

Pavilion for Change

Imagine a beach. Tranquil and beautiful, the sun's warm glow gently touching your face with the sand tickling your feet. It's peaceful. It's calm.

But we all know that's far from the case now.

Microplastics, fishing nets, chocolate wrappers and bottle caps have claimed Portsmouth's beaches. They've claimed our beaches and we only have ourselves to blame.

My pavilion responds to this. The most important part about the pavilion, is it's a place where people can drop off plastic that's been collected from Hot Walls beach in Portsmouth. At the end of the Pavilions life the recyclable waste will be collected and given a second life as well as the entire Pavilion itself. This can be achieved by recycling the collected plastic into long life products such as fabrics and bowls. Also because of the pavilions shape it has been designed to be repurposed into a bus shelter.

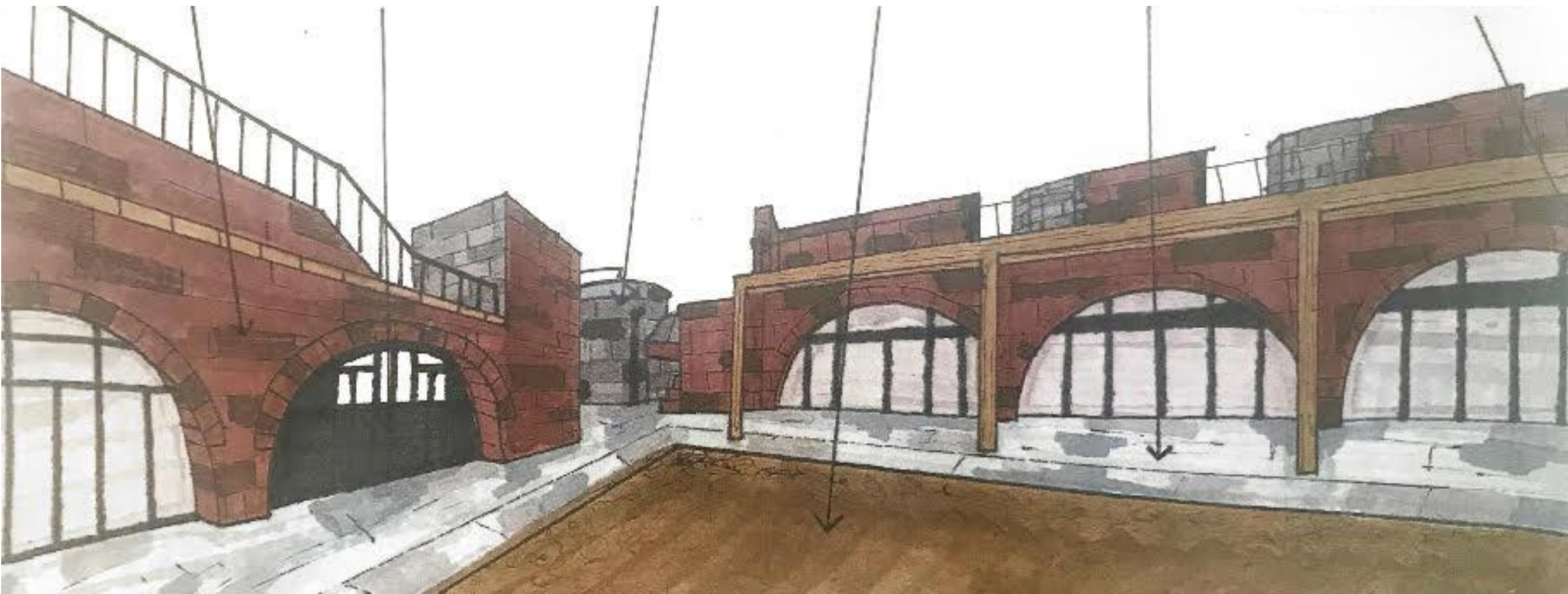
Portsmouth- Hot Walls



Hot walls are part of the round tower originally built from wood during 1418- 1428 by orders of king Henry V. the round tower was rebuilt during 1840s containing four vaulted chambers to allow the casement for the guns and dependant. Which today is a grade one listing. And since 1950s, hot walls has been used to provide studio space for local art



Materials on site



SWOT analysis

Strengths <ul style="list-style-type: none"> ○ Hot walls covers majority of the south west wind ○ Lots of nearby parking 	Opportunities <ul style="list-style-type: none"> ○ Ther's a direct access to the beach to collect plastic ○ The sun path has lots of direct sunlight at noon for a skylight
Weaknesses <ul style="list-style-type: none"> ○ Might not have much direct sunlight during winter ○ Lots of noise from the nearby road 	Threats <ul style="list-style-type: none"> ○ The tide on the beach comes up very high (almost to the wall) preventing plastic collection at high tide

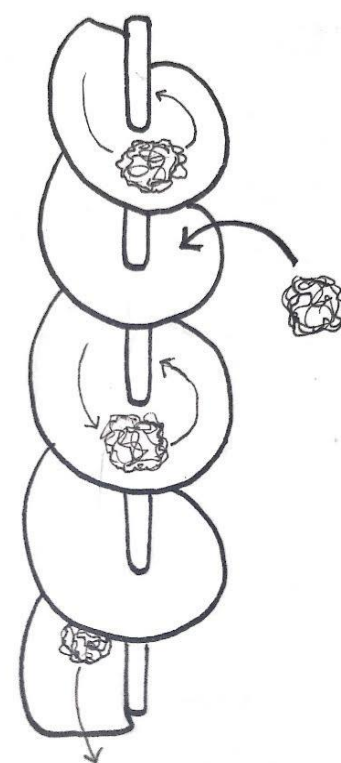
This site is perfect for the concept of my pavilion as the area is a great tourist attraction to allow many people to pass through. Furthermore there is a direct access to the beach to allow many people to collect plastic and bring to my pavilion.

Pavilion of change- Concept

Abstract models to create initial ideas



These abstract models helped inspire my pavilion concept. The first model gave me an idea of plastic sliding down towards a collection bin.



Spirit of the place collage

This collage was designed to represent the beach. To look bright and happy from afar but if you look closer to begin to see the grim and mucky issues of plastic pollution.

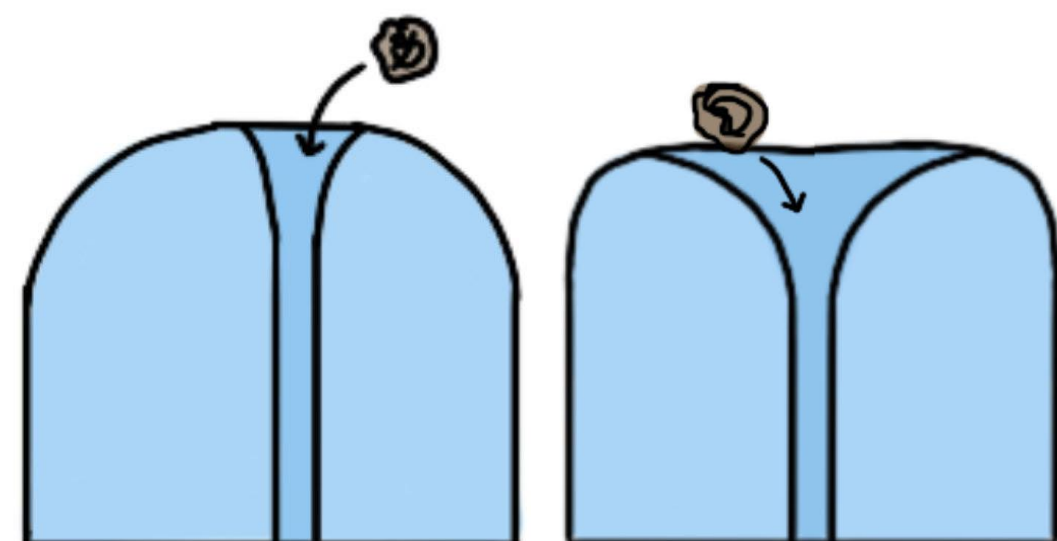
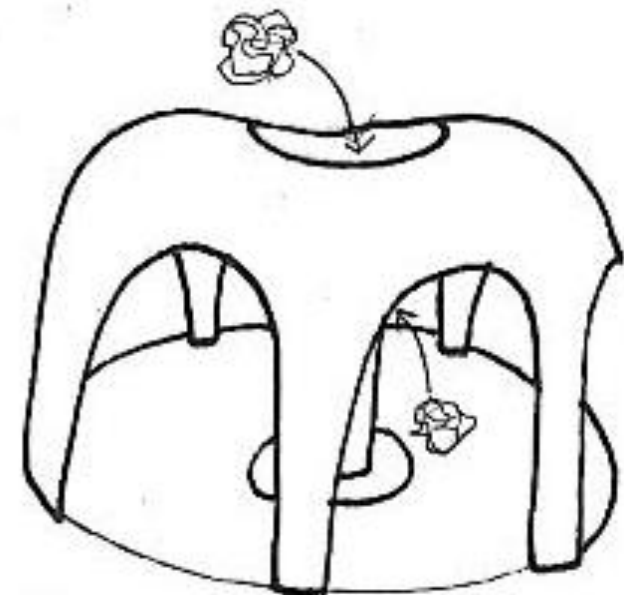
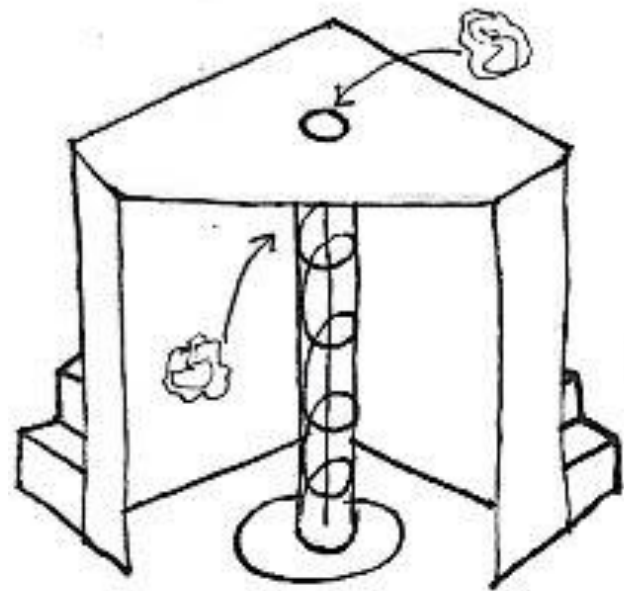
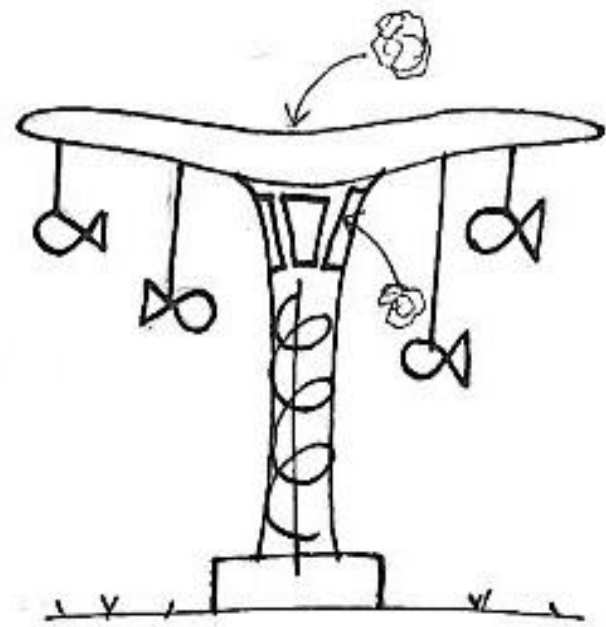
I want my pavilion to have a similar effect as this

My concept is to design a Pavilion in response to plastic pollution. I want to achieve this by creating a pavilion from recycled timbers and plastics, that acts as a collection bin for plastics to be collected on beaches by anyone passing through.

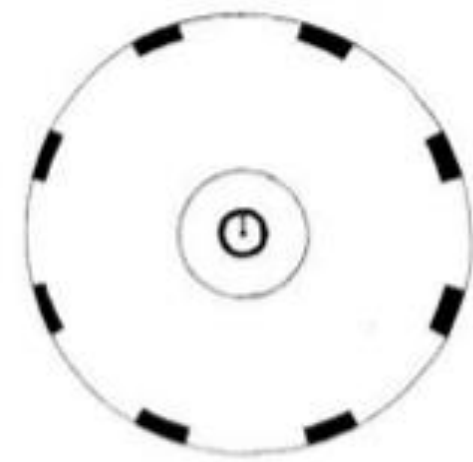
At the end of the pavilions life, the plastics will be collected and recycled into long life products with the pavilion itself being reused into a bus stop, creating a closed loop.

Pavilion of change- Design development

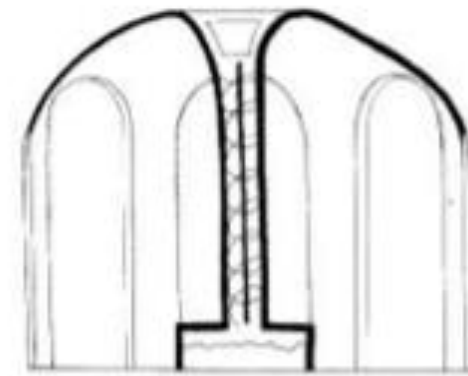
Initial sketches



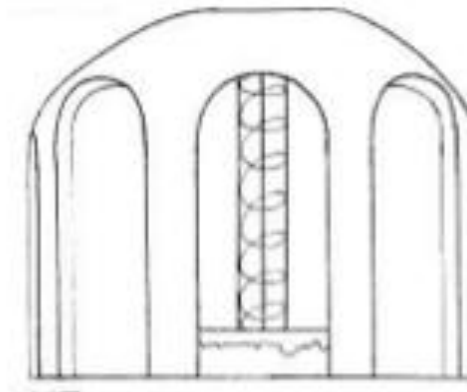
Initial Design



Plan



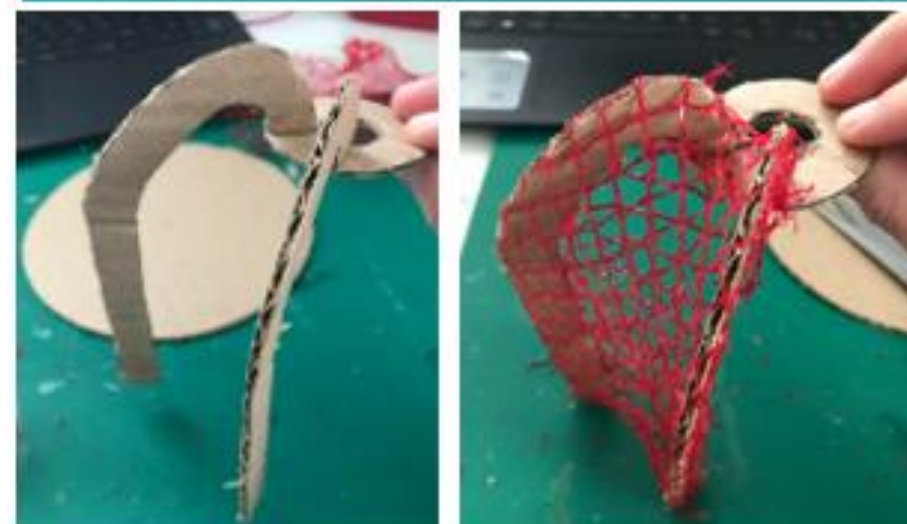
Section



Elevation

This is my first initial design of my pavilion, which the skin of my structure being melted plastic formed into sheets. However a problem with this design was the lack of structure holding my pavilion upright and the melted plastic would be difficult to recycle after its use.

I overcame this issue I by experimenting with timber framing (represented by cardboard) and netting to contain plastic, preventing them from being melted and fused together.



Material research and selection



Acrylic

- This material can be recycled
- Its weather proof
- However it can be hazardous to manufacture



Metals

- Can be melted and recycled
- Doesn't degrade easily
- Can need expensive tools to work with



Timbers

- Timbers are easy to recycle
- They are a renewable material source
- They have a low impact on the environment



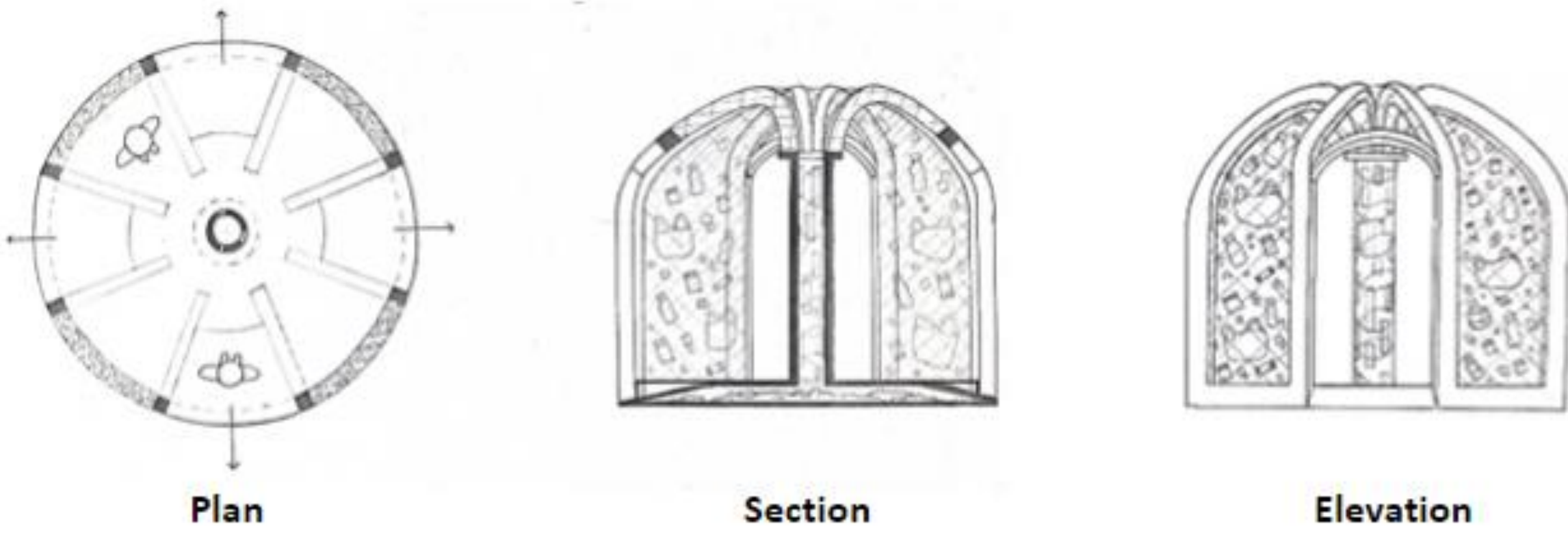
Plastic in concrete

- This is a good way to recycle plastic
- It doesn't bond well with the concrete making it brittle
- Hard to recycle afterwards

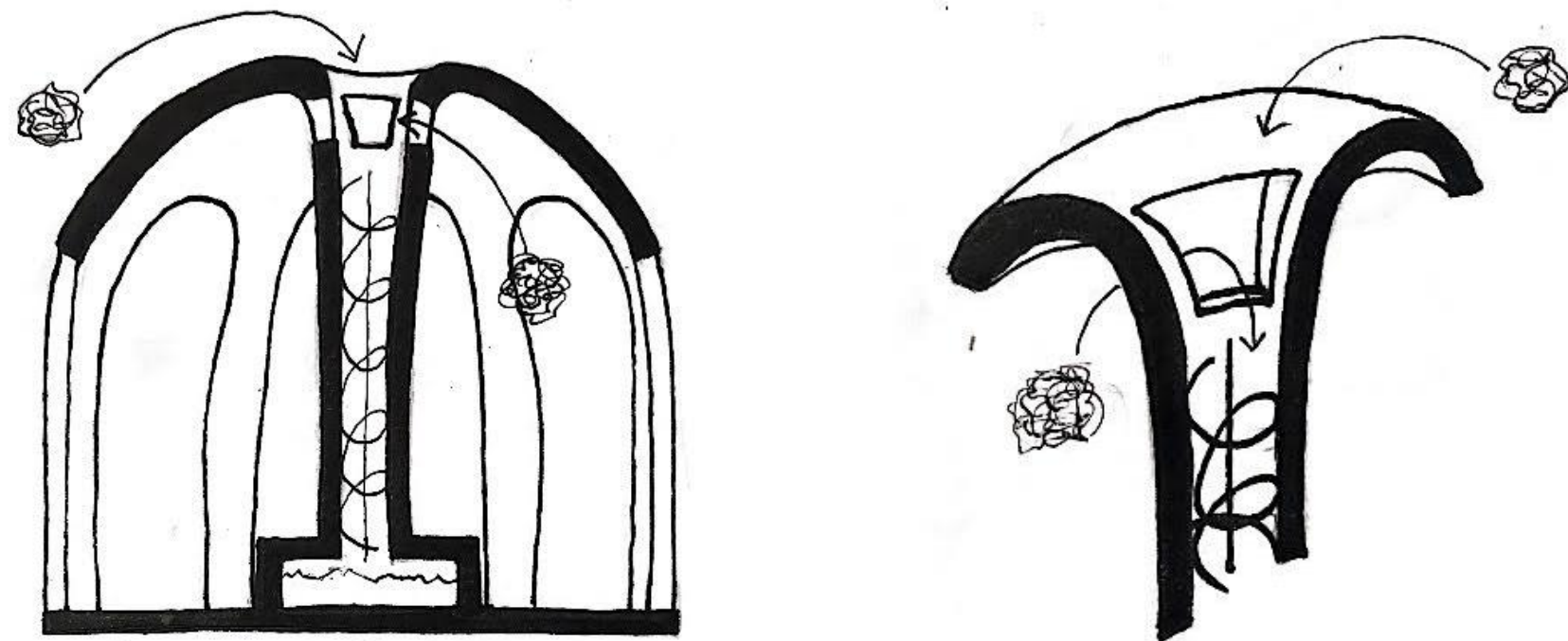
After the given research, I believe the pavilion materials should be made from elm wood and acrylic. This is because Portsmouth Southsea used to flourish with elm trees, responding to the sites past and acrylic flooring as its strong and can be recycled after its use.

Pavilion of change- Final Design

Final Orthographic



Plastic disposal mechanism



Final model

All plastic used was hand collected of beaches

