B.15 MODELMAKING AWARDS 2026

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Featured Models by
Joseph Cox, George Williams,
Daryl Law and Jin Lee

BA (Hons) Architecture

Amanee Miah

BA(Hons) Architecture
Year 1

Layers of the Forest: An Embedded Exhibition Centre & Viewing Tower at Heaton Park

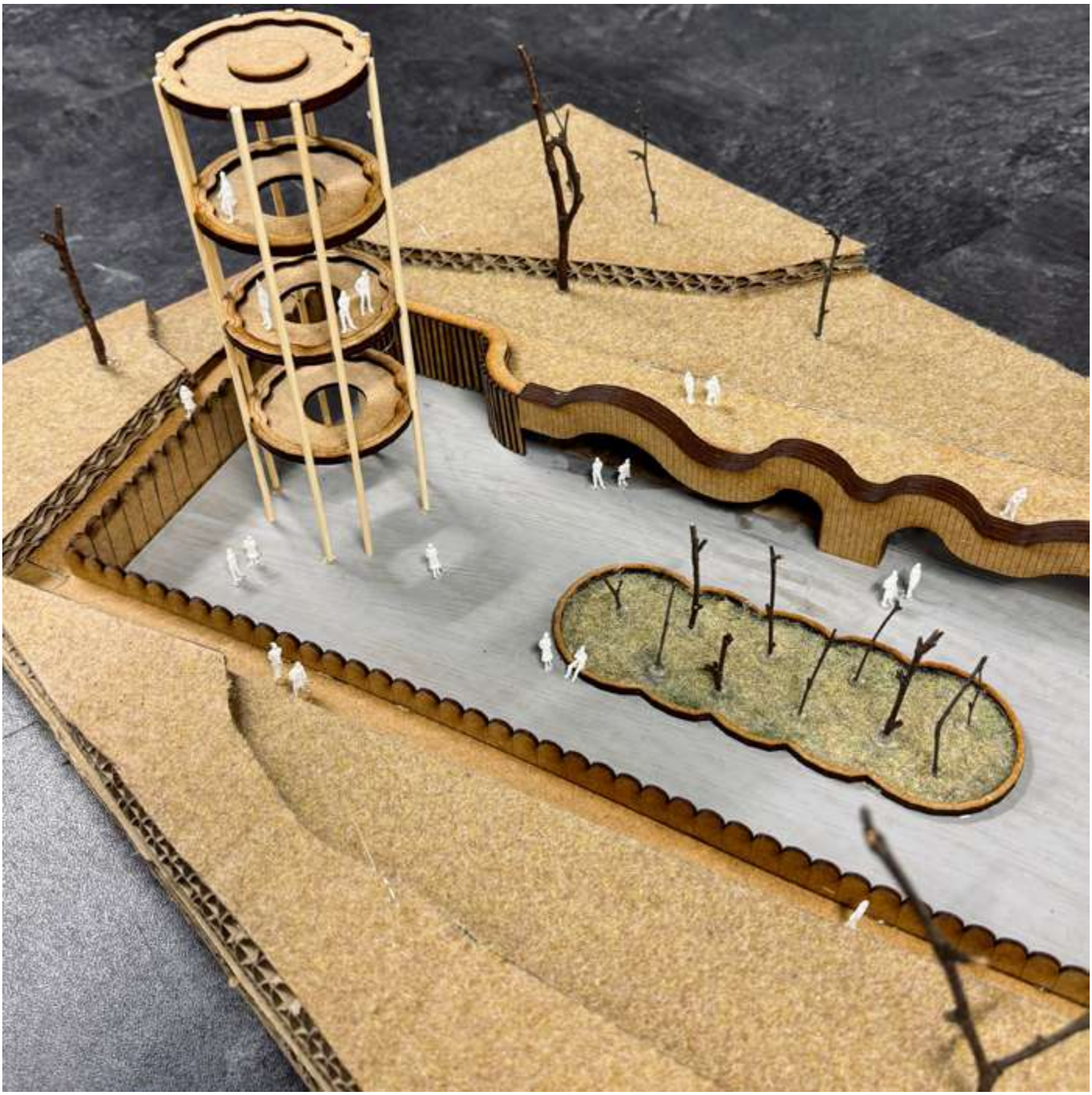
This project explores the relationship between architecture and landscape through the design of an embedded exhibition centre and viewing tower within Heaton Park. Inspired by the layered experience of moving through a woodland environment, the proposal seeks to immerse visitors within the forest while providing opportunities to observe it from different perspectives and heights.

Modelmaking was used throughout the project as a primary design tool rather than simply a method of representation. Early models were developed to investigate how the building could be integrated into the existing topography while minimising its visual impact on the surrounding landscape. Through a process of physical testing and iteration, the relationship between the exhibition centre, courtyard, circulation routes and viewing tower was refined.

The final model communicates the concept of "Layers of the Forest" through both form and spatial organisation. The exhibition centre is embedded within the terrain, allowing the landscape to flow across and around the building. A central courtyard creates a sheltered gathering space that encourages visitors to engage with the site, while a curved architectural edge helps define and guide movement through the project. The viewing tower acts as a landmark within the scheme, offering a sequence of elevated platforms that allow visitors to experience the woodland from multiple levels, from the forest floor to the canopy and beyond.

The model was constructed using a combination of laser-cut components, layered cardboard topography, timber elements and landscape detailing. Particular attention was given to communicating the relationship between architecture, terrain and vegetation. The process of assembling the model informed design decisions regarding scale, proportion, enclosure and circulation, helping to test ideas that were difficult to fully understand through drawings alone.

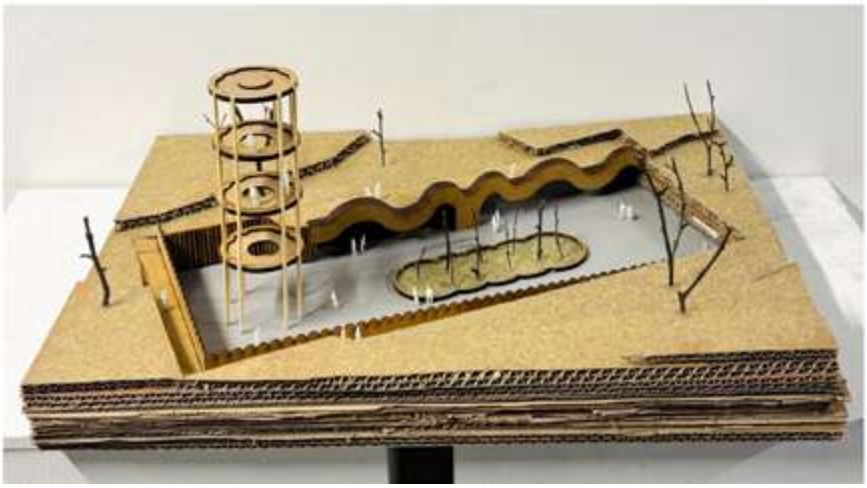
Ultimately, modelmaking played a central role in developing the project, allowing spatial ideas to be explored, evaluated and communicated. The final model serves not only as a representation of the proposal but also as evidence of the iterative design process that shaped the embedded exhibition centre and viewing tower.

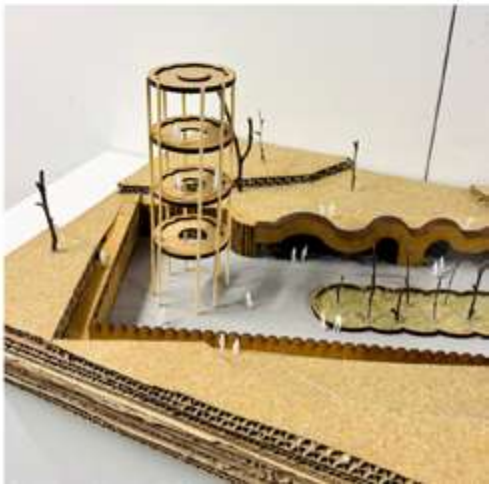


Final model of an embedded visitor and exhibition centre and viewing tower at Heaton Park. The proposal explores how architecture can be integrated within the woodland landscape, creating opportunities for exhibition, gathering and observation across multiple forest layers.

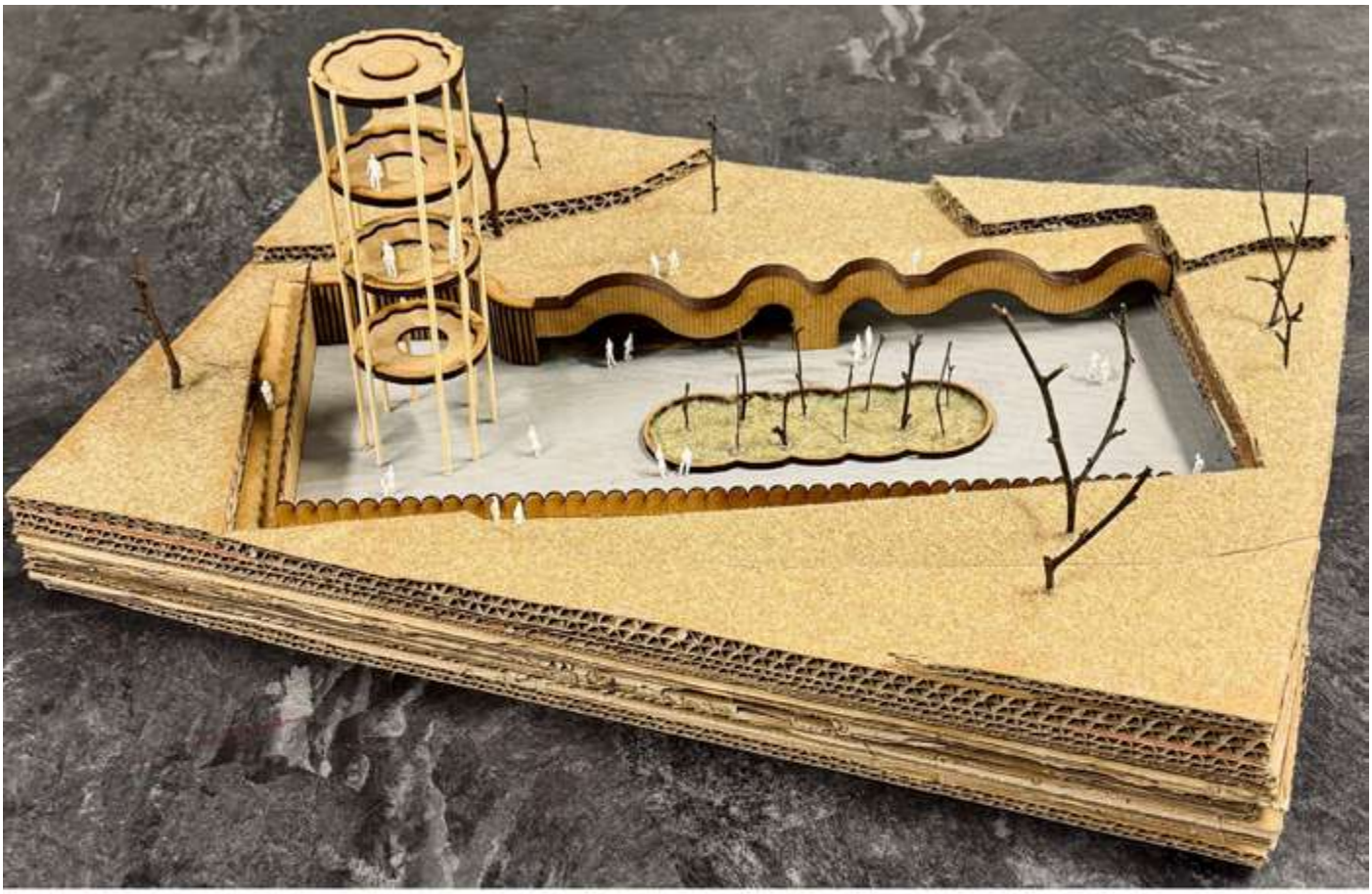
Amanee Miah

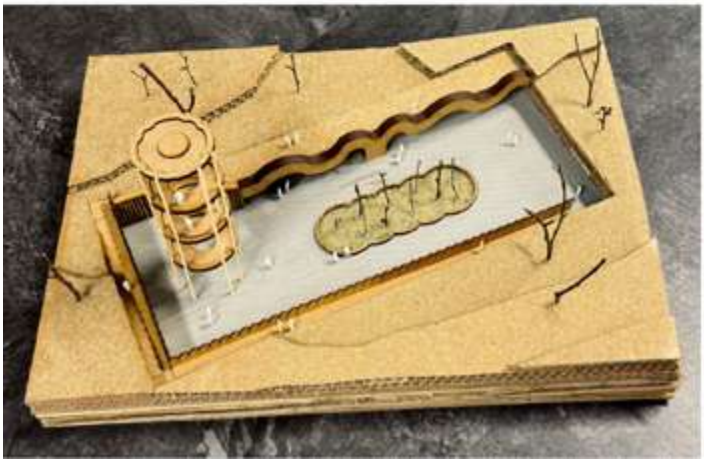
BA(Hons) Architecture
Year 1

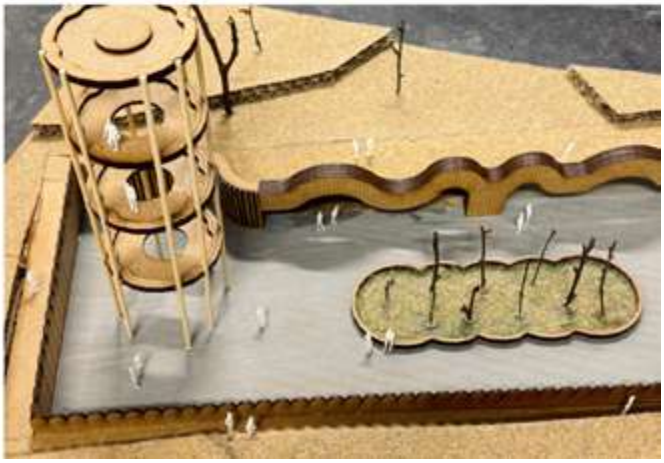




Development of the final model exploring the relationship between the embedded exhibition centre, viewing tower and surrounding landscape. Multiple viewpoints were used to communicate how the architecture is integrated within the terrain, creating opportunities for gathering, exhibition and observation throughout the woodland setting.







The final model demonstrates the integration of the exhibition centre and viewing tower within the landscape. Through layered topography, a central courtyard and elevated viewing platforms, the proposal explores different ways of experiencing, observing and engaging with the woodland environment.

Conrad Guo

BA(Hons) Architecture
Year 1

This model was created to help visualise both the visitors centre ad the observation tower in context. I wanted to create a distinct different between the materials of the building, so I used recycled materials that were close to the materials that matched my design and for the main body of the building, I used acrylic paint to show the different material used for the walls, mid section and roof. This helped sperate the the different components instead of having one materials for every section. For the visitors centre, I used box joints for the walls for more stability on the walls and sanded the roofs to make the angle of the roof. As for the tower, I created 4 sectional frames and used wire to bend the shape into a spiral, and utilised wire to attach the façade onto the tower.

By embedding the model in the surround context, it gives the view an idea of how the building sits on the site and better explains the buildings curve that sits on the topography of the site.

Conrad Guo

BA(Hons) Architecture
Year 1

Different close up angles of how the View would see the building (With a few of the trees removed).

The process of creating the model for both the visitors centre and the tower.

Freddie Geoghegan

BA(Hons) Architecture
Year 1

This is my representation of vernacular architecture from Laos in which I explored the style and look of there traditional housing.

As well as trying to match the look of the building style I also attempted t recreate the construction methods of the walls by creating my own weave to form out of stained embroidery squares to imitate the bamboo weaving used in Laos. Due to the scale of the model at 1:50 I couldn't emulate all the traditional building methods but instead replicated the look of them. To do this for the stilts and frame of the building I took dowls and shaved them to add texture to make them feel more natural and lived in.

Finally to represent the thatch roof style used in the area I took some twine and pulled it apart to create the feel of a thick intertwined thatch roof.

East facade (1:50) of the traditional Laos vernacular architecture displaying the integration into the sites topography and the detailing on the balcony

Freddie Geoghegan

BA(Hons) Architecture
Year 1






A collection of images displaying the detailing around the exterior of the model.

A collection of images displaying the removable roof and interior of the model

Zoya Khan

BA(Hons) Architecture
Year 1

My physical model was made as part of my studio Design 2 project, I named "Root To Canopy".
My design was developed through the study of eucalyptus trees, particularly their branching structures, layered bark textures, and flowing growth patterns. These natural systems informed the timber structure of both the tower and visitor centre, allowing the building to appear as though it grows from the site (Lakeside, Heaton Park) rather than being imposed onto it.

The observation tower acts as the main vertical element within the project and was designed to create a strong visual landmark. Structurally, the tower widens towards the top and base, reflecting the stability and branching qualities found in tree trunks and root systems.

The visitor centre is connected directly to the tower to establish a continuous spatial experience between arrival, exhibition, circulation, and observation. The flowing roof structure was influenced by natural canopies and organic forms found within eucalyptus forests. Wire was used to construct the roof frame of the visitor centre, allowing curved structural forms to be shaped and for skylights to be placed on the roof, to allow natural sunlight to enter. Layers of card strips were then overlaid onto the frame to create the flowing roof surface and emphasise the curved organic form. I first used plain white paper to experiment different forms of overlapping before using the craft card. At the front of the visitor centre, wire and string were combined to create the branching tree-like structural columns. These support the roof while expressing ideas of growth and connection.

The physical model was primarily constructed using layered card, curved strips, wire, and string to communicate form, structure, and movement.
I experimented with mesh and wire first before beginning the model process to figure out the roof dynamic, I also layered over my experiments on Procreate to map the overlaying of card strips and what overlay worked best.
Wood was used for the tower roof and platform, with clear plastic for the viewing platform, black card for the internal structure of the tower and pleated card for the spiral stair case. The exposed framework on the centre allows the structural concept to remain visible, emphasising how the roof spans and branches across the internal spaces. Human figures were added to demonstrate scale and occupancy, helping communicate how visitors would experience the building spatially.

"Root To Canopy" Tower and Visitor Centre model.
Scale 1:100.

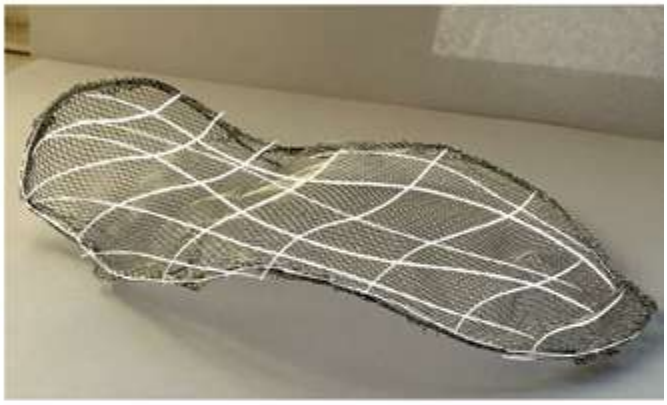
Zoya Khan

BA(Hons) Architecture
Year 1

Details and Zoom in Images - Plan view Image on site model for context.








Model Making Process Images and Experimentation.

Ashley Ng

BA(Hons) Architecture
Year 2
Studio Group 6

Moss Curtain is a 1:50 living terrarium model exploring moss as an alternative to the conventional vertical green wall. The project investigates how moss can operate as environmental infrastructure integrated into architectural space, rather than as a purely decorative surface treatment.

The model was constructed using live moss, soil, rocks, a composite plaster terrain base, steel rods, expanded steel mesh, and 5mm clear acrylic. The suspended "moss curtain" was formed by attaching live moss onto curved steel mesh supported by vertical rods, allowing the material to function simultaneously as planting, shading device, and environmental filter. The acrylic enclosure acts as a terrarium, retaining humidity and allowing the moss to remain alive throughout the making process.

The project explores environmental performance within a flood-prone urban condition through stormwater absorption, humidity retention, shading, and evaporative cooling. The moss curtain creates shelter and microclimatic conditions beneath it, while the surrounding landscape tests different paving-to-moss ratios as a way of integrating moss into the programming of the ground plane itself. Areas with denser cobblestone paving indicate circulation paths intended for occupation and movement, while wider gaps between stones allow moss growth to dominate, creating softer landscaped zones. This contrast became an important part of communicating how ecological systems could guide spatial use and occupation.

Making and testing were central to the development of the model. Different moss arrangements, moisture levels, and mesh curvatures were explored physically through iterative experimentation. The process involved balancing the weight and growth of the moss against the mesh structure while maintaining the environmental conditions needed to sustain the living material.

Photography was used to document the model as a living system rather than a static object. Images of misting, occupation, and interaction were used to communicate maintenance, environmental atmosphere, and the relationship between people, landscape, and ecological infrastructure.

A 1:50 living terrarium model exploring moss as environmental infrastructure through shading, evapotranspiration, and stormwater absorption within an enclosed ecological system.

Ashley Ng

BA(Hons) Architecture
Year 2
Studio Group 6

Atmospheric close-up photographs documenting the occupation, cultivation, and maintenance of the moss curtain system, revealing the relationship between people, humidity, and ecological infrastructure.

Elevational and aerial views exploring the spatial organisation of the moss curtain, demonstrating its role in shading, environmental mediation, and the integration of landscape within architectural enclosure.

William Himawan

BA(Hons) Architecture
Year 2

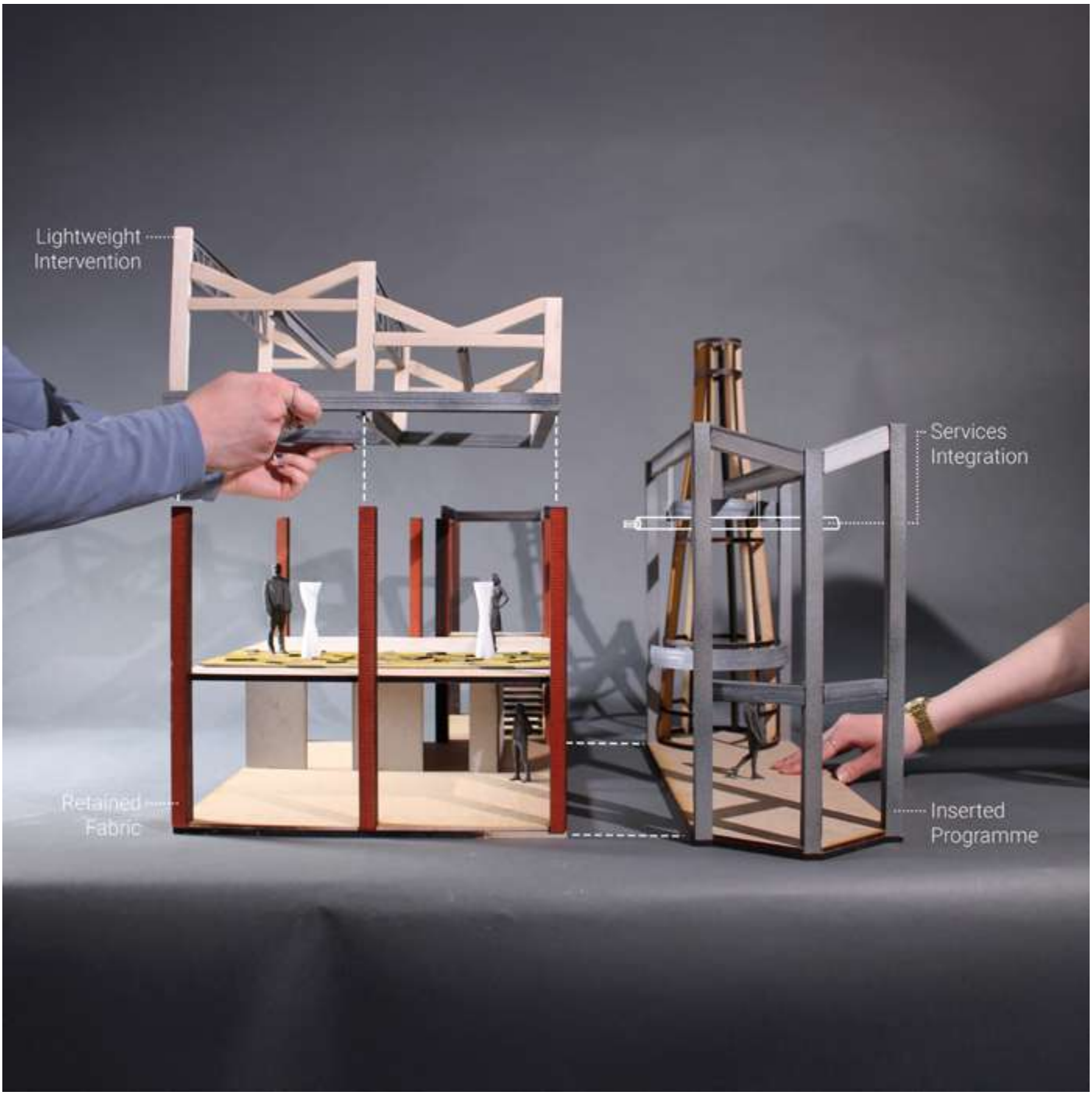
This 1:20 construction model explores the adaptive reuse of a disused building in Chorlton, Manchester, reimagined as a ceramics and mental health recovery centre titled The Halfway Kiln. The project investigates architecture as a transitional space between institutional care and independent living, using making, repair and social interaction as therapeutic tools for reintegration.

The model was developed to communicate the relationship between retained and inserted architectural elements. Existing brick piers and structural fabric are preserved to maintain continuity with the site's history, while new steel and timber interventions are introduced to support contemporary environmental and spatial requirements. The central reconstructed volume houses bottle kilns containing electric ceramic kilns, reinterpreting the industrial language of Stoke-on-Trent's pottery heritage within a new mental health context.

A key focus of the model was the tectonic expression of retrofit construction. The exploded composition separates the retained fabric, lightweight roof intervention and inserted programme to clearly communicate structural hierarchy and assembly logic. The lightweight timber roof extension sits above a new internal steel frame, minimising structural load on the retained masonry while creating large double-height exhibition and workshop spaces below.

Environmental strategies were integrated directly into the physical model. Inverted pitched roofs channel rainwater towards concealed collection points, while the vertical kiln structures operate as stack ventilation towers, drawing warm air upwards through the building. Envelope studies within the model also explored continuous insulation, façade rebuilding, and full-height glazing connections between old and new fabric.

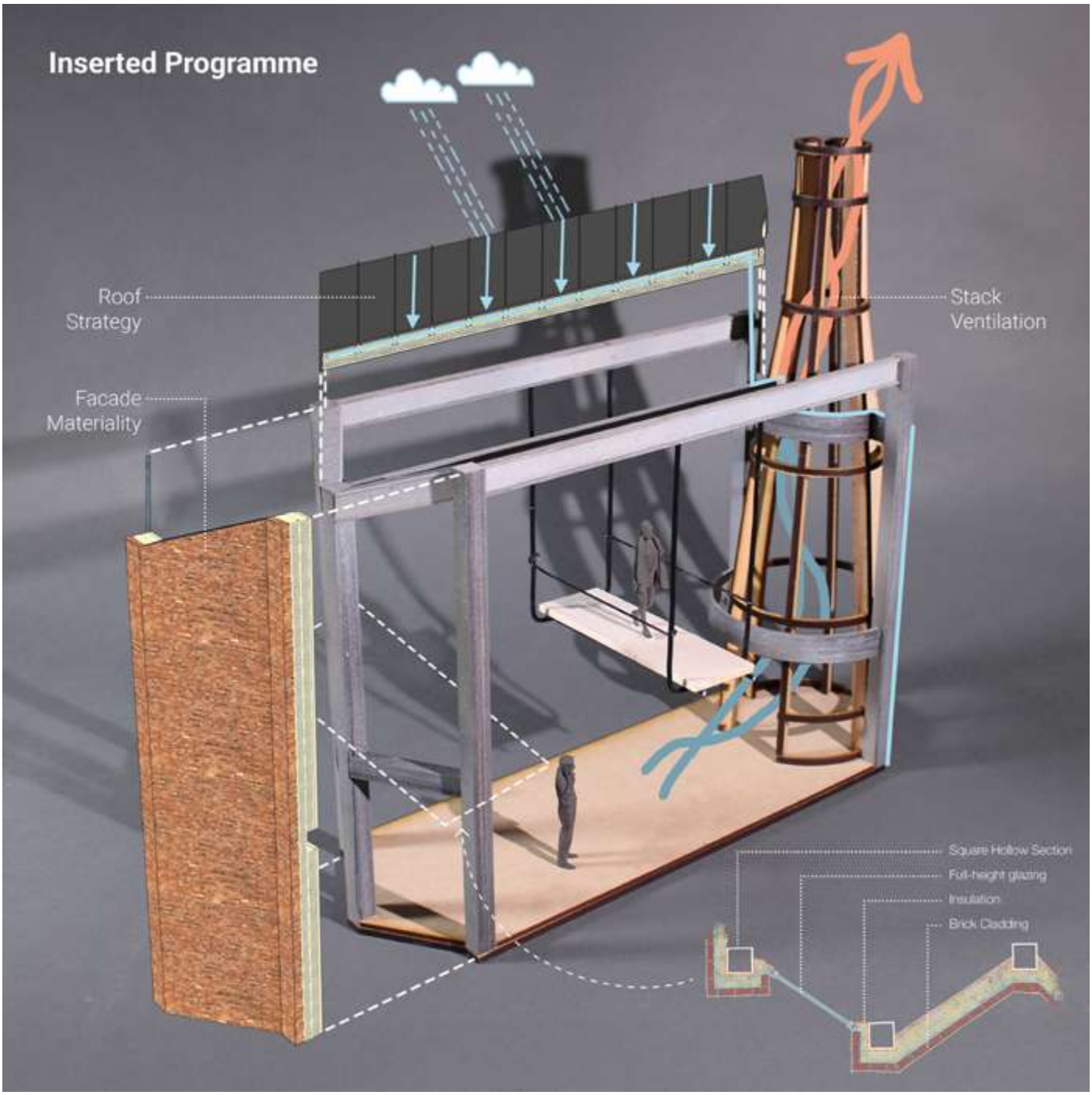
The model was produced through a combination of laser cutting, hand assembly and digital fabrication techniques. Materials were selected to distinguish structural systems and programme zones, with exposed steel framing, timber roof structures and masonry components expressed separately to communicate construction sequencing and spatial relationships. Rather than functioning solely as representation, the model became a design tool for testing environmental integration, structural retrofit strategies, and the experiential qualities of the proposed spaces.



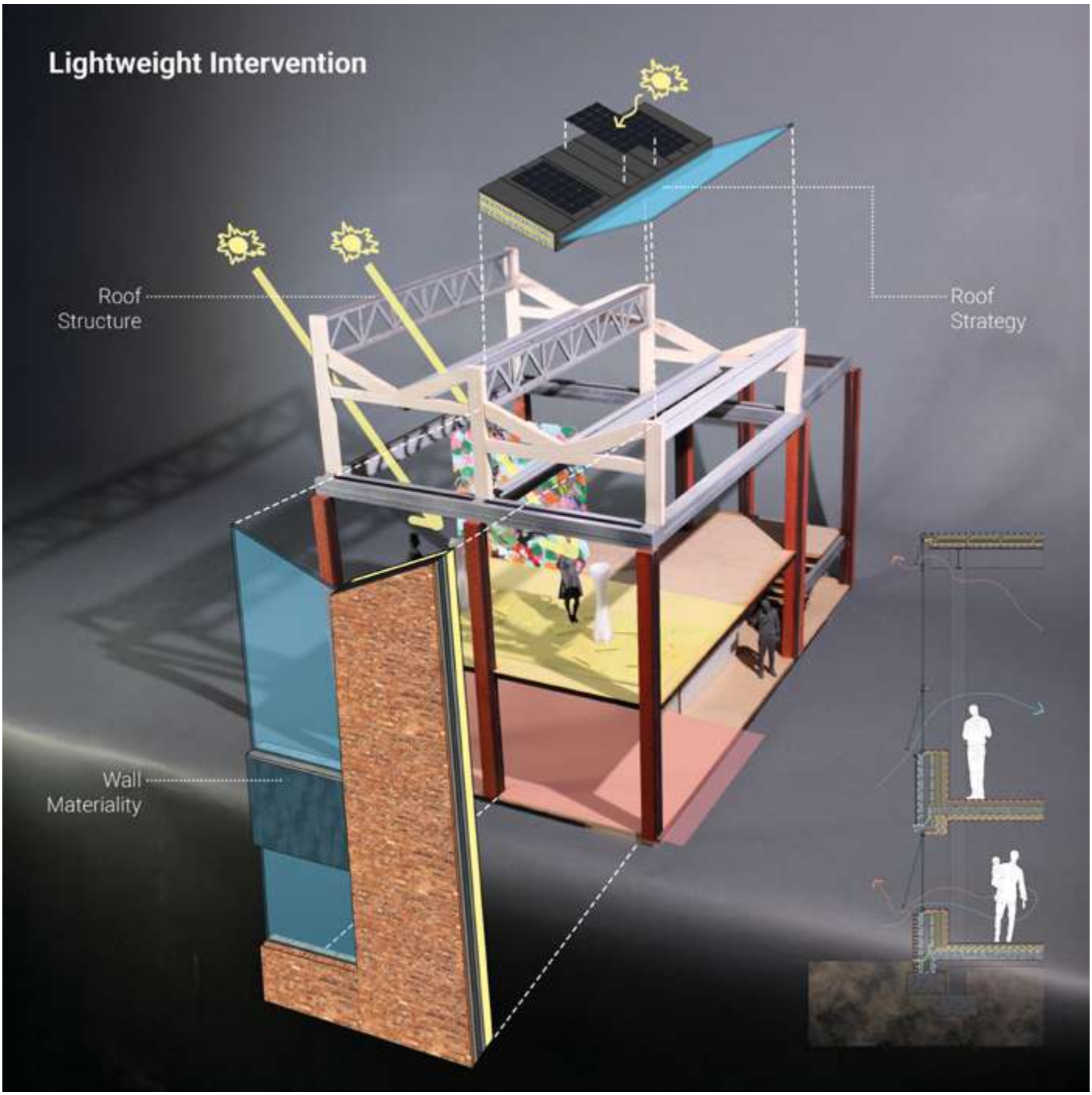
Exploded construction model showing the relationship between retained masonry fabric, a lightweight timber roof extension and newly inserted programme spaces. The model communicates the adaptive reuse strategy through separable structural components, revealing how new interventions integrate with the existing building while supporting environmental performance and spatial transformation.

William Himawan

BA(Hons) Architecture
Year 2



Environmental and structural study model exploring the inserted programme within the retrofit strategy. The model integrates stack ventilation through bottle kiln structures, inverted pitched roofs for rainwater collection, exposed steel framing and façade envelope studies, demonstrating how environmental systems and structural interventions become integrated architectural elements.



Lightweight roof intervention exploring environmental retrofit strategies within the retained structure. The model demonstrates inverted pitched roofs integrating north-facing skylights and south-facing photovoltaic panels, alongside upgraded façade systems using brick cladding, triple glazing, and spandrel glass. A digitally overlaid wall section communicates the layered environmental envelope and insulation strategy.

Anna Thomas

BA(Hons) Architecture
Year 3
Continuity

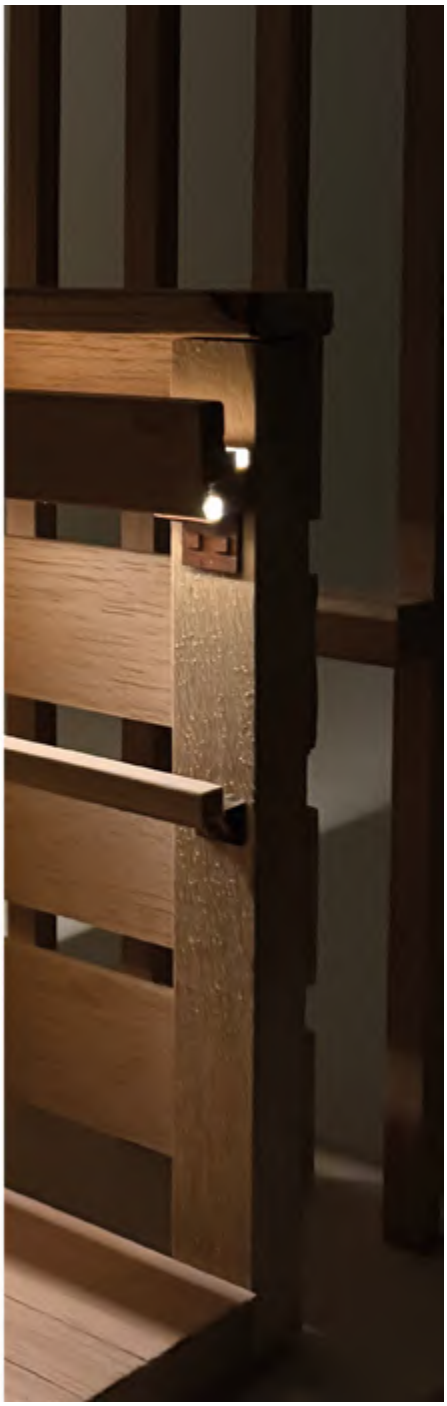
This 1:5 tactile detail model explores how reclaimed railway sleepers can be transformed into a multigenerational handrail that carries the material memory of Crewe's railway and agricultural heritage into a shared community space. The model was used as both a technical and atmospheric investigation, testing how reuse, light and human interaction can be incorporated into a focused architectural element.
The model is reshaped by the projects proposal to reconnect Crewe's two defining histories of agriculture and railways, to create a shared community experience rooted in collective memory. Reclaimed timber sleepers are repurposed as tactile handrails, allowing traces of movement, labour, and infrastructure to be experienced through touch. To communicate this process of reuse within the model, a wooden dowel was used to represent the reclaimed sleepers and test how handrail components could be cut and assembled efficiently to optimise material use and minimise waste.
Accessibility and inclusivity are explored through a layered handrail arrangement designed to support multiple ages and heights simultaneously. By accommodating children, adults, and elderly users together, the detail encourages shared interaction rather than isolated individual circulation. The silhouettes within the model reinforce this multigenerational relationship and illustrate the social intention of the proposal.
Alongside this, the model investigates environmental control through a shading system informed by vernacular agricultural structures and railway rhythms. Vertical timber fins filter low angled eastern sunlight into repetitive shadow patterns that reflect railway tracks and agricultural fencing, while horizontal balustrade cladding produces parallel lines of light that guide movement across the balcony.
In darker conditions, integrated lighting transforms the handrail into a subtle communal guide, allowing safety and connection to heritage to extend into the evening. To communicate this within the model, concealed acrylic sheets were used to diffuse and project light through the timber handrails, simulating the LED lighting present at full scale. This allowed the model to explore how light can reveal material texture, emphasis movement and create a warm shared spatial experience throughout the whole day.

1:5 detail model testing tactility, scale and multigenerational use through layered timber construction and illuminated circulation.

Anna Thomas

BA(Hons) Architecture
Year 3
Continuity

Lighting study exploring how vertical screening elements filter daylight into rhythmic shadows across the balcony and affect user experience.



Detail study using concealed acrylic rods to simulated integrated LED lighting and examine atmosphere, visibility, and material texture after dark.

Juliette Ruelland-Kennedy

BA(Hons) Architecture
Year 3
Continuity

The Stonemason's Renaissance explores how a revival of stonemasonry could act as a catalyst for the socio-economic regeneration of Crewe. The project investigated stone not only as a low-carbon construction material, but as a medium capable of generating skilled employment, preserving craft knowledge, and creating rich atmospheric experiences within the built environment.

The models presented document an iterative process of material experimentation, form-finding, and technical development. Early testing tiles were cast in plaster and used improvised mould-making techniques, including folded acetate, Play-Doh, chopsticks, and other recycled materials, to generate varied surface textures. These were analysed for their potential contribution to accessibility and spatial experience through studies of light, water guiding, visibility, and acoustic diffusion. Laser experiments using mirrors and decibel recorders allowed the performance of different surface geometries to be evaluated and informed subsequent design decisions.

At an architectural scale, a series of massing models explored how these principles could influence form. Stones collected from the site were used to create an interactive and reconfigurable modelling system, enabling a more intuitive and material-led form-finding process. The site model itself was fabricated from painted MDF, with a routed recess creating visual weight and permanence for the stone masses while emphasising their relationship to the supporting pin structure representing the timber grid.

The final 1:5 detail model represents a tactile window-seat threshold set within a load-bearing stone wall and integrated stone rainscreen assembly. It explores the intersection of traditional hand-stonemasonry and contemporary CNC fabrication techniques. A monolithic wall element was produced from hot-wire shaved foam coated in Jesmonite, with surface textures imprinted using sticks and brushes. The rainscreen fixing components were substituted and adapted: steel support brackets represented by spray-painted dowels, while the aluminium honeycomb backing system was recreated using spray-painted corrugated board.

Fabrication involved a combination of digital precision and manual craft, including bandsaw-cut timber and acrylic components, disk-sanded junctions and angles, and hand assembly using wood glue and UHU adhesive. Through these making processes, the models became both design tools and communication devices, demonstrating how stone's technical, atmospheric, and craft qualities could contribute to a contemporary stonemasonry renaissance in Crewe.

A tactile 1:5 detail of a windowsill seating; salvaged hardwood sill cutting through a load-bearing gritstone wall with timber secondary structure and a substructure of fused gritstone rainscreen (see exhibition for final model)

Juliette Ruelland-Kennedy

BA(Hons) Architecture
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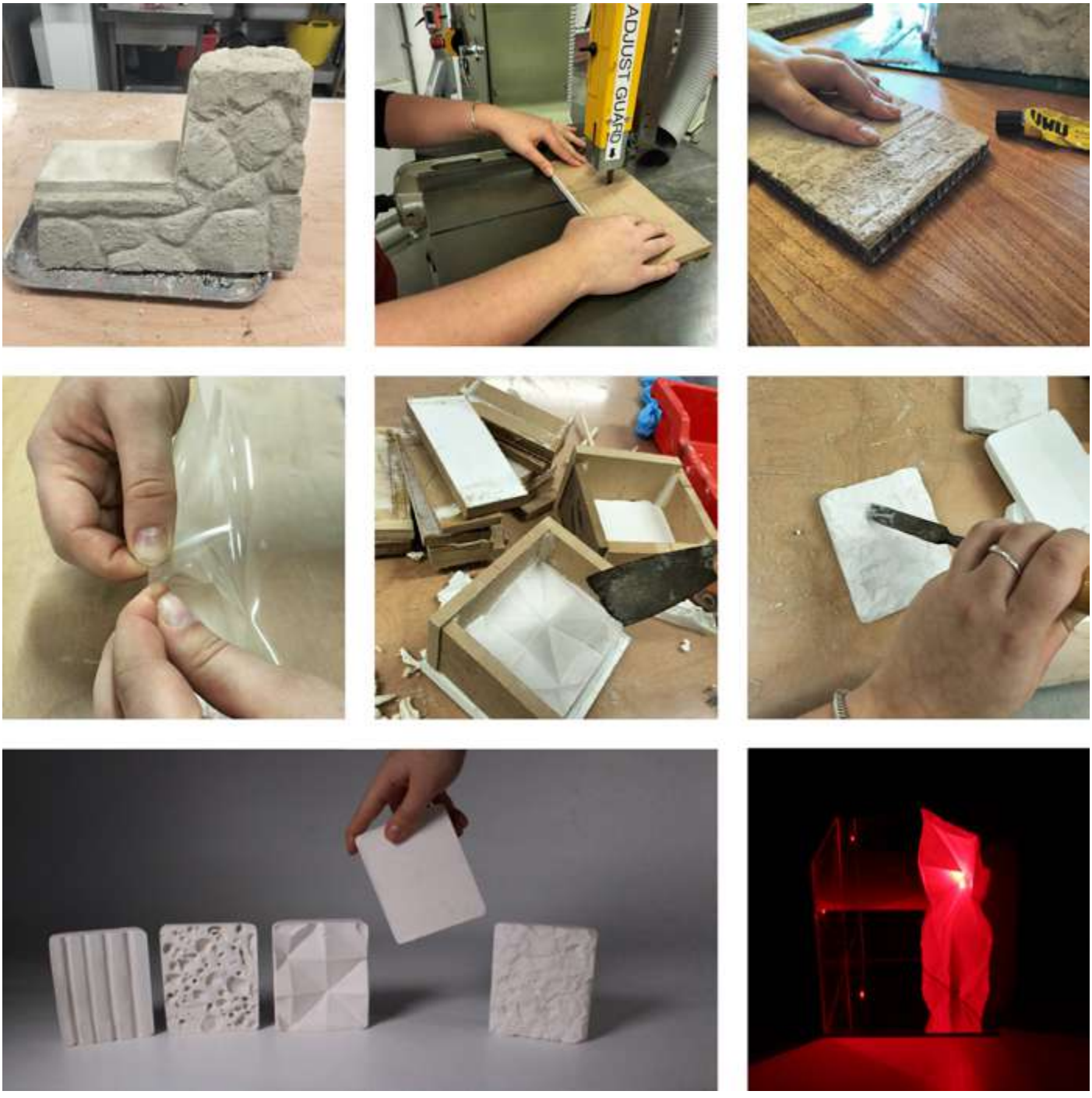
Continuity



Process photos for the 1:5 detail and tile texture experimentations, where I used chiselling to get a rough hand-worked texture similar to the actual stone process.

Massing model using site-local stones resting atop a glazed grid structure - to create light/heavy contrasts. The aim was that this could be used with current Crewe residents to allow them to decide and create a sense of authorship and agency for their city.

Kiran Venugopal

BA(Hons) Architecture
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Continuity

CONTEXT:

This 1:1 scale handrail model is part of a wider architectural scheme to reimagine a heritage centre for Crewe. Designing with the Continuity atelier's ethos of celebrating both tangible and intangible heritage through contextualism, much of the scheme's inspiration came from Crewe's historical and geographical context. Modern construction techniques frequently disregard the historical significance of the built environment and the human activities that shaped it's social value. In response, this project uses context-driven design decisions to preserve the narrative of Crewe's industrial and craft histories.

The handrail is situated within the primary entry of the proposed heritage centre to create a distinct sense of arrival as it welcomes users through a direct tactile interaction with the building fabric, noteably the handrail. The design mediates between temporal and physical landscapes: Crewe's heavy industrial history is represented by the stainless steel whilst traditional craftsmanship is referenced through expressed timber joinery. The wider geography is grounded by an irregularly shaped stone base, referencing Cheshire's quarries.

USER EXPERIENCE:

The design achieves a unique physical duality as a user's hand grips the rail, the palm rests on smooth, rounded timber while the fingers wrap around a contrastingly rough-textured steel rod beneath. This simultaneous contact of industrial with natural materials aims to create a sensory intersection between distinct material timelines.

MODEL CONSTRUCTION:

The making of the model uses weld-free connections between metal elements. The L-brackets are fixed to the rectangular steel plates through internal timber supports which are hidden within the steel encasements to form a seamless connection between the metal elements in the model.

The timber elements slot together using precise joinery, and are complimented with oversized bolts, visually emphasising the heavy industrial aesthetic. Structurally, the handrail cantilevers from the rock which is represented by a textured and irregularly-shaped mass of black foam. The handrail achieves this cantilever with long screws that are deeply embedded within the foam rock, which is secured to the base with thick steel rods, screwed deep into the foam.

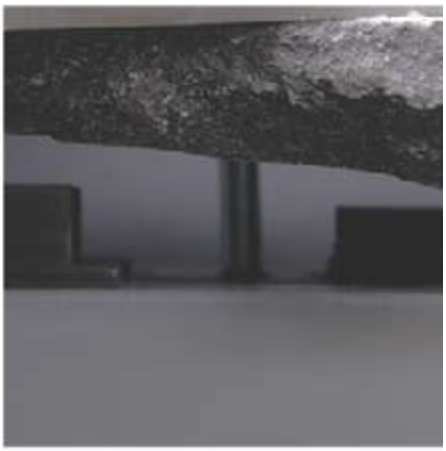
REFLECTION:

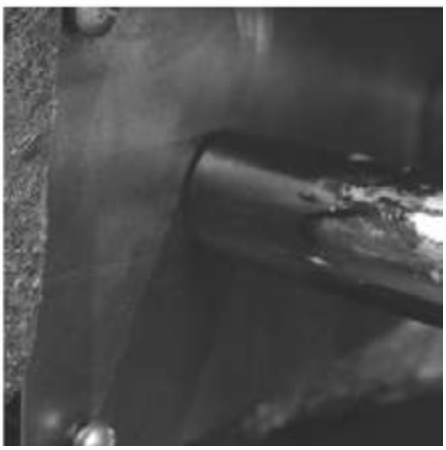
Overall, the model harmonises materials of contrasting textures, densities, rigidities and visual characters. In doing so, it embodies the core drivers of the wider project: contextualism, human interactions, heritage and tectonic continuity.

The handrail that combines steel, timber and expressed fixings cantilevers off the rock

Kiran Venugopal

BA(Hons) Architecture
Year 3
Continuity





Within the model, long screws and steel rods are deeply embedded to secure the handrail to the rock and the rock to the base.

Within the handrail itself, over-sized bolts are used to connect the steel plates to the timber elements which are also expressed at the corner of the L-brackets.

Millie Turner

BA(Hons) Architecture
Year 3
&rchitecture

The fragment detail model demonstrates the connections between structure, use, weatherproofing, material reuse and connection to nature. Zooming in on a two-storey kitchen of a community Food Commons in Moston, Manchester, the model depicts the accessibility embedded into the design, with lowered worktops and knee recesses for seated users, prioritising proximity to user-operable windows for enhanced wellbeing while cooking. The model's materiality acts as a prototype for a waste insulation strategy, bringing the concept into reality. Within my project, waste reuse was a key focus, repurposing litter on site and around Manchester into the building envelope of the community kitchen design. This repurposed plastic, paper and fabric is used as insulation in the exterior walls, which initially seemed thermally inefficient for a realised building. To mitigate energy loss, I increased the thickness of the walls by 200mm, enclosing the insulation between a glulam i-joist structure and OSB sheathing board. In the model, this is represented through a repeated 'vertical i-joist' secondary structure, made from laser-cut MDF battens and card. Replicating this process at a 1:20 scale allowed me to prototype how the Moston community would collaborate in the waste insulation strategy by cleaning, shredding and packing the litter and fabrics into the wall build-up at a much larger scale. Along with reusing wasted material as insulation, all of the materials used in this model were reclaimed and repurposed to make up the foundations, façade, interior finishes and the mass timber structure. This mirrors the materials which would be sourced at a 1:1 scale, reclaiming clay roof tiles from local demolitions and using secondary timber within CLT slabs & the glulam frame.

From the balsa vertically slatted cladding system to the cork floor finish, the detail model demonstrates material interfaces and their connection to user experience. By demonstrating a sectional cut through the kitchen windows, the consistency in thermal insulation is evident, as well as a seamless connection to nature for users cooking together.

Millie Turner

BA(Hons) Architecture
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&rchitecture

Integrating a sawtooth roof in the community kitchen design invites diffuse north light into the first floor, providing soft daylighting for the cooking classroom. This glazing, made from acrylic offcuts, sits between reclaimed plywood beams, representing glued laminated timber.

As a sectional model, the rigid insulation, made from rigid foam offcuts, timber battens, made from laser-cut mdf, and litter insulation, were featured only on the section cuts of the envelope. This reduced material usage in the model, while representing the full material build-up in the completed model.

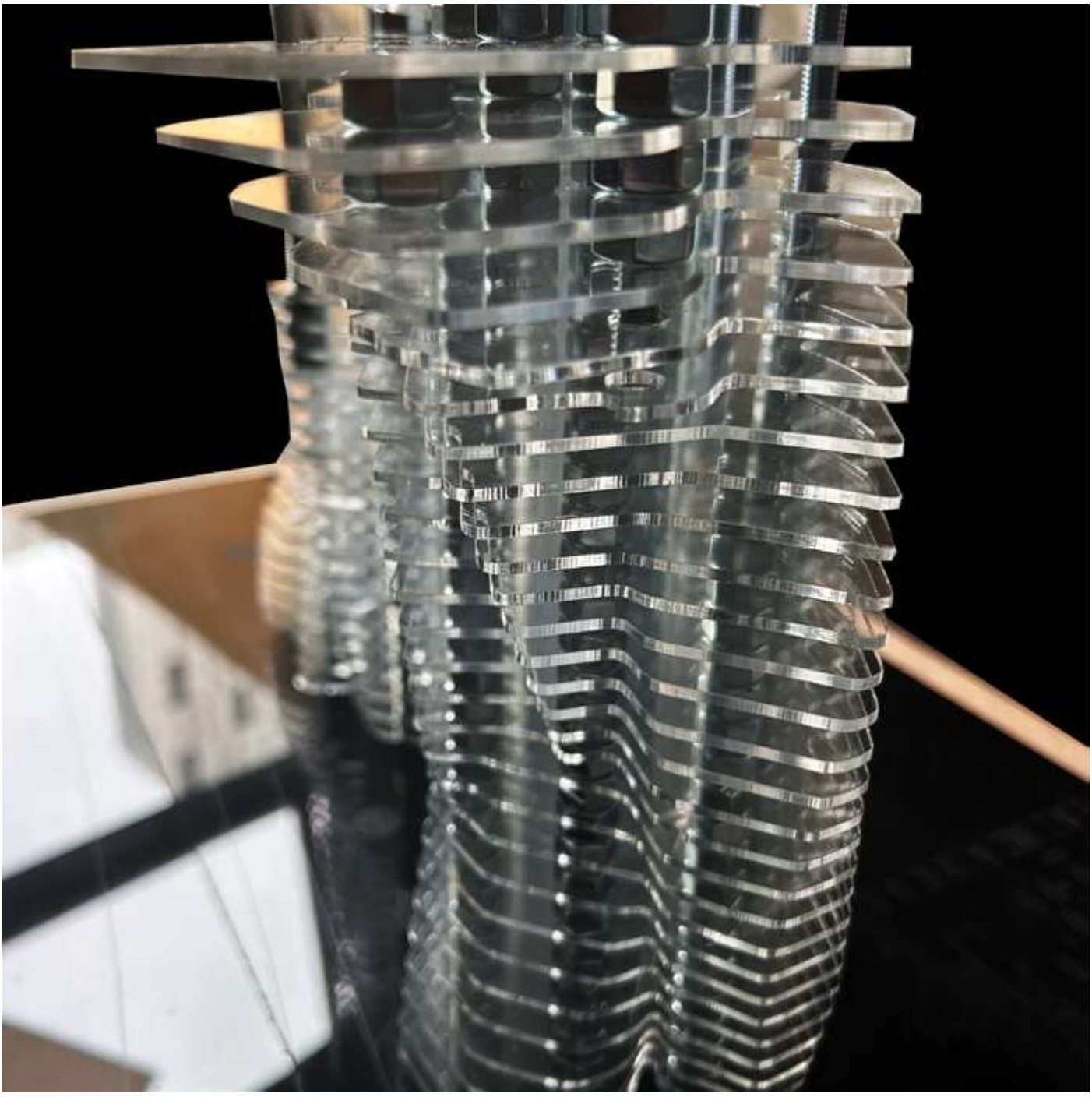
Emin Huseynbayov

BA(Hons) Architecture
Year 3
[CPU]ai

Aligned with the core philosophy of the CPU AI (Complexity Planning and Urbanism) atelier at the Manchester School of Architecture, this project explores the intersection of computational design, data-driven methodologies, and radical urban speculation. The work investigates complex structural systems through the proposal of a 500-meter megastructure located in Hulme, Manchester. This intervention serves as a speculative, contemporary response to historical, radical urban initiatives in the area, most notably the infamous Hulme Crescents. Rather than repeating past mistakes of rigid, low-density modularity, this design leverages advanced algorithmic logic to propose a towering, high-density vertical ecosystem that addresses the evolving socio-spatial demands of the modern city.

The primary ambition was to explore how an ultra-tall structural system can organically adapt to its immediate urban fabric while managing immense gravitational and lateral forces. To communicate and test the validity of this mega-scale proposal, the design process relied on iterative physical fabrication methods that directly mirror the high-tech nature of the digital models.

Physical modeling served as a crucial tool for spatial and tectonic exploration rather than just representation. The model translates computational fluidities into a physical reality using a strictly curated palette of high-tech materials: steel, acrylic, and 3D printing. Laser-cut clear acrylic sheets were systematically stacked to visualize the floorplate variations and the shifting silhouette of the tower, providing a literal transparency to the internal structural logic. Threaded steel rods and matching hardware run vertically and diagonally through the assembly, physically absorbing stress and simulating the primary load-bearing columns and tension ties of the 500-meter superstructure. Additionally, precision 3D-printed joints were utilized to manage the complex, non-standard angles where the structural members meet the grounded context of the site. Through these making methods, the project effectively grounds a highly speculative urban fantasy into a tactile, technically rigorous architectural reality.



A close-up perspective showcasing a layered mega-frame assembly. The deliberate material choice of laser-cut clear acrylic and threaded steel rods reflects high-tech project execution in real life. Precise, repetitive structural profiles stack meticulously to simulate complex architectural loading, mirroring the computational rigour of the digital proposal.

Emin Huseynbayov

BA(Hons) Architecture
Year 3
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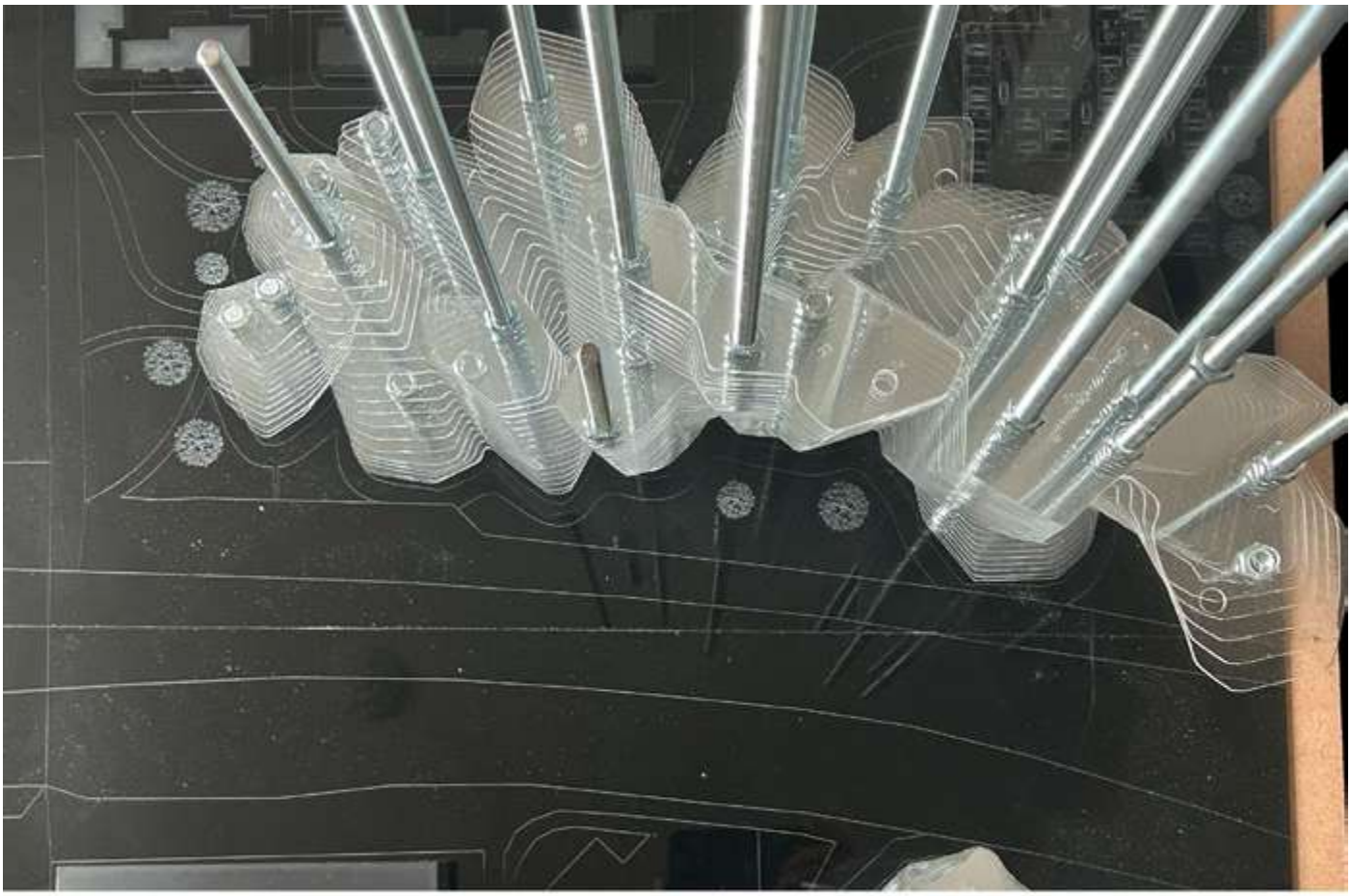
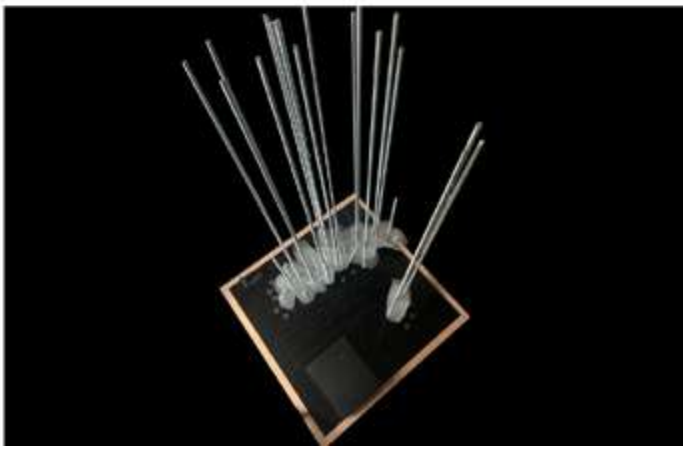
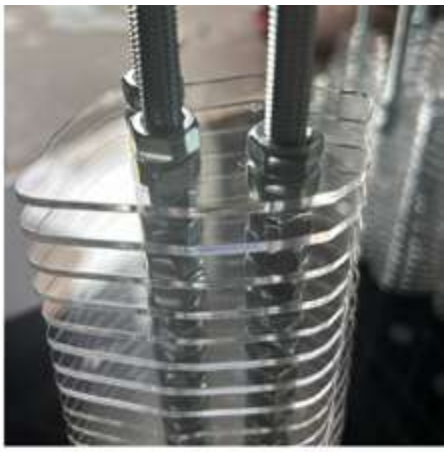




A multi-angle orthographic overview mapping the superstructure's site integration. Angled steel rods protrude outward, defining the spatial impact and cantilevering forces of the tower against the site plan. The combination of precision acrylic tiers and rigid steel elements translates a radical, large-scale urban proposal into a tangible physical reality.



An analytical layout highlighting structural joints and tectonic repetition. Clear acrylic plates are punctuated by threaded steel shafts and nuts, creating a rhythmic, high-tech aesthetic. Combined with 3D-printed anchoring components, these real-life materials bridge the gap between speculative digital architecture and physical engineering feasibility.

Catalina Cheptene

BA(Hons) Architecture
Year 3
Flux

"Room to Loiter" establishes Mayfield's future identity as a space for all, the heart of a growing green area right in the city centre. It fights the commercialization of Mayfield park - which is threatened to become a hub for offices and high residential buildings - by using a community and nature approach first and creating a sequence of sensorial spaces. The 1:100 model aims to showcase the interaction between human-built and nature-built: when looking from the top, the two types of spaces blend inconspicuously, and when exlpored in section, the spaces play with different levels. It is a journey descending to the river. The model is imagined as an opening unit in order to highlight firstly the isolation of the site and how a brick wall divides its perimeter to the rest of the commercialization of Mayfield, and secondly to highlight the mentioned section.

Plan view of the model splitting in the middle

Catalina Cheptene

BA(Hons) Architecture
Year 3
Flux

Views within the Room to Loiter scheme

Details of the buildings in relation to the site

Hibah Muzammil

BA(Hons) Architecture
Year 3
Flux

‘The Not-Waste Wall’ is an interactive facade for Leftover Yard, a project which seeks to re-value and workshop ‘waste’ into ‘leftovers’. It develops the use of rammed earth construction in the UK by substituting materials such as eggshells for artificial materials such as cement, due to similar chemical compositions. The facade is a framework that allows the modules to cure over time whilst invoking curiosity amongst passers-by. This is a direct response to the growing demand for construction materials with developments across Mayfield, as well as the increasing food-waste as the population skyrockets. This allows the city to grow from itself through processes experimented with and tested by the people who occupy space.

The modules are to be built by visitors to the site as part of the program. Model-making was used to analyse structure and enviornmental strategies in the Technologies module. A variety of factors, such as material choice, environmental impact, and potential for disassembly to allow materials to be repurposed, were considered. Weak timber joints caused the framework to collapse once weight was applied, leading to further explorations of joinery methods, whilst testing various ways of removing the earth bricks from the formwork to ensure that the bricks remained in shape. Details are in a manual for making, displayed in the exhibit.

The timber framework is composed of recycled wooden pallets, found in excess at a nearby delivery site. These are deconstructed and dyed using fruit and vegetable scraps. Frames are packed with various mixes of excavated soil from construction sites and leftovers, which are experimented with over time. These modules are placed onto the wall, shown in the final model, and left to cure semi-exposed, to understand how they react to the natural environment. Once the modules have been adequately cured, they are removed, released, and placed on the facade of the main building. The aim is to eventually use bricks in facades of construction in the area or as structural elements, reducing the need for raw and artificial materials, or intensely carbon-releasing processes such as brick firing, to reduce the carbon footprint of the construction sector.

1:10 concept model visualising the overall materiality and concept, whilst also testing the ability to stack and interlock the modules. Each timber frame has been dyed using a different food scrap, such as beetroot stalks, wilted leafy greens, and 'expired' berries.

Hibah Muzammil

BA(Hons) Architecture
Year 3
Flux

Exploring various mixes of food leftovers alongside soil from the site to see if they actually produce sturdy bricks, and accidentally tested the durability to Manchester's rain. Iterations to the framework construction, exploring the practicality and structural feasibility of each frame and the user-friendliness to ensure ease of building.

Testing turning modules for environmental purposes. Failed earth mixes naturally fall away and fertilise the surrounding greenery, allowing for a cyclical process to support biodiversity whilst reducing overall 'waste' on site and around the area. Timber can be broken down and reused in smaller construction or as mulch.

Joshua Parsons

BA(Hons) Architecture
Year 3
Flux

These models feature within an investigation into the idea of 'Construction as Belonging' under the wider project title 'Constructing a System of Care'. Construction as belonging was birthed out of an aspiration to develop belonging and ownership of our built environment through a co-build strategy. This idea was paired with a material strategy that attempts to address the forestry crisis in the UK by extending care to sites of extraction. Forestry makes up for 13% of the UK's land coverage, of this 13% most is monocultural Stika Spruce. Consequently, our forests are vulnerable to disease, inadequate carbon sinks and poor supporters of biodiversity. This proposal attempts to reconcile this challenge by demonstrating the use of C16 and softwood timber in loadbearing construction. By demonstrating the feasibility of these materials demand may increase and supply may also increase seeing our forests diversify into broadleaf and other hardwood species. This sets out a set of key architectural limitations for developing a co-build construction strategy with low grade timber. Assembly must be ergonomic and lightweight with simple and repeatable processes. Systems must respond to warping, uneven grains, short spans and vulnerability to moisture.
This development was undertaken through a hybrid process of scratch modelling and environmental testing from a 1:5 scale through to a 1:1 prototype. Physical modelling became the medium by which the co-buildability of the proposal was tested, allowing for a tactile understanding of how the assemblage might function. As the timber blockwork was pushed to meet environmental standards it became clear the fabrication and assembly process was becoming to complex for a co-build strategy so a pivot towards a more intuitive straw bail construction was made. Through a 1:1 prototype this co-build strategy was tested to further understand the limitations of the hybrid straw bail and low-grade timber module.

Overall, the prototype was a success with key learning points being the importance of preparation, communication and simplicity. However, the investigation did also highlight some concerns with quality control if this process was applied to a wider structure highlighting the need for supervision and frequent assessment of modules.

1:1 co-built straw and low grade timber module prototype constructed with the support of unskilled volunteers.

Joshua Parsons

BA(Hons) Architecture
Year 3
Flux

Scratch modelling process testing a friction timber blockwork assembly to a hemp block assembly and then finally a hybrid straw and timber approach.

An account of the co-build process undertaken with the help of unskilled volunteers. This process documents from material procurement through construction and then post occupancy use as the module reconfigures into an adaptable coffee table.

Emir Hasanagovski

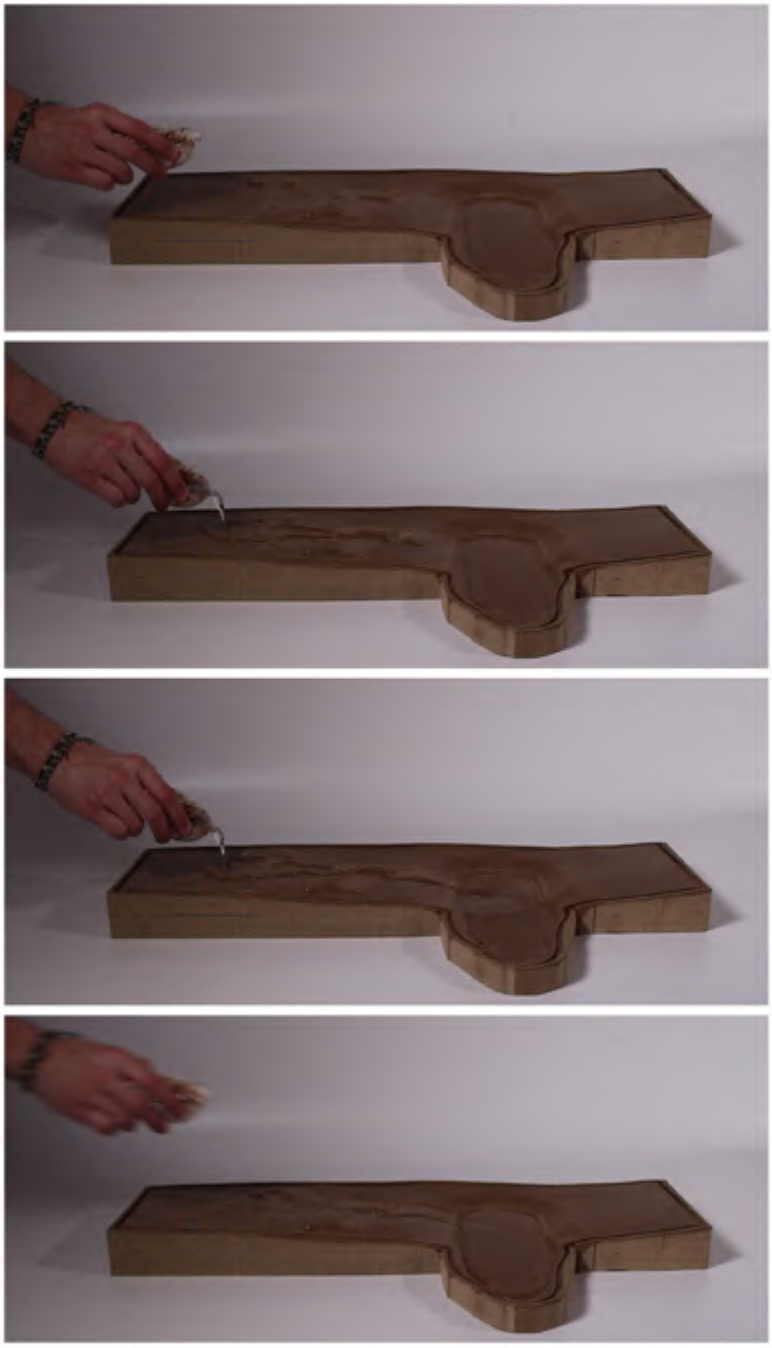
BA(Hons) Architecture
Year 3
Infrastructure Space

The model was developed as a tool of exploration of how landscaping and topography may be used as an environmental system for protecting and servicing an underground building. As a crucial part of the project, a mausoleum building is embedded beneath the landscape, covered by a green roof system which is level with the surrounding landscape, making surface water runoff management a critical strategy to be considered. Instead of taking the usual route and treating waterproofing as a detailing technical issue, the model is used to explore how the landform itself can become an active part within the strategy.
An attenuation pond is implemented within the site to fit a wider strategy intended to reduce flood risk and filter nutrients through the landscape before it reaches the river Eden catchment area. I digitally modelled the topography which surrounds the underground mausoleum to develop a gradual slope which directs surface runoff away from the underground building and towards the pond. This strategy would protect the watertight envelope of the building and prevent water from collecting above it, treating it as a sloped roof above it, and at the same time broadening the projects interpretation of nutrient neutrality and its implementation in design. Thus, the terrain becomes a part of a broader blue infrastructure system, integrating the project into a single spatial process involving the wider city masterplan.
The physical model was produces using CNC machined medium-density fiberboard, which translated the digital model into a physical topographic model. I used CNC machining as a method to test the model as it allowed subtle, detailed changes in the terrain geometry in terms of slope and water direction. Due to the absorbent nature of MDF the model had to be coated with several layers of clear water-proof varnish and wax to prepare the surface before the tests. During this process I realized that I unintentionally mirrored the logic of the proposal itself, where I was using the same types of waterproofing as would be used in real life, both topological and technical.
The main test involved pouring water down the model across path where surface runoff would naturally follow during rainfall. Through this, I used the model as both a representational and testing tool, directly observing and evaluating the process in real time through the behaviour of the water and the terrain itself.

CNC-machined MDF topographic model exploring how landscape geometry can direct surface runoff away from the underground mausoleum and towards the attenuation pond

Emir Hasanagovski

BA(Hons) Architecture
Year 3
Infrastructure Space



Water testing experiment demonstrating the flow of runoff across the sloped terrain, evaluating the effectiveness of the landscape as a waterproofing and drainage strategy

Modelmaking and fabrication process showing the digital topographic modelling, CNC-machining workflow, and waterproofing preparation of the MDF terrain model.

Prajesa Urip

BA(Hons) Architecture
Year 3
Infrastructure Space

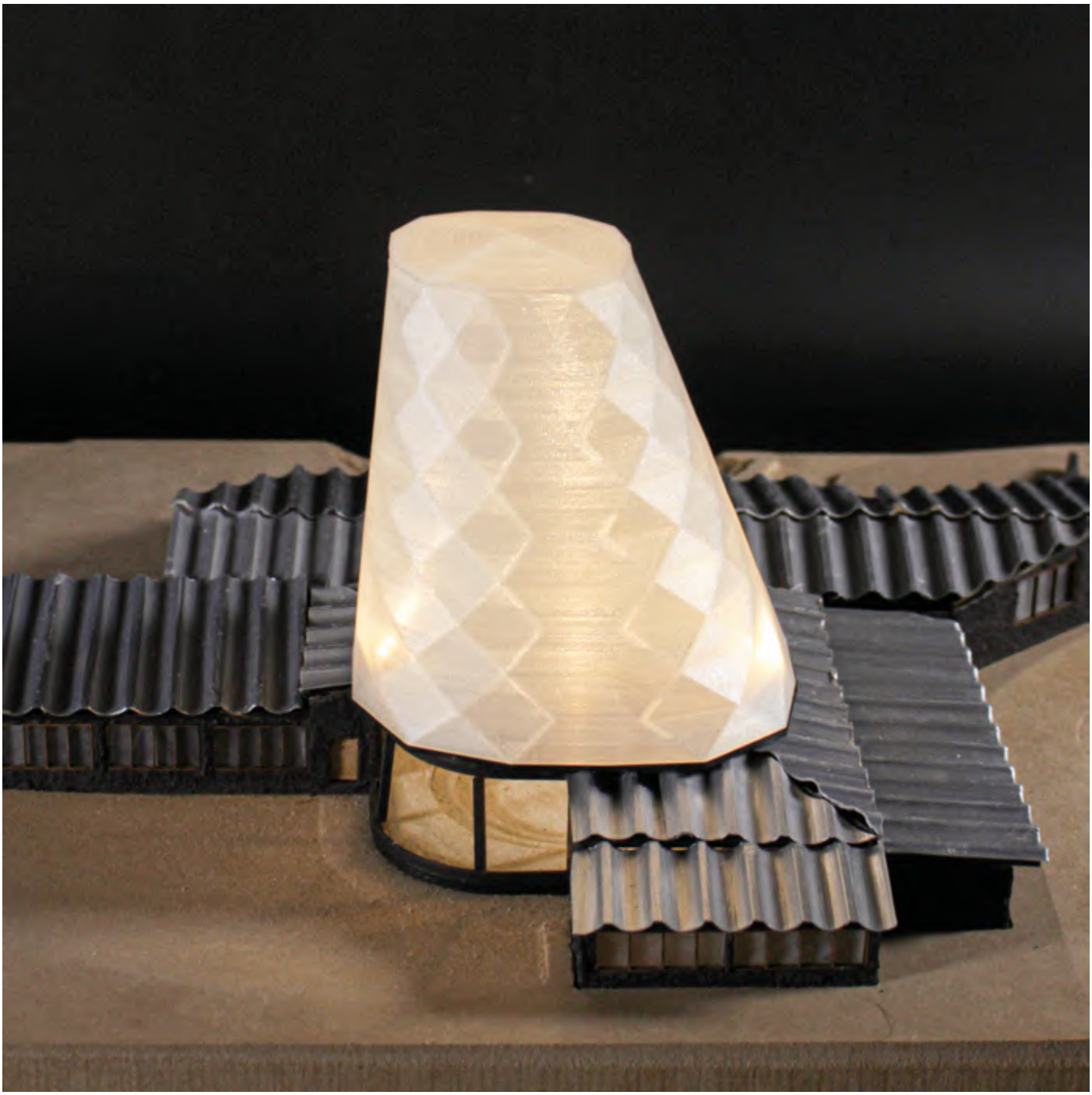
These models formed an integral part of the design development of The People's Parliament throughout the year. Model-making was used as a tool for iterative testing, material exploration, and the communication of architectural ideas at different stages of the project.

The 1:500 site model was used to develop the scheme's overall massing and relationship to the wider context. Through a series of iterations, it enabled the testing of spatial arrangements, landscape interventions, and the building's presence within its surroundings.

A separate series of study models explored the relationship between materiality and form. These investigations focused on the development of a lightweight, wing-like roof structure and wall materiality that would give the monument a sense of weightlessness and openness, while maintaining a strong civic presence.

The final 1:100 presentation model communicates the architectural and landscape ambitions of the project. At its centre stands a translucent tower, conceived as a civic beacon that radiates across the surrounding landscape, symbolising transparency, participation, and collective identity. The roofscape directs attention towards this monument, reinforcing its significance within the scheme and establishing a strong visual relationship from every elevation.

The CNC-milled site is sculpted around the building to create a series of interconnected civic spaces, including a stage for public gathering, a reflective pond, and a sunken landscape that draws visitors towards the monument. Rising prominently from this carefully modelled terrain, the building establishes a strong presence within its context. Together, the architecture and landscape articulate the monument's role as a focal point and monument for Cumbria.

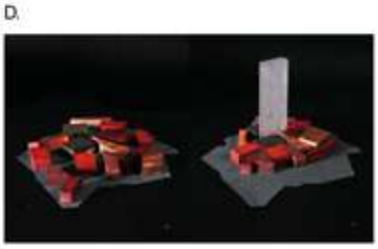


The model is a 1:100 scale representation of my project, The People's Parliament. At its heart stands a translucent tower, conceived as a civic beacon that radiates across the surrounding landscape, symbolising transparency, participation, and collective identity. The site is carefully sculpted around the building, creating a series of interconnected public spaces

Prajesa Urip

BA(Hons) Architecture
Year 3
Infrastructure Space

A. Roofing materiality tests
B. Wall materiality tests
C. Tower development
D. 1:100 and 1:500 development changes



A. 1:500 Model of first iteration test for 3.1. Varying the masterplan to iterate massing and orientation
B. Elevation
C. Stages for the build
D. Conceptual model as a monument for Cumbria

Tong

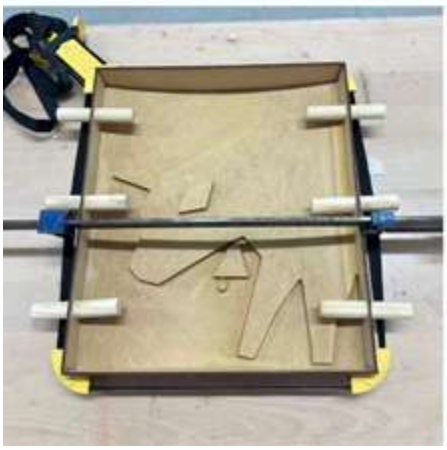
BA(Hons) Architecture
Year 3
Infrastructure Space

This project explores the intersection of traditional craftsmanship and functional modern design through the revival of thatching, a historical skill that is slowly being forgotten. By reclaiming this heritage, I designed acoustic panels specifically to absorb the structure-borne vibrations and mechanical noise generated by a milk processing laboratory, as creating a quiet workspace is vital for occupant health and productivity.
The making methods involved a tactile fabrication process that transforms raw harvest materials into structural architectural elements. As documented in my work, this includes the preparation of timber frames with wooden pegs and the intricate bundling of thatch secured by wire and manual mallets. The panels consist of a porous assembly of compressed hay and straw, which allows for customization through imprints by adjusting density and the proportions of binders like paper pulp or glycerol.
However, the exploration also served as a critical test of manual fabrication limits. During the precasting process, I discovered that increasing the panel size made it significantly harder to maintain a consistent ratio between the hay fiber and binders. Because the project relied on manual compression rather than industrial machinery, the panels were not monolithic and contained internal air gaps . These voids allowed moisture to infiltrate the assembly, which combined with the lack of a specialized drying setup eventually led to mould growth in my test samples. I hope this work could highlights the potential of straw based architecture while identifying the need for more precise fabrication methods. It demonstrates that for natural materials to remain resilient in damp climates like Carlisle's, traditional skills must be paired with rigorous technical standards to ensure structural integrity and longevity.

Examining the Architecture of Harvest demonstrates the adaptability of reed and straw in environmentally friendly building. It showcases the conversion of raw agricultural materials into carbon neutral components for contemporary, environmentally friendly construction techniques using a compressed recycling waste straw block and a structured reed panel.

Tong

BA(Hons) Architecture
Year 3
Infrastructure Space



These relief molded panels demonstrate the possibilities of agricultural leftovers by converting farm refuse into majestic architecture. Raw garbage is transformed into expressive, carbon neutral building materials by imprinting designs onto compacted straw. This transforms typical harvest materials into meaningful, ornamental components for environmentally friendly building.

This fabrication method, which revives the ancient craft of thatching, entails the complex bundling of straw fastened by wire and hand mallets. The old hand methods needed to turn harvest resources into structural components are demonstrated by this tactile workmanship, which is gradually being forgotten.

Anthony Lau

BA(Hons) Architecture
Year 3
Non-Standard Habitats

This is a 1:100 model on a section of the greenhouse. This project transforms the Mancunian Way into a productive green corridor through implementation of a vertical urban farm. Manchester city centre suffers from chronically poor air quality especially along the Mancunian Way. The Mancunian Way is a primary contributor for exhaust particulate matter, and carbon dioxide. In particular, the cities food supply demand on extensive, lorry based distribution networks importing fresh produce from regional and national hubs, generating further transport emissions, and relying on energy-intensive cold chain refrigeration. The environmental logic of this transformation operates on multiple compounding levels. By producing fresh food at the point of consumption, the project eliminates the need for long, distant refrigerated transport, directly reducing carbon emissions embedded in Manchester current food supply chain. Active carbon sequestration through photosynthesis, occurring continuously as crops grow, turns the site from a carbon emitter into a carbon sink. The replacement of high traffic motorway lanes with productive agricultural infrastructure directly reduces vehicular emissions at source, while the introduction of extensive planting improves local air quality and mitigate the urban heat island effect that the motorway currently intensifies. This project is an environmental calibration of a critical piece of urban infrastructure, a proposal to transform one of Manchester's greatest liabilities into one of the most productive, civic assets. The Mancunian Way, once a monument to the carbon economy, becomes an instrument to reverse it.

Perspective view of model

Anthony Lau

BA(Hons) Architecture
Year 3
Non-Standard Habitats

Close up view of model

Process behind modelmaking including, CNC machining, laser cutting, vacuum forming and assembly

Audrey Ko

BA(Hons) Architecture
Year 3
Non-Standard Habitats

Modelmaking exploration and methods: The first model is a 1: 500 scale part model of a air filter structure of my building. It aims to show the overall scheme in a fairly big scale. It is produced after final design stages and to be used as a medium to showcase my final scheme. During the modelmaking process, the inner grid part of the model was the most challenging as in this scale they are 0.9mm thick, which was really hard to excute. The process required many testing models, trying different materials and thicknesses to balance feasibility of this model and showing the tectonics of my scheme (lightness of the grid). At the end, my resolution was to form a self standing outer grid structure with wooden dowels of minimal thickness needed to hold up the structure, while the grid details inside were kept as non-structural but decorative to preserve the lightness of the scheme.

The second model is a massing maquette made with thick paper (free of glue!) by hand to test out layers of space of my scheme. In order to observe how the levels of space in my building interact vertically, especially since I have a underground structure, I chose to use tracing paper to indicate the ground level. As it was a working model, the whole model doesn't use glue, the wooden structure forms a grid, temporarily held together with double-sided tape, and creates tension for the tracing paper to form the ground. Overall, this model was extremely useful for testing out solar openings and how ramped paths could connect different levels in my scheme.

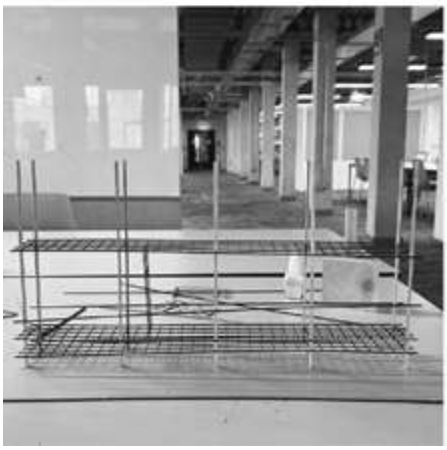
Project concept and scheme: The gypsum recycling facility at Mayfield stacks research, processing, museum, and public programme vertically, intercepting a demolition waste stream and redistributing it as a material resource for new construction, attempting to act as an intermediary , while the visitor centre above aims to make the circular process legible to the public, as a new way of inhabiting a carbon-altered city. Rather than pursuing comprehensive transformation, the project adopts a patchwork approach, allowing change to occur incrementally.

Perspective view of photocatalytic filter structure at a higher angle

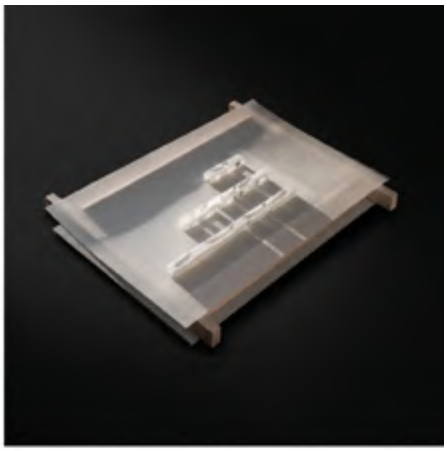
Audrey Ko

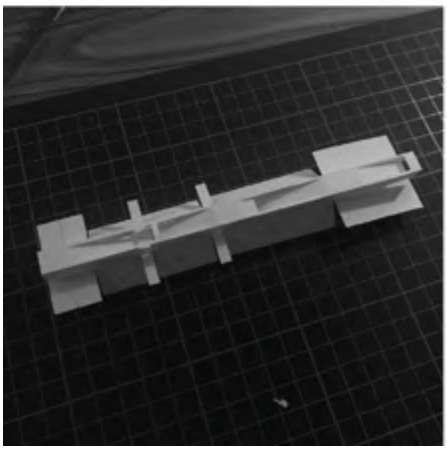
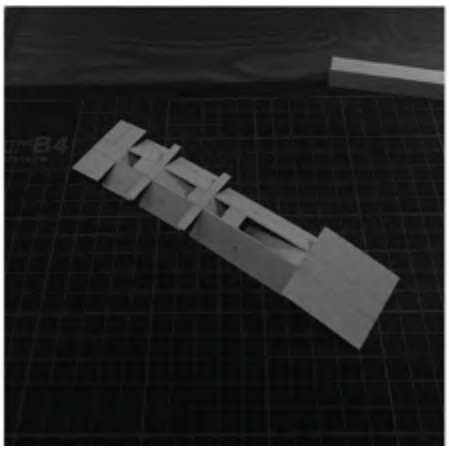
BA(Hons) Architecture
Year 3
Non-Standard Habitats



Process and close up angles of photocatalytic filter structure


Paper massing and testing maquette (free of glue), process

Aylin Rzayeva

BA(Hons) Architecture
Year 3
Non-Standard Habitats

This physical model explores the future condition of the site adjacent to the Mancunian Way, imagining how the residual land surrounding the motorway could gradually transform through time, occupation, and environmental contamination. Rather than proposing a fixed masterplan, the project investigates how neglected urban fragments might evolve into an unstable landscape shaped by infrastructural presence, weathering, and human activity. The motorway remains as a dominant atmospheric condition beside the site, constantly producing vibration, noise, shadow, and mechanical rhythm that influence the surrounding ground.

I was interested in how architecture could emerge from processes of erosion and accumulation rather than from complete control. Water settles into fractured surfaces, vegetation occupies abandoned edges, and temporary human occupation begins to inhabit the spaces left behind by infrastructure. The site is never returned to stability, but instead exists in a continuous state of transformation where decay and growth occur simultaneously.

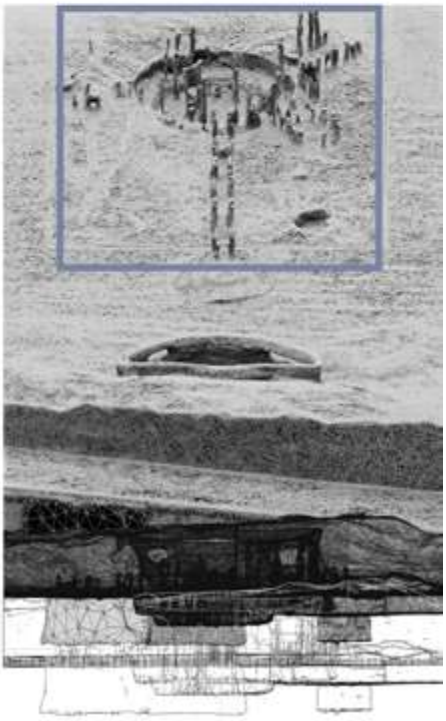
The making methods became central to communicating these ideas. Plaster was cast, broken, and layered to represent fragmented concrete ground conditions and the heaviness of existing infrastructural residue. MDF established the rigid structural framework of the site and surrounding interventions, while exposed bolts suggested tension, repair, and the lingering mechanical logic of infrastructure. Candle wax was melted and accumulated across surfaces to communicate seepage, contamination, and slow environmental change over time. The interaction between these materials allowed the model itself to behave like an unstable landscape rather than a static architectural object.

The model therefore acts as both a speculative future condition and a material study of persistence, atmosphere, and gradual transformation. Through its construction, I aimed to communicate a site continuously rewritten by ecological growth, infrastructural decay, and human presence existing in close proximity to the Mancunian Way.

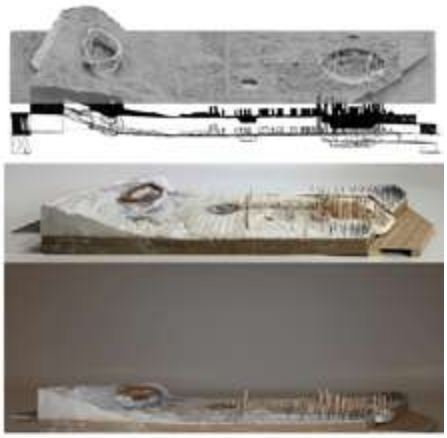
The model frames the site as a threshold between the controlled logic of the city and an emerging territory shaped by uncertainty. Dense material accumulations, voids, and exposed structural traces create an atmosphere where the boundary between architecture and landscape begins to dissolve, producing a speculative urban zone defined by tension, memory, and gradual displacement.

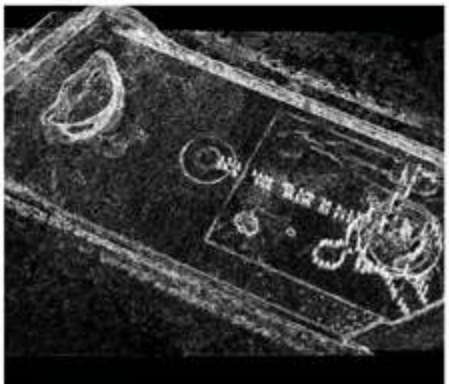
Aylin Rzayeva

BA(Hons) Architecture
Year 3
Non-Standard Habitats



Material study model exploring the future condition of the site beside the Mancunian Way. Cast plaster, candle wax, MDF, and exposed bolts construct an unstable landscape shaped by erosion, vibration, contamination, and occupation. The rain garden element was designed as an extractable fragment, allowing the surrounding landscape and future interventions to be built and layered around it over time.





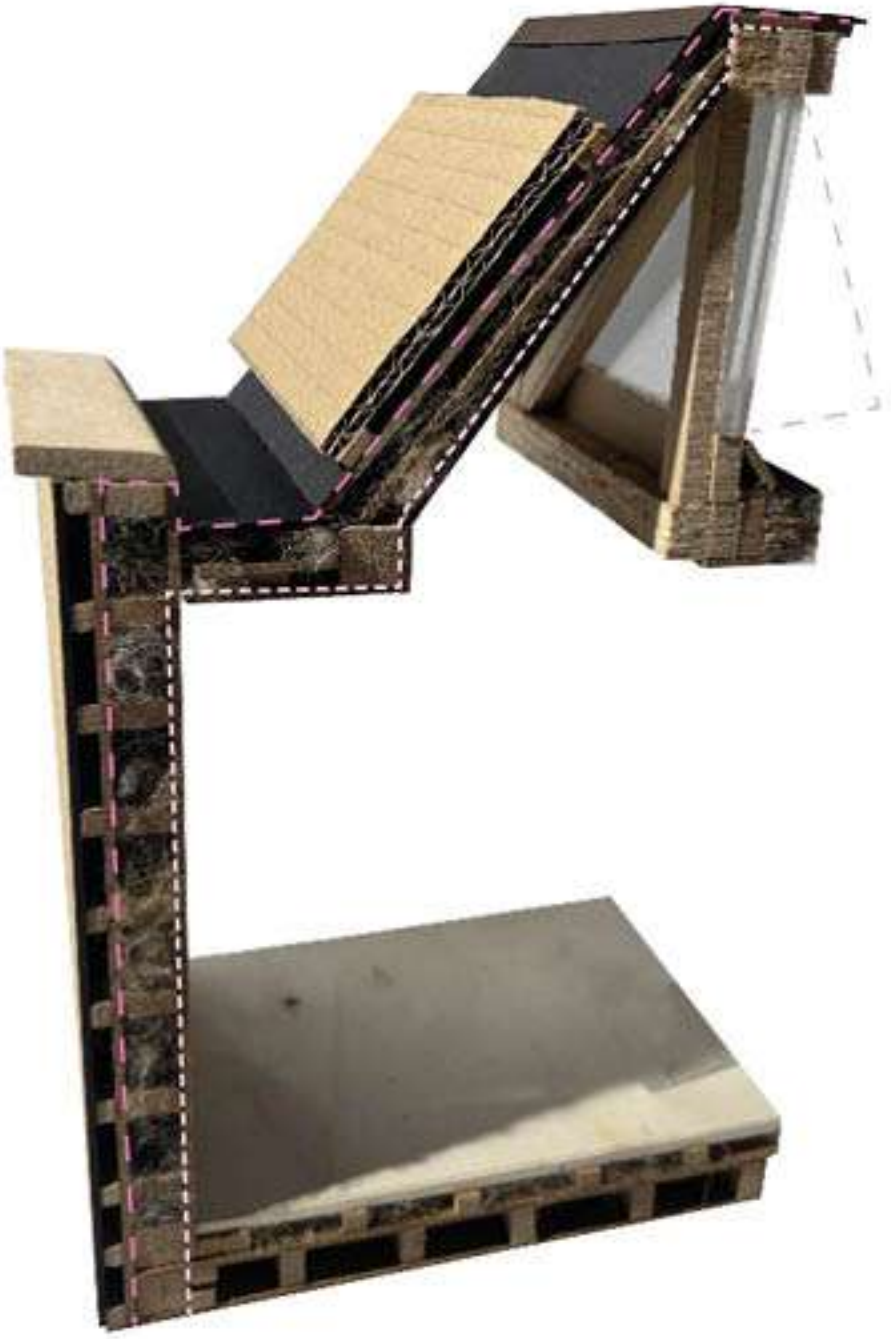
Speculative site model investigating how residual land adjacent to the motorway transforms through time and environmental pressure. The layered elements positioned across the site represent the gradual erosion and fragmentation of the proposed architecture over time, where structures decay back into the landscape and become absorbed into the evolving material condition of the ground.

Ciara Powell

BA(Hons) Architecture
Year 3
Non-Standard Habitats

This submission documents the iterative development of the north lights within my 3.2 studio project, ending with a final 1:20 detail model showing the north light connected to a side wall. All four models were constructed entirely from scrap materials, reducing waste and promoting a more sustainable approach to model making.

The process began with a simple north light design that presented several structural challenges. Through iterations, the design was refined and improved, leading to a final model that incorporated enhanced insulation, a timber truss structure, and integrated solar panels. This hands-on exploration provided valuable insight into the construction and performance of north lights, deepening my understanding of both their technical and architectural qualities.



This image demonstrates the post-production work used to accurately represent the north light design. Structural supports required for the physical model were removed, as they would not exist in the final building. A damp-proof membrane and vapour control layer were also added, as they were too small to model effectively.

Ciara Powell

BA(Hons) Architecture
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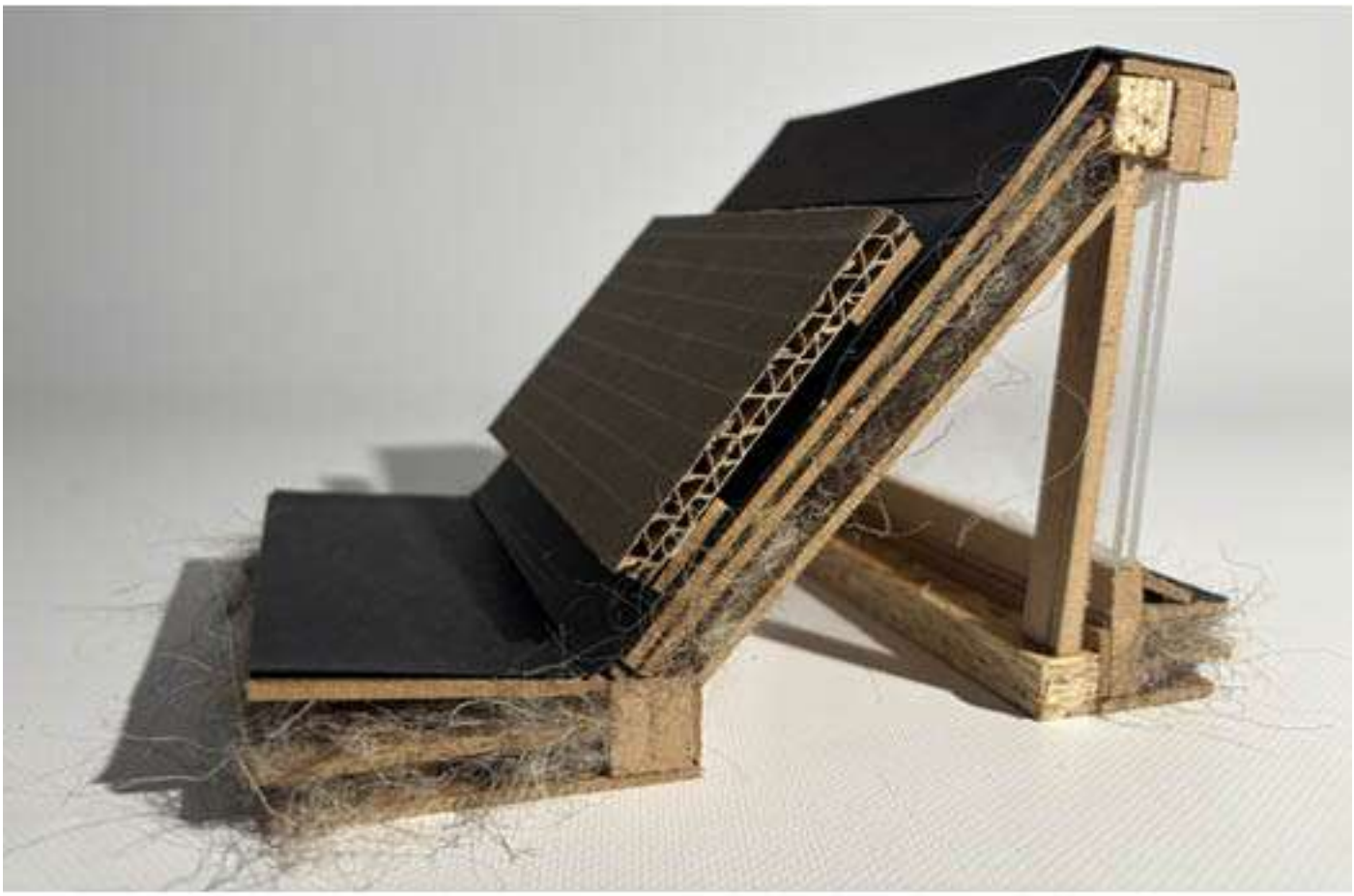
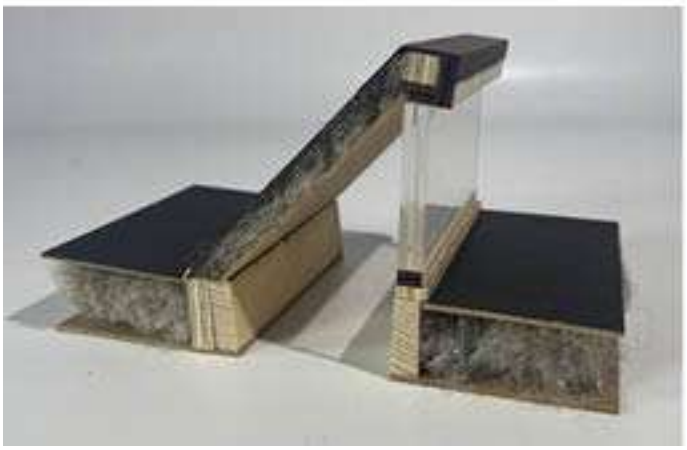
Non-Standard Habitats





These three iterative models document the development of the north light design and helped me understand how the final proposal would function. The model at the top represents the first iteration, while the models at the bottom left and bottom right show the second and third stages of the design process.

This is the final 1:20 scale model prior to post-production. The image shows the structural supports required to stabilise the physical model, which were included for construction purposes and do not form part of the final design.

Hector Mellor

BA(Hons) Architecture
Year 3
Non-Standard Habitats

This proposal transforms the Mancunian Way from a barrier into a connector through the creation of a Special Economic Zone in which a series of goods markets operate. One of these is the livestock market, which serves as the project's primary civic and economic anchor, supporting small businesses, employment, and exchange across the north and south of the road.

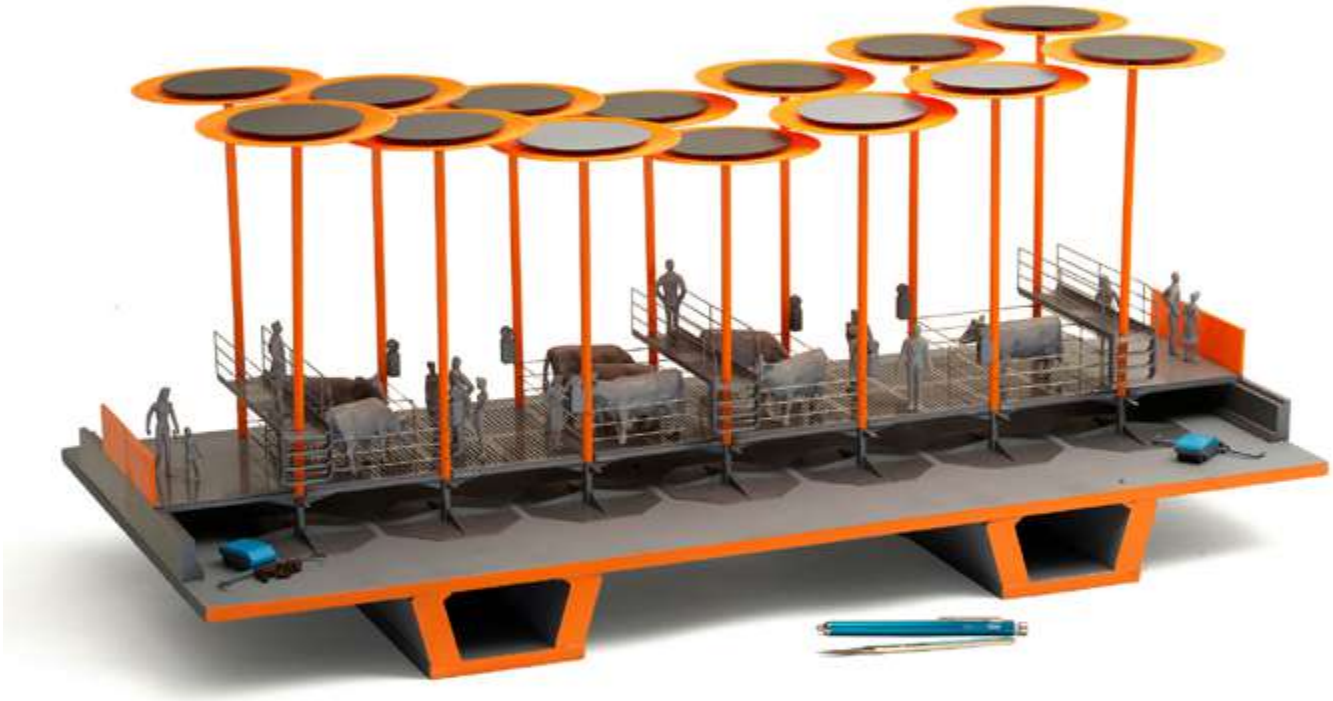
By diverting traffic into a tunnel beneath the Mancunian Way, the scheme reconnects communities on either side through new public and economic infrastructure. The project is funded through a Manchester ULEZ, using environmental taxation to support urban reinvestment.

This model represents a section of the livestock holding pens, where animals are housed between unloading, auction, and collection. Rainwater harvested from the parasol structures is channelled into integrated troughs to provide drinking water and to wash down the pens after sale. Energy for lighting and pressure-washing equipment is generated by photovoltaic panels mounted on the parasols.

The flooring consists of reinforced slatted rubber mats, providing comfort for the animals while allowing manure to pass through to the level below. These sit on a rigid I-beam substructure that connects into the base supports of the parasols. Automated manure scrapers then collect and direct waste for processing and reuse as agricultural fertiliser. Less valuable lots are auctioned informally from raised platforms by auctioneers.

The model was fabricated using a combination of traditional and contemporary model-making techniques. Components were produced from plywood and recycled 3D-printed PLA, reflecting the project's emphasis on resource efficiency and sustainable construction.

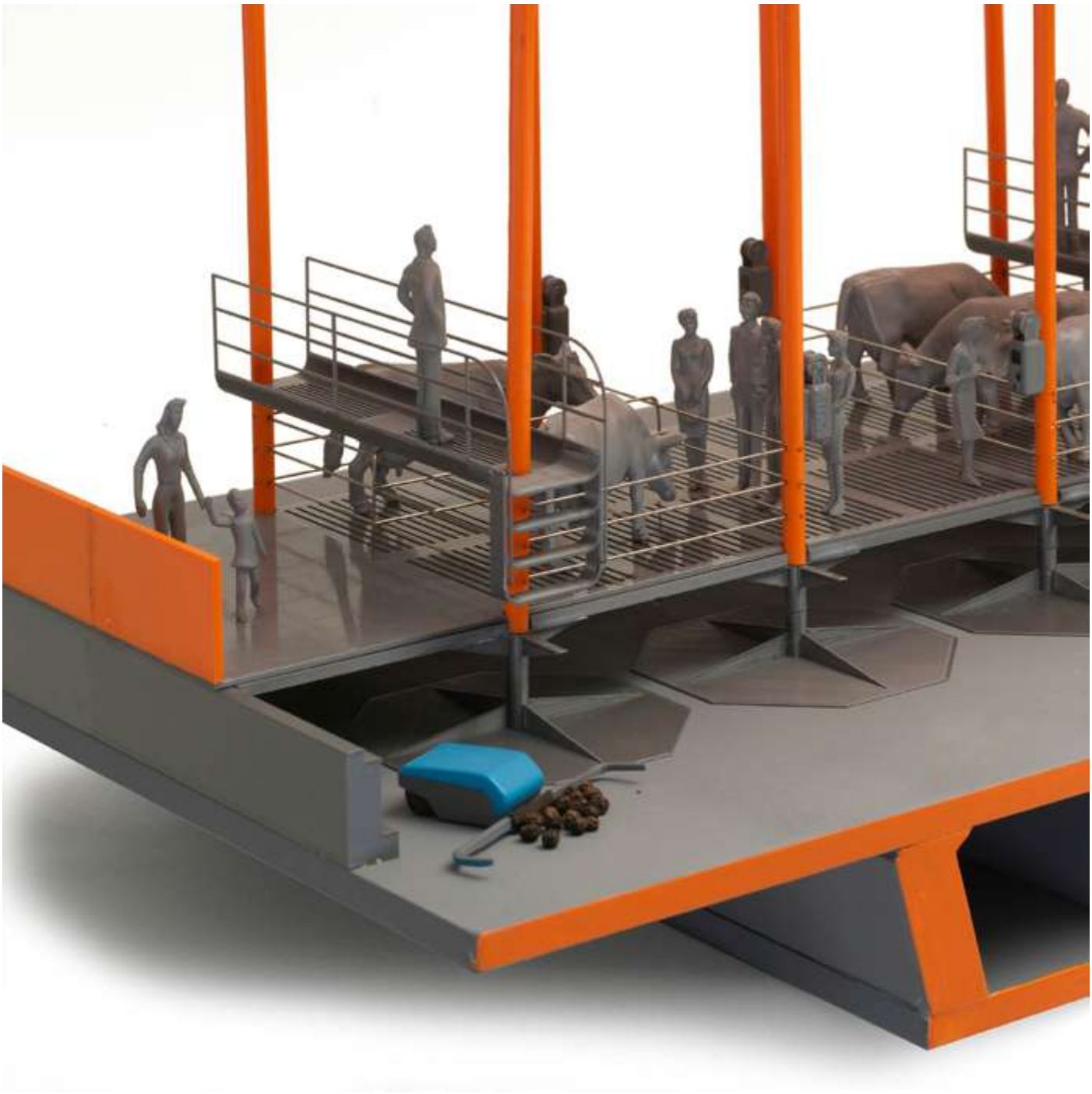
The design is informed by Frank Lloyd Wright's Johnson Wax Headquarters and Norman Foster's Repsol service stations. The model itself draws inspiration from Richard Rogers' model for the Richard Rogers Drawing Gallery.



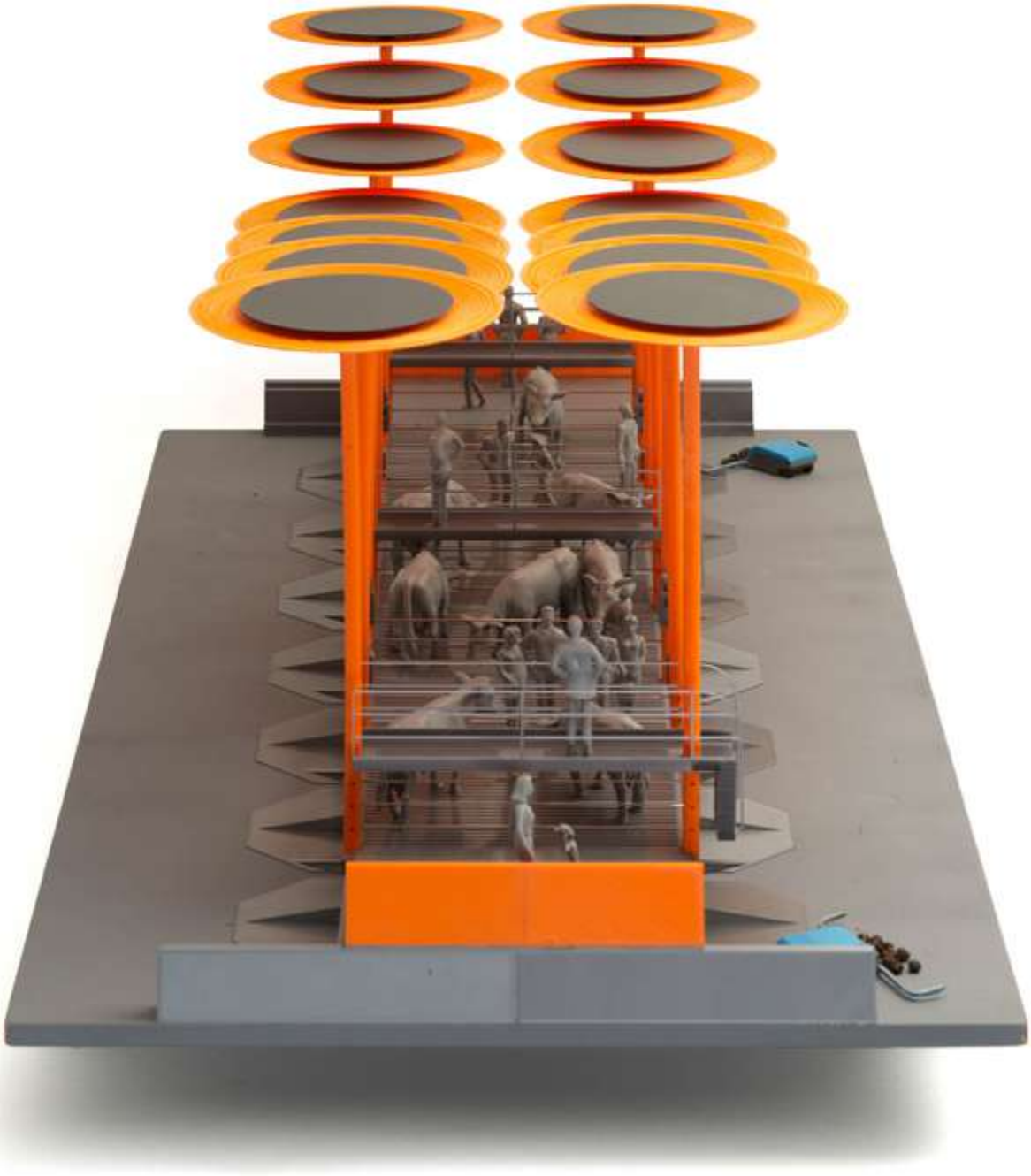
Front view of the livestock market holding pens

Hector Mellor

BA(Hons) Architecture
Year 3
Non-Standard Habitats



Close up view of the livestock market holding pens



Side view of the livestock market holding pens

Parth Jain

BA(Hons) Architecture
Year 3
Non-Standard Habitats

My project imagines replacing the vehicles on the Mancunian way in Manchester with a wider tram corridor connecting growth areas within the region like Stockport, Bolton and Wigan. to help towards economic as well as new alternative logistic networks for goods and materials. Local communities next to the highway physically contribute to the redevelopment of the highway through a participatory building process. Hence, Models have been a key driver in the design process across all scales, ranging from 1:10 material tests to 1:5000 city level research models shown in this submission. The different models aim to tackle and highlight key design issues relevant to its scale.
The research models include a 1:5000 composite mapping of the city's development plans with current social statistics of the electoral wards surrounding the highway, highlighting neglected and deprived areas which helped me situate my project. 1:1000 and 1:500 massing models helped me resolve my site use and understand the limitations of the site and program while also assisting with resolving a level change on site. 1:50 and 1:20 building fragment models were used to resolve the construction strategy of my walls and roofs, helping me emulate what the community would be building on a smaller scale. 3D printed sections of crash barriers from the highway helped me develop a repurposed highway façade prototype and the required secondary structure to support it in my building.
All these came together in my final masterplan model, which highlights the key massing of my community factory and how it interacts with the city. The CNC base allowed me to show the different paths and tram lines and how the interacted with the factory, the now converted Mancunian way, the surrounding park landscape and the river Medlock. The massing of the factory, though at 1:500 feature two different representations, with the main hall being in Hand cast Jesmonite to represent the grassroots construction of the initial factory, whereas the storage sheds and tram stops are 3D printed to resemble a modular construction technique.

1:500 site model, made using a CNC and MDF baseplate with 3D powder printed shed modules and hand-cast Jesmonite and demolition aggregate initial factory massing model.

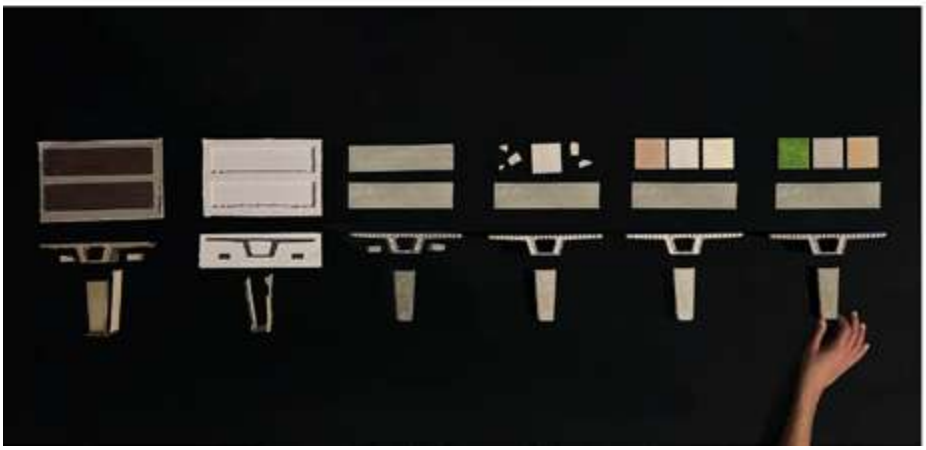
Parth Jain

BA(Hons) Architecture
Year 3
Non-Standard Habitats

KEY

01 1:5000 DEMOGRAPHIC STATISTIC STUDY MODEL
02 1:10 RECYCLED DEMOLITION WASTE MATERIAL TESTS
03 1:1000 SCRATCH LANDSCAPE MODELS
04 1:500 INITIAL MASSING MODEL
05 1:20 HIGHWAY CRASH BARRIER FACADE
06 1:500 FINAL SITE MODEL
07 1:100 HIGHWAY SECTION COLLABORATIVE MODELS
08 1:50 DEMOLITION WASTE GABION WALL

Collection of models ranging from research, development and final representation models. Throughout the year, I used models to aid with the development and resolution of different design issues. Some were often quick with annotations and removable pieces to quickly test iterations and help me with my design process.



A close-up of selected models. A demographic study model to understand social disparity between electoral wards which helped me develop a position of social disconnect, construction tectonic models to test different material use strategies, and older massing and research models from Studio 3.1.

Nia Peters

BA(Hons) Architecture
Year 3
Praxis

My model is a 1:25 section through the rainscreen facade of a community centre. This model has been created with lasercut and hand cut elements primarily and materials including laser board, mdf, balsa wood and paper have been used. The model uses 0.9mm laser board to model the recycled PVC, Pretty Plastic cladding tiles which were drawn up in autocad as strips and were then stained using wood stains and lapped over one another. The tiles are mechanically fastened to the mounting system using steel brackets and screws, however, due to the scale of the model, this was not modelled. The mounting system is composed of vertical timber battens and horizontal omega profiles which have been modelled using evergreen plastic i beams and square wooden dowels. I wanted to explore the build up of a demountable facade and communicate the lightweight and colourful qualities of the recycled cladding tiles. At first I considered using MDF but it was not thin enough to represent the true thickness of the tiles.

cut through east facade

Nia Peters

BA(Hons) Architecture
Year 3
Praxis

1:25 rainscreen cladding model showing recycled PVC tiles, demountable mounting system, breather membrane, rigid mineral wool insulation and vapour control layer

process from sketching the detail, cutting and painting the individual pieces then assembling everything.

Eva Lippett

BA(Hons) Architecture
Year 3
Some Kind of Nature

The project explores architecture as a living process rather than a permanent object, investigating how structures can transform, erode and be reclaimed by both time and biodiversity. Through a series of physical models, I explored how architecture might coexist with cycles of decay, questioning contemporary attitudes towards permanence and continuous urban expansion. The work proposes that decay can become regenerative, creating opportunities for ecological occupation, adaptation and renewal.

The Decay Pavilion model was developed as an experimental study into gradual material erosion. Using timber lattice structures, the pavilion investigates how buildings weather, collapse and become habitats. Fragmented forms and exposed frameworks intentionally blur the boundary between construction and ruin, allowing light, vegetation and weathering to become active architectural components. Moss, debris and permeable materials communicate the idea of nature reclaiming the structure over time, illustrating how architecture could be designed with impermanence in mind rather than resisting it.

With a museum brief, the iteration model explored initial reflections of the site, investigating its capital-driven history by reframing the once-glorified Royal Pomona Palace through the lens of decay and ruin. Rather than restoring the building, the model embraces deterioration, exposing the temporary nature of architecture and critiquing Manchester's self-serving visions of endless growth. Exposed roof ribs and demolished walls communicate a building caught between preservation and collapse, suggesting the resilience of nature and its inevitable reclamation of the built environment. The model became a physical exploration of decomposition, memory and ecological succession, presenting ruin not as failure, but as a regenerative process.

Following the project's development, the Columbarium model extends themes of decay, memory and mortality. Conceived as a biodegradable memorial space, the structure intentionally decomposes to slowly return agency to nature. Seed-embedded plaques placed in the gaps become part of the structure's cycle of natural reclamation, transforming remembrance into a ritual of return. Alongside the plaques, the straw-thatched roof gradually erodes to reveal the skeletal framework beneath, becoming scaffolding for ecological enrichment and signalling the end of human occupation.

All models were hand-crafted using laser-cut components, lolly-pop sticks, cork, stones, moss and recycled wood elements throughout.

The Decay Pavilion – Following a post-humanist approach, the pavilion is designed to become scaffolding for ecological succession. The entire model is hand-cut, using recycled lollypop sticks and hot drink stirrers to build the frame, pieces of cork fitted between the form, and real moss and stones collected from the site.

Eva Lippett

BA(Hons) Architecture
Year 3
Some Kind of Nature

Iteration Model: A Decayed Royal Pomona Palace – Exploring themes of natural reclamation and resilience in the urban environment. The model was developed using historic photos of the palace only, imaging how its decayed form would appear.

The Columbariums – Detailing a decomposing memorial space that provides frames for biodegradable memorial plaques. The model features a removeable roof, showing the before and after imagery of the structure and its stages of decay. The model was made using recycled MDF designed to piece together and real straw tied together.

Marie Mamin

BA(Hons) Architecture
Year 3
Some Kind of Nature

This submission brings together a series of models exploring decay not as an ending, but as a process that can produce new forms of architecture, landscape and memory. Through a post-human lens, the work questions the separation between body, building and ground, using modelmaking to test how materials break down, soften, conceal, reveal and return to the landscape.

The conceptual model After the Salt began with fragments collected from Pomona Island, including inorganic waste, reclaimed metals, plastics, timber and found planting. These were arranged onto a timber board, with some elements burnt and distressed to suggest materials that had been used, damaged and left behind. The model was then coated in a salt, sugar and starch dough, which was gradually eroded with water spray. The melting crust became a way of performing decay rather than simply representing it. As it dissolved, the model exposed the remains of human intervention before being repopulated with plants from the site. Stop-motion film recorded this transformation, communicating time, erosion and regrowth as part of the making process.

The remaining models form part of From Soul to Soil, a speculative cemetery where human composting becomes a burial ritual. Here, decay is explored at the scale of the body, grief and ceremony. The human compost urn was developed as a tactile memorial object, marking the final physical interaction between the griever and their loved one as compost is returned to the earth. Its CNC-cut timber base, sanded acrylic cover, frosted surfaces and brass joints give the object accuracy, softness and reusability. The layered surface of the urn takes inspiration from rammed earth, connecting the object back to the cemetery's material language. A short process film was also made to show how the urn is carried, opened and used within the burial ritual.

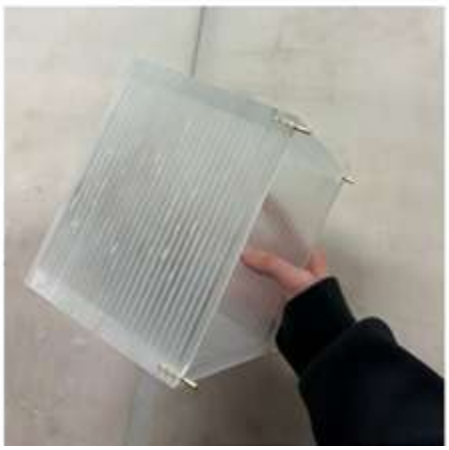
The memorial service room began as a working model to test whether fabric could modulate the interior. Through making, it developed into a study of roof structure, enclosure and acoustic softness. The radial timber structure was tested through laser-cut components and hand assembly, while the modular curtains explored how the space could shift in privacy, atmosphere and scale. Process models and material tests became a way to refine not only the appearance of the room, but how it might hold sound, movement and ceremony. Across the models, each material is asked to do more than represent: salt erodes, fabric softens, acrylic obscures, timber grounds and film records change. Together, the models show architecture as a process of transformation, where decay, ritual and reuse reconnect the human body to the landscape.

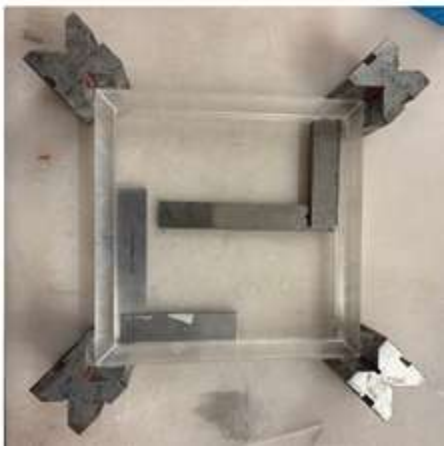
After the Salt explores Pomona Island as an abandoned landscape where local plants take root within the remains of human intervention. The model stages decay as a threshold, where waste, damaged material and new growth begin to occupy the same ground.

Marie Mamin

BA(Hons) Architecture
Year 3
Some Kind of Nature

Process films exploring ritual and decay:
Top: Extract from a process film showing the 1:1 human compost urn being carried, opened and used within the burial ritual.
Bottom: After the Salt stop-motion sequence, tracing salt erosion, exposed site waste and plant regrowth.





From Soul to Soil process models:
1:50 memorial service room testing roof structure, enclosure and modular fabric curtains.
1:1 human compost urn showing CNC-cut timber, frosted acrylic, brass joints and assembly process.

Riccardo Monti

BA(Hons) Architecture
Year 3
Some Kind of Nature

Project: Echolalia After Dark: Conservation through Raving

The project is a large-scale rave space on Pomona Island in Manchester, exploring the notion of the museum, in an attempt to modernise and decolonise it. As a programme, the rave comes from pre-existing conditions on the island; therefore, it is not imposed on the site but birthed by it. On the island, raving is enshrined, protected, and spatialised by the building, allowing the architecture to become an extension of the rave's logic. In this way, the museum is not, as it is traditionally understood, a static container of nature, but a site where it, and its relations are continuously negotiated, performed and sustained over time.

Interactive "Build your own Rave" Model:

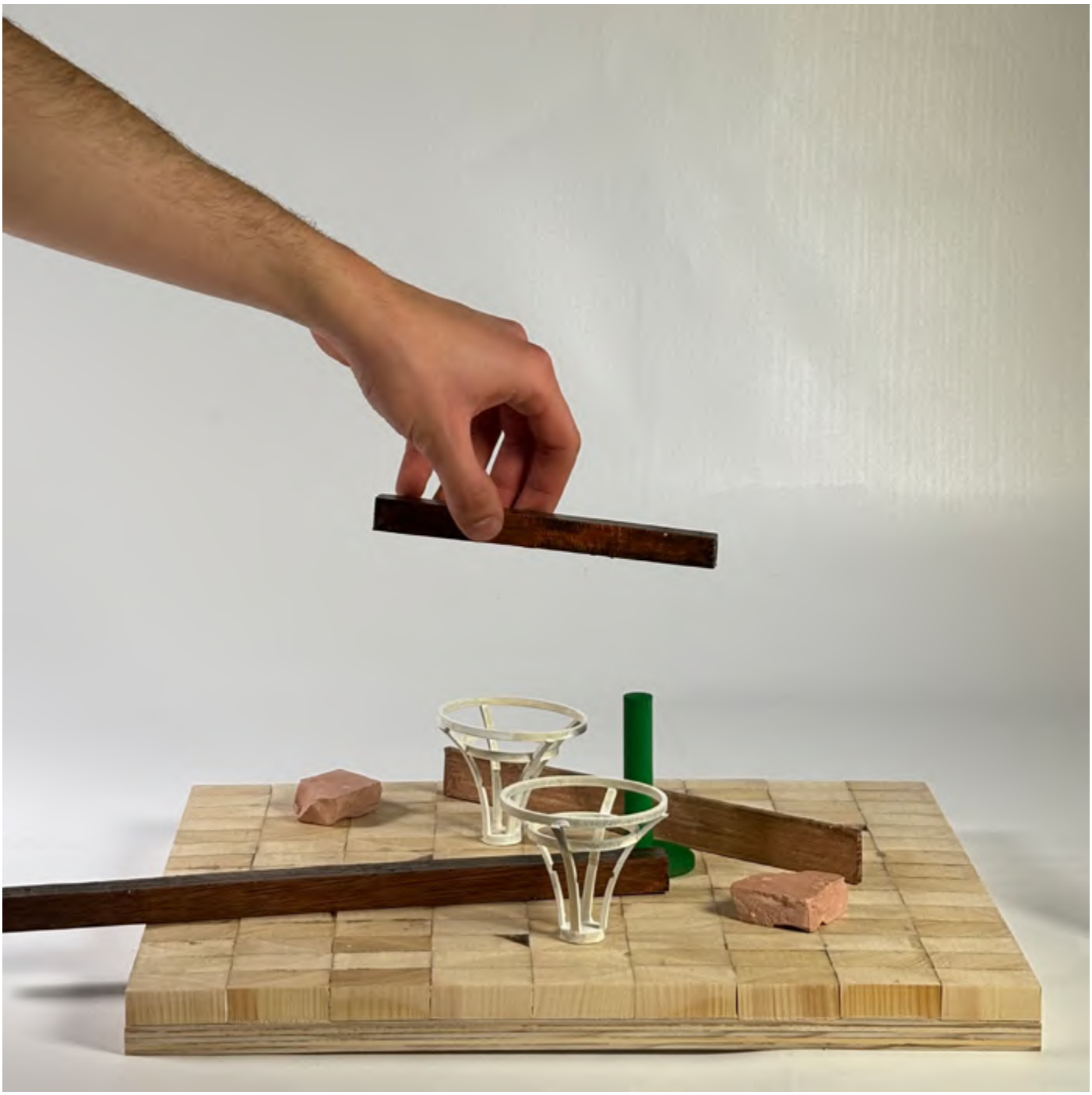
Raving is a collective experience. It is a united, active form of defiance and counter-culture. It is a safe haven offering liberty to self-expression for marginalised groups in society.

Once given a set of objects with specific meaning, whoever interacted with the model was instructed to: 'construct their ideal rave space'. The results of this study helped inform the necessary forms and spaces according to the potential visitors' needs. This was largely conceived as an effort to overcome the initial design difficulties in creating a space for all. For the model to inform the architectural development of the project, each iteration is "translated" into parti diagrams.

In this case, the designer works as a translator of experiences (the model) into spatial information (the parti diagrams). This process allows the final design to be informed by different people's needs and preferences when it comes to raving.

Relationship model:

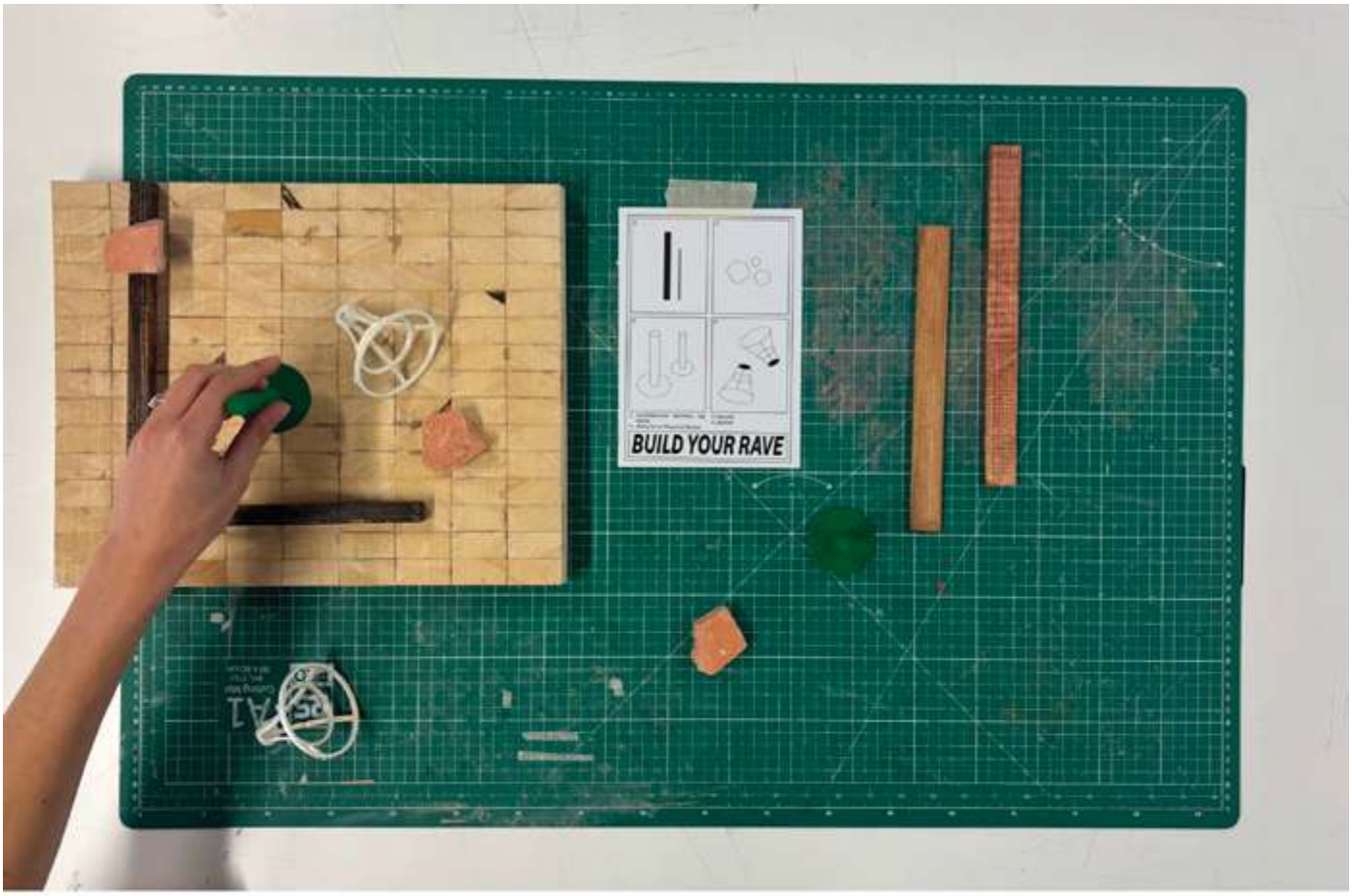
The 1:50 fragment model explores the interaction between the tall rave spaces and the ancillary, single-storey once, revealing fragments of space lying in between them. The fragments of space revealed through this model are perhaps the most important ones. Rave spaces function also through the careful design of such liminal spaces, which, in the case of this project, are both designed to direct and misdirect the flow of people.

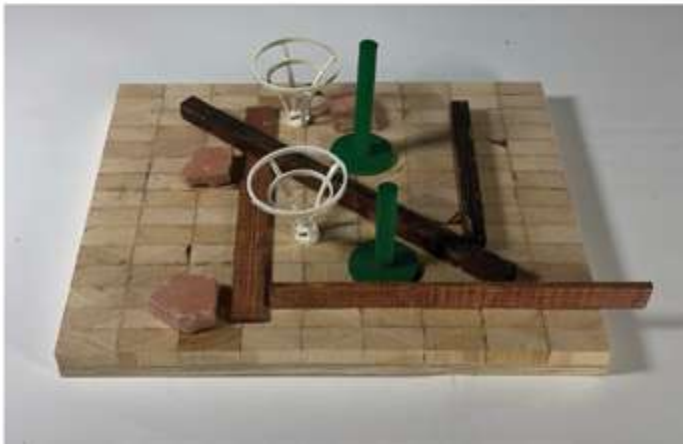


Interactive "Buil your own rave" model - Made from
150 tiles, recycled wood pieces and brick fragments

Riccardo Monti

BA(Hons) Architecture
Year 3
Some Kind of Nature





img 1 (top) - Interactive model, a raver is building their ideal space
img 2, img 3 (bottom) - Ideal rave iterations

Relationship model - 1:50 fragment model of the building, clad in corrugated card adn 3D printed car windshields acting as windows

MArch
MA A+U
MLA
GROUP PROJECTS

Zhuoqin Zhang

MA Architecture + Urbanism
Year 1
Contextual Lab

The Porous Heart: Create a High Permeability and Vitality Urban Network

The current Manchester Arndale functions as a monolithic 'Urban Dam' that obstructs natural pedestrian flows and isolates civic activity internally. To visualize the radical transformation of this inward commercial box into a permeable, climate-responsive network, my physical model employs a stark, deliberate contrast in materiality. I use dark-stained timber to represent the existing heavy urban fabric—the rigid context that currently traps activity and leaves the surrounding streets disconnected. In sharp opposition, the architectural interventions of The Porous Heart are crafted from pure white foam. This lightweight, pristine material embodies the newly introduced pedestrian lanes, allowing sunlight, fresh air, and human flow to visually slice through the dense wooden blocks.

This strategic choice of materials serves both analytical and practical purposes in the model-making process. Spatially, the crisp juxtaposition between the dark timber and white foam immediately clarifies the new, human-scale streetscapes and the direct shortcut connecting Exchange Square and Piccadilly Gardens. In practice, the high malleability of the white foam serves as an agile design tool; it allows me to iteratively carve, test, and modify spatial volumes in real time as I observe the evolving 3D relationships. By capturing the tension between the enduring historical context and the highly permeable contemporary insertions, the physical model itself becomes an active manifestation of a vibrant, well-connected urban ecosystem.

Visualizing Permeability & Urban Connectivity_ The contrast between the contextual dark wood and the white architectural inserts clarifies the design hierarchy.

Zhuoqin Zhang

MA Architecture + Urbanism
Year 1
Contextual Lab

Internal Circulation & Road Hierarchy Through physical prototyping, the internal road system is revealed as a multi-layered network that synchronizes with Manchester's street grain.

Process behind modelmaking including laser cutting, cutting, staining, labeling, gluing, transporting, and photographing

Pauline Joyce Mendoza Alviz

Master of Architecture
Year 1
&rchitecture

Barrel Haven developed from one of the core activities within &Architecture: the creation of a Prototype Performance Space (PPS). A PPS is designed to perform in a specific way, benefiting a chosen group or environment while also considering modularity, flexibility, and adaptation.

Within this project, we explored the architectural potential of uncommon materials. My investigation focused on moss, not only as a natural material, but as an active tool for ecological repair. Combining material experimentation with modular design, I developed Barrel Haven as a proposal for regenerating dry and degraded peatlands.

The project supports the process of rewetting peatlands and encouraging the growth of wet moss. Through this, Barrel Haven acts as a small-scale intervention that contributes to peatland recovery, biodiversity, and the creation of a carbon sink. Rather than treating architecture as a fixed object, the model explores how design can take part in environmental restoration.

The making process also required me to explore buoyancy and how the structure could float at a miniature scale. This involved testing lightweight materials, such as balsa wood, and considering how weight, balance, and construction methods affected the model's ability to sit on water. These practical experiments became central to translating the ecological concept into a physical architectural model.

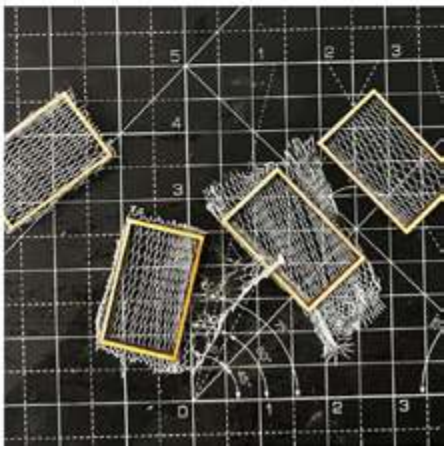
The moss cultivated through this system could then be harvested and repurposed as moss panels for architectural use. This creates a circular relationship between landscape restoration, material production, and building design. In return, the architecture supports peatland regeneration while producing a sustainable material outcome.

Overall, Barrel Haven investigates how modular systems, natural materials, and environmental restoration can work together. It proposes an architecture that supports both human use and ecological repair, while rethinking where sustainable design begins. Ultimately, the project asks: can sustainability begin before a building is even designed?

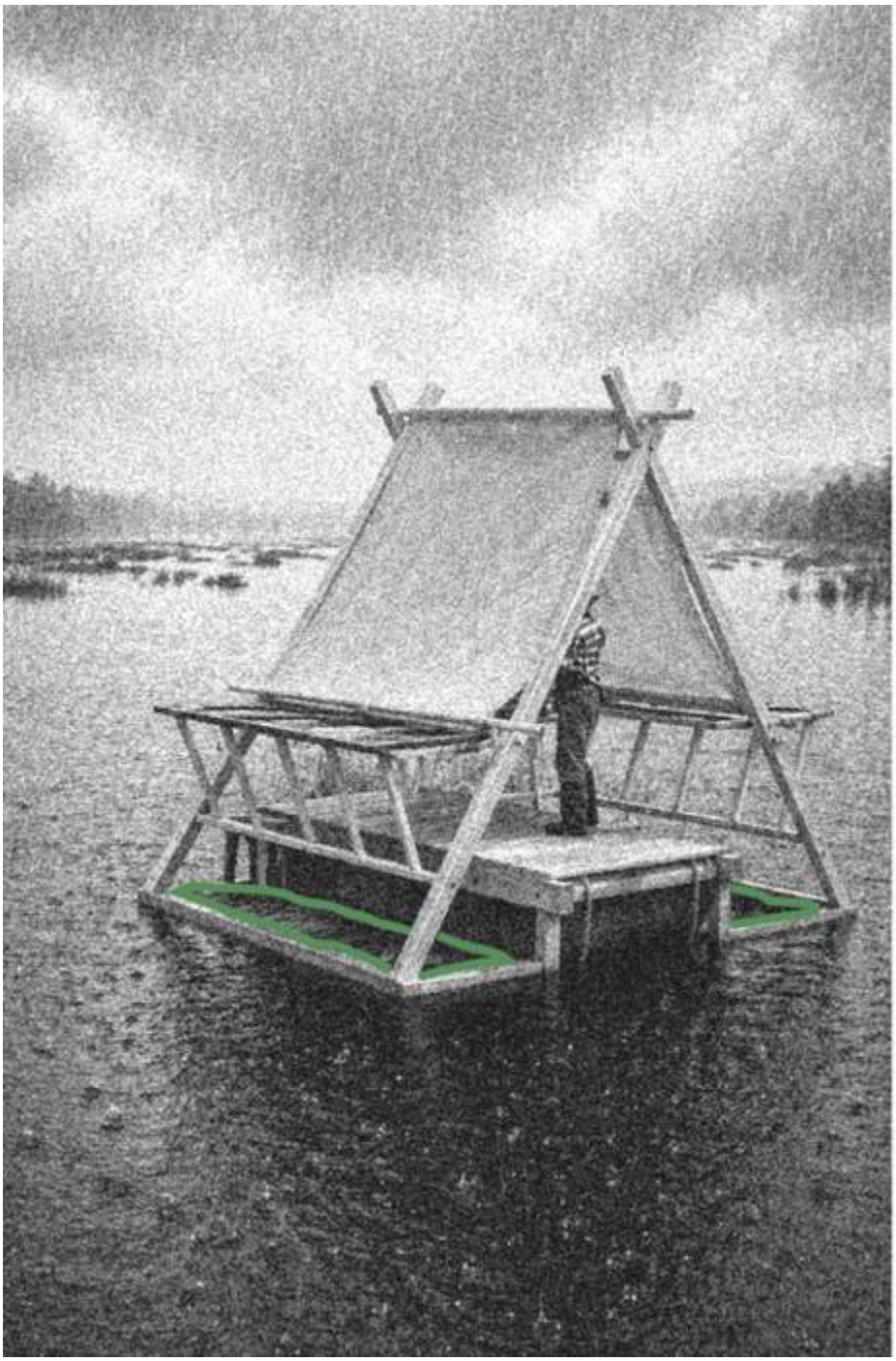
Barrel Haven is a curated architectural model developed as part of my studio project in &Architecture. The project stems from the idea of restoring peatlands through propagation, exploring how design can support ecological repair, regeneration, and long-term environmental stewardship.

Pauline Joyce Mendoza Alviz

Master of Architecture
Year 1
&rchitecture



Illustrating the process behind the model, this piece traces its development from sewing and cutting to testing materials that could float. It highlights an experimental, hands-on approach where making, trialling, and adapting became central to translating the concept of peatland restoration into a physical architectural model.

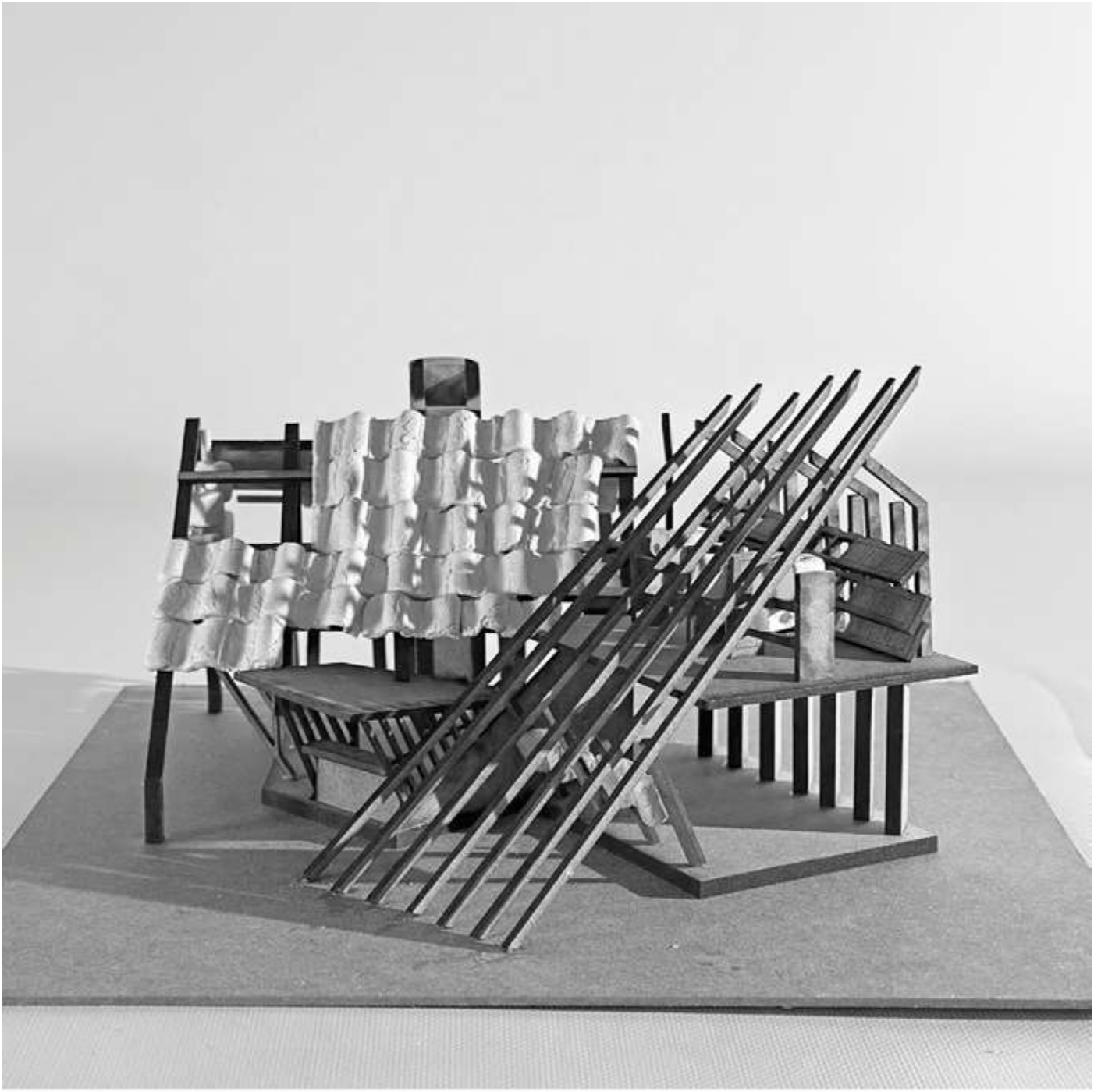


The model illustrates part of the peatland regeneration process, from rewetting to the growth of moss. Barrel Haven is intended to support this restoration while generating panels for architectural use, creating a circular relationship between ecological repair, material production, and the formation of a carbon sink.

Zareen Rahman Kareem

Master of Architecture
Year 1
&rchitecture

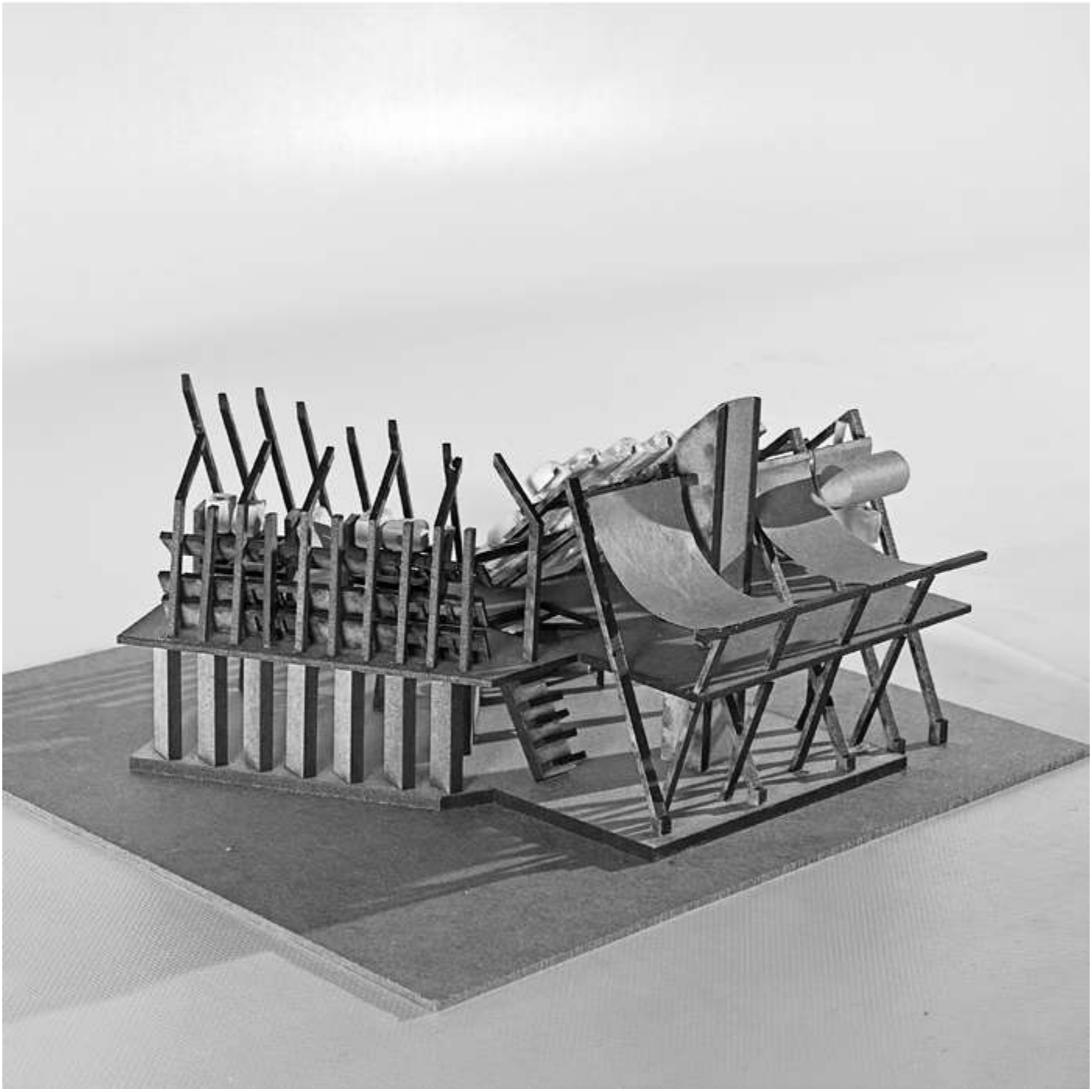
The Performance Prototype Space: A Live Material Laboratory
This model explores how architecture can become an active participant in material production rather than simply a container for activity. The project proposes a Performance Prototype Space (PPS): a live material laboratory where discarded eggshells and expired milk are collected and transformed into bio-composite construction panels using a casein-based binder.
The PPS houses the complete material cycle of processing, fabrication, testing, and display, making the production of building materials visible and accessible. Waste is received, sorted, transformed into panel components, manufactured on-site, tested under real environmental conditions, and ultimately applied back onto the building itself. In this way, the architecture functions simultaneously as workshop, research facility, exhibition space, and proof of concept.
Modelmaking was used as a primary design tool throughout the project. The physical model allowed spatial relationships between the different stages of production to be tested and refined, ensuring that the movement of materials, people, and knowledge remained visible throughout the building. Particular attention was given to how fabrication spaces connect with testing areas and how completed panels become part of the architectural envelope.
The sloping façade was developed through the model as both an environmental device and a testing surface. Newly produced eggshell–casein panels are displayed and exposed to weather conditions, allowing their performance, ageing, and durability to be observed over time. This transforms the building into a full-scale material experiment where research continues after construction.
The model was fabricated using laser-cut MDF, layered card, and hand-crafted clay components representing the panel system. The eggshell façade modules were individually assembled to communicate the repetitive logic of production and installation. Through making, the model became a way to explore structure, materiality, environmental performance, and programme simultaneously.
The project ultimately investigates how local waste streams can be transformed into architectural resources, using modelmaking to develop and communicate a building that produces, tests, and exhibits its own materials.



Front view showing the eggshell-casein bio-composite façade. Panels produced within the building are applied directly to the envelope, transforming the architecture into a visible demonstration of the material production process.

Zareen Rahman Kareem

Master of Architecture
Year 1
&rchitecture



Rear view revealing the structural framework and internal production spaces. The model explores how processing, fabrication, testing, and display activities are organised within a single architectural system.

Side view showing the panels testing façade where newly produced eggshell-casein panels are exposed to environmental conditions, allowing weathering, durability, and performance to be monitored over time.

Taras Mandziuk

Master of Architecture
Year 2
&rchitecture

These 1:1 scale tile relief models formed an integral element of the research for my thesis concerning the reinvigoration of ornamentation and architectural identity in the modern city. Taking the African wax printed fabrics found in the ABC Wax Archive at the Whitworth Art Gallery as source material, the purpose of these experimental models was to understand how 2D fabric patterns could be transformed into a 3D architectural materiality.

In order to do this, I first selected a sample of textiles that displayed distinctly different traits. I then isolated each element of their design to understand the heirarchy, splitting them on to different levels. Using these component elements, I then laser cut grey board to create each layer. I then experimented with their arrangements before gluing the layers to create moulds which could be cast with jesmonite with pigment added to match the traditional red brick colouration of Manchester. Once released from the moulds, the final models could be assessed as to whether the original character of the fabric had been successfully transferred.

The objectives and outcomes of this modelling exercise were two fold. Firstly, it enabled me to form a methodology for understanding fabrics as a source material from which to derive a new materiality that is specific to a local area. Secondly, through attempting to cross the African wax printed fabrics (which were mass manufactured in Manchester in the 20th Century and sold to West African nations) with the familiar red brick of Manchester at 1:1 scale, I aimed to create a new material typology that can trace its roots to Manchester's industrial and colonial heritage.

The four experimental tiles together, demonstrating that despite the varying designs and applications of the fabrics, the consistent application of materiality creates a similarity between them.

Taras Mandziuk

Master of Architecture
Year 2
&rchitecture

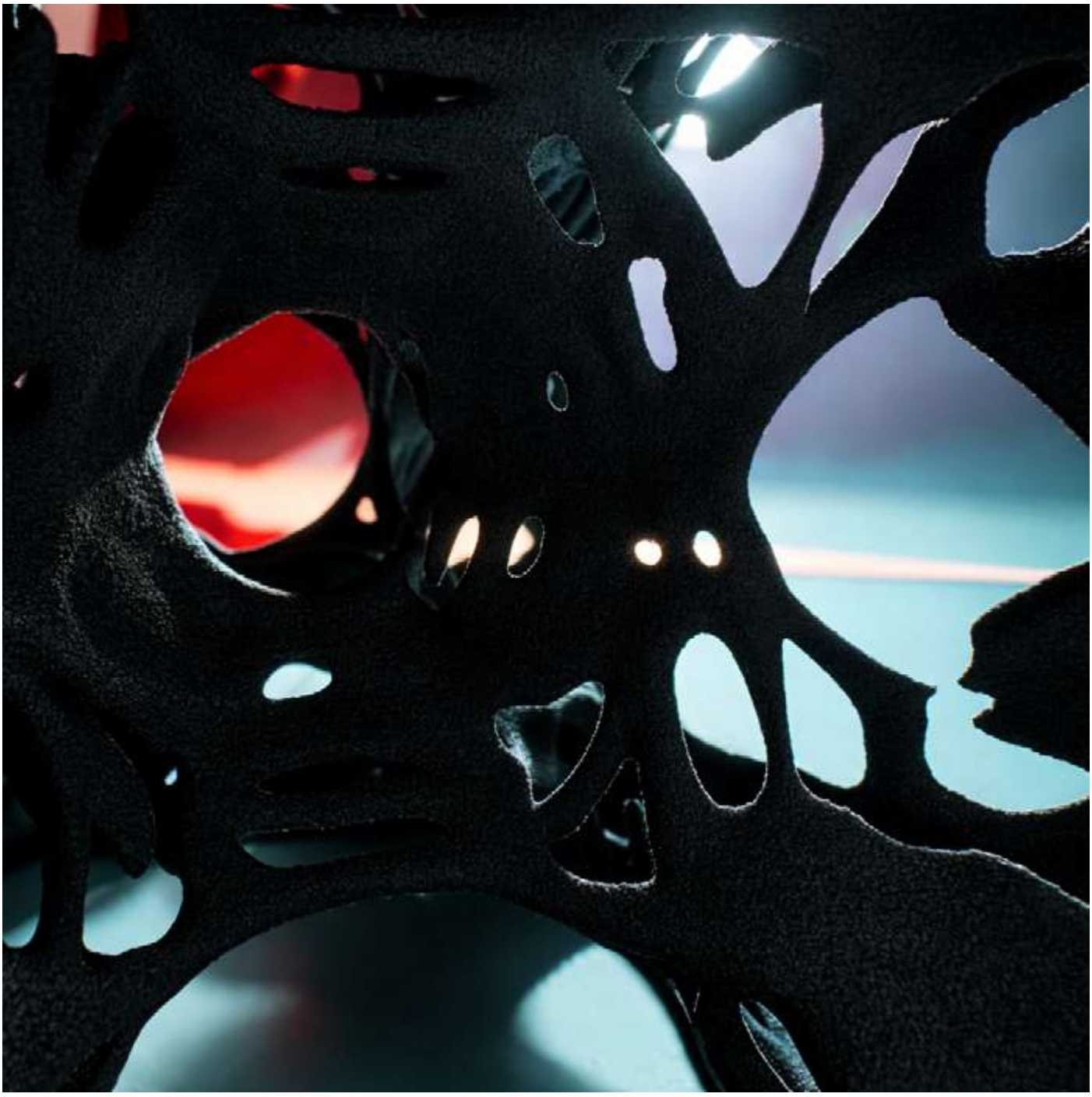
To create each model, the source fabrics were first exploded and separated into layers. These individual layers were then arranged in varying ways to achieve different effects in the final tiles.

The final set of tiles suggests that certain fabric designs are better suited for different applications. For example the larger, non-tessellating designs work well as large format tiles such as these, however smaller tessellating patterns would perhaps be more effective with each element applied to a single, smaller tile.

Macie Jackson

Master of Architecture
Year 1
Architect as Researcher: Formation

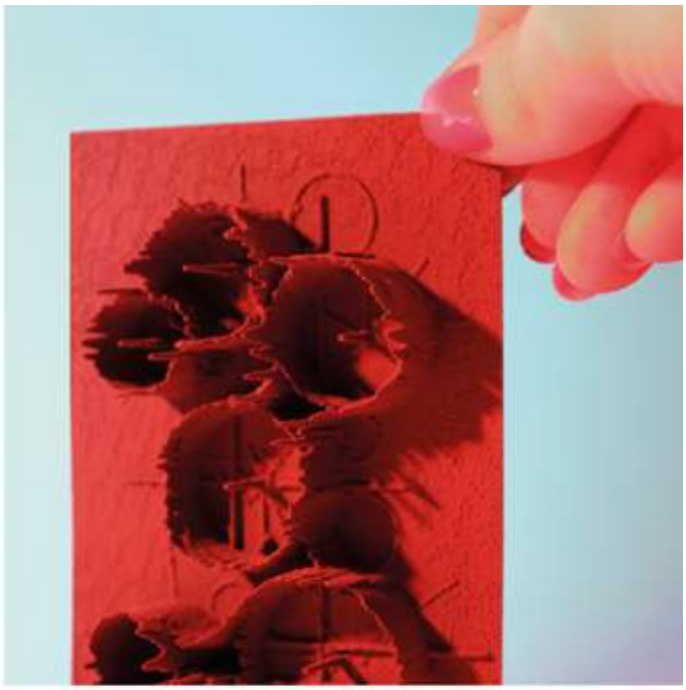
This project placed modelmaking at the centre of an investigation into how architectural ideas move between abstraction and physical realisation. More fundamentally, the discourse explored how design thinking itself is formed and shaped by the tools and materials through which it passes.
The models were not simply representations of form. They were conceived as physical manifestations of cognitive design processes; attempts to give material presence to the way ideas form and reform in the mind. Each artefact sought to capture the non-linear quality of design thought: the simultaneous push and pull between problem and response, between the known and the unknown. Central to this was co-evolutionary theory (the understanding that problem and solution do not develop sequentially, but evolve together, each continuously redefining the other).
The models were built to embody this dynamic, structured around duality: order and disorder, rigidity and flexibility, the digital and the physical, the intended and the discovered.
Two 3D printing technologies were employed: Fused Filament Fabrication and powder-based printing. Each method introduced distinct material logics that shaped how form was understood and developed.
But it was the feedback loop created by each physical artefact that proved most generative. Every model revealed something that the screen could not (a structural fragility, an unexpected spatial relationship etc.). These discoveries did not simply inform the next digital iteration, but instead destabilised it, forcing a genuine renegotiation between intention and material reality.
This loop became the core of the hybrid methodology. Rather than moving linearly from digital model to physical output, the process folded back on itself repeatedly. Each artefact acted as an active driver; something that resisted and held the physical and digital in constant dialogue. In this way, the making process itself enacted co-evolutionary thinking, with each cycle deepening the complexity and coherence of the design.
The project ultimately argues that hybrid modelmaking can expose and enrich the cognitive dynamics through which architecture is truly imagined.

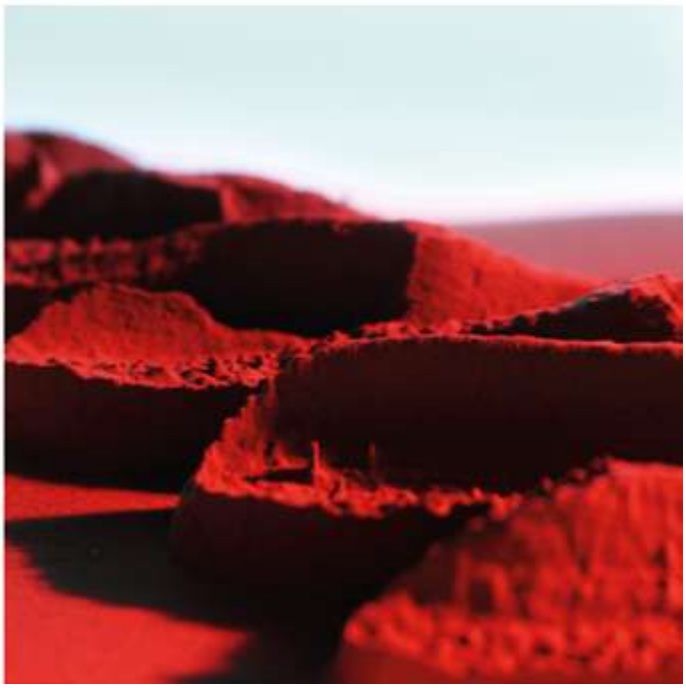


Powder print prototype later nicknamed 'alien cube', exploring the dual relationship between abstraction and realisation.

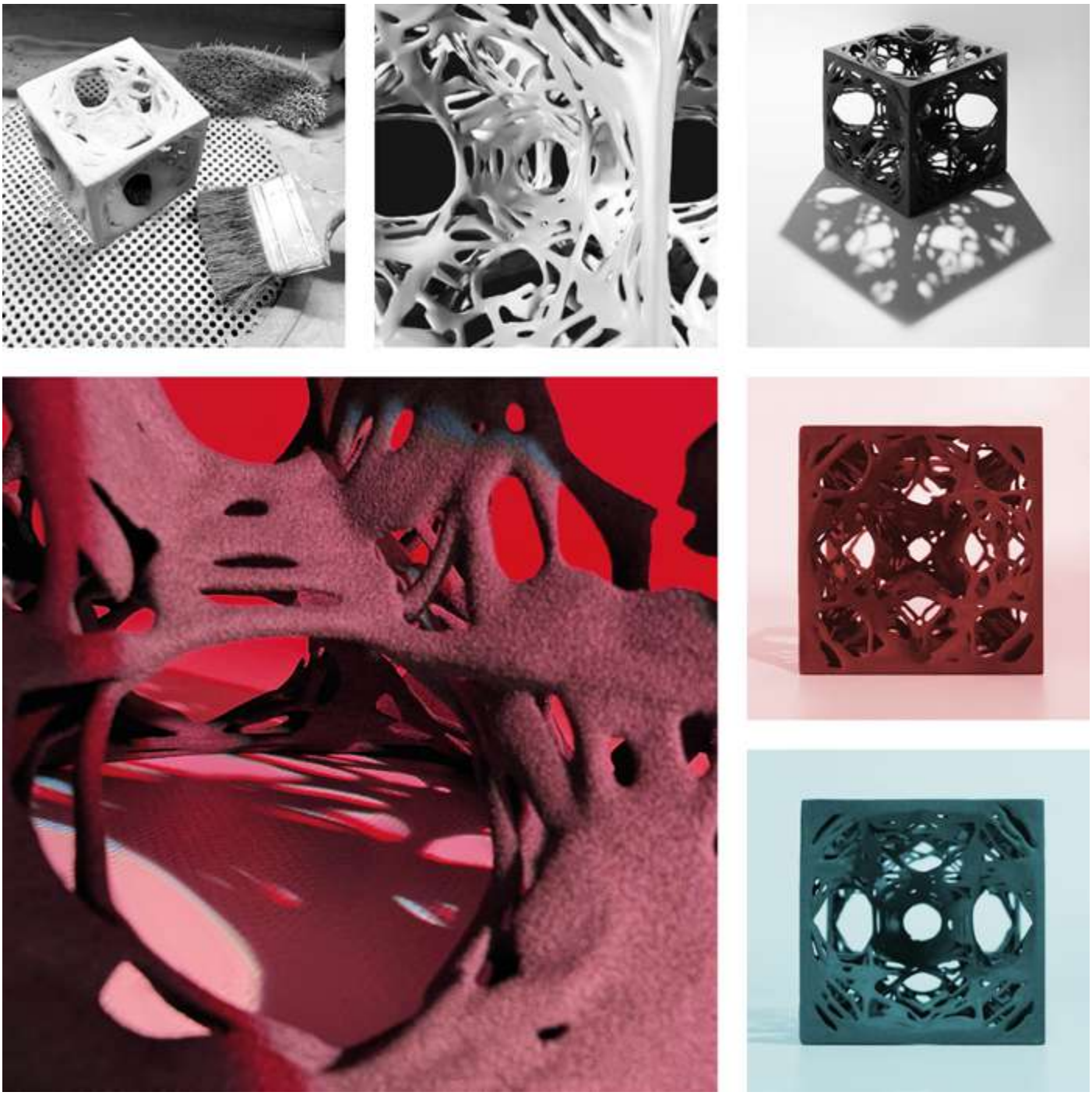
Macie Jackson

Master of Architecture
Year 1
Architect as Researcher: Formation





A series of physical artefacts produced through hybrid methods including lithophane techniques, Grasshopper, FFF and powder printing. Each captures a different stage in the co-evolution of problem and response. Rather than endpoints, these prototypes functioned as active feedback mechanisms, where every material encounter redirected and deepened the design inquiry.



Powder print prototype created using word-prompt model generation, inspired by early visualisations inside a designers mind when they are in the 'solution-space' (as depicted by co-evolutionary design theory).

Zena Abu Shuqair

Master of Architecture
Year 1
Architect as Researcher: Formation

This research investigates light as an environmental driver in the development of biomimetic architectural surface systems. This study is situated within theories of performative architecture, particularly concepts of environmental responsiveness, computational morphogenesis and biomimicry. Drawing conceptual grounding from biological models of selective permeability, including cellular membranes and plant based light regulation, the research explores how principles of adaptive surface behaviour can inform the prospective trajectory of architectural design.

Rather than approaching biomimicry as formal resemblance, the project adopts a behaviour-driven methodology. A set of controlled design experiments was structured to isolate and test specific variables related to porosity, gradient differentiation and spatial modulation. Surface systems were evaluated through iterative comparison, analysing how shifts in geometric distribution influence light diffusion, transmission and spatial perception.

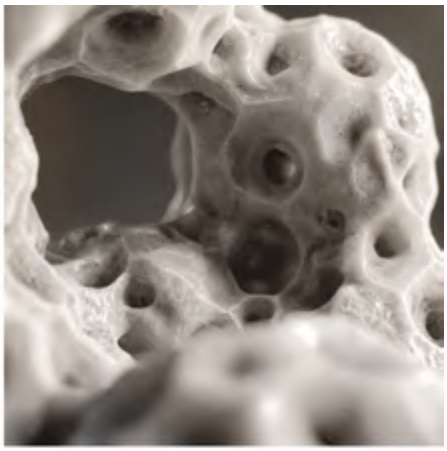
The research operates as a practice-based inquiry: computational modelling functions as an investigative tool to simulate environmental performance and test hypotheses regarding adaptive envelope systems. Through systematic variation, iterative prototyping and reflective analysis, the study aims to establish a methodological framework for translating biological principles into performative architectural systems, contributing to ongoing discourse on adaptive, environmentally responsive design. These findings will help explore the capacity of architectural improvements in the field, whether through construction and material adaptability, sustainable approaches, or optimised fabrication techniques.

Inspired by the work of Achim Menges, I have explored systematic variation across base geometries through controlled iterative experiments on aperture size, density and gradient behaviours. Attractor-driven scripts and non-linear mappings will test how light diffusion and intensity shift under different biomimetic logics, moving toward performance-driven surface systems.

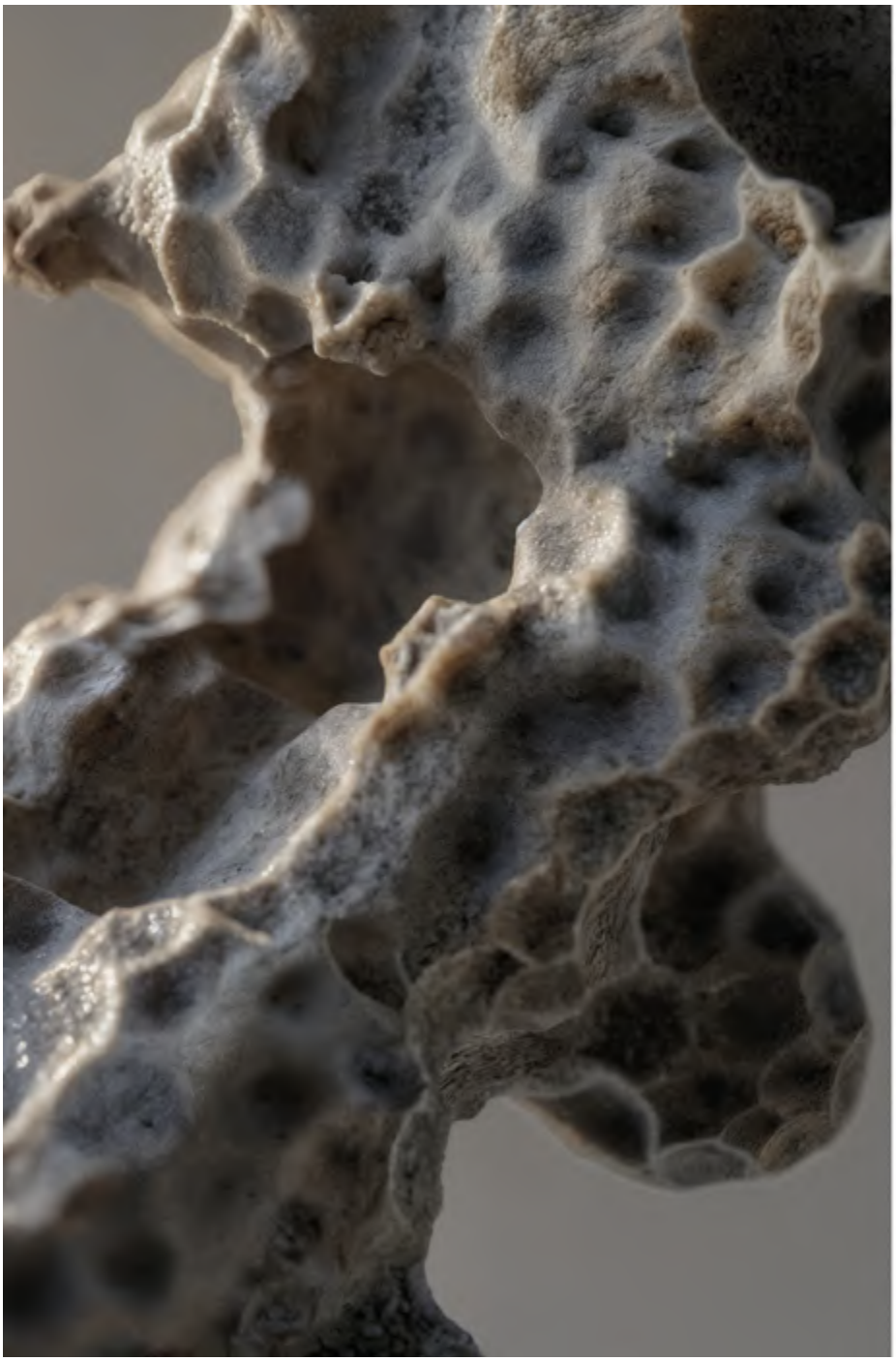
Scalable Biomimetics: Density Formation Growth
Towards Light

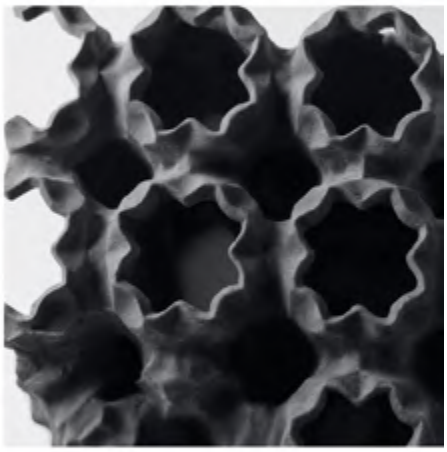
Zena Abu Shuqair

Master of Architecture
Year 1
Architect as Researcher: Formation



Gradient-Driven Morphogenesis: Correlating Density and Protrusion to Light Attractors





Gradient-Responsive Tectonics: Variations of Density and Porosity

Abhishek Sethi

Master of Architecture
Year 1
Continuity

This project explores the adaptive reuse of a modernist corner building located within the town centre of Crewe. The proposal investigates how contemporary interventions can soften and reinterpret the rigid geometry of the existing structure while maintaining its urban identity. Introducing a curved glazed façade became a key design move, creating a sense of openness and visibility while contrasting the strong linear form of the original building. Due to its prominent location within the town centre, the building naturally became a focal point within the streetscape, encouraging the design to engage directly with public life and movement.

Physical model making played a fundamental role in developing and resolving the design. Through the process of constructing the model, I was able to test façade proportions, opening sizes, and material relationships in a far more realistic and spatially informed way than through digital modelling alone. The model helped refine the scale and rhythm of the elevations, particularly in relation to the neighbouring context. Brick became a central material language within the proposal, responding to Crewe's industrial and architectural character while grounding the contemporary intervention within local memory and identity.

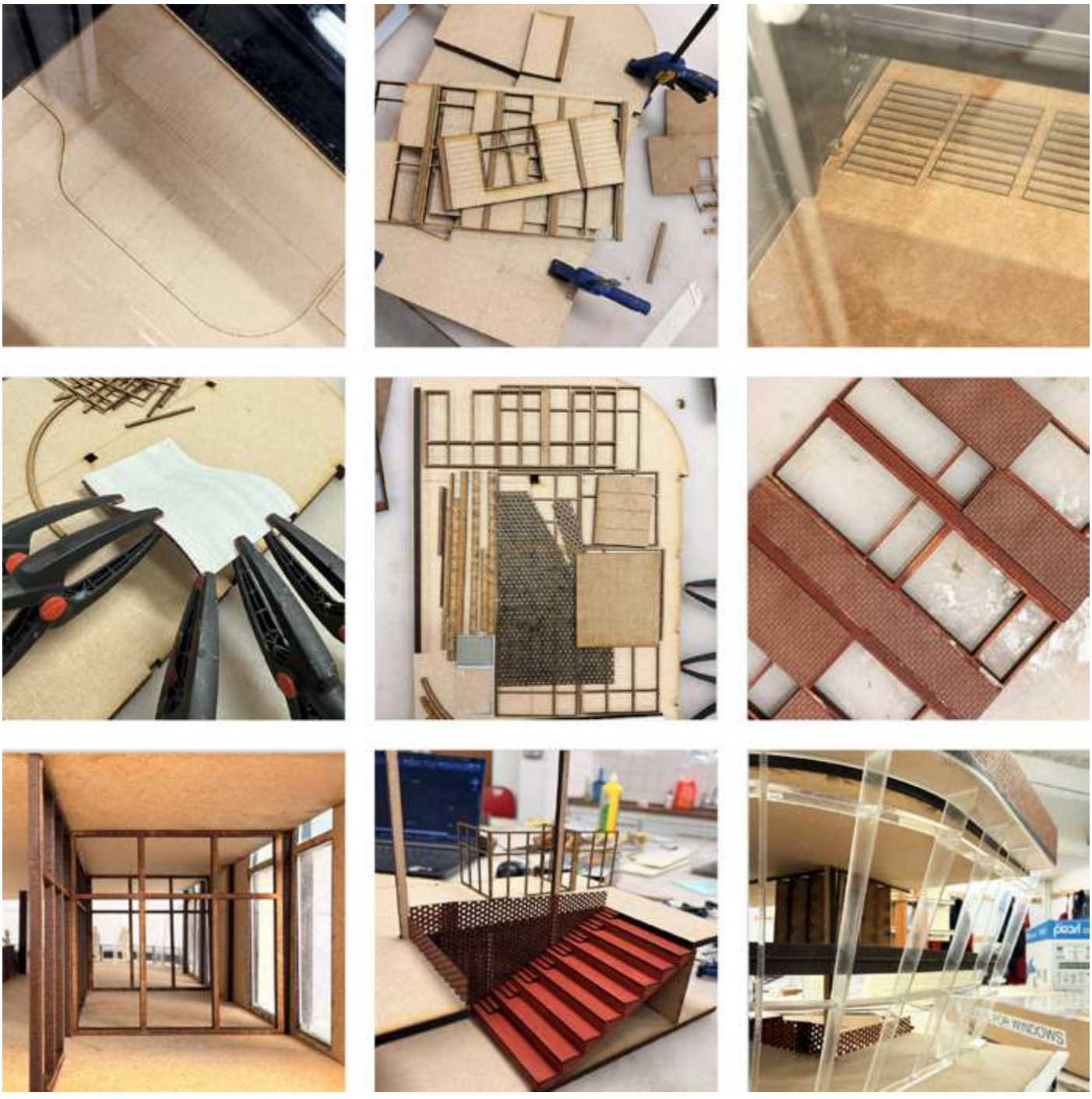
The making process also became an exploration of materiality and craft. Different methods of staining, painting, and layering materials were used to communicate texture and depth, combined with transparent acrylic panels to represent glazing and openness. Precision was achieved through carefully developed drawings, iterative testing, and repeated fabrication. A major learning outcome from the project was understanding how curved forms and façade systems behave in reality compared to their simplicity in digital software. Constructing the curved glazing and sectional components revealed the complexity of translating architecture from screen to physical form. Ultimately, the model became more than a representational object; it acted as a design tool that made the proposal more resolved, buildable, and materially grounded.

Perspective model view showing the adaptive reuse proposal with a curved glazed façade, layered material palette, and activated public terrace.

Abhishek Sethi

Master of Architecture
Year 1
Continuity

Sectional view illustrating internal spatial relationships, vertical circulation, and visual connectivity between public and communal spaces.



The model making stages

Isobel Mobbs

Master of Architecture
Year 1
Continuity

This project reintroduces the Mechanic's Institute to Crewe, creating a space where the town's industrial heritage can be reconnected with its future development. The proposal establishes a community hub that celebrates Crewe's longstanding relationship with the mechanical industry, providing a place for learning, teaching, and socialising. Through minimal intervention, the design seeks to retain and enhance the value of the existing building, revealing its heritage significance through narrative-driven facade panelling and sensitive adaptation.

The model-making process was used as a key development tool throughout the design process. By constructing a 1:20 scale model, I developed a clear spatial understanding of each component within the proposal and gained first-hand insight into the critical junctions between the existing and proposed elements. As no modifications were made to simplify the model-making process, the construction of the model provided a rigorous test of the proposal's structural integrity and buildability.

The model was produced through a series of fabrication stages. The process began with the creation of a 3D SketchUp model, which was used to understand the scale and arrangement of each component. This was then translated into a 2D AutoCAD file for laser cutting. Once the individual pieces had been cut, the structural frame was assembled by constructing and gluing each beam and column from multiple components before joining them together to form the primary structure. The frame was then spray-painted using layers of grey, white, and black to replicate the appearance and texture of concrete. External brickwork, internal walls, and window elements were subsequently installed to represent the material palette of the proposal. Layers of MDF were assembled with a cavity and filled with wool to demonstrate the wall insulation strategy, while the laser-cut facade panels and doors were fitted in varying positions to express the intended adaptability of the façade system. Internal floors, partition walls, and the layered plywood roof structure were then added to complete the model.

The physical section model was produced to investigate and communicate key aspects of the design. It enabled an assessment of the proposal's structural performance, demonstrating the load-bearing relationships between the columns, walls, and trusses. The model also explored the project's material qualities, with the delicate facade panels contrasting against the more robust concrete frame and brick cladding to reinforce the intended architectural expression.

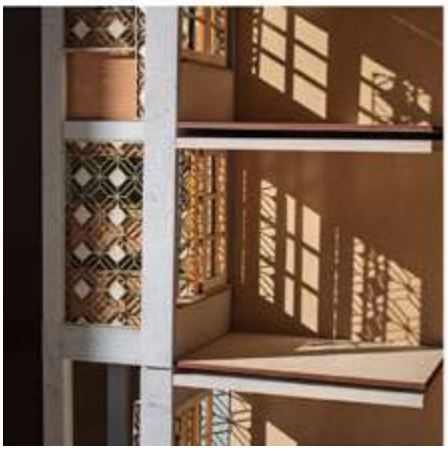
Final 1:20 Section Model

Isobel Mobbs

Master of Architecture
Year 1
Continuity

Final Materiality Close-Ups



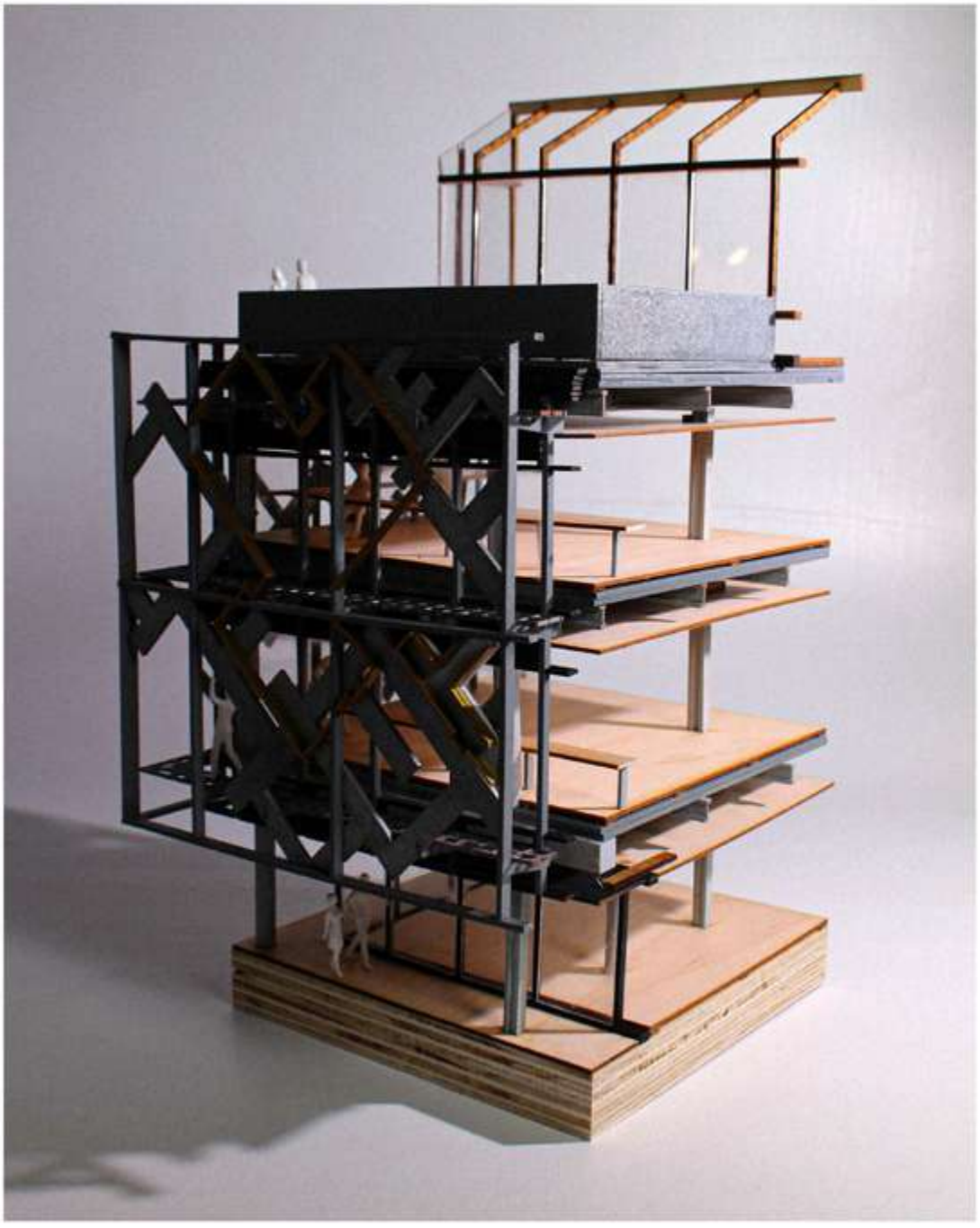



Detail and Internal Zoom-Ins

Munir Hussein

Master of Architecture
Year 1
Continuity, Design Resolutin

This is 1:50 section model developed as a part of the process to depict the vital components proposed to an existing building on the adaptive reuse project that I am current working on Continuity Atelier.
The emphasis on my design proposal is to re-imagine a modernist architecture into more contemporary building that align with other pipeline projects in the regeneration plan of Crewe while adhering to the core principles of architecture of ensuring the building is sustainable, durable, functional and most importantly is aesthetically pleasing.
The building façade is influenced by the history of the Crewe, as during WW2, trenches and shelters were built around the town to protect people from Air raid bombings. Therefore, I used the maps to trace all the tranches around the town, and I manipulated the shapes of the trenches to develop an outer façade of the double skin façade.
I manipulated the facade for solar shading and provided a catwalk between the outer façade and the curtainwall of 800mm for maintenance and safety. Furthermore, I created louvres on the spandrel which in the inside contains Acoustic attenuator, which reduces sound waves transmission through the air without severely restricting airflow and operable damper that regulate airflow.
In my model I tried as much as I can to use the same materials of the building and mimic the ones which might be technically impossible to include and adding a lot of details. For instance, for Wood I used Basal woods MDF and other while for Steel, Aluminium I used paint to imitate the colour of it.
Materials I mainly used are MDF, Plywood and clear acrylic and I prepared a file in an interlocking system to enable the easy fixing and convenient flow of the making. It was a great experience; throughout the process I enjoyed and learned a lot especially if you I will ever want to include a lot of details into my models at least 1:20 model of would be quite an ideal as I struggle with tiny components to put together.

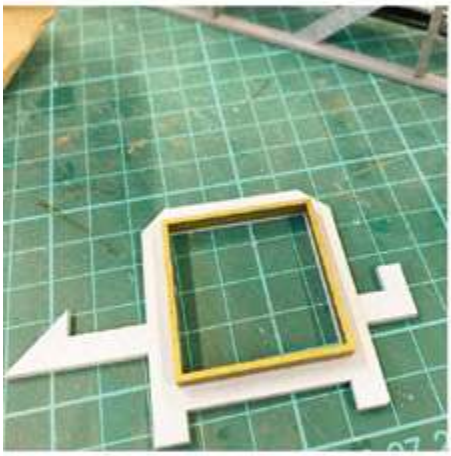


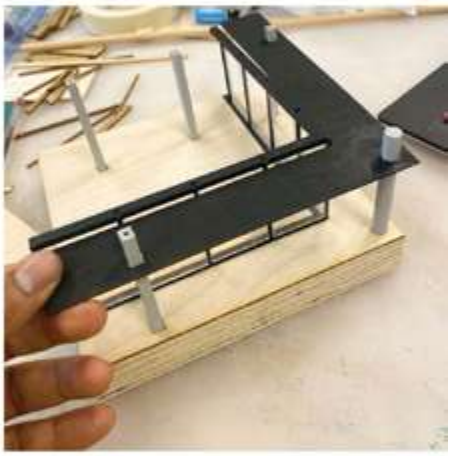
1:50 Section Model

Munir Hussein

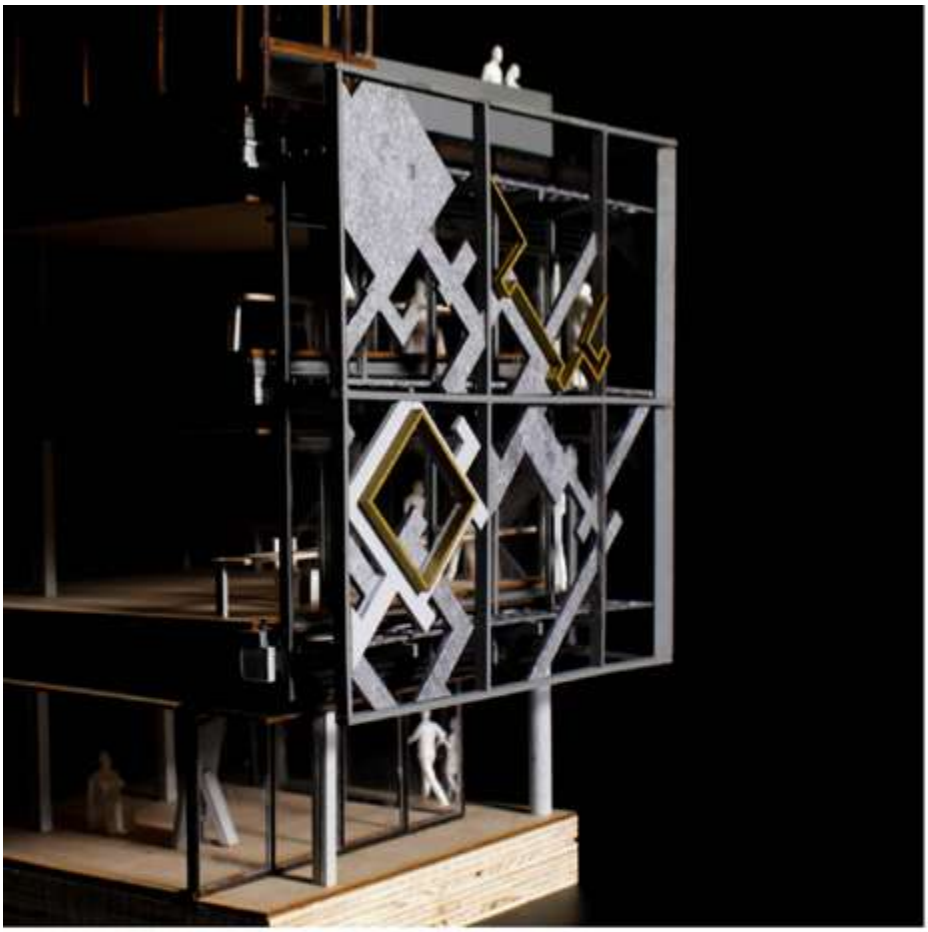
Master of Architecture
Year 1
Continuity, Design Resolutin

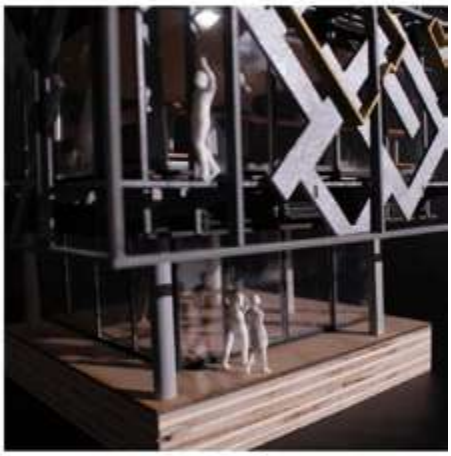





Model Making process





Perspectives and detail

Finley Hartless

Master of Architecture
Year 2
Continuity

Made to Matter is a proposal for Crewe that asks how a town built through making can recover that identity within its centre. The project reimagines the high street not as a place of passive consumption, but as a productive civic landscape where people can make, repair, learn, display and sell again.

This 1:50 sectional façade model explores the workshop building as both construction and argument. It focuses on the point where structure, material, services and public expression meet. The façade is cast in different tones of Jesmonite to distinguish the material layers of the proposal, from brick and pigmented panels to heavier concrete elements. These coloured casts are not only representational. They test how the building might carry the memory of reclaimed material, with surface imprints suggesting aggregate, reuse and the marks of making.

The casting process deliberately mirrors the project's wider ambition. Rather than using silicone moulds, the panels were formed in laser-cut greyboard moulds, carefully hand-assembled to reduce waste and give more control over variation, texture and imperfection. Each cast became a small act of remaking, turning a temporary, fragile mould into a permanent architectural surface.

Internally, laser-cut pine forms the floor and roof structure, revealing the warm tectonic frame behind the heavier façade. Rooflights, imprinted walls and exposed structural rhythm show how the workshop is intended to be both practical and inspiring, a place where making is visible and valued. Externally, 3D printed ventilation pipes sit between cast panels, hiding seams while making the building's servicing legible as part of its expression.

The model brings together casting, laser cutting, 3D printing, hand cutting, painting and assembly. In doing so, it becomes more than a final representation of the project. It is a physical continuation of the thesis itself, exploring how architecture can make matter visible again through craft, care and construction.

The façade model explores how the workshop expresses making to the street. Differently coloured Jesmonite casts represent the building's brick, pigmented and concrete elements, while 3D printed ventilation pipes conceal panel seams and turn servicing into part of the architectural language rather than hidden technical clutter.

Finley Hartless

Master of Architecture
Year 2
Continuity

The sectional view reveals the building's internal logic. Laser-cut pine forms the floor and roof structure, contrasting with the heavier cast façade. Rooflights, exposed structure and imprinted internal walls communicate a workshop environment that is robust, well crafted and atmospheric, designed to support making while making construction visible.

The touchstone was an early cast study for the project, exploring interaction, tactility and material presence. Made from a hand-assembled laser-cut greyboard mould, it was cast as a single Jesmonite block. A smaller 3D printed and painted iteration tested scale, while internal lighting explored user activation.

Luke Ferguson

Master of Architecture
Year 2
Continuity

My thesis mobilised the heritage of Crewe Works to provide an adaptable theatre, where the manufacturing of set pieces is a performance equal to theatre. I thoroughly interrogated historic imagery and technical drawings of the works to derive a place-specific tectonic language. The lost chimneys of the steel foundries, now demolished, once pierced the skyline. Brick buttressing held the overhead cranes which lined the erection shops.
These towers reinterpreted each of these elements in a contemporary way; the monolithic brick columns lined the two theatre halls serving as the primary structure, tiered to hold overhead crane runners and serving as natural ventilation stacks.
The tectonic resolution of these towers was explored through a 1:25 model during the refinement phase of the project, where decisions needed to be finalised. Modelling these details at this scale allowed me to test buildups and the connections between elements, crafting the model to the manufacturing constraints of the physical material, for example, CLT panel widths and brick dimensions.
This model was key in communicating the tectonic collage, the connection of the two adjacent halls either side of the towers, and the adaptability of the space.
The towers were constructed from laser cutting 4mm MDF interlocking sheets. At 1:25, the 4mm sheets perfectly represented the real 102.5mm header coarse of reclaimed bricks used to construct the towers. The use of sheet material reduced the weight of the towers, and the interlock of the brick increased the strength. Powder printed elements reflect precast concrete, used for the plinths of the towers and the structural diaphragms, tying the 4 columns of the towers together to resist the live loads of the overhead cranes.
The roof structures were assembled using laser cut MDF to ensure precision and alignments of critical angles. The cantilevered roof and floors were pinned in place using piano wire and two-part epoxy to ensure rigid connections. Materials Used Include: Plywood, MDF, 3d Powder Print, Grey Board, Coloured Card & Piano Wire.

1:25 Tectonic Model.

Luke Ferguson

Master of Architecture
Year 2
Continuity








Process. The MDF brick panels were laser cut, sanded, cleaned then painted with a wash of acrylic. Two sets of bifold doors were crafted to demonstrate permeability, connection and flexibility of the spaces. The main hall's dual pitched roof and secondary hall's saw tooth roof demonstrates the collage of tectonics.

The finished model alongside populated images. Physical cutouts of people were placed in throughout the model – like those used in set designers' models. These images were overlayed in photoshop to demonstrate varied uses and activity. They show the connection between halls and visibility of the workshop from the circulation.

Tianyu Zheng

Master of Architecture
Year 2
Continuity

This innovative co-living model addresses the UK North's defining challenge: retaining young talent. By catering to young professionals, the design successfully responds to their core requirements: affordability, social connectivity, and spatial flexibility. Throughout development, physical model-making acted as a critical, iterative driver, spanning from 1:1000 masterplan explorations to 1:25 tectonic bay studies in a continuous loop of "design–make–iteration".

Initially, a 250mm cube 'touchstone' conceptual model verified the scheme's massing against Crewe's urban fabric. It became a vessel for rapid experimentation, testing cable floor structures and synthesising local "strange details" into modern aesthetics. This phase also included material tests, utilising Jesmonite to simulate recycled brick aggregate within bespoke concrete and terrazzo mixes.

Subsequently, a 1:75 structural model was fabricated. Utilising laser-cut plywood and greyboard scaled to realistic floor thicknesses, simulated a low-carbon concrete-CLT hybrid floor system. Constructing this primary framework allowed me to test varying volumetric setbacks, which dynamically contributed to the final façade design.

Finally, building upon previous models, a detailed 1:25 bay study model was produced. This model physically manifests the project's core architectural narrative: the tectonic dialogue between heavy and light. By using a bandsaw, I handcrafted the primary elements to intuitively explore CLT manufacturing and assembly logic. Colour and intricate decorations were precisely reproduced via laser cutting and 3D printing. With the integration of its immediate living context, the final model functions as a vibrant tectonic stage, vividly projecting the scheme's social ambition and architectural vision.

1:25 Bay Study Model

Tianyu Zheng

Master of Architecture
Year 2
Continuity

1:25 Bay Study Model Details

Touchestone Model (Top Left) / 1:75 Structure Model (Top Right) / Strange Detail Model (Bottom Left) / Strange Detail Model (Bottom Right)

Xueying Huang

Master of Architecture
Year 2
Continuity

My project Under One Roof reimagines community care in Crewe town centre in response to the UK's shift toward preventative, locally responsive, and multidisciplinary models of healthcare. By integrating clinical services with spaces for social interaction, rehabilitation, community wellbeing, and everyday engagement with nature, the proposal positions care as an everyday civic resource rather than a specialised destination. Central to the project is the idea of architecture mediating relationships between people, landscape, and healthcare through a single overarching roof that brings together diverse forms of care within a shared environment. With this vision in mind, models became a conceptual anchor throughout the design process, from the Touchstone model family to the final 1:100 corner model presented in this submission.

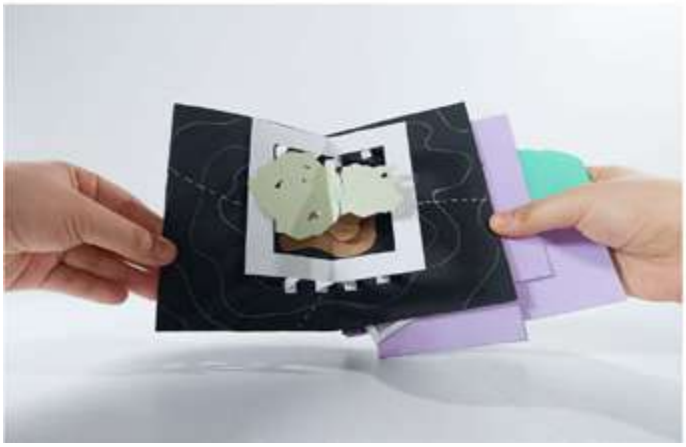
The Touchstone model family explored the idea of containing nature within a man-made structure through a series of focused investigations. The first model examined the early design development sketch that imagined the landscape near the site continuing into the building and mediating a transition between public and private gardens. Through the process of making, the initial concept of "bringing nature into the building" evolved into a more precise exploration of how architecture can frame, contain, and coexist with nature. In response, a second Touchstone model condensed this idea into a more focused spatial moment. Zooming into the cubic framework introduced in the first model, the architectural block was no longer treated as an abstract frame, but articulated through roofs, thresholds, and walkways, clarifying the relationship in which nature remains external to the building while still being enclosed within its architectural boundaries. A pop-up book version of the second model was also produced, reflecting the project's emphasis on craft and tectonic expression.

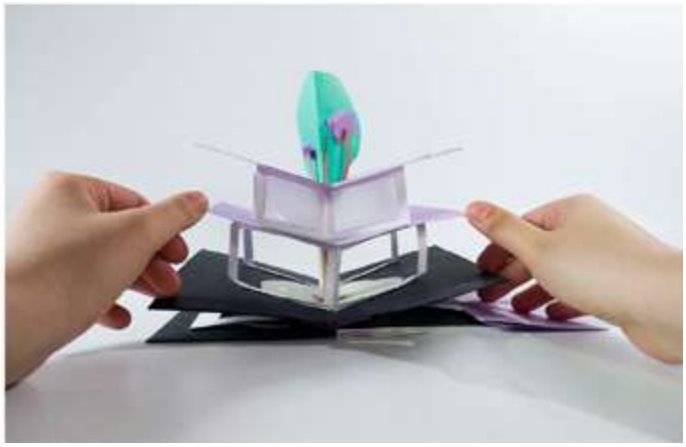
The final 1:100 corner model translates these conceptual investigations into a tectonic and structural proposition. Developed alongside the project's structural strategy of a solid base, lightweight pods, and a unified roof, the model explores how architecture can support a continuous relationship between care, community, and nature. The corner model focuses on the threshold between controlled and wild forms of nature: a continuous cast Jesmonite wall defines and shelters the inhabitable environment, while a clear acrylic façade maintains visual permeability and connection to the surrounding landscape. Layered Jesmonite elements were hand-cast and assembled to reinterpret the material qualities of tamped concrete, foregrounding processes of making and material experimentation. In contrast, the "wild" landscape was crafted through hand-cut paper elements, emphasising the tactile distinction between constructed order and organic growth.

Elevation view of the 1:100 corner study model demonstrating the structural framework and its connection to interior and exterior nature.

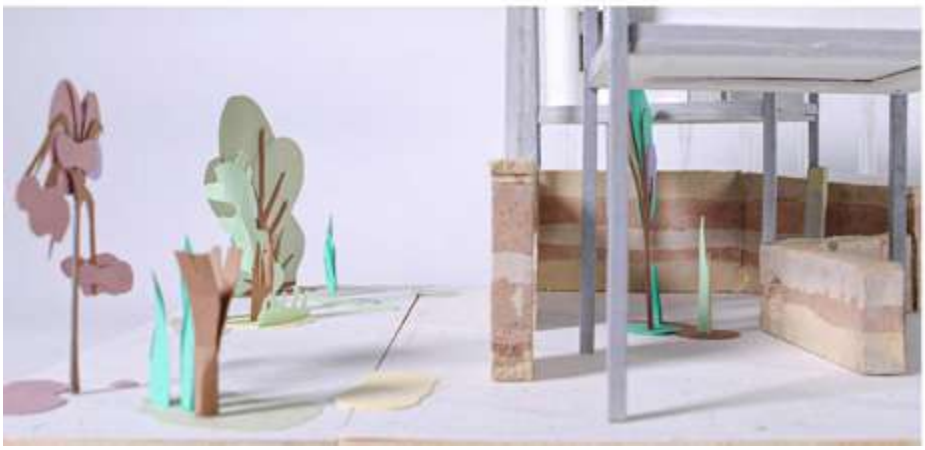
Xueying Huang

Master of Architecture
Year 2
Continuity





The Touchstone model family explores how nature can be contained and framed by a man-made structure, forming a conceptual anchor throughout the design development.



The 1:100 corner study model translated the structural strategy of a solid base, lightweight pods, and a unified roof. The model explores how architecture can support a continuous relationship between care, community, and nature.

Jake Hancock

Master of Architecture
Year 1
Flux

Mayfield Civic Data Sanctuary uses modelmaking to test how adaptive reuse can turn digital surveillance and data extraction into something legible, while protecting those who occupy the building. The proposal reimagines Mayfield Depot as a civic institution for data rights: part public commons, educational exhibition, and anonymous personal data vault.

Through the models, I focused on how a new technical structure could inhabit the depot and reveal the extractive nature of big data through its connection details. The project spatialises a separated technical world by elevating the data vaults above the exhibition spaces. This turns the relationship between public user, retained structure and protected data into a visible hierarchy. Lightweight steelwork contrasts with the heavier industrial fabric of the depot, making extraction legible through connections that draw on the depot's structural capacity to support a privileged, supra-spatial layer above the public realm.

The work began with drawings and radial studies for an elevated ring truss, developed from the idea of an internal panopticon within the exhibition space. I measured the structural grid and translated it into a segmented circular geometry, testing twenty-six repeated bays and their internal angles through plan, section and physical prototypes. These studies showed that the ring could operate not only as structure, but as a spatial device: casting shadows, framing views and producing the unsettling sensation of being observed.

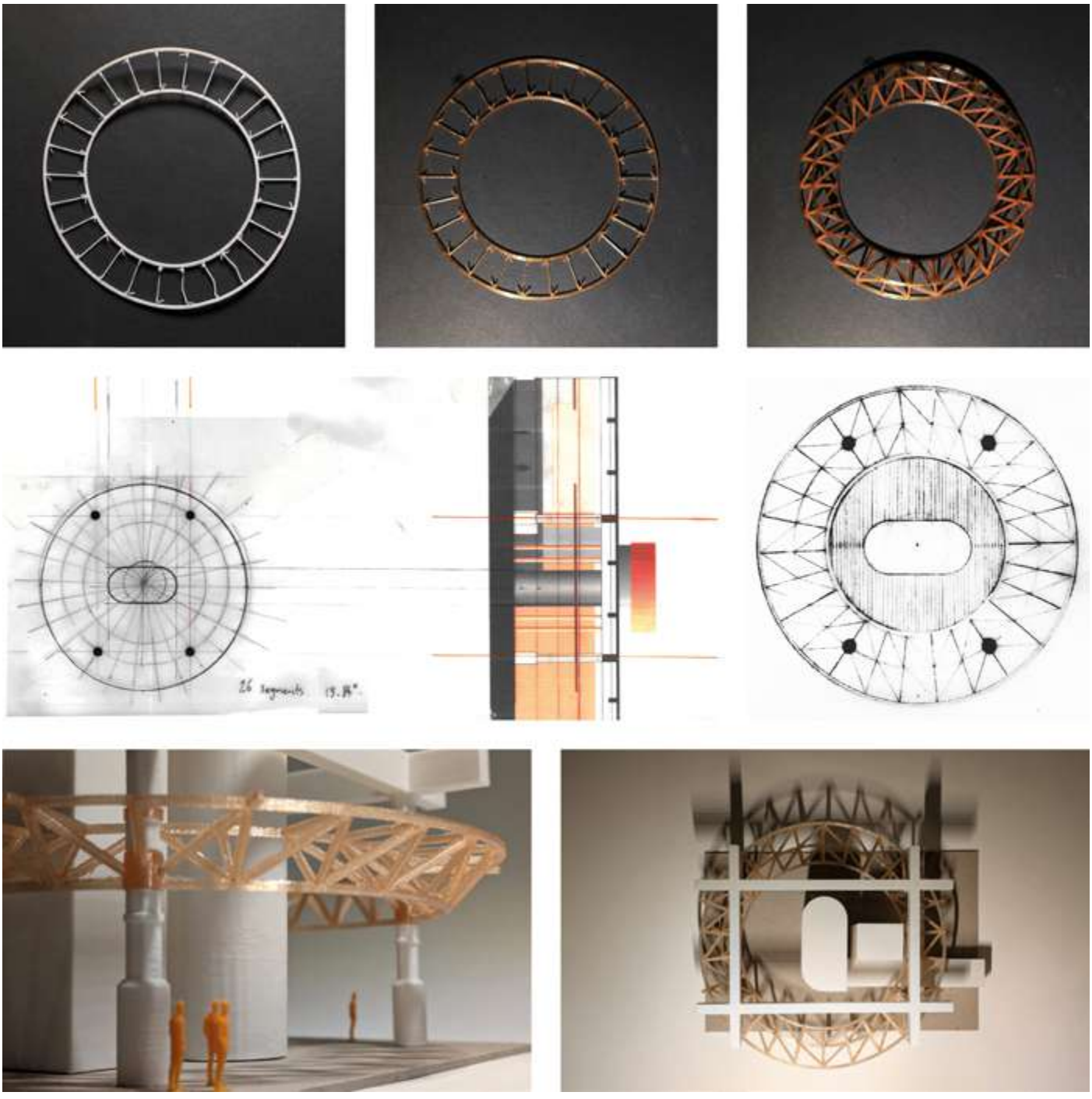
The making process combined Rhino modelling, 3D printing, hand assembly and photographic testing. The column, truss and clamp components were developed as separate pieces, allowing the model to behave as a kit of parts. This was important from a circular economy perspective, as demountability and adaptability frame the sanctuary as an iterative, modifiable and defensible structure.

The white column represents the retained depot, while the translucent orange elements identify the new intervention. Clamp details were developed to hold the ring truss without welding or drilling into the existing column. The fixings, collars and opposing clamp directions communicate a reversible logic based on repair, reuse and disassembly. The models therefore became tools for testing buildability, circularity and atmosphere, showing how technical infrastructure can become public, spatial and debatable.

The completed model frames the new ring truss against the retained white depot column, with figures giving scale. The elevated steel structure asserting itself onto the existing fabric spatialising layered extractive data systems, through architectural intent.

Jake Hancock

Master of Architecture
Year 1
Flux



This layout records the design process behind the circular data vault structure. Sketches, radial geometry, sectional studies and successive 3D printed tests show how the ring truss developed from measured existing structure into a twenty-six segment system, capable of producing both structural clarity and atmospheric shadow effects.

The column models test how the new ring truss could be attached without damaging the existing depot fabric. Digitally modelled and 3D printed clamp components, collars, bolts and truss sections explore a demountable kit-of-parts approach, making reuse, maintenance and future disassembly legible at architectural and model scale.

Maream Merza

Master of Architecture
Year 1
Flux

Embodying the concept of the project 'The Low-Main Depot' "experimental changes", the models start off with a 1:10 model which evolves to refined 1:20 models represented and encased in a 1:1 model of the scaffold structure, in this case, with a shelf. These models seek to experiment with the extent and potential of steel material and its effect on the relationship with the interiors of the functions introduced to the building. They are presented in a way that would allow for further experimentation or flexible change to occur to explore the possibilities of architectural design. Modelmaking here, becomes an extension of construction exploration that emphasises the concept strongly working hand in hand to ground the project.

The 1:10 model was an early moment of early site takeover using scrap materials that make an enclave of a space in the Mayfield Depot. This experiment helped in informing the design of the next models to be much more refined.

The 4 x 1:20 models explore how four different functions (pop-up gardens, gallery, co-working space and food research lab) can be connected to create new configurations. All of which sit within a 3x3m scaffold grid grounded in the existing concrete of the site in the early phases of the project as an affordable response to adaptive reuse. These are then combined as a flexible approach to model-making to explore the extent of connecting 2, 3, or even all 4 functions and where the thresholds are in terms of their internal layouts.

The 1:1 section model of the scaffold seeks to understand its construction in practice whilst trying to learn about its loading, connections and ways of occupying the scaffolds. This can be done through a shelving system as is built in the images or additional posters and footnotes attached to it to be added in the near future. This model presents itself as a real-life experiment for both architectural and construction understanding.

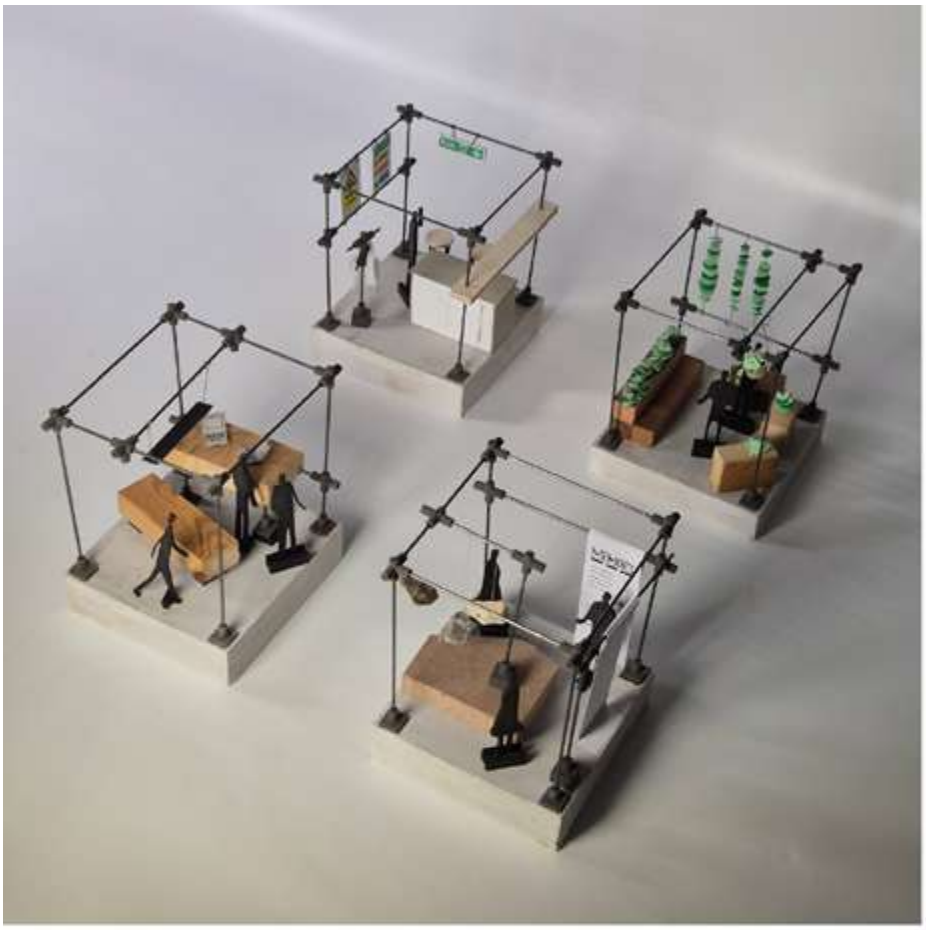
The model, even after the submission, will continue evolving with additions and changes as it grows and evolves replicating the concept of the building that continues to transform.

The Low-Main Depot Scaffold within a Scaffold.

1:20 within the 1:1

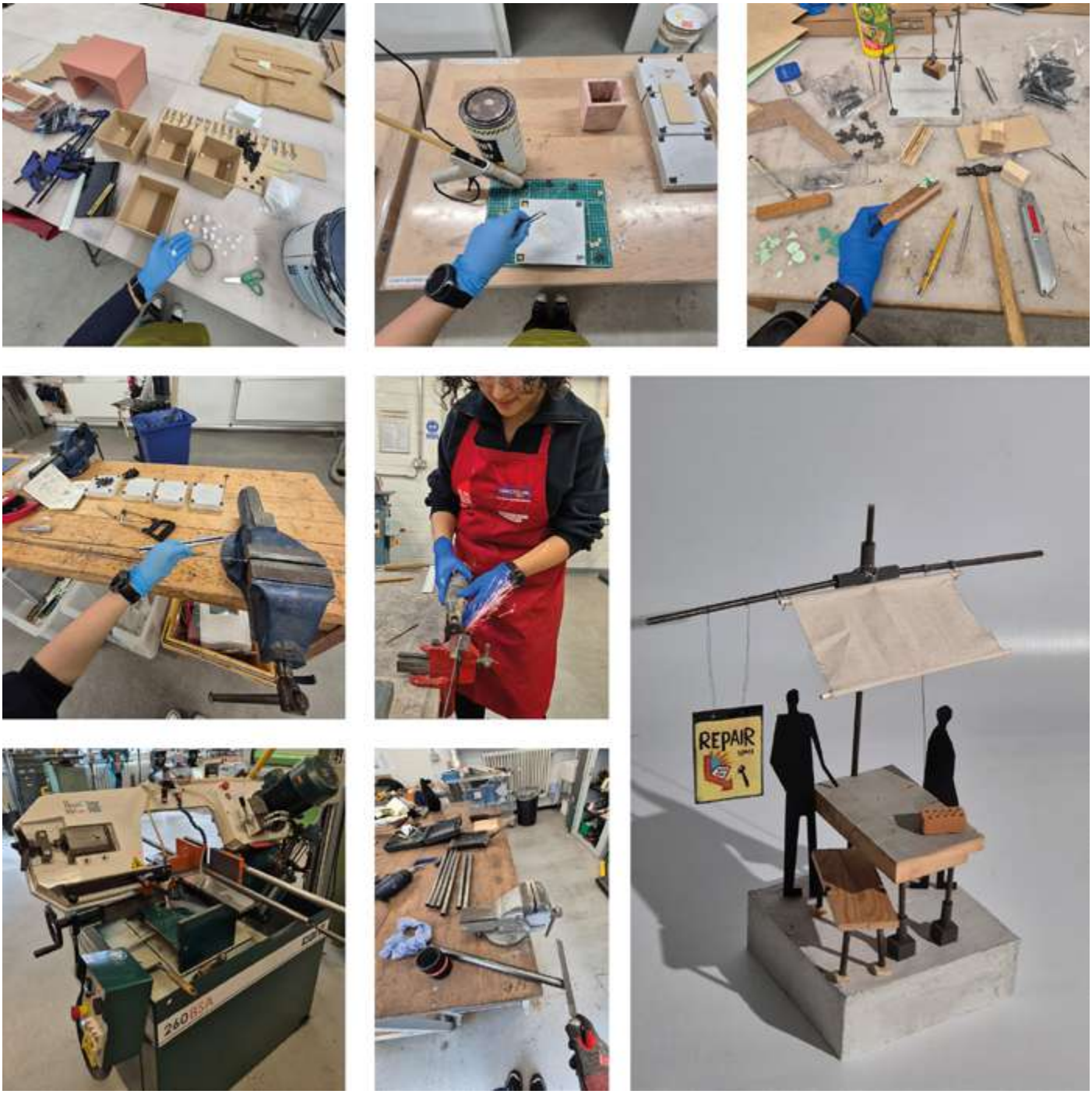
Maream Merza

Master of Architecture
Year 1
Flux






The Low-Main Depot Function Configurations using 1:20 models.



The Low-Main Depot Process of modelmaking with early 1:10 experiment model.

Adam Hartopp

Master of Architecture
Year 2
Flux

My project explores an alternative re-use of the Hotspur Press, which was partially destroyed by fire in 2025, reimagining it as an ecological institution that addresses Manchester city centre's lack of green space and engages with the phenomenon of nature reclaiming abandoned structures.

Model making formed a critical part of my design process, particularly in interpreting the fragmentary condition of the post-fire ruin. With no up-to-date drawings or safe site access, the physical model became the primary means of understanding the building's current state. The site is defined by two distinct conditions: the surviving warehouse, which remains largely standing but requires structural retention, and the mill, which has largely collapsed.

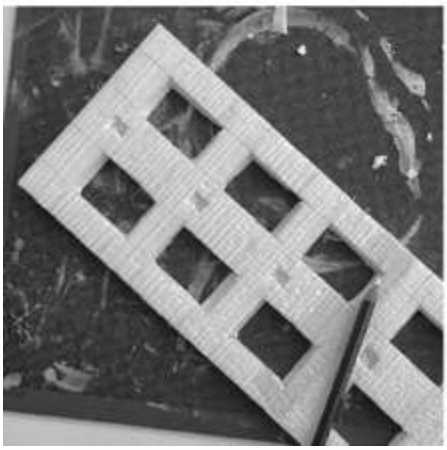
I developed two 1:50 sectional models to investigate these contrasting fragments at a more tangible scale. The act of making became deliberately forensic, used to unpack the building's material logic down to brick-level detail. Facades were carved by hand in foam, slowing the process and enabling a more attentive reading of the site's degraded condition.

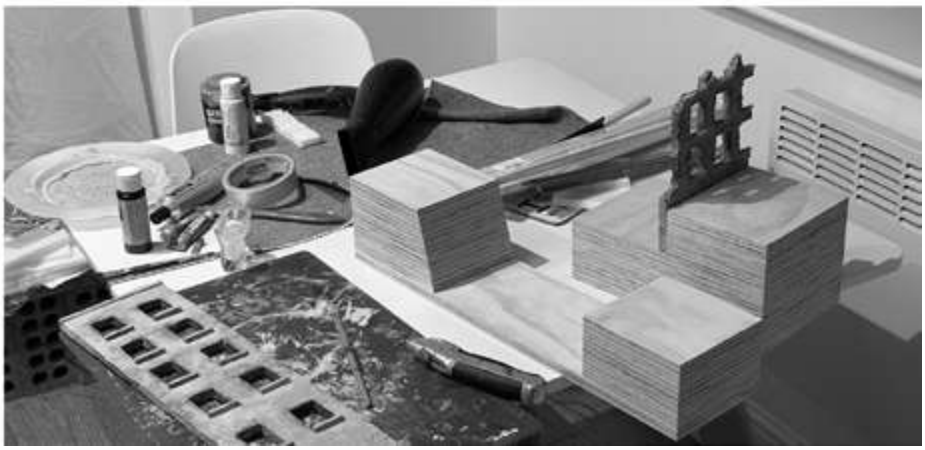
The models evolved alongside the design, functioning not only as investigative tools but also as testing devices for proposals such as the timber retaining structure, natural reclamation wall systems, and spatial experience within the ruin. Designed to remain disassembled, they allowed interventions to be continuously inserted and tested against the existing fabric, operating as a dynamic interface between analysis and design.

The warehouse fragment of the fire-damaged Hotspur Press. 1:50 model of existing condition. Carved foam, plaster effect paint, charcoal, on a plywood base.

Adam Hartopp

Master of Architecture
Year 2
Flux





The mill fragment of the fire-damaged Hotspur Press. 1:50 model of existing condition. Testing of proposed interventions. Process photographs showing hand-carving of brick façade.

Testing of proposed interventions and spatial experience within the ruin.

Hannah Donaldson

Master of Architecture
Year 2
Flux

The creation of these bioreceptive tiles forms part of the thesis question: How can the River Medlock be reimagined as an urban probiotic infrastructure, where intra-ventions facilitate engagement with immunoregulatory microorganisms and examine human–microbial exposure?

On-site alluvial deposits, formed through fine sediment transportation and deposition associated with the culverted River Medlock below, were used to create moulds for ceramic tiles through direct clay impressions. This hands-on process enabled material development to emerge directly from the site context, grounding the design in its geological and hydrological conditions.

Informed by the Niches for Organic Territories in Bio-Augmented Design project, this phase explores the incorporation of benign microbiota into architectural materials as a strategy for environmental and public health remediation. Ceramic-based materials demonstrated the most effective performance, suppressing pathogen growth while maintaining structural durability. Their rough, porous surfaces retain moisture and provide favourable microhabitats that support beneficial microbial colonisation.

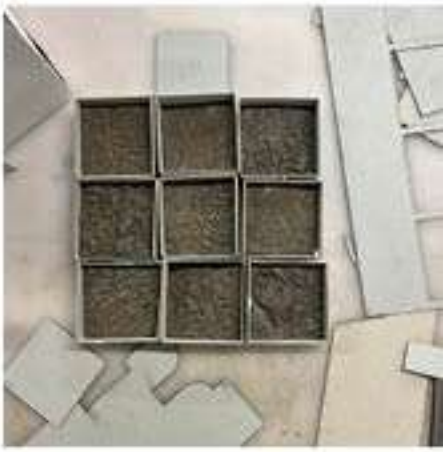
As a result, the porous and irregular surfaces of the tiles are designed to support the growth of Bacillus subtilis, allowing these elements to function as microbially active interfaces within the proposed exposure rooms. In doing so, they facilitate the cultivation of benign microbial communities that may help suppress harmful pathogens while reintroducing microbial diversity into the built environment.

The contaminated riverbed of the River Medlock may contain recoverable heavy metals (including zinc, copper, iron, and manganese), which could potentially be repurposed as pigments for ceramic applications.

The bioreceptive tiles are designed to operate as intra-ventive surfaces within an urban probiotic infrastructure, facilitating engagement with immunoregulatory microorganisms through controlled exposure conditions along the River Medlock.

Hannah Donaldson

Master of Architecture
Year 2
Flux



Clay impressions of on-site alluvial deposits were used to form the moulds, with the deposits themselves shaped by fine sediment transport and deposition from the culverted River Medlock below.

The bioreceptive tiles are designed so that periodic inundation and sedimentation act as a generative agent for bryophyte colonisation and ecological succession, positioning the landscape as a self-organising system. The spatial framework is deliberately constructed but resists determinism, privileging indeterminate ecological emergence over fixed outcomes.

Harley Freeman

Master of Architecture
Year 2
Flux

The 1:1 bay study model was developed as part of 'A Guide to Building Belonging', a project exploring how adaptable self-build systems can enable individuals to construct their own temporary dwelling. Rather than proposing a fixed architectural outcome, the project develops accessible methods of construction that allow spaces to be assembled, adapted, repaired, and personalised over time. The prototype was built to test these ideas through physical making, using construction as a design tool.

The modular structure is formed from reclaimed scaffolding boards sourced from reclamation yards local to the site. Frequently replaced within the construction industry, these boards represent a sustainable source of durable waste timber. Cut lengthways to form lightweight structural posts, they are assembled into manoeuvrable modules that can be handled by a single person and connected using reversible M10 bolts. These modules can then be reconfigured to generate a variety of spatial arrangements.

The full-scale model was also used to develop and test each layer of the adaptable dwelling wall build-up. Recycled textile insulation is contained within a removable mesh lining, internal wall panels are attached using a French cleat hanging system, and external corrugated steel cladding is fixed through a reversible cross-batten system. A series of interior finish techniques were explored on the wall panels. One uses custom plaster made from recycled fabric strands and site aggregate, allowing users to imprint and personalise surfaces. Another repurposes 150-year-old bookshelves salvaged from Manchester Town Hall into an expressive interior lining.

Constructing the prototype at full scale allowed aspects of the design that could not be understood through drawing alone to be physically tested. Material tolerances, structural movement, handling, assembly sequences, and connection details were continuously evaluated through making. Failures and unexpected challenges became an essential part of the process, revealing flaws in initial assumptions and informing iterative refinements. The final prototype is therefore the product of multiple cycles of testing and adjusting.

A 1:1 bay study is used to develop an adaptable, temporary self-build system entirely from reclaimed materials. Its wall build-up features interchangeable corrugated steel cladding, breather membrane, modular scaffolding board structure, recycled textile insulation, adjustable service void, removable internal wall panels and a variety of expressive interior finishes.

Harley Freeman

Master of Architecture
Year 2
Flux

Left: 1:1 modular structure built from reclaimed scaffolding boards showing how four modules can be reconfigured and connected. Top right: Four stacked modules before assembly. Middle right: Testing assembly and disassembly of modules. Handles improve manoeuvrability. Bottom Right: Bolted floor and wall connection allows easy disassembly.

Left: 1:1 interior view showing interchangeable wall panels temporarily connected via French cleat hanging system. Top right: Exterior view showing corrugated steel cladding reversibly connected with hex head screws. Bottom right: Recycled textile insulation packed into module cavity. Mesh lining hooked onto screws creates a reversible containment method for maintenance.

Emanuil P. Sklianin

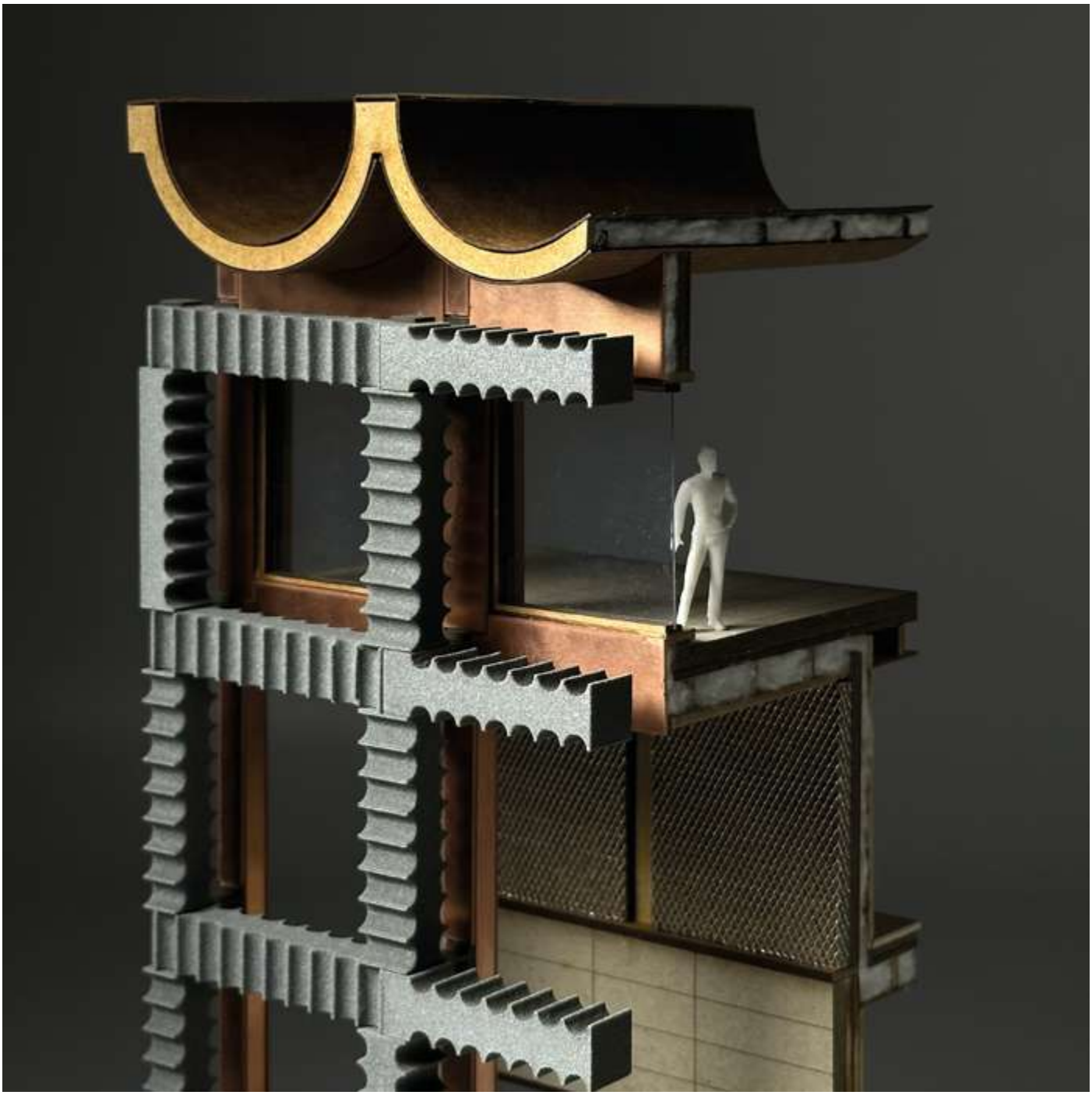
Master of Architecture
Year 2
Infrastructure Space

This 1:50 scale model was constructed to showcase the layered material assembly of my March 2 final project — a three-storey building that engages with nuclear heritage through considered material sourcing and tectonic expression.

Each layer of the model corresponds to a distinct constructional logic. Shaped concrete slabs form the structural facade, expressing both mass and permanence. Copper cladding lines the inner layers, selected for its capacity to record the passage of time through natural chemical oxidation; as the material weathers, the building's relationship with its environment becomes visibly inscribed onto its surface. The metal netting references a Gabion wall system, in which crushed construction rubble is encased within a retaining wall element. This allows the junction to remain breathable while affirming heritage through the deliberate repurposing of demolition material — a direct response to the circular economy principles underpinning the project. The roof form echoes the coastal setting, imitating wave geometry while incorporating passive water management into its profile.

Collectively, these assemblies demonstrate how a vernacular and hospitable character can be sustained within an architecturally rigorous construction system. The model does not merely illustrate the building — it enacts the same material values the project advocates for.

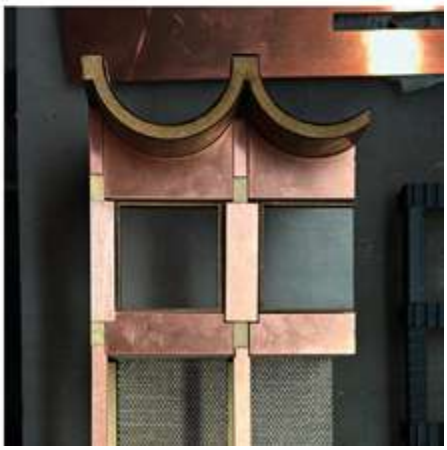
The physical making process presented its own challenges, and I chose to work with the actual materials rather than substitutes in order to honestly represent the textures and characteristics of each system. Copper proved the most demanding: achieving accurate cuts and representational precision required learning and operating unfamiliar machinery, developing a working understanding of the material's behaviour under fabrication conditions. This process of making became an extension of the design research itself — each material handled, cut, and assembled in direct dialogue with the decisions made at drawing stage.



Detail section reveal showing the layered material assembly: shaped concrete facade slabs, copper inner lining, and Gabion mesh panel. The figure establishes human scale against the tectonic depth of the construction system.

Emanuil P. Sklianin

Master of Architecture
Year 2
Infrastructure Space



Full model views at 1:50 scale, presenting the complete three-storey composition from multiple elevations. The wave-form roof, concrete facade, and plywood base are legible across all angles, demonstrating the coherence of the overall assembly.

Sectional and interior perspectives revealing the structural layering between facade, floor plates, and insulation. The rendered views expose the spatial quality within each storey, with figure placement confirming inhabitable scale throughout.

Akshita Venugopal

Master in Landscape Architecture
Year 2
Infrastructure Space

This model presents the Willow Sculptural Trail developed as part of the thesis project Mythscapes. The project explores how landscape interventions can create immersive spatial experiences that encourage movement, exploration, and reflection in natural environments. It is informed by themes of myth, shelter, and belonging, with the sculptural form acting as both a focal point and an experiential element within the landscape.

Model making was used as a primary design method to translate initial sketch ideas into a physical representation of space. The process goes beyond representation, acting as a tool for spatial exploration. It allows the design to be understood and evaluated through scale, materiality, and bodily perception, helping to test how the landscape might be experienced in reality.

The terrain is constructed on an MDF base, shaped using mud plaster to form the landform, and then coated with a sand-mixed colour finish to create a natural, soil-like surface. This layered construction helps establish a realistic woodland character and strengthens the overall spatial atmosphere of the model.

Natural materials such as stone, wooden logs, moss, and branches are used throughout the model to reinforce the woodland context. These elements define circulation paths, areas of pause, and key points of interest, supporting a clear reading of movement through the landscape.

Movement is guided through stepping stones that structure the visitor's route toward the central sculptural form. Clay figures are included to represent users, allowing the study of scale, occupation, and spatial relationships within the environment.

The central structure is formed using a bamboo-like flexible material, woven and bent around a temporary frame. This creates a nest-like structure that explores enclosure, permeability, and shelter, while remaining open and accessible within the landscape.

Overall, the model demonstrates how sculptural landscape design can shape spatial experience. It communicates both the physical composition and the intended experiential qualities of the Mythscapes project, where materiality and movement work together to create an engaging natural environment.

Final physical model of the Willow Sculptural Trail within Mythscapes. An immersive sculptural installation exploring shelter, nature, and human presence, creating a contemplative landscape. The image shows the overall composition, highlighting terrain, circulation, and the central woven structure.

Akshita Venugopal

Master in Landscape Architecture
Year 2
Infrastructure Space

Development process showing the translation of initial sketches into a physical model. It documents the formation of the terrain using mud plaster and the application of a sand-tinted finish to establish natural ground conditions and landscape character within the Mythscapes project.

Detailed views of the model highlighting key spatial moments, including the central woven structure, stone pathways, moss and ground textures, seating elements, and clay figures. The images illustrate circulation, scale, materiality, and human interaction within the Mythscapes landscape.

Gokalp Kalfa

Master of Architecture
Year 1
Non-Standard Habitats

The Ferranti Non-Standard Performance Hub: Tectonic and Kinetic Prototyping

This submission documents a physical modeling methodology developed to investigate high-performance envelopes and interactive spatial narratives for the Ferranti Hub. Rather than producing static representations, modelmaking was utilized as an empirical research tool, bridging material science and mechanical simulation through two distinct models.

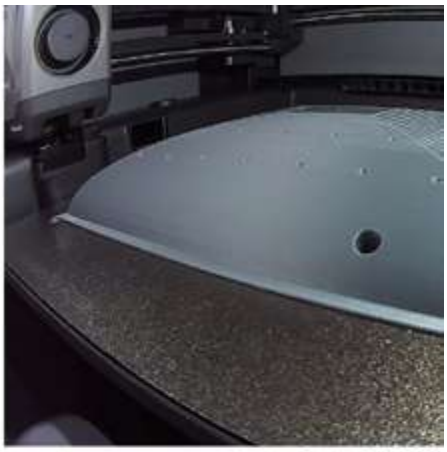
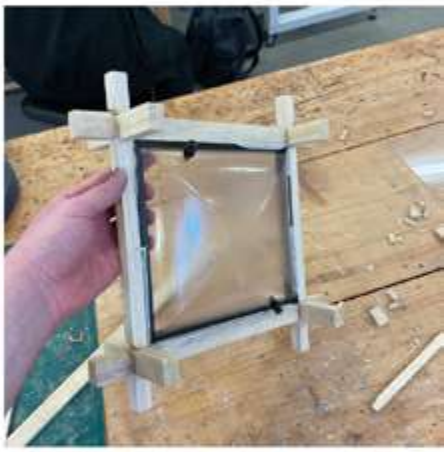
Model 1: Detail Model of the Aerogel-Filled ETFE Cushion Module
The first model is a detail model fabricated to test the physical production and material behavior of a high-performance building envelope. Throughout the process, a translucent ETFE membrane was vacuum-formed using negative 3D-printed molds, and the resulting cushion geometry was subsequently filled with crushed silica aerogel. This physical prototype revealed a critical data point that directly informed the design: gravitational pooling of aerogel particles at the base compromised the upper thermal barrier. This empirical discovery drove the development of a sub-zoning facade strategy to ensure uniform insulation distribution. Testing the model with an integrated projection system confirmed that the granular aerogel particles volumetrically diffuse light, physically proving the facade's capacity to function as an "Urban Lantern."

Model 2: Kinetic Concept Model
The second model is a dynamic concept model designed to visualize the impact of the tested envelope on the building and simulate the urban transformation scenario. This model explores the spatial dialogue between the existing historical Electrical and Electronic Engineering building (Ferranti Building) and the newly designed upper mass. In terms of technical execution, a standard LED circuit was modified by integrating a magnetic reed switch. Using a custom-printed, gear-driven manual crane mechanism, the upper mass is lowered via a crank handle. As the intervention descends toward the heritage base, proximity-based electromagnetic feedback from hidden magnets placed on the Ferranti model triggers the LED system. This interactive mechanism physically manifests the conceptual shift of a historic educational facility into a luminous urban beacon through a tangible, kinetic experience.

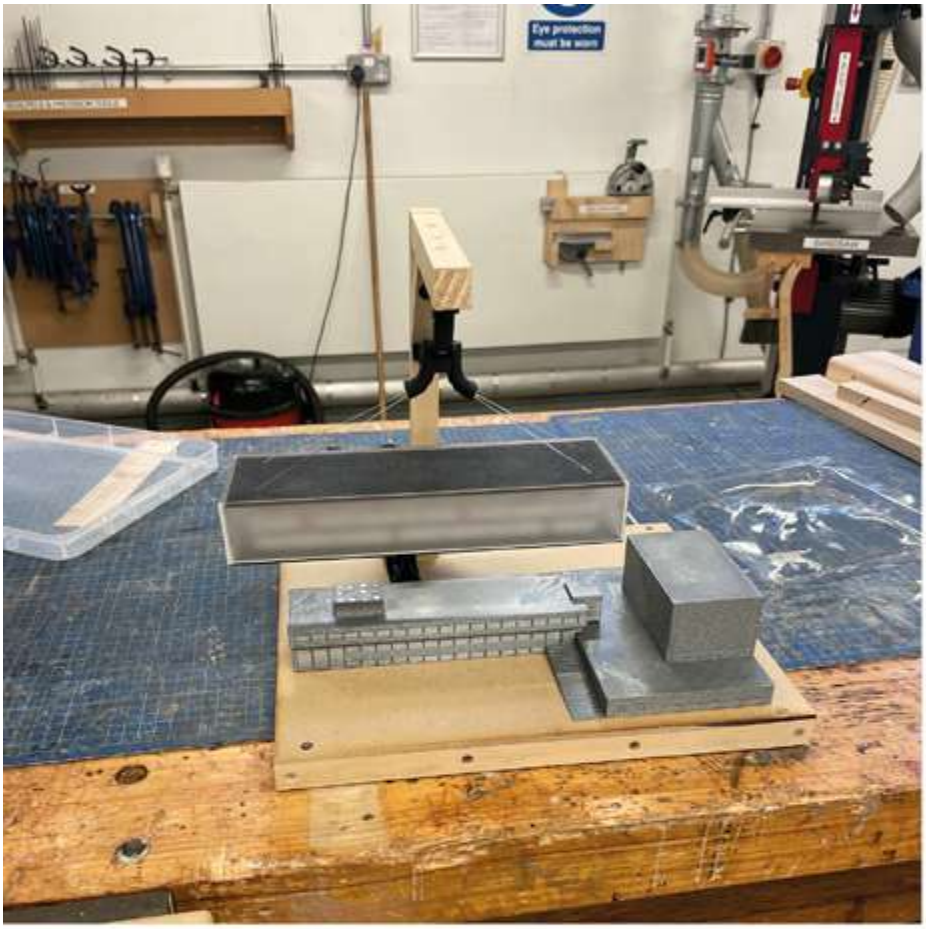
Detail Model of the Aerogel-Filled ETFE Cushion Module

Gokalp Kalfa

Master of Architecture
Year 1
Non-Standard Habitats


Process of the Aerogel-Filled ETFE Cushion Module
Detail Model



Process of Kinetic Concept Model

Angela Lai Ying Li

Master of Architecture
Year 2
Non-Standard Habitats

This concept model explores The Persephone Outpost, a speculative civic infrastructure that responds to recurring sinkhole events and the gradual failure of Manchester's ageing concrete networks. Central to the project is an investigation into the lifecycle of concrete, examining how material can move through successive states of use, decay, fragmentation, and reuse rather than ending in demolition.

Developed through the binding and regenerative properties of mycelium, the model functions simultaneously as a representation of the project and a material experiment. Concrete is presented at multiple stages of its lifecycle, as infrastructural elements, as rubble, as crushed aggregate, and as newly consolidated matter bound through mycelial growth. Layered over larger concrete fragments within a mould, the mycelium adapts to existing forms and produces a mass that recalls Manchester's stratified geology and buried infrastructural networks. As the material incubates, its changing texture and morphology reflect the evolving nature of subterranean conditions and the instabilities that contribute to sinkhole formation.

The process also serves as a precursor to the architectural proposal itself, testing the potential of mycelium-bound rubble as a future composite construction material. Cardboard massing elements representing the architectural intervention are embedded within the growing ground mass, alongside culverts and remnant motorway piers, shifting attention from infrastructure as a dominant object to the deeper geological and material processes that shape the city.

Evoking cthonic imagery and the Persephonean cycle of descent, transformation, and return, the model presents the city as a layered and evolving condition while exploring how speculative futures might be translated into tangible material systems.

The model combines cardboard massing, remnant motorway piers, and culvert fragments with a terrain formed from rubble, crushed aggregate, and mycelium. Together, these elements represent Manchester's layered subterranean condition, where ageing infrastructure and geological instability become the foundation for new forms of occupation and material reuse.

Angela Lai Ying Li

Master of Architecture
Year 2
Non-Standard Habitats

Cardboard massing elements representing The Persephone Outpost are inserted directly into the mycelium-bound rubble strata. Their placement tests how architectural interventions might establish a dialogue between constructed form and biological growth.

Shown at two stages of incubation, the mycelium-bound rubble composite continues to change as growth progresses, producing new textures, densities, and connections between concrete fragments. The material's transformation echoes the evolving nature of Manchester's subsurface, where layers of geology, infrastructure, and demolition debris accumulate and shift over time.

Anna Robertson

Master of Architecture
Year 1
Praxis

Cultivating Care

This 1:20 sectional model explores the buildability, lighting effects and experientiality of a series of proposed interventions to an existing church. Plywood, cut with a laser or a band saw has been the dominant material used, alongside clear and coloured translucent acrylic. In this model, I used white paint to represent existing components of the building, and any other colour to represent new interventions.

I produced this model as part of my Praxis studio project, which called for an existing church to be transformed into a 'caring' space, designed through an intersectional feminist lens. My project explores the building's transformation into an adult education and citizens' advice centre. The proposed interventions shown in this model include the infilling of an existing void to form a first floor, which will behave as a lecture and performance space. The construction of this first floor includes an archaeological style glass floor which will provide level access while allowing users to still see the stepped form of the former gallery floor.

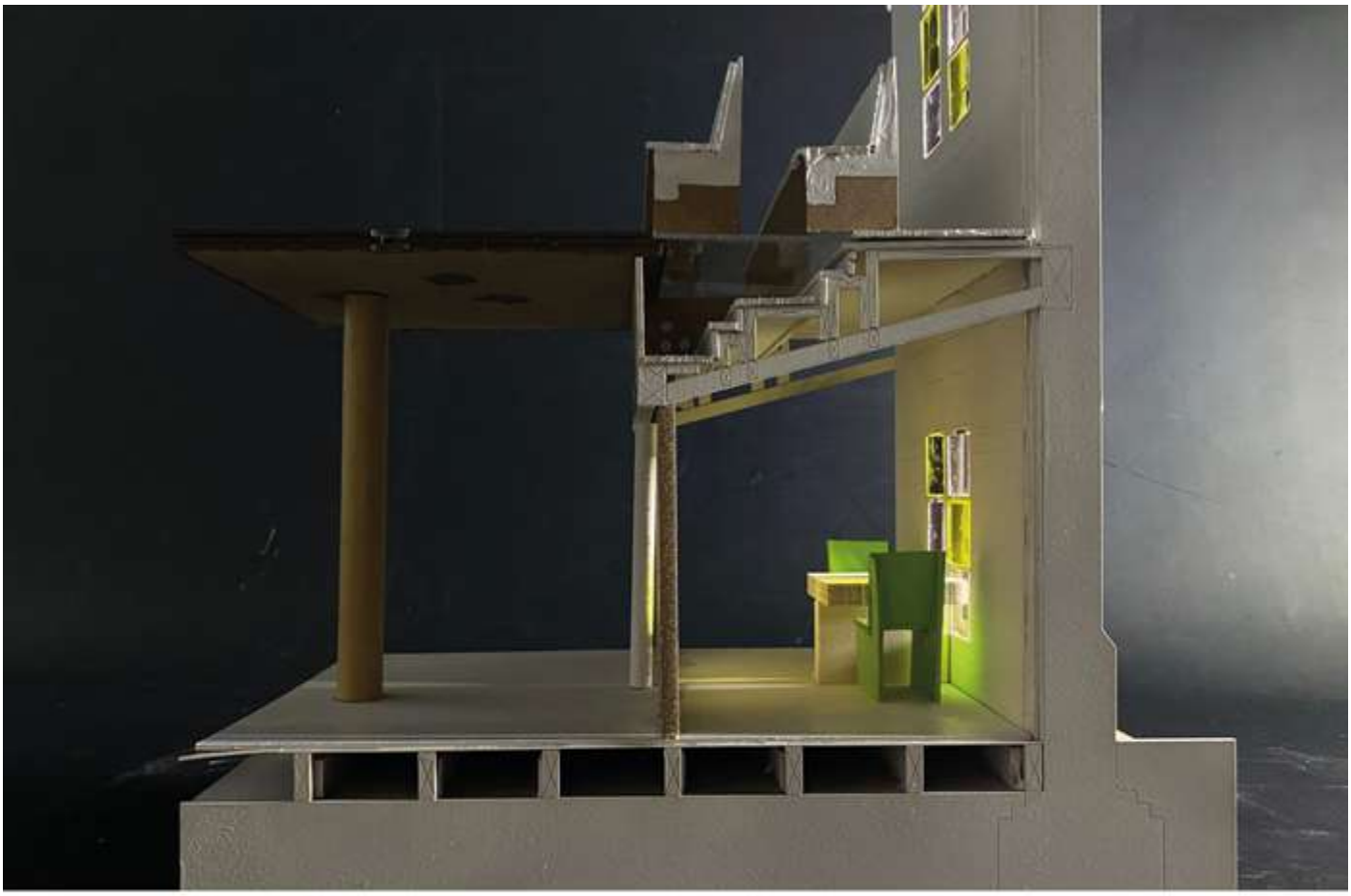
On the ground floor, small 'advice booths,' divided off with new proposed stud walls and architecturally reminiscent of confession booths, will allow users to seek citizens' or careers advice around the periphery of the space. The central space will act as a waiting room and lounge.
Light and privacy were key themes that I explored throughout this project, and through the building of this model. My goal was to build glazed and polycarbonate 'perforations' in the proposed walls and upper floor, to share light between rooms, but with out compromising the dignity or privacy of users. This model allowed me to test not only whether the proposed interventions would stand up, but also what views would be offered and what would be obscured.

From building this model I concluded that when placed parallel to the existing internal columns, glass panels in the proposed stud walls allowed light to be shared, with the ornate columns being celebrated, and simultaneously maintaining users' privacy – likewise, translucent circles in an upper floor could offer light and intrigue, but should be obscured to prevent views up users' skirts.

1:20 section showing the proposed interventions (represented by wood or other colours) to an existing building (shown in white).

Anna Robertson

Master of Architecture
Year 1
Praxis



This model was used to test the effects of the proposed interventions on light and user experience.

Modelling my proposal revealed what was visible from various angles, and how glass and polycarbonate could connect spaces.

Eleanor Ventress-Burke

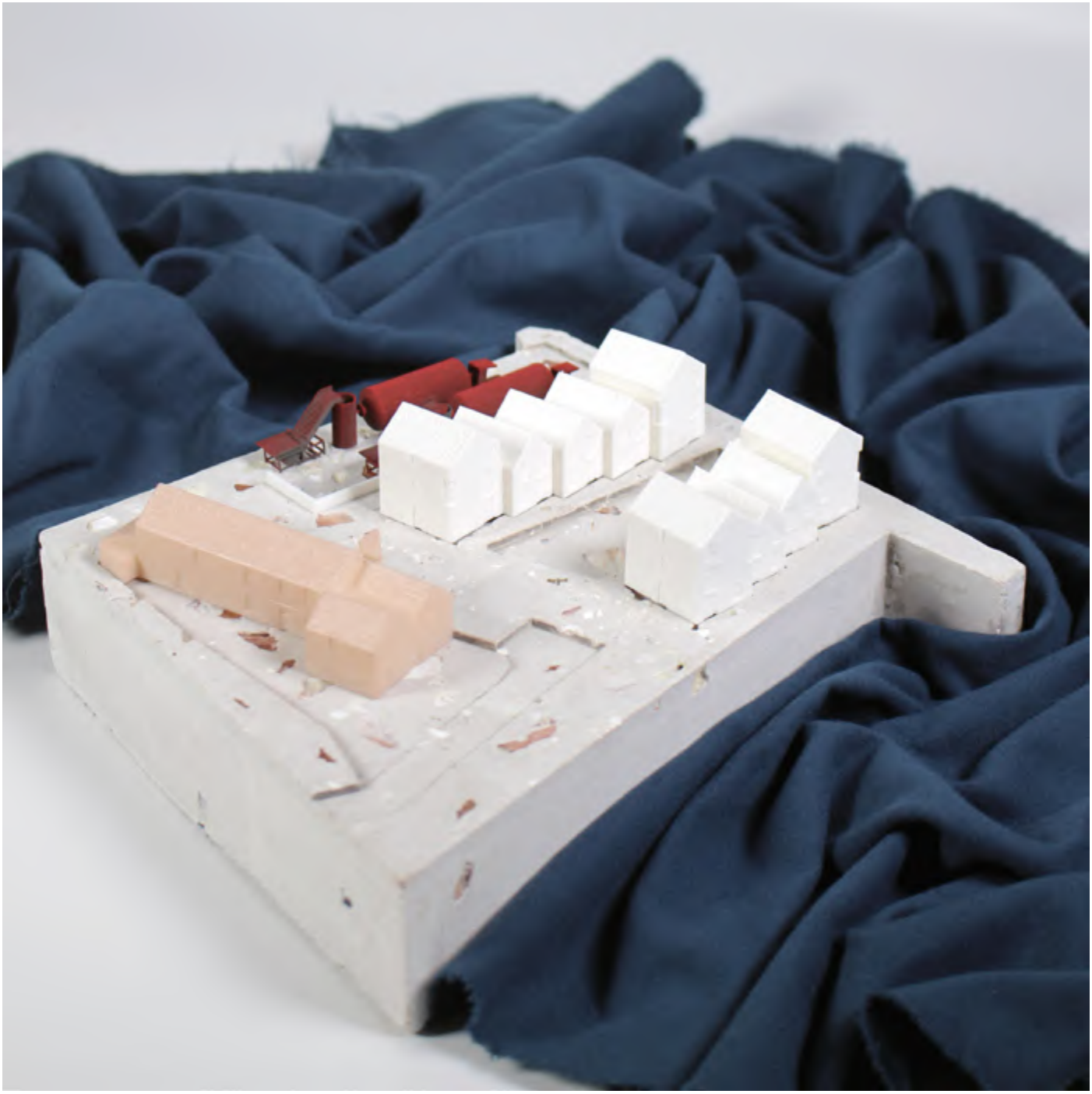
Master of Architecture
Year 2
Praxis

How can recycled waste shells build a Collective Living Manifesto for Jersey?
Initial material investigations focused on natural materials found on the beaches of Jersey – such as seaweed and washed-up waste. Alongside research into the island's unique socio-economic landscape, I made a connection between Jersey as a tax haven and the potential associated waste/overconsumption. This tension inspired me to repurpose localised restaurant waste streams, collecting a large box of scallop shells from a local restaurant, Higher Ground.

This research evolved into the material strategy for both the new affordable housing scheme and the retrofit of an 18th-century granite pub on the harbour. Through crushing and mixing scallop, mussel, and oyster shells, all local to Jersey, I aimed to develop a distinct shell-lime render that could establish a tactile, low-carbon architectural identity for the island.

To test this, initial facade tests were done in the B.12 casting workshop. I pressure-formed three reusable square moulds for quick, iterative casting. Utilising Jesmonite as a binding base, I trialled various ways of combining the shell fragments to achieve a visible rough texture. While initial tests resulted in the shells sinking into the mix and acid-wash dissolving the shells, the final iterations exposed the textures of the crushed shell fragments, creating three relief-textured tiles to represent the lime render finish.

The final 1:400 site model is a physical manifestation of the developed, circular strategy. The harbour seawall base is cast using the shell mix, with the phased scheme sitting on top. The project shifts from an abstract material exploration into a visible architectural process through the development of an on-site waste shell recycling plant. The model serves as a communication tool to demonstrate how localised material innovation can foster a sustainable, collective living manifesto. The model-making process reflects this ethos, using offcut powder for the intricate 3d prints, waste shells in the base and repurposed fabric to represent the sea. This scale allowed me to illustrate the site's isolated harbour-edge position and its strong connection to the water. It stitches together the differing materiality of each phase and illustrates its light touch and incremental approach on site.

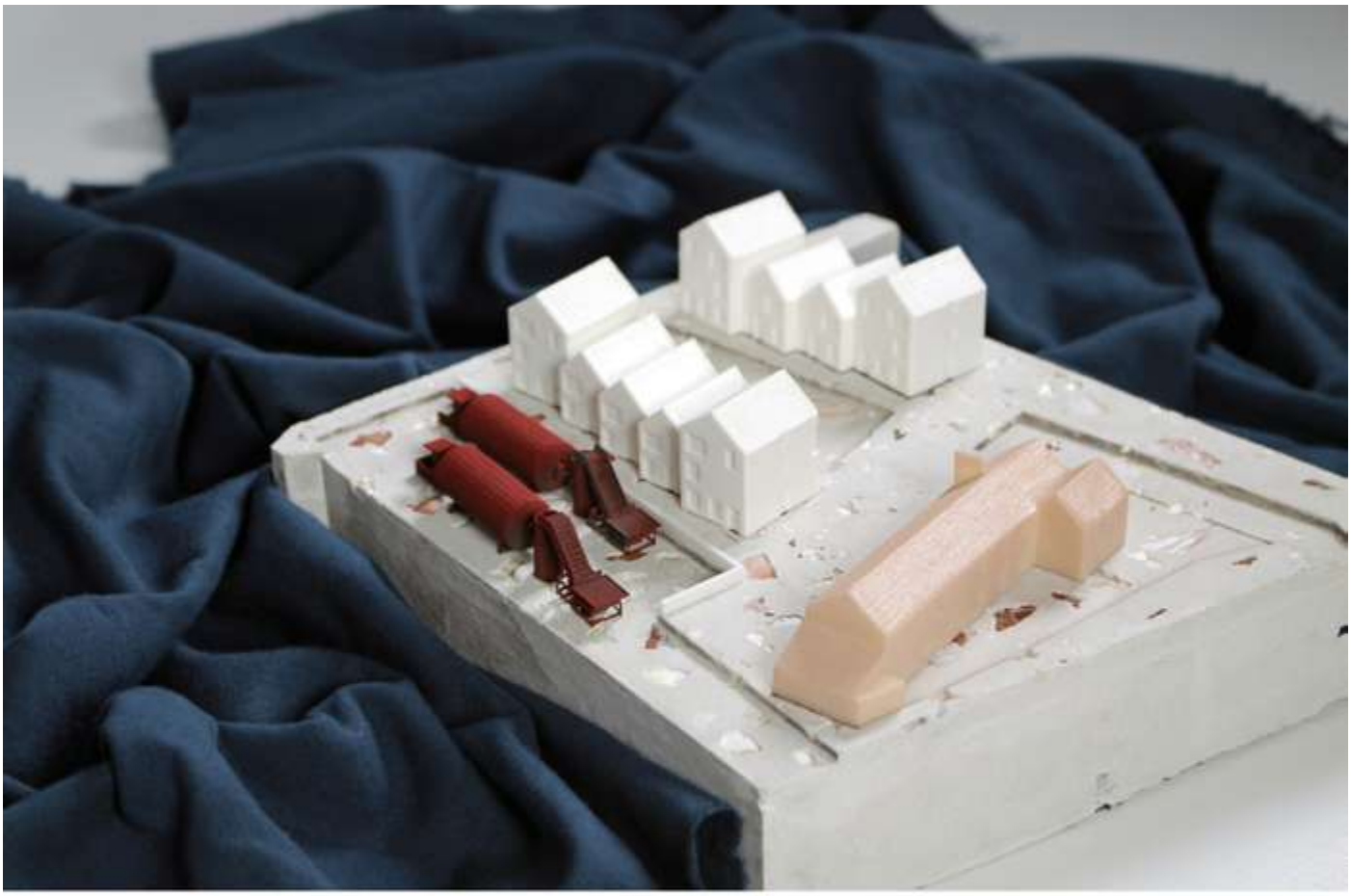


The final 1:400 site model illustrates the proposal's harbour-edge position and strong connection to the water. The sea wall base is made by casting the developed shell mix into a grey board mould, with hot-wire-cut foam inside to reduce weight. The 3D-printed phased proposal sits lightly on this shell-plaster base.

Eleanor Ventress-Burke

Master of Architecture
Year 2
Praxis

This collage illustrates the variety of processes used for the initial façade testing, such as collecting the waste shells, all key to the development of the circular material strategy. I enjoyed using shells in a new, innovative way, and it allowed me to connect with different people through my project.



This collection of images stitches together the final incremental scheme; the retrofit of an existing pub, new housing and a waste shell recycling plant. These were 3d printed to allow for tactile, movable interaction to encourage play. Hints of shell fragments are shown in the photo of the base from above.

Louise Holden

Master of Architecture
Year 2
Praxis

For my master's thesis project, I wanted to tackle 2 problems:

- Sport has become unattainable for the normal person. There are less leisure centres for the population demand. Sport has also become a means for capitalist gains, expensive memberships, expensive match tickets, expensive participation.
- it can take up to 1 year on a SARC waitlist before you receive treatment. 1 year of feeling stuck, scared, and alone. 1 year that could make a difference in the start of someone's journey.

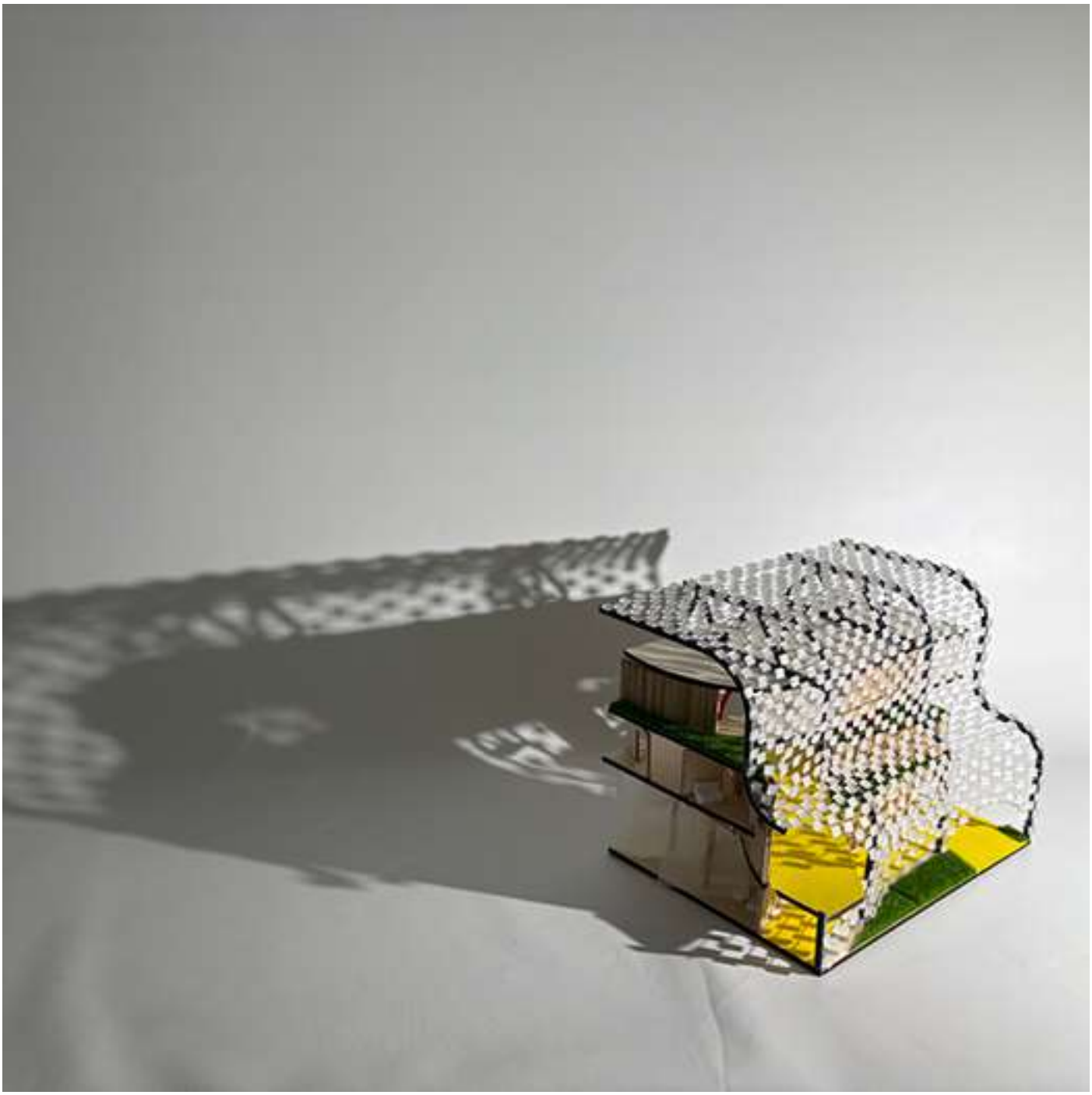
Combing these, I set out to answer the question: Can access to sports therapy spaces, support recovery during the wait time for counselling?

The Proposal:

A redefined accessible leisure centre, focusing on low impact mindful sports, such as yoga and Pilates, for those women who are on the SARC waitlist. The centre will use biophilic principles to connect the users back to nature, a key element for improving mental health and wellbeing. Key drivers in this project were movement, privacy and play.

I used this model making process to explore the materiality of my building and how it could be constructed. I was intent on using sustainable, natural materials to reduce construction damage on the environment and connect the user closer to my space through a biophilic element. The outcome was the cladding of my exterior with oak timber slats, cut down to scale through the bandsaw, and a plywood interior laser cut to size.

The sectional model was also made to demonstrate how my building reacts to the environment, and therefore having the shell element UV reactive was my main aim. As demonstrated by the photos, when my model is exposed to sunlight, the UV pigment mixed with pva binder on the acrylic tiles (hand stuck onto a wire frame and 3d printed structural supports), reacts to turn orange and yellow. The overall result would be a building that changed every time you visited, building up trust subconsciously, helping on the healing journey.

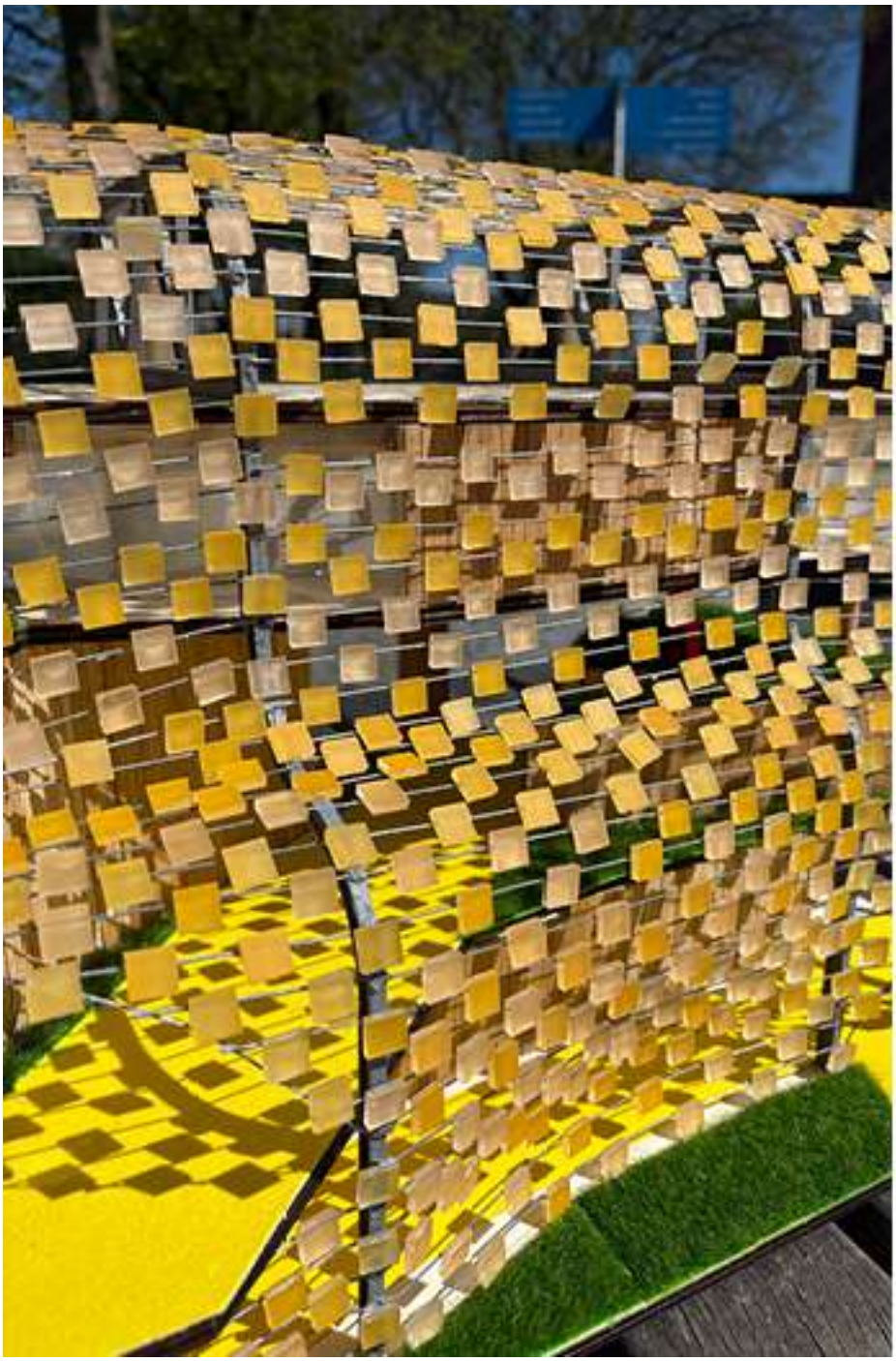


The 1:50 Sectional Model

Louise Holden

Master of Architecture
Year 2
Praxis

What's more playful than a ramp? ~ The Ferris wheel
Exploring movement and play around my building by creating an accessible wheel stopping at each floor. Wheel runners attach on each level so the wheel can move smoothly, without the need for the internal spokes.



Light and Shadows
These images show how the UV pigment in the tiles reacts to the sun to change colour. Sunlight not only creates a colourful exterior, but the shells pattern is reflect in the shadows of the central walkway- a public footpath breaking through the middle of my site.

Marwa Sanad Abdul Hameed Al-Saqqar

Master of Architecture
Year 2
Praxis

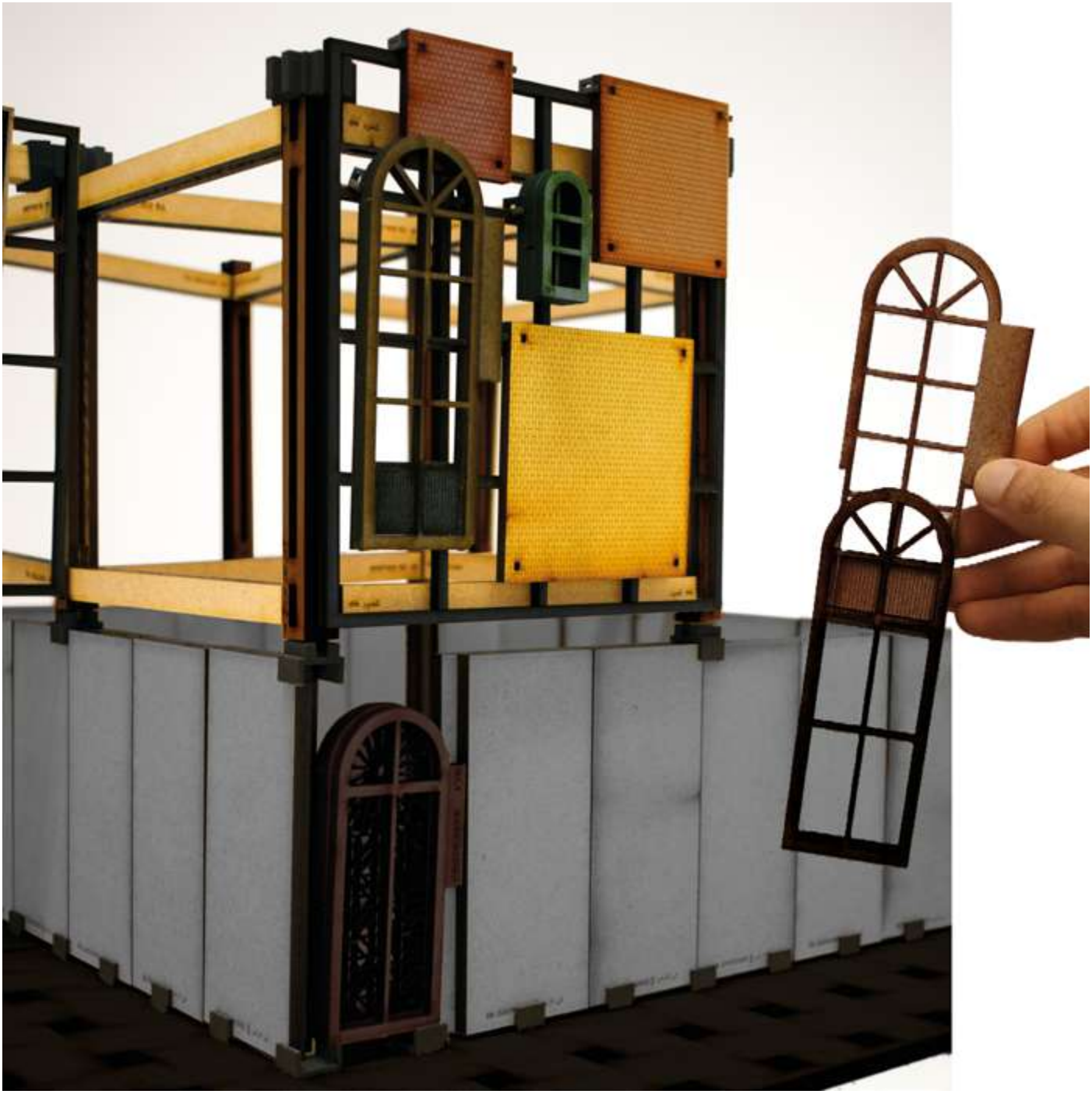
This project explores the role of architecture in post-conflict contexts—particularly in Iraq—by collaborating with displaced and neglected Baghdadi residents impacted by the housing crisis that is exacerbated by political instability, corruption, and the climate emergency. It applies ethnographic fieldwork to catalogue experiences of domesticity and employs allegorical drawings to prioritise memories and the intangible as means to develop a taxonomy of domestic elements and a guidebook that supports Iraqis in articulating their needs and reclaiming their spaces. Rather than a physical intervention, this project serves as a spatial justice toolkit, exploring an alternative architectural process that engages in radical participatory methodologies to reshape the future of Iraq's built environment towards a restorative one grounded in resilience, adaptability, and the sacred practices of making that define Iraq's rich tapestry.

Modelmaking is integral to this project, not only because the final output is a physical product/process, but also because its development is driven by iterative prototyping—enabling the evolution towards culturally sensitive and trauma-informed design responses. This process acknowledges the dynamic realities of post-conflict environments and resists extractive practices. Instead, it supports a flexible and adaptive approach centred on care and collaboration through making.

To communicate and test the developed design scheme, I explored multiple iterations towards a toolkit with a plug-and-play system. Prototyping began with a simplified design of the structural framework to ensure modularity and interactivity. Various materials (3D-printed, laser-cut MDF, and hand-carved wood dowels) were tested for durability and tactile comfort, finding that laser-cut MDF balances flexibility and visual clarity best. Iterations included varying scales and interactive features to enhance user engagement, with 3D-printed connections redesigned for multi-functionality. Grooves in structural pieces were added so users can display personal features, memories, and local elements—making them integral design parameters. Lastly, a sliding (cassette-like) feature on architectural elements allows for easy customisation of ornamentation, enabling users to explore their own designs beyond the toolkit's taxonomy. The ornamentation layer then evolved to include tabs with product information etched on, corresponding to further information in the guidebook regarding an element's assembly. The prototyping process relied on recycled materials, off-cuts, and scrap as much as possible to ensure this project is grounded in sustainable modelmaking.

In the current version, the toolkit's elements are laser-cut and assembled (two to three layers are required per piece and glued together), featuring deep-score engravings in Arabic and English to indicate what they are or where they connect. Connection pieces are 3D-printed for durability and functionality, and stains seal the pieces whilst offering options between realistic material representation or playful/visual accessibility. The toolkit is still evolving, with ongoing testing periods to refine its usability based on user feedback. In the sense that, as more findings come from the catalogue, the taxonomy expands, resulting in more elements adapted to new pieces. Overall, the project exemplifies iterative prototyping through model-making as a means for radical participatory design.

To view a simulation of one model built using the toolkit and its pieces, the video can be seen here: https://drive.google.com/file/d/1R5Ov0mHceyWr0z

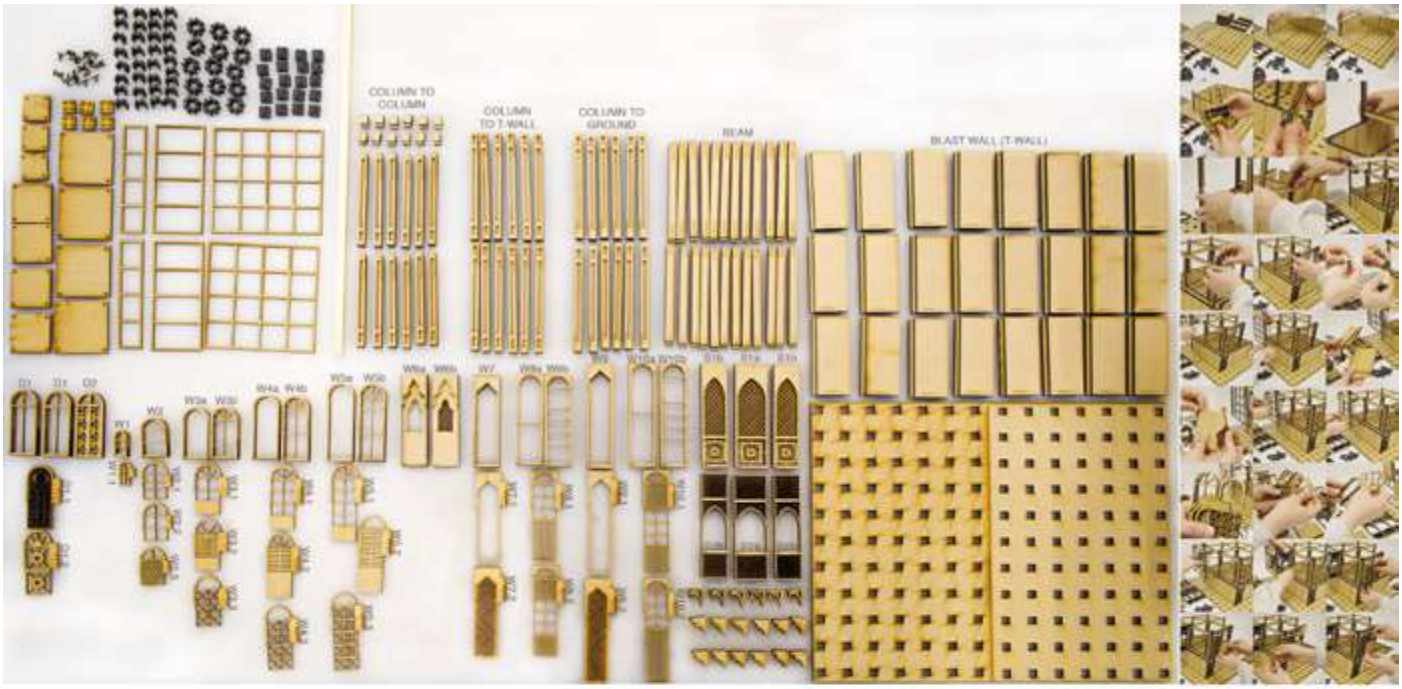


A sample creation using the current version of the 1:50 toolkit, which includes plug-and-play pieces to support radical participatory methodologies, spatial agency, and design justice for Iraqi residents. It also showcases the sliding (cassette-like) feature on a window frame piece, which allows for easy customisation and testing between designs.

Marwa Sanad Abdul Hameed Al-Saqqar

Master of Architecture
Year 2
Praxis

Top row: prototyping process to explore the right materiality, size, and design of the domestic taxonomy into elements for a plug-and-play system
Middle and bottom row: modelling process of the toolkit's elements (1:50 scale), where creating a multitude of pieces led to a toy workshop-like atmosphere!
Materials include: laser-cut MDF, wooden square sections, nylon 12 for SLS powder printing, greyboard, recycled cardboard, paper, wood stains, and spray paint.



Top row: creating a catalogue of all the pieces with step-by-step visuals of how the toolkit can be used
Bottom row: bringing the toolkit all together into a packaged box (bottom left corner) that organises all the pieces and the guidebook (middle left) for easy access and transportation
Materials include: laser-cut MDF, wooden square sections, nylon 12 for SLS powder printing, greyboard, recycled cardboard, paper, wood stains, and spray paint

Anagha Rangarajan Narasimha

Master of Architecture
Year 1
Some Kind of Nature

This project is located at Withington Baths in South Manchester and explores the adaptive reuse of the historic Edwardian building through ideas of community, wellbeing, food growth, and SKN design principles centred around a non-human client approach to architecture. Underused spaces are reinterpreted through the introduction of a sunken garden, hydroponics system, new gym extension, and a roof that becomes both a productive garden and an autonomous wild landscape. Through gardening, food production, and everyday interaction, the building itself begins to operate as a continuous cycle of regeneration, reconnecting people with nature, each other, and wider ecological systems over time.

Throughout the project, model making became a way of understanding how these ideas could physically exist and evolve. The process began with a 1:500 massing model used to explore how the proposed intervention could sit alongside the existing baths. At this scale, the focus was on understanding the relationship between old and new. From there, the work developed into a series of 1:50 facade studies where different materials, colours, and facade details were physically tested. Timber was initially explored because of its natural properties. Gradually, the facade shifted towards terracotta tiles, which felt more connected to Manchester's identity.

The green glazed terracotta became central to the development of the facade. Against the existing brickwork, the colour created a strong contrast while still relating closely to the wider themes of growth, planting, and ecology within the project. The facade began to feel less like an extension placed onto the building and more like something slowly emerging from the landscape itself. Alongside the facade development, a 1:5 wall build-up model was developed to understand how the facade could actually be constructed. Material experimentation became an important part of this process through testing miscanthus as a new material. Working directly with the material helped develop an understanding of its properties, behaviour, and potential application within the construction of the project. Further testing with bio-tiles made from coffee and orange peels continued this process.

Through the project, model making became a way of making design decisions, allowing the architecture to evolve through physical making.

1:50 Facade Model
The model shows the proposed extension of the facade using green glazed jesmonite tiles developed through iterative material testing, pigment casting, and facade studies. The tiled facade makes a contrasting yet contextual relationship with the historic brick baths facade while exploring ideas of growth, regeneration, and ecological materiality.

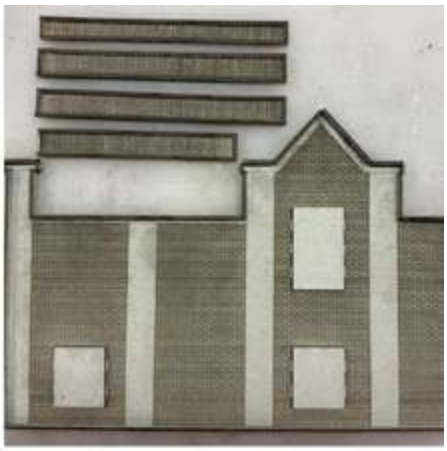
Anagha Rangarajan Narasimha

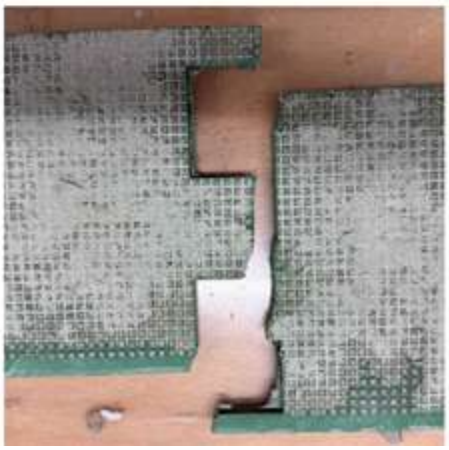
Master of Architecture
Year 1
Some Kind of Nature






The design process began through a 1:500 massing model used to understand the relationship between the extension and the existing baths structure. This later developed into a series of 1:50 facade studies. A 1:5 wall build-up model was developed to test construction layers, assembly, and material relationships in greater detail.





Process photographs documenting the physical testing of the facade development. Making and remaking became part of the design process itself, while working at a smaller scale helped understand how the facade and material system could potentially perform and be constructed at a larger architectural scale.

Neel Naregal

Master of Architecture
Year 2
Some Kind of Nature

Model-making became the primary method of design development throughout the project, operating as a testing tool across multiple scales to explore ideas that could not be fully understood through drawings alone. Sketch models, development studies, structural details, and material experiments were used iteratively to test spatial relationships, circulation, tectonics, and material outcomes, allowing design decisions to evolve through continual making and refinement.

The project explored how architecture could support long-term ecological repair through a phased phytoremediation centre on Pomona Island, Manchester. Through model-making, key questions relating to landscape integration, modular construction, spatial experience, and material transformation were investigated. At 1:100 scale, the development models established the arrangement of modules across the site, testing massing, roof forms, and the relationship between built forms and the surrounding landscape. Made from hand-cut balsa wood, these models acted as working design tools, allowing openings, proportions, and spatial sequences to be continually adjusted and evaluated.

At 1:50 scale, interior study models examined the quality of individual spaces, testing roof variations, apertures, skylights, and the movement of light through key programme areas. These models revealed how the central circulation spine connected different activities while creating moments of pause, observation, and engagement with the remediation process. As the project was conceived as a self-build system, the models also became important communication tools, helping to explain the construction sequence, assembly logic, and interior material finishes during discussions with tutors and peers.

Models allowed the project to be understood through multiple scales, from the wider landscape strategy of ecological remediation to the spatial qualities and construction logic of individual modules. They became a means of translating abstract ideas of care, repair, and stewardship into tangible architectural propositions. The process of making reinforced the project's central idea of creating architecture not as a fixed object, but as an evolving framework that supports ecological recovery over time. By testing relationships between landscape, structure, material, and occupation, the models played a key role in shaping the proposal.

1:50 interior study model of the Office Space, exploring the relationship between the pitched roof form, timber construction, and natural light. The model was used to test spatial quality, material expression, and the atmosphere of the workspace, informing key decisions regarding enclosure, proportion, and user experience.

Neel Naregal

Master of Architecture
Year 2
Some Kind of Nature






1:50 scale models explore the spatial character of individual Cabinets of Healing modules. The Office, Sapling Nursery, and Tool Shed each adopt distinct roof geometries responding to programme and their location on site. Balsa wood mirrors the proposed timber construction, showcasing how light and material define the space.






1:100 scale development models explore how a modular timber frame adapts across three programmes: Cabinets of Healing, Pomona Collective Architecture Workshop, and Boatyard. Variations in scale, proportion, and roof form establish distinct identities for each building, while a shared construction logic maintains a coherent architectural language across the site.

Apoorva Patil

Master in Landscape Architecture
Year 2
Some Kind of Nature

This physical sectional model shows a complex adaptive system designed around the ecological needs of the Common Pochard, which is the primary stakeholder for the entire landscape. It uses layered sheets of paper to build a flexible transect that can be read as a continuous shift from water to land, showing how different habitats work together rather than existing as separate parts.

At the center of the design is the idea of food source resubstitution. The Common Pochard in the Manchester Ship Canal currently depends on pollution-tolerant invertebrates that survive in poor water conditions. Instead of ignoring this reality, the design works with it while also improving and expanding food availability. The model expresses this through a connected set of habitat zones that increase the presence and diversity of invertebrates across the site.

Within the Manchester Ship Canal, a floating island acts as an important ecological element. It adds structure to the water, both above and below the surface, creating spaces where invertebrates can live and grow. At the same time it helps improve water quality. This makes it a key feeding point for the diving behavior of the Common Pochard and strengthens the overall aquatic system.

Along the canal edge, a riparian zone has been designed to make access into the landscape easy and direct for the species. Reedbeds and wet meadows form the first transition from water to land. These areas are rich in aquatic plants and invertebrates and provide the main foraging ground. As the landscape moves further inland, it becomes moist meadow, which works as a buffer zone that supports additional food sources while also reducing disturbance.

Higher up, dry meadow provides a quieter and safer environment. This area offers refuge, resting space and potential shelter from predators while still keeping a visual connection to the water. This connection is important for a diving species that constantly moves between feeding and safety zones.

The model also shows how these habitats work together as a changing system rather than fixed parts. Each layer responds to shifts in water, movement, and ecological activity, creating a landscape that can adapt over time.

Made from paper, cork sheet and reused Amazon packaging, the model follows the SKN manifesto of reducing environmental impact and working with more than human systems. The simple and reused materials reflect the same careful thinking as the landscape itself.

Together, the model shows a landscape shaped entirely around the Common Pochard, where food, habitat, and movement are connected in one living system.

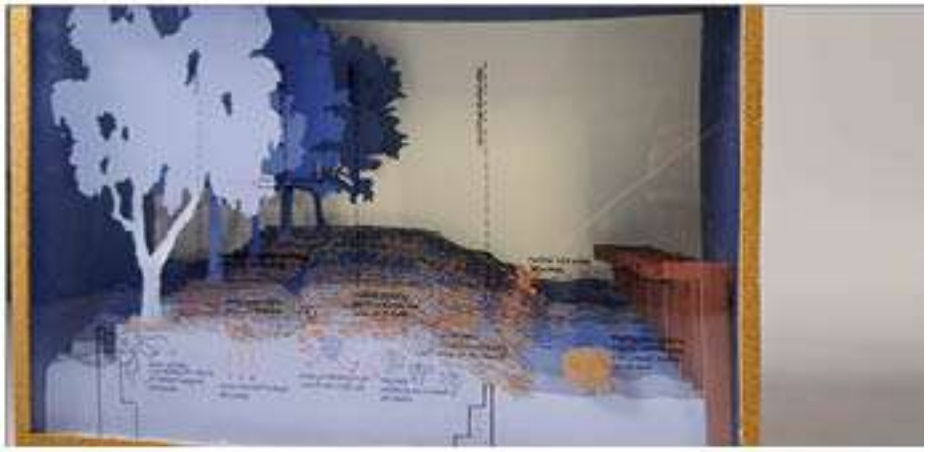
A physical sectional model made from layered colored paper and a cork sheet, forming a flexible transect through the Manchester Ship Canal. It represents gradual transitions from aquatic to terrestrial habitats, integrating ecological zones, water systems, and public access within a continuous spatial system.

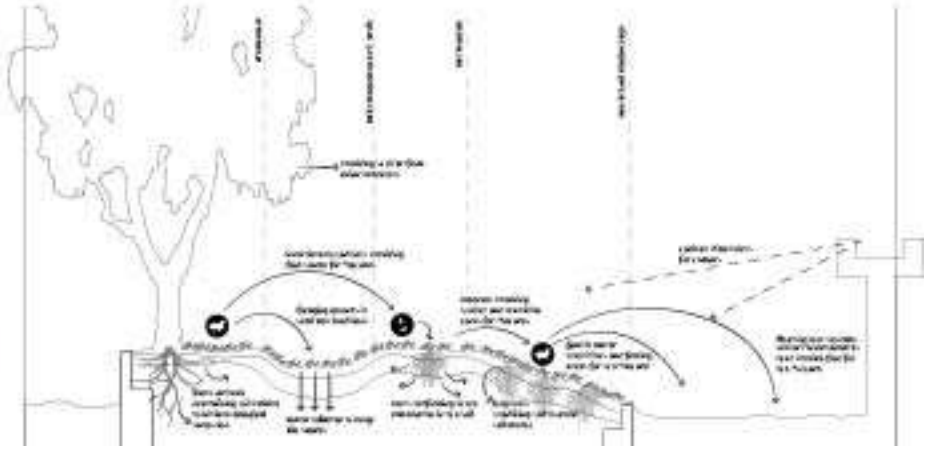
Apoorva Patil

Master in Landscape Architecture
Year 2
Some Kind of Nature

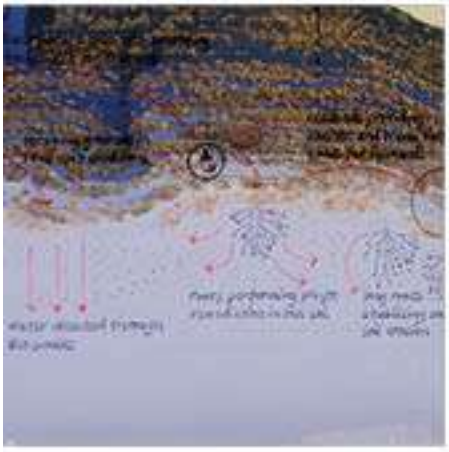


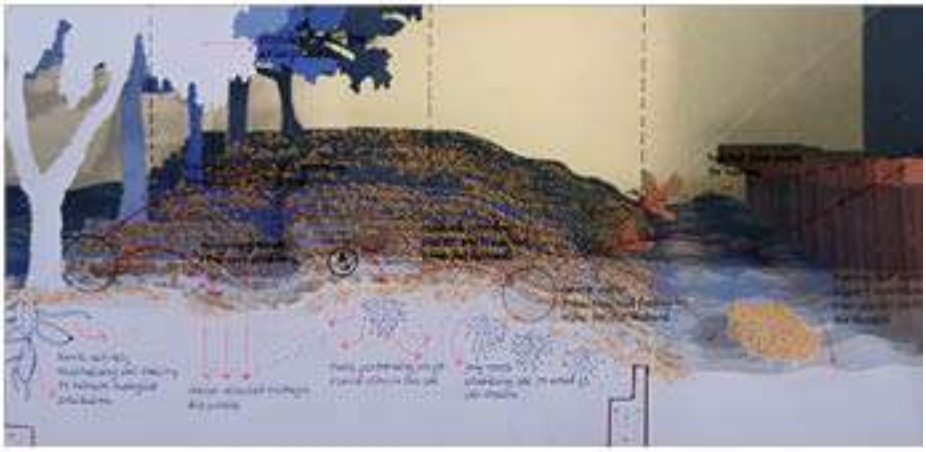


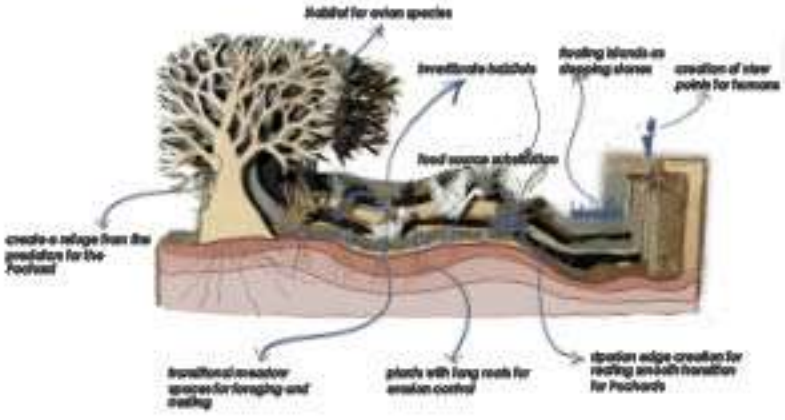


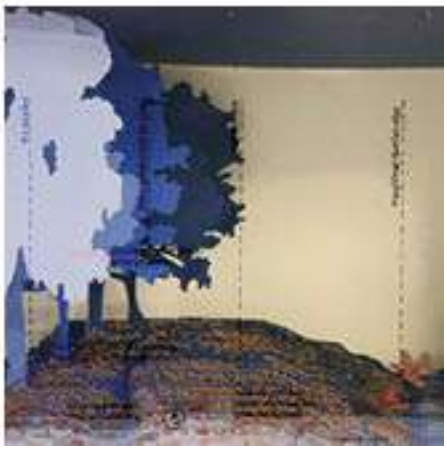


Material and process exploration using laser-cut colored paper and cork sheet. Includes stacking prototypes and layering tests that informed the final sectional model, focusing on depth, spatial gradation, and the development of a flexible transect method.









Close-up views of the model highlighting habitat transitions, layered terrain, and the symbolic floating wetland within the canal. The images emphasize material tactility, color layering, and the ecological gradation embedded within the paper and cork construction.

Katharine Cook

Master in Landscape Architecture
Year 2
Some Kind of Nature

The Ecotone Crane stands as a physical testimony to the industrial memory of Manchester's Pomona Docks, shifting its role from cargo handling to carry a care-led, ecological responsibility: supporting the canalised River Irwell to self-heal through natural, autopoietic processes.
This design was explored and communicated through iterative physical model-making, using workshop testing to resolve a complex landscape challenge: how to suspend an evolving ecotone into the river channel without imposing destructive loads on a fragile Victorian sandstone retaining wall.
The structural narrative is directly expressed through the model's distinct material components. To represent the terrestrial land, layers of plywood were glued together, creating a solid block into which a laser-etched sandstone motif was added to represent the historic wall face. The crane itself was crafted from lightweight balsa wood, utilizing heavy metal blocks to clamp and precisely square the delicate joints during assembly. Fine wire details the tension cable system designed to anchor structural loads safely back into the land.
To simulate the water, a clear Perspex sheet was laser-cut with an integrated indentation to slot precisely into the plywood land block, representing the water column. A critical making method involved laser-cutting a precise sequence of structural holes directly into the Perspex. This allowed the hanging ecotone netting, hand-made from textured hemp sacking and bound with grey thread, to be sewn with a needle directly through the water column to the crane's crossbar.
Crucially, the physical model mirrors the project's ecological philosophy through its representation of silt accretion. Rather than using sterile model fillers, the riverbed silt was built up using a contoured cardboard under-filler and coated with Jesmonite. This matrix was then blended with sand, organic fragments, and genuine garden soil. This tactile arrangement beautifully communicates how the porous, sacrificial hemp netting interacts with tidal currents to trap organic matter, demonstrating how the system will ultimately allow a self-generating riverside habitat to take over as the structural intervention safely degrades over time.

Ecotone Crane Section (1:50 Model): A land-based, low-intervention cantilever design for Pomona Island. Laser-cut Perspex represents the River Irwell's water column, beneath which a sacrificial hemp net traps organic silt against the historic wall. This autopoietic system encourages natural ecotone regeneration.

Katharine Cook

Master in Landscape Architecture
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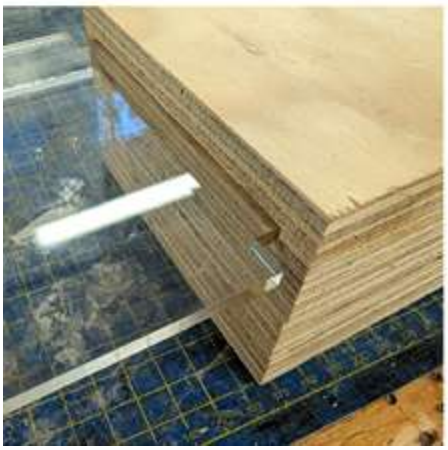
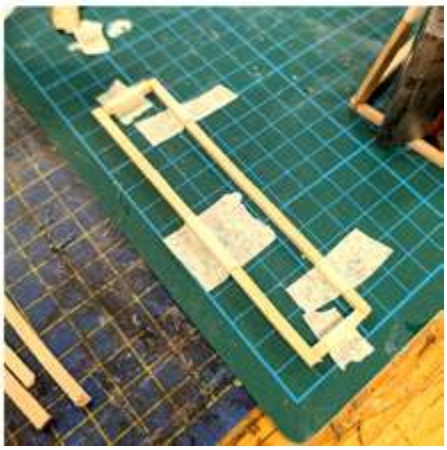
Some Kind of Nature

Model Detail Studies (1:50): Macro views highlight localized concrete post stands, whilst on the river bed crushed brick-filled gabion weights anchor the sacrificial netting into a dynamic silt layer. The crane framework begins to host climbing vegetation, illustrating a care-led transition toward a self-generating habitat.





Model Assembly & Material Process (1:50):
Perspective and process views document the workshop methodology. The sequence details timber framing using weights, slotting the clear Perspex water column into laminated plywood land, hand-stitching hemp netting through laser-cut holes, and creating the cardboard-filled base to represent the riverbed silt.

Kavya Baburaj Nair

Master in Landscape Architecture
Year 2
Some Kind of Nature

Grounded Narratives explores how post-industrial landscapes can regenerate through ecological succession, flood adaptation, and multispecies occupation. The model interprets Pomona Island as an evolving wetland landscape where natural processes, industrial remnants, and human intervention coexist and continuously shape one another. Rather than presenting a fixed masterplan, the model communicates a landscape in transition, revealing how habitats develop, adapt, and connect over time.

The intent was to represent the gradual movement between wetland, meadow, woodland, and riparian ecologies while highlighting the site's hydrological dynamics and material histories. This narrative is conveyed through a series of elevated landscape fragments connected by a central water system, allowing different habitat conditions and temporal stages of succession to be read simultaneously. Living terrariums were incorporated to showcase active ecological processes and provide a direct representation of the site's biodiversity and habitat character.

The base landforms were CNC-milled from MDF to create smooth, continuous topographic transitions that reflect flooding, sedimentation, and ecological change. The MDF was stained to establish a unified material language and create contrast with the living habitats. Resin was used to represent water systems and reinforce hydrological connectivity across the model. Stained wooden dowels were drilled into the base to support landscape fragments at varying heights, creating a layered spatial composition and exposing relationships between habitats.

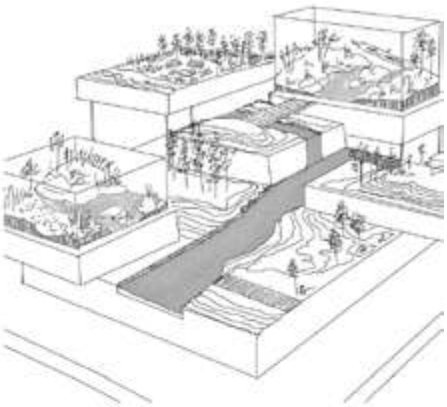
A combination of natural, reclaimed, and fabricated materials was used throughout the model, including cork sheet, bark, sea foam trees, clay, wire mesh, brick miniatures, and scrap materials collected and repurposed during the making process. Copper wire was used to represent corten steel interventions within the landscape. Material reuse was an important aspect of the project, reflecting the design's broader emphasis on adaptation, resourcefulness, and the transformation of existing conditions.

Together, the model functions as both a landscape proposal and an ecological archive, communicating the evolving narratives of growth, flooding, decay, and regeneration that define the future of Pomona Island.

A landscape in transition. Through living habitats, water, and layered topography, the model explores how ecological succession, flooding, and material reuse can transform Pomona Island into a resilient, multispecies wetland landscape.

Kavya Baburaj Nair

Master in Landscape Architecture
Year 2
Some Kind of Nature



The model-making process traces the project's development from initial sketches to fabrication, showcasing CNC-milled landforms, stained surfaces, resin water systems, reclaimed materials, living terrariums, and the assembly of interconnected ecological habitats.

The completed model visualizes Pomona Island as an evolving ecological landscape, where interconnected habitats, living terrariums, water systems, and reclaimed materials communicate processes of succession, flooding, adaptation, and regeneration within a post-industrial environment.

Swathikrishna Rajesh

Master in Landscape Architecture
Year 2
Some Kind of Nature

Memorial of Injustices reimagines Pomona Island as a public art landscape that critically engages with the impacts of climate change by exposing environmental consequences and highlighting ecological loss through wetland creation as a regenerative framework for biodiversity restoration. Pomona Island once supported a rich riparian habitat connected to the River Cornbrook, which is now entirely culverted. Habitat fragmentation is one of the major injustices faced by the environment, and it is a result of a human-centric approach. Thus, the project focuses on restoring these lost ecologies while contributing to a more just and inclusive landscape and reconnecting the fragmented wetland habitats.

The model portrays the messy and raw ecosystems of the River Cornbrook. Its concept is rooted in ideas of entanglement, conflict, synergy, and ecological chaos. It serves as a reminder of the importance of low-maintenance landscapes in supporting biodiversity and creating habitats for a wide range of species.

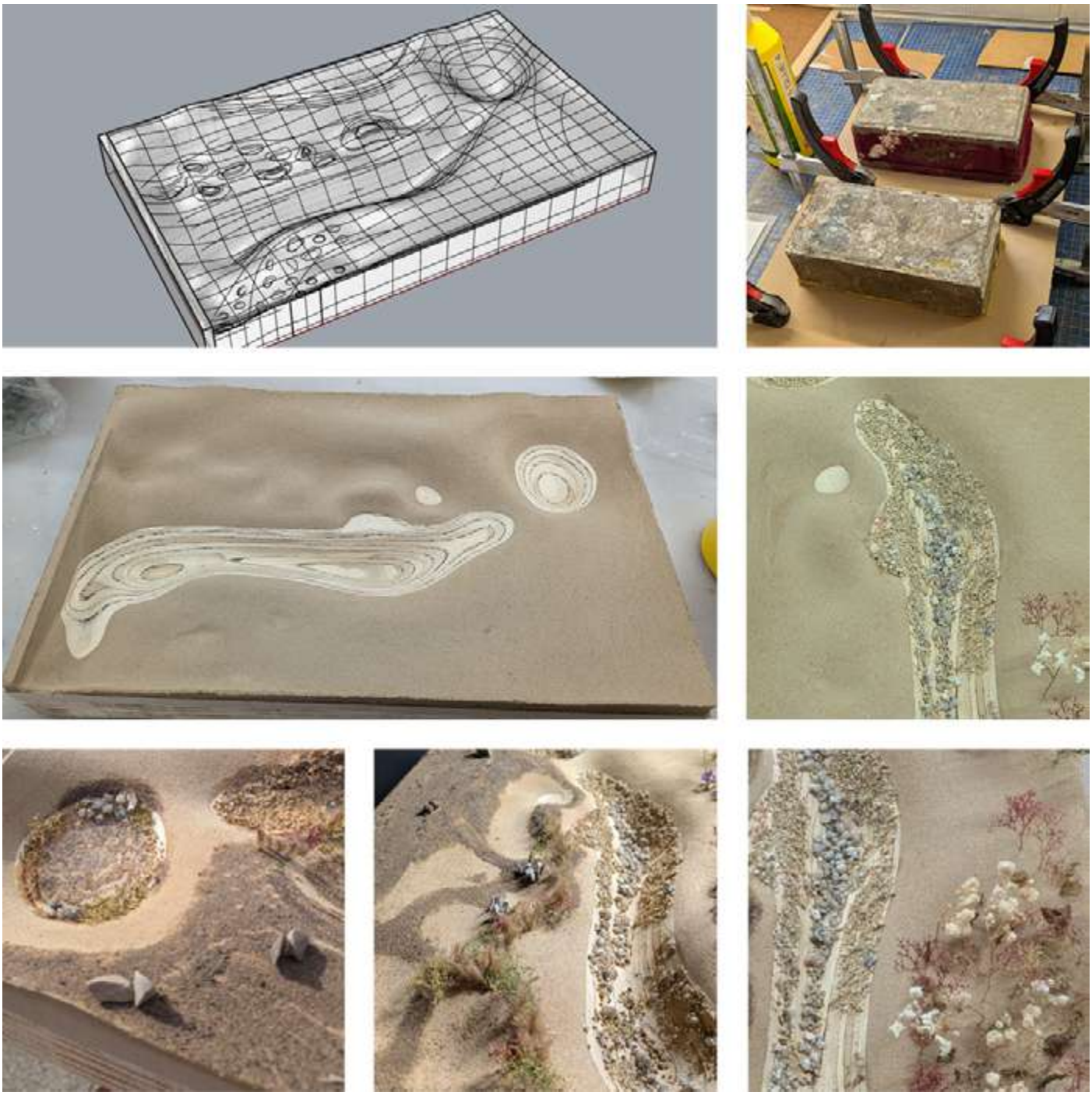
The daylighted river is framed by an extensive wetland riparian edge, reintroducing the lost ecologies of Pomona Island. These constructed ecosystems act as blank canvases for the myriad species that may find refuge within this unmaintained and intentionally “messy” landscape. Over time, the area is expected to evolve through natural processes, fostering complex ecological relationships and enhancing local biodiversity.

I have used repurposed MDF and plywood boards for the base. All the vegetation and textures are added with scrap material available from the model-making space, like dried leaves, flowers, and twigs, along with soil. The rocks and stones were materials from leftovers of other models. The main aim of the design was to demonstrate the ideology of the whole design of repurpose and reuse without contributing to landfills and more waste.

Overall plan of the model showcasing the daylighted river and footbridges.

Swathikrishna Rajesh

Master in Landscape Architecture
Year 2
Some Kind of Nature



Images showing the creation process, from the Rhino model to adding textures.






Views from different angles showing different habitats, artworks and daylighted river

yiyue dong

Master in Landscape Architecture
Year 2
Some Kind of Nature

The model explores the idea of waste as an ecological substrate rather than a material to be removed. Developed alongside my landscape proposal for Pomona Island in Manchester, it investigates how discarded industrial fragments can support new ecological relationships over time.
Using found materials such as metal mesh, fibres, dried vegetation, roots, paper and organic matter, the model was assembled through layering, weaving and accumulation. These materials were intentionally left exposed and loosely connected to reflect processes of decay, colonisation and ecological succession. Instead of representing a fixed architectural object, the model acts as a spatial and material exploration of a landscape in continuous transformation.
The intertwined textures and fragmented composition reference the conditions of post-industrial sites, where waste, soil, moisture and spontaneous vegetation interact to form evolving habitats. Plants emerging through the mesh suggest how life can occupy overlooked or unstable spaces, while the open structure allows light, shadow and porosity to become part of the reading of the work.
Through this making process, the model became a way of testing how ecological systems might emerge through adaptation rather than control. It communicates the project's broader aim: to rethink waste landscapes as dynamic environments shaped by multi-species inhabitation, material change and ongoing ecological processes.

A physical synthesis of the post-industrial landscape's dynamic evolution. Layers of found industrial fragments, woven mesh, and organic textures are integrated to create a porous, living substrate, physically manifesting the metabolic processes of ecological succession over time.

yiyue dong

Master in Landscape Architecture
Year 2
Some Kind of Nature

Close-up view of intertwined organic and industrial materials, reflecting the emergence of adaptive ecological relationships within post-industrial landscapes.

Fragmented layers of mesh, roots and spontaneous vegetation exploring waste as a substrate for ecological succession and habitat formation.

Kari-Helene Rane

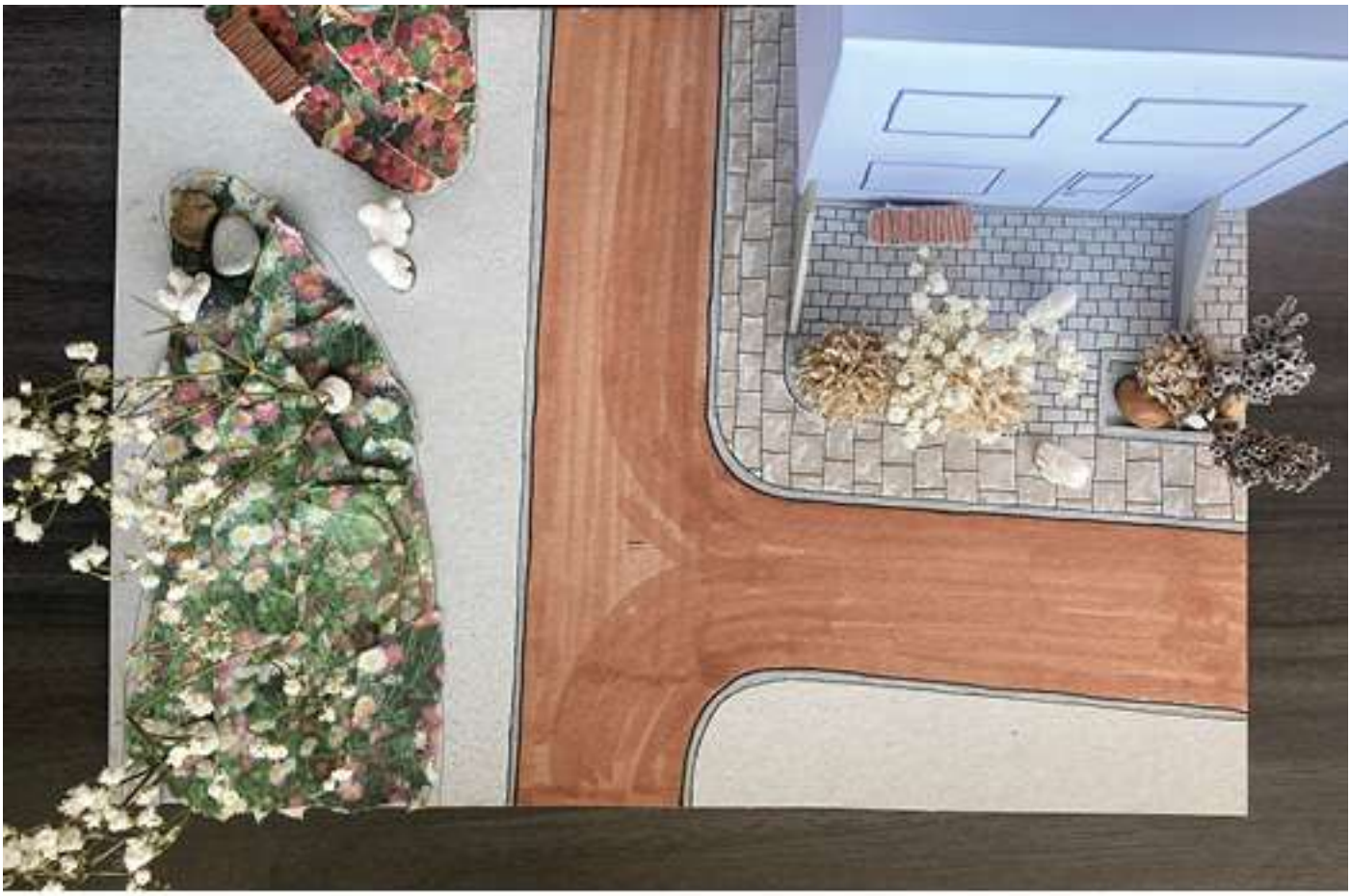
Master in Landscape Architecture
Year 1

With this model I was exploring details of a large housing development. When working on a site of several hectares it was difficult for me to develop the finer details of the individual dwellings and creating a model in 1:60 scale really helped me understand the human scale. When seeing the space in 3D I could develop my designs of the private spaces and understand how the space could provide opportunities for connections between people. I used paper, printed newspaper, dried flowers and small rocks. In addition I created small people using Plastiscene.

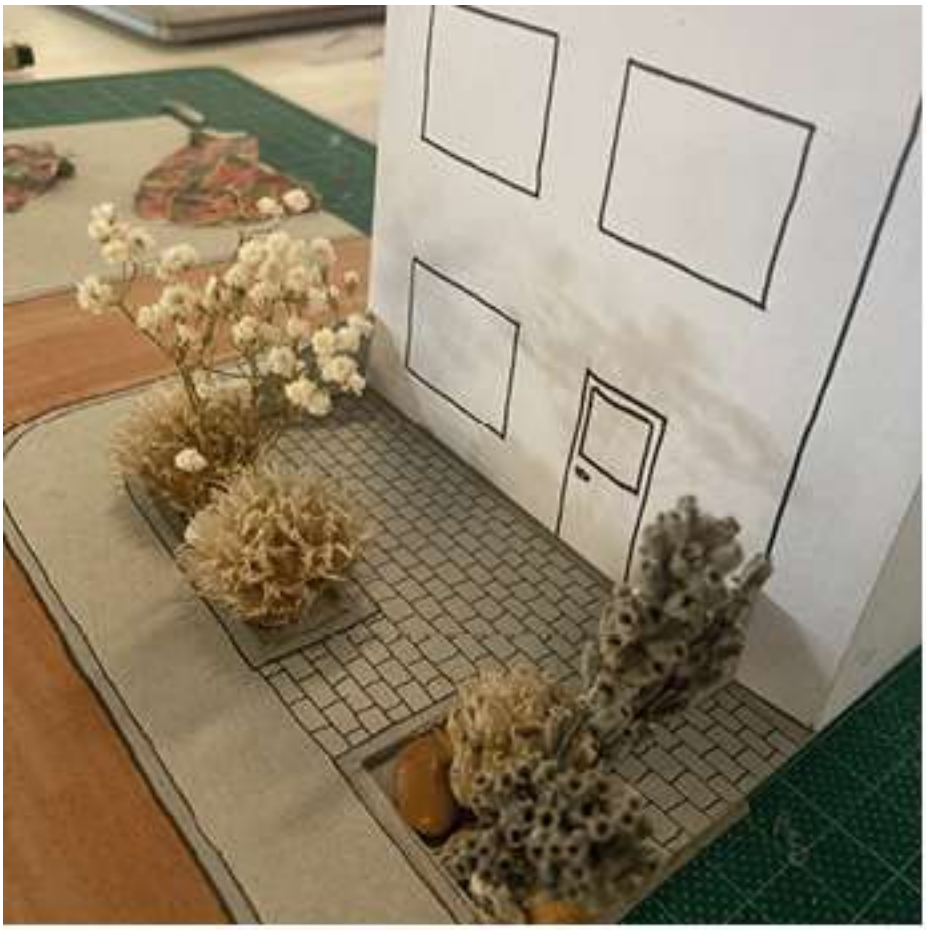
Through the creation of a 3D model it becomes easier to understand the human scale and the opportunities for human interaction within a space.

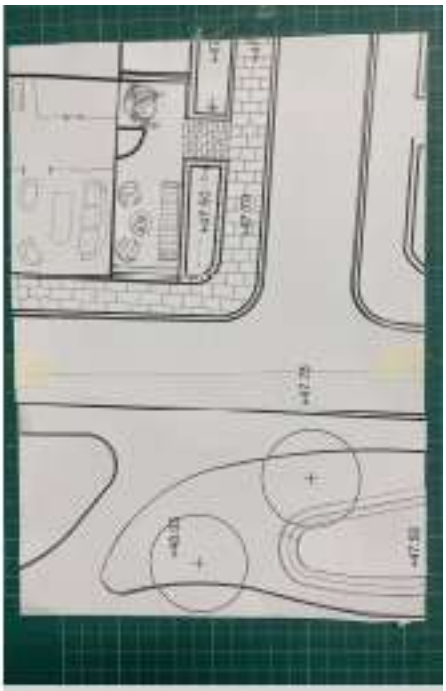
Kari-Helene Rane

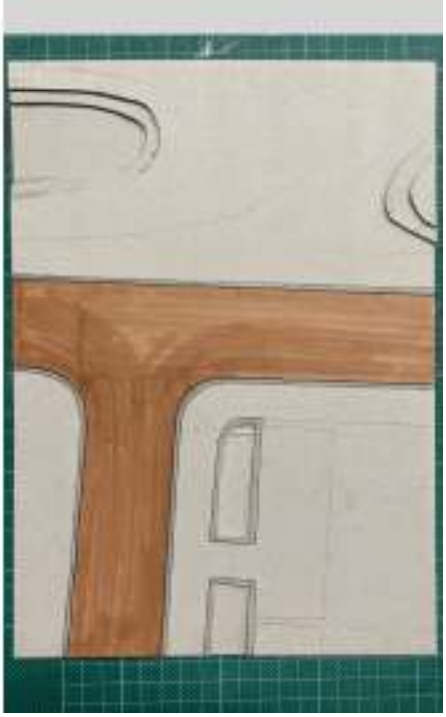
Master in Landscape Architecture
Year 1



Over the last year I have collected dried plants and they became an integral part of the model adding interest to the planting areas. In contrast, I chose to use printed newspaper for the areas of grass and meadows.







I developed the model from a printout, cutting away shapes and adding detail bit by bit. I chose to keep the building neutral and simplistic within my model to ensure the focus would be on the planting design.

Zhuoqin Zhang

MA Architecture + Urbanism
Year 1
Contextual Lab

The Porous Heart: Create a High Permeability and Vitality Urban Network

The current Manchester Arndale functions as a monolithic 'Urban Dam' that obstructs natural pedestrian flows and isolates civic activity internally. To visualize the radical transformation of this inward commercial box into a permeable, climate-responsive network, my physical model employs a stark, deliberate contrast in materiality. I use dark-stained timber to represent the existing heavy urban fabric—the rigid context that currently traps activity and leaves the surrounding streets disconnected. In sharp opposition, the architectural interventions of The Porous Heart are crafted from pure white foam. This lightweight, pristine material embodies the newly introduced pedestrian lanes, allowing sunlight, fresh air, and human flow to visually slice through the dense wooden blocks.

This strategic choice of materials serves both analytical and practical purposes in the model-making process. Spatially, the crisp juxtaposition between the dark timber and white foam immediately clarifies the new, human-scale streetscapes and the direct shortcut connecting Exchange Square and Piccadilly Gardens. In practice, the high malleability of the white foam serves as an agile design tool; it allows me to iteratively carve, test, and modify spatial volumes in real time as I observe the evolving 3D relationships. By capturing the tension between the enduring historical context and the highly permeable contemporary insertions, the physical model itself becomes an active manifestation of a vibrant, well-connected urban ecosystem.

Visualizing Permeability & Urban Connectivity_ The contrast between the contextual dark wood and the white architectural inserts clarifies the design hierarchy.

Zhuoqin Zhang

MA Architecture + Urbanism
Year 1
Contextual Lab

Internal Circulation & Road Hierarchy Through physical prototyping, the internal road system is revealed as a multi-layered network that synchronizes with Manchester's street grain.

Process behind modelmaking including laser cutting, cutting, staining, labeling, gluing, transporting, and photographing

Taecho Shim

BA(Hons) Architecture
Year 1
MSA Live Group 11

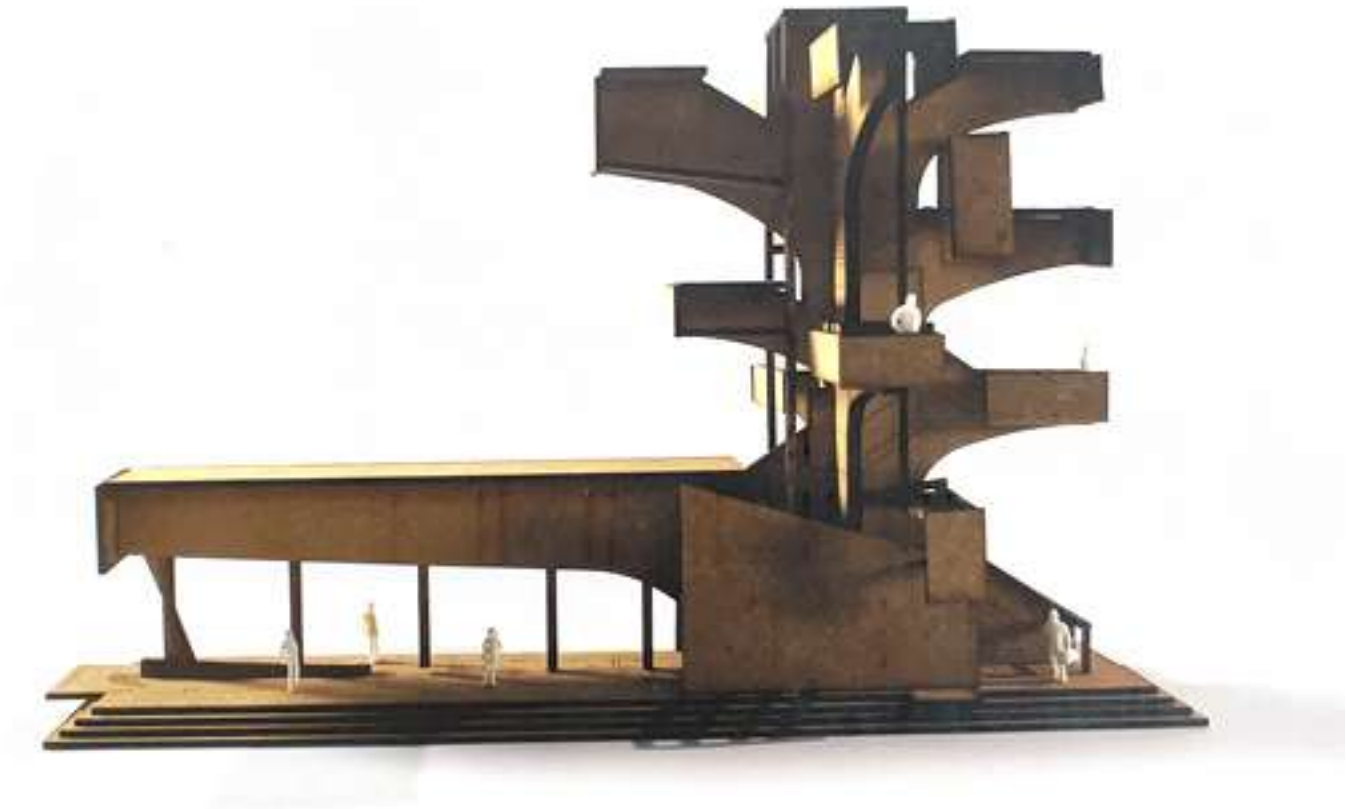
This model was developed as part of a Semester 2 design project for Heaton Park, Manchester. The proposal combines a visitor centre and observation tower, creating a destination that encourages exploration, gathering, and engagement with the surrounding landscape.

The design was inspired by the branching structure of a tree. Rather than creating a conventional tower with a single viewing platform, the project explores how circulation can become an architectural experience in itself. A series of elevated platforms extend from a central vertical core, allowing visitors to move through the tower and encounter different views, heights, and moments of pause throughout their journey.

Modelmaking played a fundamental role in the development of the project. The design process began with a series of sectional and structural studies that tested how the platforms could connect to the central circulation core while maintaining clarity, balance, and spatial hierarchy. Through iterative physical models, relationships between structure, movement, and occupation were refined and evaluated.

The final model focuses on communicating the spatial experience of the proposal. Laser-cut MDF was selected for its precision and ability to clearly express the layered construction of the tower. The contrast between the solid central core and the projecting viewing platforms helps reveal the organisational logic of the design, while exposed sectional cuts allow the internal circulation to remain visible.

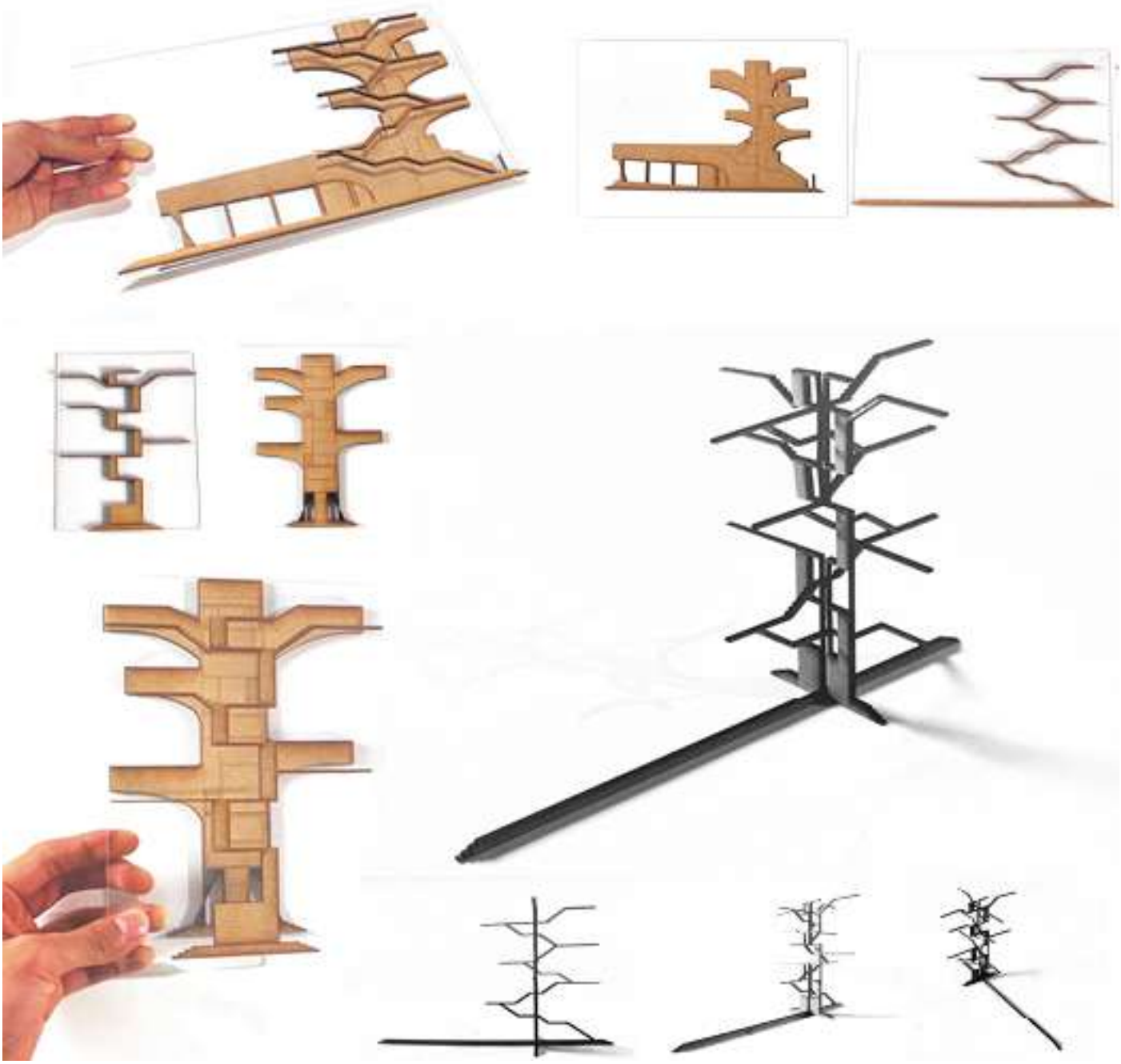
Rather than presenting the building as a static object, the model aims to capture a sequence of movement through space. It illustrates how visitors ascend, pause, observe, and reconnect with the landscape from multiple levels. Through the process of making, the model became both a design tool and a method of communicating the project's central idea: architecture as a journey of exploration and observation.



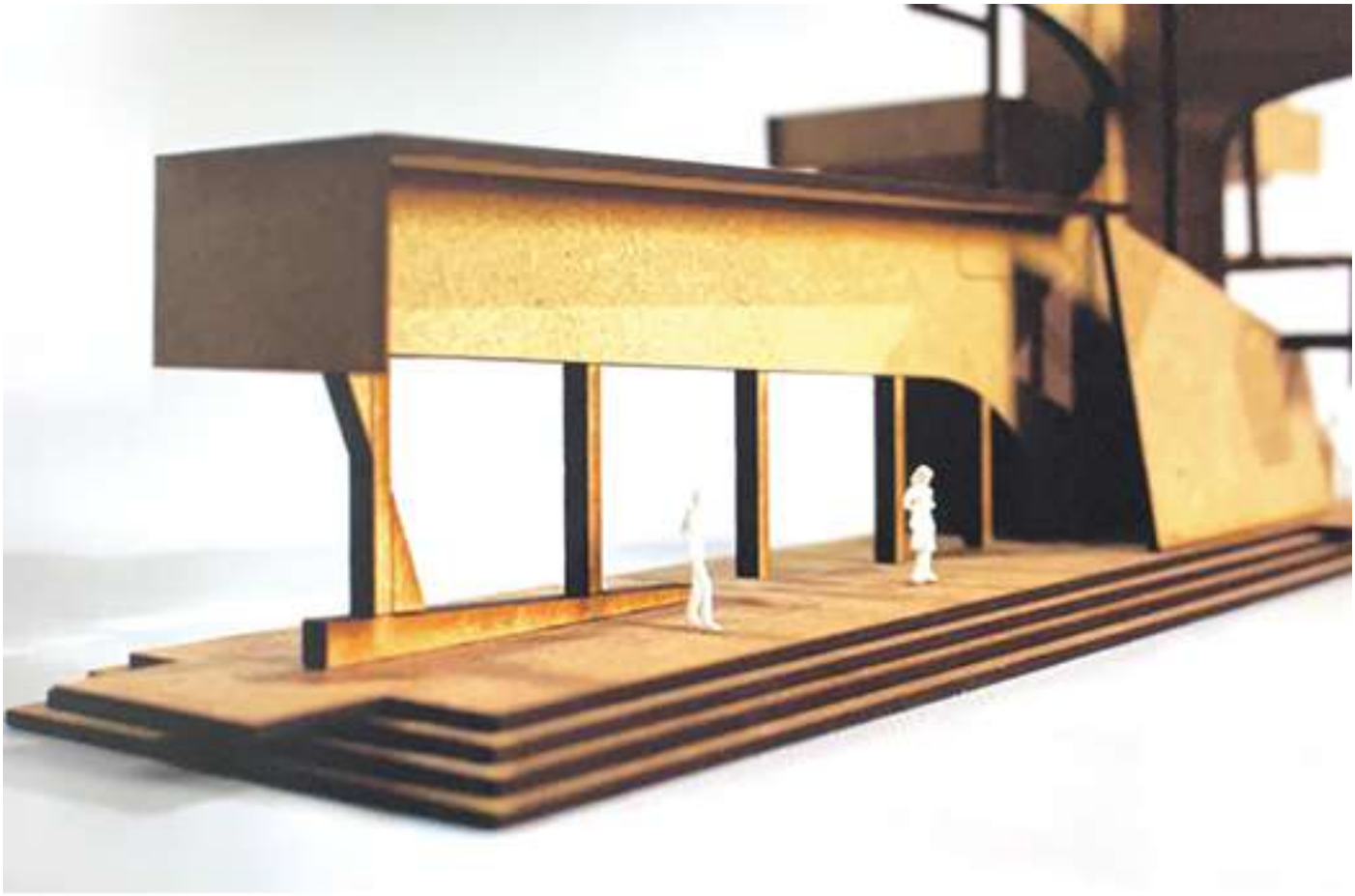
Observation Tower and Visitor Centre for Heaton Park. Inspired by the branching structure of trees, the design combines vertical circulation, viewing platforms, and public gathering spaces to create a journey of exploration, observation, and engagement with the surrounding landscape.

Taecho Shim

BA(Hons) Architecture
Year 1
MSA Live Group 11



Experimental study models produced during the early design process. Through sectional, structural, and circulation studies, the relationship between the vertical core and viewing platforms was explored. Iterative modelmaking was used to test spatial experiences and structural possibilities, informing the development of the final proposal.



Close-up views of the final model highlighting key spatial moments and details. The images reveal the connection between the visitor centre and observation tower, vertical circulation, and viewing platforms at different levels. Sectional expression communicates both the structural organisation of the proposal and the visitor's journey through the building.

Nandi Mahlangu & Daria Anwar

BA(Hons) Architecture
Year 1
MSA Live Group

This model was built to visualise the development of new soft-furniture that would be implemented into the interior design of a Youth Centre. We designed the furniture to respond to the requests of the community, mainly being that the space lacked colour as well as the fact that we noticed a lot of dead zones throughout the original floor plans. We turned this furniture into a multifunctional element that serves as storage space and seating for the youth.

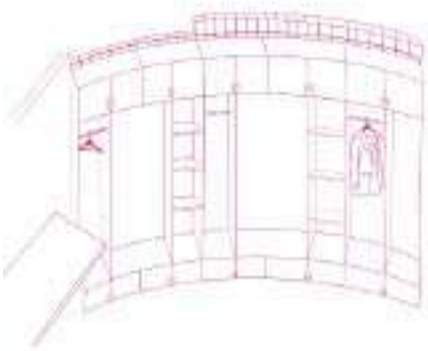
The model is constructed at a 1:10 scale using foamboard within and balsa wood, with coloured paper used to represent the various functional zones and material finishes. The warm timber frame provides a neutral structural base, allowing the vibrant colour palette to take centre stage and communicate the intended energy of the space.The unit is divided into several distinct zones. Upper and lower cabinet storage is distributed symmetrically across both sides of the unit, with yellow panels on the left and green on the right, each fitted with pull handles. These cabinets offer enclosed storage for personal belongings and equipment used within the centre. On the left side, open shelving provides accessible display or book storage, encouraging informal use of the space. To the right, a recessed wardrobe zone includes hangers, catering to the practical needs of the youth who spend extended time at the centre.
At the heart of the unit sits a central open bay with an upholstered bench seat, creating an inviting point of rest and social interaction. This seating element directly addresses the community's desire for more usable, comfortable space within the centre.

Together, these elements combine storage, seating, and display into a single cohesive furniture piece that is both practical and visually dynamic. This model transforms what was once a dull and underutilised area into a lively, functional environment tailored to the needs of young people.

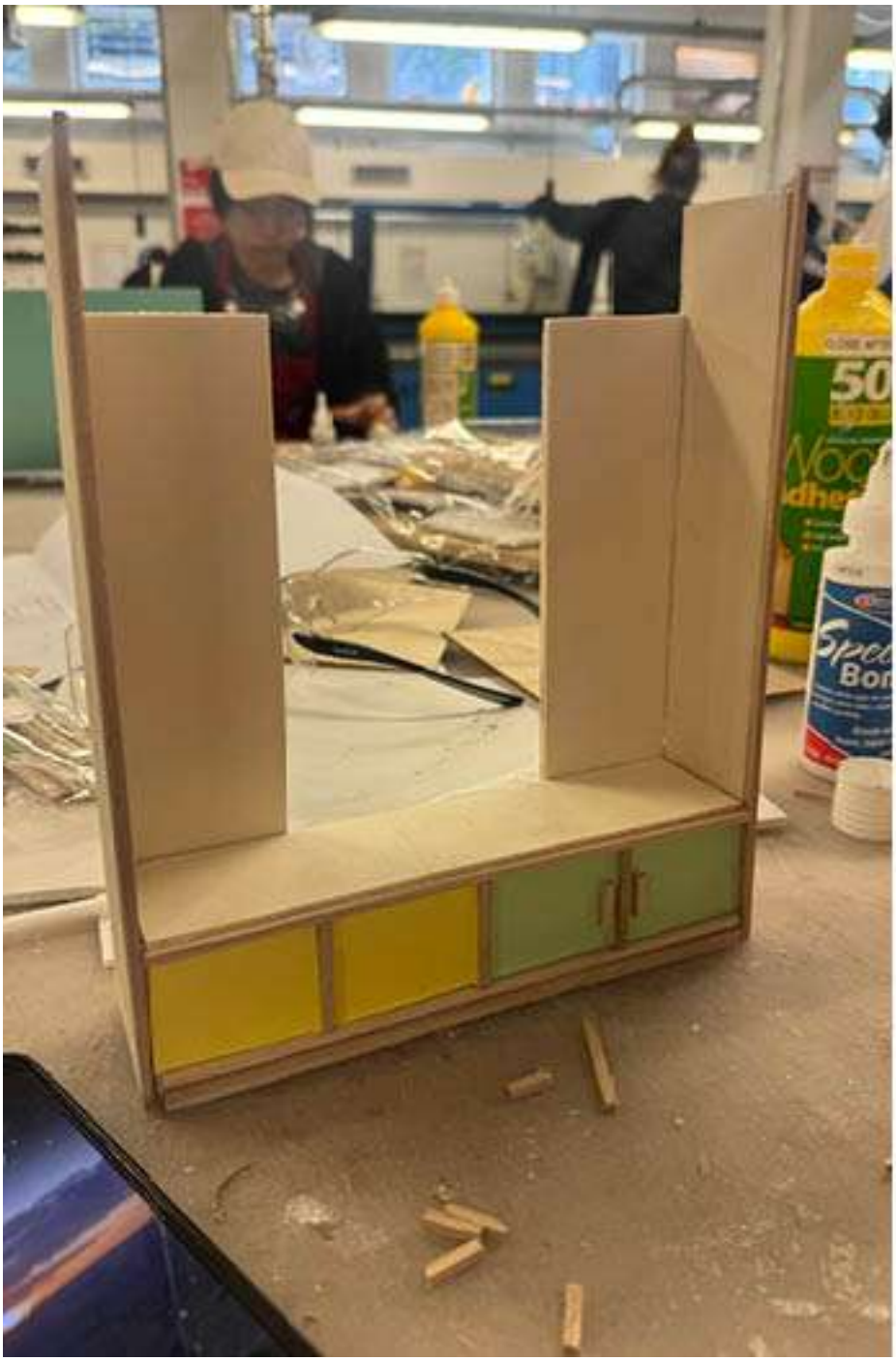
The final model of the vibrant and multifunctional furniture unit designed to maximise spatial utility. Featuring built-in shelving, an integrated seating nook, dedicated overhead and lower storage. A scale figure stands alongside the model, emphasising the structure's real-world proportions and user interaction.

Nandi Mahlangu & Daria Anwar

BA(Hons) Architecture
Year 1
MSA Live Group



This layout shows the early stages of the model-making journey, from the initial digital drawing of a curving structure to the foundations of the physical model. I am shown operating a bandsaw to precisely cut balsa wood pieces. We also see scattered foam core parts and assembled, representing the evolution from plan to physical creation.



Daria and Nandi collaborate in the workshop, assembling the wooden frame, crafting miniature clothing hangers, and installing vibrant, colourful shelves and drawers. The final image showcases the completed design, highlighting integrated shelving, hanging storage and a built-in seating nook.

Laura Calin & Emin Huseynbayov

BA(Hons) Architecture
Year 3
CPU[ai]

This model was developed as a collaborative research tool to explore how the invisible qualities of our site in Hulme, Manchester, can be materialised and communicated through making. Rather than producing a conventional site model that simply represents physical form, we sought to uncover and reveal the hidden layers embedded within the site's history, movement patterns, cartographic records, and accumulated information.

The model emerged from an ongoing process of deconstructing the site to better understand its realities and complexities. As our research progressed, new layers were added, allowing the model to evolve alongside our developing interpretations. Each intervention represents a response to information uncovered during a two-month period of investigation in the first semester of our studio project. In this way, the model became both a record of research and a means of generating design ideas, helping us develop proposals that are rooted in the specific conditions of the place rather than imposed upon it.

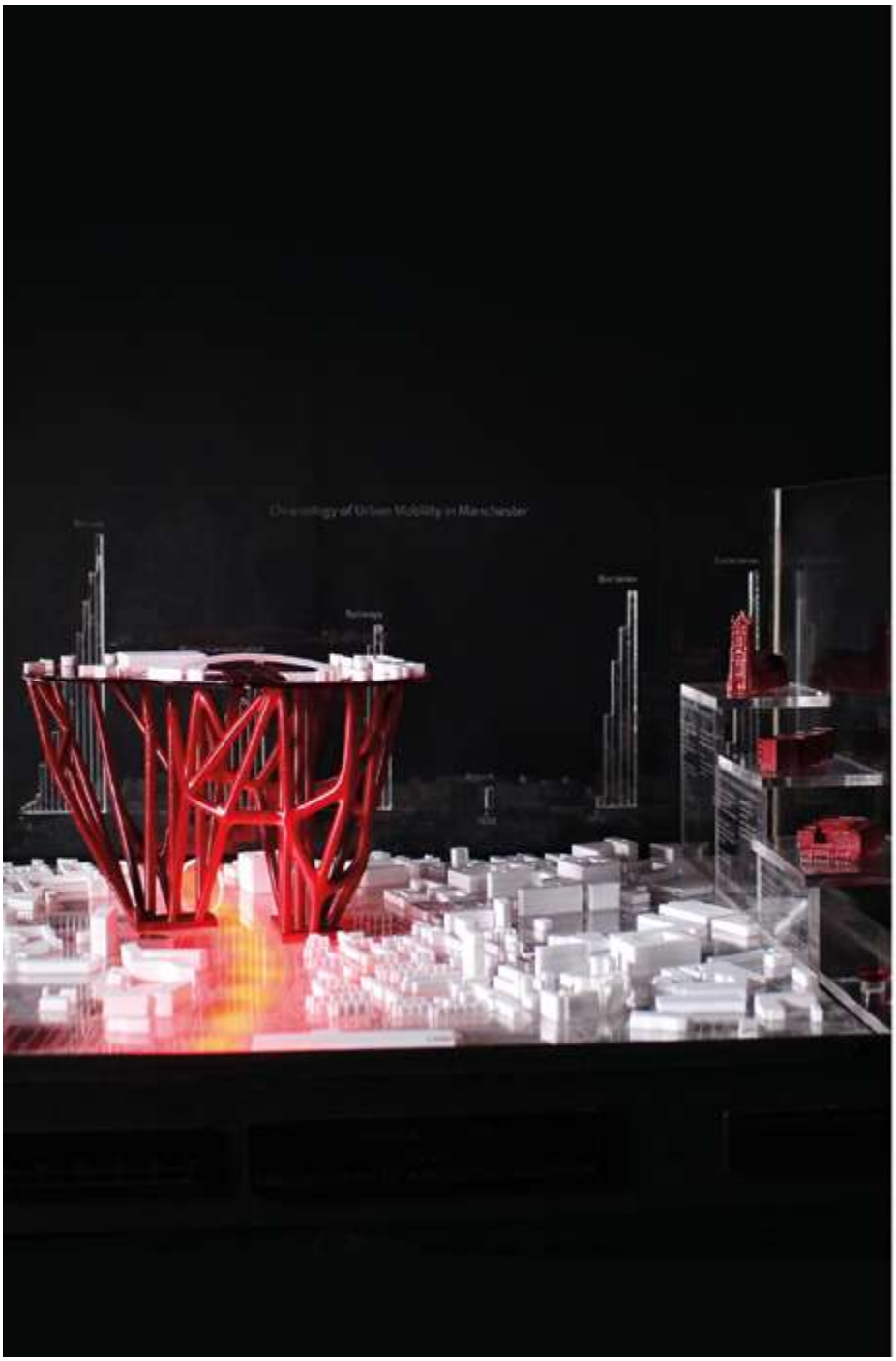
Aligned with the CPU AI Atelier's focus on computational thinking, we explored the potential and limitations of a range of digital and analogue tools throughout the making process. The model was carefully planned and developed in Rhino before being fabricated through a combination of laser cutting and 3D printing. We also experimented with AI as a research and translation tool, transforming site information into physical objects, poetry and graphs acting as an archive of our responses over time of our site.

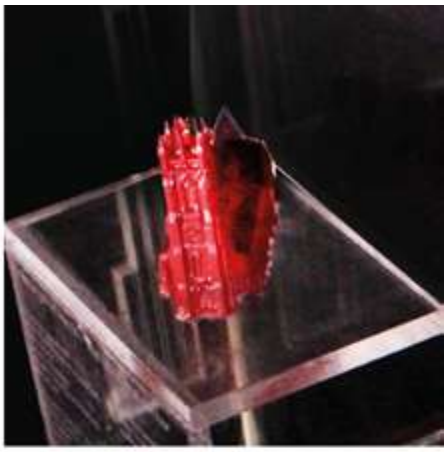
Rather than presenting a single image of the site, the model communicates an evolving story of discovery. Through the layering of physical, digital, and speculative methods, it reveals relationships and histories that are often overlooked, transforming research into a tangible object that makes the hidden qualities of the site visible.

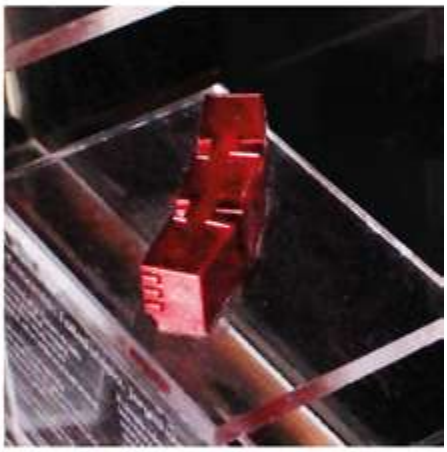
This research model maps the hidden infrastructures and boundaries that shape the site. Princess Road is illuminated with LED as the longest continuous route appearing across maps from 1838 onwards, while projected lines inspired by regional rail networks converge on the site, revealing connections between movement, history and place.

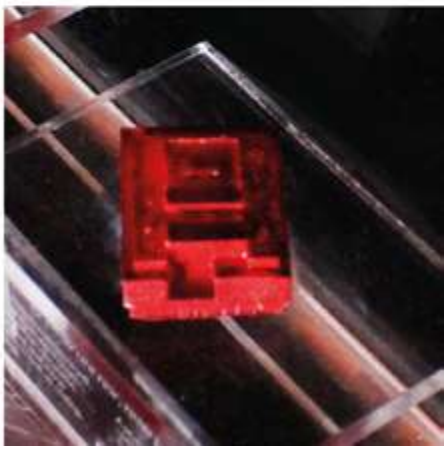
Laura Calin & Emin Huseynbayov

BA(Hons) Architecture
Year 3
CPU[ai]

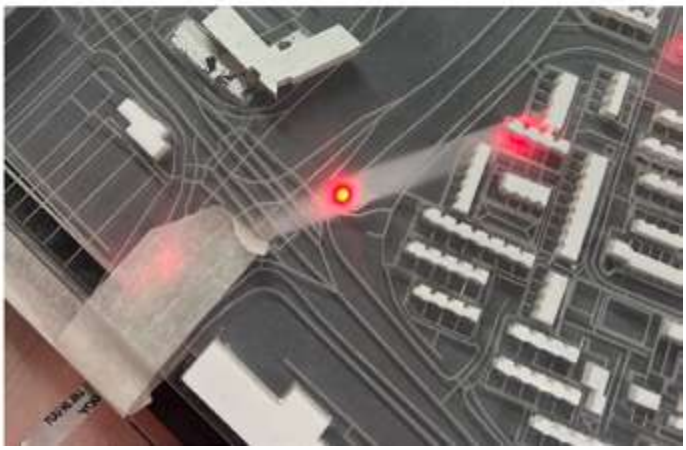








"Chronology of Urban Mobility in Manchester" traces changing patterns of connectivity through the growth and decline of transportation networks over time. St George's Church, the Hulme Crescents and the Brooks Building were transformed from archival photographs into resin models using AI, creating physical imprints of archival information reflecting Hulme's social and architectural fabric.



The model was constructed through layered fabrication combining MDF for the structural base, acrylic for transparent spatial planes, PLA for 3D printed geometries, and resin casts derived from AI-transformed archival buildings. Integrated LEDs embedded beneath the base illuminate Princess Road, reinforcing mapped movement patterns and highlighting infrastructural and historical narratives.

Audrey Ko & Parth Jain

BA(Hons) Architecture
Year 3
Non-Standard Habitats

This cast Jesmonite model of the Mancunian Way was produced during the early stages of site analysis and design development. Responding to the Carbon Futures brief, the model represents the importance of critically learning from past planning decisions rather than reproducing new totalising visions. Once conceived as a visionary piece of urban infrastructure, the Mancunian Way embodied ideals of efficiency, connectivity, and progress. Its inability to fully realise these ambitions positions it as a valuable site through which to examine the legacy of carbon-intensive urban systems and their continuing impact on the city.

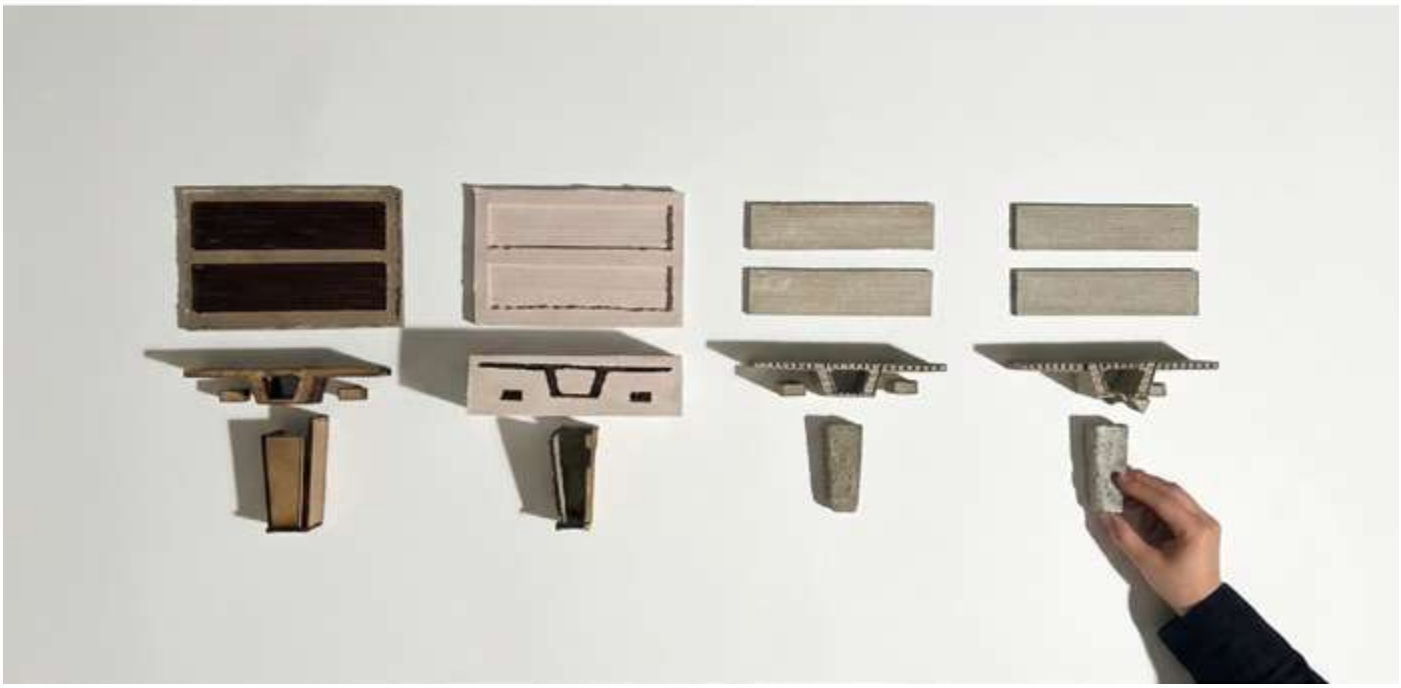
The modelmaking process involved creating a silicone mould capable of capturing the motorway's intricate details. Initial tests using greyboard and MDF proved challenging, as small components became trapped within the mould. With support from B.12 workshop staff and the use of waterjet-cut components, the mould was refined and cleaned to achieve a more accurate cast. A series of material experiments then followed, testing different substrates and varying ratios of cement, water, and Jesmonite to identify a finish that most effectively reflected the appearance and material character of the motorway.

Through this process, the model became both a technical investigation and a tool for understanding the site. It enabled us to develop a deeper reading of the Mancunian Way as an existing piece of infrastructure embedded within Manchester's carbon landscape, while demonstrating our engagement with the physical and historical conditions of the project site.

Assemblage of different precast elements to produce
a 1:100 sectional model of the Mancunian Way

Audrey Ko & Parth Jain

BA(Hons) Architecture
Year 3
Non-Standard Habitats



Evolving from single use MDF formwork to Re-usable silicone molds, for efficiency and replicability

The process of making the section, initially working in reverse to produce the mold, which is used to cast different materials such as cement and jesmonite

Ciara Powell, Ece Karagoz, Yichen Zha, Freya Kennedy Harper, Viktoriia Manko, Parth Jain, Erin Tsz Ching Lau, Charlie Berryman-Jenkins,

BA(Hons) Architecture
Year 3
Non-Standard Habitats

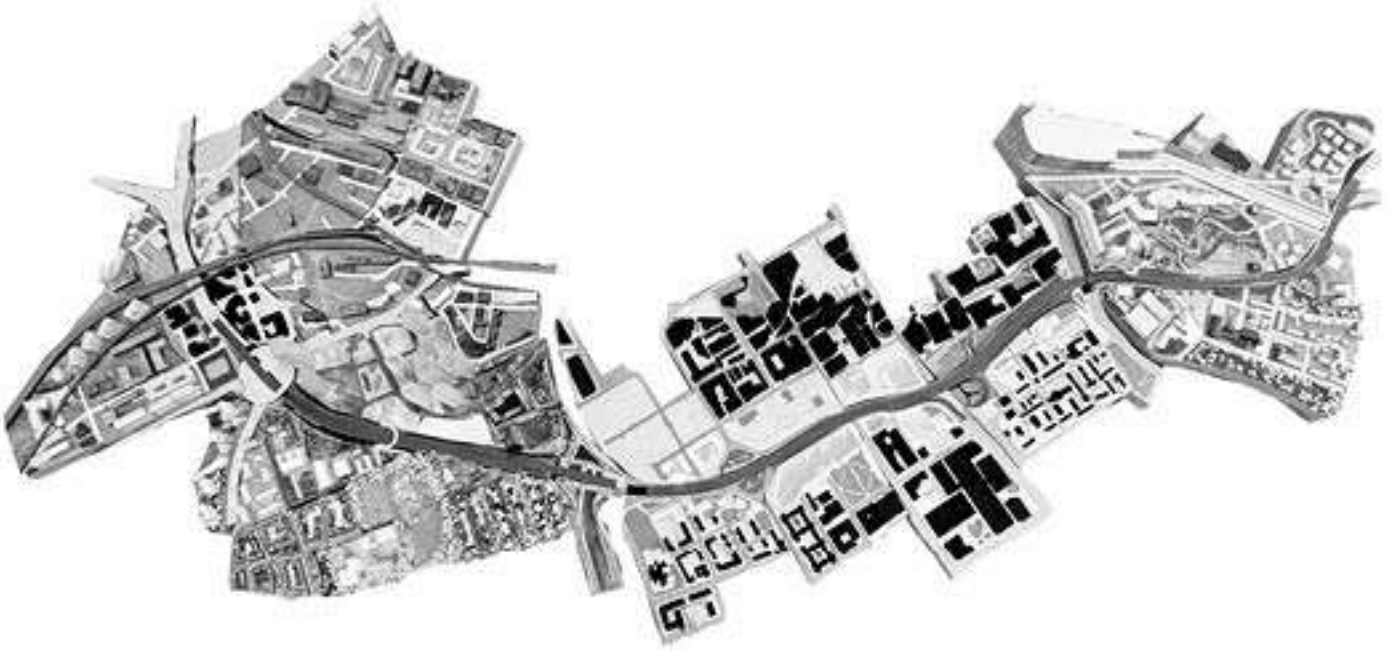
At the start of BA3, the Non-Standard Habitats atelier collaborated to create a 1:1000 scale model of the Mancunian Way. We divided into four subgroups, each responsible for a different section: Mayfield, University, Castlefield, and Medlock. Individuals / groups were given the freedom to represent their areas in the way they felt was most appropriate, resulting in a varied and expressive model. These distinct pieces were unified by the painted red Mancunian Way running through the model.

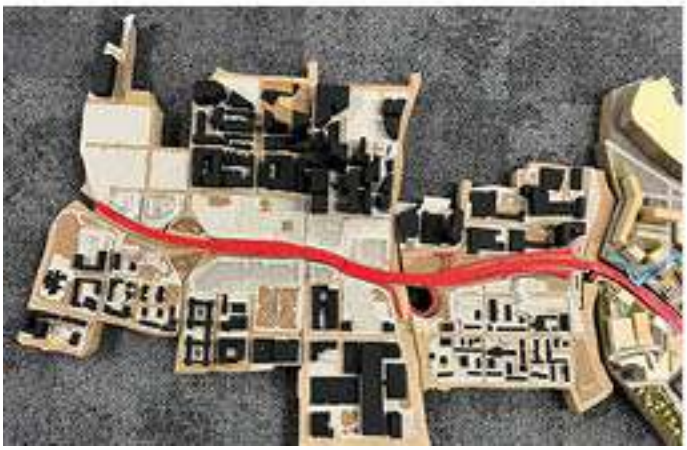
The Mancunian Way played a central role in the Non-Standard Habitats atelier this year, as a key aspect of our brief focused on creating a more connected city while reducing carbon emissions in Manchester.

The model was created through a highly collaborative process. The Mancunian Way and its surrounding areas were divided into four sections, with teams assigned to each. These sections were further broken into smaller pieces for individuals to work on independently before being assembled together, like a jigsaw puzzle, into the final model.

Ciara Powell, Ece Karagoz, Yichen Zha, Freya Kennedy Harper, Viktoriia Manko, Parth Jain,

BA(Hons) Architecture
Year 3
Non-Standard Habitats





This model helped us develop a broader understanding of Manchester before selecting our individual sites. It provided a creative and engaging way to explore the city, requiring extensive research to determine the model's scale, level of detail, and the key features that should be represented.

These close-up images highlight the level of detail the model has. A wide range of urban features were represented, including buildings, parks, schools, churches, railway lines, roads, pathways, and green spaces.

Keti Katchkatchuri, Rodrigo Arevalo del Aguila, Zuzanna Wieczór & Jiabin Wang

MA Architecture + Adaptive Re-use
Year 1
Research Methods Workshop: Schinkel in Manchester

This final model of the Schauspielhaus Berlin by Karl Friedrich Schinkel was developed as part of a methodological investigation into architecture through the process of making. Rather than treating architectural history as a static subject of observation, the project explored how physical model-making can reveal the structural logic, spatial hierarchy, and civic intentions embedded within historic architecture.

The Schauspielhaus occupies a significant position within Berlin's Gendarmenmarkt, framed by the French and German Cathedrals. Designed by Schinkel following the destruction of the previous theatre in 1817, the building was conceived not only as a performance venue but also as a civic monument intended to unify and stabilise the square. The model, therefore, focuses on communicating both the architectural composition and the structural order that define the building.

The development of the project progressed through a series of models at different scales, beginning with a 1:100 study model used to understand proportion and verify historical drawings, followed by a 1:500 casting experiment investigating abstraction, mould-making, and materiality. These studies informed the final large-scale sectional model, which emphasises the relationship between interior structure and exterior form.

The final model was constructed using timber, MDF, plywood, and balsa wood, materials selected for both their practical and historical relevance. Inspired by the Greek influence within Schinkel's architecture, timber was chosen as a contemporary interpretation of the stone construction of the original building. The model adopts a column-based assembly system reflecting the structural rhythm of the Schauspielhaus itself, with each column individually fabricated and aligned through engraved floor guides.

Particular attention was given to craftsmanship and sustainability throughout the process. Curved walls were formed using layered plywood to minimise material waste, while architectural details such as the staircase and interior sectional cuts were carefully constructed to expose the hierarchy and spatial organisation of the building. The inclusion of a suspended frosted acrylic backdrop references Schinkel's theatrical background and his original stage designs, reinforcing the relationship between architecture, theatre, and civic spectacle that defines the Schauspielhaus.

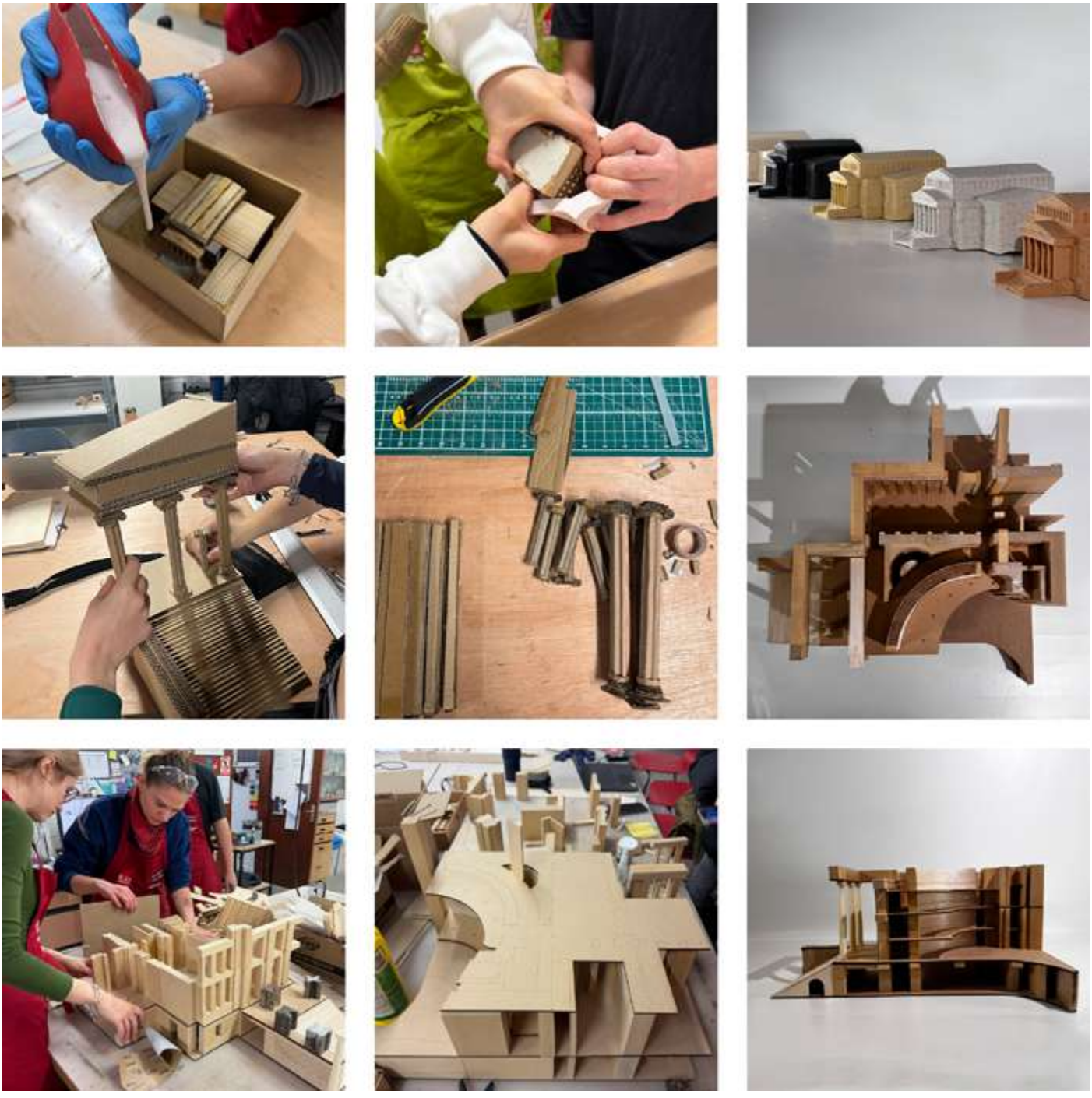
Perspective view of the 'Schauspielhaus' wooden 1:50 model.

Keti Katchkatchuri, Rodrigo Arevalo del Aguila, Zuzanna Wieczór & Jiabin Wang

MA Architecture + Adaptive Re-use
Year 1
Research Methods Workshop: Schinkel in Manchester




Rotative photographic layout of the 'Schauspielhaus' wooden 1:50 model.



Model-making process of the 'Schauspielhaus' from the 1:500 to 1:50 model.

Liangwen Song, Junze zhou & Qianzi wu

MA Architecture + Adaptive Re-use
Year 1
Research Methods Workshop: Schinkel in Manchester

Reconstructing the New Packhof Warehouse: A Study in Structural Rationalism

Designed by the renowned architect Karl Friedrich Schinkel and put into operation in 1832, the New Packhof Warehouse in Berlin stands as an early masterpiece of industrial architecture. Situated on Museum Island, this vital transportation and logistics hub perfectly mirrors Schinkel's insights into British industrial design, capturing a harmonious dialogue between strict mechanical logic and urban streetscapes.

Our project explores this historic structure through an analytical, multi-scalar model-making process. To bridge historical design with contemporary fabrication, we translated Schinkel's architectural drawings into digital 3D models, paying careful attention to the building's distinctive "batter"—the gradual thinning of the brick masonry walls from the base to the upper levels.

The physical investigation began with a 1:100 cardboard sketch model and a 1:500 silicone mould casting test, where we experimented with Jesmonite and varied pigment densities to accurately replicate the tonal and tactile qualities of the original building's red-brick facade and weathered foundations. These iterations laid a rigorous foundation for our final 1:50 sectional model.

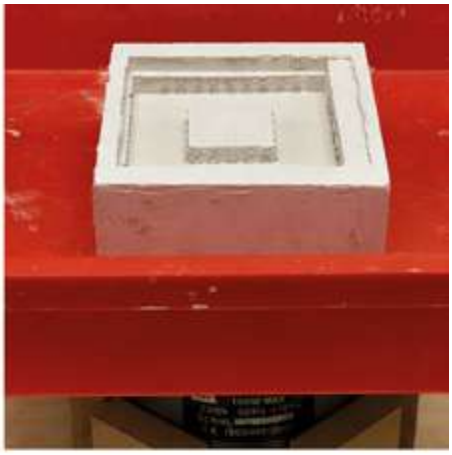
The primary structure of the sectional model was constructed from laser-cut MDF boards of varying thicknesses, enabling a precise representation of the structural transitions between floors. The intricate interior, which highlights the expansive storage spaces created by the timber truss roof systems, is brought to life through a blend of physical and digital techniques. The multi-tiered structural arches and window frames were delicately layered and assembled by hand, while the complex, classical internal columns were achieved through high-precision 3D printing.

Ultimately, the final model serves as both a tangible and visual deconstruction of the New Packhof Warehouse. By balancing digital fabrication with meticulous hand-craftsmanship, the work successfully exposes the interior spatial organisation and mechanical clarity of Schinkel's design, celebrating the enduring relationship between historic structural rationalism and modern architectural representation.

Packhof was a warehousing building, with square shape and it has precise columns and floor heights calculation logic. The model is constructed with woods, including a plastic base and a few other materials. During the process, we seperated the model into parts and clarify the combination methods.

Liangwen Song, Junze zhou & Qianzi wu

MA Architecture + Adaptive Re-use
Year 1
Research Methods Workshop: Schinkel in Manchester



We make a sketch model to understand the scale and relationships between the elements in the final model. Then we use a variety of materials for model casting. In the final test, we mixed up a red brown pigment and added it to the mold.

The 1:50 final model shows the thickness of the walls, the size of the columns and the floor heights decrease from bottom to upper stairs. Frameworks of floor boards were made, as well as the detailed roof trusses and windows.

Logan Johnson, Mohammed Rahat & Sam Walkington

Master of Architecture
Year 1
Some Kind of Nature

Our project, developed as part of Some Kind of Nature's Small Acts of Love, is a live collaborative project with clients at Withington Baths. In response to active client feedback, we have proposed and carefully developed a new complete vent brick to replace the existing fractured brick. The vent brick will be permanently installed in the heart of the baths, within the central first-floor co-working courtyard, impacting the appearance of the space as well as the experience of users for years to come.

Firstly, following a site survey, we developed three design strategies and produced small-scale jesmonite prototypes to communicate each proposal. Through collaboration with the client using these prototypes, we decided to develop a design that replicates the original brick pattern as well as repurposing and celebrating the original brick by crushing it and adding it into the casting mix.

The next stage involved developing a detailed digital model of the original pattern alongside a series of colour and finish samples using different jesmonite bases, varied grades of crushed brick, mix compositions, and finishing techniques, including acid washing and sanding. These samples were presented to the client to support tangible, clear communication and constructive feedback.

Entering the tooling stage, we needed to produce a positive of the design from which a silicone negative mould could be cast. We initially produced a 3D print of the pattern, however, this method did not produce the smooth and accurate finish required. Instead, we CNC-machined the pattern from MDF and added timber blocks to create the depth of the brick. After sanding and varnishing, the timber vent brick was then placed in a casting vessel and used to produce a silicone mould. Creating a mould allows us to continue developing new bricks with varied mix compositions and visual characteristics.

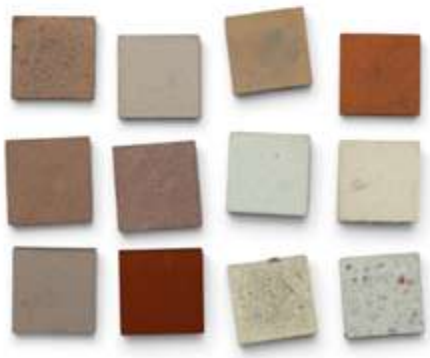
Finally, the chosen mix was cast into the mould with a foam block used to create the void to produce a finished brick. We also laser-etched some small text details onto the brick to commemorate the process. We are continuing to develop new bricks and collaborate with the client to install a finished piece.

This image displays a finished vent brick inspired by, and carefully designed to replace, a fractured vent brick from Withington Baths. The original brick was crushed and added into the casting mix, and laser-etched details commemorate the project process and the successful collaboration between the group and the client.

Logan Johnson, Mohammed Rahat & Sam Walkington

Master of Architecture
Year 1
Some Kind of Nature

A series of images displaying the model-making process of developing the brick through initial design prototyping, sampling, tooling, and manufacturing. These stages incorporated a range of techniques, including casting, woodworking, CNC machining, 3D printing, digital modelling, brick crushing, acid washing, sanding, varnishing, as well as laser cutting and laser etching.



A series of images displaying the original fractured brick alongside the project outputs to date. These include a finished laser-etched vent brick shown in context, demonstrating its relationship to the baths, alongside a range of model-making outputs used to communicate design decisions with the client, including prototypes and material samples.