A Proposal for Collaboration: Narrating Space Exploration Through Heritage

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Hexos Space Heritage is currently creating a portfolio of heritage significance statements to present to space agencies for inclusion on various websites.

As the space industry continues to "take-off" as we head into the second quarter of the 21st century, outer space as an environment and daily reality is becoming more normalised with the general public, at odds with the inherent difficulty of mentally engaging with the concept of something as big and unknown as space. According to Messeri (2016, p. 3), establishing space as a dimensional place can scale down the cosmos to the level of the human experience as a way of knowing and making sense of outer space.

While the concept of listing objects and places in space and on other planets and moons is logistically and legally challenging due to the treaties that govern space and its uses, we can still acknowledge that these objects and places hold significance as defined by the Burra Charter.

Hexos Space Heritage proposes the integration of concise statements of significance into various space agency websites, such as NASA Eyes, as well as inclusion of images that convey this significance where possible, to encourage engagement with the social aspect of space history rather than just the technological, thereby contributing to the continuation of the normalisation of technology becoming increasingly "out-of-this-world".

Here we present two examples of these condensed statements of significance with accompanying imagery, as inspired by the information presentation style of Australian historic heritage databases. You can keep up with our future progress on this project on our LinkedIn page at Hexos Space Heritage.









statement could be included.





Australis Oscar V

Name: Australis Oscar V

Why is it significant?

Australis Oscar V holds historic, scientific, and social value as a pioneering achievement in Australian space exploration.

How is it significant?

Australis Oscar V is historically significant as Australia's first domestically built satellite, launched in 1970, just six months after Neil Armstrong walked on the moon. This achievement made Australia among the early nations to successfully build and have their satellite launched into orbit, showcasing the country's contributions to space exploration during the Space Race. The satellite was constructed by students and staff at the University of Melbourne, demonstrating remarkable aerospace innovation and education.

The satellite collected crucial data on the Earth's upper atmosphere, particularly ionospheric properties, contributing to a better understanding of space weather. Australis Oscar V also demonstrated the capabilities of amateur radio communication in space, paving the way for future satellite research, especially for the other 'OSCARs' in the program. It's battery life lasted longer than the first government-built Australian satellite, which disintegrated several years after its launch, while Australis remains fully intact today, nearly 55 years after its initial launch date.

The satellite's success was widely covered by the media, promoting national pride and inspiring future generations of scientists and engineers in Australia, and students worldwide.

Opportunity Rover

Name: Mars Exploration Rover B (Opportunity Rover)

Why is it significant?

The Opportunity Rover is of historic, scientific, and social value to humanity.

How is it significant?

The Opportunity Rover is of historic value as it is, to date, the longest rover mission run on Mars, with its mission spanning 15 years.

The Opportunity Rover is of scientific value as the study of its mission can illuminate the interactions between humans and rovers and how they influence how a mission is carried out. The images that the Opportunity Rover took throughout its mission can provide a basis for scientific study of the planet Mars and Marsenvironment analogues on Earth.

The Opportunity Rover is of social value for the impact it has had on popular culture. A "mistranslation" of the Rover's final message by a journalist in February 2019 as 'My battery is low and it's getting dark', struck an emotional chord with the public and saw an outpouring of tributes for the Rover. Opportunity has been idolised in a documentary film called 'Goodnight Oppy', and also inspired the name of the asteroid '39382 Opportunity'.

The Opportunity Rover lander also has social value as it has been named 'Challenger Memorial Station', after the Space Shuttle Challenger Disaster of 1986, linking it to a major event in space history as a memorial.







References:

Messeri, L 2016, 'Placing Outer Space: An Earthly Ethnography of Other Worlds', Duke University Press, Durham, North Carolina.

Australia ICOMOS. 1999. The Burra Charter. The Australia ICOMOS Charter for Places of Cultural Significance.

Vertesi, J 2012, 'Seeing Like a Rover: Visualization, embodiment, and interaction on the Mars Exploration Rover Mission', *Social Studies of Science*, vol. 42, no. 3, pp. 393-414.

Messeri, L 2016, 'Placing Outer Space: An Earthly Ethnography of Other Worlds', Duke University Press, Durham, North Carolina.

NASA 2021, *Mars Exploration Rovers Overview*, NASA, Washington, District of Columbia, viewed 29 October 2024, https://science.nasa.gov/mission/mars-exploration-rovers-spirit-and-opportunity/.

Margolis, J 2019, How a Tweet About the Mars Rover Dying Blew Up on the Internet and Made People Cry, LAist, Los Angeles, California, viewed 29 October 2024, https://laist.com/news/jpl-mars-rover-opportunity-battery-is-low-and-its-getting-dark.

Chapman, V 2021, Placing Mars: Possibilities of the Australian Contribution to the Development of Space Heritage Standards and Practices, Honours Thesis submitted for Bachelor of Arts (Honours), University of Southern Queensland, Toowoomba, Queensland

Mace, Owen. 2017 The Story of how Melbourne University Students Built Australia's First Satellite. Adelaide: ATF Press