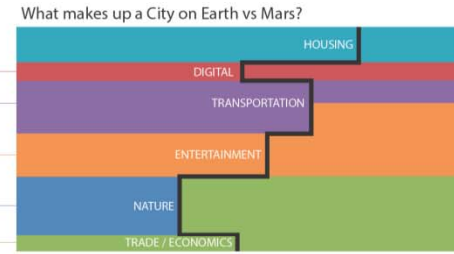
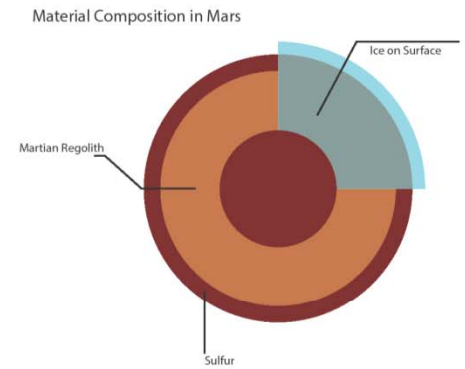
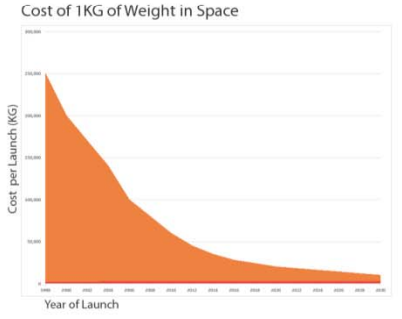
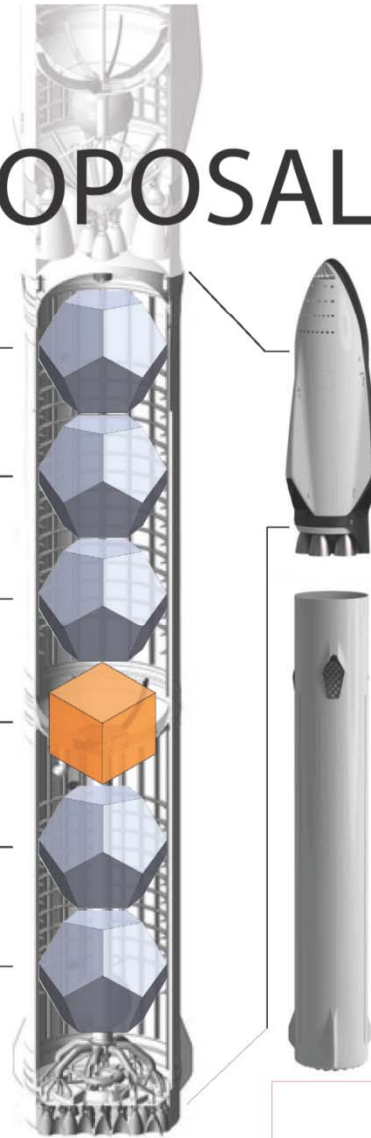
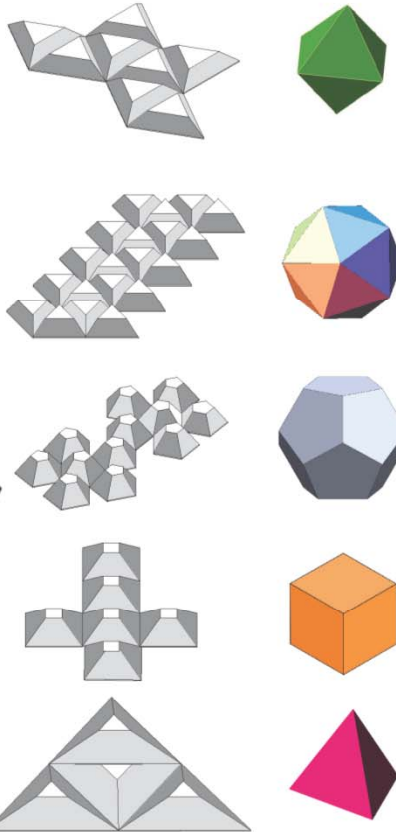




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# M SUSTAINABLE PROPOSAL R S

## Foldable City Proposal



### The Problem

The quest for Mars draws near and with it many questions. One of the most important is: Where and how are the first colonizers of Mars going to live? How will a colony be built? What materials will we use? How much time will it take? This project establishes the first steps for making a sense of place for the colonizers. It is a modular approach applied at the scale of the house or city that adapts to the needs of future Martian colonies. The Module could also be used as a prototype for a city on Earth so future pioneers to Mars could live in it and become used to its features as well as form a connection with their future home.

### The Project

The concept of the Martian City began by considering what makes a good city on Earth, how systems and organisms live and how they grow and become established. The idea is that different elements when put together make up the fabric of a city block, and on the personal scale, the sense of individuality, recreation and movement; all of these elements come together to make up the fabric or DNA of a city. The idea was to approach city design on Mars from an architectural more than engineering standpoint while not neglecting the need for a controlled environment.

### The Outcome

The project simplified city elements without losing the sense of the whole. It is a City small enough to be sustainable and buildable on Mars, but large enough to fill all the social and individual need. It is modular to give enough space for different programmatic elements and at the same time can be folded, stacked or scaled can help in duplication until technology on Mars becomes more reliable. The diversity of modules can be used to give enough diversity to the visual approach of the city itself but still maintain individuality in the smaller scale for people to feel they own their own place.

### Sustainability

In terms of sustainability the conceptual approach that addresses an environment where very few things can be used as building materials at first, the best way to be sustainable is to have the infrastructure built in earth / orbit and then sent to Mars; then infill and connections can be made using Martian available material like regolith or ice structures. The easy management of the structures to be folded, stacked or scaled can help in duplication until technology on Mars becomes more reliable. The most important sustainability measure in an inhospitable environment is to maintain a healthy population. The fact the modules could be built on earth and tested by future Martian pioneers will make living on Mars easier as they have a connection to their homes by having lived in them and will understand what the city can become when scaling the modules for increasing size of the colony population.

