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

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LUNAR HISTORIC AND SCIENTIFIC SITES: TECHNICAL REASONS AND LEGAL BASES TO
PROTECT

Abstract

Lunar Historic and Scientific Sites: Technical Reasons Legal Bases to Protect

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The cultural and scientific history represented by Lunar Historic Sites (LHS) provides rich grounds for contemporary arts. LHS can be defined as anthropomorphic evidence of human and robotic visitation on the surface of the Moon having cultural or potential scientific value. “Contamination” of these sites is the act of depositing chemical, biological or physical material onto artifacts at the heritage site such that the deposition or disruption reduces its historical, engineering, or scientific value. Contamination can take on several forms, including surface particulate, non-volatile residue, volatile hydrocarbons, microbial or disturbance of existing artifacts. This paper will first look at the technical basis and reasons to protect LHS including the rich cultural evidence of humanity’s foray into the solar system as well as scientific rationale for revisiting these sites. The complex technical systems left on the surface of the Moon can provide valuable scientific insight into material properties when exposed to the severe lunar thermal and radiation environment for almost fifty years. Culturally, humanity’s first steps on the Moon, astronauts’ personal effects and the robotic explorers before them reflect the achievements and pride of many nations. This paper will then turn to existing bases under international law to protect these sites and potential future bases. The 1967 Outer Space Treaty (OST), including Articles VI, VII, VIII, IX, provides a multilateral framework for protection. NASA’s 2011 “Recommendations to Space-Faring Entities: How to Protect and Preserve the Historic and Scientific Value of USG Artifacts” has its underpinnings in both the OST and the US Constitution and laws. NASA has begun discussions with other space agencies regarding how to conclude non-legally binding understandings on implementing such recommendations for US, Russian, Chinese, and Japanese space agencies regarding LHS, in the International Space Exploration Coordination Group (ISECG) and elsewhere. Bilateral or multilateral agreements binding under international law could follow. Finally, The Hague Space Resources Governance WG’s December 2017 Initial Report calls for institutional arrangements to protect certain outer space cultural heritage sites. Both the technical basis and reasons and the legal structure will add texture and complexity to artistic renditions.