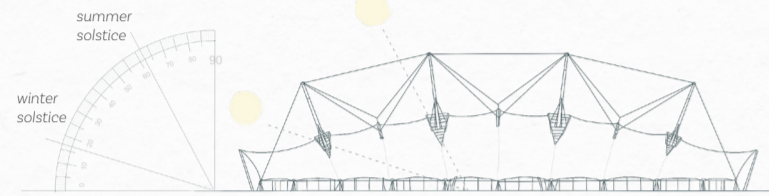


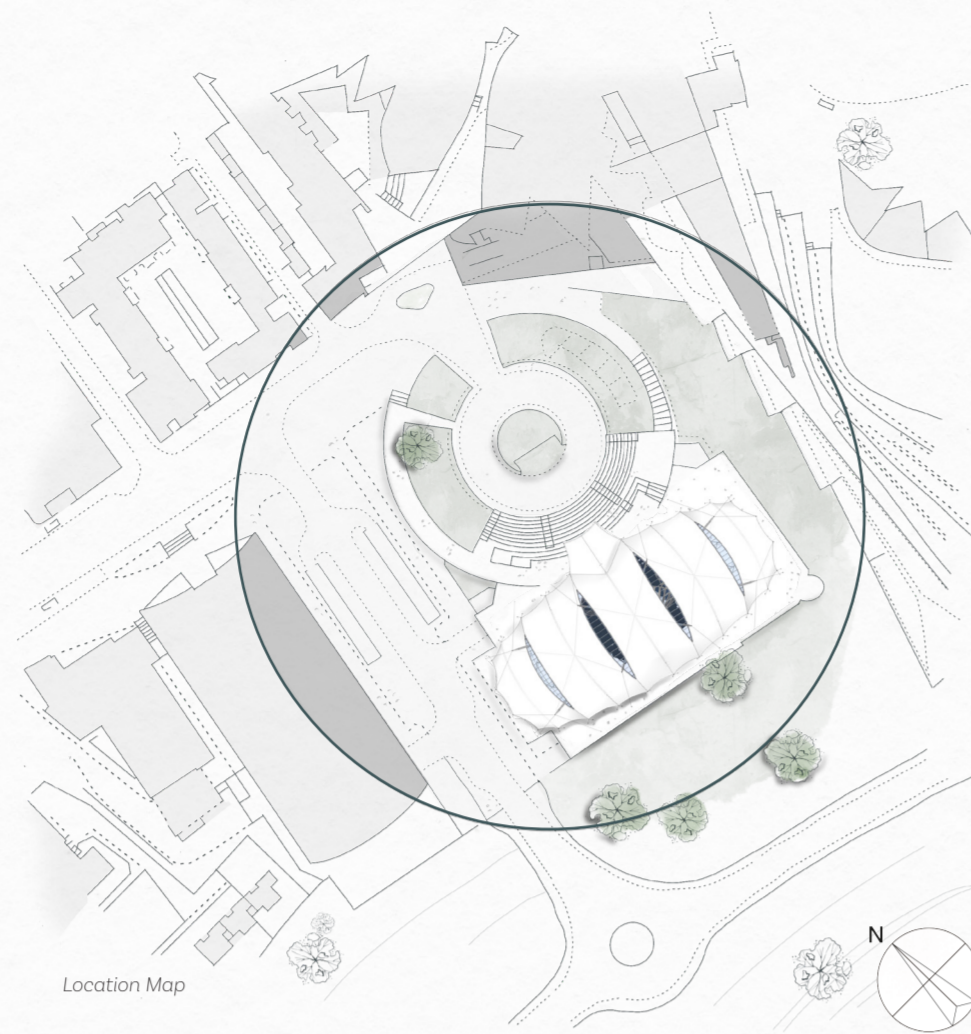
## Site and Research

Dynamic Earth is placed in Edinburgh, just a short walk from the city centre and many other attractions. It is located near the Palace of Holyroodhouse and the Scottish Parliament building, making it an important cultural and tourist attraction in Edinburgh.

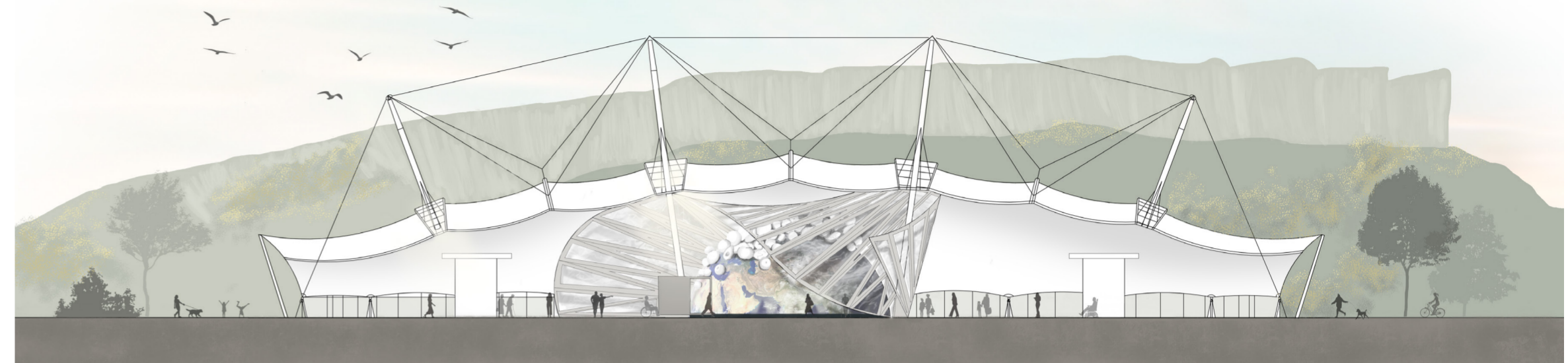
The building's design includes a terrace forecourt, a tented entrance foyer, and a two-storey black box within the restored walls of a 19th-century brewery, with a basement car park. Visitors enter through a public amphitheatre with York stone steps and granite paving, leading to a tented entrance pavilion with a PTFE-coated glass fibre roof, supported by steel trusses and enclosed by glazed walls.



Altitude of the Sun



Location Map



a long section with the iconic view of Arthur's seat in the background

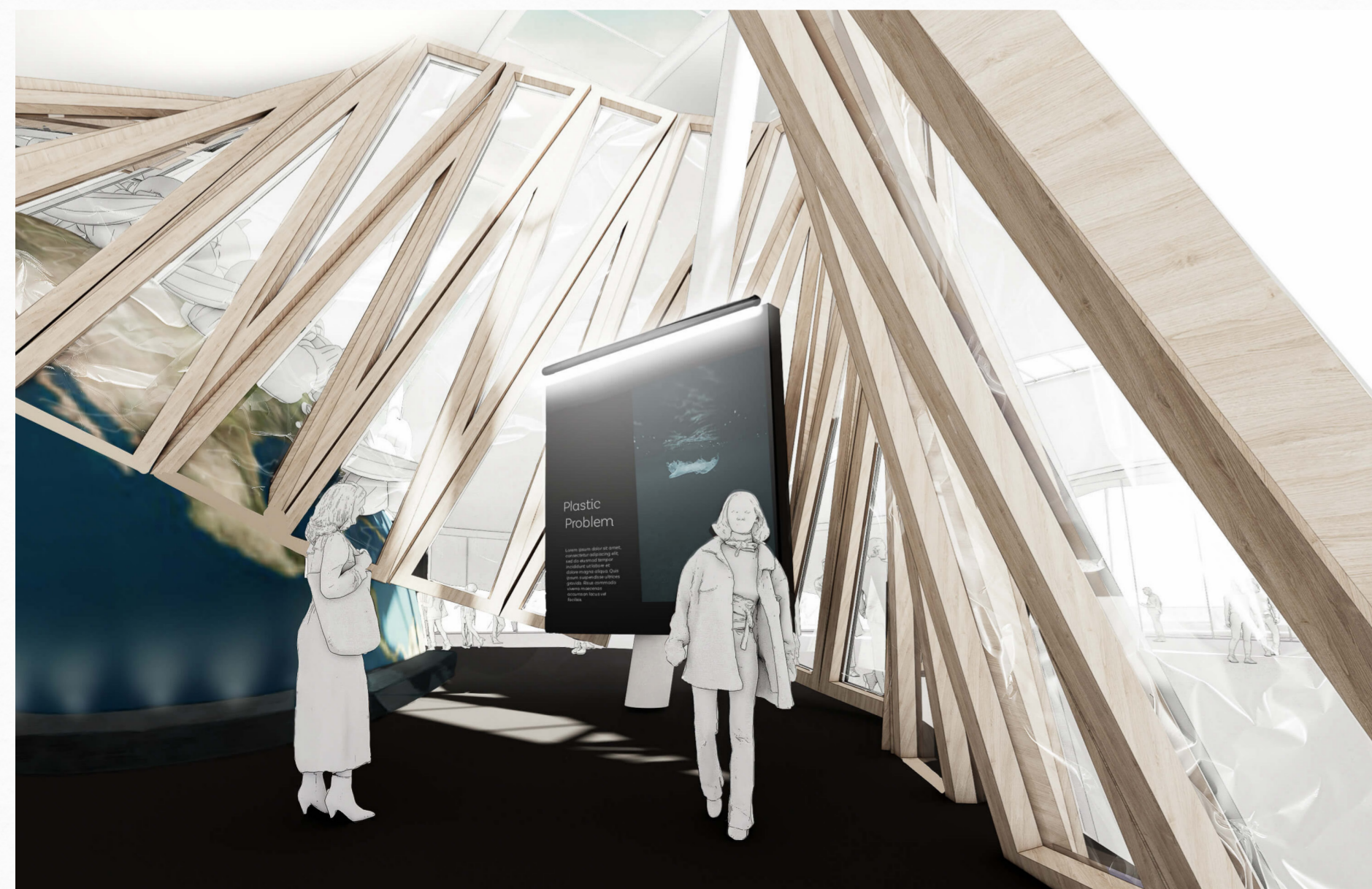
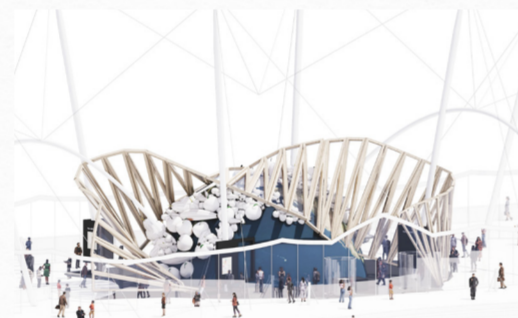


the display creates a frame to the problem

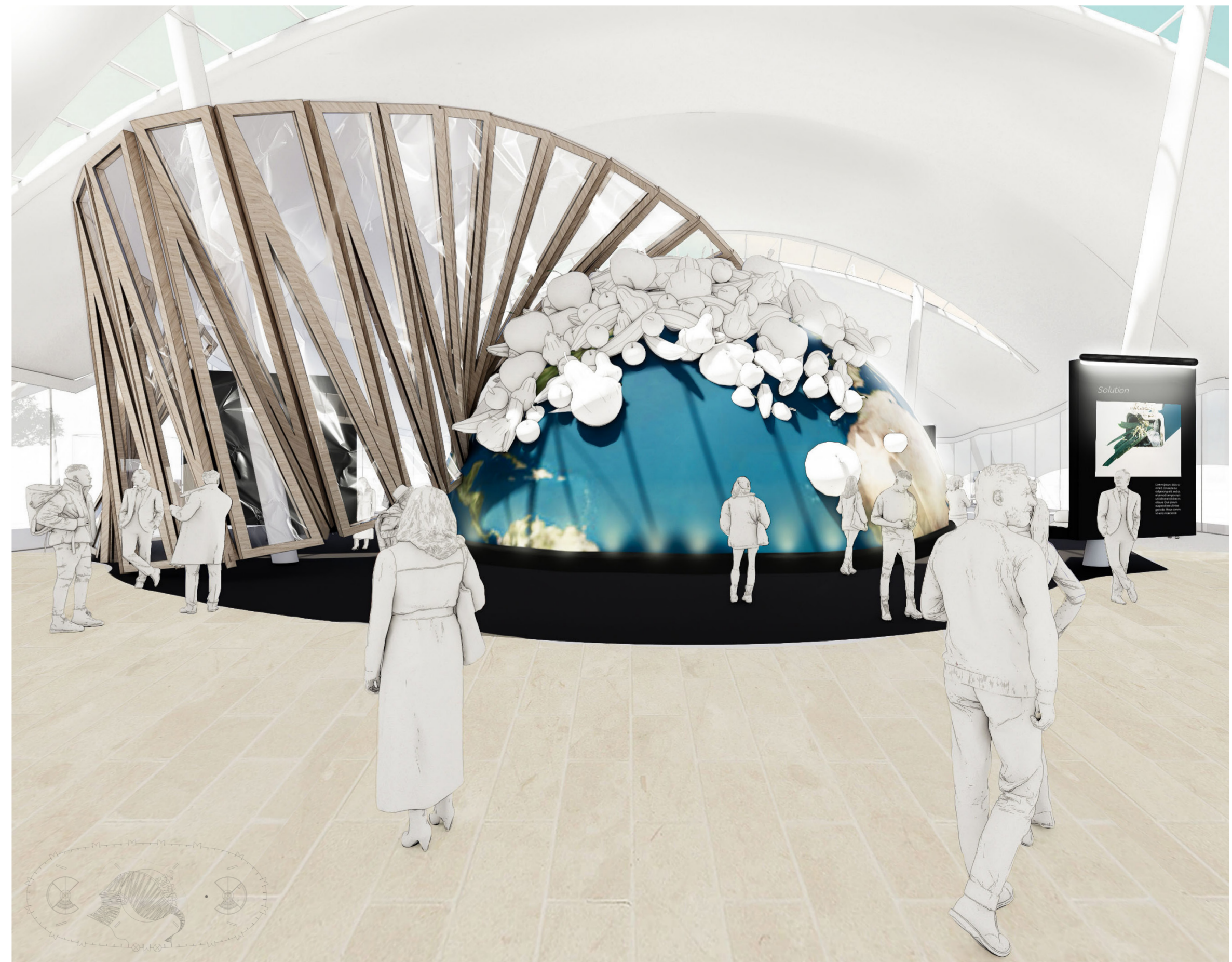
## Proposed Exhibition Design

The aim is to create a large-scale art piece highlighting plastic pollution and food waste. Informative photos of waste often fail to make a significant impact, so people need to see an "almost" actual amount of waste firsthand. To achieve this, the dome in the centre will showcase tons of recycled plastic fruits and vegetables.

The structure, made from hundreds or even thousands of meters of biodegradable cling film with wooden frame, mimics the movement of cling film or a peeled potato. This serves as a metaphor for peeling away unnecessary waste from the Earth.



At the entrance: highlighting the plastic problem feels overwhelming, as if the structure is collapsing on you



the issue of food waste offers a potential solution to another significant problem: plastic waste





everything wrapped in plastic

## Plastic problem

1.2 billion metres of cling film goes to the landfill in the UK.

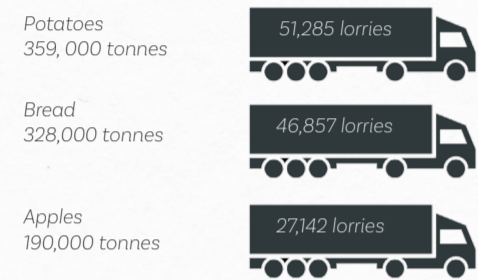
As cling film biodegrades, it produce large volumes of toxic chemicals, which can cause significant damage to the environment. The production of plastic cling film requires significant amounts of fossil fuels and energy, contributing to greenhouse gas emissions and climate change.

Animals can ingest or become entangled in plastic cling film, leading to injury or death.

## Food waste

Around 6.7 tonnes of food and drink is thrown away every year, with food waste in the household representing around 30.8% of all food purchased in Scotland by.

The most common foods we wasted and their equivalent weights



diagrams according to BBC's research

Food waste from the US and Europe is estimated to feed the world three times over!



By reducing food waste, we could mitigate CO2 emissions to the extent that it's akin to removing one in every four cars from the road, ultimately saving 15 million tonnes of CO2 equivalent.

Food production, distribution, and storage in the UK contribute to 20% of the country's greenhouse gas emissions.

cutting down food waste also reduces the 'upstream' emissions that is help to reduce waste

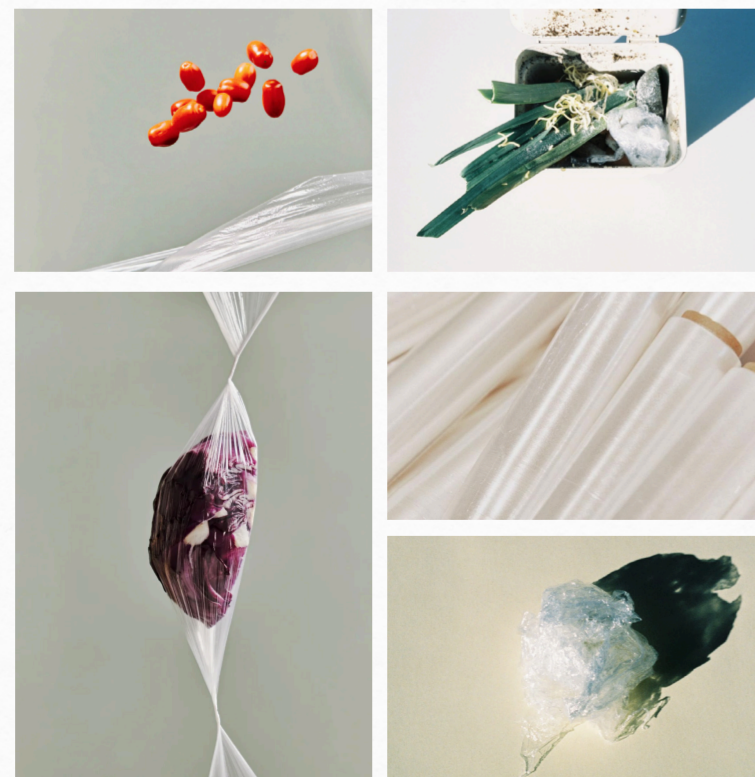
## The chosen Green Organisation as a potential client

Great Wrap is focused on addressing the challenges posed by rapidly changing packaging materials. They aim to make it easier for both businesses and consumers to adopt compostable solutions instead of traditional plastics, reducing the amount of waste destined for landfills.

They also highlight the significant issue of global food waste, with one-third of the world's food, totaling 1.3 billion tonnes annually, being wasted and contributing to increasing greenhouse gas emissions.

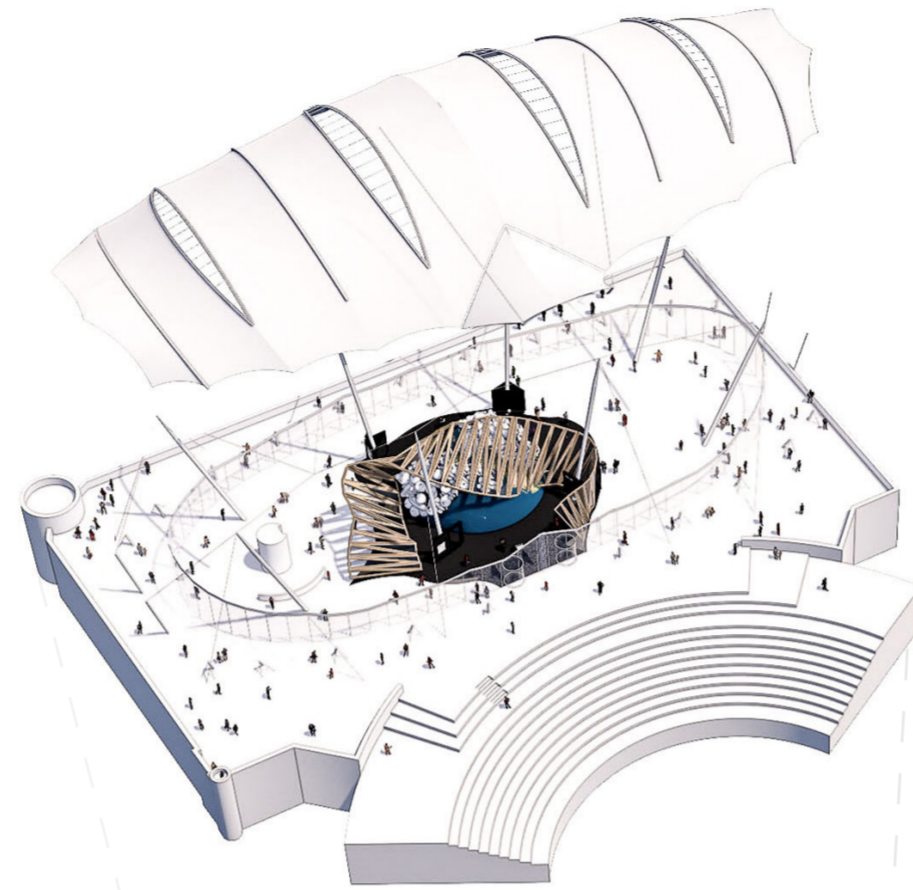
"We're reimagining today's materials to solve tomorrow's problems." - Great Wrap

Process



photos for the exhibition by Great Wrap

## Exploded bird's-eye view with floor plan and reflected ceiling plan

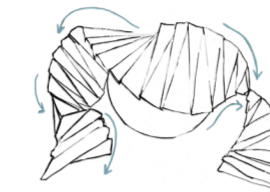


## Movement Study

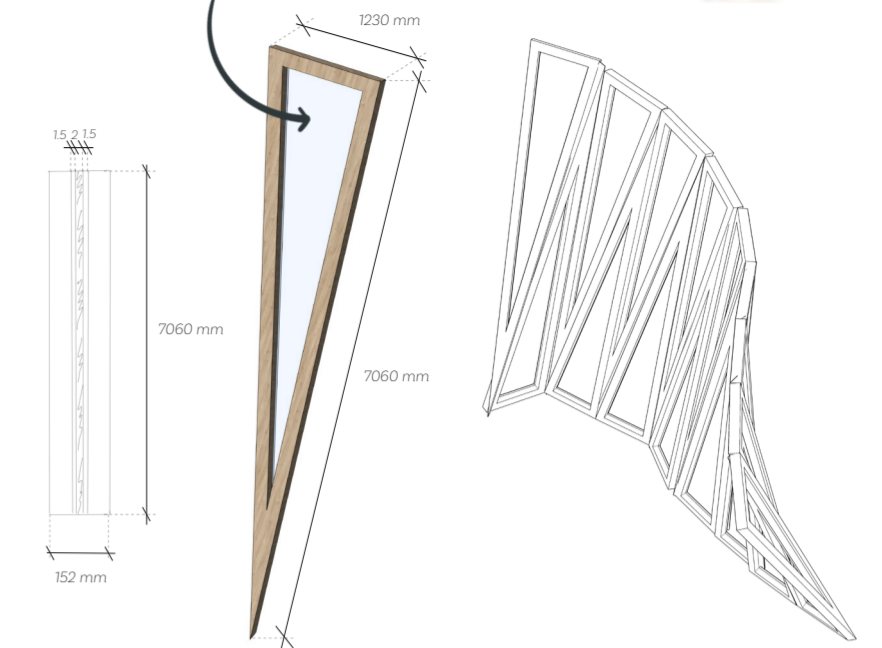


concept model with visitors around it

To mimic a peeled potato needs to have organic and flowing curves. It can be made of wood or lightweight plastics to construct the form.



Peeled potatoes have layers, with the peeled skin revealing the inner flesh. The structure has transparency surfaces by the cling film to represent the peeled layers, allowing visitors to see inside the structure.

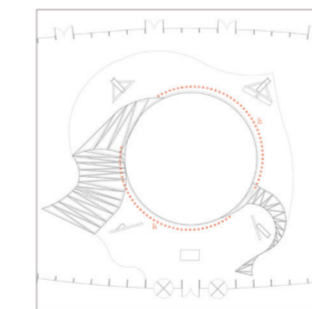


## Lighting Floor plan and details

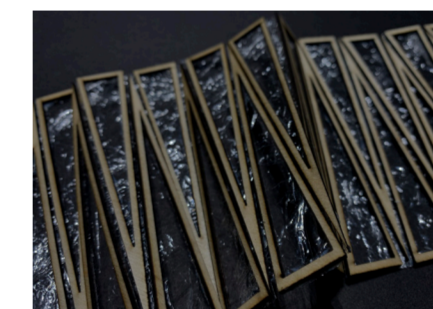


testing lighting on the material

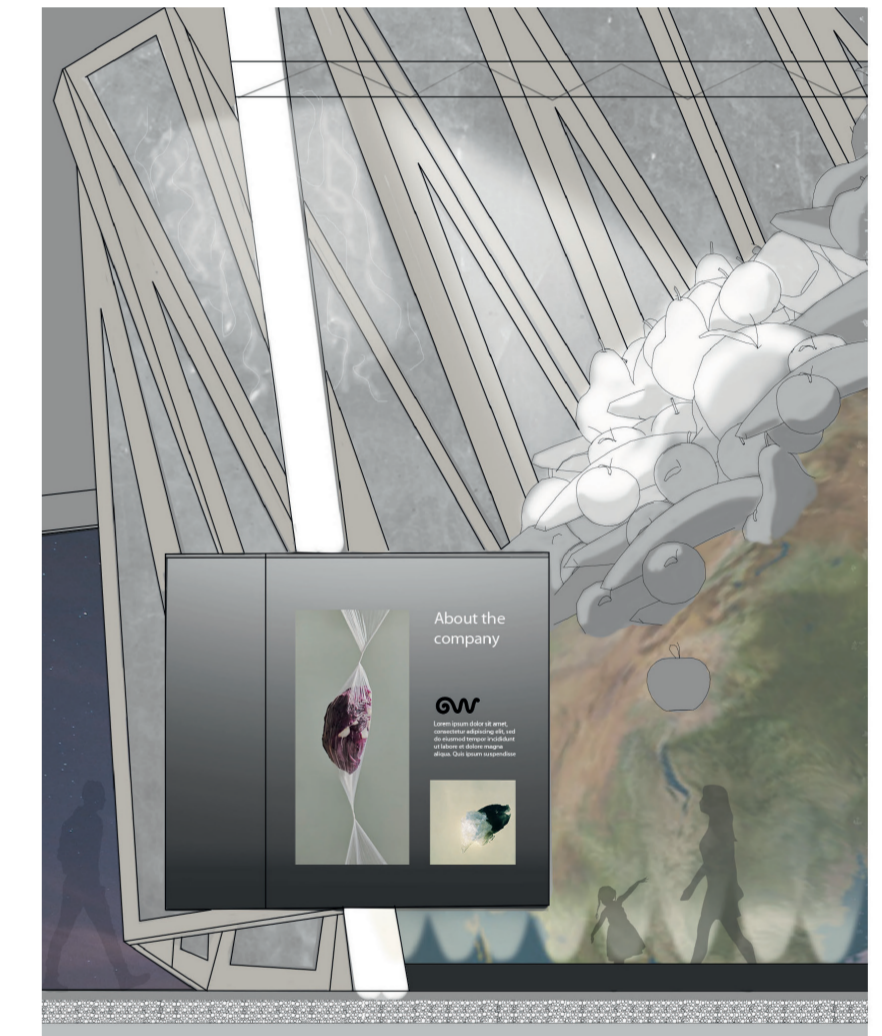
Around the structure sustainable lighting fittings were used, such as Precision by Luminii, which recycles materials and adheres to RoHS standards. The B-LINEAR system offers efficient, minimalistic illumination. STOANE Lighting uses circular design principles to reduce embodied carbon, aiming for net-zero emissions by 2050. Martin Lighting focuses on extendable product life and compliance with global environmental standards.



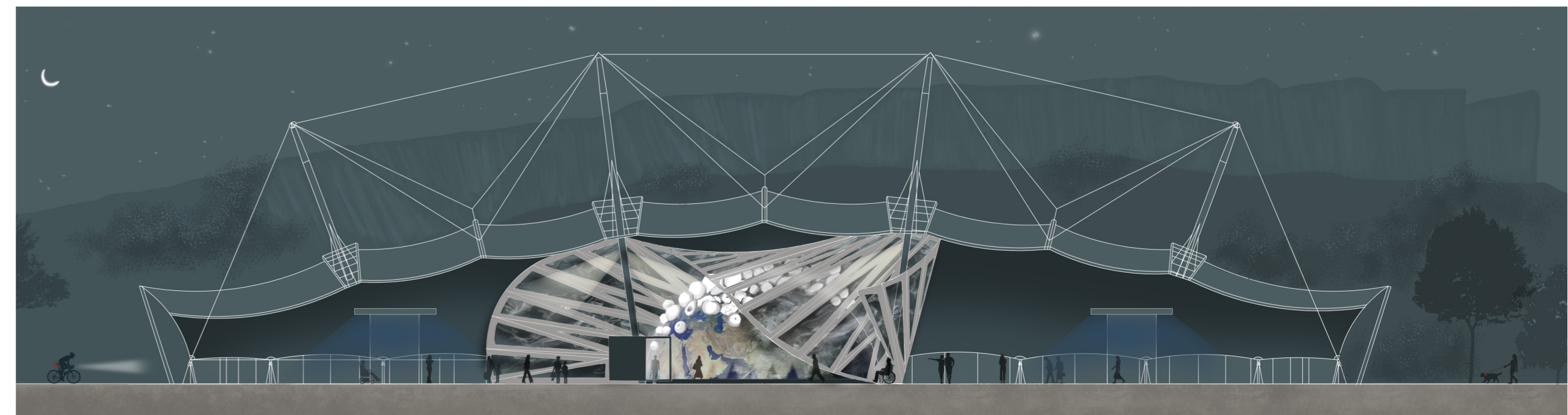
lighting floor plan



testing 5000 K temperature light on the model



a close-up section to display the varying heights of the illuminations



a long section at night with lights on