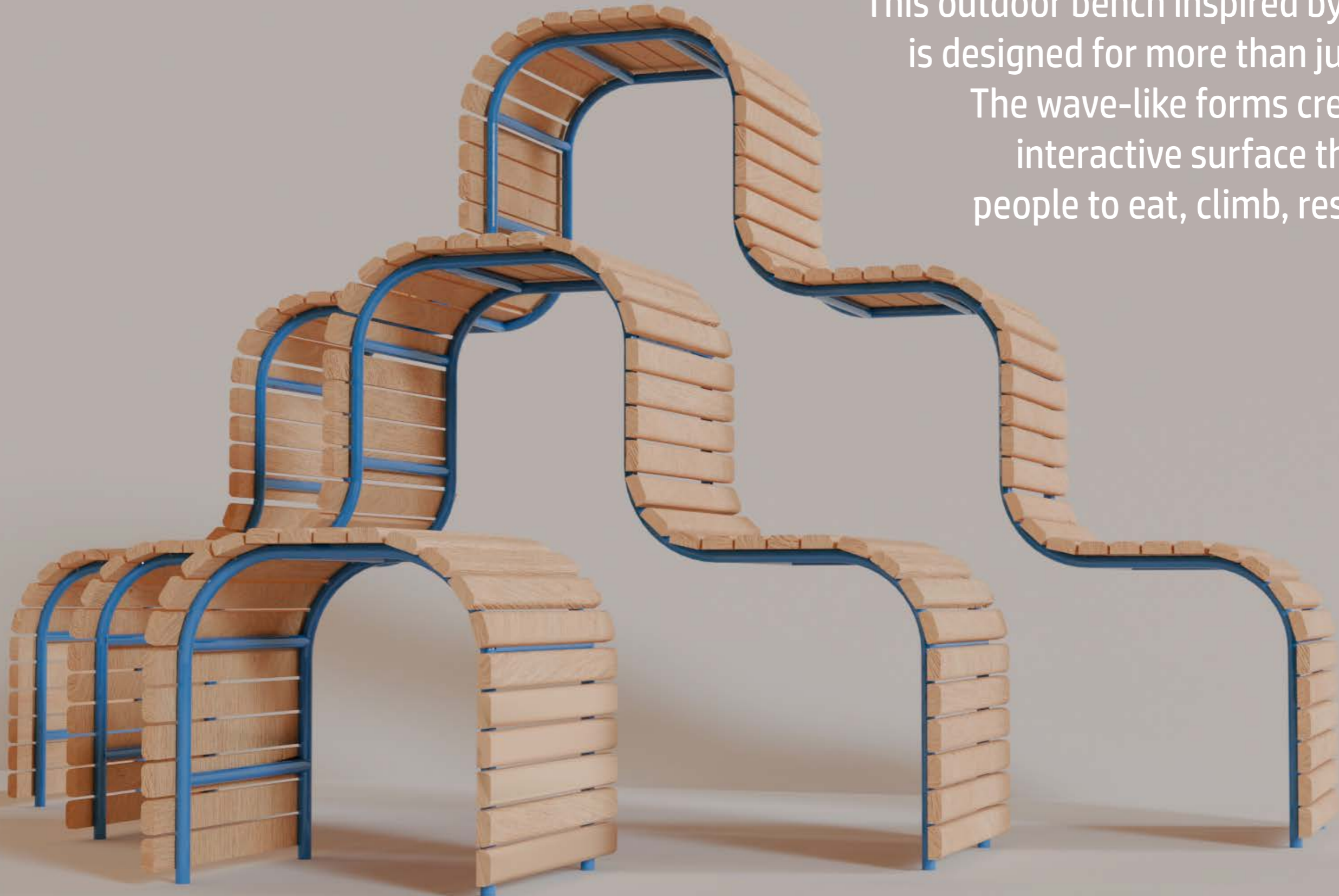


# SONIC SEATING

This outdoor bench inspired by cymatics is designed for more than just sitting. The wave-like forms create a fun, interactive surface that invites people to eat, climb, rest, or play.



Piano Coat Rack - Patrick Seha



Sonic Seating - Yuri Suzuki

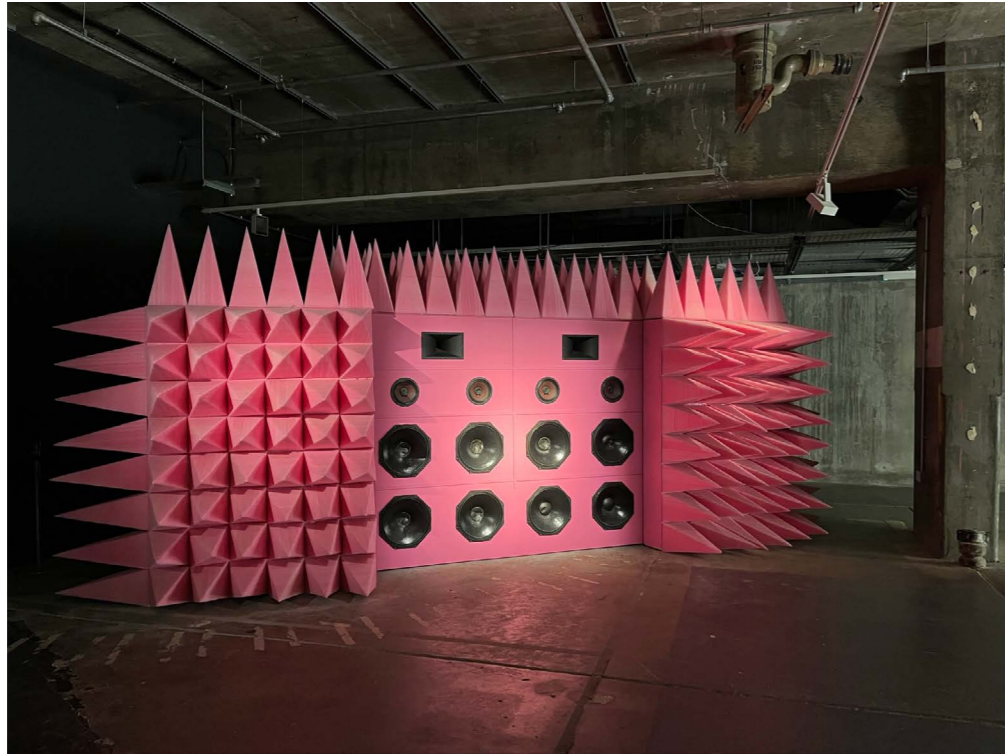
The Ambient Machine - Yuri Suzuki



Glissando - Jon Goulder



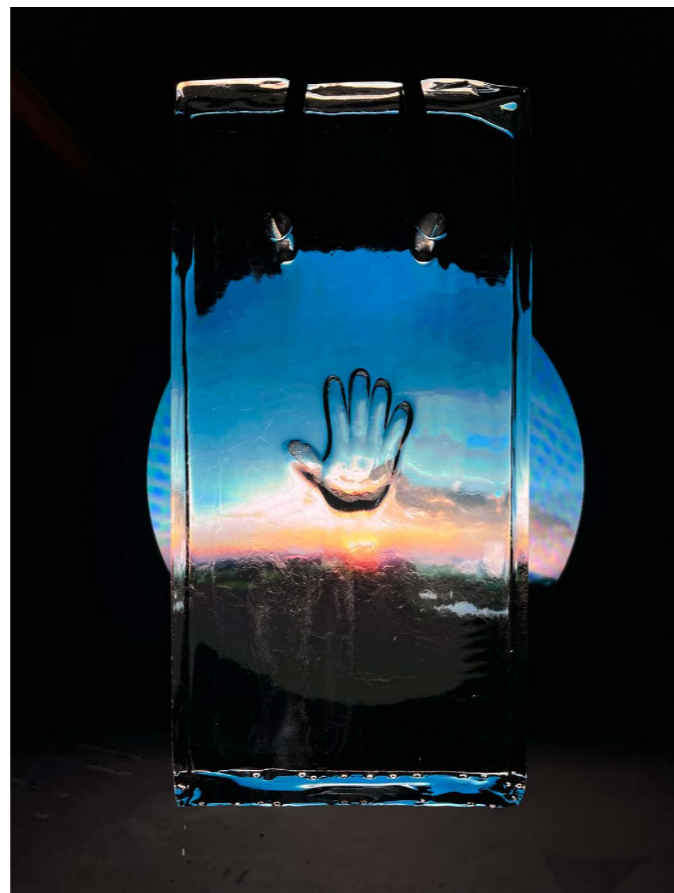
Urban Audio Project



Visit to the Reverb Exhibition at 180 Studios.



Visit to my local forest to record natural environment.





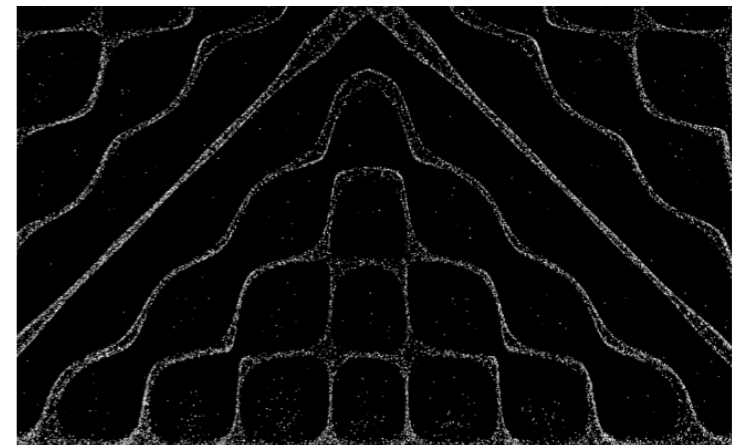
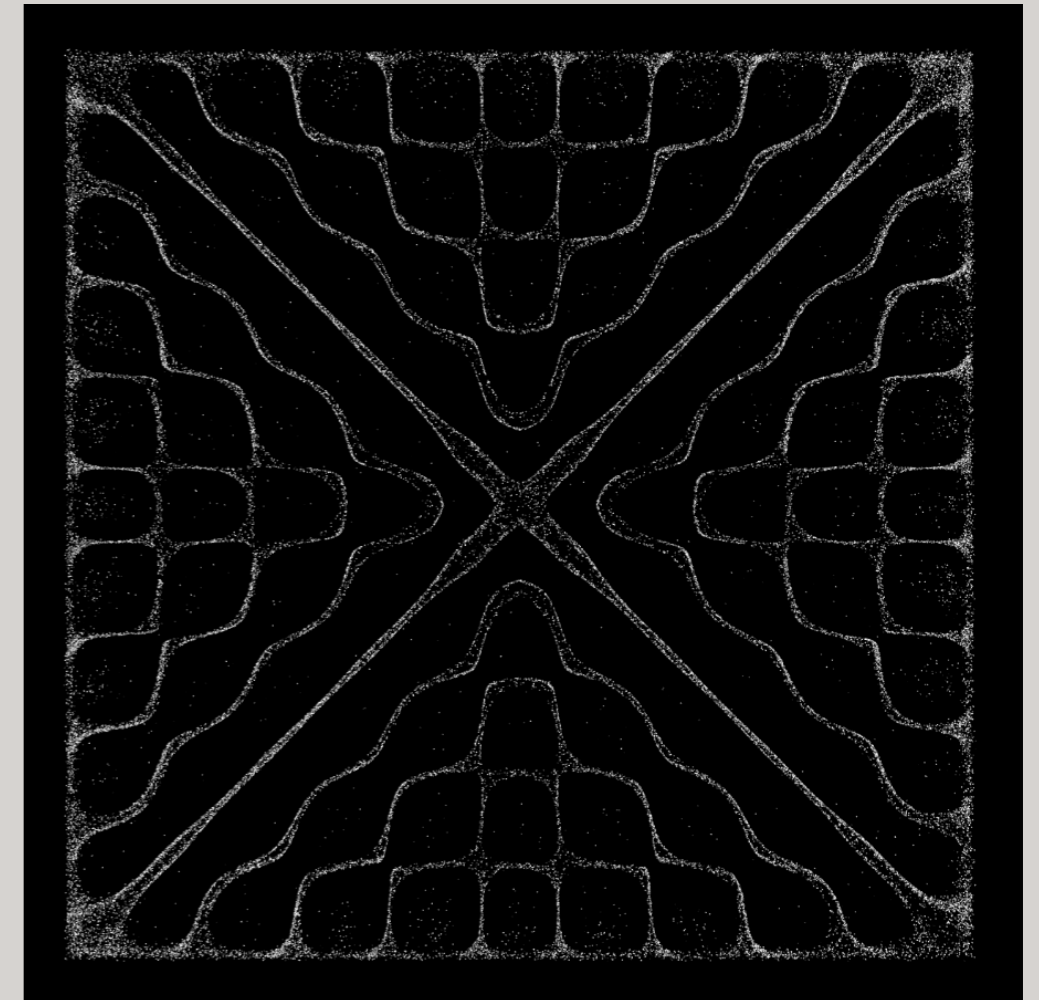
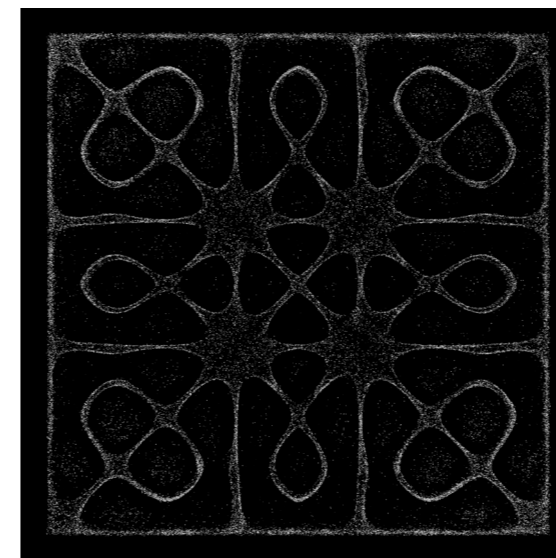
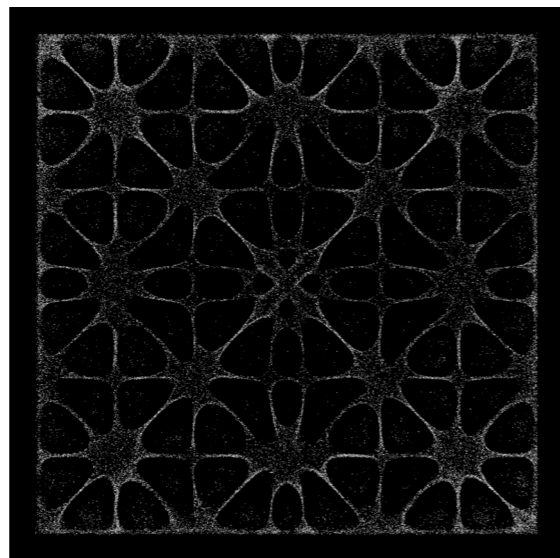
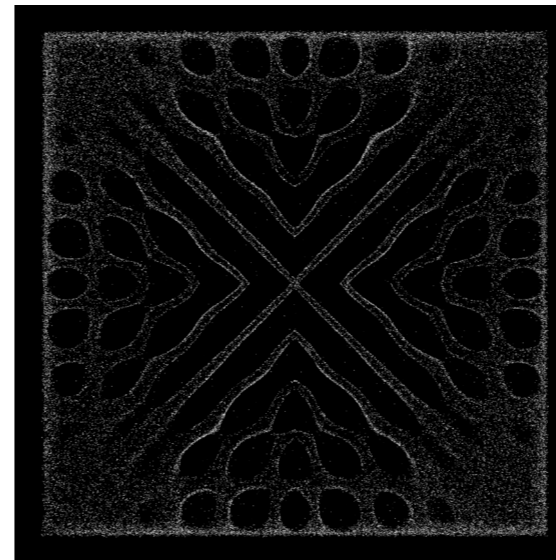
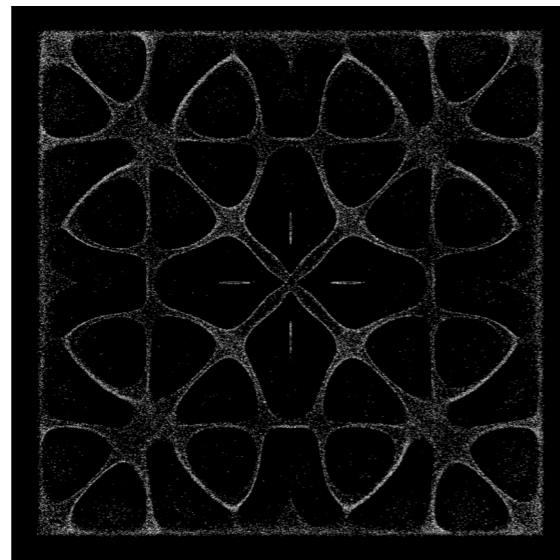
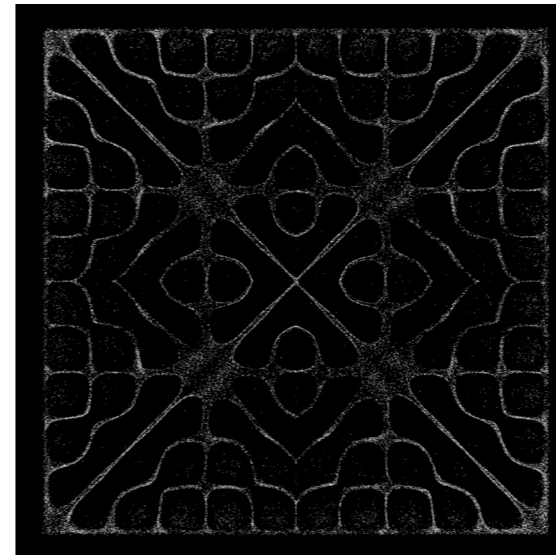
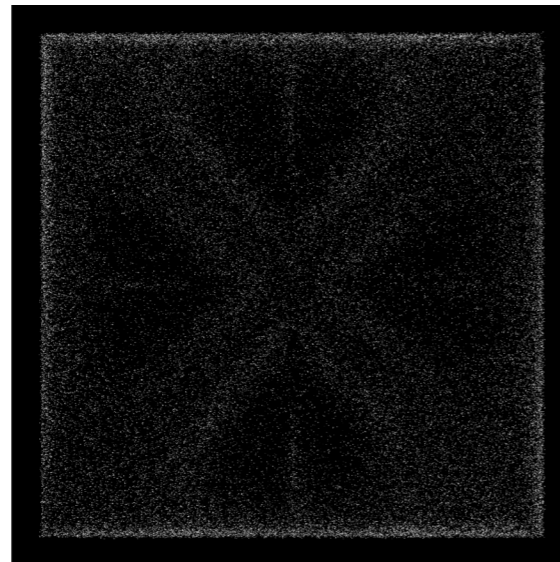
The sand cymatic set up.













I created paper "plates" for the sand to sit in and placed it over a speaker. Varying sounds and frequencies caused the sand to split into nodes and antinodes that make up these patterns.



Cymatics made on TouchDesigner - much cleaner results than the sand cymatics.



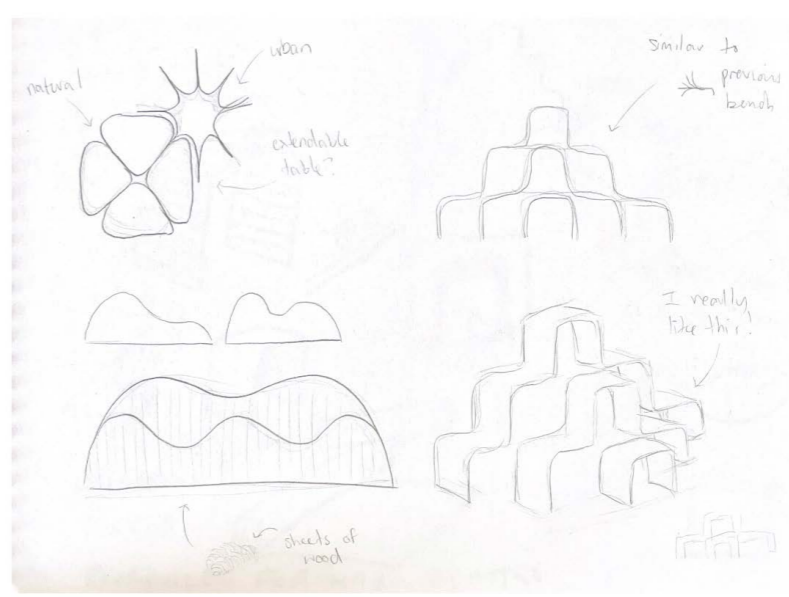
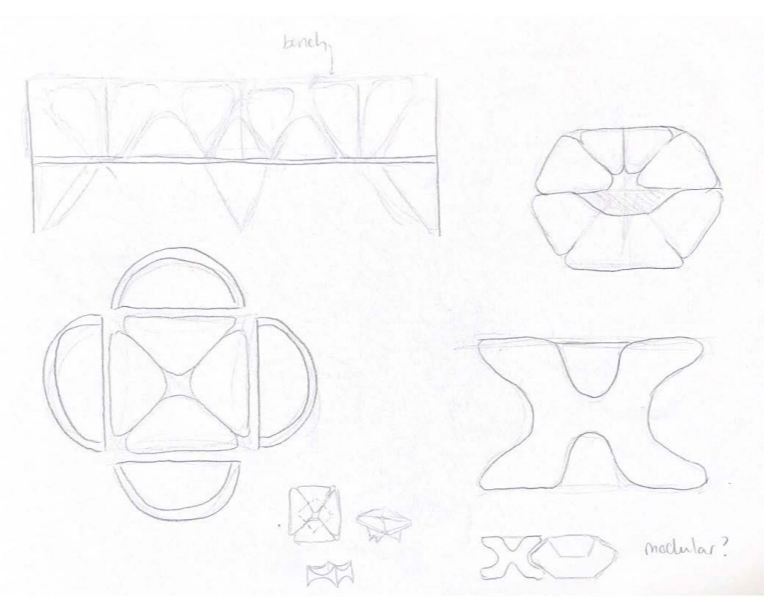
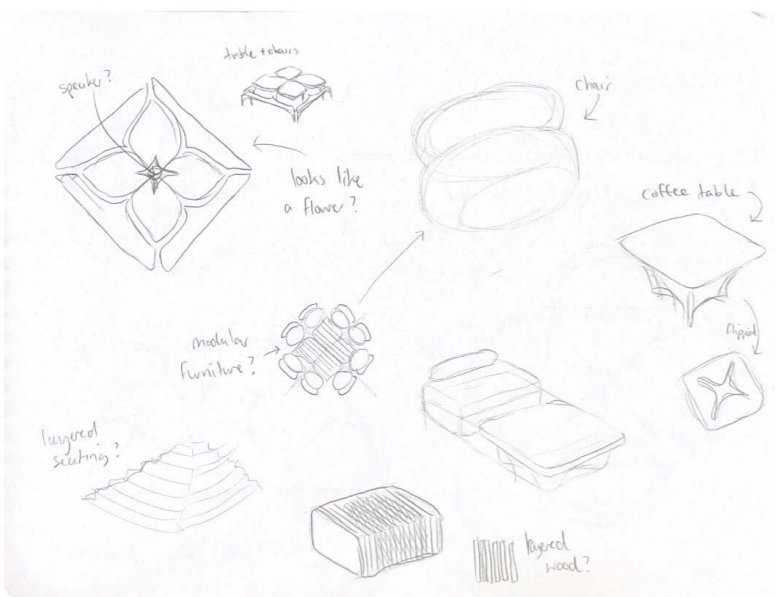
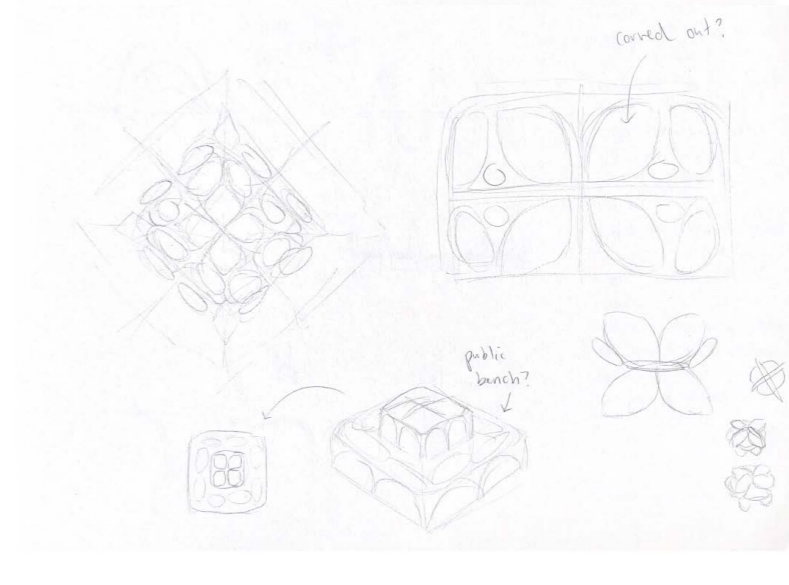
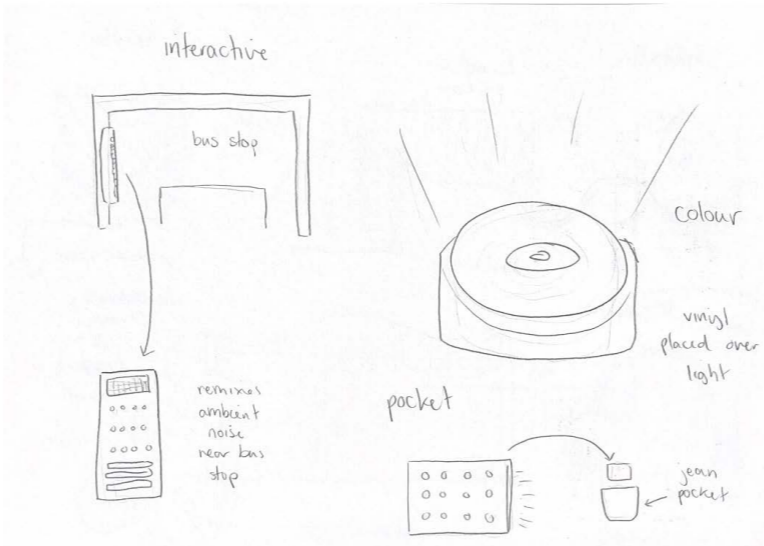
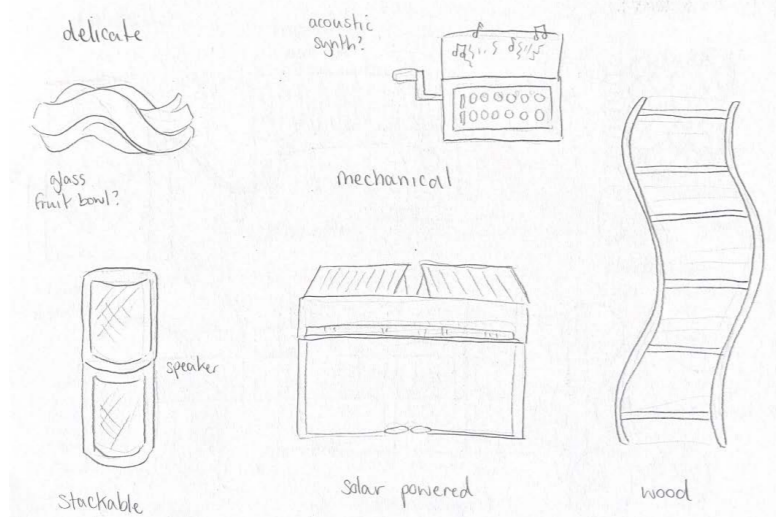
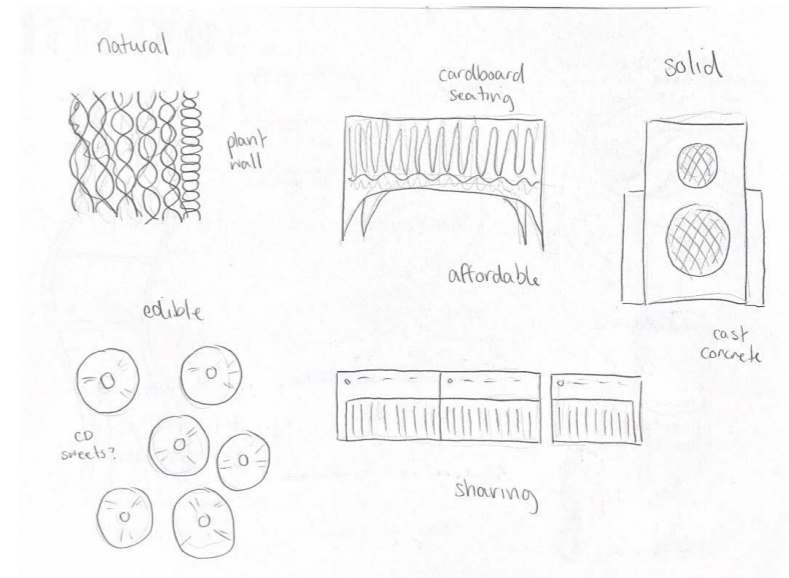
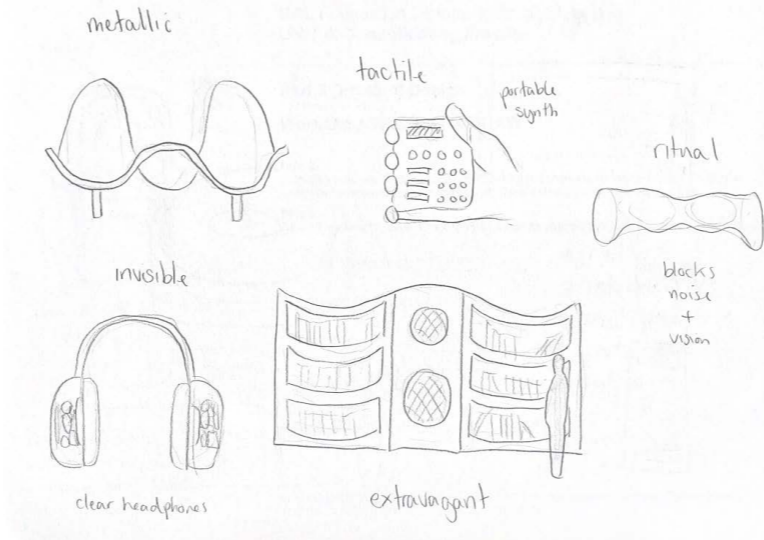
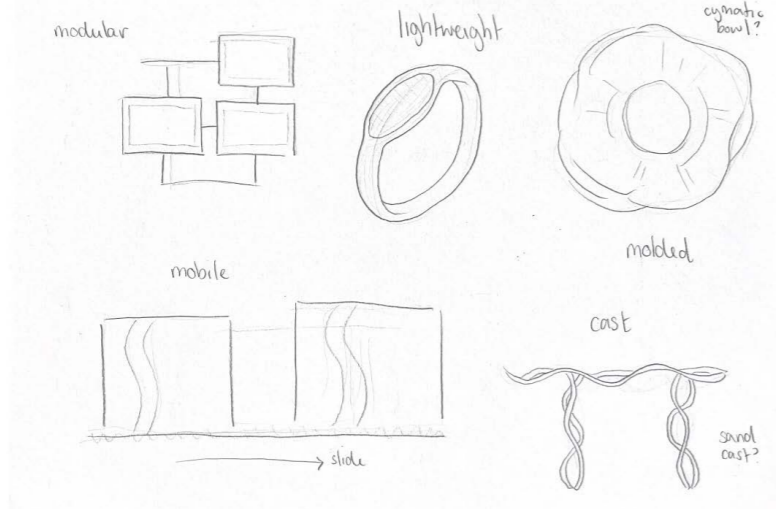
Crop of the cymatic that inspired my chosen design idea.

<p>Sound Recording 1 - stream</p> 	<p>Sound Recording 2 - stream</p> 
<p>Sound Recording 3 - throwing sticks in the water</p> 	<p>Sound Recording 4 - throwing sticks in the water</p> 
<p>Sound Recording 5 - crunchy gravel and leaves</p> 	<p>Sound Recording 6 - birds, wind and a helicopter</p> 
<p>Sound Recording 7 - passing plane and power lines</p> 	<p>Sound Recording 8 - bird song and planes</p> 
<p>Sound Recording 9 - bird song</p> 	<p>Sound Recording 10 - bird sounds</p> 

Some recordings I took while walking through the forest.

### Sketch Development

LET'S DRAW:





Central Saint Martins Material Library

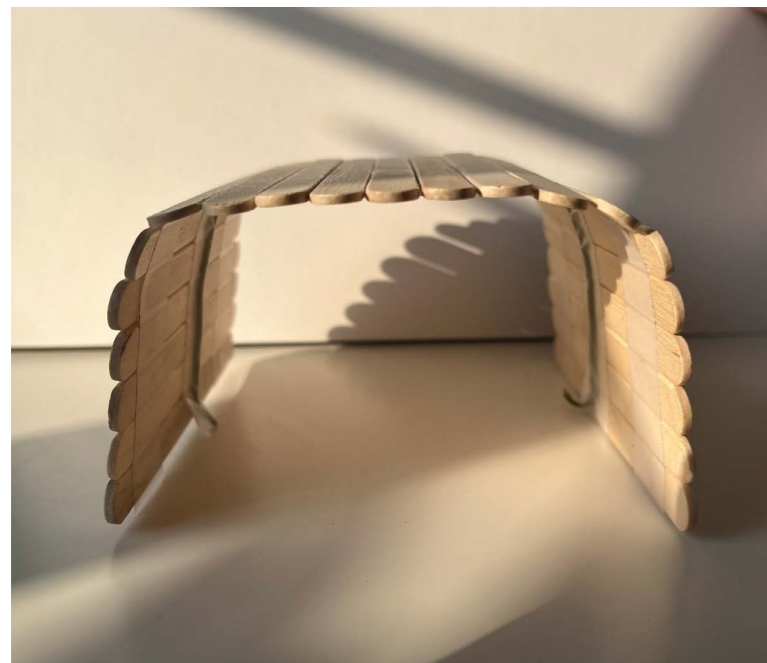
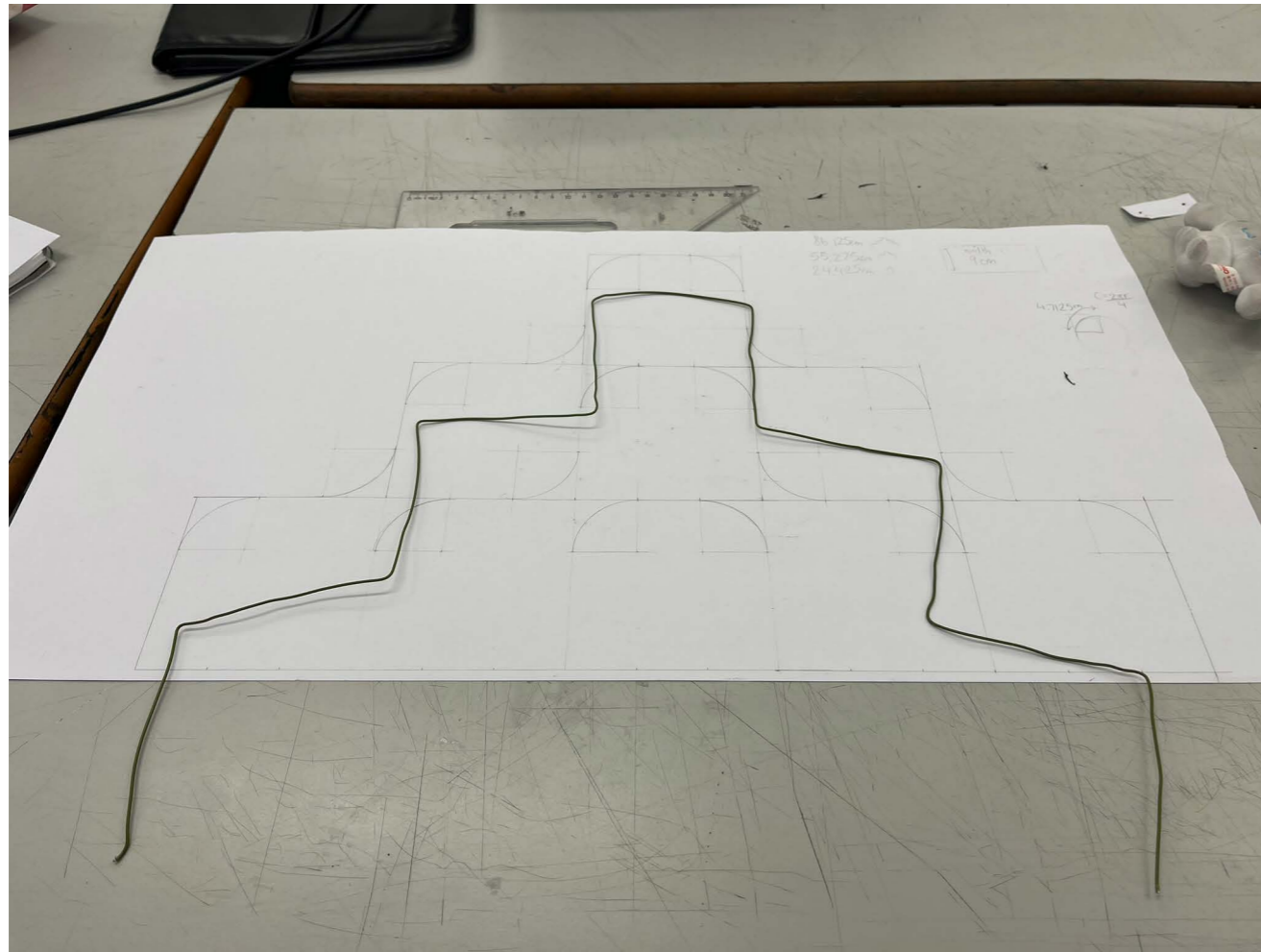


Material and Technique research.



Material Swatches





A few different maquettes I made in wire, tape, wood popsicle sticks and aluminium sheet metal.

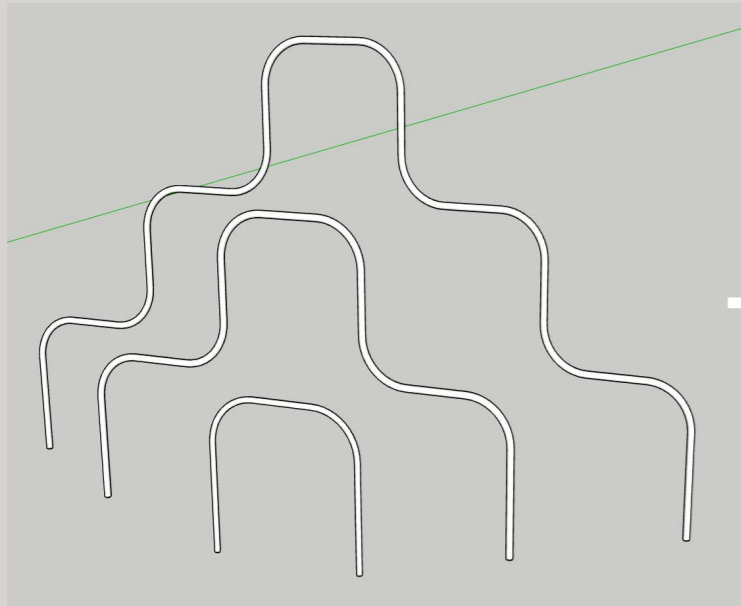
RESEARCH

DEVELOPMENT

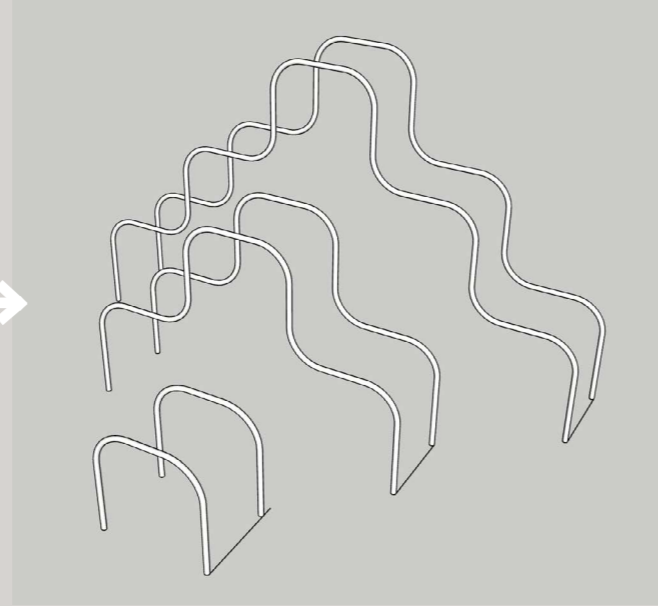
PROCESS

TECHNICAL

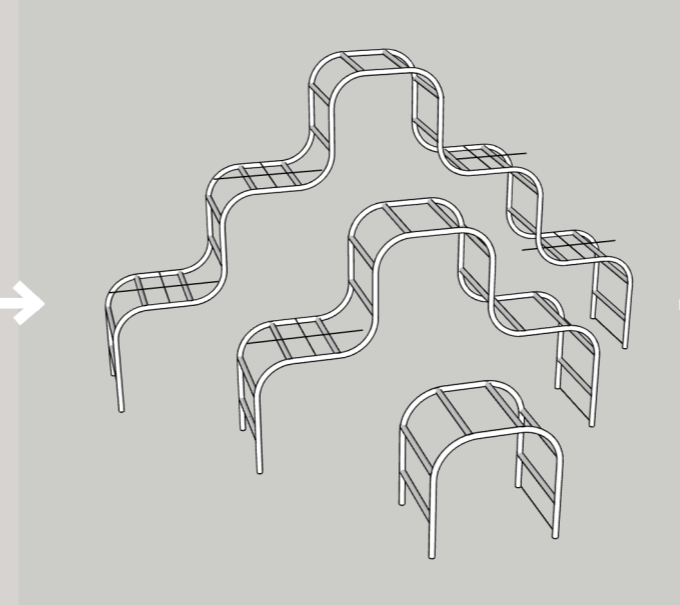
FINAL



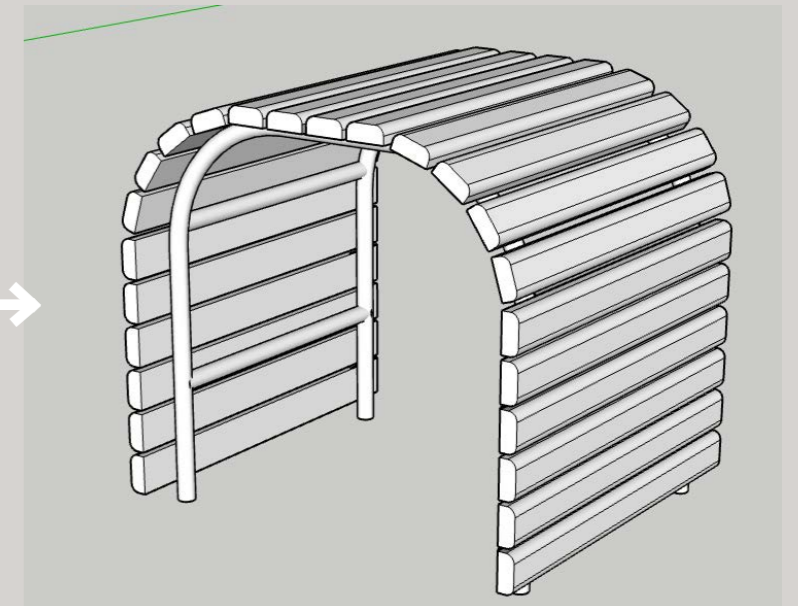
Made a 1mm radius circle pipe in the shapes of my design.



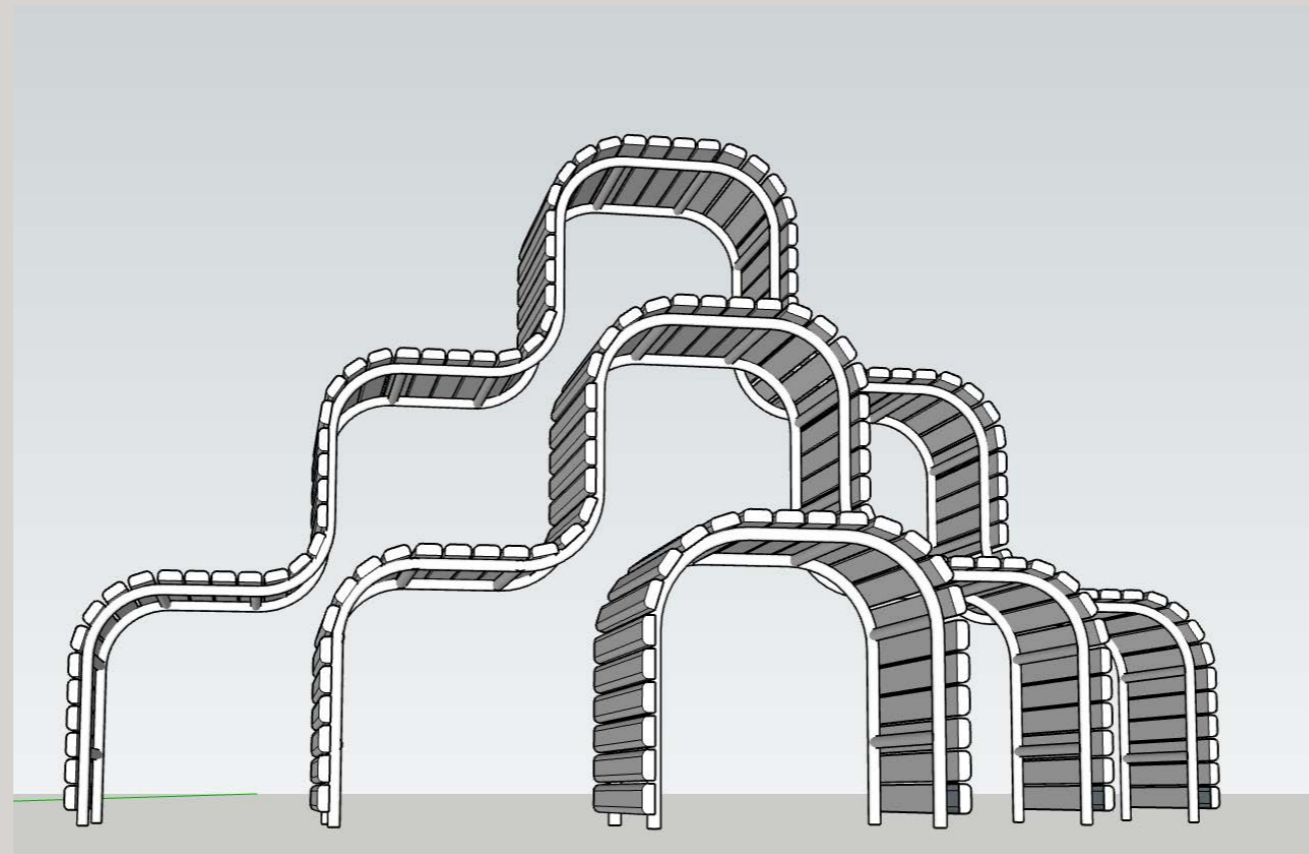
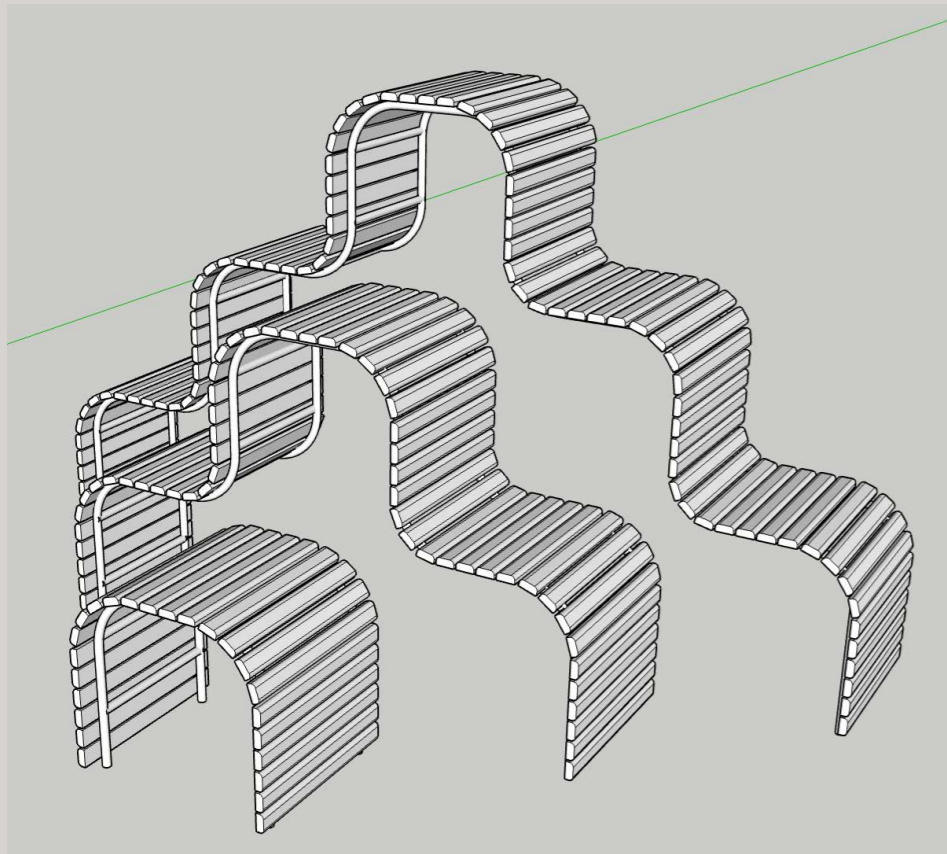
Duplicated it and moved the pairs 45cm apart.



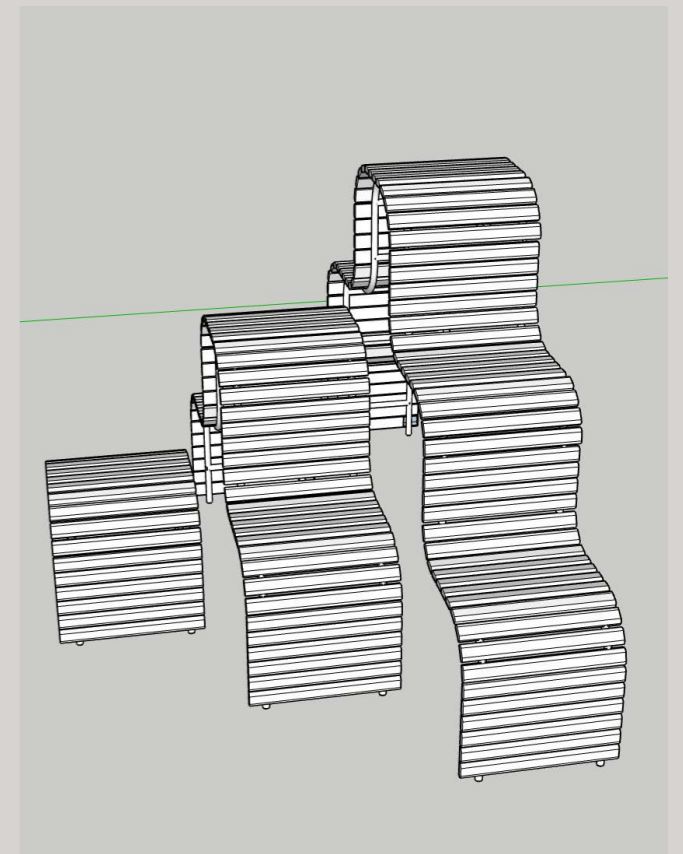
Added the structural reinforcement bars.

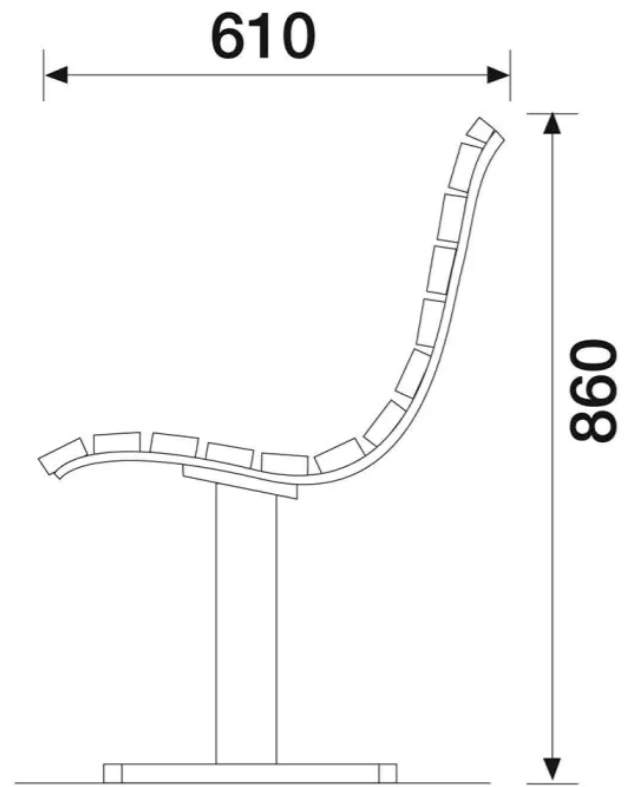


Rotated wood planks over whole model.

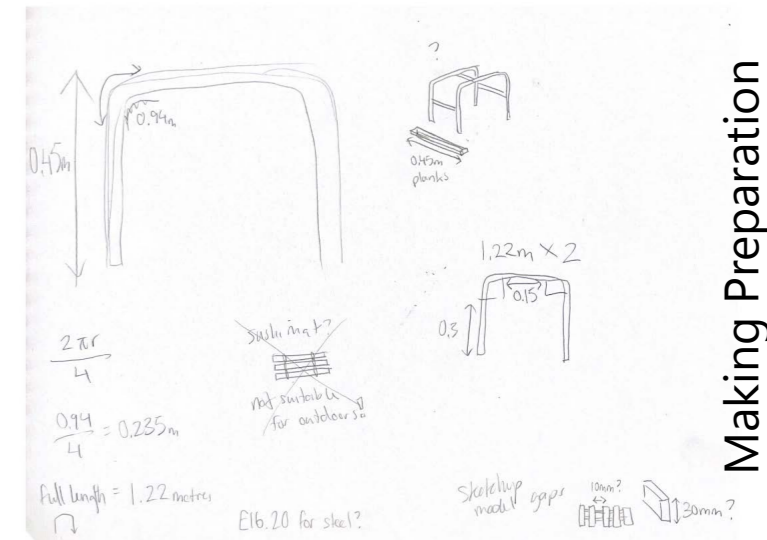
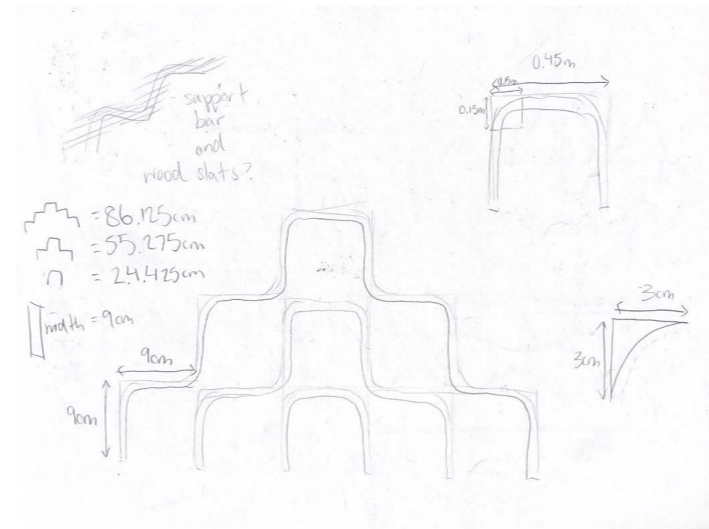
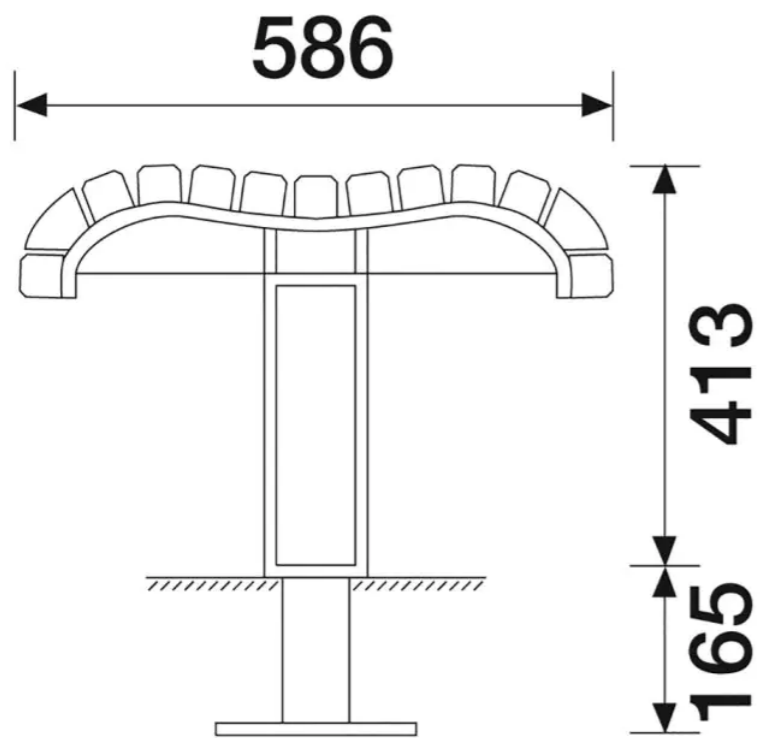


Finished model (untextured)





Making Research



Making Preparation



CMF Workshop

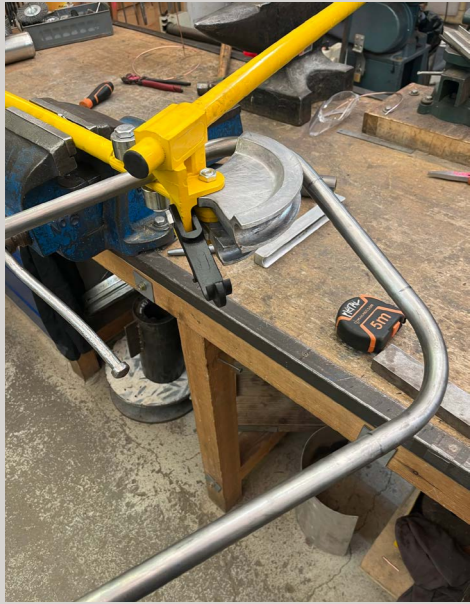
RESEARCH

DEVELOPMENT

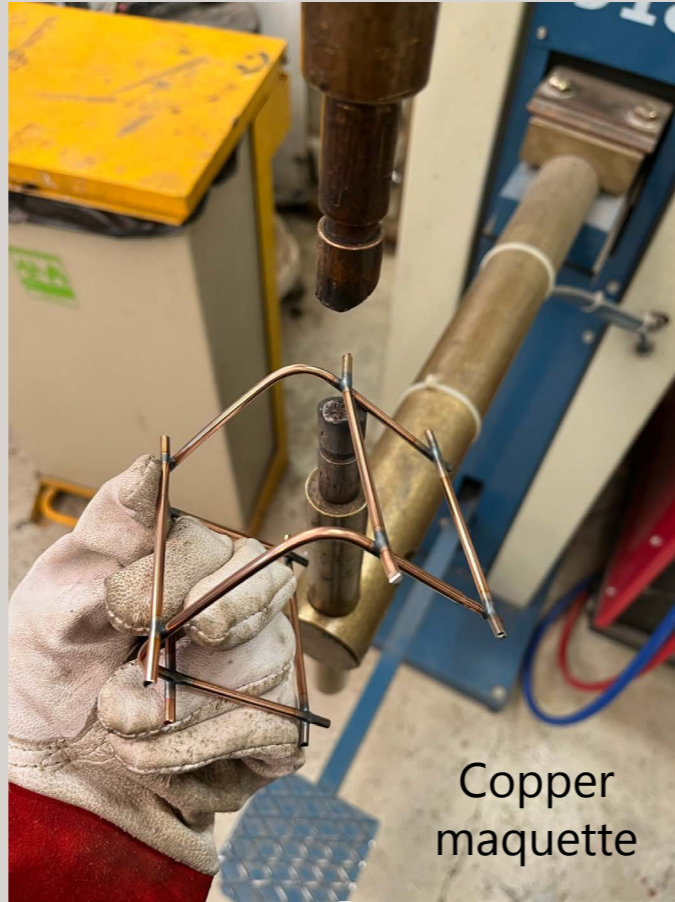
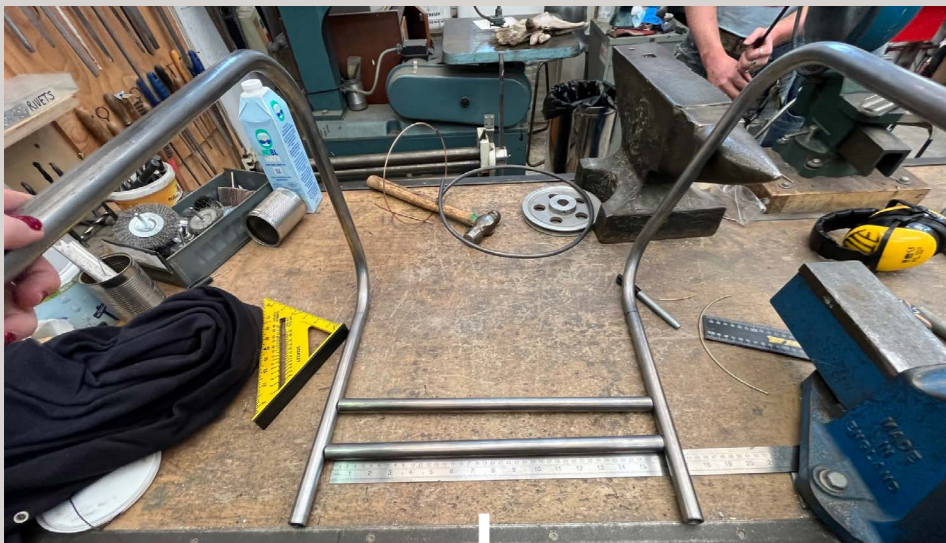
PROCESS

TECHNICAL

FINAL



Cutting and bending steel pipe.



Copper maquette



Welded metal strcuture



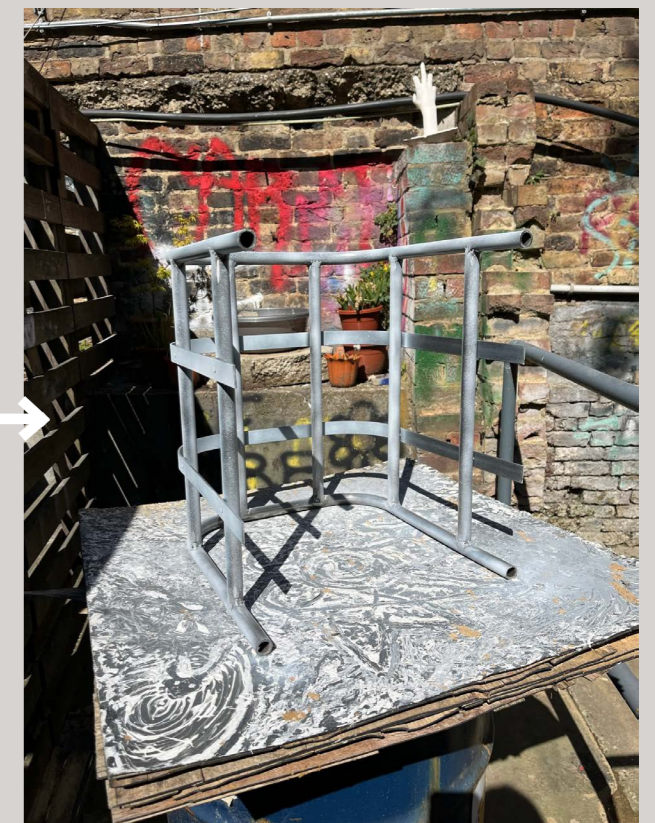
Bending flatbar to go over metal structure.



Connecting the steel using rivits.



Finished structure ready for base coat and colour coats.



Applying base coat



After spray painting, I prepped the wood, drilled holes into the flatbar and carefully screwed in the wood planks.

RESEARCH

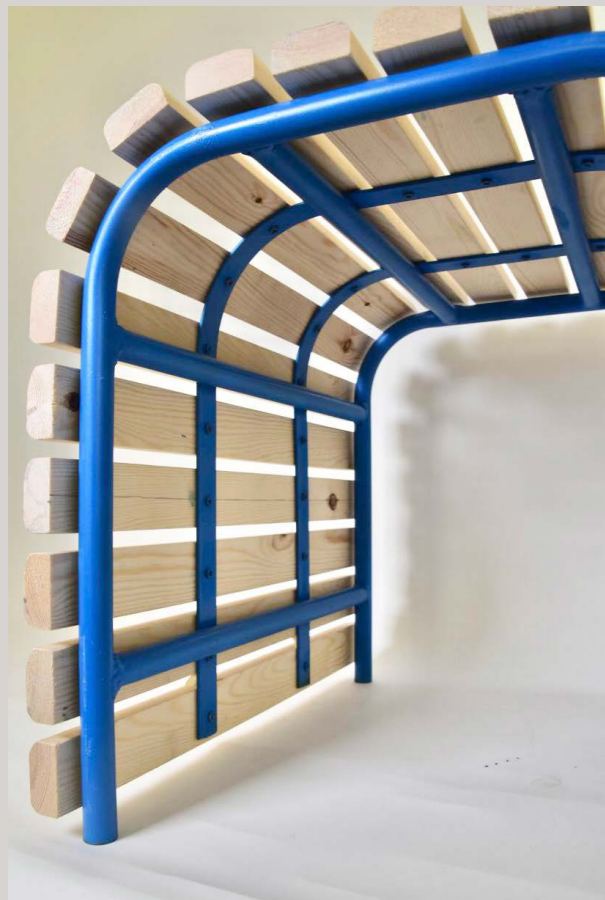
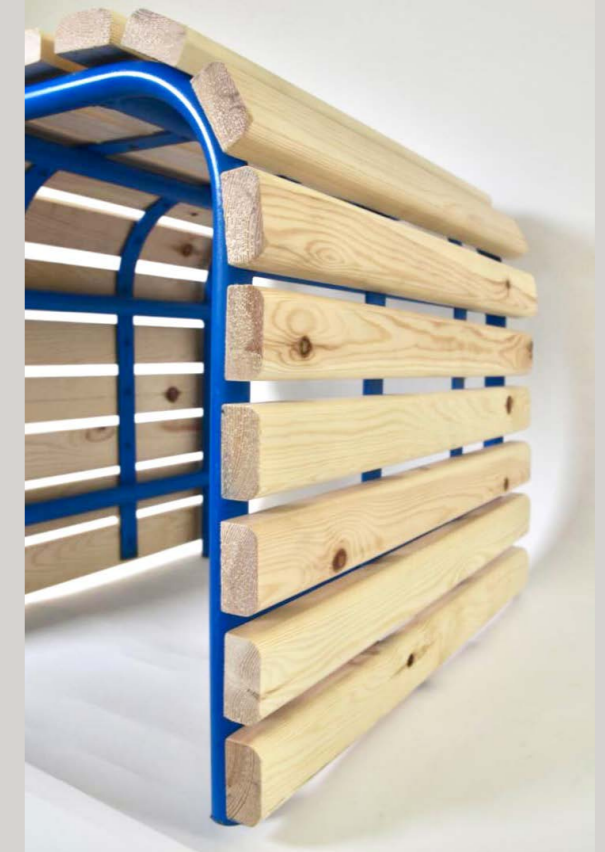
DEVELOPMENT

PROCESS

TECHNICAL

FINAL

Final Outcome Photos



Final Renders

