

Links to the creation: (Both pieces are on 9in x 12in sheets of pastel paper)



Image 1 depicts an observatory at Mauna Kea with a hand inserting a coin into the top, amidst a background of a starry night. Underneath the observatory, buried in the mountain, are skulls, the Hawai'ian flag, and a Wekiu bug. The hand with the coin (which bears the University of Hawaii crest) symbolizes the funding that the thirty-meter telescope has contributed to the educational community in Hawai'i: \$1 million USD annually to "Big Island students in technical fields" (Witze 3). This brings about a conflict of interest due to the financial support of education programs brought by the telescopes, meaning that protesting the telescopes could be spun as protesting this funding as well. There is also the significance of the hand as white to represent that the observatories, as well as the funding, are from foreign powers, placing the observatories in a colonial perspective as they use indigenous lands (Lander and Puhipau). Additionally, the telescope sitting on top of the skulls, flag, and insect represent the different impacts that the telescopes have had on the mountain. The skulls represent the covering of sacred burial grounds of many generations of Hawai'ian ancestors, tying to an argument by indigenous people that the observatories desecrate these grounds (Lander and Puhipau). The Hawai'an flag is a representation of its use by native Hawai'ian groups in their protests of the observatories, stretching to display the sentiments of Hawai'ian independence and a break from colonialism (Witze 1-2). Finally, the Wekiu bug is one of many insects and creatures that live almost exclusively on Mauna Kea and are endangered, with the observatories further threatening their existence and thus the diversity of the ecosystem at Mauna Kea (National Aeronautics and Space Administration 9-10).

The reference for this image is taken from a photo from Mikey O that can be found at this link:

https://www.hcn.org/articles/tribal-affairs-inside-the-protests-over-the-thirty-meter-telescope/bigimage_large.

The University of Hawaii seal can be found here:

https://upload.wikimedia.org/wikipedia/en/thumb/3/35/University_of_Hawaii_seal.svg/1200px-

[University of Hawaii seal.svg.png](#)



Image 2 illustrates the surface of Mauna Kea with the observatories along the cinder cones. Large hands move above the mountain, within the starry night sky. At the base of the mountain lies a “lei” of yellow trees (Lander and Puhipau). These mamani trees that bloom yellow are depicted because, due to federal land use around Mauna Kea, these trees have been greatly reduced in number, and with this comes a further endangerment of a Hawai’ian Honeycreeper bird species, the Palila, which lives in these trees; thus, with the disappearance of these trees comes risks to the already endangered Palila (Lander and Puhipau). The stars in the night sky are meant to contrast with the large hands, representing the creation stories that center Mauna Kea as the beginning of Hawai’ian existence, contrasting scientific insight into space with indigenous interest in the spirituality of the land (Lander and Puhipau). Furthermore, it has been remarked that there are sites of 141 ancient shrines within the land taken up by the observatories on Mauna Kea (Hitt). By building over these sites, indigenous history and rituals are inhibited, showing that the construction of observatories on Mauna Kea has threatened indigenous ways of life and cultural integrity. To represent these shrines, I shaped the mountains similarly to the silhouette of a person lying down, akin to depictions of some figures in Hawai’ian religion (Lander and Puhipau). While the telescopes do exist on land that is ideal for astronomy and observatories, allowing for many great developments in the understanding of space and views “better even than today’s views from the Hubble Space Telescope”, the scientific activity at Mauna Kea exists at the expense of indigenous rights and culture as well as environmental health (Witze 3).

Works Cited

Hitt, Christine. "The Sacred History of Maunakea." *Honolulu Magazine*, 2019, www.honolulumagazine.com/Honolulu-Magazine/August-2019/The-Sacred-History-of-Mauna-Kea/.

"Mauna Kea: Temple Under Siege". directed by Joan Lander. Puhipau. produced by Nā Maka o ka 'Āina (Video production). 2005. Alexander Street video.alexanderstreet.com/watch/mauna-kea-temple-under-siege. 12/2/2019.

National Aeronautics and Space Administration. *Final Environmental Impact Statement for the Outrigger Telescopes Project: Volume II*. NASA Washington, D.C., 2005, pp. 9–14, *Final Environmental Impact Statement for the Outrigger Telescopes Project: Volume II*, ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/20060054216.pdf.

Witze, Alexandra. "The Mountain-Top Battle over the Thirty Meter Telescope." *Nature*, vol. 526, no. 7571, Oct. 2015, pp. 24–28. EBSCOhost, doi:10.1038/526024a.

Project goal or rationale: Through this project, I sought to enlighten myself and others with the conflicts over land, including the deeper issue of colonialism, in Mauna Kea and the construction of observatories there. In light of recent protests against the University's investment in Mauna

Kea observatories, I wanted to gain a better understanding of the issues through my love for art. I hope that my project conveys competing interests between indigenous Hawai'ians, ecologists, and scientists over land use in Mauna Kea, as well as the current evidence of power in the hands of the scientific community in regards to land use.

Project self-assessment: I believe that my project does a good job at depicting the conflict between scientific advancement and the maintaining of indigenous traditions and environmental health. I do believe that I could have done a better job at illustrating arguments from the scientific community in favor of the telescopes, though I do think that I captured some important points, such as the funding by the telescopes into the Hawai'ian education system. If I could, I would've interviewed protesters at a rally supporting University divestment on campus, as well as searching for even more statements by Hawai'ian community members to fully understand their arguments and positions. I think that one of the best aspects of my creation is its focus on the impacts of the Mauna Kea observatories on indigenous Hawai'ian peoples and the environment, while one of the worst aspects is probably the lack of extension on the perspectives of the scientific community. My friends have found my images visually appealing and were able to understand the conflicts of interest present in the pieces I chose to use oil pastels because I really enjoy the blending capabilities and overall appearance of them. The one reservation I have about them is their ability to create small details, which is less than that offered by colored pencils and some paints. I do think that my message was conveyed to my audience, however, especially due to the written descriptions and explanations of both pieces that highlight the meanings behind the images.

Process description: It took a long time to conceptualize the images, though once I did that, illustrating them with the oil pastels went pretty smoothly. I did struggle to an extent with getting in small details. Additionally, I only had a small selection of colors in my collection, so I was somewhat limited in my ability to portray different imagery with color. Depicting tales of creation and buried ancestors was also hard to conceptualize.

Process self-assessment: I believe that I did fairly well, given my media and topic. With more time, I could have created more detailed images and accessed acrylic or oil paints. I also would have liked to collage posters referencing protests against the observatories and investment in Mauna Kea. I would recommend oil pastels to others that have used oil pastels before, but would also advise them to work on a larger scale to be able to include more details. I learned that there have been large environmental and social impacts from the observatories on Mauna Kea. I feel that I was able to understand the relationships between different arguments over the observatories by visualizing the connections in art. However, I feel that I may be lacking in the full depth of analysis that exists in a term paper, since it is much more writing than what I have done. Even so, I think that I was able to understand the visual significance of Mauna Kea and its different parts by illustrating it.