

IAF SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)  
Space Culture: New Processes of Public Engagement in Space through Culture and Art (9)

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SPACE AND ARTS: A TRANSDISCIPLINARY, TRANSFORMATIONAL, AND  
TRANSGENERATIONAL (“THE THREE TS”) ART SCIENCE METHODOLOGY FOR  
EDUCATIONAL- & OUTREACH-DRIVEN SOCIAL BENEFITS AND PUBLIC ENGAGEMENT.

**Abstract**

Space and art are the long-lasting drivers of our evolution into culture-based societies, and heritage-based civilizations. Many myths refer to the empowerment given to space by ancient humans, which translated into beliefs, religions, ceremonies, architectural sites for cult, cults, and art. So, as the transdisciplinary outcome of the “art(s)pace binomial twin agent” manifests from the intersection between artistic and scientific quests, it is still strongly shaping our species’ evolutionary path, and its distinguished trait: “experiencing solutions to complexity by different means (also driven by technology applications) and by transcending our perception and expanding it”. How? Thanks to the combined use of new knowledge about Earth, collected through space (satellites), and about space, as also seen from the human point of view on Earth for millennia. Experiential techniques, indeed, help in communicating effectively in the context of today’s need of setting up-to-date relationships in the societies, such as the ones between teachers and students, work environments and workers, policy makers and citizens, engaging youth. So, the educational connection between Earth and space “observations” can be tested for relevant pedagogical and awareness needs by using an art science methodology allowing switching to a knowledge transferring experience that is inclusive, multifaceted, and simultaneously “solo and group” oriented. Different modularizations of the methodology outcome depend on changing from one observation point to the other and the selection of the tools used for representing, embodying, and giving relevance to the observations. Therefore, this paper presents an analysis leading to a methodology whose goal is enhancing transdisciplinary and transformational educational activities and public engagement and contributing to reaching social benefits. How? By focusing on analyzing and categorizing the interrelations between different areas of knowledge, technologies, science, and arts while combining areas of artistic expression and experiences that can be catalyst elements. This fits into a current research stream willing to give feedback to high and local policy levels about the need to feed the institutional and corporate communication, teaching and learning systems with contemporary knowledge- and arts-based organizational forms. Understanding our societies’ impact on the planet, as well as our responsibility for our common natural and cultural heritage, might need an “all at once” multisensorial dimension, allowing both solo, sharing, participatory and intergenerational approaches. Examples of interdisciplinary areas where this educational and outreach methodology could be used are a) agriculture and the evolution of humanity; b) ecology and planetary boundaries; c) cultural heritage and multispecies perspective.