

21st IAA SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND  
DEVELOPMENT (D3)Strategies & Architectures as the Framework for Future Building Blocks in Space Exploration and  
Development (1)

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## FUTURISTIC URBANISM ON THE MARS

**Abstract**

As we know, throughout history, mankind has been against localization, constantly made large-scale migrations to different areas and diversified the human race, and when new lands and oceans were not enough, it began to look at our world, our galaxy from a broad perspective. Nations have always competed mutually to explore space and have created unparalleled technological equipment. Mars, since 1997, has maintained and even increased its relevance. Nowadays, scientists have conducted extensive construction work on the construction of settlements based on recent traces of water found on the surface of Mars. The most shocking proposals have been confirmed by space research centers with absolute certainty. The most important of them is a trip to Mars. But what if we propose to diversify this idea for ensuring the trip for every visitor? In the current world, constructive and urbanistic evolution and progress in any field where the specialty of architecture is not related are unimaginable. This specialty is not limited to ideological thinking, nor is the field of application limited to the surface of the earth. As we all know, shelters with a maximum capacity of 4 people have been developed by AI Space Factory under the name of Marsha Dwellings. We propose turning the 3D-printed buildings into a complex for this research. For us, it is possible to simplify them for the use of each visitor and to satisfy everyone who wants to experience Mars by connecting the small blocks standing completely separately on the surface into a central point connected to the common and research surface. Also, thanks to this type of networked buildings, security can be created by minimizing the risk to the life safety of visitors, also for freeing from complex and staged clothing such as spacesuits and air supply tubes. As for any doubts about the structural stability of such a building, it will be made of a NASA-approved, 900-degree-Celsius polymer, thermoplastic, and silica glass windows that will offer a fully shielded experience for those looking to observe Martian nighttime storms. In order to facilitate the provision of longer visits, to keep the psychological state of the visitors stable during the visit, and their adaptation to the world after the trip, as architectural specialists, we ensure the organization of internal social and informational centers such as a library, a small cafe, halls for holding conferences about the history of Mars and the space center.