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OF ARCHITECTURE



B.15 MODELMAKING AWARDS 2023



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BA

Architecture

James Coop , Manchester

Ba Year 1

Project: Studio 1.2 : Making Connections

Projekts MCR Skatepark expansion

The making connections brief was to design an expansion of Projekts MCR under the Mancunian Way incorporating a skate park, café and community space based around a skill. I chose silkscreen printing as my skill; incorporating the elements of the silk-screening process to form the building's facade in a high-tech style having experimented with various scratch models.

This 1:100 cross-section model with context incorporates the intricacy of a layered façade to portray the function and form of the space. I wanted to create a model that was interactive in multiple elements; allowing concepts to be fully visualized from multiple aspects when removed from the context. The concept itself (constructed from home) is constructed from foamboard; grey board (laser cut from my CAD floorplans), 3D printed furniture and skatepark equipment, Perspex (later sanded to create translucency), MDF, wire mesh, yellow card and nylon wire to create the facade with increased atmosphere.

I wanted there to be a juxtaposition between the concept and the site model to highlight the permanency of the site and draw focus to the concept. Therefore, I opted for more solid materials with woodworking prominent, contrasting in colour of the concept itself. The site model was made in the B15 using primarily MDF and made structurally sound by nailed internal wooden supports. This was dyed with ebony wood varnish, sanded, and waxed to partially expose the nails and create a more rustic, industrial aesthetic, indicative of the site's history. Although I considered using PVC pipe for the columns; the oval shape meant I opted to use 1.9mm and 1mm dowels glued and wrapped with grey card to get an accurate shape. The column supports are made from high-density foam and MDF. The internal bridge supports were vital in my design development of the structural facade. I laser cut the bridge supports and main 'I' beams to create detail and atmosphere within the model. A clear acrylic panel was later added to expose the detail of bridge supports and concept façade. This can be replaced by MDF to show the light and shadows true to form.



Image 01: Concept within site model 1 (with designed skatepark)

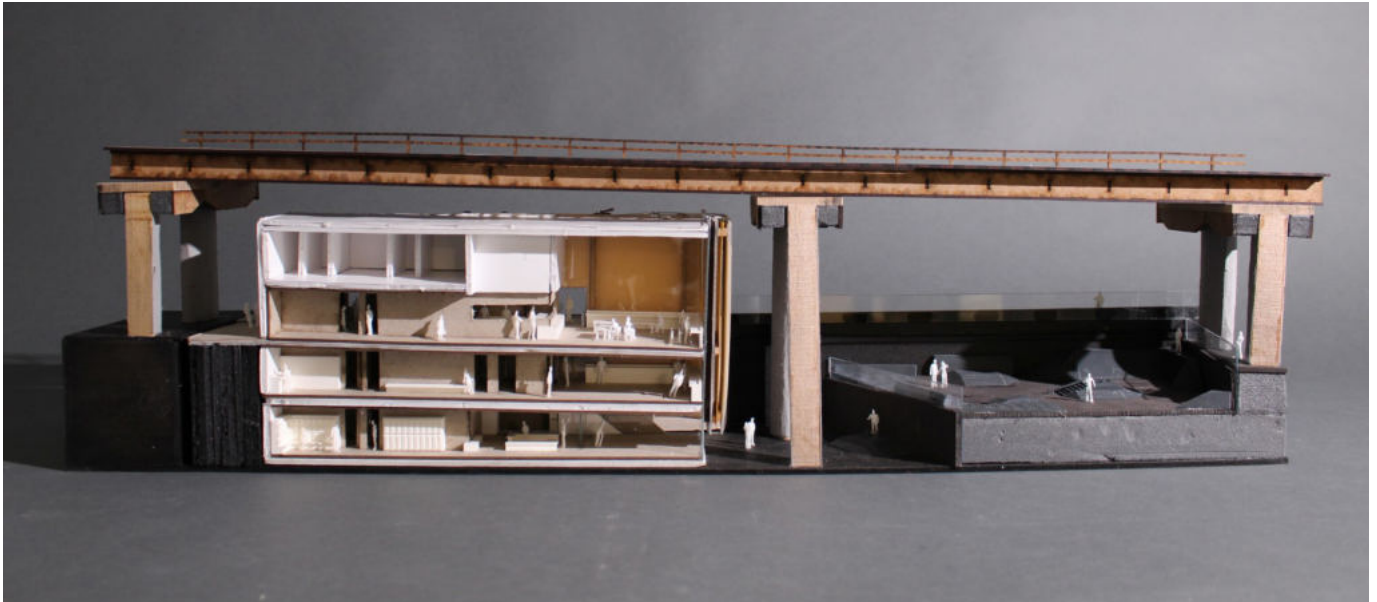


Image 02: Cross sectional model photo of concept within site model

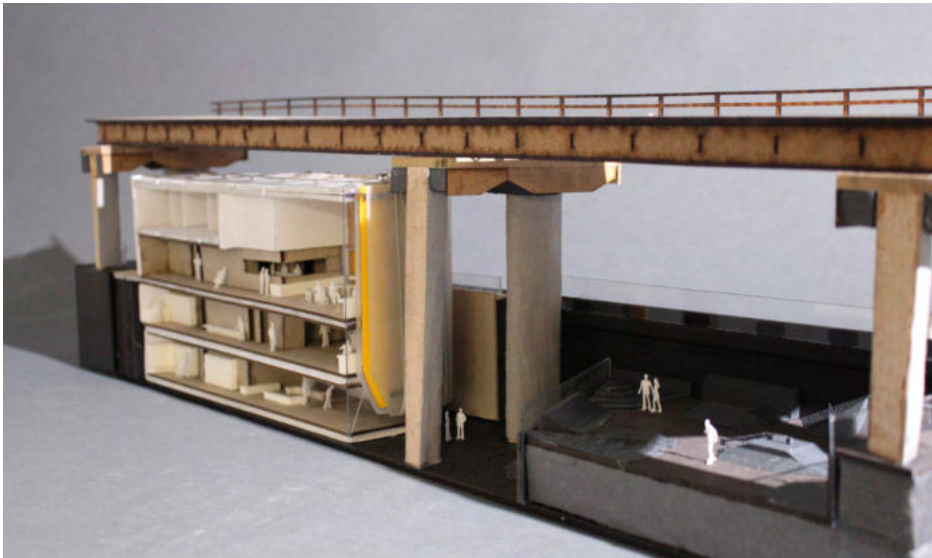


Image 03: Concept model within the site model (with designed skatepark) 2



Image 05: Process photo of Mancunian Way Column construction for site model

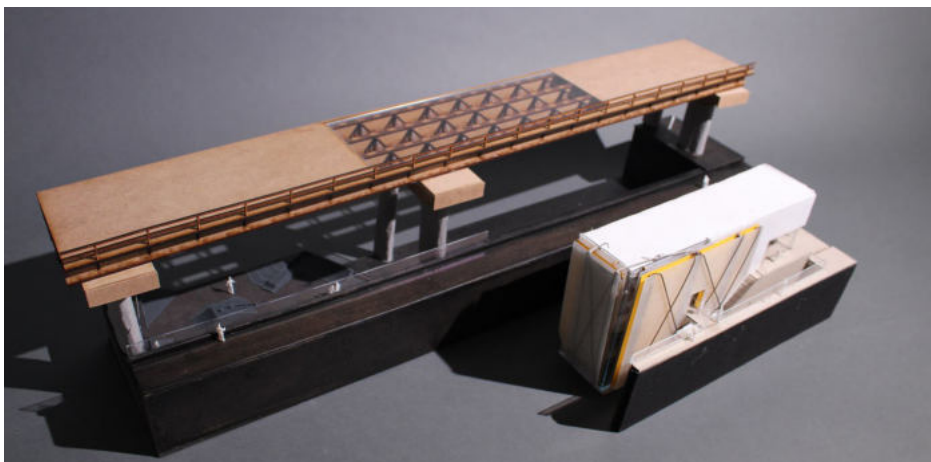


Image 04: Concept model next to the site model



Image 06: Concept model detail photo of the layered facade .

Hannah Forrester

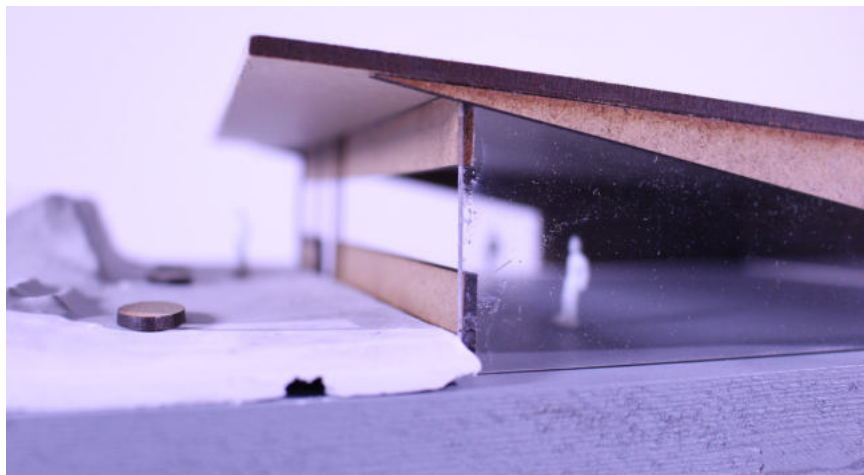
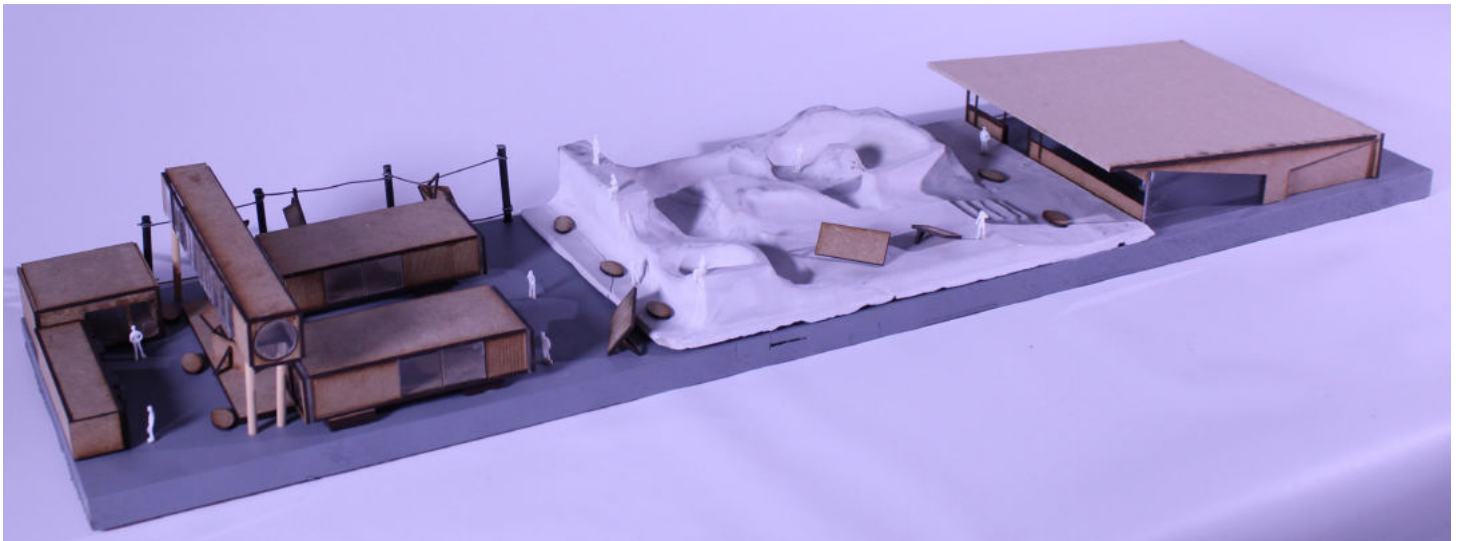
BA Year 1

Project Studio 1.2: Making Connections

Community Hub

The brief was to create a building around a specific skill. The site was a neglected underpass on the Mancunian way, which provided a long and narrow concrete island, surrounded by roads on every side - and above. The area was neglected, with extensive rubbish and graffiti. I aimed to regenerate this space by transforming it into a community hub with a focus on the skill of Graffiti Art. The model includes a skate park, a café and office, two studios, a reception, lockers and a stage for local bands. This combination is designed to attract young people and to encourage flow between the different areas from Music to Art to Skating, with graffiti art integrated into each.

The model is a 1:100 plan, it was my final model of the project so it was important to showcase all the elements of my design. To create the skate park element I first sculpted the design in clay, this material allowed me to create organic slopes and ramps. I then used a vacuum former to create a cast of the shape using acrylic, having drilled holes in the base to ensure the vacuum seals, and was able to capture the deepest parts of the sculpture. To replicate the materiality of concrete I used plaster, to which I added grey pigment and a speckle of black paint which created a marbling effect instead of one flat plane of colour. I then poured it into the mould and left it to set overnight. I created the building design on AutoCAD and then I laser cut MDF and clear acrylic. Gluing this together was a tricky process as I had to make sure the glue only went on the sides of the acrylic to avoid it leaving a mark. I created the base using recycled wood, and painted it grey. To create the fence I drilled holes into my base, and added painted wooden skewers into it, I then connected them with wire, and hung the graffiti art boards from it.





Alexandra Zaharescu

BA year 1 - Atelier: B15

Project: A Virtual World inside a Building

Second Semester Studio "Making Connections" Concept Model

The purpose of the model was to individually create a context which can transpose the viewer into my artistic vision of a building designed to incorporate all sorts of digital and virtual games. Therefore it has a room for arcade games, one for VR experiences and one for computer playing, all connected in a way that arouses the curiosity of the customer through a curved and neon lit corridor. Moreover, the brief asked to include a cafe and kitchen, which can be found on top of the roof, so that the clients can take a break and enjoy the view from the rooftop. The location of the proposed building is under the Mancunian Way, on the other side of the ProjektsMCR building.

The scale of the model is 1:100 and the materials used are transparent frozen acrylic, coloured paper and cardboard and 1:100 plastic decorations such as tables and chairs. The building itself was made in B15 workshop, where I laser cut, froze, cut, bent and glued the acrylic using the laser cutter, a hot wire for bending and sometimes a small saw, as well as a sander. The interior was made at home using paper which I cut and glued and an electrical wire with 12 LED lights which I custom made specifically for this model, which simulates the idea of how the space is light up from the screens.



Image 01: Process of gluing the bent acrylic

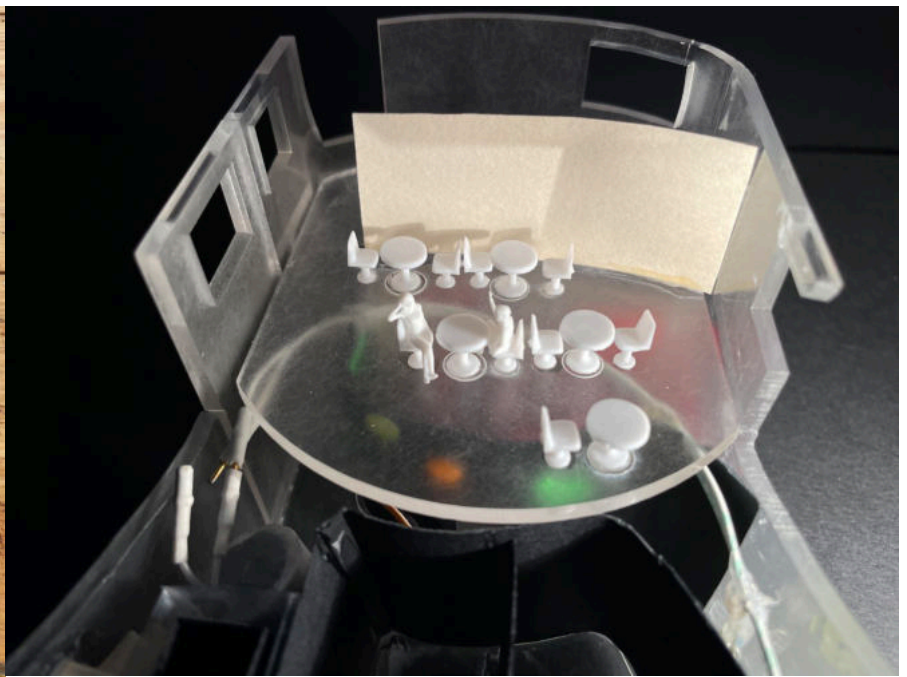


Image 02: Cafe and kitchen upstairs

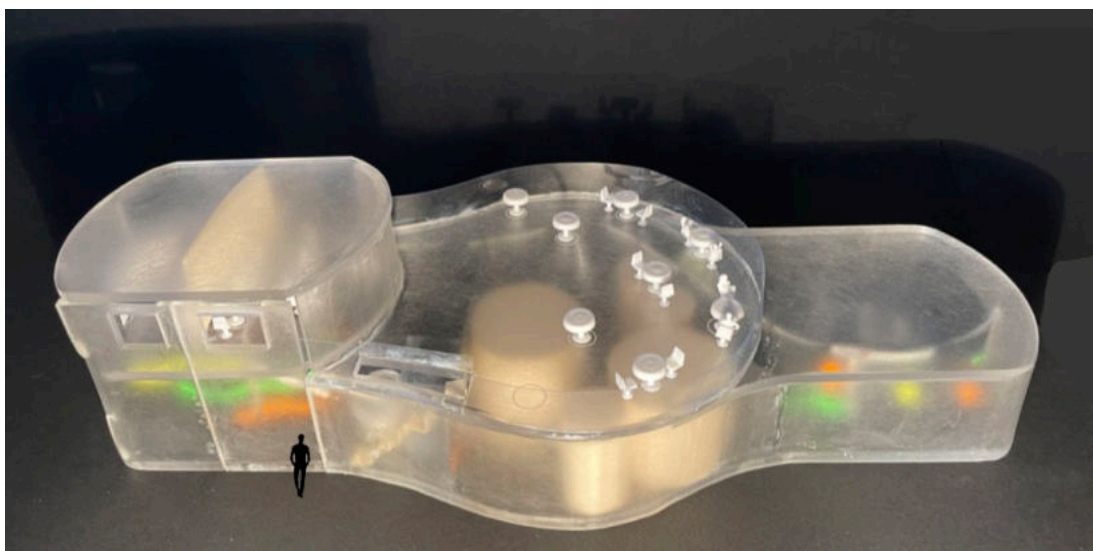


Image 03: North Elevation

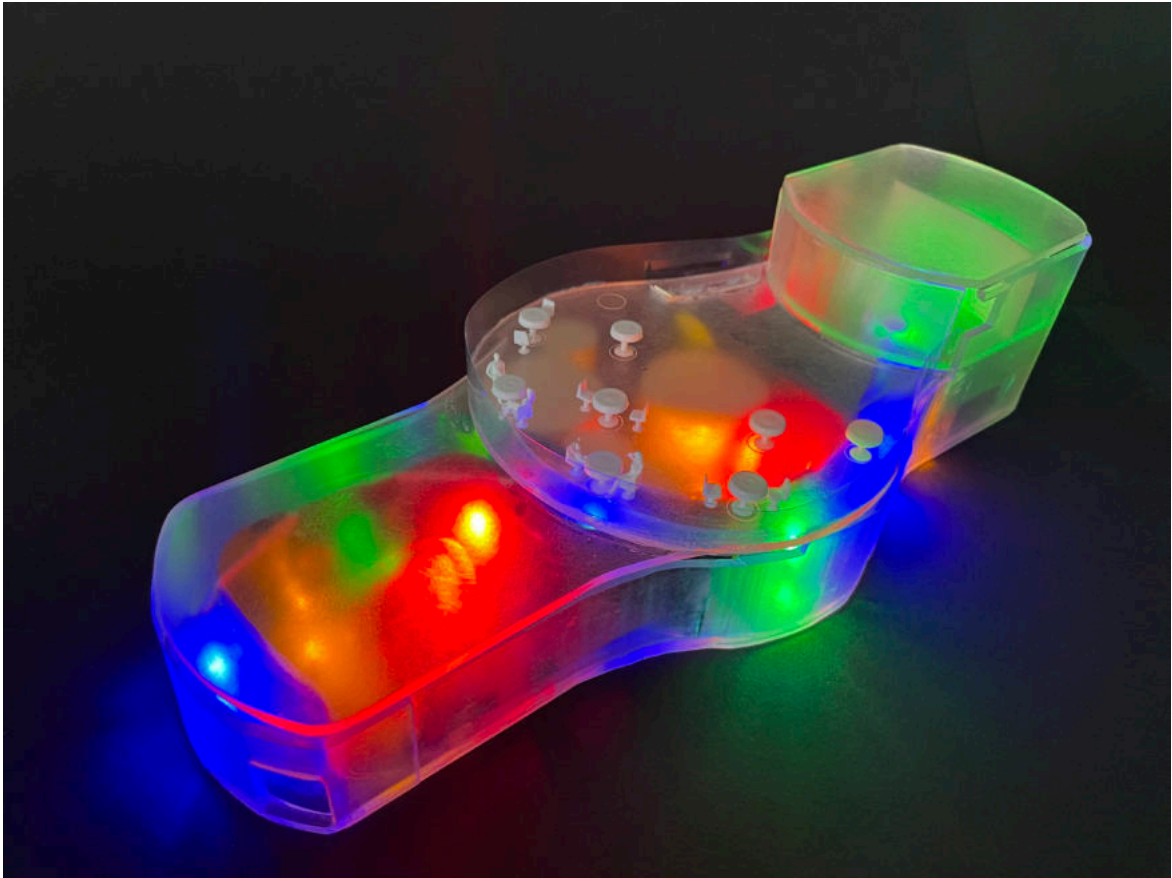


Image 04: Model with LED lights turned on



Image 05: Photo showing ground floor

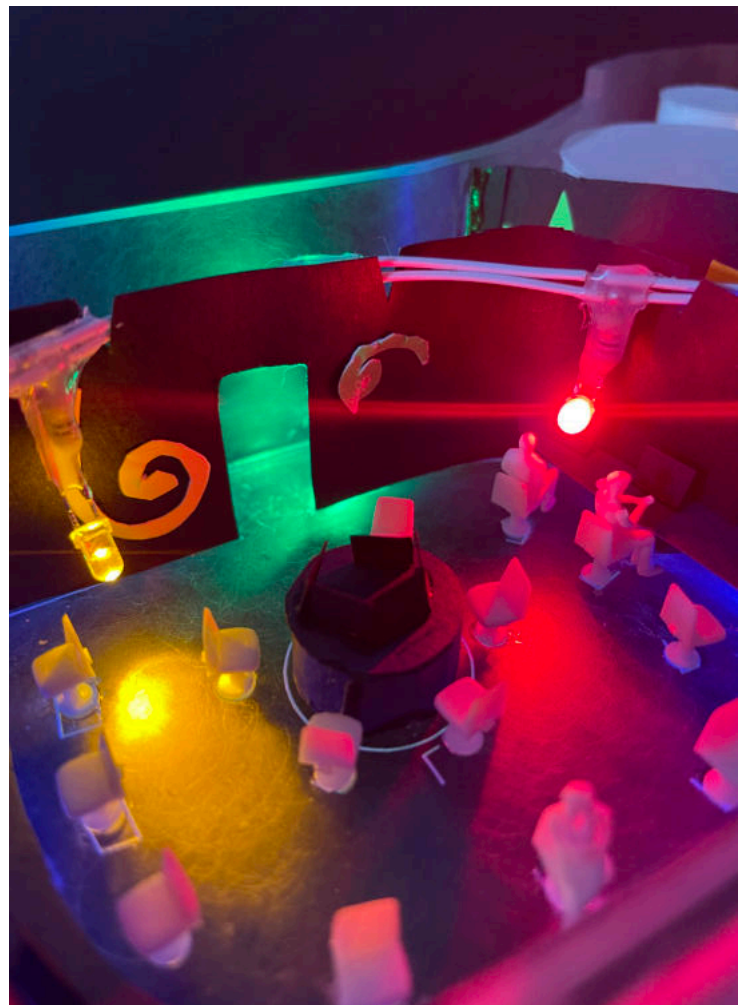


Image 06: Close up on the computers room

Cameron Griffin

BA Year 2

Project: Exhibition Spaces, A Walk in the Park Peel Park Nature Exhibition Spaces

Peel Park, located near Salford University, is a spacious green area adjacent to the River Irwell. The design project focused on a section of the elevated banking that serves as a flood wall between the park and the river. The goal was to create three structures that would house a chosen exhibition, which after my visits to the site, I decided to aim at raising awareness about the nature and beauty of the area in an attempt to reduce people's impact of pollution on the natural wildlife. To convey the exhibition's message effectively, I employed strategic window placements and consideration of the architectural form of each building to guide visitors' views and create unique distinct spaces and environments, each with a specific goal in mind. I found that the elevated banking provided an opportunity to design a structure that seamlessly integrated with the existing banking from the park side perspective, whilst offering a juxtaposing interaction with the site from the river.

The model I created represents a 1:100 scale section of the site, showcasing the first of my three buildings which houses various facilities for the exhibition, such as a café, indoor seating, toilets, and a refuse, with the amenities aimed to provide visitors with a comfortable and enjoyable space separate to the main exhibit to be used year round. The model not only illustrates the building's overall structure, but also demonstrates its relationship to the site and how it utilises the elevations to provide different views and experiences for the visitors. In addition, being able to remove the roof allows for an understanding of the interior occupation.

To bring the model to life, I employed a combination of techniques. This included concrete casting for the base, along with foam cutting and plastering techniques to accurately represent the site's topography. For the model itself, I used a range of 3D printing techniques, including Fused Deposition Modelling (FDM), Digital Light Processing (DLP), and Stereolithography (SLA). This ensured precise detailing and realistic representation for the scale model, people and furnishings enhancing the overall visual appeal and sense of scale. Furthermore, to depict the river realistically I utilised epoxy pouring to mimic the colour and height of the river, creating a reflective surface that adds depth and realism to the model.



Image 01: Riverside View



Image 02: Series of Process Photos to the Final Product



Image 03: Cafe Space



Image 04: Walkable Green Roof



Image 05: Green Roof Perspective

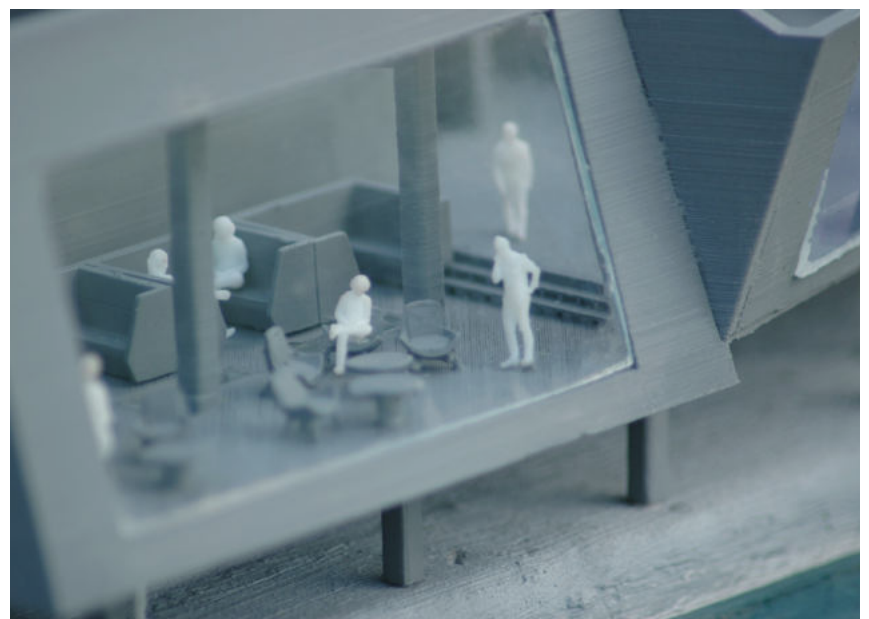


Image 06: Indoor Cafe Seating Space

Nahima Begum , Birmingham

BA Year 2

Project: A Walk in the Park

The brief requests an exhibition space in Peel Park to 'promenade' through and encompass an identified, context relevant theme. Given historical context surrounding Robert Peel (former Prime Minister or 'liberal wolf in sheep's clothing') and environmental context considering River Irwell's adjacency; I identified 'flooding' in the literal sense of a flood risk and the theoretical sense wherein history strays from fact as time goes on – much like Peel's beliefs. Thus, I chose to design a building primarily underground – intending for it to flood, reducing access to deeper areas of the exhibition till only the surface is accessible; allowing a glimpse into what existed but losing the ability for true understanding.

My initial sketch displays my theoretical intentions; the overcrowded exhibit on the surface atop the individual admiration at the base, divided by terrain and water encompassing my design intentions. Working within the workshop to realise this took weeks, implementing multiple modelmaking techniques. An old ornament was reused for the glass dome and scrap MDF was layered with a mixture of PVA, sawdust and string for the terrain. The figurine was moulded from plasticine using my fingers and the fish were shaped from wire which was also drilled into the base as legs. The exhibition was designed in SketchUp, and 3D printed using PLA (1:500 scale figures were glued on). Vegetation decorated the rear using hot glue (the common joining substance).

In contrast, the 1:100 final model was designed on AutoCad and laser cut (only assembly was by hand). The final design took every concept element to create an effective architectural structure based on the brief and identified theme to allow thoughtful promenade throughout the space at different levels. The two sections are divided by a wall which slides into either half using a specialised base. A CAD/CAM project; it took less than 5 days to design, cut and assemble – the curved staircases taking the most time. The most interesting element is the case made with MDF and styrene sheets which slides into the base; created to display the desired effects of flooding – producing an effective result.



Image 01: Initial concept sketch showing my design intentions which influenced the final design.



Image 02: The key components which make up the concept model.



Image 03: Concept model developed from the concept sketch.

From this came the key design features for the final structure:

- Glass dome (Elevator's form)
- Terrain (Underground design)
- Water (Flooding intentions)
- Surface exhibition (Literal occupancy)
- Figure (Intended programme)
- Fish (Accent)
- Vegetation (Site maintenance)



Image 04: Close up of the concept model with focus on human interaction within exhibitions.

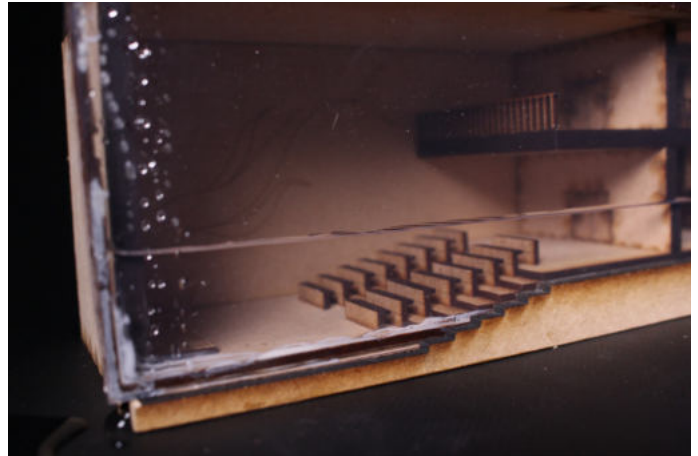


Image 05: Close up of intentional flooding within the underground structure using a specialised styrene case.

Image 06: Scale 1:100 model of my final response to the brief.

This specific section shows the ground floor level and the two underground levels of the main exhibit which utilise concrete columns to divide exhibits and timber walkways for occupants (creating an open design).

Adjacent is the lecture theatre relevant to on-site STEM buildings - this theatre will flood first, signifying the loss of the spoken word.

The roof acts as a pier accessible by the parks sloping path which divides the two levels.



Gordon Wu, Manchester

BA Year 2

Project: The Festival of the Floating World

Post-industrial relationships with water.

Every 5 years, the river Irwell floods, and Peel Lake appears in Salford for 3 days. The proposal, a gallery for *Ukiyo-E* (woodblock printmaking) occupies two sites at the same time. Prompted by the chronic pollution of Manchester's canals and rivers, the gallery deliberately lets floodwater in. Instead of blockading water, water is respected as an occupant. A user. As such, every 5 years the gallery is flooded and destroyed. The submerged gallery becomes a dockyard, deploying kayaks and pedal-bikes, turning water into a plaything. Prints, preserving the memory of these 3 days are made and displayed, until they are wiped 5 years later and new ones made.

This model in particular is less so about design iteration and more about communicating an abstract idea: lake vs. park; transience vs. permanence. This scheme is about a permanent building on an impermanent site. I believed a model was the clearest way to convey this idea. By simply using a material language of coloured paper, I could colour-code my design. Warm and cool colours refer to permanent and impermanent objects. Beige refers to the building structure, orange objects are to do with programme. Through stacking sheets of turquoise card, I can demonstrate how water rises and sinks through the structure. A similarly-toned navy colour is used for the roof cladding, its streamlined and perforated form mimicking a crashing wave. More practically, a high-fidelity model conveys structure, materiality and texture immediately.

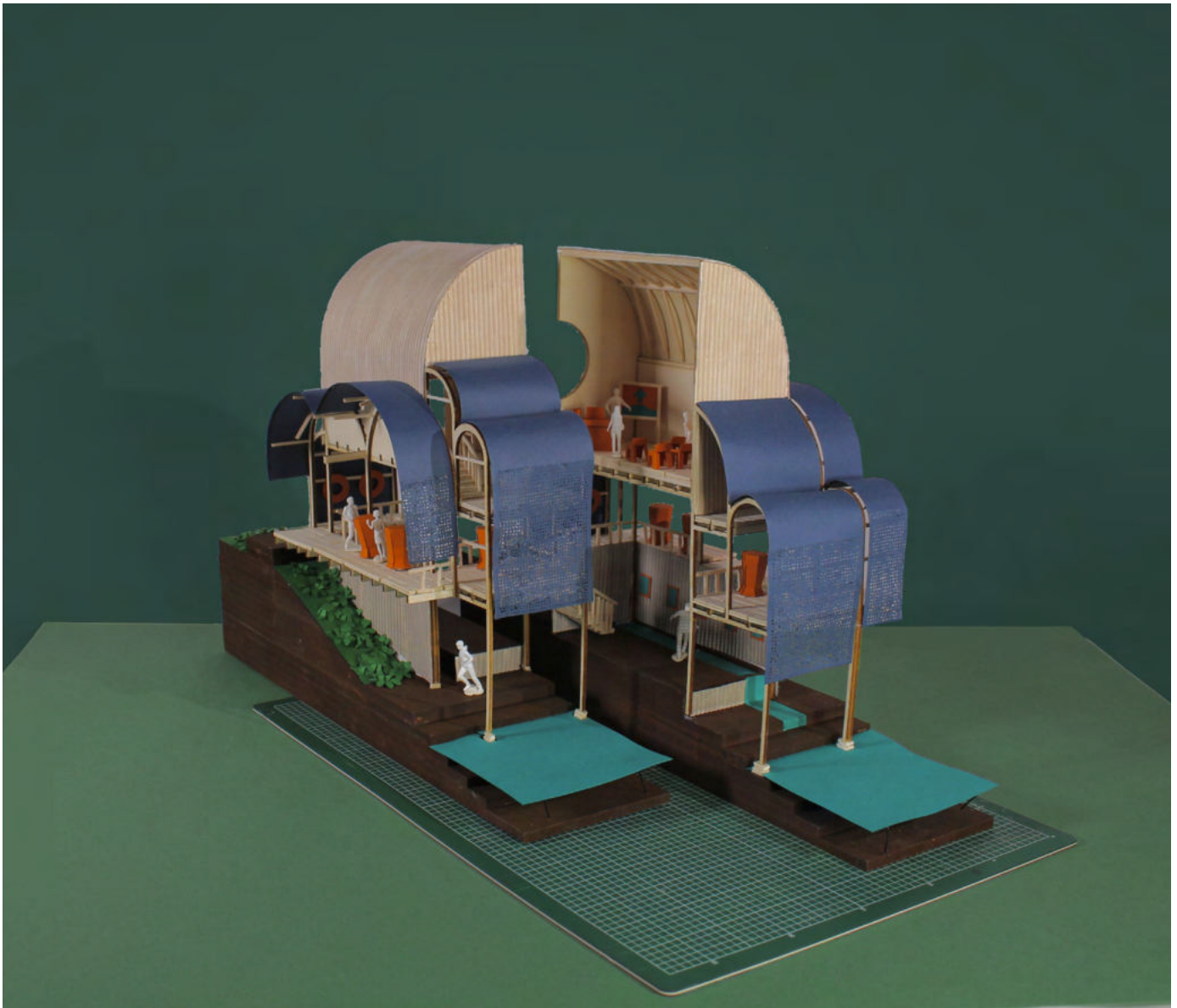


Image 01: 1:50 Model in full. Balsa, lasercut plywood, stained MDF, coloured card, painted corrugated paper.



Image 02: Sectional view

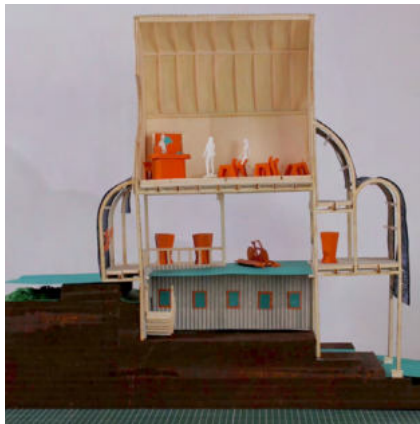


Image 03 + 04: Unflooded & flooded building



Image 05: Perforated cladding

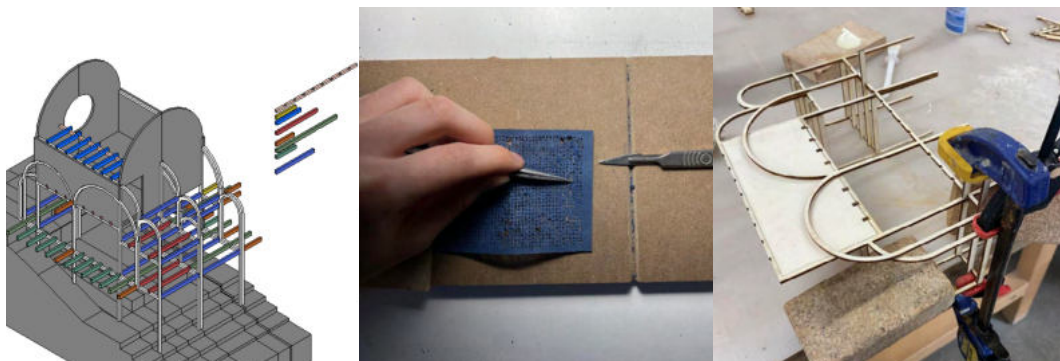


Image 06: Process

Alexandra Muntean

BA Year 3- Atelier: Architecture

Project: Common Grounds

Burnley Mental Health Healing Center

What if we reconfigured the healthcare setting? The proposal developed as a renewal of the impatient and standardized healthcare setting which transformed patients into patterns, by creating a flexible scheme where interaction is one of the main tools for healing. The healing process is tailored around a series of connections with own-self, connection with others, connection with river and connection with nature), creating a symbiosis human-built environment-nature.

Developed as a philosophy of tectonics, the project explores patients' cognitive response to natural materials. The "column" structures highlight a different healthcare environment, where the typical "desk and chair" setting is transformed into an informal space, the structure becoming an integrative part of the function. The glulam structures are connected through a series of green corridors blurring the boundaries between built space and nature. Furthermore, the "Common Grounds" developed as an expression of temporality and spatial dramaturgy through a series of thresholds placed inside the building and the use of light to contour the internal quality of the space. The proposal is designed for longevity and deconstruction, the structure consisting of a series of homogeneous connections and mechanical fixing, being easily dismantled, and moved elsewhere.

Focused on tectonics, model making was a key tool for the design process, helping me to define the spatial quality of my proposal and refine the concept. Starting from the initial stages of my proposal, I experimented with laser cutted MDF and 3D printed models, following with mixed media (MDF, 3D printed elements and plaster paste), all models being made in the B15 Workshop. The models present the process, starting with concept models- the Biome-informing the programme (Image 01, 02), 1:50 models presenting the initial form and threshold, to 1:5 model showing the sitting space (a key feature of the scheme).



Image 01: The Biome (Top View)

The Biome (concept model) expresses mental disorders, the spiral form informing the programme.

Form generated in Grasshopper and 3D printed in the B12 Workshop



Image 02: The Biome (Front View)

Column highlighting neuroconnections, connection translated in the scheme through the connection between patients affected by mental health.



Image 03: Temporality (Light passing through the "Column" structure)

1:50 MODEL

The model explores the spatial dramaturgy of the structure, the threshold, highlighting a transitory space, allowing visual connection and light into the space. 1:50 model made using mixed media: 3D printed and MDF elements covered in a plaster paste to mimic a cast finish. Made in B12 (3D printing and plaster finish, B15 MDF cutting).



Image 04: Front View highlighting the Curved Form

1:5 TACTILE DETAIL

The function being accommodated within the "column structures", the structure become a atypical healthcare setting, the sitting spaces being integrated within the glulam structure. Model made in B15 workshop using acrylic sheet, MDF, grey board and timber.

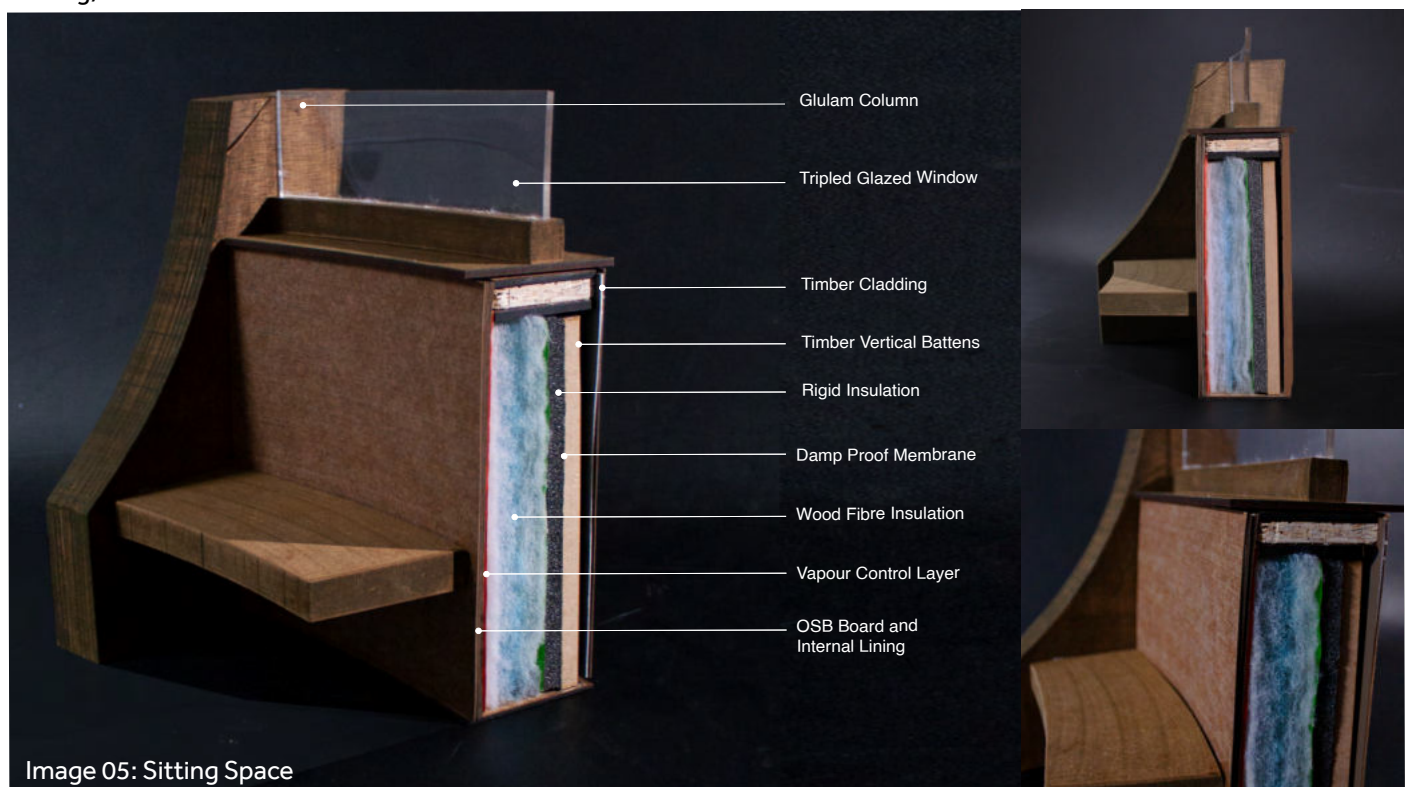


Image 05: Sitting Space

Amanda Leong Meng Dan , UK, Preston

Ba Year 3 - Atelier: Continuity In Architecture (CIA)

Project: [cotton]uity

A cotton mill in Preston's city centre

Project brief:

To develop ideas for a building generated by programmes that are emerging in the local area, linked to the changing nature of the High Street – transitioning from a place for shopping to a place of 'Encounter and Exchange'. Also, consider how your architectural design can be enhanced through appropriate detailing to instil the qualities of contextualism and place specific practices (both tangible and intangible) into the very fabric of your building proposal.

The project located in Preston's city centre, this project is inspired by the city's textile and cotton industries, aiming to address the issue of unfair workers' rights through a well-designed cotton mill. It pays tribute to Preston's historical significance while looking towards the future.

The model is a corner of the cotton mill, showing how the vaulted-panels are integrated within the design. It shows how the vaulted panels in the ceiling increases well-being as intangible elements such as 'experience' and 'well-being' does not convey as well compared to a physical textile model. It also shows how the individual pieces of the of vaulted ceiling comes together within each 5m x 5m structure grid. The model is 1:50 scale to show how multiple sets of 5m x 5m structure grids with the arched walls fix in with the vaulted-panels, this scale allows for the right amount of detail to be shown while ensuring the completion and viewing to include the entire height of the design. The material used are majority wood as the design propose on a timber building, thus to express the same material qualities in both the physical and digital models. Other materials include metal rods within the vaulted-panels to provide support just like the design and clear acrylic to represent glazings. The model is also stained in a dark walnut colour to mimic the finish of wood that underwent charring to provide fire resistance and aesthetics.

Overall, the model allows for a textile experience of the vaulted-panels and how it sits within the 5m x 5m structural grid and design.

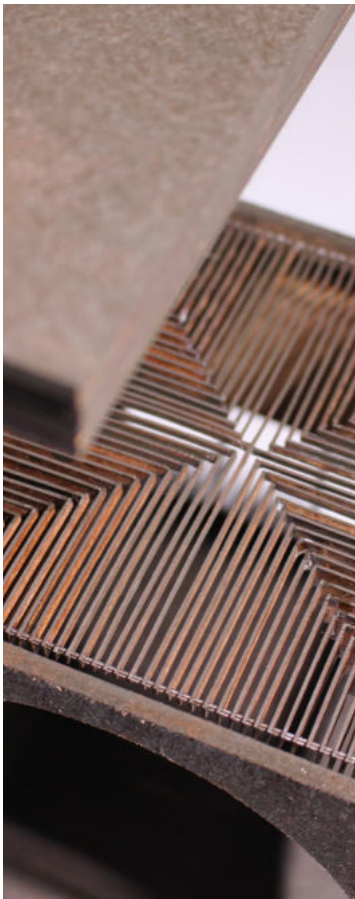


Image 01: Vaulted-panels detail



Image 02: Arched walls with 5m x 5m grid

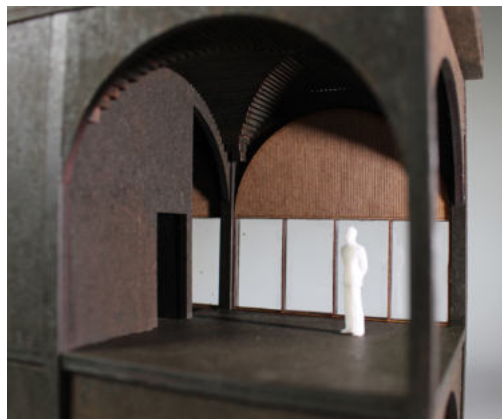


Image 03: Vaulted-panels with 5m x 5m grid



Image 04: Feature stairs with suspended supports and building's exterior facade



Image 05: Overall model showing parts of feature stairs, building's exterior facade, arched walls and vaulted-panels under ceilings

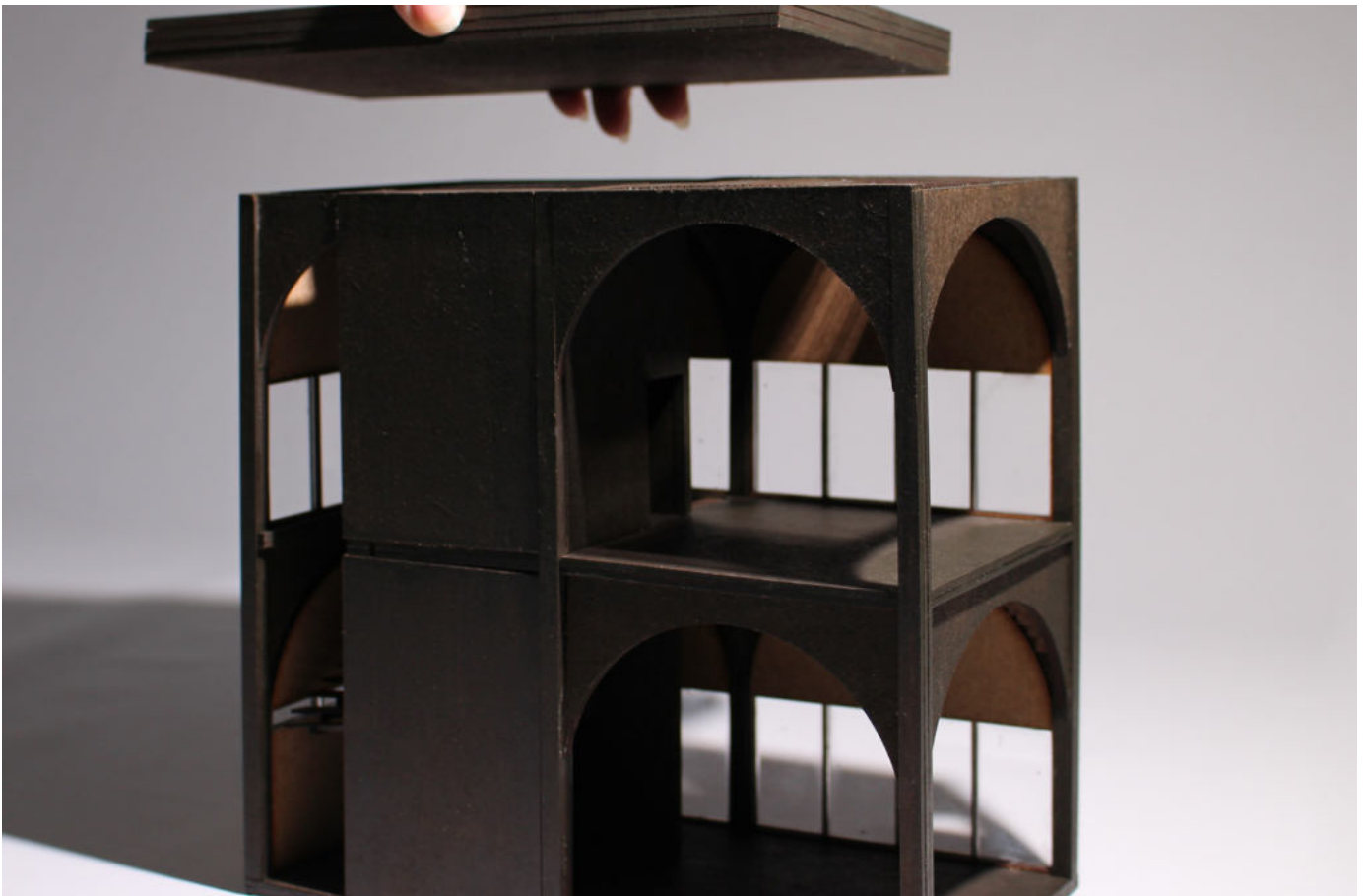


Image 06: Overall model with a removable roof to allow better viewing and interaction with viewers

Ronin Lim, Manchester

BA3 - Atelier: Continuity in Architecture

Project: [UP]Cycling Fashion Centre

Weaving Preston From Its Past to Present and the Future

[UP]Cycling Fashion Centre aims to establish an inclusive fashion community in Preston that addresses the throwaway culture of fast fashion. Home to Preston's local fashion designers and students, it weaves the community together to explore methods of repurposing used clothes and to educate the public on the ethical sourcing of garments for daily wear. The programmes are split into four main design fragments that are linked to each other through routes designed specifically for visitors to have an immersive and hands-on learning experience of the upcycling process. Its strategic location nestled between Preston Town Hall and Preston Bus Station provides an extension to the town that is celebrated through a seamless public green space that cuts across the site.

The process of modelmaking has reinforced my understanding of the site and facilitated many of my design decisions. Such a process was immensely helpful for me to gauge the atmospheric qualities, scale, materiality, and context of the design that I was creating. It was through making the paper model from my site model with the Cricut paper cutting machine that I discovered the potential to integrate the existing materials such as brick and stone that were found on the facade to my own design, which fit harmoniously into the site's context. I further explored the idea of materiality through my experimentations that were shown in my 1:50 and 1:5 model below. The model in the 1:50 scale enabled me to determine the build-up of the envelope system and the construction details that could support the structure. While assembling the model, I was learning the construction process in the meantime which fed into my understanding of the steps involved. A variety of materials have been used for this model to reflect different elements in the build-up system, but it is mostly made up of laser-cut 2mm MDF boards and plywood sheets. Meanwhile, the 1:5 model challenged me to experiment with different model materials that I have not tested before, and the imperfections in textures cast interesting shadows that could only be shown through the physical model.



Image 01: 1:50 Corner Model to test out the relationship between the exterior and interior space



Image 02 & 03 & 04: **1:50 Corner Model**

The purpose of this model was to test out my idea of having a perforated brick wall facade that resembled the basket weave and satin weave patterns that I have iterated in my design process. By creating a model from the ground up to the roof, I paid a lot of attention to the envelope system to ensure that the build-up was airtight and well-structured. It was also through this physical model that I got to experiment with different lighting angles that cast and illuminated some interesting shadow patterns that were formed in the interior.

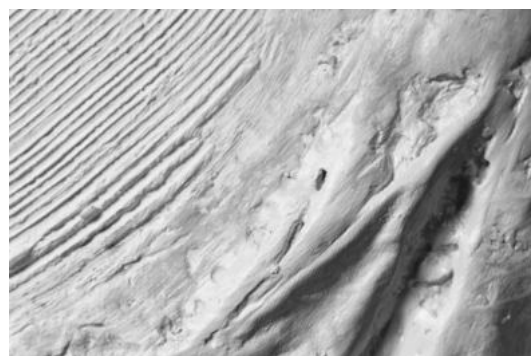


Image 05 & 06: **1:5 Tactile Detail Model**

This model was made with plaster mold casting that mimicked the form of a fabric. By using worn cloth and mixing it with plaster on an MDF board, I experimented with different forms which resulted in this final iteration. I also used a comb to create multiple circular rings at two corners that could induce the user's sense of touch to encourage them to interact with this interior wall panel design. The end result allowed me to visualize how the final wall design will look like and to play with shadows that are formed.

Ariel Hei Nok Wong , Manchester

Ba3 Continuity in Architecture

Project: Preston's CraftHouse

An Architectural Palimpsest

Preston's CraftHouse is an ambitious project that breathes new life into a derelict historical textile industrial hub, preserving the traces of its past while adapting to the needs of the present. The site, which includes a Grade II listed warehouse and remnants of an adjacent textile mill, stands as a testament to the city's industrial heritage. Additionally, several other listed buildings along Lancaster Road add to the site's historical significance.

Rather than demolishing these structures, the decision was made to remodel and complement them, creating a unique architectural palimpsest. The building mass is carefully carved from the historical void, with the design paying homage to the site's former use as a textile industrial hub. However, it is updated to address the issues of conspicuous consumption and mass-standardized production in modern society.

The transformed CraftHouse now serves as a furniture and textiles upcycling hub, countering the negative effects of industrialization. By encouraging people to craft objects with their own hands and create bespoke items, the project promotes a more sustainable and mindful approach to consumption.

Modelmaking plays a crucial role in showcasing the connections between the old and the new, as well as the different architectural languages of the various buildings. In the 1:200 scale model of the overall scheme, the existing buildings are casted to convey a rustic, solid feeling, mirroring their historical significance. The delicate facade details, identified as important by Historic England, are meticulously recreated in the model, emphasizing their importance in the project. A corner model specifically focuses on the junction between the copper arches and the timber charred facade of the warehouse. This model explores the contrasting elements of the glistening copper facade against the bold, dark charred timber panels. It also highlights the structural elements, such as the concrete arched columns supporting the floors and the layered arrangement of the arches within the space.

In addition, the model showcases various iterations of how to refit the windows of the existing listed warehouse, with cast brick pieces representing different design possibilities. This attention to detail ensures that the architectural integrity of the historic buildings is maintained while introducing modern elements that enhance the overall aesthetic.

Preston's CraftHouse is not only a revitalization of a derelict site but also a tribute to the city's industrial past. It stands as a beacon of sustainability, craftsmanship, and adaptive reuse, offering a unique experience for visitors and residents alike.

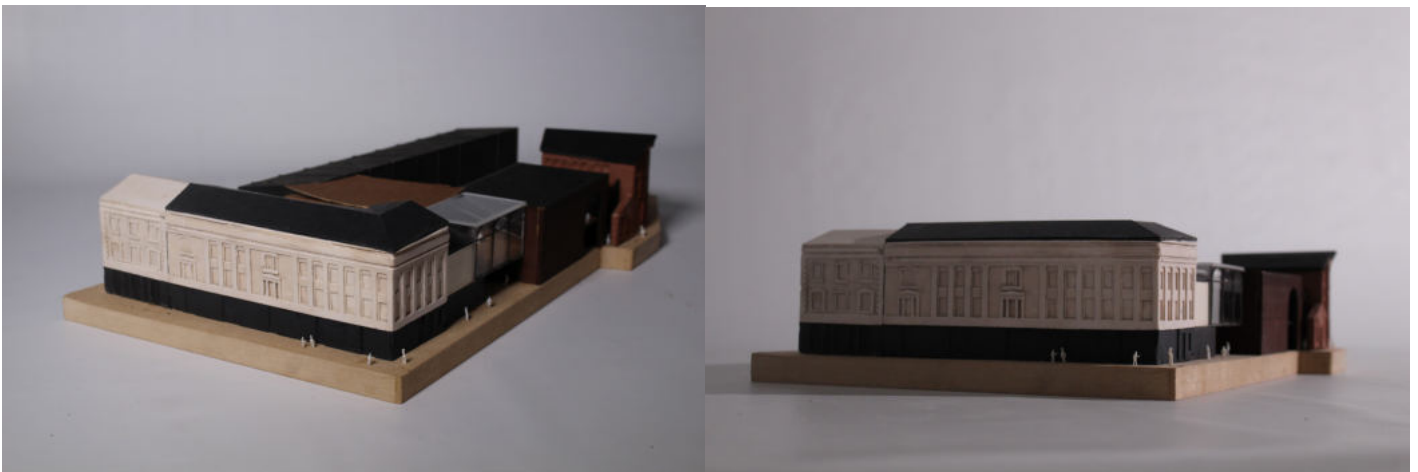


Image 01: 1:200 model.



Image 02: Pedestrian view of the 1:200 model.



Image 03: The Corner Model.

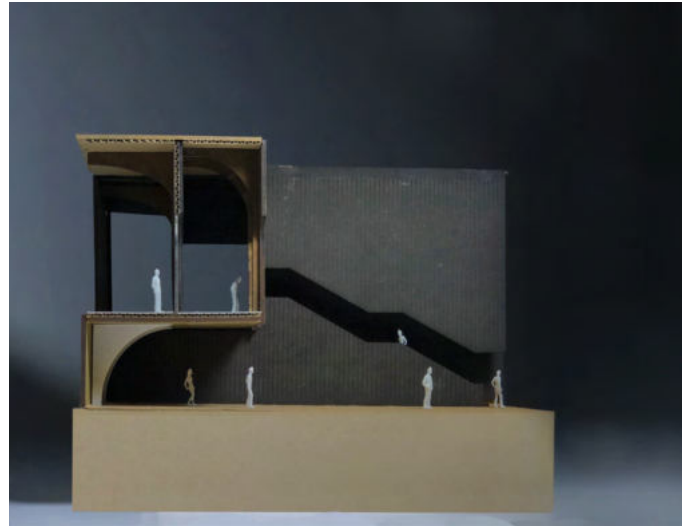
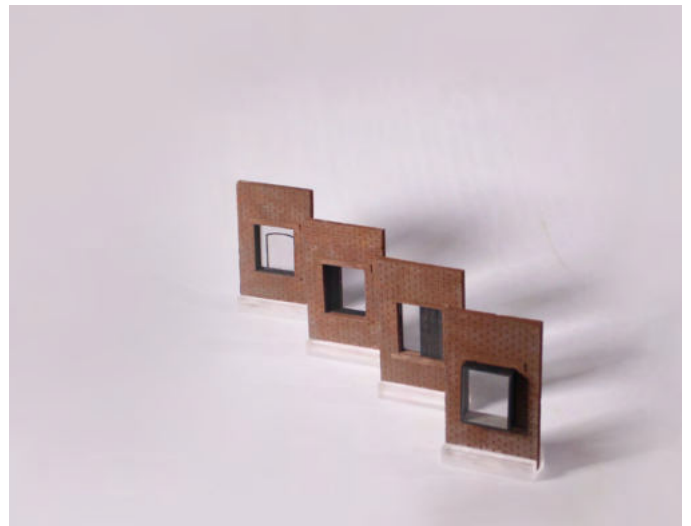


Image 04: The Corner Model. Section .



Image 05: Window iterations of the Listed Lord Street Warehouse.



Alexandra Cristina Iordache

BA Year 3 - Atelier: [CPU]ai

Project: SYNAPTIC GARDENS

Mycelium of Celestial Geometries and Mortal Tectonics

The CPU[ai] brief was about designing a structure for MMU Estate, more specifically the Faculty of Psychology, Health and Education. As a "living, breathing, growing" building and a self-sufficient ecosystem, the project's focus is on the integration of biomaterials in construction and biophilic space organization. Inspired by the research work of MIT Media Lab professor Neri Oxman, I created an architectural proposal that merges design, biology, computing, and materials engineering. This is where my own research journey for mycelium as a biomaterial started: from iterative testing of mycelium brick configurations, exploring different design possibilities for organic structural columns clad in mycelium mesh, and creating an exhibition space for further educating on the possibilities of biomaterials for a sustainable future.

I then developed this into spaces focused around the column structures. These are mycelium-clad columns, that not only provide aesthetic value and promote natural materials, but also further cement the status of biomaterials as a viable option in construction. The model created below is a 1:10 detail of the floor build-up with one of these organic, twisting columns aiming to replicate natural growth. The reason behind modelling this aspect of the structure is to demonstrate the tactility of mycelium and the organic shape that define the overall design of the project. The hidden underfloor heating optimizes temperature regulation within the building, and minimises the visual distractions, allowing the users to focus on the mycelium column, the key aspect of the design.

The model was constructed in the B.15 Workshop using modroc for simulating mycelium cladding and texture, and white and neutral paints for natural mycelium colour fluctuations. Aluminium metal mesh was modelled to support the modroc (allowing the organic and curved shape to be formed by hand, whilst still being light enough to be supported on the model). Inside the column, mdf and gray metallic paint was used to make the I-beam. For the floor, I used mostly scrap materials like balsa wood for timber floor; foam board for insulation; red wire for underfloor heating; and I cast plaster in a custom handmade mould, painted with speckles to simulate concretene.

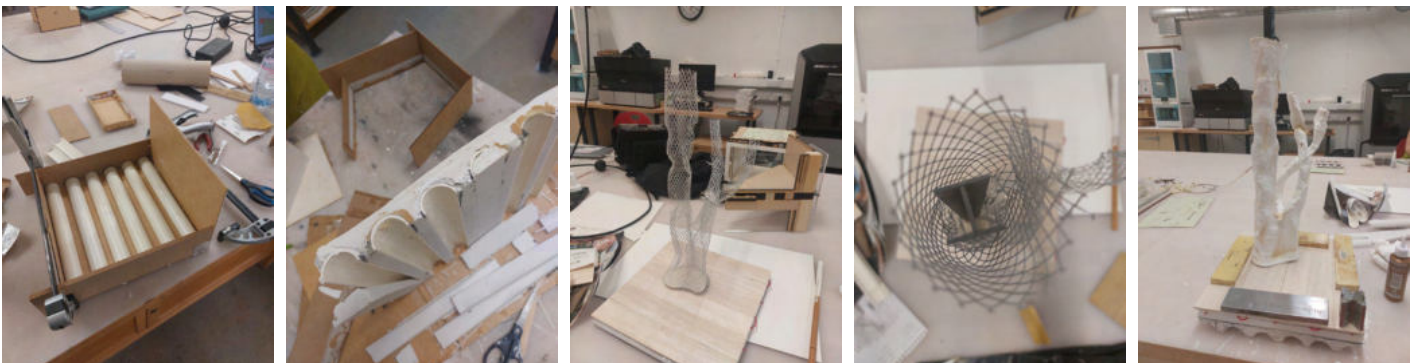


Image 01: Construction Process

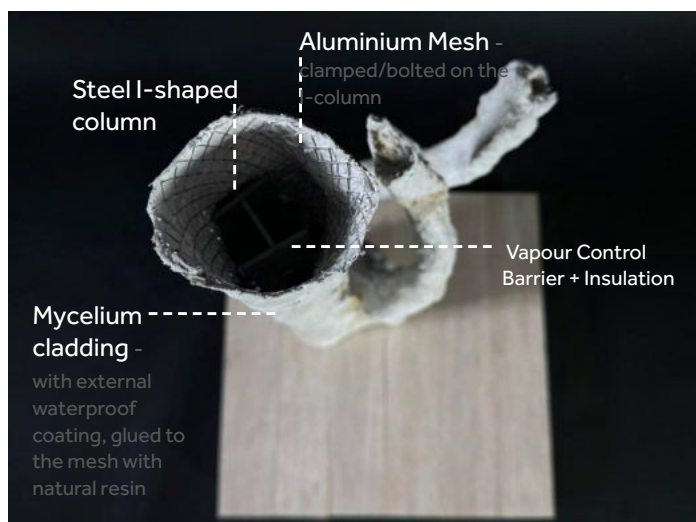


Image 02: View from above, detail of column buildup



Image 03: Column was attached with cyanoacrylate glue

Image 04: Detail of materials in the floor buildup

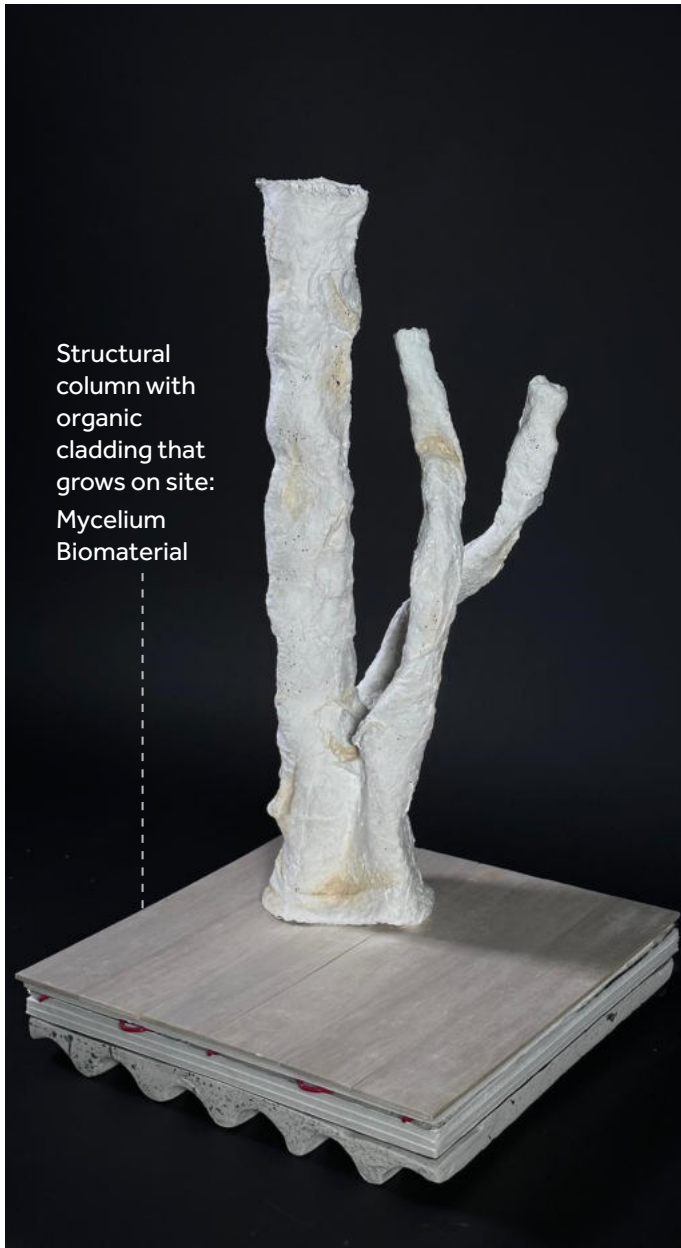


Image 05: Overall view of the model

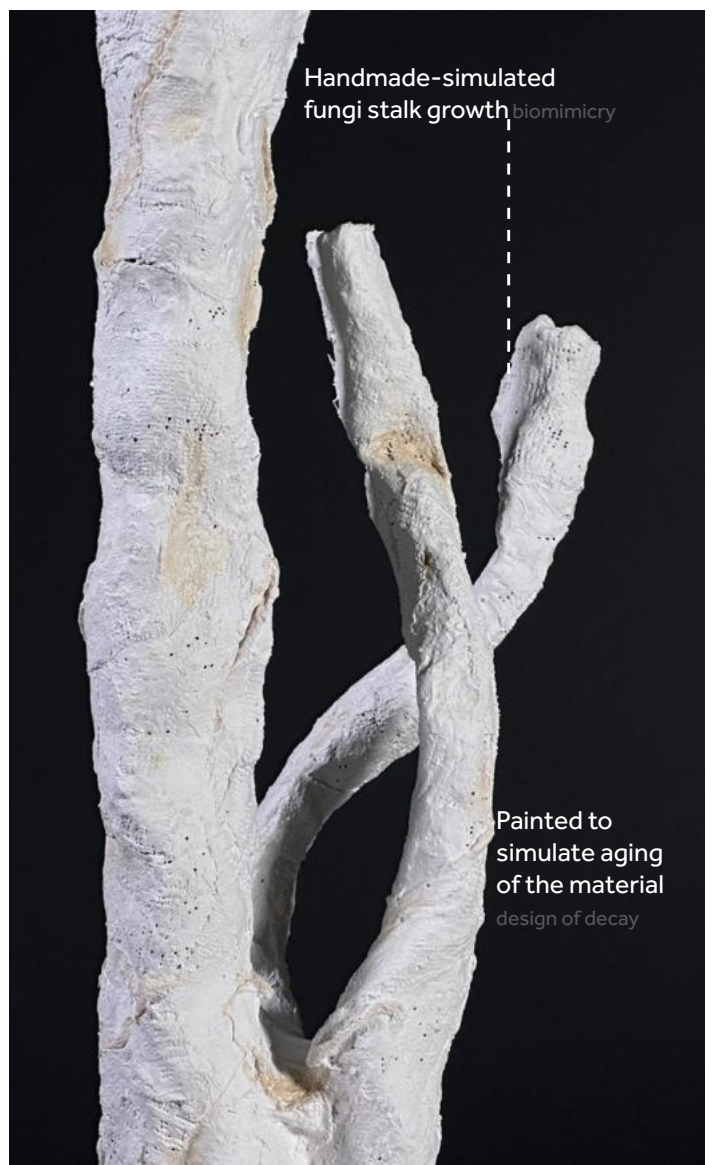


Image 06: Close-up of the mycelium organic formations

Anastasia Marinescu , Romania

Ba 3 - CPU[ai]:

Project: "Tree of Life" Institute

"Tree of Life" philosophy symbolises life, growth, connection, and unity by representing how everything in the universe is interconnected and how all forms are rooted in the same essence. In the context of the built environment, the philosophy merges the natural and human-made environments in a harmonious and sustainable way. The proposal intends to strengthen the bond between nature, humans, and their well-being by following the philosophy's principles through a generative and biophilic design strategy.

The "Tree of Life" Institute finds itself in the centre of Manchester's student community. It pursues the journey of integrating biodiversity while focusing on the individuals' general state of well-being. Starting from an analytical approach, my design develops into a sanctuary boosting connectivity between users, environment, and architecture. The Institute preserves a linear character empowering the interconnection of programmes through vegetation.

The physical model aims to present a small section of the top floor of the Institute. It explores the building layers in relation to the exterior and the cladding proposal. The main part of the section is represented by the parametric designed façade. Using 3D printing to create the curved design and coating the facade with dark green acrylics helped in showcasing the metallic texture and the character of the building. The insulation of the floor is presented with three foamboards stacked together to present the real dimensions. The model is cut at different dimensions to show the interior layers and the connection between each element. To depict the double-glazing system, two clear acrylic board were cut and glued together.



Image 01: Sectional Lateral View

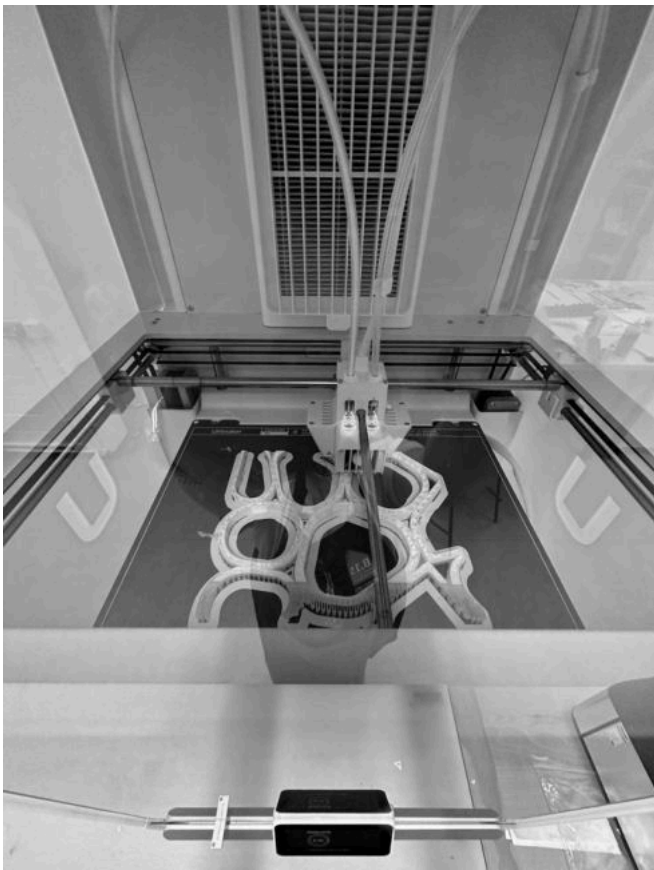


Image 02: Facade 3D printing process

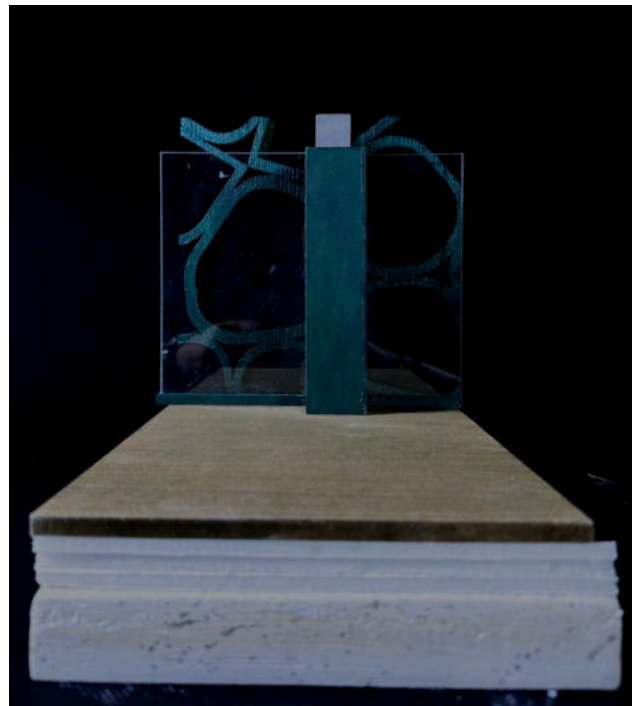


Image 04: Back view depicting the floor layers

Image 03: Front view showing the facade

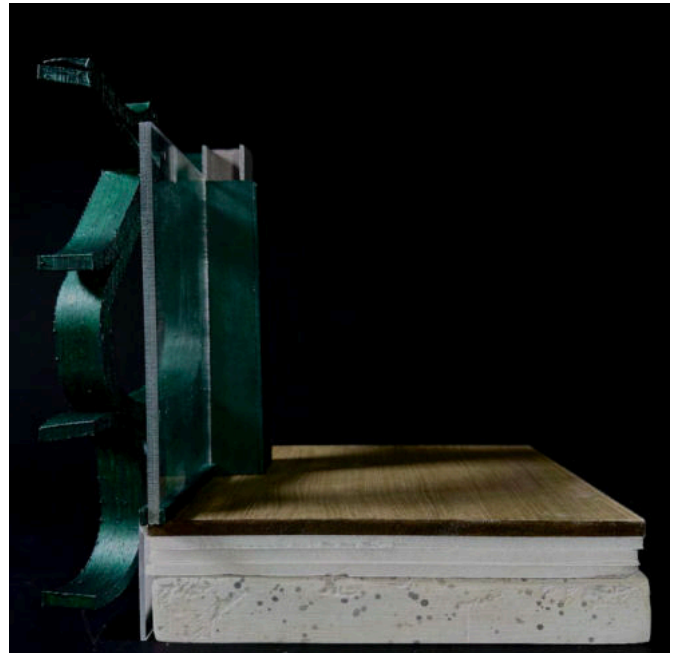


Image 05: Lateral Vie showing the relation between the cladding and the other layers

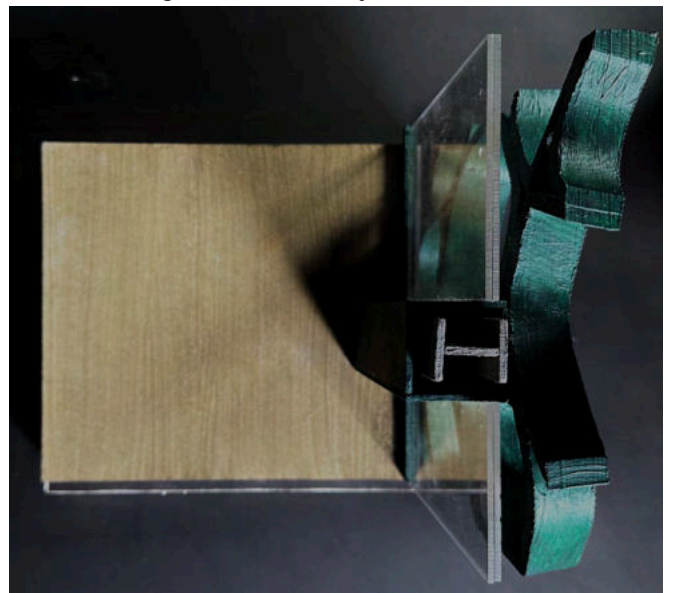


Image 06: Top view depicting the facade curved character and the structural elements

Misheel Altan-Erdene , Manchester

Ba Year 3 - Atelier: CPU[ai]

Project: TranSpires

Integrating Nature, Technology, and Growth for a Sustainable Campus

The project brief asked the students to design a scheme which solves the spatial issues faced by the Health and Education Department of Manchester Metropolitan University. Through careful consideration of the site, assessment of the current Brooks building, and programme development, the new MMU building provides academic, medical, and practical space for the Health faculty's students and researchers. The scheme design is governed by the principles of Biophilic design and aims to create a dynamic and natural atmosphere via the use of a translucent ETFE facade and mass timber primary structure.

The facade study model was made to study and present the professional and public area usage, the triangulated ETFE facade, and its spatial effects. The model section is taken from the scheme's south community clinic side to illustrate the medical consultation rooms. The double-height movement clinic on the ground floor is compressed to bring attention to the upper floors. All the model making process have been completed in the B15 workshop.

The internal mass timber structure is made with laser-cut 4mm MDF to preserve the materiality of the building without using additional materials. For the windows, I have used a 2mm clear acrylic, while much thicker spare acrylics act as a breakline and additional support in the model. There is a small 3d printed part to show the ventilation slats under the facade. For the ETFE facade, I made a frame structure out of metal wire and used it as a guide to carve out two separate clay moulds to vacuum form the two inflated sides of the ETFE cushions. Lastly, the metal frame, 3 layers vacuum formed plastic sheets, and the ventilation slats are glued together and fixed to the internal structure. The model is filled with laser-cut furniture, plants, and people at 1:50 to achieve the full visual effect and scale comparison.



Image 01: Sectional view of the facade, balcony, and consultation room.



Image 02: Making of the model // Process pictures of the internal structure, wire frame, and two clay moulds.



Image 03: Balcony view



Image 04: Full model view in perspective



Image 05: Full model view from South, North, East and West

Talha Kassim , Manchester

Ba3 - Atelier: [CPU]ai

Project: The Halo: Where Nature Inspires Architecture

The model I created served as a final exhibition piece, showcasing a crucial aspect of my design: the arboreal canopies in the courtyard space of my studio design. Instead of constructing the entire building, I focused solely on representing the treelike columns to emphasise their grandeur in comparison to the users of the space. This deliberate decision aimed to provide a unique experience, offering an escape into a lush courtyard space and creating a relaxing and socialising area for the users of the building in addition to the wider community.

The model features two columns that represent the concept behind my design: varied column heights to create an undulating effect, disrupting a monotonous environment and serving as a distinctive landmark. Displaying only two columns was intentional, as the remaining columns would have followed a similar pattern. It allowed me to save time, costs, and materials, as duplicating the same elements would not have added any new information. The process began in Rhino, where I created the columns through multiple iterations and forms. Transitioning to the physical model, I opted for laser cutting due to its precision and minimal material waste. Each individual piece had unique curves, sizes, and dimensions, making accuracy essential. I carefully constructed the base of the model, ensuring stability by creating specific cutouts for each piece.

Choosing MDF as the material provided the desired outcome while remaining cost-effective. Staining the pieces achieved a wood-like colour, enhancing the overall appearance of the model whilst also representing the wooden material that the columns are made of. Placing the pieces in their designated spots and capturing compelling angles during the photography process allowed for intriguing views and showcased the play of light and shadows through the hole in the middle of the columns.

Each step in this meticulous process contributed to the final design, effectively capturing the essence of the arboreal canopies and their impact on the overall space.

Image 01: Process work- Staining the pieces and assembly

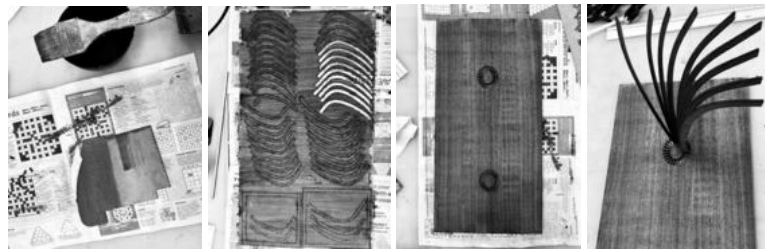


Image 02: Full size view of the model showcasing the different heights





Image 03

Image 04:
Shows how the
lighting works
in the middle of
the columns



Image 05: Eye
sight level to
show how it
feels to be in
the space



Image 06:
Showcasing
shadows in
an exterior
environment
with natural
lighting

Natasha Nedelcu, Manchester, UK

Ba3 - Atelier: Flux

Project: Mayfield Conticinio

The Silence of the Night

My third year project stands as a steadfast manifesto, championing the necessity of silence, acknowledging the remarkable power of serene intervals to bestow clarity upon our existence and surroundings. The intention was to challenge the prevailing notion of Mancunian Way as a site of chaos and clamor, and Mayfield as a fleeting passage. The aspiration was to craft a structure that would compel people to pause, even amidst their bustling routines, to bask in a moment of respite, rejuvenating their spirits before forging ahead.

The objective extended beyond mere transformation; it entailed a shift in individuals' perception. The intention was to challenge the prevailing notion of Mancunian Way as a site of chaos and clamor, and Mayfield as a fleeting passage.

Employing physical models as a valuable tool for analysis, I have used model making in architecture to explore and refine my project. Beginning with homemade clay models, I visualized the desired shape and assessed the stability of materials in the facade and structure. This hands-on approach allowed me to validate the effectiveness of the envisioned cantilever shape and gain a deeper understanding of the building's structural elements. Ultimately, this iterative process contributed to the development of my final design.

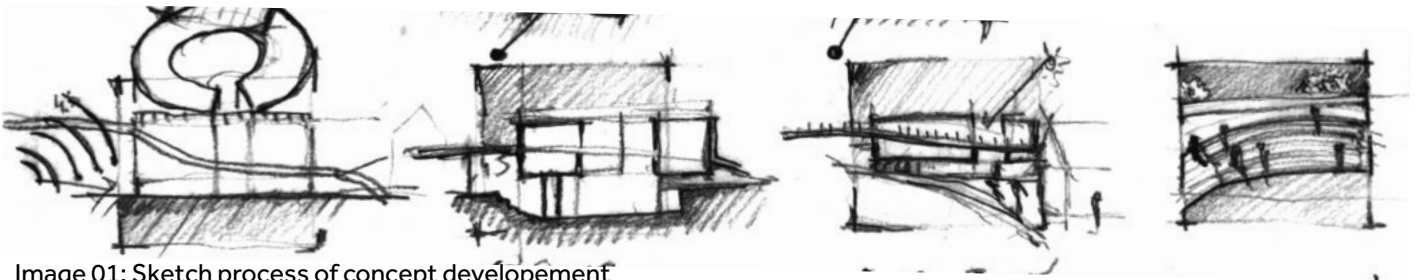


Image 01: Sketch process of concept development

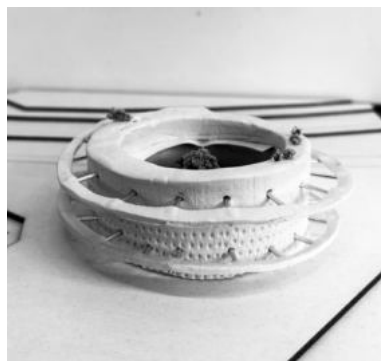
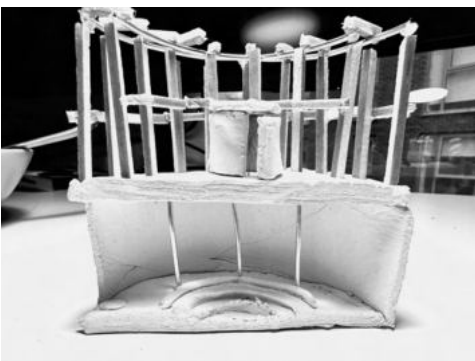


Image 02: Clay models made at home to test the shape and structural stability

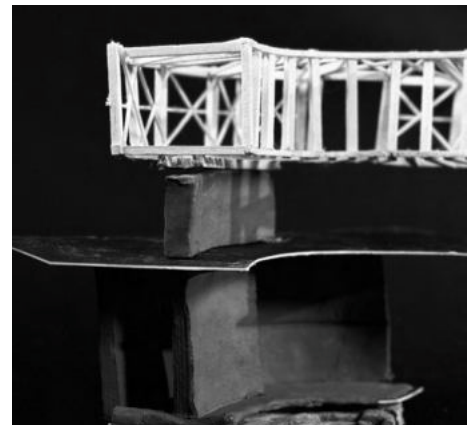
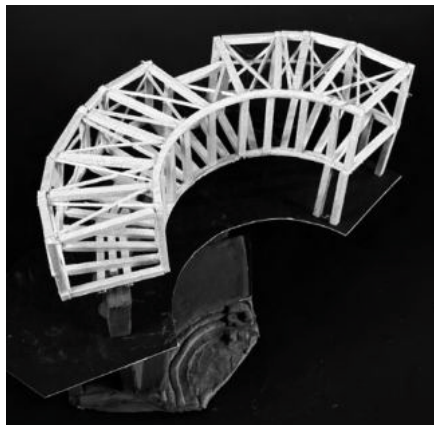


Image 03: Structural Draft Model

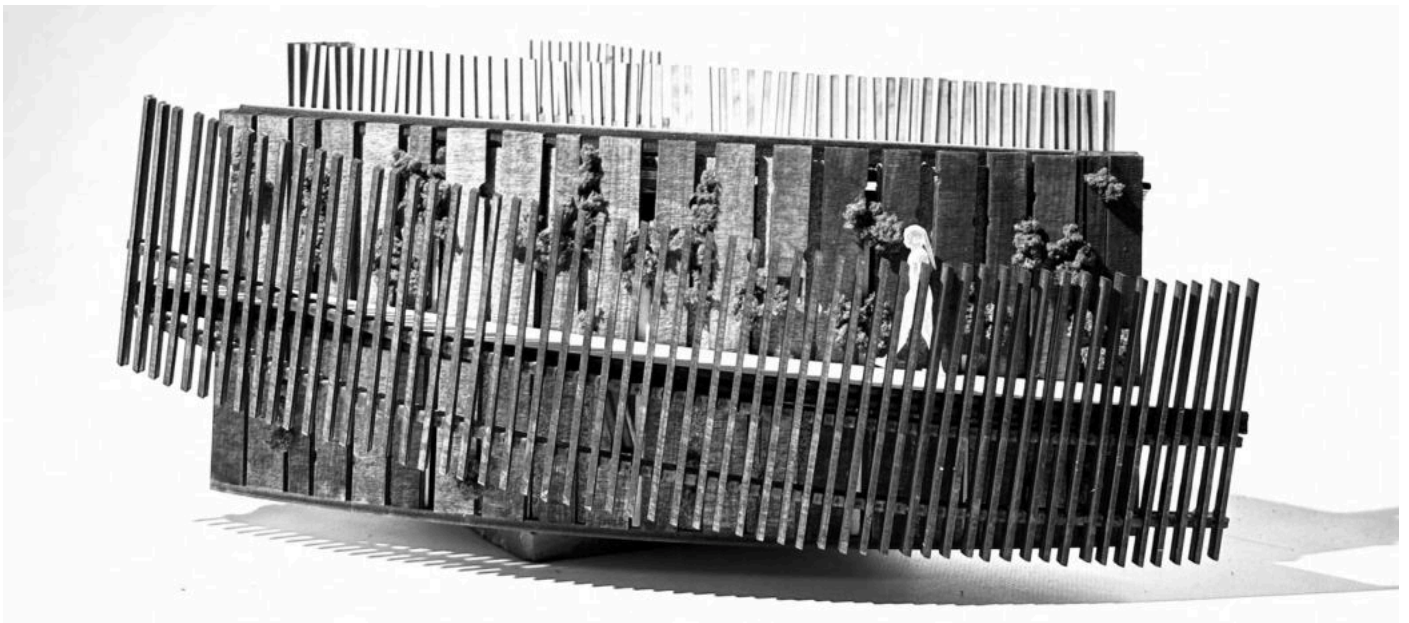
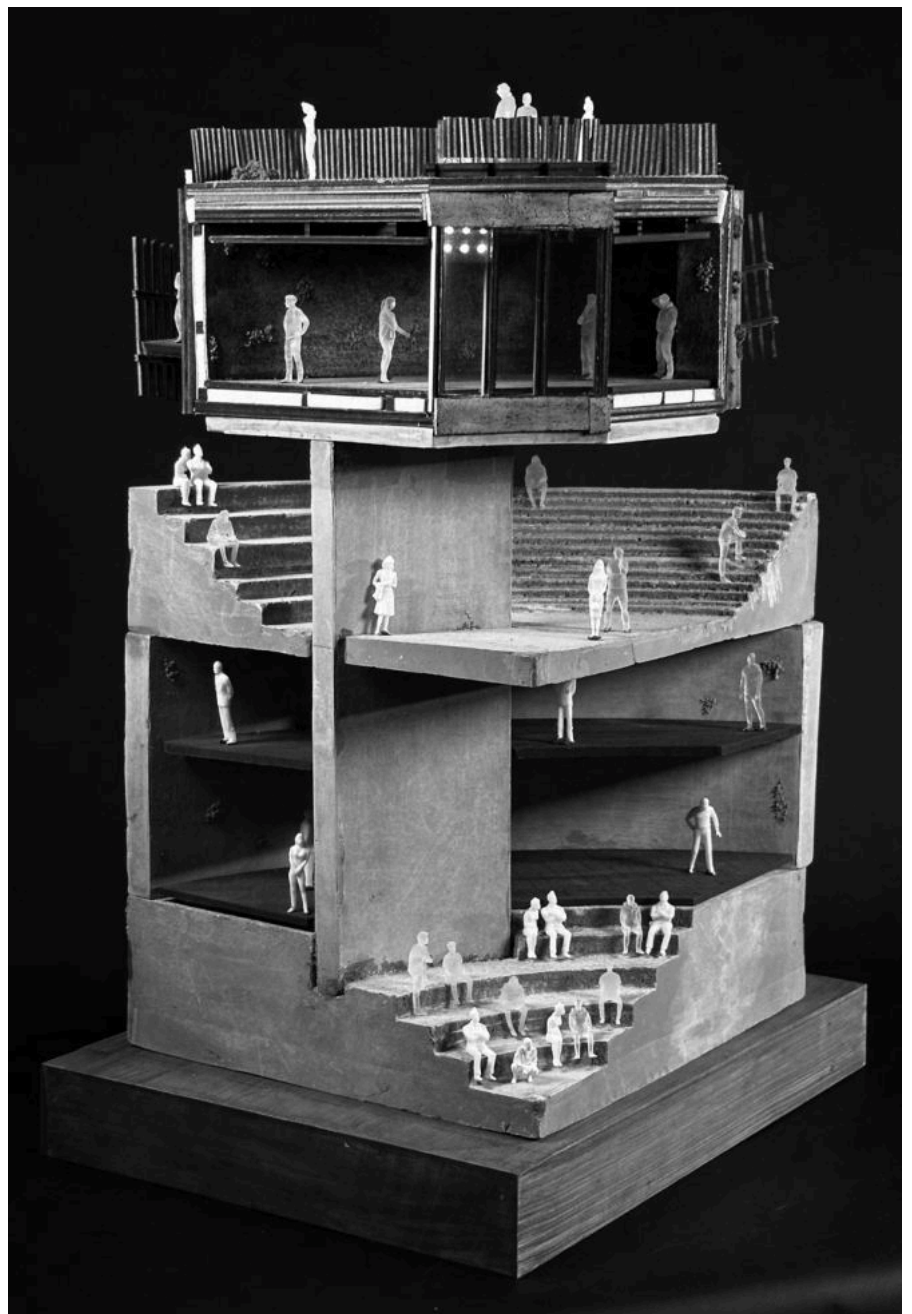


Image 04: Facade draft model (created a draft model to test that the facade works)

Image 05 and 06: Final Exhibit Model showing the cantilivered section of the building and the spaces in the underground

Materials used: MDF, Plywood, Jasmonite, Acrylic



Rana Budianta

BA Year 3 - Atelier: Infrastructure Space

Project: (Em)Powering the Future

A future of an empowered generation, powered by nuclear energy

Located by Lake Windermere, this learning centre is aimed to help secure the future of the local community of Cumbria with Sloyd education system (learning through craft) to tackle ongoing unemployment-related issues. The craft chosen is wooden boatbuilding due to the existing skilled people there. The Small Modular Nuclear Reactor (SMR) on-site produces clean energy that is used in the building and the surplus given to the grid, contributing to UK's goal of reaching net carbon zero by 2050. This scheme is hoped to be the first step towards a future of an empowered generation, powered by sustainable nuclear energy.

For security reasons, the scheme is split into two wings: boatbuilding and SMR. The two have separate envelopes and servicing systems, joined together by a curved green roof that helps the building sit well within its context (Lake District). This roof is supported by CLT beams that are left exposed to express the materiality and language of wooden boats and workshop.

A 1:200 model was 3D printed to show the different roof heights dictated by the plan (tallest upon entrance to frame view, lowest above toilets for rainwater drainage for flushing WCs). A 1:20 test model was created to explore how the structural columns as an extension to the waffle CLT roof beams might look and meet each other.

The final 1:20 model explores one of the columns in the workshop space within the boatbuilding wing and its relationship with the roof and double skin facade (inner skin is curtain walling whilst the outer is fritted glass fins with angle optimised using Grasshopper; for solar shading in a way that still allows unrestricted view of the lake). Not only are the columns structural, they are also a visual feature (clear drainpipe in the centre shows rainwater trickling down to lake when it is raining, possible because workshop floorplate is extended to above the lake) and functional element (worktops and storage around). The main material used in the model is wood, reflecting the intended material in reality, and silver spray paint is used to express metal (steel and aluminium).



Image 01: Finished 1:20 bay model exploring the complex relationship between the column, roof, and double skin facade



Image 02: 1:200 model showing form of roof (3D printed ABS) in relation to plan (engraved with laser cutter on MDF)



Image 03: 1:20 column test model - laser cut greyboard



Image 05: 3x desks and 1x storage per column; the worktops are not connected to each other as they are each adjustable in height to allow a range of positions when used: sitting, standing, in wheelchair



Image 04: Clear acrylic rod as transparent drainpipe in the centre of column; rainwater runs down to lake through here (drawn in blue) entering from gaps in between louvres around the raised skylight, visible to users



Image 06: Double skin facade made by hand
 - Inner curtain wall: acetate and balsa wood
 - Outer panels: acetate and silver spray-painted greyboard
 - Grating: wire mesh on silver spray-painted greyboard

Ke Han Oh

BA3 - MAKING Atelier

Project: Parametric Peculiarities: Unveiling the Development Process of a Unique Facade Design

My project involved prototyping a fragment of my design building structure, specifically focusing on the parametric façade. Through this process, my aim was to explore and understand various aspects such as structural stability, sustainability, and constructability. Creating physical models allowed me to gain valuable insights into the integrity of the structure, informing the development of a more sustainable approach to construction and material usage. The purpose of these models was to test and refine the design, ensuring its feasibility and effectiveness in meeting the desired objectives. By engaging in this iterative process, I was able to enhance the overall quality and performance of my design. All of my models were meticulously crafted in B15, with invaluable assistance from the friendly and knowledgeable workshop technician. In my initial development model, I utilised AutoCAD to create a file that was then laser-cut from materials such as grey board and MDF board. The MDF board was spray-painted red to resemble bricks, and I used PVA glue to assemble the components, forming the desired structure.

For my second model, the laser-cut machine played a pivotal role in cutting the frame of my structure. I meticulously constructed the cladding using 1:50 scale bricks, and grey board was employed as a sturdy base for the cladding to rest upon.

In the creation of my third model, MDF board was once again laser-cut, followed by spray-painting to achieve the desired visual effect. The pieces were then meticulously affixed to a frame using superglue, ensuring structural integrity.

Finally, in my last and final model, I experimented with different materials to achieve specific textures and appearances. Jesmonite, combined with coloured paint, was used to emulate the look of terracotta, while timber was employed for the cladding. I incorporated floc to symbolise the growth of greenery on the terracotta surface. The structural frame, operational window and wall build-up were constructed using foam, timber strips, grey board, thin aluminium paper, air-dry clay, silver-coloured thin sheet leaves, polyfilia, acrylic sheet, water-based paint and plaster, resulting in a detailed and visually compelling model.



Image 01: The initial development model adopts a construction approach reminiscent of traditional masonry walls, with bricks being stacked atop one another. However, an innovative inclusion of a steel plate is employed to ensure the stability of the bricks, given their parametric shape.

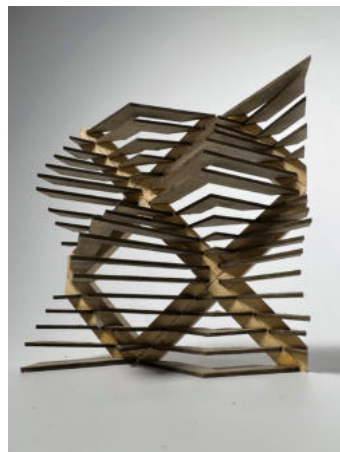


Image 02: This image illustrates the frame structure implemented in the second iteration, meticulously designed to provide robust support for each individual brick.



Image 03: The depicted image showcases the arrangement of bricks on the support plate, accompanied by the strategic incorporation of acrylic indicating glass blocks. This innovative design not only facilitates the stacking of bricks but also enables the infusion of natural lighting into the interior space.

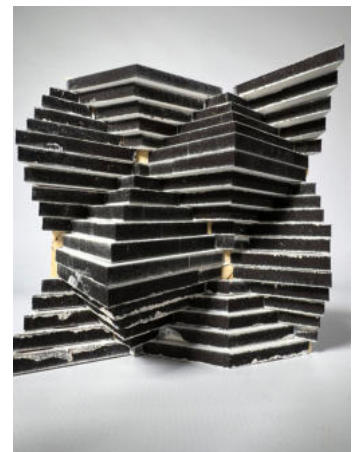


Image 04: In the final iterations of the parametric development facade, I have reached a decisive conclusion regarding the structural form. The model encompasses a diverse range of modular cladding components, such as ventilation blocks, terracotta blocks, timber blocks, and others. The comprehensive of these components will be presented in the forthcoming conclusive model.



Image 05: The 1 to 5 scale model depicted in the above photograph represents my finalized design for the parametric facade. It incorporates the utilization of modular prefabricated construction techniques, which effectively minimizes on-site waste and contributes to sustainable practices. The incorporation of multiple cladding materials, such as terracotta blocks and timber cladding, serves specific purposes. The terracotta blocks are intended to foster a sense of greenery, while the timber cladding creates a warm and inviting atmosphere.



Image 06: The image on the left provides an interior view of both the model and the actual building. As depicted in the model, the operational windows feature a parallel projectile design. Additionally, the cut section reveals the various components used for insulation, including foam as the insulation material, black-colored paper acting as a breather membrane, and timber panels serving as the structural frames. Notably, the interior of the parametric cladding is showcased as a smooth surface, in contrast to the exterior cladding. This distinction is a result of the driving motivation behind my work in Studio 3.1 and 3.2, along with the subsequent development and enhancements made from the initial Studio 3.1 project to the refined Studio 3.2 project.

Maria Pena

BA3 Architecture - Atelier Making

Project: **FRAGMENTED IDEOLOGIES**

- a whisky distillery with integrated visitor centre -

For the third year design projects we were asked to produce a functional concept to accommodate a whisky-distillery. The site is located at the outskirts of Manchester, near Cloughbank Farm, Runway Visitor Park and Manchester Airport. As 'Making' is a continuous activity, the ideas came as the project developed and model-making was a great tool to generate forms, express ideas and test the design possibilities.

Various model techniques and materials were employed to create either presentation models or iterative series to guide the design and aid in concept generation and principle establishment. All of this, along with additional research, hand-drawn sketches, and digital experiments, resulted in a unified project that focuses on a diverse range of presentation media and provides a broad set of skills.

Depending on the model's function and communication techniques, several scales and materials were employed. The sketch development models were created at home, whilst the more complex ones were created in the workshop.

Image 01: The model is made of one real size UK standard clay brick that was shuttered into pieces to express the idea of fragmentation. The resulted pieces were put together and connected by bridges and circulation paths.

Image 02: This model was made at home, with clay to form 60 bricks at 1:5 scale. The three different brick layouts were done sequentially by dissassembly and rearrangement. The purpose was to show the light performance of each layout.

Image 03: This model was done at home and at the workshop. The farm's buildings are lasercut and the conceptual shape was made with wire and metal mesh, working at 1:200 scale.

Image 04: This series of models were done to test the design characteristics of 3.1 proposal. They were created with various techniques and materials (3D printed, lasercut card board, foam board, clay, wire, metal mesh, strings). They were place on the site model made at 1:200 scale.

Image 05: This series of models was done at home with card board, foam board and clay, placed on a site model at 1:1000 scale.



Image 01: Shattered Brick - Abstract model representing 'FRAGMENTATION METAPHORICALLY'

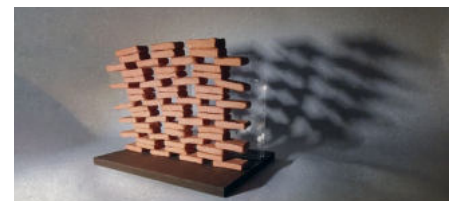
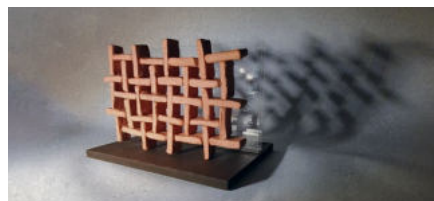
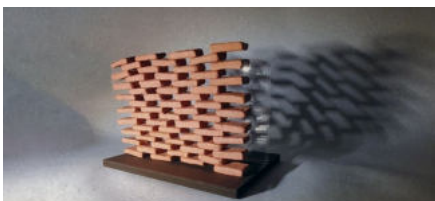


Image 02: Cladding Techniques - Technical model representing 'FRAGMENTATION LITERALLY'

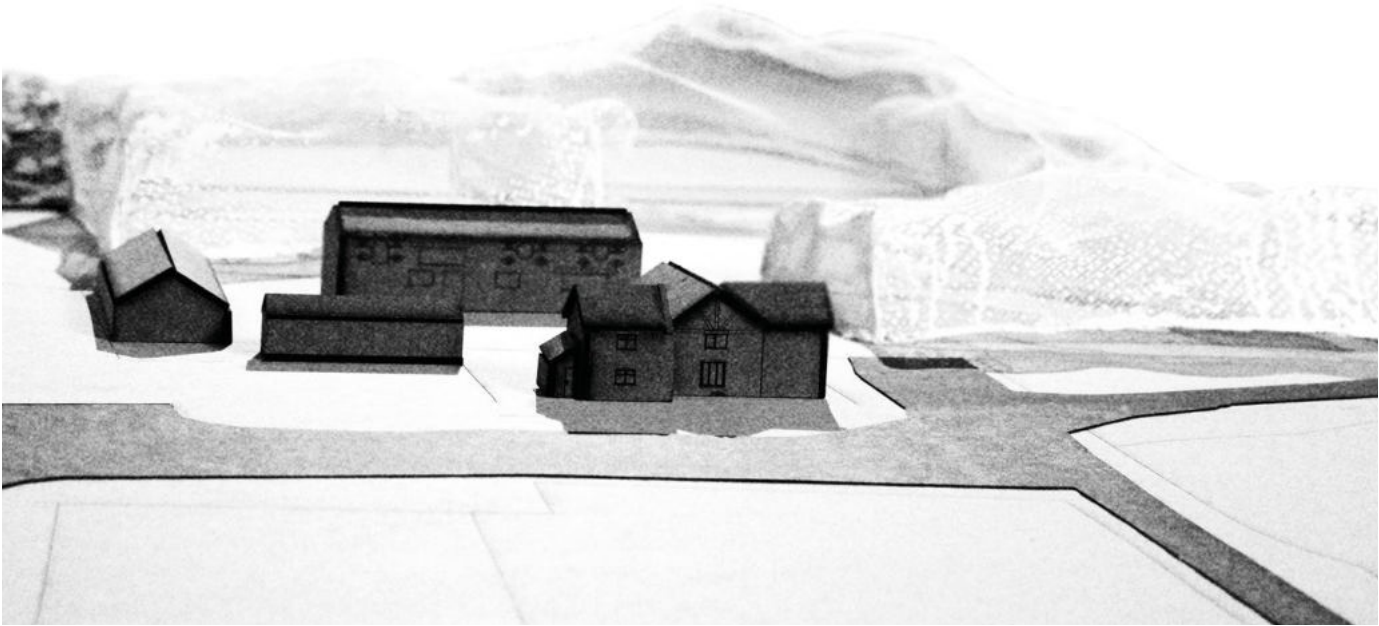


Image 03: Cloughbank Farm - Conceptual model representing 'FRAGMENTATION THEORETICALLY'

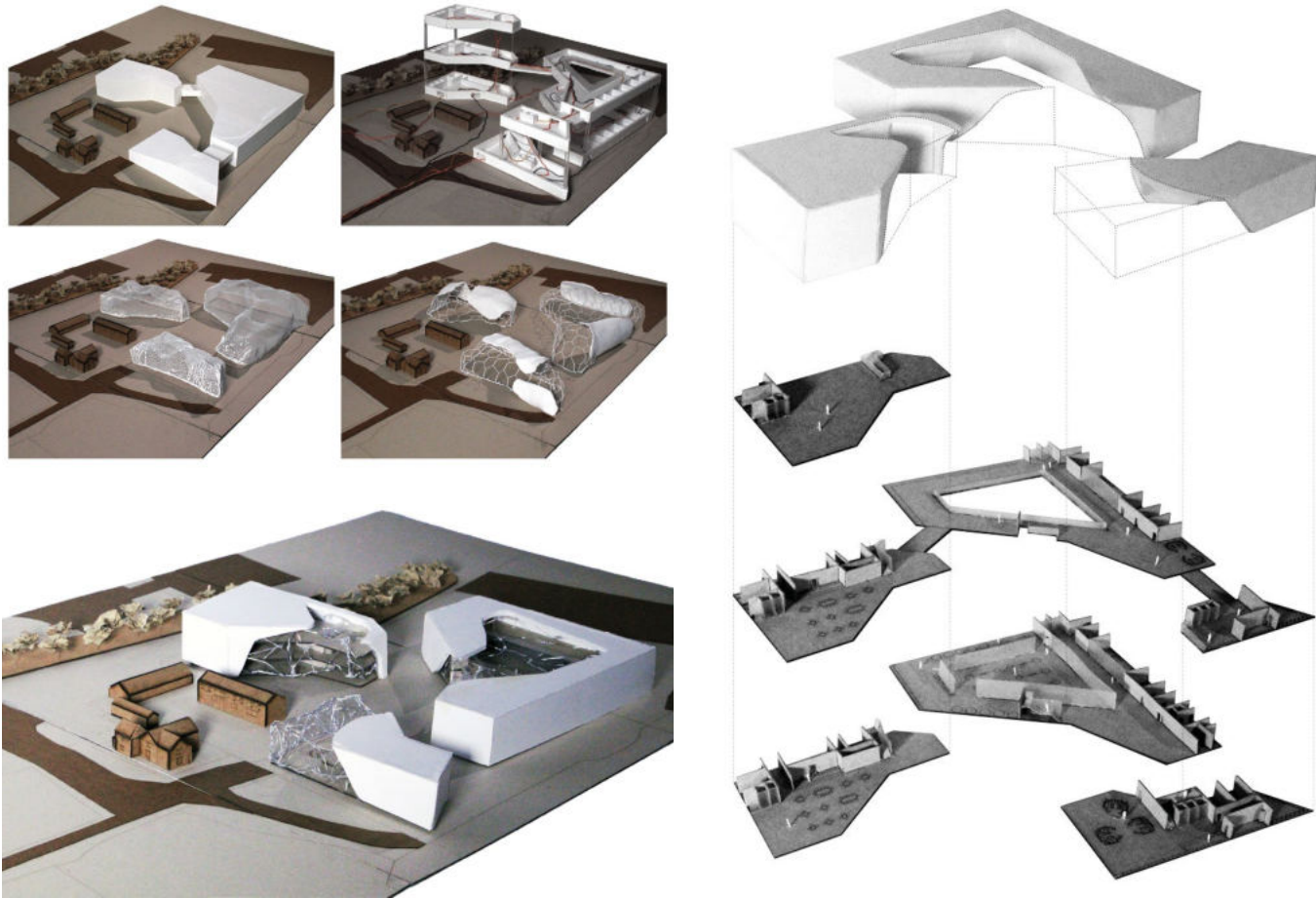


Image 04: 3.1 PROPOSAL - Iterative models representing 'FRAGMENTATION CONCEPTUALLY'

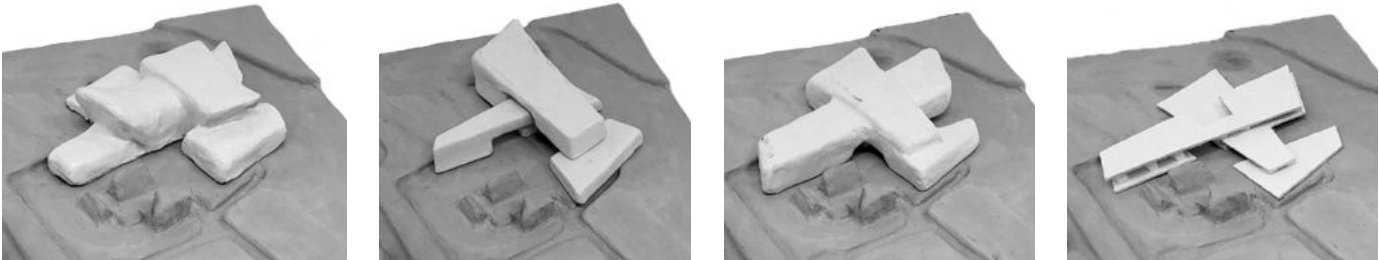


Image 05: 3.2 PROPOSAL - Iterative models representing 'FRAGMENTATION CONCEPTUALLY'

Laura Popa , Manchester

Ba 3 Atelier:SKN

Project: Some kind of Sanctuary Gallery Nature

My motivation with this project is to create a symbiosis between the users; an architectural intervention that all life forms can benefit from. My proposal acts as a refuge for fauna (insects), a 'patcher of lost connections' for flora and a space of spiritual and educational value for the human user. To achieve this, multiple form finding tests have been conducted, to find a suitable structure that would be inhabited by insects as well as experiential tests for the human user. These tests have been concluded through a series of plaster casted spatial details at 1:50 (image 1). The tests for the insect layer have been realised by creating 4 typologies of forms out of clay and leaving them in the park for a couple of days. The form with the most insects in it was the one I moved forward with in my design. Discovering about symbiosis between termites and mycelium, I concluded that the best material to use for these insect homes would be mycelium. The manufacturing process is shown in image 4. The next challenge was finding a suitable structural strategy that would allow insects to pass through. I came across a design of rammed earth bricks presented by POT Plus design research group in the context of the 4th International Architecture Biennial of Antalya and modified them slightly to better meet the climatic needs of Manchester. Image 2 presents the construction method chosen to create the complex geometries of my design out of these bricks, as well as the way they connect together and the pattern they create. My 1:5 tactile model (image 4) captures the different materials and construction techniques that would be used in a real-life construction of my proposal. The final model (images 5 and 6) aims to transmit the atmosphere of the human element of the design, a gallery. The model was constructed with the use of a cricket machine in B12.



Image 03: Construction sequence



Image 01: Experiential tests at 1:50



Image 02: Buildability testing at 1:20

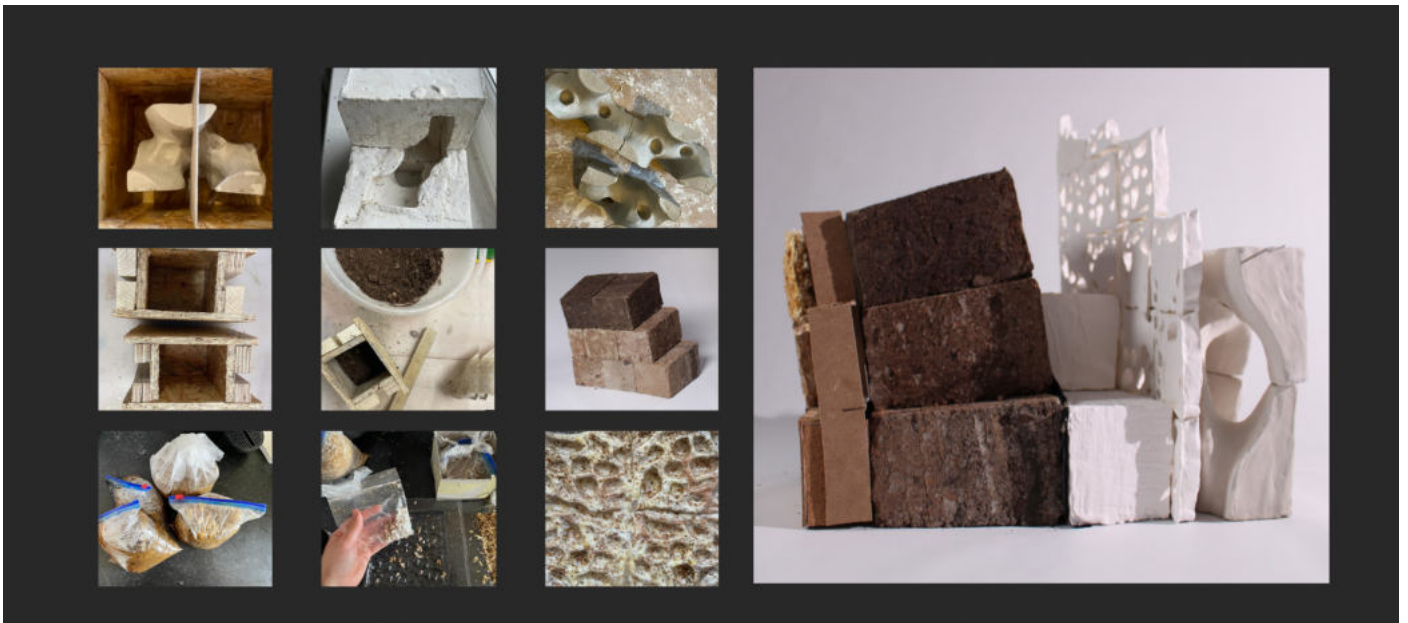


Image 04: 1:5 technical model and the 'real' manufacturing process



Image 05: 1:200 experiential model

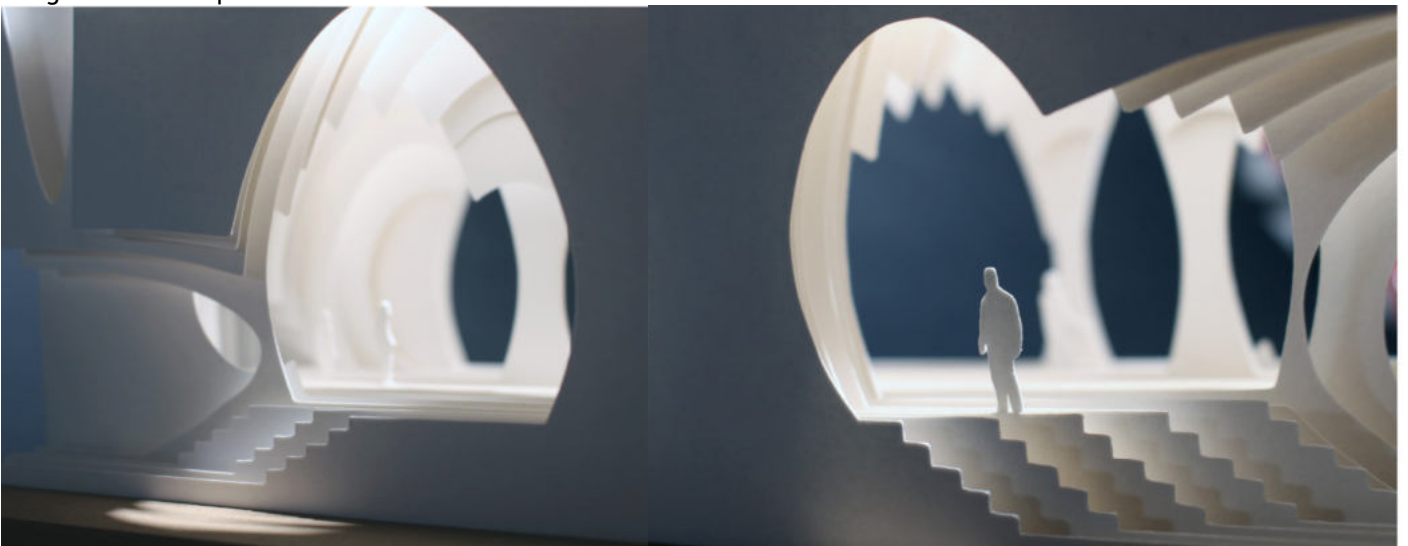


Image 06: 1:200 experiential model

Tanqing [Pyros] Cheng

BA Year 3 - Atelier: SKN

Project: Multi-FUNctional Youth Park

Community for both humans and non-humans

The aim of this project is to provide local teenagers with opportunities to observe and embrace nature while having fun exploring the spaces. At the same time, the building is also designed to protect non-humans and to care about their wellbeing. With more and more youngsters getting to respect and appreciate nature, a bio-harmonious community is to be created...

The purpose of this model was to present both the spatial layout and the design manifesto in studio 3.1. It is built at the scale of 1:200 to display the whole spatial arrangement, and a mix of hardwood, bamboo sticks, plywood and clay is used to show the sustainable approach and to create the atmosphere. Some thermoplastic was also used to create 'cloud' shaped pavilions. The idea of the building was to include non-human clients and encourage teenagers to observe nature.

The model was made on campus at B15 workshop.

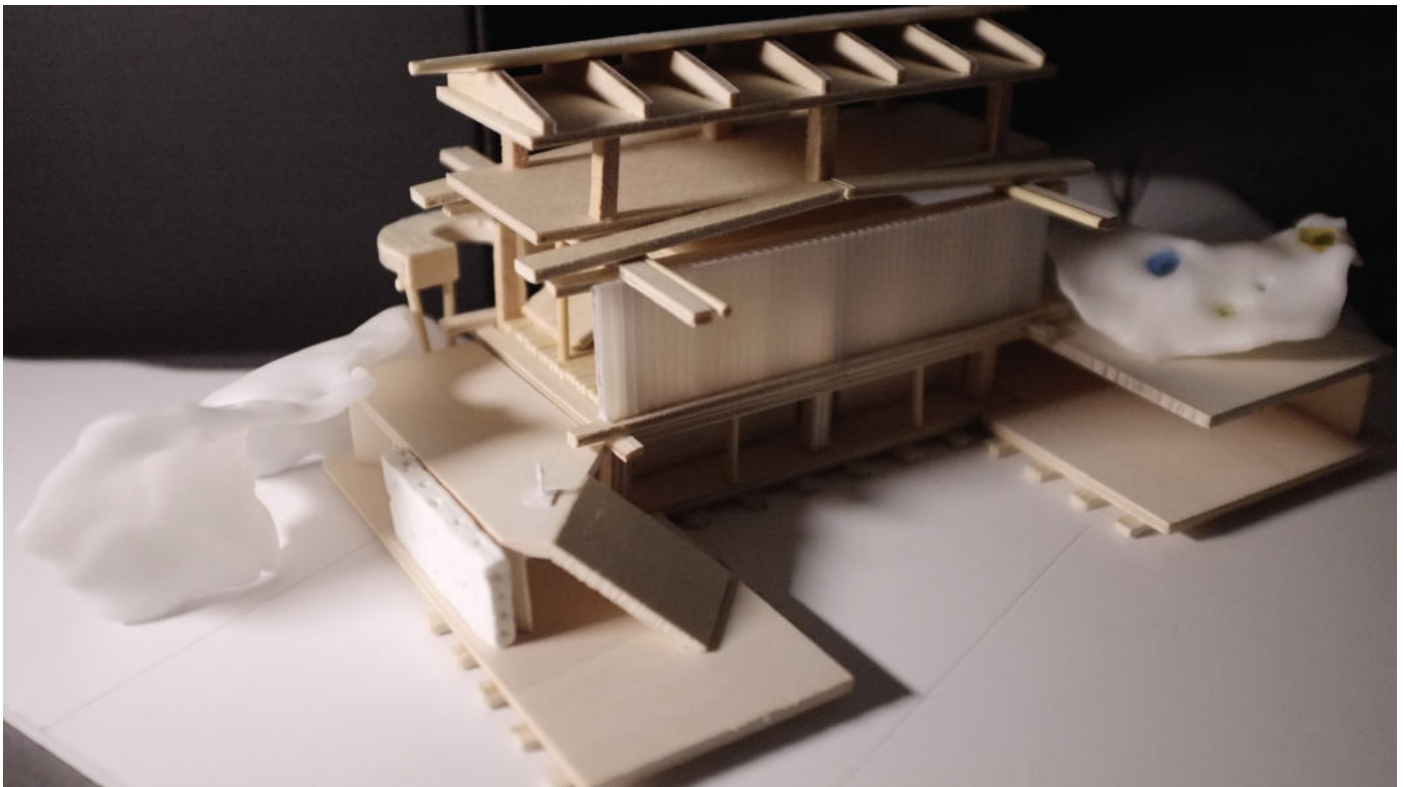


Image 01: Overview of the building (Evening)

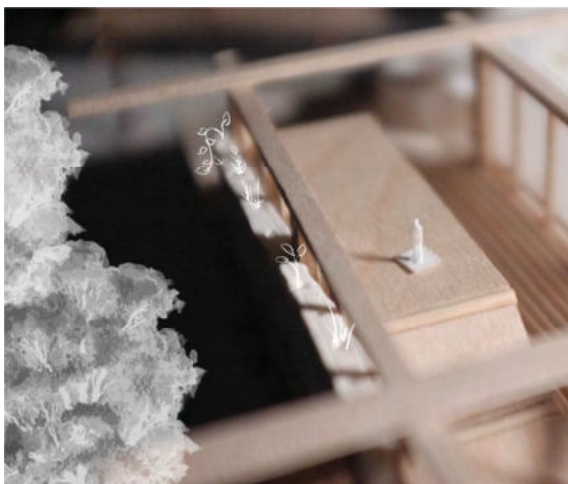


Image 02: Observing nature in the building



Image 03: Overview of the building (Morning)

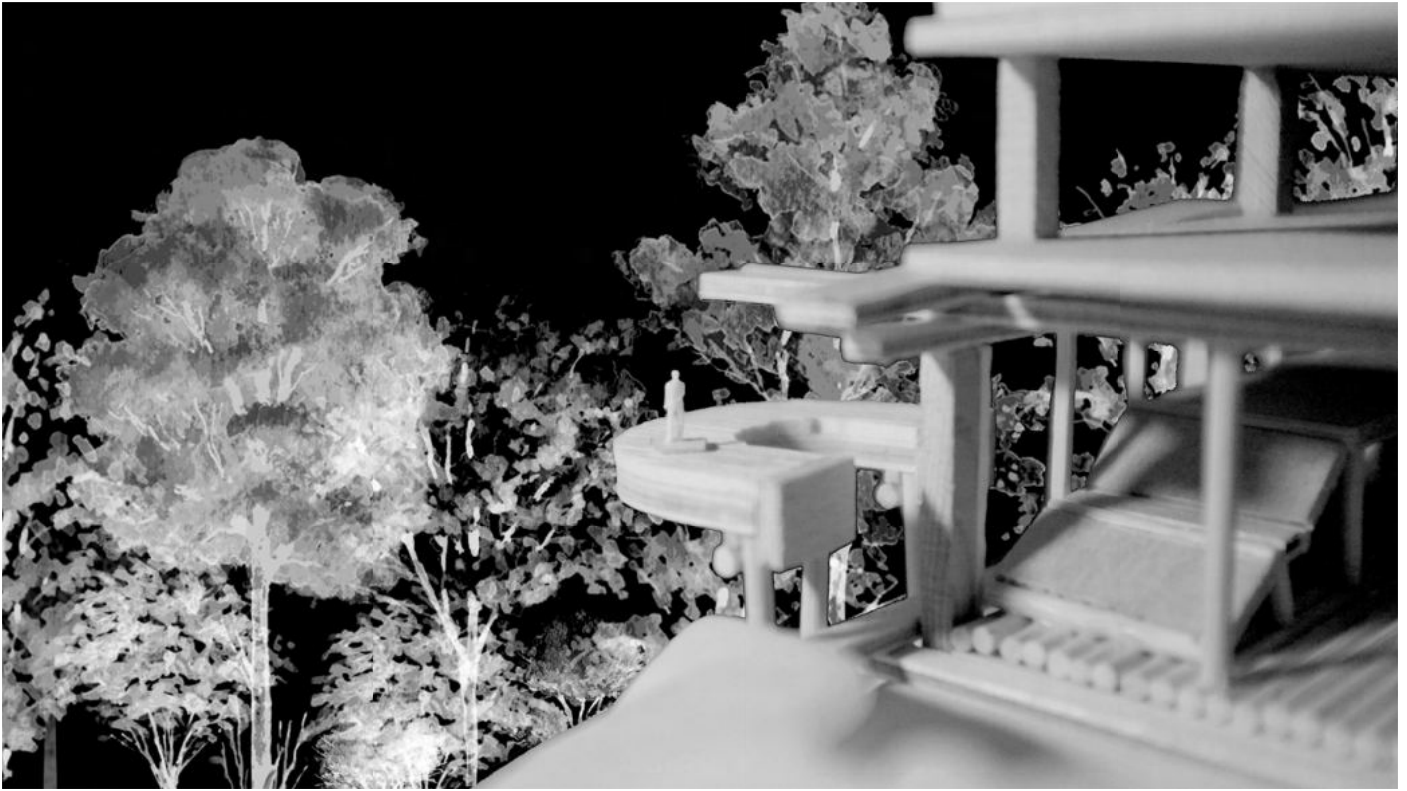


Image 04: Concept of getting closer to nature



Image 05: Detailed design: bio-friendly wall for plants and squirrels



Image 06: Cloud Pavilion Close-up: dark space for people to explore (sunlight beams get inside in the morning and guide visitors to look up)

Tioluwalase Delight Olojede

Ba3 - Atelier: Some Kind of Nature

Project: FOrREST

The Community For Rest/Forest

FOrREST is about 'being for' human and non-human rest, in order for us to thrive and express ourselves. It also expresses that by being more observant and taking time to be still we can see how nature rests, eg. how forests work with the natural cycles of sun, wind and water and other organisms to provide life, food, shelter and habitat.

The Surface for Rest is a bench that provides a space for people to sit and contemplate.

It wraps around the walkway, undulating- providing reliefs for accessible seating.

Inspired by Earthship architecture, a planter is integrated within the wall build-up creating an indoor-outdoor feel within the sunroom.

The 1:5 model was used to communicate this wall-seating build-up and to experience the process of ramming earth. The model expresses the desired simplicity as a wall-build-up, but the thoughtfulness in the seating experience.

An operable handle between seating gaps allows for flexibility in the seating experience.

Natural ventilation is provided through perforations in the rammed earth wall, allowing cooler surface-level air to be drawn up through the space.

The materiality expresses the contrast between the solidity of rammed earth and the lightness of timber construction.

The model uses reclaimed and scrap materials:

Earth and sand from construction sites was rammed in a reusable former. This process was like baking a cake, trying to balance the right ingredients of soil, clay gravel and water.

For the ventilation duct, a scrap plastic tube was placed during the ramming process. HDF has been used to convey concrete, it was a more time-efficient material choice. The texture was created by using a chisel, scribe and files. For the seating, plywood has been laser cut in the shape of each seat component, this was done to save time. It was stained and then assembled as a larger seating component, adding spacers to keep the gap consistent. The handle was added during this process using a nail. It was then attached to the finished wall, reflecting the real-life construction sequence.



Image 01: Surface for Rest: 1:5 model section view
Materiality: Timber, concrete, earth, glass, and planting



Image 02: Surface for Rest: Rammed earth wall exterior view

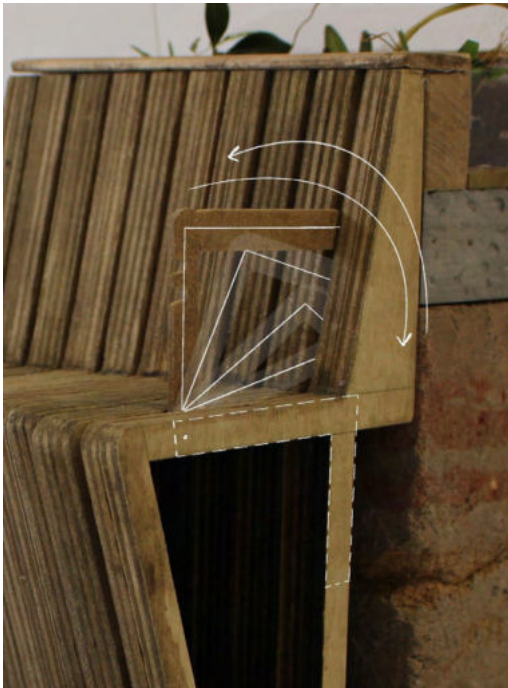


Image 03: Surface for Rest:
Seating handle is operable so can be hidden
Tounge and groove joint and attached with a
nail to pivot. Notches provided for grip



Image 04: Surface for Rest: Sunroom Seating interior view



Image 05: Rammed earth wall construction
Chipboard former held in place with clamps as I rammed the earth

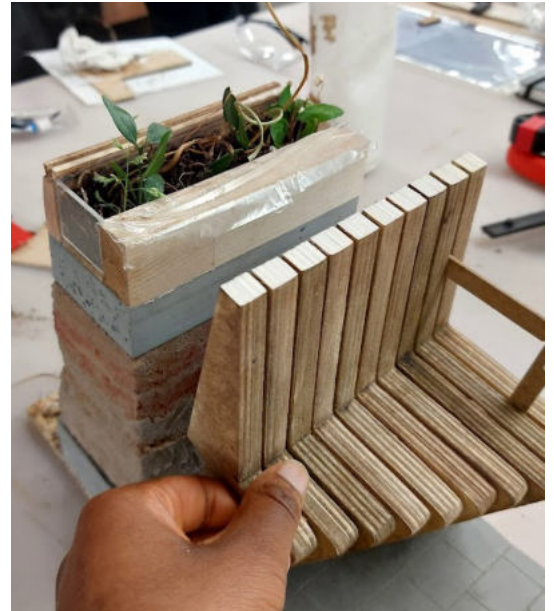


Image 06: Assembling the components
together
The water-tightness of the planter is
conveyed with an old plastic bag, held in place
by acrylic

MArch, MA & Mixed projects

Abigail May Smart

March Year 2 - Atelier: &rchitecture

Project: The Material Engagement of Craft and Feminism

My Studio 3 research is presented through a celebration of mind and material engagement, a methodological tool to imagine the female-led craft of crochet as architecture. Using 5 hand-crafted pieces I demonstrate the complexity of the female-led craft of crochet and how it can generate striking space to reclaim the unsafe areas for women across Manchester.

The work reflects my extensive testing and engagement with crochet as a structure, developed through tension, tensegrity, and suspension models, a 1:1 installation prototype applied physically to context, and a 1:500 site model.

The following work also demonstrates the aesthetics of crochet as a structural installation through lighting and shadow testing and the application of various materials to provide protection and comfort.

The significance of this work demonstrates the importance of hand-crafting and physical model-making in architecture to engage with the object and space.

This 1:500 scale model is a prototype of the proposed large-scale crochet installation. The hand-built model took 40 hours to complete and allowed me to develop an accurate understanding of how the installation would interact with the surrounding environment. The model is built on exact building dimensions and the installation in the frame was created using a crochet fabric which is accurate to the scale of the crochet at 1:500. I also used exact ground and elevation tension points to ensure the model communicates my design idea in the most precise way.

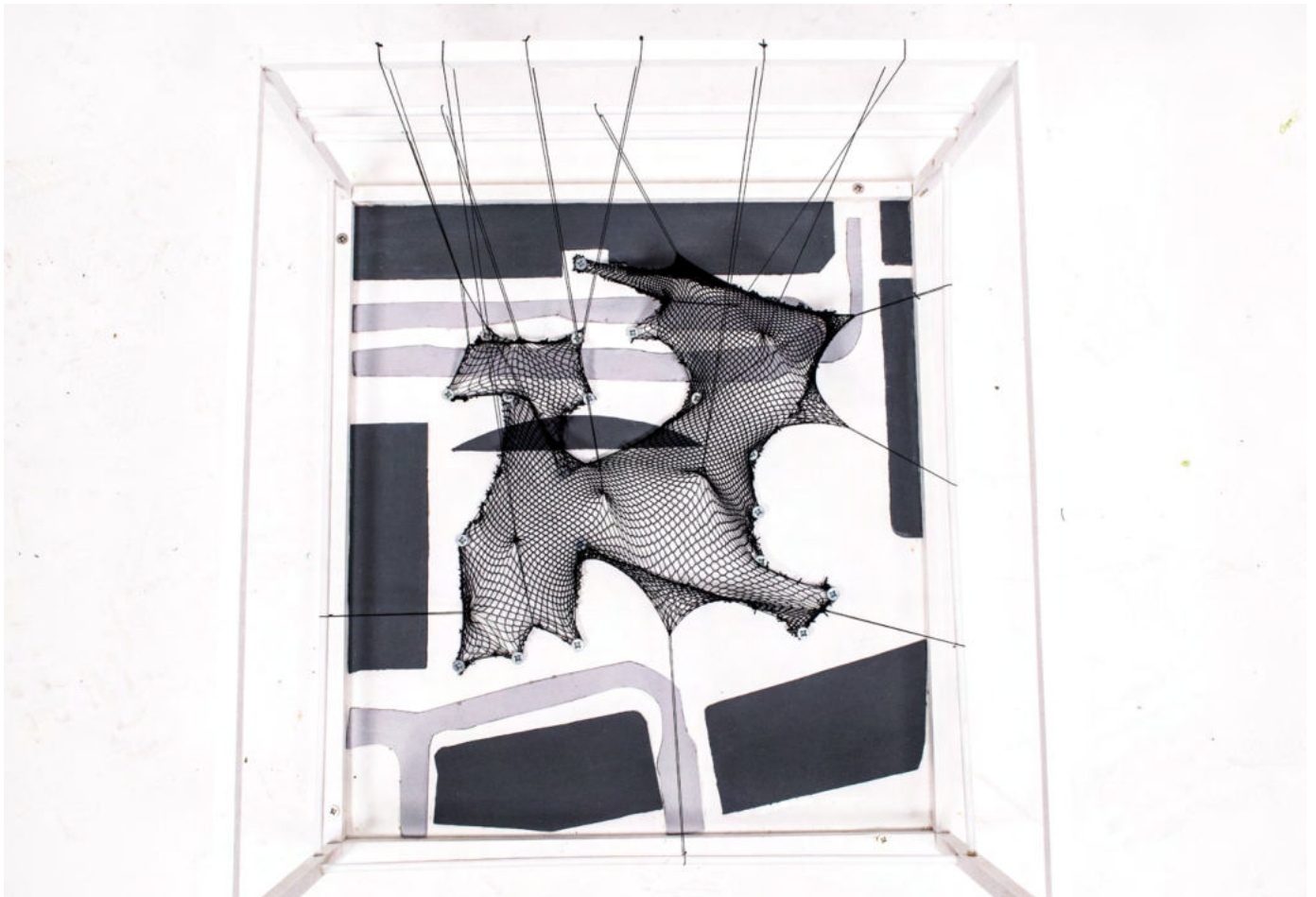
Applying the structure to context, 2023

Scale: 1:500

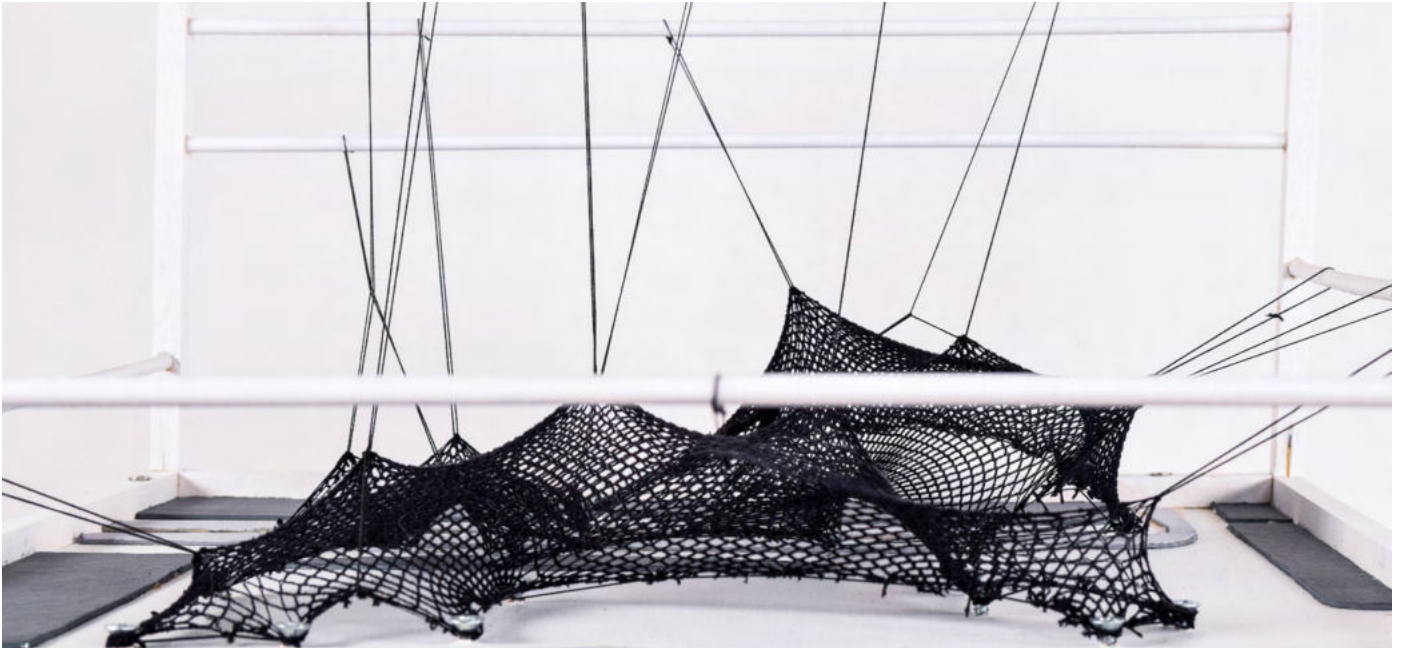
Fabrication: MDF Board, mount board and timber moulding

Crochet structure: Crochet net material

Time 40 hours



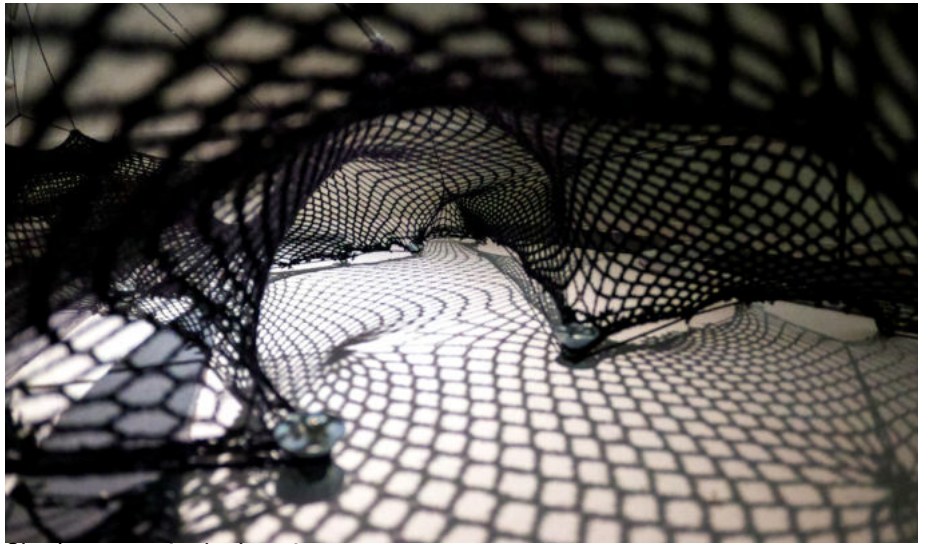
Applying the structure to context plan view, 2023



Applying the structure to context elevation view, 2023



Close up of the crochet net material



Shadows cast in the Interior space



Applying the structure to context the play of light, 2023

Yunqi Zhang , Manchester

March Year 6 - Atelier: &Architecture

Project: The Spectacle

The project is about the "Spectacle" that the individual becomes a passive subject, controlled by images and commercialised information. People are audience watching the spectacle, and at the same time they are a part of the spectacle to be watched. "The real world is reduced to 'simple images', and images are upgraded to 'real existence'". This spectacle has replaced and surpassed reality where people cannot tell whether it is real. The whole project is to investigate different characteristics of spectacle from different perspectives in a narrative way, and concept model is to experiment the spatial cognition.

The first concept model 'Trapped' focuses on the 'individual view' of overlapping space through deconstructing and reconstructing images to further express the feeling of being trapped in the spectacle. In order to present transparent and uncertainty of the space, I use tracing paper to print images and fixed with wooden sticks. The partition space is constructed by different colors of plastic, acrylic, glass, mirror, wood boards, etc., and the materials are all collected from the scraps of B.15. Here is the video link for the performance. https://www.youtube.com/watch?v=c_A0oLIWt90
The second concept model 'The Fish Tank' is using model making as the method to summarize Studio 1 performances while focuses on the 'crowds view' of showing the main situational space - Performance, City, Dream, and Corridor according to different characteristic of the spectacle. The images printed on the tracing paper mainly use "screens" and daily necessities as the objects. "Fish" as an objective part of expression represents the "individual", while "TV" and "plastic bag" represent the "screen". The material of the model includes glass, acrylic, plastic, wood, mirror, iron wire, etc. collecting from B.15 scraps. And the model is also used as part of the filming backdrop to show scene changes. <https://www.youtube.com/watch?v=-FxlCjziiCE&t=47s>



Image 01: Conceptual model 'Trapped' from four angles

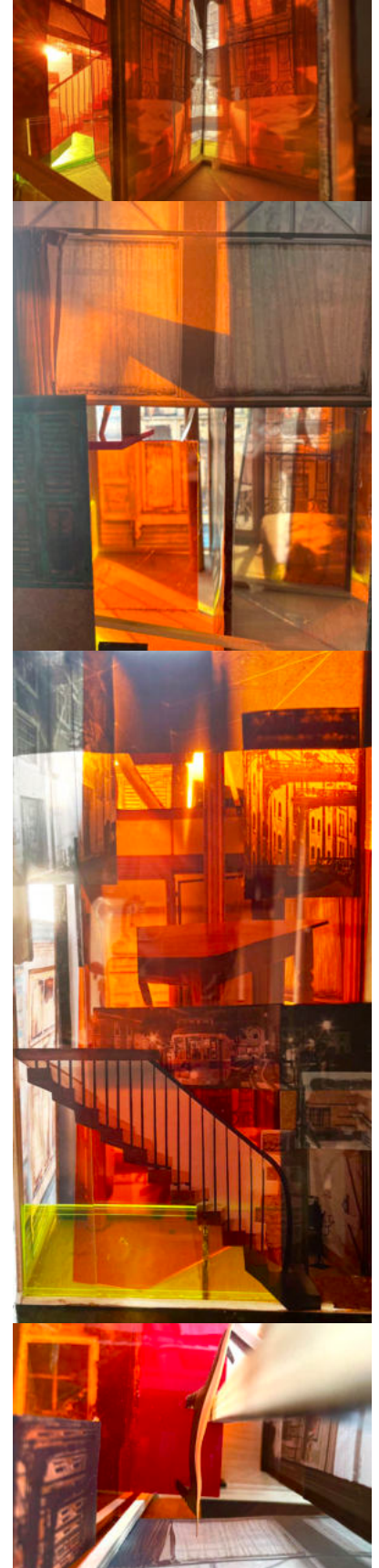


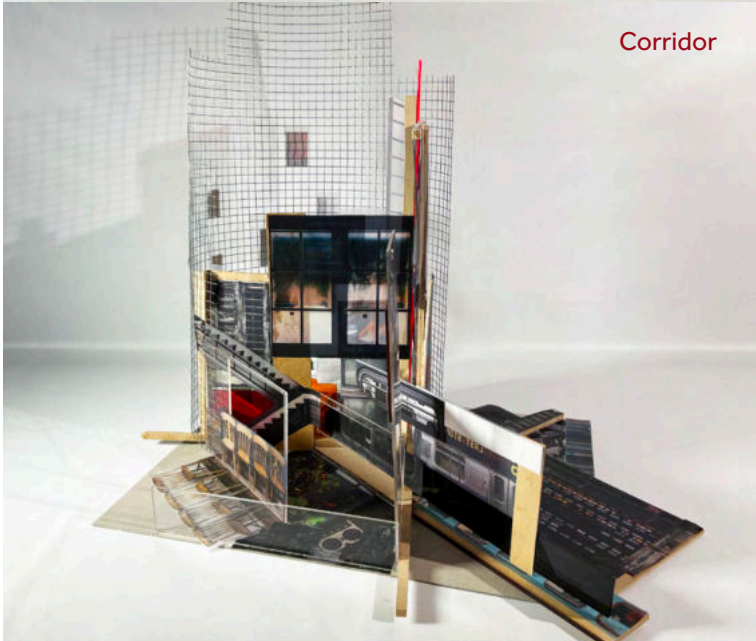
Image 02: Interior 'trapped' space



Performance



City



Corridor



Dream

Image 03: 'The Fish Tank' - four situational spaces

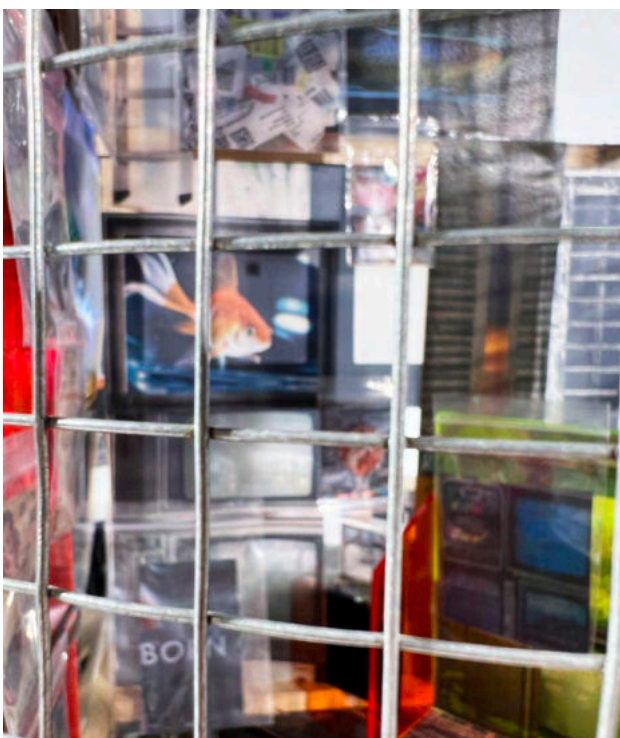


Image 04: The 'Cage'



Image 05: Top view of 'Performance' space

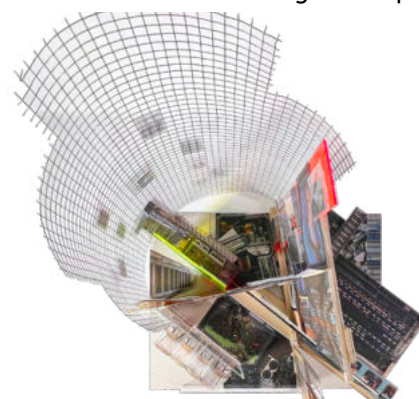


Image 06: Top view of the model

Brian Cox and Saul Bunyan , Manchester

March Year 1 - Atelier: Continuity in Architecture

Project: The Fun Palace - Lancaster House

Professional Studies 2

In Continuity in Architecture, we were tasked with retrofitting and reinvigorating Lancaster House, a 1930s Art Deco building located in Preston. The building was initially slated for demolition but was saved due to public outcry. The council is now seeking innovative ideas to preserve the building. Inspired by the concept of the "Fun Palace" conceived by Cedric Price and Joan Littlewood in 1961, we envisioned Lancaster House as a vibrant space for diverse activities, contributing to the future of the High Street and embracing the notion that High Streets are theatres of human interaction.

In order to better understand the internal spaces that we were designing, we created a series of models at various scales throughout the project. These included a 1:200 spatial arrangement model, 1:50 existing facade study model, a 1:2 window detail model and a 1:50 final section model which explored materiality, light, and spatial quality. The construction of these models also served as a valuable design tool for us to resolve material junctions and structural connections. Specifically with the 1:50 sectional model and 1:2 window detail model, we were able to experiment with lighting conditions in a way a digital model would not allow, as well as more deeply understand our design.

In creating these models, we used a vast array of techniques including woodwork, 3D printing, painting, laser-cutting, and more. Where possible, we used offcuts and recycled materials in an effort to limit the carbon footprint of the models. This is perhaps best highlighted in the base of the 1:50 which was an offcut recycled from the recent refurbishment of the Manchester Museum.



Image 01: Study Models

MDF, plywood, jelutong, birch faced ply, laserboard, 3d printed ABS, foam, card, greycard, acetate, clear acrylic, spraypaint, acrylic paint



Image 02:
1:2 Window Model
MDF, acrylic,
spraypaint, wood-
stain



Image 03:
1:200 Spatial Model
Jelutong, clear acrylic,
wood-stain



Image 04: 1:50 Sectional Model

MDF, plywood, jelutong, birch faced ply, laserboard, 3d printed ABS, foam, card, greycard, acetate, spraypaint, acrylic paint



Image 05 and 06:

1:50 Sectional Model

MDF, plywood, jelutong, birch faced ply, laserboard, 3d printed ABS, foam, card, greycard, acetate, spraypaint, acrylic paint

Brian Cox

MArch 1 - Atelier: Continuity in Architecture

Project: The Two Century Home

In the Continuity in Architecture atelier, we were tasked with designing innovative housing typologies that tackle both the climate and housing crises. My proposal looked to challenge the existing housing model in the UK, both architecturally and economically through innovative approaches. To better understand the proposal that I was shaping I created a physical tactile model for the entry of the scissor flats, with the goal of better understanding how the space would work in reality (even if at a much smaller scale). The design for the entryway contextualises itself into the fabric of the city, adopting the gothic arch which was inspired by buildings around the site.

To further contextualise the model, a scrap brick from the demolished building on the site of the project was filed to provide dust and chunks of brick that could be used in the casting of the model. Using these elements, the model was then cast in red and white Jesmonite at a scale of 1:50. The tactile model was then finished with timber window lintels and laser cut doors. The texture of the model is created by the chunks of the brick, expressing the contextualisation of the project with the site.

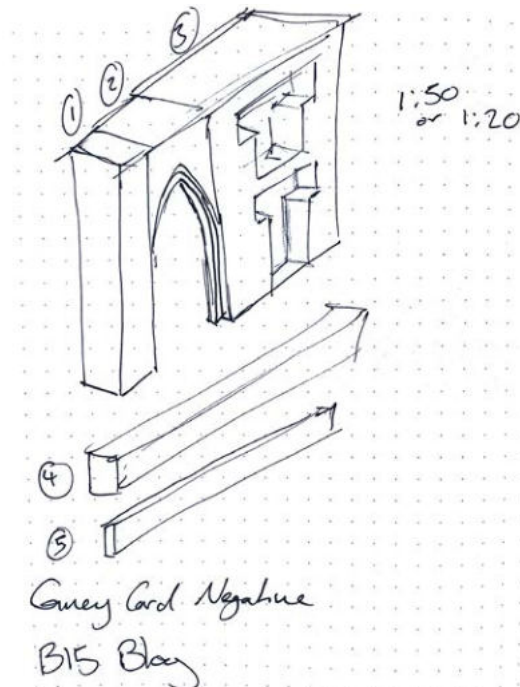


Image 01: Initial Sketch



Image 02: Draft Model

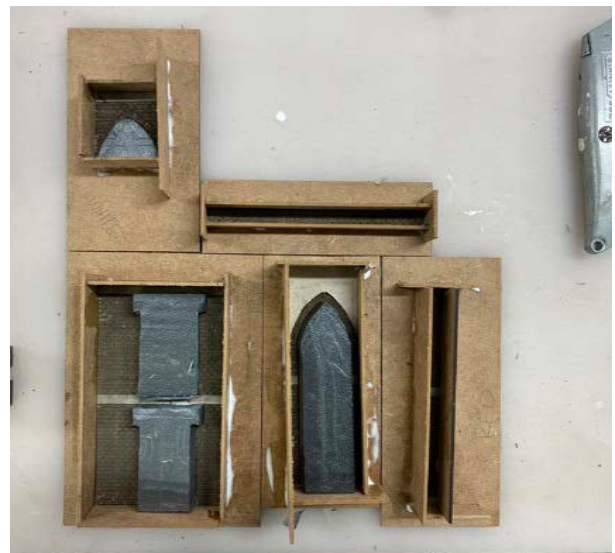


Image 03: Casting Moulds



Image 04: Tactile Model



Image 05: Texture from Existing Brick



Image 06: Contextualised Project, Contextualised Model

Oliver Le Marquand, Elliott Taylor

March Year 2 - Atelier: Continuity in Architecture

Project: Unweaving Northern Industry

Who made you clothes?

In a collaborative project, 'Unweaving Northern Industry' looks historically at the disparate inequality of Preston, Lancashire, and envisions a new industrial and commercial hub through the lens of it's past.

The site; A mostly vacant plot of land previously occupied by Preston's largest cotton mill complex, sits between a decaying high street and an expansive retail park on the outskirts of the city centre.

Bridging the two sectors, the scheme envisions a new urban realm of industrial and commercial activity framed by Lancashire's history of textile and garment manufacture, and in turn how this system could be sustained in a contemporary setting.

The two larger 1:50 models, shown below, illustrate the process of a more reciprocal fashion cycle to high street trends; To the right, a cross-laminated timber clad restoration mill, tailoring garments from 100% textile waste; To the left, a cultural centre used as distribution in the form of retail and studio units for local businesses and designers.

In the centre of the mill model, sits an abstract form that intends to articulate each of these complex industrial processes in a succinct manner. The constituent maquettes replicate key stages of recycled garment manufacture, though more specifically it visualises our research concerning the Swedish clothing manufacture 'Renewcell' and their product 'Circulose': A progressive means of cellulose fibre production derived from used textiles.

We tried to limit our material palette largely to more sustainable modelling materials like wood and cork, as a reflection of the scheme's principle of reciprocal manufacture cycles, whilst the complex structural work had to be accomplished with 3D printing.



Image 01: Cotton Court (Left) and Yard Works Mill (Right)

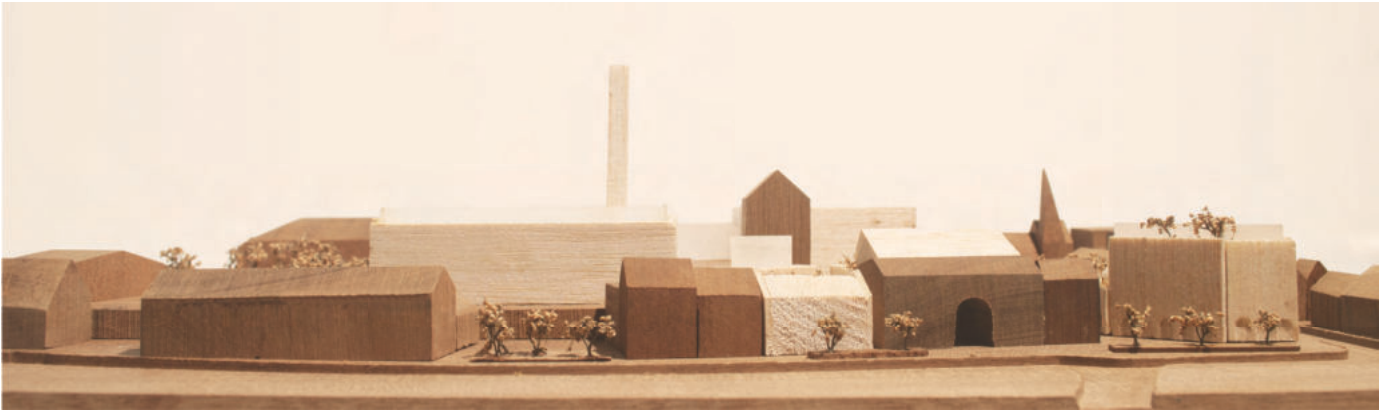


Image 02: Site Model - Mahoghany, Balsa wood, Plywood, Acrylic, Frosted Perspex, Cork



Image 03: Yard Works Mill



Image 04: Cotton Court Centre

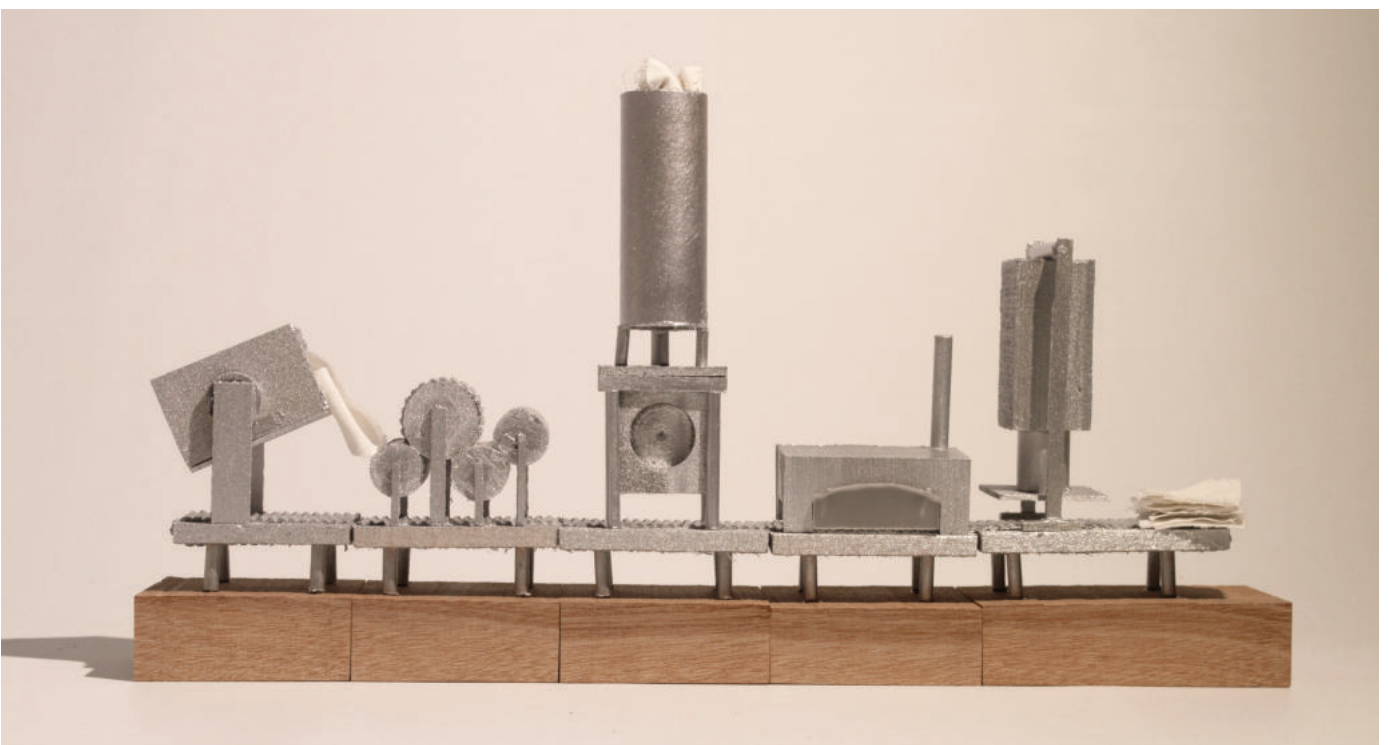


Image 05: Garment process (from left to right), reclamation, shredding, washing/dyeing, dehydration, pressing/cutting

Raghav Garg & Harry Peach

March Year 2 - Atelier: Continuity in Architecture

Project: HARNESSING DELIGHT

REDISCOVERING THE PRINCIPLES OF COMPOSITION IN PRESTON

Our project follows a reconfiguration of the city of Preston's main public square, the Flag Market, and one of its subsidiary spaces Anchor Court. Host to most of Preston's grand civic structures, in addition to many important annual cultural events, our site, whilst already remarkable, could benefit from several choice interventions that we believe would dramatically improve the viability of the space as the city's commercial, cultural and civic heart. Through our learnings, focussed on the principles of classical composition and ornamentation, we developed an architectural theory that would inform both the urban arrangement and individual composure of the façades that would make up our proposal. This line of thought culminated in decanting an existing modernist tower, discordant with the neoclassical language of the rest of the square, out of the square, where we redistributed its functions into a new structure built into the market's western facade. Called New Anchor Court, our development provides the lost residential and commercial function of the sacrificed structures in a manner that we believe enhances the social life on the square instead of inhibiting it as the tower did beforehand.

We have built two models, in the scale of 1:500 and 1:50 to explore the masterplan strategy, material and aesthetic qualities of our scheme. We have built these models to effectively communicate final design elements of the scheme. The massing model helps to portray the location of the scheme and how it is placed in the backdrop of the square. The sectional facade model helps to explore the new design language of the facade we have created and the atmosphere's created in the thresholds. Both the two models were made in the workshop, with occasional small pieces glued and assembled at home. Both the models were made using wood and small details were assembled at home. Model making helped us further investigate about the buildability of our scheme.



Image 01 1:500 Massing Model : Exploring the relationship of the scheme with the immediate site that is the Preston flag market, solid and void study. Dotted line indicates the tower block that was



Image 02 Street View : Exploring the immediate context and the framed views of the monument, that is the Harris Museum with our design intervention adding a new set of façades to the squares.

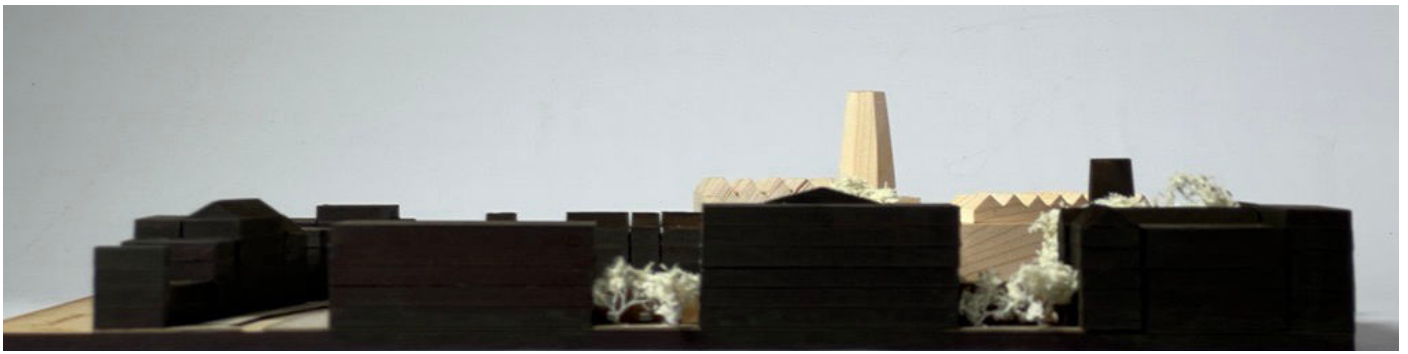


Image 03 Site Elevation: Exploring the silhouette of the scheme in immediate context of Preston Flag market and how it blends in the backdrop with the new tower poking out, creating an informal entry.

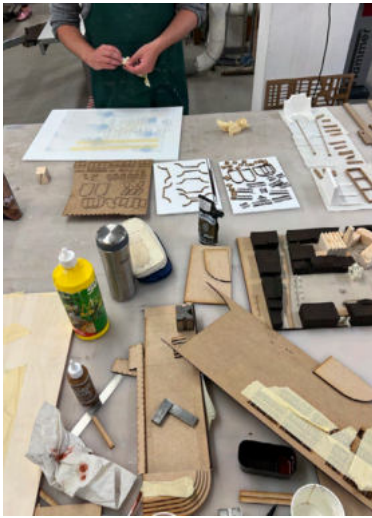


Image 04 Process: In order to get everything right for the model, planning the CAD file, selecting the different thickness of materials, laser cutting, and assembling the different components were crucial. Many test paints and polishes were also done on scrap pieces of plywood, cork and MDF was done to get the most accurate representation of the actual materiality of the scheme.



Image 05 1:50 Sectional Model:

This sectional model helps to understand the relationship between the external and internal spaces in the scheme as well as the structural strategy used in the project. The model also shows how the ground floor is made of concrete and the floor above is supported by CLT panels. Model making helped to better understand the construction as well.



Image 06 Ornamentation Study:

The Facade of the model is key to our thesis as it helps to explore the ornamentation of the scheme. Building up the 1:50 model also helped us to understand the assembly of the facade. The ground has half fan vault arches represented in concrete. The window frames are made from timber and the motif elements represent Bronze panels.

Nur Azureeni Dzulqanain & Johan Nor Azman

March Year 6 - Atelier: Continuity in Architecture (CiA)

Project: Preston Youth Centre

The Preston Youth Centre was designed to create a support system for youth that were struggling with antisocial behavior that could harm any individual, the community, and the environment. This project aims to foster a strong sense of community between youth and people around Preston and to help them to control and prevent their antisocial behavior from becoming worse.

Model 1

The site model is inspired by the concept of Roma Interotta in Rome. The concept of Roma Interotta was created by proposing reestablish with the historical plan to redesign Rome using subtraction, addition, and substitution in order to counter inertia and land speculation that had created the current appearance of the Eternal City. We extract pieces an interpretation of the expressions of twelve international architects on Nolli's map of Rome into Preston's building map. We delve into understanding four of the 12 architects' expressions and interpretations of the Nolli's map. Dividing the Preston's map into 12 different segments but focusing on the middle two that consists of the 3 selected sites.

Model 2

As a building built for multi-generational users, the Youth Centre's programme influences the youth's activities around the city of Preston with the help of interactions with different age groups users. The colour coded threads separate the types of users in the building that shows the movement of users, and to which spaces these users interact the most. Pink for the youths, blue for the adults, brown for the senior citizens, and red for the troubled youths. The clear acrylic floor plans activates the visual of the threads with a more clear, precise and direct look of the circulation inside the building.

Model 3

This part of the scheme shows the model at 1:60 to illustrate the façade of the new and old Odeon Theatre that combines into a building of its own and hints of the cross-section of the Youth Centre's internal that shows the structural configuration intended. The vibrant orange acrylic denotes the different types of materials used and the show of colours to enhance the original look of the Burned Down Odeon Theatre, Preston.



Image 01: Model of twelve different segments from the idea of Roma Interotta approach. - MDF board and 3d printing



Image 02: The two boxes that showcases the changing ideas onto the selected site.

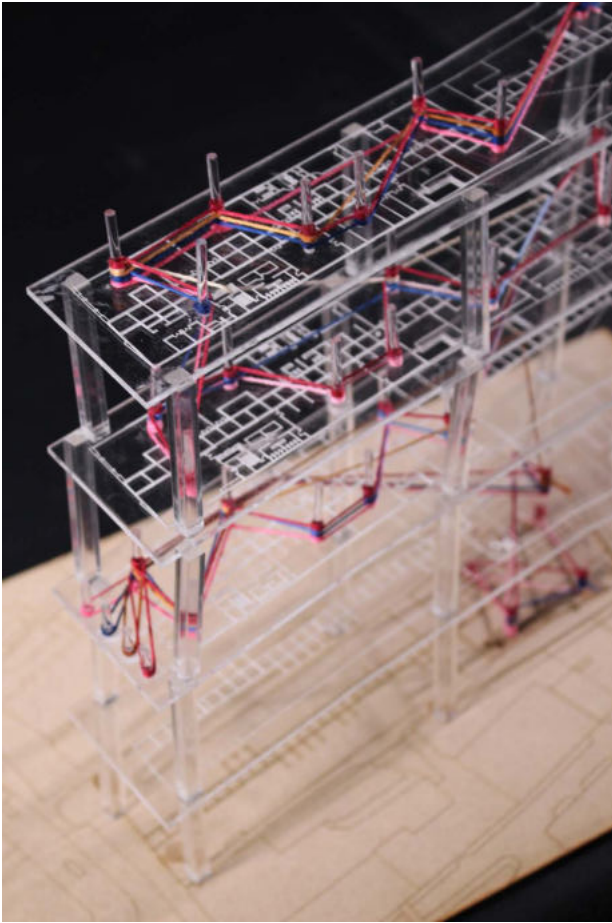


Image 03: Circulation model - MDF board, acrylic sheets, colored thread

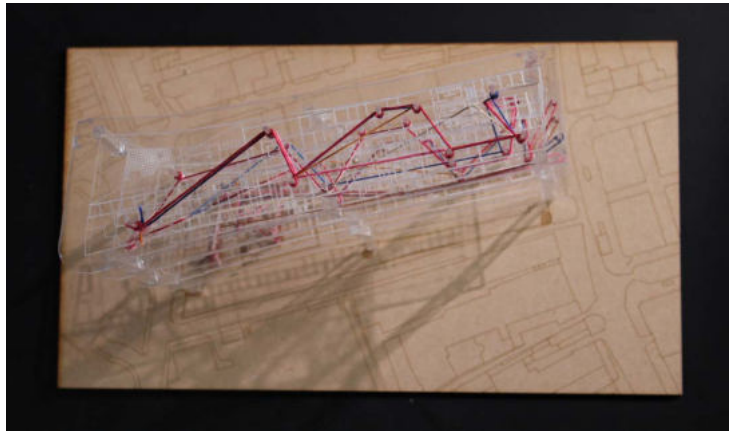


Image 04: Top view of the interior circulation in Preston Youth Centre.



Image 05: Sectional model showing the internal space of Preston Youth Centre.



Image 06: Facade model - MDF board, clear and colored acrylic sheet, wood panel

Theo Fisher

March Year 1 - Atelier: FLUX

Project: UPCYCLED

Reclaimed Crafting In Chemnitz, Germany

The project is situated in Chemnitz, once known as 'Saxon Manchester', a city that was born in the industrial revolution as a centre for crafting. In the contemporary era, the city has suffered from post-industrial decay and the social problems that arise alongside it. The retrofit proposal tackles urban decay by reclaiming the cultural memory of production through the financially and environmentally sustainable modus operandi of upcycling. A centre point for a regional circular economy of materials, the retrofit consists of 4 local crafting studios and community spaces. A temporary canopy connects the studios to the cultural centre of Stadtwirtschaft, which sits behind the site, operating in conjunction with the European City of Culture 2025 festivities. The canopy consists of a lightweight tensile membrane structure constructed from the reclaimed materials from the retrofit process, an outward reflection of the building's upcycling philosophy.

The model-making process, derived from the work of Frei Otto, responded to the unique challenge of designing the bespoke tensile membrane. Otto used exploratory models to design membranes that followed their natural states to create a form and structure that functioned in equilibrium, something unachievable through sketching or digital modelling. Forming my own take on Otto's process, I developed a sequence of 1:100 fabric manipulations, pinning an elasticated fabric to a site base and playing intuitively to influence the spaces created. I then gradually refined the model, using destructive iterations, splitting the canopy into two parts and removing the need for internal struts. The final experimental model makes a spectacle of the structure with a single mast rising through an opening in the canopy and drawing the membrane into tension from above.

Built at 1:100 to fit the pre-constructed group site model, the final presentation model aims to emulate the tectonic outcomes of the experimental models, while also adding additional visual information that reflects the upcycled materiality. The membranes are polycarbonate sheets vacuum formed on handmade clay moulds, with laser-cut MDF joining to a thin wire to make the mast and cables. When composed with the other models, the set rounds off the narrative around temporality and materiality.

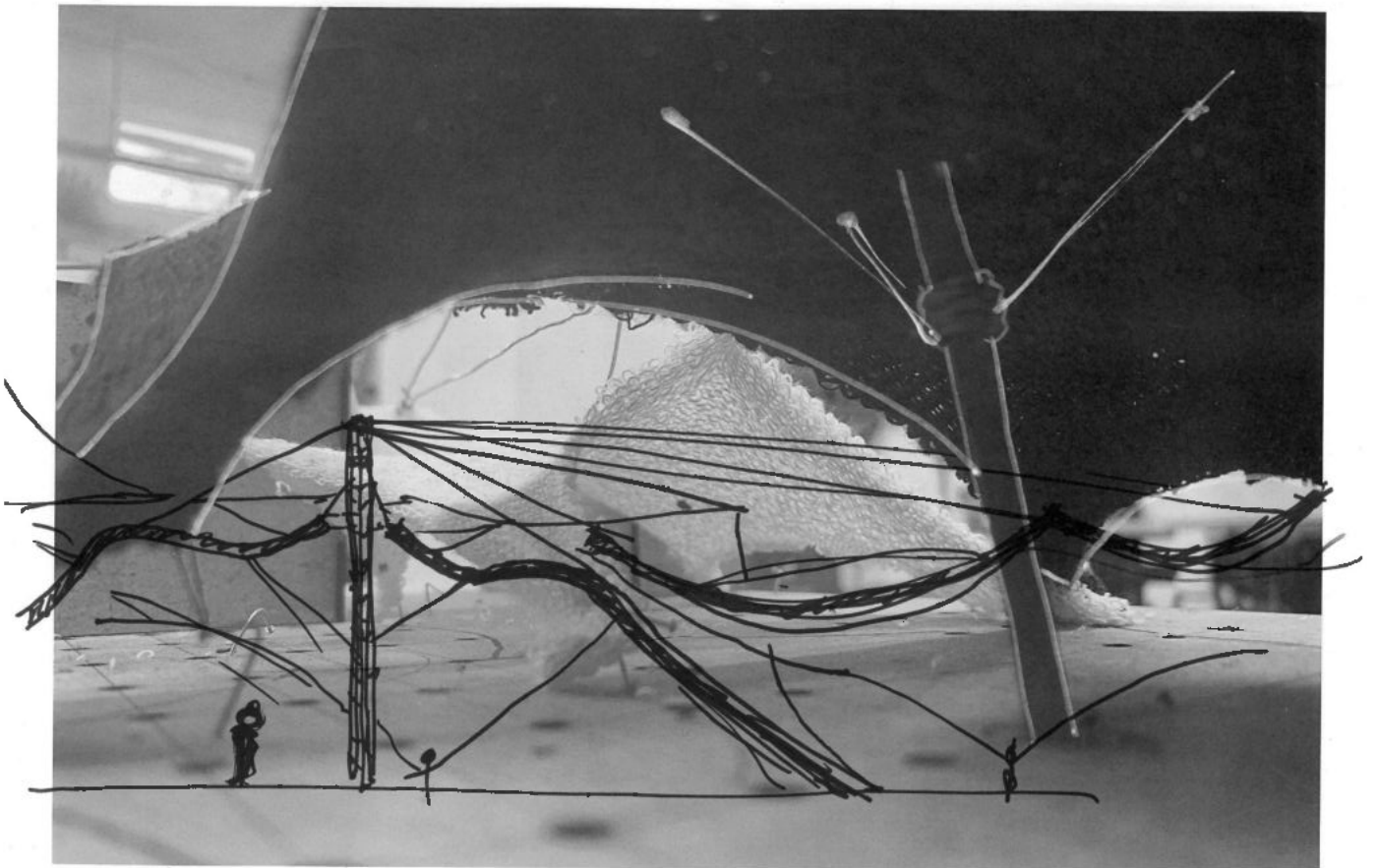


Image 01: Printed Photo Of Iteration Model Sketched Over As Part Of Process



Image 02: Iterative Fabric Manipulations

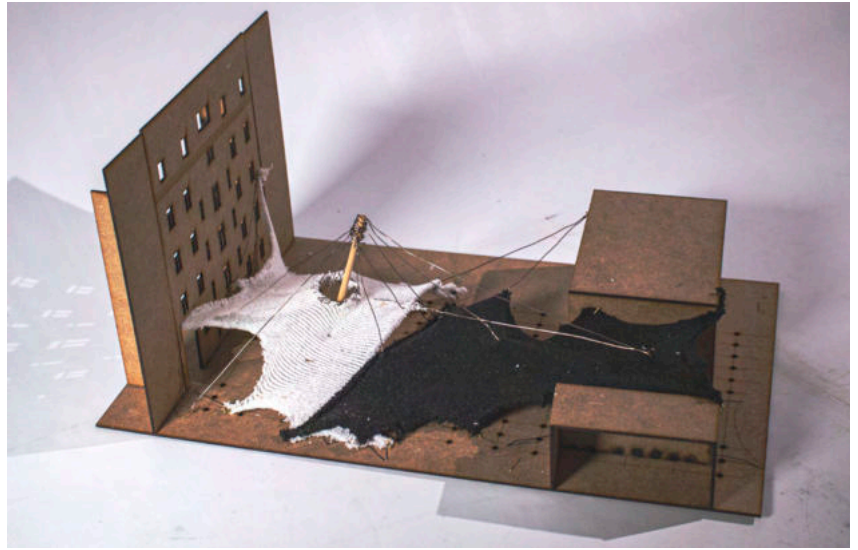


Image 03: Final Experimental Model Iteration



Image 04: Final Canopy Model Reflecting Materiality On Group Site Model

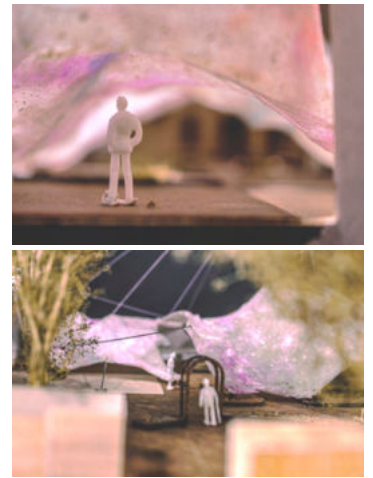


Image 05: Internal Views



Image 06: Model Compilation: Fabric Experiments (back), Vacuum Form Mold (middle), Final Model (front)

Ahmed Ali

MArch Year 2 - Atelier: Infrastructure Space

Project: Activating Cumbria

An experientially driven resolution to tourism

Activating Cumbria is a project that looks at the tourism economy of the county and the inequities that it has created within regions through unequal consideration of policy, funds and attention. The course of this project looked at identifying the locations in Cumbria that had been overlooked and underutilised through tourism, and how we could then provide equity for these locations. The attempt of a solution led to looking at the incorporation of a night economy to provide equity, that as a concept, focussed mainly on urbanised, dense city locations and not a large, expansive, rural county.

To facilitate this, a transport network was required. Being one of the biggest factors for a person's involvement in the night, having diverse, efficient transport became the focus of this project.

This project proposed a transport hub in the overlooked, underutilised town of Silloth, that looked at layering multiple modes of transport together seamlessly, as a test bed for a wider network of transport hubs, while also ensuring that the building also responded and gave back to the wider community of Silloth.

Model-making allowed me to demonstrate the centre of movement within the transport hub where pedestrian traffic, trains and temporal module movement converge over multiple layers. The concept of the moving modules was that they could move around Cumbria but also integrate with the transport hub and become regular hotel rooms once docked. I wanted to portray the movement of the modules and their placement within the hotel, with elements such as railings in movement to show how the building shifts to facilitate the moving rooms. The 1:100 model uses material to indicate how the building and structure gets lighter, with thicker material such as blocks of wood and etched MDF making up the ground floor, and square dowels and frosted acrylic making up the 4th floor.



Image 01: Levels of movement



Image 02: North Facade of the model



Image 03: Rooms in motion

Image 04: South facade of the model



Image 05: Process of building the hotel

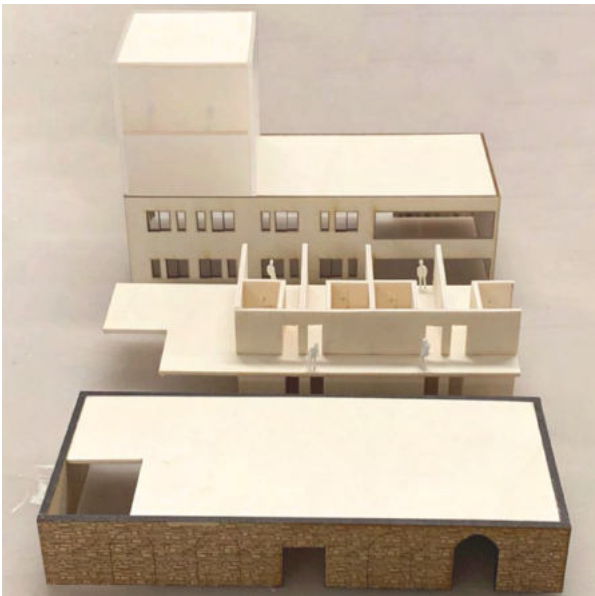


Image 06: Levels and Lightness of materiality



Alex Wallace, Tom Lee, Sam Mason, Cumbria

March Year 2 - Atelier: Infrastructure Space

Project: Topo-licy

The Frontier that Topo-licy Built

Our project aimed to create a topological study of policy and the relationship between physical and policy landscapes. Topo-licy is the name of the system we developed during the project to turn policy documents into three-dimensional data with spatial values. This enabled us to provide a more accessible, and interactive format for policy displaying the real time impacts of policy change.

The CNC model of Cumbria represents our master planning of the region into spatially separated territories to allow the policies governing each of these areas to become more productive towards their respective outcomes.

Taking both the Topo-licy methods, the project tested the system through proposing the form an architectural intervention could take. The intervention was situated on the border condition between Conservation and Development territories, allowing this relationship to be explored. The architectural response developed consisted of three distinct elements that form a co-dependant relationship throughout the scheme.

The first element was directed by the masterplan focused on mental health support using Democratic Therapeutic Communities (DTC) as an alternative support route, benefiting from the proximity to the conservation territory. The second element of the scheme was a Biodiversity Archive, responding to the conservation territory, preserving the heritage of local ecology and creating a true representation of conservation policy. The third element of the scheme facilitates the crossing of the policy border between Conservation and Development territories while also housing the connection to policy directly through a policy chamber.

Due to the predominantly digital methodology within the project & the digitalisation of policy, we felt that the tactility and complexity of the landscape within which the project was situated was lost. To allow the project to return to and engage with this physical dimension, both the Cumbria CNC model, and the Topo-licy Frontier site model allowed us to re-engage with the respective scales of landscape being considered. This allowed the models to better represent the underlying principles of the project such as policy being at the centre, and travelling through the site (Represented in topo-licy frontier through a section model)

Models: Made in B.15 Workshops & MTC Studio Spaces

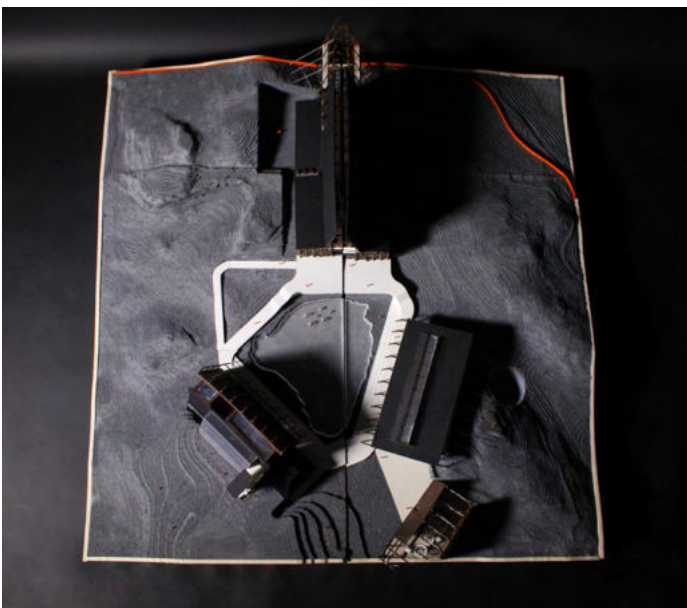


Image 01: Topo-licy Frontier Site Model | Plan View

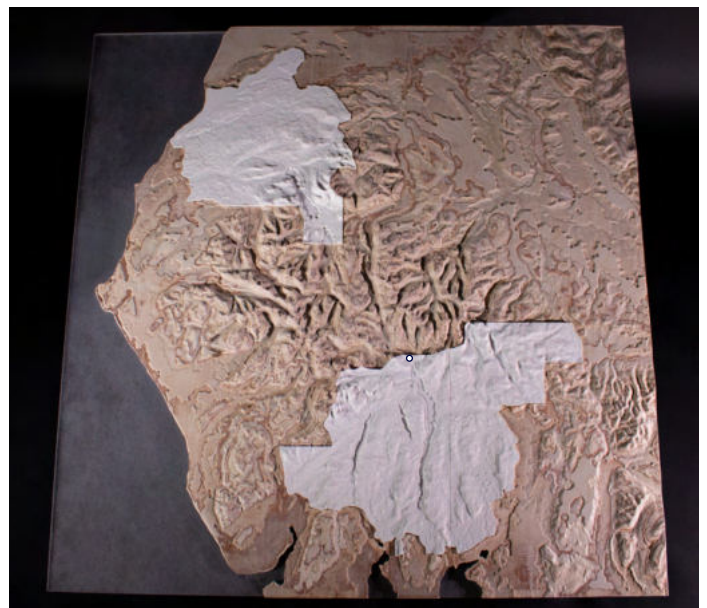


Image 02: Cumbria CNC Territories (S3 site location marked)

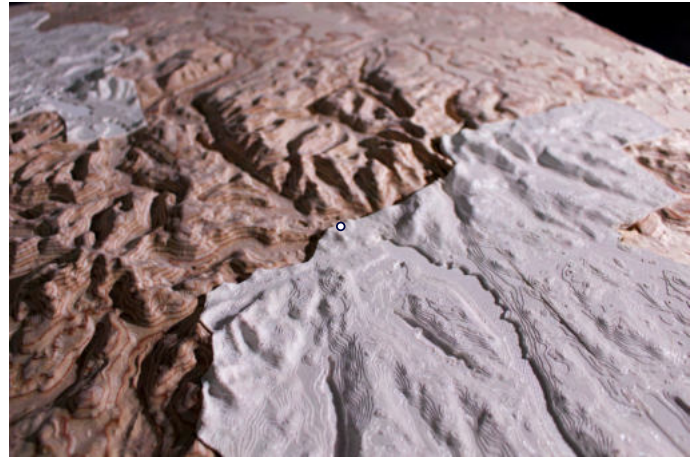


Image 03: Topo-licy frontier | Into the Policy & Conservation)

Image 04: Cumbria CNC | The boundary between territories

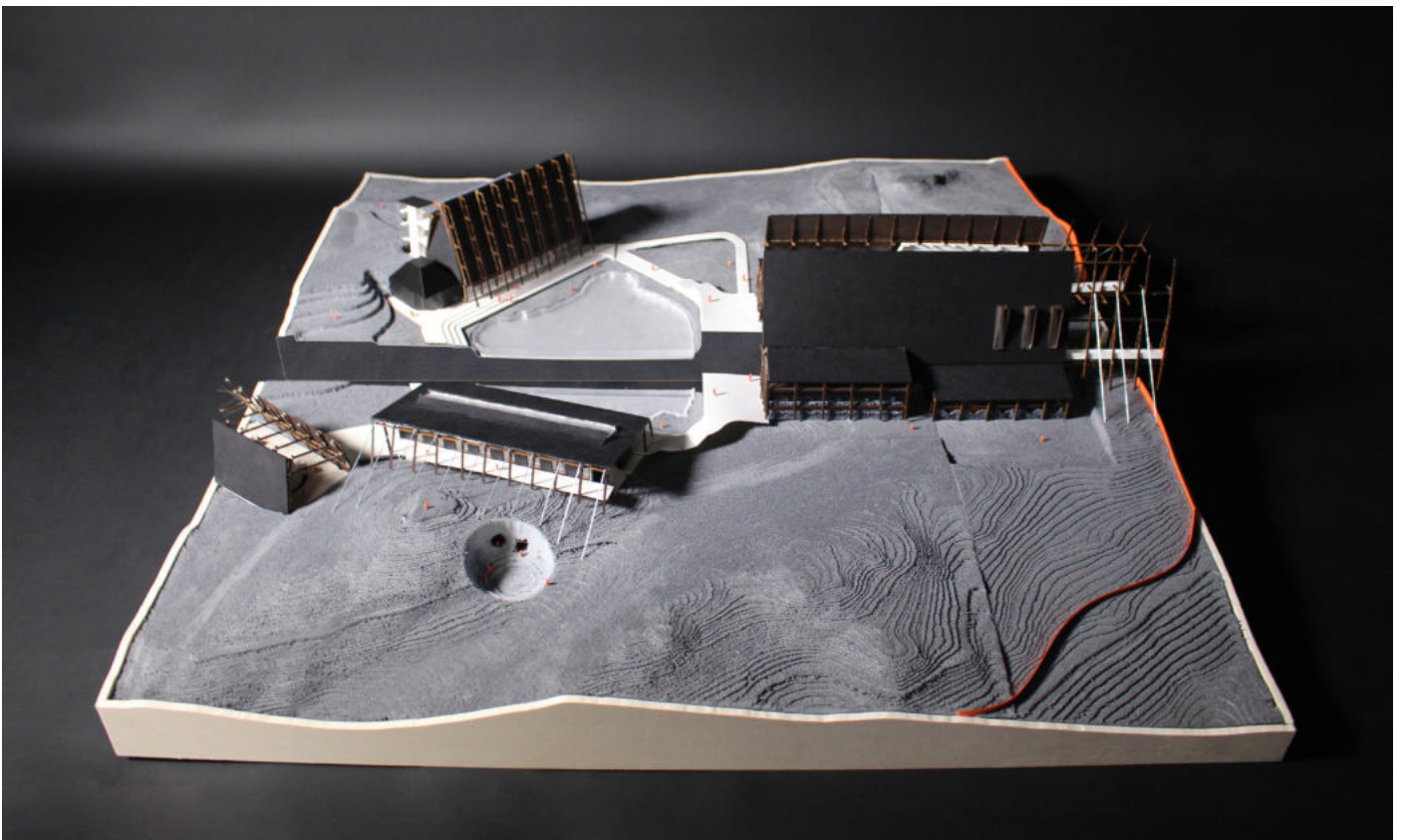


Image 05: Topo-licy Frontier Site Model | The gateway to conservation



Image 06: Topo-licy Frontier Site Model | Approaching the policy gateway

Arif Ismail, Aiman Rahman, Manchester

March Year 6 - Atelier: Infrastructure Space

Project: "EMBODIED" The Last Vacation

Shifting Cumbria's Decay into Tourism Paradigm

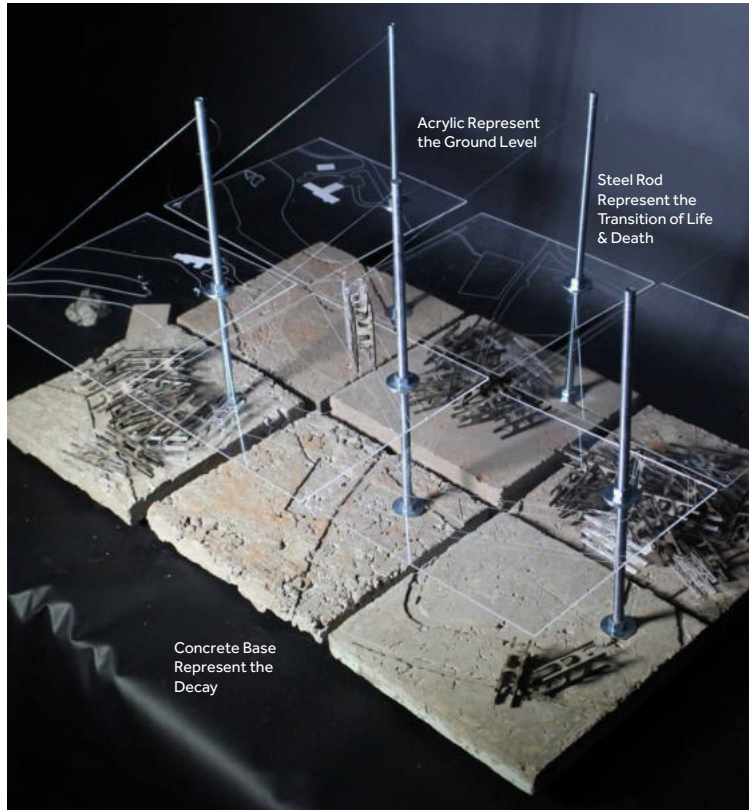
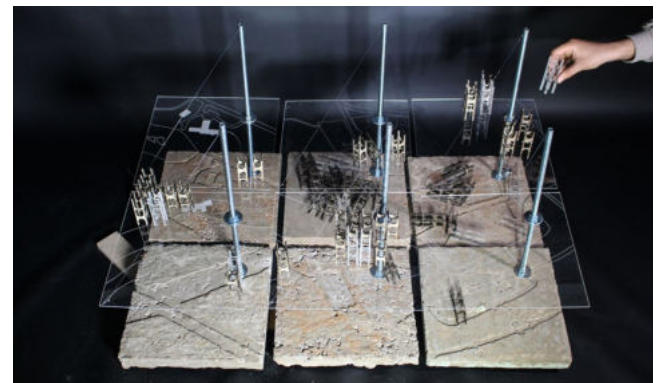


Image 01: Manipulating the Decay on the Existing Site.



Image 02: Layering of the Decay on the Site Represent the Existing Decay State & the Future of the Site



Our intention of zoning the spatial and programs to symbolise the journey of human life and death. The seamless transition and journey of life and death in architectural spatial design involves creating spaces that support individuals in all stages of life, including the dying and death stages. This approach emphasizes the importance of designing spaces that can adapt to the changing needs of individuals as they age, and that provide a supportive environment for those who are facing the end of life. The seamless transition and journey of life and death in architectural spatial design involves creating spaces that are accessible, flexible, comfortable, supportive, and respectful of privacy and dignity. By designing spaces that can adapt to the changing needs of individuals over time, architects can create environments that support individuals in all stages of life, including the dying and death stages.

The model designed to be a visual representation of the concept of life and death, with the different layers and materials representing the different stages and processes that occur over the course of a life. The use of acrylic and concrete as materials may also symbolize the fragility and impermanence of life and the physical world. The steel rod, acting as a bridge between the different layers, represents the idea of connection and support, perhaps suggesting that even in the face of decay and death, there is a sense of continuity and interconnectedness that persists.

This model appears to be a creative and thought-provoking way to visually represent a complex abstract concept related to the stages of life and death and the idea of connection and support. This model acts as a site model but also a abstract conceptual notion model that helps us in delivering our thinking to the audience. The model is in scale of 1:500 where there 3 layers made of acrylic symbolises the site line (life stage), concrete base represents the decay of the materials and life (death stage) and lastly the steel rod represent the connection on the bridge in between that acts as foundation and support to the idea.

The materials used for the model were intended to be turned into something else, such as discarded MDF and wooden blocks, which can be reused for future projects. The steel rod could be utilised to support and strengthen the model as well. Finally, the acrylic sheets would be reused into a souvenir keychain that we could give to Manchester School of Architecture tutors and faculty members.



Image 04: Detailed Tectonic Model of The Underground Catacomb Representing the Spatial Qualities | Scale 1:20.

The model was constructed to help us further understand and test the spatial qualities in our design. The model was intended to be interactive, allowing us to explore and test out demonstrations of sustainable burial and funeral practises on a scale. The timber structure was embedded into the plaster that we casted to represent the underground stable bed. To maintain the concept of our entire project, we created the model out of recycled materials such as MDF and wooden blocks obtained around B15 Workshop. We utilised coffee ground sourced from local coffee shops in the campus community.

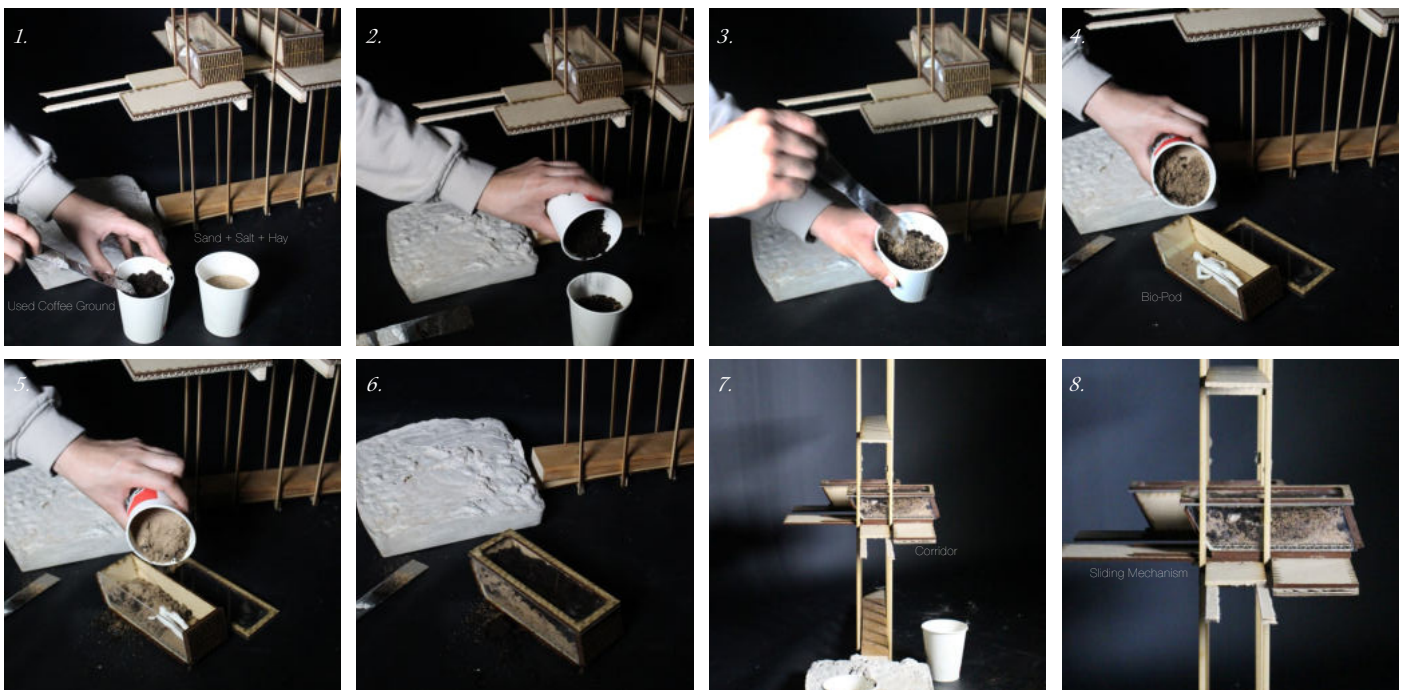


Image 05: Demonstration of Bio-Compost for Putrefaction Process. Using Physical Model | Scale 1:20.

The proposed method for accelerating the decomposition process of a corpse involves the use of a mixture comprising natural materials like used coffee grounds and salt, combined with sand and hay. The materials are mixed manually in specific ratios to suit the body's characteristics. The mixture is thoroughly stirred in a large container. A quarter of the mixture is poured into a compost pod, on top of a waterproof and anti-odor lining, and the body is placed on it. The remaining mixture is then added to cover the body, ensuring it is not visible. Rakes and shovels are used to level the mixture, and insects are introduced to aid decomposition. The compost pod is sealed and left for a certain period to allow natural decomposition. Finally, the pod is placed in a slot, serving as a grave for future visits by family members.

Izzat Hakimi, Manchester

March Year 5 - Atelier: MAKING

Project: Of Sips & Spirits

An Adaptive Reuse A-Grade English Whiskey Distillery & Visitor Centre

The site of Cloughbank Farmhouse near Manchester Airport Runway fascinated me. This Grade II listed farmhouse from the 17th century presented a unique opportunity to blend industrial heritage with natural beauty. Inspired by this context, I designed a distillery & visitor centre that harmoniously juxtaposes these elements.

Taking a philosophical and deconstructive approach, I delved into the world of fragmentation, faceted forms, and crystallized facades. These design elements would symbolize the intricate journey of Whiskey-making within the distillery. From the Sips, which encompassed a Souvenir Shop and Bar, to the Spirits of the distillery itself, I wanted visitors to embark on a guided tour under the shades of a crystal-like enclosure, immersing themselves in the beauty and craftsmanship of Whiskey-making. After all, Whiskey is a gem meant to be savoured and enjoyed by all.

To express the concept of "in-the-making," I intentionally embraced a more random and irregular fragmentation in the distillery section. This symbolized the dynamic and evolving process of Whiskey production. In contrast, the liquor shop and bar areas exhibited a more rigid and simplified crystallization, emphasizing

their function as spaces for enjoyment and relaxation. The juxtaposition between these two realms made a powerful statement, reinforcing the idea of complementing and breaking out conventional design elements.

Triangular geometry, irregularity, and fragmentation were put to the test as I sought to bring my vision to life. Drawing from the crumpling and folding techniques I had learned during the Atelier Workshop, I experimented with digital software, such as Rhinoceros 7 3D, to refine and perfect the design language.

In keeping with my personal approach, I chose to craft most of the models by hand at home. Using origami paper, I meticulously tested and refined the fragmented and crystallized facade design. The tactile nature of working with my hands provided a sensory experience that enhanced my understanding and appreciation of the design language I sought to convey. Handcrafting the models allowed me to freely explore, make spontaneous adjustments, and learn from mistakes in real-time. It nurtured problem-solving skills, craftsmanship, and a sense of ownership over the final distillery model.

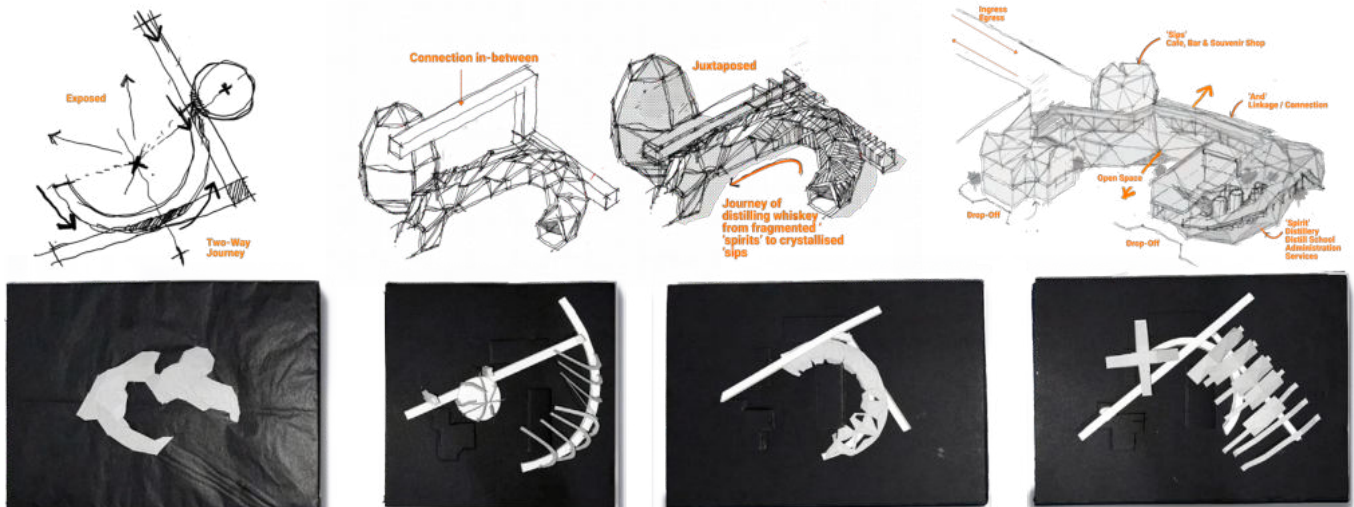


Image 01: Preliminary Concept Sketches + Massing Model Iteration 1:500

Understanding the Whiskey-MAKING Journey from Sips-Spirit. Translating the conceptual iteration into massing models to understand scale and suitable structures that best represent the initial idea of the fragmented-crystal journey

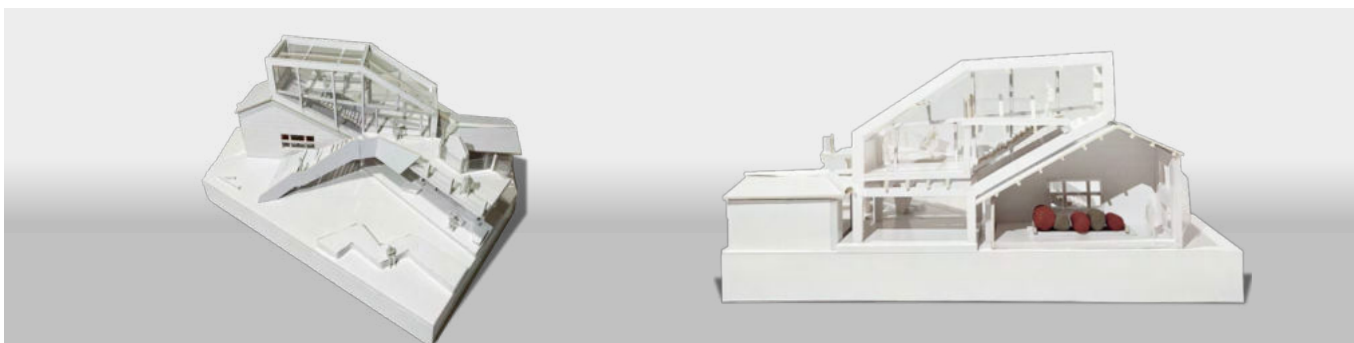


Image 02: SIPS Whiskey Souvenir & Liquor Shop Experience Sectional Model 1:100

The Sips is where the visitor's shall visit to grab some gifts, souvenirs and drinks before they go back home. Simple transparent insulated glazing parasitic to the grade II listed farmhouse represent the form of crystal.

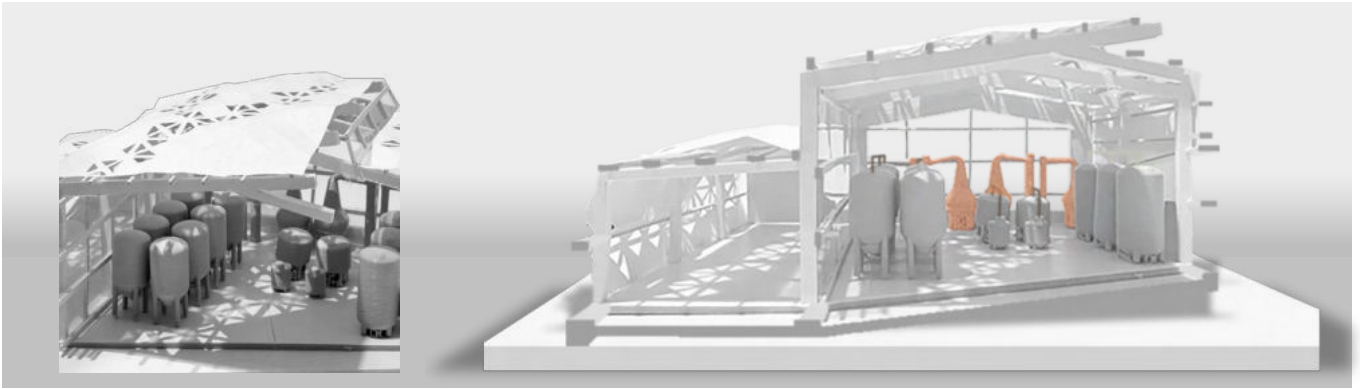


Image 03: SPIRITS Whiskey Distillery Sectional Model 1:100

The distillery is available to be accessed semi-publicly. Visitors need to book a tour beforehand in order to gain access. The Copper Stills are placed beside a large glazing enhancing the place-making and the indoor-outdoor relationship.

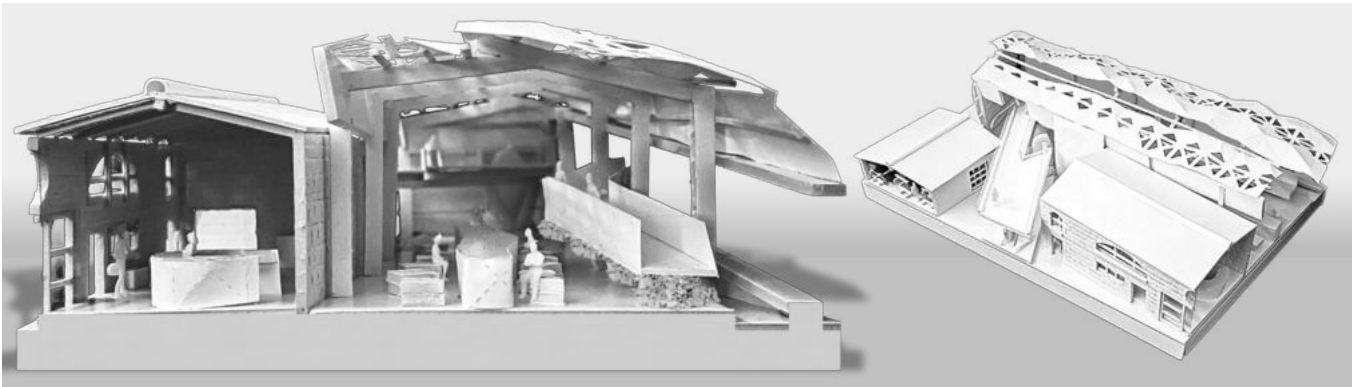


Image 04: SPIRITS Whiskey School Experience Sectional Model 1:100

Located beside the adaptive reuse farmhouse, The Whiskey School is where the visitors can experience distilling the whiskey themselves using a mini-copper wash-back with the guidance from the staff. The activity is choreographed to be done in an openly prospected space where other visitors in the area can observe and enjoy the whiskey distilling activity together.



Image 05: Sectional Construction Model 1:50 & Adjustable Y-Mullion + T-Bracket Jointing Model 1:1

Vertical Y-mullion and T-bracket in various rotational angular & faceted configurations to hold the prefabricated self-supporting facade panelling system of the fragmented and faceted facade

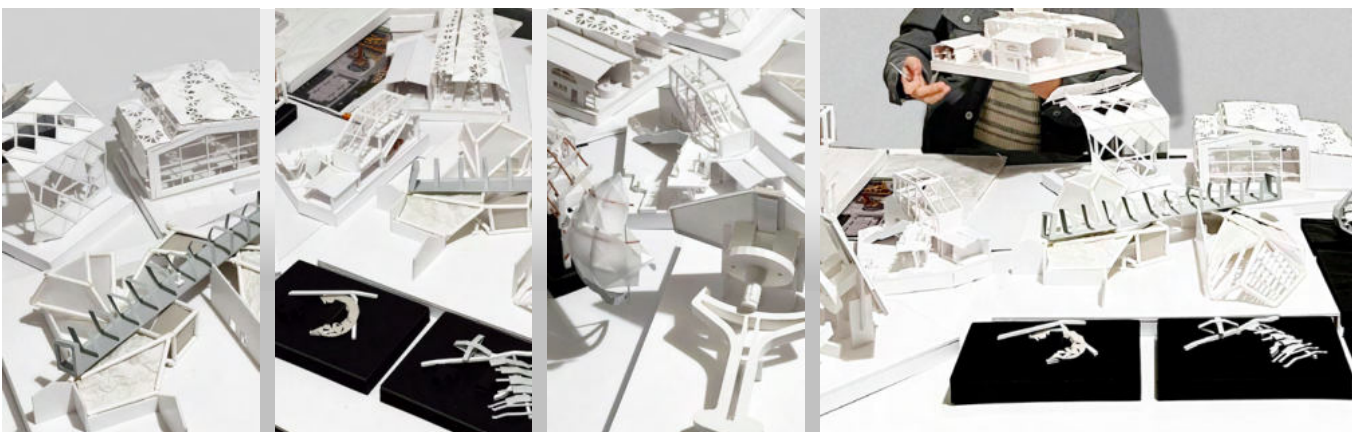


Image 06: Final Whiskey Distillery Physical Model Outputs ranging from 1:500 scale to 1:20 scale

Magdeline De Witt

MArch Year 1 - Atelier: MAKING

Project: The Migrant Adaptation

The project brief was to design a contemporary hamlet, one in which drew on inspiration from Manchester's Ringway commercial and craft industries. The design response was to create a universally designed proposition that had the potential to be repopulated either individually, or as housing typologies across the United Kingdom.

The brief was also set out in a manner that reflected the atelier's ethos of using model making as a means of design development. Hence, the required outcomes were four models that were at 1:1 (Crafts at-scale inspired by industrial facilities), 1:2500/500 (Contextual comprehension of Ringway and the site), 1:100, 1:20 (Human centred design) scales respectively. The use of models were designed to communicate the project's physical architectural qualities through a tangible perspective, rather than a digital representation (like a render).

Thus, The Migrant Adaptation is a project that explores a first generation migrant community, who, upon their first entry into the United Kingdom are provided with their first home(s) to initiate their first steps towards acculturation. The project looks to be an environment that facilitates domesticity, whilst simultaneously promoting forms of assimilation through the tangible and intangible aspects of dwelling. The tangible aspect of the project points to the idea of how food travels by aiding immigrants to adapt to new environments. The intangible aspect looks at the role of memory, and how contemplation and connections to nature play a part in recasting positive lived experiences for immigrants. Hence a celebration of the role that the domestic kitchen plays in one's daily life, delving into the ways in which it facilitates various programmatic aspects of the act of dwelling.

The materials used as part of the models of this project were heavily varied. A mix of materials like MDF, plywood, and greyboard were a range of recycled and new materials that were laser cut, stained/spray painted. It also encompassed some plaster casting as part of demonstrating a shift in materiality. The addition of 3D printed elements were also utilised, as part of a more detailed expression of the project.

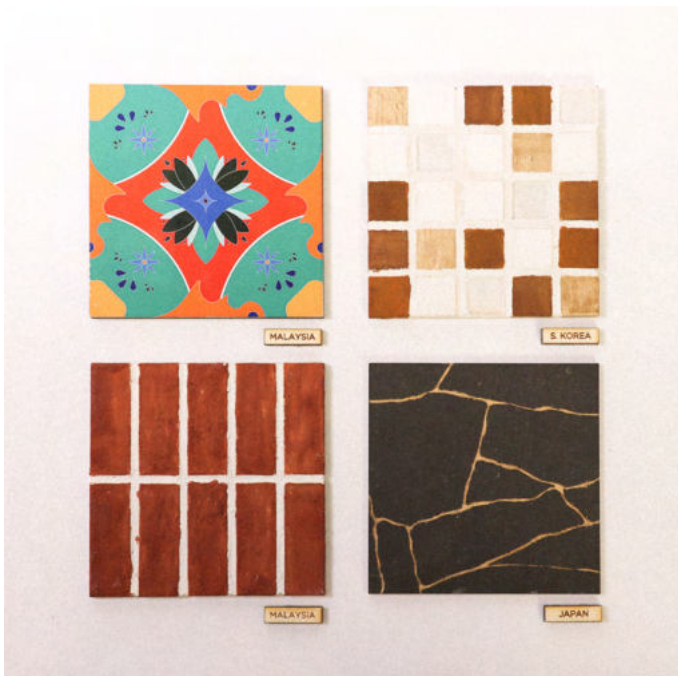


Image 01: 1:1 Kitchen backsplash tiles



Image 02: Perspective of 1:500 Site Model



Image 03:
Perspective of
1:100 Model



Image 04: Plan of 1:100 Model

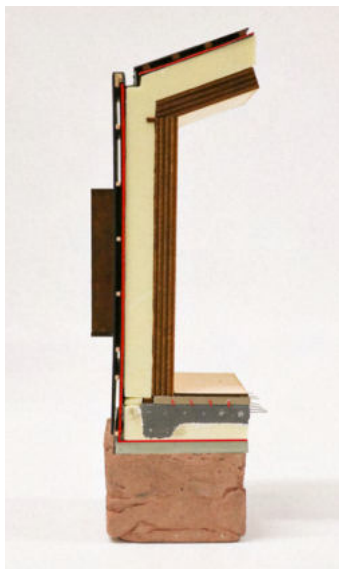


Image 05: Section of
1:20 Detail Model



Image 06: Isometric View of 1:20 Detail Model

Cheuk Yu Lauren Fung, Manchester

MArch Year 2 - Atelier: MAKING

Project: Toolbox

The Tangibility of Light in Architecture for Children

In response to 'Our Year 2022', a Manchester City Council initiative in the campaign to make Manchester a UNICEF UK Child Friendly City, the brief of this project is to design a museum dedicated to the cognitive development of children. Located in Castlefield, Manchester, the children discovery museum aims to provide an engaging and inspiring place for children to play and learn. My design proposal stemmed from the traditional concept of space as a cube. Through the distortion of the cube, the goal is to redefine the perception of space for children using light. Since children learn through active experiences of the environment, it is vital that their senses are stimulated by their surroundings, and light is the most readily available material that can be used as a tool for learning.

With reference to the notion of the 'thinking hand', my design process involves traditional methods of physical model making. By letting my hand inform my design decisions, the experience becomes part of the process. This relates to the phenomenology (the study of lived experiences from a first-person perspective) of architecture, because the experience is how one understands the concept of space. I approached the brief from a children's perspective through the use of materials and the sense of scale. In order to show the beauty of mundane materials, the small scale models are all made by accessible materials, and therefore can be easily cut by hand with a scalpel in the comfort of my own home.

The exploration of positive and negative space has led me to contemplate about the relationship between light and shadows, and their connection to our 5 senses. Just as there is no light without darkness, all the senses work together to create an experience. The experience is the result of palpable making, thus making light tangible. The process has allowed me to become more curious, which relates to the creative freedom that is often times forgotten. This is the spirit that the museum should embody: as metaphorical blank walls that encourage children's imagination to roam free.



Image 01: Media experimentation with tracing paper and sticks



Image 02: Media experimentation with clay and sticks



Image 03: Massing concept model using foam board



Image 04: 1:100 Structure model using timber dowels



Image 05: 1:100 Model depicting circulation using cardboard



Image 06: 1:500 Site model using cardboard

ELLIE KELLY

March Year 2 - Atelier: MAKING

Project: Fashion & Architecture

This thesis explores the relationship between Fashion and Architecture.

Both industries have many parallels, one method used to explore these parallels was model making. Vogue magazine, old fashion pieces, threads and cloth have all been used to create the models below. Sustainability was a large focus throughout the project, therefore a lot of these materials are re-used and re-cycled. Exploring forms using fabric allowed the project to form different shapes during the development stage. These were then developed further until a final shape was achieved.

The dress found in Image 01 was an initial focus. It aims to highlight the similarity between how an item of clothing covers a body and how a facade covers a structure. The images show the process of how the fashion magazine became a dress and then became a design for a runway.

The model featured in Image 02 explores how the final building will be integrated into its surroundings. The mesh wire also allowed for some exploration of shape at this stage. The darker wood represents the red-brick buildings found around the Northern Quarter site and the lighter wood represents other materials, this highlighted the importance of retaining the existing red-brick wall found on site.

Image 06 features two bricks made using cement and an old red denim jacket. Throughout this project the design aimed to be as sustainable as possible, this prompted the exploration of used fabric within building bricks. Although the output was not too successful and my project went in a different direction, it was an interesting experiment and is something I would be interested in exploring further in my career.



Image 01: From Vogue, to fortune teller, to dress, to runway design



Image 02: Exploring a retro-fit skin



IMAGE 03: Casting plaster in fabric, created individual unique peices that then informed the shape for a pavillion

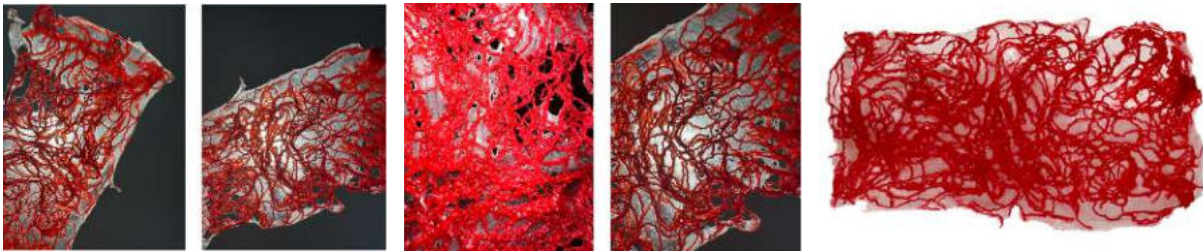


IMAGE 04: Exploring clothing threads to create a new building material



IMAGE 05: Using paper and cloth over mesh to create unique shapes

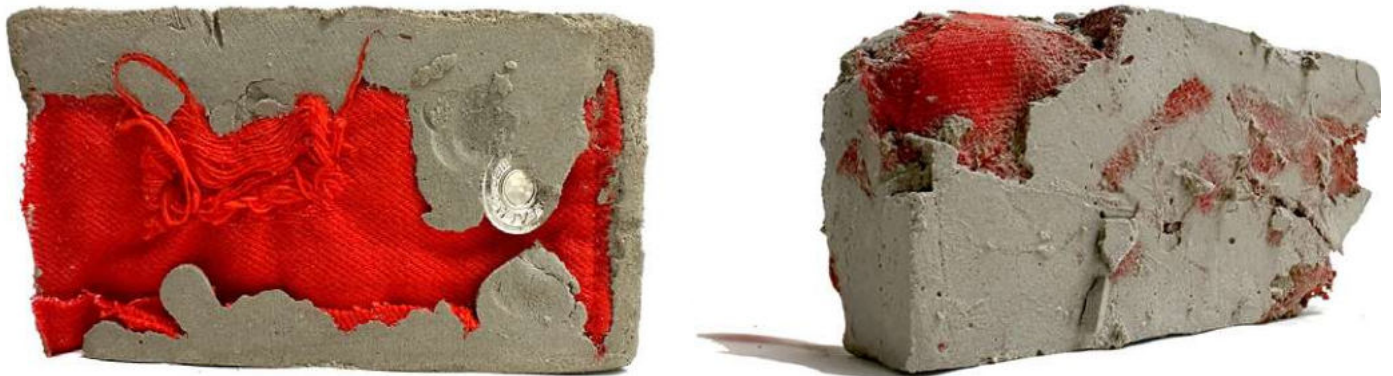


IMAGE 06: Re-using an old red denim jacket in cement brick

Lewis Inman, Manchester

March Year 2 - Atelier: MAKING

Project: Evergreen Gateway

A Biophilic Solution to Residential Living

Biophilic design is characterised by the utilisation of nature within and around a design. Integrating it into the framing of the views and the tactility of the interior environment. There are the Three Pillars of Biophilic Design that are "Nature in the Space", "Nature Analogues" and "Nature of the Space" all of which encompass various areas of involving nature, to name a few; Visual connection, Non-visual Connection, Thermal and Airflow Variability, Presence of Water, Dynamic and Diffused Light, Unimpeded Views of Nature, a sense of Mystery and Discovery, Material Connection and more.

The building acts as a bridge between woodland and parkland in the Northern Gateway area of Manchester, creating more routes for nature walks and improving the infrastructure for bikes and pedestrians. Located on a brownfield site, the application of regeneration aims to convert the area to a green site with flora features that attract a variety of wildlife.

The project's design serves as a testament to how the application of these principles can guide us to delivering more comfortable living spaces that enhance the well-beings of residents. By increasing the presence of woodland and park areas, we can expect a ripple effect of improved visits from both people and animals, fostering a robust biodiversity within the vicinity. This thesis exemplifies the significant role biophilic principles can play in enhancing the overall design, particularly when it comes to residential environments.

Modelmaking played a crucial role in visually showcasing the integration of biophilia in this project. By utilizing natural materials, the model effectively captured the tactile qualities of the design. The scale of the project posed a significant challenge, necessitating the execution of repetitive tasks spanning several weeks.

Materials Used: Card Louvres, Flocked and Wood Stained MDF Base, Wood Stained Laser Cut Plywood, Flocked Twigs, 3D Printed Central Structure, Scalped Flock Sheet Roofs

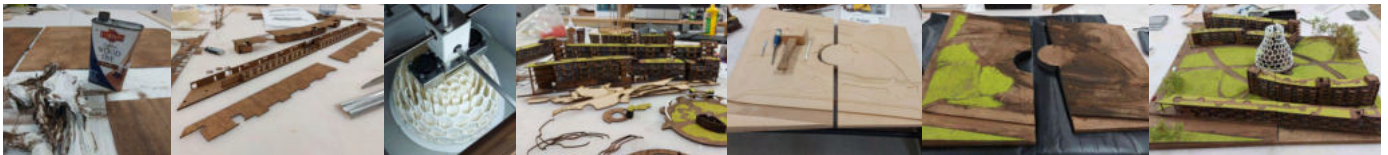


Image 01: Construction Process of 1:200 Site Model



Image 02: North Facing Elevation

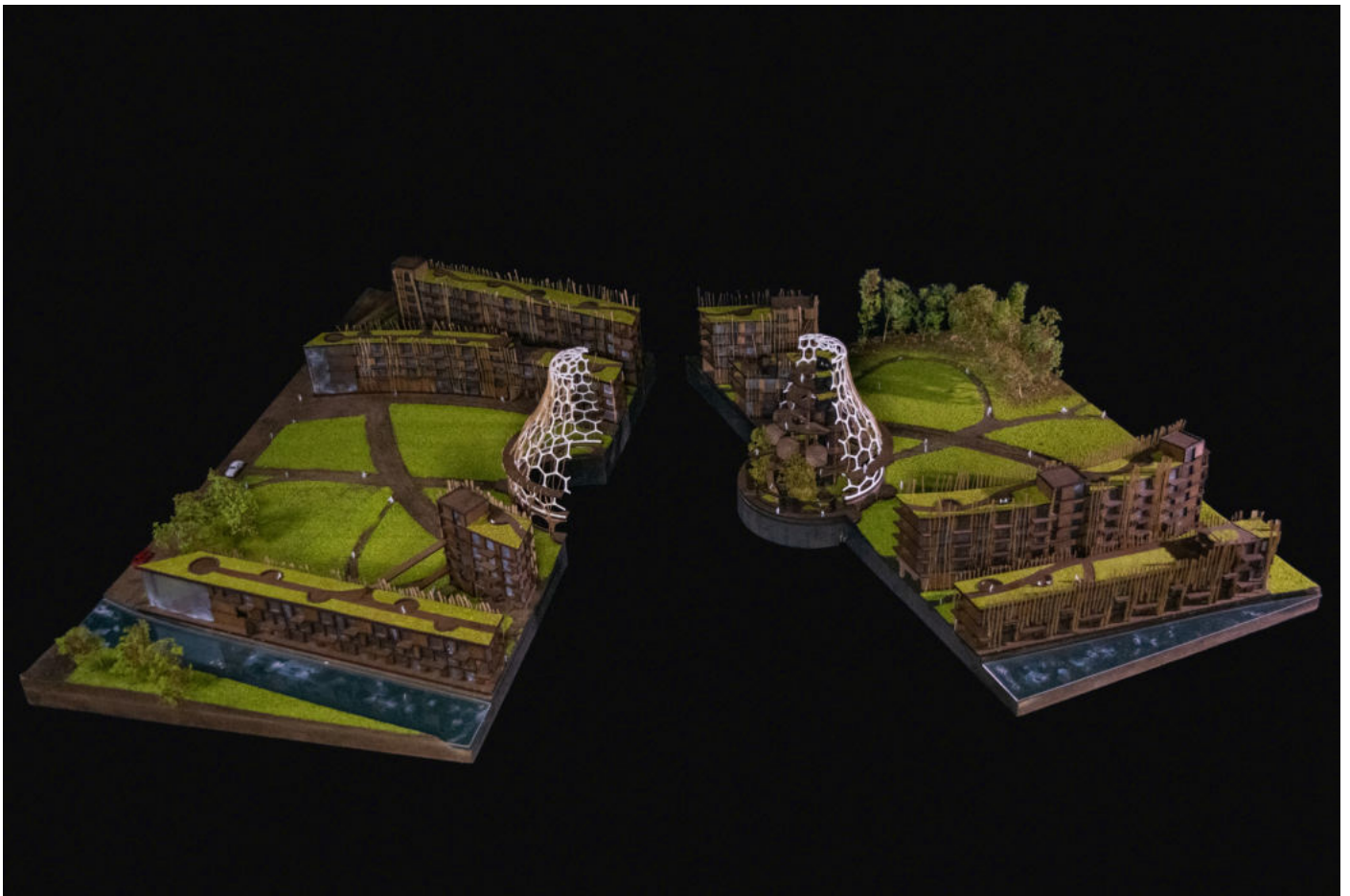


Image 03: Section Split

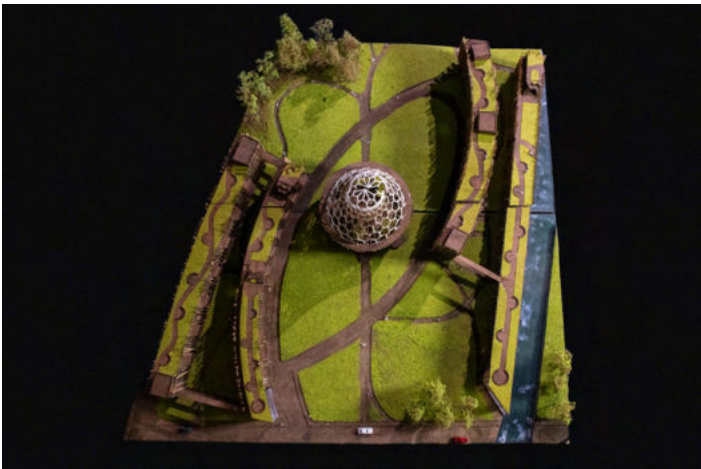


Image 04: Aerial View



Image 05: West Facing Elevation



Image 06: Walkway Gap Close Up

Samyak Jain, India

March Year 6 - Atelier: MAKING

Project: A Second Life

Reimagining a Neglected Structure for Contemporary Use

Following India's independence in 1947, architecture played a crucial role in showcasing a progressive India by constructing modern cultural and educational buildings. Unfortunately, in recent times, these historically significant structures have fallen victim to political decisions, resulting in their reckless demolition. This project focuses on a specific case study, the Hall of Nations in New Delhi, that got razed, and proposes a solution based on the principles of adaptive reuse that safeguards the preservation of an architectural heritage while simultaneously maintaining its significance in the modern urban fabric. The project proposes to convert these exhibition pavillions into a museum for architecture showcasing works from the post-colonial era.

The aim of my models was to demonstrate the connection between the current structure and my proposed intervention. This was achieved through two approaches. The first model offers a cross-sectional view of the Halls, exposing the proposed intervention within. It showcases how the users interact with the two contrasting spaces. The second model shows my proposed intervention within the existing Hall, utilizing acrylic to shape the form of the Hall. This allows one to see the intervention inside while providing an idea of the scale of the existing. Both models are built at a 1:200 scale and utilize plywood, MDF, and recycled off-cuts. They consist of a combination of laser-cut components and manually cut timber pieces.

Experimenting and testing using model-making forms the main ethos for my atelier. For this project, I had also employed bricks as my material of choice and used model-making as a tool to test different organic brick forms and brick laying techniques. Through model-making, I am able to provide a tangible representation of my design concepts, facilitating clearer communication of my ideas. It grants me a deeper comprehension of scale and proportion while offering a welcomed respite from the digitally-intensive design process.

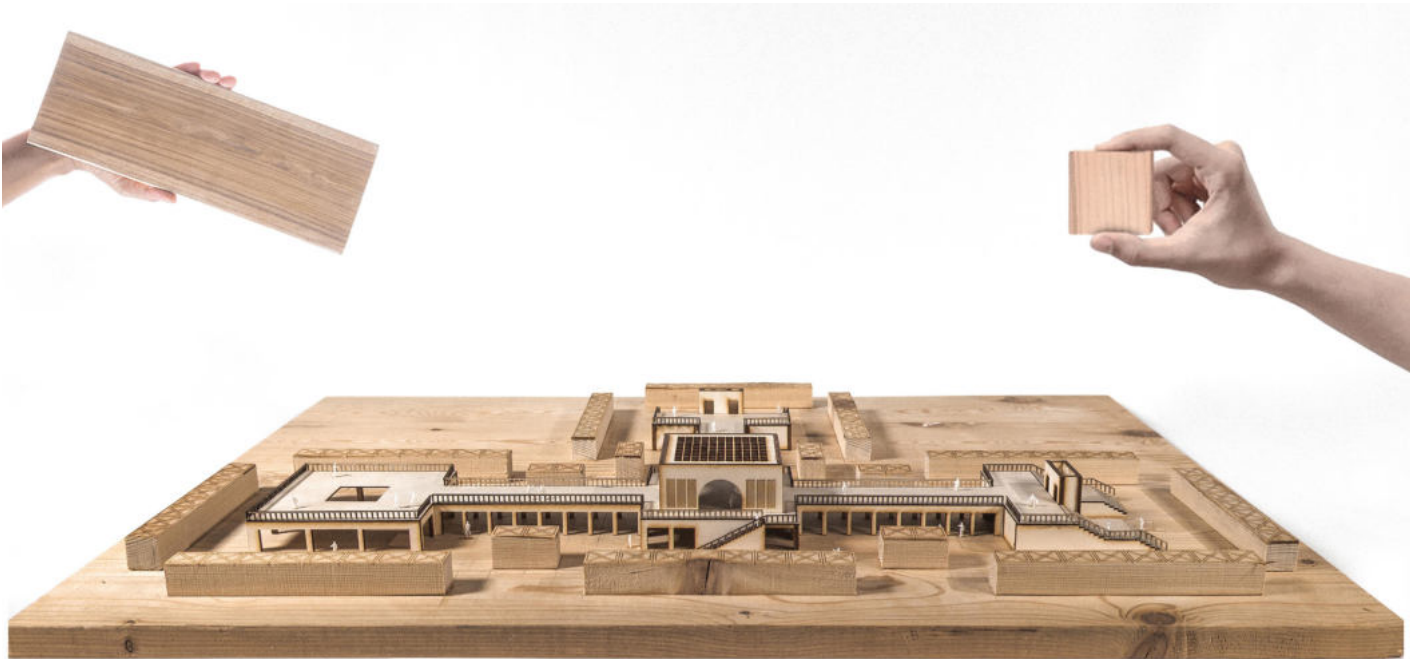


Image 01: Cross section of existing Halls showing the intervention inside



Image 02,03,04: Close-up views showing different spaces and the interaction between old and new

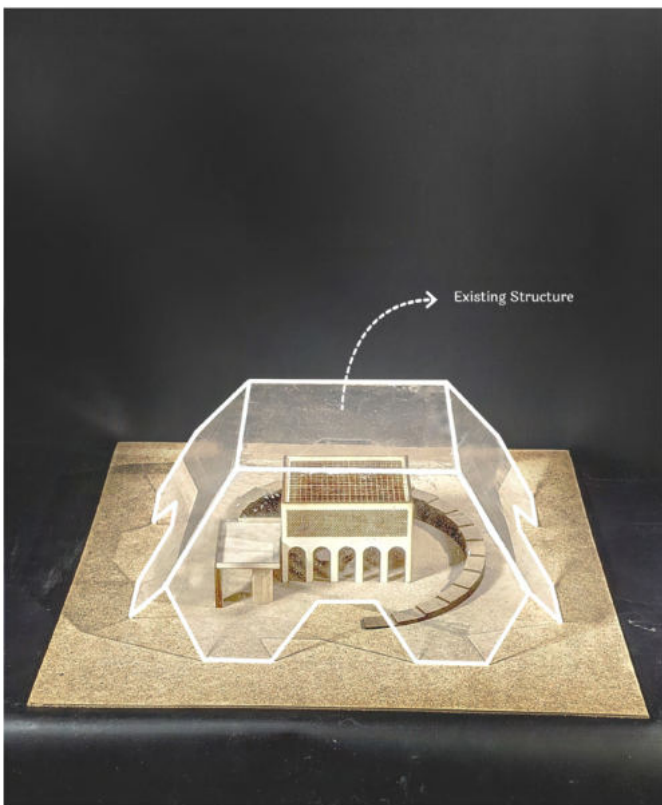
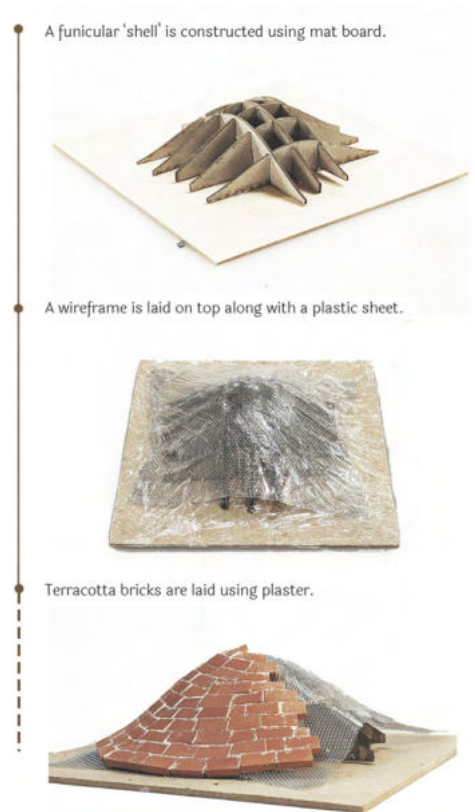


Image 05: Design intervention inside an acrylic frame representing the form of the existing



A funicular 'shell' is constructed using mat board.

A wireframe is laid on top along with a plastic sheet.

Terracotta bricks are laid using plaster.



Image 06: Experimenting and testing funicular forms using terracota bricks

Tyler Bakhtiari , Makerspace/B.15

March Year 2 - Atelier: MAKING

Project: Earth, Wind and Glass: Adobe Wonderland

Material Investigation

a)

Driven by a more empirical framing of the Biennale theme "laboratory of the future" this project looked to interrogate Earthen materials as contemporary construction solutions, in addition to creating a commercial development and research centre for them.

Further, I investigated the feasibility of such a scheme being situated adjacent to Manchester Airport, in particular the geological composition of the site.

The core material concept, which also acts as a programmatic driver for the proposal, is the use of recycled materials in conjunction with excavated earth and/or clay - primarily the usage of crushed waste glass (cullet) instead of sand. The programme as a result centres around the refinement and incorporation of material that would otherwise end up in landfills. The proposal is to act as a signpost of earth material development, showing its potential in the contemporary.

b)

The model development was in essence a direct framing of what I imagined would take place on site; I first engaged with different methodologies of testing glass-earth mixes, such as the laddoo test which illustrates the balance or lack thereof in the percentage of clay and glass(sand). This investigation led to two typologies of earth-glass, one dependent on the clayey soil available on site, and the other which utilised clay deposits (which could also be found on site, but also further afield). In both cases the glass cullet was the primary ingredient in the mix.

Additionally, due to brick and mortar having the same material composition (following standard adobe practices) I made a thin brick that can be laid as a pair while being more approachable for construction, yet matching the depth of a single typical brick.

I then began to explore the structural potential of this materiality through its application as an adobe brick, and under the supervision of Dr Stephen Burley, I was able to test the compressive strength of the brick, which I then used for structural calculations.

Finally, I looked at how this glass-earth mix could be used as a part of a wattle and daub wall, creating my own triangular modules to achieve complex forms, such as hyperboloids.



Image 01: Laddoo Test/Drop Test. One releases compact earth at shoulder height to the floor. If it remains as a blob, there's too much clay. If it shatters into dust, there's too much sand. If it breaks into a few pieces, that's the ideal combination.



Image 02: Standard Glass-Earth Brick 200mmx200mmx70mm - These dimensions were selected to accommodate both single and double leaf masonry, based on U-Value requirements for a given space.



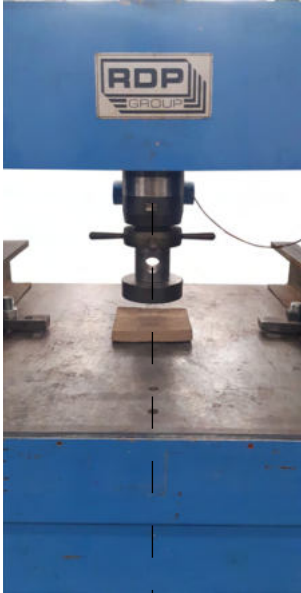
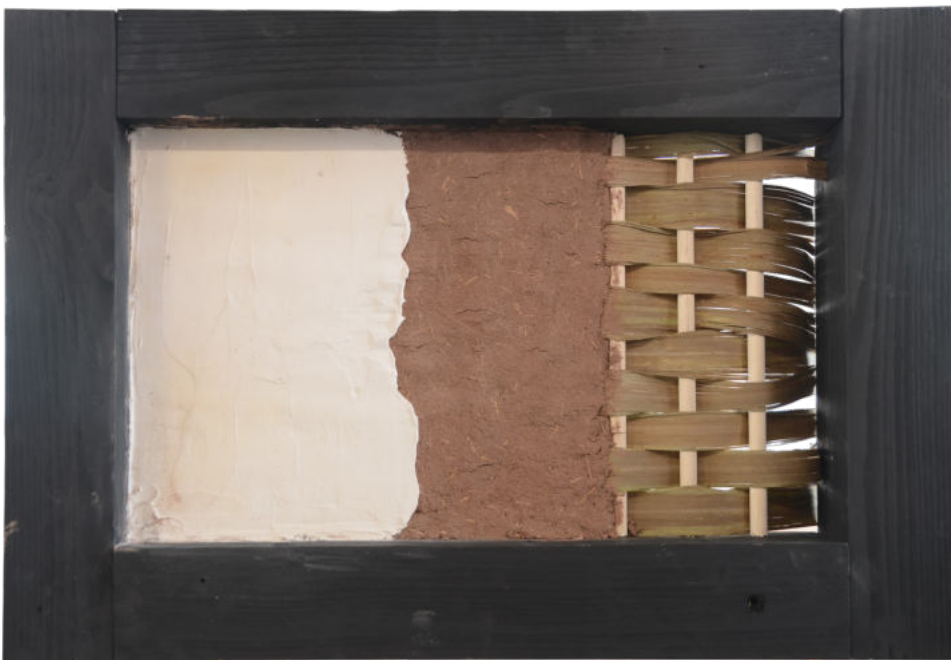
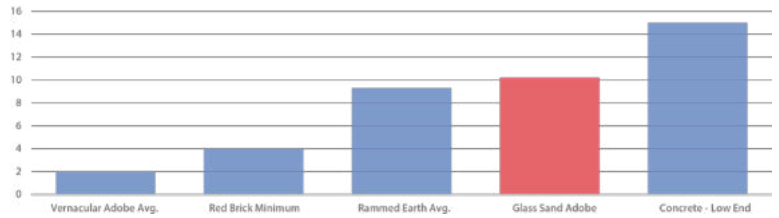
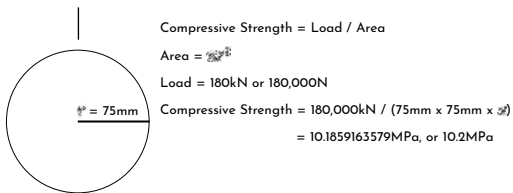


Image 03: Thin Glass-Earth Brick, 200mmx200mmx30mm, can be laid as a pair with 10mm mortar between to match the standard brick.

Image 04: Diagram explaining the compressive strength of the Glass-Earth Brick



Images 5&6 (L&R Respectively):
 5) Wattle and Daub build up, staves, reeds, earth and plaster finish, within a darkened timber frame a la tudor frame constructs. 1:1 Section
 6) Triangular Wattle and Daub Module for various geodesic forms 1:10

Marwa Dulaimi, B15 and MMU workshops

March Year 2 - Atelier: PRAXXIS

Project: Subaltern Speaks

Diasporic Imaginary Fragment

The **Subaltern Speaks** co-opts neo-colonial spatial tactics to repatriate the collective Iraqi narrative and foster a unified identity. It proposes a Decolonial Museum that provides spaces to protect and reclaim looted artefacts, to share and embed Iraqi experiences that are reflected in the mapping of participatory research and expressed with re-engaged native crafts, and to liberate the Iraqi narrative.

Developing the prototype serves as a **Proof of Concept**. It also provided an intimate process in understanding the opportunities and constraints of the proposal, as I have produced a bilingual construction manual for the diaspora to use. A cluster of these create a unique seated area for users to contemplate and share stories.

This 1:1 model explores my final proposed space - the Diasporic Imaginary. While the prototype literally represents a part of my proposal, it also represents different interventions in the Decolonial Museum. The curved, mahogany faced seat is entirely independent from the lower base, yet spatially referential as its leg placement, reflecting the proposed steel columns, depend on the existing cuts and voids below. The base and the seat are offset by 200mm, revealing an intentional gap. With the base referencing the shell of the existing ruins on site, and the seat referring to my re-use intervention, the shelf and overhead nod towards the Diasporic Imaginary, which embodies the diasporic narrative. As I explicitly positioned myself as designer, curator and carer, the act of making every component at a 1:1 scale put me in an empathetic position. considering every joint and connection.

The model features a mix: timber, ceramic, plaster and glass. Famous for high-end plastic arts, Iraq is prolific in these native materials. It also reflects my personal crafts as a way to embed stories into architectural skins. The timber is mostly reclaimed and low-cost, with the exception of the mahogany veneer representing date veneer; the ceramic is locally sourced and handbuilt, coated with a handmade glaze. The glass is locally sourced and slumped in an MMU kiln, where I made the battwashed bisque clay templates for it to slump in, and the plaster is cast to mimic ruin debris.



Image 01: Full view of entire build, using mixed media.



Image 02: process shot of final ceramic overhead piece.

*read diagram from right to left, top to bottom.



constructing the fragment - the seat, 2023 part two

*the prototype construction was consulted at various points with experts and technicians Gemma, Lara and Scott. please consult with local craftspeople for best practice with local materials.

*read diagram from right to left, top to bottom.



constructing the fragment - the seat, 2023 part two

*the prototype construction was consulted at various points with experts and technicians Gemma, Lara and Scott. please consult with local craftspeople for best practice with local materials.



Image 04: **before slumping** The kiln allows it to warp within the parameters of the template. The forms take shape of the participant's location plan.



Image 05: **after** slumping As a British Iraqi, this reflects my location here.



Image 06: developmental 1:1 segment of my proposed stoneware ceramic panel finished with embedded coloured slumped glass. A series of these panels show a facade mapping of Iraqis all over the world.

Sally-ann So Kei Ho, B.15 Workshop

March Year 2 - Atelier: PRAXXIS

Project: Saf(h)er Spaces: Piccadilly Gardens & Reformatory The Uncomfortable Reformatory Stool

My project aims to investigate how spatial redesign can affect our behaviour to create gender equitable, safer public spaces. It not only considers those who feel unsafe, but also those who contribute to the discomfort. It is for the latter that my subterranean reformatory has been designed; to house and rehabilitate offenders of sexual harassment, assault, and other gender-based violence. The reformatory balances a restorative justice (RJ) programme with elements of discomfort. The focus on RJ aims to maintain the humanisation of the reformees (unlike other prisons); and the discomfort element serves as an empathic tool and an incentive to want to develop themselves and leave.

My stool serves as one such discomfort. As the primary seating furniture intended for the reformees use, the stool has been inspired by hostile architecture often seen in urban spaces, and the art collection, 'The Uncomfortable' by Katerina Kamprani.

With regards to materiality, I wanted the chair to echo that of the building (timber and concrete). The timber used in this chair would use off-cuts from construction and landscape waste. I replaced the concrete with Jesmonite as it cures faster and therefore is better for large-scale production. Initially I intended for the chair to sport uniform spikes, much like anti-homeless architecture. However, instead utilising the un-level timber offcuts protruding from the Jesmonite created a more organic and flexible uncomfortable surface to sit on.

Reflecting upon my model making process and considering it as a prototype for the reformatory stool, I have considered amendments to the construction methodology.

1. Not breaking the Jesmonite due to the fragile nature stemming from these cracks. In reality, the artefact would need to be more durable for the safety of staff and other reformees; pieces broken off can be brandished as a weapon.
2. Moulding with silicon instead of greyboard. To avoid greyboard residue left on the Jesmonite that required labour and time to take off; not good for mass production.
3. A maximum height of 50mm for wood offcuts to prevent large protrusions from the surface of the Jesmonite, thus preventing necessary labour to get them semi-level.



Image 01: Big stool & little stool



Image 02: Destruction process



Image 02: Edge 1



Image 03: Edge 2



Image 04: Sat on

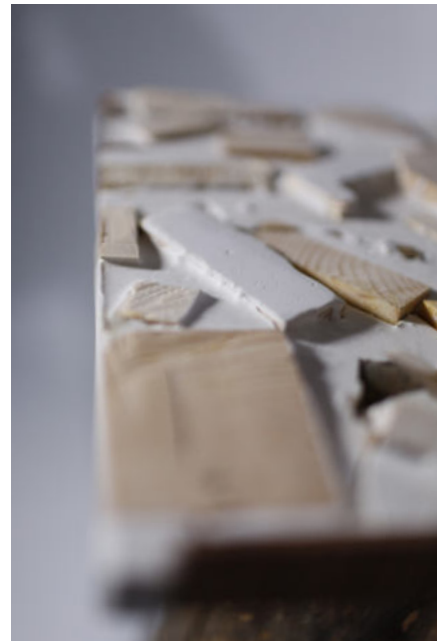


Image 04: Uncomfortable protrusions

Lauren Ngo & Chris Brierley, Manchester

MArch 1 x Some Kind of Nature:

Project: Hope Mill Studios

Interactive Site Model

The site of this model is located in Bradford, Manchester along the Ashton Canal and south-west of the Etihad Stadium. The model would serve as an interactive model to create a collective master plan. A group of 4 students within this master plan would be tasked with retrofitting a building on site. The building and other site elements could be removed to interact with the topography changes, landscape manipulations, and massing adjustments. The removable buildings allowed for the ability to create new massing within the context of the overall site and new master plan strategy. Some buildings could be removed, added, or scaled up or down. Having the ability to manipulate the model allowed the group to see these changes instantly and play with the model in a way a digital model would not have allowed.

The aim of this model was to spend £0 and use recycled materials. The buildings were made of stacked chipboard recycled from the renovation of the Manchester Museum. The topography was hand cut cardboard scraps. While the overall site had little topography site, the investigation was still important when considering the relationship to the canal. The hand cutting process allowed for a deeper understanding of the topographical changes, than if the site was laser-cut. The final model was approximately 595mm by 840mm at a 1:200 scale.



Image 01: Overall Model with Removable Buildings



Image 02: Master Plan Iterations



Image 03: Close up of Ashton Canal



Image 04: Sketch Overlay of Spectator Mill



Image 05: Main Area for Design Proposal



Image 06: Design Proposal for Spectator Mill

Chris Brierley

March 1 - Some Kind of Nature

Project: Outlook - The nomadic Artist Centre

My PS2 project creates live-work spaces in shared dorms or private residences with a studio. Planned to amplify the existing creative community, the scheme adopts the concept of refuge and outlook, hoping to create chance encounters between the nomadic artists. It is a retrofit project of grade 2 listed mill and provides the local community with a public gallery space, shop front and workshop space. The project is part of a larger master-plan scheme done in groups with the intention of creating a symbiotic ecosystem that improved the lives of all those that inhabit the site. As part of the master-plan I looked to increase song thrush population, adopting it as a non-human client, in order to mitigate current decline and provide the site with a balanced eco-system. During this project I was inspired by Byre and the Garrett by Hugo Hardy, an award winning retrofit for an artist. This scheme led to careful consideration of use of natural materials and solar shading to create a tranquil and communal feel throughout the building, whilst providing good lighting for artists and mitigate chance of overheating.

Throughout this semester I put more emphasis on physical testing and iterating, only using computer where necessary as opposed to default. To this end I found model making very useful and the below models include a 1:20 cast of the existing chimney, which I used to physically model and design simultaneously a bird-house for my non-human client, the song thrush. I also did a 1:100 cast of the existing facade of Spectator Mill and laser cut multiple iterations of my facade to test it with real time depth and lighting effects.

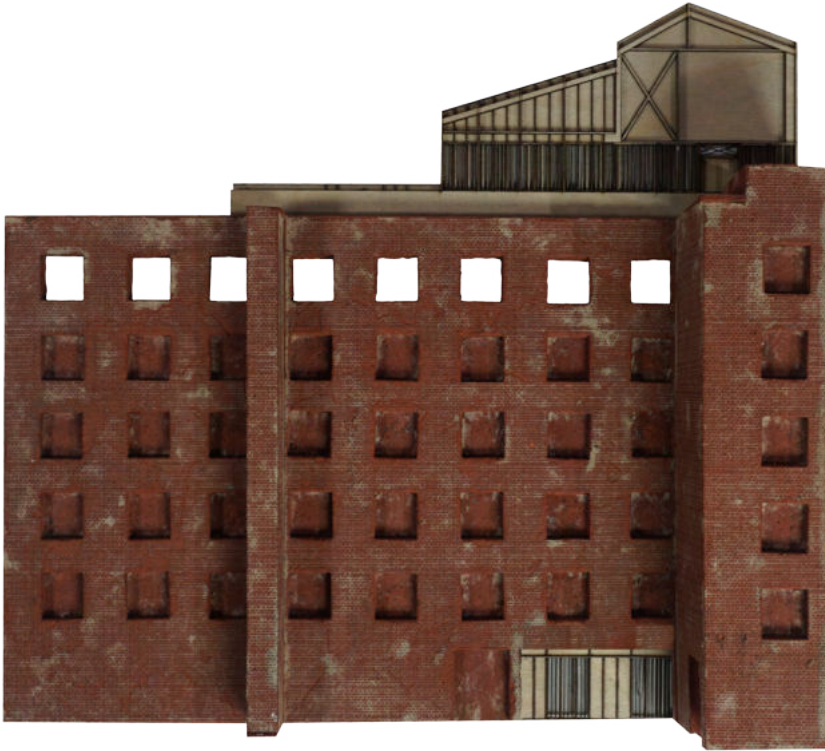


Image 01: 1:100 facade testing model

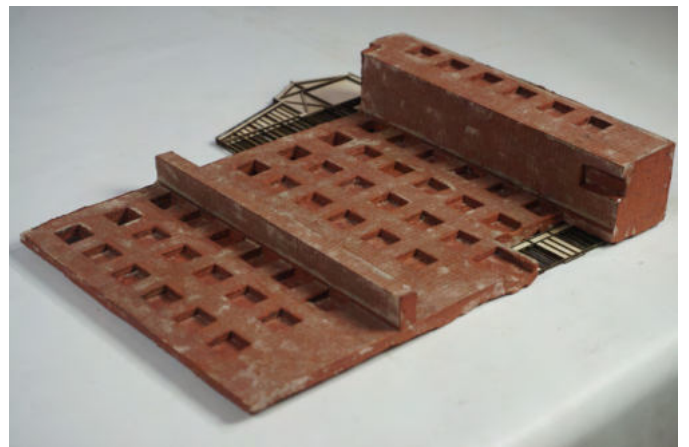


Image 02: 1:100 facade testing model



Image 03: Bird house design to fit within existing chimney on-site



Image 04: Bird house design to fit within existing chimney on-site with annotation of function



Image 05: Bird house extracted from chimney

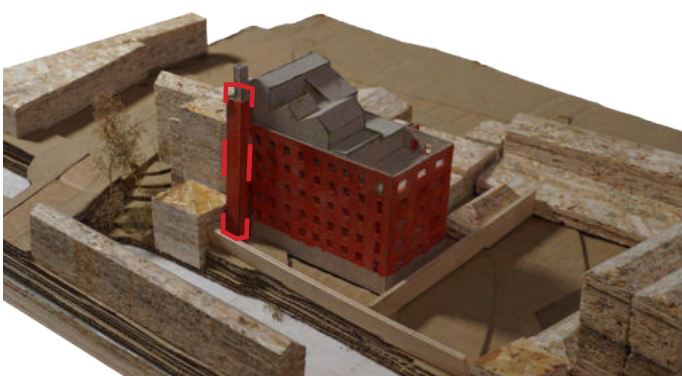


Image 06: Massing model with context site model [Group model - separate submission] highlighting chimney location

Amizatul Foad and Lucy Hobbs

MArch Year 2 - Atelier: Some Kind of Nature

Project: UpOrganic

Ameliorating living conditions for humans and non-humans

Our project UpOrganic aims to tackle the issues of habitat fragmentation and the cost of living crisis by ameliorating living conditions for both humans and non-humans in Bradford, Manchester. Our proposals stitch through the rich urban environment that already exists, thus promoting positive relationships between humans and nature.

A prototype (Image 01) attaches to existing windows of buildings which not only facilitates smoother wildlife movement through the urban environment, but also acts as an insulating panel to help increase energy efficiency and alleviate the cost of energy for humans. This was built at 1:1 scale, in order to understand the process of self-assembly that would be undertaken by the community.

Simultaneously, a food hub is proposed within an existing gasholder frame, which grows its own produce both on the ground and within suspended hydroponic pods to be manufactured into canned goods and distributed to the community. Non-humans are provided with refuge and foraging opportunities, in return for their natural pollination of crops, which in turn increases food security for all species. A 1:200 site model (Images 05 and 06) was created to demonstrate the landscaping, as well as the overall arrangement of the hydro pod tension cables and their relationship with the existing gasholder. Additionally, a sectional model of a hydro pod (Images 02, 03 and 04) was created at 1:20, in order to demonstrate the interior arrangement of the growth system and the details of the facade.

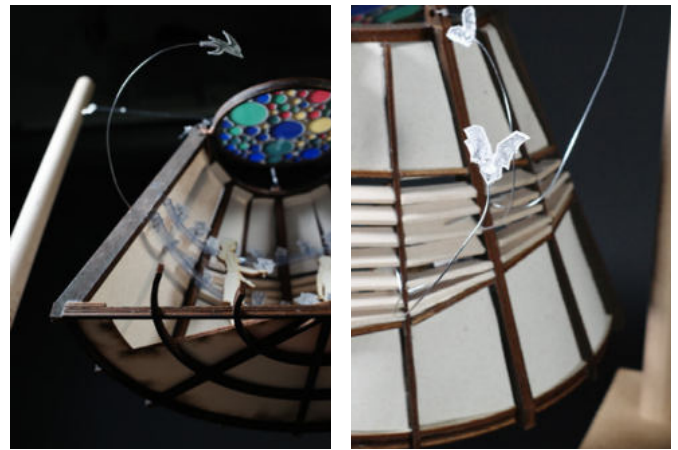
Using the workshop was initially challenging for us since neither of us had used it before, but the results have helped to enhance our project. We primarily stuck to recyclable materials such as MDF and plywood, and we used as many offcuts as possible, thus aligning with our atelier ethos of re-use. We used a variety of methods to construct the models, including laser cutting, sanding and use of the bandsaw. Additionally, throughout our models we included small self-drawn images of plants and animals, some of which were attached to long wires. This method created a unique language and a more captivating end result, creating 3D elements that contrast to the materiality of the models.



Image 01: 1:1 scale model of the prototype.



Image 02: 1:20 sectional model of a hydropod.



Images 03 and 04: Details of the hydropod floor and facade



Image 05: Overview of the suspended hydropod entanglement in the food hub

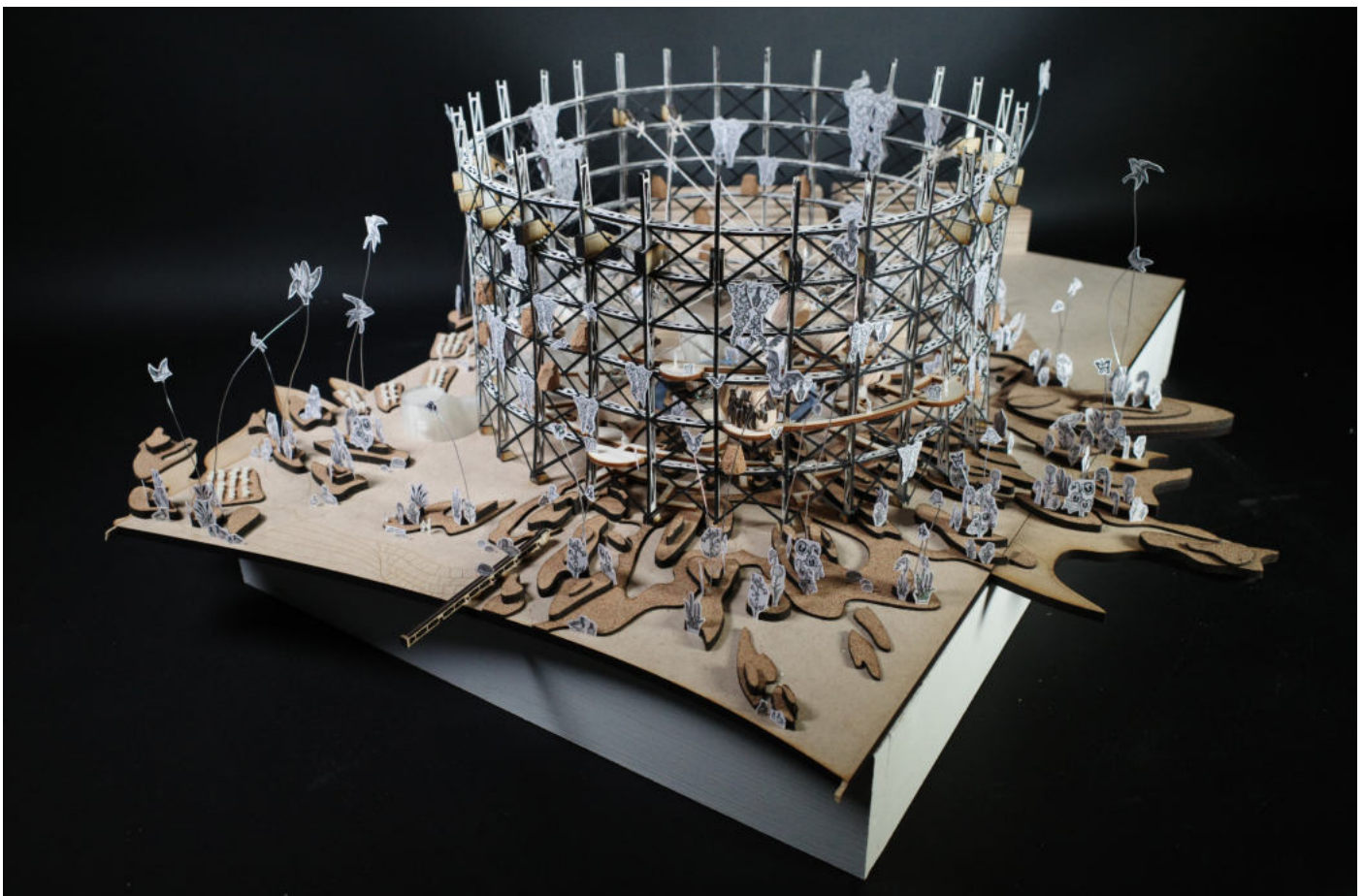


Image 06: 1:200 site model of the food hub.

Baoxin Yang & Taiming Si, B.15 (MSA)

MArch Year 6 - Atelier: Some Kind of Nature (SKN)

Project: Adjustability: From Riverine Ecosystem to Symbiotic Architectural Space · [Biodiversity, Climate & Housing Crisis] · [Modular Design with Nature]

Our project aimed to **provide a plausible vision of a harmonious symbiotic 'Home'** for humans and non-humans alike in Etihad and to **conduct an exploration of contemporary and future dwelling forms**. We considered the **building as a 'Tree of Habitat'**. We attempted to **prioritise biodiversity** by **first** creating an ecological '**Green Corridor**' with **non-humans movement** at its core as a '**Tree-trunk**' running through the building. **Then, human spaces** were connected to the corridor as '**Tree-branches**' to form a logical spatial layout. The **connecting nodes** between the two naturally became **transition and interaction spaces between humans and non-humans**, thus leading us to **enhance respect for nature**. We hope this will shed new light for Etihad on **breaking the dichotomy between humans and nature (such as severe carbon emissions & habitat fragmentation)** and **alleviating the housing crisis**.

To **effectively convey our symbiotic architectural design concept**, the 'Green Corridor' became the focus of our modelmaking process - **a 1:250 Concept Model**. Meanwhile, to **accurately represent details in modular and ecological design**, we also produced: **1) A 1:20 Prototype Model** to show the structural components and insulation layers of modular units. **2) A 1:10 Section Model** to show the nature-friendly masonry support system fixed on the CLT wall, which incorporates eco-design - Swift Bricks for Twite birds.

In **B.15 & B.12 workshops**, we selected materials such as **MDF Sheets & Board, Plywood Sheets, and Acrylic Sheets & Cubes** etc., and used **Laser Cutting** (most materials), **ISEL M40 CNC Router** (MDF Board for Concept Model base), **3D Printing** (truss & partial irregular floor slab), and **Hand Sanding & Spraying** etc. In **addition**, we also applied some **auxiliary materials** to embellish the model effect, such as **Static Grass & Trees** and **Model Furniture & People**.

It's **noteworthy that some part of acrylic usage in modelmaking isn't a reversion to the real status or material, but rather we felt it would help to convey the model's core concept**. For example: **1)** The use of Acrylic Cubes in the 1:250 Concept Model is intended to **highlight the spatial position and layout relationship of the 'Green Corridor'** within the building. **2)** The use of Acrylic Sheets (bricks' part) in the 1:10 Section Model is to make it **easier to show the connection components of the Masonry Support System and the involved bird nesting boxes**.



Image 01: 1:250 Concept Model of Symbiotic Apartment



Image 02-04: 1:250 Concept Model Details

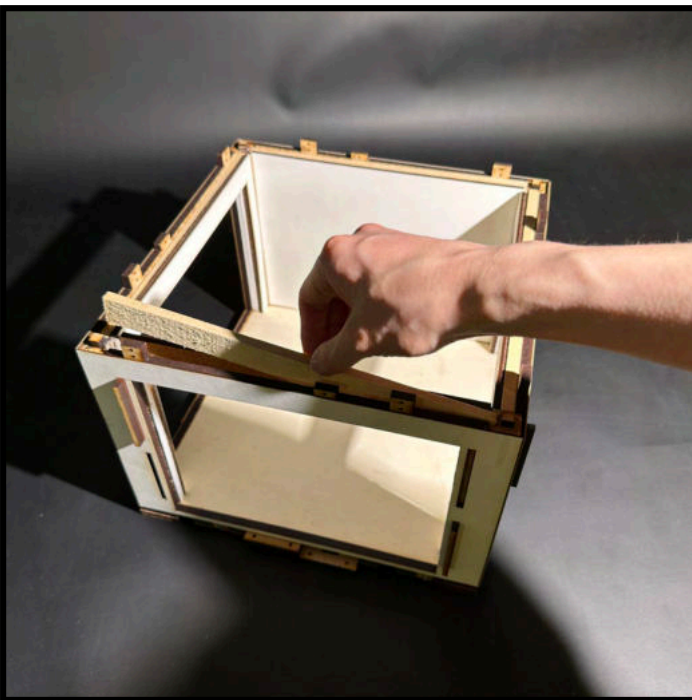


Image 05: 1:20 Prototype Model

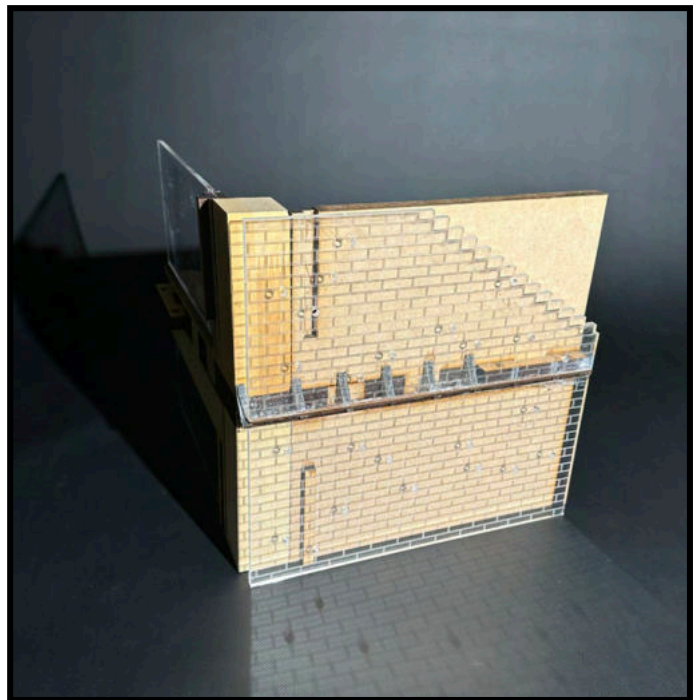


Image 06: 1:10 Section Model

Monika Ebrahimi, Manchester

MArch Year 6 - Atelier: Some Kind of Nature

Project: Reversed Manchester

What if the only option to survive was to seek refuge underground?

* The three-piece model series was built to illustrate certain design elements and support the delivery of a holistic narrative as part of the master's thesis project.

Reusing the forgotten coal mining infrastructure in Bradford, Manchester, to provide human shelter and leave space for biodiversity recovery and re-wilding in the biosphere.

The chosen site is located on top of a former coal mine: 'Bradford Colliery'. The mining processes were the 'fuel' for the city's industrial development and significantly polluted the environment. By mid-1960, the area was classified as highly prone to subsidence. The colliery was demolished as soon as coal mining stopped and suddenly disappeared from the surface. However, there is a lot of it left below ground.

The obsolete infrastructural remains of Bradford Colliery inspired the formation of an imagined subterranean masterplan that can provide shelter from natural disasters in the future. The proposal includes a network of building typologies at different levels utilising the mine shafts as connectivity points and an underground metro system which is built along the existing coal seams.

MODEL ONE: The 1:2 000 site model portrays the land 'known' to the human eye in juxtaposition to the 'unknown' world and history buried underground. The vertical elements represent the existing coal mine shafts and the horizontal elements represent coal seams.

MODEL TWO: The 1:100 section model represents the first mix-use subterranean building as part of the masterplan: a research and training centre. The section is cut through the teaching rooms which wrap around the light well opening, looking out towards a biodiversity garden. The existing mine shaft (black tube) in the centre of the biodiversity garden is re-used as a well for water collection and filtration.

MODEL THREE: The 1:50 primitive hut model serves as a reminder of the essential elements in architecture, criticising the current overuse of conventional materials, such as concrete and steel. The model showcases a simplistic and efficient structure (column, pediment & entablature) and minimal use of natural materials.

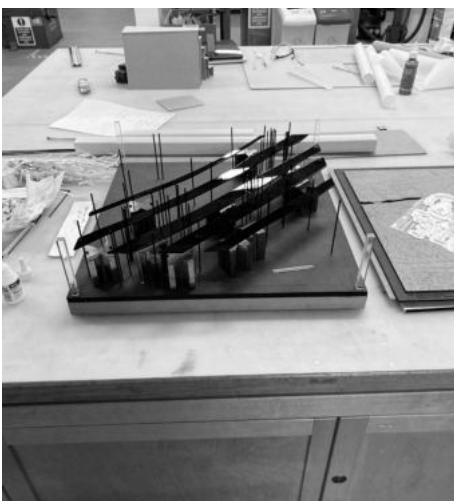


Image 01: Site Model 1:2000
MODEL 1/3: Process Image

Made in the b.15 workshop.
3D printed elements, laser cut MDF, stained MDF, acrylic, acrylic tubes, acrylic rods, cork.



Image 02: Section Model 1:100
MODEL 2/3: Process Image

Made in the b.15 workshop.
Laser cut MDF, stained MDF, cork, acrylic rods, trees, detail elements made using paper cutting machine.



Image 03: Primitive Hut Model 1:50
MODEL 3/3: Process Image

Made in the b.15 workshop & home.
Base frame made at b.15, table saw machine; rest of model made at home using materials collected in nature.

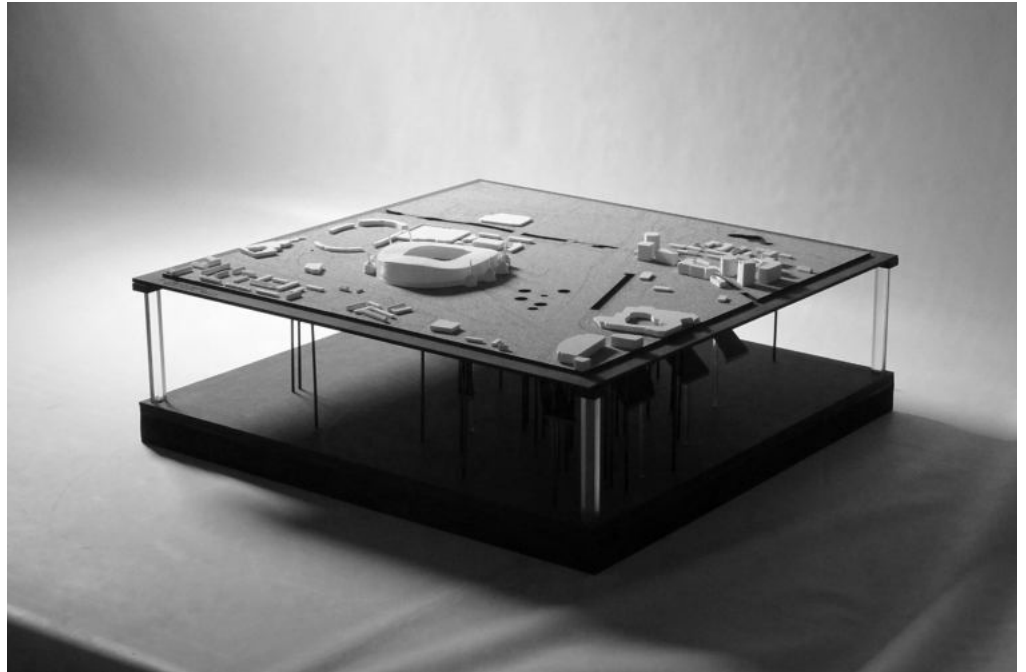


Image 04: MODEL 1/3
Site Model 1:2000

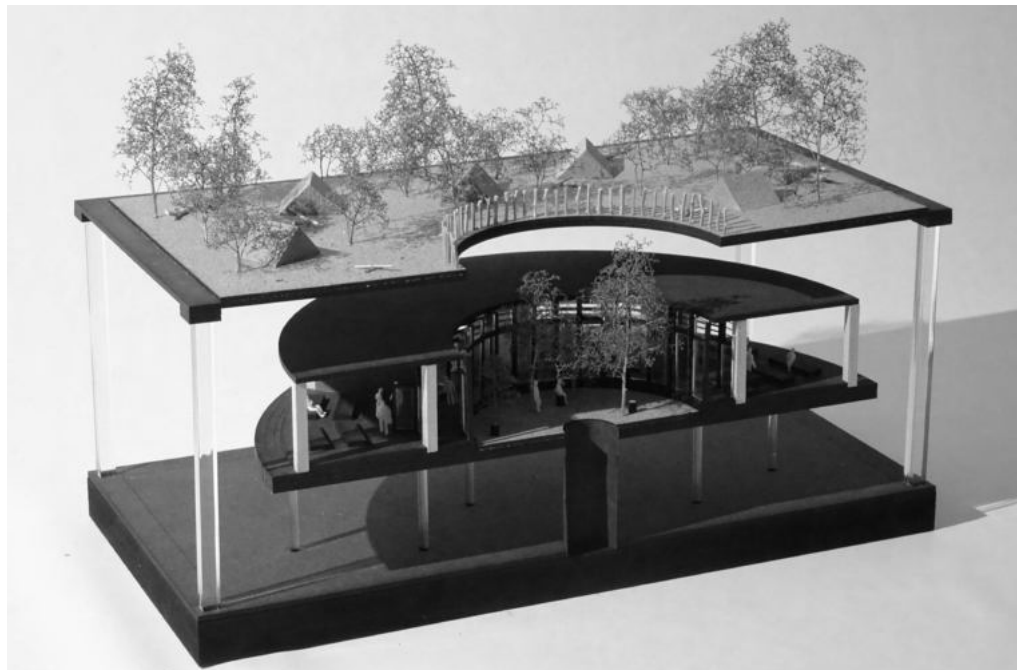


Image 05: MODEL 2/3
Section Model 1:100



Image 06: MODEL 3/3
Primitive Hut Model 1:50

Hanna Zulhikam & Maira Tini , Manchester

March Year 6 - Atelier: Some Kind of Nature

Project: pH(-CO₂): Bradford's Industrial Museum & Living Incubator

Gas Holder Refurbishment Project

The focus of this project is to create awareness on the power of moss and lichen as agents of change in the age of Bradford's Anthropocene as a post-industrial landscape. This proposal intends to answer the research question; How can the irreversible environmental impacts caused by Bradford's anthropocentric activities during the industrial era be combated by encouraging the growth of mosses and lichens on site? As the name of this project suggests, mosses and lichens play important roles in the ecosystem as indicators and mitigators of air pollution. Awareness of their role in combating air pollution and biodiversity loss is highlighted by integrating these species in our architectural proposal and the overall masterplan. The intervention masterplan intends to rewild the existing landscape and sequester carbon dioxide by propagating moss and lichen on site and connecting it to the surrounding vegetation spaces through eco-bridges and green belts. The building is broken down into several programs that reflects the past Anthropocene activities and uses speculative design methods to create a 'plausible' prediction of Greater Manchester's future, incorporating biodiversity-prioritizing scientific theories and contemporary design into a clearer picture. By creating spaces which highlight Bradford's industrial past and its sustainable industrial future, our proposal hopes to raise awareness of environmental degradation and pollution by preparing the community for the future.

The technicalities of the facade which uses moss and lichens in an unconventional way is the main push for this thesis project. Various scales of models from conceptual to a realistic look of the facade were done to help understand the layers of its technicalities as well as the process to fabricate it. It also plays a role in the internal atmosphere where light is diffracted which was only seen once the model was assembled, which changes its atmospheric feel to it.

As the project involves reusing an existing gas holder, it includes a huge landscape that surrounds it. To understand its relationship, site models of various scales as well had been done which ranged between 1:5000 to 1:250 where details emerged, and materiality considerations and activities could be seen at eye level. In the final studio, where a 1:250 exploded model was made to help understand the activities, human access as well as the relationship between spaces, levels and activities are represented in detail where important spaces are furnished and inhabited by scaled furniture and figures. The scale of the building could clearly be understood based on the scale of the human figures through this model.

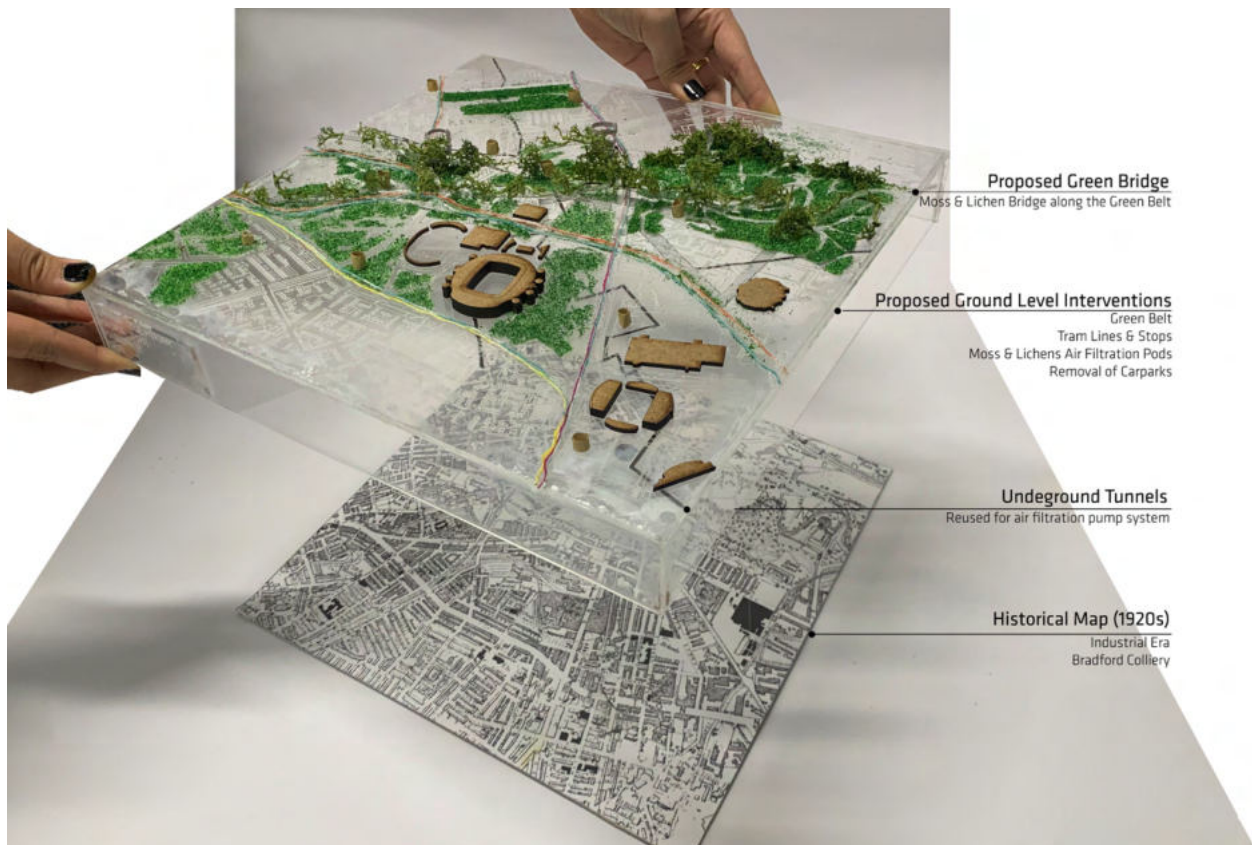


Image 01: 1:5000 Site Model for Masterplan Intervention Studies (Acrylic Sheet, MDF Board, Thread, Artificial Plants, Paper, Card)



Image 02: 1:250 Exploded Model of pH(-CO₂).
 (Plywood, MDF Board, Acrylic Dowel, Acrylic Sheet, Paper, Card, Artificial Grass, Artificial Plants, Sheer Fabric Gauze, Wire Mesh)



Image 03: A zoom into the green bridge that connects the building to the parks. Image 04: View of the Cross Section of Exploded Elements

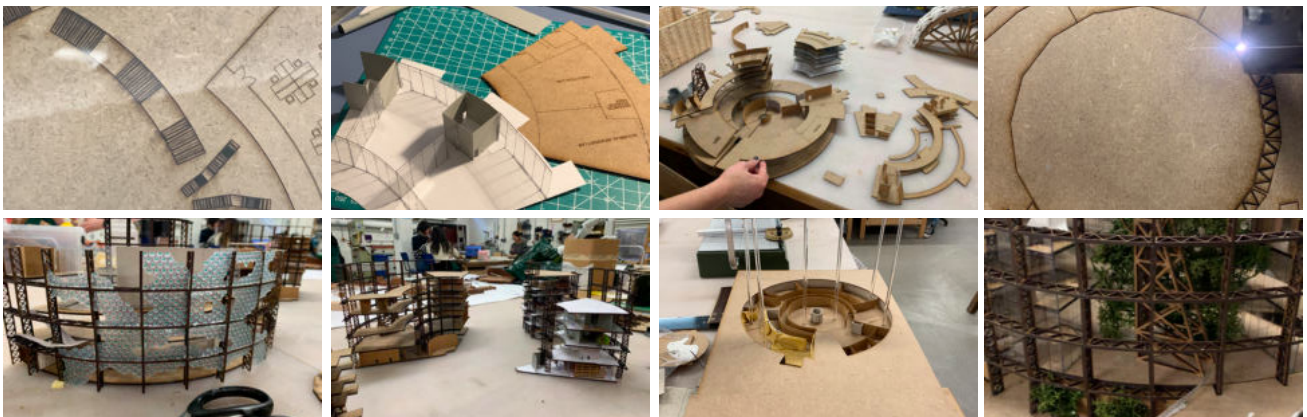


Image 05: Process of assembling the model within a span of 4 weeks.

Daryl Quayle & Elliot Flynn , Manchester

MArch Year 2 - Atelier: Some Kind of Nature

Project: The Eco-Deconstructivist Design Handbook

How can policy change be used to make specific urban sites accessible to human & non-human communities alike?

To combat the global biodiversity crisis our project uses policy change to limit human influence in Bradford, East Manchester, with a view to nationwide expansion of this idea.

We began by creating a policy framework guiding our regeneration of the broader Bradford area, to create a site Master Plan which reconnects fragmented habitats vital to the area's survival and increases the amount of space dedicated to non-humans by 255%. Additionally, a revised transport network and removal of roads increase accessibility of the area and reduce its carbon footprint substantially. Within this redeveloped area, we have adapted the disused Manchester Abattoir site to create space for humans & non-human communities. To best demonstrate our proposal, we created the model shown in Image 06 in B15, with layered elements to show division of site components.

The abattoir site (Image 5) has been transformed into a lush wetland to create habitats for local flora and fauna, with woodland to the south of site and scrubland to the north broadening the site's appeal to non-humans. Interaction between humans and non-humans has been promoted through construction of a promenade which meanders around site without disturbing non-human residents - and tram access ensures ease of travel for visitors.

The ground level has been stripped back to the structural grid to make space for the wetland, and first floor has become a community hub featuring space for local scout groups, recreational activities and hot-desking: all facilities lacking in Bradford. The second floor is for public use, and is a modern take on victorian promenade architecture, creating space that is novel yet familiar, with local pop-up businesses to revive Bradford as an appealing destination rather than a thoroughfare. Upper floors feature residences with reduced rates for Bradford residents, made of cork bricks and offset from the main structure to allow light penetration and present the eclectic appearance of much seaside vernacular within the UK. Our site model (Image 05) and sectional model (Images 1-4) were also made in B15 and illustrate the scheme's relationship with topography, habitats created, and the nature of occupation for existing residents and visitors from further afield.



Image 01: Photo of 1:200 sectional model demonstrating scheme interaction with topography, wetland and tram access. Created using MDF, plywood, cork, plaster, wood glue and epoxy resin for the habitat texture and wetland.



Image 02: Lower-angle photo illustrating the scheme facade, viewing tower with vistas out to Manchester City centre and gabions' interaction with wetland below, as well as tram access and topography change.



Image 03: Facade photograph showing public promenade levels, queues for fish and chips and overall dichotomy of scheme's forms with organic planting.



Image 04: Bridge linking the project to tram & bioswale, with visitors and wild planting surrounding. Visitors and residents come and go about their days.



Image 05: 1:1000 Site model demonstrating the promenade route throughout site and scheme interaction with non-human habitats (wetland, scrub and woodland). Created using layered MDF with 3D-printed elements.



Image 06: 1:5000 Master Plan model illustrating the arrangement of regenerated habitats in our scheme. Created using MDF, reclaimed timber and 3D printed elements, with wood stain to differentiate habitats.

Jon Quail, Amanda Lim

March Year 2 - Atelier: Some Kind of Nature

Project: Succeeding the Network

Redefining the infrastructural network through a multispecies lens

'Succeeding the Network' is our joint thesis design, following the research question: How can urban infrastructure coexist with habitat creation in response to fragmentation? The proposed design would re-imagine Manchester's transport infrastructure to replace roads with pedestrianised and rewilded corridors, connecting the currently fragmented habitats across the urban landscape. A monorail system would be installed across the city along these routes as a green transport alternative to the cars and busses. The design focusses on the Bradford Gas Holder station, currently in an industrial area and identified as a biodiversity 'dead zone'. To encourage biodiverse growth and rewilding as part of the new network, the station is designed to promote bryophyte growth as the only existing biodiversity in the area. Using moss as a foundation, supported by the new connected habitat corridors, the area's ecology will grow from the success of the moss, with birds such as Blackbirds and Robins using moss to make their nests, as well as providing a microhabitat for many feeder species such as insects.

The model represents our station's façade, a limestone exoskeleton structure and stacked slate drywall under the arch. The materials were chosen as they can be sourced locally, and the surface texture provided by both are ideal for moss rhizomes to attach. The natural materials were modelled using jesmonite, cast in greyboard moulds. To achieve the stone texture, aluminium foil was placed inside the cast and removed after casting, and the slate texture was created by laser etching repeatedly into the greyboard mould, giving different levels to the cast. The final step was to transplant moss to the model, by collecting moss from similar surfaces, and placing it onto the façade laid flat for 5 weeks, the rhizome's attached to the façade allowing us to place it in the base and the moss stayed attached without the need for glue. The 1:20 section model of our façade shows moss will grow on the surfaces we designed, as well as giving a haptic understanding of the textures of the stone and slate façade.



Image 01: 1:20 Facade Model



Image 02: Haptic textures and Moss



Image 03: Testing the Different Textures



Image 04: Casting the Jesmonite



Image 05: Transplanting the Moss



Image 06: Life Sprouting on the Model

Fangfei Li & Qinze Su , Manchester

March Year 2 - Atelier: Some Kind of Nature

Project: Mindset Renewed

Can the sense of reverence and respect for nature from the distant past be taken and reproduced in reality?

Our research project, "Mindset Renewed," is located in a declined community near the Lower Medlock Valley in Manchester. The aim of this project is to explore a new order through architectural design and reexamine people's arrogant attitudes towards nature through this order. Throughout the design process, our main focus has been on how to use the atmosphere created by the architecture and its elements to change people's perception of nature. The project aims to guide people to rediscover the poetic essence of nature, away from the hustle and bustle of the city, and aspires to recreate a sense of ancient reverence and respect for nature within society.

Inspired by Norberg-Schulz's suggestion that direct engagement is more important than abstract elements and orders, this architecture explores the use of immersive aesthetic experiences in daily life to provoke reflection on nature, foster empathy, and subtly transform human beliefs and values towards nature. To achieve this, we have created a detailed 1:100 scale site model that includes the River Mersey and the surrounding green areas as context. It showcases the potential ecological environment that the site could have in the future, helping us and viewers better understand the atmosphere embodied in the architecture and the experiences it shapes. To serve this purpose, the model facade and base use multiple layers of materials, including MDF for the interior facade and plywood and cat litter (as stones) for the exterior; small ponds is created using a plastic shell filled with wood shavings. The design of the roof is inspired by the shape of the wind, aiming to evoke people's imagination of nature. Therefore, in the model, the roof is suspended to create a sense of lightness. Moreover, to maintain the close-fitting form between the roof and the building's mass, we have used piano wire and wooden blocks to create an adjustable roof structure. Additionally, a 1:50 scale section model has been created to magnify specific spaces, aiming to provide a clearer demonstration of the designs' intention in shaping the meditative atmosphere within the dimly lit interior, and the structure strategy.



Image 01: Final site model at 1:100, created in B.15.



Image 02: When the roof descends onto the building main body.



Image 03: 1:50 Section Model, cut in B.15 and then assembled at home. A meditation room and external climbing apparatus.



Image 04: Centre Garden



Image 05: At the entrance of the site. rain chain and small pond.



Image 06: The floating roofs. from north side of the site.

Rachel Price, UK + Norzafeera Marzukee, Malaysia

M.Arch Year 2 - Atelier: SKN

Project: emPOWERING Manchester

Our thesis project identifies specific methods, in line with the Greater Manchester 5 Year Plan, to achieve a carbon neutral Manchester by 2038, beginning at the site of a historic colliery and gasworks in Manchester. The purpose of our model is to show how we are able to reuse one of the existing gasholder structures as a renewable Combined Heat and Power (CHP) station which runs off biogas, solar and kinetic energy. The model also includes a mycelium insulation factory, gym, rooftop garden and surrounding wetland landscape. Combined, these components will help to reduce the amount of carbon dioxide in the atmosphere and help Greater Manchester become carbon neutral by 2038.

We built a 1:100 scale sectional model, to show how the programmes relate to one other, in B.15 modelmaking workshop to utilise their machines and equipment. Firstly, we laser cut the existing gasholder structure components using 3mm and 2mm MDF boards and coated them with wood dye to create a uniform colour profile. We assembled the floors and inner structural elements, along with window frames for the glazing, which was cut from clear acetate. We used coloured acetate to resemble the coloured solar panels for the exterior facade. The biogas chamber below the gasholder was grown using mycelium spawn mixed with a sawdust and coffee ground substrate which we made a mold for out of 3mm greyboard. This growing period took approximately two weeks, after which we put the base into an autoclave machine to kill off the mycelium to prevent it from continuing to grow. We 3D printed custom-made figures, biogas components, gym, and factory equipment to help us demonstrate the uses of each space. An area of the mycelium base was dug out to hide a humidifier inside, powered by a power bank, and a copper pipe was inserted to resemble the CHP flue. The water vapour creates the effect of a power station emitting steam to communicate its purpose. Finally, to create the surrounding wetlands, we added small tufts of modelling grass and trees and coated the surface with vaseline to create a 'wet look'.



Image 01: 1:100 section model of Combined Heat & Power (CHP) Station, mycelium factory, gym, rooftop garden & wetland.

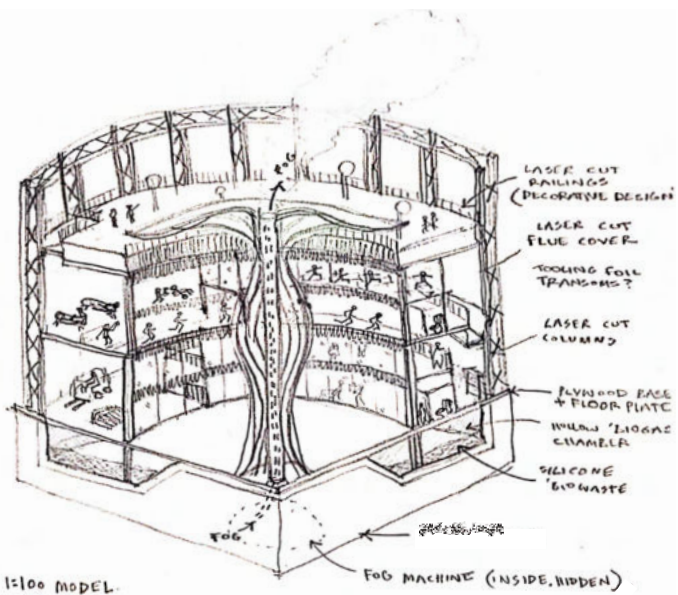


Image 02: Original sketch proposal of sectional CHP model labelled with initial material ideas.

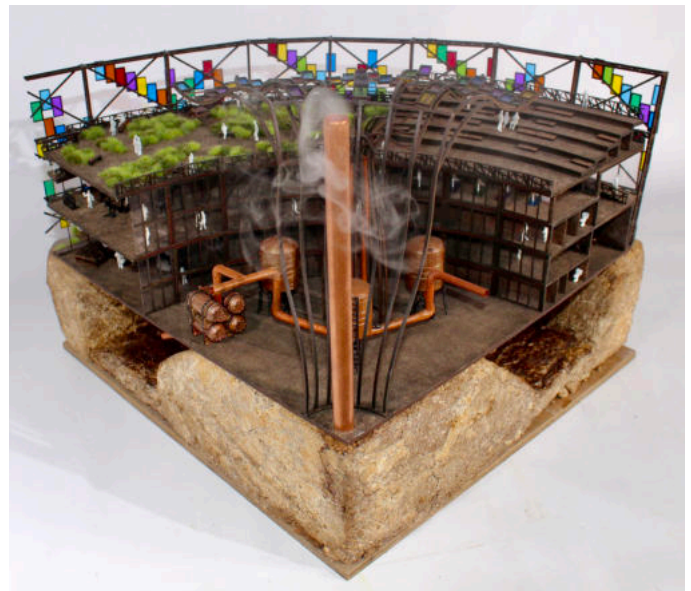


Image 03: Finished CHP sectional model showing steam (water vapour) being released from the central flue.

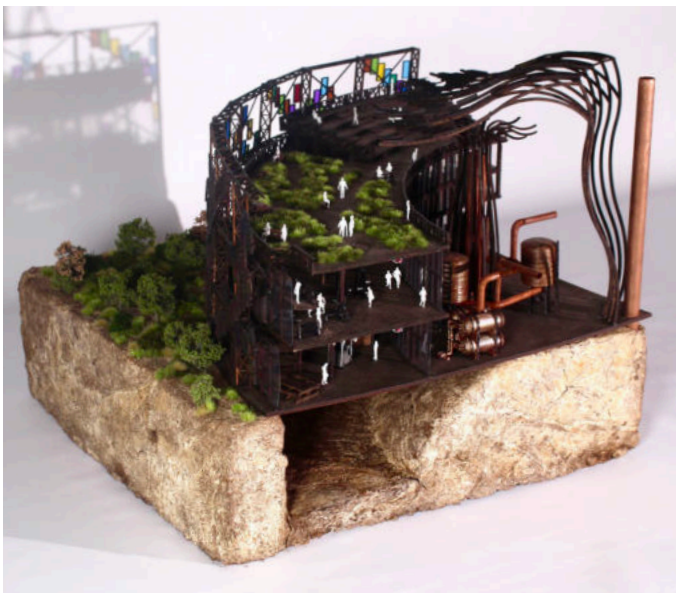


Image 04: Surrounding wetlands, coloured solar panel exterior facade & rooftop garden.



Image 05: View into first floor gym showing custom 3D printed figures exercising.



Image 06: Mycelium base process.
 1. greyboard mold built according to existing gasholder water chamber dimensions;
 2. sawdust & coffee ground substrate mixed with oyster mushroom mycelium spawn;
 3. mycelium allowed to grow over two weeks;
 4. mold removed;
 5. base dried to kill off mycelium.

Haoting Guan

MA AU - Atelier: Studio B

Project: Let It Flow

Diversify And Renewal Of Historical District Along Suzhou Creek

This model was one of our requirements for studio b. The site is along the Suzhou River in Shanghai, my design proposal mainly focuson the enhancement of the landscape along the river and the renovation of the historic district within the site.

The model is made of 6mm MDF board as the base + black reflective plastic board as the river surface + 4mm MDF as the city road + 3mm Plywood as the building plot division. The current state of the building on the model is printed by 3d printing in two materials. The 3D printed material of the historic district buildings is transparent, so that the street design can be seen below.

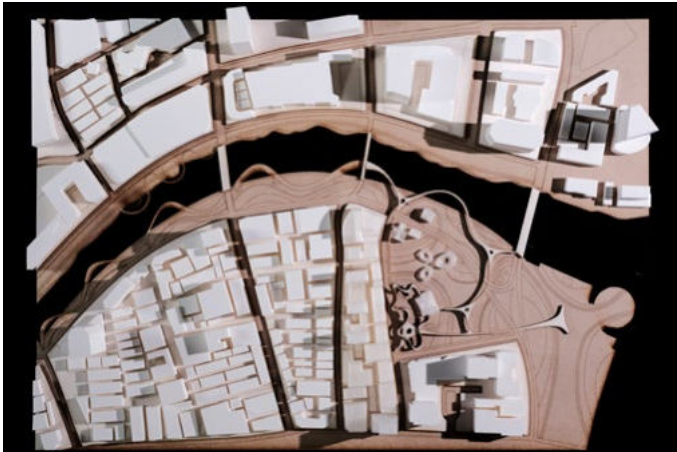


Image 01: Site Model Plan View

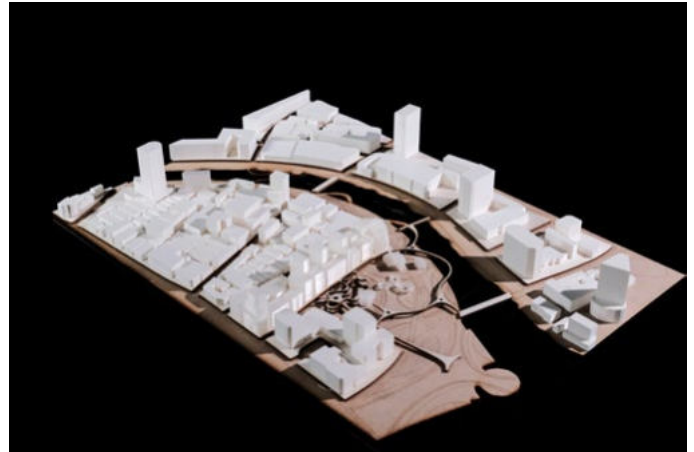


Image 02: Site Model Axometric View



Image 03: Site Model Elevation View



Image 04: Site Model Suzhou Creek Close-up



Image 05: Site Model Mix-Park Design

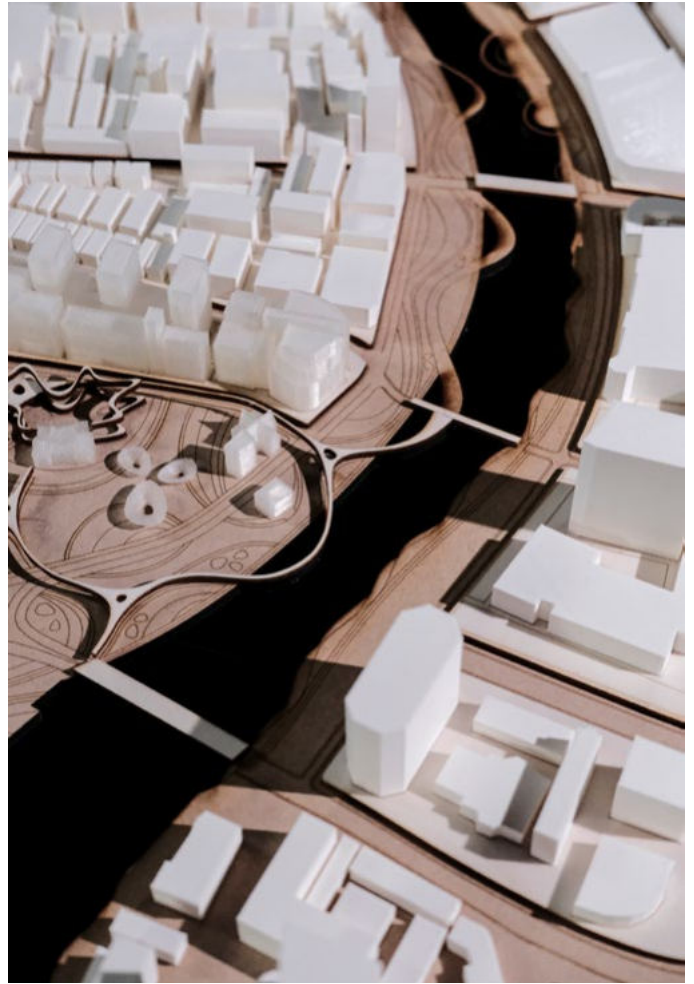


Image 06: Site Model High-line Park Design

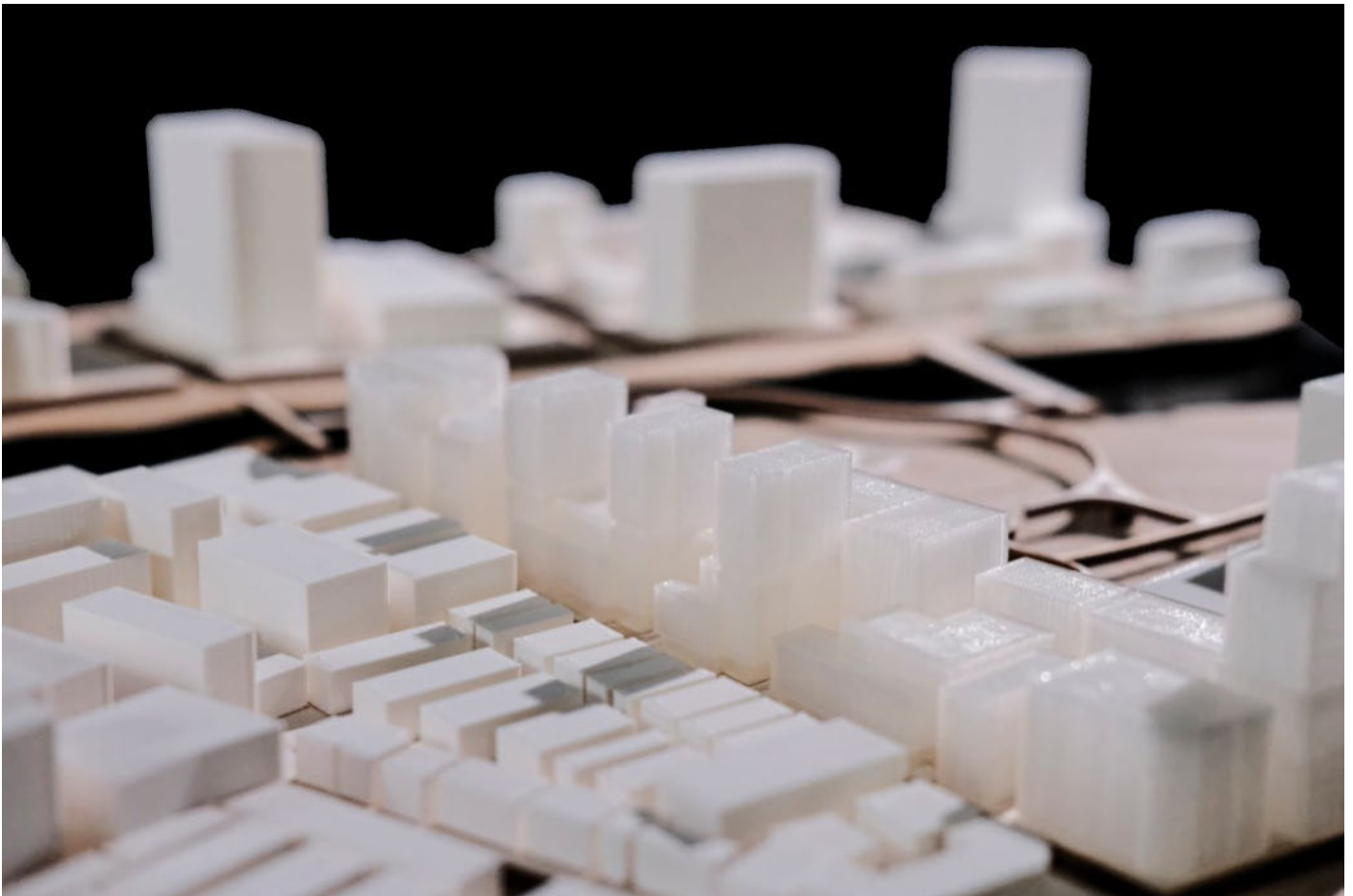


Image 07: Site Model Historical District Design

Alina Maniukhina and Hariz Zahidi, Manchester

MA Architecture and Adaptive Reuse; March Year 1 - Atelier: Infrastructure Space

Project: Breakfast Room

John Soane's own house

The purpose of this model was to reimagine John Soane's house. The Breakfast Room, being the most famous and central part of this building, is represented as a jewellery box. This is in reference to the personality of Soane who stocked his home with various art pieces from all over the world and turned it into a museum and gallery. Opening the jewellery box itself is an act that communicates the visitor's experience as they journey deeper through the building, moving from the outer shell to the "pearl" of the museum.

With respect to the model's structure, the manner in which it opens refers to Soane's approach to his drawings as if the interior has been unfolded: the plan in the centre and elevations placed parallel to their respective sides. We also extended this inside-out principle to its ornamentation, which we identified in relation to the densely-populated interior decor and discrete facade: on its surface, our jewellery box emphasises the gold-painted picture frames that fill the Breakfast Room's surfaces.

The core facet that has been interrogated is the movement through Soane's museum, the transition from the discrete to intense, façade to interior, by developing the inverse. The outer surface of our jewellery box is adorned with frames designed to match those originally located in the Breakfast Room. What remains internally is the solitary table which serves to highlight the centrality of the canopy that defines the space as Soane's domain. Starting from the oculus above a vertical axis is created. About this axis, and at the point where the canopy meets the columns, hemispherical mirrors are oriented to reflect back to the centre point, the table.

Key to our development was a trial in greyboard at the final scale 1:20, chosen to match the size of the average jewellery box, where we figured out the mechanism allowing the walls to fall safely, and what is left inside after the box is opened. The timber is not only a reference to the furnishings of the house, but also to the glorification of crafts and carpentry within the era of its construction; neither plastic, cardboard, gypsum or MDF would properly convey this spirit. The colouration of the model is taken directly from the colour palette of the Breakfast Room, using wood dyes and varnishes that best matched Soane's use of light oak and dark mahogany.



Image 01:
Breakfast room.
Closed condition.



Image 02:
Breakfast room.
Opened condition.

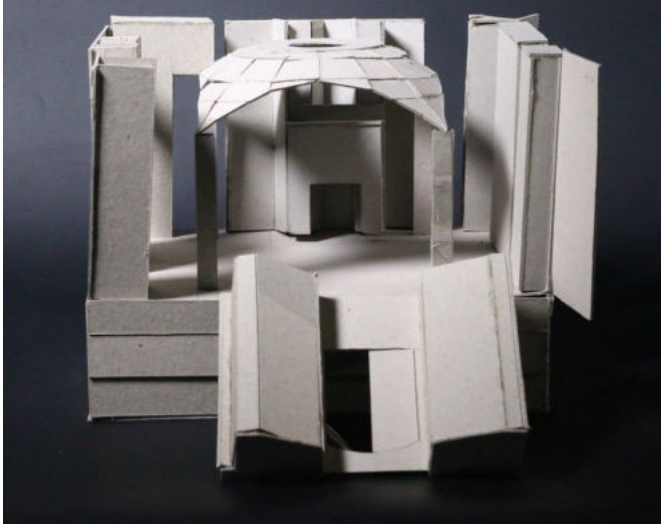


Image 03:
Sketch Model.



Image 04:
Breakfast room.
Interiors.

Image 05:
Breakfast room.
Side view.



Image 06:
Breakfast room.
Side view opened.



Lex Raper Rumoroso & Xin Shu

March Year 1 - Atelier: &rchitecture and Flux

Project: RM 13: Remember, Reveal, Construct - Astley Castle

New and old are symbiotic in a remodelled building, and the relationship between them is dependent upon how the structure and the materials are brought together. As part of Research Methods Group 13: Remember Reveal Construct, we were tasked with exploring an adaptive re-use building to understand the relationship between its old and new junctions. We were given Astley Castle which is an ancient Grade II listed fortified manor house which was left in disrepair and later reinstated by Landmark Trust. This 1:20 sectional model explores a corner of the building that is made up of 3 main elements: existing stone, new brickwork and joinery. The model demonstrates how these 3 materials old and new join together to make one. We carefully tested and chose each material as it was important to distinguish each element of the building.

The model was constructed in the B.15 workshop using casting as the main construction method. The model was made from 5 cast elements that all required quite intricate form-works. Before making each element we underwent a series of tests to get the right colour and effect to portray each material. Some of the cast elements were then later engraved by hand to get the stone detail. The brick cast was made by adding a laser-cut piece of grey-board that had the brick detail inserted into the formwork. The final element of the building was the new joinery which we carefully created by cutting individual pieces of wood and sticking them together.

Additionally, we introduced the technique of Kintsugi into our model which is a Japanese method for repairing broken ceramics with a special lacquer mixed with gold, silver, or platinum. The philosophy behind the technique is to recognize the history of the object and to visibly incorporate the repair into the new piece instead of disguising it. We used this method in the old stone wall section to show how they repaired and stabilised the



Image 01: 1:20 sectional model that demonstrates the 3 main elements of the building: Existing stonework, new joinery and brickwork



Image 02: The technique of Kintsugi to represent how they stabilised and repaired the existing wall



Image 03: This photo demonstrates how the old stonework and brickwork join together. Both elements made through the casting.

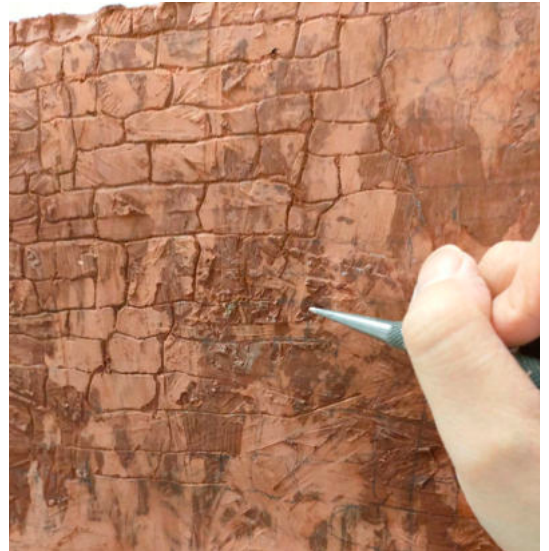


Image 04: Hand engraving the cast made from plaster to produce the desired stone effect.



Image 05: Internal view illustrating how the new joinery element meets the existing stonework



Image 06: 1:20 sectional model demonstrating the new side extension and how the castle sits within a castle wall

Samuel Diamond + Chin Yiu Yeung

MAAR + March Year 1

Project: Remember Reveal Construct

Selexyz Dominican Bookshop

This is a research-through-model-making project. We will explore and reconstruct specific details of chosen buildings. We will consider the relationship between old and new, and investigate the junctions, juxtapositions and joints, then represent this research through carefully constructed high quality models.

Merkx+Girod architects were asked by the Dutch booksellers Selexyz to convert the interior of the former Dominican Church in Maastricht into a modern bookstore. The store demanded floor space which the church did not have leading to the initial idea of the client to install a second floor. This was rejected by the designers, because this would destroy the spatial qualities of the church. The solution was found in the creation of a monumental walk-in bookcase spanning several floors and situated a-symmetrically in the church. In doing so the left side of the church remained empty while on the other side customers are lead upstairs in the three story 'Bookflat.' The project is considered a clear contemporary gesture, and independent statement, that also pays homage to the monumental church.

We decided to make a sectional model of the Dominican Church on a scale of 1:50. The idea of recreating the gothic architecture elements and the 'Bookflat' was to analyse the direct relationship between the bookshelves and the church. We used the emulsion print to create a washed-out effect of a fresco of St. Thomas to emphasise the importance of preservation of the monumental church.



Image 01: Final Model (Perspective View) - 1:50



Image 02: Gothic Window and Wall Decoration

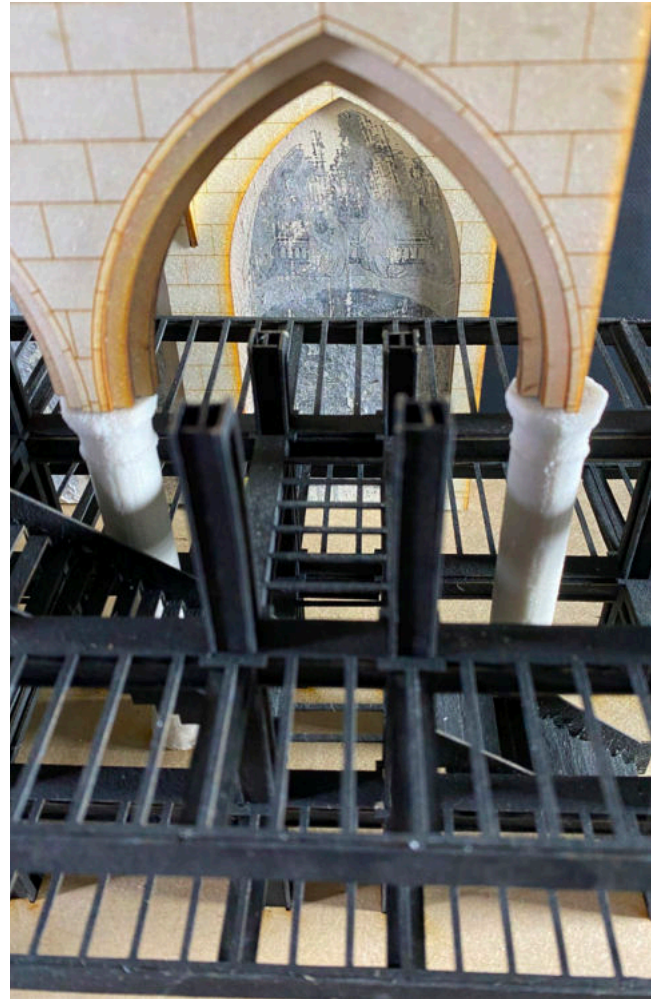


Image 03: Gothic Arch, Columns, Fresco and 'Bookflat'

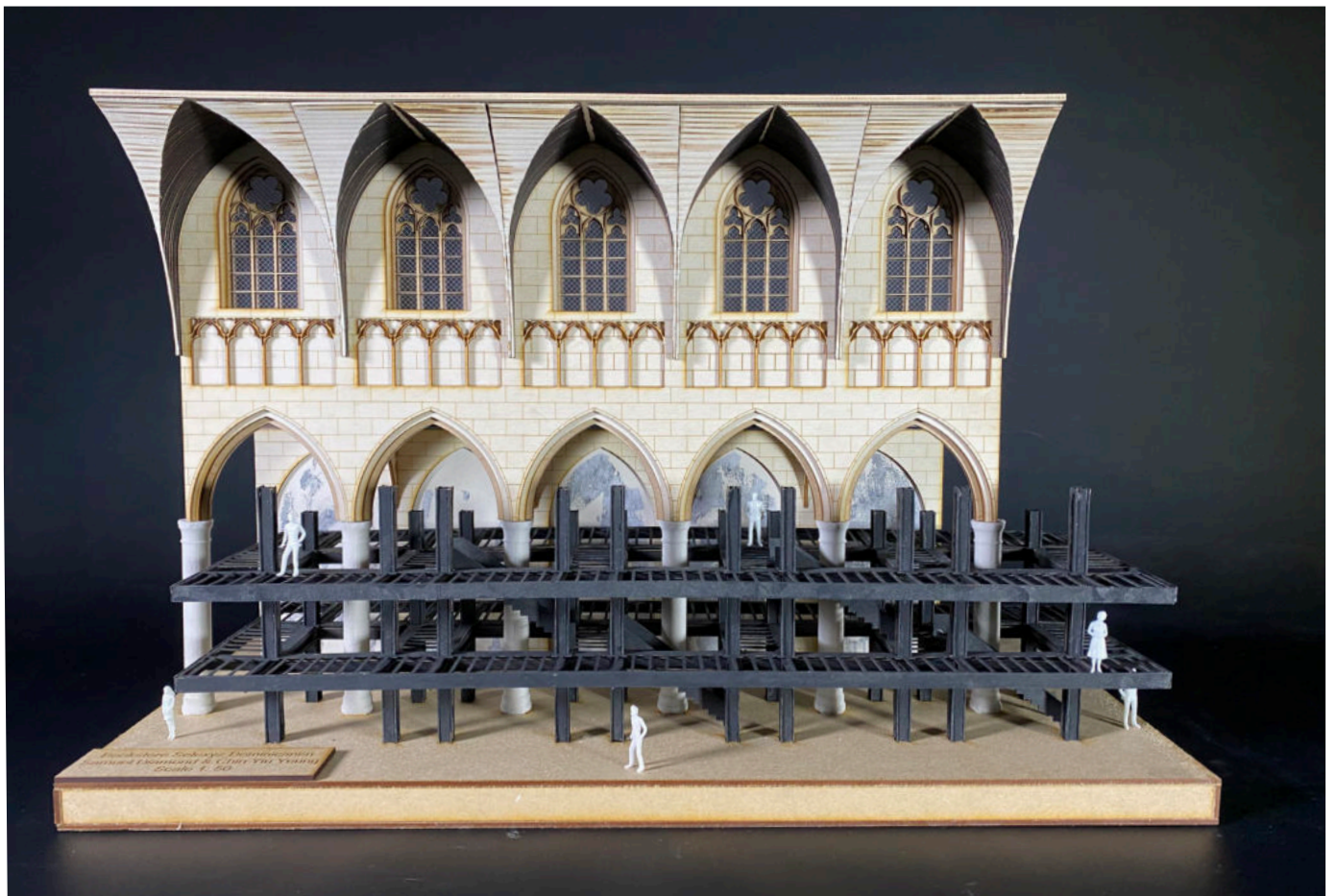


Image 04: Final Model (Elevation) - 1:50

Matthew Stitch & Nazifah Binti Muhammad

Abdullah , Manchester

MArch 1 - Research Methods Workshop: Remember, Reveal, Construct

Project: It Starts With a Kiss: The Tell-the-Tail Detail

As part of this year's Research Methods Workshop, students were asked to reconstruct specific details of chosen existing buildings which have undergone alteration and adaptation for new future use, engaging in research through the medium of model making. Inspired by Marco Frascari's seminal essay, 'The Tell-the-Tail Detail', this project investigates the juxtapositions and junctions between old and new elements, understanding how these details can communicate the original structure's character and convey new contemporary ideas.

As a pair, we investigated the work of the Belgian practice, Architecten de Vylder Vinck Taillieu, specifically focusing on their adaptive reuse project which saw an 18th-century bourgeoisie townhouse transformed into a store for the clothing brand, Twigg. The existing staircase would no longer adhere to fire regulations and so the architects extended the building with a new staircase at the rear of the townhouse. In addition to this, the architects adopted a distinctive approach to conservation, by both preserving and removing historical elements of the structure and providing their own idiosyncratic additions to the existing townhouse.

As a concept for the final model, we took a specific narrow section of the townhouse which would showcase the series of historical layers within the reimagined existing building and explore the themes around conservation. We wanted to explore the variety of textures and finishes throughout the building, as well as the juxtaposition between old and new elements. With this in mind, we experimented with a variety of model-making techniques that would capture the essence of the project - consisting of jesmonite casting, 3D printing, hand/spray painting and laser cutting. The 1:50 model sits on a narrow plinth with a chamfered base mimicking its sectional quality.



Image 01: Full 1:50 Townhouse Model on Plinth



Image 02: Side Elevation of Model on Plinth



Image 03: Close Up Front Side of Model



Image 04: Close Up Rear Side of Model



Image 05: Detailed Layers of Model Visible Through Rear Window



Image 06: Close Up Showing Different Methods of Model Making Finishes

Faizal Akalwaya & Cesar Vicencio Vega

March Year 1 (part-time), MA Adaptive Re-use

Project: FRAC Nord De Pas, Lacaton et Vassal

An investigation into adaptive re-use through model making

The aim of the project was to reverse engineer through model making the design process of an adaptive re-use scheme. Our building was the FRAC Nord de Pas contemporary art exhibition centre in Dunkerque. Listed below are a few key concept elements, extracted through our process of analysing the building.

The original prefabrication shed for making ship hulls was retained as a huge, voluminous concrete mass on the site. This volume was colloquially termed the 'Cathedral' by locals because of its unique, purpose built form and internal gantry. The sounds of the welding process would have bounced and resonated off the concrete shell and its regular column and beam framing, similar to that of a cathedral. This cathedral like form is reflected in the project through the creation of a negative model of the volume inside the concrete shell. The material choice of reclaimed timber with its patina was purposeful, reflecting the tradition of the architects to re-use existing structures.

The approach by Lacaton Vassal in extending outwards to the side with this juxtaposed, light envelope, ETFE and glass clad bubble, firstly allowed for the retention of the historical characteristic volume of the original concrete 'Cathedral' and reframed the focus towards it, and at upper levels towards the sea. Secondly it turned this idea of the volume on its head with the dense interior and light exterior, compared to the original, mirrored in form almost exactly. There are several scales to the volumes inside the extension and propagated into the old frame, facilitating several scales of exhibition, from the personal/ small scale to the monumental. The lightness and several scales of space were reflected in the model through the use of resin and laser cut acrylic portal frames.

As a nod to the use of the building as an exhibition space, we chose to turn the base of the model into a cabinet, for the various process models and experiments we made along the way. The base is clad in laser etched acrylic and reclaimed timber in a way that reflects the facades of the old and new sides of the FRAC building.



Image 01: Manually carving out the volume



Image 02: Casting silicone molds for resin



Image 03: Side panelling and structural grid



Image 04: Resin blocks with different reliefs



Closed



Deep



Shallow

Image 05: Sliding door cabinet of process models

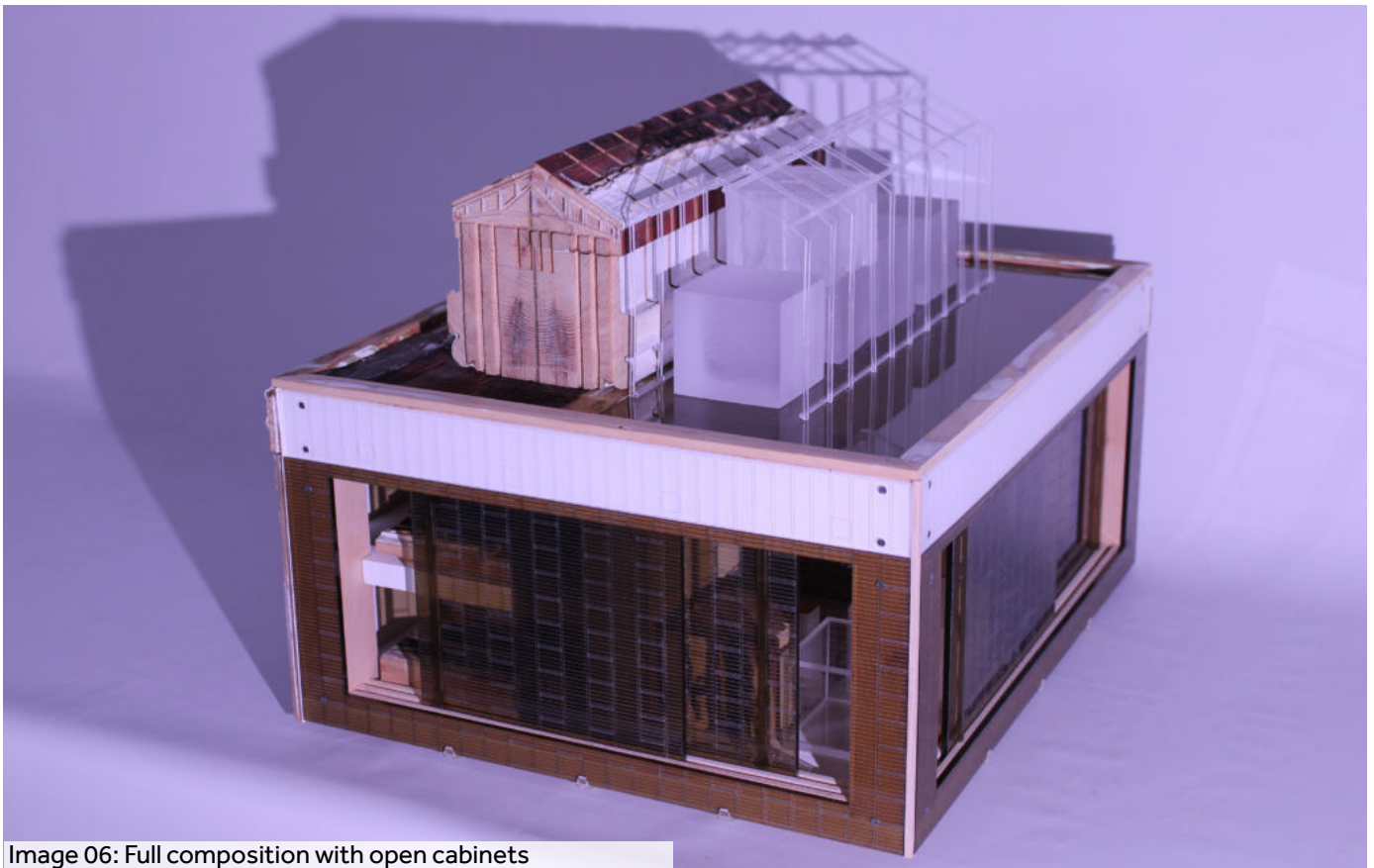


Image 06: Full composition with open cabinets

Xiaoming Dai & Xinyi Li , Manchester

MA Architecture and Adaptive Reuse

Project: City Campus Hasselt University

Remember Reveal Construct: It Starts with a Kiss

The research project is a university campus, however, it was originally a panopticon. The almost 200-year-old building has a restaurant, two auditoriums and former prison cells in the star-shaped building turned into study rooms. We decided to separate the model into old and new parts, the star-shaped prison part is the old building, which we have used coloured acrylic to show; the rest of the new part is the university restaurant and auditoriums, which we have used plaster to represent.

The smooth acrylic and the rough plaster represent the old and the new respectively to create a contrast. The model is divided into three levels, the bottom level is the whole area outside the campus, as the building resembles a small city, 'a city within a city' whether as a prison or a university, therefore we placed the campus bounding walls and some contexts at the bottom level.

The acrylic sheets were laser cut to make the inner walls, the outer walls and the roof. The plaster part was made by making a silicone mould and then pouring the plaster into it, and after drying it was acid washed to reveal the existing uneven surface.

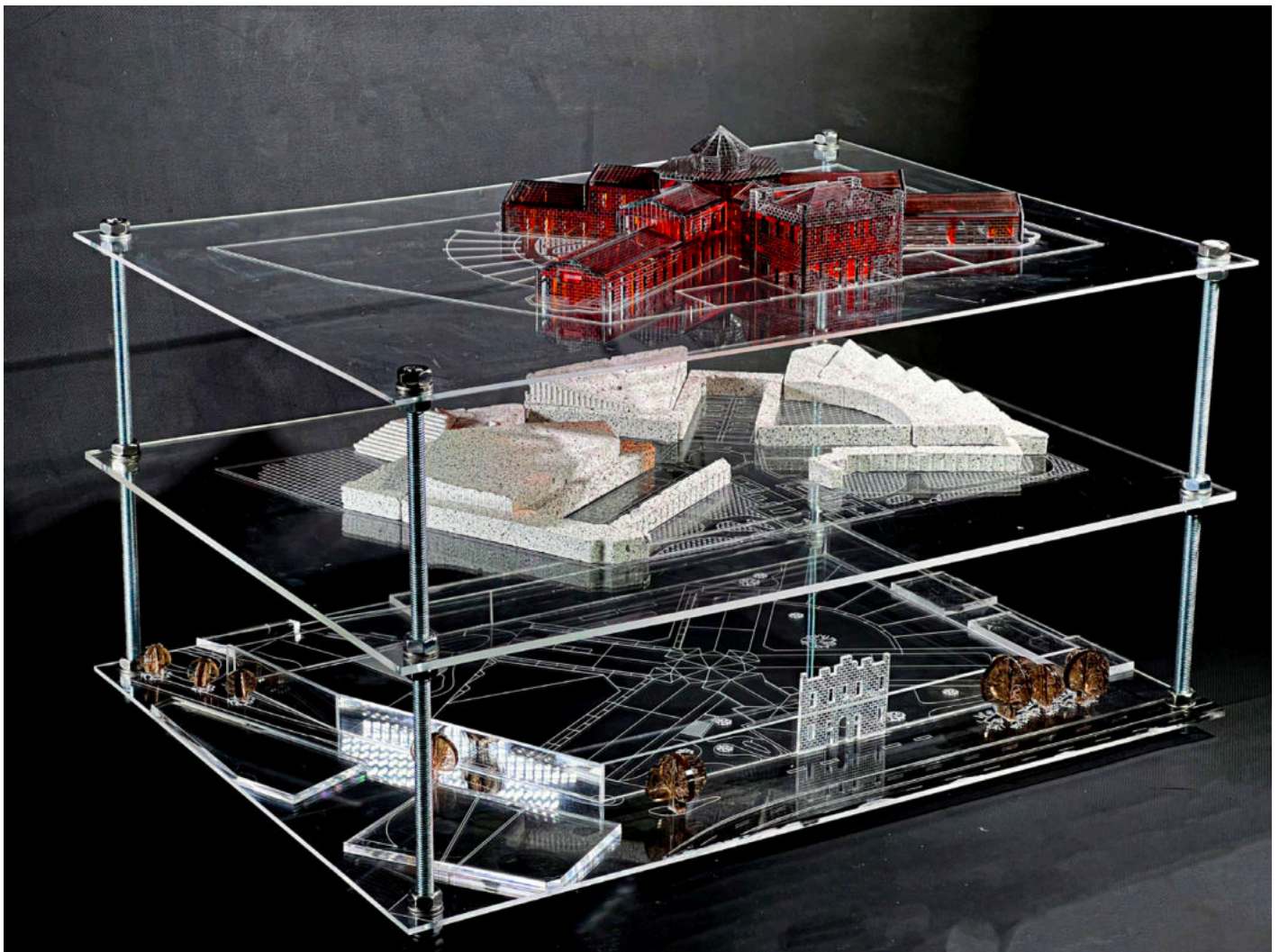


Image 01: Final Model - 1:200

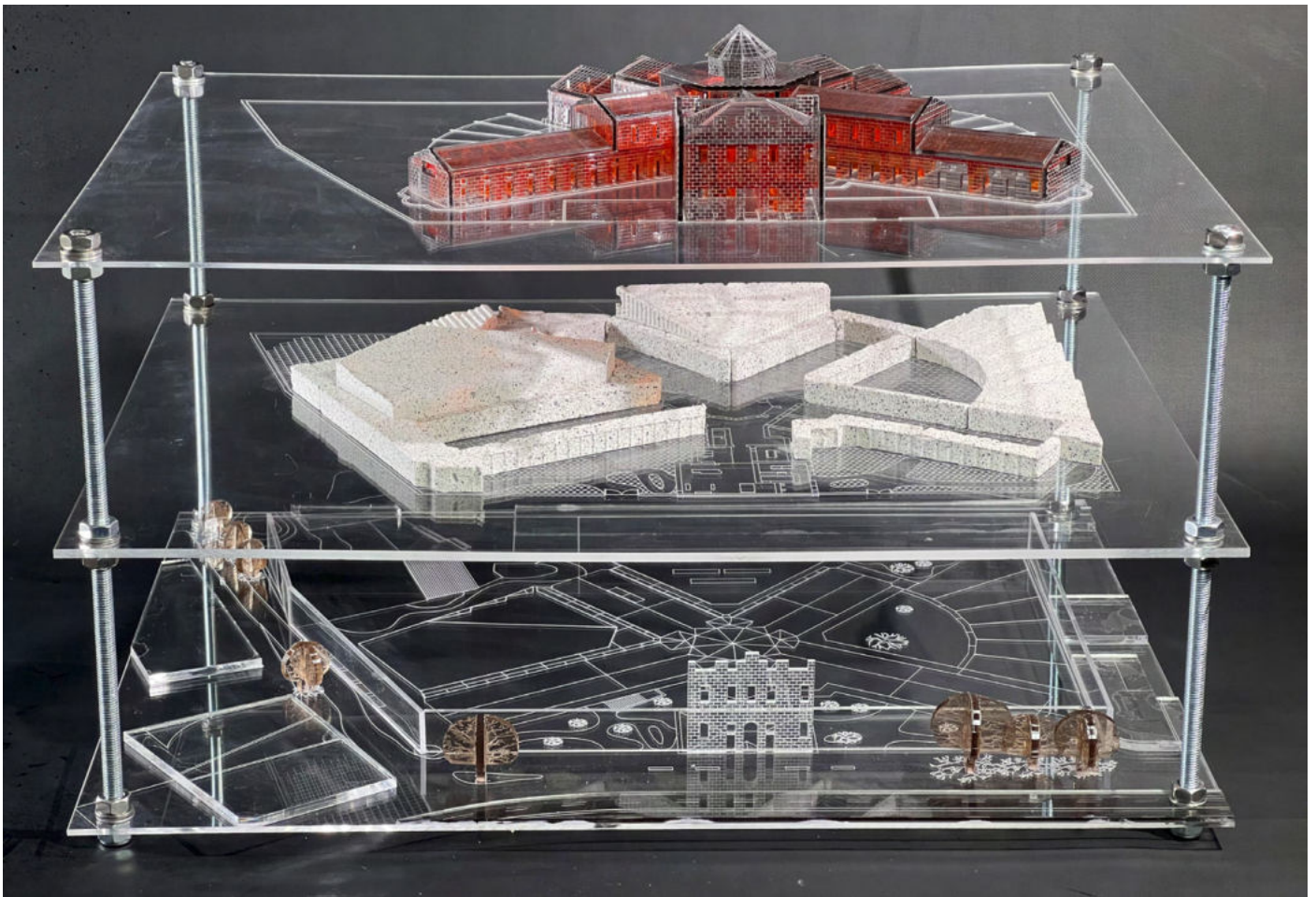


Image 02: Final Model - Perspective View

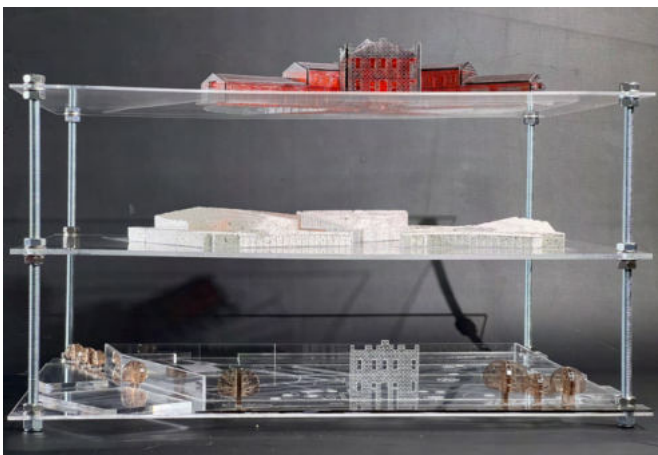


Image 03: Final Model - Front View

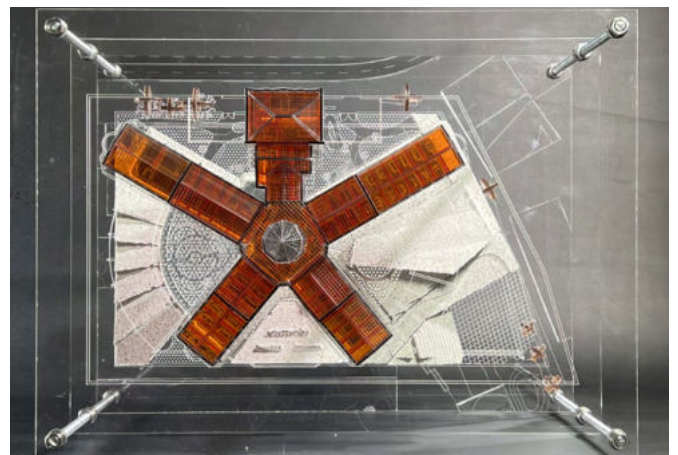


Image 04: Final Model - Top View



Image 05: Making Process -
The plaster is mixed in proportions and poured into a mould made by silicone.

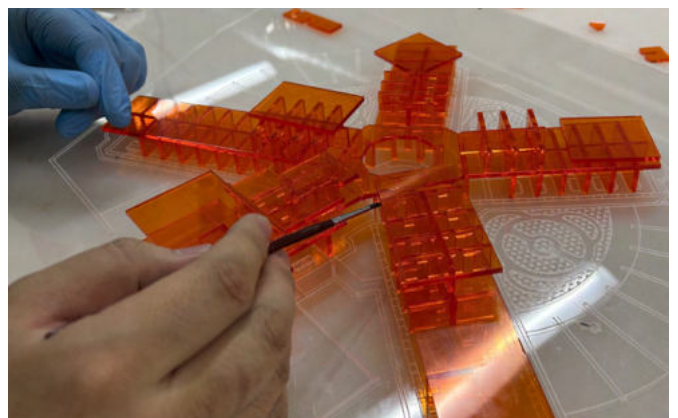


Image 06: Making Process -
The walls and roof are laser cut and glued together by using coloured clear acrylic sheets.

Chris Brierley, Saalim Elhaj, Maria Fernanda, Jiawen Li, Mary Stoddart - Manchester

BA1 / March1 - MSA Live

Project: Birch Community Centre

Our MSA live client, Birch Community Centre, requested a model that could assist them in securing future grant funding whilst celebrating the architectural merit achieved by renowned Mancunian architect, James Medland Taylor. Taylor utilised decorative, exposed trusses with internal brickwork to create a space that should be recognised within Manchester. Therefore careful planning and sensitive re-creation of this space was done at a 1:20 scale, in an effort to capture all the small architectural moments and details. The model came to a total of 1.5m in length and 0.9m in width and a cost of £106, funded by the client.

The model features hand-cut trusses with exact colour-match staining and construction detail. A brick pattern was carried through internally and externally, we laser cut greyboard to gain a brick aesthetic and hand painted onto the greyboard to capture the intricate detailing. This was important as the colour of the brick and floor in relation to the trusses created a unique feeling within Birch Community Centre, therefore it was imperative to replicate this so the community members could recognise the atmosphere of the place when they came to view the model.

Externally the walls and windows have been laser cut and selectively painted to highlight key accents and details. The model features a concealed structure made of MDF offcuts, this served to keep the greyboard walls in place and anchored the trusses to the base. The experience of building this model was very similar to that of building a building. It was a real team effort and the clients were thrilled with the outcome, as were we.



Image 01: Internal View North in model



Image 02: External view north



Image 03: View focusing on trusses



Image 04: Aerial view externally looking through trusses onto brick detailing



Image 05: Internal view focusing on fireplace mosaic detail

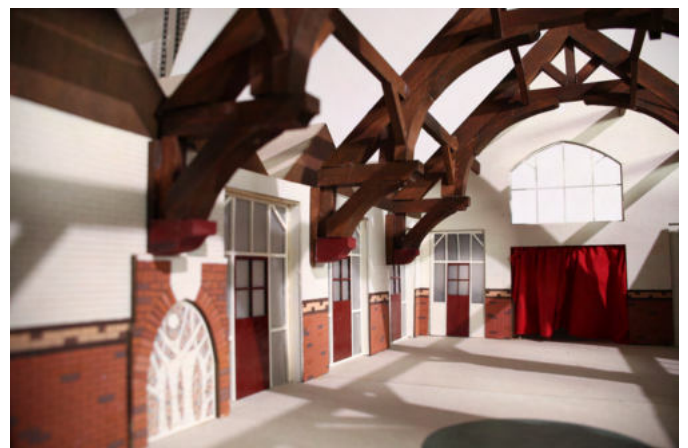


Image 06: Internal View looking South