

# NASA SpaceApps Challenge 2017



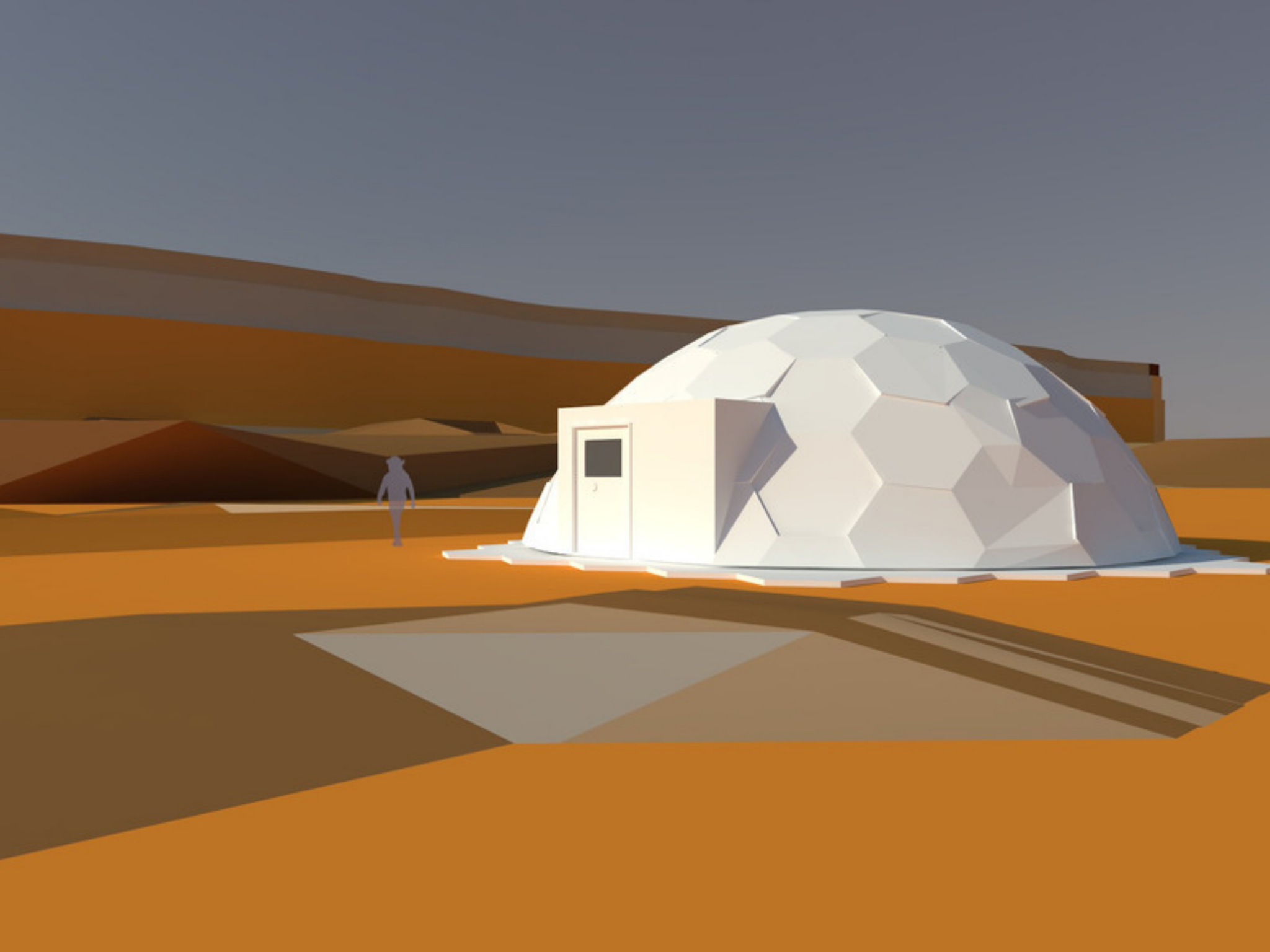
**INHABITANTS**





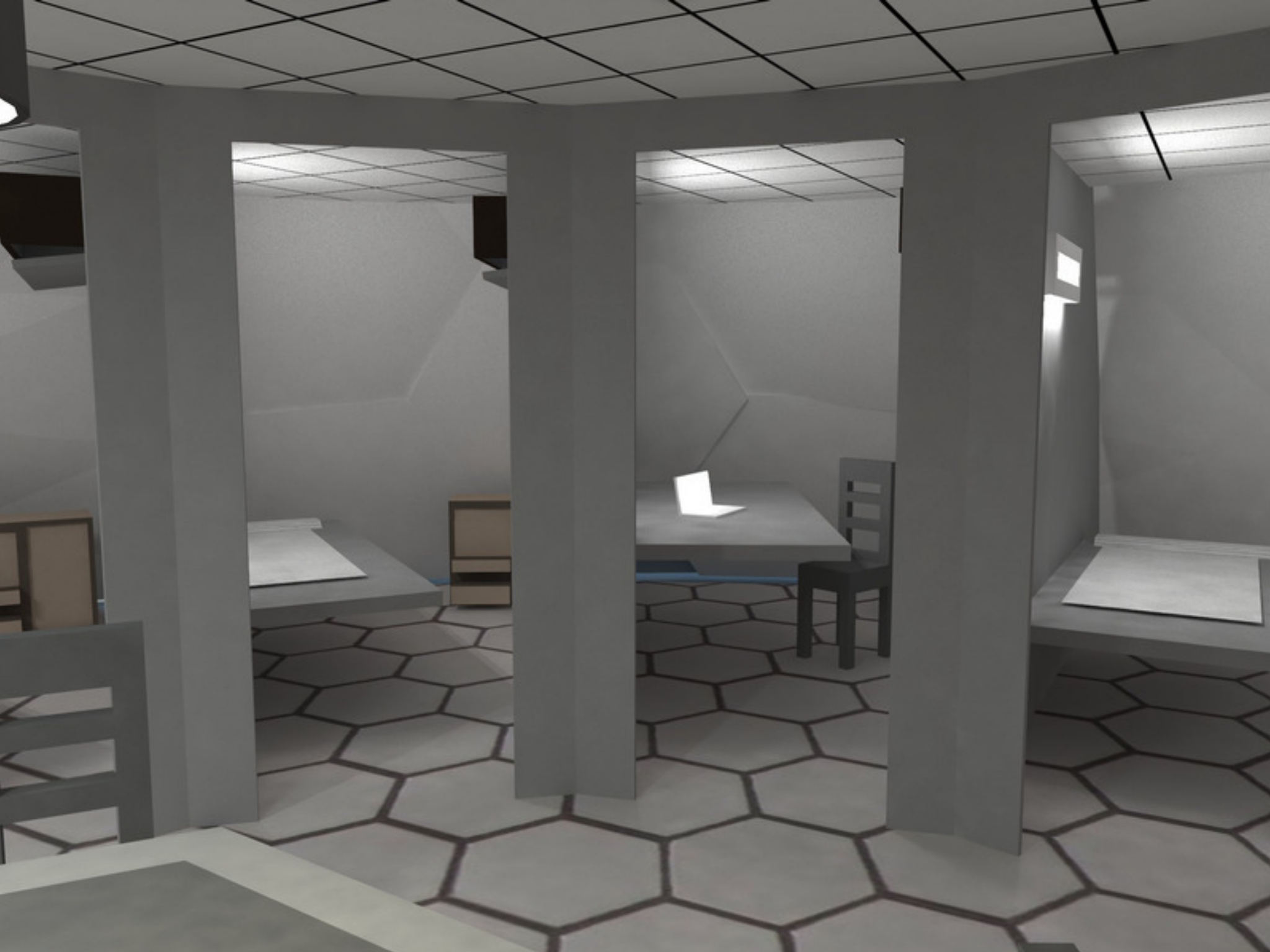
# How to survive on Mars?

Conditions	Earth	Mars
Surface gravity (m/s <sup>2</sup> )	9.80	3.71
Average temperature (K)	287	218
Radiation protection	atmosphere (electromagnetic shield)	none
Main atmospheric composition	N <sub>2</sub>	CO <sub>2</sub>

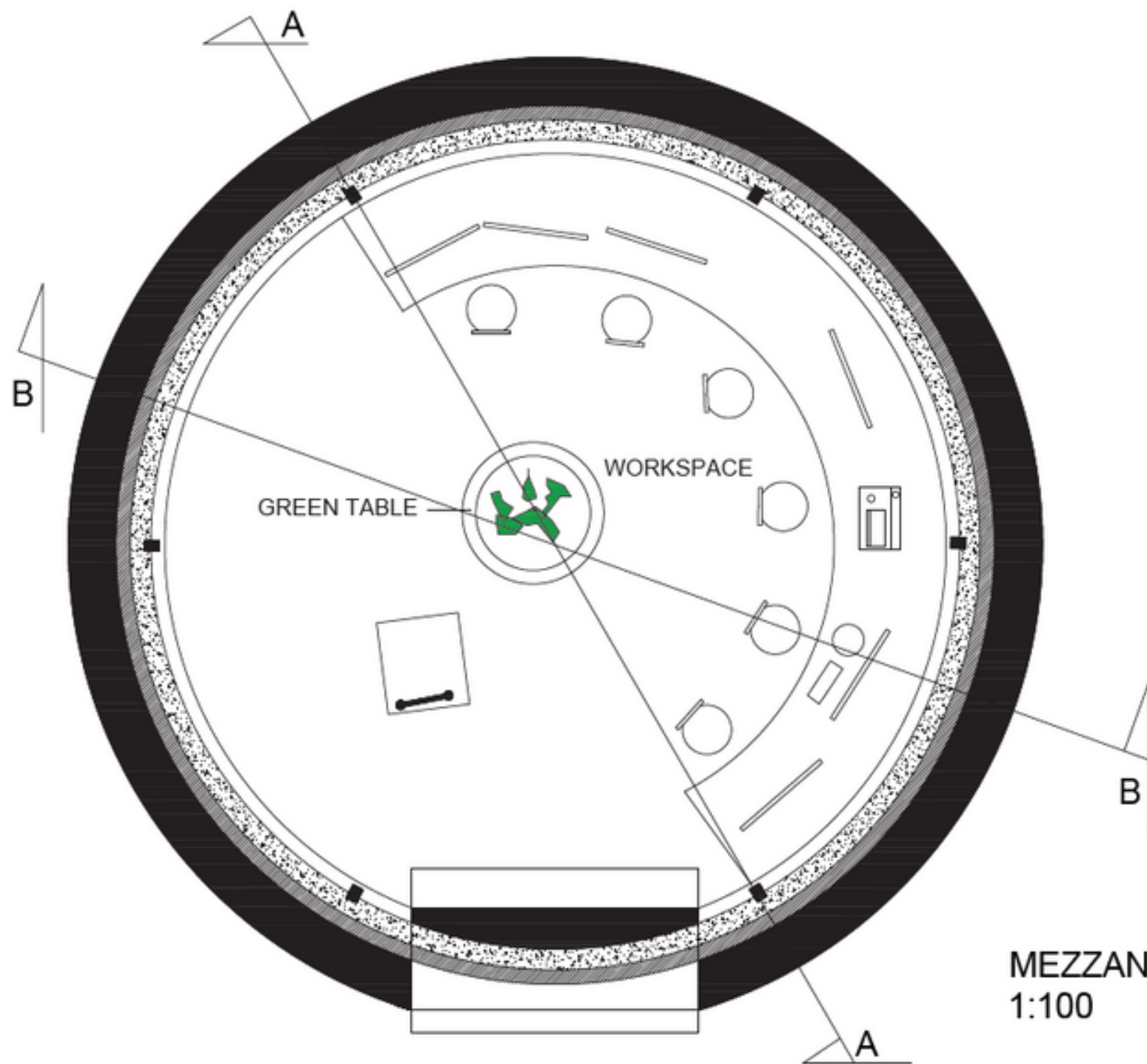






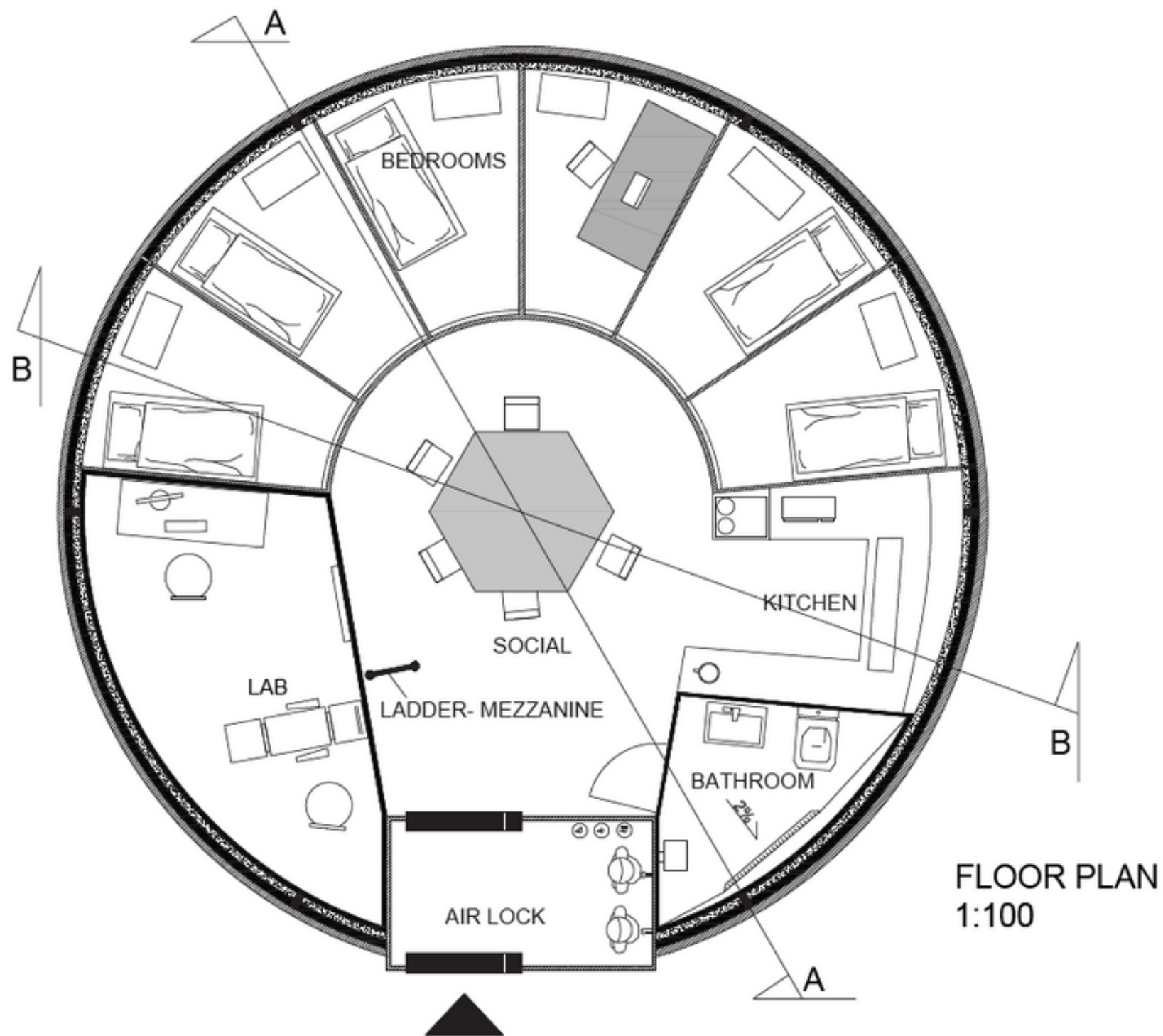


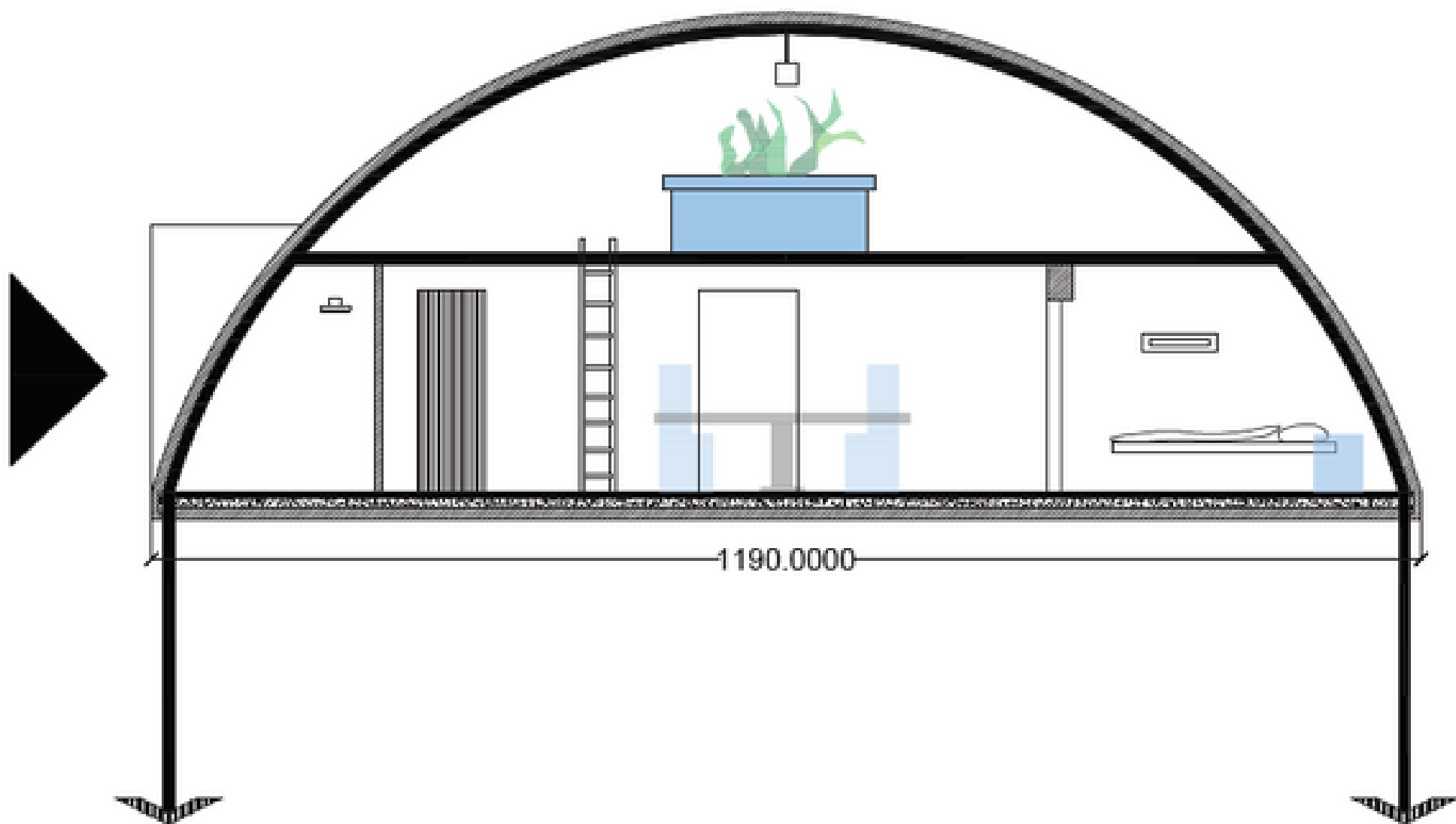


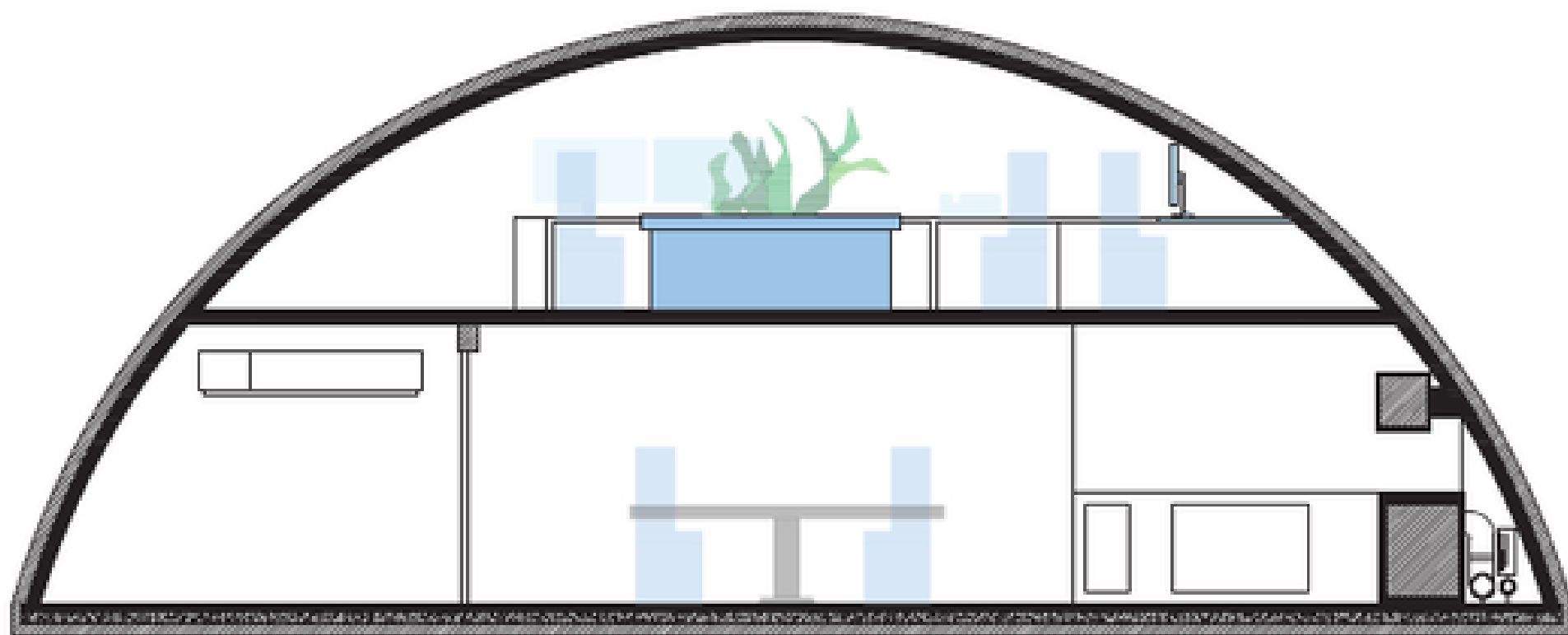


MEZZANINE PLAN  
1:100



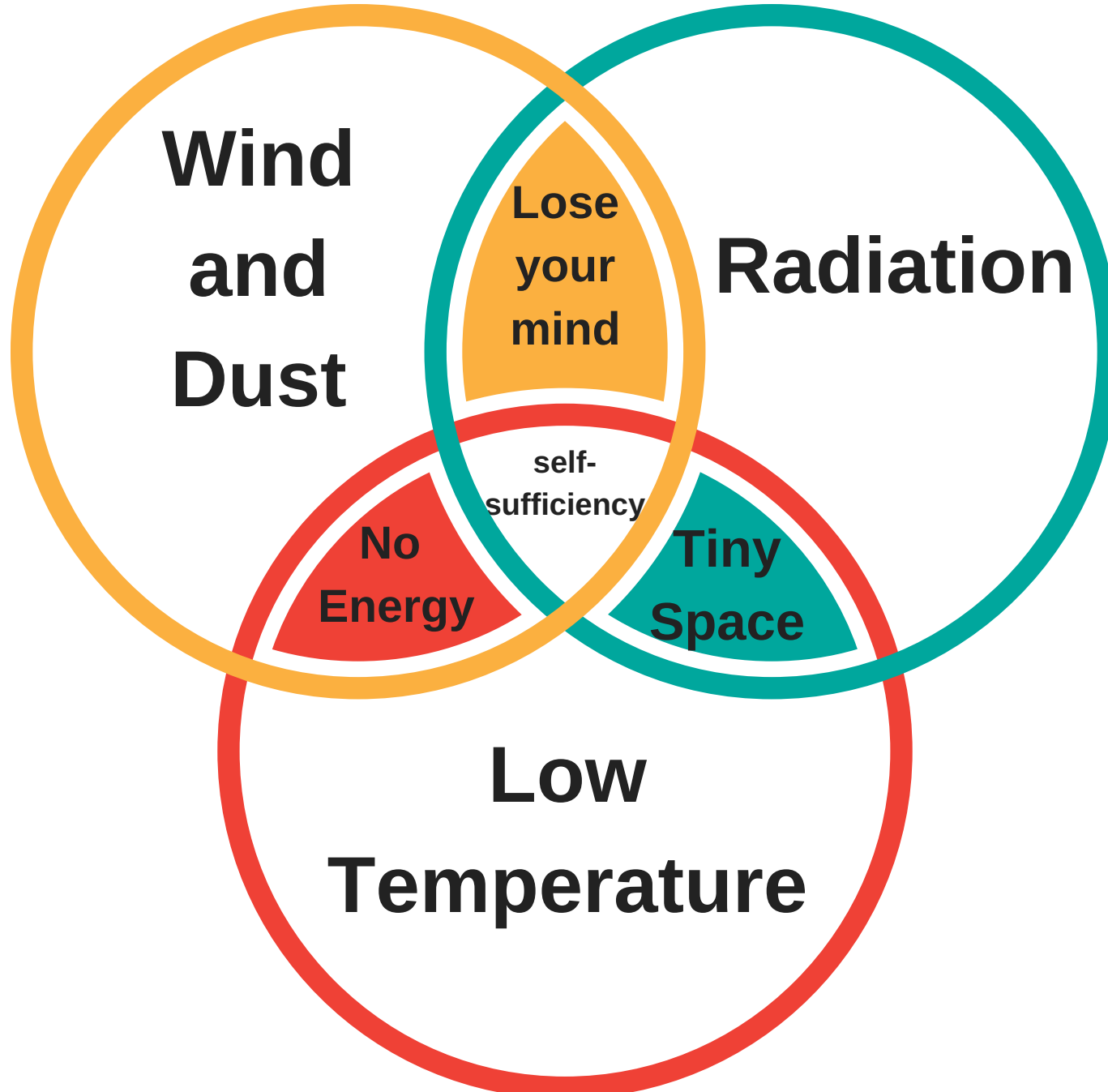


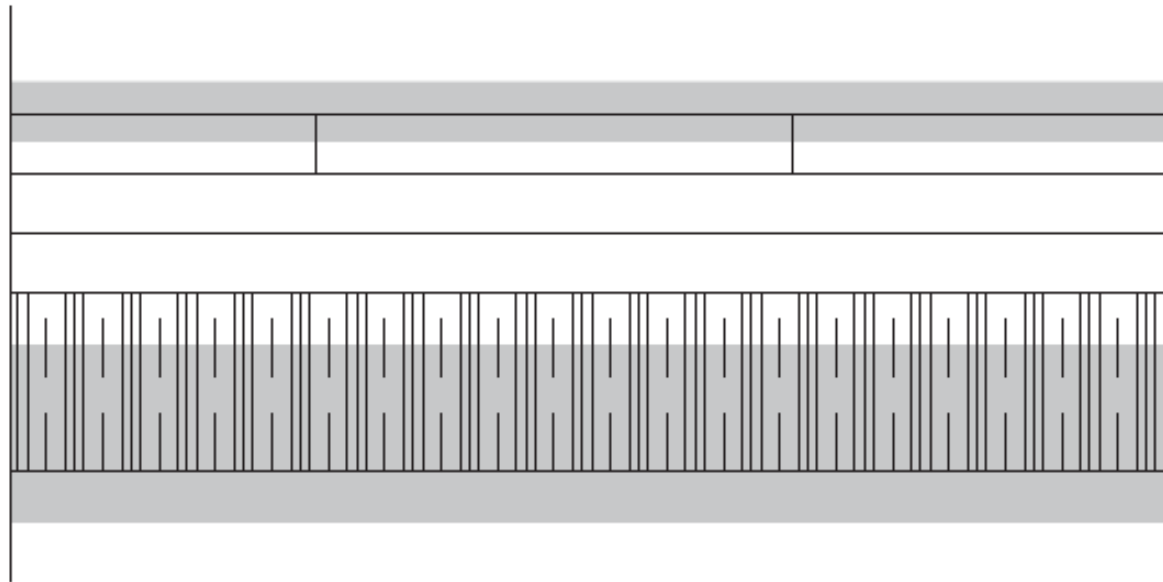






# What can kill me?





FROM THE TOP

- |   |      |
|---|------|
| 1. SHIELD WITH NANOTUBES DAMPERS                                    | 12cm |
| -TiO <sub>2</sub> + Polymers  |      |
| 2. AEROGEL  | 10cm |
| 3. AIRTIGHT FOIL  | 1cm  |
| 4. RADIATION STOPPER  | 10cm |
| -Boron Nitride nanotubes powder in 1000cm <sup>3</sup> plastic bags |      |
| 5. STRUCTURE+RADIATION STOPPER                                      | 10cm |
| 6. STRUCTURE MESH   | 1cm  |
| 7. AIRTIGHT FOIL  | 1cm  |

Consider planet rotation before placing, and that star from given solar system may heat one side of the Habitat more then the other


# Innovation and New Technologies




Mind  
Care



Aerogel  
layer



Graphene  
super-  
capacitors

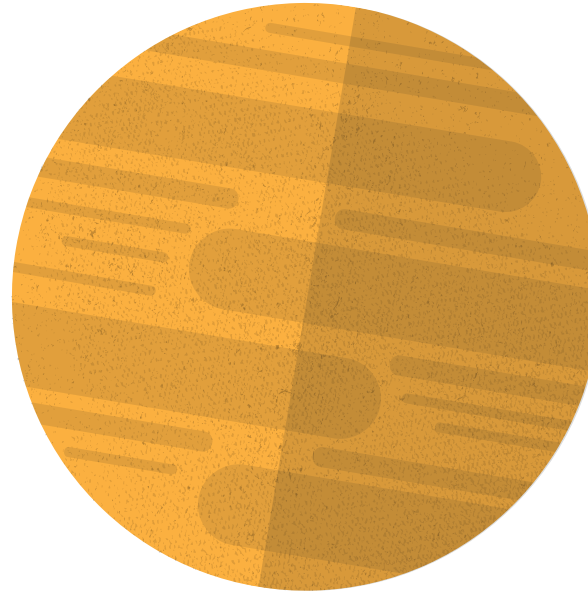


Titanium  
dioxide on  
perovskite



# What's More?

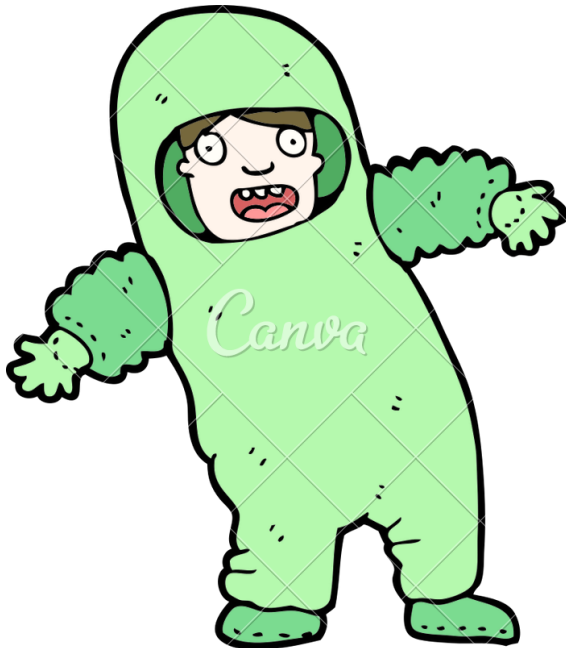
Mars



SOON



Us



# THANK YOU!

Have  Fun  
Good  Luck

**The  
Inhabitants**