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SPACE
**PEEK INSIDE WHAT
 COULD BE THE
 FIRST HUMAN
 SETTLEMENT ON
 THE MOON**

The Sun will never set on this lunar habitat that could double as an exclusive tourist destination

Architecture studio Hassell has unveiled plans for what could be the first permanent human settlement on the Moon. Designed in collaboration with the European Space Agency (ESA), Cranfield University and Format Engineers, the Lunar Habitat Masterplan is intended to initially accommodate a colony of 144 people, but its modular design will allow the settlement to grow and evolve with its inhabitants.

The Lunar Habitat Masterplan will have to confront the same challenges that humans have always faced when on the Moon, most notably the exposure to high levels of radiation due to the lack of atmosphere. But Hassell says the habitat's exterior – constructed from 3D-printed lunar soil to form a protective shell – will solve the radiation problem.

The proposed location for the habitat is the lunar south pole because of the near-constant sunlight (for generating solar power) and the potential access to frozen water in the shaded craters there. But it's not solely about survival; the habitat also contains recreational, social and active spaces, such as restaurants and sports arenas, as well as giant greenhouses.

Hassell says the habitat is intended for use by national agencies, such as NASA, ESA and JAXA, but also for commercial missions and space tourists.



1. The Masterplan's proposed location near the lunar South Pole means the Sun will never set, providing ideal conditions for harvesting solar energy. The base will have photovoltaic sails that rotate 360° in order to capture an infinite supply of sunlight.

2. Created with help from anthropologists and psychologists, the bar is just one of the Masterplan's recreational areas, and has been designed to bring the base's inhabitants together socially in an otherwise isolating environment.

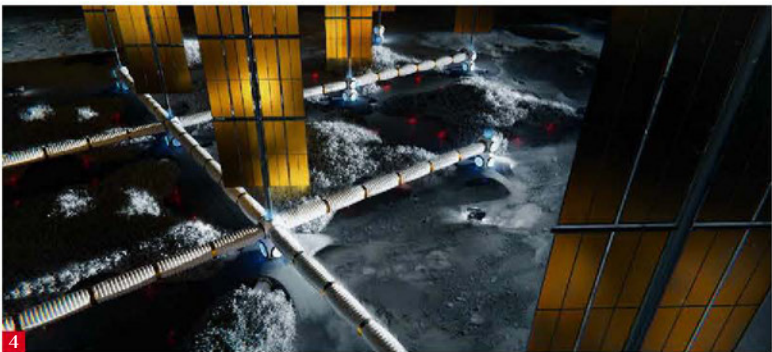
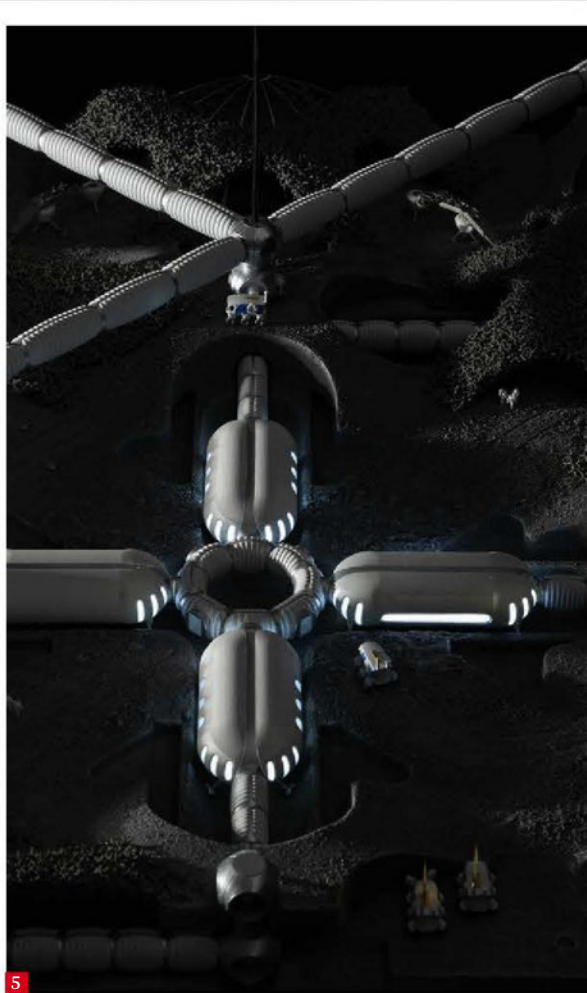
3. Unlike the International Space Station, inhabitants of the Masterplan will have private rooms. The seating and storage units will be made out of bamboo to provide a tactile reminder of Earth.

4. Long corridors connecting the

different parts of the Masterplan will allow inhabitants to move between them without being exposed to the extreme environment outside the base.

5. To keep launch costs down, the structure needs to be light and compact. The

Earth-made parts of the structure will be inflatable to make getting them to the Moon easier. When these parts come together, they'll form a robust modular inner structure, housed within a 3D-printed outer layer that provides protection against harmful radiation.



HASSELL/ESAXS