

EMILY BOND PORTFOLIO

MODEL MAKER
DESIGNER
PUPPET MAKER

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PROP

FIRST
YEAR

6 WEEKS

FABERGE EGG PROJECT

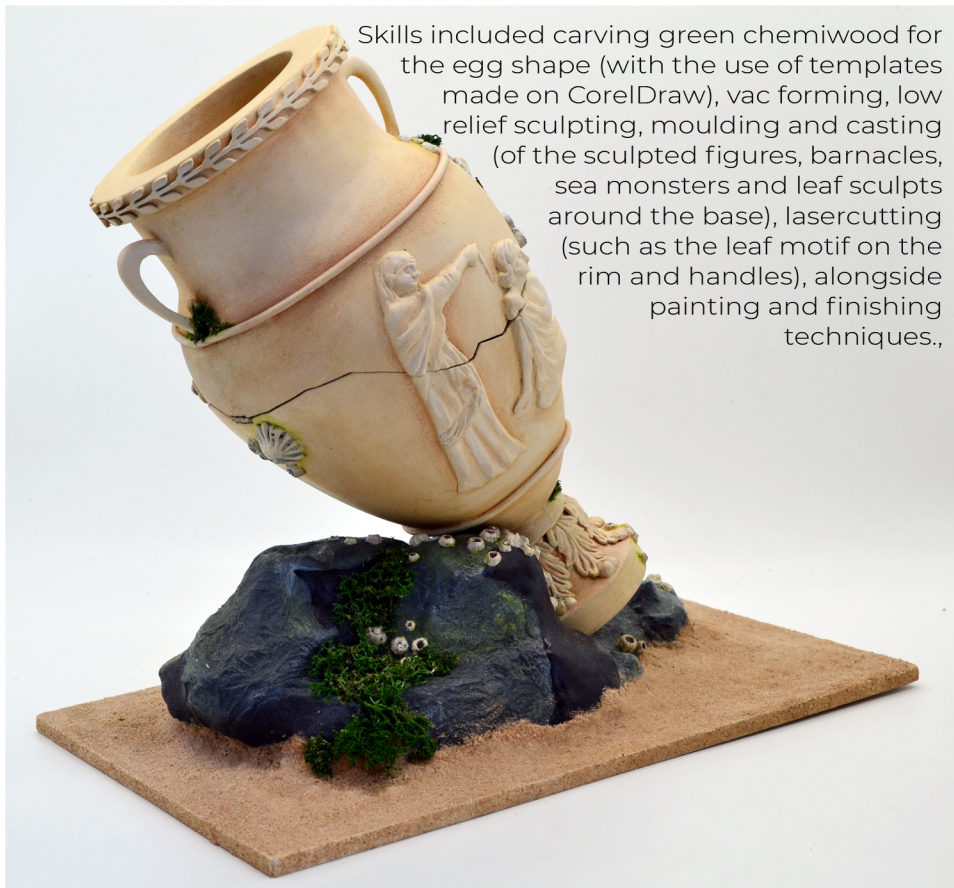
My interpretation of a Faberge Egg is in the style of an Ancient Grecian Urn. With the narrative qualities of neo-classical Greek pottery so prominent throughout my research, I ensured the exterior relayed the myth of Circe the sea witch, who turned the once-beautiful Syclla into a vicious sea monster with multiple heads, through its low relief decoration. Inside, a diorama depicts the monster which Syclla became. Finally, the 'urn' is presented as if washed up on the rocky shore of a beach after many centuries lost at sea.



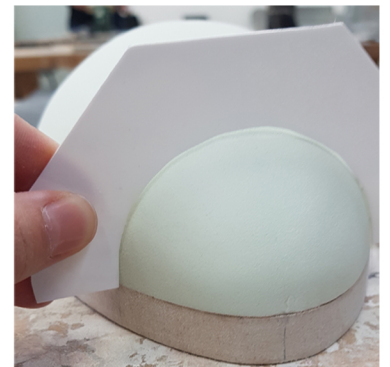
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The egg opens along its crackline, via a hinge, to reveal a six-headed sea monster (as relevant to the myth of Circe's transformation).



Skills included carving green chemiwood for the egg shape (with the use of templates made on CorelDraw), vac forming, low relief sculpting, moulding and casting (of the sculpted figures, barnacles, sea monsters and leaf sculpts around the base), lasercutting (such as the leaf motif on the rim and handles), alongside painting and finishing techniques.,



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Photos showing some of the processes.

PROP

FIRST
YEAR

8 WEEKS

TIME MACHINE PROJECT

Inspired by the Scientific Revolution, this 16th Century, neo-classical style Orrery was originally inspired by scientific artefacts of the period, including telescopes and the Grand Orrery (1733) which I visited at the London Science Museum. The wooden base was inspired by furniture designs, such as the work of Thomas Chippendale, with the idea that the front panels open to reveal the 'time machine' element. The low relief design was influenced by various decorative ceilings of Georgian stately homes.



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The time machine controls are concealed within the ornate base. Theoretically, the Earth controls the month and the Sun sets the century.

Skills used include using the lathe to turn the gold spindle-type pieces, lasercutting/engraving (structural pieces, the clock faces, control instructions, feet and clock hands), sculpting (low relief detail on base), vac forming (clock lenses), milling (for the beveled edge), painting and finishing (for a mahogany effect).



Photos showing some of the processes.



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MUSEUM
MODEL

SECOND
YEAR

1:10

4 WEEKS

CITROEN 2CV MODEL

The aim of this project was to follow blueprints to create a model, so I used those of a 1988 Citroen 2CV6 and created this museum replica model. Due to work experience, I only had 4 weeks to complete the project. I particularly enjoyed adding the smaller details, such as the dashboard and mirrors.



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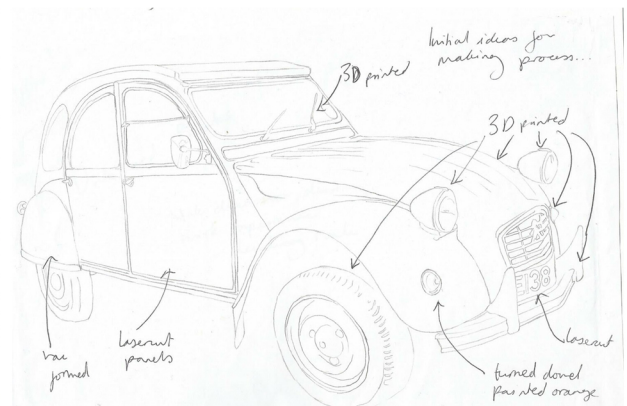
The back features resin cast indicators, 3D printed signage and vinyl and styrene number plate.



The seats were carved in orange chemiwood, then mould and casted. A bent metal rod was added for railed feet.



The tyres, wheel arches, signs, grill, bonnet and bumpers were all 3D printed, which really challenged my CAD skills.



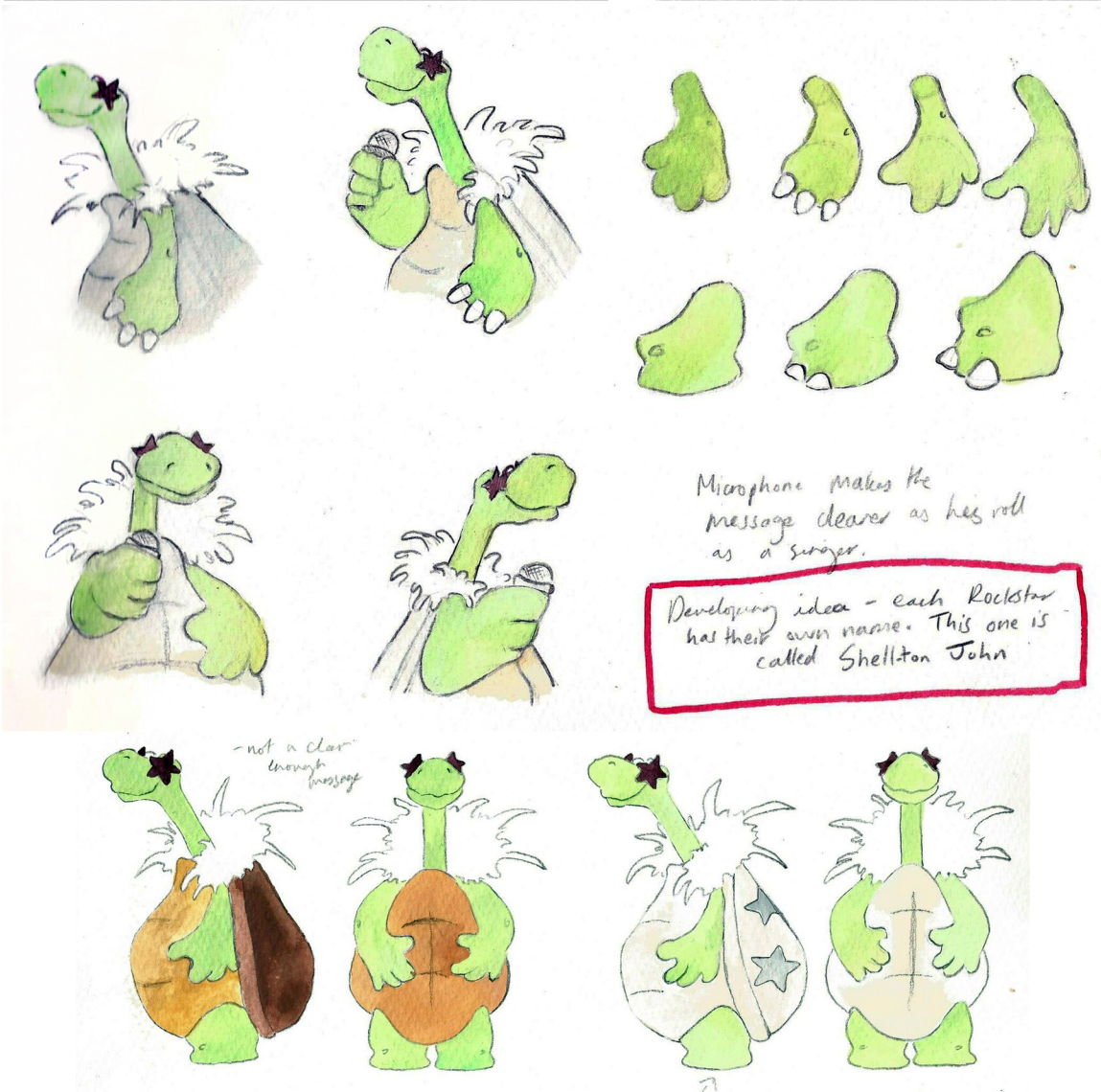
TOY

SECOND
YEAR

2 WEEKS

TOY 'TURBO' PROJECT

The aim of this project was to design and make a toy suitable for a 'blind box' series. I decided to create 'Shell-ton John', a Rockstar tortoise with a neck that could be pushed up and down via a lever, as part of a 'Rockstar animals' series.



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PUPPET

THIRD
YEAR

1 WEEK

FRED 'A-SCARE' PUPPET



This was a puppet I created in a collaboration project with a friend of mine who animates, outside of University. The final animation (in which Fred 'A-Scare' tap dances) can be seen on my website (link at the beginning of this portfolio). He has a ball and socket armature, 3D printed, fully rotatable head, sculpted bones and handmade hat.

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PUPPET

SECOND
YEAR

1:6

APPROX.
7 WEEKS

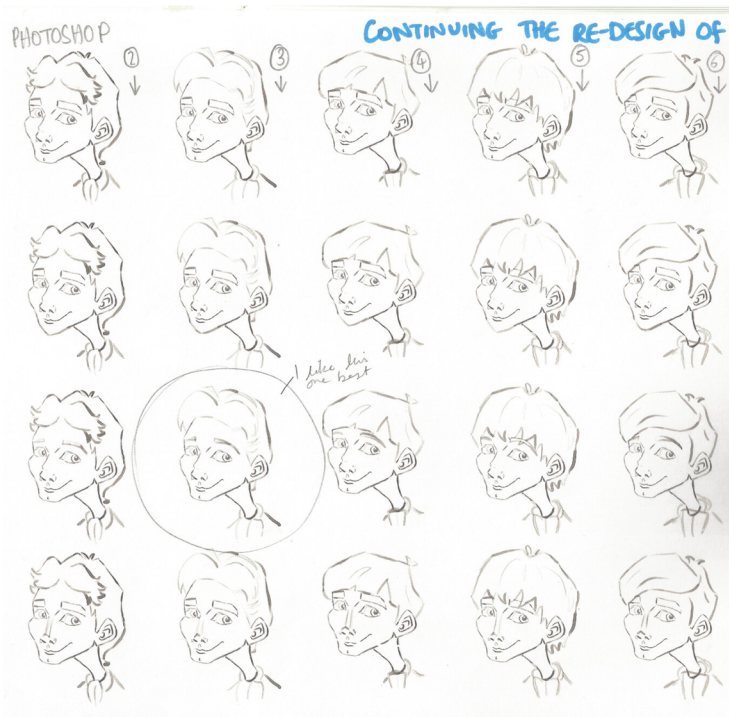
'JAFFY BROWN' PUPPET

A 29.7cm tall stop motion puppet, based on the character of Jaffy Brown from the book 'Jamrach's Menagerie' by Carol Birch. He is styled as a Victorian teenage boy, and heavily influenced by the art style of Laika Studios. Wire armature, with 3D printed replacement faces.



Skills included:
Sculpting clay and
plastercine hands,
moulding and casting
hands, CAD modelling
and sculpting (using
Rhino and ZBrush) to
create replacement
faces, knitting miniature
gloves and sewing
clothes, and general
workshop skills required
to build and assemble
the armature.

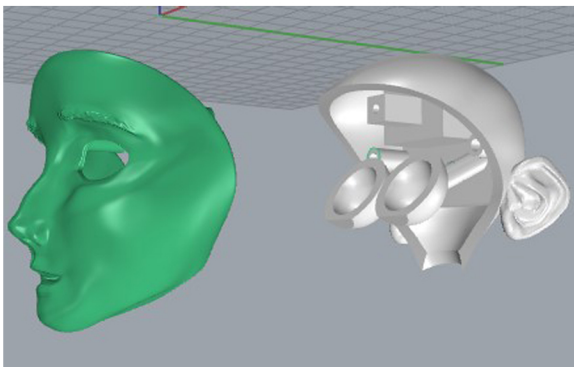
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Holding a candle prop I made, with
a flame added on Photoshop.



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This project was interrupted by Covid restrictions, so I didn't have time to 3D print all the faces that I had modelled (using Morph targets in ZBrush). On this page, I have included a sample of some of my CAD faces that were not printed before the University closed due to lockdown. There are also some process photos.

PUPPET 'MR DADOU' PUPPET

THIRD
YEAR

1:7

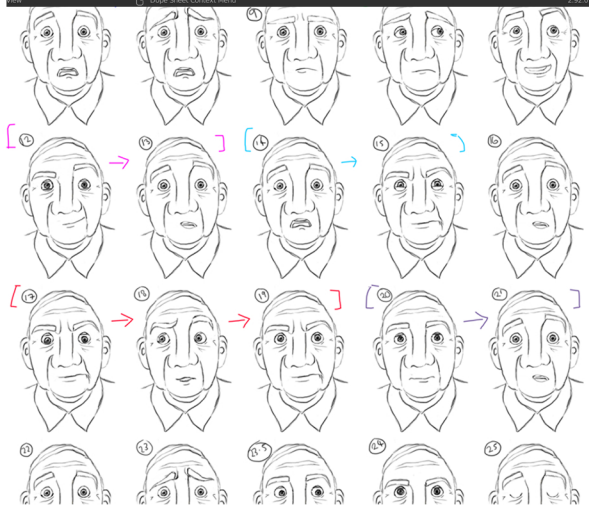
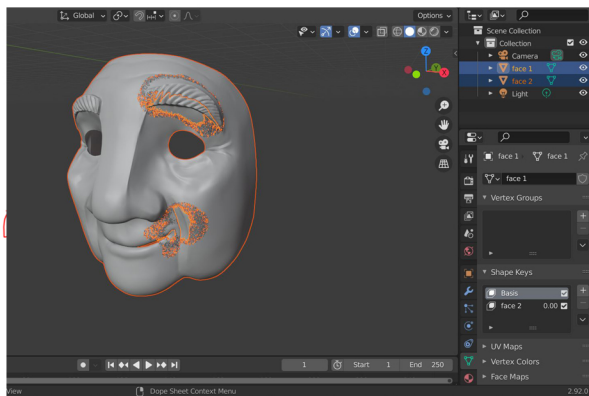
NA



I became puppet designer and maker for a short stop motion animation film that is being filmed in Canada. This is the main character, 'Mr Dadou'.

On the following page, the replacement faces can be seen. These were modelled in Rhino and Zbrush, and then animated via blend shapes in Blender.

I will also be making various props, such as a wheelchair, gardening gloves, wedding ring, boots and sunhat.



With constant communication from my clients and their script and references, I designed what each expression would look like (sample shown left), before creating digital models of each (using Rhino, ZBrush, and then shape keys in Blender, shown top left). Above, the final prototype of the head and it's components is shown. I then 3D printed the replacement faces in-house, sanded, primed, painted and varnished them before adding magnets (shown below)

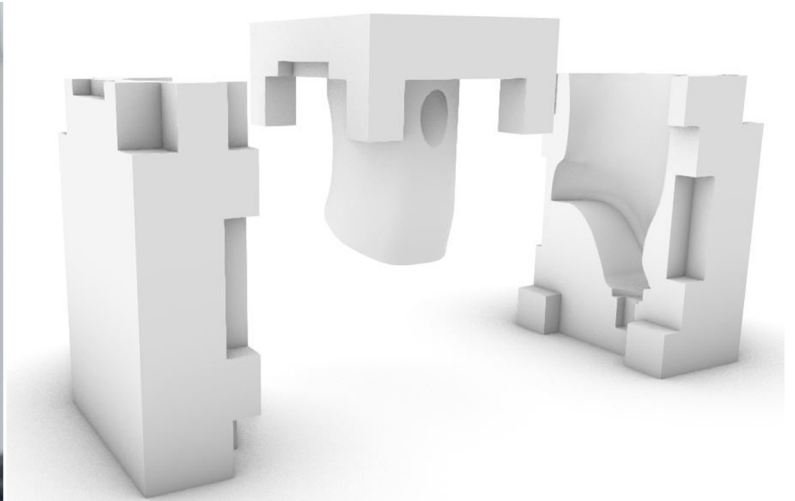
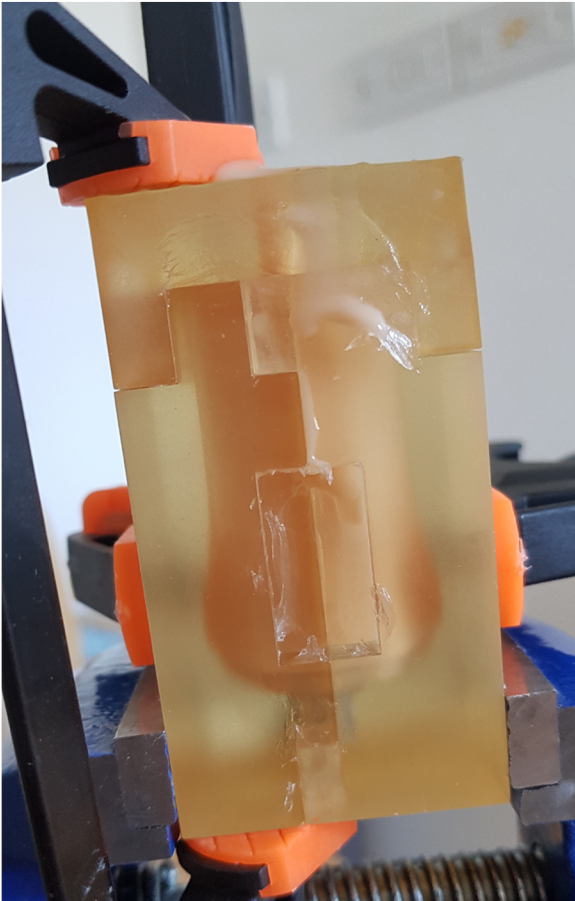


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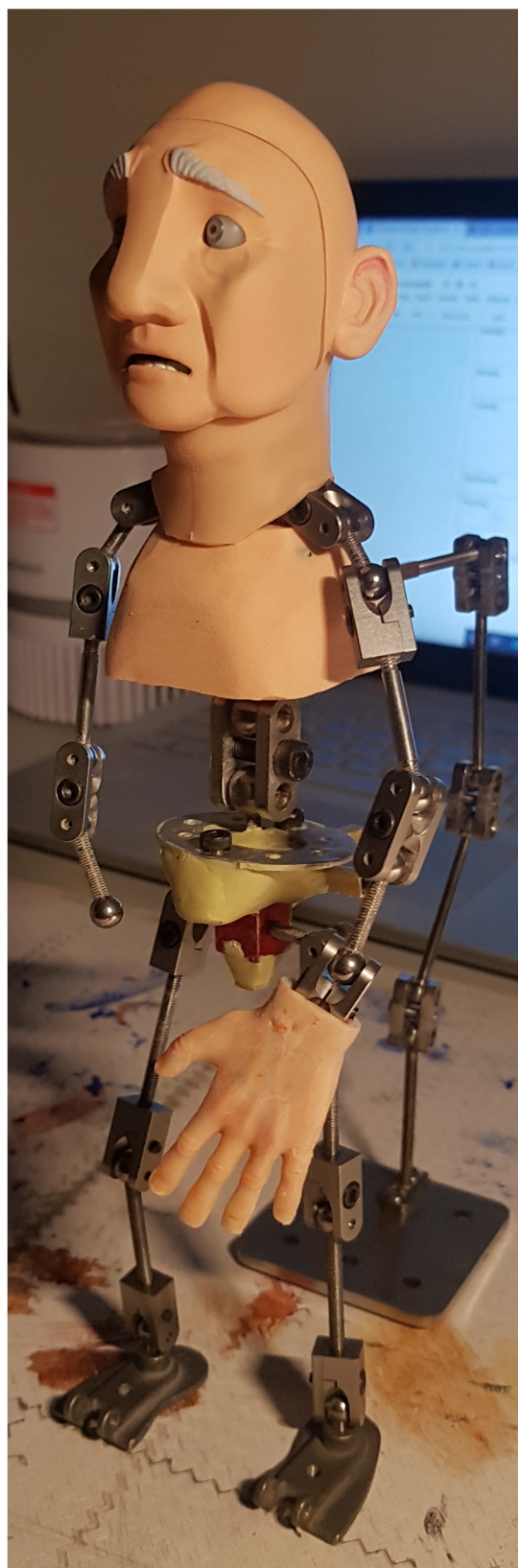
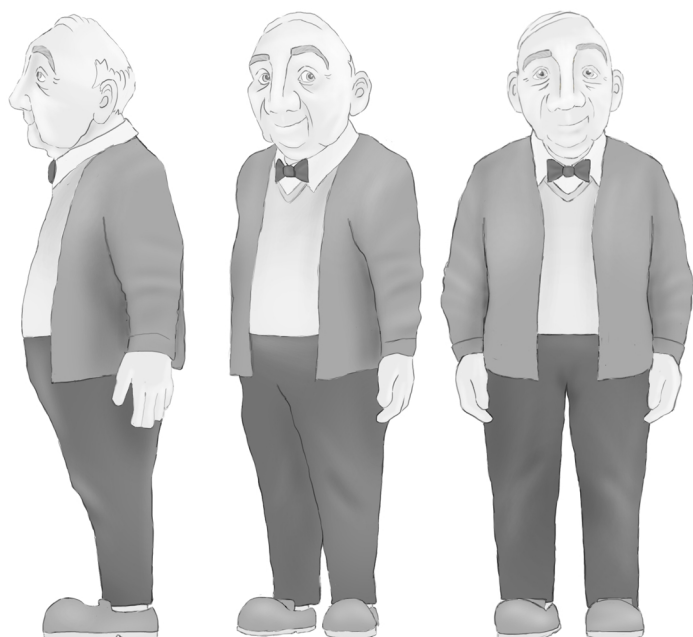
I designed an organised labelling and storage system for all 60 of the replacement faces.

A test print of Mr Dadou's hand, sculpted on ZBrush and 3D printed.



I sculpted the hands and neck digitally, so as to be able to create the mould in CAD before 3D printing them, which massively increased my efficiency. I am still currently trouble-shooting some issues, but I see the challenges as a constant opportunity to develop my problem solving and CAD modelling skills.

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I assembled the armature, also designing an efficient way for the neck to attach securely whilst remaining flexible. I added rigging points and padded the armature up, whilst still leaving access points for myself and the animator to be able to tension the puppet.

This is the current project I am working on, so I will now go on to adding Mr Dadou's clothes to finish him.

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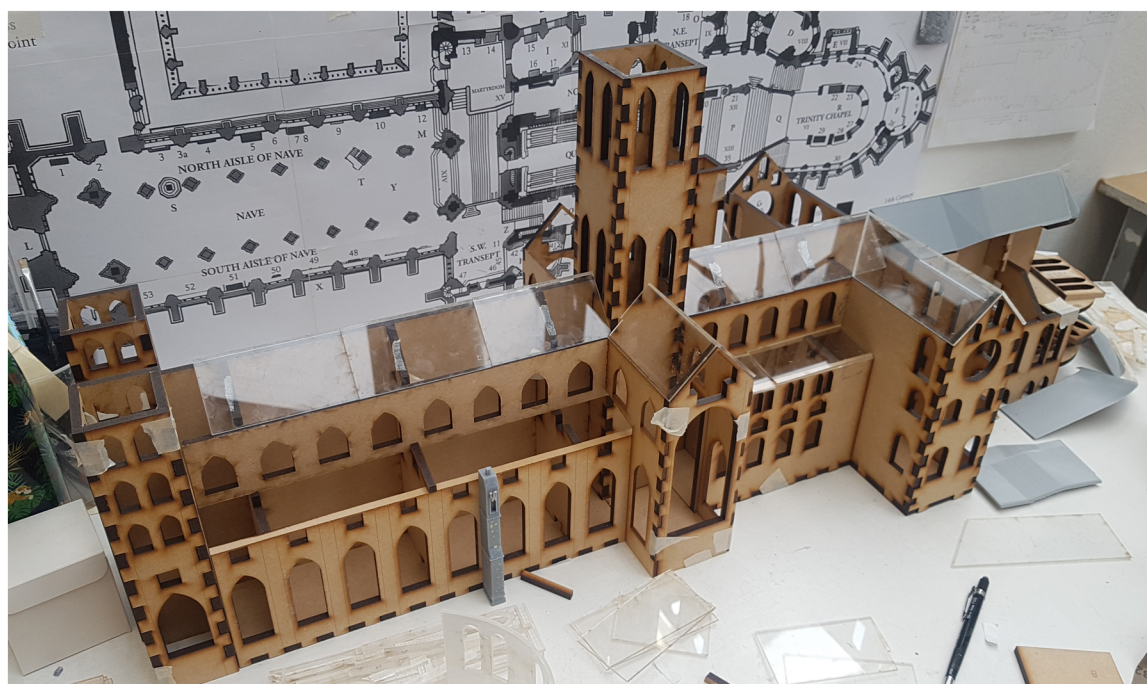
ARCHI-
TECTURAL

THIRD
YEAR

1:150

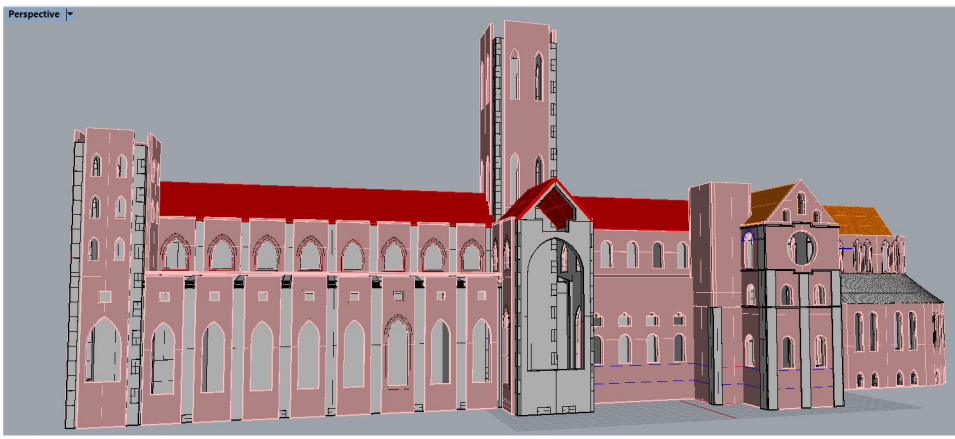
10 WEEKS
(DURING
LOCKDOWN)

CANTERBURY CATHEDRAL



This project was interrupted by Covid 19, and the restrictions it placed on our access to the workshop, studio, and their facilities. This project currently remains unfinished, but I have finished most structural parts, ready for assembling. I created an mdf skeleton, which allows the cathedral to be segmented into pieces and slot back together, so as to allow practical transportation.

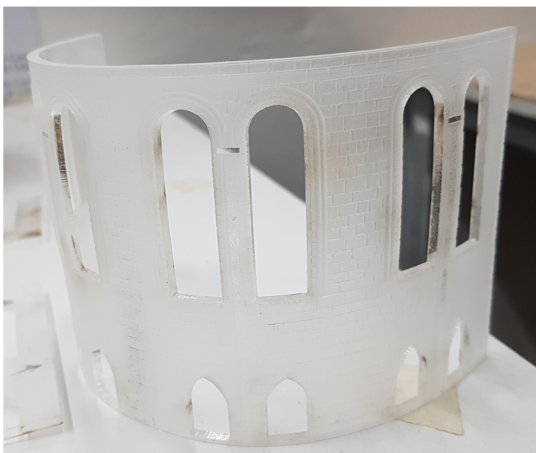
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I created the CAD model in Rhino prior to starting the build, to consolidate the design and its specifications.



Lasercut files were created on Photoshop, then transferred to CorelDraw and etched into acrylic.



The beam structures of the nave were created in Rhino and ZBrush,



COMPLETED
OUTSIDE OF
UNIVERSITY
STUDIES

GRAPHITE DRAWINGS

In my free time, and during the Summer, I enjoy drawing with Graphite pencil. Here is a selection of my work in this medium.



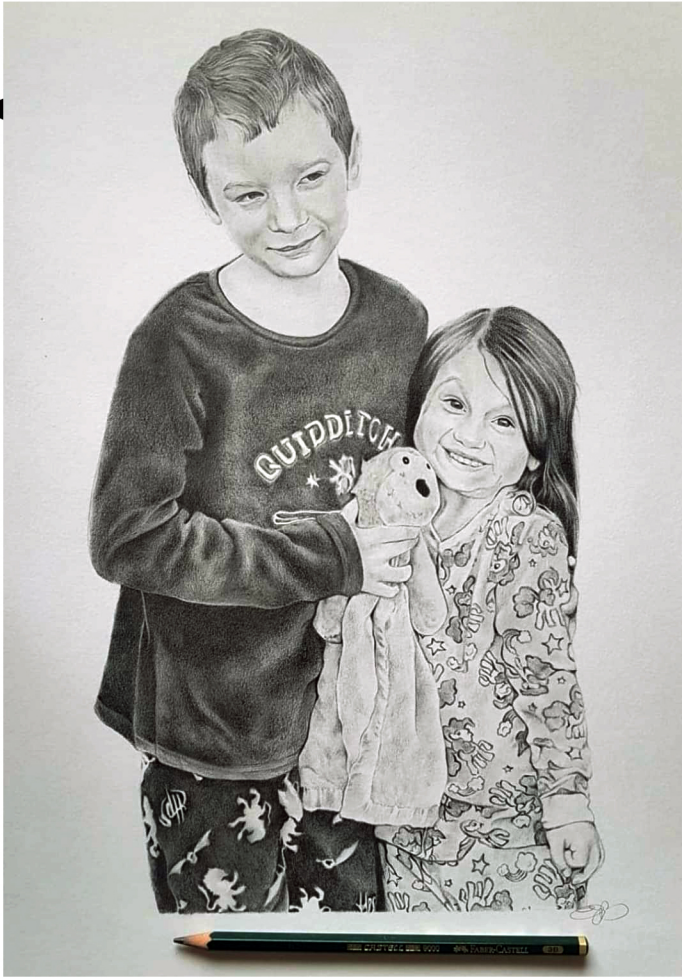
A4



A3

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A3 ◀



▶ A5



A4 ◀



▶ A3



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ACRYLIC & OIL PAINTING

Oils on 55cm by 65cm canvas



Acrylic on 30cm by 30cm canvas



Oils on approx. 100cm by 70cm canvas

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