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Contemporary Arts Practice and Outer Space: A Multi-Disciplinary Approach (3)

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THE UNIQUE POTENTIAL OF HAND-ILLUSTRATION TO EXPLORE ART AND SCIENCE
INTERACTIONS IN THE ENGINES OF ETERNITY SPACE ART PROJECT

Abstract

The interaction between art and science has contributed significantly to humanity throughout the centuries leading to discoveries that have shaped our current cultural and scientific landscape. It shows diverse human abilities to express and blend technical proficiency, delicacy, emotional power, and conceptual and analytical ideas. Today we have potent technological aids for making discoveries, such as supercomputers, particle accelerators, and space telescopes, but imagination and creativity remain our most potent attributes in problem-solving. In some cases today, humans cannot perfectly observe things in the microcosm and macrocosm, which leads to the question of how to communicate observations made with advanced technologies more intricately and excitingly. We believe that hand illustrations are still as potent as they were in the times of Leonardo Da Vinci, Galileo Galilei, and Charles Darwin. The purpose of this study focuses on human perception to reimagine the life and evolution of rotifers on Earth and on board the International Space Station (ISS) using a series of hand drawings. The molecular and genetic scale of a series of space biology experiments with rotifers inspires the drawings. The drawings are preparatory studies for sculptures in the Engines of Eternity project of SEADS. Engines of Eternity uses the biological phenomena of cloning and DNA repair as metaphorical departure points for a series of evolving art installations about humanity's fascination with cultural immortality. The project is a collaboration between the SEADS collective and the scientific laboratory of Karine Van Doninck (ULB/UNamur). In a series of space biology experiments with rotifers, thumb-printed glyphs were added by SEADS as abstract codes, which were first sent to the ISS in 2019. Upon return, these visual codes were evolved using the genetic response of the rotifer's exposure to the space environment. This method subsequently became

the starting point for a larger three-dimensional parametric artwork. To confront the project's visual and aesthetic challenges, hand illustrations were fundamental in opening up the possibility of thinking outside the limitations of digital aids such as design software. The hand illustrations encompass an abstract and highly subjective artistic reimagination building on the understanding of complex biological activities and dynamics within the rotifer's DNA. This work aims to explore a new visual spectrum in a comprehensive and exciting approach to artistic engagements with experimental space science.