

The Moon, Mars, and the Sacred: Learning from cultural conflicts over scared objects on our home planet.
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Abstract: We have recently been analyzing the process of negotiations, assessing both the problems and the prospects of compromise and reconciliation, over cultural conflicts that involve sacred objects of astronomical importance. In particular, we have been studying the case of telescopes on Mauna Kea in Hawaii, and the issue of Tomanowos, or the Willamette Meteorite, at the American Museum of Natural History in New York.

Places and objects that link heaven and earth commonly possess both religious and scientific significance. While mountains are essential markers of sacred geography in many religious traditions, representing in stone fundamental stories of creation and revelation and preserving in their lofty heights the ancient homes of powerful gods and spirits, they also provide ideal sites for astronomers to study stars. Meteorites, in their physical composition, contain clues to formation of our solar system even as they are revered as spiritually potent gifts from above. And while continued exploration of the Moon and eventual exploitation of its natural resources seems inevitable, the Moon rising up to brighten the night sky retains its power to awe and it remains a critical component of the spiritual life and traditions of communities around the world. People representing divergent scientific and religious world-views have often disputed the proper use and disposition of such places and objects. Despite difficult histories and profound cultural differences, however, people in certain cases have recently engaged in a more respectful struggle to achieve mutual understanding and to accommodate multiple perspectives in making decisions about sensitive places and issues. We find that some of the sensitive issues involved over Mauna Kea (environmental management concern, dispute over sacred land, habitat of a species that is a candidate for endangered list) and Tomanowos meteorite (a sacred object of scientific value) are also relevant when we consider the future exploration and colonization of the Moon (an object considered sacred by many cultures, environmental management concerns) and Mars (environmental management concerns, ethical issues if Mars is a habitat for microbial life forms). The authors seek to apply lessons of negotiations between scientists and the concerned Native communities to develop a framework to address cultural and religious issues when it comes to the exploration of Mars and the colonization of the Moon.