Lighting + Shade Structure (2015)

12

AS 91337: Use visual communication techniques to generate design ideas (3 credits) – 2015

Achievement	Achievement with Merit	Achievement with Excellence
• Use visual communication techniques to generate design ideas.	• Use visual communication techniques skilfully to generate design ideas.	• Use visual communication techniques effectively to generate design ideas.

Visual communication techniques are used to generate ideas to show design qualities.	Visual communication techniques are used **skilfully** to generate ideas to show design qualities with **clarity** through well-articulated visual means.	Visual communication techniques are used **effectively** to generate ideas to show design qualities with clarity and a **depth of understanding** through well-articulated visual means.
Design ideas are produced that **explore** identifiable design qualities	**Divergent** design ideas are produced that explore identifiable design qualities	Divergent design ideas are produced that are explored and **extended** to show identifiable design qualities.

N

Commentary:

Vis Com – **N**

Des Ideas – **A**

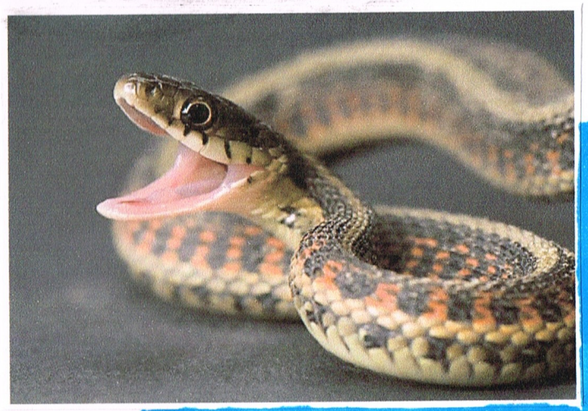
Visual communication techniques do not adequately explain the design as a whole for either project. Drawings tend to remain too basic and conceptual rather than communicating clear design qualities that show the ideas as design outcomes with distinct aesthetic and functional features. The lack of suitable detail means the ideas are not really anything more than simple sculptural forms.

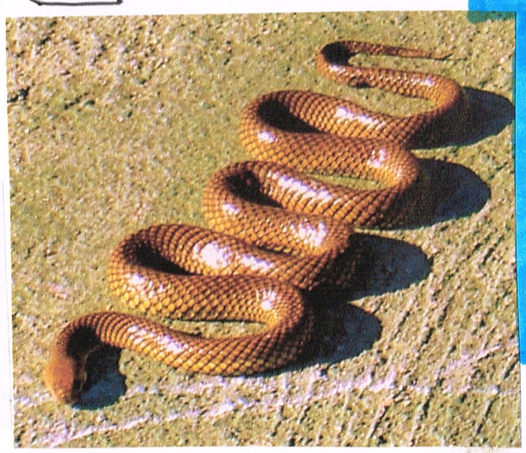
There is a variety of ideas produced to show sufficient evidence of different ideas (as required for Achieved).

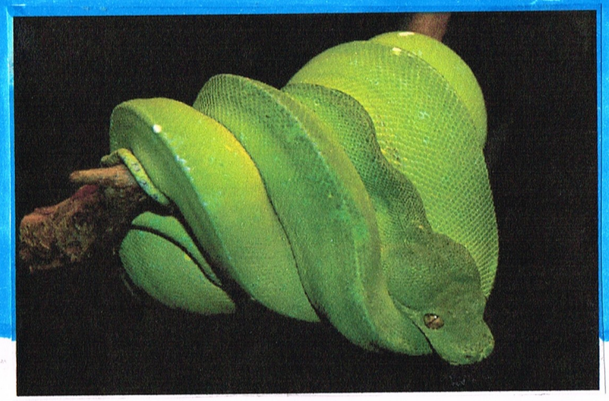
There are some techniques shown in isolation such as crating, rendering, and contextualising with human figures to give some sense of scale.

High Not Achieved

New Origin



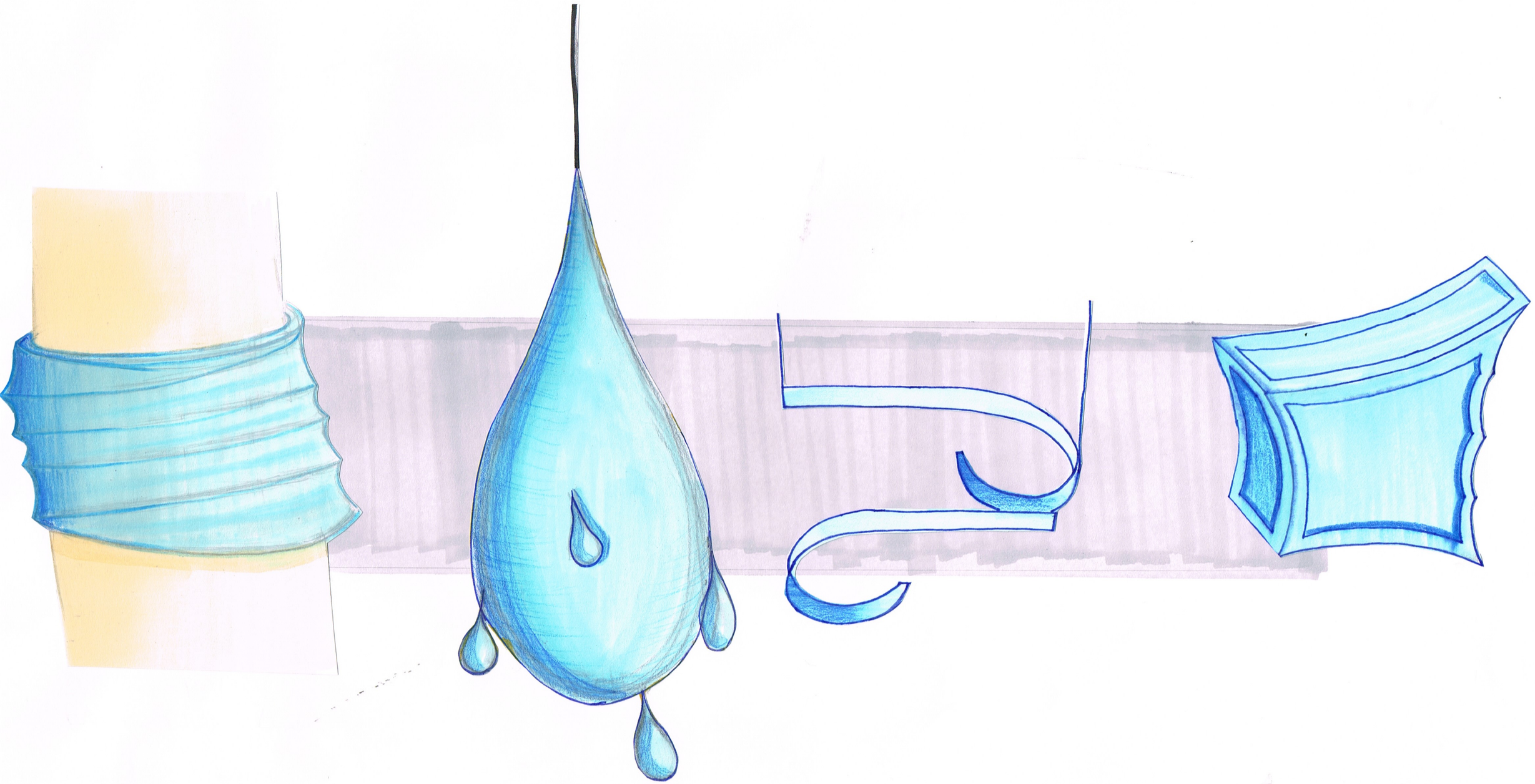




Ideation

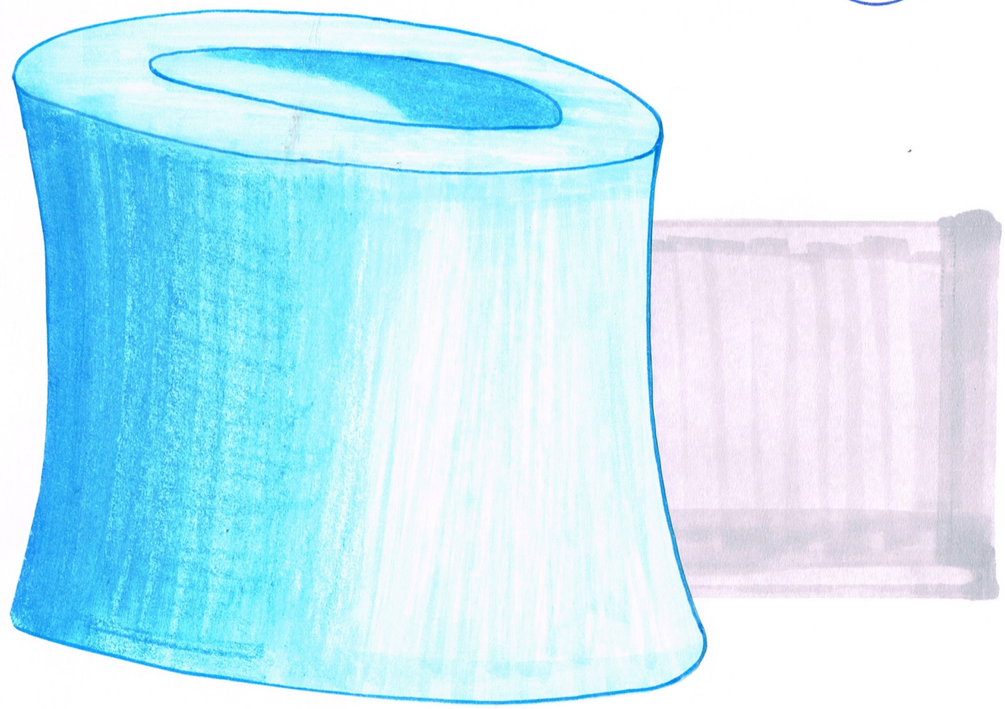
Origin

Concepts

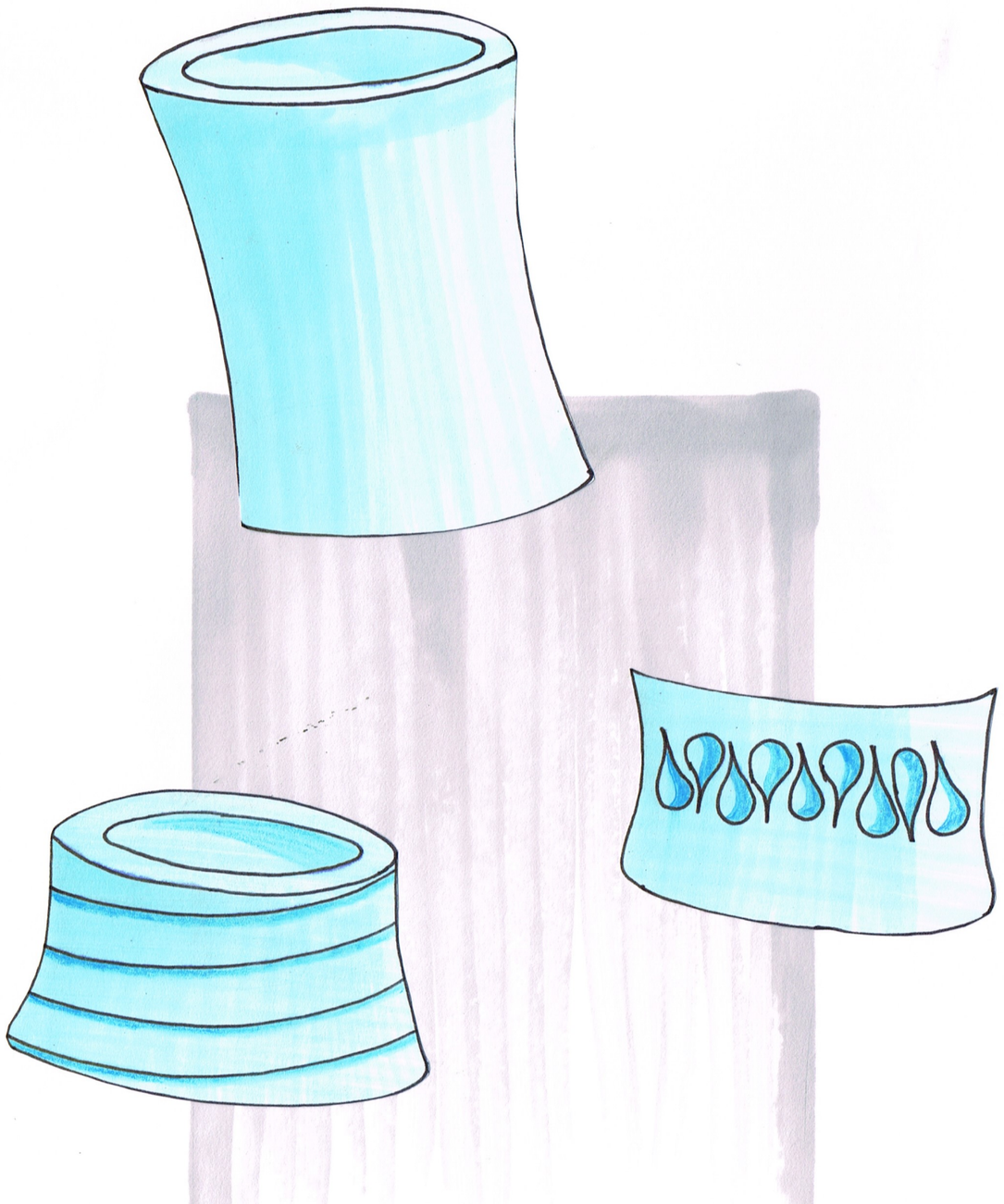


Chosen Concept

This is the concept I have chosen to take further and develop. It is a lighting solution for people who do outdoor activities, such as: snowboarding, skiing, kayaking, tramping, caving, hunting, fishing etc. It goes on your wrist or leg, so needs to be lightweight, be able to change size and flexible. Many different age groups would be able to use this product, kids to adults, both males and females; even your pet could wear this. This lighting solution needs to be water proof, shock and drop proof, mud proof, needs to be able to be in cold temperatures and needs to emit a bright light that lights up a surrounding area.



Alternatives



The 3 alterations I have added into my concept are:

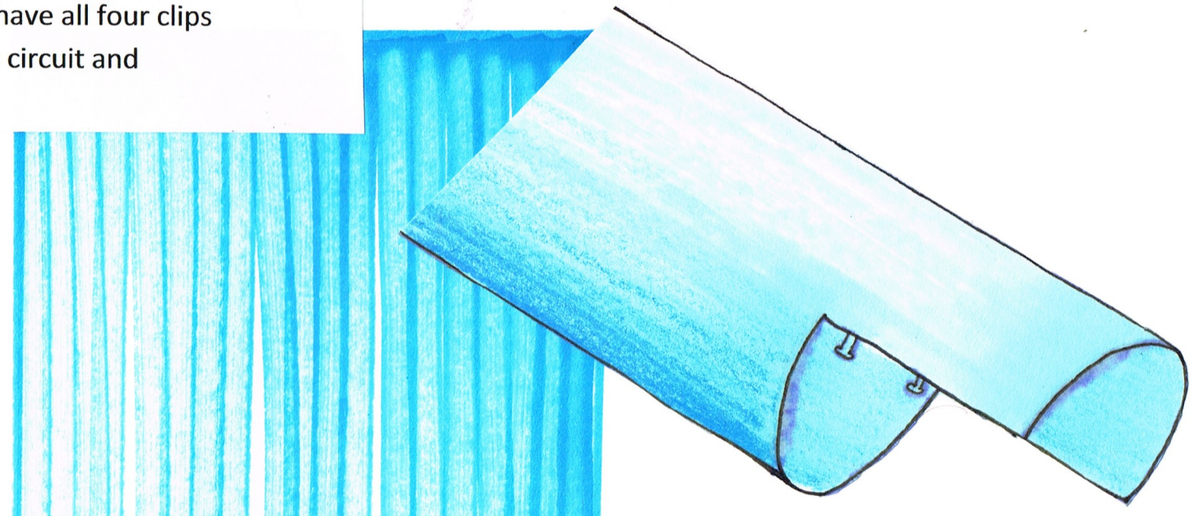
Sizing of the lighting solution. This can be taller, shorter, skinner, thicker. This is so you can choose how much light you want to produce and how big you need to buy one. A skinny but long one will produce more light than a short but thick one but if you have a big arm or leg and you only want to light up around your feet you could just use a short and thick one. It is all up to the user, on what size they would need.

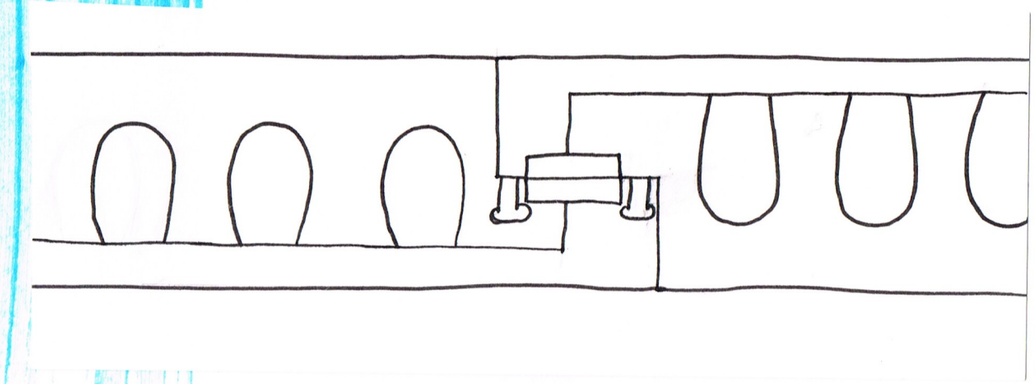
Pattern added into the lighting solution. This one is mainly for the kids, there can be a pattern embossed into the tube itself, this not reducing the amount of light it can produce but just creating a slight shadow of the pattern, it would also make for a cool looking design and also may provide some grip if you are using this lighting solution in and around water.

Wrap around. This alteration means that you can get a length of this lighting solution instead of just a cylinder; I believe that this would work the best as you could use the one length for many things. If you're a kayaker and you didn't want it on your arm you could wrap it around your paddle this means that you're still lighting up the area but it's not attached to you. This is also better for a user as one length fits all and everything as long as you have a long enough length.

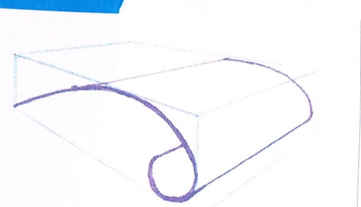
How it works

My lighting solution is run off a led band; this led band is waterproof and can be made any colour at the click of a button. The brightness of the light does not get affected when using different colours. How you charge the band is by placing the band on top of a wireless charger, this charger works by magnets connecting creating a power source to charge it, the way the band is turned off and on is also magnets. There are two different clips on the opening of the band, at the front and back. To make the band light up you must have all four clips pushed into each other, this turning on the circuit and providing light.





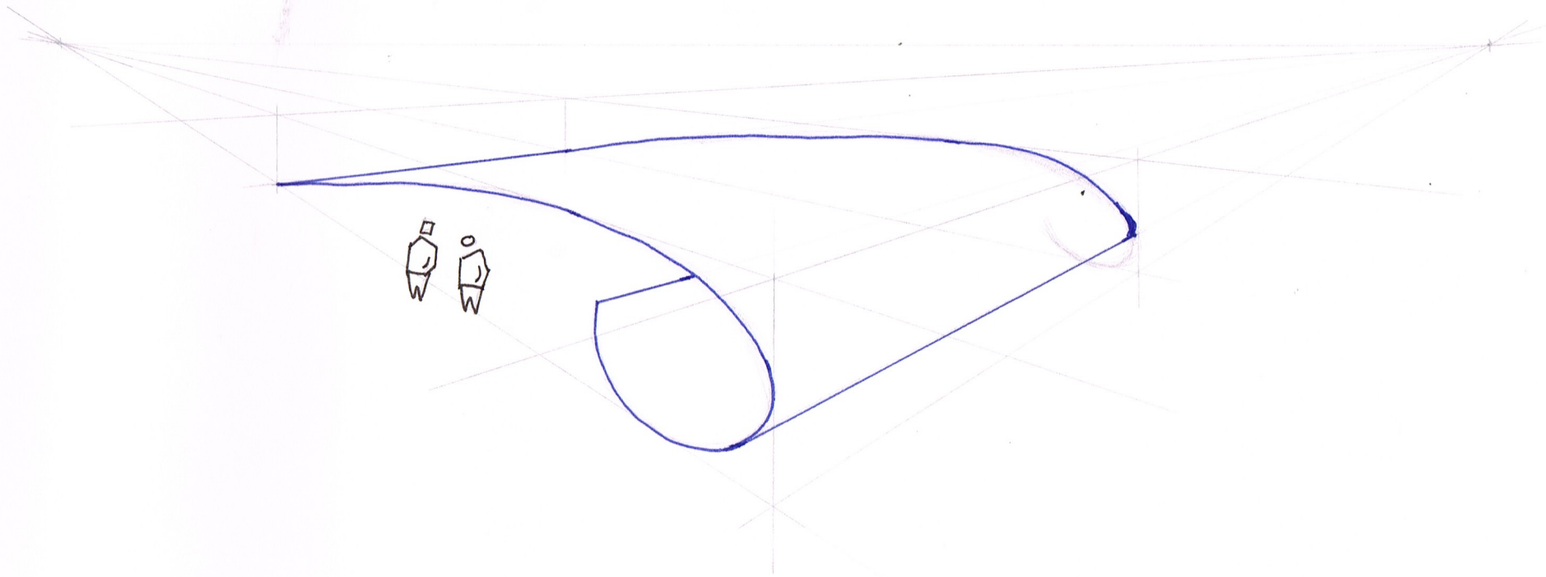
CHOSEN CONCEPT



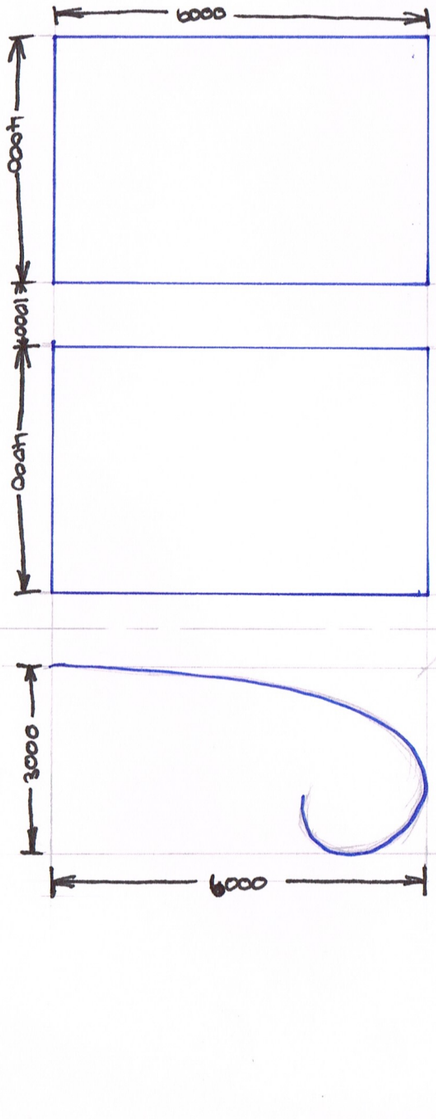
REASEARCH INSPIRED DESIGN

FRED GEHRY

FRED GEHRY IS INSPIRING MY DESIGN IN THE WAY OF MIXING CURVES AND STRAIGHT LINES. I HAVE NOT GONE TO THE SAME EXTENT AS WHAT HE DOES BUT HIS WORK INSPIRED ME TO CHOOSE THIS CONCEPT.



TECHNICAL ASPECTS
MATERIALS
ORTHOGRAPHIC
MEASURMENTS

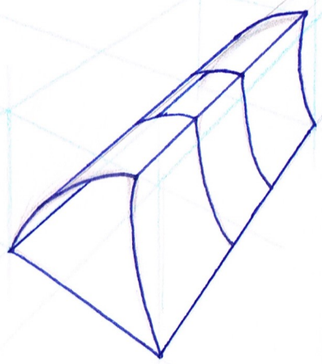


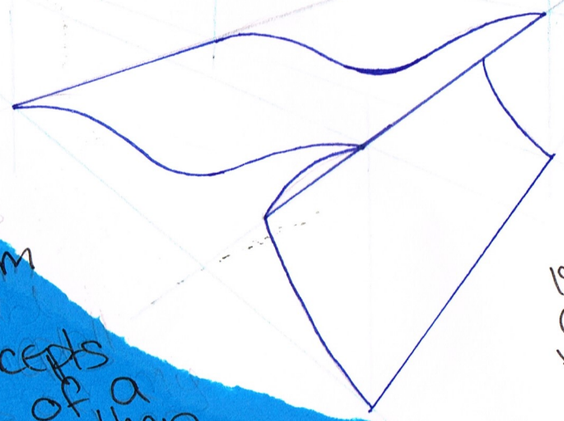
MATERIAL

FOR MY SHADE STRUCTURE I'M GOING TO USE BLACKEND STEEL SHEETS. UNLIKE THIS PICTURE IT WILL JUST BE ONE BIG BENT SHEET, ABOUT 15mm THICK. THE THICKNESS IS SPLIT UP INTO 5MM SHEETS. THE OUTSIDE SHEETS WILL BE BLACKEND STEEL WITH THE MIDDLE 5MM BEING CARBON FIBRE TO HELP KEEP THE INSIDE OF THE SHADE STRUCTURE COOL SO THAT STUDENTS CAN SIT AND LEAN UP AGAINST IT.

CONCEPTS

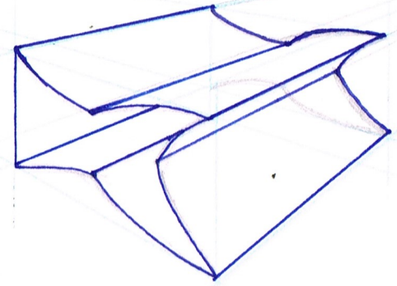
. This Concept
I find very
unattractive but
t would be very
unctional in providing
Shade and protection
from the elements.

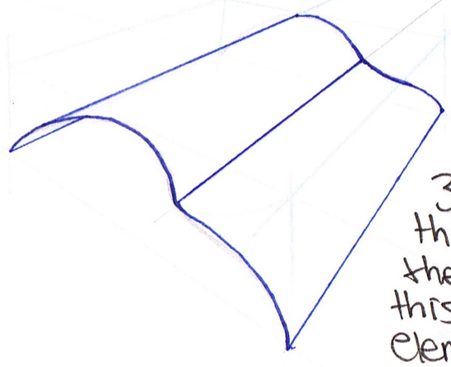




2. Very visually appealing and could be very functional, only negative about this concept is that it would have to be a big design otherwise half of the space would be wasted.

4. Another visually appeling design but like one other concept it is not very good functionally, as there are alot of areas that are not useable and wouldn't provide the best shade.

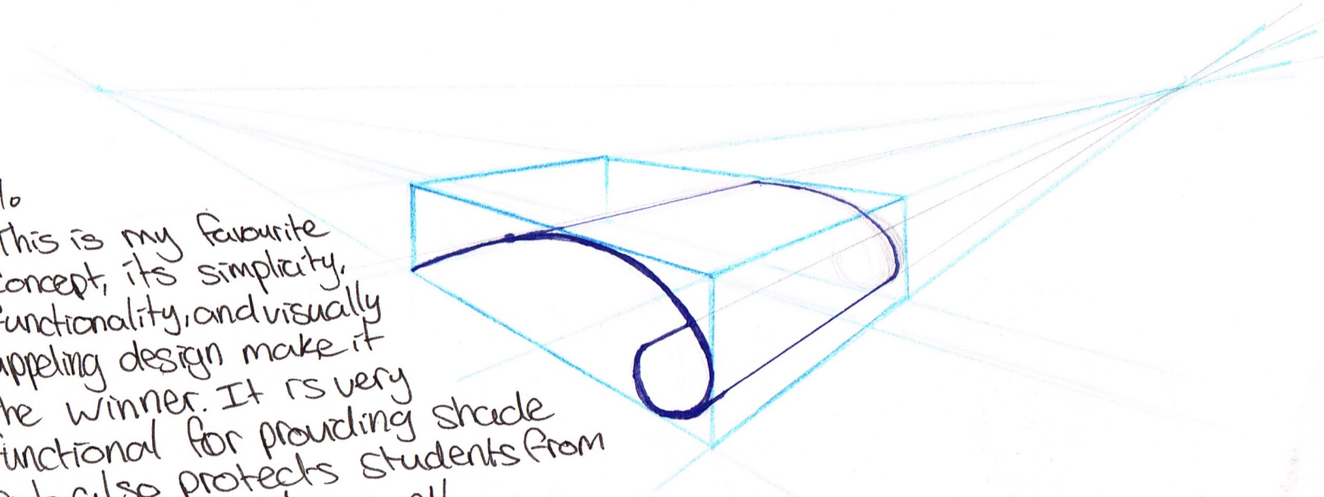




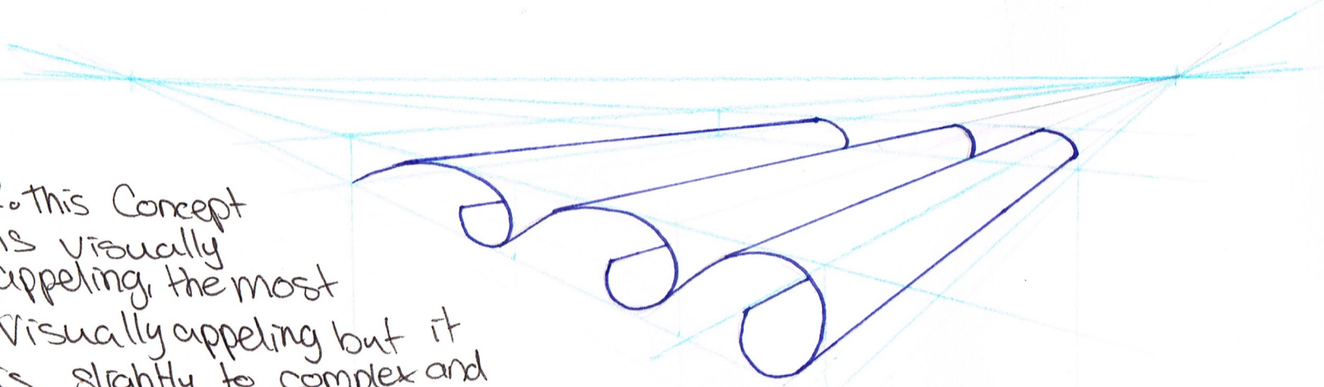
3. Ugly but functional design, this concept was based on the outside of a sharks tooth this has given it a very functional element but the attractiveness is not there.

These 4 Concepts have all come from my research and ideation. All Concepts are just parts of a shark, which can then be developed and transformed more if chosen.

CONCEPTS

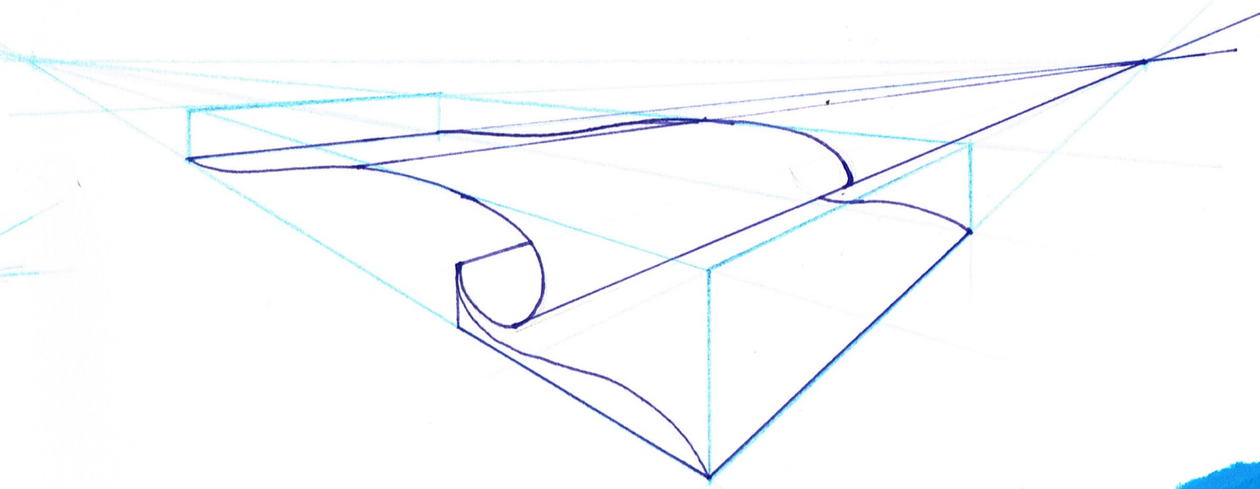


1.
This is my favourite concept, its simplicity, functionality, and visually appeling design make it the winner. It is very functional for providing shade but also protects students from rain and wind aswell.



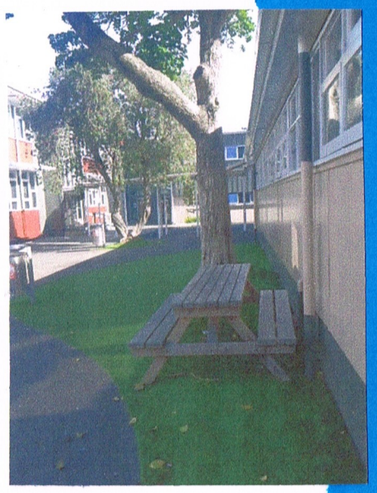
2. this Concept is visually appeling, the most visually appeling but it is slightly to complex and it would have to be a massive structure to be good functionally.

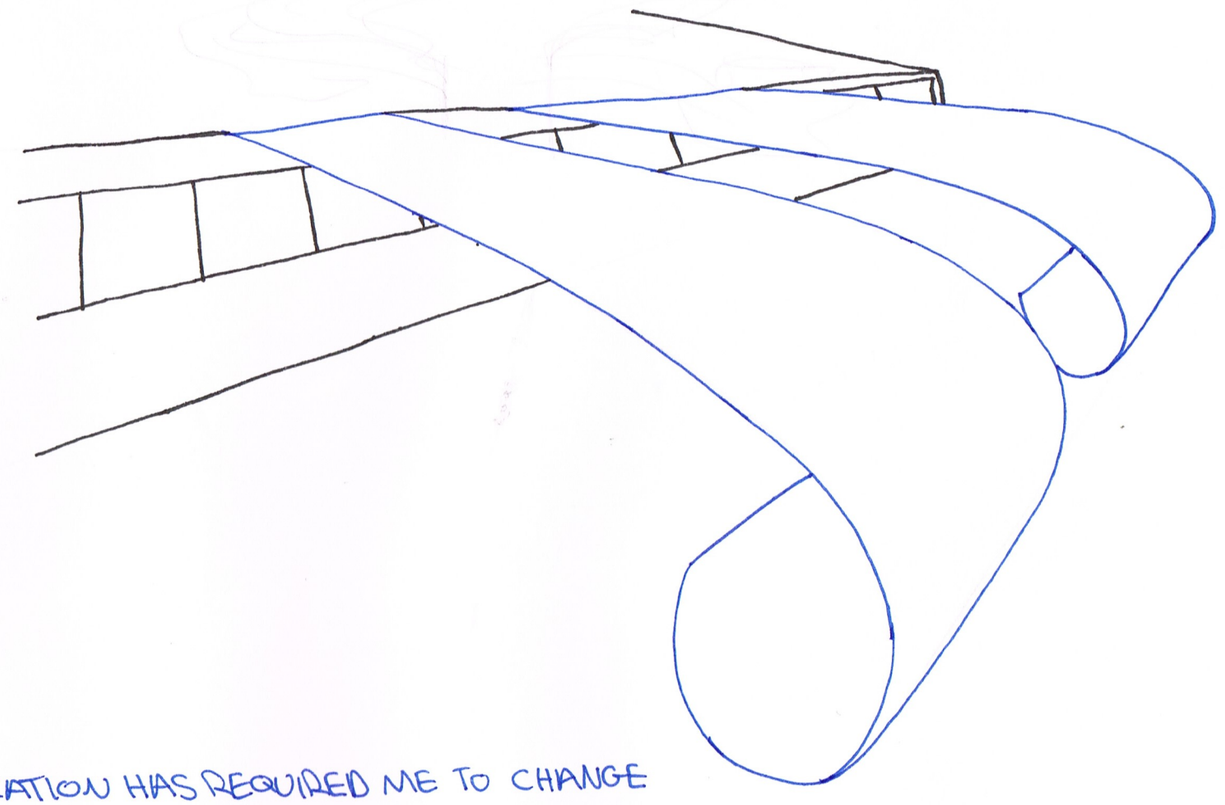
3. Ugly, unfuctional, useless, this concept is a no go. It is very ugly to look at and is also very unfunctional.



These concepts have been inspired by my wave research and ideation, I think that the wave is more appealing to look at and is more function

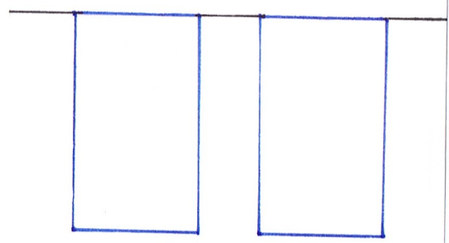
DEVELOPMENT SITE



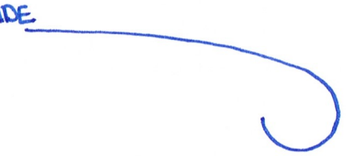


2D VEIWS

TOP

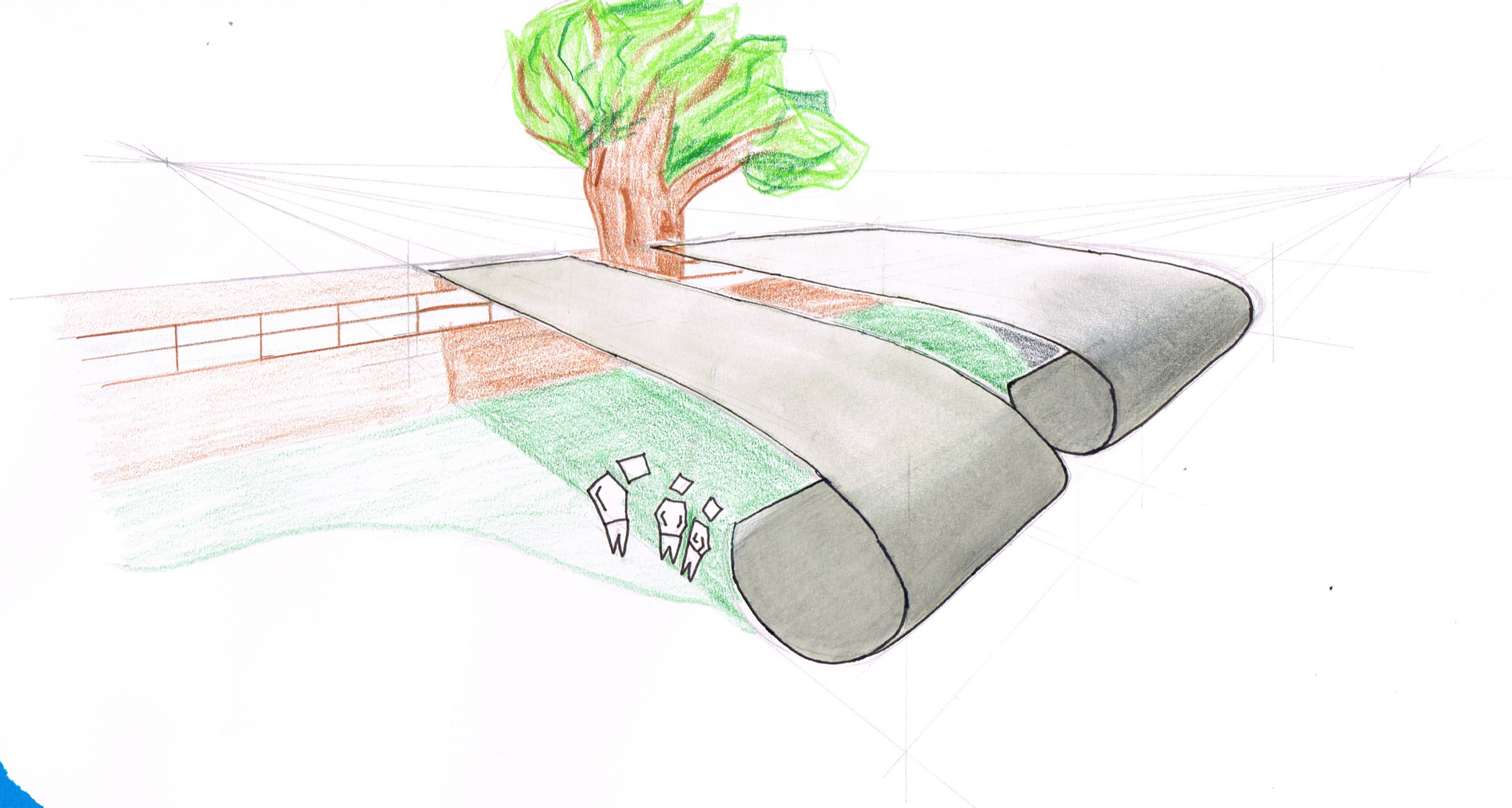


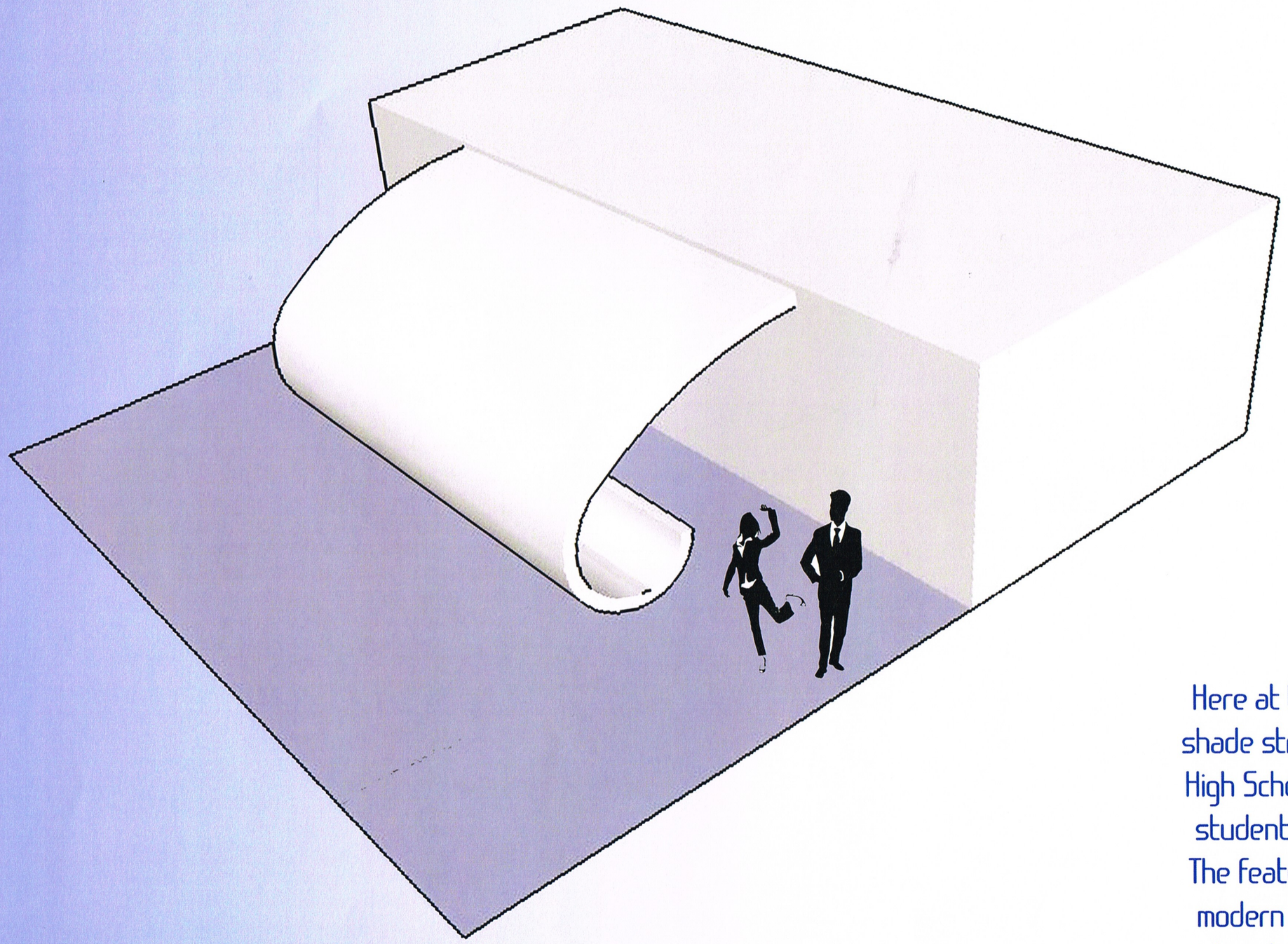
SIDE

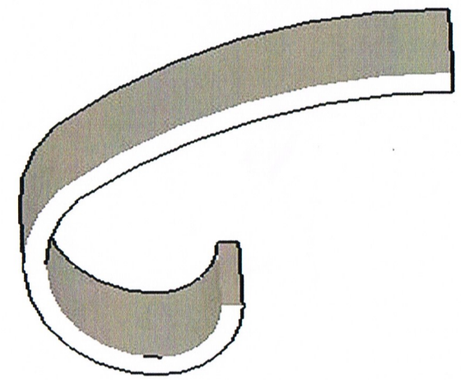


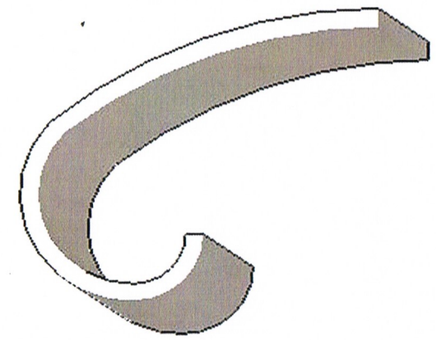
MY LOCATION HAS REQUIRED ME TO CHANGE AND DEVLOP MY DESIGN, THERE ARE TWO CHANGES BEING MADE. A SPLIT IN THE MIDDLE OF THE STRUCTURE AND IT JOINING ONTO A BUILDING INSTEAD OF IT BEING A FREE STANDING STRUCTURE. THE REASON I HAD TO MAKE A SPLIT IN THE MIDDLE AND CREATE TWO SEPERATE PARTS IS BECAUSE THERE IS A BIG TREE IN THE MIDDLE OF MY LOCATION. HAVING THE STRUCTURE JOINED TO THE BUILDING GIVES IT A NICER LOOK AND CAN ABO PROVIDE SHELTER FROM RAIN AND IT LOOKS LIKE IT SURVES A PURPOSE INSTEAD OF JUST BEING AN AESTHETICLY GOOD LOOKING OBJECT. IT IS NOW FUNCTIONAL.

FINAL
DESIGN









Here at Leith Arcitcture we saw an idea for a shade struture to be located at Westlake Boys High School. We have talked to the school and students and have come up with this design. The features this shade structure offers is a modern wave that will provide shade, a wind breakand also shelter from the elements.