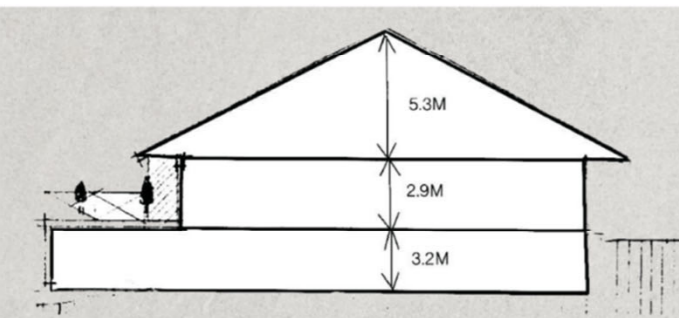
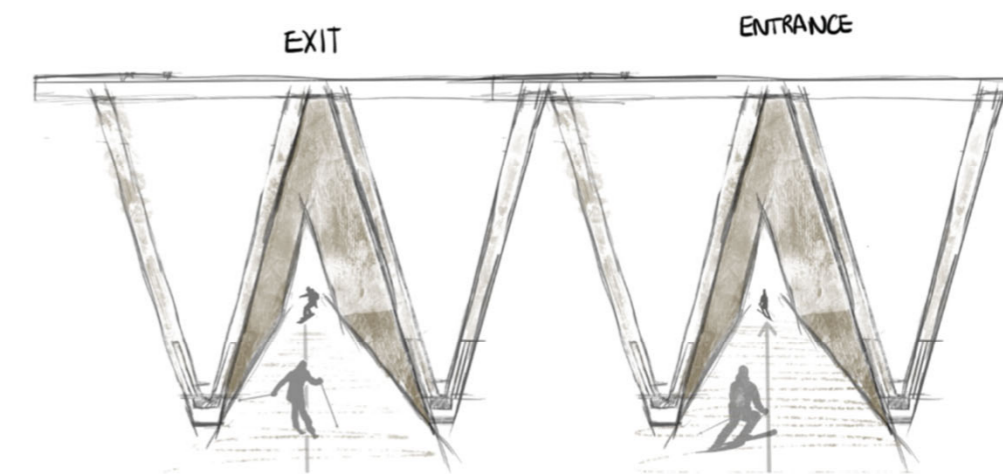
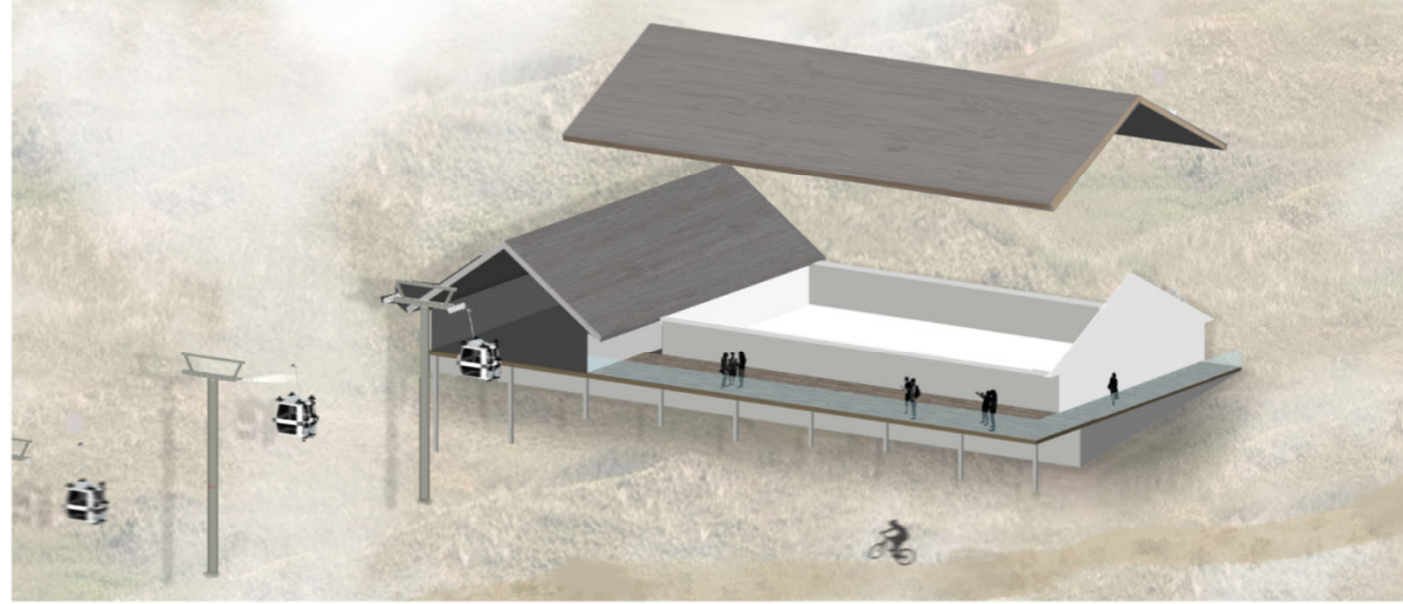
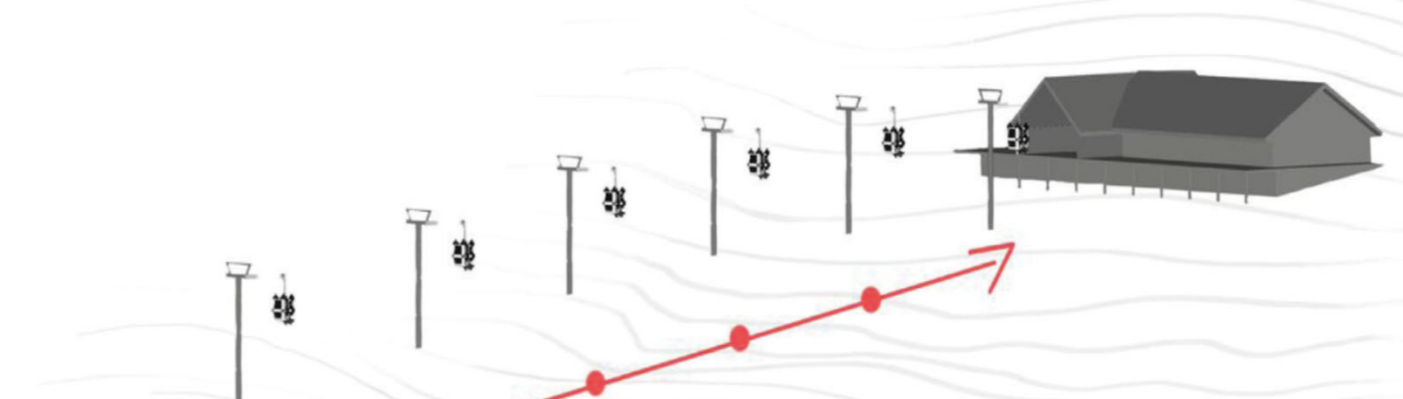




Site: The Nevis Range

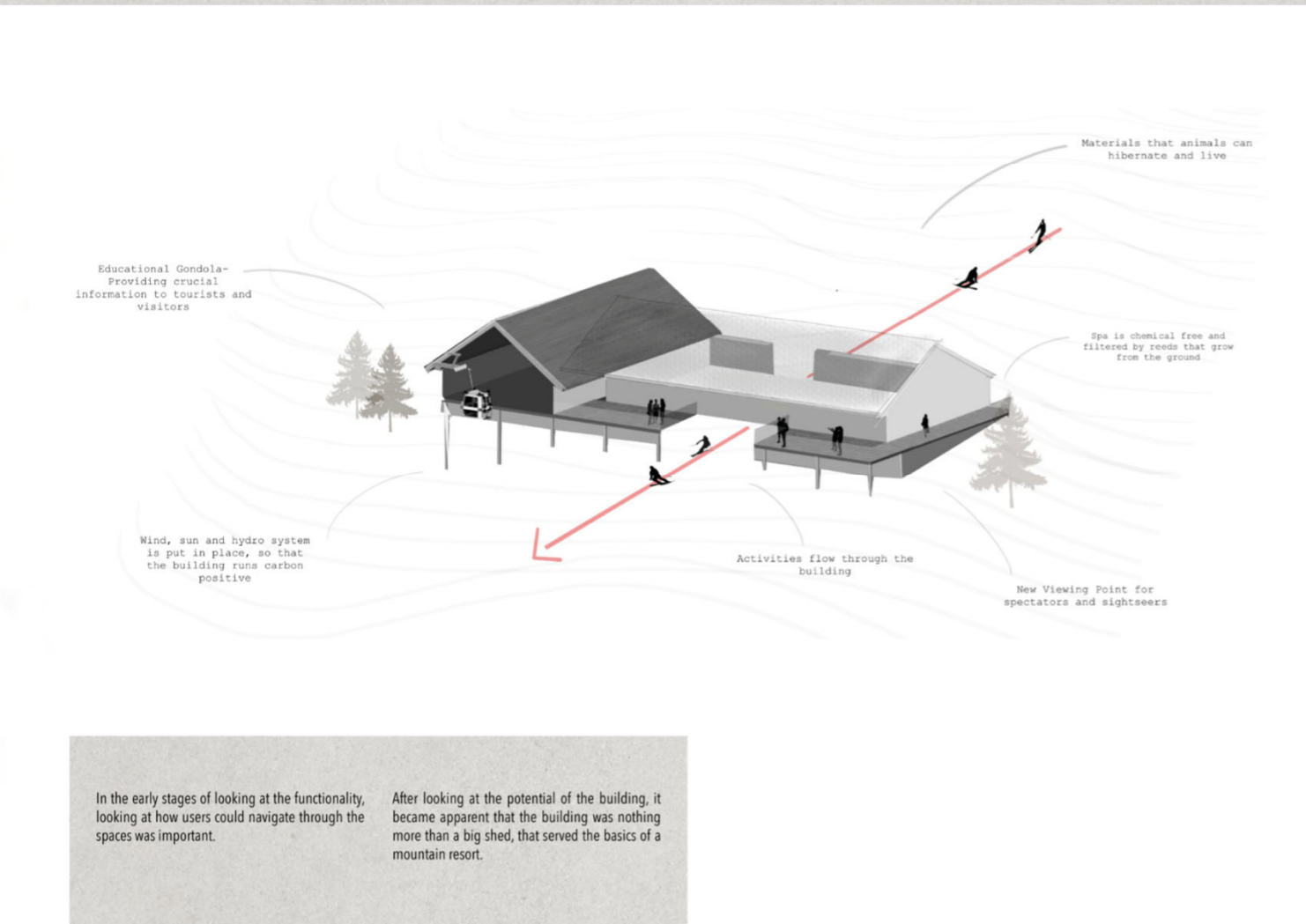


With such rich context and a high number of visitors per year, the Nevis range has extremely high potential to be a pinnacle for Scotland. It is an exciting destination, but the host building does not live up to expectations.



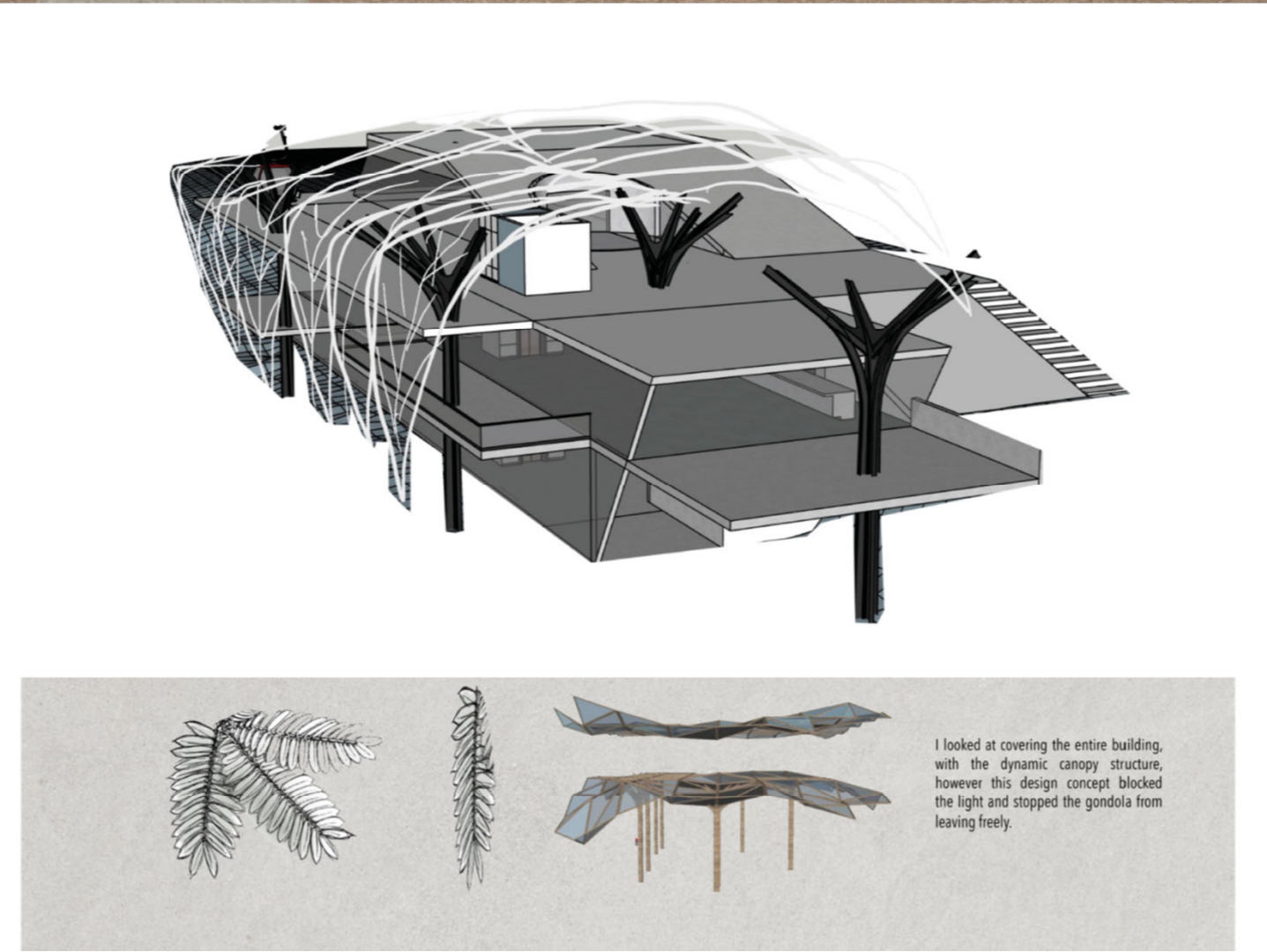
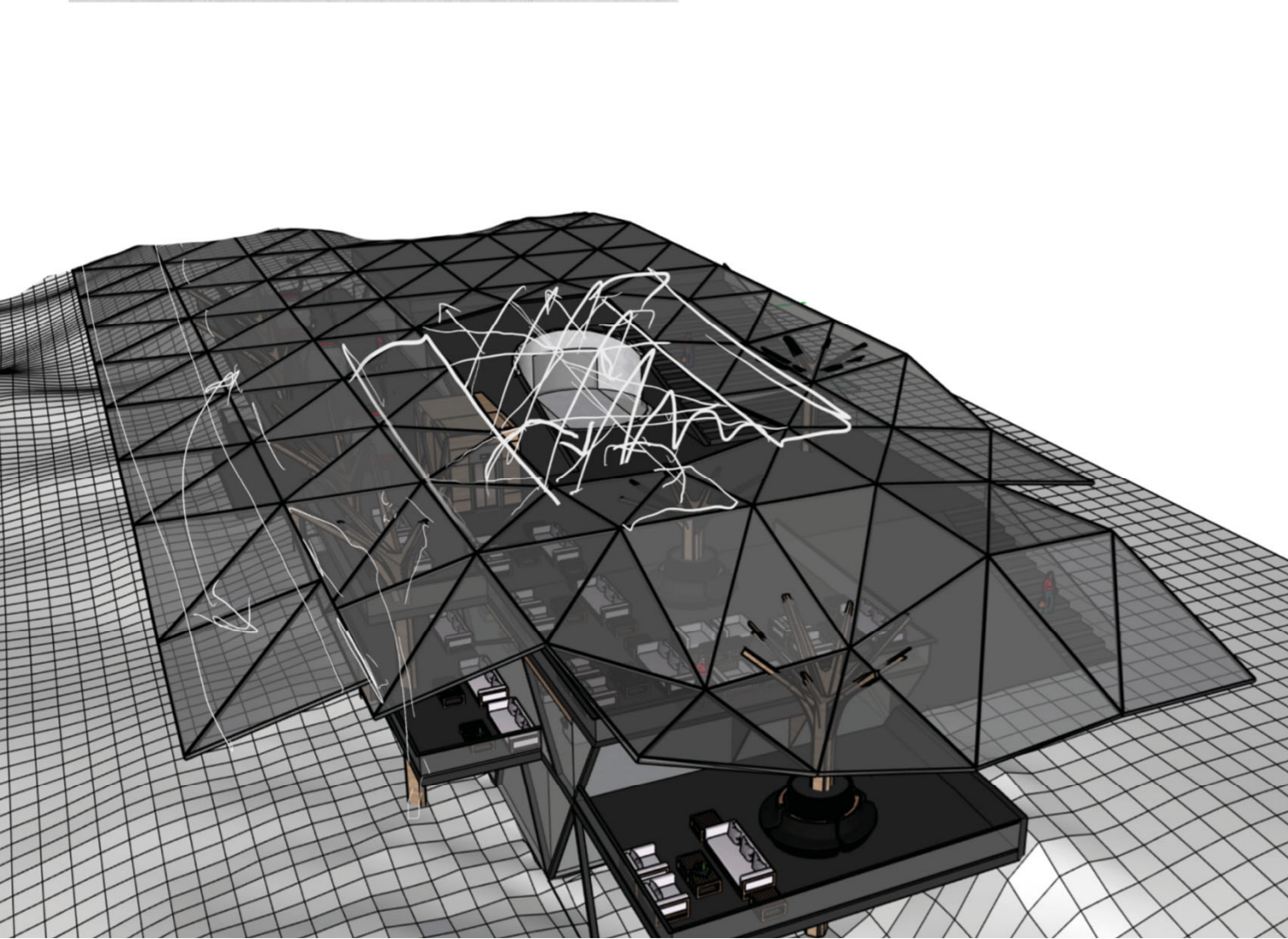
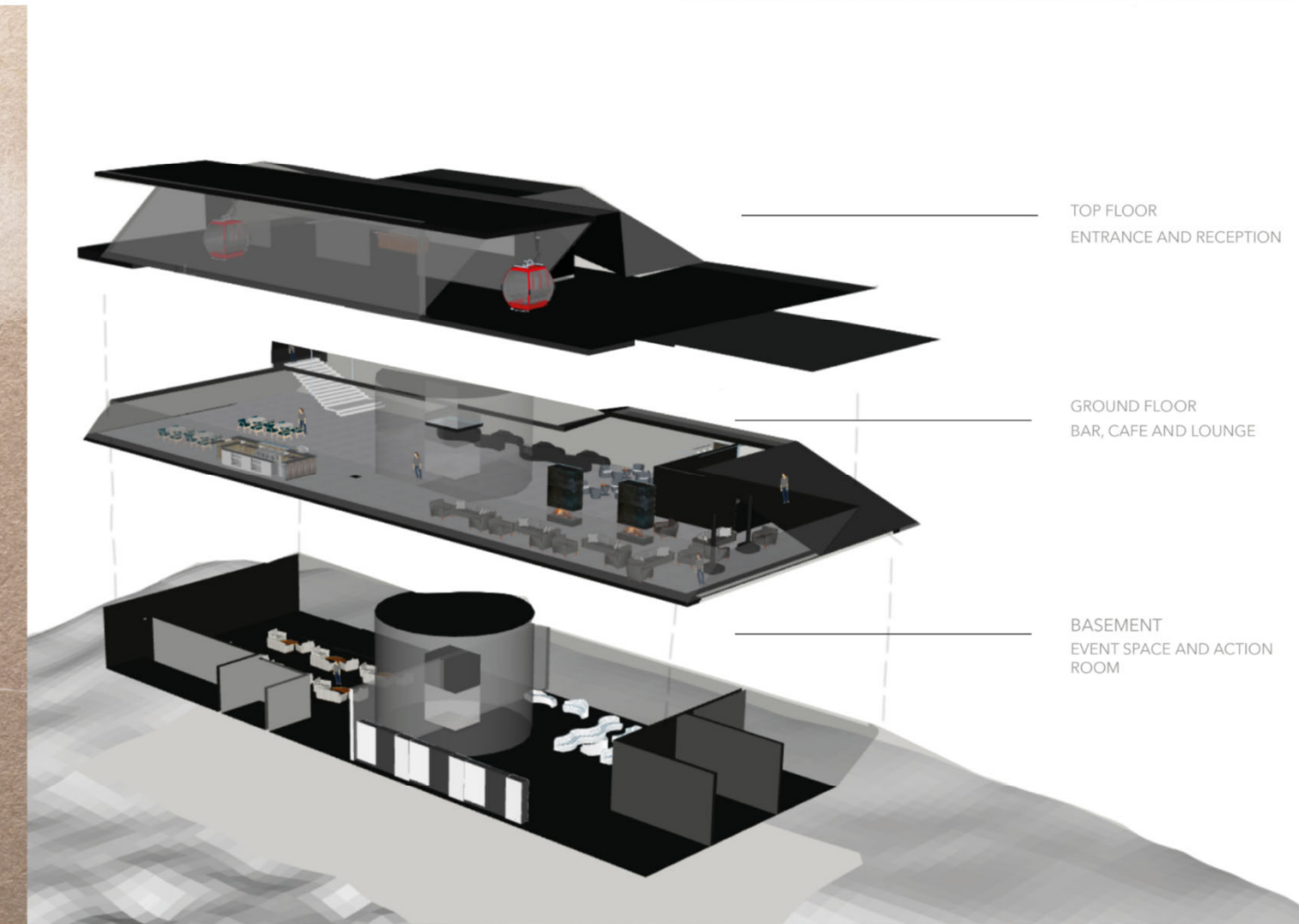
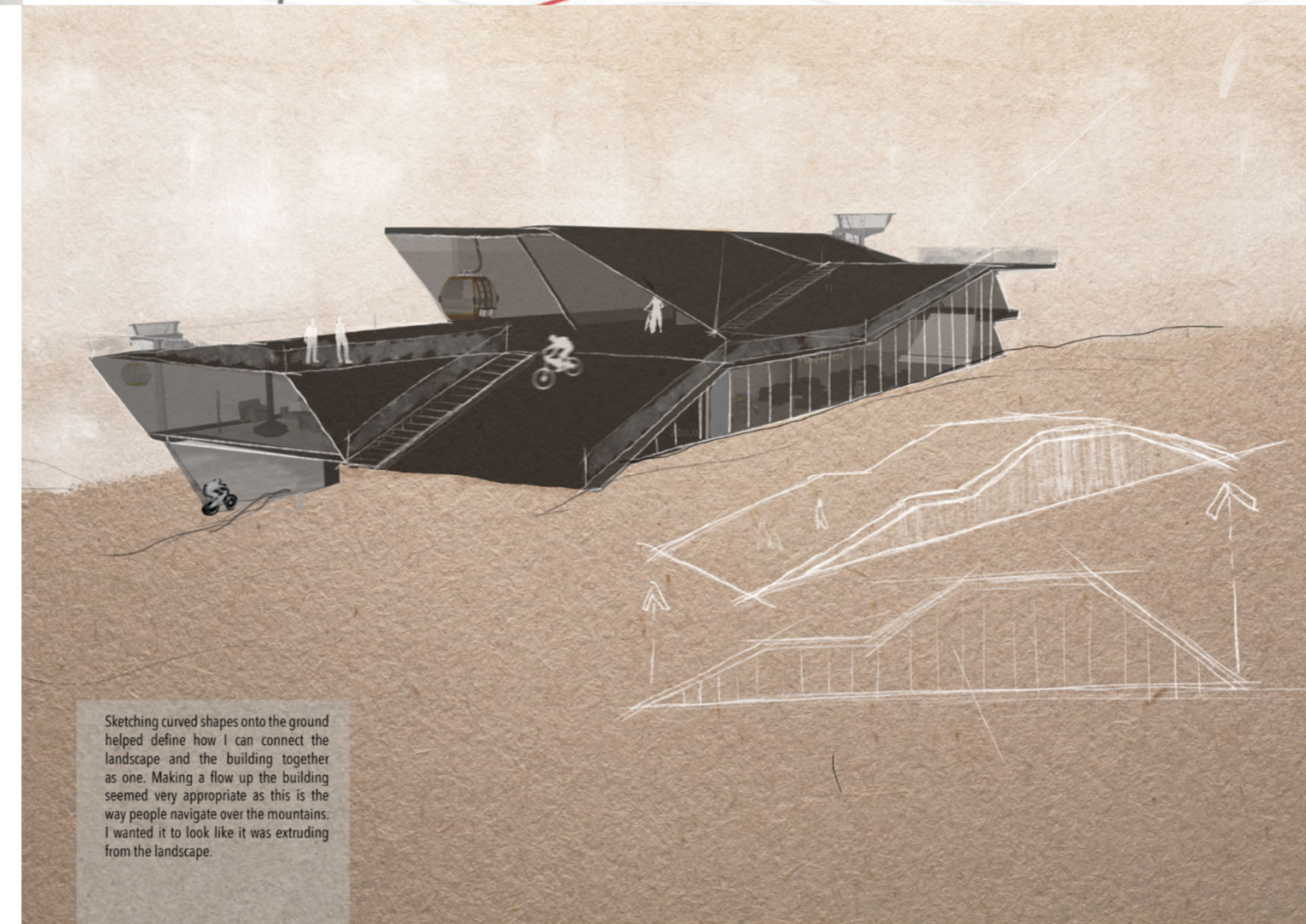
Combining the idea from en-logic of a tunnel, I started to consider the idea of using the beams as a skibike entrance to the building. I wanted to utilise the building into becoming part of the context and the sport.

The next stage of the process was to start looking at each floor, to how the user would travel into the building if was possible to ski in/out.



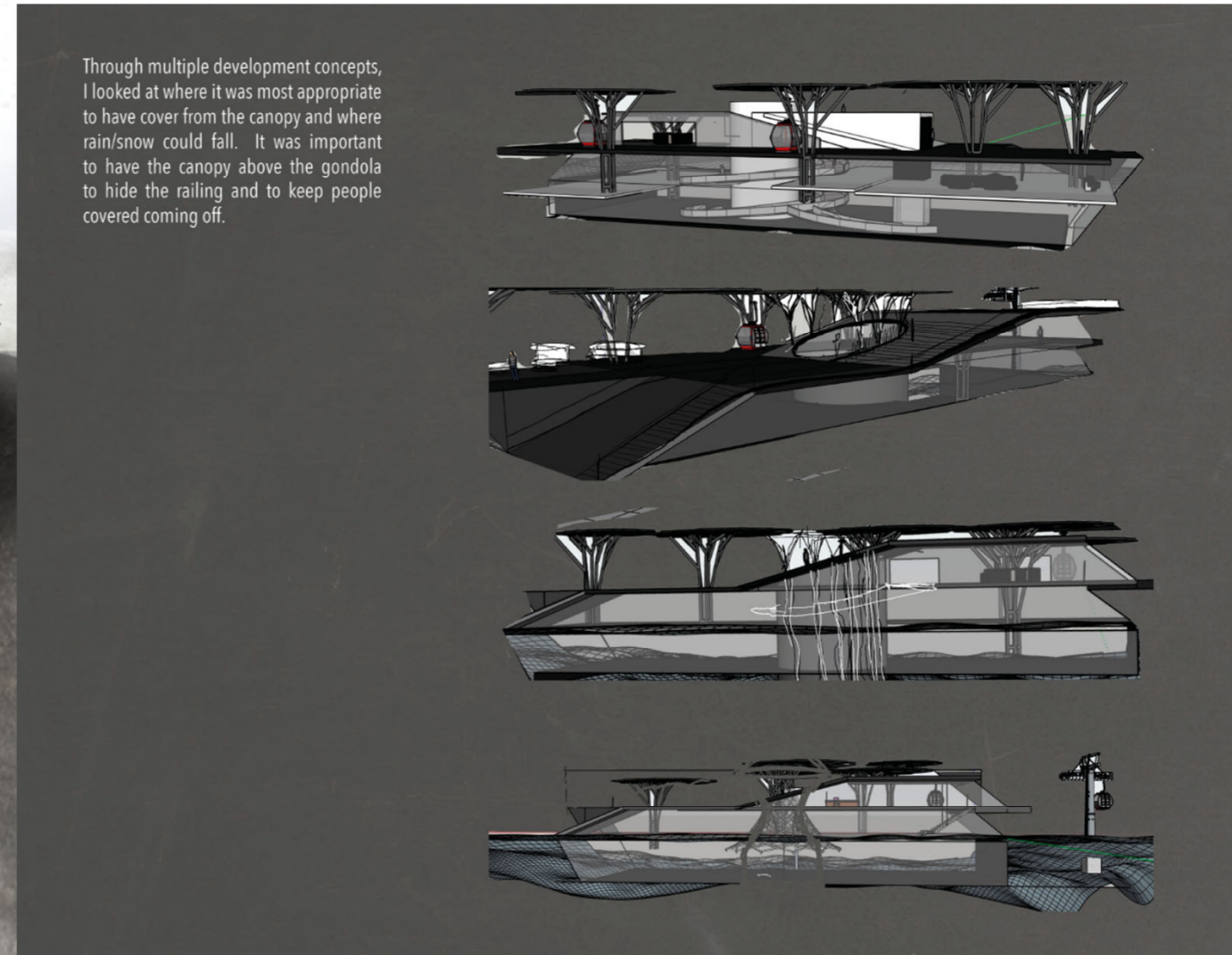
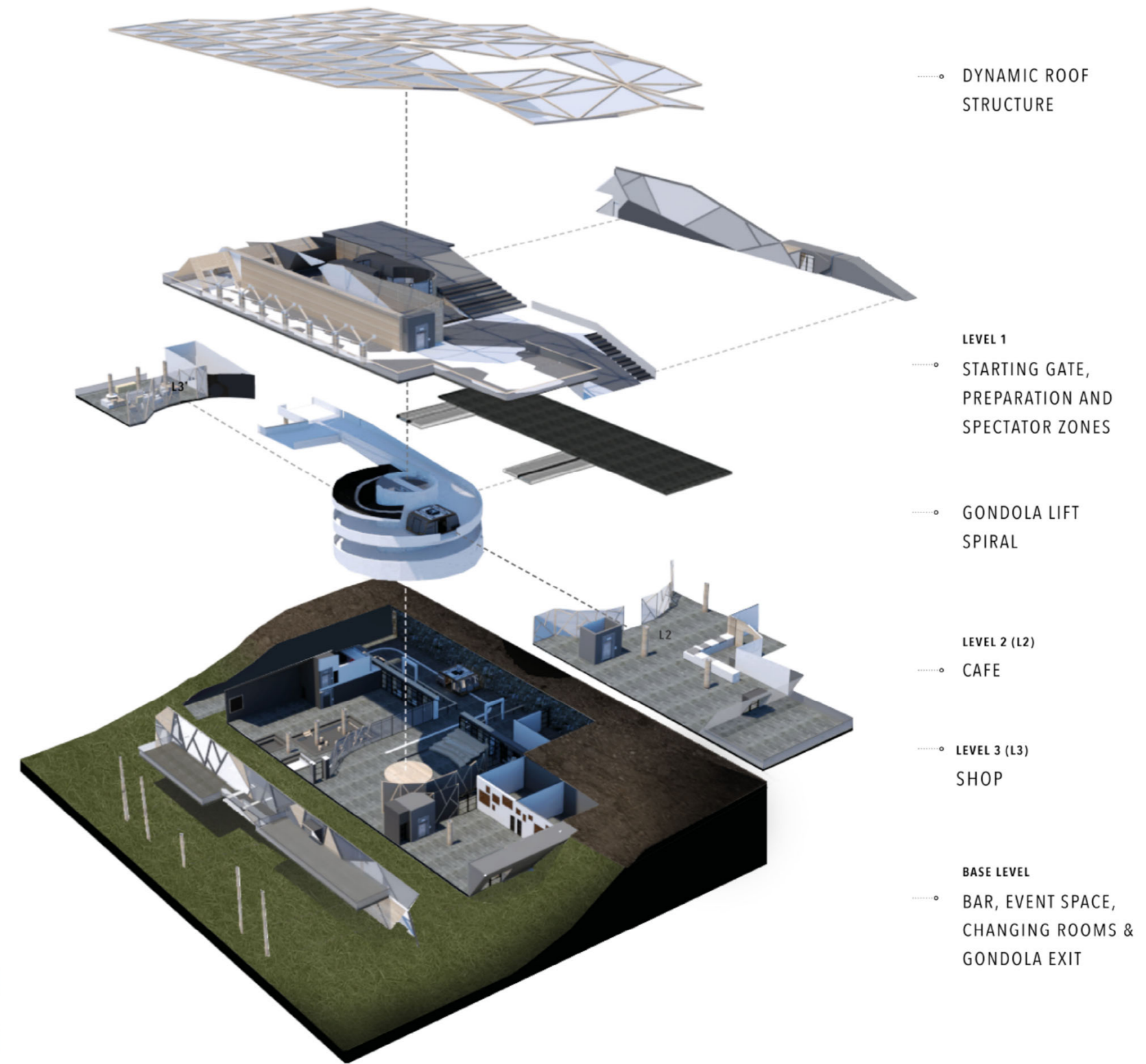
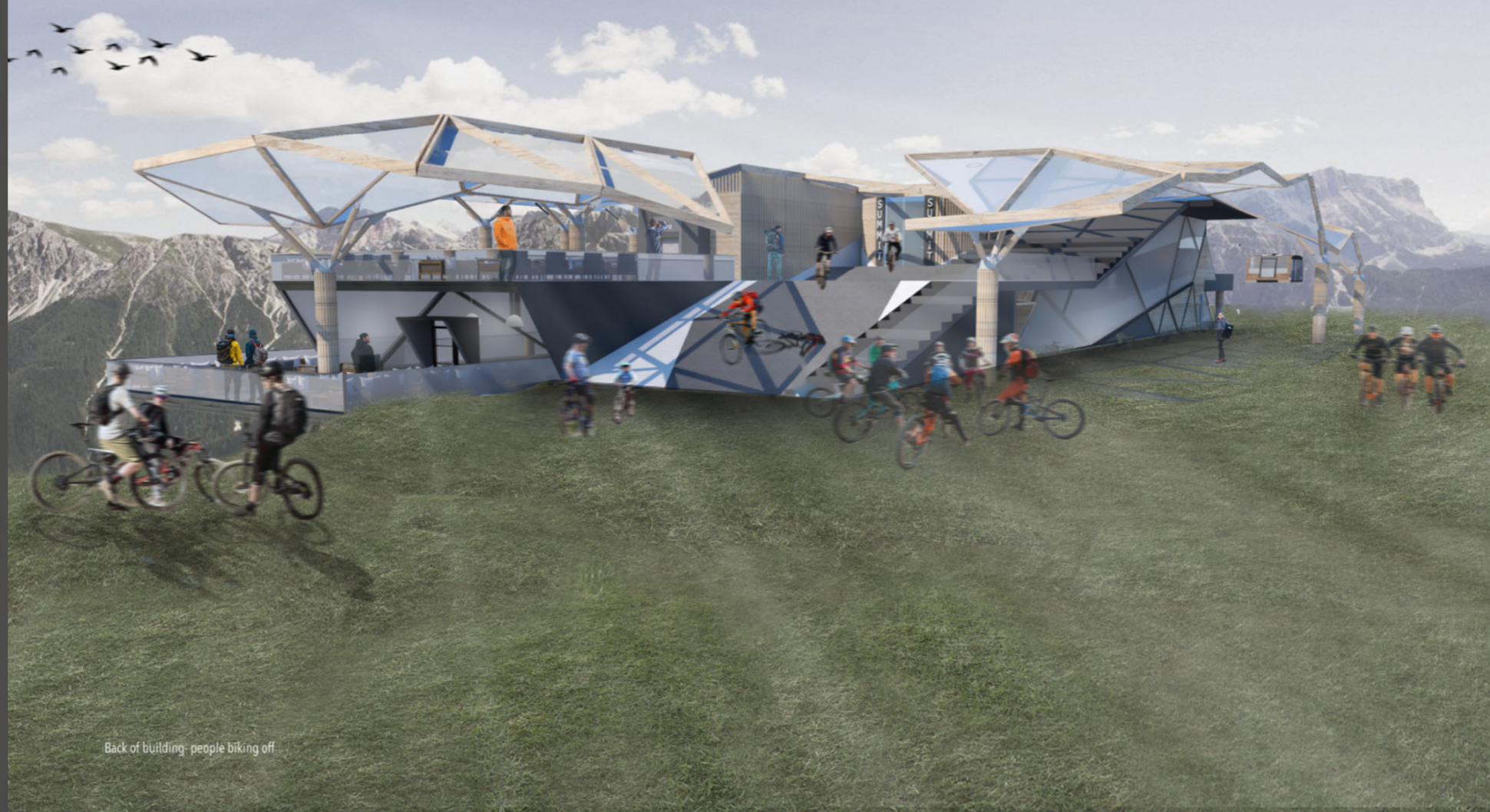
In the early stages of looking at the functionality, looking at how users could navigate through the spaces was important.

After looking at the potential of the building, it became apparent that the building was nothing more than a big shed, that served the basics of a mountain resort.





S U M M I T





## RE-DESIGNING THE GONDOLA

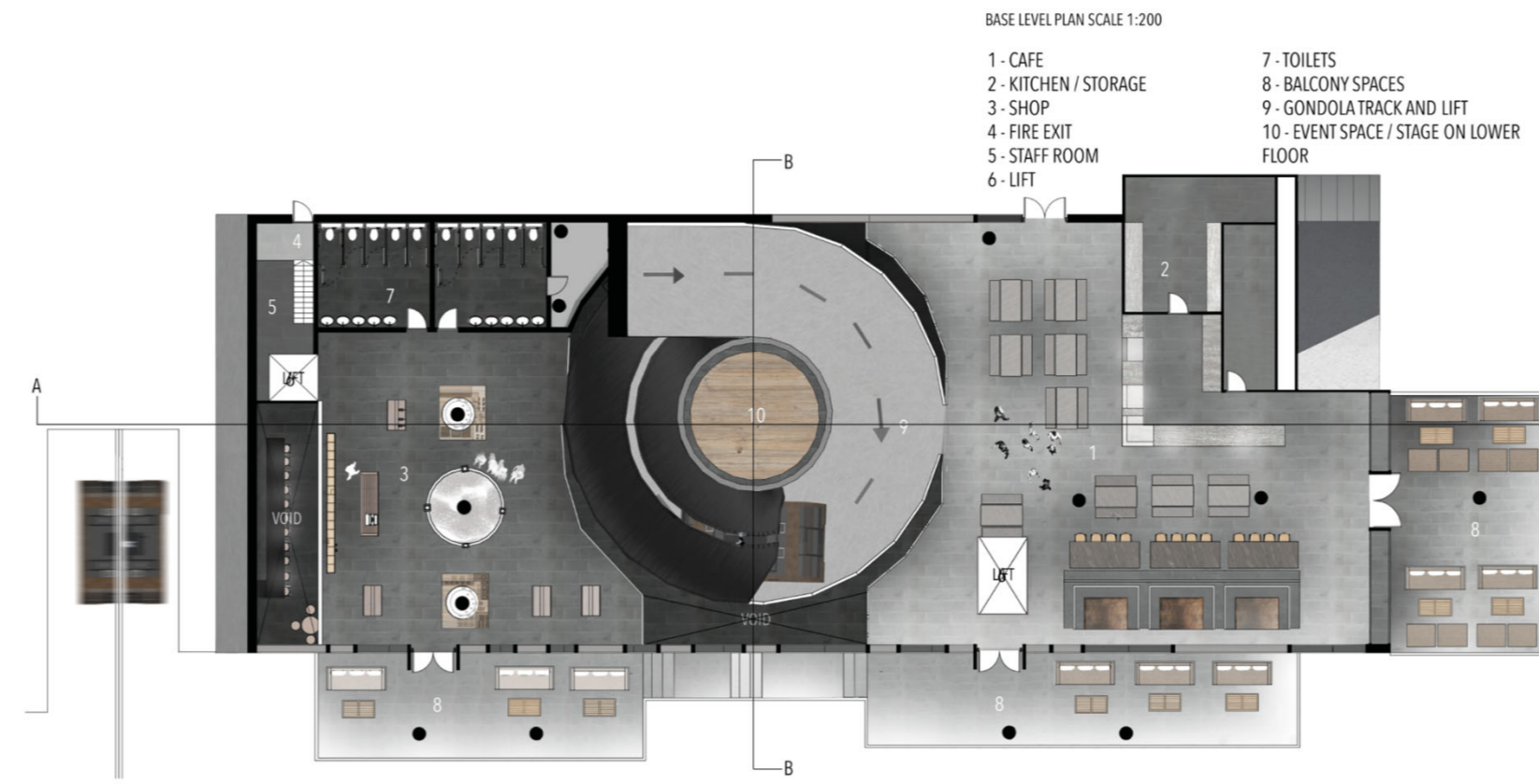
When re-locating the gondola, I considered making the gondola become part of the building, with the same materials and designed for more than just functionality.

I considered different forms of the gondola, and how they would withstand the strong elements of the Nevis Range.

Taking inspiration from interactive lifts in New York and other ski resort entrances, I started to see the gondola as space of its own.

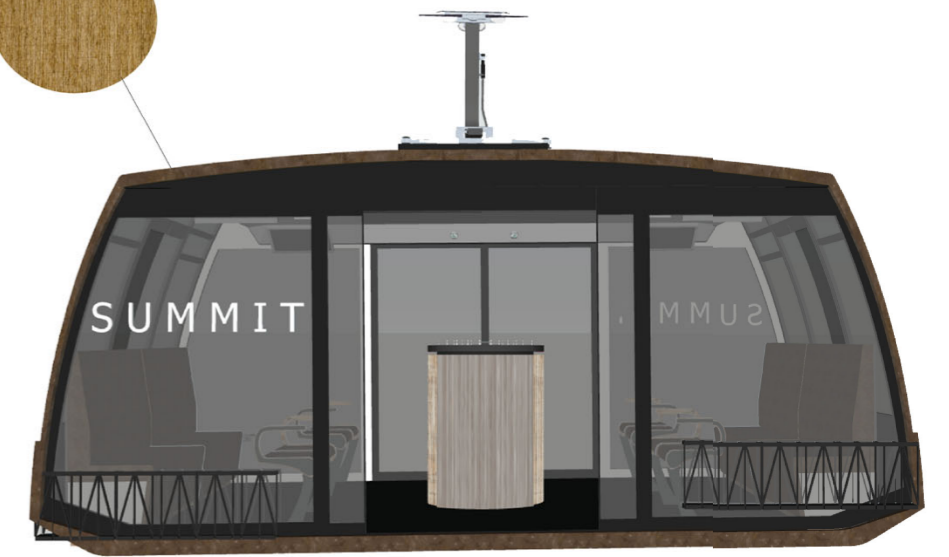
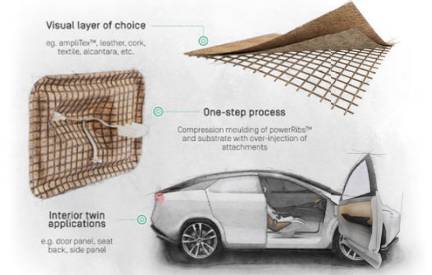
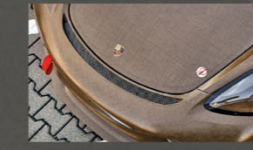


S U M M I T



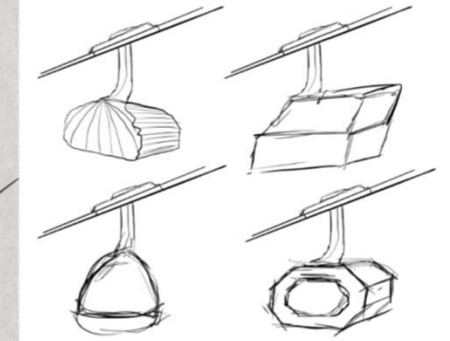
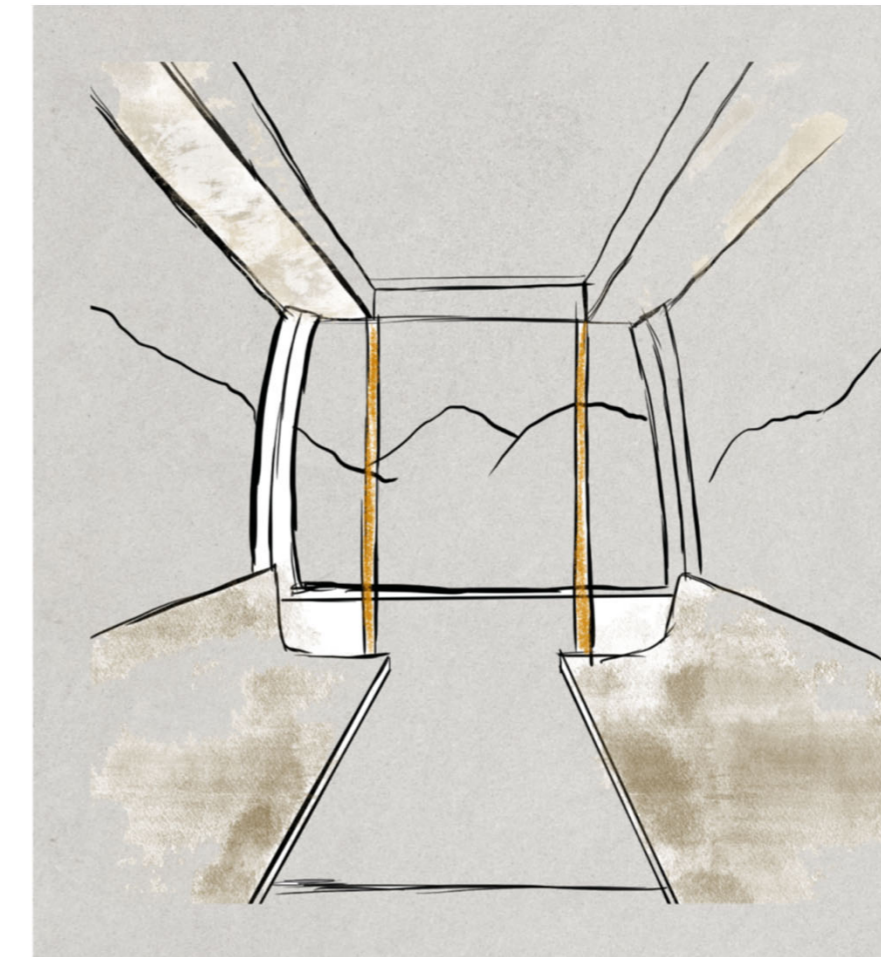
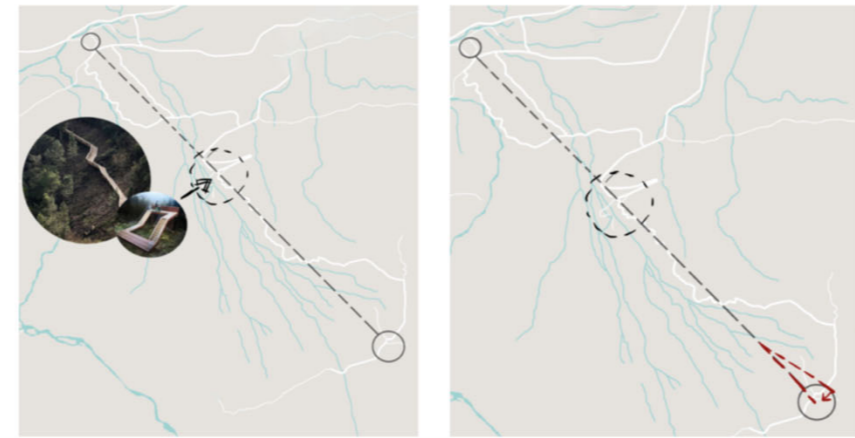
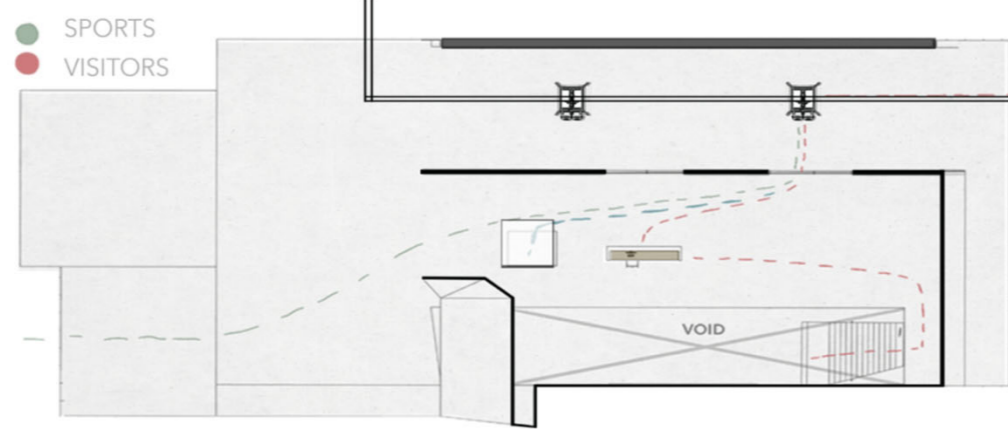
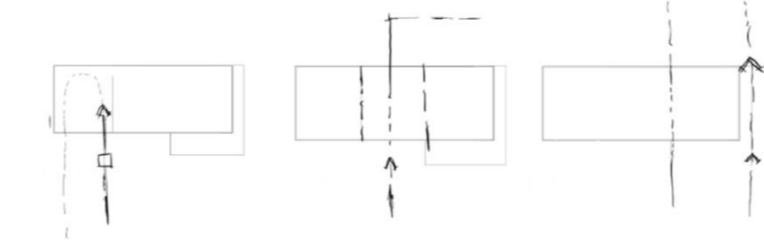
## SUBSTITUTING CARBON FIBRE

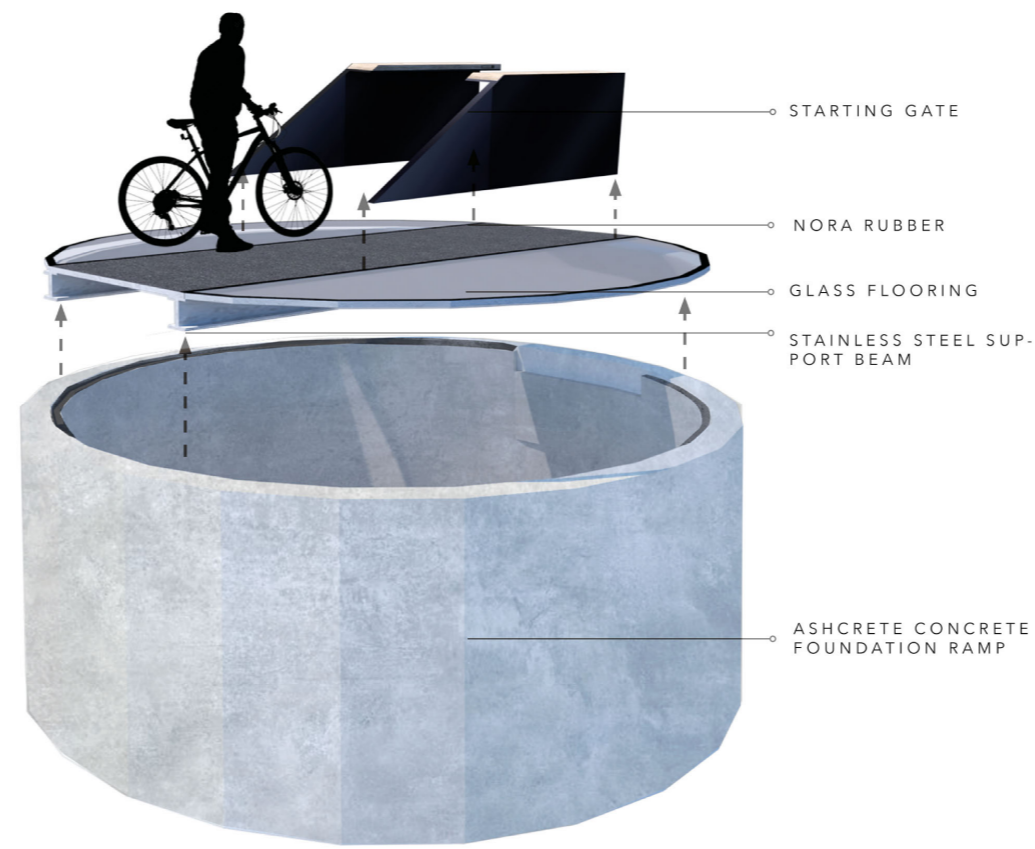
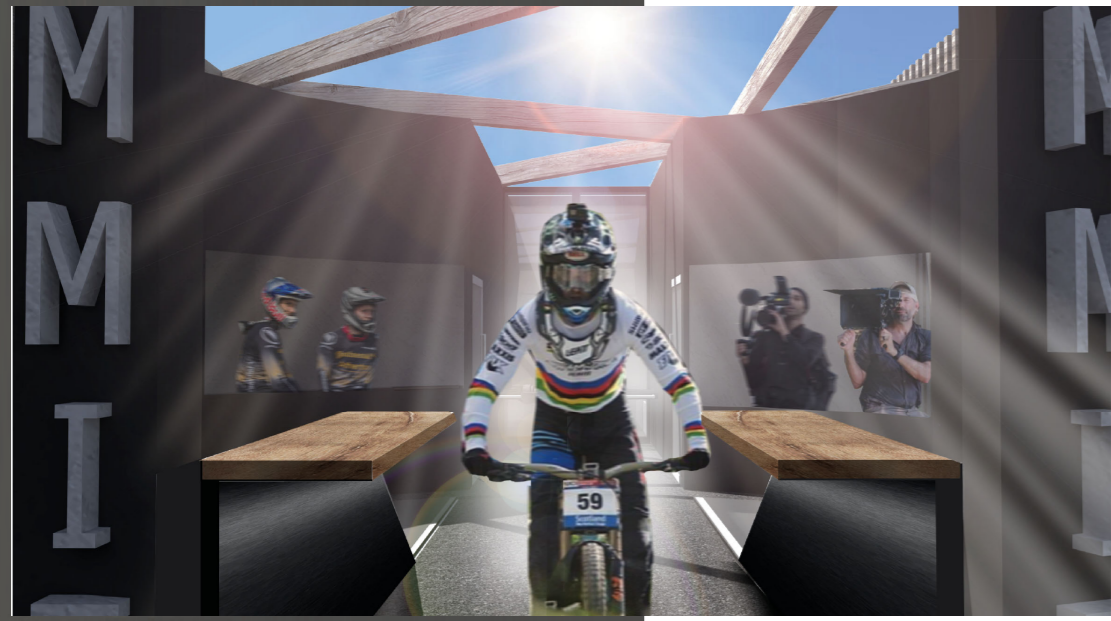
For the gondola, to reduce energy and power I wanted to make the gondola as light as possible. Amplitex is a sustainable alternative to carbon fibre and nearly just as light.



When spatially planning the top roof, the gondola took priority and I designed around the specifications of that. By doing this, I started to consider the two different target markets and how they would use the space.

As people want to just get out onto the mountain, it was important to consider an easy access for sporting guests.



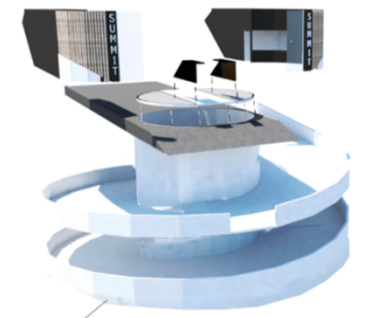


**SUBSTITUTING CONCRETE**

Through the design research portfolio (DRP) I found that concrete production results in 2.8 billion tonnes of carbon dioxide which is between 4-8% of the world's greenhouse gas emissions. Through DPR, I looked at multiple alternatives like hempcrete, however it was not successful when testing it out in freezing temperatures.



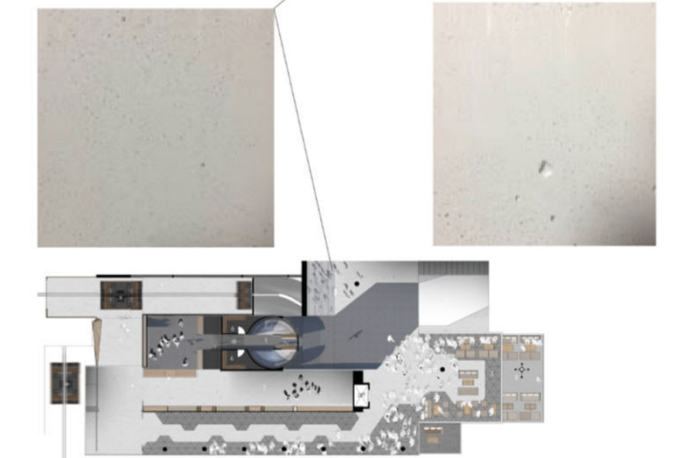
Another alternative to hempcrete was ashcrete. Ashcrete is considered to be eco-friendly sustainable building material because it is made from recycled materials fly ash and has low embodied energy compared to Portland cement which uses a lot of heat to produce and it is just as strong. Hard wearing and robust, this was perfect for a substitute to concrete for nevis.



Hempcrete testing from dissertation:



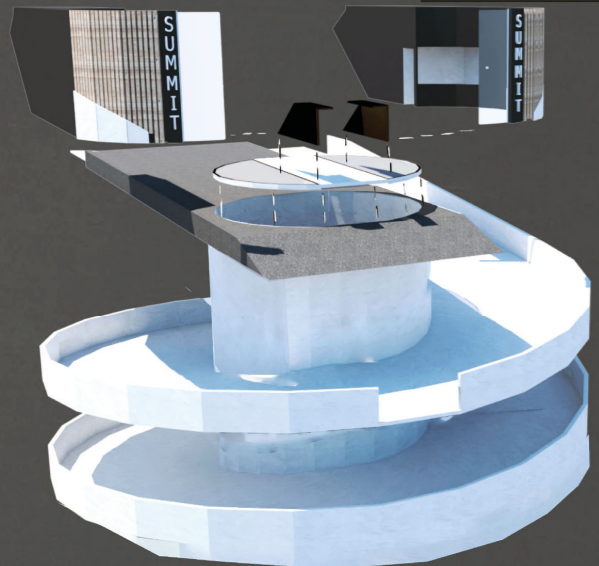
Ashcrete appearance:



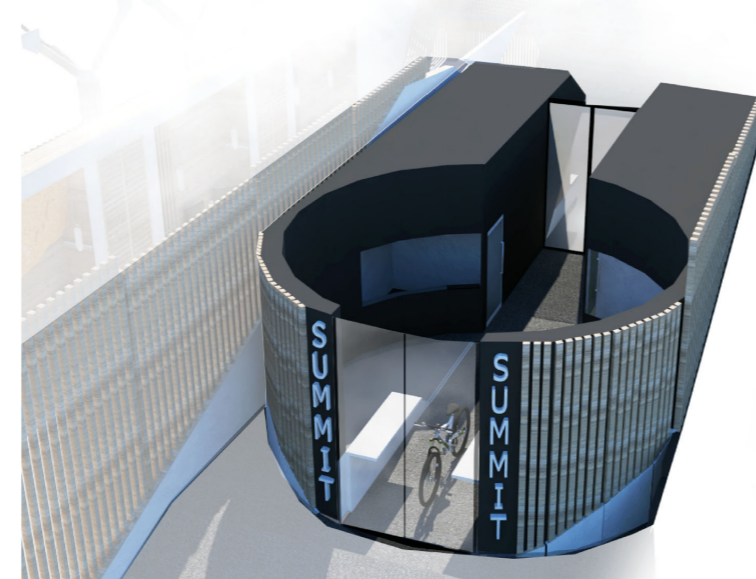
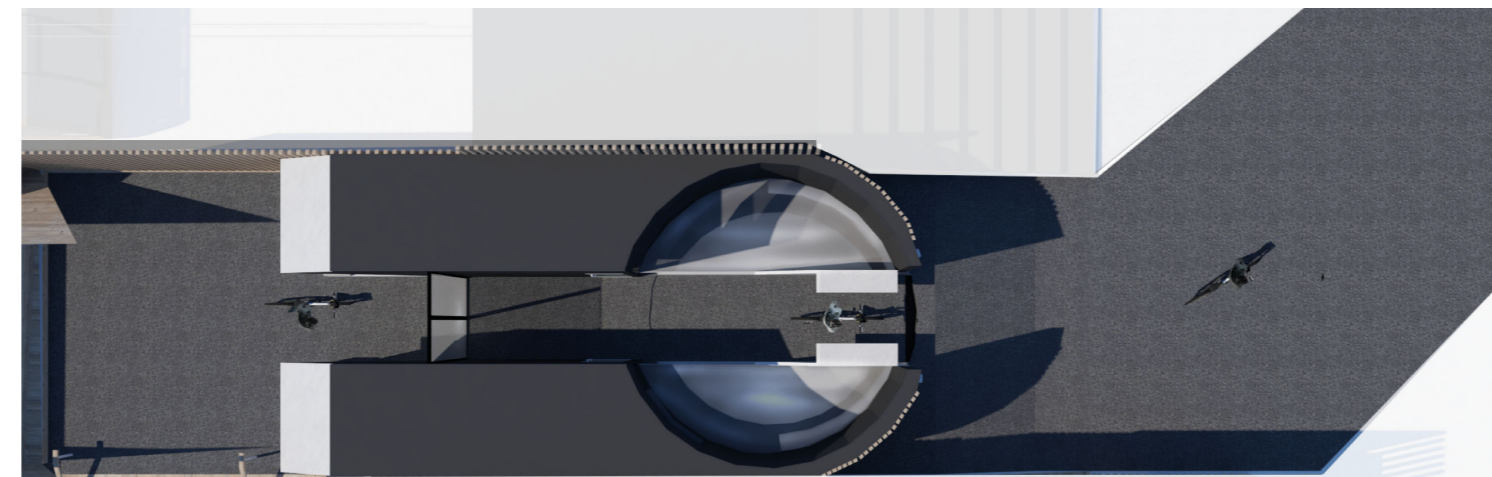
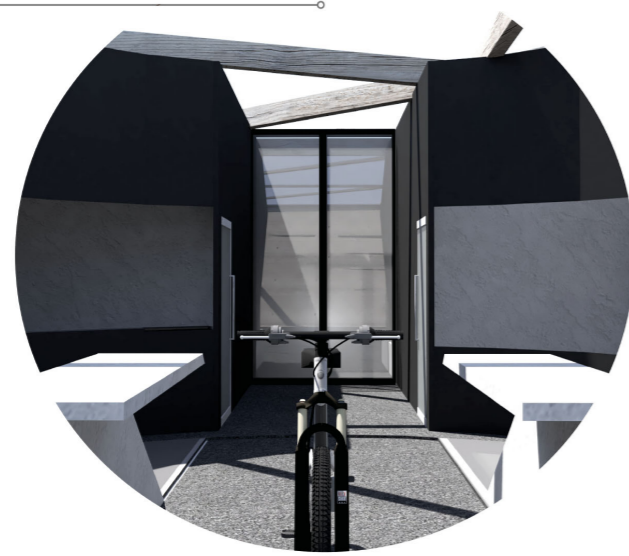
**DETAILED DESIGN  
VERSION 3 - DETAIL 2  
STARTING GATE GLASS PLATFORM**

To truly make the starting gate part of the building, I wanted to heighten the experience and anticipation as much as possible. I wanted to build high anticipation and then be hit with the elements of the wind on the trail leading just off from the building.

To make this possible, I decided to make the starting gate into an interactive experience with acoustic panelling to emphasise the sound when the doors open, and black to emphasise the natural light.



EXPLODED ISOMETRIC STARTING GATE



**ENCLOSED**

- ACOUSTIC PANELS
- SOUND EFFECTS
- LIGHTING (RED, YELLOW, GREEN)

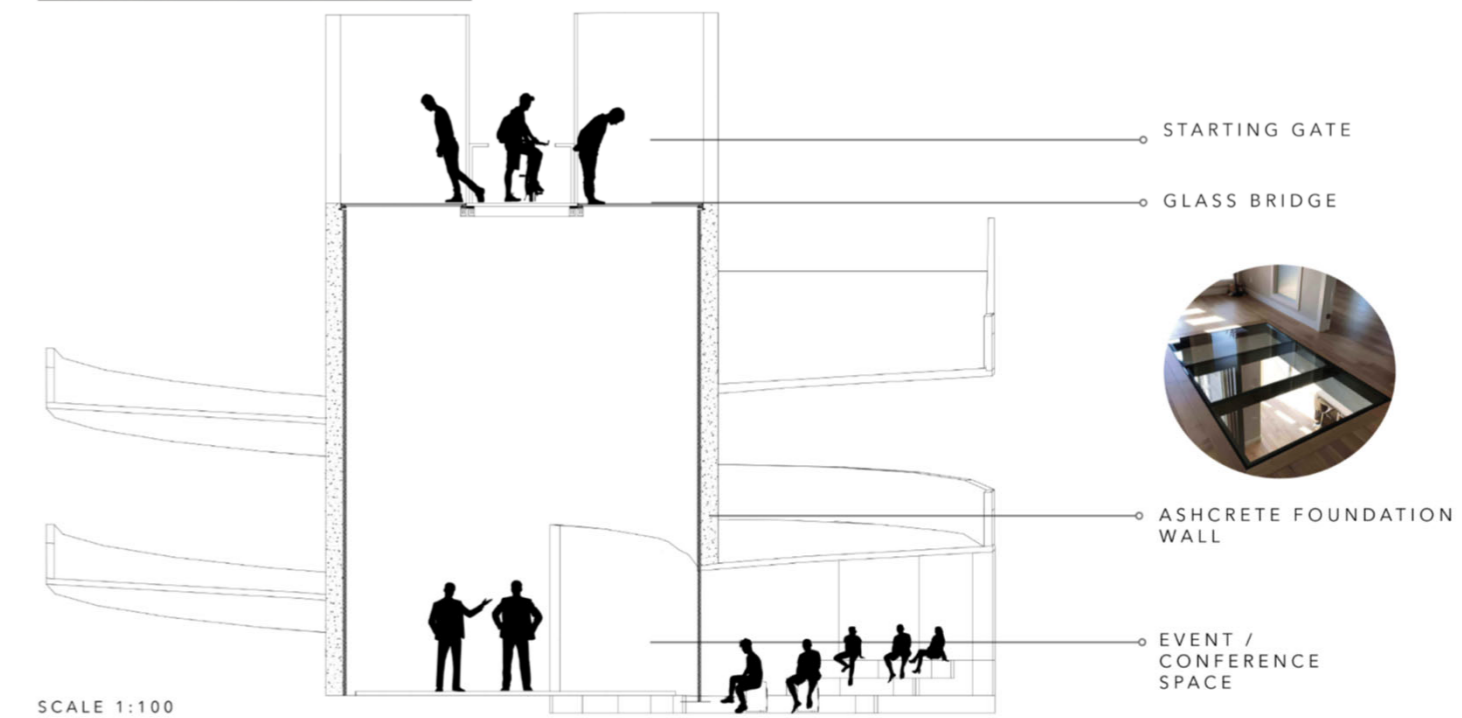
**BUILDING OF ANTICIPATION**

- TRAIL TIMES
- START-FINISH TIMES

**A MOMENT OF REFLECTION**

- CONNECTS BACK TO GLOBAL WARMING

To peak the interest of the athletes into staying for an event and have a unique experience I decided to design a bridge-like design for the floor of the starting gate. With walking glass panelling on either side of the central walkway, this looks straight down to the event space.

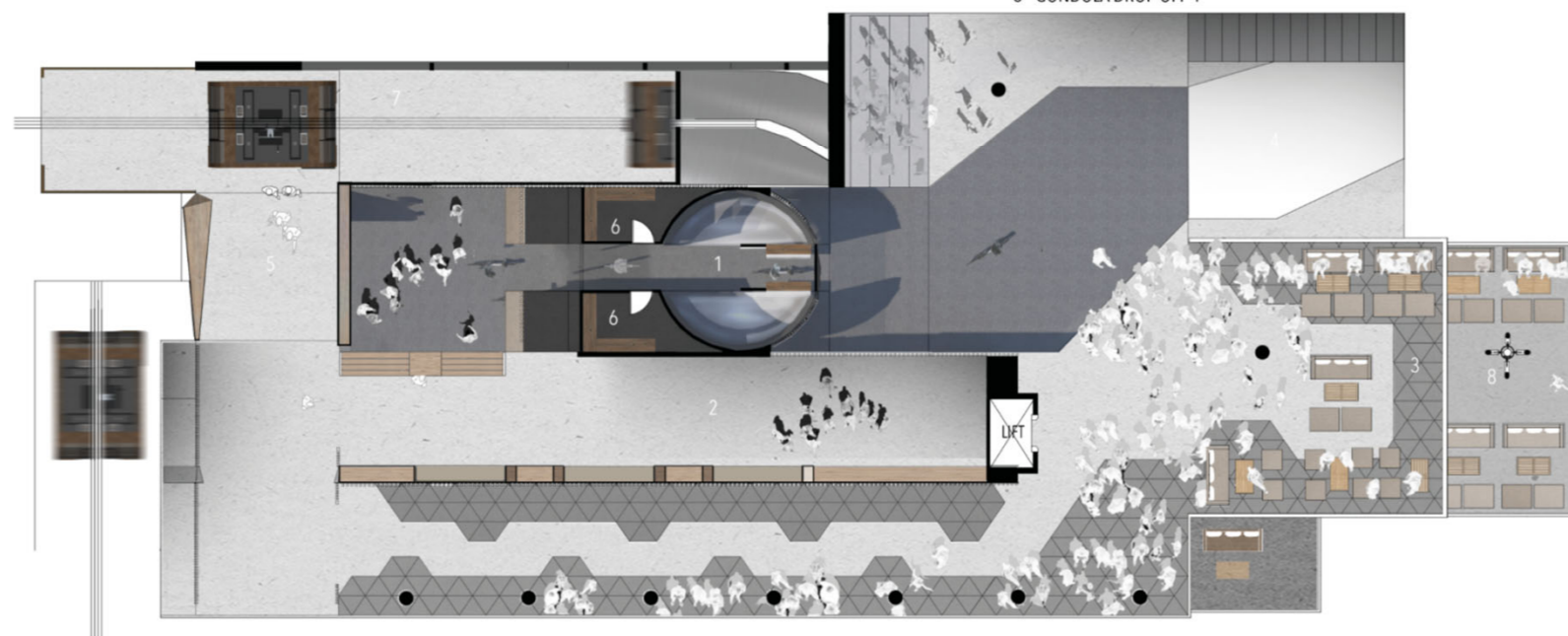


- 1 - STARTING GATE/ GLASS BRIDGE
- 2 - EVENT SPACE/ STAGE
- 3 - OUTDOOR SEATING
- 4 - BAR AND LOUNGE
- 5 - GONDOLA TRACK SPIRAL LIFT
- 6 - SHOP
- 7 - PREPARATION ZONE
- 8 - SPECTATOR ZONE
- 9 - GONDOLA PICK UP & LEAVING POINT



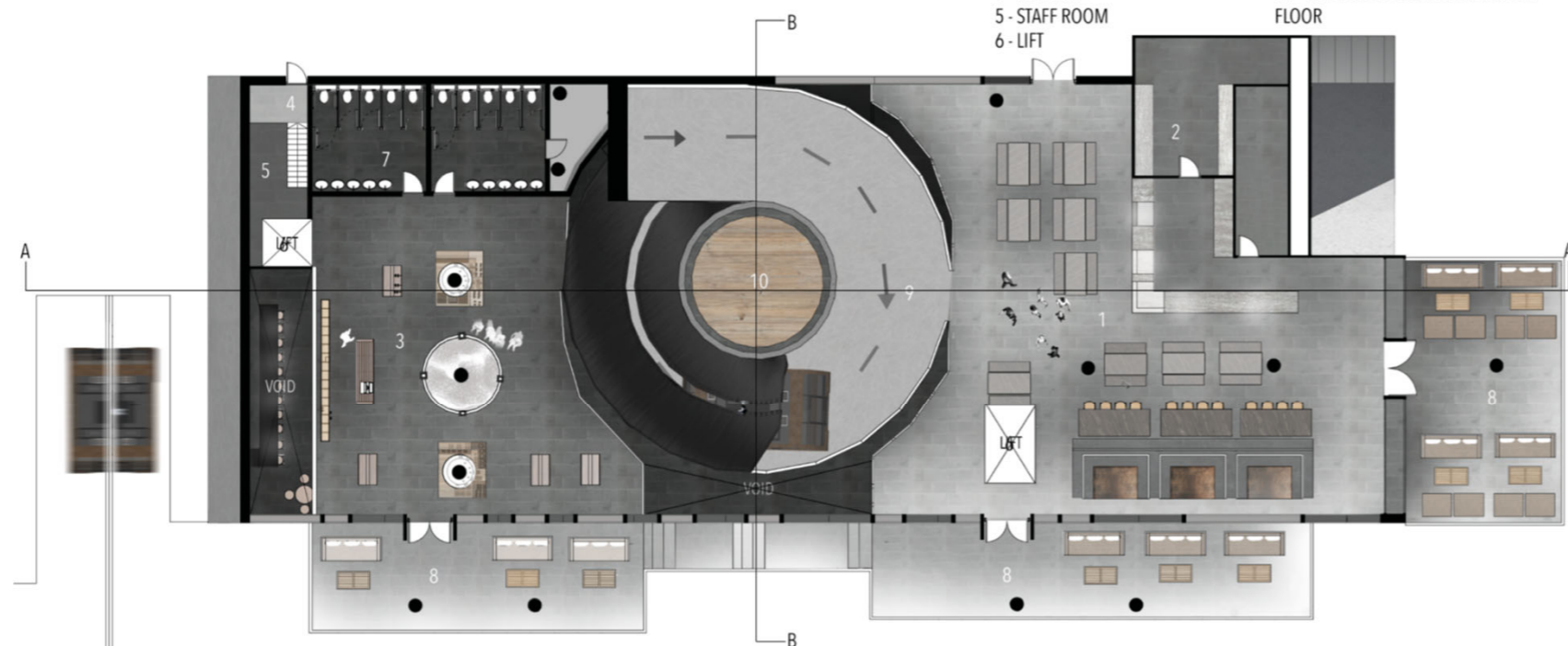
TOP FLOOR PLAN SCALE 1:200

- 1 - STARTING GATE/ GLASS BRIDGE
- 2 - PREPARATION ZONE
- 3 - OUTDOOR SEATING
- 4 - RAMP TO MOUNTAIN
- 5 - GONDOLA DROP OFF 1
- 6 - STARTING GATE VIEWING
- 7 - GONDOLA TRACK LIFT
- 8 - CAFE BALCONY

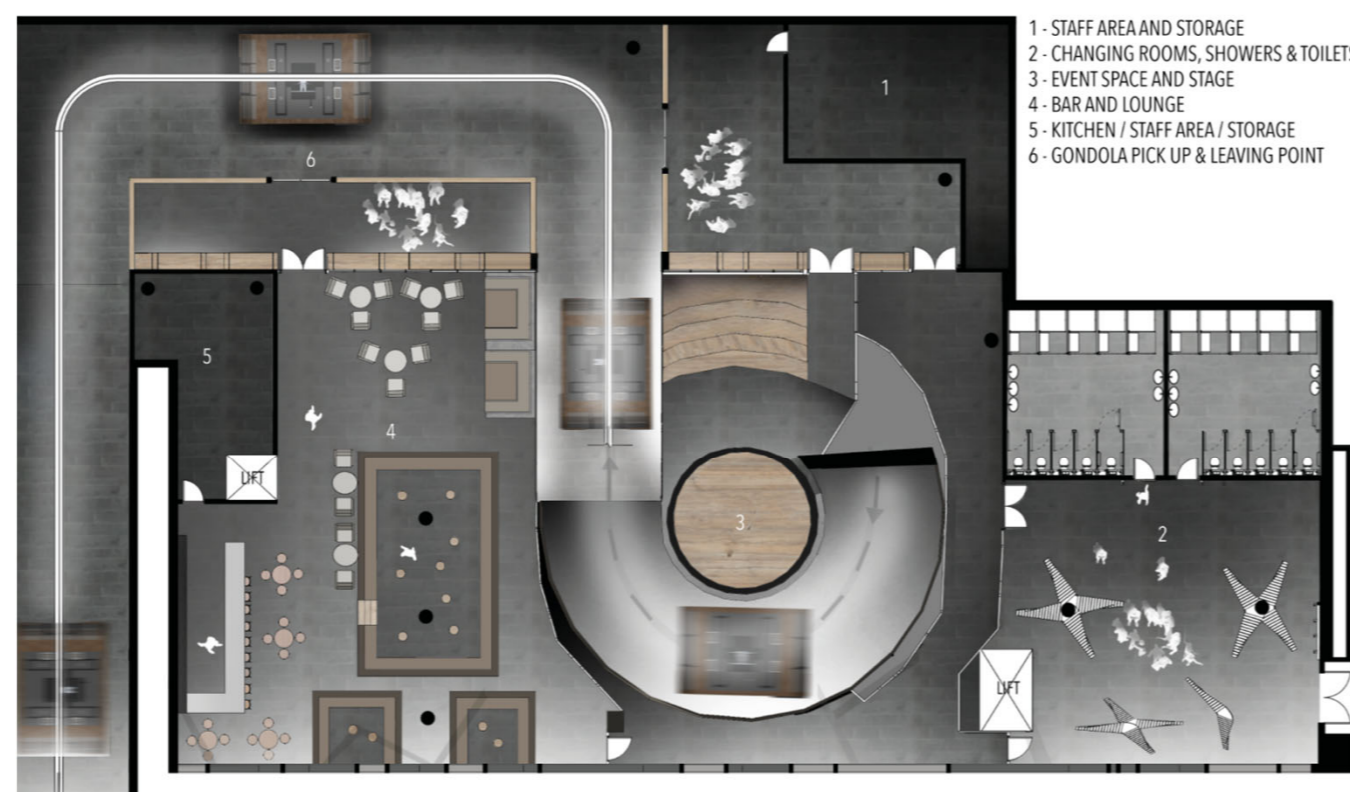


BASE LEVEL PLAN SCALE 1:200

- 1 - CAFE
- 2 - KITCHEN / STORAGE
- 3 - SHOP
- 4 - FIRE EXIT
- 5 - STAFF ROOM
- 6 - LIFT
- 7 - TOILETS
- 8 - BALCONY SPACES
- 9 - GONDOLA TRACK AND LIFT
- 10 - EVENT SPACE / STAGE ON LOWER FLOOR



- 1 - STAFF AREA AND STORAGE
- 2 - CHANGING ROOMS, SHOWERS & TOILETS
- 3 - EVENT SPACE AND STAGE
- 4 - BAR AND LOUNGE
- 5 - KITCHEN / STAFF AREA / STORAGE
- 6 - GONDOLA PICK UP & LEAVING POINT



Link to Project Video

<https://www.napierdegreeshow.co.uk/interior-spatial-design/olivia-nisbet>