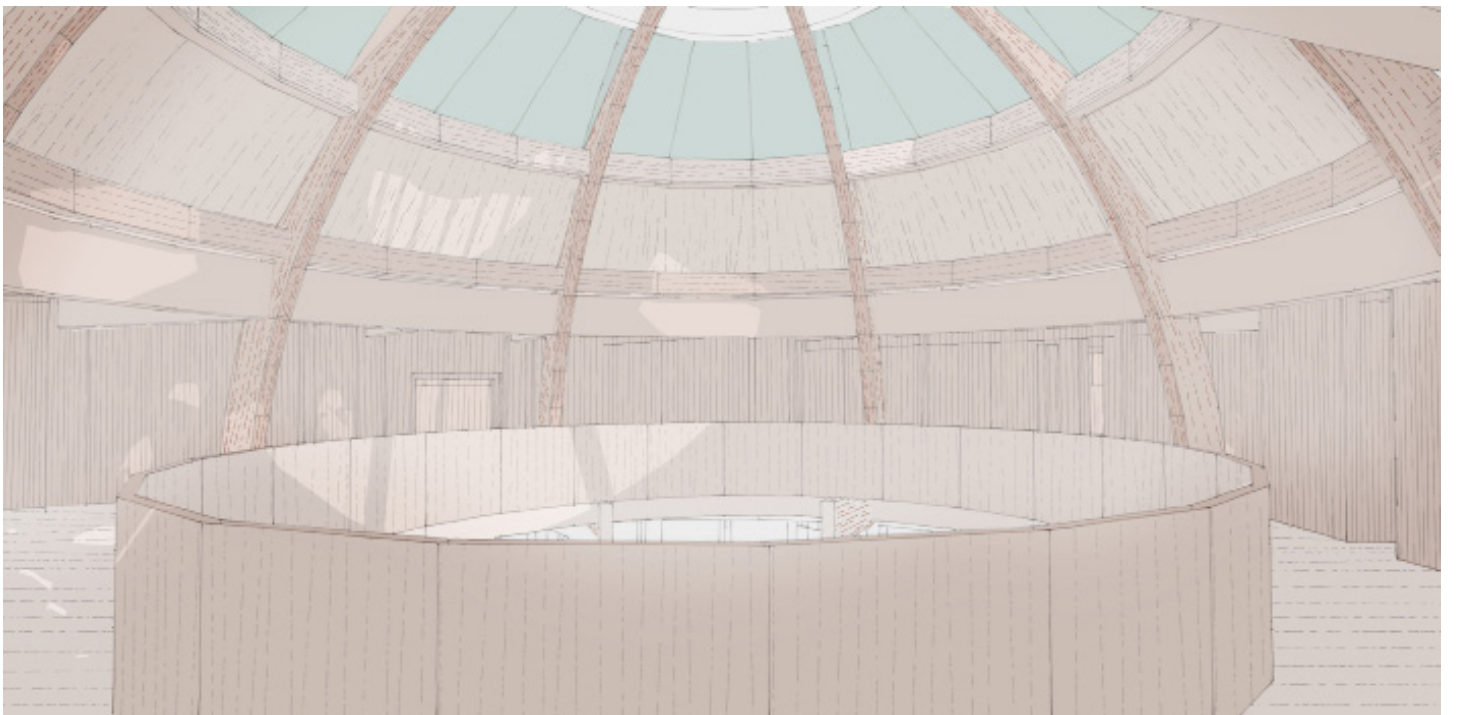
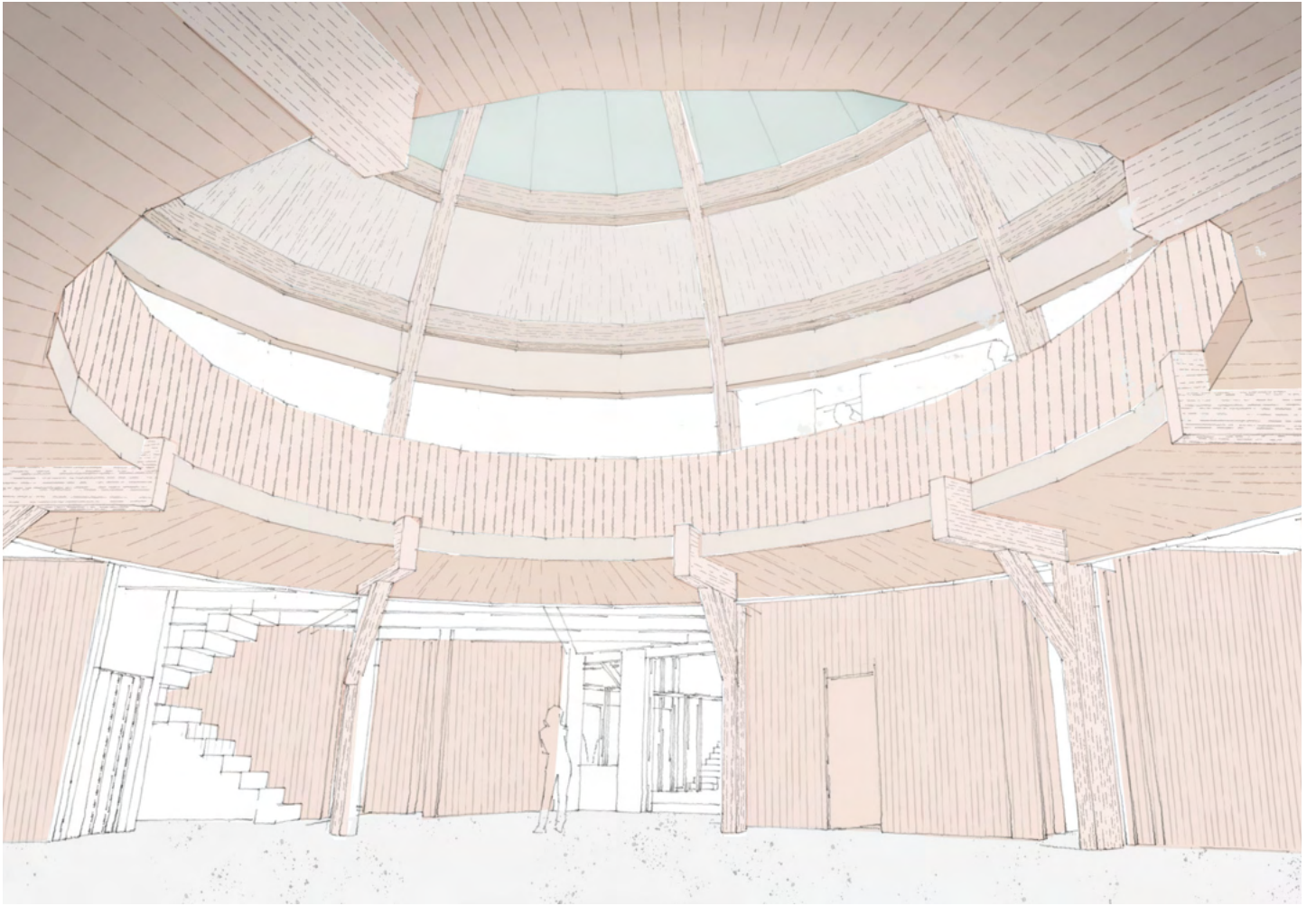
Usman Sattar

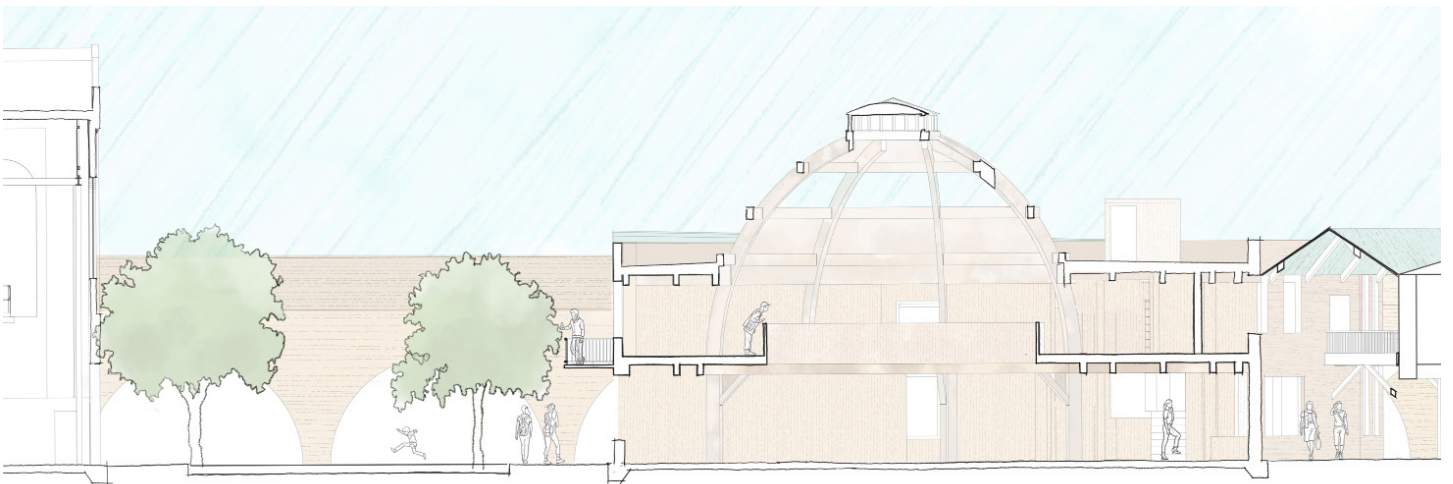
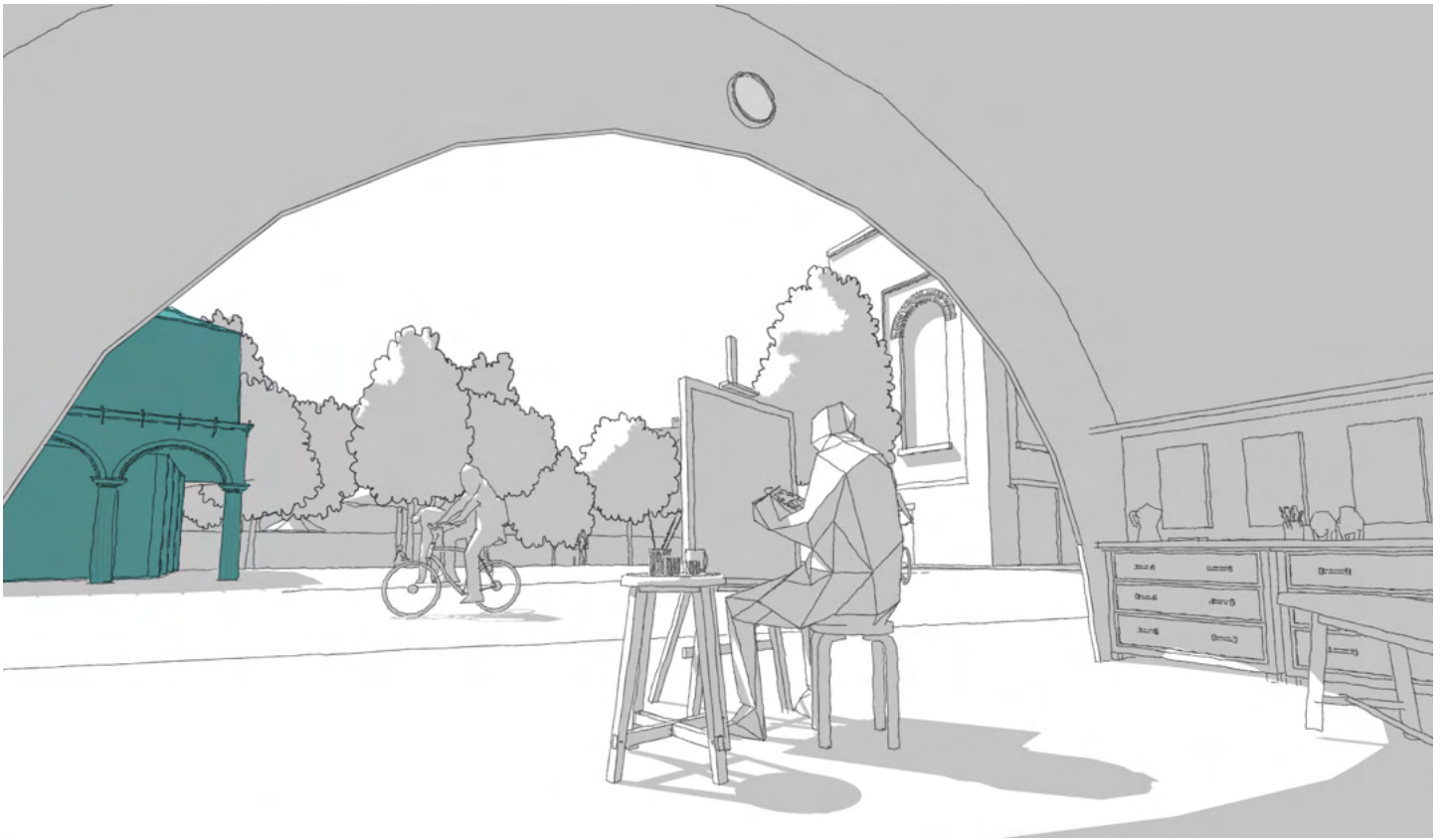
Sewing the Cultural Pockets scattered around the area of Loughborough Junction

As a way to enhance the already creative, aspiring community of Loughborough Junction, a proposed Exchange building has been designed to house the knowledge of many skills and crafts held by the locals. It gives them a place to share their expertise and to learn from others in improving their own skills. It ties firmly with the existing meanwhile spaces, which are able to provide workshops and spaces for people to use their skills and trades to expand their potential start-up ventures.

The building enables people from all backgrounds to have a safe environment to explore new ways of doing things and is alive with new ideas constantly. The building encourages discourse amongst the various communities around the area, who may never have spoken to each other before, and gives them a platform to collaborate and explore together. In turn, not only would it result in a greater sense of integration by all kinds of community members, but also empower people to share and learn from one another, creating a stronger local community.







LJ Learning Commons

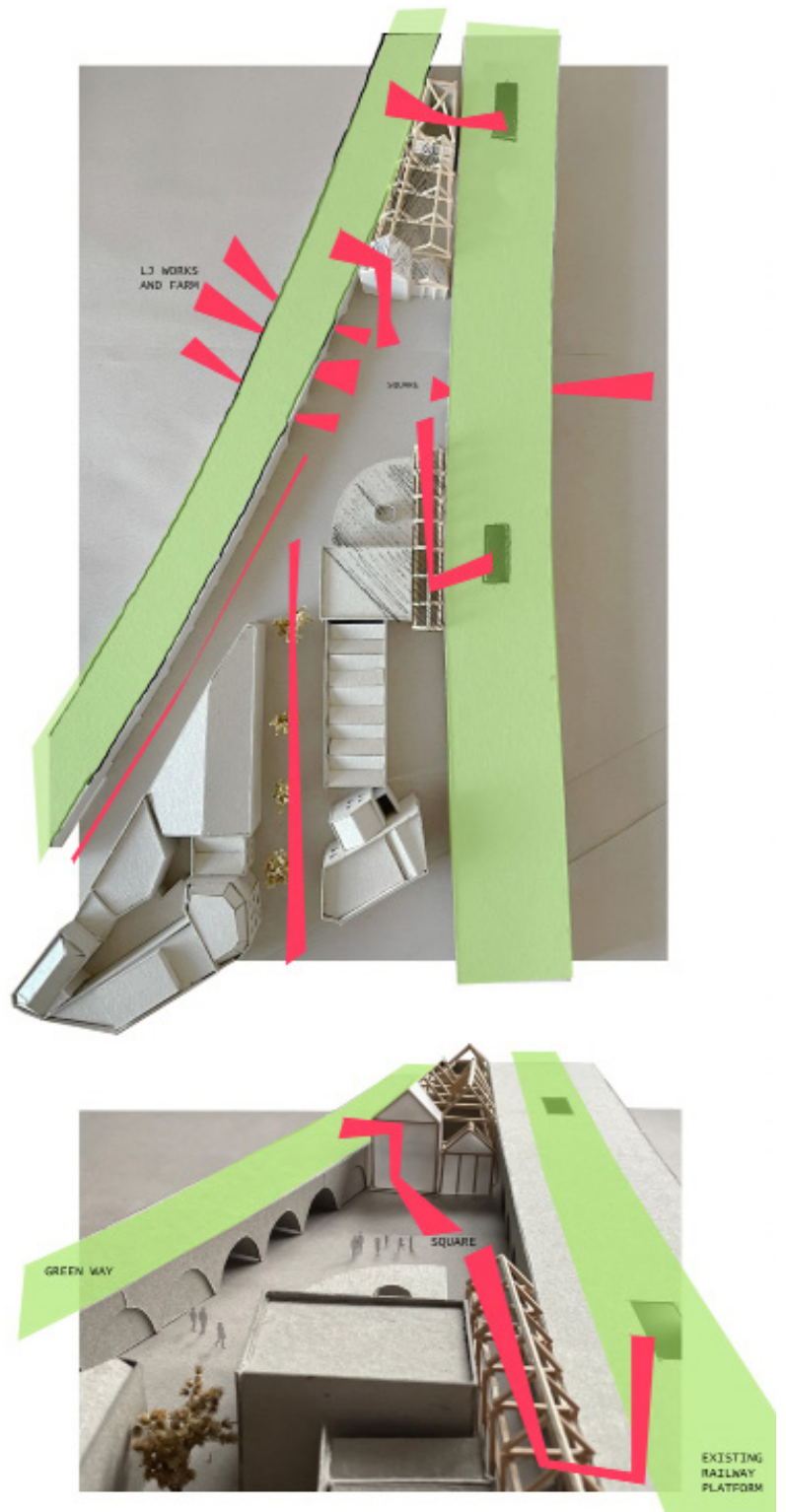
Sara Golnabi

The Circular Learning Commons brings together existing local people and groups in Loughborough Junction, promote self-sufficiency and bring new ways of building and learning to the area.

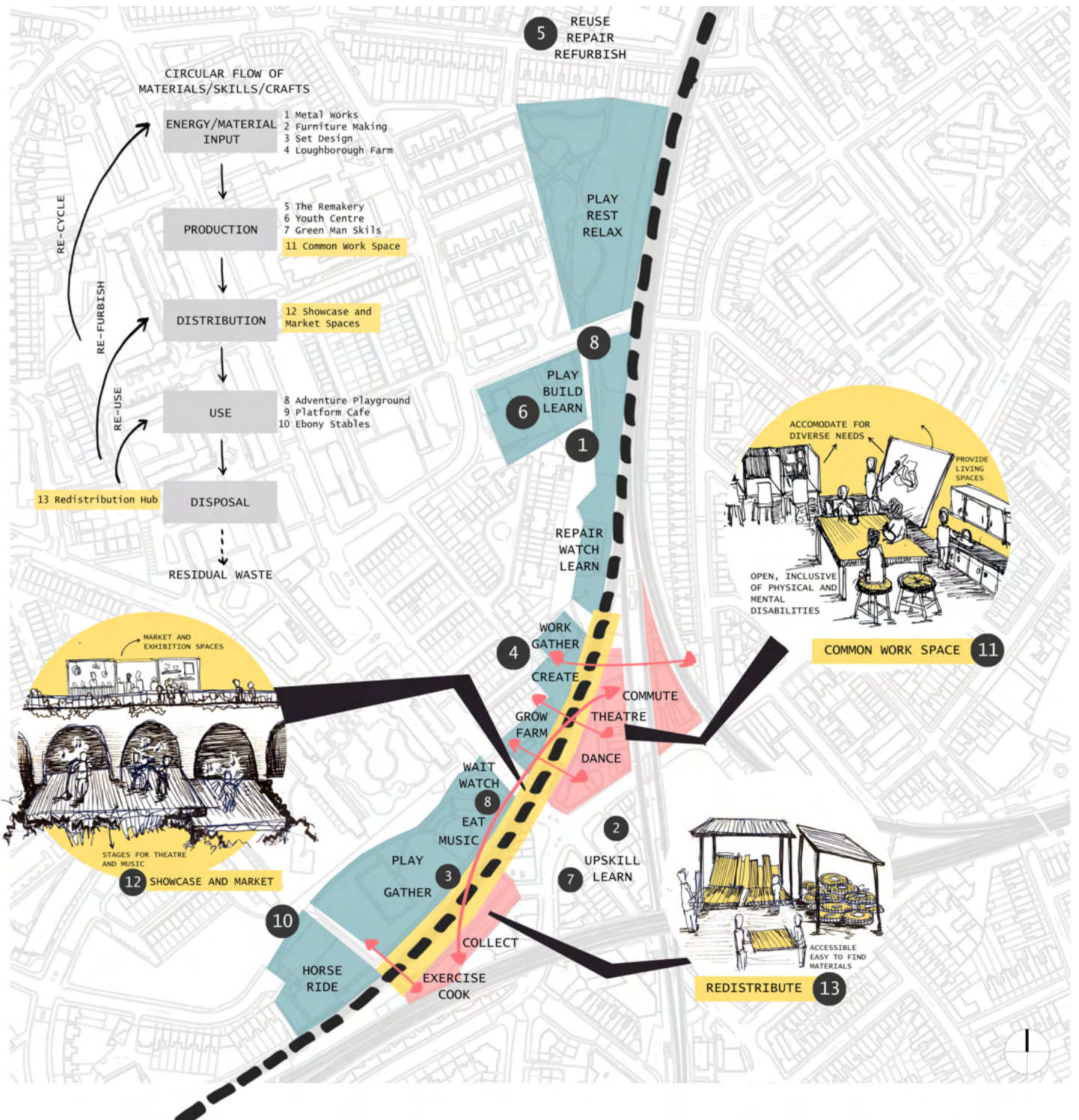
The proposal stems from extensive research on the existing conditions and the need for connections: both spatial, to connect spaces currently fragmented by the railway lines, and functional, to bring together existing local groups. The chosen site lies between the three railway lines that meet in Loughborough Junction, with an initial proposal for a Lowline that connects through the railways at ground level and up to the train platforms and green-way.

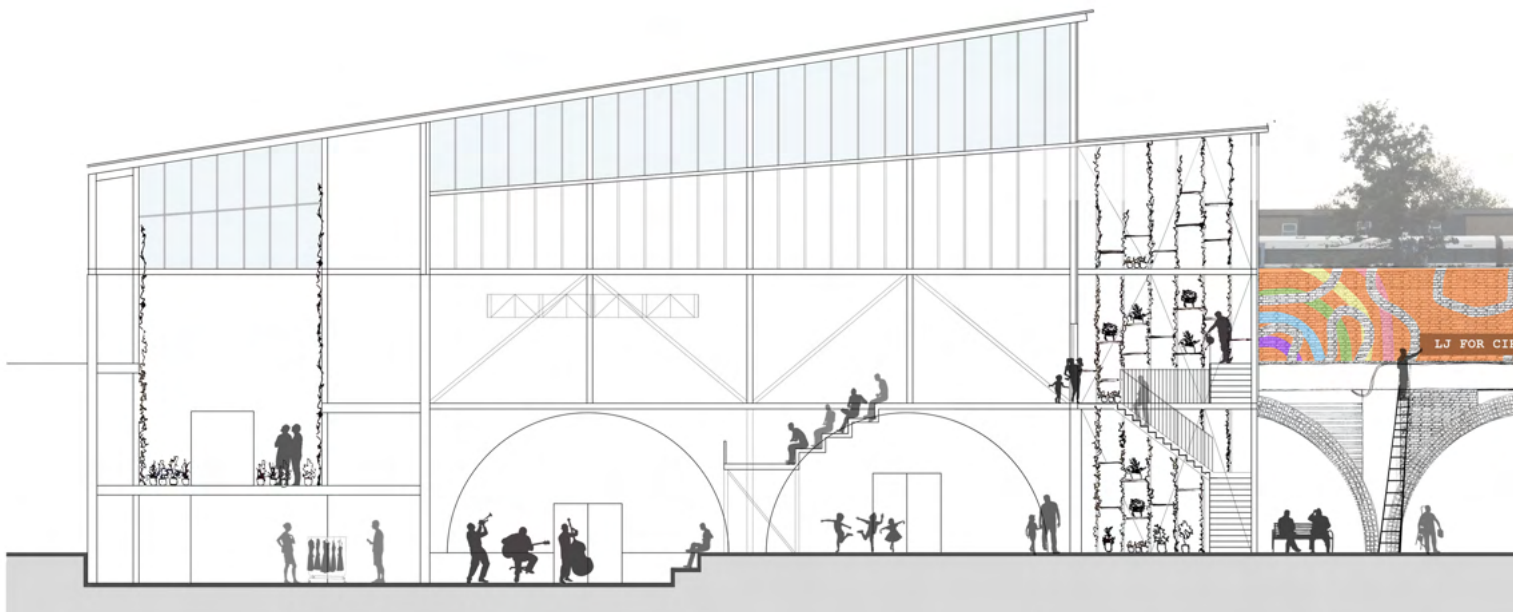
The Circular Learning Commons brings in the idea of learning through making. It consists of two buildings nestled between the railway lines which overlook a square, working with the neighbouring Loughborough Farm and LJ Works. The Workshop provides students a space to learn building skills using local scrap materials. The Hall is used as theatre or event space in which students can work with local craftsmen to make sets and furniture. Each building has an atrium which connects the square vertically to the railway platform and Greenway.

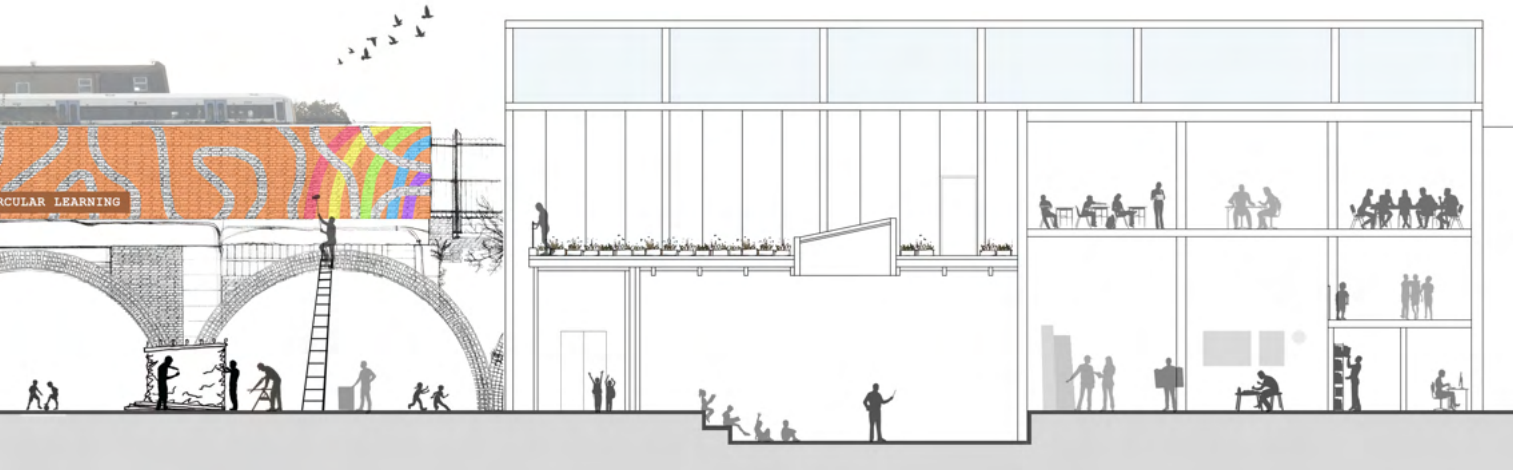
The proposal is a key part of the circular exchange of skills and materials in Loughborough Junction, designed with the local character and expressed needs in mind.

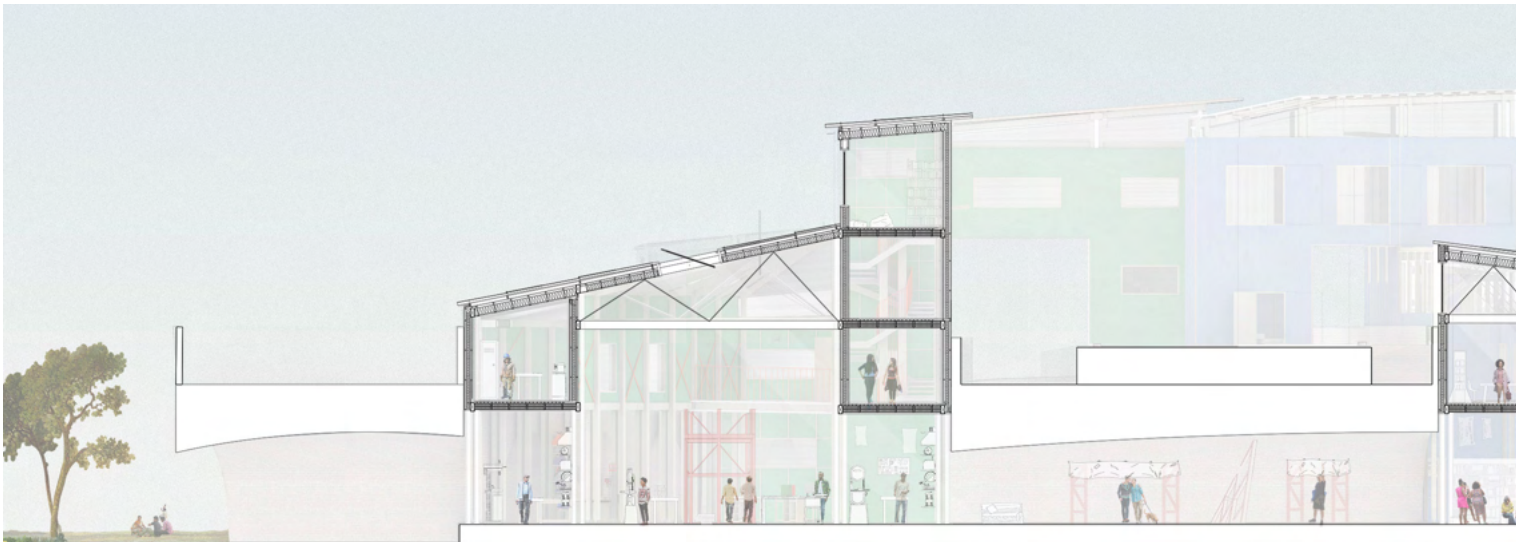


PROPOSED HORIZONTAL AND VERTICAL CONNECTIONS





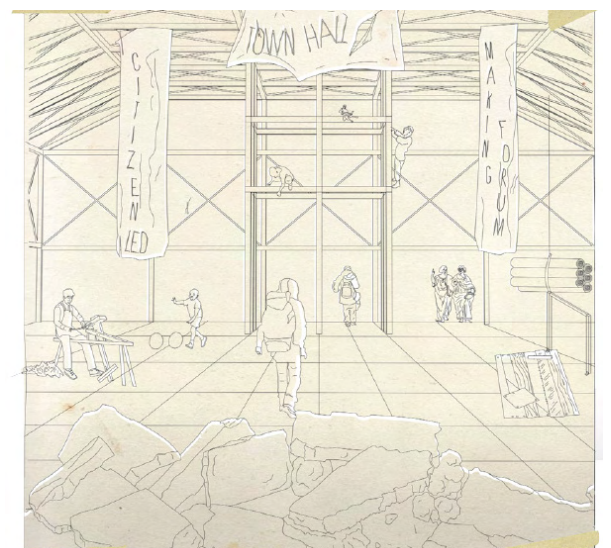


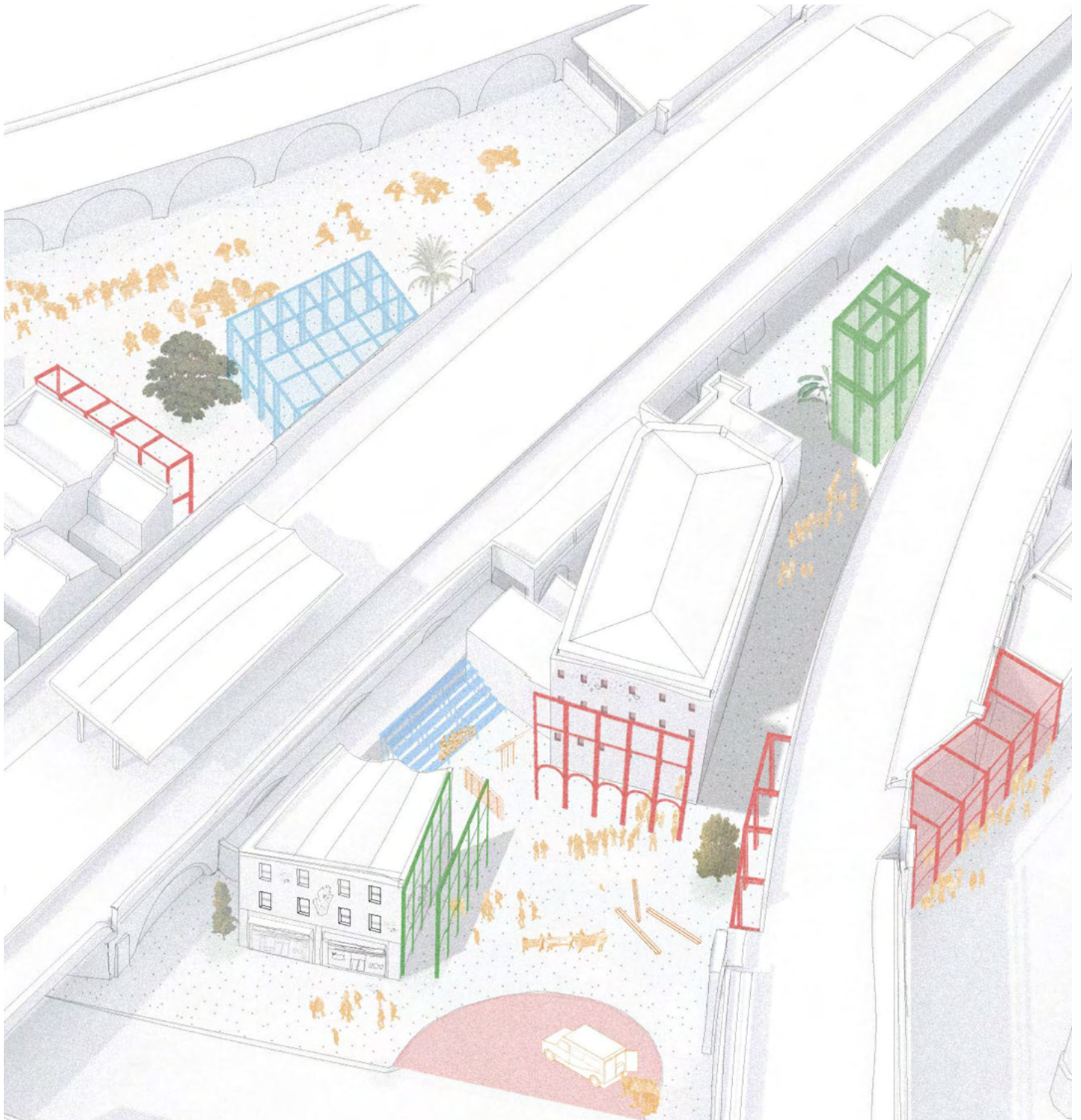
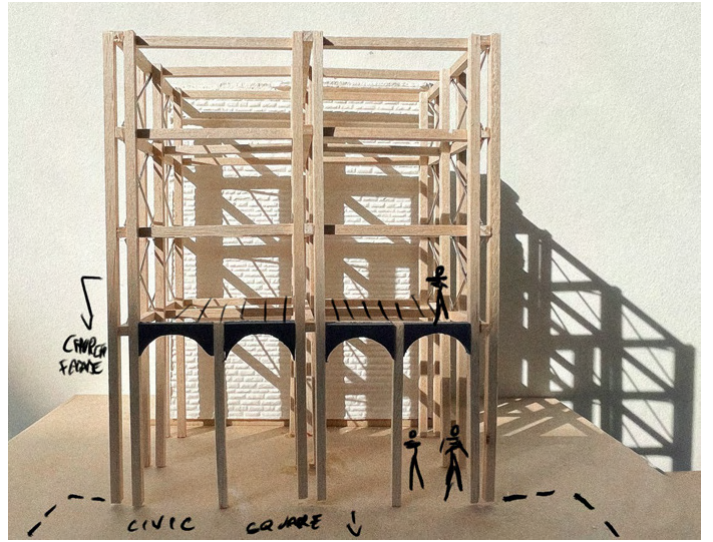
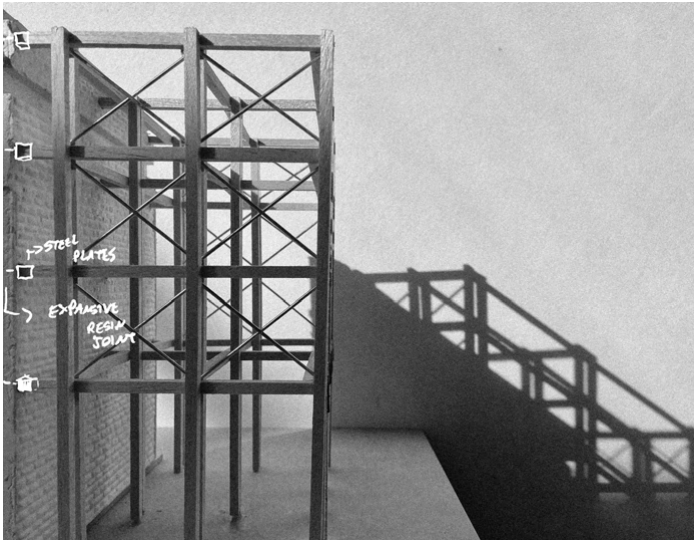


Making Loose Bridges

Luca Puzzone

Loose Bridges: Supported by the narrative booklet telling a local story of Demolition, Occupation and Rebuilding, it seeks to propose an extension of a communal facade making square to create more official structures which provide the space for this local duality of communal making and organised action against superimposed regeneration schemes. The name of the project refers to its intention to ultimately free this junction between three railways from the closed boundaries at ground level and also create a connection to the platform above. It would follow the same construction method of the making square arguing that the communal facade making would provide them with the residents, in collaboration with LJAG, The Remakery and SIA, to self-build and manage the scheme entirely.







Adaptive Living

James Lively

A modest framework for retrofit and rewilding at Styles Gardens Estate

This project aims to set an adaptive and ingenious precedent for retrofitting and rewilding a future urban dystopia. The flexible framework proposed can adapt to residents personal living requirements. The design does not enforce a spatial ideology but instead suggests a healthier way of living that encourages an understanding for our inherent link with the natural world.

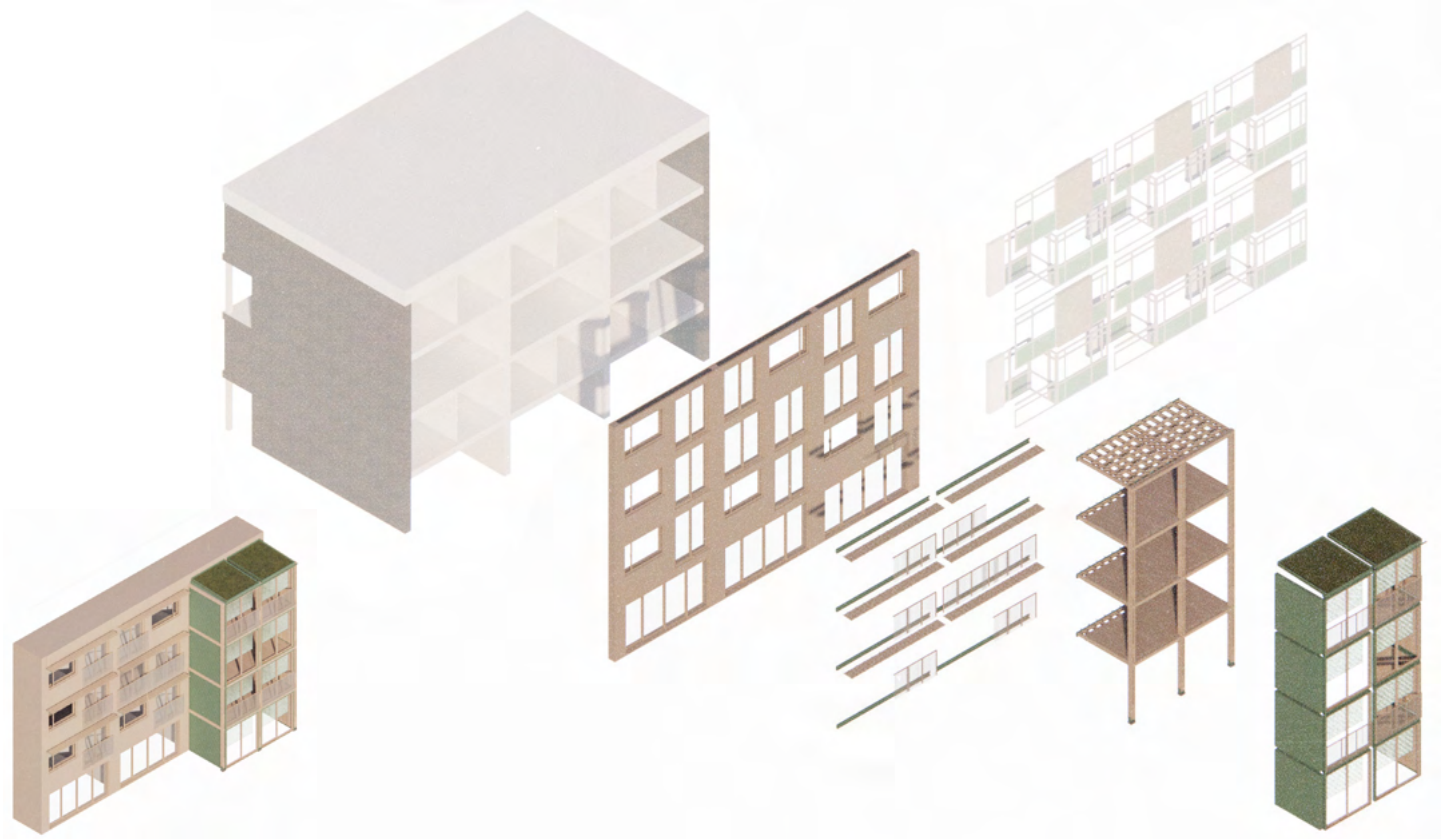
Consequently, helping us to recognise ourselves as part of an interrelated and dynamic ecosystem where our role is one of mindful respect and stewardship rather than control and domination.

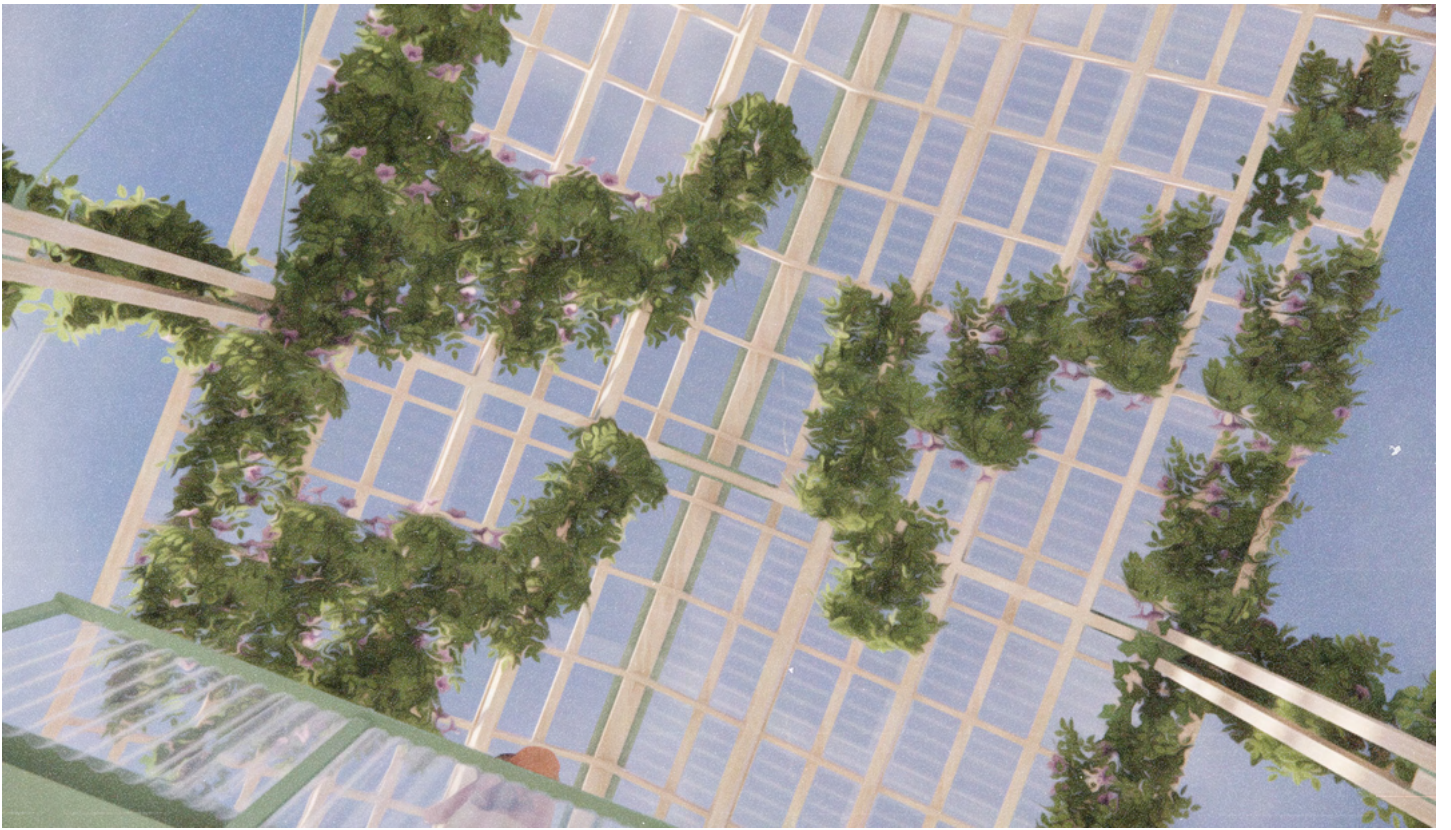
Although this underlying message is important the proposal's focus is to simply improve the day to day living conditions of the people that spend their time at Styles Gardens.

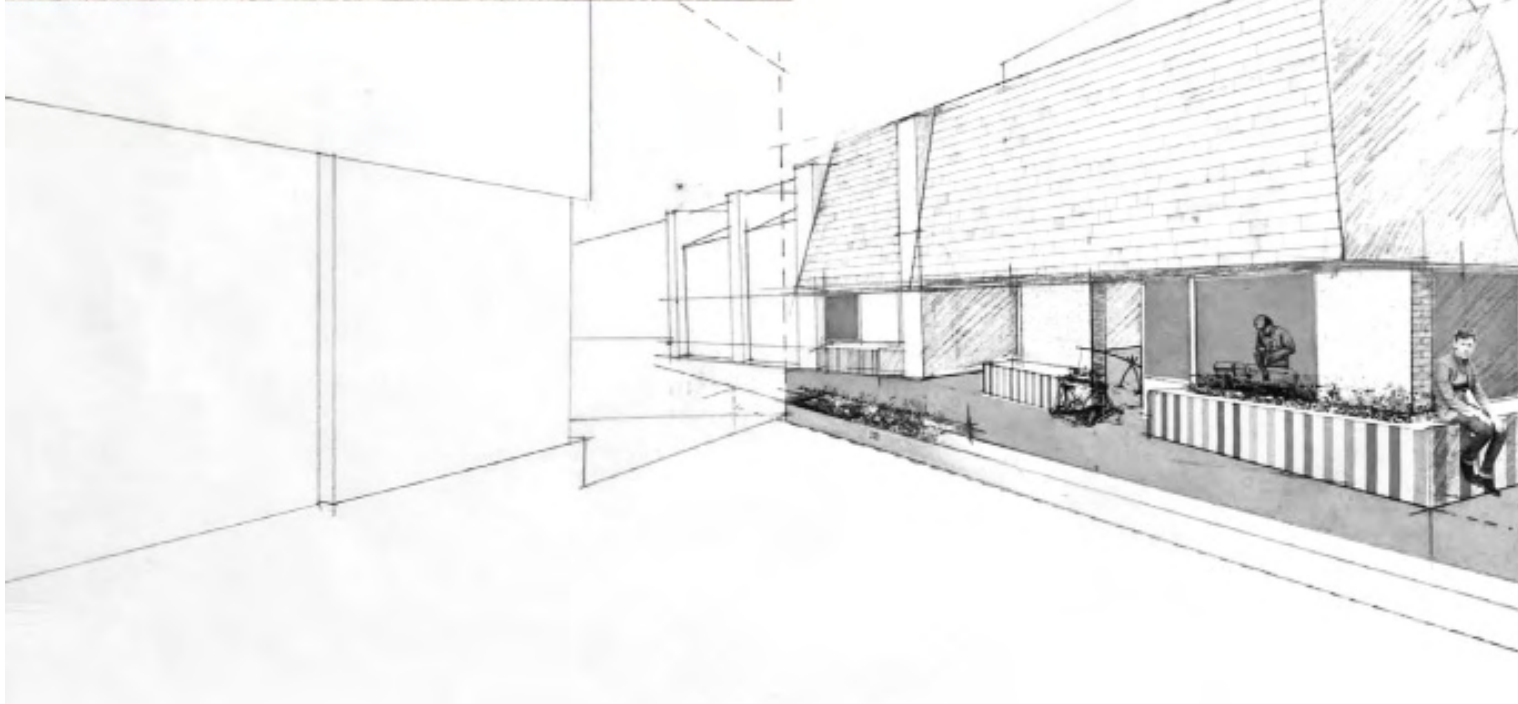
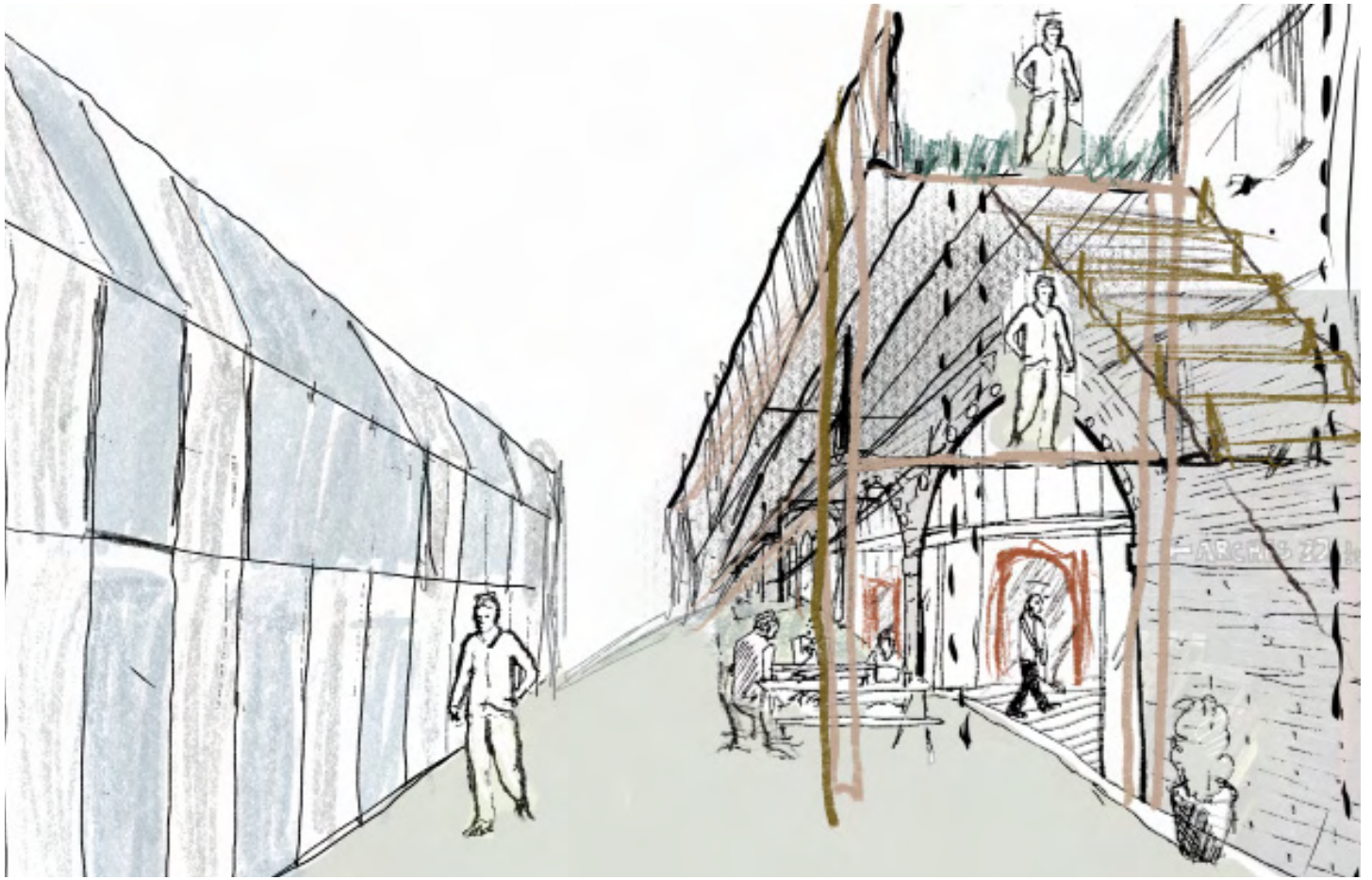
Three garden typologies, Home Garden, Stair Garden and Roof Garden form a flexible framework which gives residents agency over their homes.

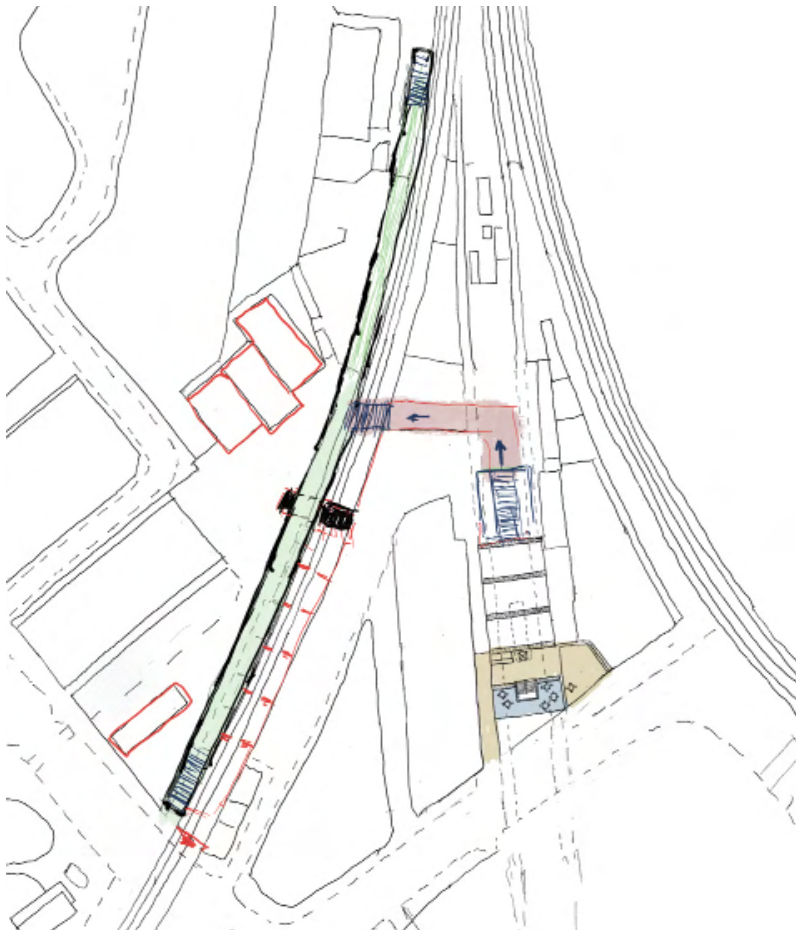












Community Living Room and Food Hub

Daniel Pilaquinga

I found myself interested in the Loughborough Junction Farm. At present the site has some brick construction the size of a shed not in use as well as structures built to be a group of greenhouses. The site is restricted by some unused tenants railway arches, some have been closed and other arches have been blocked with temporary gates. Also in the area I could spot a lot of contamination from an old car park and scrapyard.

There are three key components that define the programme to this project: gathering, organic food production, and structure.

The design proposal for the refurbishment and railway accessibility aims to turn this forgotten land into an accessibility point for the local residents as well as visitors. The site access to public would turn this unloved narrow strip of land into a new 'street' frontage and access point for the tenants of the railway arches.

The community centre vertical farming method is to use modern internal alternatives to save money, maximise farming production and provide a clean environment for the community. Loughborough Junction gardeners would be presented with innovative methods which are more sustainable for the environment, expanding their experience. The idea is to use funds from product sales to provide the community with new projects in the area. Farming on a bigger scale will serve the community purpose for development for environmental matters and give them the option to reclaim the Loughborough Farm and the Railway. Commuters will have the option to access through a pedestrian staircase at the opposite direction from the original entrance and connect directly with the LJ HUB and the Farm.

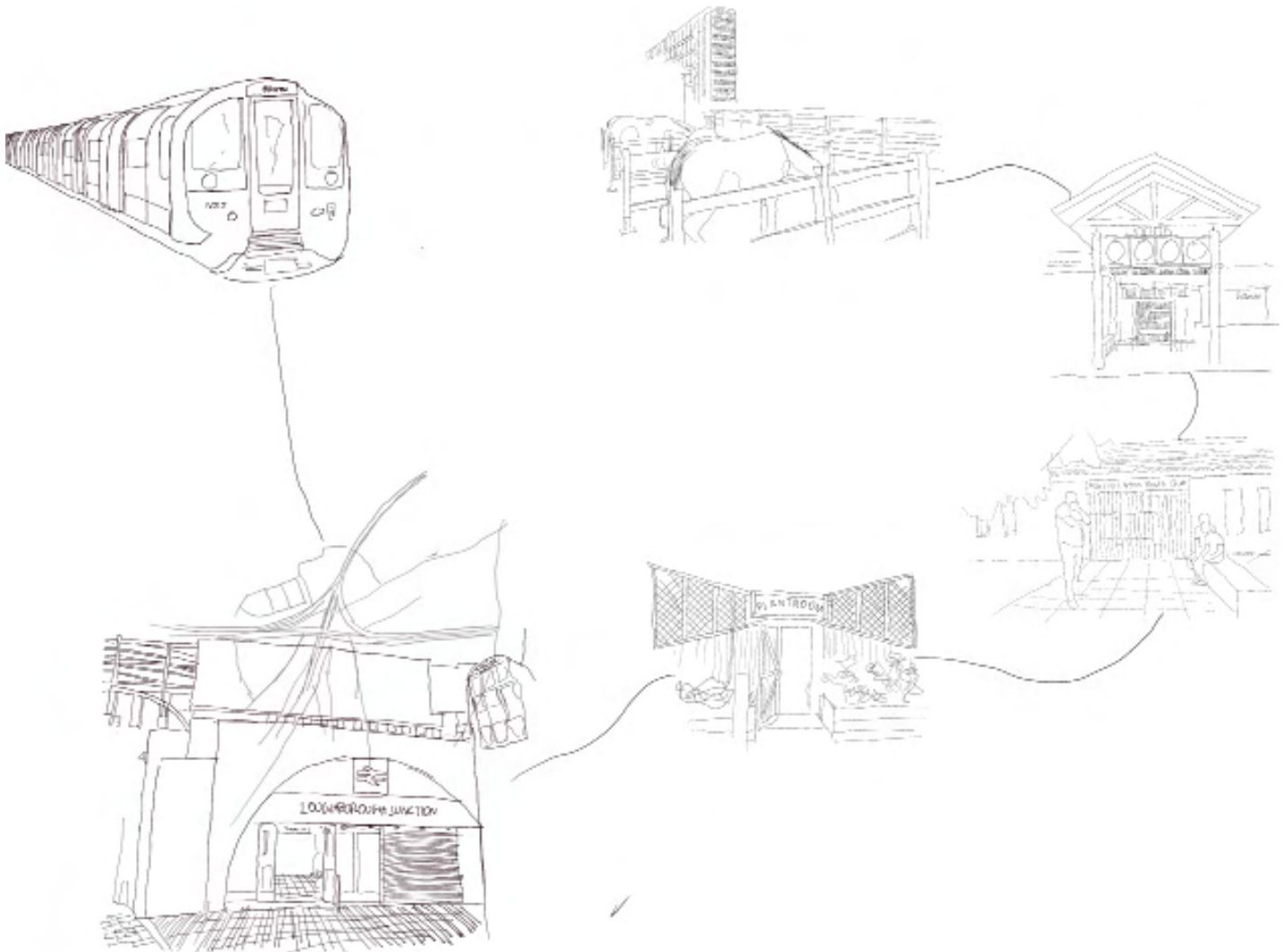


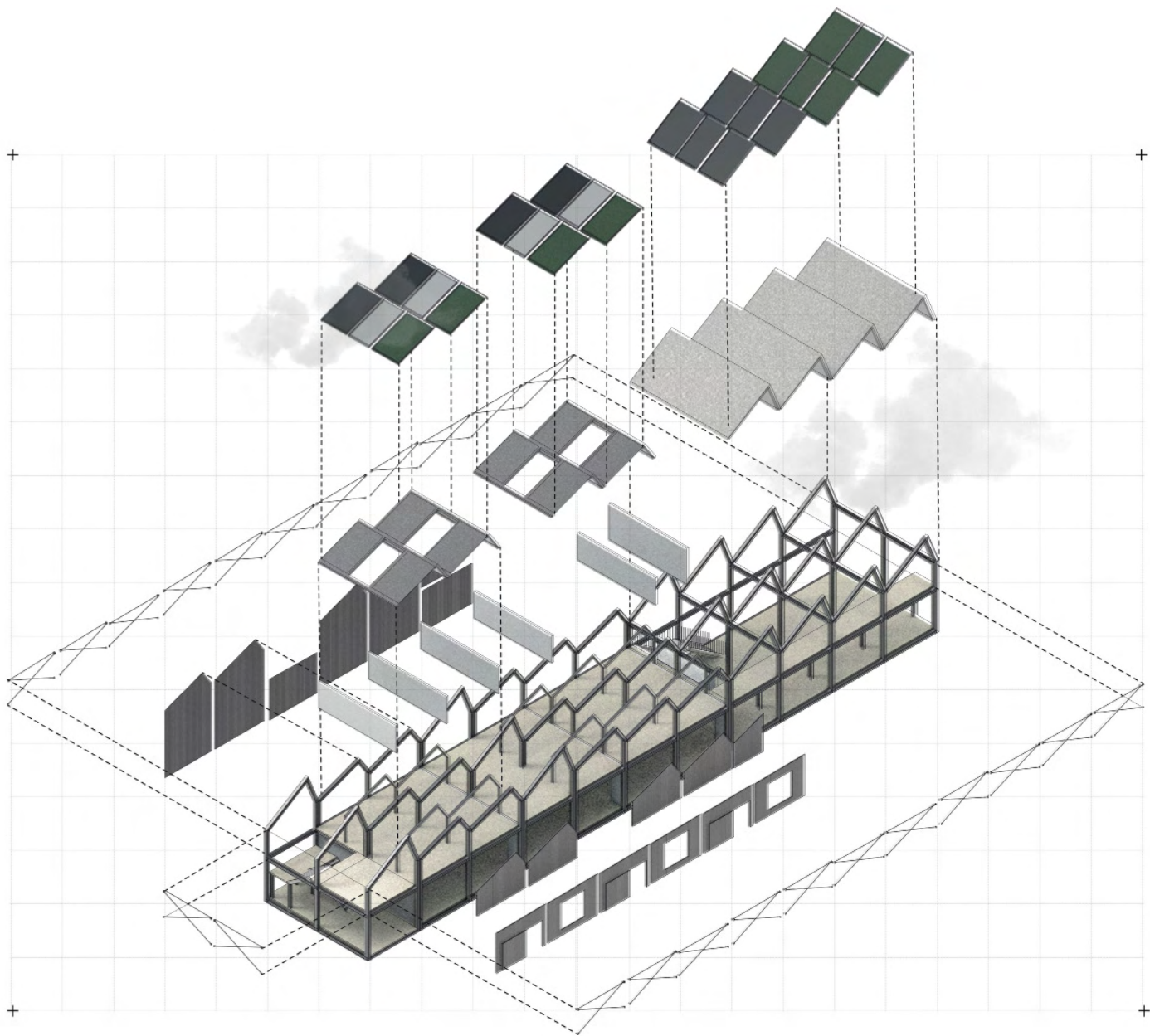
Salvage Square

Azhar Sukur

For this project we were tasked to investigate Loughborough Junction, in South London. From our investigation we had to decide upon a site we would add our intervention. I choose the site nestled between all light industrial services of Loughborough junction. I re-used an old Victorian substation, and utilised the surrounding grounds, to create a scheme that works for everyone's benefit.

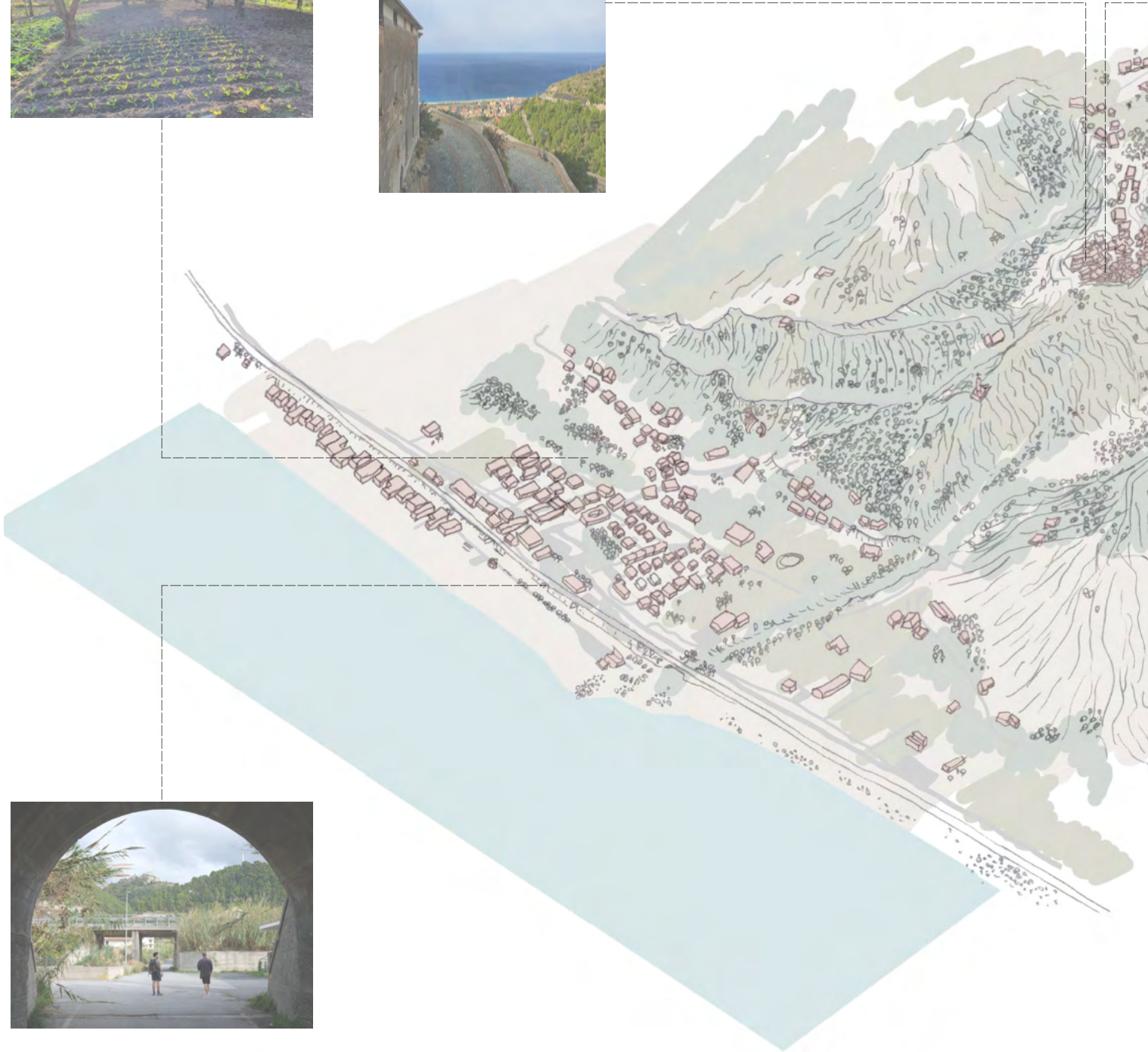
The proposal included a series of workshops where materials from the scrapyards and various other industries would be made into art, furniture or other construction elements. The art would be displayed within the gallery (substation) to create a whole new cycle of life for disbanded materials.











BELMONTE

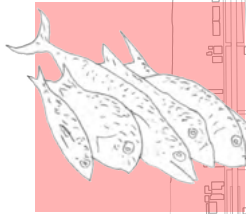
Calabria, Italy

Three final (5th) year students chose to continue the unit's ongoing relationship with the setting of Belmonte in the Calabria region of Southern Italy.

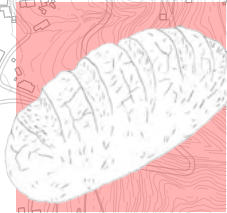
The physical topography and mountainous landscape has had a major influence on the development of Belmonte and it is now split into a timeline of regions, the modern Marina, the old town and the small villages known as Frazioni (fractions). Lack of work or opportunities has led the majority of the younger population to leave for larger cities with the remaining elderly population largely still focused on agriculture. Lack of local labour and opportunities for exporting produce has led many of these farms decreasing in size or falling into disrepair. The region is in need of new life and ideas to revitalise and return to the thriving community that lived there previously. The student projects this year sought to address these issues on a site adjacent to the existing football pitch in the agricultural valley.



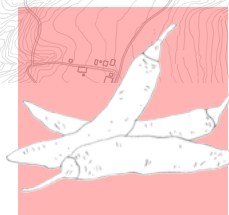
Left
Describing the river valley and surrounding settlements in three dimensions (Daniel Stilwell)



Fish



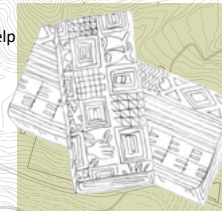
Bread



Chillis

Frazioni - fra-zió-ne
Fragments; the small villages dispersed throughout the hills of Calabria, each used to specialise in producing a different item which was then traded with others, a practice which still continues in a reduced capacity to this day

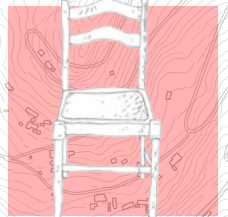
Antonio's knowledge of making allows him to help with a mechanism allowing fabrics to be used for blinds



Fabrics and clothing

Skills of the weavers can be integrated to use the fabrics for bags, and to construct new musical instruments for performances with the Covento

New fabrics for upholstery allow Antonio to once again make furniture that offers something global companies do not



Carpentry



Olive oil



Wine

New musical and theatrical traditions allow for an extension of the Covento explorations of musical theatre education

Population and Farmland Demise

Jim Wyatt Gosebruch

As cities grow larger each year, the population of rural areas like Belmonte decreases. As people move to the cities, the demand for local businesses decreases and as many of them are forced to close the jobs that came with them also end. People leave as they are attracted to the possibilities and opportunities of modern life. The area becomes exponentially quieter and the local circular economy is broken. After exploring the area we discovered these 5 businesses which have been forced to close recently.

With the population at around 20% of its 1960 levels, and the subsequent lack of labour, farmland currently being cultivated is at 40% of its previous use. This land is either owned by farmers who have moved away from the area, have passed away, or is owned by the few remaining farmers who have had to reduce their production. All of this unused rich and fertile land is currently free to farm on for anyone that would like to.



Left
Past and future Frazioni specialised goods production
(Daniel Stilwell)



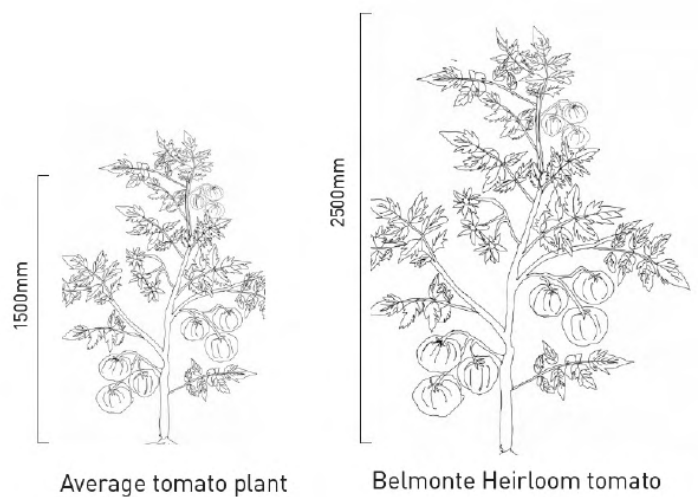
Food is a huge part of Italian culture and Italians are very proud of it



Food is a great way to bring people together socially, through eating, talking and exchanging produce



The Belmonte region is known for its meaty, large, heirloom tomato



These tomatoes grow rigorously fast and very tall. They produce a lot of fruit, over 25 tomatoes per plant each weighing 500g and more. They are very resistant to insects



Aloe Vera, wild fennel, and citrus Bergamia - tree which is used to produce Bergamot already grow wild and in abundance in the area. These plants and tree which products can be very lucrative are perfectly suited to the climatic conditions of the area

Food and Sharing Culture

Daniel Stilwell



There is a strong culture with sharing food in the region, the opportunity of providing an empty pitch or an empty table can serve as a catalyst for mixing unlikely groups, enabling for conversations and camaraderie to uncover shared interests. The pitch can be used to play games using the international language of sports, something experienced first-hand by Jamie & Jim during travels across the world.

Secondly is the table, both for sharing meals, and learning the complex rules of local card games, which the natives were eager to share.

Encouraging opportunities for these interactions could be a gentle way to introduce new groups to the existing communities whilst reducing the feelings of alienation and potential hostility from those already ingrained.



Facing Page
Food culture and the Belmonte tomato (Jim Wyatt Gosebruch)

Above
Food and sharing in Calabria (Daniel Stilwell)



Casa Live Build Intervention

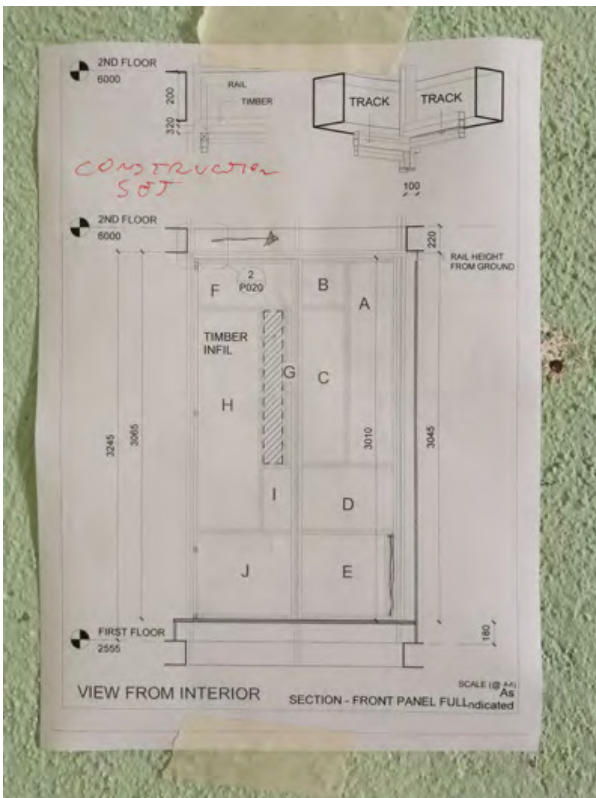
Jim Wyatt Gosebruch



On arrival in Belmonte, we engaged in a live build project. Le Seppie is a non-profit organisation working on bringing back life to the region. After refurbishing a building within the old town called 'The Casa', Le Seppie can organise and instigate change in the wider area using this as their base. We designed and built an installation which aimed to bring life to the central part of the Casa as well as partially insulate and block cold air from entering the Casa from above. A void left from a previous owners lift shaft gave the opportunity to branch the connection between two floors vertically.

As one of the first activities which we engaged in the project served as a brilliant way to get to know the people living in the Casa and hear some background on the surrounding area. Having a task to interrogate debate and problem solve on allowed us to exercise the benefits of learning through building. We met some local craftsmen and community members and began to understand the norms of life in Belmonte.

The complete frame now sits in the heart of the Casa. The installation can now be used in my different ways over time and be adapted as the Casa changes. It currently is used as an exhibition space for the community who can show their work or ideas to everyone that walks past. As well as the technical skills we learnt this task was fundamental to our understanding of the importance of directly getting to know the context and people that you are working with or for. We now can apply this knowledge to understanding the wider Belmonte region.



Facing Page

Complete frame (Jim Wyatt Gosebruch)

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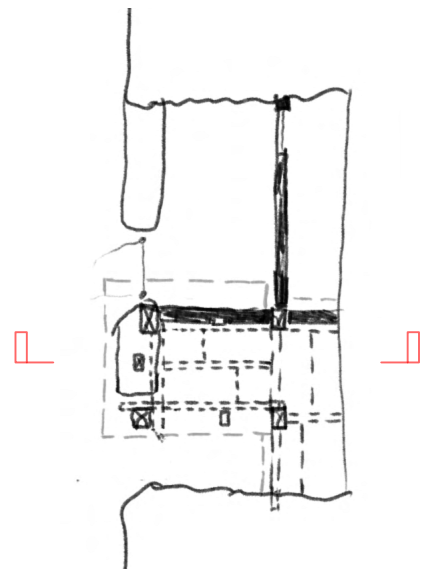
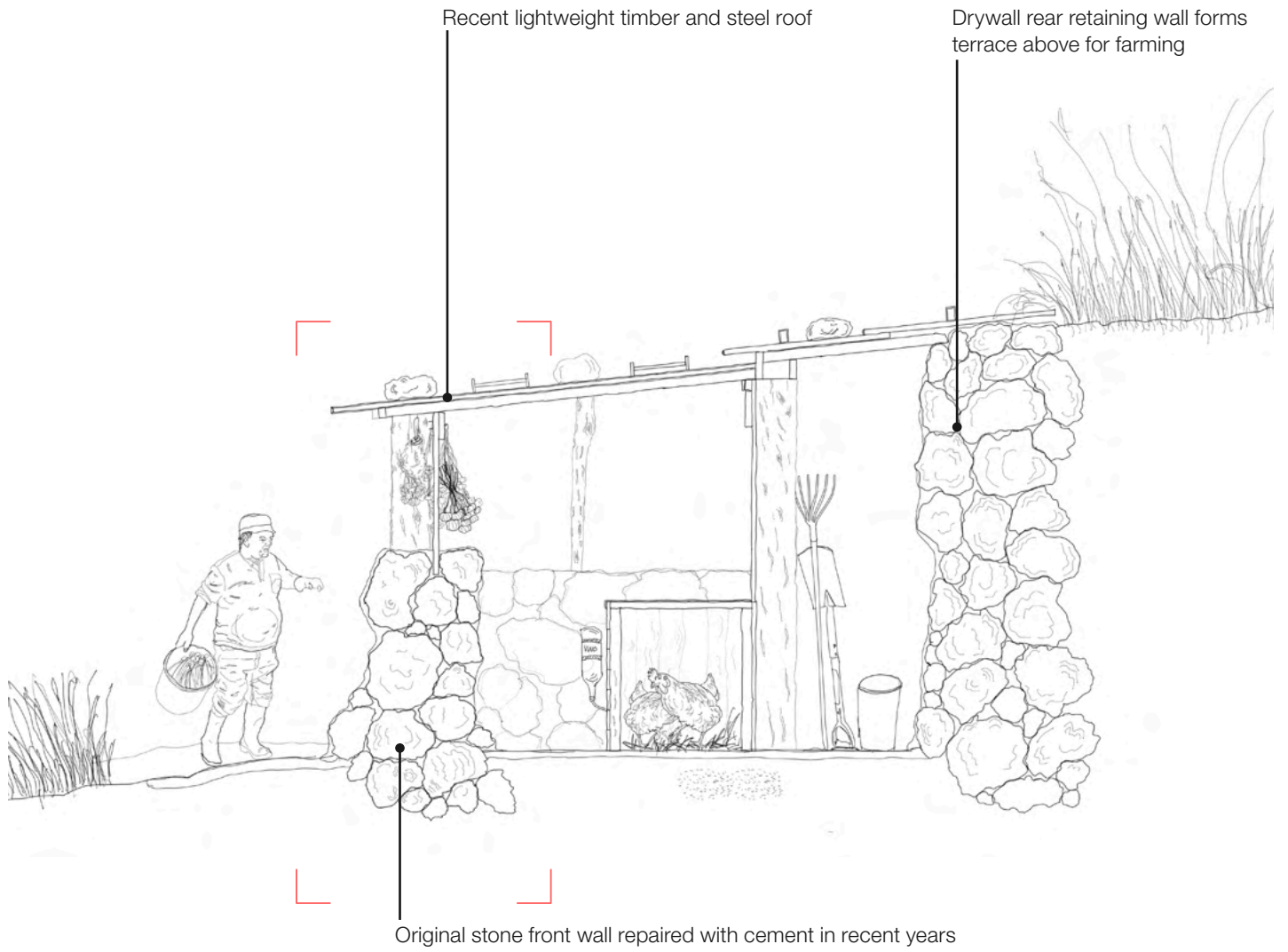
Working on the frame (Domenique Guglielmo)

This Page Middle

Construction drawing (Jameson Goring)

This Page Bottom

Construction drawing (Jameson Goring)



Farmer's Shack

Building survey by Jameson Goring,
Jim Wyatt Gosebruch, Dan Stilwell



High in the hills of Belmonte in Calabria, Southern Italy, terraced farming is supported by small vernacular shelters formed by humble adaptations to historical stone structures.

This particular building is utilised by a sustenance-farmer to shelter chickens and allow vegetables to dry naturally whilst protected from the harsh wind and rain which can deluge the area.

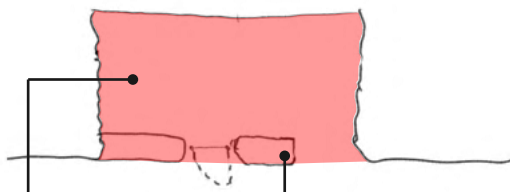
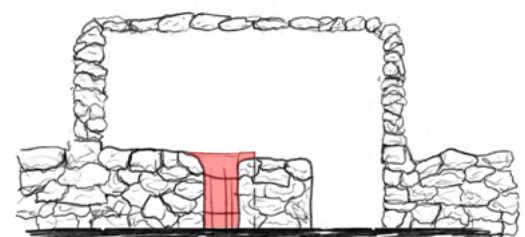
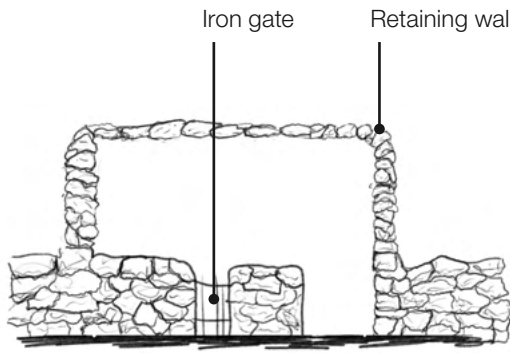


Facing Page Top
1:50 cross section

Facing Page Bottom
Plan of the Farmer's shack

This Page Top
Location photograph

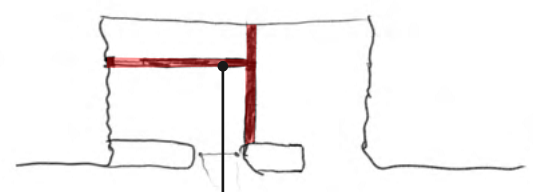
This Page Left
Surveying the Farmer's shack



Land excavated

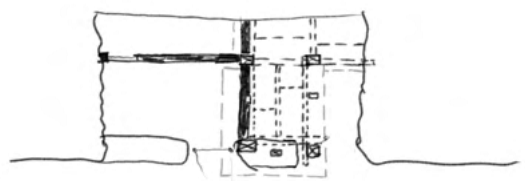
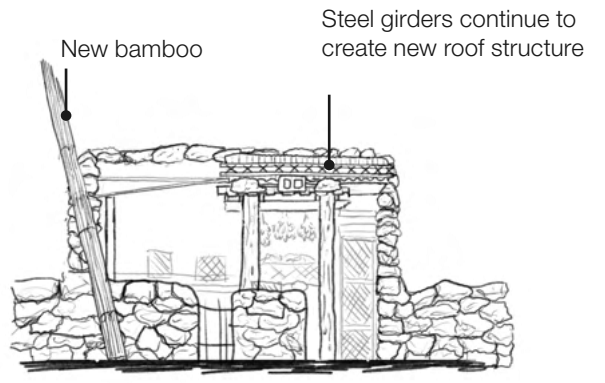
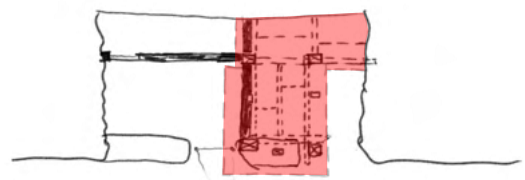
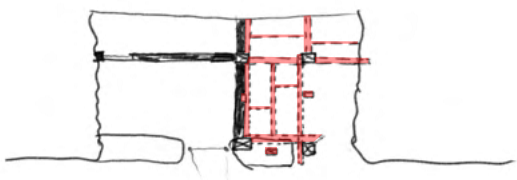
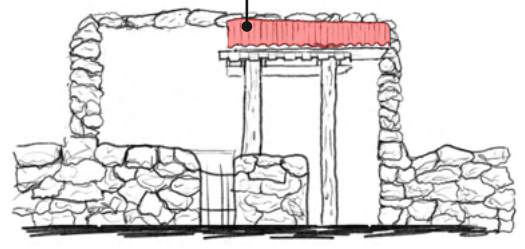
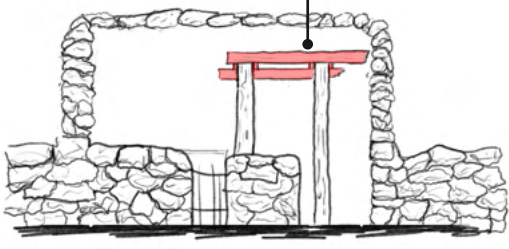
Walls from excavated stone

Primary beams and secondary joists from re-purposed timber



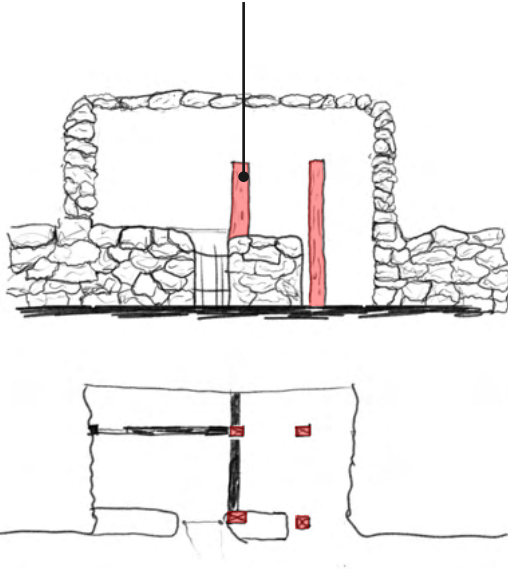
Infill stone walls added

Roof formed by re-purposed corrugated steel sheet



Now...

Heavy timber from locally-felled trees



Repair and Evolution Over Time

The original rear wall was formed by terracing the ground behind, constructed a drywall retaining wall then infilling with earth behind. Large stones cleared from the site were re-purposed to form an external wall, and later smaller internal divisions.

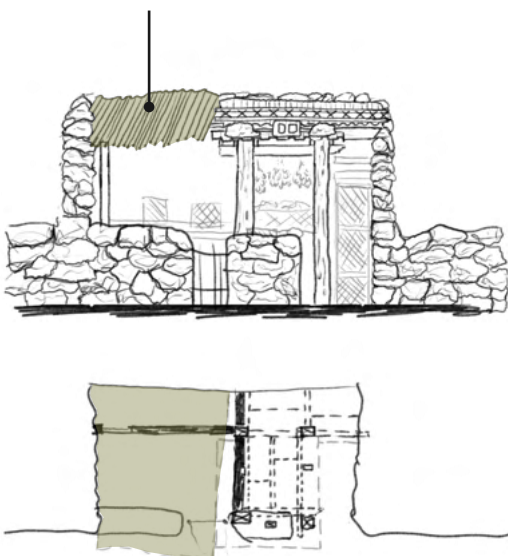
Locally-grown trees were also used as the primary beams supporting a roof structure.

The lightweight roof structure has been partially replaced with re-purposed timber, with a re-purposed corrugated steel sheet forming the roof itself.

Re-purposed steel girders not only aid with weighing the roof down against the winds, but extend over an exposed area to the left. At the time of visiting a bundle of bamboo lengths were leaning against the front wall, likely to be used in the future as a covering on the girders to increase the size of the covered area.



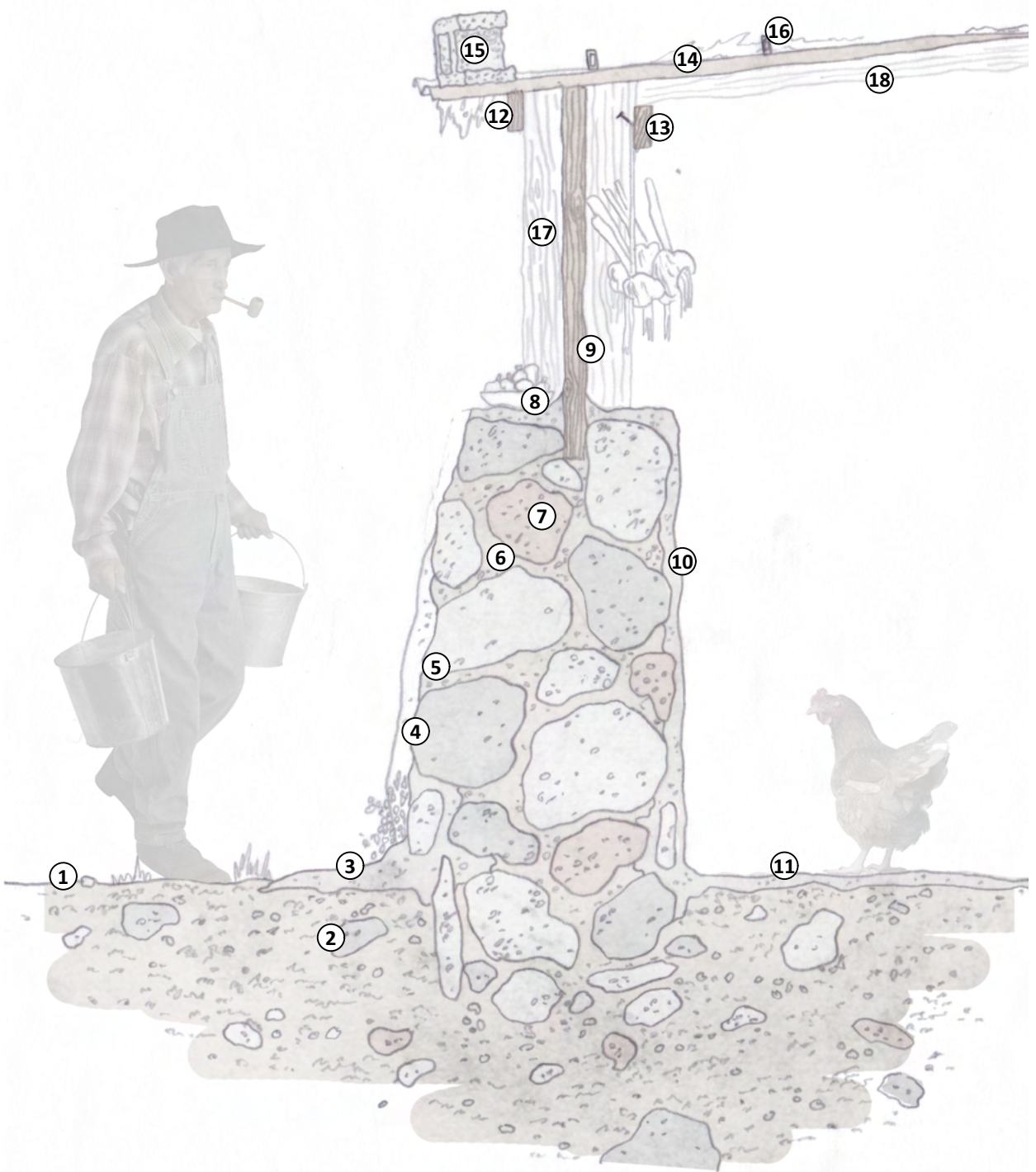
Bamboo roof extends sheltered area



...Later

Left
Approximately 1:150 facade and plans

Above
Farmer's Shack





Analysing the Existing Condition

The original rear wall was formed by terracing the ground behind, constructed a drywall retaining wall then infilling with earth behind. Large stones cleared from the site were re-purposed to form an external wall, and later smaller internal divisions.

Locally-grown trees were also used as the primary beams supporting a roof structure.

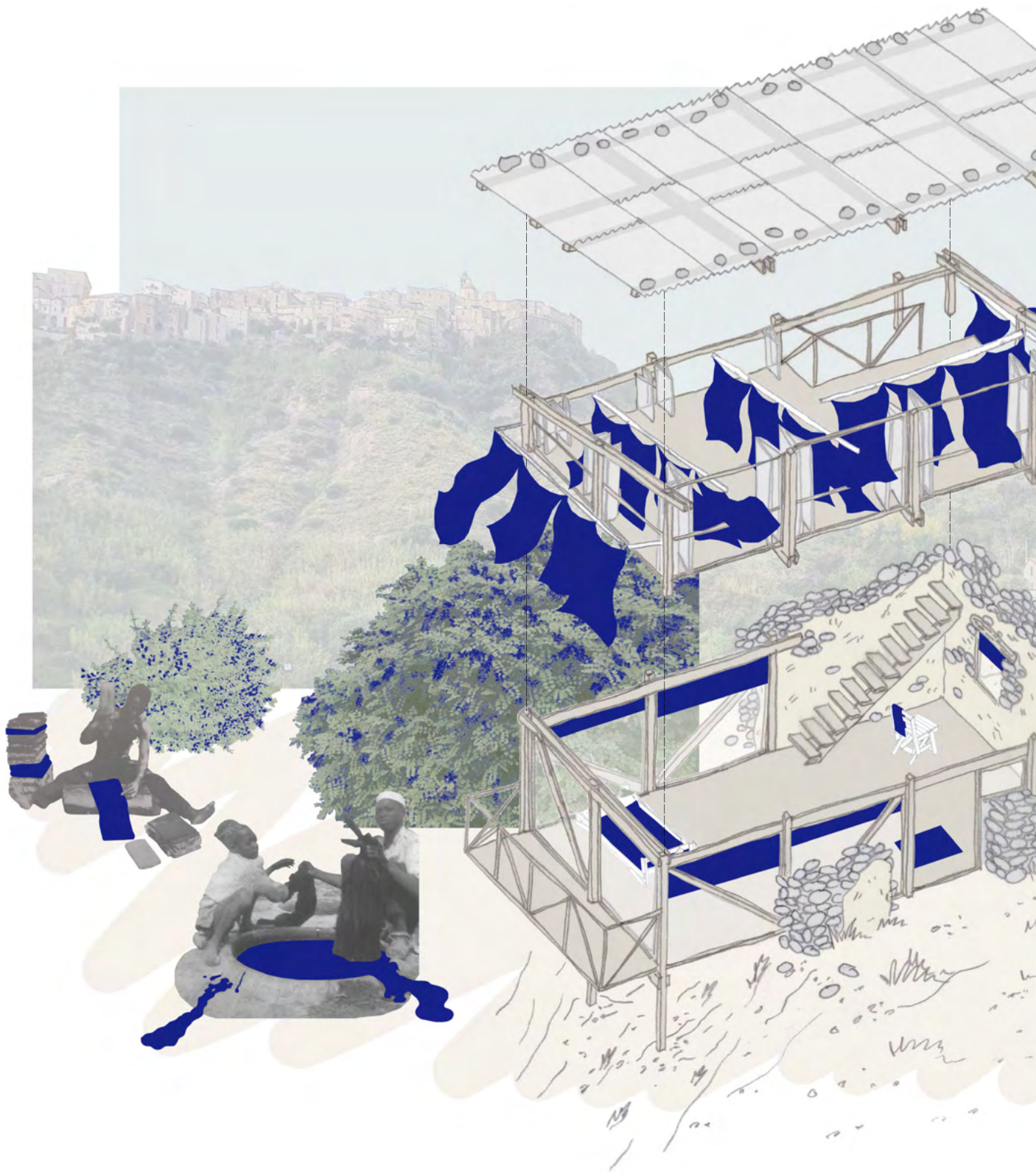
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1. Natural slope from earth
2. Frequent large rocks underground similar to those used to construct wall
3. Concrete applied to wall spread to cover top of ground
4. Areas where concrete previously applied have eroded on the external face to expose rocks beneath
5. Concrete applied to wall remains between rocks where protected from rainfall
6. Historic wall originally held by lime mortar
7. Historic wall rocks dug from surrounding fields whilst turning soil, now used for farming
8. Applied concrete laps on top of timber helping to secure
9. Timber post originally set within wall recess
10. Concrete applied to hold internal face remains intact
11. Concrete also applied above soil to provide robust floor
12. Beam supporting roof fixed to larger post in background
13. Beam supporting roof joist fixed to larger post in background
14. Corrugated steel panels for roofing
15. Concrete block weighs down end of roof to prevent lifting by wind
16. Steel truss laid over corrugated sheet helps weigh down roof and extends beyond shack to form covered area
17. Larger post in background
18. Roof counter-joist supports steel sheet

Facing Page
1:20 detail section

Right
Farmer's Shack



Thesis Proposals

Belmonte, Calabria

Unit 6 Tutors: Bo Tang, Maurice Mitchell, Jane McAllister, Sandra Denike-Polcher

Students developed their own briefs from their cultural and physical investigations of the site. Proposals included: a tomato processing plant, securing the long term future of the region by celebrating the distinctive social and agricultural ecosystems indigenous to the area.



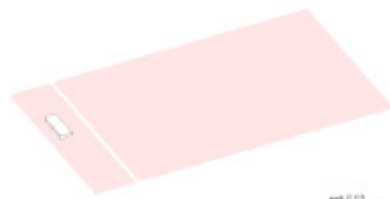
An Adire Eleko printing workshop is used to give new life to an existing ruin, openable elements and ephemeral framing invite the landscape and interior spaces to merge

Above

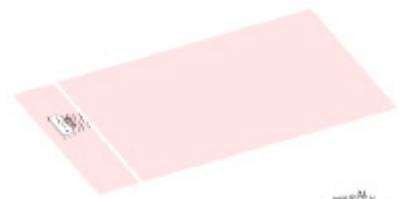
An Adire Eleko printing workshop is used to give new life to an existing ruin, openable elements and ephemeral framing invite the landscape and interior spaces to merge (Daniel Stilwell)



One afternoon



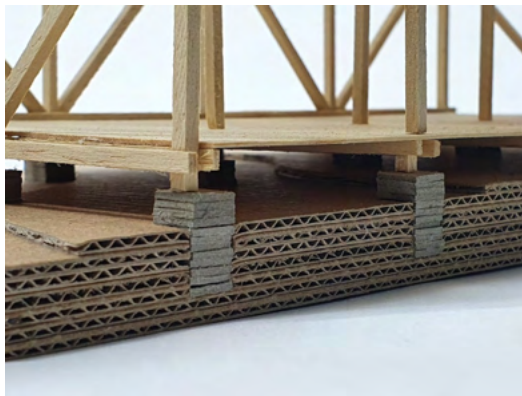
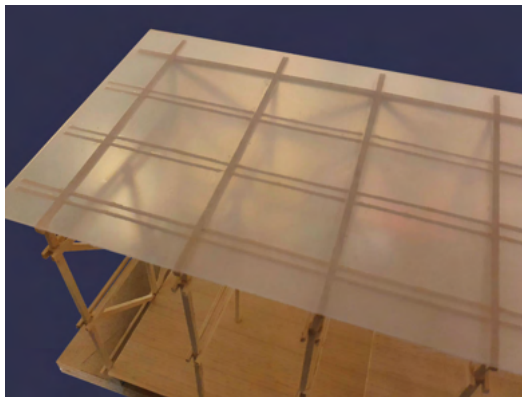
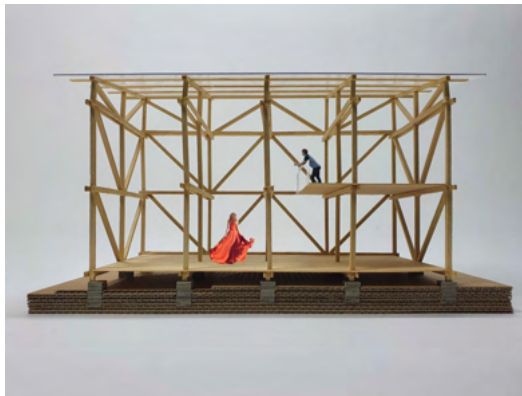
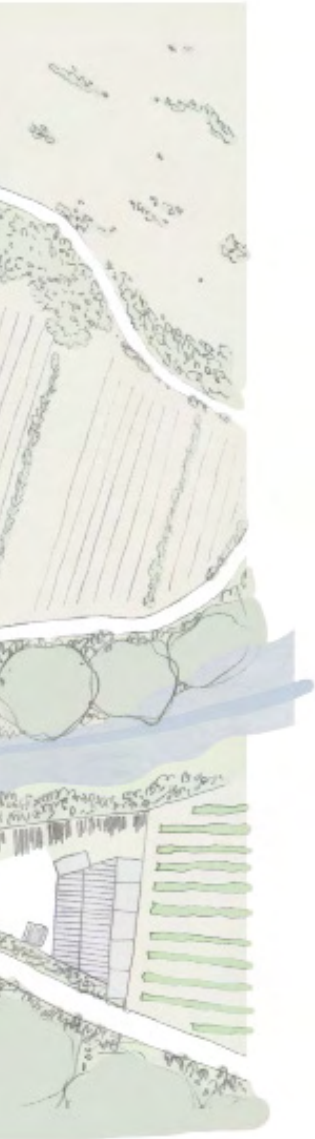
6 months



2 years

Self-Build Frazioni

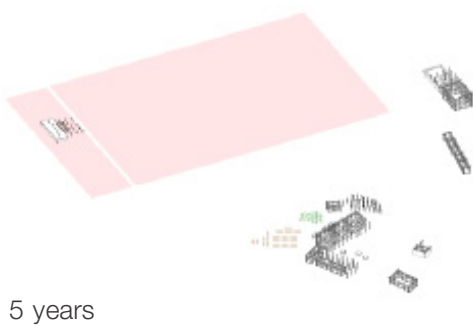
Daniel Stilwell



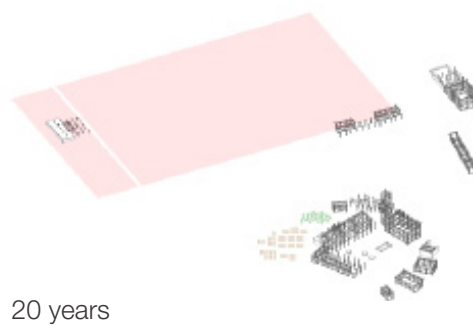
The historic village of Belmonte, Calabria is in crisis, with the younger generation moving to the cities, whilst refugees struggle to find work while maintaining their deserved dignity. The area has a history of Frazioni or 'fractions'; satellite communities sharing knowledge and trading locally-manufactured goods, the proposal aims to introduce a new craft to this ecosystem, that of traditional Nigerian printmaking, Adire Eleko.

The refugee community has a wealth of optimism, determination and life experience which makes them ideal candidates for the empowerment of self-build. A site near the existing football pitch has underused amenities such as drinking water and is free from the memories of the existing Old Town, allowing for a new settlement with privacy yet the opportunity to invite neighbouring residents within.

All materials are sourced locally, worked by hand, and honed in existing workshops which are currently struggling for work, reinforcing the already existing networks rather than recreating from scratch. Beginning with furniture before slowly growing in scale and complexity as their makers' skills improve, these simple demountable timber structures can evolve and move as their users' needs change in unexpected ways.



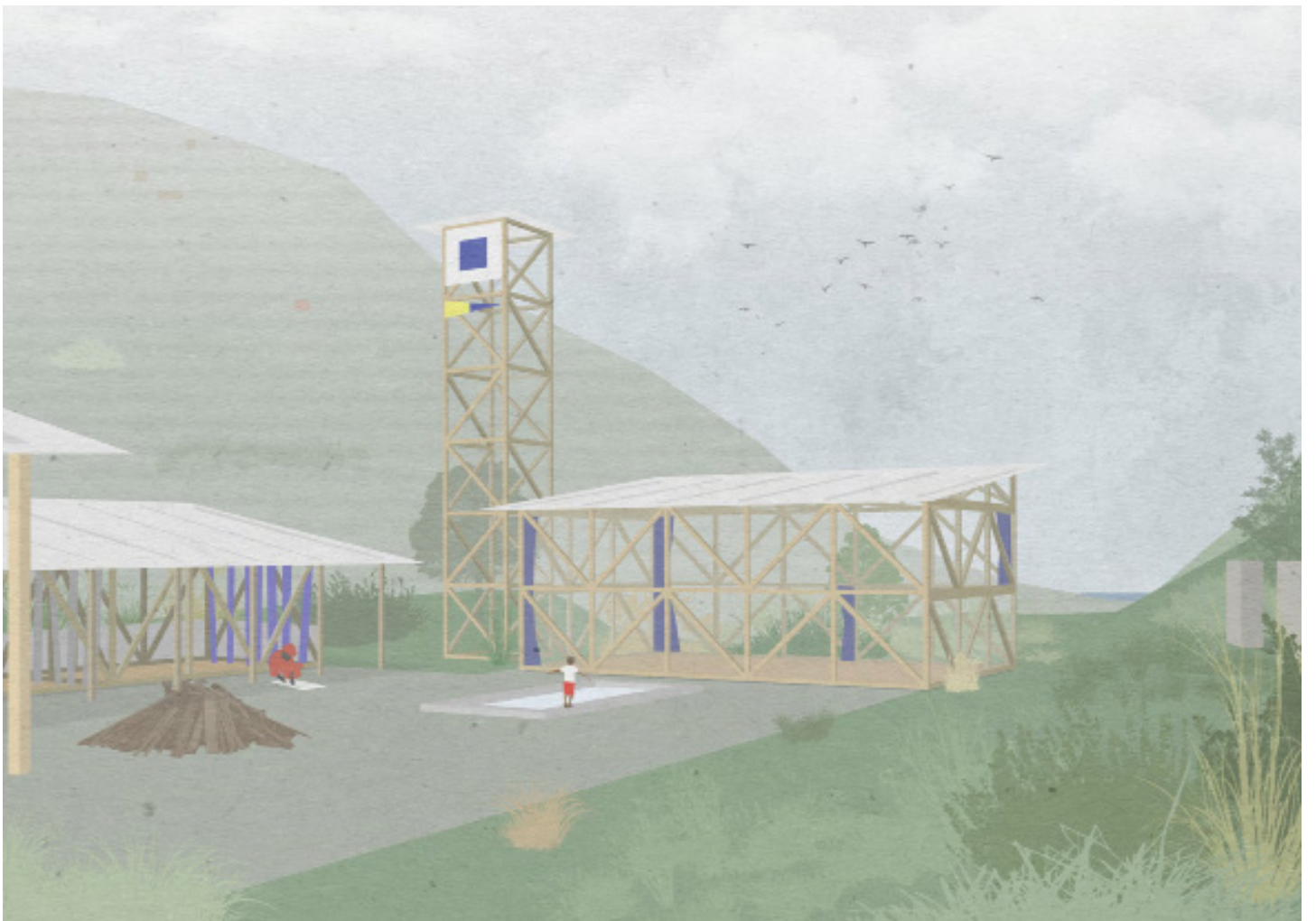
5 years



20 years



30 years



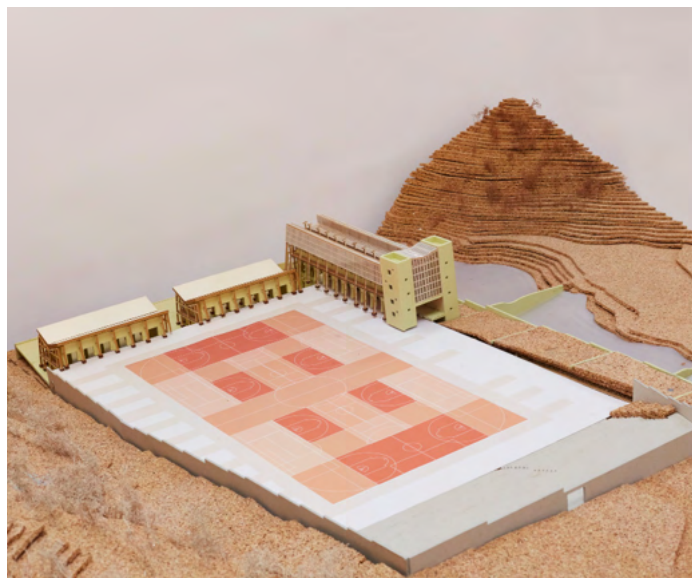


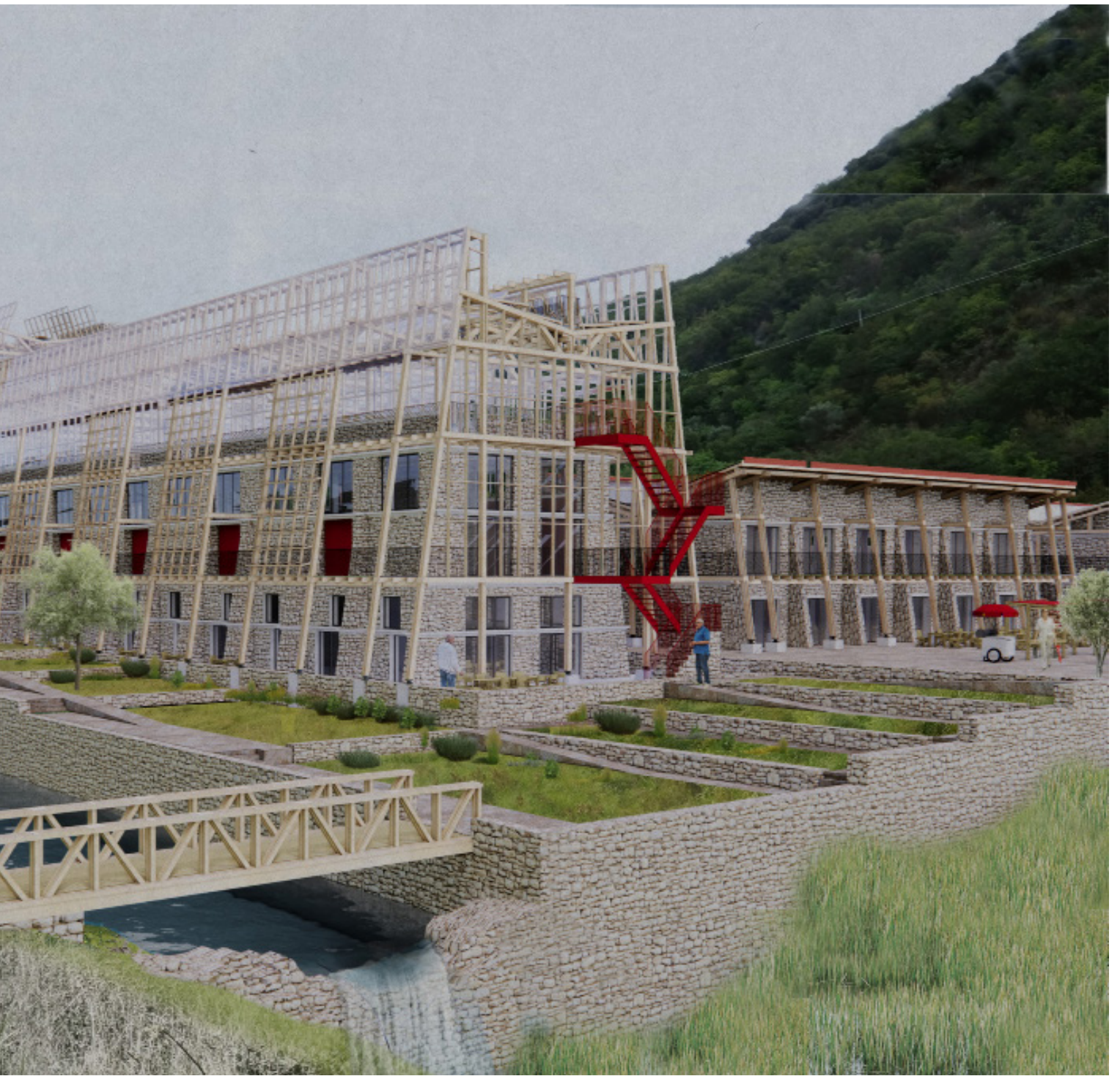
The Belmonte Tomato

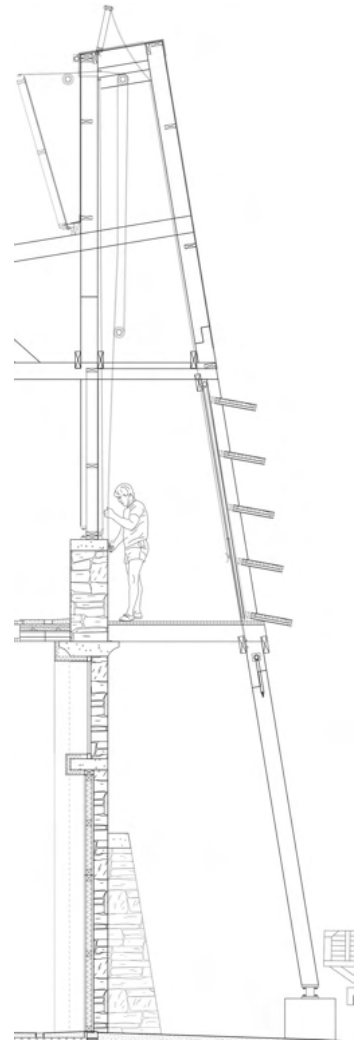
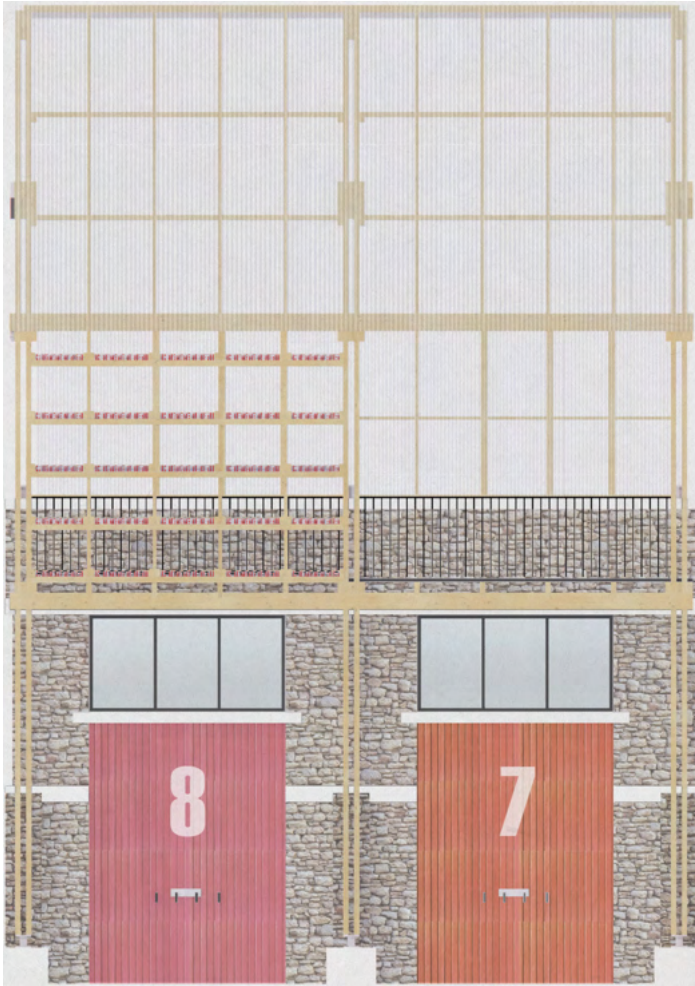
Jim Wyatt Gosebruch

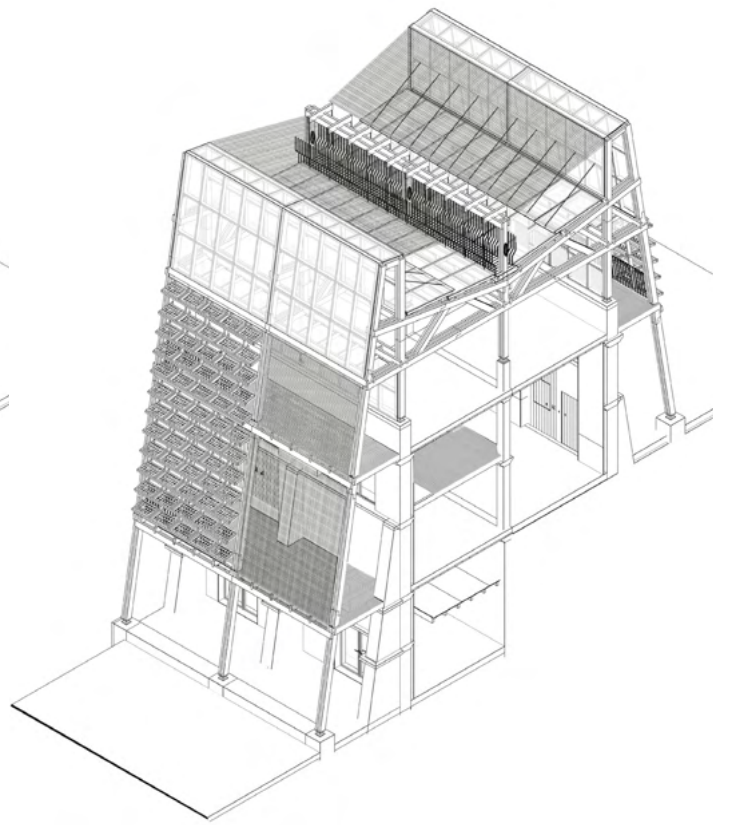
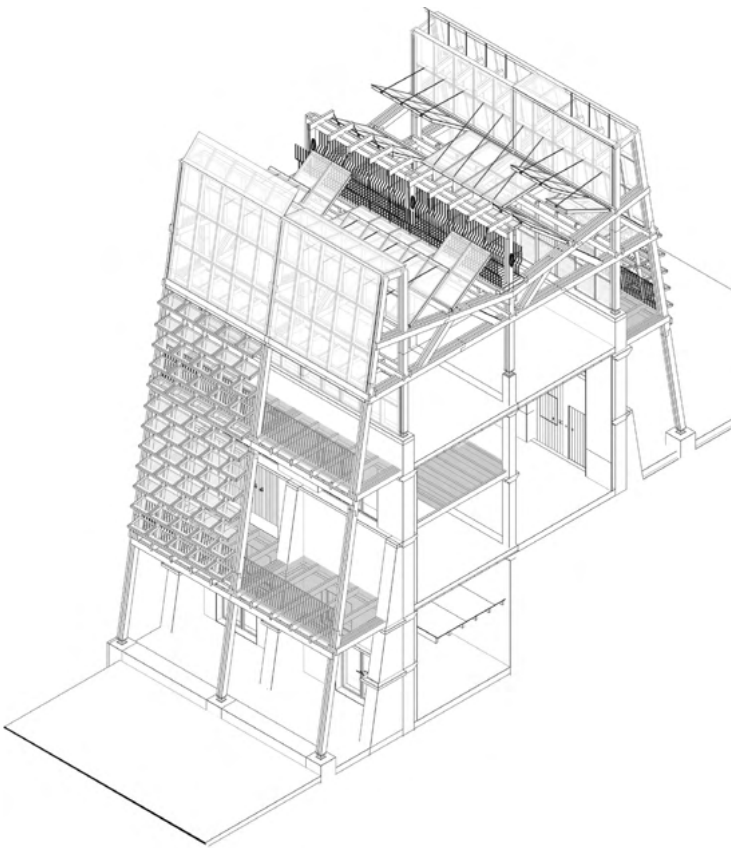
Agriculture has previously been the main industry of Belmonte, and the region boasts a unique variety of tomato named 'pomodoro di Belmonte'. By looking at the production line of these tomatoes right from growing them in the farms to exporting tomato products internationally this project aims to revitalise the Belmonte region through bringing jobs, money, new long term residents and a sense of pride back to the area. The catalyst for igniting this change will be the re-imagined football stadium. The site will offer both a hub for industry with potential for a range of new and refurbished businesses based here. It will also reinvigorate the football pitch, with public facilities and amenities based around the pitch turning the site into an attractive social destination for new and existing residents.

The first floor of the factory building will be a greenhouse, which will allow local farmers to extend their harvest to year round production and learn and experiment with modern farming techniques. The sloped façade of the building acts as a multifunctional drying rack for a sun dried tomatoes and *brise soleil* shading system. The produce will then be brought downstairs to the factory, alongside produce from the surrounding farms, and processed into a range of products. These products will be designed specifically for each farmer, branding their personal taste and recipes in a similar marketing strategy to that of champagne, to eventually export internationally. On the lower ground floor accommodation for seasonal workers allows people a stepping stone on the path to living in Belmonte permanently.











Agro-Exchange

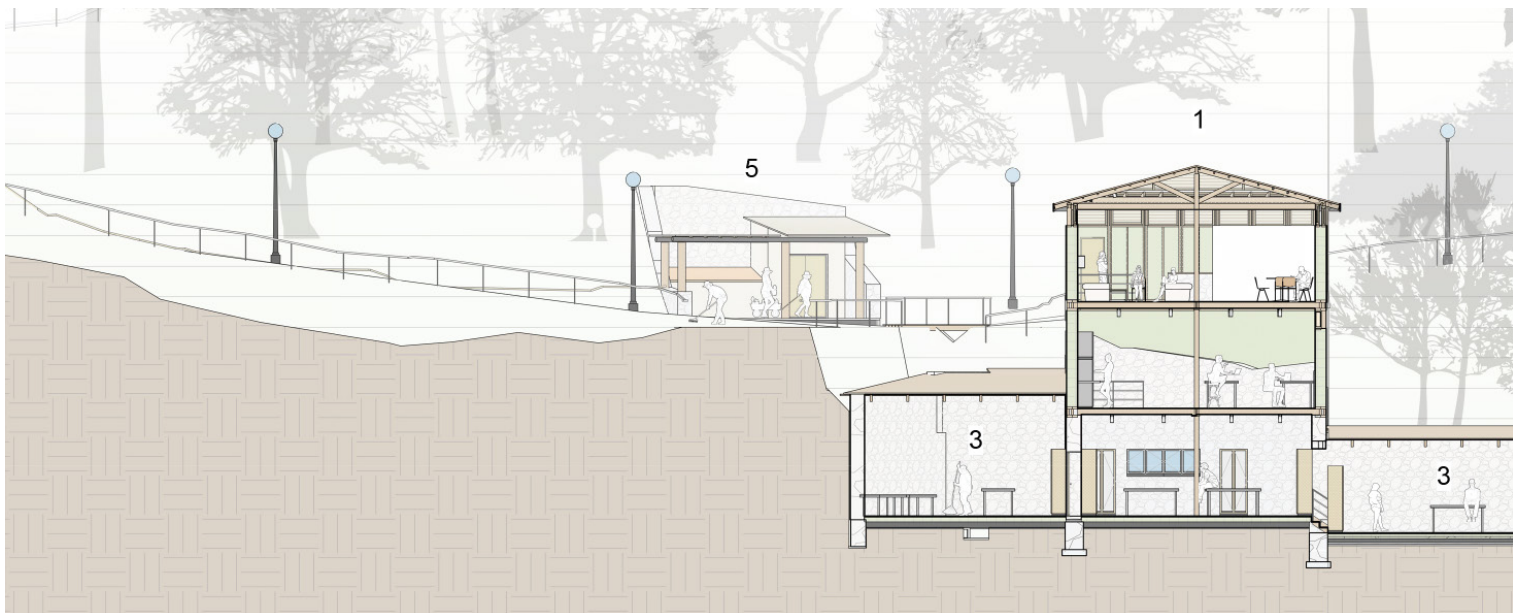
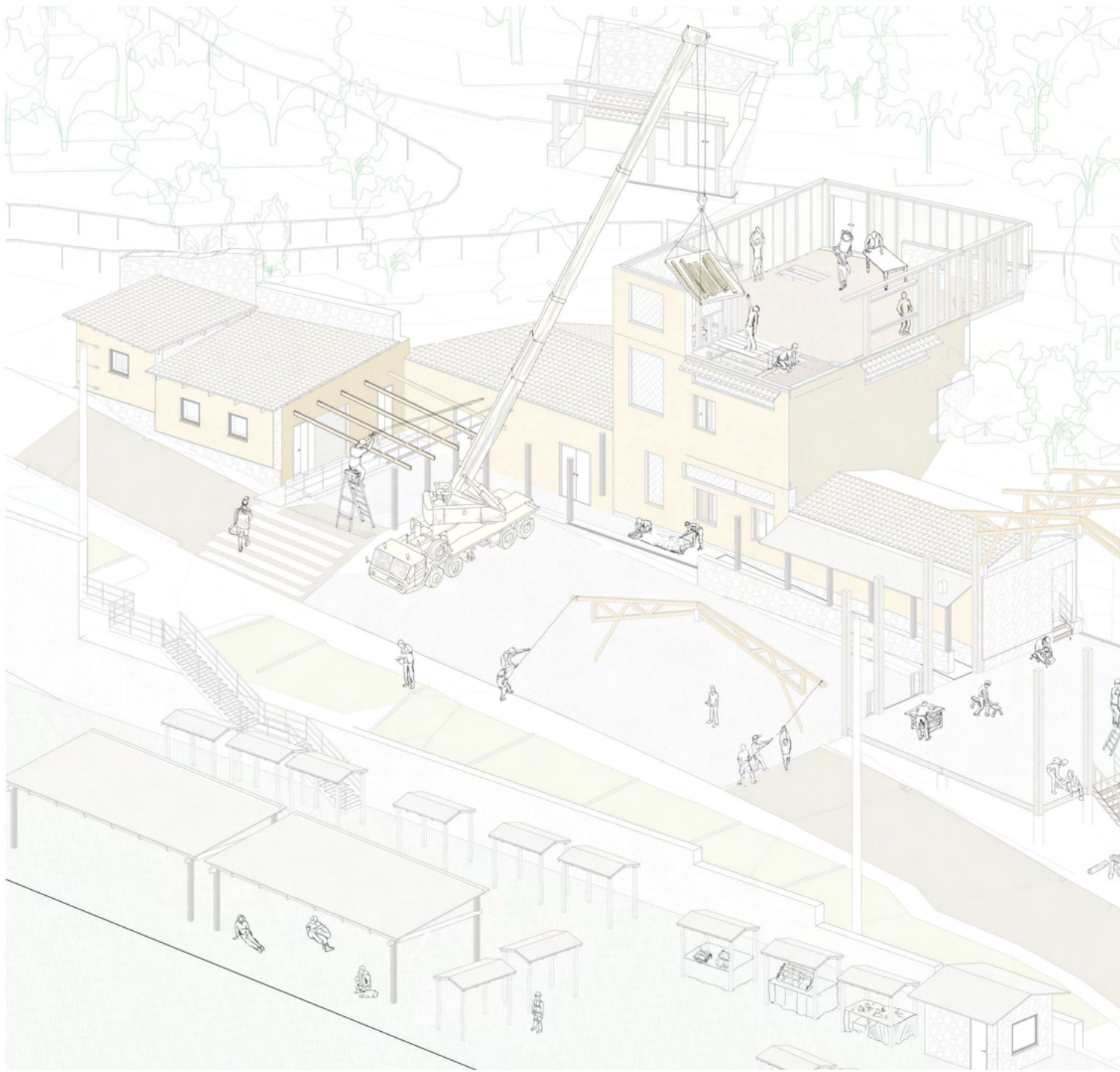
Jameson Goring

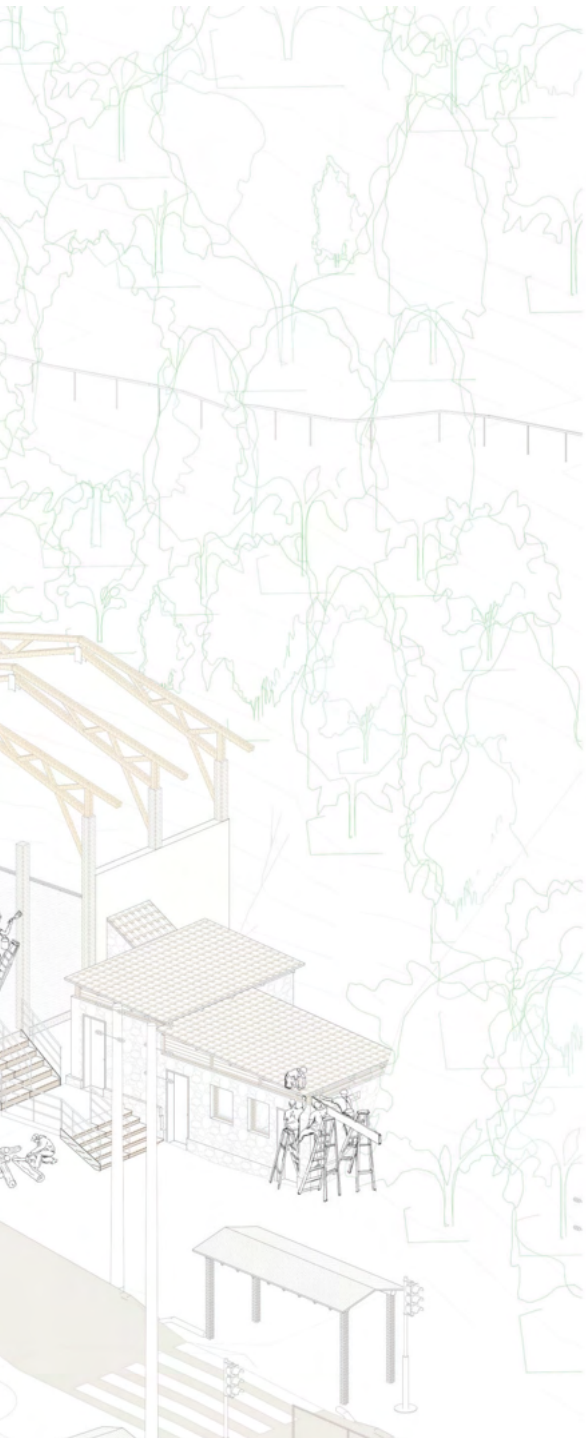


The Belmonte valley in Calabria, Italy, has a fragmented chain of producers and diminishing work force as young people move. As a response, this proposal unifies these producers through the establishment of an agroforestry and allotment network, creating a continuous productive semi-urban landscape. The agricultural valley facilitates the (re)production of existing agricultural farms by providing labour (migrants and exchange students), encourages agrotourism (purchasing power), and taps into the global movement of regenerative farming (sustainable agroforestry).

The agro-exchange buildings at the heart of the valley are the centre of activity. They host the exchange students, house migrant workers, host the agro-collective supply network, and train Calabria residents in agroforest products. They also facilitate public events, cooking, and gatherings. Tectonically, a simple pallet of heavy stone, hempcrete, light timber and tile roofs compliment the loose-fit vernacular architecture whilst being easily buildable and low carbon.













Changing Places

MArch RIBA II Module

Module Leader/Tutor: Beatrice De Carli

Changing Places offers a critical overview of community-based approaches to urbanism, architecture, and construction, particularly in contexts of rapid change and resource scarcity.

Sessions are divided into four thematic clusters. The first cluster explores critical forms of spatial practice in socially engaged architecture and international development. The following clusters discuss how these practices relate to specific material cultures and technologies, social relationships and organisation, and urban imaginaries.

Each thematic cluster begins with a lecture providing a historical and theoretical overview of the topic, followed by a practical workshop that explores real-life situations through role-play and simulation exercises. The next session involves a student-led seminar where the same theme is discussed using set texts in critical spatial theory and practice. Writing workshops are also included to help students develop critical and reflective writing skills, drawing from their own experiences, locations, and investigations of “changing places.”

Coursework consists of an illustrated essay that analyses a case of community-based architecture and urbanism using one of the module’s themes.



Left
Mashimoni in Nairobi, Kenya (ASF-UK)



Maps and Images: How facilitating links between people, places and the imaginary can manifest community resilience

Morgan MacGregor

This essay looks at networks as a form of resilience, using the Brixton Windmill and neighbouring Blenheim Gardens Estate as an example. Through careful analysis and mapping of relational links in a spatial context over time, an understanding of beneficial characteristics can be identified. To understand how resilient networks are formed, one must question the quality of these relationships? What social and political value is created through event organisation and collaboration? What is it about certain buildings that makes them the focus of such productive relationships? And what is the architect's role in setting up these networks?

This essay will build upon Doina Petrescu's methods of mapping relationscapes in a spatial context and explore how the act of drawing makes the network a tangible piece of social infrastructure, facilitating a community's ability to respond to unpredictable change. By identifying 'nodes' in these networks, the quality of beneficial spaces can be identified. This essay argues that a convivial building typology which invokes the imaginary is key to facilitating resilience through focusing the aspirations of both short-term events and long-term political goals. These strong networks that have focused their evolution around such a building typology can share their built up knowledge and social value with other similar organisations, further expanding the network of resilience. Lessons can be learnt about how a building as an image can facilitate aspirations and help build networks of resilience in an economically deprived community with a shared political ethos.

Key references

- Petrescu, Doina, 'Relationscapes: Mapping Agencies of Relational Practice in Architecture', *City, Culture and Society*, 3:2 (2012), pp.135-140.
- Minuchin, Leandro, 'The Politics of Construction: Towards a Theory of Material Articulations,' *Environment and Planning D: Society and Space*, 34:5 (2016), pp.895-913.
- Appadurai, Arjun, 'The Capacity to Aspire: Culture and the Terms of Recognition,' in *Culture and Public Action*, edited by Vijayendra Rao and Michael Walton (Redwood City, CA: Stanford University Press, 2004).



Top
Blenheim Gardens Community Allotments, a space for convivial activity, overlooked by the windmill to the left (Morgan MacGregor)

Above
Sketch of Broadway Market (Rares Tugui)

Broadway Market: The urban and social process of a community-based regeneration

Rares Tugui

The Broadway Market, is an East London functioning street market that has seen considerable urban and social changes from its Victorian inception to today. The market is formed of a street with shops open all year around and a street market on Saturdays and Sundays. The market fell into dereliction in the post-war years and has been regenerated since the '90s mainly through community initiatives that culminated with the establishment of the Broadway Market Residents and Traders Organisation and its reopening for traders on the street in 2004. The market is recognised as a success today by the council and in my personal experience as a Hackney resident it is an attractive urban environment. However, there are groups who seem to be excluded from the regeneration process and don't find it as a success.

The essay tries to respond to the questions Why was a community initiative the agent of regeneration? Who is the community behind the regeneration? Who benefits from it and why? What could change and even challenge the idea of success? The analyses will be done by looking into the social and urban aspects that allowed the regeneration of the modern times Broadway Market. The main focus of the urban analysis is on the physical urban environment as the streets analysed against the four principles of urban diversity set up by Jane Jacobs. While that of the social dimension looks into the community and social process that happened within the urban landscape framed by theories as aspirations, right to the city, social exchange and factors as gentrification.

Key references

- Jacobs, Jane, *The Death and Life of Great American Cities* (New York: Modern Library, 1961).
- Lefebvre, Henry, 'The right to the city,' in Henry Lefebvre: *Writings on Cities*, ed. by E. Kofinan and E. Lebas (Cambridge, MA: Blackwell, 1996 [1968]), pp. 63-184.
- Bradley, William, 'The Gentrification of Broadway Market', in *Hackney History Volume 4*, edited by Isobel Watson (London: Friends of Hackney Archive, 2010), pp. 49-63.

Designing Space in a Woman-Made Environment

Laura Roberts

This essay explores the ideas of women's safety in public spaces through the lens of their involvement or exclusion in design decision making. It uses an example of a regeneration consultation process on an anonymised council estate in north London. The author lived on this estate for several years and later worked on the proposed regeneration of the estate as an architectural assistant.

Through these perspectives, the process is reflected on, and a new process imagined where women of the estate are more involved and the outcome could be different. These imaginings are informed from examining alternative feminist practices from the past, such as Matrix and the Women's Design Service and from more recent projects such as EcoBOX and Col-lectiu Punt 6. Theory is taken from a number of sources, including the Design Justice Principles informed by a rallying cry against the Matrix of Domination. Using these techniques of inclusive and creative practice may have produced a very different outcome for the estate and the author imagines what a 'woman-made environment' might look like.

Key references

- Costanza-Chock, Sasha, 'Design Justice: Towards an Intersectional Feminist Framework for Design Theory and Practice' in *Design Struggles*, ed. by Claudia Mareis and Nina Paim (Amsterdam: Plural, 2021), pp. 335-351.
- Matrix, *Making Space: Women and the Man-Made Environment* (London: Pluto Press, 1984).
- Ortiz Escalante, Sara and Blanca Gutiérrez Valdivia, 'Planning from Below: Using Feminist Participatory Methods to Increase Women's Participation in Urban Planning', *Gender and Development*, 23:1 (2015), pp.113-126.



Architecture of Empowerment: The Importance of Community Involvement within Design Practice

Usman Sattar

After being involved with a community project in 2021, I had the opportunity to experience first-hand the complexities and conflicts that come with trying to engage communities or to mediate collaborations between them. Having had the time to look back over our approaches and methods of conducting our projects, it is beneficial to assess the process and to extract the lessons we learnt from them. As designers, we can overlook the significance of giving agency to those involved within our work, which impacts the outcome heavily.

The concept of collaborative process is to remove the idea of the 'expert', which in turn empowers those who are able to be a part of it. Learning from one experience had led to the opportunity for another, which enabled a more refined approach to be taken. However, this project revealed a much deeper issue that highlighted the intricacies of participatory work. With both of these projects, I attempt to analyse the assumptions and realities of what collaborative design may face. I highlight the fact that every project must be handled individually, with careful consideration and sensitivity as a community can be so delicate to engage with, especially by us as onlookers who cannot fully understand the context or people we work with.

Key references

- Awan, Nishat, Jeremy Till and Tatjana Schneider, *Spatial Agency: Other Ways of Doing Architecture* (London: Routledge, 2011).
- Costanza-Chock, Sasha, 'Design Justice: Towards an Intersectional Feminist Framework for Design Theory and Practice' in *Design Struggles*, ed. by Claudia Mareis and Nina Paim (Amsterdam: Plural, 2021), pp. 335-351.
- Petrescu, Doina, Constantin Petcou and Corelia Baibarac, 'Co-producing Commons-Based Resilience: Lessons from R-Urban', *Building Research & Information*, 44:7 (2016), pp. 717-736.



Top
Outdoor theatre live project, Caledonian Park, London, 2021 (Usman Sattar)

Above
Daily life in Belmonte, Calabro (Daniel Stilwell)

Belmonte Calabro: Existing Residents and Policies Affecting Future Refugees in Southern Italy

Daniel Stilwell

The essay focuses on a sparsely-populated village in the Southern Italy known as Belmonte Calabro. Beginning with a history of the area analysing the changes over the last century, utilizing archive documents and author-created diagrams. Culminating in a photo essay recorded by the author portraying a sense of daily life in the village. The next section details resident's stories gleaned from first-hand interviews and experiences by the author, bolstered with documentaries recorded by a local grass-roots organization Le Seppie over the last four years. These accounts also begin to explore the lives of recent asylum seekers and how they have experienced life in an unfamiliar, and at times unwelcoming, small town.

The story then shifts to Riace, a nearby town which received international press coverage with both the successful settlement of large numbers of refugees, then subsequent failure to maintain support for these communities following the arrest of the mayor on claims of financial mismanagement. The arrest was an indicator of a shift in Italian national policies following the 2018 election, which similarly affected Belmonte.

Two photo collages record the celebrations of previous lives, which will not be repeated if there is not a shift to encourage native young people or new refugees to remain in the area, and the individuals which could help change this current downward trend.

Finally an analysis of the systemic problems preventing this cycle from changing, and how existing members of the community could potentially help shape a better tomorrow if they had support for an alternative method of funding from the state.

Key references

- Costanza-Chock, Sasha, *Design Justice: Community-led Practices to Build the Worlds We Need* (Cambridge, MA: MIT Press, 2020).

- Driel, Ester, 'Refugee Settlement and The Revival of Local Communities: Lessons From The Riace Model', *Journal of Modern Italian Studies*, 25:2 (2020), pp. 149-173.

- Nayeri, Dina, *The Ungrateful Refugee: What Immigrants Never Tell You* (Edinburgh: Canongate, 2020).

Not Moving but Improving: How Community Initiative Projects Affect the Neighbourhoods?

Rayka Kakavand

This essay looks at the Loughborough Junction as a place of change by describing the community initiative projects developed in the area. These community initiative projects are essential as they have been developed by residents, showing us how people can reshape their neighbourhoods without developers. How have these community projects affected the neighbourhood? What needs to be strengthened in people to initiate change? What are these spaces within the neighbourhood? In which ways these projects have helped the residents?

This essay seeks to study the impacts of these projects. Firstly, mobilizing the capacity to aspire by Appadurai was discussed. Secondly, the article defines Common Space through the work of Stavrides. Finally, through describing examples and studying the Small Change by Nabeel Hamdi, the essay will explain how these projects have affected residents' lives.

These studies highlight that the mobilisation of capacity to aspire can empower people to change their neighbourhood and continue to do so. Secondly identifies the role of common spaces in creating a sense of community within neighbourhoods. This study also indicates that initiative community projects create opportunities for people and create change in their lives collectively and individually. These findings are significant as they can become precedents for further developments, and they can encourage other communities to try to reshape and reinvent their neighbourhood.

Key references

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- Hamdi, Nabeel, *Small Change: About the Art of Practice and the Limits of Planning in Cities* (London: Earthscan, 2004).

- Stavrides, Stavros, *Common Space: The City as Commons* (London: Zed Books, 2016).

CASE STUDIES MAP

EMPIRICAL DATA ANALYSIS TAKEN INTO THE SIBERIAN IMAGINARIES

COLLABORATIVE LEARNING-BY-MAKING PROJECTS



MA project "Growing Structures" in Yakutsk, 2019



Case Study 3 Amphitheatre in Caledonian Park in London, 2021



Key
 High Arctic regions
 Low Arctic regions
 Sub-Arctic regions
 Sakha Republic boundaries
 Case Study sites: Yakutsk, Lensk, London
 Snowblasting interview sites

SNOWBALLING INTERVIEWS

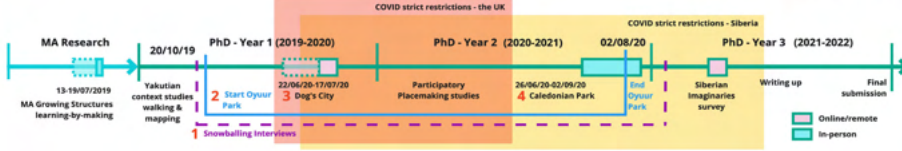
Interviews were held with practitioners from Northern Canada, Greenland, Scandinavia, the UK, and various parts of Russia.

PARTICIPATORY DESIGN PROJECTS

Case Study 2 Bottom-up Project of Dog's City in Yakutsk, 2021



Case Study 1 Top-down Project of Oyuur Park in Lensk, 2019-2021



PhD timeline

The PhD case studies have been affected by the COVID pandemic - travel and social gathering restrictions. However, these restrictions allowed to test other methods of online participatory design workshops and online snowballing interviews. Furthermore, the politico-economical situation of Russia is affecting the imported resources in Yakutia and adds to its remoteness (transportation and travel restrictions).

INDEPENDENT YEARS



Fig. 1 Portrait artist from Lena Pillen, illustrating reindeer herds on herds, waders, Sakha.
 Fig. 2 An illustration of a reindeer herder and his reindeer, Sakha. The illustration shows a reindeer herder on a reindeer, pulling a sled with reindeer. The illustration is a traditional Sakha reindeer herding scene.

RUSSIAN INVASION



Fig. 3 An illustration of Sakha reindeer herders and reindeer, Sakha. The illustration shows a reindeer herder on a reindeer, pulling a sled with reindeer. The illustration is a traditional Sakha reindeer herding scene.

SOVIET PERIOD



Fig. 16 Sakha intelligentsia members of the Siberian Regional Duma from Yakutsk, 1917.
 Fig. 17 Prisoners with their teacher.
 Fig. 18 Young student meeting newspaper, Soviet times, 1911.
 Fig. 19 An orthodox church with the local children.
 Fig. 20 A school Sakha family wearing traditional Sakha clothes.

MODERN PERIOD



Fig. 21 People in Yakutsk.
 Fig. 22 A painting of Yakutsk, 1911, with its main street.
 Fig. 23 A painting of Yakutsk, 1911, with its main street.
 Fig. 24 Sakha festival.
 Fig. 25 Temporal church of the Sakha religion.
 Fig. 26 Yakutsk city.
 Fig. 27-29 Traditional culture: Sakha.
 Fig. 30 The northern nomads community.

1632

1922

1992



Maiia Sivtseva

**Supervisors: Bo Tang, Maurice Mitchell
2019-2023**

Evaluating participatory placemaking as a tool for civic development of shared spaces in the postcolonial contexts of Yakutsk and Lensk, North-Eastern Siberia.

An extract from Maiia's PhD by Project that is currently at the final stage of completion. The extract includes the abstract and excerpt from Methodology Chapter III - 3.3 Practice Research and Researcher Positionality

Abstract

This PhD by practice examines the potential of participatory placemaking as a tool for the civic development of shared urban spaces in the postcolonial contexts of the cities of Yakutsk and Lensk located in the Republic of Sakha (Yakutia), North-Eastern Siberia. Inhibited by its colonial history and forced urbanisation during the period of Soviet rule and the rigidity of the current Russian-based planning process, the citizens of Yakutia have little involvement in the imagining and making of the fabric of the city. The research asks: how can participatory placemaking contribute to the civic development of Yakutsk and Lensk by embodying the aspirations of residents and employing other local contextual affordances at city, neighbourhood and building scales?

The research methodology is built on three stages of Investigator, Narrator, and Maker in three case studies and two surveys. The facilitate participatory placemaking, Lefebvre's methods of deduction, induction, translation, transduction, and transposition were applied to provoke the imagination and aid the representation of alternative futures by participants. The research methods used for data collection included facilitation of co-design workshops, hands-on building initiatives, and snowballing interviews. These research methods use the community auto-ethnographic lens to empower local participants as the main decision makers.

The case studies of Oyuur Park in Lensk and Dog City in Yakutsk test the top-down and bottom-up approaches of participatory design. The third case study of the Amphitheatre Project in London was added to compare Yakutian learning-by-making practices with western ones. The survey of snowballing interviews assesses newly emerging participatory design practices in Yakutia in comparison with the practices in Canada, Greenland, Scandinavia, and the UK to define its characteristics. The final survey of Siberian Imaginaries built on found local affordances tests further the theory of urban imaginaries through online participatory design workshops.

Throughout the research process an optimal 4-stage PP structure was applied based on the heuristic adaptation of PP processes and methods in the Yakutian context. The research demonstrates that Participatory Placemaking can be successfully used as a tool for the civic development of shared spaces in Yakutsk and Lensk through the assembly of urban imaginaries. In addition, the urban learning forums created by PP can contribute to design creativity and participants' capacity to participate, expand affordances through co-making of narratives and artefacts, and subsequently, expand the urban imaginaries which embodying the aspirations of residents. Yakutian Participatory Placemaking is characterised by its fundamental embodiment of the conditions of the context such as extreme climate, remote location, and scarce resources. Additional contextual factors were the lack of time and low experience of civic action by participants.

The research contributes to knowledge by helping to fill the gap in the application of participatory placemaking in the postcolonial Far North. The recommendations evaluate the most effective design approach, timing, process structure, and scale for PP in the research context. The recommendations can be tested further to scale up the local initiatives in Yakutia and in regions with similar contextual characteristics and/or used as guidance to facilitate speculative participatory placemaking projects in other contexts.

3.3. Practice Research and Researcher Positionality

This PhD research is carried out by practice work. Practice research in architecture is research by design that focuses on a project development informed by theoretical framework and leads to generation of new knowledge. I employ Roggema's definition of research by design: "a method, which uses design to research spatial solutions for a certain area, accommodating a design process, consisting of a pre-design phase, a design phase and a post-design phase, herewith providing a philosophical and normative basis for the design process, allowing to investigate the qualities and problems of a location and test its (spatial) potentials, meanwhile creating the freedom to move with the proposals in uncharted territory, and producing new insights and knowledge interesting and useful for a wide audience" (Roggema, 2017). This research was inspired by my architectural interests (democracy in architectural design, indigenous identity, hands-on building) and informed by my Indigenous Siberian background.

Participatory placemaking is a democratic practice of direct users' involvement that employs hands-on practices. By adopting the community auto-ethnographic lens, I position myself in one line with the participants and take not only the facilitator's role but also a role of an active participant and a learner. As a facilitator, I organise the projects by finding design sites, involving potential participants and funders, and outline the work. As an active participant, I get involved in the design and hands-on building processes with the other participants. This means that I do more of a physical work

STAGE 2 - PARTICIPATORY DESIGN CASE STUDY 1 - OYUUR PARK IN LENSK - EXTRACT FROM APPENDIX 2

1 - construction of a skate park on the territory of the CPUS. The same was developed on the territory of Komsomolskiy Bazaar (later within the CPUS) in cooperation with the Chief architect and the mayor of Lensk. Inside the dream of the skaters of Lensk come true.
15 May 2018

2 IDENTIFICATION OF USERS AND THEIR INQUIRIES
During the meetings and surveys, the stakeholders of the project were identified and workshops were held with them, in order to identify their requests and draw up terms of reference for the project.
11 December 2018

3 COLLECTION OF IDEAS AND DRAFTING AIMS
workshops were held for all age groups and various communities of Lensk.
12 January 2019

18 December 2018
- meeting: joint design with schoolchildren of Lensk, joint conceptualization in groups.

COLLABORATIVE DESIGN PROCESS
PAINTING WORKSHOPS

COLLABORATIVE DESIGN PROCESS
MAPPING EXERCISES

COLLABORATIVE DESIGN PROCESS
MAPPING EXERCISES

DESIGN & DISCUSSIONS

ASPIRATIONS OF THE LENSK CITIZENS - SUMMARY

1. The children should be able to play in the park.
2. The park should be a place where people can relax and spend their free time.
3. The park should be a place where people can meet and talk to each other.
4. The park should be a place where people can exercise and stay healthy.
5. The park should be a place where people can learn and grow.

IDENTIFY SEARCH
Children's drawings from the workshop on the theme "Our Park"

SIBERIAN IMAGINARIES - PROJECT 1

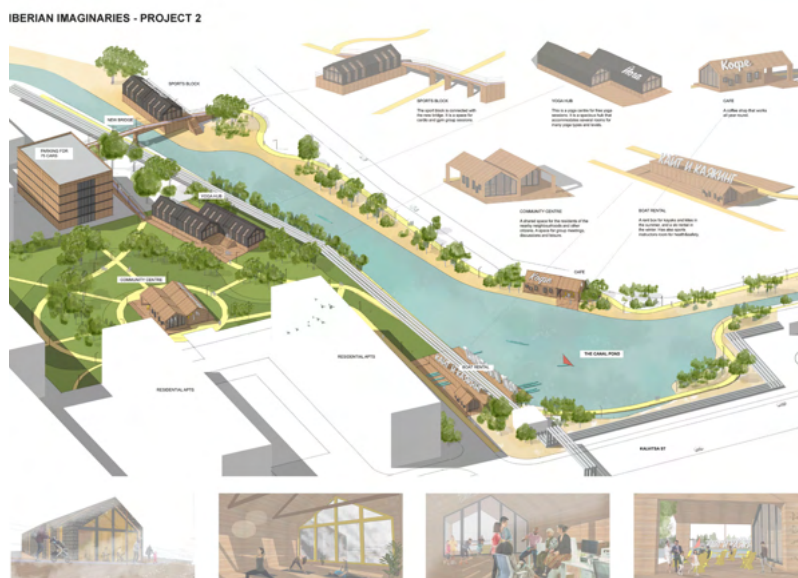


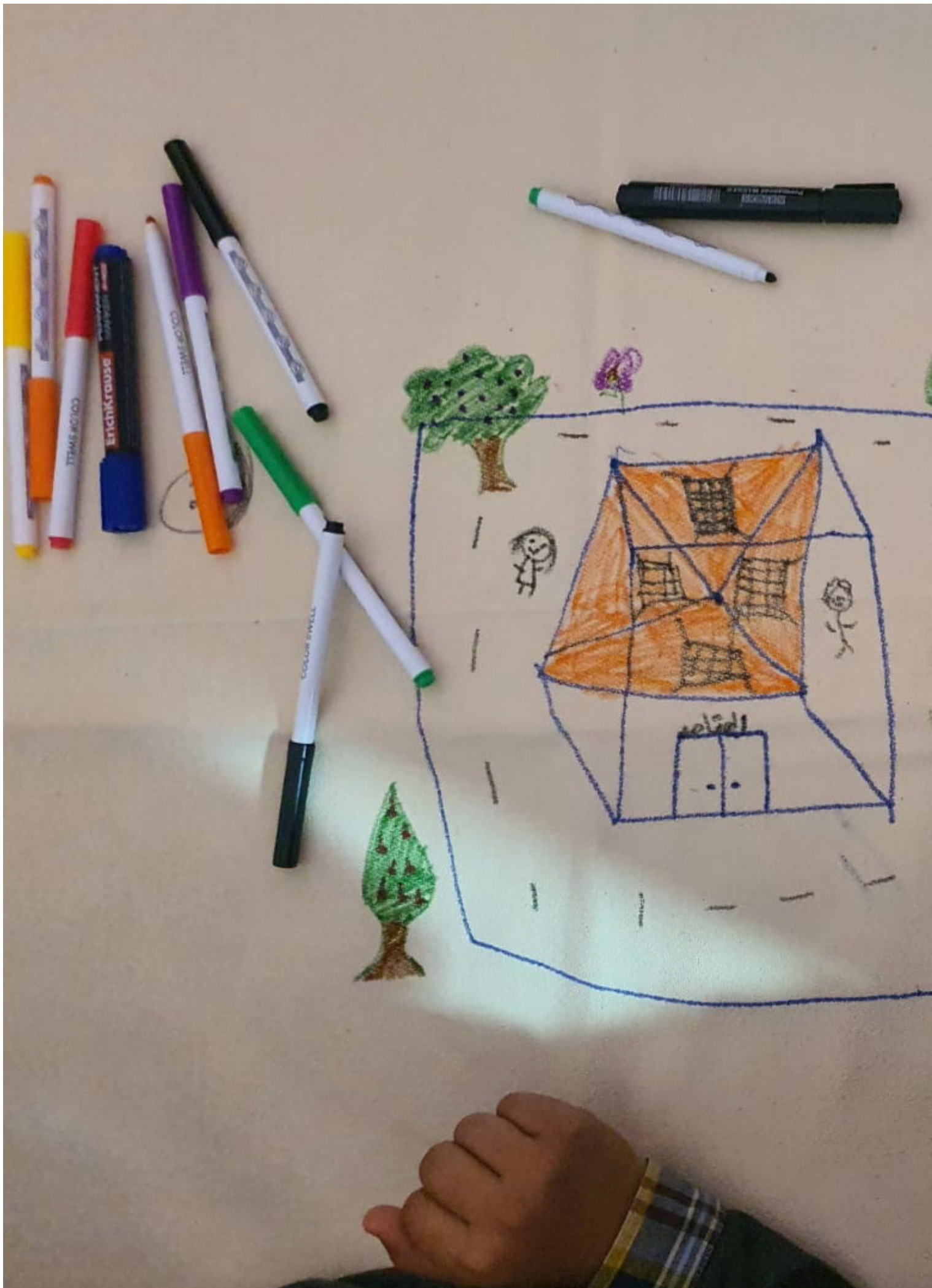
and observe the processes, but not necessarily supervising them. As a learner, I do architectural design work based on the participatory workshops and discussions. This part of a work can be also described as a mediator as the designs are dictated by the users.

This positionality aligns with the Roggema's definition: a pre-design phase as a facilitator, a design phase as a participant or a mediator, and a post-design phase as a researcher (analysis of the findings). This positionality allows to test different approaches in participatory design and determine what structures can work better and helps to gain trust of participants.

In the case study "Oyuur Park" and the "Siberian Imaginaries" survey, I position myself as a mediator who draws on the ideas of the participants and brings their design solutions together. In the case study "Dog City", I work as a facilitator who outlines the workshops' structure and brings together the speakers to introduce the ideas of participatory placemaking to the participants. In the case study "Amphitheatre Project", I position myself as a participant in the hands-on building process. In order to document and reflect on the processes, I was taking photographs and sketching during the work, which were later combined in research diaries (see appendices).

The different roles employed in the research, those of facilitator, participant, mediator, and researcher gave an insight into the structure of participatory placemaking processes. Firstly, in the Lensk project, I adopted the role of a mediator, as the top-down and mixed approaches required some direction and decision making. Later, I switched to the role of a facilitator to give full freedom to the participants in the bottom-up case study Dog City. As the case studies have shown, the roles of a mediator and a facilitator require more care and flexibility to feel the process and amend it carefully without imposing a solution from the top down. In the Amphitheatre project, my role was changed to a participant role, to gain the insight from London initiative. The role of a participant was more challenging, as there was no clear responsible leader in the group. However, the role of a participant helped to identify general challenges in PP practices, such as organisation and power relations. These processes with their benefits and resistances are described in detail in Chapters IV and V.





PhD by Project

Catalyst Childhood Design

Hosn Houssami

Vice-Chancellor's Post-Graduate Research Scholar

**Supervisors: Bo Tang, Beatrice de Carli
2021 -**

Exploring participatory mapping techniques and the consideration of children's spaces in urban neighbourhoods, as components of shared urban imaginaries and development planning in Beirut, Lebanon.

The topic of architectural co-production and the inclusion of children in such participatory practices is – and will continue to be – a global discourse. Although there are several countries that have systems built into their development models to account for the needs of children, the direct inclusion of children is often limited.

Beirut, Lebanon, is a city that has borne significant physical and institutional changes due to its unique topographical landscape and ever-changing socio-economic climate. This thesis looks to invent, test and reinvent a collection of mapping tools to aid in recording the matters of most concern to the inhabitants of Beirut's constantly adapting neighbourhoods. There is often a disconnect between how these neighbourhoods are mapped, with the methods of recording and purposes differing greatly. The residents of these neighbourhoods rarely have their aspirations recognised by formal governmental planning, and it is often left to self-actualising local collectives to try to pursue this. The focus of these groups tend to be around basic infrastructure rather than spaces of recreation and play. The discussion of collective aspirations, it is important to consider the aspirations - even those of play – of children whose opinions are often overlooked in the discourse of structural development.

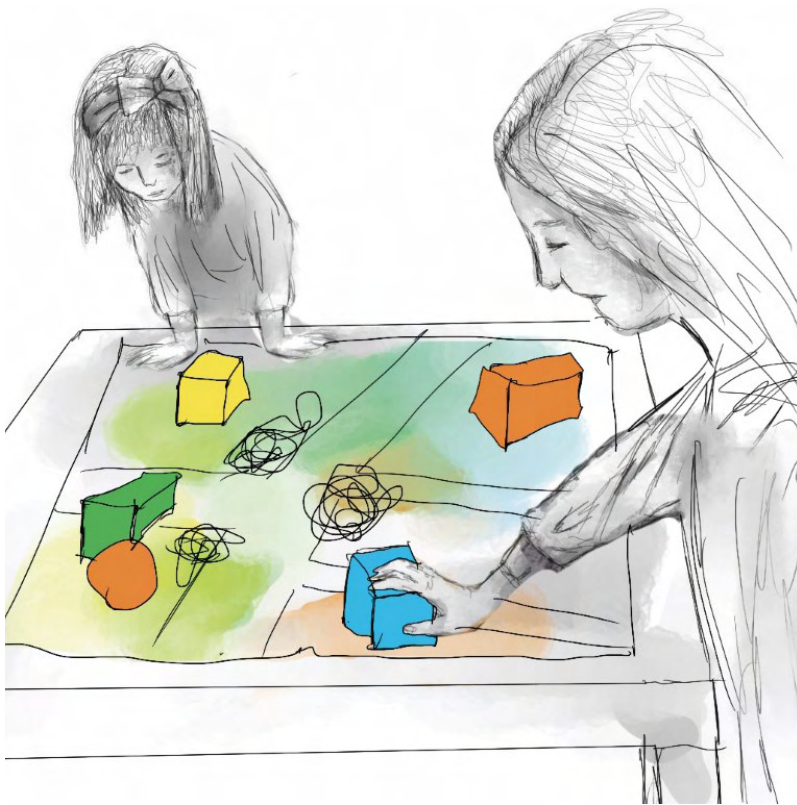
The research intends to examine how collaborative mapping and other drawing can be adapted and developed to fit the process of:

- a) Exploration and representation of the local topographic and ethnographic context.
- B) Exploration and representation of different spatial and temporal narratives.
- c) Representation of alternative potential urban imaginaries and shared aspirations at both the local and city scale through an often underrepresented demographic; with a focus on children.
- d) Identification of hidden needs that may not be a part of the existing collective narrative but will allow the skills, imagination and agency of the urban architect to make a contribution to inclusive city making, starting with small-scale realised structural proposals of children spaces to a larger theoretical framework for city development.

Left
Workshop 1, Sabra







The main research method will involve extensive first-hand mapping across several scales – from individual homes to the wider city – analysing not only the physical (topographical) at these scales, but also the individual social and ethnographic narratives embedded within them. The topographical elements to be explored will initially be limited to specific ‘lines’: Coast, River, and Contour. These offer network points at the city scale which can be used to assess discoveries made at the house and town scale. These will then be cross referenced with empirical research which will include participatory workshops within particular transitional settlements and certain demographics – particularly children - as the primary forum for narrative exchange.

The expected output of this thesis is the provision of a mapping toolkit for the neighbourhoods, their governments and potential NGO initiatives combining cartography, architecture, ethnography and indigenous narratives to inform, imagine and represent community-led action plans at the local and city scales.

Workshop 0
Child Sized

An introduction to architecture, a discussion and activity-based workshop designed to introduce the children to concepts of spatiality, shape, materials, and scale.

Workshop 1
My Town, Your Town, Our Town

A collective drawing activity where children were given the opportunity to develop their mapping skills by mapping their towns in a collaborative process. Associating their common knowledge of spaces in their day to day life with 2D drawings.

Workshop 2
My Street

A design activity where children were asked to ‘build’ different social structures and through collaborative discussions, co-design a street from the individual structures.

Workshop 3
My Dream Ground

The children were asked to design a social space, combining skills they learned in the previous workshops (understanding spatiality, 2D drawing, 3D making). They were given the brief of a playground to develop ideas of physical features for their social spaces.



This Page: Top
Sketch of Workshop 1 plan

This Page: Middle
Map depicting Sabra and Karantina

This Page: Bottom
Workshop 2, Karantina

Facing Page: Top
Workshop 3, Sabra

Facing Page: Bottom
Workshop 3, Karantina



Workshop leaders:

Bo Tang, Robert Barnes, Shamoan Patwari

April 2022

London Met staff and research students travelled to Athens over the Easter break for a week-long international professional development residency.

Led by ARCSR, in partnership with Sirius Training and local host civil society organisation, Inter Alia, and funded by the Erasmus Plus programme, participants engaged in narratives of **Community, (place-based) Architecture, Participation and Migration (CAMP)**.

Working closely with Greek and refugee participants, the programme brought together a broad and diverse range of disciplines, interests and experience. The participants worked in small groups made up of a variety of backgrounds both academic and practical, with the aim of promoting different methodological approaches to research and exploration.

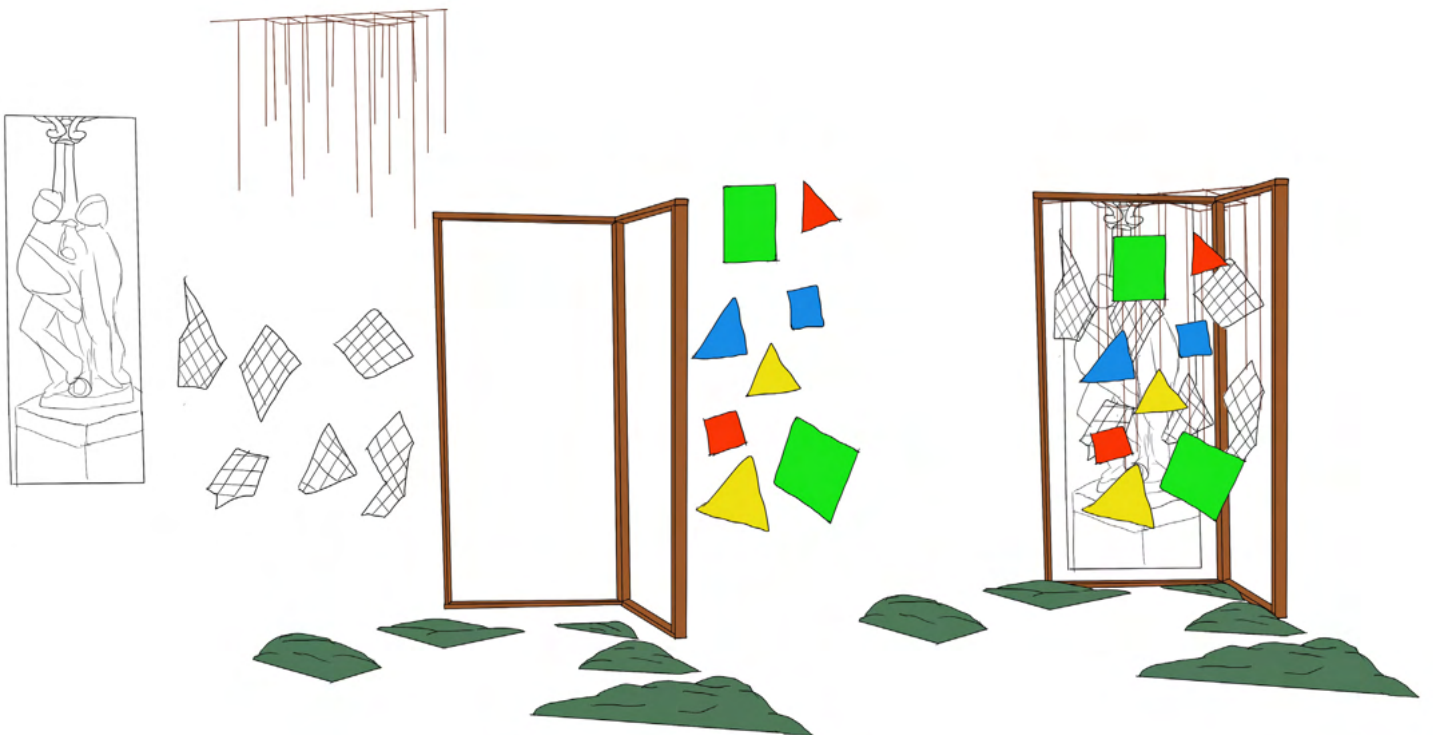
Focusing on the neighbourhood of Exarcheia, the project aimed to give the participants an understanding of issues that affect non-EU migrants, refugees and asylum seekers when arriving in European cities. The residency offered a forum for exchange, sharing, learning and experimentation, involving collaborative place-based field research and hands-on workshops.

This culminated in a public event called **Translations**, where expressions and ideas were presented back to neighbourhood residents as an exhibition of produced artefacts including drawings, models and film.

360 film from the exhibition (dir. Robb Horsley):

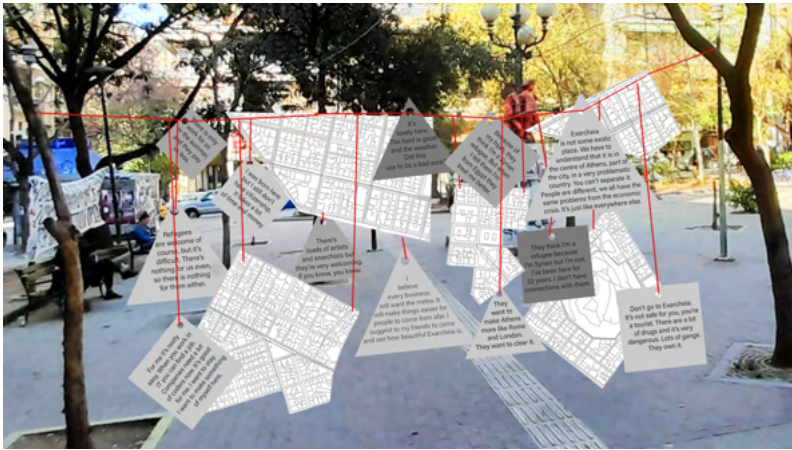
<https://youtu.be/26b3U21xsl>

A loose-fit collage of fragments, collected and assembled by participants from London and Athens. A celebration of Exarcheia identity, migration, expression and architecture through encounters and exchanges with the local community.



The Puzzle Protest

Toby Parsloe, Hosn Houssami, Keith Beckles



An observation of commonly shared problems and divided solutions through the lens of a child.

As a part of our research project, we were given a brief to design something for a public exhibition. We decided that our contribution should be sculptural and chose elements we deemed necessary to reflect Exarcheia and the issues that residents are facing.

Children / Childlike features: a representation of the playground and the local children's use of it.

Exarcheia Square: a 3rd element of some form representing the Square

Fragmented Map Pieces: Symbols for the fragmented experience of Exarcheia, cuts defined by the interviewees spatial/social boundaries.

Hanging anonymous quotes: Representational of the protest banners, and additionally showing unity of thought through the fragmented map pieces.

Paint Splatters: To reflect the protests and public ownership of space through art/graffiti.



We wanted to design something that could be assembled in multiple ways with the primary base being an abstract 3D Sculpture of the Exarcheia Square pathways that could allow for a child to walk through it, and a timber frame to 'grow' out of the pathways.

How things are assembled within the frame could be adapted to give priority to different elements at different times, like an fluid puzzle. For the exhibition event, we chose to present the anonymous quotes and map fragments at equal level hung onto a lattice string formation. And as a background to this, we incorporated a large drawing of the cherub lamp at centre of Exarchion Square to further add a location identifying element to the piece.

Given our group's varied background and practical skills, we decided that the best way to represent our research would be through mixed media that would play to each member of the group's strengths without inhabiting each of us experimenting with new ways of working.

We managed to construct the pieces of our sculpture the day prior to the exhibition. On the day of the event, on the site, we asked the wider group to participate in splattering the various pieces of the sculpture with paint to represent the communal protests in the area.

We chose to use plastic paint for this participatory task as we were informed by local art shops that this was the same type of paint used by local people in the protests due to its high colour payoff and very runny consistency.





'Do Not Eat the Oranges'

Holly Foskett-Barnes, Ana Mata Pastor, Paul Duffy,
Tarn Philipp

Our project concept was developed in response to some observational comments about being discouraged (at best) and forbidden (at worst) to eat the oranges from the trees that lined the streets of Athens. The typically Mediterranean fruit trees appeared to us as plentiful and injected colour into the streets, but quickly developed a somewhat sinister edge. They appeared to speak of the superficiality that we were beginning to witness towards migrant communities, capitalist structures and consumerist culture, all of which Exarcheia pushes back against. The streets are literally lined with food, which is unable to be eaten by the communities that need it the most, just like the countless empty buildings throughout the city that could be used to provide shelter or homes.

Exarcheia's streets are pasted with graffiti and posters that merge into a mass of colour, text and image. We learn that international graffiti artists travel here especially to leave their mark. The material surface of the city appears to be growing, layering like an archival skin. The walls document activities and events that have taken place, political statements and slogans. It feels at once temporal and somehow rooted, imbedding itself into the buildings. The graffiti and posters have a liveness that spreads throughout the streets, reclaiming the city for the people. This aspect of reclamation echoes the wilding plants and trees that cascade over rooftops and balconies.

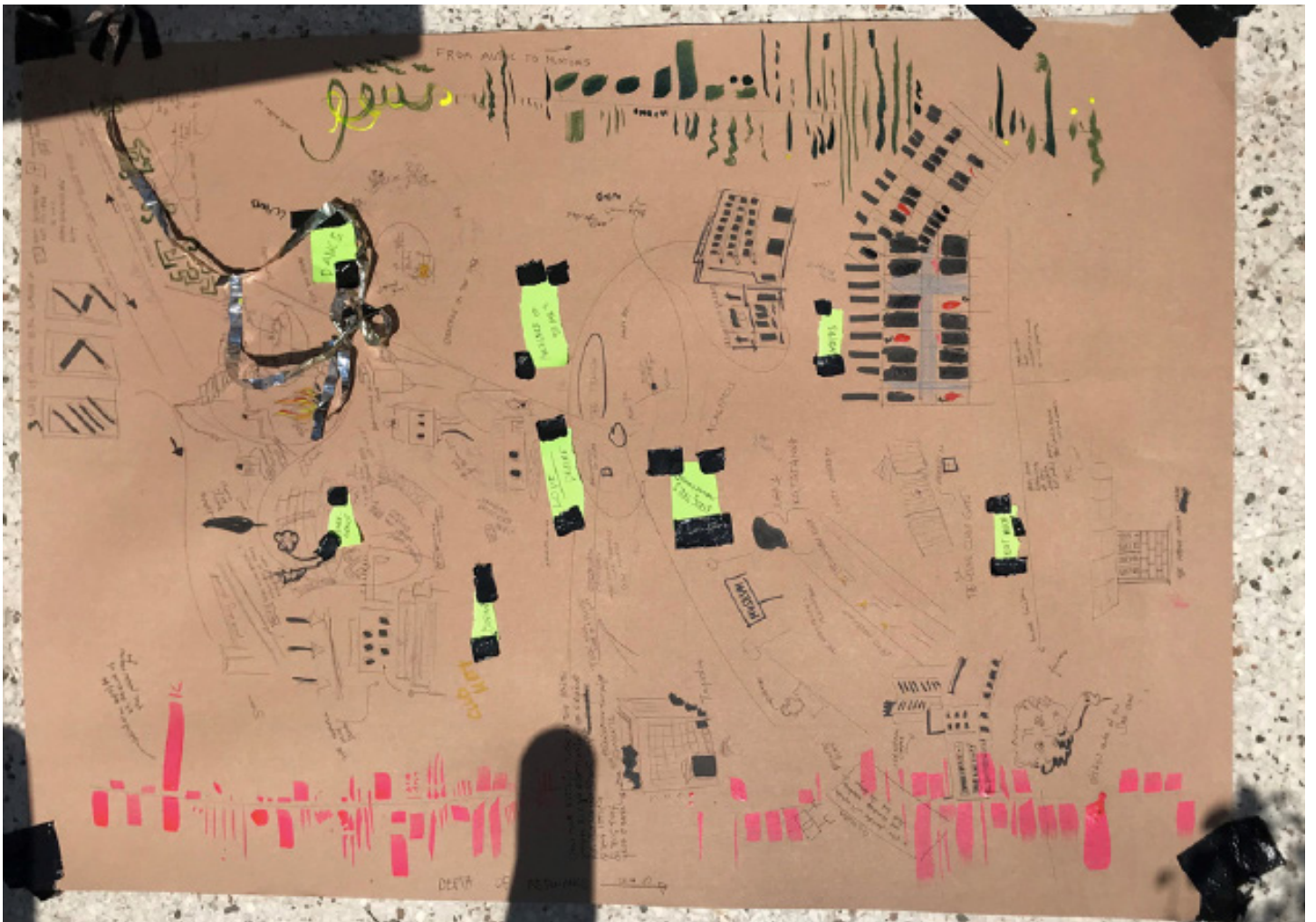
As a group, we observed that posters could be used within our project. We liked the universality of its materialism and how it was already established as a coherent form of visual communication through Exarcheia. We hoped that the familiarity of posters would make our project accessible and relatable and we started to share ideas of how we could engage with this within the community.

The community event at Navarinou Park had a larger turnout than we were expecting and the engagement from children was encouraging. Many of the children didn't speak English but we enjoyed the universality of communicating with creativity and we leaned into conversing with colour and shape. Some parents and carers chose to sit with the children, which allowed us to engage in conversation with them. The event offered insight into the perspectives of people from a higher socioeconomic background than those from the communities we had been speaking to so far. It felt like an achievement to host the community workshop at Navarinou Park and to offer something tangible during our stay in Exarcheia. After days of listening and learning from the community, it was important to us to be able to give something back as best we could.

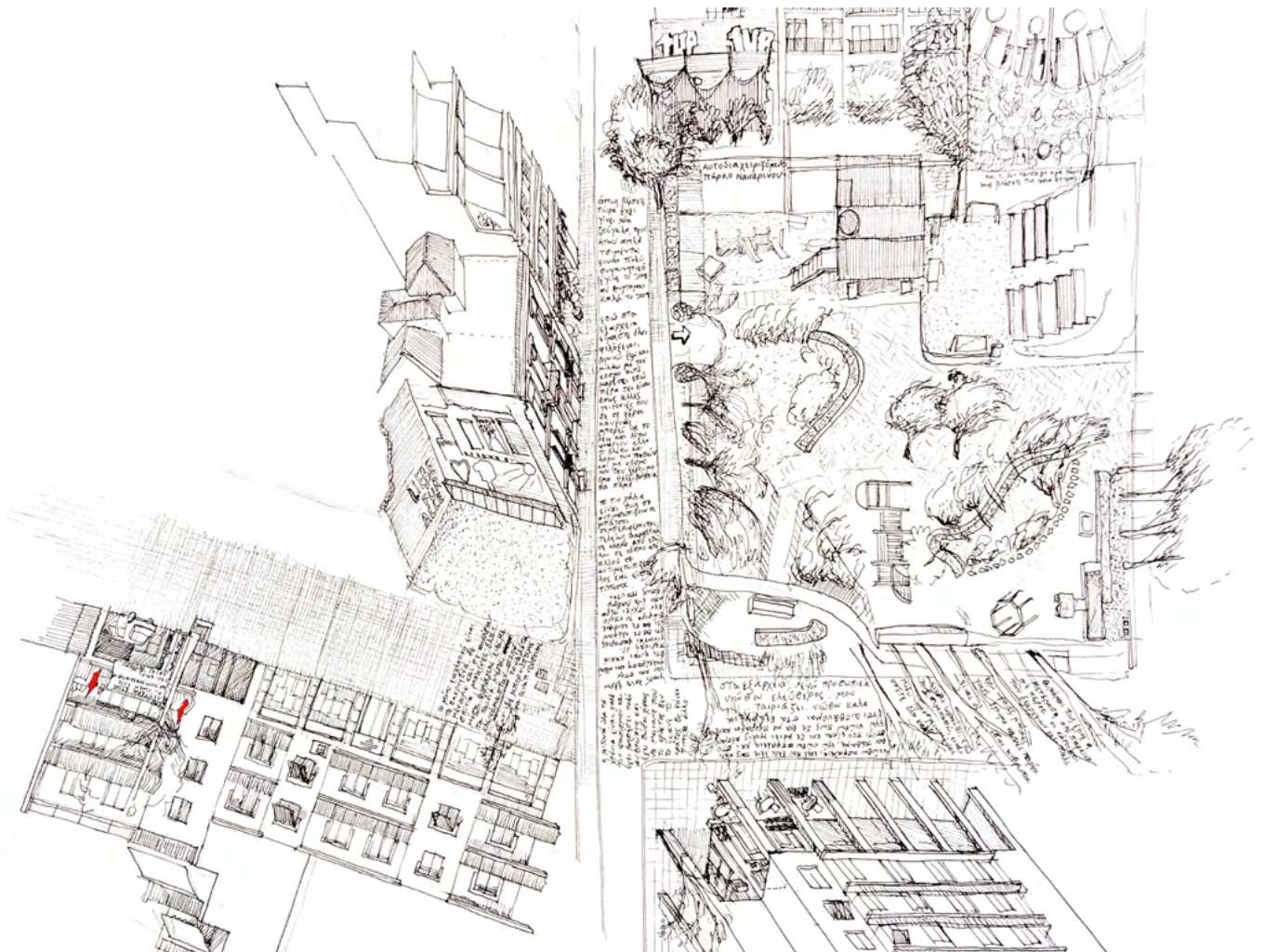
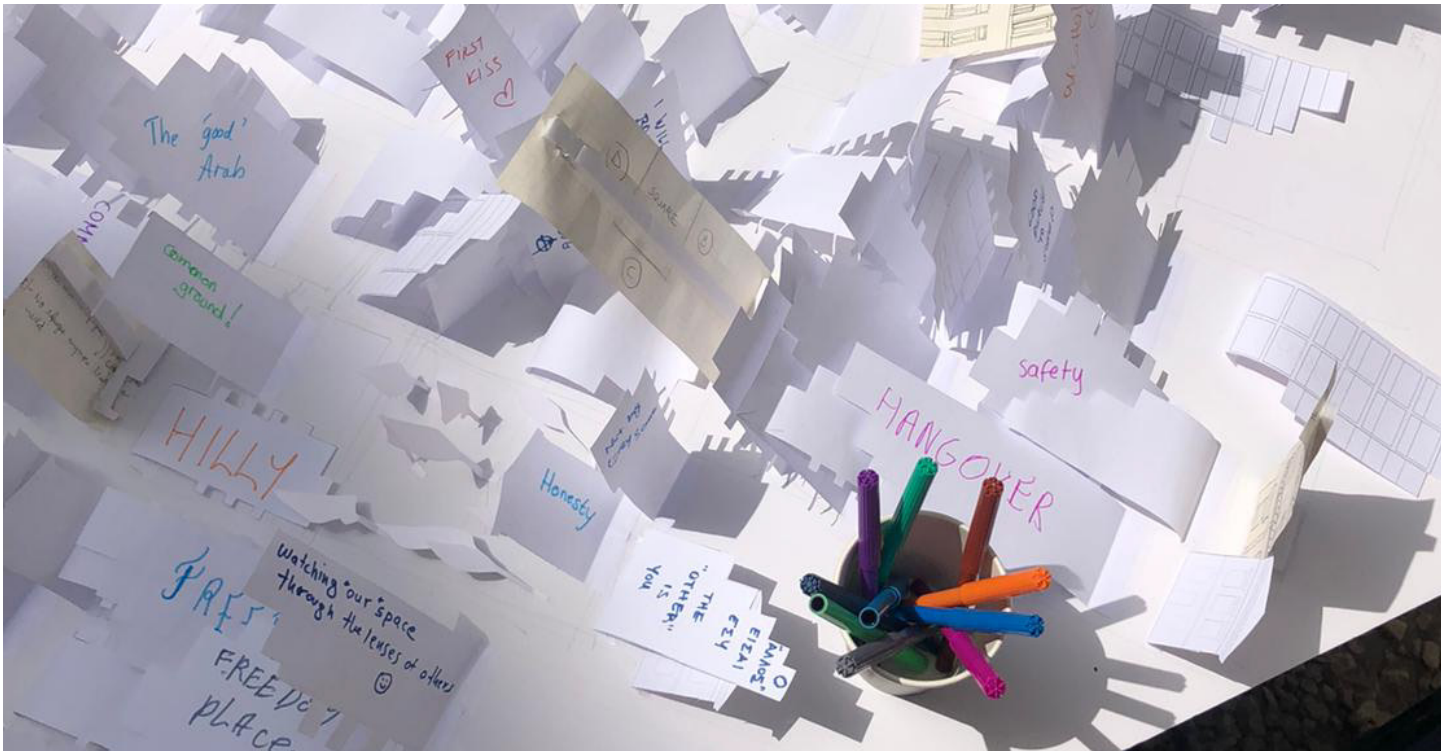


Psychogeographical Sound Mapping Collage

Simone Maier, Fabienne Sommer, Michal Larysz,
Wally Shannon Mbassi Elong



Lais Ayres Souza, Tessa Baird, Robb Horsley,



QUESTO NON È UN

CONFINE

La Direzione
della Regione **DEAP** **Crossings**

HAI DIR

TUA CO





Workshop leaders:

Rita Elvira Adamo, Jane McAllister, Sandra Denicke-Polcher, Robert Barnes

July 2022

The fifth 'Crossings' event hosted a week of conferences, performances, workshops and other happenings. The event was promoted by the collective La Rivoluzione Delle Seppie, a group of international professionals active in Calabria, in partnership with London Metropolitan University, the Municipality and the local cultural association, Ex Convento.

Belmonte is a small town, characterised by the strong relationship between the Calabrian hinterland, the Marina and the nearby reception centre for migrants. In 2017, the foundation of the Le Seppie association established a summer seminar led by a group of students from London Metropolitan University. The Crossings workshops are based on self-construction practices and sharing of skills and passions such as sewing, making furniture and cooking, with the aim to build an intercultural space where non-formal languages are formed.

The 2022 Crossings event called for participants for an intervention on the Marina, using unused structures from the municipal market to create new public space. Participants built stands, seats and street furniture, and a macro-sculpture that can be moved from the coast to the market square. At the same time, a public art intervention consisted of posting large signs around the village – a commentary on 'dynamic boundaries'.



Benefits

- SENSE OF BELONGING
- MAKING HOME
- BRINGING LIFE BACK HERE
- CHANGE IN ATTITUDES
- EDUCATIONAL EXPERIENCE
- WORKING AS EQUALS
- EMPOWERMENT



Calabria

Popularly known as the “toe” of the “boot” of Italy and is along and narrow peninsula which stretches from North to South for 248km.

Belmonte

A medieval town perched on a hilltop on the seismic coast of the Tyrrhenian Sea. The town's peculiar geographical position was established during the 11th – 12thC. AC., by locals to defend/endure enemy invasions.

Frazione

Fraction in English - is the Italian name allocated in administrative law to a type of territorial subdivision of a Municipality; practically it is approximately equivalent to 'localities' or 'districts'.

La Rivoluzione Delle Seppie

La Rivoluzione Delle Seppie is a non-profit cultural association founded by London Metropolitan University architecture graduates. Through research, design, technologies and teaching, Le Seppie aim to better the cultural fabric of the community, to promote social integration and the development of Amantea, Belmonte Calabro and the surrounding areas.

<https://larivoluzionedelleseppie.org>

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CAT, Wales (pp. 50-51)

Laura Roberts

Loughborough Junction (pp. 114-115)

Sara Golnabi

Belmonte, Calabria (pp. 144-145)

Madalina Podgoreanu

