

Student Submissions Document

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Manchester Metropolitan University



Listed in Year Group Order

BA Years 1-3

MArch Years 5-6 (MArch 1/2)

Anna Loasby, Wales

BA Year 1

Project: Maker Space

A Chinese calligraphy brush factory in Manchester

Where once was the centre of global industrialisation, repurposed warehouses, cotton mills and factories now thrive in the Northern Quarter of Manchester. In a place of such abundant manufacturing heritage and mechanisation, designing a sustainable factory seems very suitable.

My brief was to design a factory building with a selling, educating and manufacturing space for a chosen product. As I grew up in China, I chose traditional Chinese calligraphy brushes because they are classic representation of culture. Regarded as one of 'Four Treasures of Study', these play a very important role in terms of education. With many delicate variations in brush design, they are considered an art-form in themselves - with a complex manufacturing process to produce visually graceful and functional designs.

The purpose of my model is to envision the space holistically. The overall shape of the building is a reinterpretation of Chinese patterns. Individual pods for a range of purposes establish a contemporary twist on traditional Chinese pavilions. It includes patterned wooden screens in place of walls to accentuate the significant role of light. As the sense of community in China is very strong and paintbrush making is collaborative, my design incorporates this concept through a central courtyard and the interlinking of individual buildings. The model functions to manifest these design ideas and realise them. Producing a model which is structurally robust but also artistically expressive and contextually honours the building's functions was a key creative driver. The theme of contemporary Chinese design is reflected through use of light wood with concrete flooring.

In making the model, material simplicity was key to contrast the intricate nature of detailing - patterned shadows created in pavilions. Therefore, balsa wood was the primary material with only the addition of tracing paper for calligraphy pavilions. The tracing paper echoes the transparent nature of openings in carved wood of patterned screens and casts ornate shadow patterns on the floor. As this part of the building has an educational function, the material plays an important role in terms of creating a space to captivate and inspire its users.



Image 01: Design Concept - Initial vignette created to establish key ideas for building design



Image 02: Final sectional model at 1:50 - image taken from cut line



Image 03: Exterior of model



Image 05: Calligraphy pavilion from above - Detailing of screens and shadows captured



Image 04: Bird's Eye view of model



Image 06: Section of calligraphy pavilion - Detailing of screens and shadows captured

Hubert Sokolowski, Poland

BA Year 1

Project: Maker Space

Traditional bakery and more

The bakery fills in the void left between the buildings of Newton Street, Manchester. Consisting of three main spaces distributed vertically, the bakery produces, teaches about, and sells the traditional sweet croissant that is originally produced in Poland. The building's design blends into the surrounding and recognizes the architectural heritage of Northern Quarter with old industrial styled warehouses.

Build around the functional core, the masonry and timber structure of the building was the key element conveyed by this 1:50 sectional model. With very limited access to model resources and a tight budget, the materials used had to be thoroughly considered. To express the timber joists balsa wood cut into long beams was used and greatly improved the load that could be applied to each of the floors, as well as, prevented the walls from collapsing outwards. The material was easily accessible and no machines were needed to cut it, just a sharp craft knife and patience. Balsa wood sheets of two different thicknesses were also used for walls which provided a more natural and inviting feel of the design. The 3mm sheet imitates a simple wood-panelled wall with no insulation, dividing the space into rooms, while the 6mm sheet was used to imitate the load-bearing masonry walls. Most of those walls were cut accurately to fit between the beams which held the pieces upward and confined the use of glue to almost none and allows the materials to be reused for future projects.

The use of a single material for the interior enables to focus on the structure rather than the materiality of the design, while the exterior of the building uses a white card to give the building a clean facade. The white card was repurposed from some outdated calendars found at home and proved to be an easy material to cut despite its thickness. The repurposing of old materials and the use of single material for the interior allowed to convey the idea behind this sectional model while maintaining the resources cost low and accessible during a lockdown.



Image 02: Sectional cut - structural showcase



Image 01: Construction process - beam structure



Image 04: Interior view - wooden joints



Image 05: Interior view - natural feel of balsa wood



Image 03: Facade - white card with balsa wood



Image 06: Interior view - multiple use of a single material

Keng Chi Mak, Macao, China

BA Year 1 - Atelier: Home

Project: MAKER/SPACE

Almond Cookie

MAKER/SPACE was a project about designing a building for a product that consisted of three functions - sell, make, and educate. The site analysis suggested that the site had the potential to be a tourism spot. Therefore, almond cookie, one of the famous souvenirs in Macao, became the perfect choice of product.

A sectional model for this complex could perfectly demonstrate the operation and design of the building. Each floor was an individual piece of plan model. It could help people to observe the functions of each storey in detail. The ground floor was mainly for selling and leisure. On the first floor, there were educating and making spaces. Above it, you could find a rooftop café. The atrium was a design feature of this building as it maximised the amount of sunlight getting into the structure. Besides, the circular shape of the cookie inspired the façade treatment. Since staircase was a highlight in this studio project, the spiral and fire escape staircases were evident to the visitors. The steel wire façade could help to maintain a high exposure and safety of the fire escape staircase.

I had to make this 1:50 sectional model in five days before the deadline because of quarantine and my other submissions. Luckily, the delivery of the materials was on time when I returned home. I printed the plans out for obtaining the shape and dimension of each floor. I chose white cardboard as the main material as it could demonstrate the materiality of this rigid concrete building. However, the cardboard was quite thin. I needed to cut the same piece for several copies and glue them together to get the thickness. Making the staircases was time-consuming because I tested several methods to show the forms of them. For the steel wire façade, I had to glue the metal wires on an acetate sheet to hold them in place and the same order no matter when each floor was separated or put together. Moreover, to get the curves of the circular façade, I cut the cardboard half in thickness for easier bending of the cardboard.



Image 01: Model making process



Image 02: Sectional model - façade (adobe curved façade using white cardboard, and steel wire facade using metal wires and acetate sheet)



Image 03: Sectional model - north-west section



Image 04: Top view of the sectional model - ground floor Image 05: Side view of the sectional model - first floor



shadow pattern

Image 06: Interior of the sectional model - second floor, showing the

Laura Simonsen, Stavanger, Norway

BA Year 1

Project: The Small Scale Factory with Personal Heritage

A Visual Interpretation of a Transparent Manufacturing Process

Located between two Grade II listed buildings in Manchester's Northern Quarter, an area where the architecture is still defined by the Industrial Revolution, emerges a proposal for a small-scale factory.

Hand manufacturing as well as educating and selling a pastry who's origin stems from the hanseatic times and stands in personal connection to German heritage. The factory aims to reflect as well as connect and resurrect the Industrial Revolution of Manchester as well as the Trade Revolution of the Hanseatic City Hamburg, Germany by enabling the visitors and passer-by's to fully oversee and engaging in all processes taking place in and outside the building.

The main aim of making the manufacturing process public is to give the visitors a better grasp of the various steps that go into the making of one product and therefore appreciating the final result even more. Through purposefully exposing piping, mechanics, workrooms as well as visitor circulation will full transparency be ensured throughout the whole building, transforming the structure into a visual living and breathing building.

The aim with this fully transparent model was to empathize the process itself as well as display both a wanted contrast as well as the craftmanship that went into it. My personal aim was to create a challenge for myself, to experience on a personal level the work that goes into handmade products.

The 1:50 sectional model is a take on a downscaled version of the cast-iron skeleton construction method used during the built of hanseatic merchants warehouse districts and has been crafted out of left-over sheet metal as well as plexiglass and metal rods of various thicknesses found in my garage. Whereas the stairs and exterior walls have been crafted out of acetate sheets taken along from Manchester. The components of the model have been cut with a small mechanical handsaw and thereafter sanded down to ensure optimal fit. Due to the lack of soldering tools / materials had the various parts be joined using a non-corrosive silicone rubber glue.

Overall was the manufacturing process of this model highly challenging which as a result makes one appreciate the final product even more, shaping deeper understanding of how much work goes into every handcrafted product.

Image 01: Sketch Process



Image 02: View into the cut side of the building - Sheet metal, metal rods, plexiglass, acetate







Image 03: View from the back side, indicating an adjoining wall - Sheet metal, metal rods, plexiglass, acetate



Image 04: View onto Part of the Front Facade - Sheet Metal, metal rods, plexiglass, acetate





Image 06: Exposed Interior - Sheet metal, metal rods, plexiglass, acetate, foam board, balsa wood, metal wire





Image 05: Displaying Programme (left) and Materiality (right) - Sheet metal, metal rods, plexiglass, acetate (left), plexiglass, foam board, balsa wood, metal wire (right)



Angela Li Lai Ying , Hong Kong

BA Year 1

Project: Kong Brew

An Artisan Cafe

The project is conceived under the theme of "Makerspace", where an abandoned plot in Manchester's Northern Quarter is remodelled according to a chosen product from one's home town. An artisan café, this three-storey structure accommodates the production, retail, and education programme, and is designed for the Hong Kong beverage, Jyun Joeng, a blend of coffee and Hong Kong styled milk tea, representing the multi-cultural background of Hong Kong's colonial history.

Whilst models made in the earlier stages of design helped explore the different methods to embody Jyun Joeng's cultural implications under the site-specific restrictions, this final section model aims to demonstrate the effect of the design's statement staircase against its glass façade. The staircase imitates the flowing form of liquid during the beverage's brewing process, and acts also as a physical metaphor of cultural hybridization as it penetrates through the floors.

The section model is made to the scale of 1:50, displaying both the building's northern facade, as well as its basic material configuration through the section cut. Without access to the model making workshops, the model is built solely from greyboard, acrylic sheet, paper torn from sketchbooks, recycled corrugated cardboard, and recycled foam sheet. Despite the limited material available, a neutral colour scheme and a range of textures are maintained to create visual variation to the eye. Layering is the primary technique employed in the model making process in order to create a more dense and realistic representation of the building's composition. This also allowed a generally cleaner finishing as adhesives are hidden below the surface. Additionally, inspection of the building's interior is made easier by adopting a detachable roof.



Image 03: Section Model Detail - Greyboard, acrylic sheet, corrugated cardboard, foam sheet



Image 01: Section Model - Greyboard, corrugated cardboard, catridge paper, acrylic sheet, foam sheet



Image 02: Section Model Detail - Greyboard, corrugated cardboard, catridge paper, acrylic sheet, foam sheet



Image 04: Stair Detail - Greyboard, acrylic sheet, corrugated cardboard, catridge paper



Image 05 : Stair Detail - Greyboard, catridge paper



Maria Figueiredo, Portugal

Ba Year 1

Project: Make Space

Make, Sell, Educate.

The brief asked us to create a public space to manufacture, sell and educate about a product which is traditional of our hometown. I have chosen the Portuguese ceramic tile, 'Azulejo' that can be found all over the country from building façades to interior lining of multiple palaces.

Azulejos are said to be the reason behind lisbon's striking light qualities due to reflection of its surfaces. As a twist to this, I have created a perforated façade, which projects tile patterns onto the interior of the building as light permeates through it. The intention behind this was to tie in all the spaces together and create a narrative as people walk along the building.

The purpose of the model was mostly to test this effect, which is the main factor of the design, hence, why the section has not been taken through the actual façade itself. The model was hand cut at home using a scalpel and white mount board. The 1mm mount board was quite versatile in the sense that varying thicknesses could easily be achieved by gluing pieces of board together. It is also a material that is quite easy to handle and looks refined and professional.

Image 01: 1:100 Sectional Model, 1mm mountboard





Image 02: Interior view of shadow effect.



Image 03: Image to show how model pieces together.

Maria Sangeorzan, Romania

BA Year 1 Group 12

Project: 1.2 Maker/Space

a) The brief was to design a building for manufacture, sale and education of a specific product from our home country, which reflects our heritage. A 1:50 sectional model of our building was required. The site was on Newton Street, Northern Quarter, between the Hatters Hostel and the easyHotel. What made the site unique was the 'gap' in the Hatters Hostel, right next to the 'Blue tit' graffiti from its exterior wall. This 'gap' was made so the building would benefit from more natural light in the interior.

I have chosen an artisan product, Constantin Brancusi's sculptures, more exactly his study on birds, as a connection to the 'Blue tit' graffiti. The shape of my design is inspired by the display boxes in which the sculptures are placed. The building is quite minimalist, reflecting in this way the modern style of the sculptures. The shapes and materiality of the sculptures reflect and refract light, as a suggestion of the process of constant purification, illuminating the form. As Brancusi said 'Simplicity is complexity resolved', that is why I have chosen a pure geometric design. I decided to make a glass 'box' bridge to connect my building to the Hatters Hostel through its 'gap'.

The sectional model helped me explore the light shadow effects in the interior, especially in the circulation spaces. The reflections and shadow effects are meant to give the impression of a surreal universe, similar to the one Brancusi evokes through his sculptures.

b) As materials I have used cardboard, foam board, balsa wood and thin plastic sheets. I have done each part of the model at home, using a scalpel, metal ruler and UHU glue, because it dries very fast, although it can get messy sometimes working with it. For the wood base I have used a wooden board from the kitchen. A tricky part was to find weights suitable for the balsa wood structure, so it can be held in place while drying. So, I decided to use 'shot' glasses, as the model would not collapse because of their weight.

Words: 343



Image 01: photomontage of the sketch process



Image 02: photomontage of manufacturing process







Image 05: Exterior view of the sectional model

Image 03: outside view through the interior. Interior experience study







Image 06: Bridge view through the interior. Reflection-refraction study

Catalina Marina Persunaru, Romania

Ba Year 1

Project: Maker Space

"Urban traditions"

The "Maker Space" project considered the design of a building for the manufacture, sale and education of a traditional product from our home city or country. The product I chose is a traditional blouse, worldwide known for its unique embroidery.

The sectional model was made in order to highlight the experience a visitor would have both inside and outside the building. It also emphasises the most interesting and dynamic area: the space created in between the two volumes that form the building. It was particularly made to allow a pathway to link both of the streets to which the building has access. The shape created in between the volumes was developed from the one of the column, a traditional symbol predominantly used in the embroidery of the blouse. The staircase, which is the most important part of the model, is the only element that connects the two volumes. It looks like it brings them together in the same way the string is used to sew different parts of the blouse.

It is a 1:50 model made of white foamboard, corrugated cardboard, paper and acetate plastic sheets. Because the scale is big enough to allow the details in the structure to be seen, the foamboard was used to suggest the concrete, the cardboard is the insulation and the paper covers it as the cladding would. The acetate was used to suggest the glass curtain walls.

The nearby buildings had to be added in Photoshop as the site model was inside the studio. The model was entirely made in the accommodation room during lockdown, using materials and tools I would also have at home (cutting mat, scalpel, glue). One of the biggest challenges was the time pressure, as the model had to be finished before leaving the country. It was one of the most important outputs of the project.



Image 03: Structural detail Cladding, insulation and concrete are used in the structure of the building



Image 01: Exterior atmosphere Black and white image of the model, without context or occupation, that emphasises the overall shape and the atmosphere created

> Image 02: Bird's-eye view over the building The perspective shows the building seen from a high angle in the attempt to capture each level.It has occupation and context in order to suggest an accurate use of it.



Image 04 and 05: External staircase

The staircase goes from one side of the building to another, just as if the two volumes were sewed together. It suggests the process of making the traditional blouse.



Image 06: Eye level external perspective The building acts like a linking element in both directions. On one side, it links the two nearby hostels by having the same height for the corresponding levels, continuing their predominant horizontal lines. On the other side, it creates a pathway, defined by the shape of a column, that links two streets.





Robert Petrescu, Bucharest

Ba Year 1

Project: Maker:Space

The building is set in Manchester Northern Quarter, the artistic background suitable for developing a concept for an "invented client", related to my home country.

The product I've adopted for this project is a dress made by the Romanian designer Lana Dumitru, which is a digitally re-construction of a traditional pattern. This unique clothing is conveying a reassuring message: identity and tradition will not be lost in the journey to globalisation. According to the brief, the construction should include manufacturing and design spaces, an area to educate the public about the goods and a private retail place to purchase the product.

This sectional model represents the key in exploring the structure as a whole, the shape and volumes of the building enhancing the physical experience of the design. The exploration of the interior partitioning into ancillary spaces like the reception or the elevators and into specific spaces such as fitting rooms and retail shop helps the understanding of the building design, the routes in and out of the structure, the relationship or sequence of the internal volumes and the vertical circulation within the construction.

Materials like balsa wood are utilized to replicate the thin panels of CortenAZP that are found on the facade. This matter is known for its appealing colour and due to its shape, it produces subtle shadows inside the building, emphasising the minimalist approach of the design. The shadow game represents the focal point of the concept, underlined by the seamless blend of light and dark materials, respectively balsa wood and black cardboard. The shade has been captured in a pitch-black room using multiple sources of light to simulate the actual conditions encountered on site.

The constraints of the challenging period that merely has passed have inevitably led me to use various available resources in ingenious ways, such as designing the desk and stools out of plastic cupcake baking forms or making the changing rooms out of metal cooking sheets.

The model grand scale of 1:100 allows a vivid and explicit depiction of the exterior and interior of the construction.



Image 03: Building side view with light and shadow casting on the nearby construction



Image 01: Side view of the building showing the main entrance, terrace and the floors stacked

Image 02: Shadow of the building casting on the adjacent structure - front view





Image 04: View of the interior plan depicting the retail space with fitting rooms, stands with clothes and elevators by construction

Image 04: People interacting and using the space



Ruben Greyson, East Sussex

BA Year 1

Project: Maker Space

The project brief was to design a space that sold, produced, and educated people about our product, in my case charcoal. I built a 1:50 sectional model that not only presents my design, but also acted as a 3D sketchbook to help me develop my design. I also created a second model for exhibition, with which I decided to convey the character of my design, rather than precise dimensions which I had focussed on in my sectional model. There are four parts to this concrete model, which slot together. The connections between these four parts demonstrate the key pathways and tunnels that I was focusing on in my design.

I used concrete in both models. The concrete mix uses: cement that I had left over from gardening projects; some plaster that I found in a skip as aggregate; PVA and washing-up liquid as plasticizer; and powdered home-made charcoal for added texture and colouring.

Atop the concrete plinth of the sectional model stands the rest of the model. The use of the grey card (salvaged from the back of sketchbooks) enables thoughtful and uninhibited experimentation, whilst also allowing a crisp finished product. Balsa wood (which, I confess, is from a shop), as it is easily cut with a scalpel is ideal for home model making, and in the case of this model is very effective in demonstrating the public walkways in contrast to the private.

The exhibit models were inspired by the sculptures of David Umemoto, who I contacted and received advice from regarding the concrete mix to use. I used insulation foam that I found in a nearby skip to create a negative mould. Without a workshop I had to improvise and slowly problem-solve how to piece together the moulds. Through a series of test casts I determined a mix that was strong and then replicated the ratios on a larger scale in the final cast. I used Vaseline to lubricate the mould so it would easily separate from the cast.



Image 03: Sectional Model **Concrete Base**



Image 01: Sectional Model Both Parts, concrete, grey board, balsa wood, tracing paper

Image 02: Exhibit Model View from above of all the four pieces Concrete





Image 05: Image 06: Exhibit Model Exhibit Model Connections between the pieces; bridges, ramps and steps Individual piece - sculptural and interesting in its own right

Image 04: Sectional Model 'Public' and 'Private' sections standing apart

Enrica Agus Klümper, Luxembourg

BA Year 2

Project: Homes

A live/work social housing scheme designed for single-parents families threatened by homelessness

'Homes' came to life as a reaction to the housing and homelessness crisis in Manchester. As a result of increasing rents, more and more lower-class people experience a loss of private rental tenancy. Even though many new high-rise developments are taking place, little attention has been given to house the less fortunate. Single parents are particularly affected by a constant state of instability as they have dependent children to care for. Homelessness is not just about living in the streets. Many single parents and their children are placed in temporary accommodations that never become their 'home'. Consequently, it becomes very difficult for them to create connections with their surroundings. 'Homes' is all about creating a community where people are invited to interact and help each other. It is also an attempt to adapt to a possible post COVID-19 reality where more people will work from home.

Making the models enabled me to visualise the connection between the living units and the outdoor areas. I was then able to bring more 'life' and playfulness to the model with the use of Photoshop. The model allowed me to pass from twodimensional architectural drawings to volumes that felt more tangible and real. The interactions between the residents and the site were easier to show by virtue of the model.

Due to the current global pandemic, I did not have access to the workshop nor to shops. Therefore, I only had leftovers from old projects and 'stuff' laying around to work with. I initially did some test models using gelatin, water and food colouring to better understand the levels of privacy I wanted to achieve in the houses. The gelatin enabled me to replicate the look of clear resin. For the 1:200 'final model', I used an old Amazon parcel to build the base of the model and show the different levels within the topography. The corrugated cardboard was then partly painted, covered in moss and sand. The houses and communal buildings were made out of black and grey card for the walls, acrylic sheets for the windows and moss for the green roofs.







Image 3,4,5 & 6: Photographs of the 'final model' with sketches and images added on top to give life to the model in 4,5 & 6.

Saul Bunyan, York, UK

Ba Year 2 - Group 3

Project: Live/Work Units in Mayfield, Manchester

2.2.2 Final Model

The model shown in this submission is the final output of the second semester's project. The brief asked for the design of 8 residential units suitable for living and working; reflecting the contemporary work environment of many people across the country. The finalised design of my units were two reflected rows of four homes, over three storeys; featuring spacious rooms and storage, and flexible working spaces. The buildability and technical specification of the design were to be considered loosely throughout the whole semester, with the final output (the model) clearly defining spaces and structure. Uniquely to this project, the structure was designed alongside the material selection for the model, with the versatility of materials and the available model making material dimensions partly informing the building's structure. By constructing a model, I am more aware of the internal structure of buildings, and how by considering this at an early stage in a project, design issues are resolved before the project concludes.

Due to the early end of semester 2, the whole model had to be constructed at home using materials able to be cut with a scalpel. For this reason choosing appropriate and versatile materials that also reflected the desired structural build-up took longer than usual – ultimately deciding on main materials of foam core board, cork, mount board, and balsa wood (representing brickwork, insulation, finishing surfaces, and timber, respectively).

The model is made at a scale of 1:20, standing at 680mm tall with a base of 300x300mm. This scale allowed me to make and handle the model more easily as well as including more detail than 1:50 would, such as a more defined wall build-up and brickwork details. Foam core board was used for the external walls so that I could score in the brickwork – something a laser cutter would have been used for if constructed in the workshops. By constructing the model at home, it has developed more character in its slight deviations, allowing light to interact in unique ways and giving a rougher, more tactile finish. Image 03: Sectional Model: Materiality and Light Analysis at Ground Level





Image 04: Sectional Model -South and East face Foam core board, cork, balsa, mount board and PVC



Image 01: Initial process sketches



Image 05: Sectional Model - Work Space Focus Foam core board, cork, balsa, mount board and PVC



Image 02: Sectional Model -North and West face Foam core board, cork, balsa, mount board and PVC



Image 05: Sectional Model - Balcony Focus Foam core board, cork, balsa, mount board and PVC



Aariz Raza- USE year 3

Project : Pomona Island

Developing spatial strategies that explore the nature of Pomona island in Manchester.

Material -Concrete and timber.

Material used in modeling -Foam board, cardboard and wood .

The site I worked on is a part of a bigger landscape space. My strategy was to utilize most of the nature and design a learning hub for the people of Manchester. Going thought an intensive site analysis ,historically Pomona Island was a celebration island with an industrial side of it with the Manchester ship canal. My site lays in the center of the site and facing towards the canal itself. Its main purpose is to educate and inspire users about plants and the impotence of nature its an educational hub for kids to teach them about plants and display the best of works in the art gallery.

This sectional model shows the spatial and material characteristic focusing on the kid's workshop area on the ground floor and the teachers/ staff area on the first floor. This model is made at home with foam board, cardboard and with the edges of the window of wood .Double laying up the exterior walls provide thickness and the addition of fall ceiling in the model gives a realistic look and depth.

I started with building the concrete columns which are made of cardboard and then cutting out the windows and adding depth to them by sticking wood around the edges of the window. I made the balcony separate and added it later.



Image 3 Details showing the thickness of the walls and the window.



Image 1 Staircase cut detail with the staircase leading to the staff offices.



Image 4 Sectional East side showing two stories with a balcony facing the courtyard.



Image 6

Fall ceiling making in process.





Image 5 Concrete columns made of cardboard.

North elevation showing the staircase and windows .

Alicia Desmay Hernandez, Spain

1:50 sectional model final images

BA Year 3 - Atelier: Continuity in Architecture

Project: Celebrating Shrewsbury's Architectural Heritage

A library as a place of engagement

This project celebrates Shrewsbury's landmarks by establishing a connection between the building and its surrounding context. Located within the city's Quarry park, the library's stacked mass creates a height variation that maximizes views to the nearby Quarry park and St. Chad's Church, two of the city's main points of interest. The cantilevers frame the vistas towards the surrounding park and create a sheltered space on the ground floor that allows the library's programme to spill outside and engage the public. The building's façade manifests Shrewsbury's architectural heritage by mimicking the elements of the city's Tudor buildings. The pattern incorporated on the upper floors becomes an integral part of the library's interior programme, allowing users to "sit" within it and enforcing the idea that a library is a place of engagement rather than a repository for books.

During the last 8 weeks I made two models at two different scales (1:50 and 1:500), helping me think of the design in different ways. The 1:50 sectional model allowed me to visualize the interior qualities of the space and explore how light filters inside and creates different shadows according to the façade's pattern. This scale was important for me to highlight the interior finishes and the relationship between the exposed steel structure and the inhabitable façade. One of the main challenges I faced when making this model was making sure the cantilevers would stand up, since their weight initially tipped them forward. To solve this issue, I placed rocks inside the core, which allowed me to shift the centre of gravity form the front of the model to the back, allowing it to be stable (as seen in image 2). On the other hand, the 1:500 model allowed me to represent the proposed library in its existing context and show its relationship with the nearby park and church. In this model I also show the proposed viewing tower on another part of the park, and the pedestrian circulation across the site.

Both models were entirely hand-made out of balsa wood (which I ordered online), grey board and cardboard (which I had at home). Being at home with limited access to materials and tools made me think of unique ways in which I could use everyday objects for the construction of my model. For example, I reused the cardboard from old boxes and used clothes pegs and books to join pieces together and glue them down. I also used a nail file to sand the pieces since I didn't have sandpaper at home.

1:50 sectional model process images



Image 01: To make the parquet I cut rectangular pieces of balsa wood and individually glued them to the carboard floor. Once this was done, I used a nail file to sand the floor and make it smooth and even.



Image 02: I placed rocks inside the core to make the back of the model weigh more than the front, which allowed the cantilevers stand horizontally straight.



Image 03: Exterior image of proposed building showing the cantilevers and inhabitable Tudor-style façade pattern incorporated on the upper library floors.



Image 04: Interior image of the library's 3rd floor with photoshopped exterior view of the surrounding park.

1:500 model



Image 06: Model showing the relationship between the proposed library and its surroundings; including the park, church, and a proposed tower that incorporates the same pattern as the library. It also shows the pedestrian circulation around the site (shown in black string).

Image 04: Interior image of the library's 4th floor with photoshopped exterior view of the surrounding park and church.

Catalina Nicoara, Manchester

BA Year 3 - Atelier: & rhcitecture

Project: Withington Co-Housing

Looking to make a sustainable choice for the fabric of my co-housing project, I have initially preferred a CLT structure, which I have had the chance to explore through modelling in the workshop.

However, due to further during-pandemic design development I have decided to switch from CLT to a timber-frame structure that would allow cantilevered beams to support the external walkways of my apartment blocks. In order to better understand the spatial implications of this change and how the new structural members will affect the spacing of openings in my design, I have decided to realize a structural model of one of the studio apartments in my proposal. Being trapped by the early-day borders closure in my student accommodation, in Manchester, I had to try to work simply with the materials and tools that I had around my room. Finding some leftover balsa wood for an older project, I had to try to work very economically on my model, risking of running out of material. I then decided that a 1:50 representation of the studs, beams and joists should offer me the information I needed whilst not consuming more material than I had. Wanting to experiment with the roof structure from a flat roof to a pitched one. The structural elements have been simply realized with a scalpel and cutting mat, and put together with wood glue and a few pins. The photographs are realized on the front porch of my house, in natural light, with the white background of a bed sheet.



Construction diagrams



Image 01: Studio apartment with flat roof (balcony elevation)





Image 02: Studio apartment with pitched roof (walkway elevation)

Image 03: Studio apartment with pitched roof (balcony elevation)

Frankie Geyerhosz, Leeds

BA Year 3 - Atelier: CiA

Project: The Shrewsbury Library and Horticultural Society Centre

This project summarises the design of a library and community space on a site within The Quarry Park in Shrewsbury. The area has a particular historic relevance through the surrounding listed buildings, therefore a contextual approach to design was taken. The main building includes a central courtyard, to encapsulate a small area of the park within the library, behind the perforated facade. The extension of the library at the back became a complex entrance corridor, entwined within the existing plan and surrounding buildings, (including the horticultural society head quarters). The corridor reflects the narrow alleyways found around Shrewsbury, it is enclosed at some points, then opens to reveal small landscaped gardens curated by the horticultural society. A small 'outpost' building was configured within the corridor to house a small educational centre and seed-bank, to foster education about horticulture within the community. The purpose of this model was to showcase this horticultural aspect of the design and the configuration of the landscaped areas within the courtyard and corridor.

These diagrams depict some of the concepts which drove the design of the library:



The model was created with both a 3D Revit model used as the template for dimensions, and a SketchUp Model used as a template for the topography of the base. Grey-board was used as it is more malleable and easy to cut by hand. This model is 1:200, originally an A1 base was cut in the workshop; as the project took a contextual approach, more context should have been included. However, without the workshop a more manageable and affordable A3 size was adopted. To allow the glazed façades to be expressed, translucent acetate sheets were included. The assembly was fairly simple, the pieces were cut by hand and gradually grouped into glued units, then the units were glued together, and glued to the base. Trees were formed from wire and coloured sponge, small holes were drilled into the base and the trees were placed in. An LED strip light was glued within the building.



Image 01: Showing how the geometries within the library interact with the park topography.



Image 02: Perspective showing the narrow, deepset windows punctured through the thick walls.



Image 03: Showing the narrow entrance of the corridor.









Image 04: Perspective showing the landscaped courtyard.





Image 05: Showing the courtyard being used for evening events, such as outdoor theatres.



Image 06: Showing the landscaped gardens and how the 'fortified' walls interact with the corridor.

Isobel Currie, Shrewsbury

BA Year 3 Atelier: Continuity in Architecture

Project: A Continuation of the Street

The New Shrewsbury Library

Shrewsbury Council were in need of a new library on the edge of their evolving town. The new library was to be an introspective and meditative space appropriately responding to the three-dimensional nature of the site which included a sloping parkland and direct routes from the town. The East Entrance to the Quarry Park in Shrewsbury was previously where the towns central axis ended abruptly, leaving the south corner of the park unused. Through making a 1:50 development model and 1:100 final model I was able to show the overall form and atmospheric qualities of my proposed building strategy and how the new library proposal allows for a continuation of the town into the park. This was achieved through emulating the winding streets and roof profiles of Shrewsbury, whilst understanding how the building sits within its topographical context and allows light to travel through to the interiors. I chose to make each model at a larger scale so I could integrate sufficient detail which I believed to be crucial in communicating my proposal.

Throughout the design process, I have used model making to resolve issues within my design, communicate my ideas and discover the qualities of space I had not intended. I was able to illustrate: the internal spatial variation, lighting changes on facades, contact between the architecture and the external environment, the links between building interior and exterior space corridor, the core areas of the building and textural qualities of the proposal. The imperfections of the model are what gave it it's atmospheric qualities, illustrating the craftsmanship of the calibre required to build the building.

I had previously been intimidated by the possible complexities of model making, however, the simplicity of materials and lack of access to workshops gave a new perspective in which I could build my confidence as a model maker, whilst utilising materials I am familiar with. For both the development and final model i used the same materials and techniques to help achieve the desired effect. There were imitations to the construction of both models, including the intricacy of the window shading, which i edited onto the final photos of the model. However, the combination of the model and 3D editing achieves a balance of detail and physical representation.

My first development model was of a 1:50 section of a corner of my building, used to convey the materiality and lighting effects of the buildings form to show the manipulation of light into the interiors. By physically experiencing the atmospheric qualities of the model I was able to appropriately alter my design and take elements of it to use in my final model.

4mm greyboard

- scalpel to create facade detail and cut board
- watercolour paint to emulate concrete pigment
- Plywood for wooden floor slats
- recycled corrugated board for topography
- plastic wallets for windows
- **W** UHU glue to stick together



Image 01:

Section model showing the relationship between exterior and interior spaces.

Structural strategy of the cantilever and shadows Interior view exemplifying how the structural created by the botanical window shading.

beams allow light to travel into the building.



Image 04: The North-East Elevation

enter the library. The pink pigmented board form responds to the materiality of the surrounding town, with the motif of the park gates replicated within the shading panels.

Image 05:

Elevation West

The West elevation illustrates the libraries conglomeration of individual buildings and how its profile emulates that of a street which traditionally has a collage of forms. By including the topography, the model also demonstrates the integration of the library into its surrounding context.



Image 06:

Elevation South-East

The South-East elevation illustrates the approach from neighbouring Church. By scoring greyboard i was able to emulate the panels of the concrete mould which are arranged analogously to the vertical joints on the concrete surface, expressing the structure whilst creating scale and depth of the facade.



The final 1:100 model illustrates the view of the library as you enter from the park. The central staircase as a route to the town encourages people to

Lada Leidmane, Riga, Latvia

Ba 3 - Atelier: Continuity in Architecture

Project: Shrewsbury Library

This is a corner 1:50 model for the proposal of a Library & Council offices in Shrewsbury, which shows the atrium with the main entrance and circulation. The aims of making the corner model was to investigate the transition zones of the façade, understand the structural system and test the proposed design and scale.

The model explores an idea of load bearing structure and weather protective layer separation. The goal was to make the grand building appear light, airy and natural, not overpowering the existing context of the park. Vertical timber elements are also a reference to the existing timber Tudor revival architecture on the site.

Materials: timber sticks, grey board, plastic, different types of card, galvanized steel angle profile (cut to make column knife joints), wire, sea sand (as pea gravel under the paving), PVA glue and a glue gun to stick plastic elements together. The key elements of the proposal are timber columns on steel knife pads, therefore it was important to use actual timber and steel. The greybeard represents concrete structure of the basement floor.

Walls and floors consist of different layers: slab, insulation, floor/ceiling finishes, raised floor etc, which in some parts are completely hidden in the end, but making those elements stimulated thinking, decision making and enhanced understanding of the project. Thing like pea gravel (made using sea send) under paving, or underfloor services was made to recognize the concealed part of the building. Modelmaking process allowed to look at the Library from the point of the builder and revealed some structural/design issues which.



Image 03: Making process and details







Image 05: Connection to the lecture hall, storage room and corridor on the basement floor

Image 01: The staircase

Image 02: Timber structure



Image 04: South facade with the timber colonnade



Image 06: Sectional perspective showing a cut through all 4 floors.

Louis Joseph Dunphy, Manchester

Ba Year 3 - Atelier: &rchitecture

Project: Southway Withington

High density social housing

A) An answer to the UK's housing crisis is a scale of social tenure home-building that requires sites such as the one in Withington to be pushed to its density limits. The scheme in Withington learns from the unsuccessful high density monotenure estates of the past, where social tenants are isolated from a broader community of higher agency, and then expected to live harmoniously in a communal arrangement. Permeability of the site encourages social integration to draw higher agency private rent tenants though a community of lower agency social rent tenants to reach communal nodes such Wilmslow rd Highstreet, old moat park, and the attractions within the scheme itself. The treatment of in-between space became very important in creating a public realm that a larger community would want to visit. Separate to this permeable public realm exists clusters of communal space exclusive to tenants. these areas provide tenants with their own space and allow for more intimate, neighbourly interactions. It is also recognised that antisocial behaviour effects residents more at high density living, therefore the urban design should not force interactions between those with negative relations but should still allow positive or indifferent encounters to be made.

B) The first model was completed prior to the Covid-19 quarantine but was made almost entirely by hand. At this point in the project design was still relatively loose and was concerned with the urban arrangement of residential blocks and the mixture of communal and public realm between them. This project included my first attempt at urban planning, modelling became extremely useful in confirming if or not the desired spatial effects of moves made in plan were actually achieved in this unfamiliar way of designing. The two following models were made mostly after the COVID-19 quarantine at a point in the project where most of the design had been completed. They were made more as presentation models and became effective in conveying a clarity of spatial arrangement in-amongst a high-density scenario. This clarity was more difficult to maintain in drawings hence these models became some of the key images in my portfolio.



Image 01: 1:200 working model exploring the urban design of a portion of the larger masterplan. A plywood base was cut in the workshop. Hand cut grey-board was used for context, hand cut cartridge mount-board for the new build residential.











Image 03: 1:100 presentation model showing the communal centre and its relationship to the dwellings, their private gardens and the communal circulation for flats. Entirely handmade using varying thickness's of grey board and balsa, and red paper.



Image 04: The same 1:100 model showing the relationship between communal spaces exclusive to tenants and the public realm accessible to the larger community. Complete with a cafe and communal planters.





Image 05 + Image 6: 1:20 sectional detail model showing the construction of the wall to floor slab interfaces for three flats. External walkways leading to the entrance of separate flats highlight their relationship to the windows of the sectioned flats. Plywood was used to represent structural CLT and was manufactured in the workshop prior to lock down. The rest of the model was made at home using primarily a combination of corrugated card, balsa and grey board.

Maira Tini, Manchester

BA Year 3 - USE:

Project: Pomona Island's History, Art and Nature Centre

Representing the past, present and future through ground strata

Pomona Island is perceived as a wasteland. Not many know of it's hidden beauty; an island rich with biodiversity and history. In this project, Pomona Island's biodiversity is conserved by locating the area with the least flora diversity and limiting the area of intervention. In order to celebrate its past, present and its potential for the future, a Centre for History, Art and Nature is proposed in order to represent Pomona Island in these three periods of time. Adhering to the concept of layering "time", it's programmes which represent the site's past, present and hopes for the future are represented through ground strata. The sectional model demonstrates the concept of "layering time" through ground strata by revealing the underground, ground level and elevated structure(terrace). The model can be disassembled to show the interior spaces of the building and to exhibit the open-air atrium that runs from underground to roof level. It also displays the relationship between each level of the building and the harmonious relationship between two contrasting materials; concrete and translucent polycarbonate facade.

The exterior walls and roof of this 1:200 sectional model was concrete-casted in order to show materiality. This process involves creating moulds using foam and mixing the correct proportion of concrete powder and water. The other elements of the model are made out of grey board and tracing paper. The grey board represents the building's concrete structure and the tracing paper represents the use of translucent polycarbonate facade. These are affordable materials which can be cut and assembled at home. The interior partitions are carefully assembled with thin grey board to show realistic interpretation of the history, art and nature centre.







Image 03: Interior Partitions on Each Level

Grey board represents

concrete structure



Image 01: Concrete Casting Process



1st Floor

Ground Floor

Underground



Nina Pjevac, N. Macedonia

Ba Year 3 - Atelier: Flux

Project: Wasted Landscapes

Reclamation, phytotreatment, and new avenues for public engagement with trash

Currently, I am working on my thesis project and I am part of the Atelier Flux. Flux is about establishing a state of change at Irk Valley - located at one end of Manchester's city centre that extends out to the periphery. The area that once was heavily industrialised with cotton mills, and was densely populated with workers housing, today is overgrown suggesting the possibility that Irk might remediate Itself. Flux is an atelier with great awareness of climate change, environment and social sustainability, which perfectly aligns with my own beliefs and values. Hence, my thesis includes design and research of a waste-to-energy-plant located underneath one of the heavily contaminated hills at Irk Valley - that would digest and remediate the contaminated land as well as, its program would be delicate enough to include the community into the learning process of how one place can be remediated.

Since the building is located underground, model making helped me through my design development as well as representing the interaction between the underground and the overground part. The whole project consists of an underground wasteto-energy plant with an office emerging from the hill and overlooking a bamboo forest. The overground is simply an urban park with an integrated gas and leachate collection systems. What distinguishes the plant to the surroundings is the 80m tall chimney that is planted with vegetation. The vertical forest will create a vertical environment/park inhabited by birds and insects, however, will be accessible to the public by predetermined climbing routes and platforms from which one can observe the Manchester's skyline.

The sectional model is completely hand made at home - the topography is layered up cork, while the plant is made out of balsa wood. The chimney is made out of spongy phenolic foam (used in flower arrangements) and the plants are simply pinned onto it. The same technique is used in the bamboo forest - the collected plants are pinned to the cork creating a narrow passage - the bamboo walkway. Originally, the river was meant to be out of acrylic resin, however, taken the circumstances, river Irk is represented by toothpaste.







Bamboo to office perspective



The wamboo walkway

Embedded into Vauxhall Gardens

The bamboo walkway & the plant/Interaction

Paula Bruvere, Latvia

Ba Year 3 - Atelier: Continuity in Architecture

Project: The new Public Space in Shrewsbury

Public square with a library, council offices and a watch tower

The New Library re-imagines the functions of a 21 C library, which is no longer a place that just deposits books. The new library is an extension of the public space which is explicitly shown in this design as a continuity of spaces starting from the streets of the town, to a new public square which extends further into buildings. A ramp leads visitors directly on the roof of the office building and the library top floor extends into a terrace, both of which offer another viewing platform to observe events taking place in the square. Inside of the buildings, however, calm views to the park and private spaces offer serenity and the specific atmosphere for reading and learning which I believe is the primary quality a library should possess to exist in the age of technology.

I made this 1:500 site model to show how the newly developed buildings sit in the city landscape. On the one side it faces the busy old town of Shrewsbury, whilst on the other the vast, open Quarry park to which the facades respond accordingly. One of the primary aims since the very beginning of this project was to create a new public space that the city currently lacks, so the central space in this project could be considered the public square in between the buildings that also works as a transition space between the busy (city) and the calm (park).

Everything is made out of the most basic materials: buildings made from some thick white paper and the base cut out of greyboard with a scalpel. A sketch-up model with precise measurements was made beforehand and used to print out templates. Buildings were made by folding the printed paper layouts and sticking 1 edge with a double-sided tape to avoid any glue stains. Then the buildings were 'sunken' in the base layers, where building plan profiles had been cut out using templates. Finally, trees (dried flowers from the local meadow) were placed in the punctures, created by careful nailing.



Image 01: Process: use of templates to create paper layouts that are folded into buildings



Image 02: Model from the side, showing the landscape of the site



Image 03: Site model from above: the relationship between the park, the site and the town



Image 04: A close-up of the proposed new buildings. Folded out of brown paper and hand painted with a pen.



Image 05: Key views approaching the site: 1) from the old town; 2) from the park; 3) daily entrance from car park





Image 05: Aerial view showing the context of Shrewsbury and the relationship between the new tower and St. Chad's Church tower.

Sandra Janik, Manchester

BA Year 3 // Atelier: Infraspae

Project: Lene Campus

UTRTC Building (Upcycled Textile Reseach & Testing Centre)

The Lene Campus is based at the border between Ireland and Northern Ireland in a context of a hard Brexit. This will inevitably spark a political conflict and any form of the infrastructure placed on the border will strengthen the differences between the two countries. The project aims to reject seeing the border as a division typology but rather a tie which can be used for economic and environmental benefit. UTRTC, is a facility responsible for testing, storing, and improving the textiles manufactured from upcycled plastic bottles. All processes which involve bottles in a state of waste are based in buildings in Northern Ireland and then processed into textile products in Ireland at 0% tax when passing the border. This way the profits are maximised. The concept of the façade was delivered through an exploration of the textile making process. It is a combination of the weaved textile pattern and a melted plastic water bottle shape. It is a futuristic concept that challenges our present beliefs about social divisions and attitudes towards a warehouse typology, often associated with a "steel box".

The structure is a 'box in a box' concept where the interior walls are separate from the overarching space-frame pavilion. The building can be stripped down, and its programme adjusted to the needs of future users. The model is a 1:50 scale exploration of the spatial effects of the suspended mesh ceiling which aims to open the structural components of the building to its users. By placing the lights inside the ceiling rather than below it, space becomes more atmospheric and shadows become textile-like. Polystyrene rods have been welded together using plastic weld cement at a perfect angle to create space frame components which then could be joined to form a stable shape. The model highlighted some of the key issues which I had not considered in the 2D format e.g. The depth of pile foundations. Placing scaled figures inside the model brought it to life as the shape is so abstract. It was an interesting improvisation modelmaking process as the components did not require heavy machinery to cut.

Image 01// Process images from cutting of the polystyrene rods to adding final mesh









Image 02// Final Model



Image 03// Final model; zoom into the structural parts



Image 04// Final model; Top perspective

human scale





Image 05//Final model; Focus on relationship between structure and



Image 06// UTRTC Building// Transverse Section// 1:500 on A2

Toby Goldsmith, Hampshire, UK

Ba Year 3 - Atelier: Continuity in Architecture

The Quarry Centre for Literacy, Shrewsbury



Image 02 1:50 Sectional Model Library and Council Offices Balsa, Piano Wire and Plywood.

Building the models whilst in guarantine limited my access to suitable tools and materials however I found the process potentially more educational as it forced me to think deeper about the different issues, junctions, joints and materials used. The solar shading and balcony balustrades in the 1:50 model were particularly intricate and would have benefited from being laser cut as this would have saved a lot of time and been much more accurate. I had to be creative with the materiality: the glazing is made from a paper wallet folder, the base was originally a slate roof tile until I managed to clad a biscuit tin to add some depth to the foundations of the model. I have tried to produce a range of scales in my model making to give me a thorough understanding of my proposal from the smaller details and thresholds to overall forms of the masses and interior spatial qualities.



they had between one another.

own unique space.

A re-imagining of the edge of town, the project contextually nestles between historically significant buildings and a park which helps to break down the urban grain of the city to the natural topography of the park. The proposal consists of a series of courtyards that connects the patchwork of Shrewsbury Town with the Quarry park whilst providing a new creative, cultural hub for the community. A Library, Council Offices, Cafe, Workshop's and exhibition centre are provided for, each in their

The process of model making has been

fundamental and has helped me understand the construction of different elements and the relationship between junctions and thresholds throughout the proposal. To construct the

sectional model below, I approached it in a

similar way to how one may construct the

building; I printed out the plans, sections and elevations of different elements to build from. A continuity in materiality, balsa and plywood, highlights the glazing and operable solar shading louvres used and the qualities of light produced in the interior spaces. Through the rapid prototyping of a series of smaller, ceramic models, I was able to explore the different spatial qualities and compositions of the facades of each mass and the relationship

Image 01 1:50 Sectional Model Interior View - Balsa, Piano Wire and Plywood.



Image 03 Elevator button in clay 1:1

lmage 04 Entrance th 1:10



Image 05 Brick Studies in clay Left 1:10 Right 1:5

1 and	

Image 06: Sectional models of each programme in clay 1:100



Entrance threshold in card



Vilius Petraitis, Manchester, UK.

BA Year 3 - Atelier: FLUX

Project: WaterLab - Symbiotic Water Treatment Plant

WaterLab is a Public water filtration plant, within which, the filtration process can be understood better through a curated experience of mixed programs. The project is born from a continuous discovery of Irk Valley, its past and futures. Impulsive decision making in the past has led to its desertion, places which only benefited from capital growth have turned into obsolete artifacts which are studied to anticipate a healthier future for the people and the place. The journey across the water treatment catalyses thought about said impulsiveness, everyday routines and the futures which we are building. As the water is cleaned gradually, visitors will go through a process of un-learning past routines and anticipating change through water.

Technology is only part of the answer to our challenges with water. What is missing is our relationship with it. How will life change as our relationship to water transforms?

The models were used to both design and understand the spatial qualities of key spaces within my project. WaterLab is based on the interaction with water, some of the models were collaged to bring out the element of water where as others were literally exposed to water to bring out the desired effect.

Models were mainly used for experimentation and design development and later montaged to capture key qualities of WateLab. Whilst at home, the models made were predominantely at a 1:50 scale to get right inside the space. Materials used include: mount board, foam board, hessian Jute, tracing paper, plastic tubes and acrylic paints. The process of constructing models would start at preparing material, as the models were 1:50 understanding materiality and its qualities were of most importance, preparing the material would mean coating mountboard in PVA to create a shiny surface or in some cases sticking a layer of hessian jute to a foamboard to achieve a desired surface within a model. Knowing that these models would only be seen through images, the presentational models were constructed for a specific shot in mind.



Anterior Bath sat within the timber structure model. (Timber structure Model made in B.15)







1 & 2 -Process Sketches. 3 - Anterior Bath model capture.



Anterior Bath.



Idea Theatre, 1:50, mountboard covered in PVA & hessian jute fabric. Filled with water.



Anterior Bath, 1:50, foam board, hessian jute fabric, tracing Paper & acrylic.



Impulsive Steam Room, 1:50, foam board, tracing paper, hessian jute & plastic tubes filled with high turbidity water.

Andrius Ovsiukas, Manchester

MArch Year 1 - Atelier: Continuity in Architecture

Project: The Old Library

A creative hub for children and young adults in Shrewsbury

The brief of the project was to re-imagine Shrewsbury Library building in Shrewsbury, England, by proposing a new use and programme to the existing Grade I listed structure. On an urban level, the proposal introduces a route through the site that way integrating the building into the urban fabric of Shrewsbury. At closer scale, the concept of the proposal aims to provide a new entrance atrium with a clear new front door. The design intent is to have a transparent veil in front of existing building that would enclose new entrance and circulation space. The new frontage is clad in glazed ceramic, while the interior structure is cast iron. The entrance is positioned between two towers, existing and new build, which creates an interesting juxtaposition between the old and new experienced inside. The new vertical circulation tower solves the accessibility issue in the existing building, and provides a link to other buildings on site. Additionally, the crown of the new tower, made of multi-coloured ceramic pieces and lit up at night, acts as a beacon in Shrewsbury skyline.

The purpose of the model was to illustrate the overall design intent, the mass and bulk of the proposal, as well as reveal the relationship between the exterior, new entrance atrium, and internal rooms. The model is 1:50 scale, and made using mainly 3mm and 5mm white foam-board, as the clean finish of the material was appropriate to convey the design intent without getting into the material qualities of the structure. Having to construct the model at home with no access to workshop tools, required some parts of the proposal to be simplified in the model. For example, the curved shape of ceramic pieces at the entrance, or pin connection used to connect the proposal to existing structure with minimal impact represented by simple pins. The most difficult part to model was the organic internal cast iron structure of the atrium. The columns were shaped using clay, painted with acrylic paint. Other more elaborate detail, such as ornamented balustrades and glazing detail had to be omitted due to complexity and limited resources.



Image 01: Front elevation



Image 02: Proposed new entrance atrium and tower



Image 05: Model can be viewed as whole or explored sectionally



Image 03: Sectional view



Image 04: Interior of the entrance atrium

Cezara Mişca, Manchester

March Year 5 - Atelier: LULU

Project: House of Arts

1:15 Bricks exploration - Façade section model

This terraced house design is part of a wider masterplan regeneration scheme in Edgeley, Stockport. The clients are a family: the mother and her 7 years-old twins. The house proposal responds to the clients' artistic personalities and their love for nature. While 'home' has to accommodate the essential everyday needs, this house becomes a place for both - living and arts.

The proposed design of the street façade considers recycled bricks for their matured and weathered aspect which are then painted in white. The paint finish of the façade advocates for the importance of WHITE in architecture, this is reflected through the unique experience created when bathed in natural light; shifting and sculpting it. The façade ornament, on the other hand, honours the true qualities of the recycled bricks. The house threshold extends towards the street, drawing the world outside beyond the building line. The extruded bricks rising above the pivoting window (of the piano room) harmonize with the activity. Climbing plants are designed to grow on the ornamental elements of the façade. The cantilevered space above the street is proposed to be used as reading space and enhances the relationship between inside and outside, this space will be cladded in corten steel to resemble the colour of the extruded red bricks but stand out from the white-brick façade.

The section of the street façade is represented through modelmaking to reflect the properties of the brick, the façade's changing textures and colours. It was essential for this project to understand the bricks arrangement at an appropriate scale (1:15). Materials used :

1. 4.8 x 4.8 x 450 mm balsawood strips were used for layering the brick façade where the openings have been carefully considered, the extruded bricks represented through the same material. To show each brick and the mortar, etching on the individual balsawood strips was required.

- 2. 1.6 x 100 x 450 mm balsawood sheets layered were used for the house entrance and pivoting window ornament
- 3. 2 mm greyboard to build the cantilevered space + tracing paper to show glazing
- 4. Watercolour painting on balsawood and greyboard to reflect the colour palette proposed for the façade Even though the steps followed for the completion of this model were time-consuming, the use of balsawood

and a changing practice from the usual laser-cutting technique helped me reflect the 'imperfect' bricks pattern and textures generated by using recycled bricks; and to appreciate even more modelmaking without the use of technology.



Image 01: Diagram depicting the section of the elevation that is explored through modelmaking

Image 02: Design process from drawing to physical model





Image 05: 1:15 Façade section model showing ornament, ground floor pivoting window, house threshold and cantilevered reading space



Image 03: 1:15 Facade section model

I would like to thank the B15 Team: Jim, Scott and Saul for the guidance throughout the making process of this model and all the moral support during these uncertain times !

Image 04: Internal view cantilevered reading space



Daniel Warren, Warrington.

March Year 5 - Atelier: Continuity in Architecture

Project: Re-use *Reconnecting life.

The Shrewsbury Gild.

Reuse project for Shrewsbury library (Grade I listed) and town council office building (Grade II*). Our project created an arts rehabilitation centre to tackle the problem of homelessness in Shrewsbury. The centre provided a programme of learning and accommodation with creative workshops, to allow for public integration and to ameliorate the stigma around the problem. The models were created for final presentation as part of the submission requirements, these were used for various visuals and collages within our portfolio. They both indicate the relationship between existing (timbers and stone facade) and new (Brick and blackened steel).

The scale of the models is 1.50 allowing for a good level of detail to be seen without the model being too big. The main facade elements (brick, existing stone) are plaster cast using a positive and destructive, formwork of sculpting foam. This material is easy to manipulate, cut and emboss textures by simply pressing patterns into the foam. This method also provides a more unique roughness to the finish. I pressed various sized pieces of wood to create the historical stone patten, for the brick I cut a small scaled brick from an off-cut of wood and was able to press this in. I have added a dye to the plaster to indicate contrasting materials, with the red dye for the brick facade and I added a slight greyness to create the stone facade.

For the other materials I tended to use ones that could be easily cut with a craft knife, such as, balsa, basswood, and foam-board with 0.8mm ply and thin oak for finishes. I also used acrylic to represent the metal aspects of the design (beams, columns etc.) these were cut, glued, and coloured individually. To age the existing timbers, I used a dye on the basswood to make the colour stand out.



I have provided a key for reference which shows the positioning of the models on an elevation, this is also demonstrated in Image 03 with the addition of the design outline.

Key - Indicating model positioning (NW Elevation).



Image 01: Section and elevation of the two models.



Image 02: Model cut through new and existing.





Image 05: Cast brick facade.



Image 04: Contrast between old timbers and new perforated brick.



Image 06: Perforated brick facade.

Alice Iu, Manchester

MArch Year 2 - Atelier: LULU

Project: Welcome to Blackpool Spectacular!

Recreating Las Vegas in Blackpool, U.K.

The seaside resort of Blackpool was once the jewel of the North, renowned for its illuminations and funfairs, but is now one of Britain's most deprived areas. This project recognises its unique cultural identity and proposes a masterplan that rebrands Blackpool as the entertainment capital of the U.K. Through applying theoretical principles from Robert Venturi & Denise Scott-Brown's "Learning from Las Vegas", this project proposes a gateway to the town with high-rise mega-resorts, a new gateway landmark, glitzy over-the-top electrographic signage, and numerous free spectacles (both artificial and natural landscape elements, like the sand dunes) along the seafront, creating a Strip of extravaganzas that floods the audience's senses.

This 1:200 scale model represents a section of the masterplan, which includes the main Strip development on the seafront, showcasing a "Times Square", the podium facade of a New York New York hotel, a 5-lane boulevard, an outdoor stage/ informal amphitheatre, the Blackpool Tramway and landscape design of the Promenade with access routes to the beach. The model is crucial in demonstrating the streetscape and intimate moments of the masterplan, in particular the relationship between the different landscape design elements, presenting the design in a comprehensive manner to give a clear picture of the experiences created on the Strip development.

Due to limited access to more substantial materials, this model is made entirely from basic materials such as paper, card, mountboard and corrugated card, which was recycled from supermarket fruit boxes. Without access to large-scale printing and scaled figures, most of the graphics, the building façade and the people in particular were hand-drawn & hand painted using watercolours. Lamp posts and elevated tram ride structure were made from brass wires and piano wires. Initially sheet metal/ copper foil was intended for the Corten windbreaks on the Promenade but due to shop closures, copper coloured paint was used on card to achieve similar effect. As for greenery, plants were picked from hedges & shrubs to represent climbing vegetation on the Supertree structure.



Image 04: Lounging on granite benches at Times Square - paper, card, mountboard, foamboard, grey board, brass wire, piano wire





Image 01: Sectional model of the Strip - paper, card, mountboard, foamboard, grey board, brass wire, piano wire

> Image 02: Sectional model of the Strip - paper, card, mountboard, foamboard, grey board, brass wire, piano wire



Image 03: Crossing the boulevard - paper, card, mountboard, foamboard, grey board, brass wire, piano wire



Image 05: Tram watching - paper, card, mountboard, foamboard, piano wire, hedge leaves



Kam Ian Chan + Jinhao Zhang, (Macau + Manchester)

March Year 6 - Atelier: USE

Project: The Manchester Food Garden

An ultimate de-stress paradise.

From our atelier study trip in Venice, where we understood the horror of mental illnesses. These people with mental illnesses were fighting so hard to survive and to not be forgotten by the society. Are Mancunians under the same situation nowadays? We discovered many Mancunians are both mentally and physical stressed due to numerous reasons which in a long term would generate health problems to these people. The theories on the Manchester Food Garden are based on our research to de-stress through having a healthy diet. People are de-stressed through farming and eating their own food, also under the beautiful nature environment inside the Garden. We believe that in our design, it is very important for human to interaction with plants/food to achieve relaxation. By making a physical model, we were trying to simulate this interaction in real life (not only theoretically). Additionally, we added lives to our model by growing real plant (mung beans) alongside and simulated a more realistic situation of plant growing, while we experienced fun, difficulties and success during the model making process. At the end, we harvested our plants and we cooked them to simulate the final step of de-stressing through food.

This model is made in a 1 to 100 scale which the dimensions are 1150 x 880 mm (approx.) Luckily, we laser-cut the basswoods for the base and frame of our design before the temporary close-down of workshop, but apart from this, this model was made by only one of us because of the social distancing, and everything else were made at home. We have mainly used synthetic/real plants and timber to construct our model. Other than that, we made blue slime from scratch as water, toothpicks painted green as the planters of our aquaponics planting tower, and light-weight clay to mould sculptures and furniture. We aimed to bring vibrancy to our model by using a various of materials and types of plants.





Image 01: My messy worktop during model making.



Image 02: Making of vertical aquaponics tower.





Image 06: Our harvested food (bean sprouts) which we had used them for cooking.



Image 03: The growing process of real-food inside Manchester Food Garden.

Image 04: Final model of the Garden.

Image 05: Spaces for people to de-stress through growing, making, eating and digesting food.

Laura Gonzalez Vega, Spain

March Year 2 - Atelier: CIA

Project: The Desire Path

The desire path emerges as a solution to a problem of movement and identity from one of the main pedestrian entries into Shrewsbury, Frankwell Car Park, through an almost vacant shopping centre and into the High Street. To solve this, I carved a straight route through the Darwin and Riverside shopping centres which not only aims to guide the visitor to the town centre but to use typical characteristics of Shrewsbury's architecture in the design, bringing back a sense of place to the site. In re-using the Darwin Shopping Centre, I have based my design on the geometries found in traditional Tudor architecture which is typical in Shrewsbury. However, I wanted to express these shapes in a contemporary manner.

I used model making as a design process tool to experiment with geometry compositions as these where quicker to manipulate by hand than in the computer. I was not able to shop any materials before lockdown; therefore, I saw this as a chance of recycling what I already had at home. The model in 'image 01' shows the result of a façade experiment based on Tudors triangular shapes. I first drew the 2-dimensional elements and then folded these to create 3-dimensional compositions. I started by producing several 'origami' tests with paper as it is quick to fold and once I had the final shape, I modelled it on card as it is a sturdier material. I decided to use two different colours to create a contrast in the proposed materials. The sharp lines in the façade stand out and almost float above the glass panels underneath. The use of dramatic lighting helped create contrast in the planes and enhance the depth in the façade. The second model in image 4 is a paving detail at scale 1.2 made out of cast cement using a foam board mould. The aim was to test the ornament geometry using the same process that the Tudor style, using wood to mark the geometries. In reality the wooden lines would be a subtle texture on the concrete which is the chosen material for the pavement. Using cement created a real feel and texture to how it would be in reality.



Image 04: Pavement detail model - Cast cement and balsa



Image 01: Facade Model - Card and textured foam base



Image 02: Paper tests



Image 03: Process - Card



Image 05: Process: Foam board mould with glued balsa wood





Image 06: Process: Cast cement mix

Laurence Richards

March Year 6 - Atelier: InfraSpace

Project: WASTE:LAND

A detailed investigation into the possibilities of waste recycling

This project looked at the opportunities that Brexit present the Irish border in tackling and profiting from the global waste crisis. The project finished with a large plastic waste processing plant which was part of a network of plants that worked together along the border to clean up ecosystems around the world, re-appropriate existing waste stockpiles into usable products and benefit both the Irish and British economies.

Architecturally, the project therefore became about tackling three design problems; how can a building at phenomenal scales become a mountain?; How can a building be fully experienced when moving a fast speeds?; How can marginalised industrial and hyper-functional building typologies be more enjoyed and celebrated by the general public? My focus was therefore on the formal presence of the building, the external envelope and the linear experience moving through.

This Model was therefore made to present the formal qualities in a way that only a physically 3D model can do to the reader and explain the ways in which the building is acting as more of a mountain; it has a scale unrecognisable to that of traditional building types and it appears to arise from the landscape organically. And whilst this blend between landscape and building was hopefully obvious, I chose two contrasting filament colours to show their differences. The textural and colour qualities of the project had also been inspired by the Romantic movement in art and the ways in which they added fictional drama and exaggeration to their paintings. I therefore chose bold and energetic colours which reflected the artificiality of the plastic which was being processed within.

To produce this model during a pandemic lock down, I had to rely on the kindness of friends with access to personal 3D printers. This meant frequent zoom conversations, lots of failed tests and even a broken motor in one of the printers. I ultimately had to split the model into several pieces in order to reach a detailed scale and even then I had to model additional pieces to be stuck on when prints failed towards the end. Quarantine made the whole process much harder but it was extremely satisfying to be able to produce a model I was happy with in a time where it seemed impossible.



Image 01 (above): Tests, failures and development of 3D print



Image 02: Corner Aerial View



Image 03 (above): Plan View



Image 05 (above): East Elevation



Image 06 (above): West Elevation



Image 04 (above) : South West Aerial View

Lorna Lovatt, Manchester

MArch Year 6 - Atelier: USE

Project: The Extraordinary Everyday

The Extraordinary Everyday was born from a conversation with a neighbour whilst I was studying in Venice on Erasmus, who felt by hanging out my washing on the street at ground level, I was upsetting the 'Urban Decorum'. This intrigued me and grew into an observation of the behaviour of people in the spaces of Venice compared to other cities and the project has grown to form a rebuttal against the popular idea of Venice as a historic artefact to observe, instead presenting it as the ultimate human experience. The extraordinary potential of everyday spaces has been analysed across a journey through the city and this project proposes a model for the 2020 Venice Biennale which consists of a series of interventions which encourage humans to interact with their surroundings, ultimately unlocking the potential for the built environment to stimulate our senses and ground us in a beautiful reality, resulting in a redefinition of the Venetian identity.

The intention of the project was to go to Venice and create the interventions at 1:1 scale in the fabric of the city whilst documenting people's interactions. However, due to the Covid-19 pandemic, I had to change my method of presentation and therefore used model making to recreate the experience of walking through Venice by creating a stop motion animation (Please follow this link to view the video of walking through the model: https://vimeo.com/422253792).

Through the use of models, I was able to individually craft each building, focussing on specific, uniquely important features. The model was made at 1:250 scale and has been created entirely at home, using: card, paper, glue, wire, paint and colouring pencils, hand cut using a cutting mat and scalpel, all effects were created in the model, the 'fog' intervention was made using a vape pen and 'splashing canals' through water droplets on acetate.

Due to the length of the journey I wanted to represent, and the size of the buildings, each element of the model had to be removable to allow for storage and workability, but also to allow the phone camera to fit inside alleyways to take photographs.



Image 01: Plan View with human scale

(South Facing) Location of intervention



Image 02: Long street elevations of part 3



Image 03: Vista across canal



Image 04: Campo San Giacomo - A lively urban realm

Image 05: Group photo of buildings





Image 06: Photographing the model: Matress and bedsheet used as backdrop, tracing paper to diffuse lighting, phone torch to create shadows

Sarah-Jayne Stamper, London

March Year 6 - Atelier: USE

Project: '¿Te gustaría compartir tu historia?'

Translation: 'would you like to share your story?'

Located in Havana, Cuba, this thesis combines personal and collective memories from individuals met along this journey. Whilst participating at the Caribbean Winter School this February, I noticed the prevalence of romantic decaying sites that sprawled across Havana. This thesis introduces a new initiative whereby decaying sites are reused and transformed into a community led guest house that follows the methodology of reuse, learn, earn, and share. Memories are not meant to be locked away, but are designed to be expressed, shared and re-lived. Consequently, I have designed my casa particular to embody and facilitate the sharing of memories. Every guest who stays here will have a taste of another's experience – whether by hearing a traditional Cuban song or catching sight of Naughty Dumms under the bed – but equally will leave part of themselves behind - whether by donating a prized possession or painting something on the wall. The site is a melting pot of reminiscence, designed to enrich its guests' experience, challenge their perceptions, and create new memories in the process.

Model making has played an intrinsic part in helping me create colourful and playful atmospheres that I would not have been able to achieve through a computer generated model. The first half of my thesis saw me create concept models out of paper and card that studied individuals' memories of their childhood homes. I wanted to use model making as a tool to express these stories as it brought two dimensional memories and conversations to life. As my thesis developed, I recreated the site at multiple scales using card and paint as mediums to produce the colourful layers. This exercise has helped me understand the history of the site to a greater depth and subsequently helped me generate sensitive design decisions.

Despite Covid-19, all the models produced from the beginning to the end of this thesis have been made entirely at home. Self-isolation has enabled me to think creatively, whether it be using coffee or tea as artistic mediums to create the decaying aesthetic of the site or making the most of scrap materials I have found at home.



Image 03: Final 1:20 model, The Patio







Image 01: A study into personal memories of a former childhood home-paper and card, hand cut and drawn

Image 02: Final 1:20 model- paper, card and balsa wood, hand cut and painted using watercolour, tea and coffee

Image 05: Final 1:20 model, The Naughty Dumms Casa Particular

Image 04: Final 1:20 model, The Living Room



Image 05: Final 1:20 model, The Suspended Toilet representing the lack of available running water in Cuba

Sophia Major, Manchester

MArch Year 6 - Atelier: Continuity in Architecture

Project: The Rebellion

A hub for climate change activists

A radical remodelling of Shrewsbury's recreational park into a public place that invites and inspires action against climate change. It will engage with artists, performers, events and markets as it becomes a place of culture, identity and expression - one that forbids oppression and encourages a homogenous society. My aim is to create stimulating and narrative architecture that stresses the gravity of our global environmental crisis. The stepping of the topography references the rising water levels of the nearby River Severn and the ever increasing threat of disastrous floods faced by local people. An amphitheatre is set organically into the natural topography and an exhibition building appears to have been eroded into the hill side. The entrance to the park leads to a square that generates a gentle transition from city to park. Finally the pavilion, a sculptural form that simulates a crashing wave has a unique character and identity, loud in form yet sensitive in materiality, that is open and inviting to all passersby.

A model provides a three dimensional conceptual representation of narrative architecture. The jagged form suggests the geometric nature of the scheme and the tangled spaces of the inner city that meet the park. The square remains white, as extension of the city but is brought to a sudden halt - the drop of the descending terraces. The terraces represent the rising flood levels and are painted with a gradient to add a sense of drama and the incremental threat, but is again blended into the surrounding streets and buildings to meet harmony and seamlessness within the design. The subterranean building is almost completely concealed within the topography. As the terraces sweep across it, only the tower remains visible. The terraces are vague, and show no details of the paths and routes, but they represent the fluidity and organic nature of the design. The pier, the pavillion and buildings are crafted out of card and board and kept in their natural state, which represents their sensitivity to the landscape and impermanence. The purpose of this model was not to be a final depiction of my design, but instead express the movement of the landscape and work out its integration to the surrounding area. It allowed me to view the project in 3D and work out the geometry of the terraces a task I found very tricky using just softwares such as Sketchup. A previous model created in the B.15 workshop earlier in the year was amended and recycled (process depicted on the following page).



Image 01: View of the open-air amphithetre Pen sketch over photographed model



Image 02: Previous model recycled and adapted. As site boundary changed, old site was removed. Image (centre) Old model is shown in plan of Shrewsbury, site boundary now becomes the entire park. Process image (right) shows layers of scrap materials (greyboard, timber) to create the garden terraces, which are then smoothed with plaster and filler.



Image 03: Plan view of the square

Image 04: Side view showing gradual inclince of topography



Image 05: View from the River Severn.

stream.



Image 06: Plan view of model- The river created by pouring vibrant paints that meshed organically, re-enacting the rush of a river's

Tara Aveyard, Manchester

MArch Year 2 - Atelier: Continuity in Architecture

Project: Shrewsbury as Urban Artefact

Exploring an Aldo Rossi theory: "The city and every urban artifact are by nature collective." - Rossi, The Architecture of the City, 1982

This project began by challenging Aldo Rossi's theory that the city presents itself as a series of urban artefacts, which can be viewed as a collective; then the city itself becomes an artefact. This started by looking at existing buildings in Shrewsbury and intervening to improve them. This investigation created 5 interventions throughout Shrewsbury and learned themes that needed to be considered when designing in the town; Threshold; Access; Placemaking; Wayfinding and Exposure. These themes aided the design and refurbishment of the town's swimming pool. Concluding that understanding a city's context positively informs new design and creates a more cohesive urban fabric.

To help explain these interventions fully, I wanted to create physical artefacts to represent each intervention, as a final presentation tool. Originally, the idea was to cast the full models (base and buildings as one, using CNC routing to create this mould) in plaster or similar to create a series of ancient looking artefacts. Now modelling from home, I decided to cast the base topography separately and create the buildings out of card. This would also allow a colourful distinction between context and the proposed intervention. This would create a series of presentation models to display the proposals.

I cast the bases using mountboard boxes and plasticine to create the topography, then poured in plaster. The buildings I cut out from mountboard and coloured card. The interventions were of varying sizes so the scales used were 1:500, 1:1000 and 1:1250, depending on the size of the intervention, to fit on a 120mmx120mm base. I wanted the base size to be uniform so they came together as a series of artefacts. To photograph, I found the best lighting in my flat was the morning sunlight (desk lamp light wasn't great), so I took photos over several mornings to catch the best light. I enjoyed making these during the lockdown, it allowed me to practise casting techniques learned previously and helped to conclude my thesis project through physical modelling.



Image 03: Testing lighting, interventions shown in coloured card.



Image 01: Initial concept sketches for models



Image 02: Process: mountboard and plasticine mould with the plaster result.



Image 05: Model series in plan. Plaster bases, card tops.



Image 06: Final artefact model series. Plaster bases, card tops.



Image 04: Testing lighting, interventions shown in coloured card.