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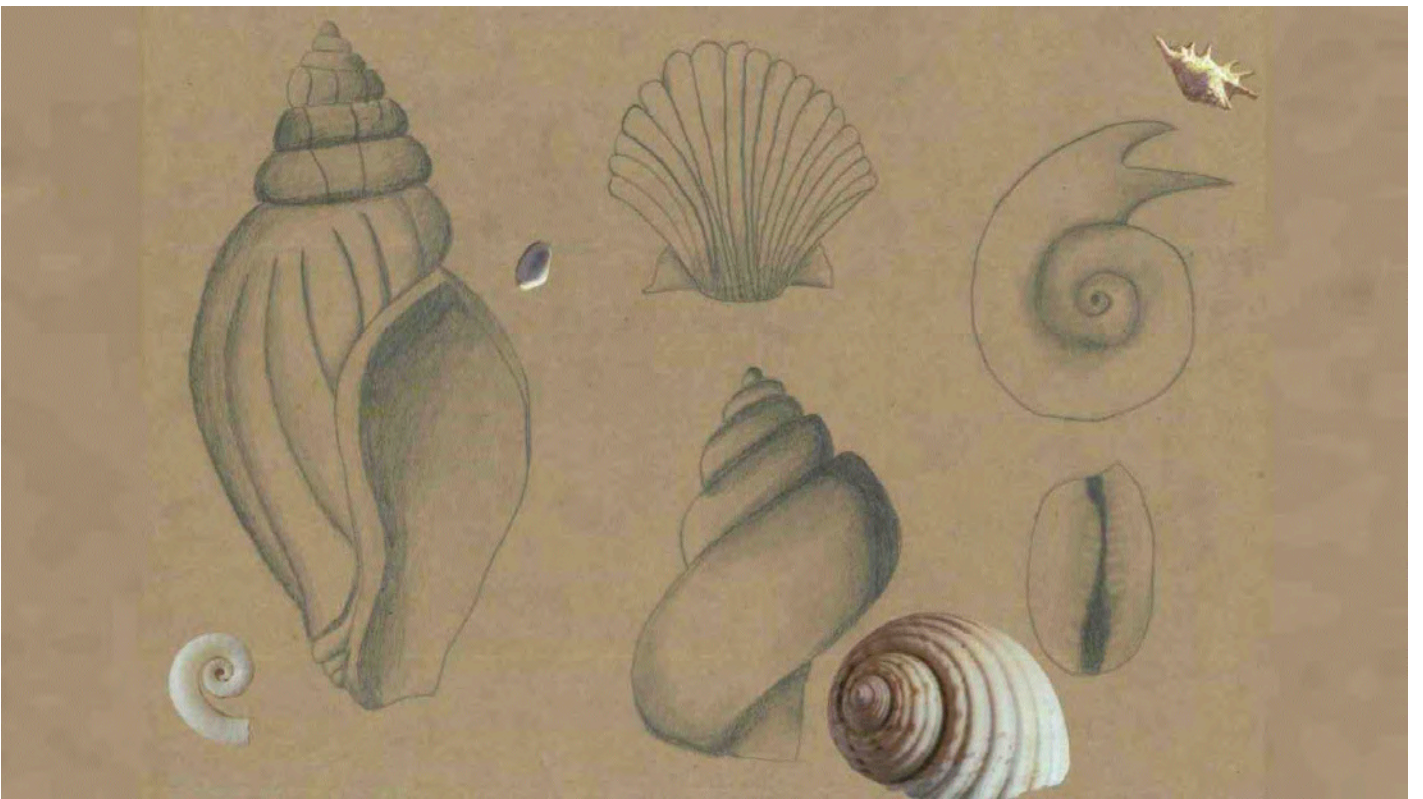
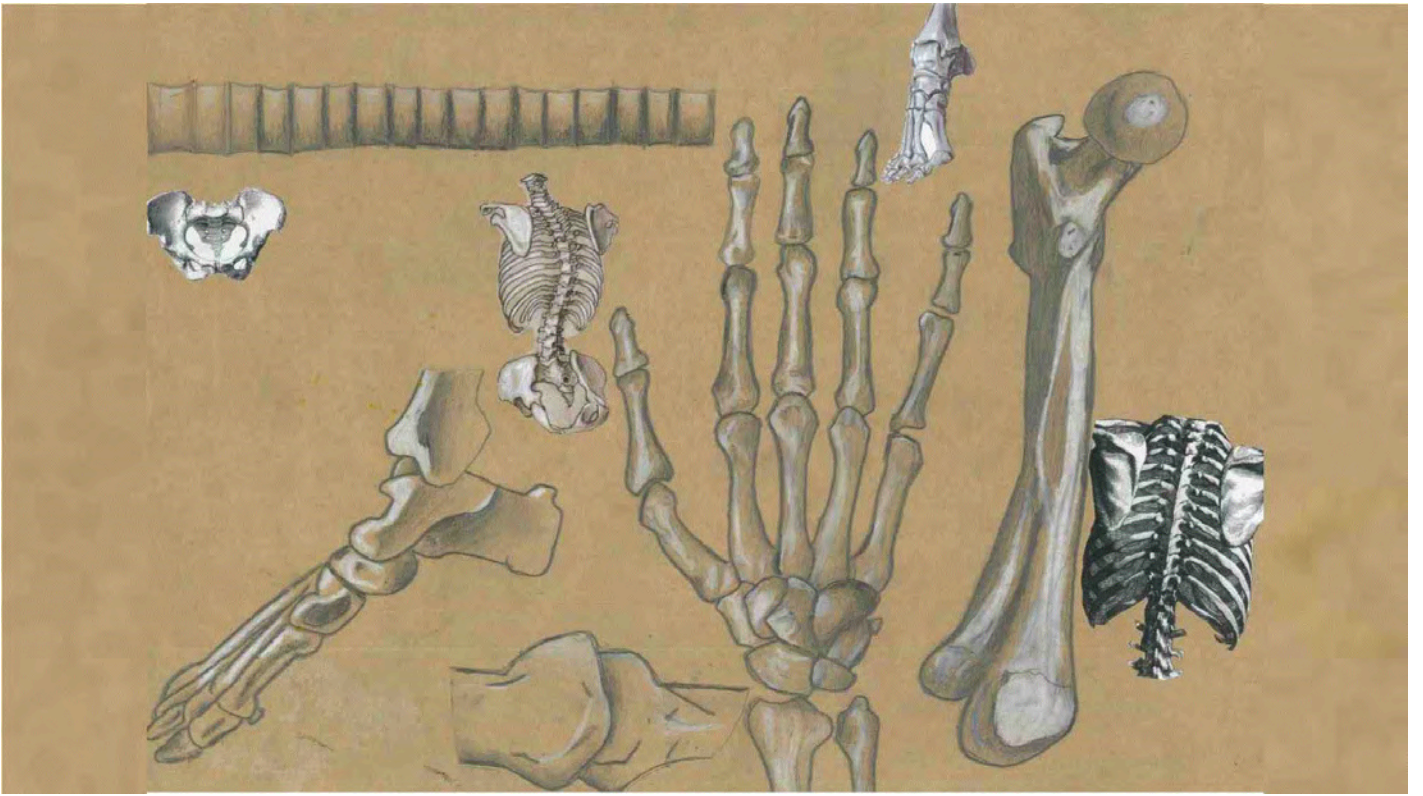
# **Level 3 Design and Visual Communication 2025**

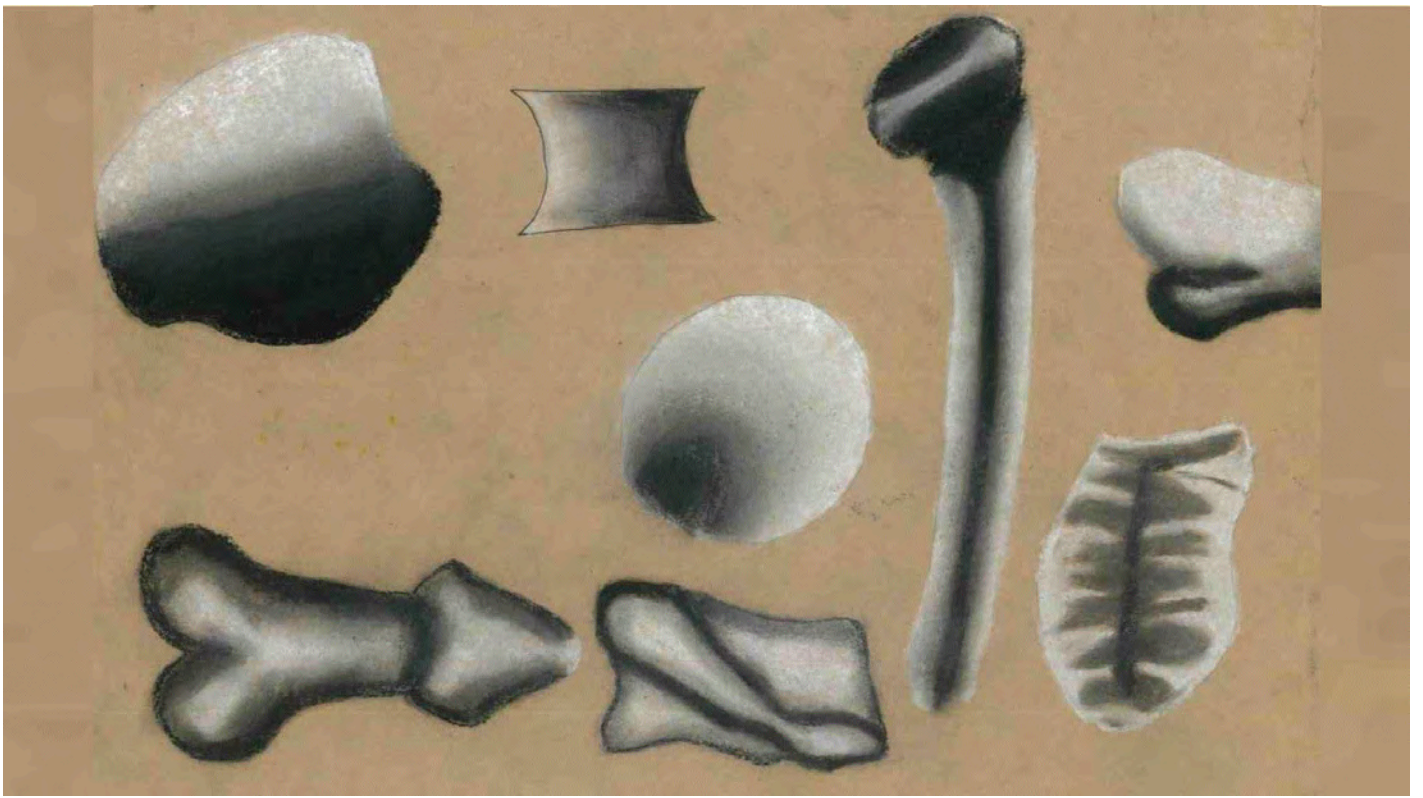
**91627 Initiate design ideas through exploration**

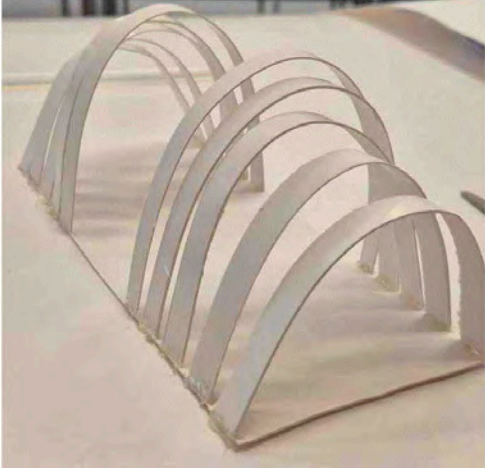
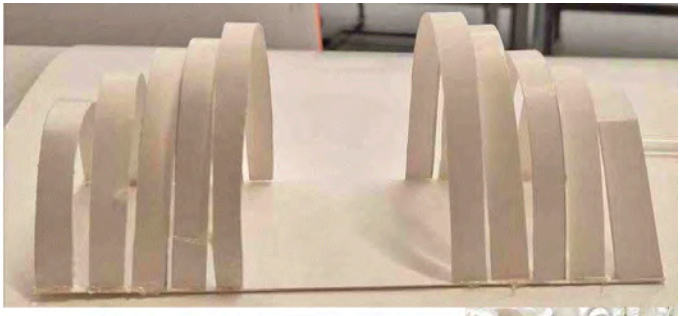
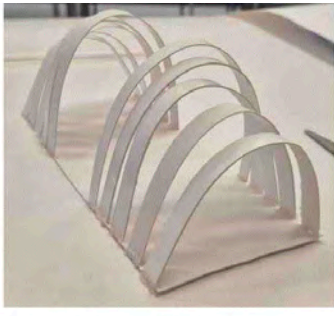
## **EXEMPLAR**

## **Achievement**

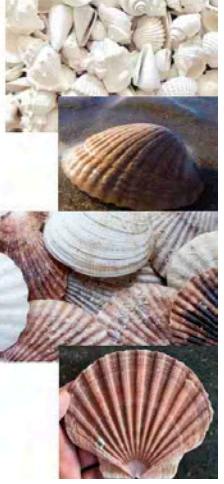




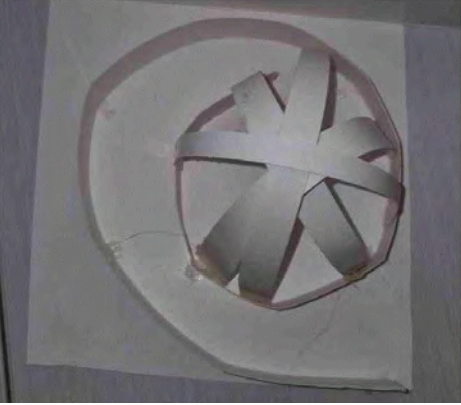
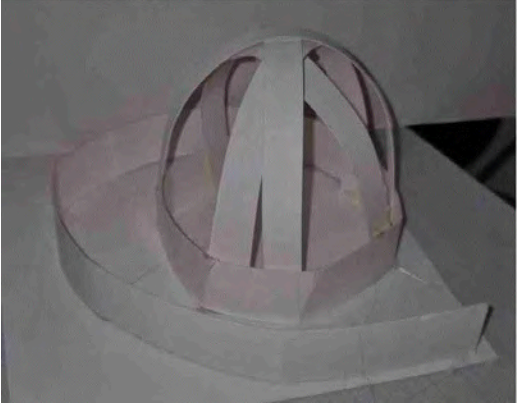


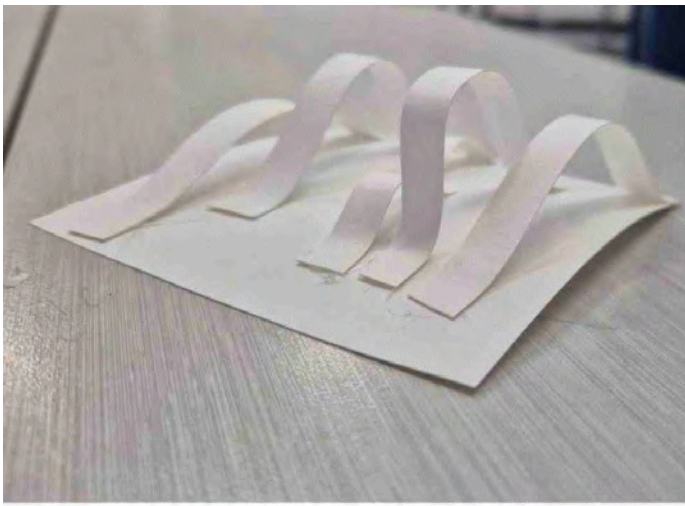


This card model forms the shape of a shell through a series of curved, arched strips that create a rhythmic and symmetrical structure resembling the natural form of a shell. Each strip is bent into an arch, acting as the ribs or framework that define the overall shape. The repetition and spacing of these arches build a flowing contour, giving the illusion of a continuous surface even though it is made of separate elements. This creates an implied shell form, where the eye connects the curves to imagine an enclosing surface. The open design also allows light and shadow to interact with the structure, enhancing its sense of rhythm and depth. Overall, the model uses curved repetition, balance, and implied continuity to capture the organic, layered quality of a shell's form.

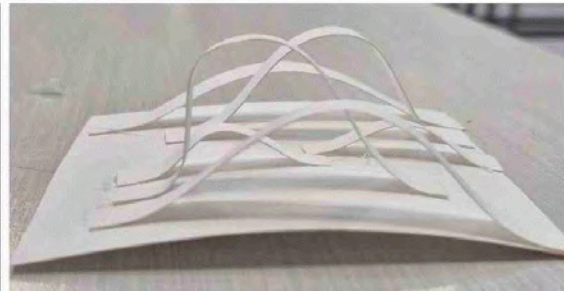
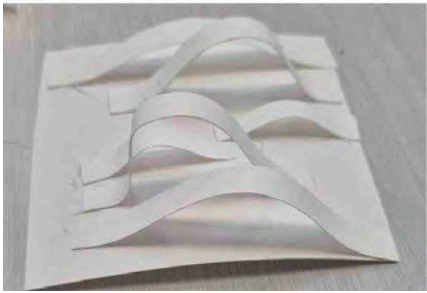


The forms shown in this card model gives the look of a large, protective shell — a dome-like structure that feels both open and enclosed at once. The curved strips arch upward gracefully, meeting at a central point to create a sense of unity and strength, much like the layered ribs of a seashell or the smooth curves of a natural dome. Its symmetrical shape and soft white color evoke the purity and simplicity of something formed by the ocean over time. The wide base gives it stability, while the delicate arches above suggest motion and lightness, as if the structure could shelter a small world within it.





This card model resembles the delicate form of a seashell. The curved strips rise gracefully from the flat surface, mimicking the smooth, flowing ridges often found on the exterior of a shell. Each arc appears to fold and bend in harmony, creating a rhythm of waves that evoke the natural beauty of something shaped by the sea. The simplicity of the white paper adds a sense of purity and fragility, much like the fine layers of a real shell, giving the impression that it could have been gently washed ashore by the tide.



## Site analysis

Black-sand Piha Beach is known for strong surf and rugged scenery. Lion Rock is a volcanic monolith with war memorials and Maori carvings. Nearby, Waitakere Ranges Regional Park has subtropical native rainforest and waterfalls such as Kitekite and Fairy falls.

Karekare, to the south, also has a black sand beach. Things to consider are

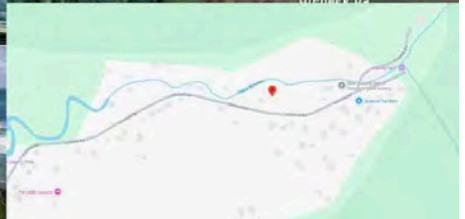
- You don't live quite close to the beach
- There is a stream at the back of the site, i could incorporate this stream in to my design
- The driveway connects your house to another house. It's quite a thin drive so it would be best to incorporate a garage

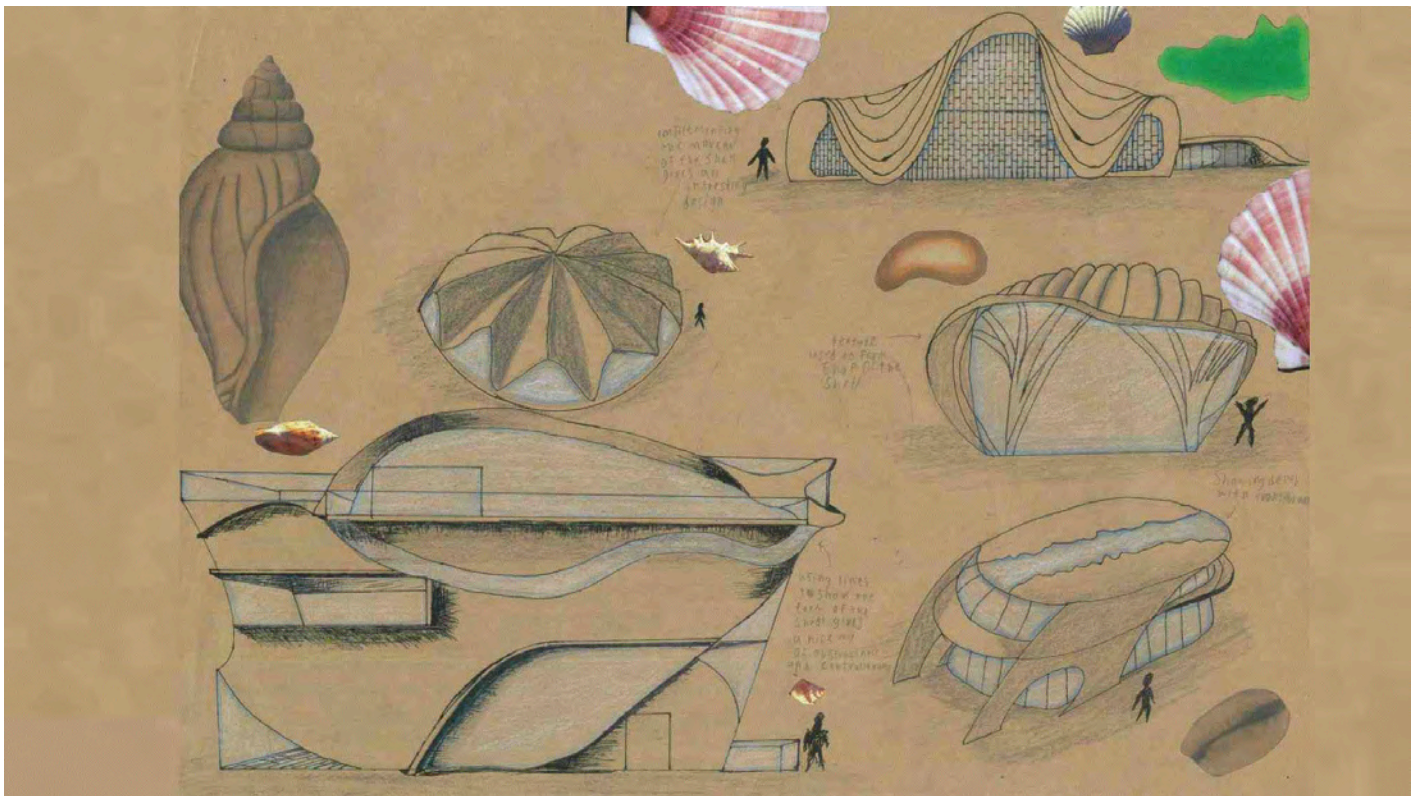
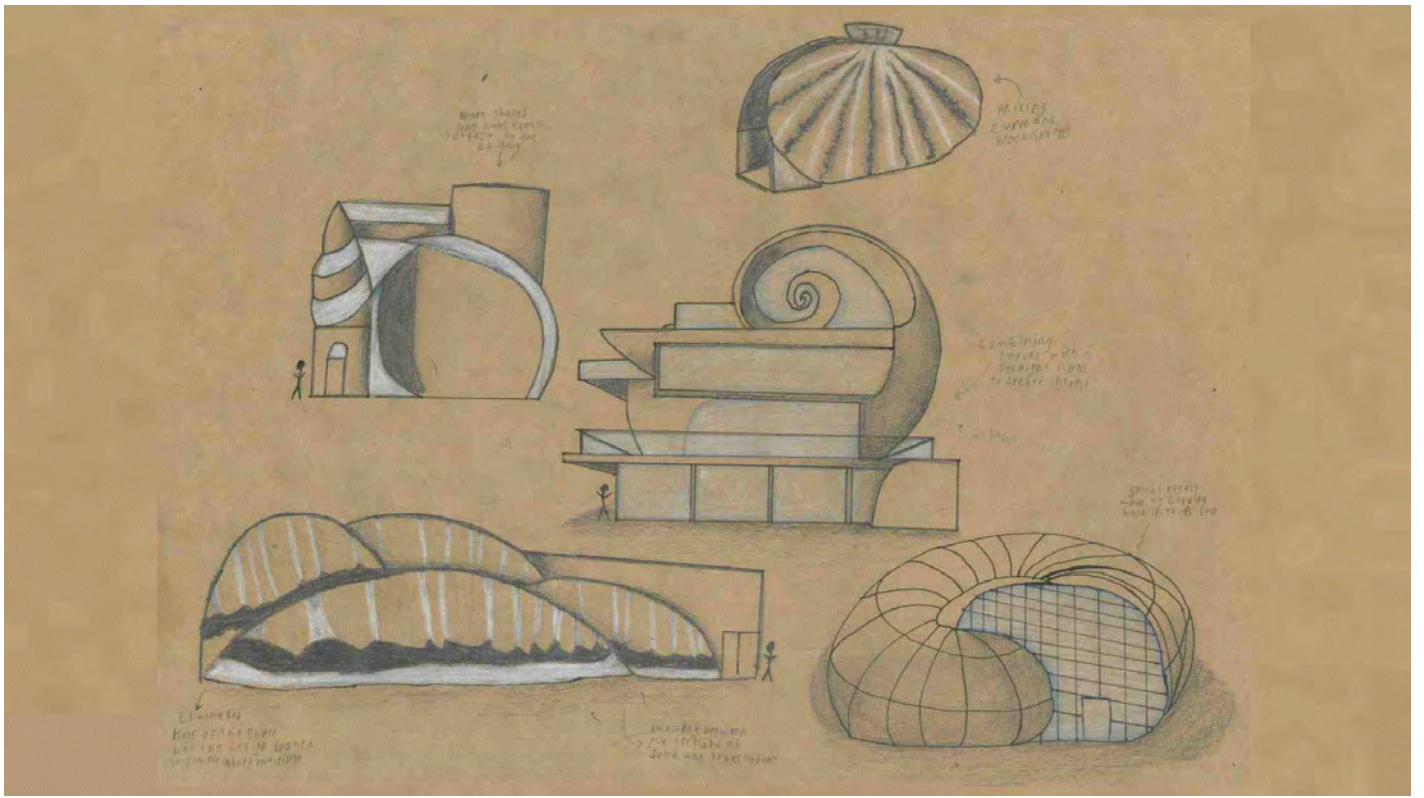
At piha beach a lot of people go there to

- surf
- hike
- explore Lion Rock
- visit Kitekite Falls
- enjoy the scenery

(grab food at the Piha Store or Piha Cafe, have a picnic, or watch the sunset.)

There already is a accommodation on the site, though i am making the site for a couple in their mid 40s that are thinking of putting their "forever home" in this plot of land. This means that i have to make an accommodation that lasts in things such as materials and make the house consistent in things such as age and design for the future. The current accommodation in the site does not fit the description of the couples ideas and future making it not fit for purpose. Things that make it not fit the purpose are things such as the amount of stairs around the house. And how the material on the exterior is wooden with paint thats faded and washed i will be fixing these problems with my new design and making the accommodation everything the couple needs for this to be "their home"





# BRIEF

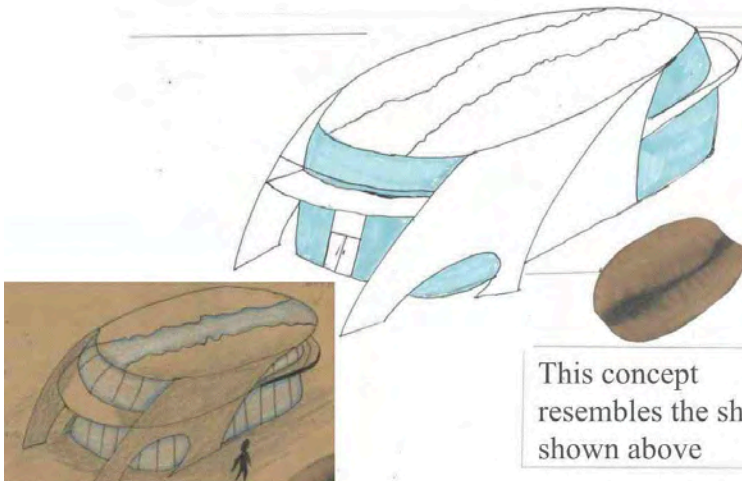
I am redesigning a beach home near Piha Beach for a newly wedded couple who want a modern, comfortable, and forever lasting home. The existing house appears outdated, with worn materials and a design that no longer reflects the couple's vision for their future. My goal is to create a space that embraces the natural beauty of the shells in Piha while offering a sense of warmth, durability, and timeless elegance. By using high-quality, sustainable materials and a refreshed design approach that has me working hand in hand with the newly weds, the new home will provide the couple with both functionality and a strong emotional connection to the place where they will build their life together.

The reason that the previous house doesn't fit the ideal for the couple is, the house is not fit for sustainability. The previous house as you can see has a very old design that distastes the couple, they don't see a future living in this house and they have the financial stability to build this house on this land forever home the way that they would envision their future. The newly weds are very interested in the shapes and forms of shells and wanted that to be the big idea around their home.

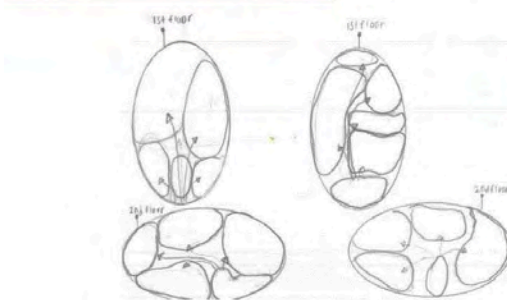
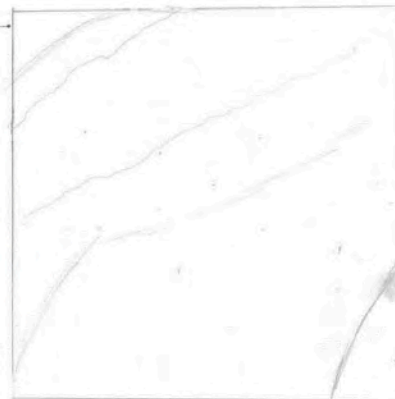
The things that I wanted to focus on and knew that would be a challenge is trying to make a house that has the curves and form of a shell whilst making it easy to navigate and facilitating a home. What makes it so hard to furnish a house with the curves of a shell is that it can get either too empty or too loaded with furniture and appliances, trying to find a balance without leaning too much on one way or another. Another reason it is difficult is because of the curves that will be needed for the walls, how can I make simple solutions for curved walls and areas in the house such as the kitchen.



The requirements that the newly wedded couple have stated are a 2 bedroom house (room for a guest as well as a master bedroom), an open yet exciting backyard and outdoor space to host parties, events and get-togethers; not only an open outdoor area but an interior that is very flowy with minimal walls just so that when hosting things such as parties the house will be able to be used as we are trying to get the max capacity limit for these situations,



This concept resembles the shell shown above



## PROS

The smooth, curved surfaces can reduce wind resistance, making it more stable in high-wind or storm-prone areas.

Curved shapes can improve thermal performance by reducing surface area relative to volume.

Windows and skylights (as shown) can be positioned strategically for natural light, reducing electricity use.

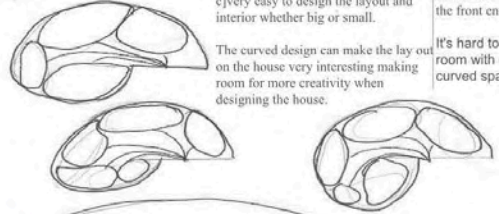
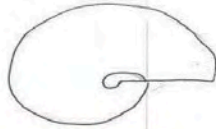
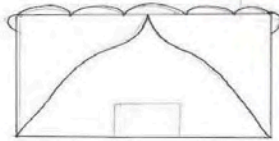
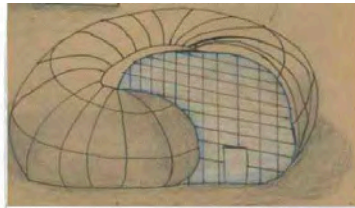
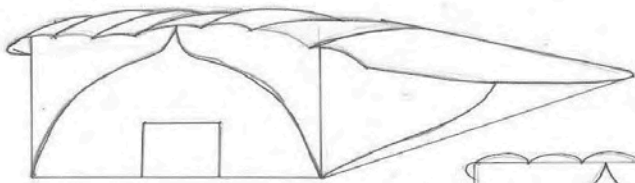
## CONS

Cleaning and maintaining curved glass and surfaces can be more complicated.

Repairs may require custom parts or expertise.

Non-rectilinear shapes require specialized materials and building techniques.

Costs for labor and fabrication are typically much higher than traditional box-like structures.



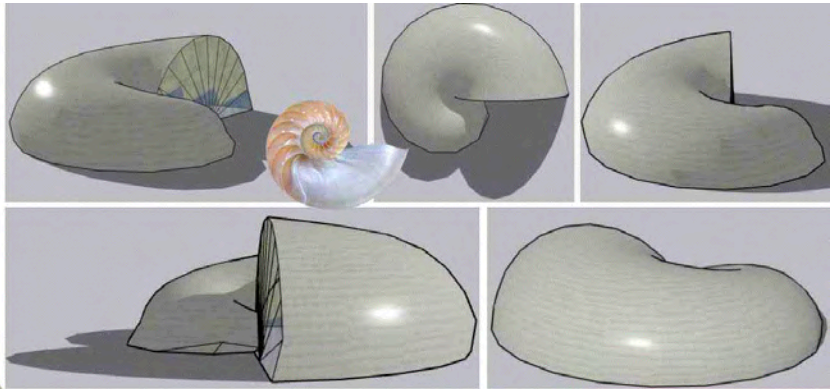
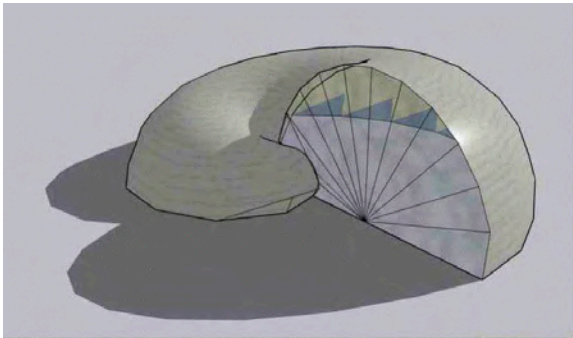
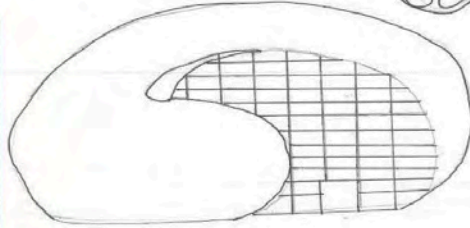
Pros	Cons
<p>What i feel like is a pro is that when actually sizing the house it would be every easy to design the layout and interior whether big or small.</p> <p>The curved design can make the lay out on the house very interesting making room for more creativity when designing the house.</p>	<p>What is bad about this design is the amount of little privacy because of the big window at the front entrance</p> <p>It's hard to trying to make a room with doors in this curved space.</p>

**Pros**  
The house looks and gives off the image of a opened shell.

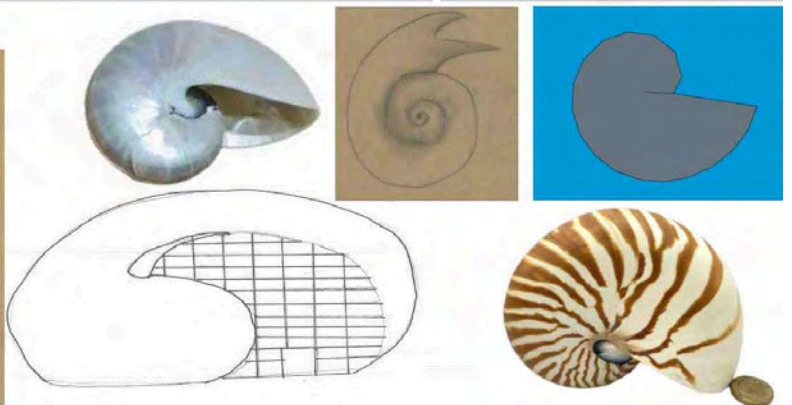
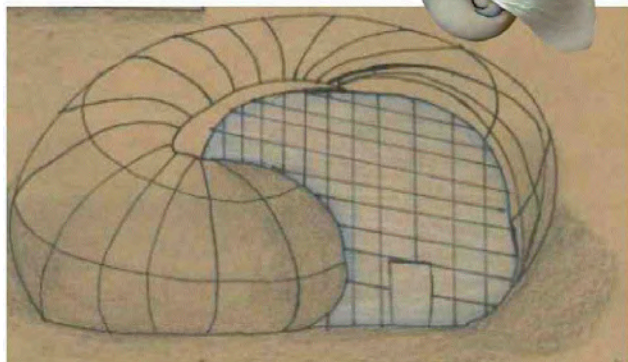
The house seems like a good starter house and gives that warm beach cozy cottage feeling.

**Cons**  
This house is very small.

Roof is on a slant making it harder to build a interior and doesn't fit for purpose as they want a house that is suitable for parties and get together



Concept on sketchup



# Final Home Material Choice And Reason Why.

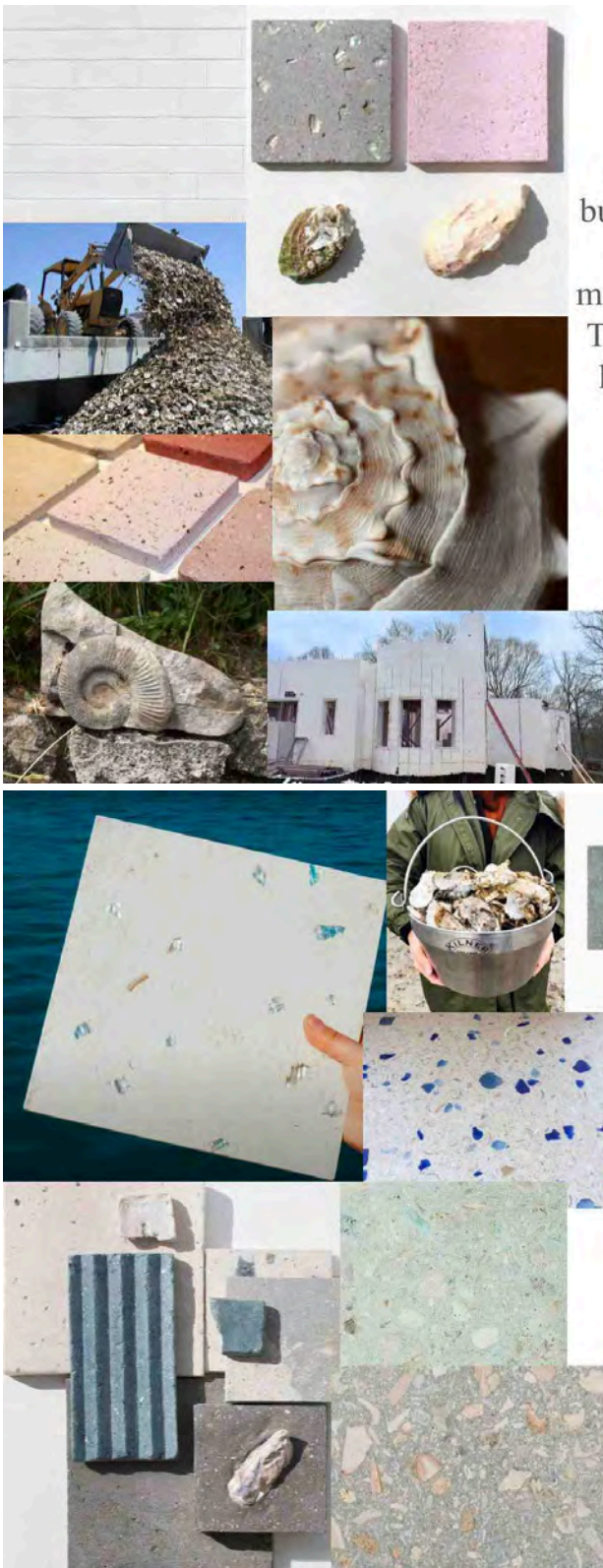
I want the house to not only embody the form of a shell but also make the materials i use to also give the look and color of the shell and its surroundings. To do this i will make the house out of a recycled material called seastone. This will make sure the house is not only secure from the harsh weather conditions of the west coast but also give the house the look of the shell.

I envisioned making and basing the style and look from the outside of the house itself not only off a shell but also off a design style. But after looking back at my brief came to the conclusion that what was more important was trying to make design choices that best envision the couples idea of their “forever home.” so i put my ideas and feelings aside and tried to find the best possible material to use for the home.

## Why And What is Seastone?

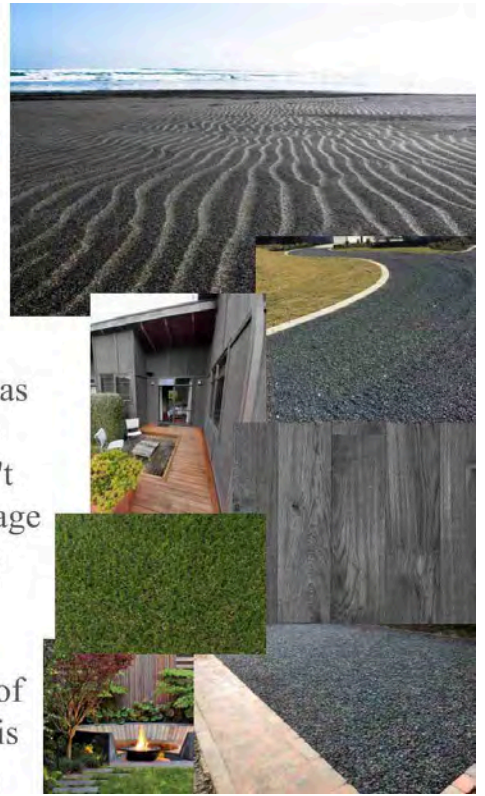
Sea Stone is made by grinding down shells that are destined for landfills before combining them with natural, non-toxic binders. This grants the material a terrazzo-like aesthetic. The aim is to make it a sustainable alternative to concrete in the design of small-scale products, as the two materials share similar properties. Seashells are rich in calcium carbonate aka limestone, which is used to make cement – a key ingredient of concrete.

“Even though some of the seashells have been recycled and used as fertilisers, the majority of them are being thrown into landfills or by the seaside. The discarded seashells, which are uncleaned or rotten, have not been cleared away at all and they have been piling up near the beach for a long time, thus causing odour pollution and polluting the surrounding land in the long run. Sea Stone proposes the use of discarded seashells to create environmentally and economically sustainable material rather than contributing to the world’s rubbish problem,” explained Newtab-22. It is also good to note the the durability of seastone is the same as a diamond so using it to make a house with this material is completely fine

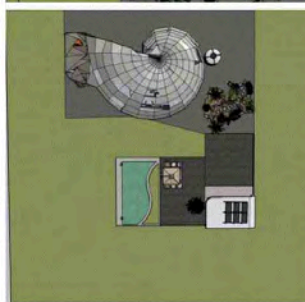
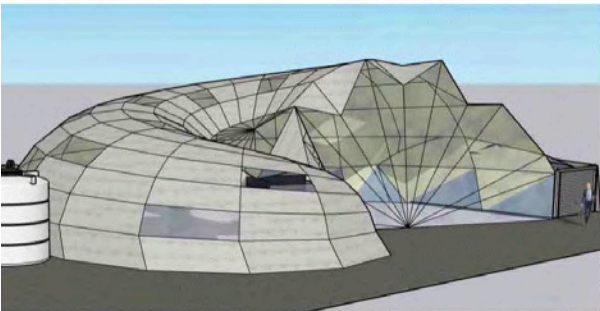
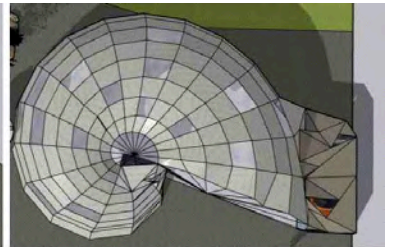
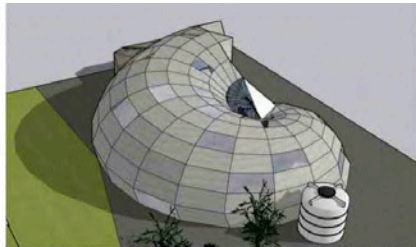
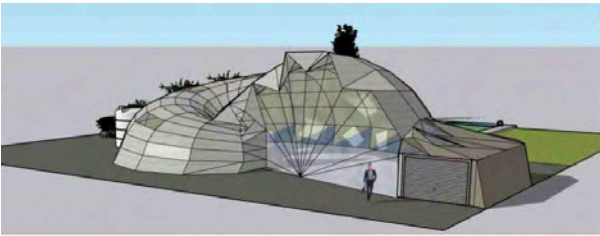


## Outdoor Material Research

As piha is known for its black sand i have decided to try incorporate that look in to my design. I did this by deciding o use dark gravel in the front and side of the house and also try incorporate black wood, whether it be the floor of the back patio as the young couple had to emphasise how they are a very social couple in a big group of friends that love the outdoors and wanted me to make a house with the vision for get togethers as well as the future. I will be using the recycled wood of the house as the materia for the outdoor spaces, this may be flooring or the actual walls fora structure i don't know what of yet. I feel that this will pay homage for the house that rested here before and a nice conversation starter when guests are in this outdoor space.

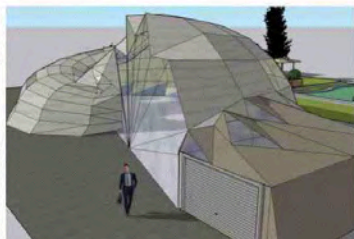
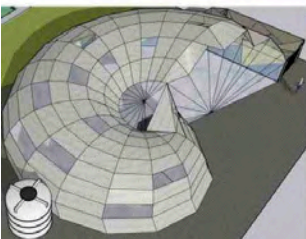


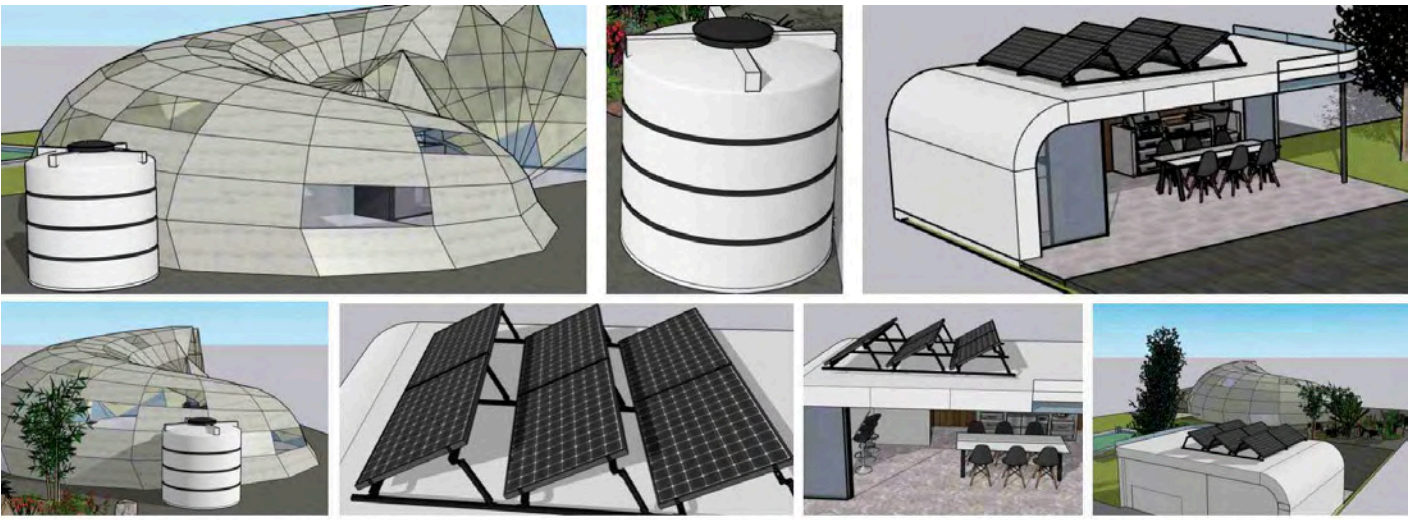
On the left of the previous house you can see that there is a strip of plants and nature. In my design i believe that i can incorporate this into my design by using it as a walkway to the back of the house.



I didn't feel like the original design was interesting enough. It felt to "perfect" the house was circular and although it looked like the shell, it felt as if it was built more out of a perfect looking shell, as we know, all shells don't look perfectly round and perfectly smooth.

The things i tried showcasing are cracks in the shell just like you can find in the beach. Another form i tried to implement in the design was a spiky asymmetrical roof with the cracked look i gave the house i tried showcasing this through windows. This can also be a benefit as it can add natural sunlight making it more beneficial to energy usage for lights. These changes are not only developing the design but fits the purpose and beneficial to the house

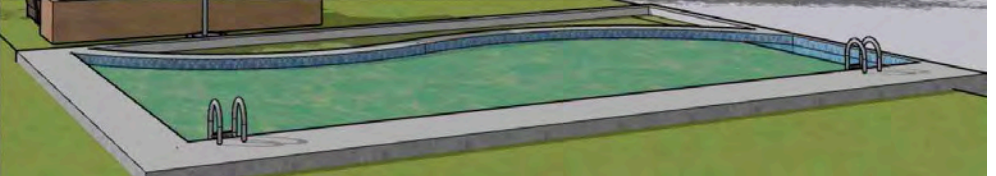
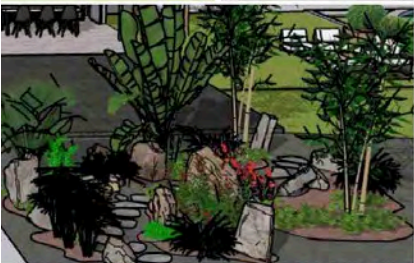


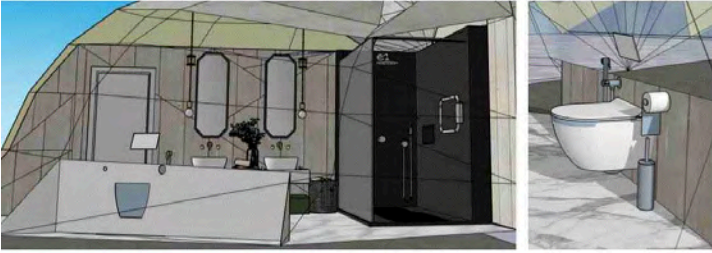
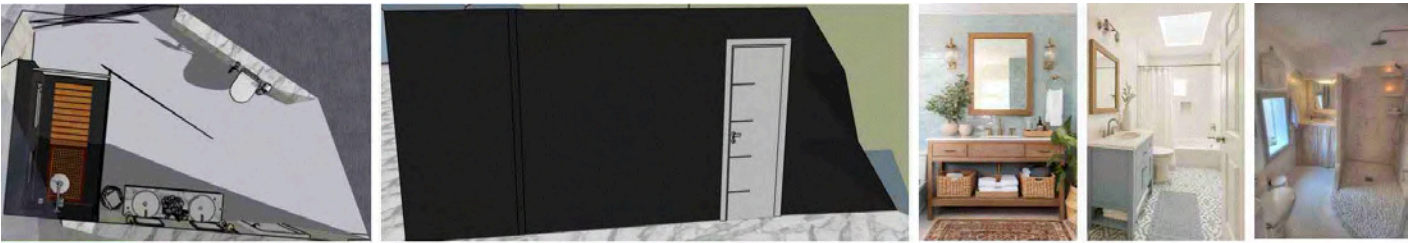


Having water tanks and solar panels at home is a great way to save money and live more sustainably. Water tanks let you collect rainwater, which you can use for things like watering the garden, washing the car, or even for some indoor uses. It's super handy during dry seasons or when water restrictions are in place. Solar panels help by turning sunlight into electricity, so you rely less on the power grid and save on energy bills. Plus, it's clean energy that's better for the environment and can keep things running even during a power outage. Overall, using both water tanks and solar power makes your home more eco-friendly, efficient, and independent.

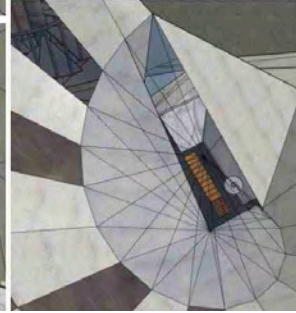
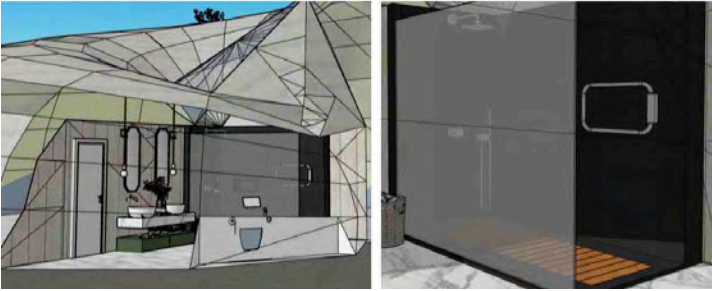


Having all these features in the backyard perfectly fits the client's vision of creating a space made for hosting events and parties. The open seating areas and outdoor kitchen make it easy to entertain guests, offering plenty of room for socializing, dining, and relaxing. The pool adds a fun and refreshing element, making it ideal for summer gatherings or casual hangouts. The landscaped garden areas with greenery and pathways bring a natural and welcoming feel, helping guests feel comfortable and connected to the environment. Together, these elements create a backyard that's not just beautiful but also functional — a perfect spot for parties, family get-togethers, or any kind of celebration.

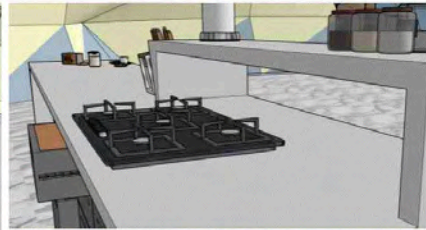




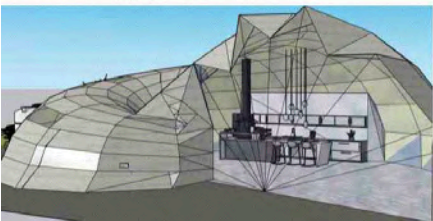
In this house i wanted the house to still give this cozy beach vibe this meant using wooden materials for walls and a his and her sinks. I have also implemented a skylight roof on the dead spot in the house

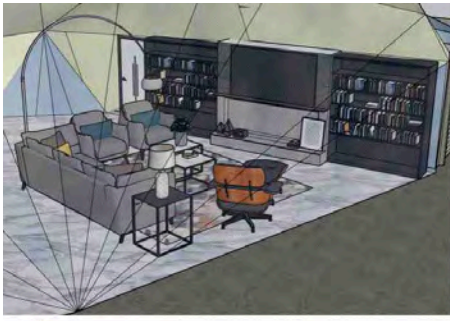


as it was a very hard space to work around, i made the decision to delete the end of the spiral but add a glass skylight so that it still gives the spiral looking affect.

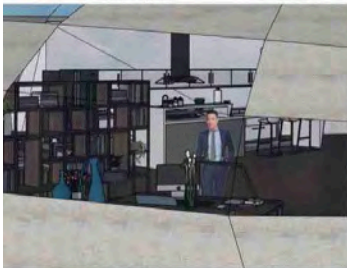
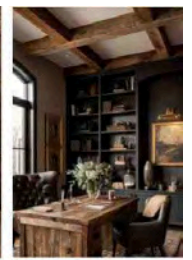
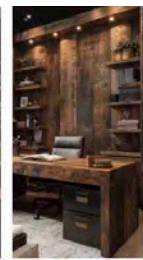
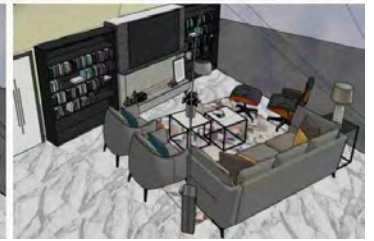
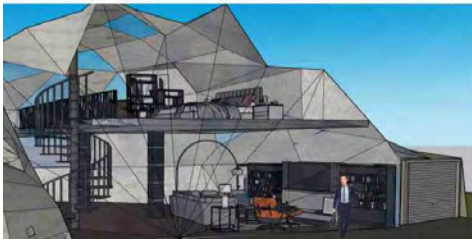


For the kitchen i wanted to fit the purpose of hosting events and parties. What i enjoy the most and fits the that specific purpose the most is the long island that i added. This gives the couple opportunities to host around the kitchen and not only outside but indoors as well. This is good incase you would have to host inside because of weather conditions





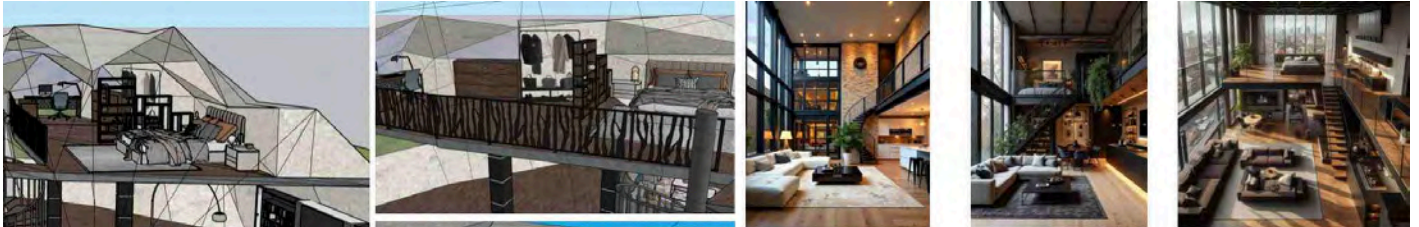
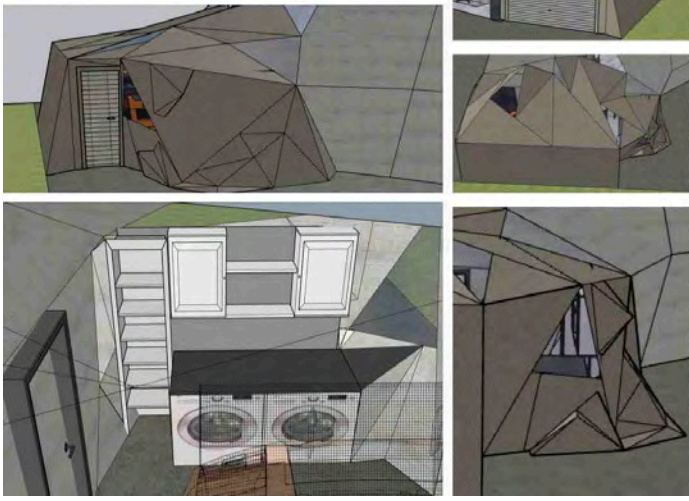
This is probably the worst part of my house design, it seems a lot more cramped and tight then the rest of my very open plan design. It is also in a very awkward space benign at the front of the very big window. On a more positive note i feel like the color scheme that i went with for the furniture fits really well with the color of the houses exterior. The reason i feel like this matters is because the living room is right next to the big window so if i didn't try match the colors i feel that the living room wouldn't fit the vibe, i am talking about this as i was testing different colors and materials and this scheme fits the form and colors of the area the best.



I made the office a dark brown wooden feel, the house feels so grey and white i just needed to implement colors that not only work with the design but also work with the color of the other things and themes around the house, i believe this color best suits both these factors, since this is made for a couple i will also have another office/ study area somewhere else in the house i'm not sure where just yet.

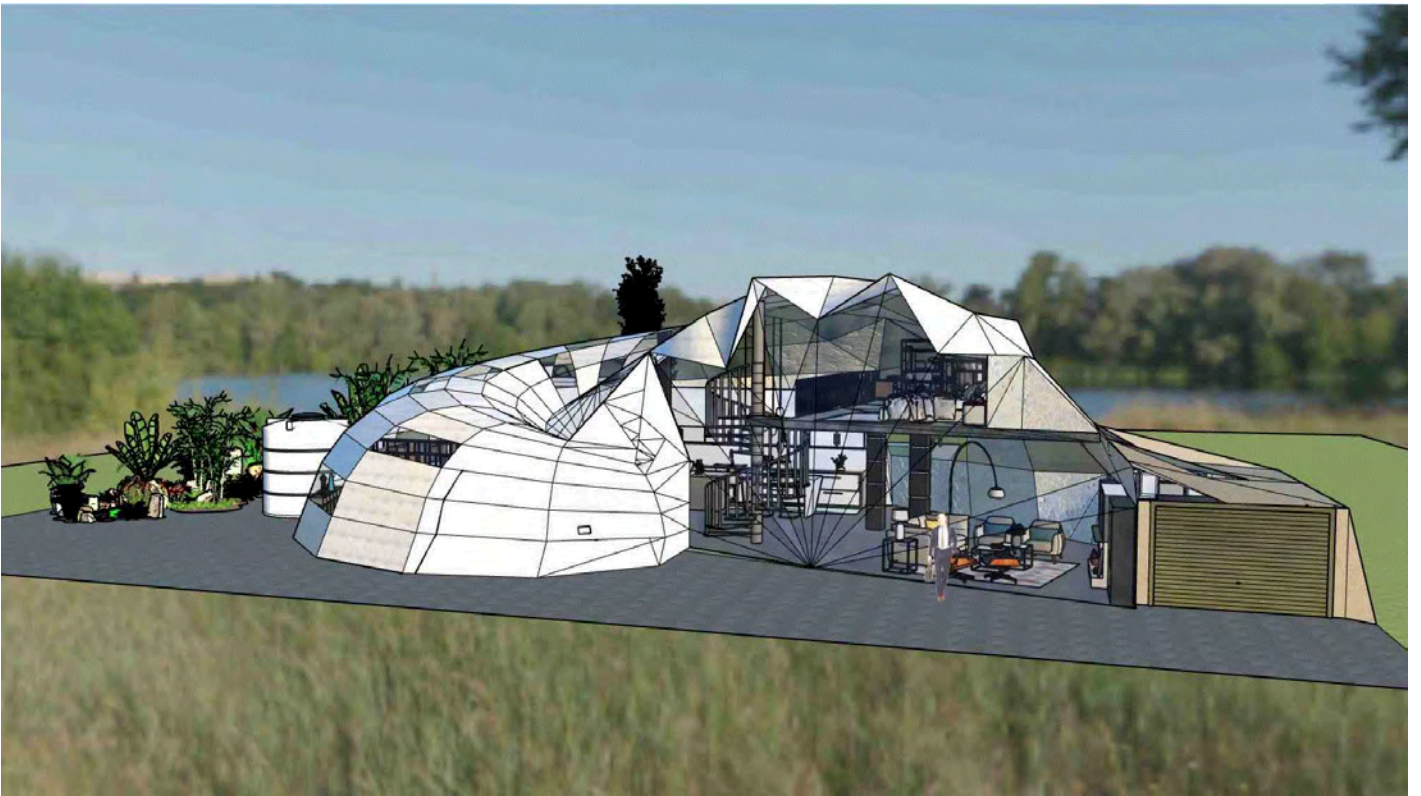
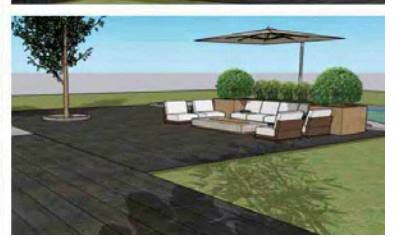
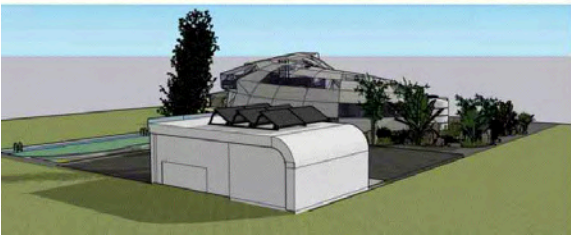
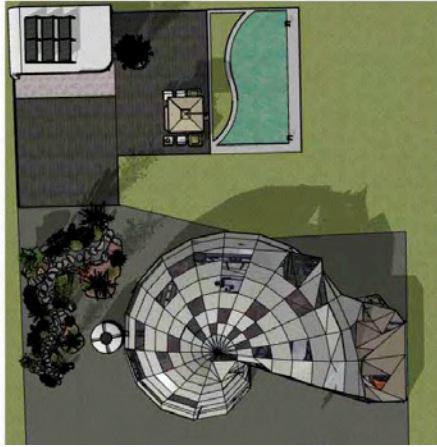
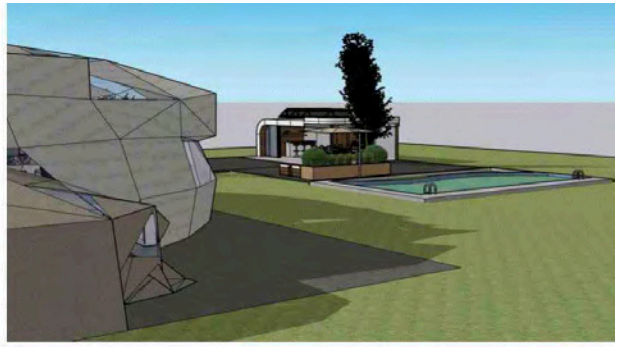
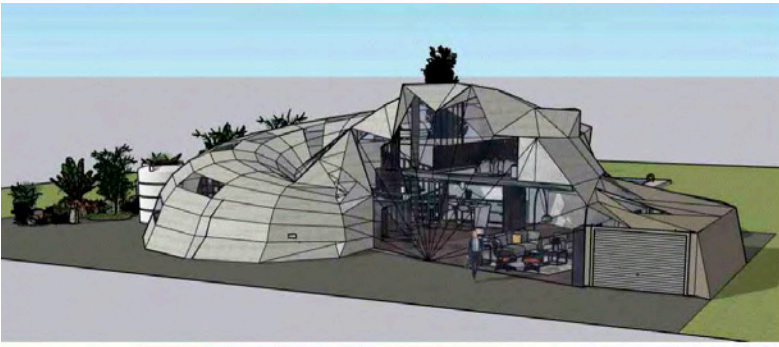


Before i tried to do a proper garage i had just a rectangular box that did not fit in to the design whats so ever i asked for advice for the half finished house and people kept bringing up how the garage did not fit the design. I came up with the idea to base the garage off stand thats stuck to a shell, as i have talked about piha is a black sand beach so i used a darker color that what is on the shell design house to give that distinction, this also gave me creative space to mix and form different shapes in the garage, i have also added a small washing room section. This would be beneficial to the couple.



For the bedroom i didnt have alot of space to work with anymore i had to be very creative with how i design it, i went with a loft look on top of the living room, this loft includes a king size bed, a clothes rack, a drawer, i realized i had enough space to add a office in the loft area that looks out into the backyard and the mountainous ranges piha has to offer to divide the bed room with everything else i chose to do the same concept ad the office space down stairs and add a bookshelf this give a wall feel with the same open concept, i added a spiral staircase to lead to the loft and 2 pillars for structural support.





## Achievement

**Subject:** Design and Visual Communication

**Standard:** 91627

**Total score:** A3

Marker commentary
<p>Shells are the key starting point for the interrogation of 3D forms through a range of sketching and physical modelling techniques. Different initial design ideas are produced from the earlier form explorations, and function is shown through the use of bubble diagrams and interior views. The nautilus form of the overall building becomes the primary element and so opportunities for further reinterpretation to the context or demonstrating an emerging train of thought through any other design ideas or details is not present.</p>