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Author: Ms. Argyro Tsilia
Technical University of Crete, Greece

Prof. Konstantinos-Alketas Oungrinis
Technical University of Crete, Greece

SPACE ANALOGS: RECORDING, COMPARING AND IMPROVING

Abstract

The present study explores and evaluates the spatial living practices of space analogs. It addresses the improvement of space analogs by recording and comparing their essential spatial units. Initially, the explanation of all necessary concepts and terms is provided for understanding the topic, such as defining space analog astronauts and space analog missions. Subsequently, the theoretical framework of the work is approached, analyzing the needs of a space analog crew by applying the theories of A. Maslow and C. Alderfer. Following this, the activities and the areas of activity for crew members are defined and grouped according to P. Eckart, from which activity units are derived and later become the means of the comparison. In the next stage of the study, the five selected examples of space analogs for comparison are presented, by seeking both quantitative and qualitative characteristics to note down their advantages and disadvantages. In the final stage of the study, the previously structured comparative tables are completed with the findings of the selected examples of space analogs, enabling a comparison of general and specific content. After evaluating the existing practices of the examples, the final conclusions are drawn. Finally, the research concludes with proposals and ideas for improving space analogs, while suggesting ideas for further research and for the creation of design standards for future space analogs.