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Part 1: The Role of Art in Space Activities (5A)

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A FIELD STUDY ON THE ROLE OF ART IN SPACE EXPLORATION

**Abstract**

Since 2007, the Extreme-Design Research Group has been working on researching the role of art and humanities in space exploration. Interviews, experiments, and questionnaires have been collected on how artistic/creative expression may enhance a person's wellbeing in space, and on the cultural value of such expressions. New hypotheses and validation were also carried out regarding the role of an artist on the mission design team. In particular, both theoretical and scientific investigations focusing on open questions and psycho-physiological reactions were carried out in parallel to artistic expression in space. The investigations were performed with the participation of experts and astronauts, and also during mission simulations. In particular, since 2010, as members of the ILEWG EuroMoonMars Campaign at the Mars Desert Research Center, all the authors have experienced living in isolation and in an enclosed space with limited resources at their disposal and a specific diet. During this experience, the authors expressed their own perceptions and feelings about daily life in MDRS through artistic and creative expression. Interviews and psycho-physiological tests were also performed both on the experts, the astronauts, and other crew members who experienced isolation at MDRS. As the astronaut Prof. Messerschmid explained in response to the question of which role art and creativity play in space, in space exploration, astronauts are also there to represent the entire human race, which is why it is so important to send not only machines but also humans who are creative. This paper presents the conceptual, artistic, and scientific results in order to define the possibilities and the role of art in space.