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ENVISIONING THE MOON VILLAGE – A SPACE ARCHITECTURAL APPROACH

Abstract

In 2016 Director General of ESA Jan Wörner, introduced his idea called 'MOON VILLAGE' about future possibilities for international cooperation for human space flight.

This idea was the starting point for the 2018 'Moon Village design studio' at the Vienna University of Technology. During the intensive semester course 40 master students have developed hypothetical scenarios for a future Moon Village. The studio was supported by ESA and several space experts from space related entities have accompanied the studio with theme-specific lectures and workshops.

Based on the students' initial political and societal vision for a future Moon Village, they developed individual architectural projects, incorporating the technical, environmental and operational requirements of building and living on the Moon. Eventually all space architecture projects present the multi-cultural and open concept of the Moon Village.

This paper presents the outcome of the design studio. It starts with summarizing the environmental, operational and human-related constraints that govern all lunar bases and associated infrastructure. The main part of the paper will discuss the different typologies that have been developed for the concept of an international and multi-cultural Moon Village. Eventually common themes that concern the actual development of a future Moon Village will be summarized.