



ABOVE | PERSPECTIVE SECTION  
Section of Spaceport Cornwall  
Vectorworks + Photoshop

WHAT IF...  
THE SPACEPORT ITSELF BECAME  
THE DESTINATION?  
CONCEPTUAL INSPIRATION



# VIRGIN GALACTIC: SPACEPORT CORNWALL

NEWQUAY, UK. PLANET EARTH

## 'SPACEPORT'

noun

A base from which spacecrafts are launched.

## MISSION

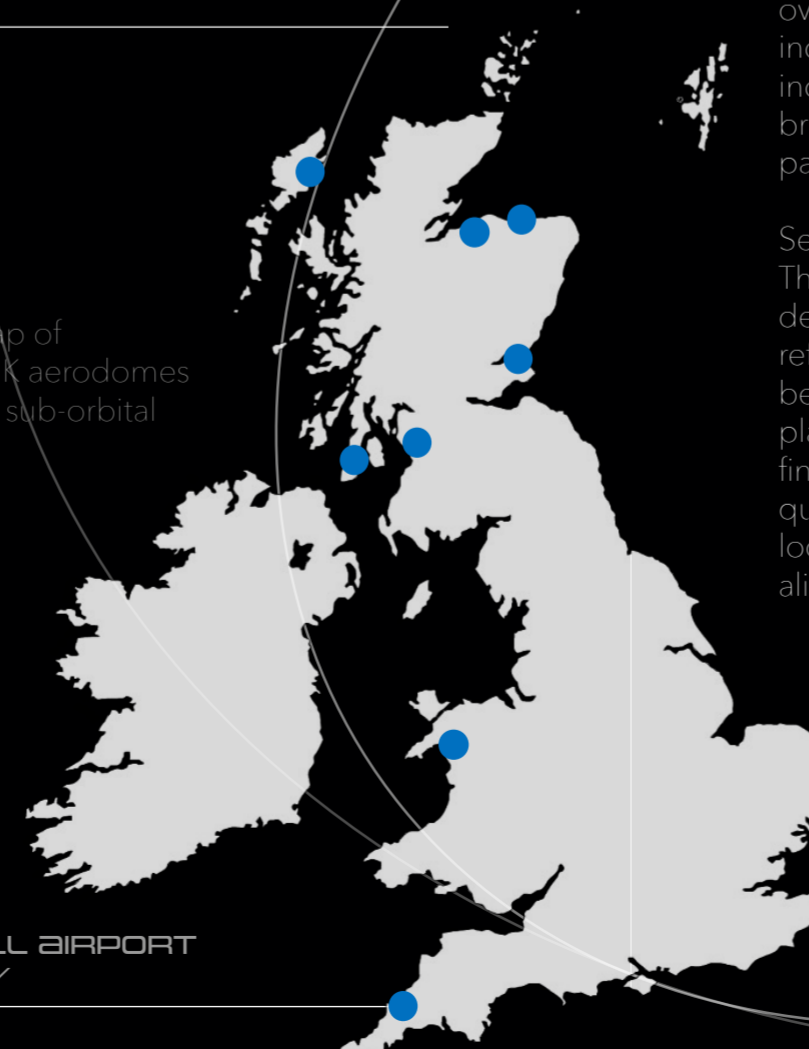
For years the design of so called 'non places' (Augé 2008) such as airports and transport hubs have been primarily focused on getting people from A to B. Space Tourism presents itself with a new issue for designers to solve, what happens when the journey itself from A to B becomes the experience? And what would this mean for the spacport...

## BRIEF

The Space Tourism industry has grown exponentially in the past few years with the first fully crewed spaceflight from Virgin Galactic in July 2021, closely followed by successful flights from competitors Blue Origin and Space X. With the UK still to meet it's goal of opening a spaceport by 2018, if we wish to contend in the 21st century space race we must begin planning and questioning current spaceport infrastructure and design with a sustainable yet creative approach to become 'the most attractive destination for spaceflight in Europe.' (UK Space Agency 2021)

RIGHT Map of shortlisted UK aerodomes for potential sub-orbital operations

CORNWALL AIRPORT  
NEWQUAY

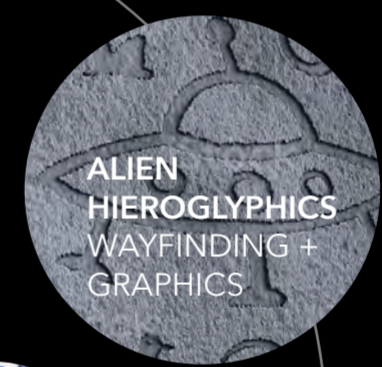


## DESIGNING THE GATEWAY TO SPACE...

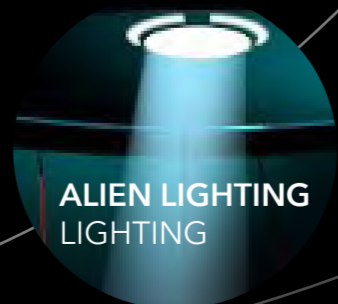
My design will challenge current design conventions as seen in Spaceport America through designing a space that accepts the imagery, look and feel of the space 'genre' created over decades of film and literature. While this will indeed look and feel sci-fi, it will be sensitively incorporated alongside the Virgin Galactic branding and important considerations such as passenger psychology and inclusivity.

Several cues will lead the design of my spaceport. The first would be 80 degree angles in the design of my angular architectural insertions to reflect the spacecrafts launch angle. The second being Malevich's influence with the design and placement of my architectural insertions. The final design cue stems from my experimental question... 'what if aliens operated my spaceport?' looking at crop circles and the question of their alien origins.

WHAT IF...  
ALIENS  
OPERATED MY  
SPACEPORT?



ASTRONAUT DESIGNER  
**ASHLEY  
JAMES POWELL**



As a designer, I am inspired by the role of technology and innovation that consistently evolves and shapes our daily lives. I believe we have an essential role to ensure user focused design remains at the forefront.

@ashleyjamescreative

>>>print ("Hello World")

SITE ANALYSIS:



ABOVE | SITE IMAGE COLLAGE  
Inside Hangar 404, Procreate



ABOVE | 1:300 SITE MODEL  
Site Sketch Model

ABOVE | SITE IMAGES  
Existing Use: Museum and Storage



BELOW | VIEW FROM ECHO APRON  
Outside Hangar 404 with The Astronaut Edition Range Rover to transport tourists to the spacecraft VSS Unity (Behind) Echo Apron, Cornwall Newquay Airport

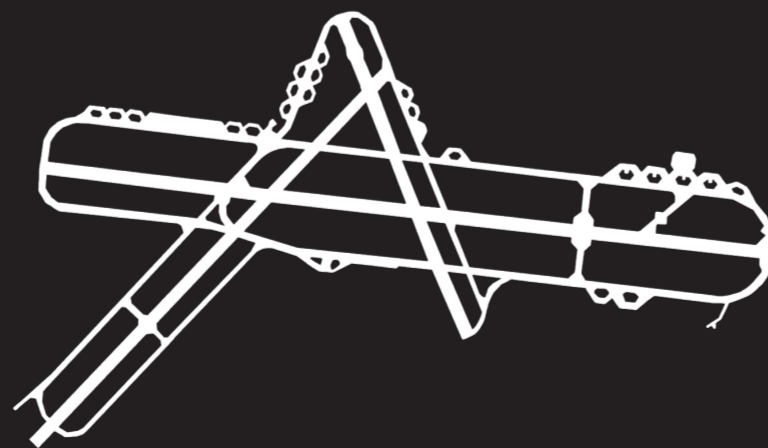


HANGAR 404  
/ SOUTHERN HANGAR 4 / SH4

One of the largest hangars at Cornwall Newquay airport, Hangar 404 once housed the iconic Nimrod reconnaissance aircraft during the period the site was operated by the RAF. Constructed in 1969 the hangar boasts a largely uninterrupted floorplan with its looming cantilever beams that stretch overhead in an almost sci-fi manner. The site is also located within the Aerohub development area with new exciting plans submitted including the Blue Abyss centre.

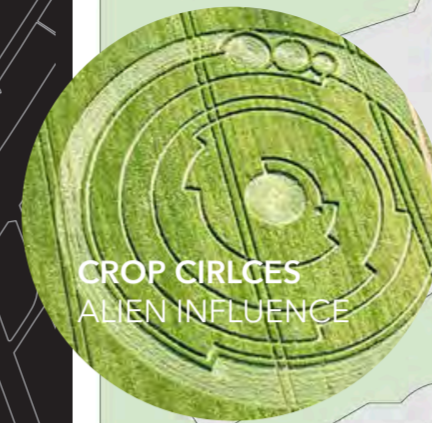
CORNWALL AIRPORT  
NEWQUAY

With one of the longest runways in the country and its proximity to the coast, in 2014 Cornwall Newquay Airport was shortlisted as one of eight potential spaceport locations in the country.



NQY

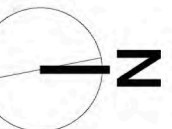
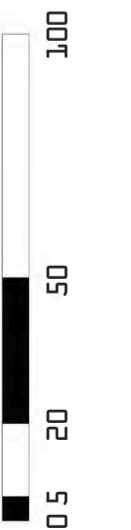
CORNWALL AIRPORT NEWQUAY  
REVISION 12  
CORNWALL AIRPORT NEWQUAY  
REVISION 30  
50°25'27"N 004°59'43"W  
CORNWALL, UK, PLANEZ 24910  
RANGE 1:300 21/04/24



ALIEN INVASION AT  
CORNWALL AIRPORT  
NEWQUAY...

Key radial crop circle design moves radiate out of the spaceport and onto the echo apron forming the surrounding landscape emphasizing the circular forms of the existing apron and taxiway. Existing infrastructure would be upgraded and redesigned to suit including crop circle car parks and roundabouts linking to proposed developments in the Aerohub zone including Blue Abyss.

LEFT | PROPOSED SITE PLAN  
Southern Hangar 4 (SH4)  
Echo Apron, Cornwall Newquay Airport



BRAND + USER

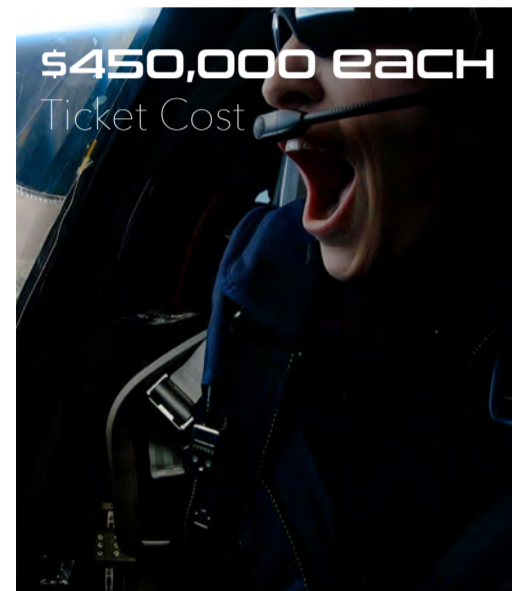
VIRGIN GALACTIC

The World's First Commercial Spaceline...

Virgin Galactic aims to become the worlds first commercial spaceline to open space to everyone. They believe that through opening space they can change the world for good through learning, development, and opening people's eyes to the world unlike ever before. This in turn changing people's perspective and how we approach global challenges moving forward through a greater understanding of earths fragility.



All Images Virgin Galactic Press Assets  
Virgin Galactic 2018



\$450,000 each  
Ticket Cost



JULY 2021  
First Fully Crewed  
Spaceflight



LATE 2022  
Commercial Service



THE SPACESHIP  
COMPANY  
Brand Partner



UNDER  
ARMOUR  
Brand Partner



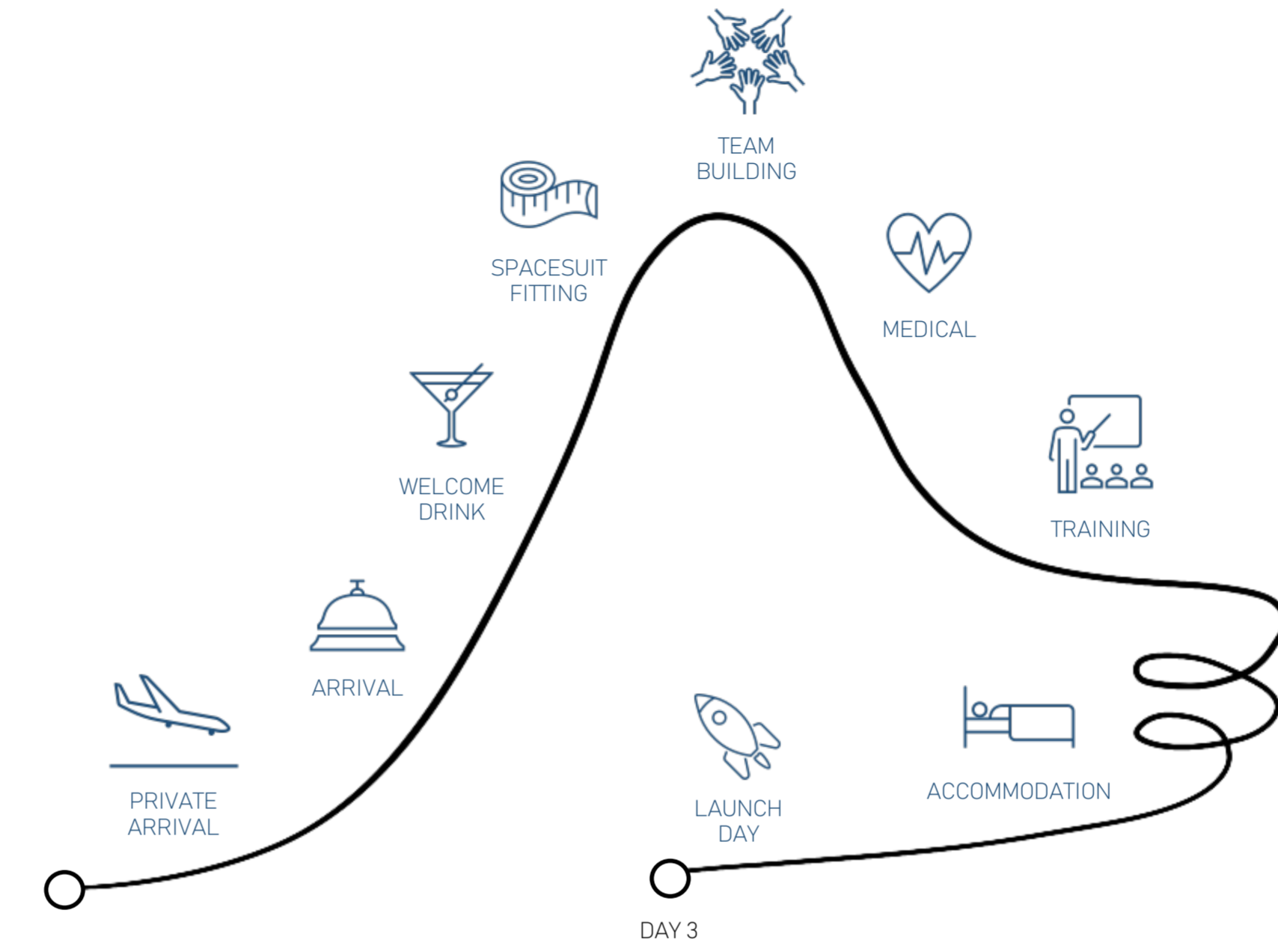
LAND ROVER  
Brand Partner

Spaceport Commercial Strategy

### PUTTING SPACEPORT CORNWALL ON THE MAP...

With tickets to space costing upwards of half a million pounds, Space Tourism is unfortunately for the time being a luxury many cannot afford. My spaceport will challenge this, opening up the spaceport for everyone to enjoy and experience by partnering with Virgin Galactic's sister company, Virgin Experience Days for overnight stays and weekend breaks to experience what its like to be an astronaut preparing to blast off!

RIGHT | PROMOTIONAL POSTER  
Poster inspired by vintage space age art and graphics



SPACEPORT CUSTOMER JOURNEY:

Astronauts would most likely fly into Cornwall Newquay Airport via domestic flight or by a private chartered aircraft. They would then be transferred to the spaceport via the Range Rover astronaut edition which drive guests into the hangar, right to the front desk for a seamless and effortless journey. Guests would then be checked in and welcomed to the spaceport after undergoing a security check.

The lift is then theatrically illuminated visible through the parting steam cloud venturing up into the bar for a welcome Espresso Martiani. Astronauts would then head to the training centre to be fitted for their bespoke Under Armour spacesuit followed by a group activity in the multifunctional space outside. Over the next three days future astronauts will orientate around the final three stages before taking off to space!

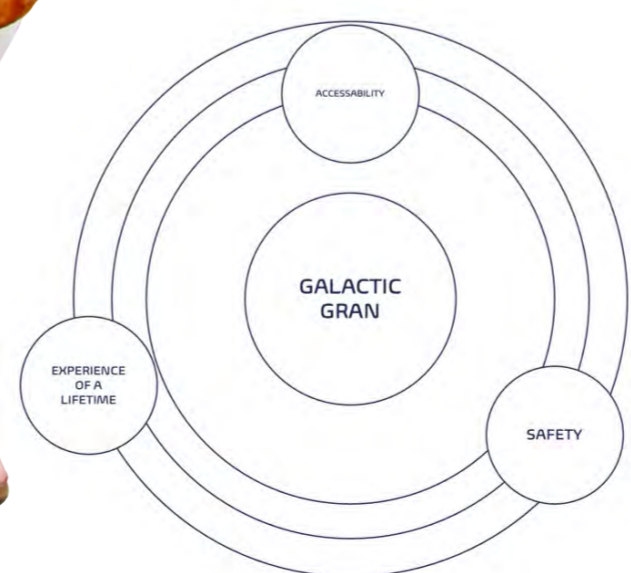
LEFT | CUSTOMER JOURNEY  
Spaceport journey mapped onto the Virgin Galactic Flightpath

MEET THE CREW  
User Profiles



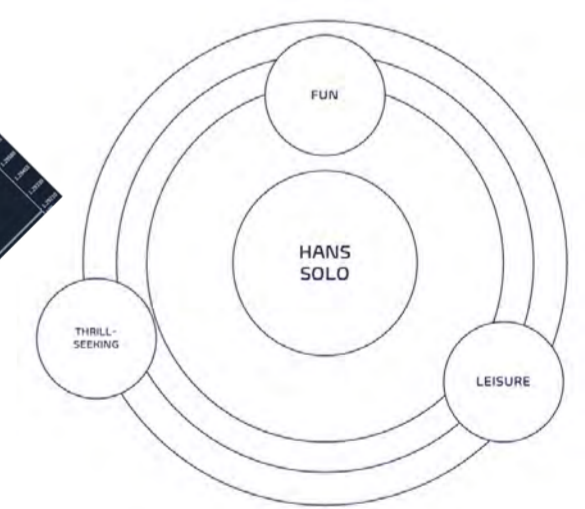
ASTRONAUT 006  
GALACTIC GRAN

Galactic Gran, isn't your ordinary granny... you could even say her bungalow is a shrine to Neil Armstrong. Since watching the Apollo 11 missions in her early 20's she's been fascinated by space (definitely not Neil) and ever since she's been saving and putting her pension away in the hope that one day she'll be blasting off herself. When she heard Virgin we're selling tickets she had re-mortgaged her bungalow and booked a once in a lifetime ticket to space all before her afternoon nap!



ASTRONAUT 007  
HANS SOLO

Hans is a German billionaire making his money in early investments in bitcoin. Now he spends his days binge watching Star Wars and drinking champagne posting forex trading advice to his millions of Instagram followers which, since booking his flight, shares a daily countdown to his launch day.

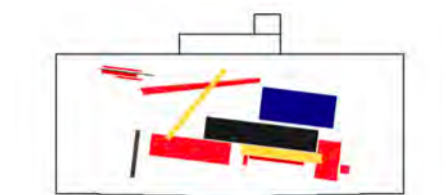


STRATEGY:

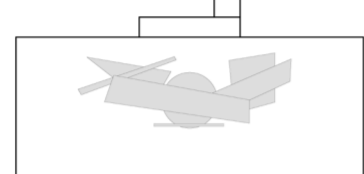
Drawing inspiration from the Russian Suprematist painter, Kazimir Malevich, I designed a series of geometric shapes to insert into my building that suggest both horizontal and vertical movement in space.



MALEVICH INSPIRED DRAWING



GEOMETRY IN PLAN



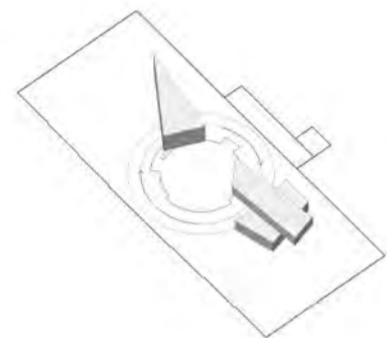
DEVELOPED GEOMETRY



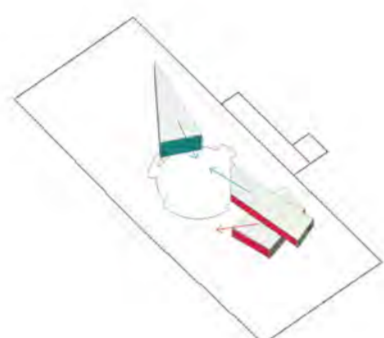
SPATIAL ADJACENCIES  
Early Spatial Planning + Zoning

3 KEY STRATEGIES INFORMING DESIGN MOVES:

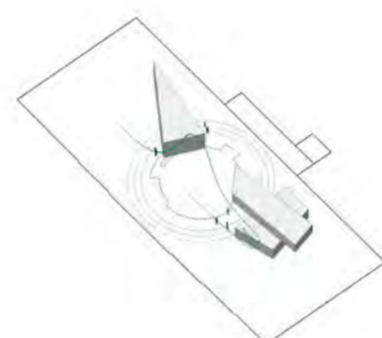
- 1. Alien Response
- 2. Site Response
- 3. Brand Response



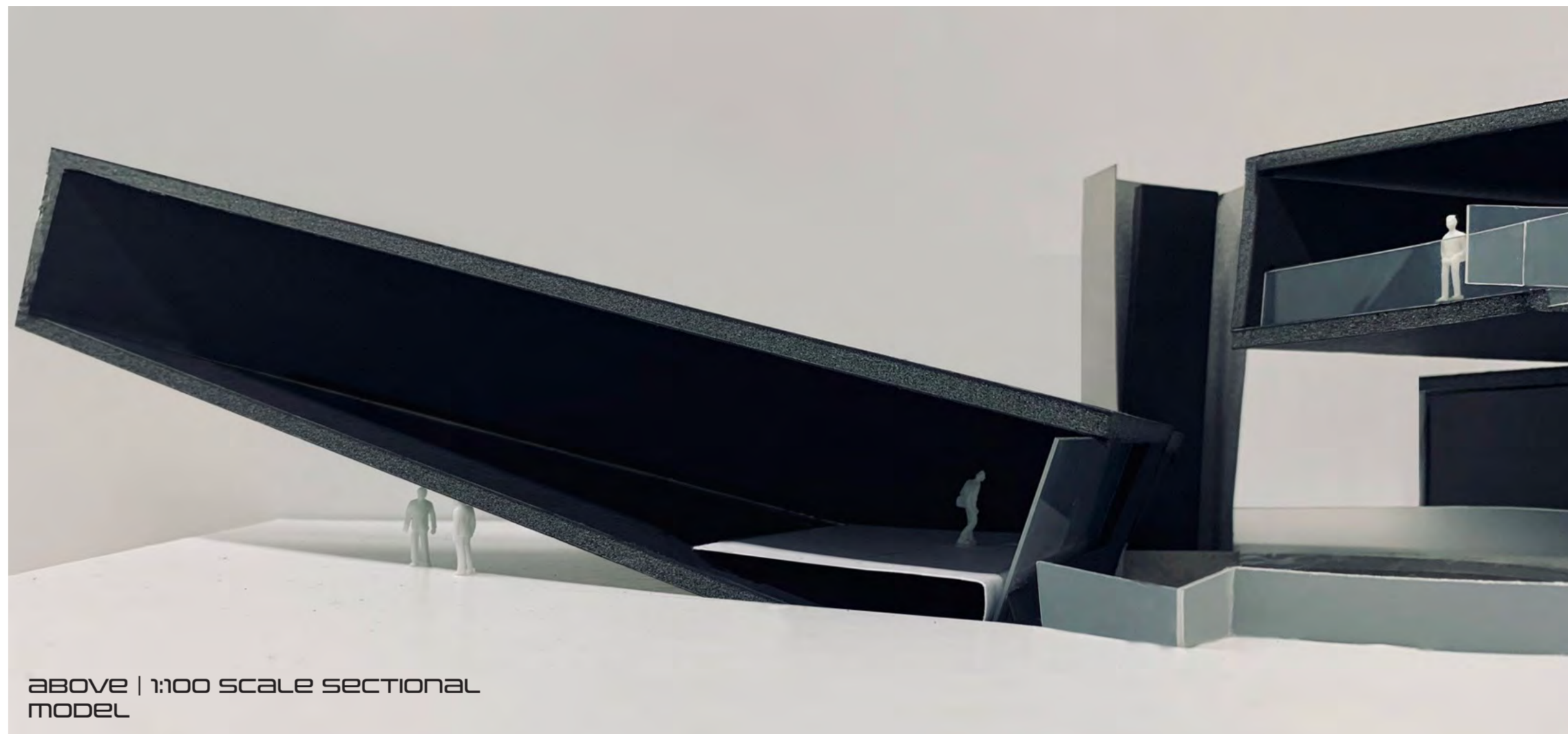
1. CLUSTER + RADIAL ORGANISATION



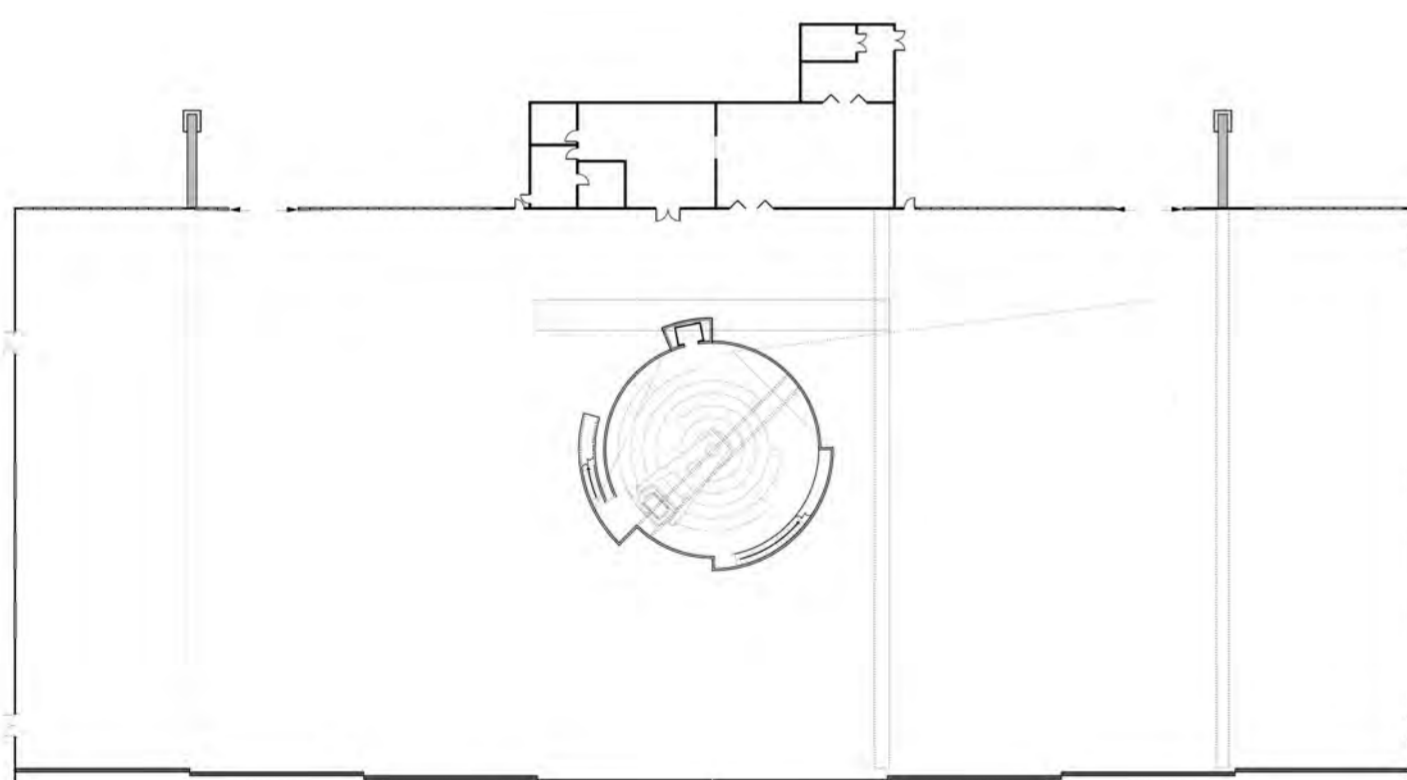
2. INTERNAL + EXTERNAL VIEWS



3. FLIGHT PATH CIRCULATION



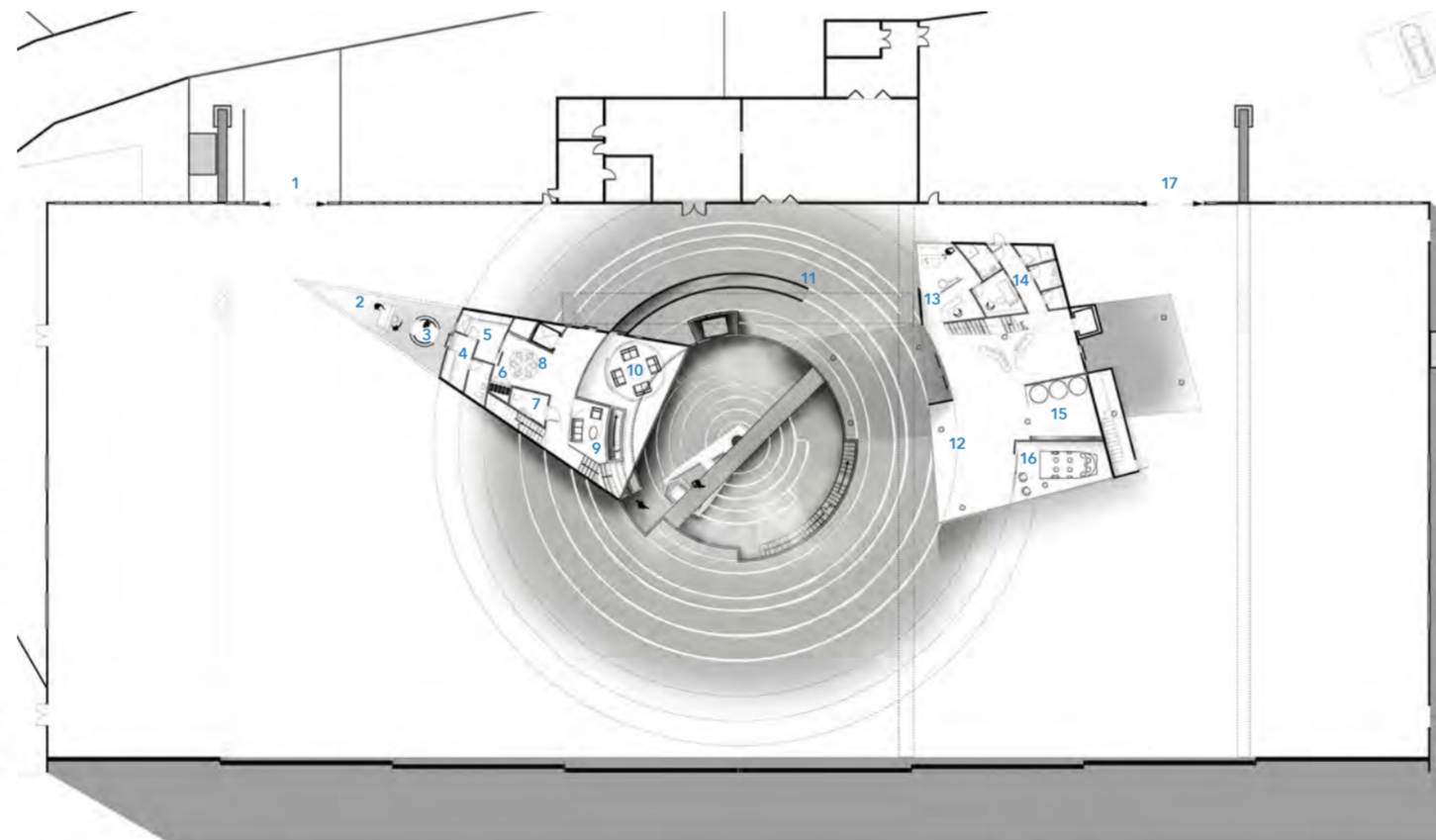
ABOVE | 1:100 SCALE SECTIONAL MODEL



LOWER GROUND FLOOR

TRAINING - HUMAN CENTRIFUGE

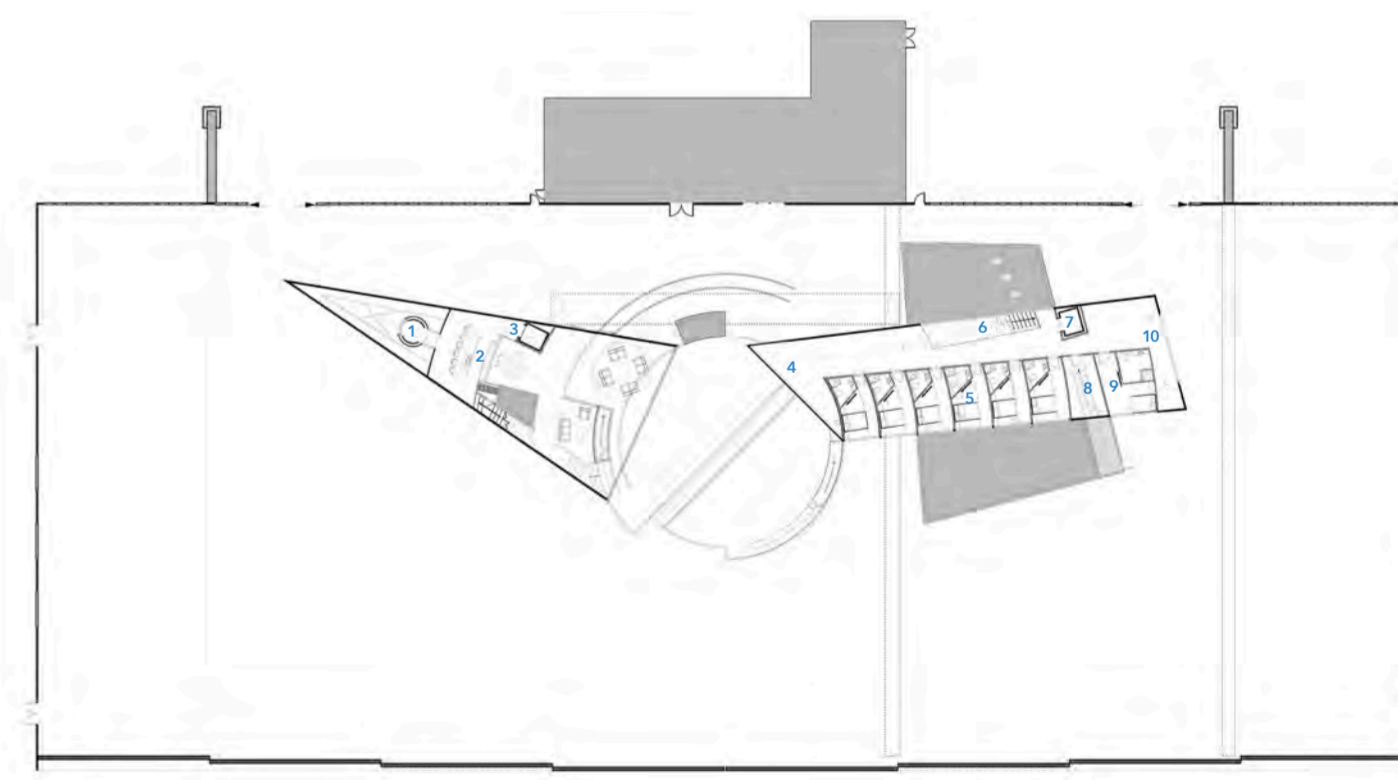
Human Centrifuges are used in space and military training to test reactions and tolerance and prepare astronauts for the forces and acceleration involved during spaceflight. The centrifuge spins to exceed the acceleration experienced on earth.



GROUND FLOOR

CHECK IN, LOUNGES + MEDICAL

- 1. Main Entrance
- 2. Check in Lobby + Bag Drop
- 3. Lift up to upper bar area
- 4. Staff Area
- 5. Kitchen
- 6. Wine Cellar
- 7. Disabled Toilet
- 8. Dining Room
- 9. Space Lounge
- 10. Sky Lounge
- 11. Ramp to Sky Lounge
- 12. Classroom / Viewing Area
- 13. Medical Centre + Gym
- 14. Toilets + Showers
- 15. Under Armour Store
- 16. Simulation Room
- 17. Main Exit



UPPER FLOOR

80 DEGREE BAR + ACCOMMODATION

- 1. Lift from Reception
- 2. 80 Degrees Bar
- 3. Lift
- 4. Viewing Balcony
- 5. Accommodation Suites
- 6. Winged Central Staircase
- 7. Lift
- 8. Fire Exit Stair
- 9. Accessable Suite
- 10. Viewing Balcony

80 DEGREE BAR  
ESPRESSO MARTIANI

Speciality welcome drink, milky (way) smooth classic cocktail with a belgian chocolate rocky martian foam



MATERIALITY

'THE WORLD IS YOUR OYSTER'

Metaphors in Materiality

Carefully selecting materials that reflect my the colour palette for the Virgin Galactic branding while also selecting materials that have a strong textural and sensory relationship with place... Earth.

Taking inspiration from the Shakespearean quote which would be used in marketing on alien planets to visit planet earth, my colour material and finish is reflective of that of the oyster. As a native species here in Cornwall it has deep roots to my site at Newquay too. An oysters shell has an alien like presence, from it's an exterior it could be likened to a meteorite from deep space with its rocky, earthy form and tones. However upon further inspection, the inside reveals an ethereal, metallic and iridescent quality that seems out of this world. My concept and materiality will follow this with a exterior created with a palette of coarse industrial materials with a strong focus on texture and form to build a rugged cladding for my structures. Upon stepping into the interior, as like opening the oyster shell, the materials shift to a much softer, more reflective look and feel with an introduction of colour with blues and reds that link to the Virgin Galactic brand but also with spaces inspired by planets such as earth and Mars.

THE 'OUTSIDE'

Centrifuge and External Cladding



**CENTRIFUGE WALLS**  
Clayworks Rammed Earth



**INSTALLATION CLADDING**  
Kaza Concrete Liquid Forms DKCN 40 Glossy

STORYTELLING THROUGH HIEROGLYPHICS

Alien Influence to Celebrate Cornish Legacy and Innovation

Hieroglyphics will be engraved into the rammed earth walls illustrating Cornwall's diverse past depicting a series of cultural and historical heritage sites while also presenting Cornwall as a new emerging world leader in the 21st century space race.



THE INTERIOR

Training + Medical Centre and Sky Lounge



**TRAINING + MEDICAL CENTRE**

**LIGHT** Nura 2 Suspension Light by Carpyen. **FLOOR** Sepia Energetic Forbo 51243 vivid snow. **SOFA** Kaleido by Kastel Antimicrobial treated fire resistant fabric lower D423 Upper post consumer recycled polyester D42R. **TEXTURE** Delft Ash O&G's Signature stain for bespoke Virgin Galactic floor piece. **COLOUR** Galactic Cobalt WGSN Key colour trends A/W 23/24



**SKY LOUNGE**  
NEW SPACE AGE NOSTALGIA

**LIGHT** Eye in the Sky H1 by Ilfari - 'Cosmic retro shapes float through the air like a star does in space'. **CEILING** Bencore Auminium Foam. **SOFA** Moon System by B&B Italia. **RUG** Ripples Carpet - Round 250 Ripples in Silver by Moooi. **IMAGE** WGSN: Walls & Floors: Forecast Trends 2023 - Neo Design Collective

