

27th IAA SYMPOSIUM ON SPACE AND SOCIETY (E5)
Contemporary Arts Practice and Outer Space: A Multi-Disciplinary Approach (3)

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DESIGN SPACE FOR SPACE DESIGN: DIALOGS THROUGH BOUNDARY OBJECTS AT THE
INTERSECTIONS OF ART, DESIGN, SCIENCE, AND ENGINEERING

Abstract

For over half a century space exploration has been dominated by engineering and technology driven practices. This paradigm leaves limited room for art and design. Yet, in other parts of our lives they play important roles to stimulate new ideas and connect people at a deeper level, while impacting our worldview as we create our cognitive models. We develop these models through circular dialogs with our environment, by perceiving information through our sensory system and responding back through language and gestures. Artists and designers create artifacts through dialog cycles of sense-giving and sense-making, thus adding new variety to the world in a form of a message. The message becomes information when the observer decodes it, through multiple sense-making and re-sampling cycles. Having a shared key between the artist/designer and the observer, in the form of a language, is fundamental to encode and decode the information, and to transfer the message between the two actors. This may vary from spoken words and gestures to artistic and design styles. Art, design, science, and engineering, are all creative practices. Yet, they often speak different languages, where some parts may correspond, while others address a different variety in a cybernetic sense. These specialized languages within disciplines streamline communications, but limit variety. Thus, different languages between disciplines may introduce communication blocks. Nevertheless, these differences are desired as they add variety to the interactions, and could lead to novel discourses and options. We may fracture communication blocks through the introduction of boundary objects in the intersection of multiple disciplines. Boundary objects could ground ideas and bridge language diversity between disciplines. These are created to facilitate circular cybernetic dialogs through the artifacts, supporting convergence towards common shared languages between the actors. The shared language can also create new variety that evolves through constructivist dialogs between the participants. Misunderstandings through dialogs can also lead to new ideas, as they stimulate questions and point to novel solutions. In this paper we present a number of space related boundary objects, created by the primary author, which are mapped into four categories to illustrate how these artifacts may aid the dialogs between an artist/designer, and the observer/environment. These are: artistic sculptures, medals, graphical posters, and a documentary film on the roles of art and design for a space agency. Each object communicates with different audiences, ranging from the general public to scientists and engineers.