

Envisioning the Moon Village – A Space Architectural Approach



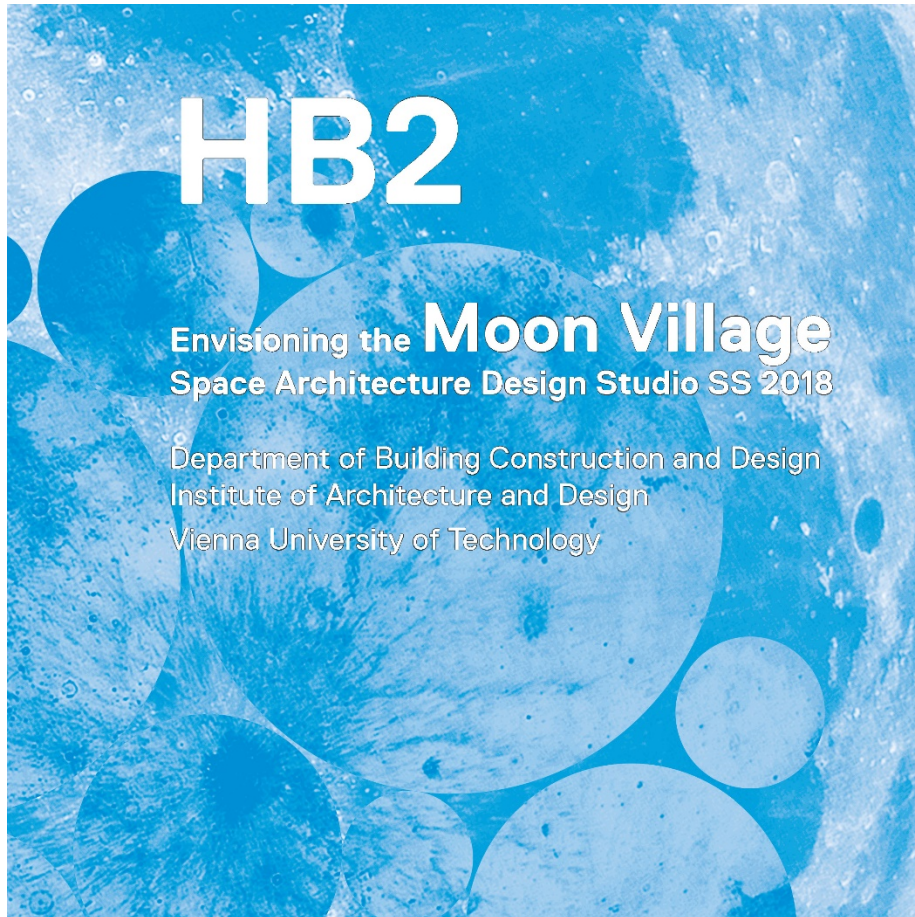
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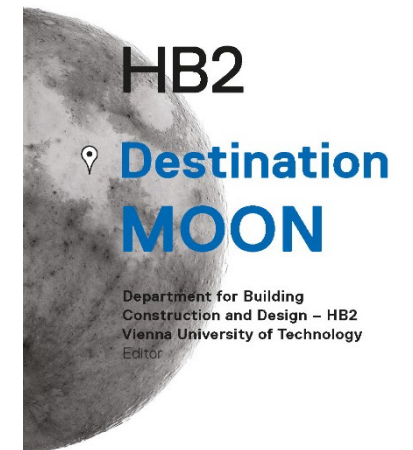
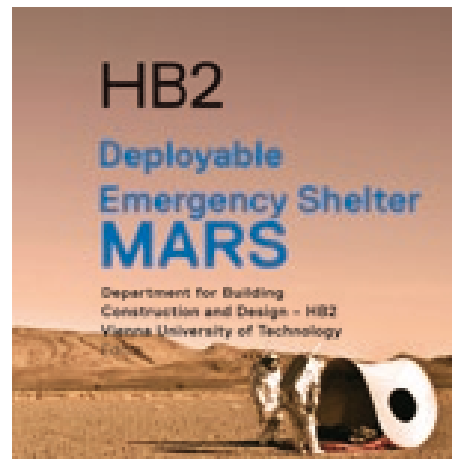
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Regular **Space Architecture Program** @ TU Vienna
Module Emerging Fields in Architecture

Publications:

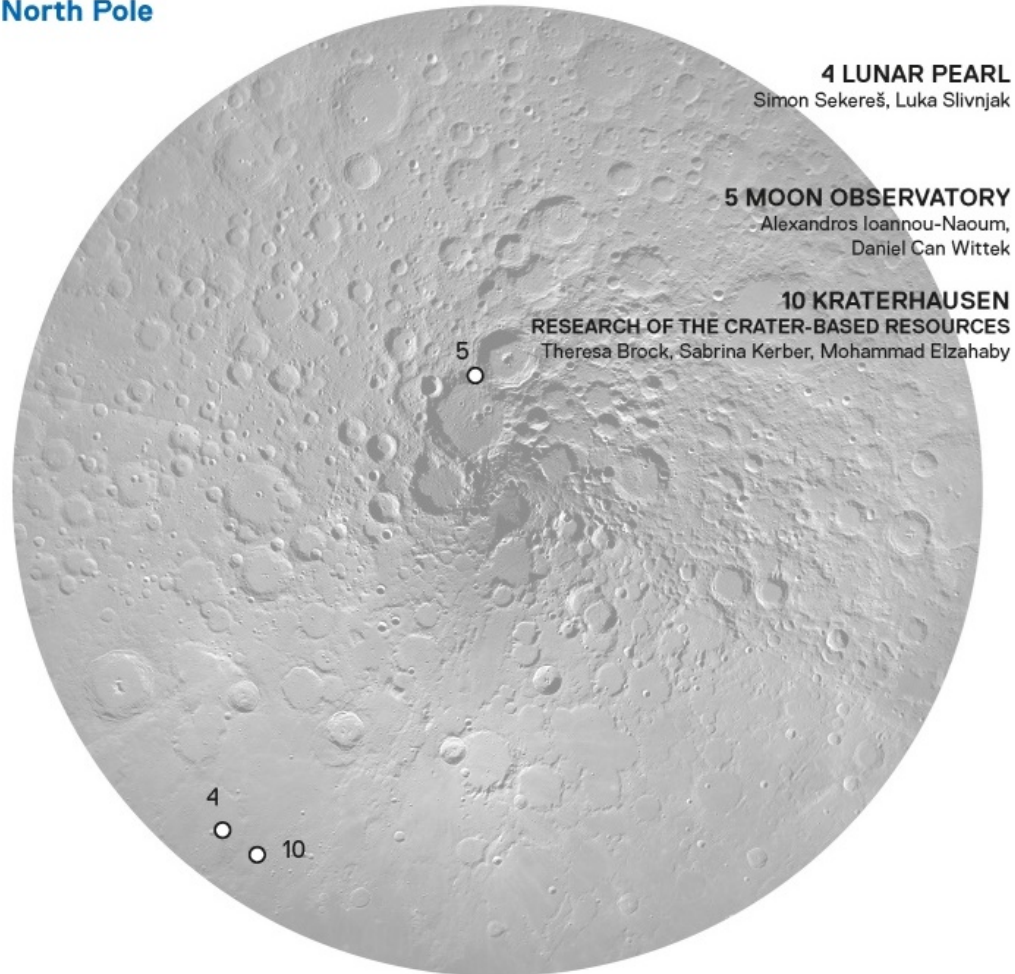
https://issuu.com/hochbau2/docs/hb2_moonvillage



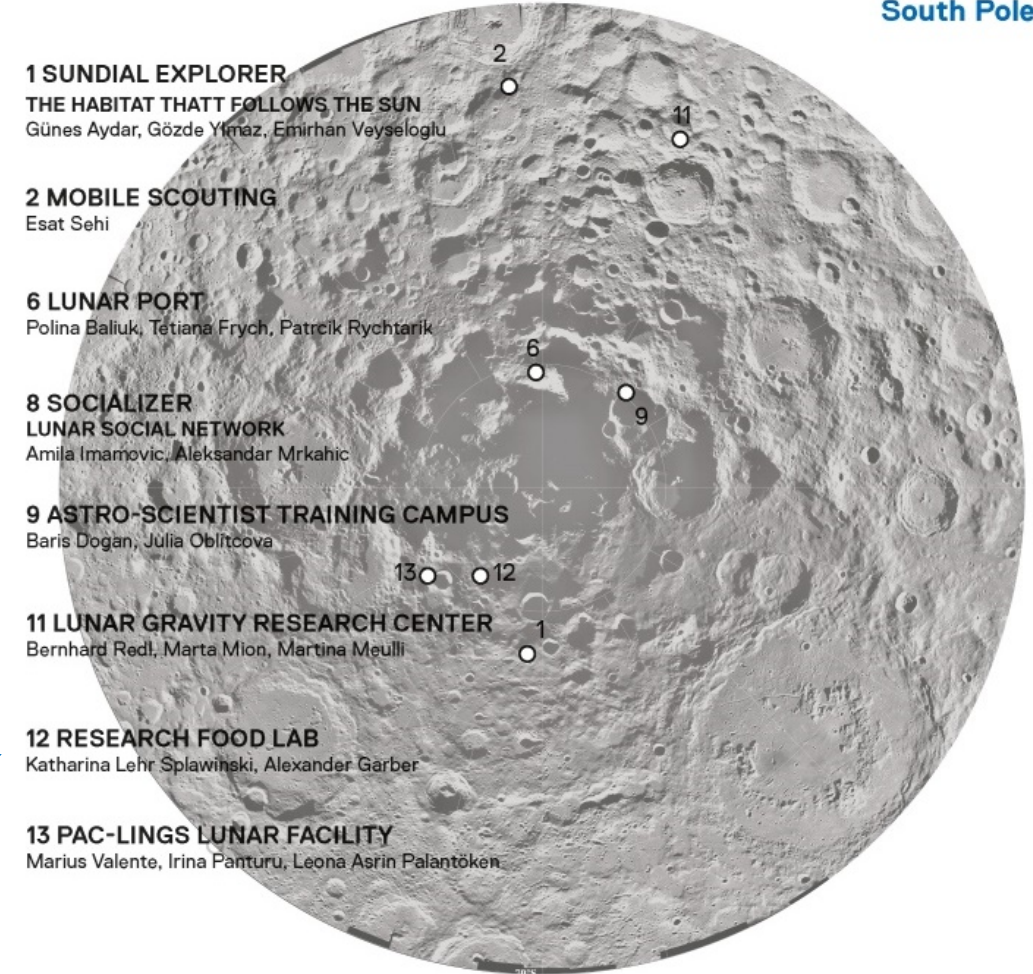
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How do we - and how do the young people want to live in the future ?
The Moon Village idea – a collaborative test bed for innovation

North Pole

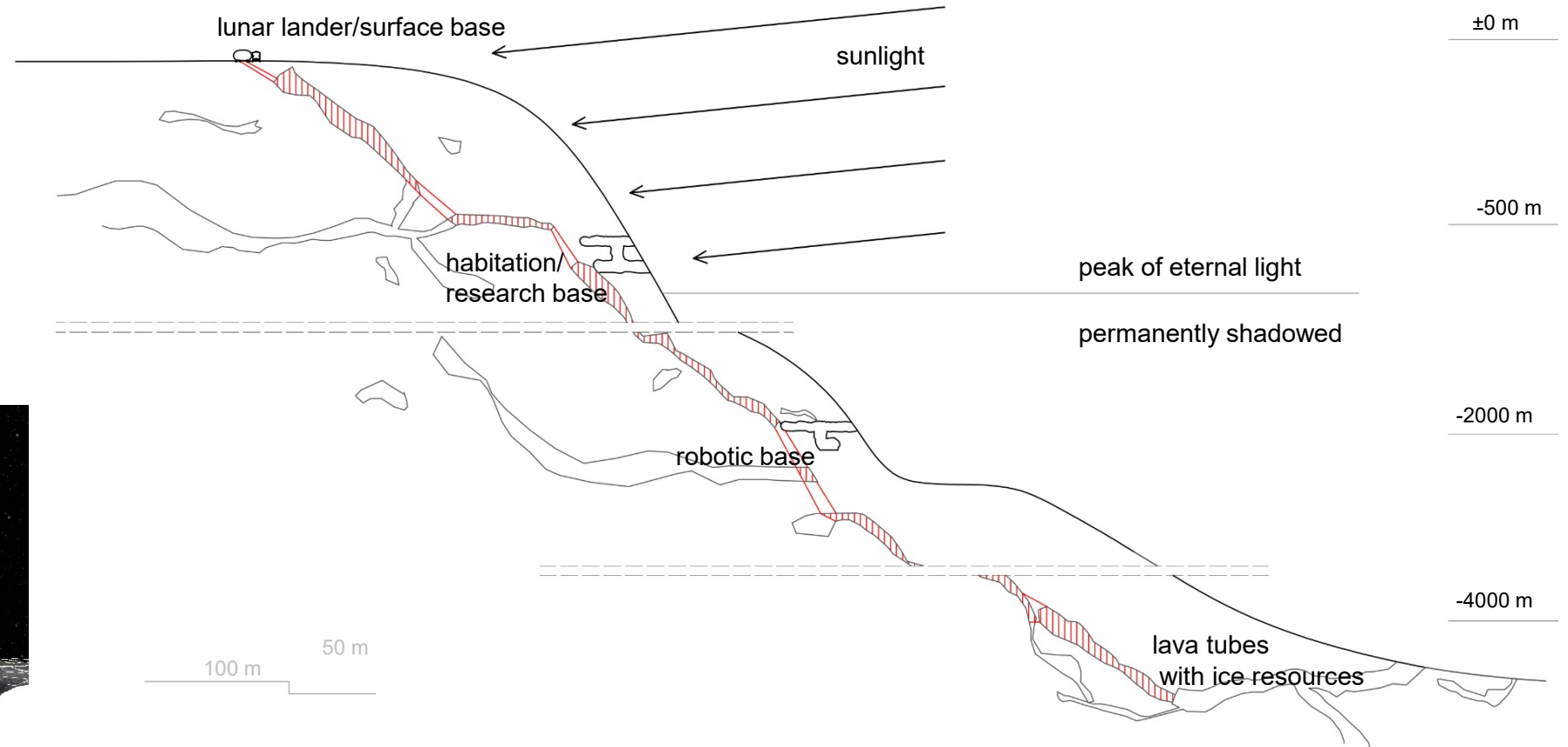
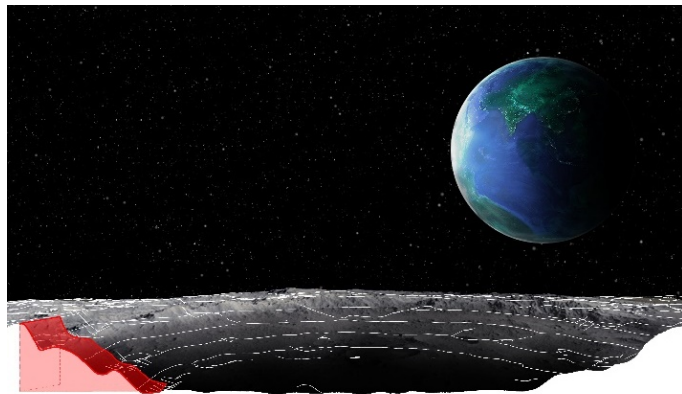


South Pole



Crater research facility: KRATERHAUSEN

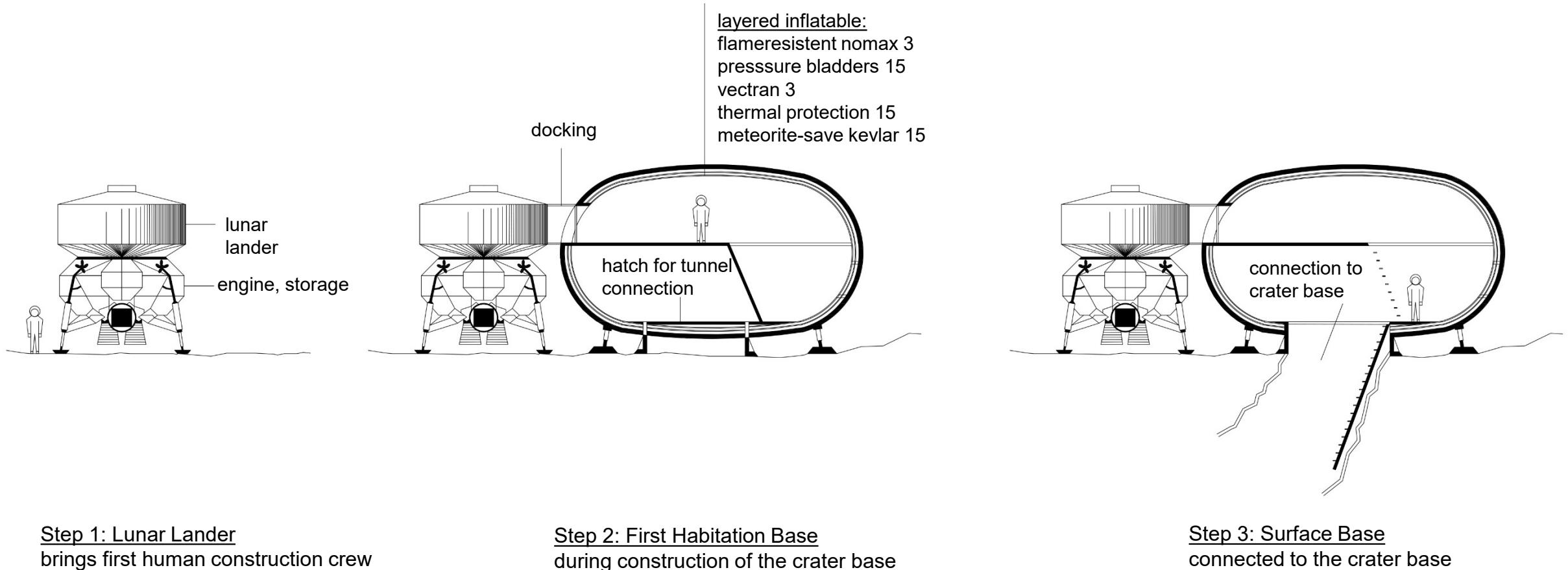
- set in the lava tubes in the crater wall
- research of the crater-based resources
- provides Moon Village with oxygen and water



Section through Philolaos Crater

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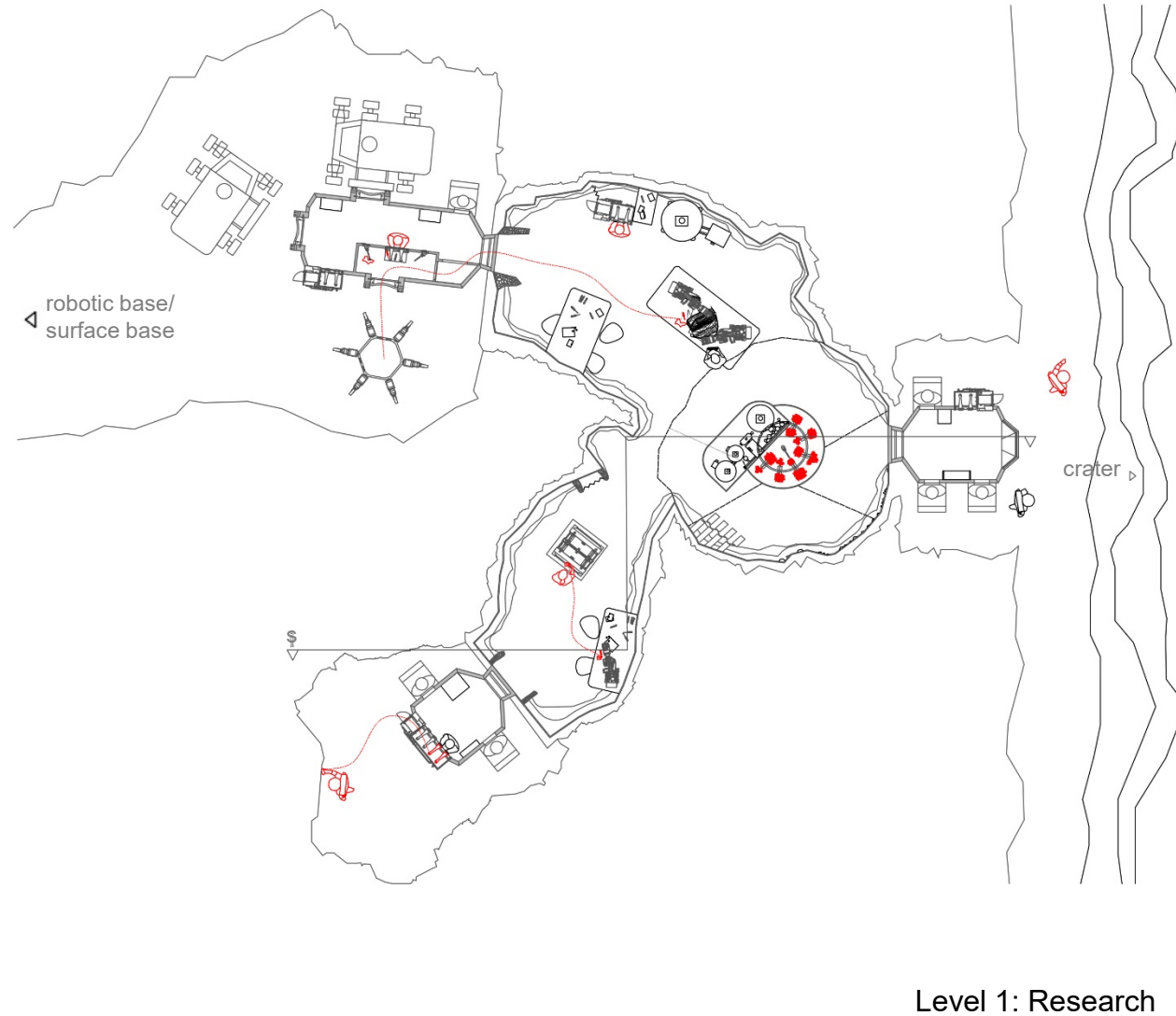
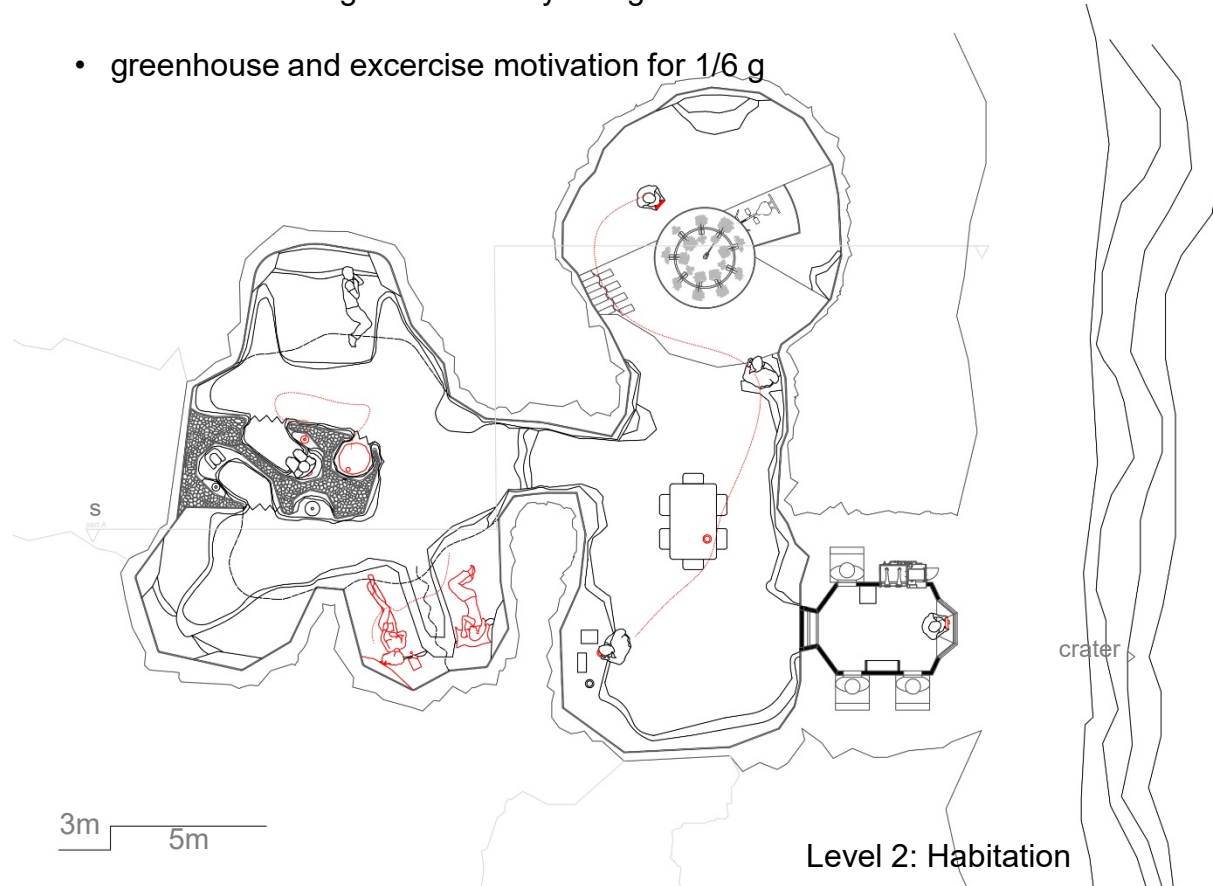
Lunar Lander/Surface Base – a **zero-waste policy**



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Floorplan – Habitation and Research Base

- separated levels for habitation and research
- connected through a two-storey lounge-chamber
- greenhouse and exercise motivation for $1/6 g$



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Section – Habitation and Research Base

Level 2: Habitation

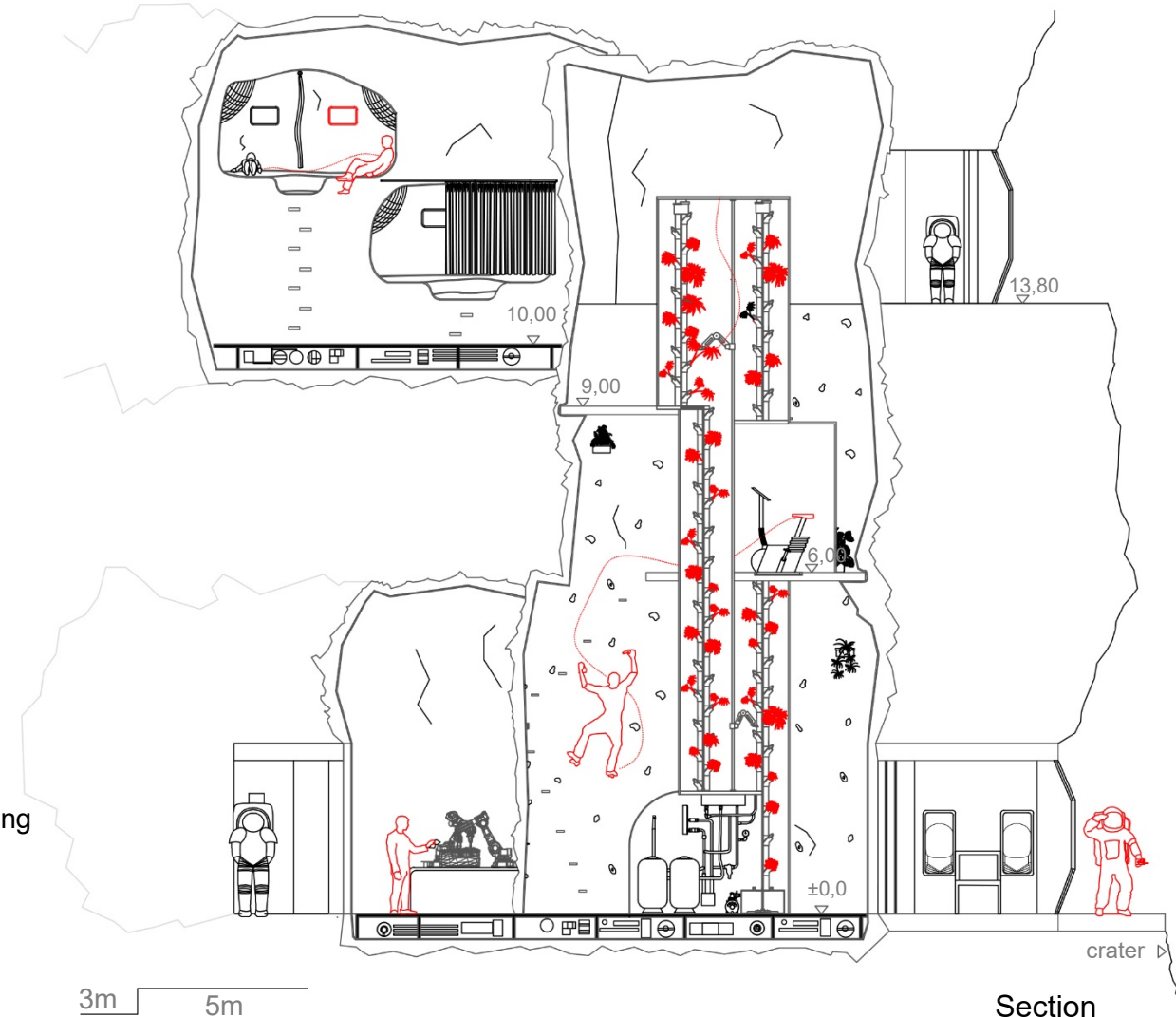
- food prep station
- sleeping quarters
- hygiene units

Lounge

- greenhouse
- relaxation platform
- workout platform

Level 1: Research

- analysis areas
- additive manufacturing
- unpressurised lab
- gloveboxes
- filtration station

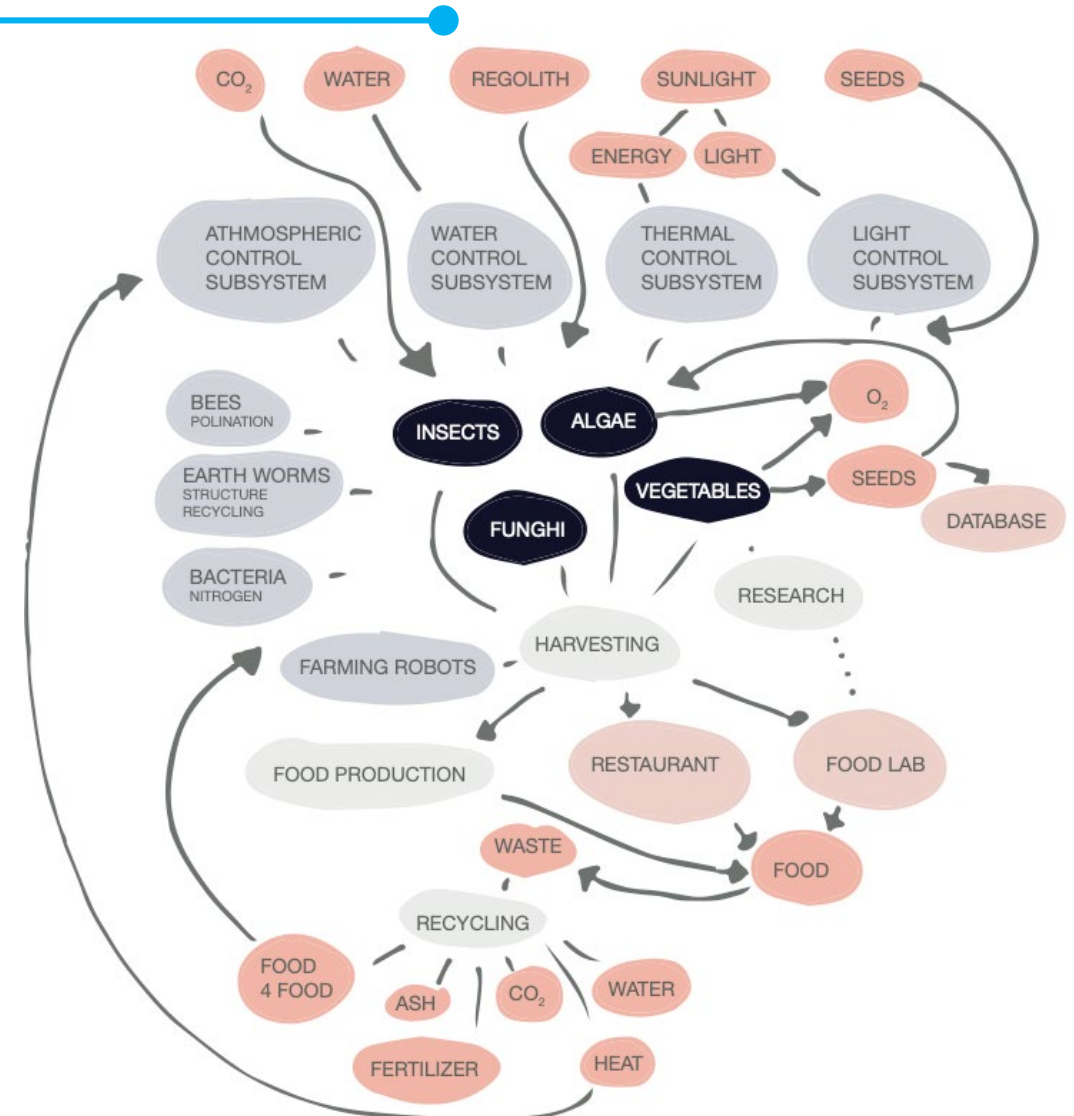
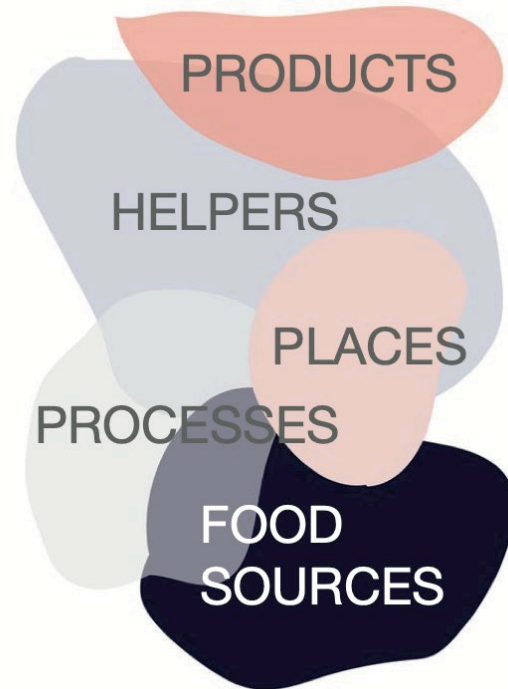
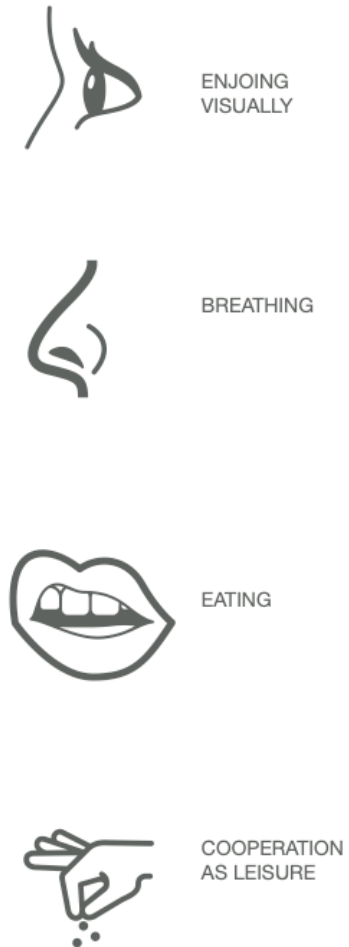


An Idea of an Experimental Food Lab & Lunar Kitchen TUBE OF EDEN



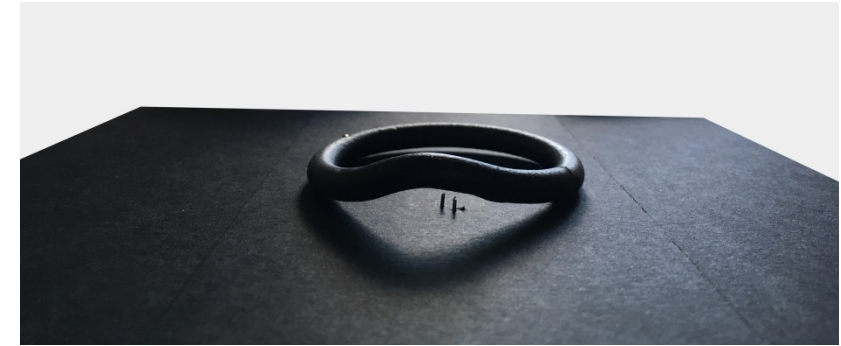
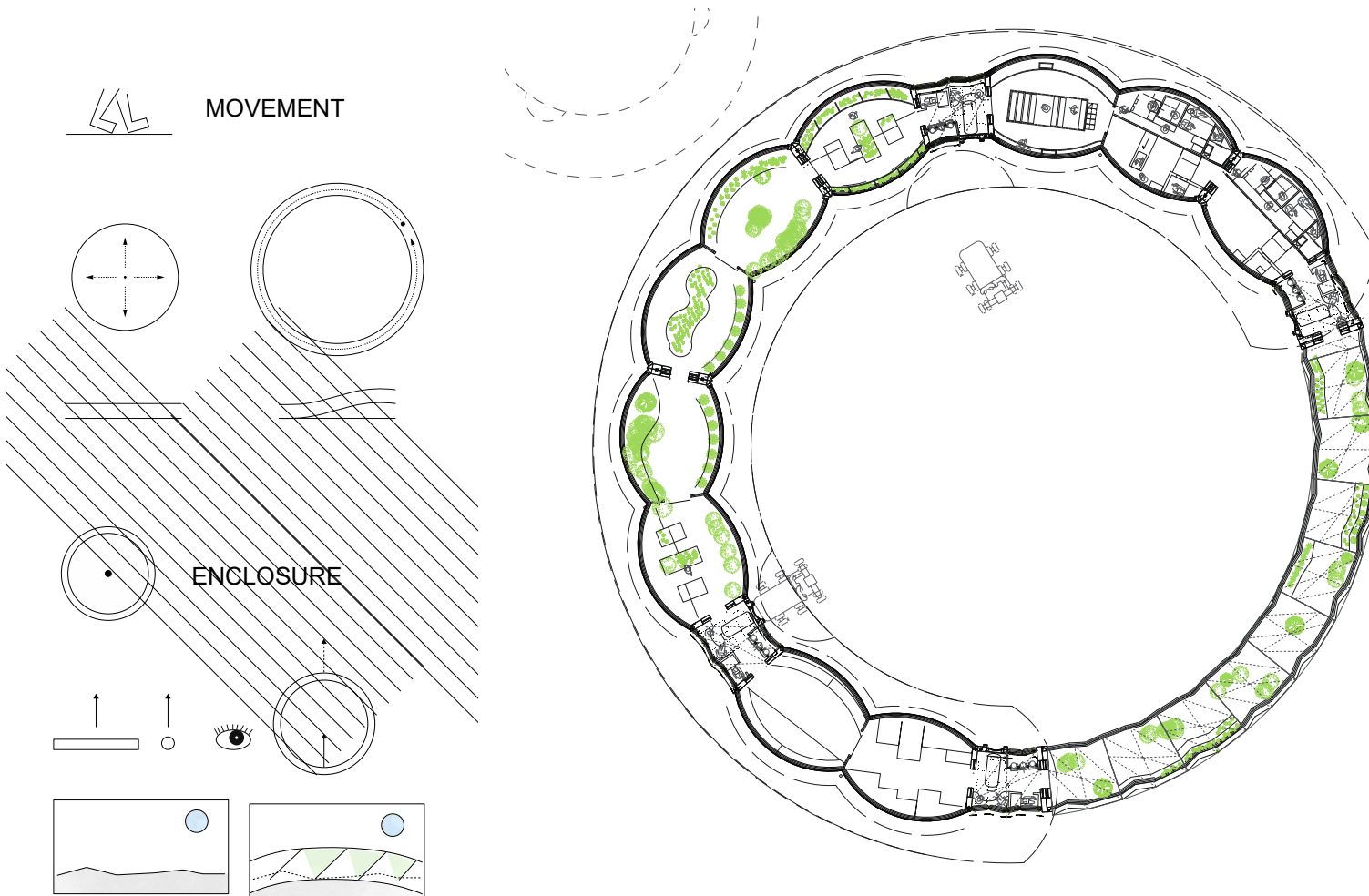
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Program



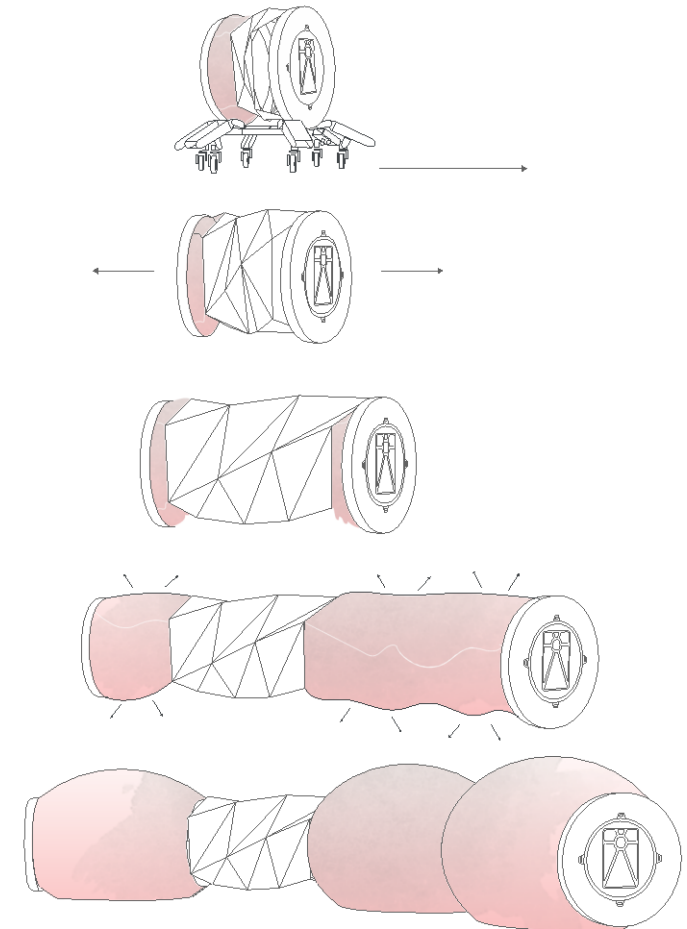
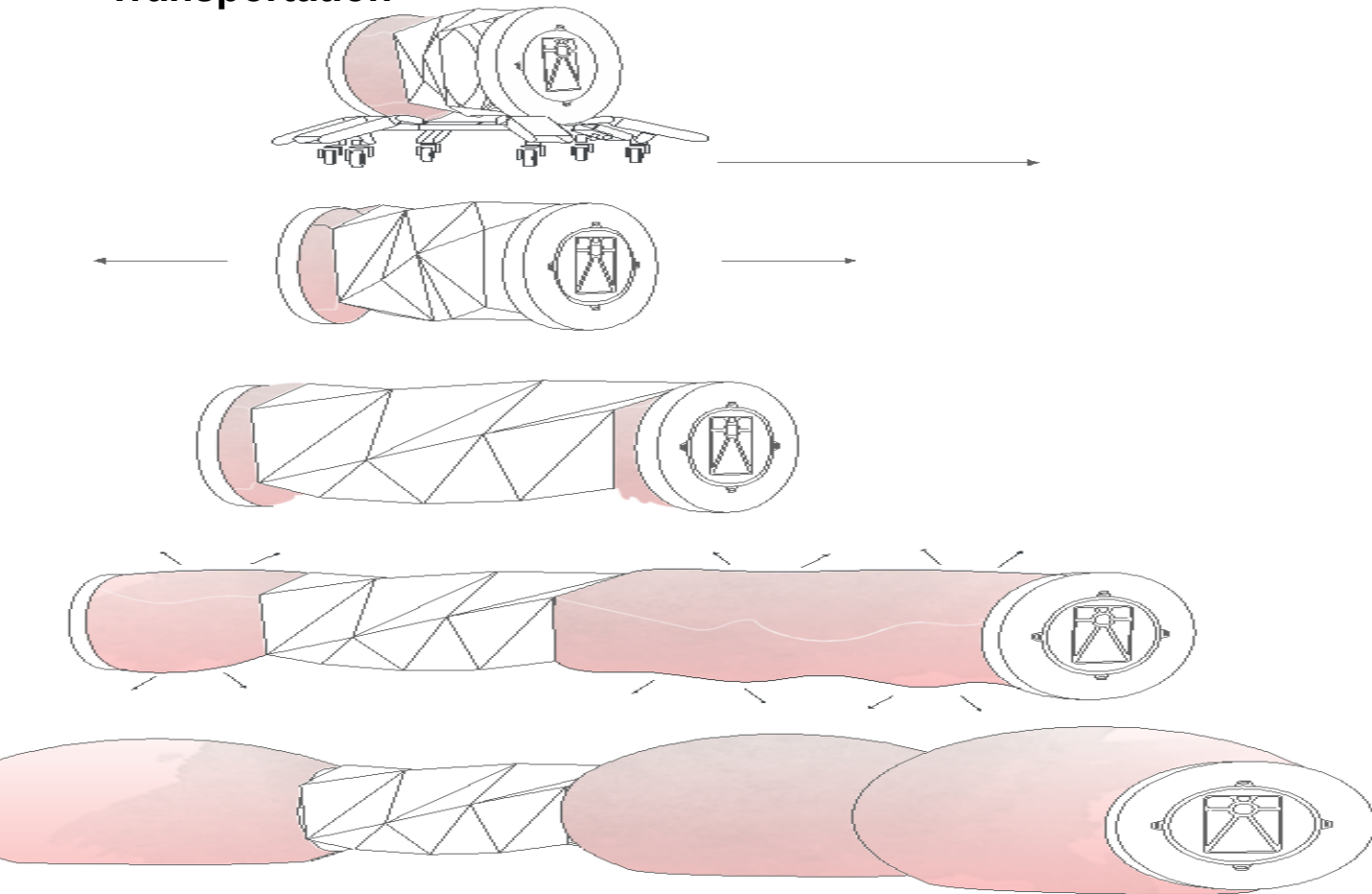
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Spatial Proposition



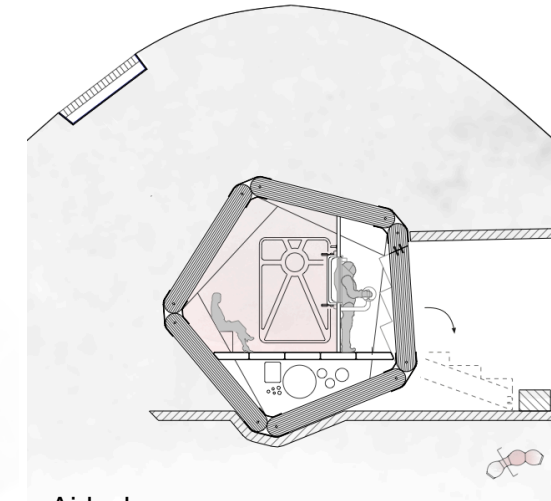
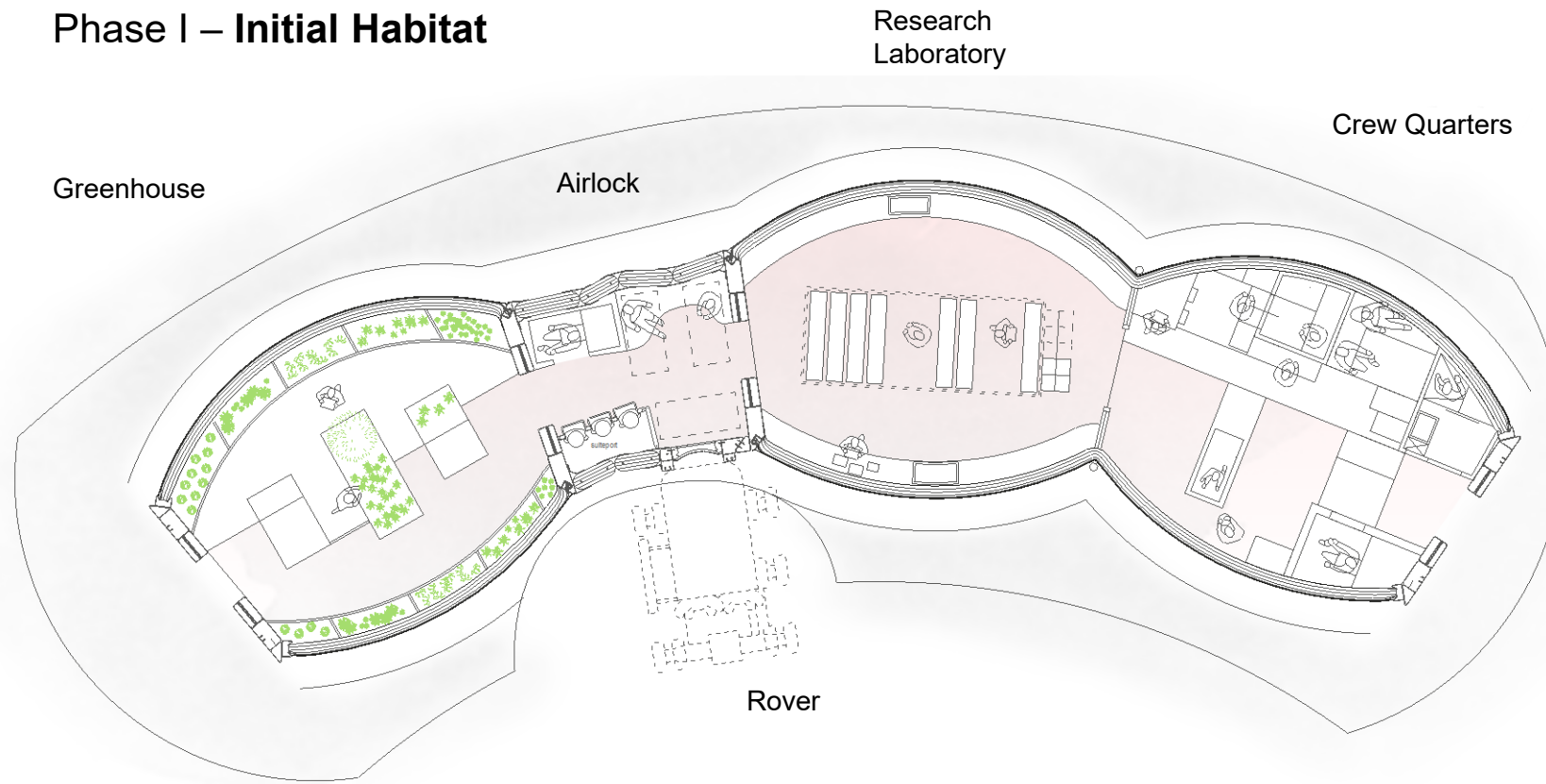
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Transportation

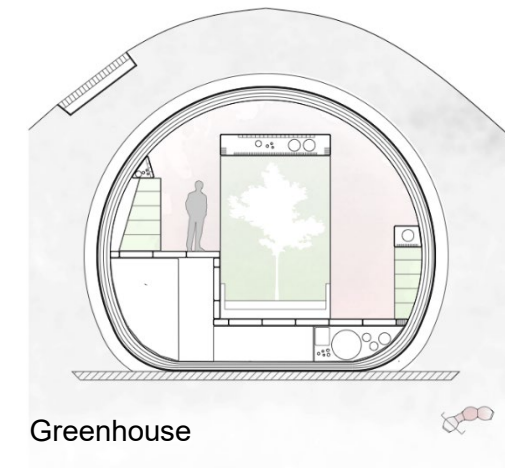


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Phase I – Initial Habitat



Airlock



Greenhouse

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ENJOING
VISUALLY



BREATHING



EATING



COOPERATION
AS LEISURE

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Guest Lecturers / Instructors: Manuela Aguzzi (Space Application Services), Marlies Arnhof (ESA YGT / TU Wien), Miriam Dall'Igna (Foster + Partners), Norbert Frischau (OffWorld), Bernard H. Foing (ESA), Gernot Groemer (OEWF), David Kendall (ISU), Franz Kerschbaum (Uni Wien), Christian Köberl (NHM, Uni Wien), Christophe Lasseur (ESA), Irmgard Marboe (Uni Wien), Piero Messina (ESA HQ, Strategies Department), Rumi Nakamuri (OEAW), David Nixon (Astrocourier), Dorin Prunariu (cosmonaut, ASE), Franz Viehböck (former cosmonaut, Austria).

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