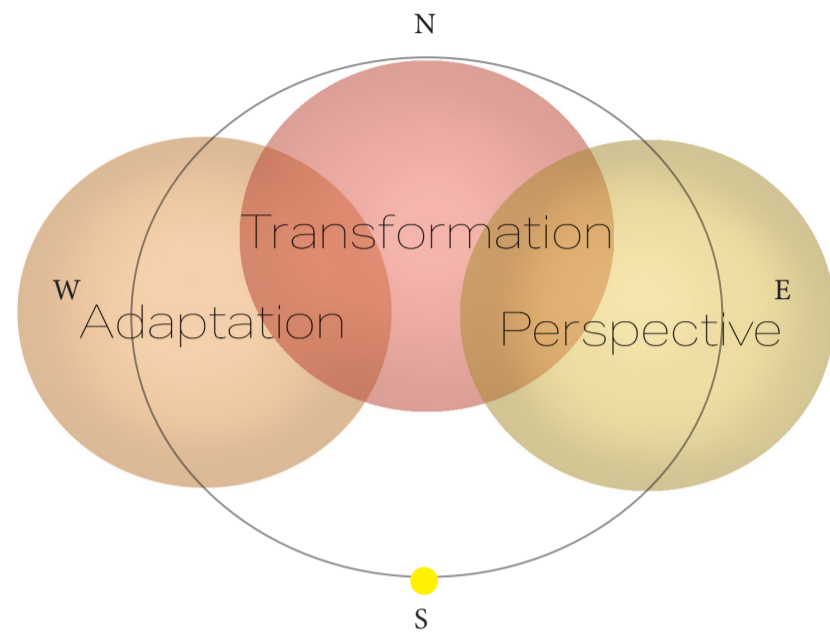


Solar Pulse

Designing for the Seasonally Affected User - Supporting a soft adaptation to seasonal change

A project designed for the Seasonally Affected User. Creating a space allowing new perspectives, adaptation of environment and providing those affected to chose their pace of change with the seasons. Using light, nature and framing to achieve a design to help those with 'Seasonal Sadness' to thrive regardless of the uncontrollable external environment



Concept lens diagram



Concept montage



The Astley Ainslie Milbank Pavilion.

Once purposed as a tuberculosis treatment facility now conceptualised as a sanctuary for those suffering with Seasonal Affective Disorder (SAD). The Building itself offers complete symmetry, its form often compared to that of a butterfly. The main concept for my design was based on the break of dawn - allowing light to penetrate directly into the building. The Pavilion is located within the Grange Conservation Grounds of Edinburgh with a direct view to Blackford Hill offering views of Edinburgh's natural landscape.

Site/Building photography and original floor plan



Seasonal lens spring to winter and visualisation using Sketchup/Enscape

The Relevance:

Seasonal Affective Disorder is a common disorder experienced by many particularly in the northern hemisphere - as this disorder is heavily associated to the lack of sunlight - Solar Pulse is designed with the prioritisation of optimising sunlight.

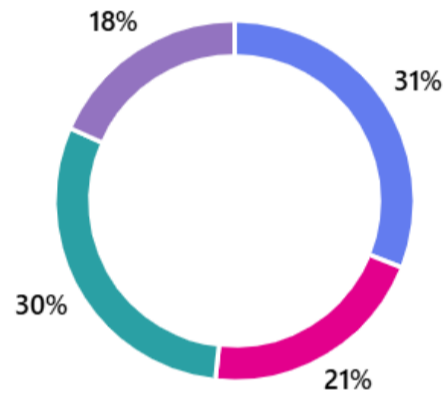
Solar Pulse allows the user to alter their perception of the seasons in correspondence to their mood at that given time.

Seasonal Affective Disorder induces symptoms of depression, energy loss, lack of motivation, concentration, social withdrawal and self isolation. To directly combat these symptoms it was significant to incorporate warm colours and tonal variation to respond to the users needs of comfort and relaxation particularly during the colder and darker months.

Research:

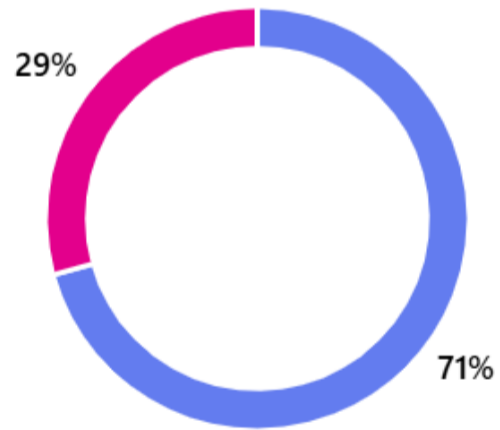
Data collected from a survey conducted on 41 participants exposed the relevance and significance of Seasonal Affective Disorder, the impact it has on those affected and the need for a space dedicated to support those through the change of seasons

- Motivation to work 27
- Enthusiasm for social engagement 18
- Energy for exercise/movement 26
- Interest in hobbies and/or creative pursuits 16



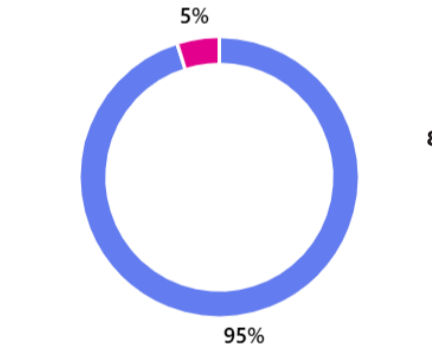
Lifestyle factors affected the most by the change in seasons

- Yes 29
- No 12

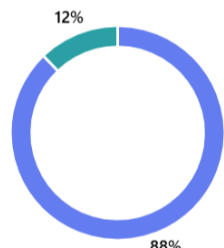


People who have or know someone with SAD

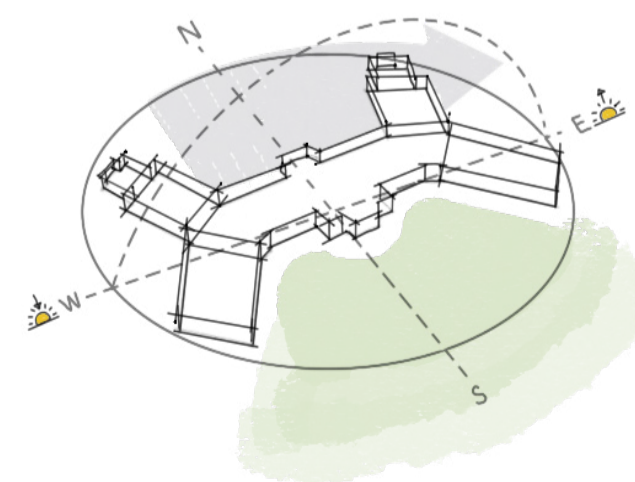
- Yes 39
- No 2



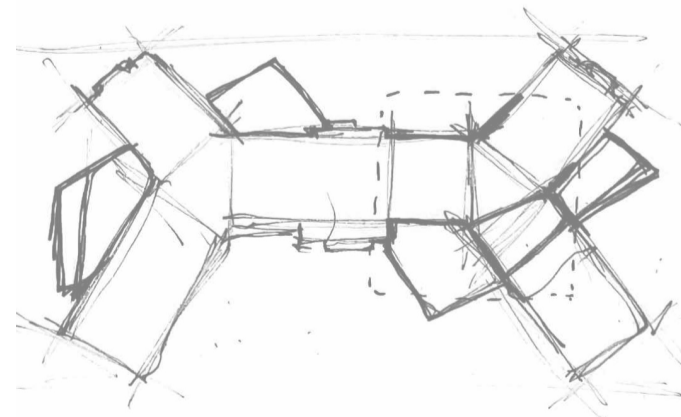
39 out of 41 people would like a space dedicated to aid those with SAD



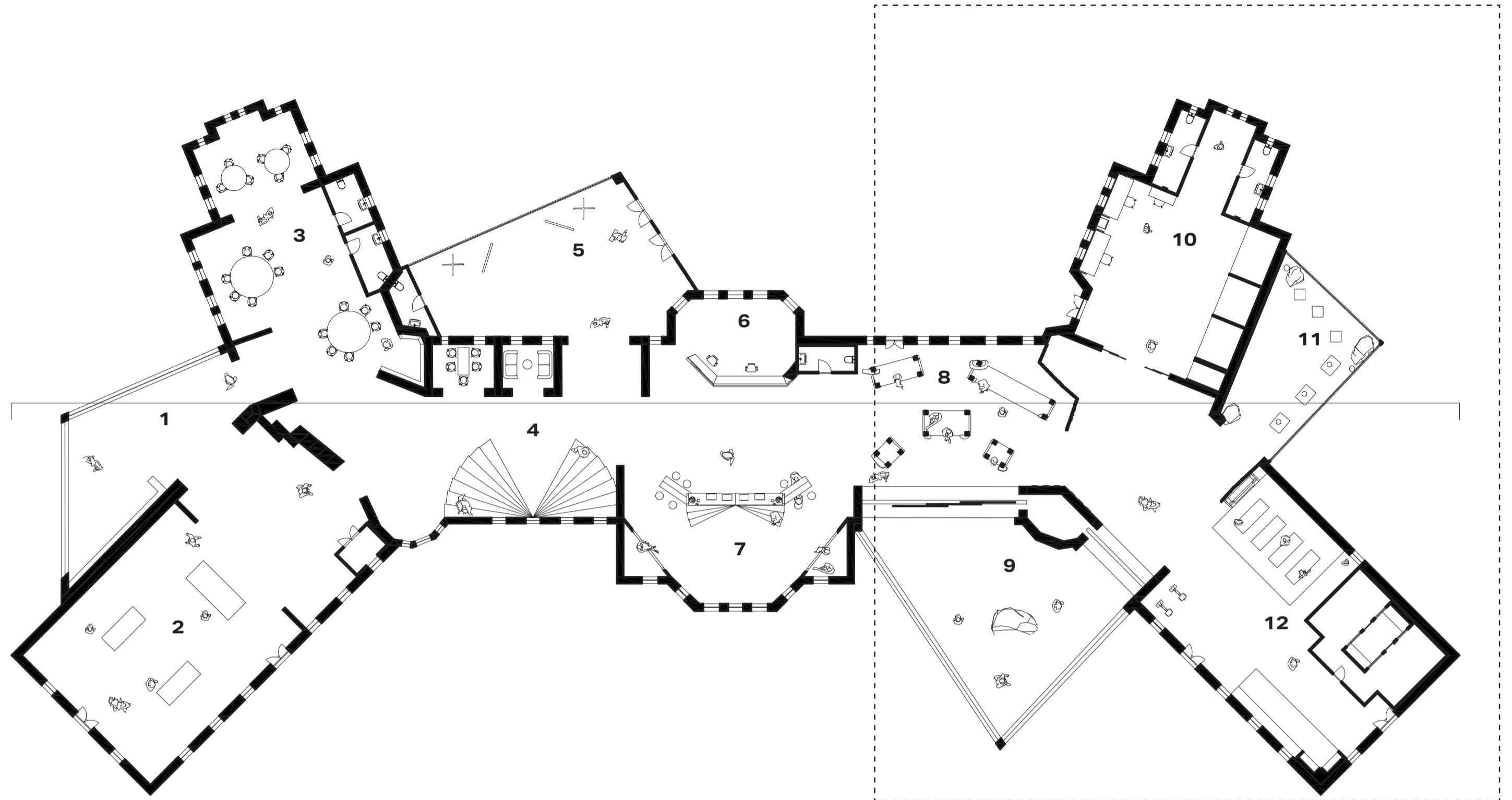
88% stated that light helps to improve their mood



Sunlight Diagram using Procreate and Photoshop



Hand-drawn Scheme illustration - Break of Dawn



1:200 Floor Plan of Solar Pulse

KEY:

1. Storage (workshop resources)
2. Creative workshop space
3. Social productivity space
4. Social seating, booths and steps
5. Entrance, exhibition, bathroom
6. Reception/Information desk
7. Food and drink bar, reading nooks
8. Frame seating, bathroom
9. Sun absorption space, stone seat
10. Quiet productivity space, relaxation nooks
11. Meditation/Mindful space, floor seating
12. Movement space, open yoga studio, sauna, changing rooms and exercise equipment storage

Major Space (Area of focus)

Legend:

- 1. Dark Wood Veneer
- 2. Douglas Fir
- 3. Oak veneered

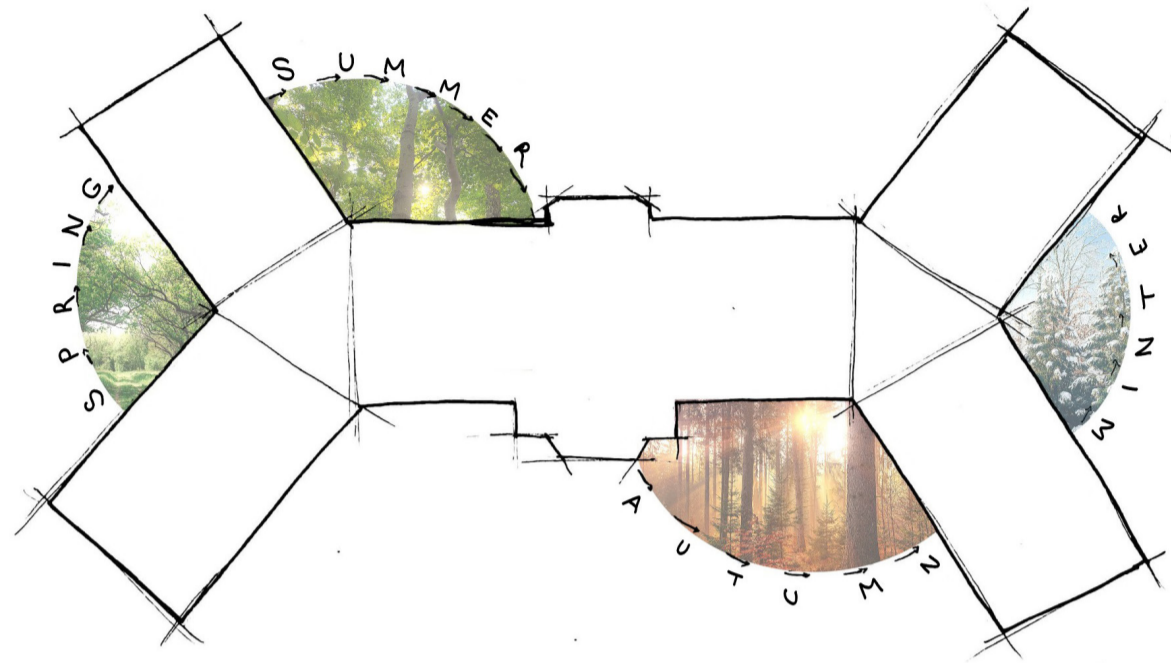


Architectures main materiality and colour palette of the interior

The Significance:

The general lifestyle of the UK population does not consider just how detrimental seasonal change can be on the human condition. By creating a space offering a sense of control back to those who feel at mercy of the cold and darkness during the winter season it allows opportunity for them to thrive despite the external environment working against them.

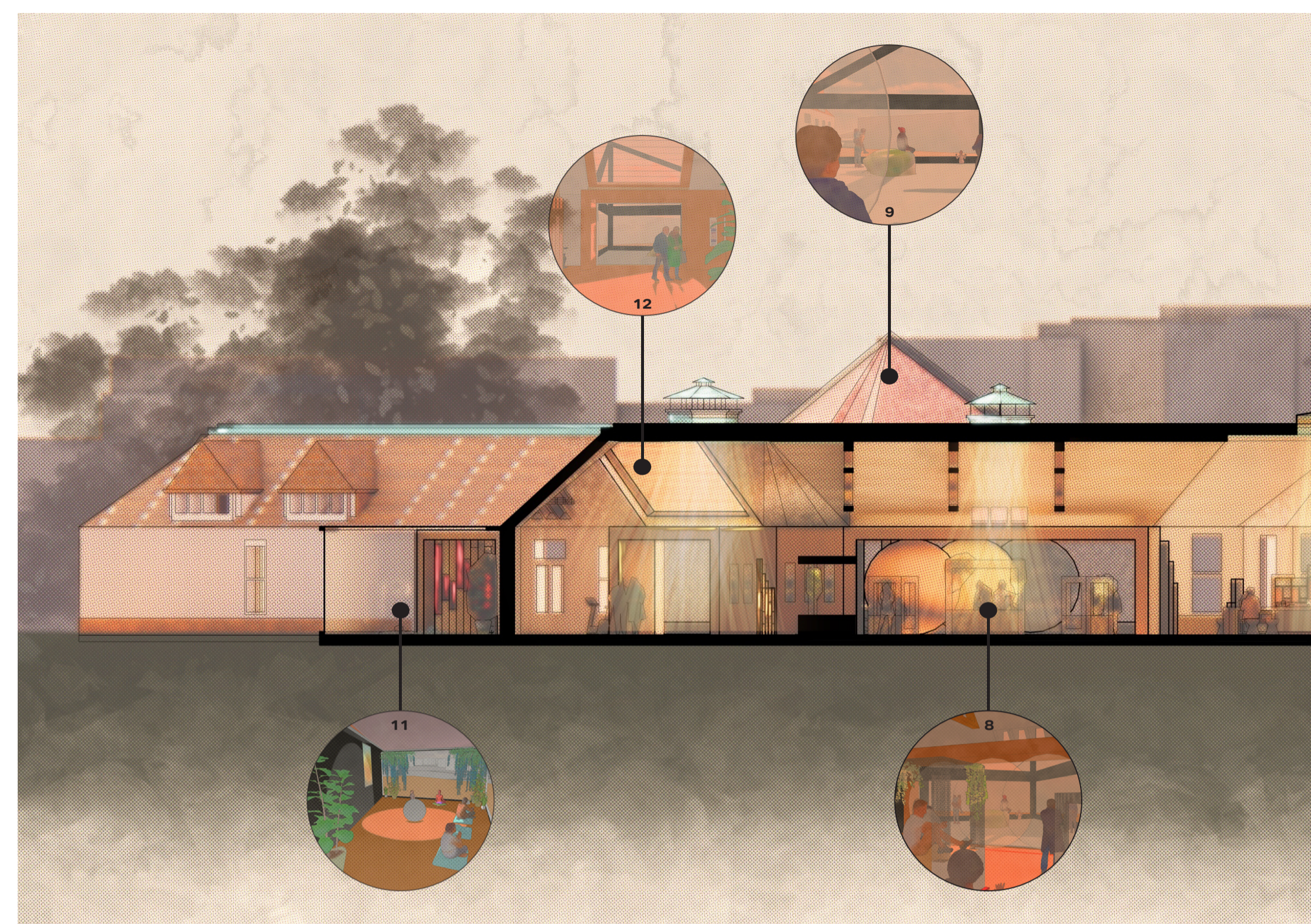
Within Solar Pulse are spaces dedicated to the lifestyle factors found to be the most negatively impacted by seasonal change. These consist of; social life, productivity, exercise/movement and rest/relaxation. By offering a space with solutions to improving these lifestyle factors in close proximity to one another - it allows the user to prioritise these activities with minimal effort.



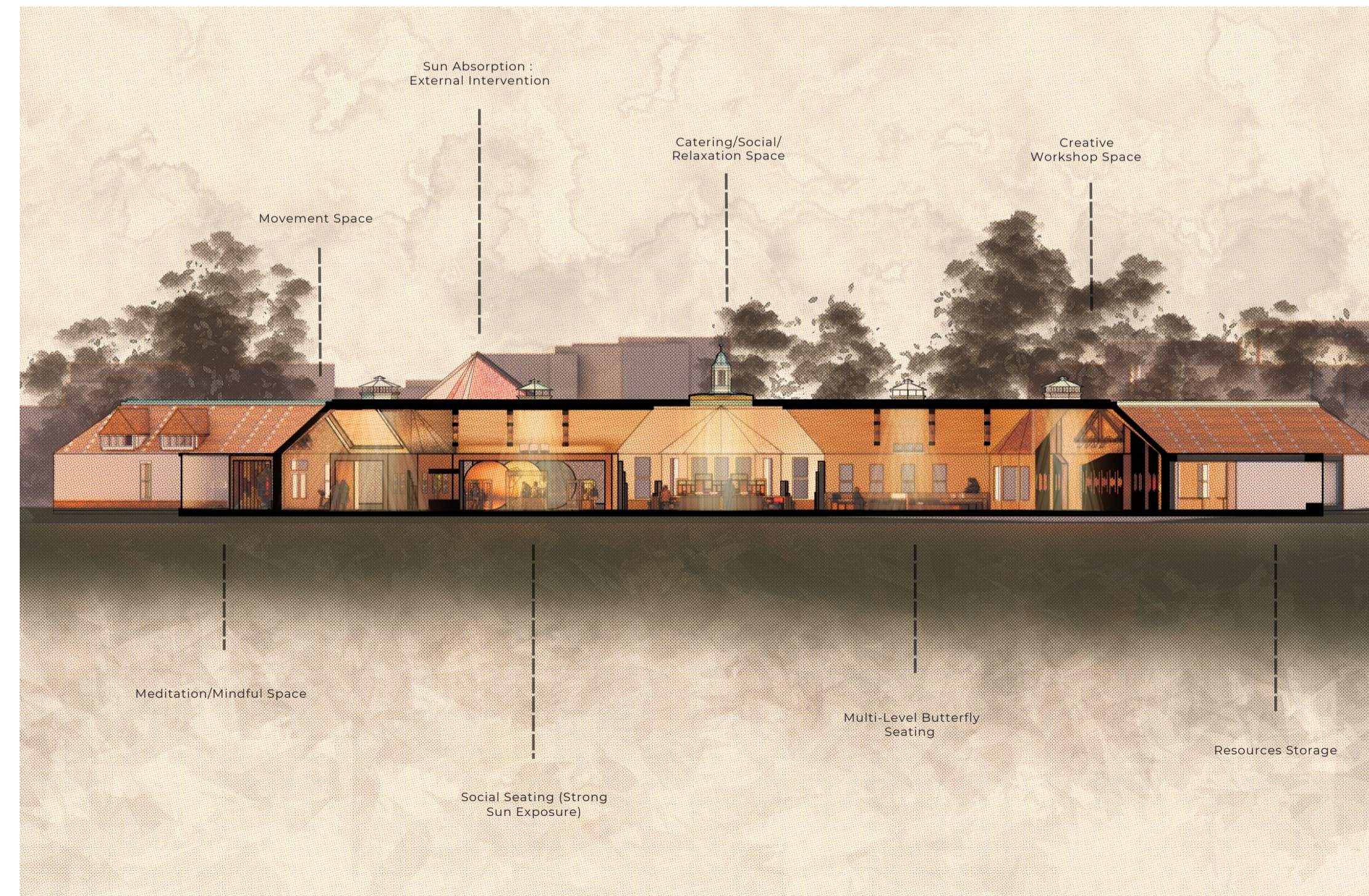
Hand-drawn concept sketch, with edits using Procreate



Visualisations of the Sun Absorption Space created using Sketchup/Enscape



Magnified Long Section - AutoCAD 1:100, Sketchup/Enscape, Procreate, Adobe Photoshop



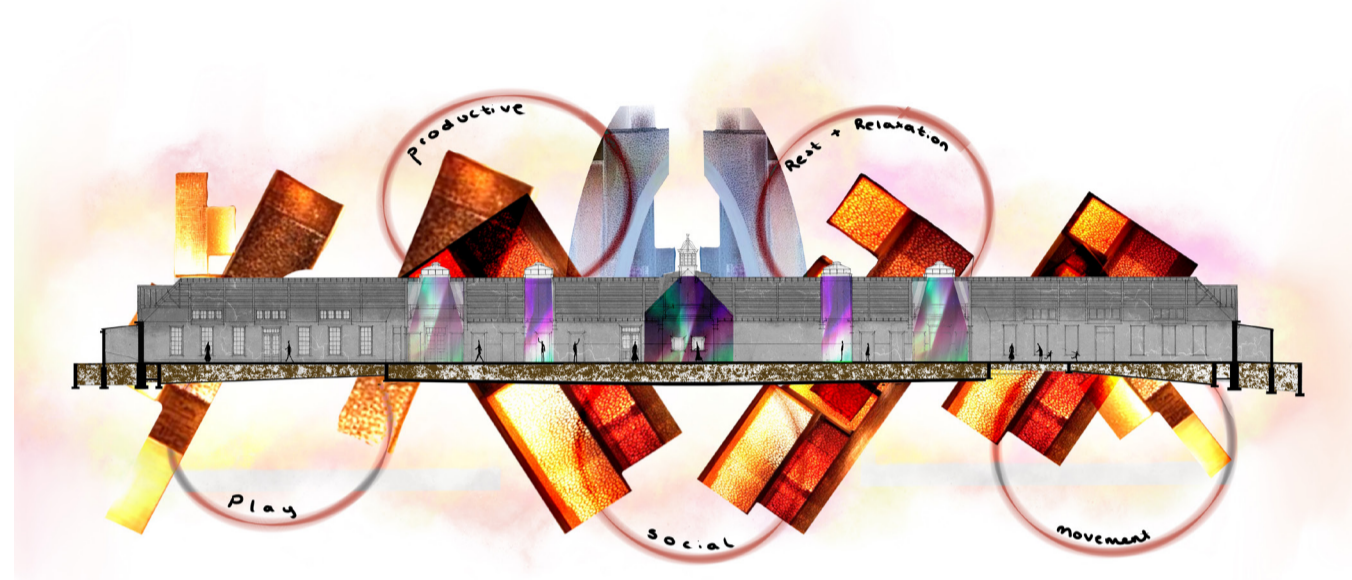
Long Section - AutoCAD 1:200, Sketchup/Enscape, Procreate

The Intention:

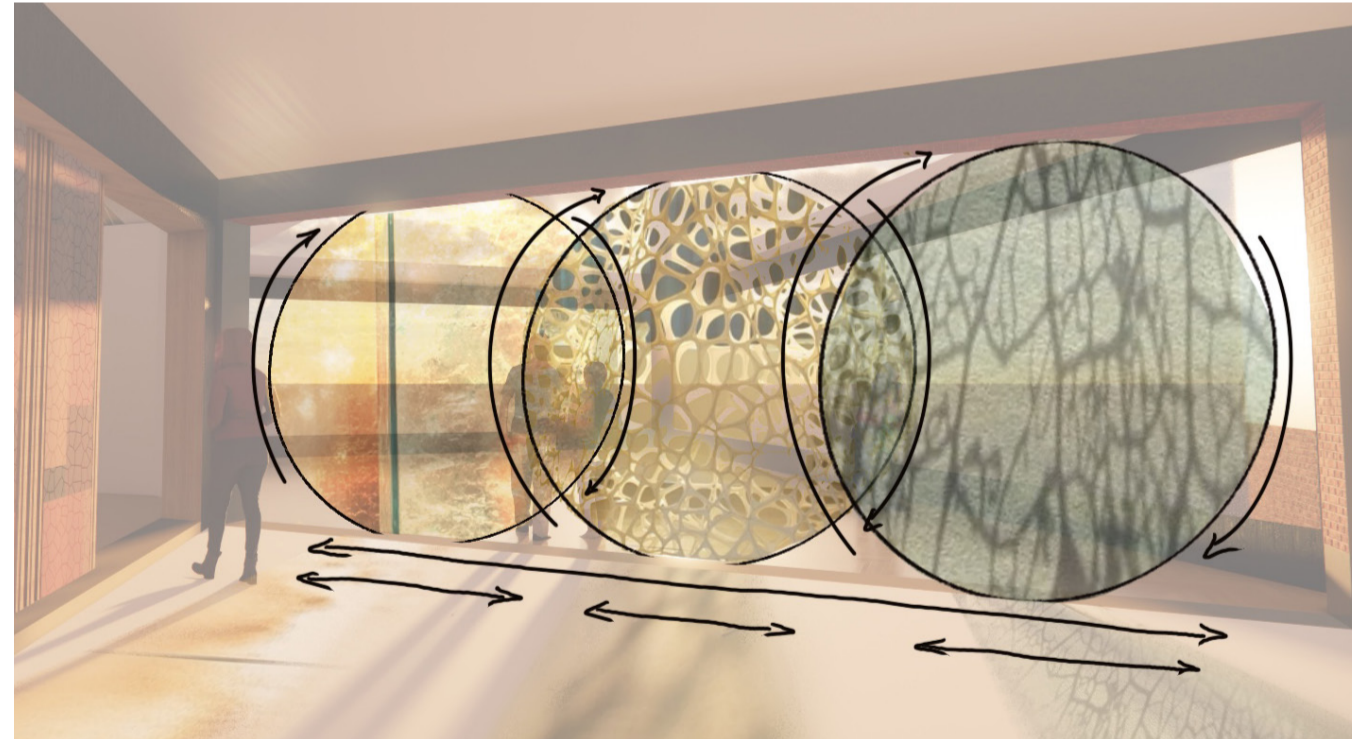
Designing a building with the motivation of creating a living space allows the user to alter their environment to their given needs at a particular time during the year.

Seasonal Affective Disorder robs people of the beauty they could embrace during seasonal change. The intention behind the framed lens' within the interior of Solar Pulse is to reframe how people view the seasons.

Each lens offers a different effect allowing the user to experiment and explore different ways to alter their environment. Offering the ability to change their perspectives of the change in seasons to view the beauty within change.



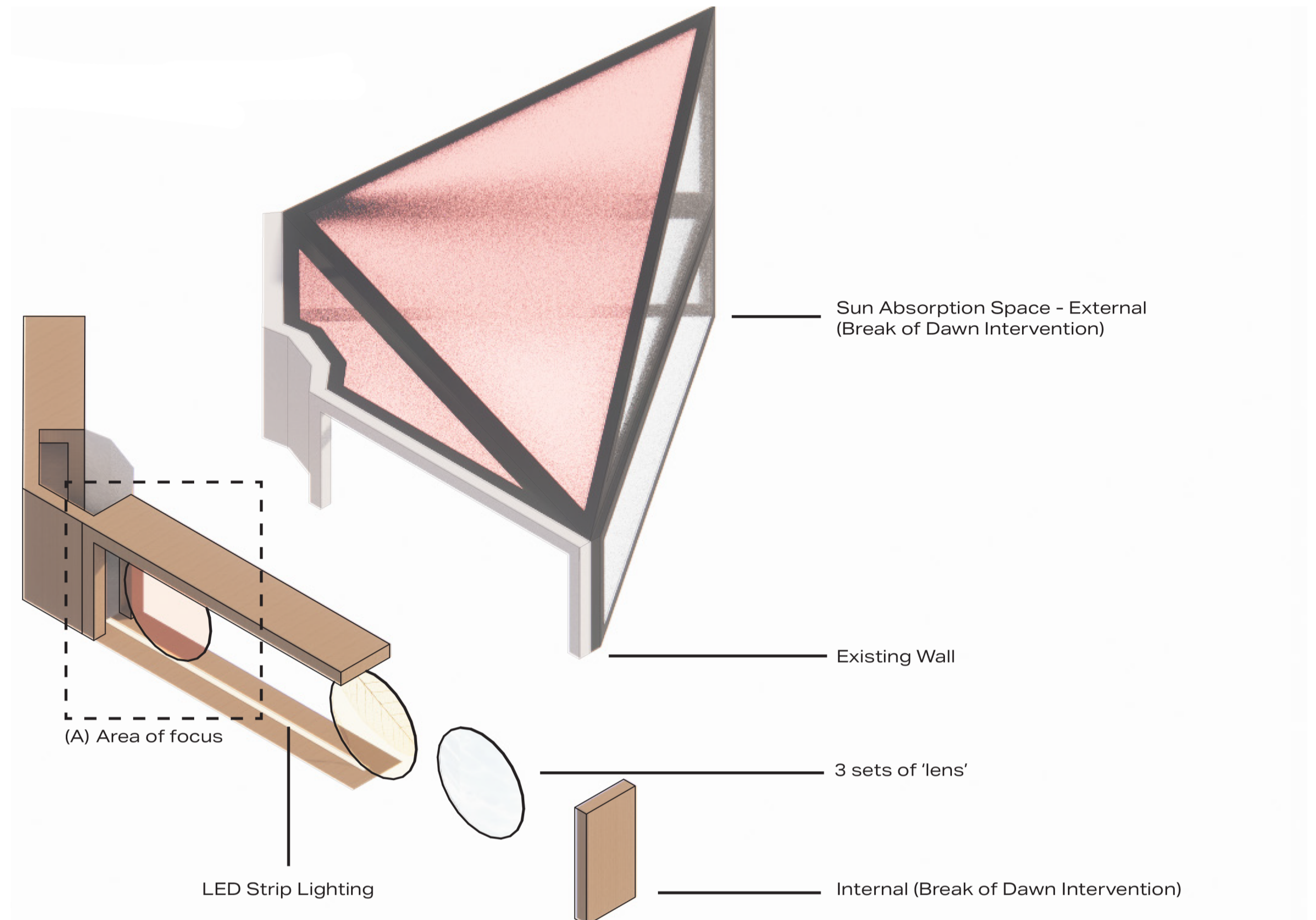
Concept/zoning diagram using Photoshop and Procreate



Lens visualisation using Sketchup/Enscape and Procreate



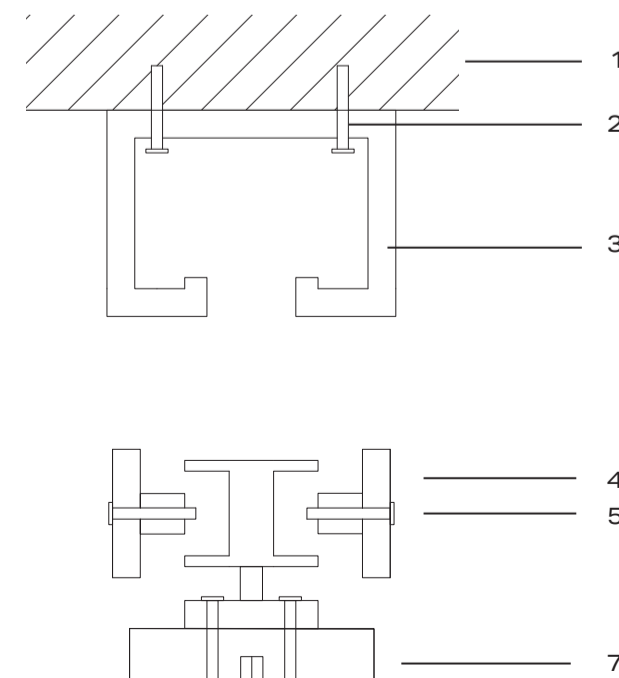
Lens visualisation using Sketchup/Enscape



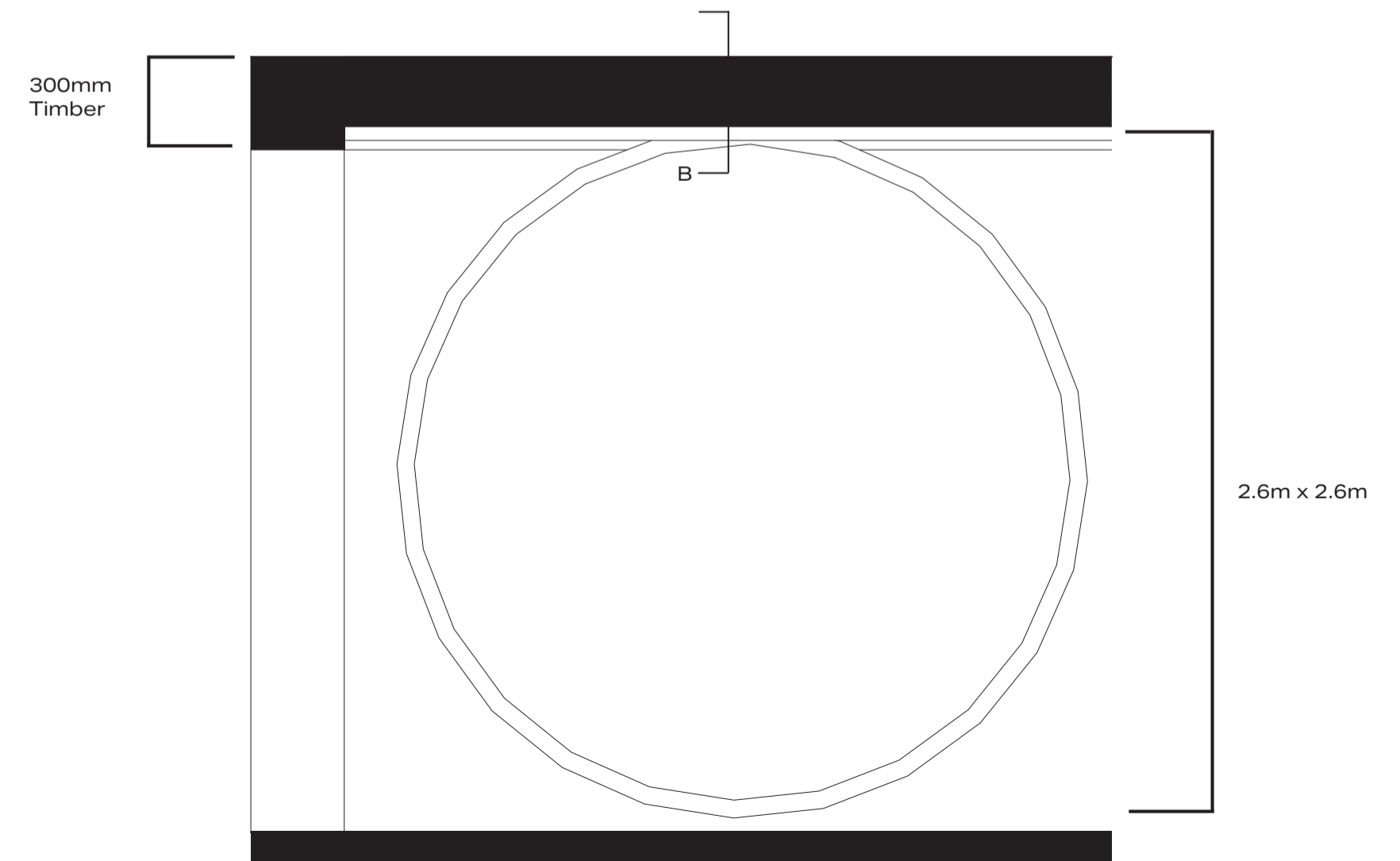
Exploded isometric of the lens detail and the Sun Absorption Intervention

Key:

1. 300mm Timber
2. 3.5mm x 15mm Countersunk Woodscrew
3. Aluminium Soffit fixing x3 pcs
4. Stainless Steel Rollers and Bearings
5. 3.5mm x 15mm multipurpose Countersunk Stainless Steel Screw
6. Polycarbonate Framing x 3 pcs
7. Polycarbonate sheet x6pcs



1:1 exploded view of the lens joint connection to the frame



1:50 view of the lens within the framing of the Sun Absorption Space

Spatial Response:

Using human sensory and ephemeral design principles to signify the sense of introspection back to the user by encouraging them to get back in touch with themselves as this is often a consequence inflicted by seasonal affective disorder/seasonal sadness.



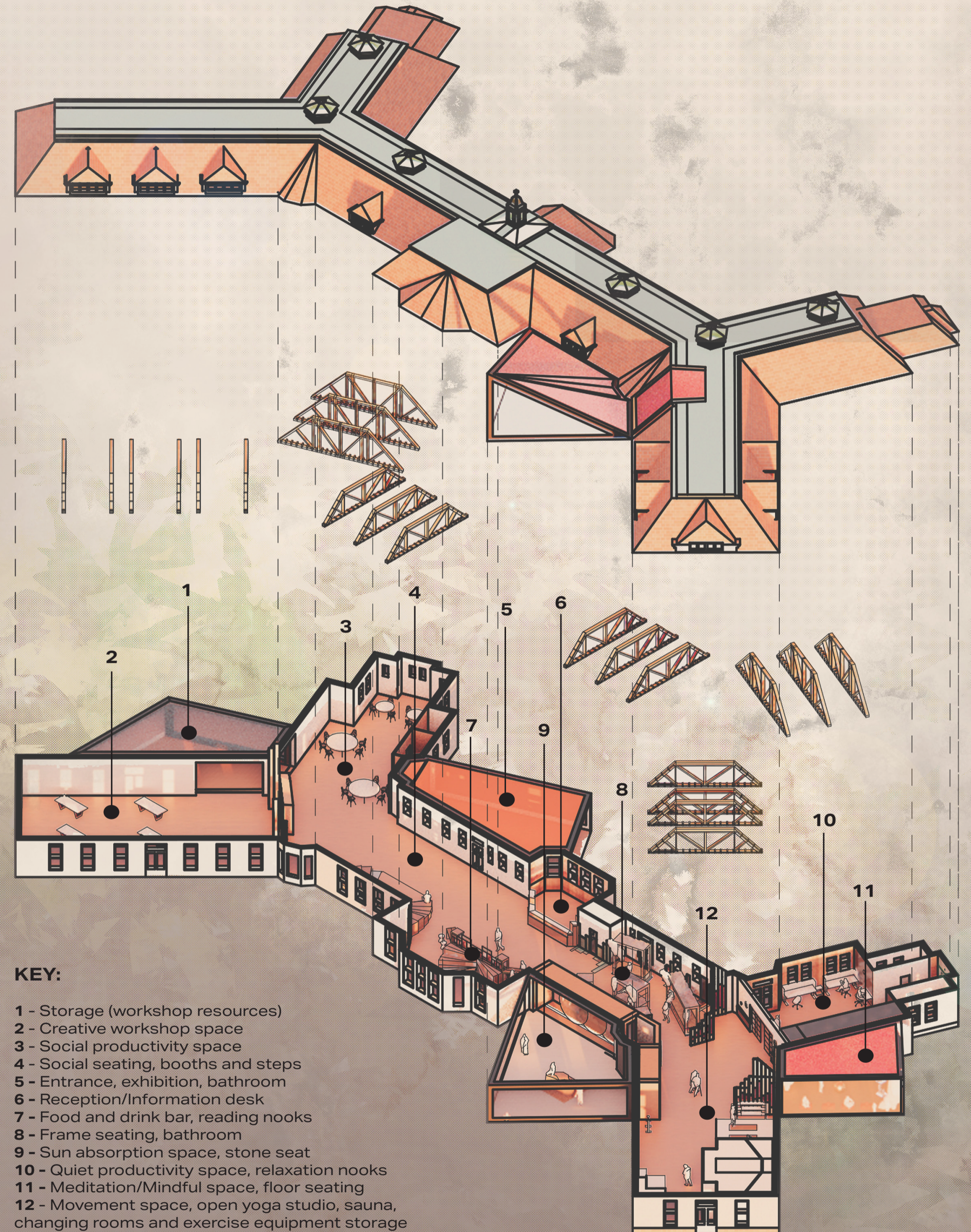
Sketchup/Enscape visualisations of both the interior and exterior of Solar Pulse



Sectional model of the Major Space



Interior model photography



KEY:

- 1 - Storage (workshop resources)
- 2 - Creative workshop space
- 3 - Social productivity space
- 4 - Social seating, booths and steps
- 5 - Entrance, exhibition, bathroom
- 6 - Reception/Information desk
- 7 - Food and drink bar, reading nooks
- 8 - Frame seating, bathroom
- 9 - Sun absorption space, stone seat
- 10 - Quiet productivity space, relaxation nooks
- 11 - Meditation/Mindful space, floor seating
- 12 - Movement space, open yoga studio, sauna, changing rooms and exercise equipment storage