

# Component 1 Three-Dimensional Design

## Standard Mark - 51

	A01	A02	A03	A04	TOTAL
<b>Mark</b>	13	13	12	13	51
<b>Level</b>	5	5	4	5	
	Just confident and assured ability	Just confident and assured ability	Fully competent and consistent ability	Just confident and assured ability	

### Examiner comments:

- The development of ideas is purposeful and informed by appropriate sources.
- There is evidence of comprehensive refinement through drawing, computer generated designs and three-dimensional models.
- Work is skilful and there is a fully competent and consistent ability to record ideas.
- Recording is relevant to intentions and accompanied by thoughtful annotation.
- There is a just confident and assured ability to produce a personal and meaningful response.
- Realisations demonstrate confident and assured understanding of visual language through application of formal elements.

### Keyword descriptors from the taxonomy:

Informed	Skilful
Purposeful	Thoughtful
Secure	Cohesive
Engaged	Comprehensive

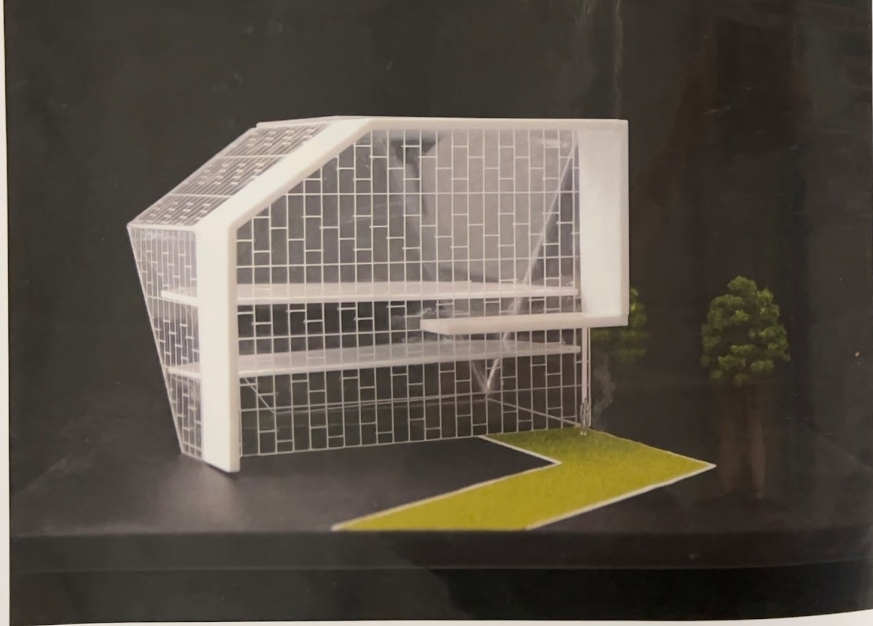
# Final outcome

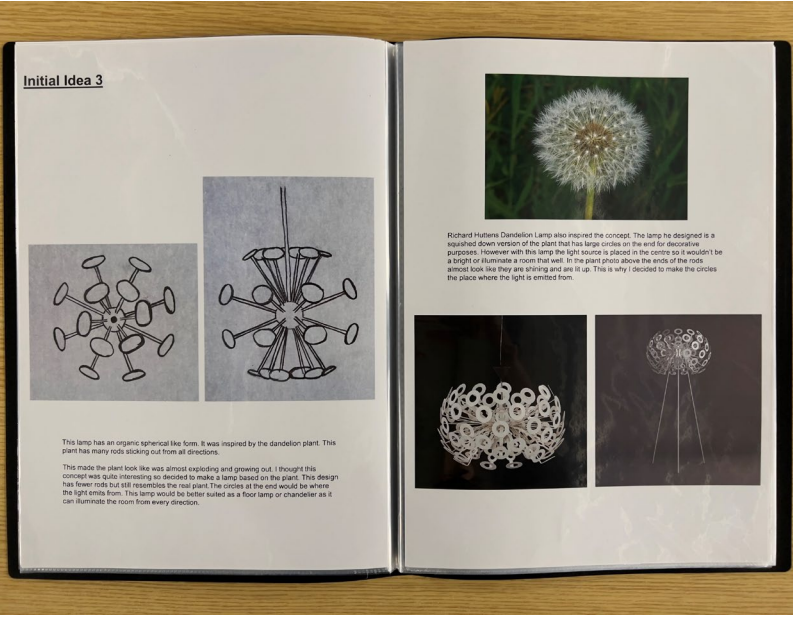
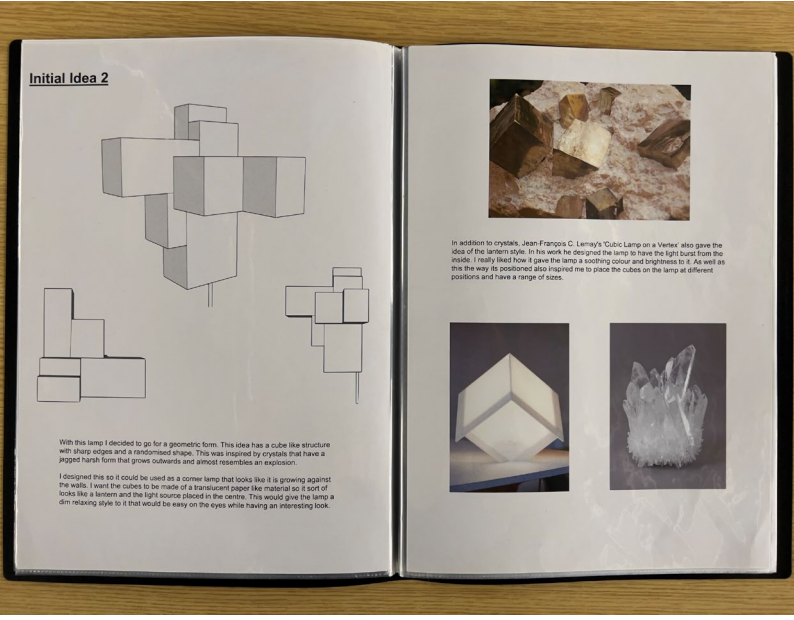
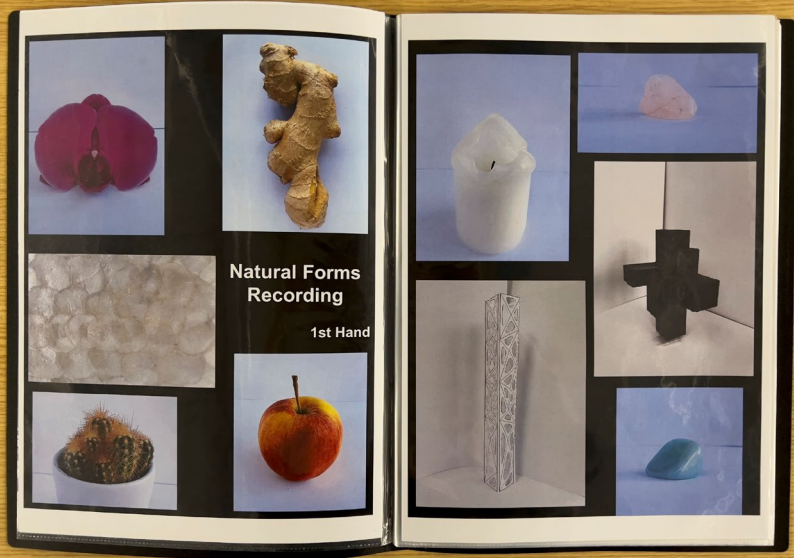
## Final Model Evaluation

My intention for my final piece was to create a building that was simple in its form but sophisticated enough in its details and features so to stand out amongst others. For example the main building is primarily transparent to allow a maximum of light to enter which would give a more visually striking appearance compared to a building that were solid and dark within. Additionally I ensured by building had an angular shape. This was done to create a sense of randomness and asymmetry which I felt made the building stand out compared to basic rectangular ones.

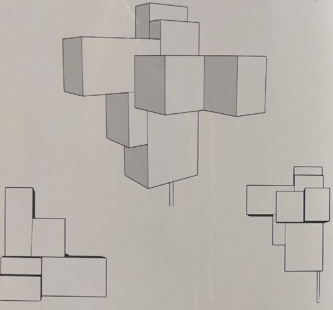
My form for the building was inspired by Casa de Música by Rem Koolhaas. His building was disproportionate and no face were similar. As mentioned before the irregular shape stood out and had a more interesting form to look at so this is why I chose this. My windows were inspired by Zaha Hadid's work on the Heydar Aliyev Centre. Her window design consisted of a brick pattern arranged slightly un-uniformed. I liked this as it broke up the window pattern and gave it a more aesthetic look. On her building there is also a section in which the front pops in front of the glass. I used this feature as I felt it improved my building for several reasons. For example it breaks up the colour from the transparent glass to an opaque white, which helps to create a contrast in colour. The front portion also adds depth to the building which I felt the original idea lacked.

To summarize the final piece is better than what I had originally planned. The lack of depth, colour, and detail were all fixed eventually on the building. The transparentness of the building combined with the pop out frame, the brick like windows and the irregular shape all help to make the building unique and feel much more contemporary





Initial Idea 2



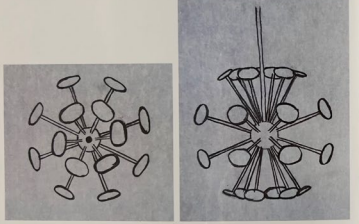
With this lamp I decided to go for a geometric form. This idea has a cube like structure with sharp slopes and a randomised shape. This was inspired by crystals that have a jagged hard form that grows outwards and almost resembles an explosion. I designed this so it could be used as a corner lamp that looks like it is growing against the walls. I want the cubes to be made of a translucent paper like material so it sort of looks like a lantern and the light source placed in the centre. This would give the lamp a dim relaxing style to it that would be easy on the eyes while having an interesting look.



In addition to crystals, Jean François C. Lamoy's 'Cubic Lamp on a Vertex' also gave me the idea of the lantern style. In his work he designed the lamp to have the light burst from the inside. I really liked how it gave the lamp a soothing colour and brightness to it. As well as this the way its positioned also inspired me to place the cubes on the lamp at different positions and have a range of sizes.



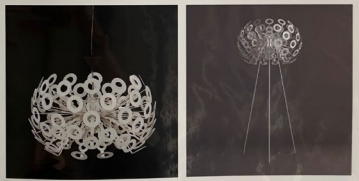
Initial Idea 3



This lamp has an organic spherical like form. It was inspired by the dandelion plant. This plant has many rods sticking out from all directions. This made the plant look like was almost exploding and growing out. I thought this concept was quite interesting so I decided to make a lamp based on the plant. This design has fewer rods but still resembles the real plant. The circles at the end would be where the light emits from. This lamp would be better suited as a floor lamp or chandelier as it can illuminate the room from every direction.



Richard Hutera's Dandelion Lamp also inspired the concept. The lamp he designed is a squashed down version of the plant that has large circles on the end for decorative purposes. However with this lamp the light source is placed in the centre so it wouldn't be a bright or illuminate a room that well. In the plant photo above the ends of the rods almost look like they are shining and it is up. This is why I decided to make the circles the place where the light is emitted from.



Initial Idea 4

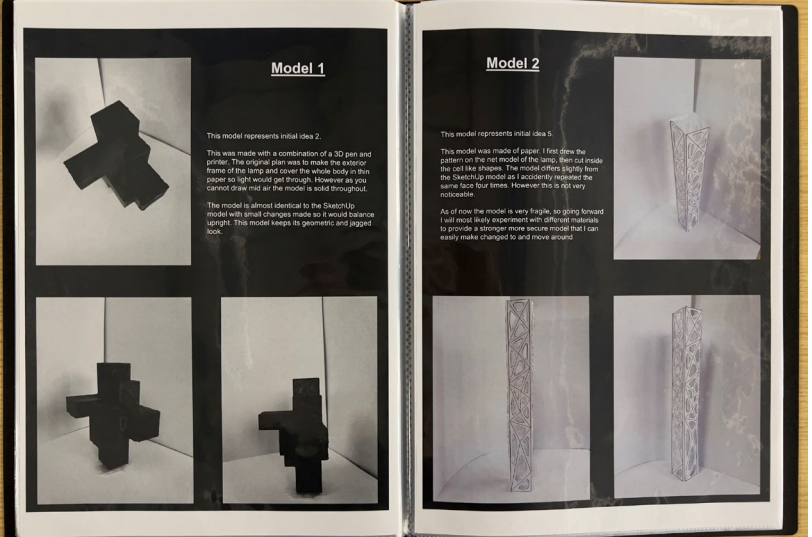
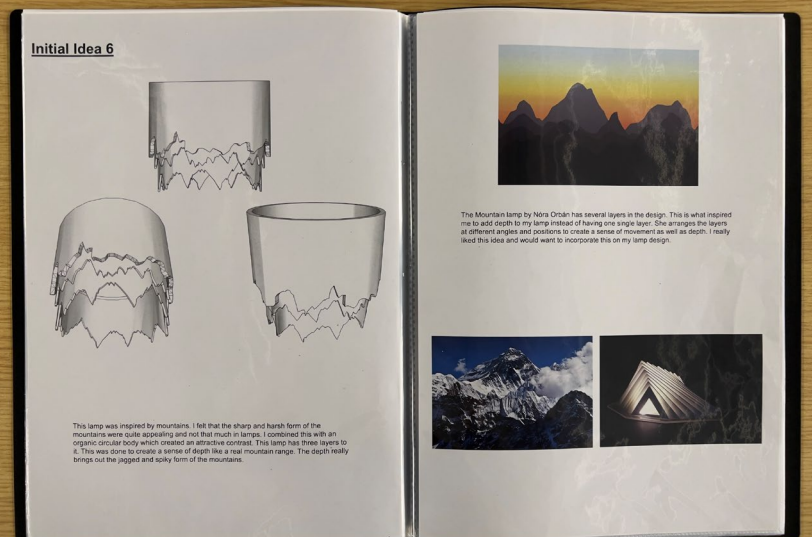
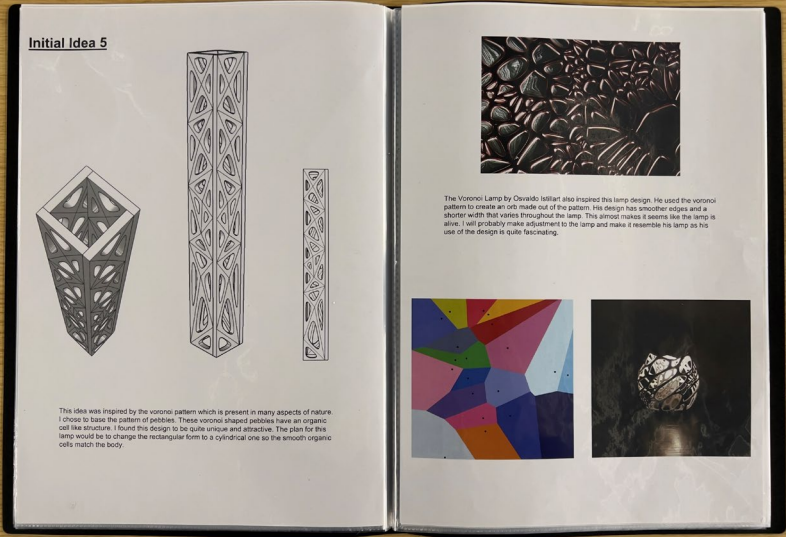


This idea was inspired by the pitcher plant that has a tapered cylindrical form. This organic form was quite eye catching due to the random slant at the end. I wanted to explore the smooth texture of plants combined with an asymmetrical shape as this would look far more unique compared to traditional cylindrical lamps. I want to place the light in a way so that the light beams out of the body in a straight line. This would give it a really futuristic feel to it as if it were a laser.



The Pitcher Plant Lamp by Scott Leffon gave me the idea of keeping the end slanted. His lamp is identical to the real plant. However I don't like the bulbous middle section as it brought this rounded and distorted the shape as well as looking outdated. I wanted to keep the lamp modern looking so kept the body tapered instead. This made the lamp look cleaner and have an uninterrupted shape.

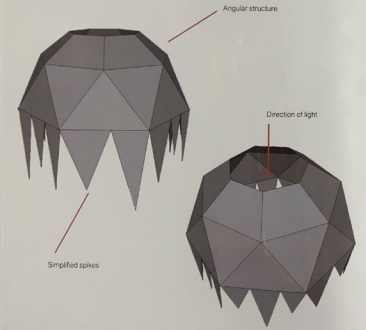




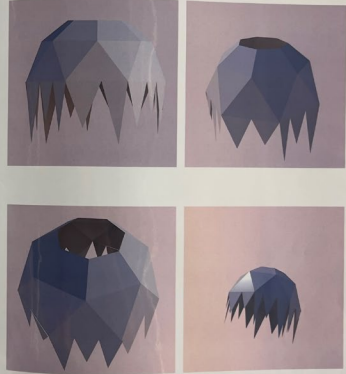
### Further Development Drawings

After exploring designers lamps, I incorporated features of their products into my lamp design. The primary change was the overall form of the lamp. This was changed from the original basic cylinder to the polygonal dome. This was done to create a more complex and striking form. In addition I combined this with the spikes from the first design to create that mountainous feel. The spikes were also simplified in numbers and style. Instead of jagged lines from all directions, smoother lines were used and fewer spikes on each side, to create a less chaotic and random piece.

The plan for this design is to have the light source emitted through the centre and an translucent body would diffuse the light unevenly giving a sense of depth.



Rendering of drawing with different angles.



### First Prototype



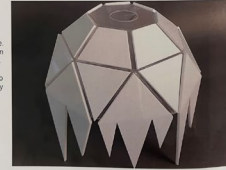
Using the developed models on SketchUp, I produced a prototype of the lamp with slight changes. The process is as follows:

Initially I had to create several models out of paper and acrylic. I came to a suitable shape to create a mould for vacuum forming. After laser cutting the pieces required for the mould, a translucent sheet of HP was heated and cast around the acrylic pieces I had stuck together.

This translucent layer was done as I planned to add an additional layer to the lamp. Smaller opaque faces were to be added on top of the translucent layer, leaving a 2mm gap in between each face. This makes it seem like the lamp had cracks in between from which the light is emitted from. I was happy with this design as it added more complexity to the design and gave an interesting way in which the light was dispersed. In addition the layers also kept the idea of depth present in the lamp as I had removed the laminating layers from the design.

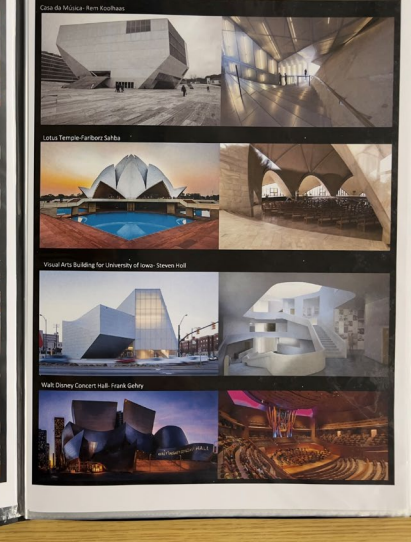
The spikes were merged with the base layer of triangles to give a sense of continuity, as if they grew from the base. This was done through heating a portion of the piece and bending it accordingly.

The plan after this is to enlarge the lamp size for the final piece. As I have already made changes to lamp following the further development this would be the final design of the lamp.

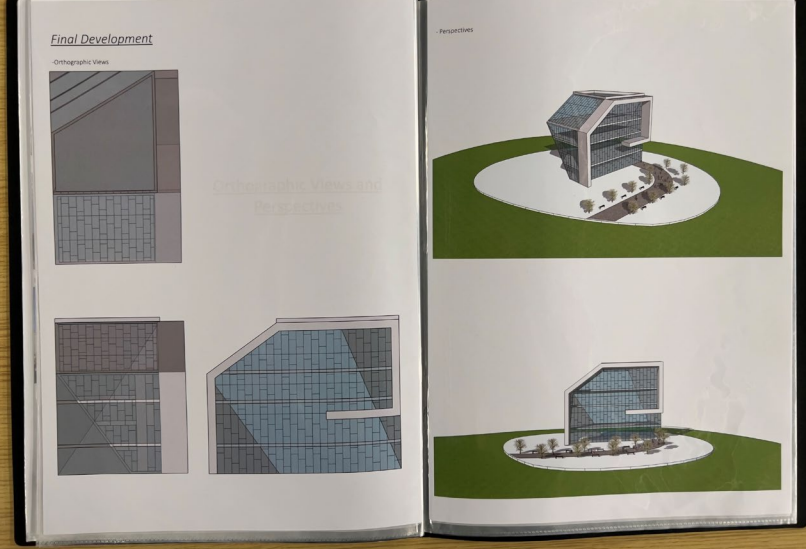
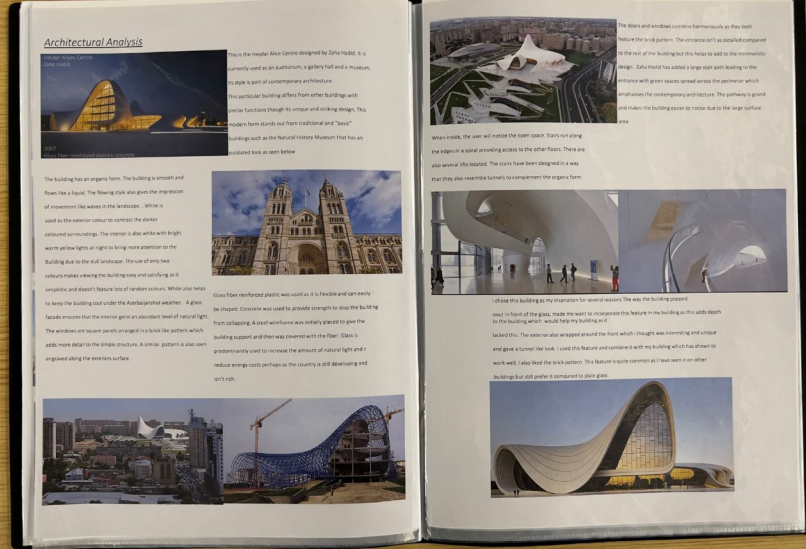
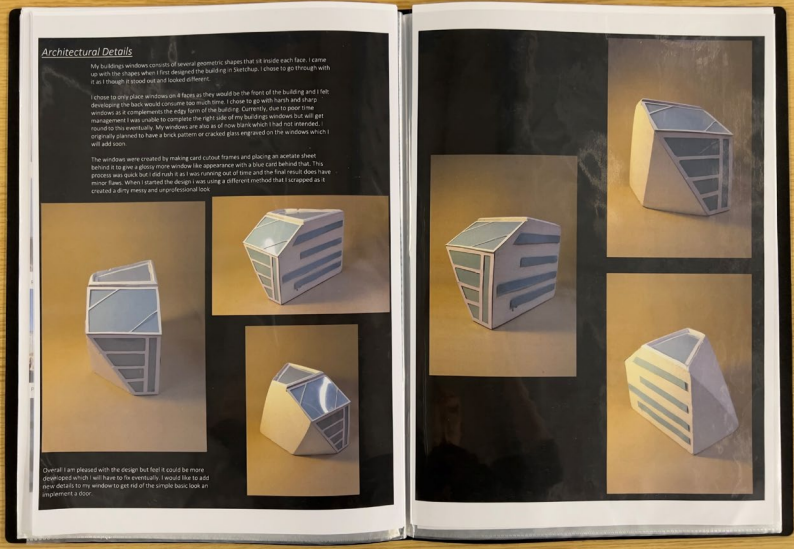
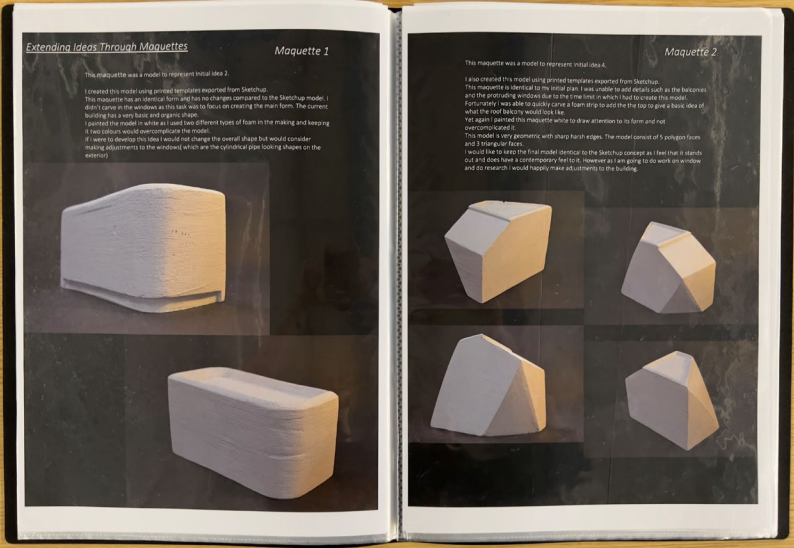


# Architectural Design

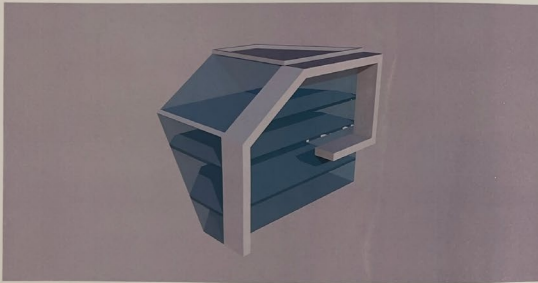
### Building Research







## Rendering Attempts



Rendered using Kerkytia software. This was my first attempt so I only managed to successfully render the building without surroundings.



After several attempts and with a greater understanding of how to render I successfully managed to render both the buildings and the surroundings. However some faces on the original SketchUp model didn't render properly hence the white squares. The grid pattern for the windows also didn't make the final render however I will still use the style for the real model.

## Final Model Evaluation

My intention for my final piece was to create a building that was simple in its form but sophisticated enough in its details and features so to stand out amongst others. For example the main building is primarily transparent to allow a maximum of light to enter which would give a more visually striking appearance compared to a building that were solid and dark within. Additionally I ensured by building had an angular shape. This was done to create a sense of randomness and asymmetry which I felt made the building stand out compared to basic rectangular ones.

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