

MARS HABITATION: DESIGN FOR EXTREME CONDITION

Thesis Question:

1. How can architecture establish a new identity of “Universal Home” on another planet, where environment is too hostile to human life?
2. What are the plausible design solutions that can be employed over time progression using available resources and technologies?

Thesis Statement:

My goal is to design habitats for extreme conditions, where human beings will not just survive, but in fact, will thrive!

This design is highly conceptual and at the same time highly technical. My intension was to merge these two opposite aspects in a harmonic balance. I have divided the whole process into five different phases. It starts with a very compact living pod for four people and ends with flexible habitat for larger community. In these steps, the construction process guided my design. The first phase is constructed on Earth and the last one is completely in-situ construction on Mars using the 3D printed Martian concrete. The in-between phases show that how a mobile habitat expands and transforms into a permanent one.