

Exemplar

AS 91627 (3.34) Initiate design ideas through exploration. (4 credits)

Achievement	Achievement with Merit	Achievement with Excellence
Initiate design ideas through exploration	Initiate design ideas through insightful exploration	Initiate design ideas through extensive exploration

Marking Schedule

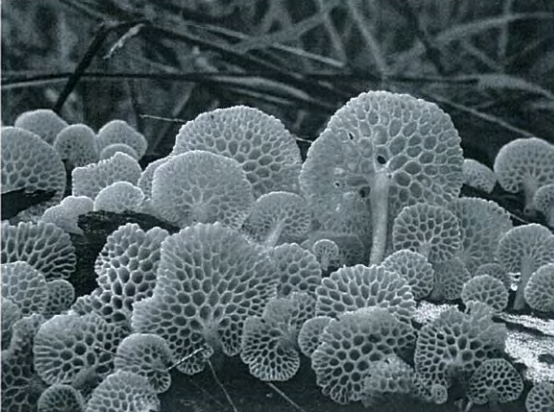
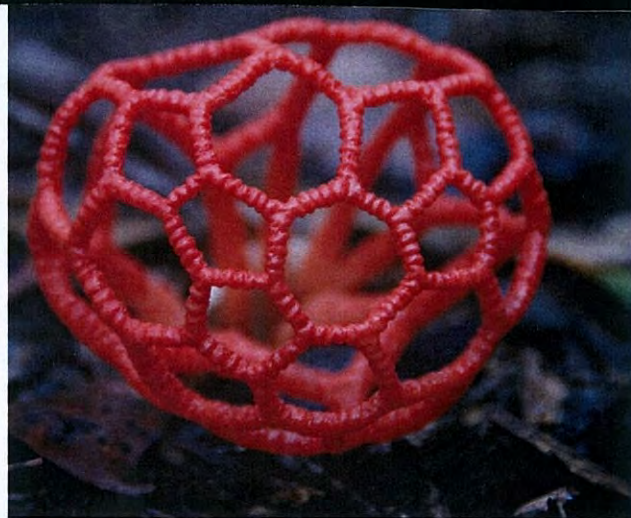
Use starting experiences and visual communication strategies to <u>explore alternatives</u> and <u>variations to expand</u> design thinking.	Use visual communication strategies to show <u>considered</u> alternatives and variations for the purpose of <u>analysing and re-interpreting</u> ideas.	Use visual communication strategies to show <u>divergent and perceptive</u> alternatives and variations.
Ideas are <u>re-generated</u> from alternatives and variations which <u>lead towards</u> design ideas.	Ideas identify an <u>emerging train of thought</u> that informs design ideas.	Train of thought <u>extend</u> and <u>transform</u> design ideas

Commentary: **This submission is assessed at high Merit.**

This submission is of the ideation that precedes a sports pavilion.

It is based on a mood board of fungi, and later incorporates further inspiration from Zaha Hadid and her Sleuk Rith Institute in Cambodia. This submission initially uses sketching techniques to explore alternatives and variations of the fungal shapes, these are re-generated into simple paper models re-iterating the derived forms and patterns that the student has selected. A feature of this work is how the patterns have been printed onto paper and these are folded into ideation models; this illustrates consideration of alternatives and variations that have been analysed and re-interpreted, showing evidence of an emerging 'train of thought'.

There is divergent thinking in evidence with the 3-dimensional patterns being woven into forms but the ideation does not advance the thinking to perceptive opportunities, rather the ideations starts to converge on a solution and misses the opportunities for extension and transformation. The ideation is finishes here with the solution for the sports pavilion being resolved with simpler forms, with an applied pattern.

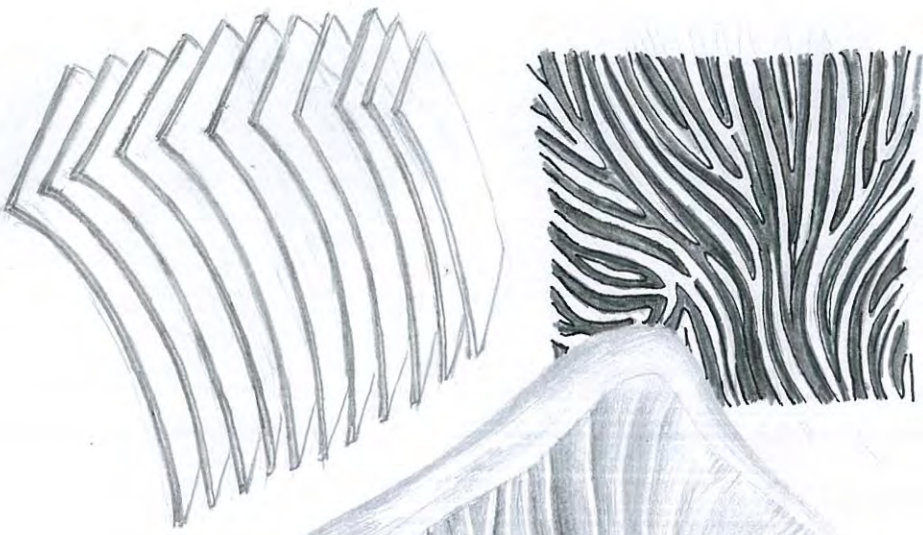


INSPIRATION MOOD BOARD

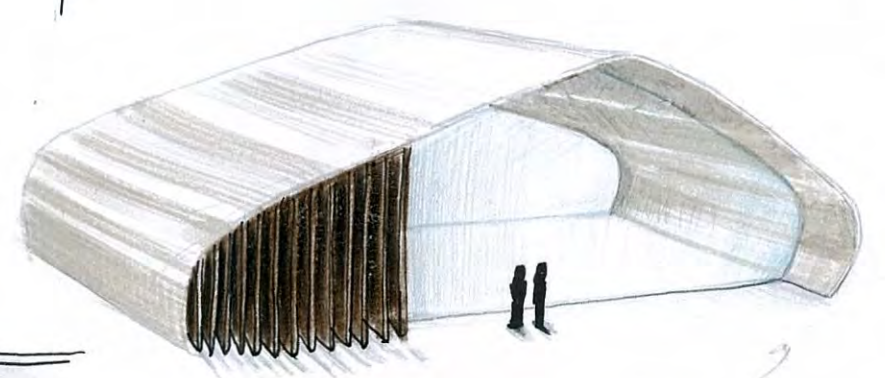
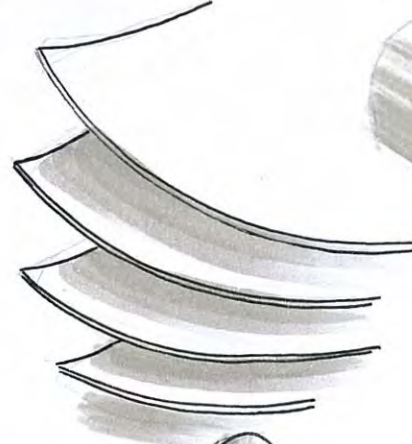
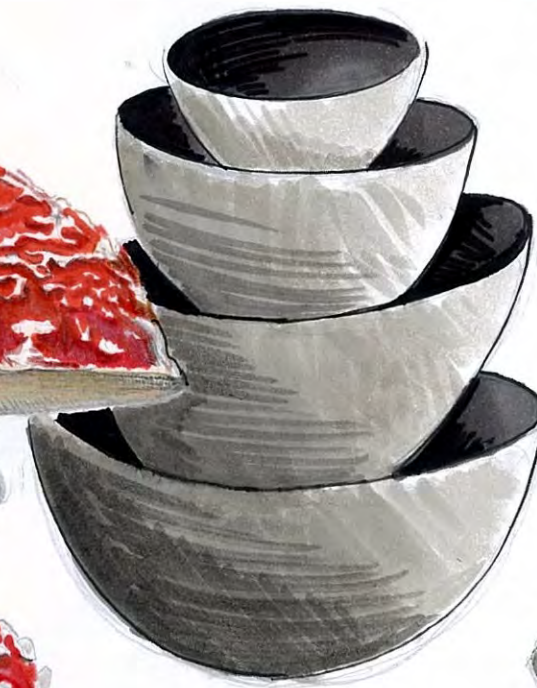
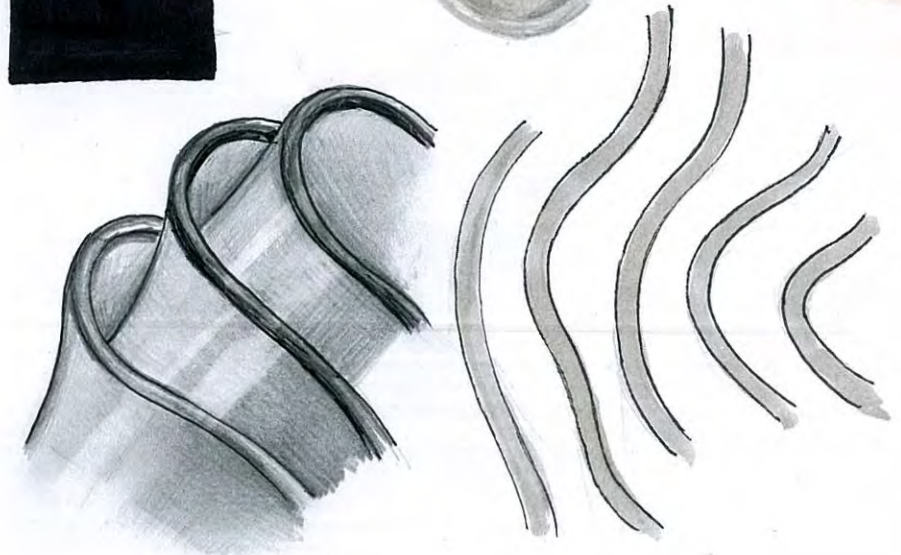
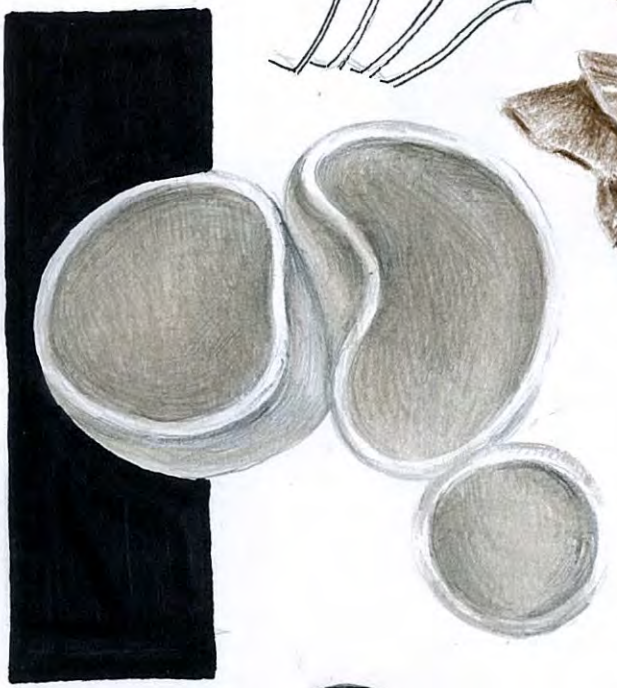
IDEATION

-THEME ONE: FUNGI/MUSHROOMS

Nature is something a number of architects and designers take inspiration from for their designs. Nature is the origin of my ideation. Exploring interesting shapes and forms in nature including leaves and branches led me to the idea of mushrooms and fungi. This subject is very exciting in terms of the very random forms, bright colours and patterns. This means the imagery I produce will be applicable to my design both structurally and aesthetically.



Out of this image you can get both layered patterns and veins as a type of pattern.



the way the mushroom top overhangs is something that can be applied to the roof.

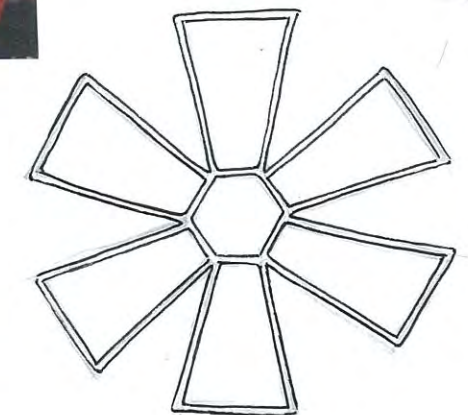
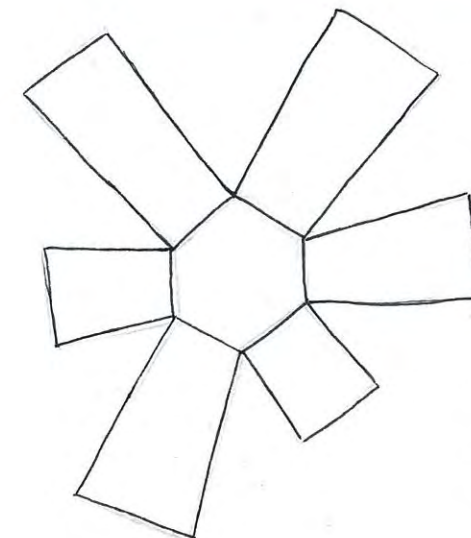
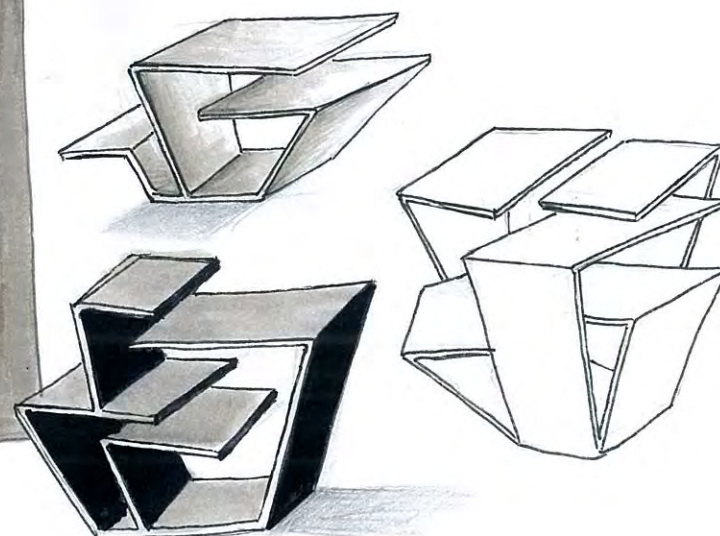
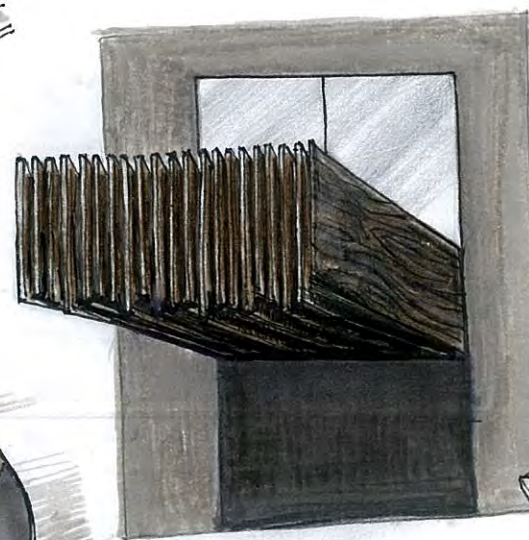
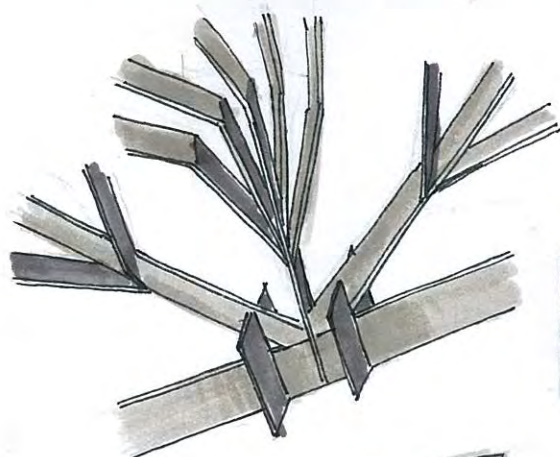
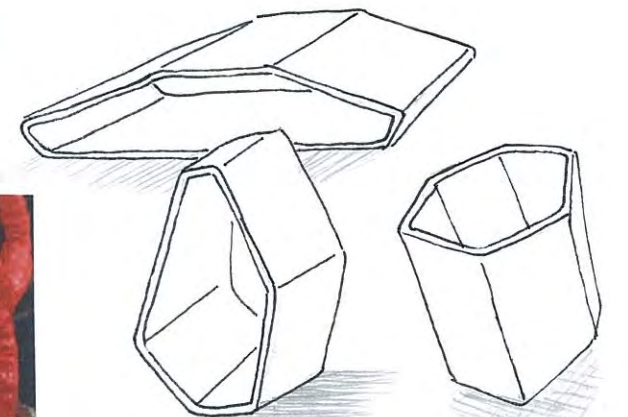
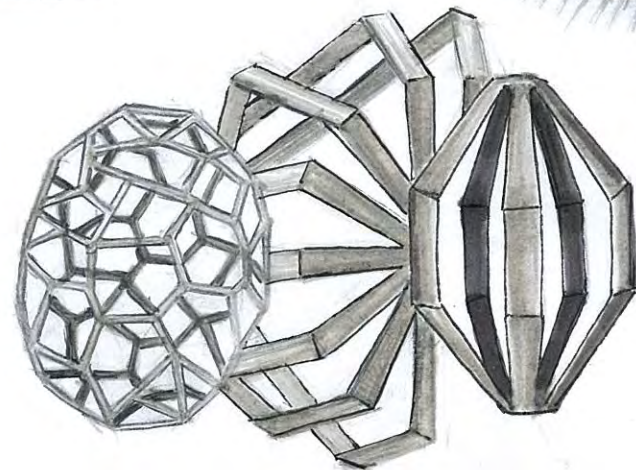
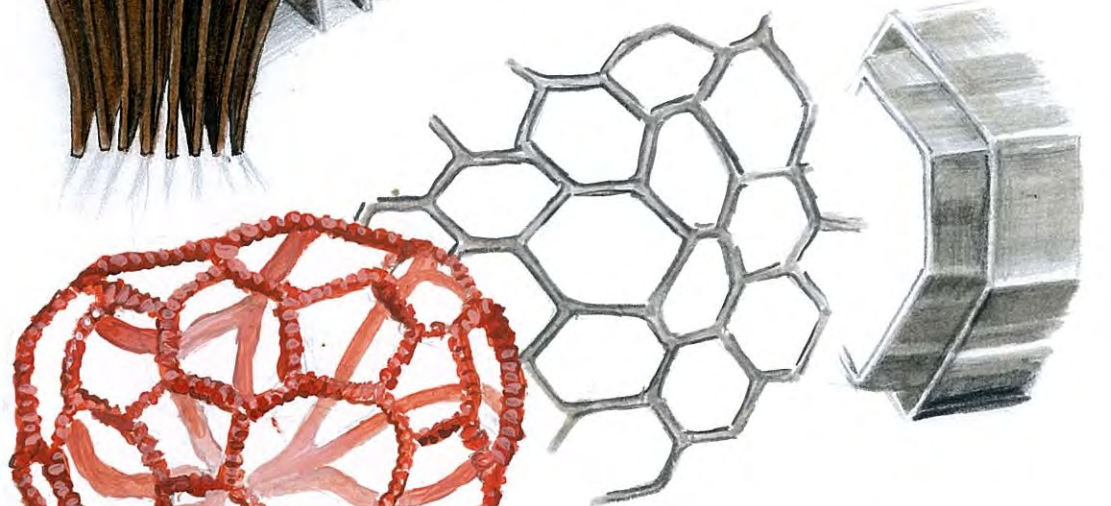
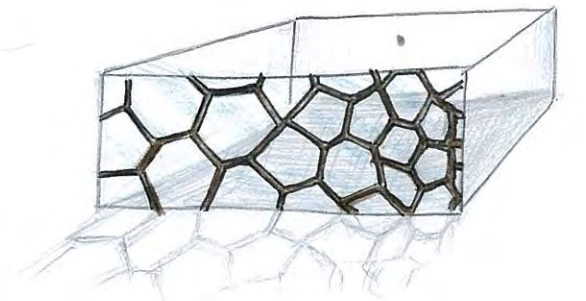
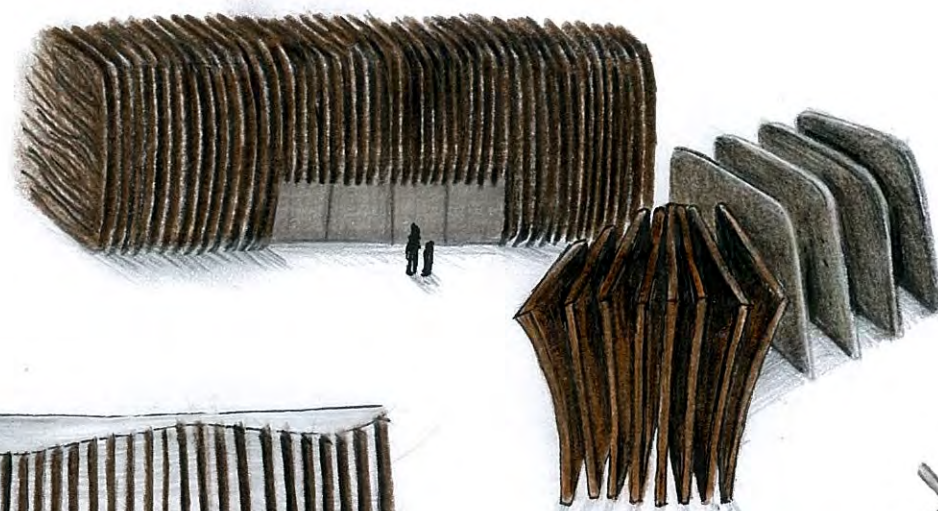
Patterns derived from the top of the toad-stool



these drawings reflect aspects of a yurt

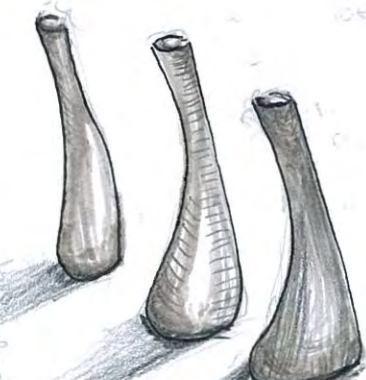
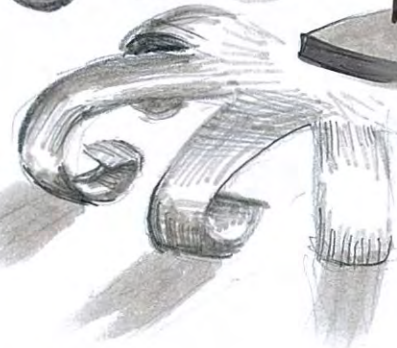
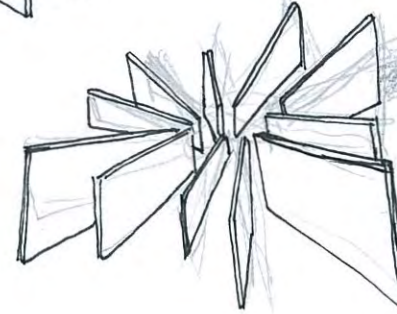
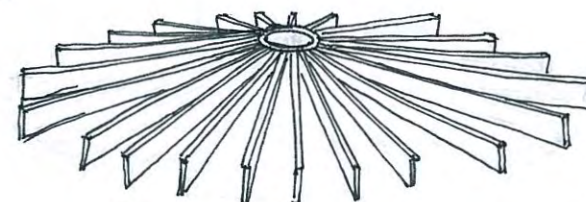
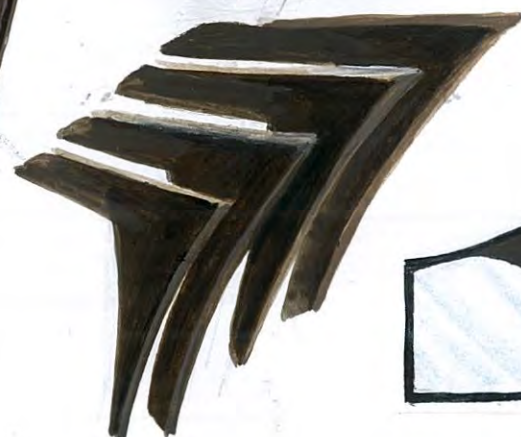
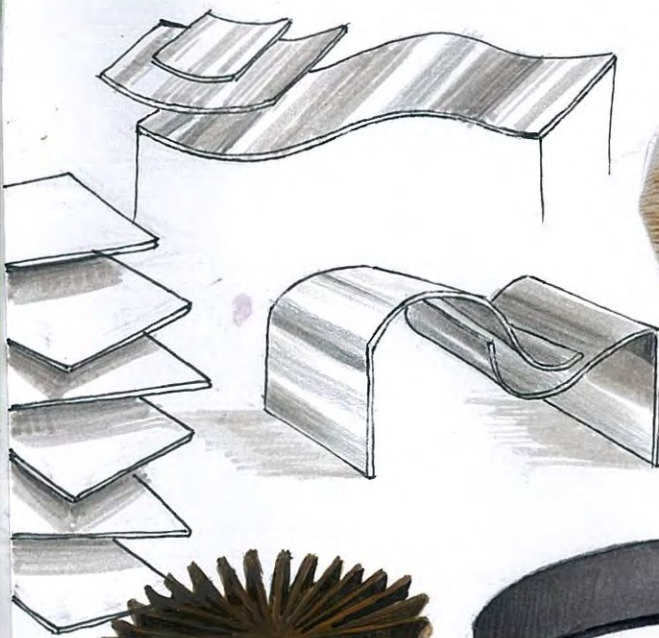
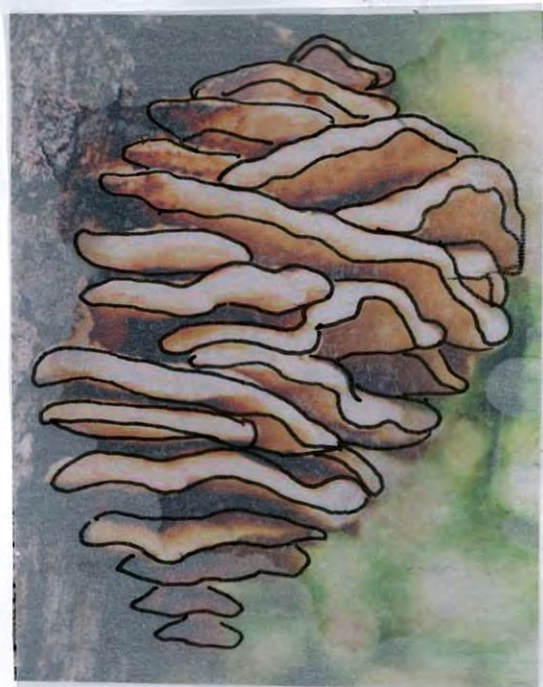
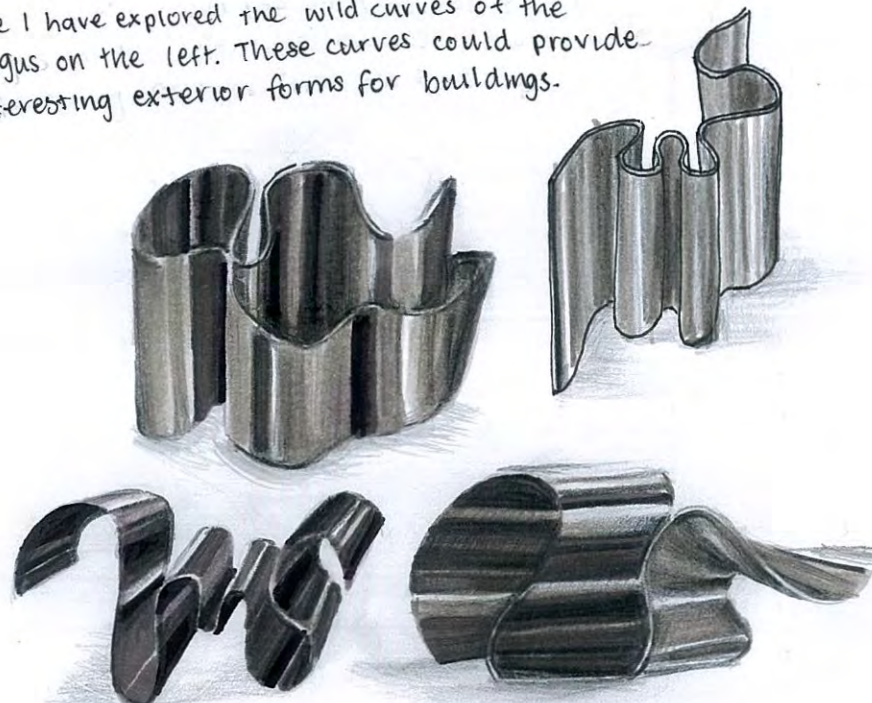
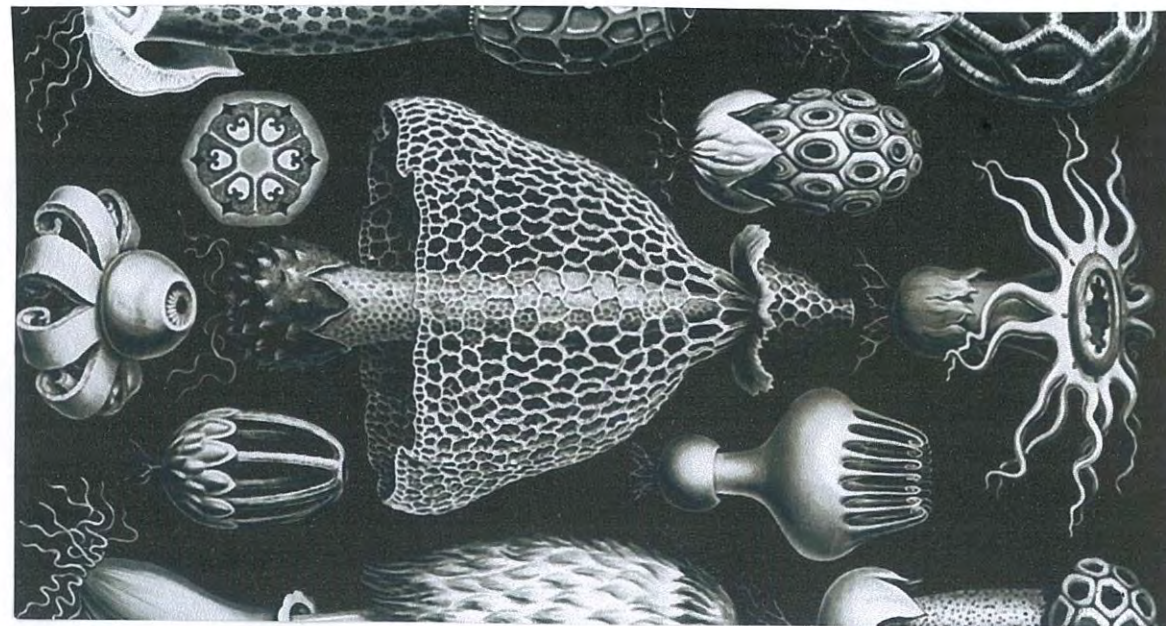
The dome shape of the mushroom when layered makes an interesting potential component

The overlapping veins that vary in length slotted together coming out of the wall of the mushroom allude to a sort of pannel effect, which look very modern as a feature of a building.



The red cage fungi appears as if it has been made from a net, which is something I have developed further, into structures that could make feasible buildings.

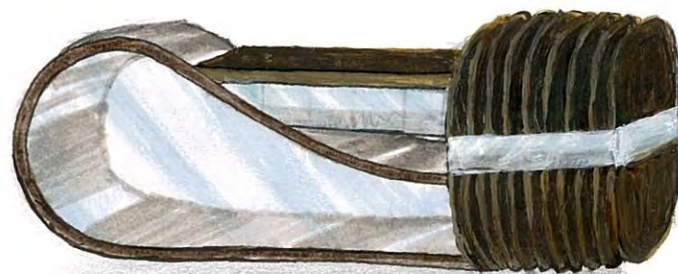
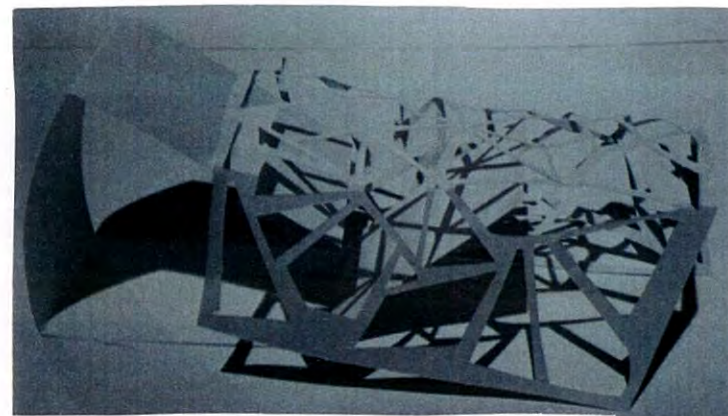
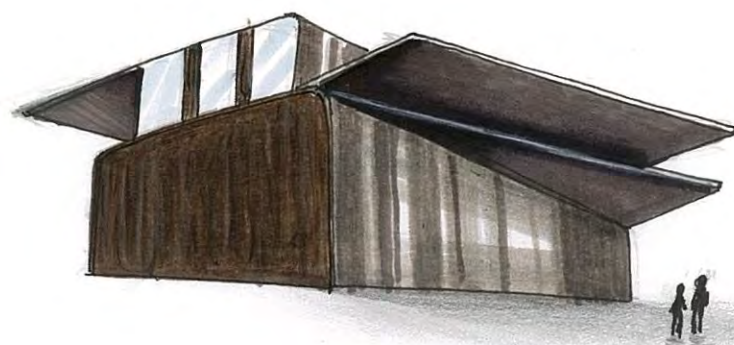
Here I have explored the wild curves of the fungus on the left. These curves could provide interesting exterior forms for buildings.



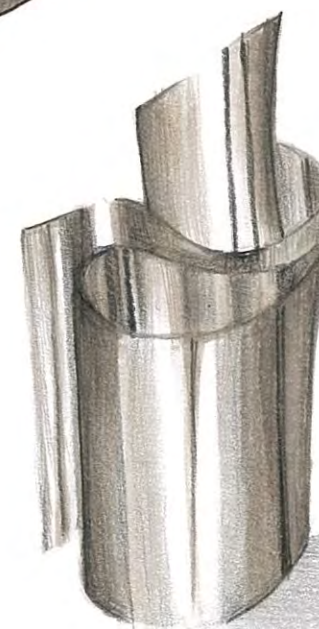
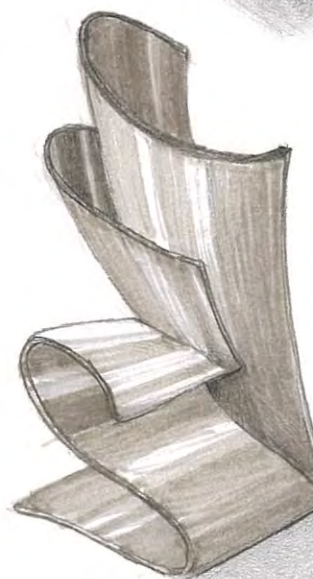
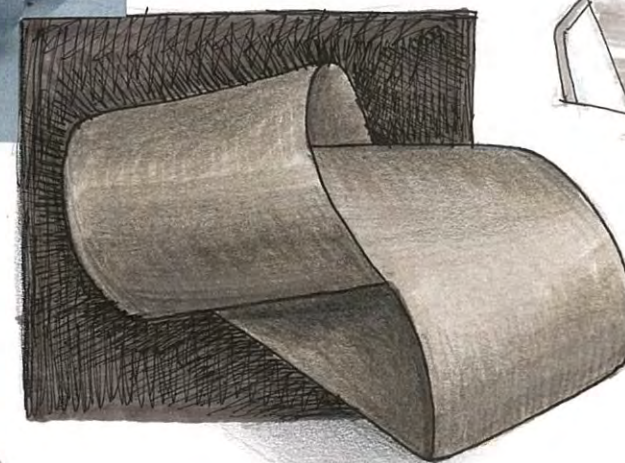
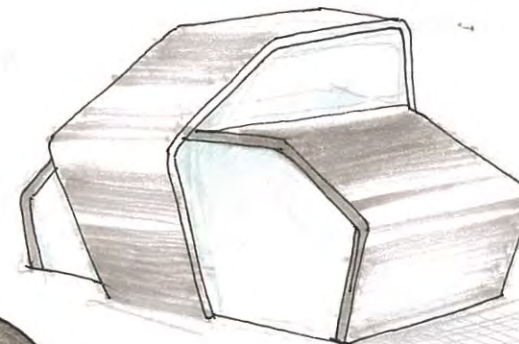
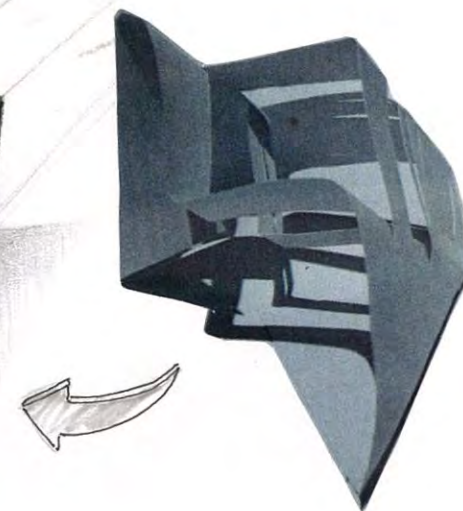
These could be used as pillars.

These stem from the picture on the far left but have been flipped upside down.





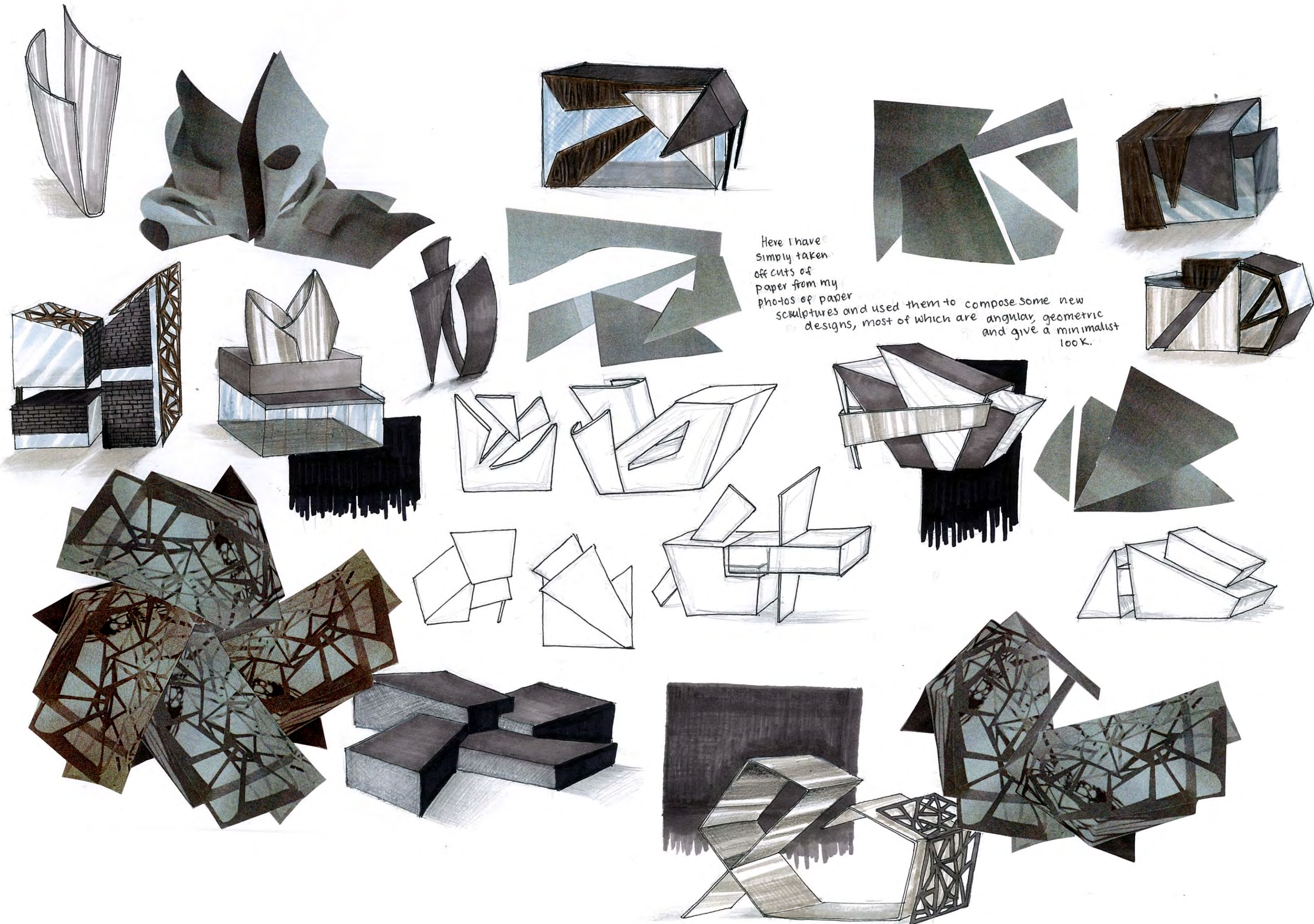
SIDE VIEW



IDEATION

-PAPER ARCHITECTURE

This is extending on from the ideas I have explored through studying elements of mushrooms but my main focus of this is to create new forms, structures that would be feasible for a pavilion design, that I can apply and combine with ideas from the mushroom ideation.



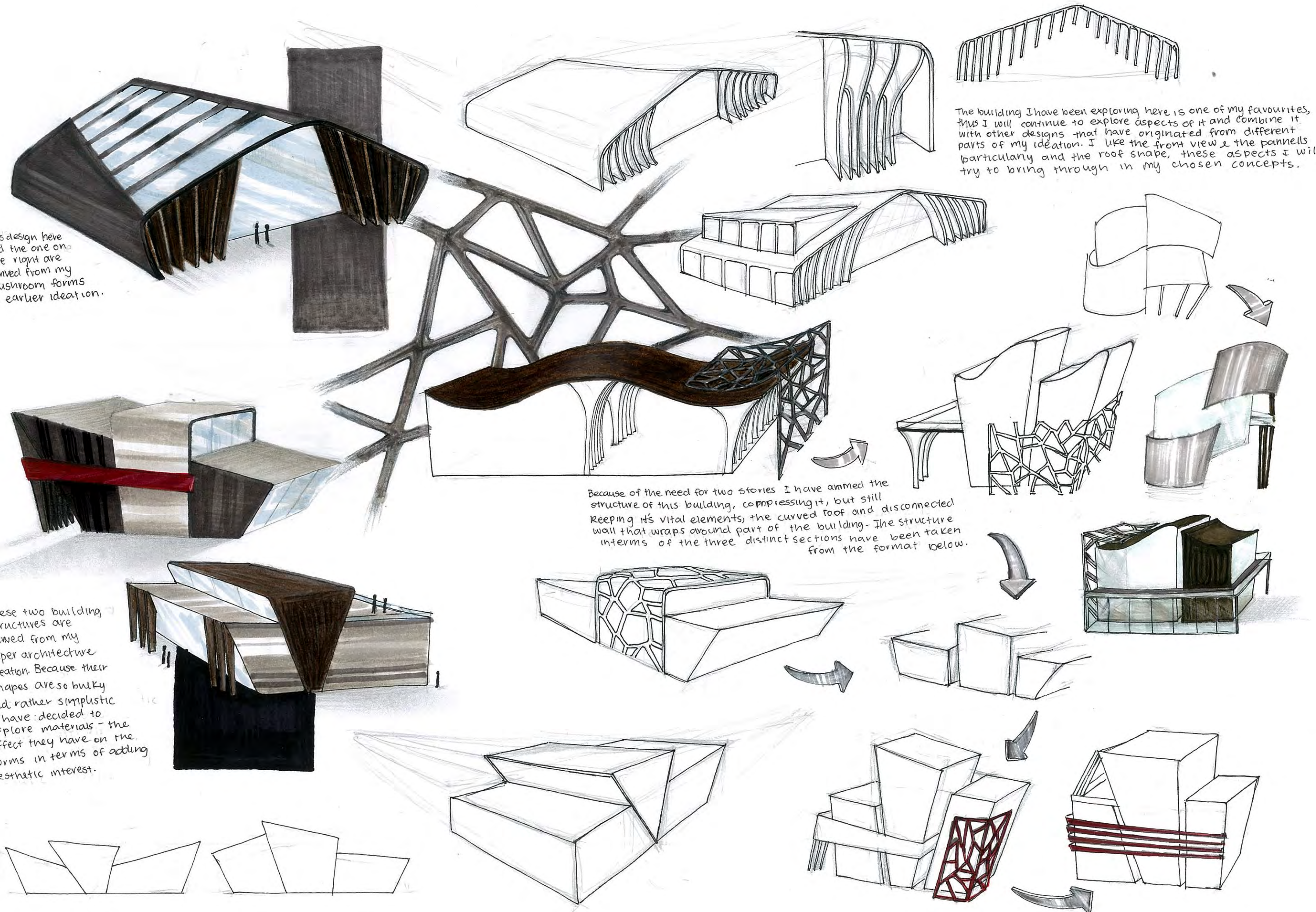
Here I have simply taken off cuts of paper from my photos of paper sculptures and used them to compose some new designs, most of which are angular, geometric and give a minimalist look.

This design here and the one on the right are derived from my mushroom forms in earlier ideation.

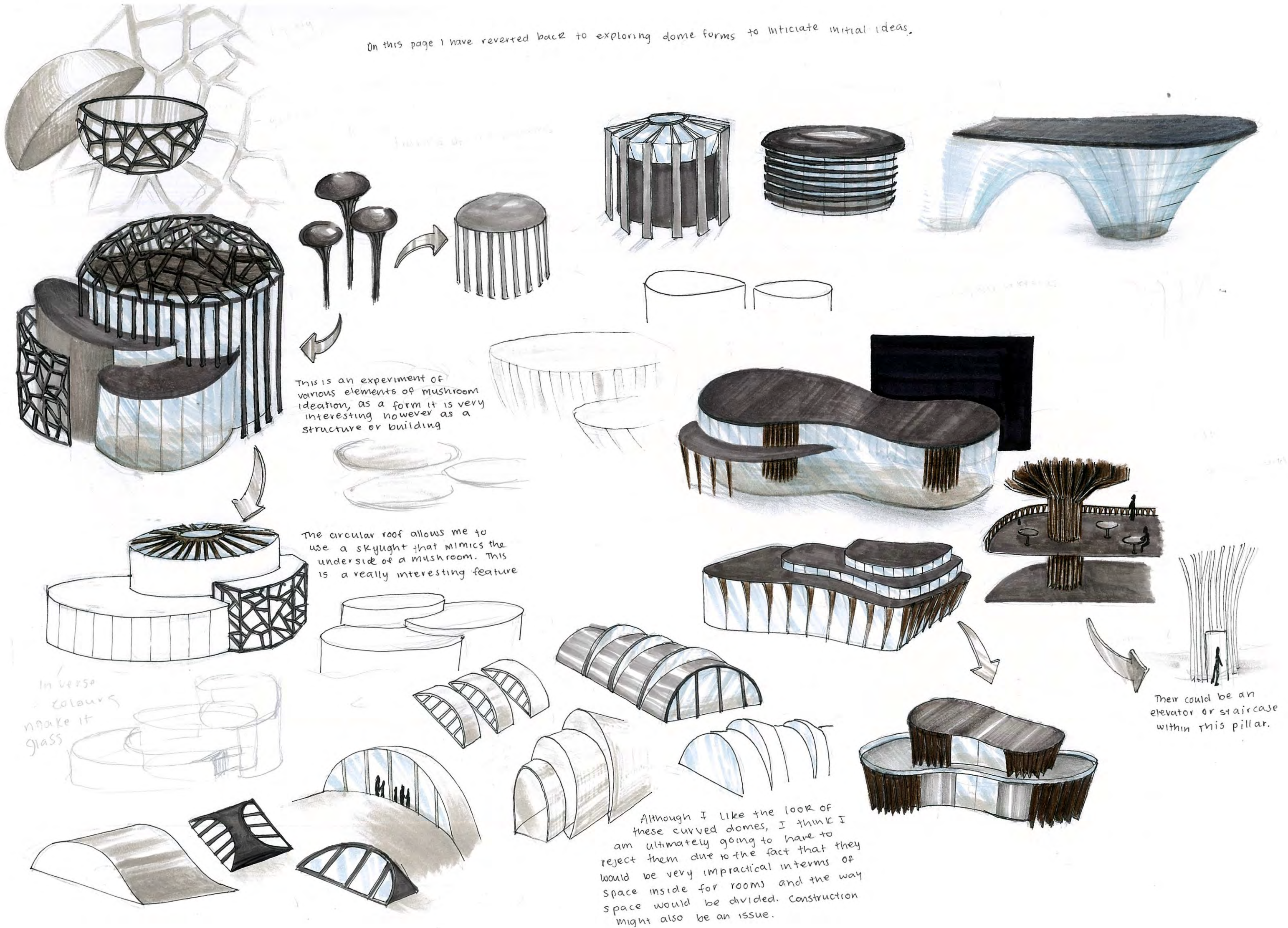
The building I have been exploring here is one of my favourites, thus I will continue to explore aspects of it and combine it with other designs that have originated from different parts of my ideation. I like the front view & the pannells particularly and the roof shape, these aspects I will try to bring through in my chosen concepts.

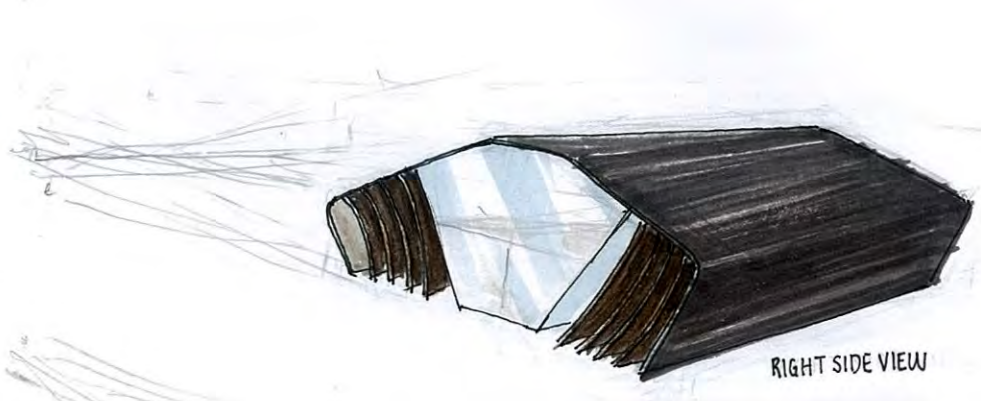
These two building structures are derived from my paper architecture ideation. Because their shapes are so bulky and rather simplistic I have decided to explore materials - the effect they have on the forms in terms of adding aesthetic interest.

Because of the need for two stories I have amended the structure of this building, compressing it, but still keeping its vital elements, the curved roof and disconnected wall that wraps around part of the building. The structure in terms of the three distinct sections have been taken from the format below.

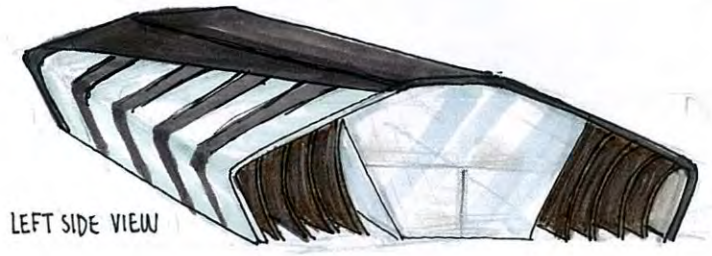


On this page I have reverted back to exploring dome forms to initiate initial ideas.

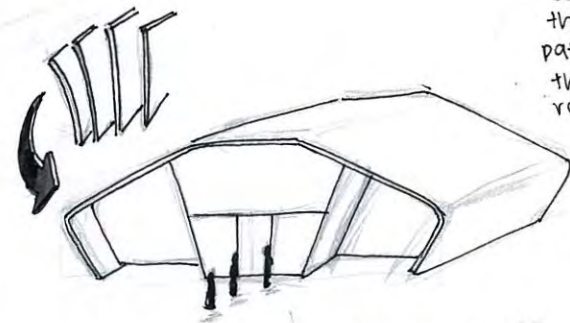




RIGHT SIDE VIEW

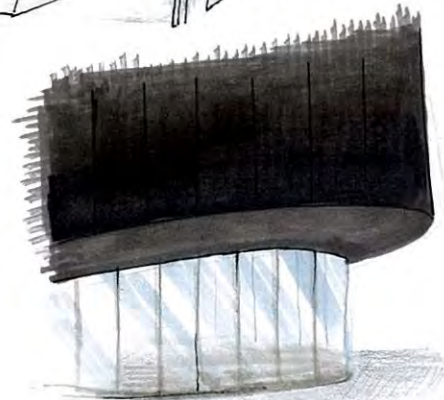
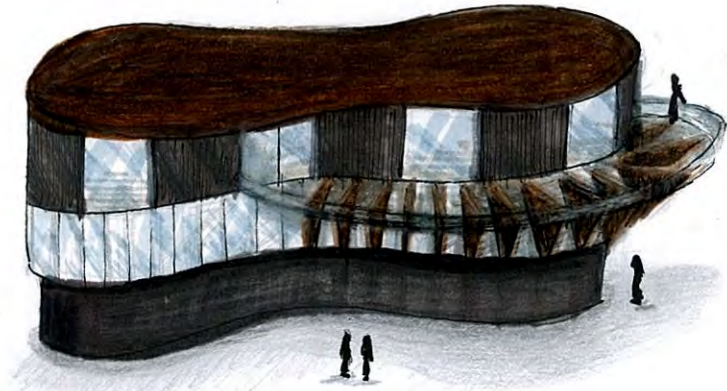
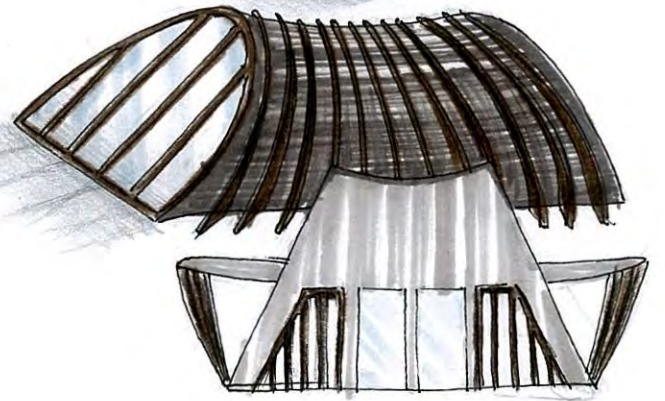
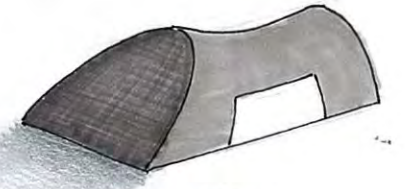
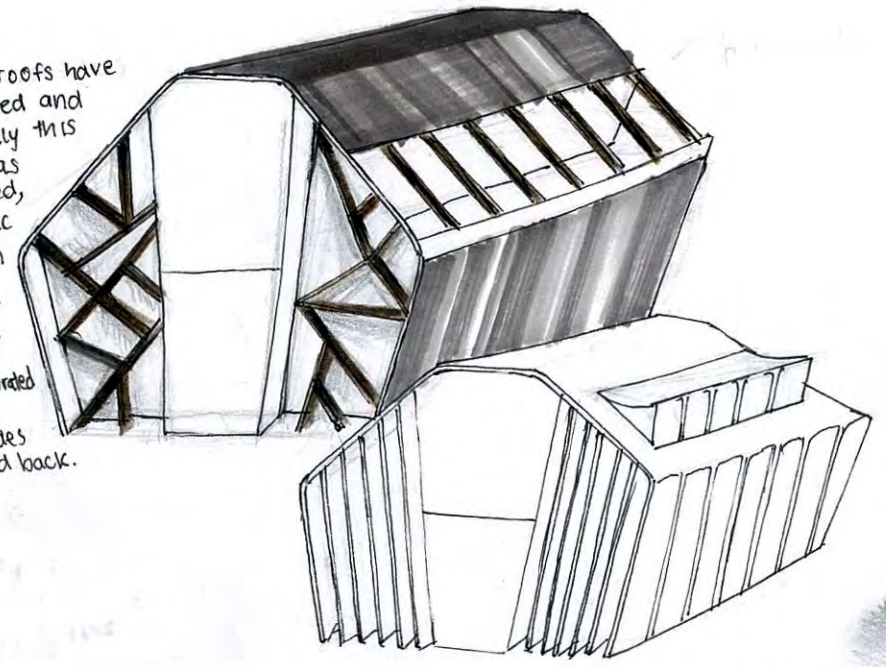


LEFT SIDE VIEW

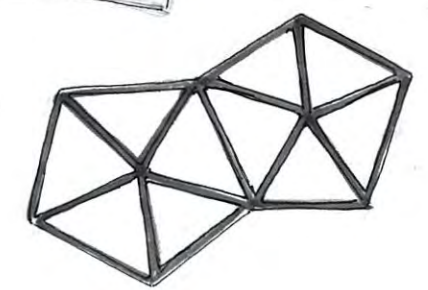
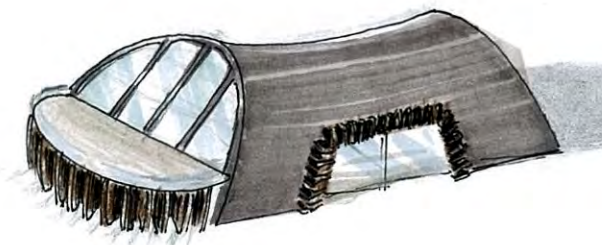
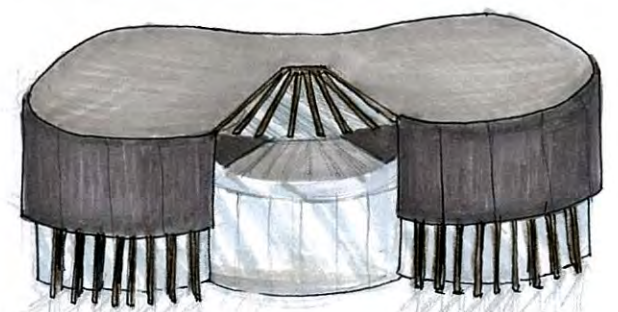


Here I have divided this building vertically into 3 from the front view and have pulled out the middle section.

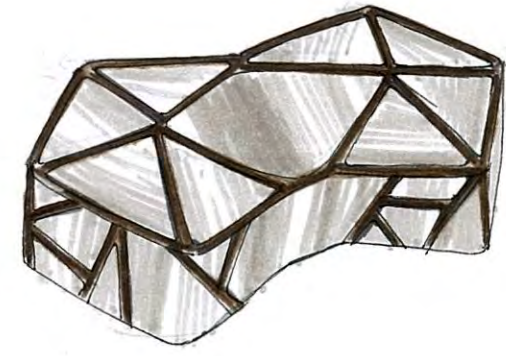
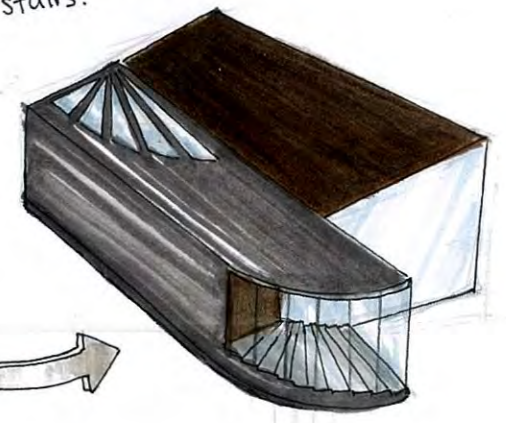
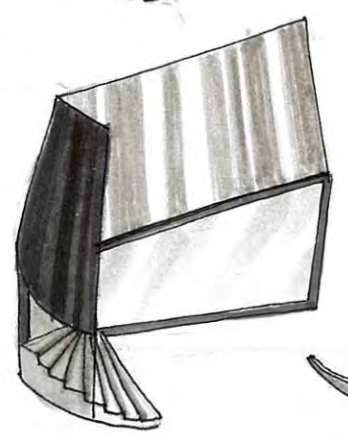
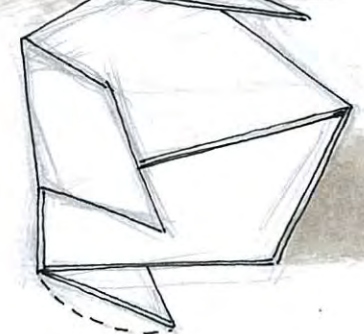
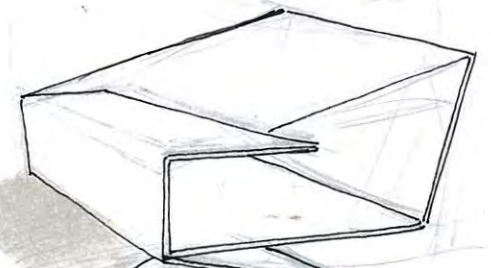
Here the roofs have been raised and aesthetically this structure has been altered, the geometric pattern from the mushroom ideation has been incorporated on the two sides pushed back.

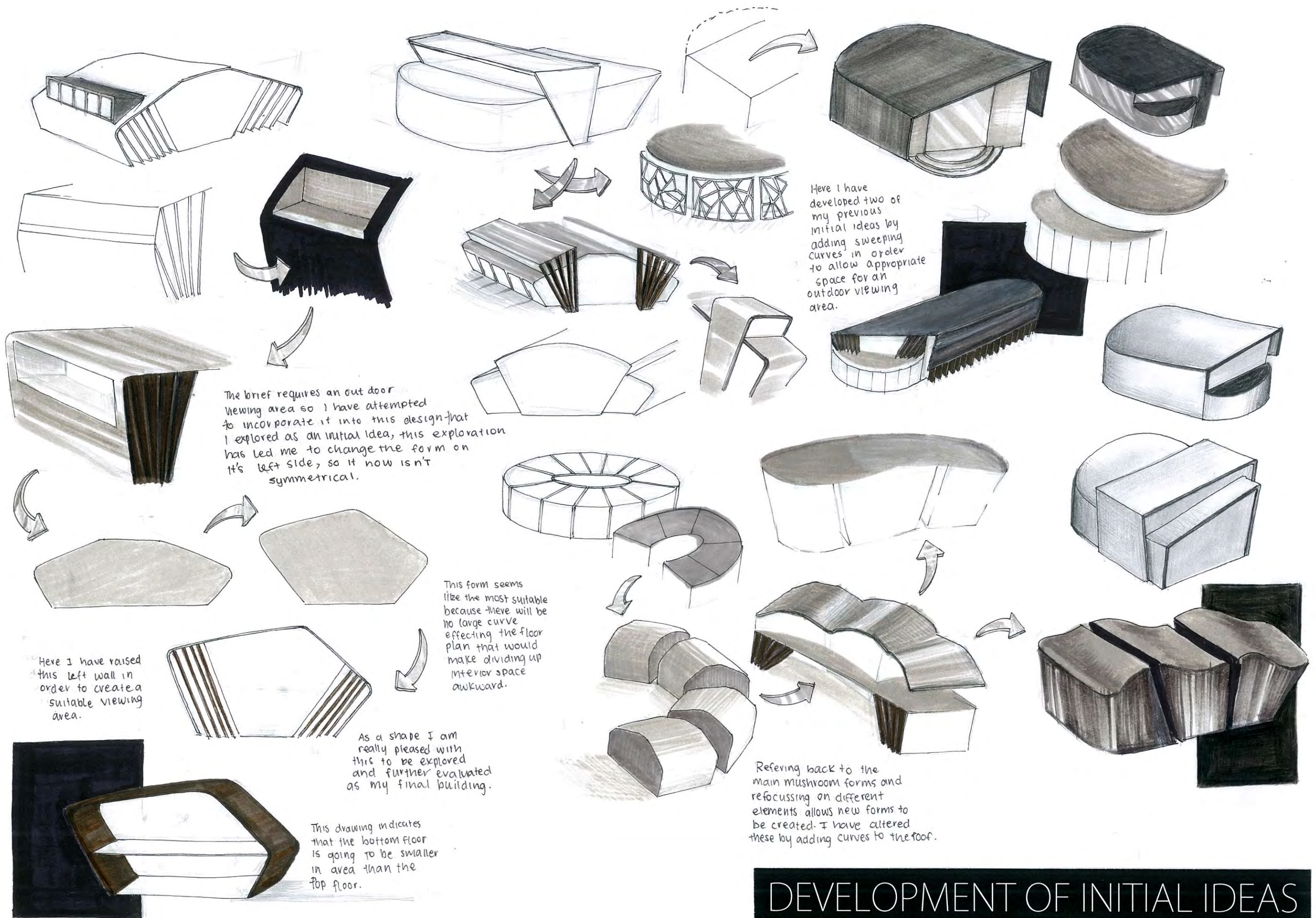


This drawing demonstrates how an over hanging roof/section of a building looks aesthetically.



This structure came from the paper architecture ideation and has been accessorised with elements from the mushroom ideation - skylight & the curve of stairs.





The brief requires an out door viewing area so I have attempted to incorporate it into this design that I explored as an initial idea, this exploration has led me to change the form on it's left side, so it now isn't symmetrical.

Here I have raised this left wall in order to create a suitable viewing area.

This form seems like the most suitable because there will be no large curve effecting the floor plan that would make dividing up interior space awkward.

As a shape I am really pleased with this to be explored and further evaluated as my final building.

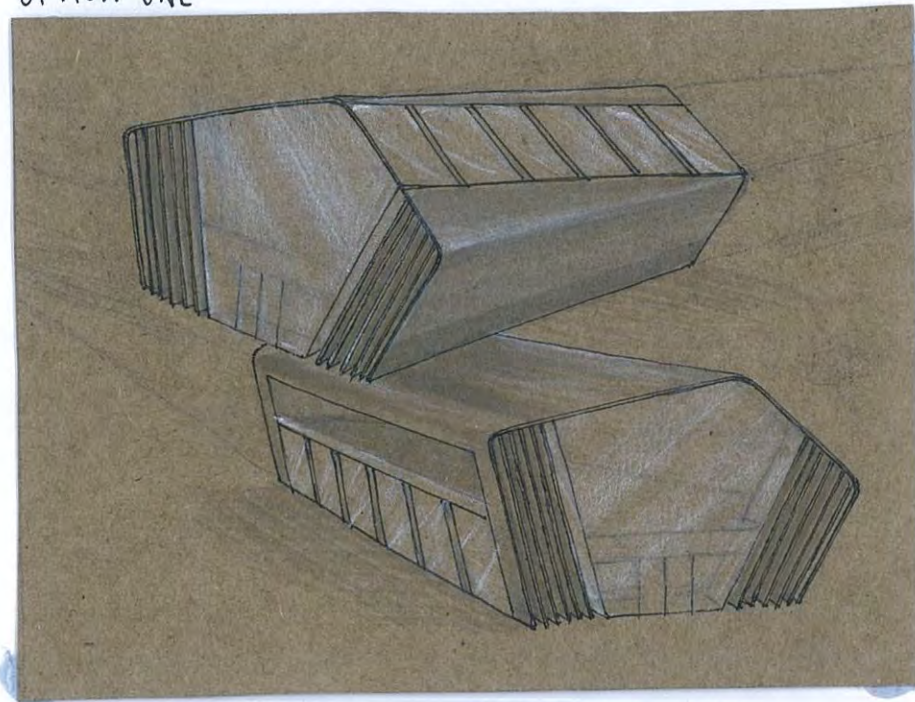
This drawing indicates that the bottom floor is going to be smaller in area than the top floor.

Here I have developed two of my previous initial ideas by adding sweeping curves in order to allow appropriate space for an outdoor viewing area.

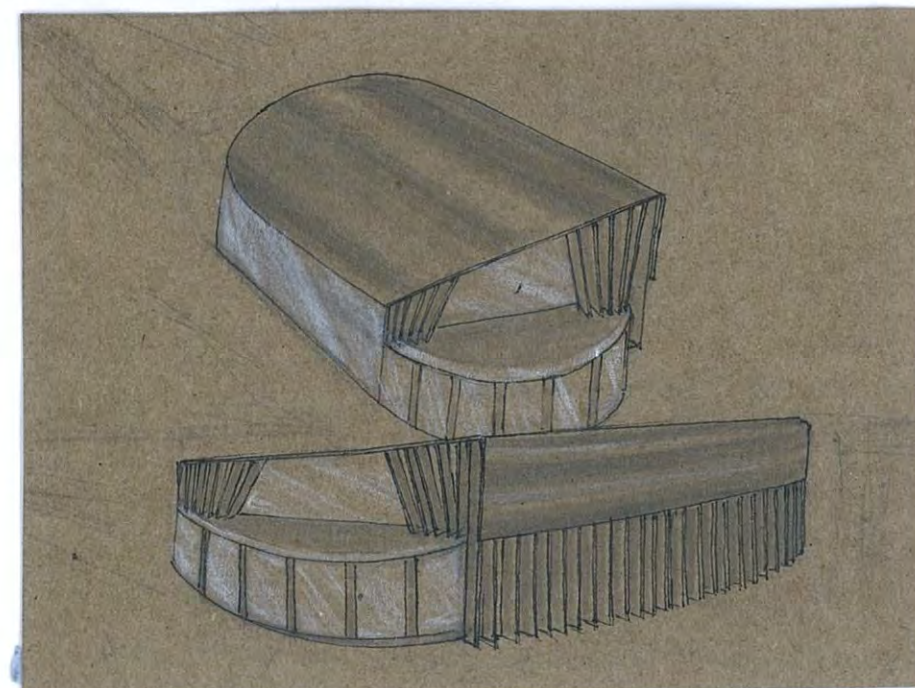
Referring back to the main mushroom forms and refocussing on different elements allows new forms to be created. I have altered these by adding curves to the roof.

DEVELOPMENT OF INITIAL IDEAS

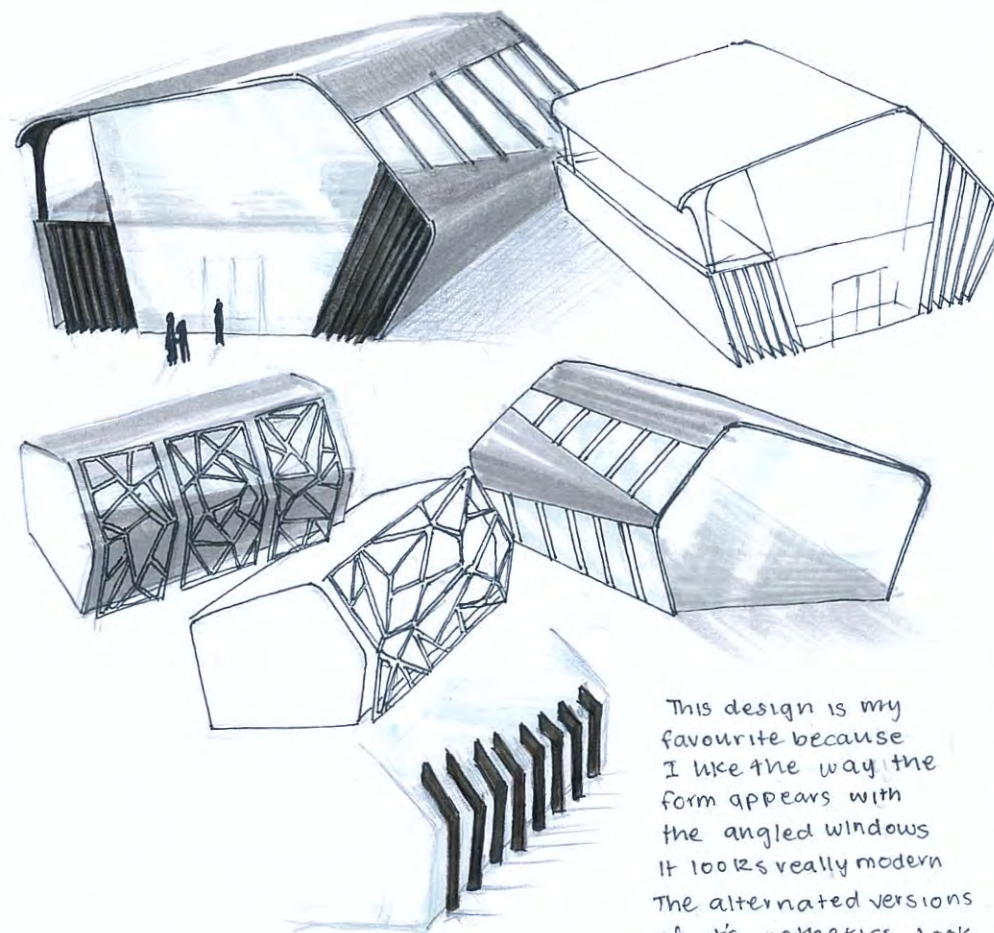
OPTION ONE



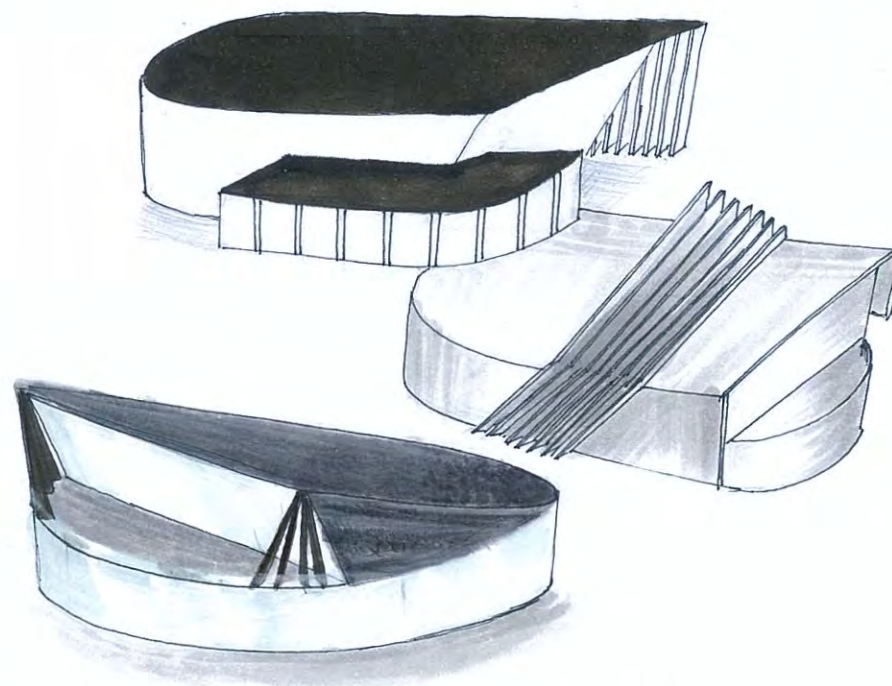
CHOSEN CONCEPTS



OPTION TWO

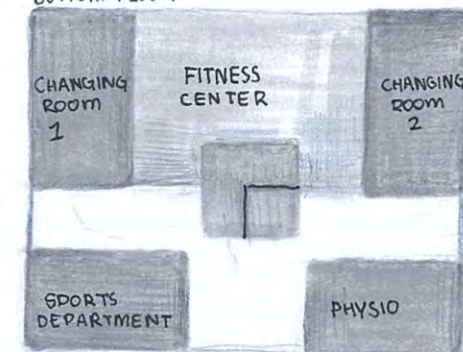


This design is my favourite because I like the way the form appears with the angled windows. It looks really modern. The alternated versions of its aesthetics look better than that of the ones below in the second concept.

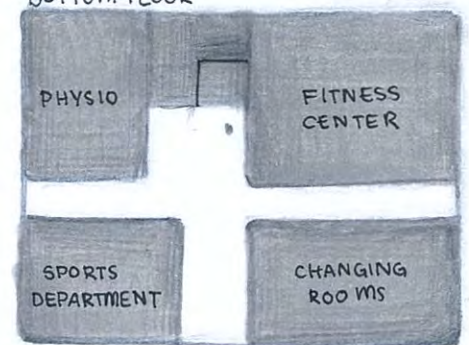


The main problem with this design, I feel is the curves that hinder effective use of space and I do not think the curves will work well with the potential sites as they are more suited for square or rectangular shapes. I also prefer the style of the other concept on the top left hand corner (option 1). So I am going to reject option 2.

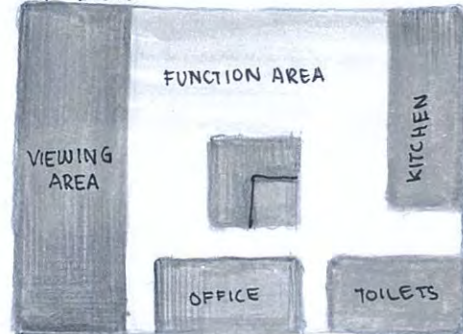
BOTTOM FLOOR



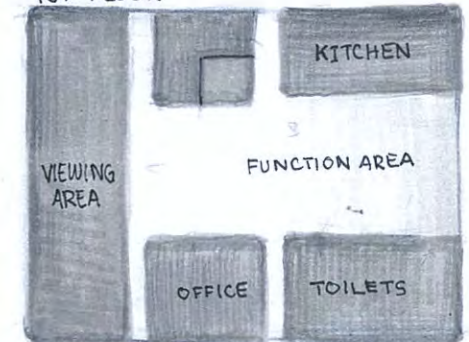
BOTTOM FLOOR



TOP FLOOR



TOP FLOOR



The square/rectangular bubble diagrams above are associated with my first chosen initial idea and the diagrams below are intended for the second chosen idea which has rounded ends.

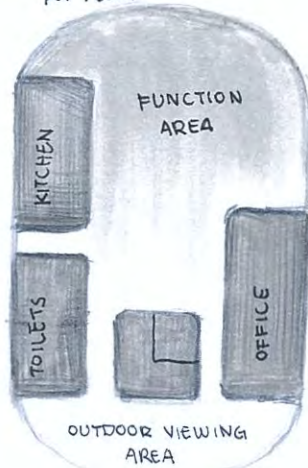
BOTTOM FLOOR



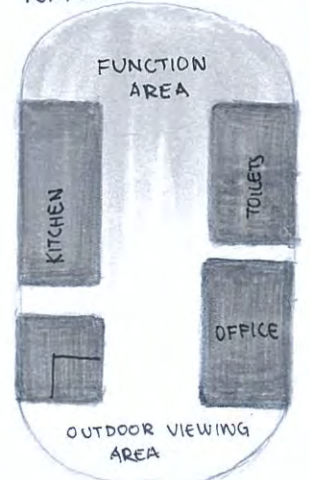
BOTTOM FLOOR



TOP FLOOR



TOP FLOOR



The bubble diagrams show my initial vision for the interior layout of my building. I have intended to keep the top floor distinctly separate from the bottom in terms of use. The top floor is more formal and clean whilst the bottom floor is reserved more for the athletes practical use, it is more informal. I thought near the entrance it was important to have the main admin/office space which is the sports department. I have placed a smaller second office upstairs for additional use to accommodate the four staff members expected to work in the building. The upstairs function area is quite different from the other rooms as I have made the space open plan, which will work quite well with the outdoor viewing area.

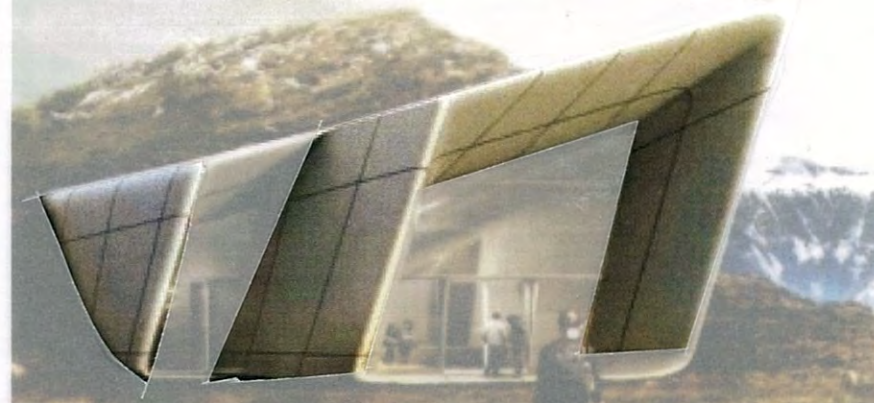
INSPIRATIONAL ARCHITECT: ZAHA HADID

Zaha Hadid's Sleuk Rith Institute Sprouts like a Forest in Cambodia

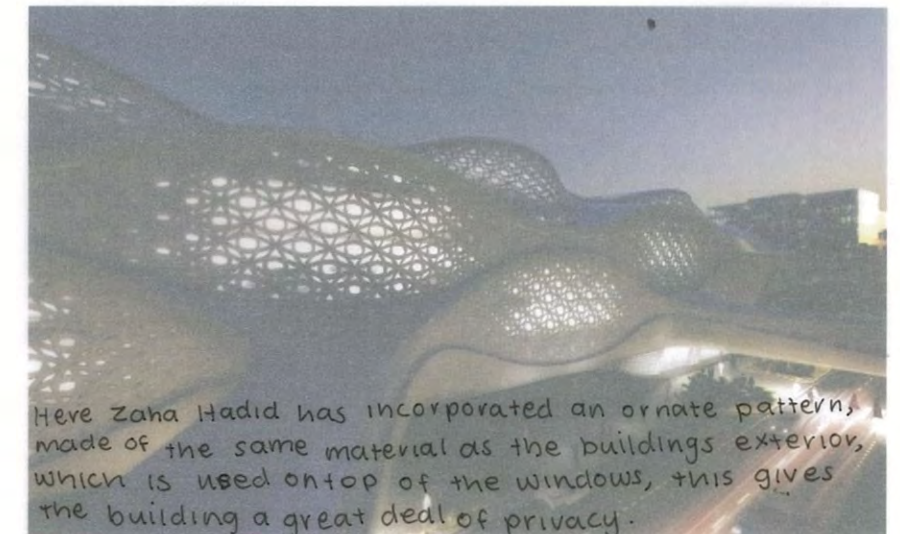
This building is extremely striking in its exterior design, in terms of the way various materials, (timber and what appears to be concrete) have been integrated together in this pattern that seems to fade out into simple lines. It is beautiful because of the way materials look woven together against the windows. It is also quite private in terms of the windows on its upper floors.



Zaha Hadid Architects recently unveiled finalized designs for the new Messner Mountain Museum, which will be located atop a mountain in South Tyrol, Italy.

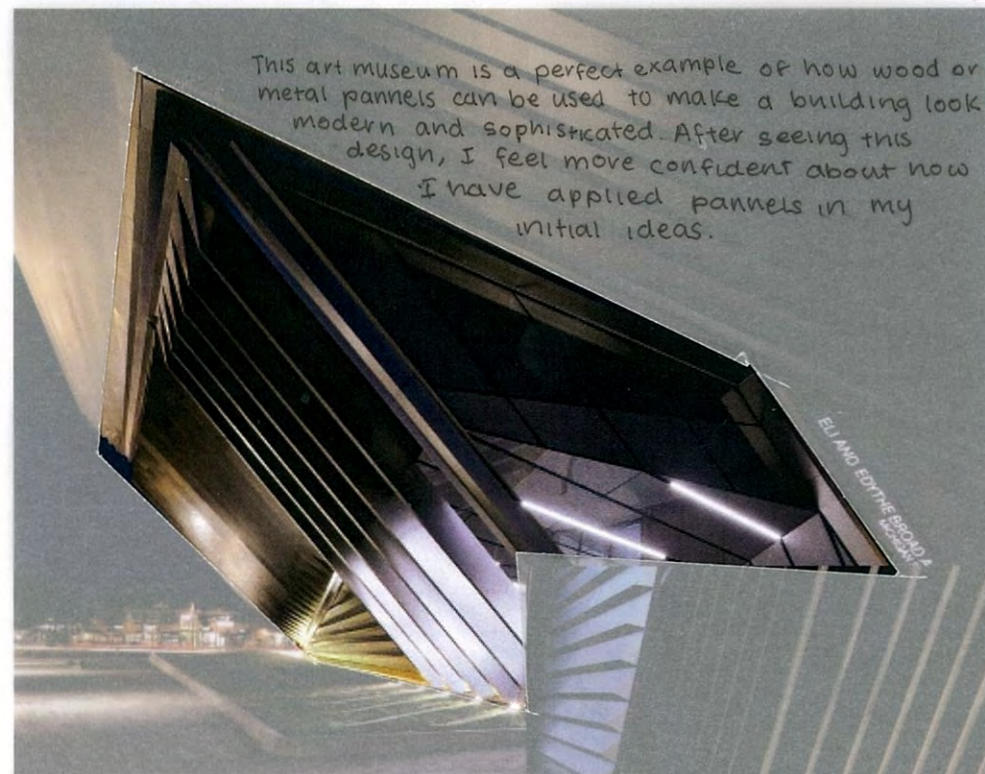


This building appeals to me in the way it is shaped, geometrically with strong sloping walls and slightly curved edges. I also like the white exterior surface with the lines intersecting through. It looks very modern and unique as a whole.



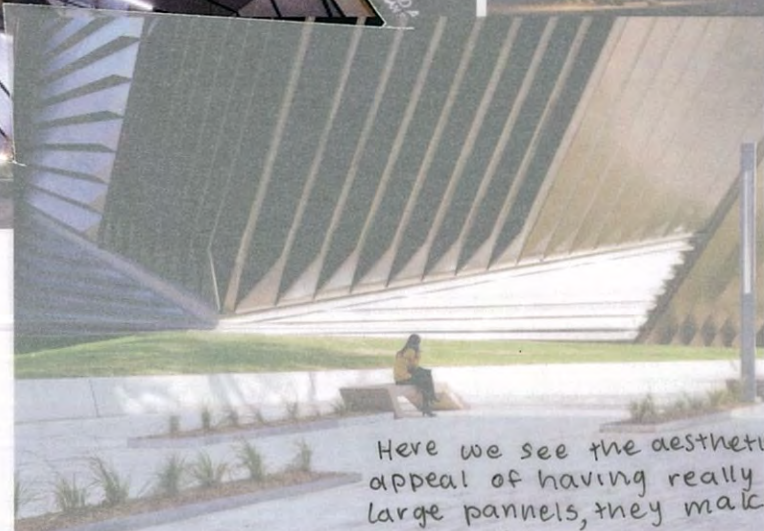
Here Zaha Hadid has incorporated an ornate pattern, made of the same material as the buildings exterior, which is used on top of the windows, this gives the building a great deal of privacy.

Zaha Hadid's design for the King Abdullah Financial District Metro Station in Riyadh

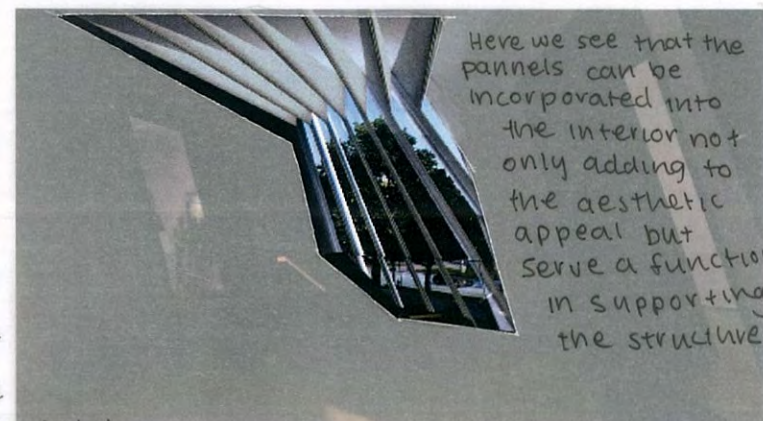


This art museum is a perfect example of how wood or metal pannels can be used to make a building look modern and sophisticated. After seeing this design, I feel more confident about how I have applied pannels in my initial ideas.

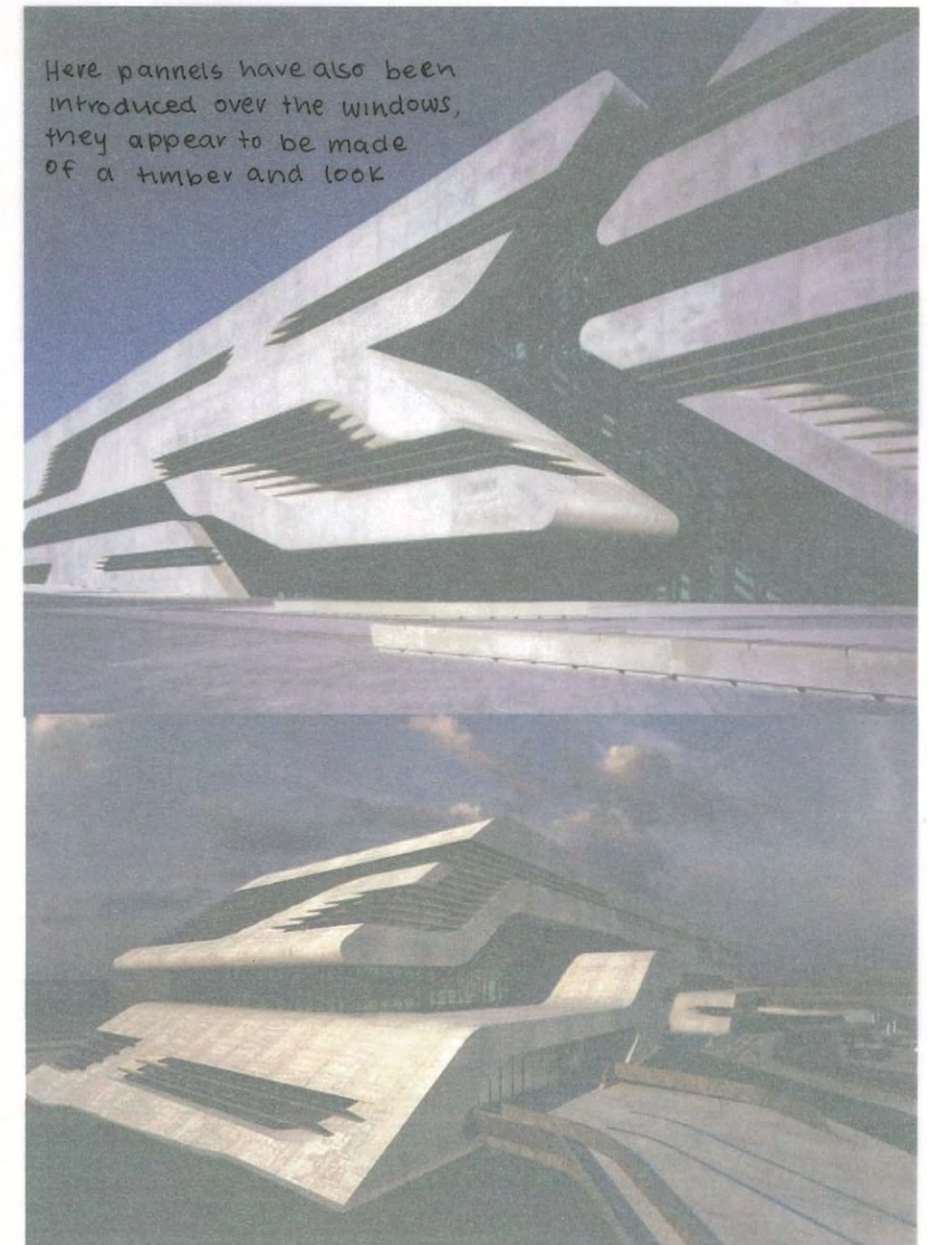
The Eli and Edythe Broad Art Museum by Zaha Hadid Architects Opens - Michigan State University



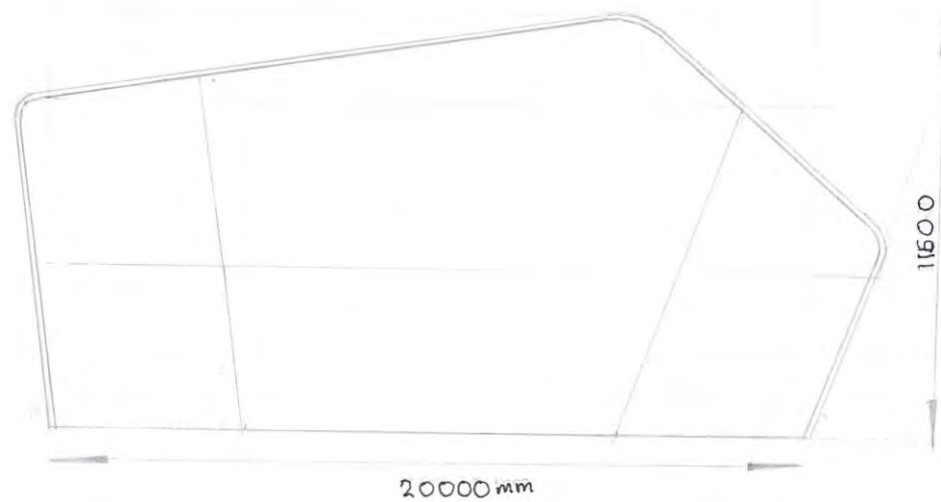
Here we see the aesthetic appeal of having really large pannels, they make the building appear monumental.



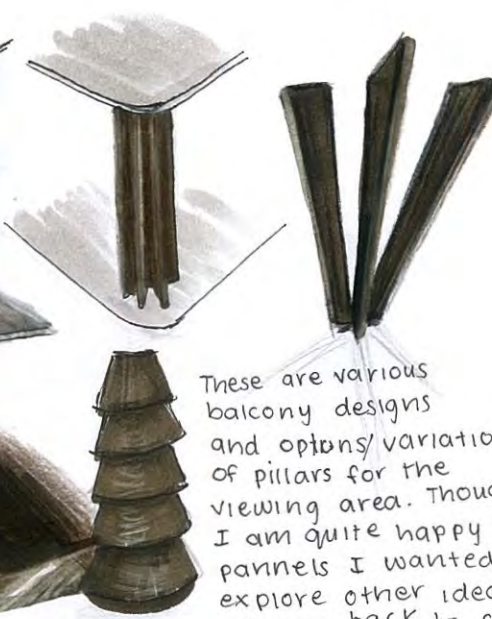
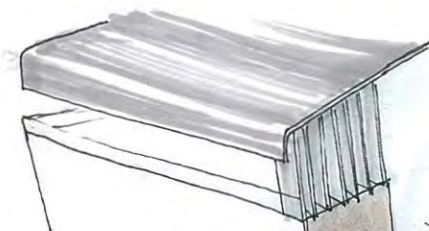
Here we see that the pannels can be incorporated into the interior not only adding to the aesthetic appeal but serve a function in supporting the structure.



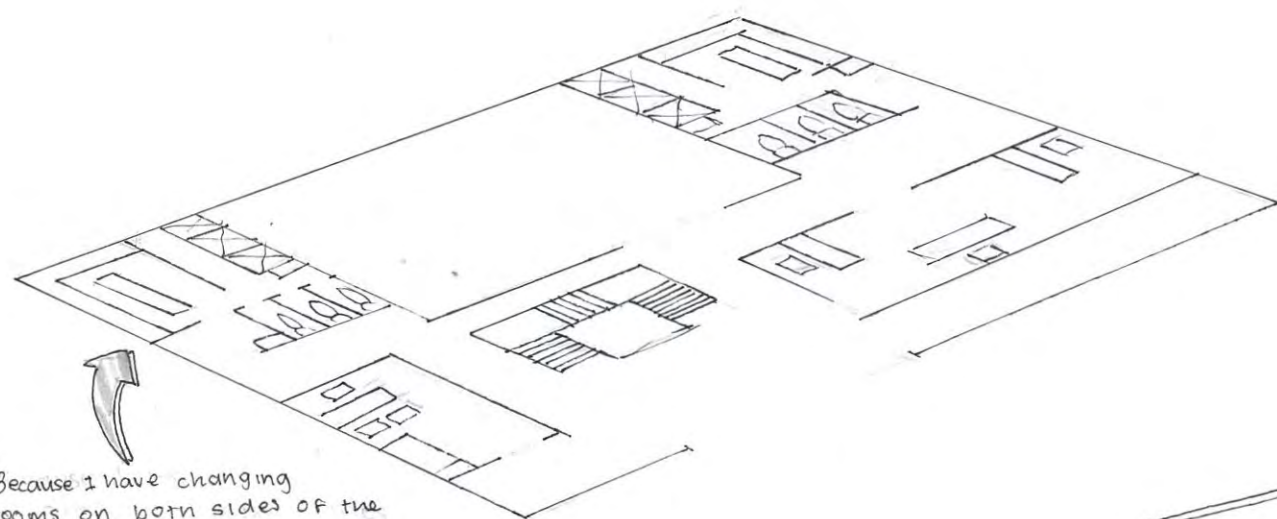
Pierresvives Building by Zaha Hadid Architects (France)



• The pannels will sit infront of the glass, they could potentially just sit on one side, at the front rather than back.

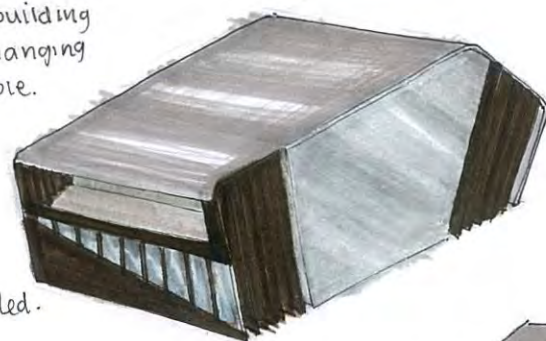


These are various balcony designs and options/variations of pillars for the viewing area. Though I am quite happy with pannels I wanted to explore other ideas - refering back to forms from my mushroom ideation.

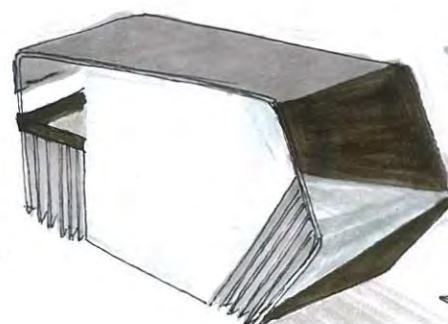


EXPLORATION AND REFINEMENT -AESTHETICS

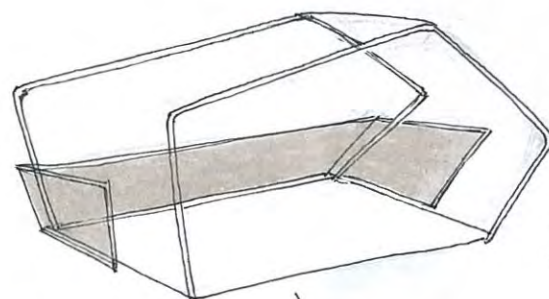
Because I have changing rooms on both sides of the buildings, in order to give their users privacy, windows should be limited / completely - foggy / milky so they cannot be seen through, this is especially required on the back of the building where two changing rooms are visible. The back of the building thus cannot be entirely transparent glass as I initially intended.



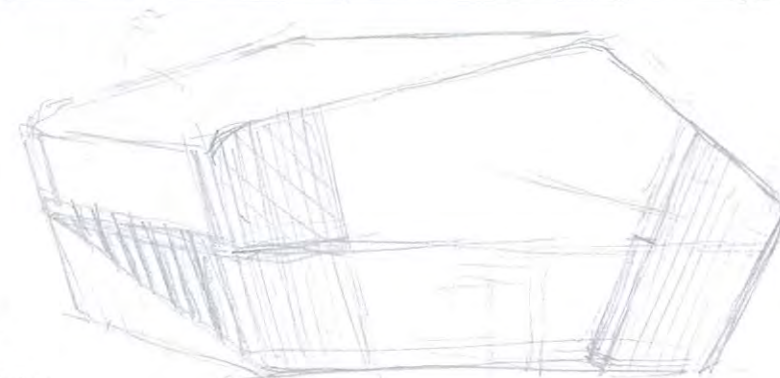
Both of these options ensure privacy for the changing rooms.



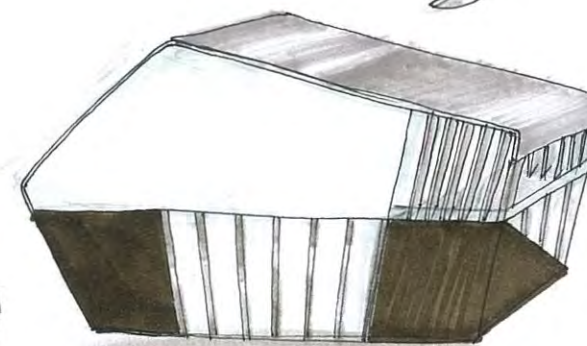
BACK VIEW



This band of timber that wraps around the structures exterior is another potential way this section of the building could remain private.

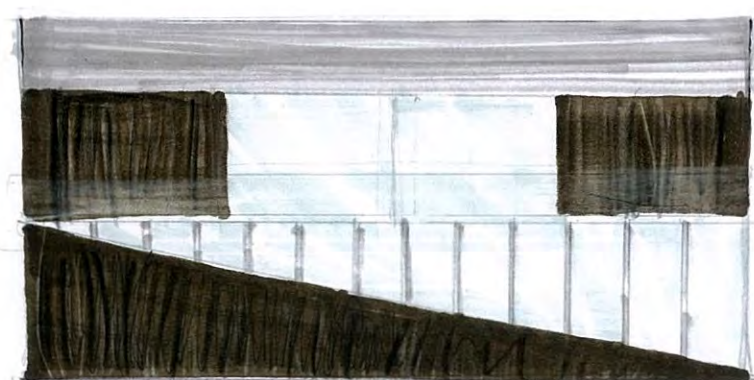


FRONT VIEW

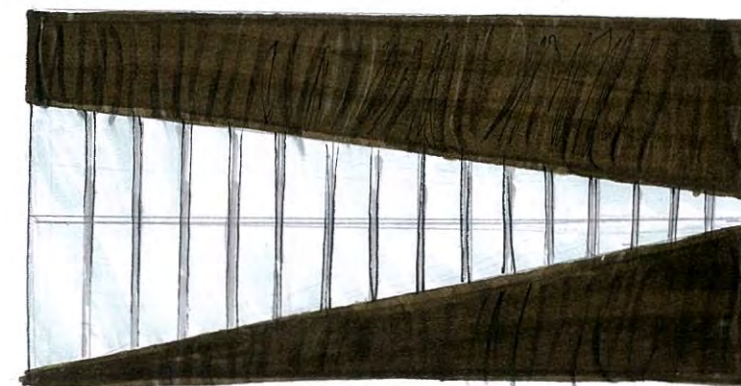


BACK VIEW

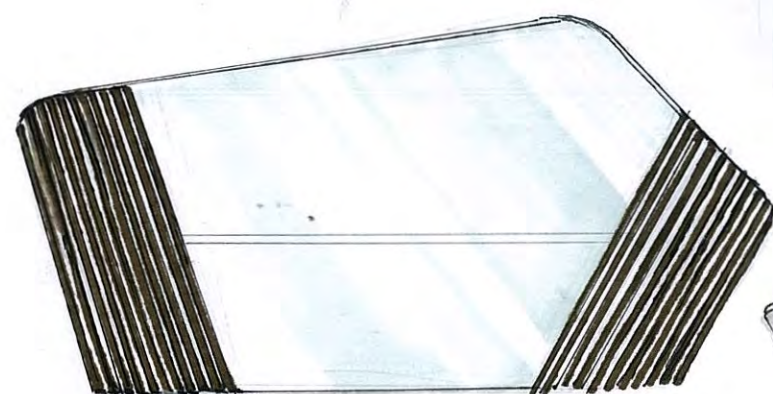
COLOUR PALLETTE - I have decided to use very reserved colours, browns, greys, silvers and glass - some of which milky. I chose these as I feel they look modern and all of which particularly the silver and the grey concrete flooring is found in/on buildings throughout westlake girls. As a design in terms of neutral colour it should fit well amongst the other main buildings in the school which are all diverse. I was also influence to keep this colour pallete as it is something found in many of the works of Zaha Hadid which I admire for their aesthetic



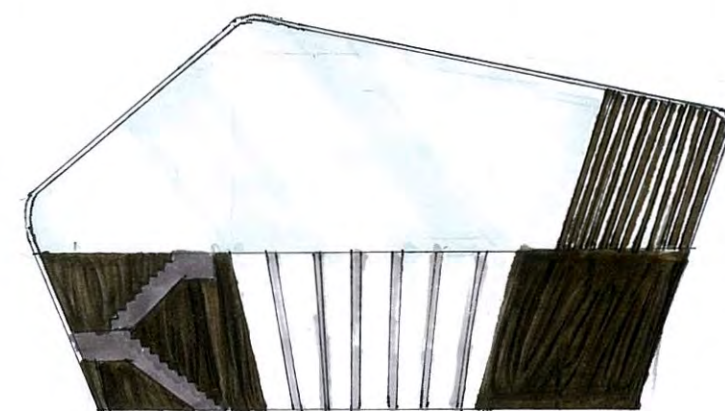
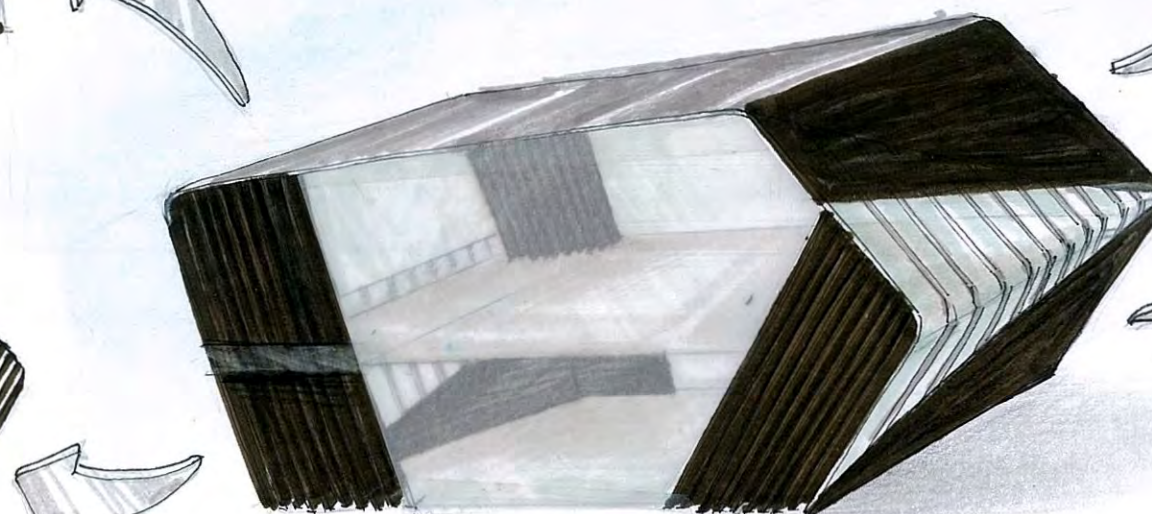
RIGHT SIDE



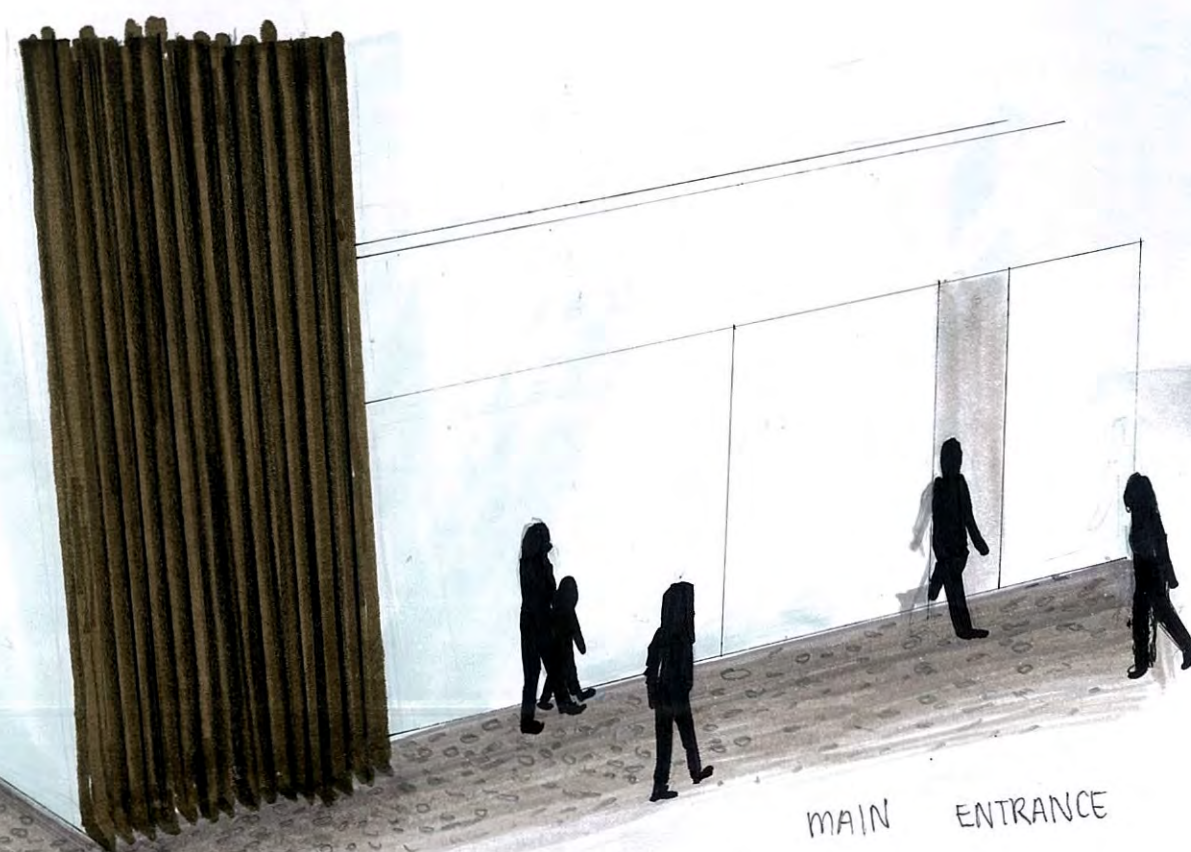
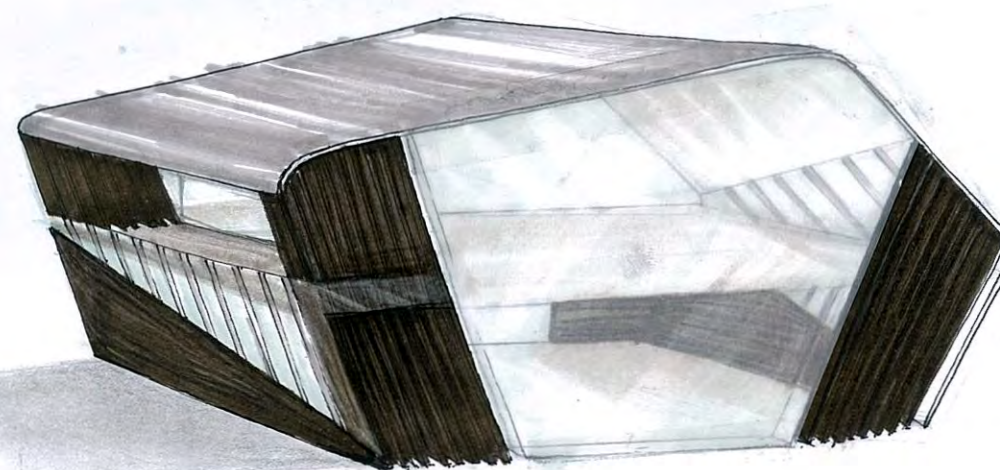
LEFT SIDE



FACADE



BACK VIEW

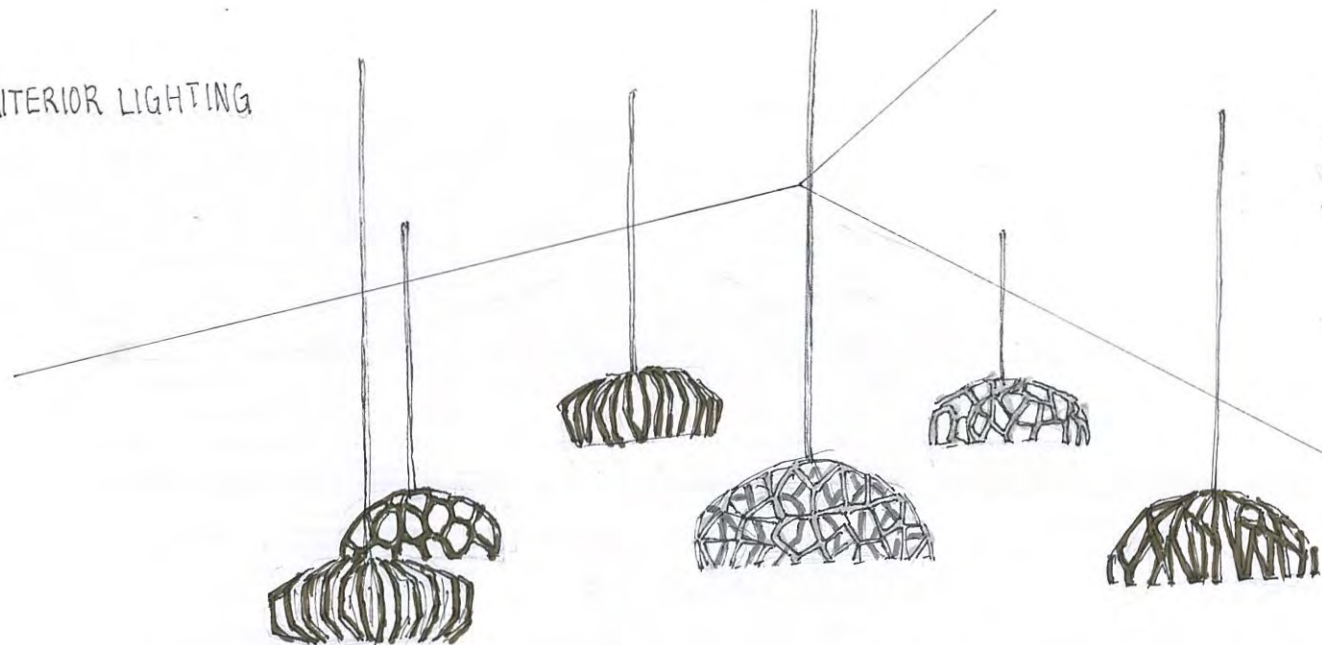


MAIN ENTRANCE

FINAL EXTERIOR AESTHETICS.

These are some basic drawings of my visions for my final design, (not to scale.) These drawings show my chosen aesthetics for the exterior. I chose to keep the panels timber to tie in with the walls that are timber on the left and right sides. The metal roof ties in with the stripes down the sides of the windows. The glass on the front facade and the top half of the back facade is transparent, whilst the rest of the windows, streaked by strips of metal is milked out, this will still allow light to filter through but it will keep certain areas, including the physio more private.

INTERIOR LIGHTING



I feel that my building at this stage is lacking some of the visual aspects I explored in my early ideation so I wanted to try and reintegrate them back

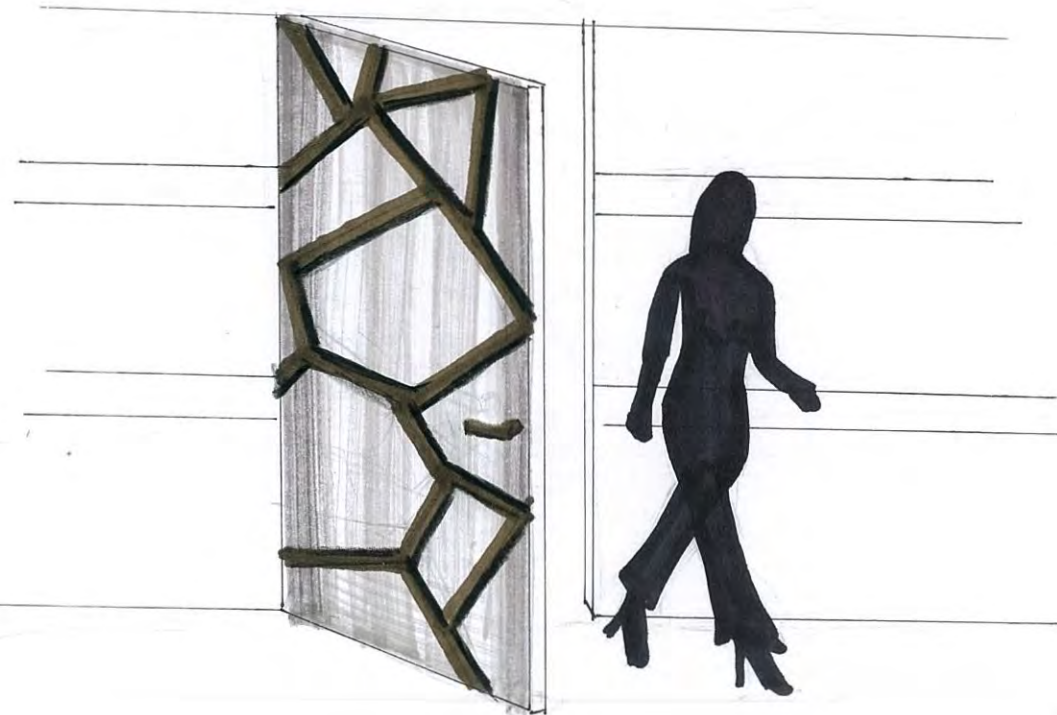
into my interior design through lighting. These lights have been inspired by the cage fungus as a part of my mushroom ideation. They are using my current colour scheme. Their unique shapes look modern ~~and unique~~. They will allow the light to filter out and project interesting shapes against walls & floors.

EXTERIOR LIGHTING

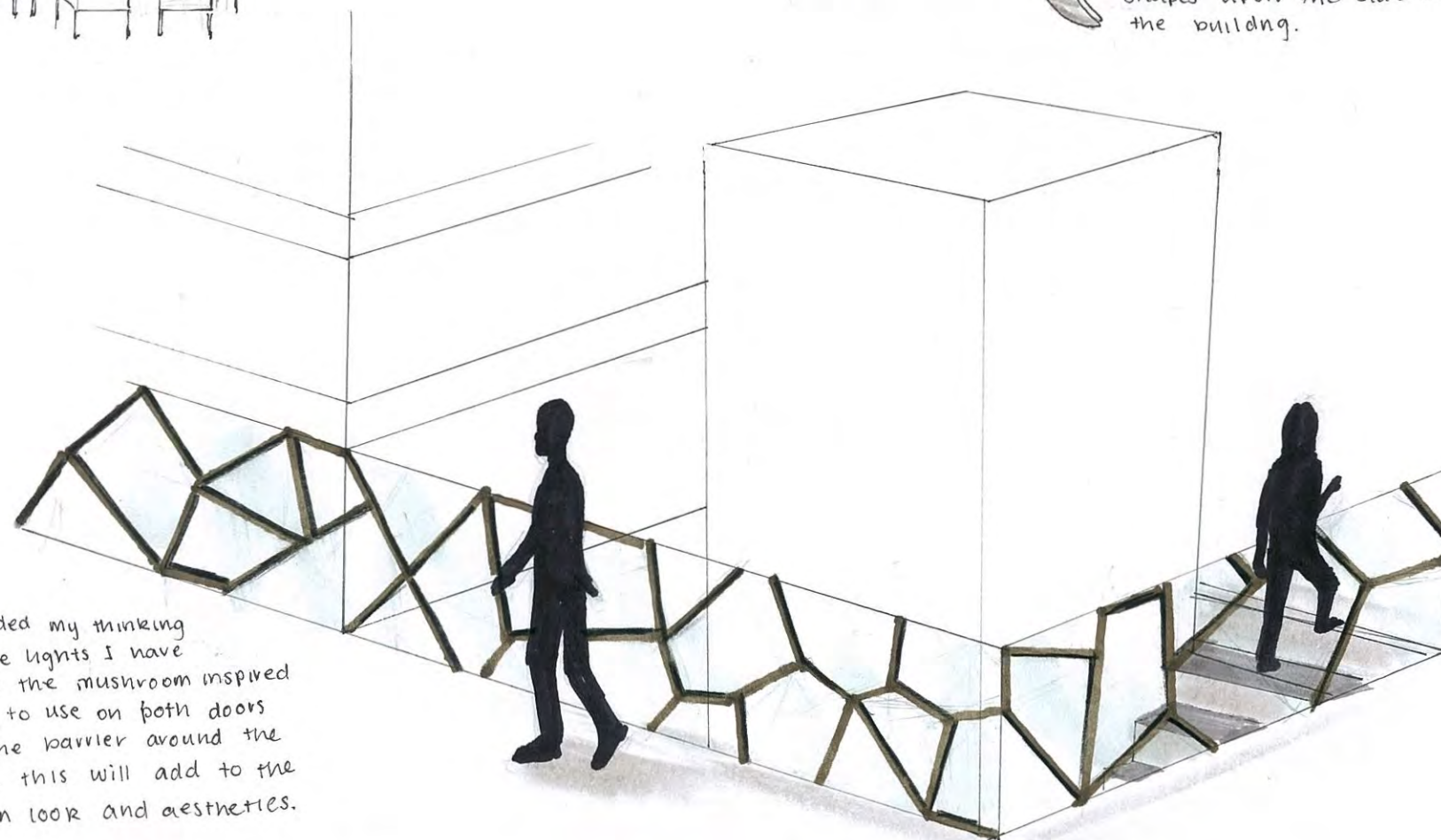


VIEW OF BUILDING FROM ROAD SIDE

These are the lights projecting shapes upon the side of the building.



I extended my thinking from the lights I have adapted the mushroom inspired design to use on both doors and the barrier around the stairs. This will add to the modern look and aesthetics.



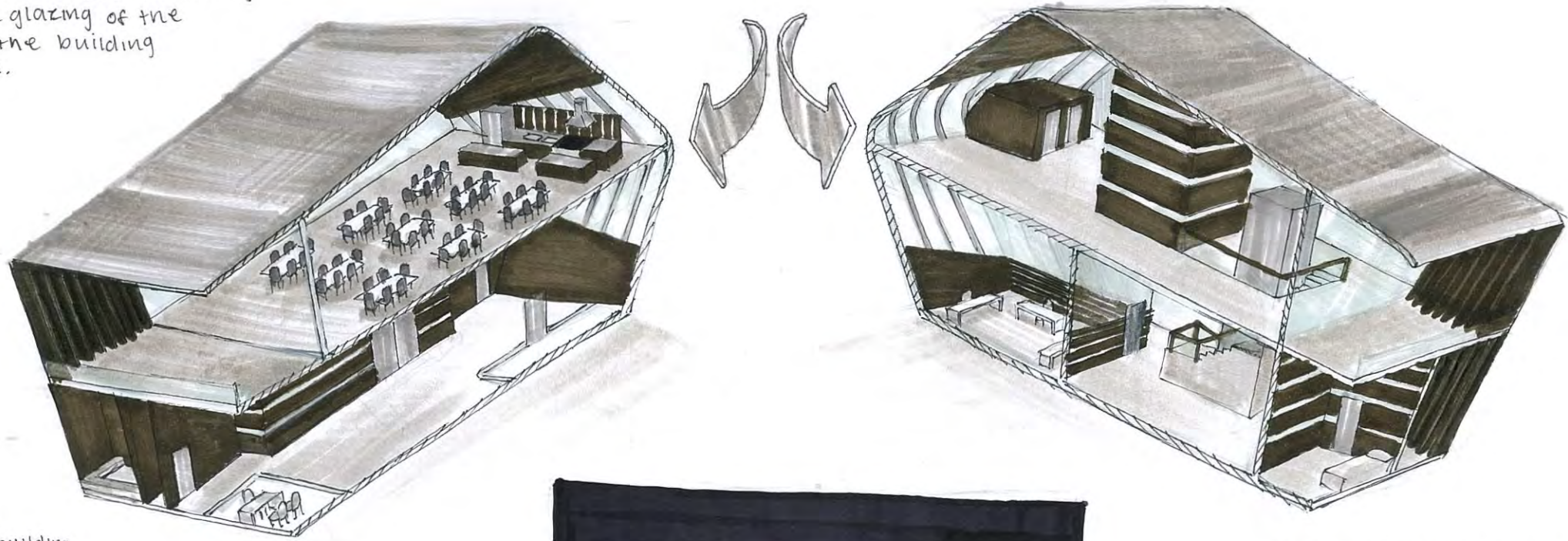
EXPLORATION AND REFINEMENT -AESTHETICS

WINDOWS

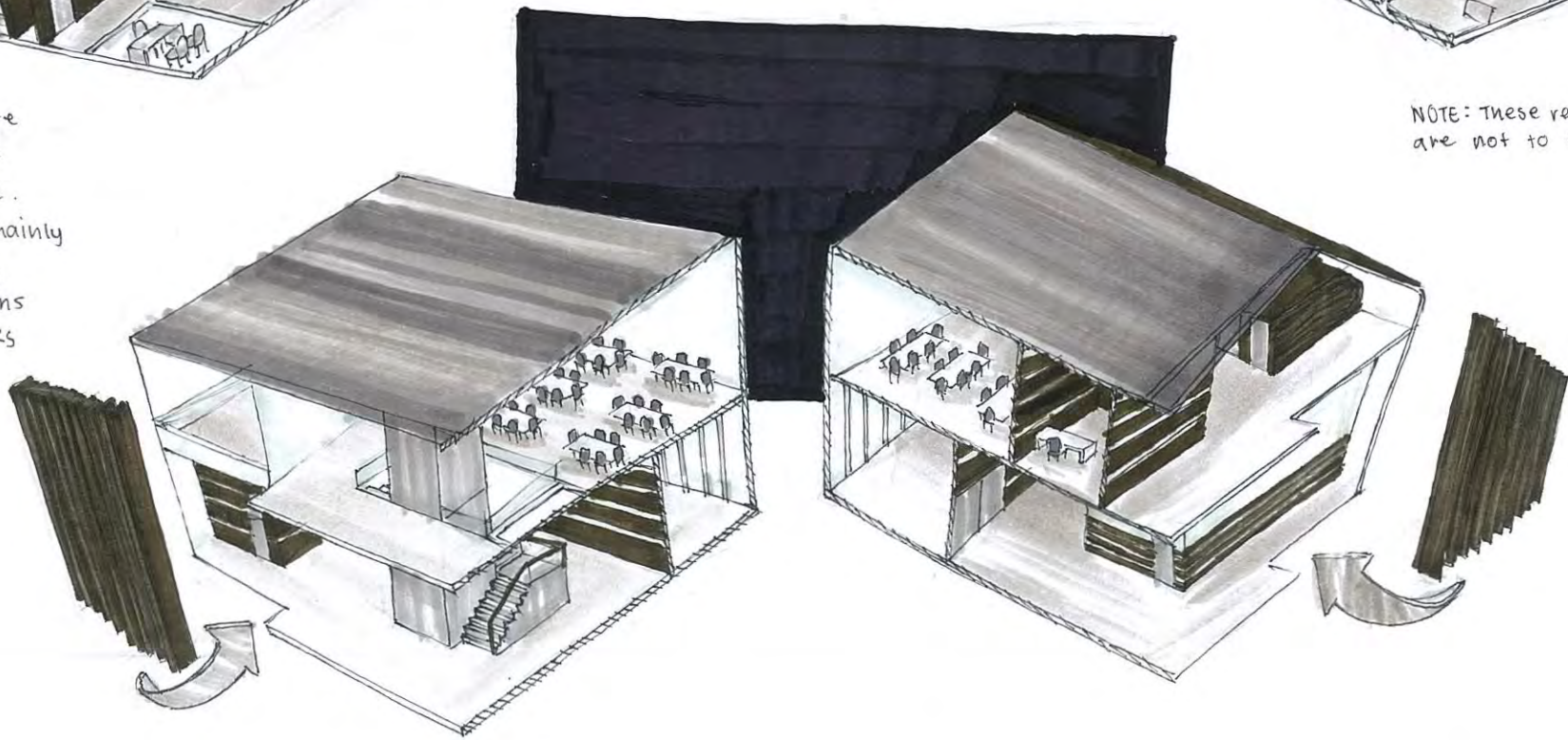
The glass I will use on either/both left and right walls will be milky for privacy, whilst the glass for the facade and back will be double glazed and transparent. Having it double glazed will help eliminate noise coming from the main road and concrete factory, and the transparency will allow people to see out at the courts from the function area and will give those in the fitness centre a view.

Having windows on all sides of the buildings allows for sun to stream through and heat it at different times of the day - because it is open plan heat will be evenly distributed. The double glazing of the glass will also ensure the building stays reasonably warm.

EXPLORATION AND REFINEMENT -FUNCTION

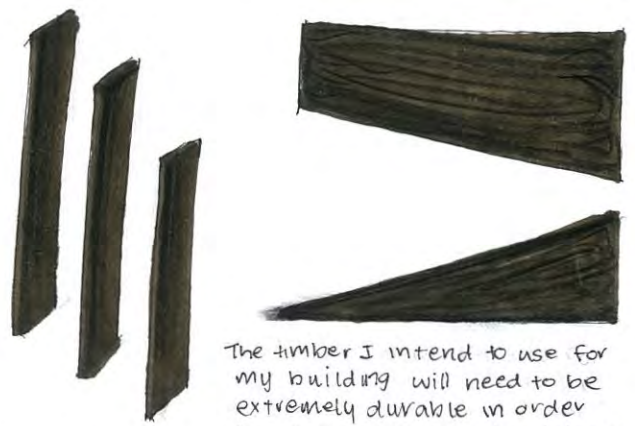
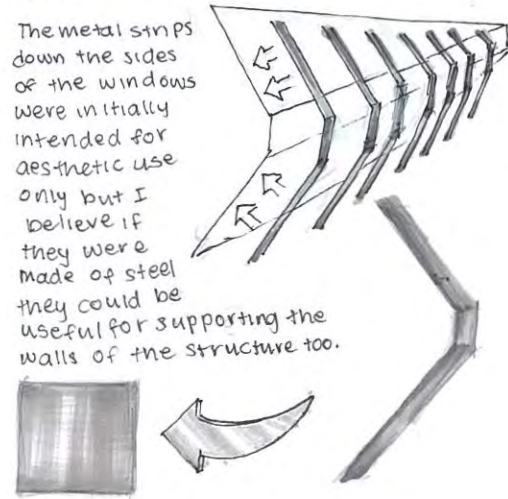


FLOORING: The floors of this building I have decided will be poured concrete because it is a smooth surface that is strong and appears formal/corporate. It is used throughout the school - mainly the classrooms in A Block. It is both cheap and easy to maintain in terms of keeping clean and I feel it works well with the rest of my colour palette.



NOTE: These rendered sectionals are not to scale.

STEEL ROOF: I love incorporating metal in my designs, as a material it looks great and it is found in almost every building within Westlake including Gym 4 A Block and D Block. I feel that as another element of the exterior it goes well with the timber and glass, all modern materials that when combined look really unique.



The timber I intend to use for my building will need to be extremely durable in order for it to withstand outdoor conditions on the exterior. Macrocarpa is a timber that fits this criteria, however aesthetically to match my building it will need to be altered - or permanently stained, a layer of something else will be needed to get the desired look. The timber could in fact be painted, metal could potentially be used instead, (painted to achieve that colour or copper instead - the latter being considerably more expensive.