

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Space Culture – Public Engagement in Space through Culture (9)

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SPACE CULTURAL “CONTAMINATION” THROUGH OUTREACH IN SPELEOLOGY ANALOG
MISSIONS: THE SAPIENZA GEA EXPERIENCE

Abstract

With the new advances in the Moon exploration programmes and with the implementation of the so-called New-Space, space exploration is getting closer to everyone every day, to soon become within reach of everyone’s daily life and culture. Various new space exploration programmes, such as Artemis, are already being conducted by considering lava tubes and other underground environments on the explored celestial bodies for settling human bases. The programmes’ development and implementation are concerning not only specialists but everyone in the general public, involving futuristic perspectives such as space tourism opportunities and progressive involvement of all branches of technology and engineering, even if not often involved in space topics and research. For all these reasons it is of great importance to ensure that the general public is involved and prepared on time to be ready for actual cultural changes reflecting mankind’s advancements in space exploration. GEA (Analog Explorations Group) is an analog mission project carried out by Sapienza University of Rome (S5Lab research group), together with CAI-Roma (Italian Alpine Club, Rome’s chapter) for the development of a student-led analog exploration mission in speleology environment. The project aims at involving a rising number of students, both to be acting as analog astronauts and leaders of on-ground tasks during operations, in human spaceflight hands-on projects. The multi-disciplinary aspects of the GEA development have given the project leaders the chance to connect with stakeholders and sponsors interested in specific topics in general far from space research, such as safety engineering or fall arrest devices testing, that can contaminate with space

engineering in this particular project. The outreach and divulgation plan of GEA is indeed composed of “usual” activities, such as the participation in congresses and production of publications, paired with actual “cultural” dissemination activities that are more focused on general public ideas and thoughts on space. The contact with public and industry stakeholders allowed the participants and the involved students to experience a completely different glimpse of the space world, i.e. media and divulgation to non-engineers and scientists, with many lessons learned from the performed activities. This paper will introduce GEA project and present its lesson learned from the outreach activities. After an introduction on the main mission objectives, the outreach and divulgation plan will be described, with a focus on the cultural activities addressed to the general public and on the contamination with other technical and research fields.