Star Wars
Settling the fight over a telescope on a Hawaiian holy site

“The ancient Hawaiians were astronomers,” wrote Queen Liliuokalani, Hawaii’s last reigning monarch, in 1897. “Kilo hōkū, or “star watchers,” were among the most esteemed members of Hawaiian society. Sadly, all is not well with astronomy in Hawaii today. Protests have erupted over construction of the Thirty Meter Telescope (TMT), a giant observatory that promises to revolutionize humanity’s view of the cosmos.

At issue is the TMT’s planned location on Mauna Kea, a dormant volcano revered by some Hawaiians as the piko, or “umbilical cord,” that connects the Hawaiian Islands to the heavens. But Mauna Kea is also home to some of the world’s most powerful telescopes. Perched in the Pacific Ocean, Mauna Kea’s peak rises above the bulk of our planet’s dense atmosphere, where conditions allow telescopes to obtain images of unsurpassed clarity. This makes Mauna Kea the premier astronomical site in the Northern Hemisphere, if not the world. Building the TMT elsewhere, as some opponents have suggested, would be like clipping the wings of Mauna Kea’s indigenous palila bird, limiting its ability to soar.

Opposition to telescopes on Mauna Kea is nothing new. A small but vocal group of Hawaiians and environmentalists have long viewed their presence as desecration of sacred land and a painful reminder of the occupation of what was once a sovereign nation. For some, nothing less than a return of the mountain to its pristine state is acceptable. For others, the observatories are simply a convenient lightning rod to spark discussion of larger social issues affecting the islands’ indigenous people.

But astronomers were caught off guard by the vehemence of the opposition to the TMT. Many sincerely believe that due diligence was done by engaging native Hawaiians in dialogue over the past seven years of planning, holding more than 20 public meetings for community input, and contributing $1 million annually in support of science and technology education on the island of Hawaii. The telescope will also pump jobs and money into the local economy.

Some blame for the current controversy belongs to astronomers. In their eagerness to build bigger telescopes, they forgot that science is not the only way of understanding the world. They did not always prioritize the protection of Mauna Kea’s fragile ecosystems or its sanctity to the islands’ inhabitants. Hawaiian culture is not a relic of the past; it is a living culture undergoing a renaissance today.

Yet science has a cultural history, too, with roots going back to the dawn of civilization. The same curiosity to find what lies beyond the horizon that first brought early Polynesians to Hawaii’s shores inspires astronomers today to explore the heavens. Calls to dismantle all telescopes on Mauna Kea or to ban future development there ignore the reality that astronomy and Hawaiian culture both seek to answer big questions about who we are, where we come from and where we are going.

The TMT represents the continuation of a journey begun long ago. Astronomy is not just the study of distant planets, stars and galaxies. It is also the study of something much closer to home—us. One of astronomy’s most profound discoveries is that we are made from the ashes of stars that burned out long ago. Perhaps that is why we explore the starry skies, as if answering a primal calling to know ourselves and our true ancestral homes. As philosopher Alan Watts wrote, “You are that vast thing that you see far, far off with great telescopes.”

In the spirit of compromise, the astronomy community is changing its use of Mauna Kea. The TMT site was chosen to minimize the telescope’s visibility around the island and to avoid archaeological and environmental impact, and the TMT will pay $1 million annually (in addition to the STEM funding mentioned earlier) to lease the land on which it resides, with 80 percent of those funds going to stewardship of the mountain. To limit the number of telescopes on Mauna Kea, old ones will be removed at the end of their lifetimes and their sites returned to a natural state.

There is no reason why everyone—Hawaiian and non-Hawaiian alike—cannot be welcomed on Mauna Kea to embrace their cultural heritage and to study the stars. Holding the TMT or other telescopes hostage will not remedy past injustices suffered by the Hawaiian people, as much as we agree there is work on this front that remains to be done. “The world cannot stand still,” Queen Liliuokalani said. “We must either advance or recede.”

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