



# **Ruinination of Sacred Space in Hawaii: Mauna Kea and the Thirty Meter Telescope**

**Bianca Cialone, University of Toronto**

Edited by Susie Strachan and Lily Mason

---

## **ABSTRACT**

The planned construction of the Thirty Meter Telescope on Mauna Kea in Hawaii reflects the island's long and historical struggle with colonialism, particularly within the astronomy industry. This paper seeks to investigate the relationship between colonialism and Indigenous space in Hawaii by framing Mauna Kea as a site of colonial ruination. Rather than mere defunct "memorialized monuments", Ann Stoler defines ruination as the physical and psychological debris left over from periods of colonization and how they seep into the present social and political present of those subject to colonialism. Manifested through the discourse, ideology, and violence behind the construction of the Thirty Meter Telescope, this paper posits that Mauna Kea is an example of an active site of ruination of Indigenous space as a result of Hawaii's past with colonialism and empire.

## Introduction

Situated atop Mauna Kea, a mountain sacred to the Indigenous peoples of Hawaii, are several telescopes and observatories funded and constructed by nations and astronomy organizations from around the world. Mauna Kea's largest and most controversial addition to date has been the Thirty Meter Telescope (TMT), supported by countries such as the United States, Canada, India, Japan, and China, and academic institutions such as the University of Toronto (Maile 2021, 98; 108). While Mauna Kea may be a prime location for a telescope, it means much more than that to Native Hawaiians. To them, it is a fundamentally sacred mountain related to the gods Earth Mother and Sky Mother, and thus, in line with a worldview that understands the relationship between people and the planet as reciprocal, they are responsible for Mauna Kea's care (Maile 2019, 320). Their relationship to Mauna Kea isn't possessive but genealogical, as all Native Hawaiians were created by Earth and Sky Mothers and hence are all related (Maile 2021, 97). While supporters of the TMT may reduce this relationship to religion, for Native Hawaiians, it's a political order that their lives revolve around (Maile 2015). In their attempts to silence Native opposition, astronomers, intellectuals, and the government of the State of Hawaii have employed settler colonial methods of dispossession, violence, and the attractiveness of discovery and modernity to justify their exploitation of Native space and land. I argue that Mauna Kea, a mountain sacred to Native Hawaiians, is a site that has been ruined by the ongoing entanglements of settler colonialism

and its principles of capitalist extraction. I investigate the construction of the Thirty Meter Telescope as a case study in which I identify how ruination is employed through aspects of extraction, settler modernity, and violence.

## Colonialism and Extraction

In her book *Imperial Debris: On Ruins and Ruination*, Ann Stoler explores the purpose and impact of colonial ruins. Upon seeing the word ruin, one may think of sites such as the Parthenon, the Pyramids of Giza, or the Colosseum – all “enchanted, desolate places...[that] provide a favoured image of a vanished past...thrown into aesthetic relief by nature” (Stoler 2013, 9). However, from a colonial framework, ruins are the physical and psychological debris leftover from the damage and destruction of imperial forces (Stoler 2013, 9). Rather than serve as “memorialized monumental” relics, colonial ruination is about “what people are left with” (Stoler 2013, 9). These ruins have not only disrupted physical space, but livelihoods, health, and structures, resulting in the social ruination of people's lives” (Stoler 2013, 10).

To look at a site of ruination, such as Mauna Kea, is to investigate how the consequences of empire are assumed and leave debris within the present (Stoler 2013, 11). Ruination is a deliberate project to which one is subject, and as a result, “lays waste to certain people's relations, and things that accumulate in specific places” (Stoler 2013, 11). While sites of ruin may be thought of as defunct, stationary physical environments, Mauna Kea is an active site of ruination that reflects colonial projects of the past and through which Indigenous peoples' social

and political ruination is seen.

To understand the ruinous nature of the TMT, its capitalistic elements must be made clear. The TMT is funded by nations across the globe and, most importantly, with settler-colonial dollars. American and Canadian capital, for one, has been accumulated through the historical and ongoing dispossession of North American Indigenous peoples and together fund the conquest and further dispossession of Native Hawaiian sacred land (Maile 2021, 106). The State of Hawaii also has an economic interest in these projects, as it supports their tourism economy. Large sectors of the tourism industry in Hawaii are based on tours of astronomy structures on Mauna Kea (96). Already, ruination has come into play. According to Stoler, “ruined ecologies are the profit of some and the ruination of others” (Stoler 2013, 14). Ruining Mauna Kea by littering her with observatories and telescopes has provided entertainment for tourists and revenue for the government, while for Native Hawaiians, it has meant the physical and spiritual destruction of their sacred mountain.

There is an obvious economic interest in the TMT from global players and industries. Given this, colonialism and capitalism are grounded in the extraction of the Native’s land (Szeman 2017, 434). To function, capitalist societies need physical inputs that require extraction — whether it’s coal, gold, land, etc. (443). It’s through this process of extraction that “value is generated through capitalism” (444). To add to the previous list of physical inputs, I will include space. In the case of the TMT on Mauna Kea, astronomers are extracting space from Na-

tive land to use not for mining or real estate but for space to place their telescope on to realize its scientific and economic value. By doing so, astronomers invade sacred Indigenous space and minimize Mauna Kea to a “scientific commodity” rather than acknowledging its spiritual and political significance to Natives (Maile 2019, 331). In order to possess this space, astronomers and government actors such as the State of Hawaii must once again dispossess Native Hawaiians of their land (Szeman 2017, 444). The extraction of space on Mauna Kea is also ruinous in an environmental sense. It is projected that the TMT would release approximately 120-130 cubic feet of solid waste every week, which is to be stored in a five thousand-gallon tank underground in the mountain (Maile 2019, 331). Extraction from the environment comes with its prices, and the construction of the TMT seems to create an ironic and vicious cycle: one of the justifications for the telescope is that it will allow science to discover habitable exoplanets for humans to live on, as the conditions on Earth worsen due to climate change driven by the extraction of oil and coal for profit (Maile 2021, 100). Meanwhile, the TMT will contribute to the declining condition of the environment through its colonial disregard for the state of the Earth (as long as it will bring it profit and power) (Szemann 2017, 440). Mauna Kea is being ruined by the colonial state’s extraction of space and hence profit from Indigenous land, which will cause detrimental environmental harm and further deny Indigenous peoples’ agency and will.

## Language of Colonization

Mauna Kea will also be ruined by the TMT through settler notions of modernity and discovery. The use of Mauna Kea as the location for the telescope has been colonialist from the very beginning. The so-called “first person to discover” the mountain, Dutch-American Gerard Kuiper, found it to be an exceptional space for observing the night sky, thus igniting the astronomy industry’s possessive grip on Mauna Kea (Maile 2021, 106). The very language used when discussing Kuiper is coined by colonial white men who rationalize their claim on Indigenous land by dismissing Indigenous peoples’ existence and proclaiming themselves as the supposed “discoverers.” The use of this language alone undermines Native Hawaiian’s sovereignty and their right to the land.

The language surrounding Mauna Kea and the telescopes that the astronomy industry forces upon it are also telling that the motivations for building the TMT are colonialist, rooted in the same logic and history as the colonization of the Hawaiian Islands by the United States. The TMT is supposed to bring our knowledge of science and outer space to “new frontiers” (Maile 2019, 331). This motivation behind the construction of the TMT strongly echoes the rationale of Euro-American colonialists whose desire for discovery worked in tandem with the forcible removal of Indigenous peoples from their land (*ibid*). Ironically, this idea was published in Fredrick Jackson Turner’s *Frontier Thesis*, which was released in the same year that the Hawaiian Kingdom was conquered by the United States (*ibid*). The urge to discover is also tied to modernity or modernizing science.

J.B. Zirker, an astronomer who played a significant role in the use of Mauna Kea as a site for scientific telescopes, described them as “the grandest monuments of our technical civilization” (Maile 2021, 107). Associating telescopes with greatness because of the knowledge they can produce and their contribution to the progress of civilization is not only used to rationalize their construction but also works in opposition to Native Hawaiians, who are associated with the backward, ancient, and antiquated Stone Ages and whose resistance to the appropriation of their land is thus reframed as a rejection of modern science (110). Because Native opposition is grounded in spiritual belief rather than empirically tested science, it is often cast aside as meaningless voodoo religion. Native worldviews are considered inferior to science, and their cause is thereby rendered invalid (Maile 2015).

At the same time, Hawaiians’ “ancientness” is also used against them in a different way. In attempts to garner Native support for the TMT, astronomers have released statements in which they present a certain narrative to appeal to traditional Native Hawaiian culture. Alongside images of Hawaii’s last kings, a pamphlet from the Keck Observatory on Mauna Kea claims that “after all, the ancient Hawaiians were among the first great astronomers, using the stars to guide them along the islands” (Swanner 2017, 306-7). This appropriation of Indigenous culture is typical of colonialists. To them, the Natives and their culture are an exotic, mystical thing. Here, the Keck Observatory is using it to draw an attractive picture of Native Hawaiians being “on their side,” asserting that the obser-

vatory is continuing the astronomy tradition of ancient Hawaiians. Using Mauna Kea in this narrative is not only exceptional in terms of space but also culture: where else is better to build an astronomy observatory/telescope than on a mountain belonging to the world's first astronomers? This changing view of modernity versus antiquity – at times superior to ancient Indigenous sanctity of Mauna Kea, at others an equal justification for the TMT – signifies the power colonialists have to alter settler-colonial ideas of modern versus ancient and superior versus inferior to rationalize their ruination of Indigenous land. Mauna Kea continues to be ruined by the ghosts of colonialism that landed on the island in 1893 and haunt it through extractive and dispossessive astronomy projects.

That said, the telescopes and observatories that litter Mauna Kea are not there because of pamphlets depicting friendly relations and admiration for Native Hawaiians. They are there because the settler-colonial State of Hawaii has consistently, for over 100 years, and unapologetically employed violence against its Indigenous population. Before delving into the violent foundations upon which the State of Hawaii was built, it must be understood that the main language of the colonialists is just that – violence. They speak it when they dominate, dispossess, and eliminate, and the supremacy they gain from this is further established with violence (Fanon, 8). State-sanctioned violence is required by colonialists to survey and control the Native: "...the proximity and frequent, direct intervention by the police and the military ensure the colonized are kept under close scrutiny and are contained by rifle butts and na-

palm" (Fanon 1963, 8). The first act of ruin employed on the grounds of Hawaii was in 1893, when the Hawaiian Islands were seized from its Kingdom and people by the United States (Maile 2021, 105). In 1898, it was officially annexed by the United States, who erected the State of Hawaii on stolen lands. Mauna Kea and the island(s) it sits on have been ruined not only by such historical acts of violence but also that of the contemporary.

Along with framing anti-colonial Indigenous advocates as antiquated, harmful settler-colonial-made stereotypes frame opposing Natives as inherently violent. In 2014-5, there was significant opposition from Native Hawaiians when the construction of the TMT began on Mauna Kea. Leaders and activists blocked the main road to the mountain in the act of protecting their sacred land from any further ruination. However, this resistance did not bode well with the State of Hawaii, and the Governor, David Ige, triggered a state of emergency in response (Maile 2019b, 334). His rationale for doing so was that the Native protestors harassed visitors and tourists, created a hostile environment, and were overall "an imminent peril to the public health or natural resources" (ibid). As a result, several protestors were arrested for reoccupying Mauna Kea (ibid). The State's claims were unsubstantiated. No Native was harassing anyone. No Native was a threat to the environment. These imagined threats of violence claimed by colonialists to be presented by the Native are often used as weapons to feed into settler stereotypes of Native peoples' tendency for violence and are thus used to rationalize actual material violence perpetrated

by the government – especially to make way for settler-colonial projects of extraction or profit (ibid).

## Conclusion

Using such imagined and violent settler narratives legitimizes state-sanctioned police brutality and violence against the Natives in the pursuit of securing capital – or, in this case, space – for the astronomy industry’s development of observatories and telescopes (Maile 2019b, 335). By identifying a constant line from the overthrow of the sovereign Hawaiian Kingdom to today’s defence of the building of the TMT, we can see that this violent history has defined and set a precedent for the current use of violence against Native Hawaiians which has “yield[ed] new damages and renewed disparities” upon their community (Stoler 2013, 7). In line with Stoler’s argument, “ruin” is a violent verb – it is happening now as a result of the past. The sacred Mauna Kea has been ruined by settler colonialism for over a century. A trifecta of settler nations, the astronomy industry, and supporting academic institutions have been bankrolling the project of extracting space from Indigenous land for the use of scientific observatories and telescopes. Superseding Indigenous claims to the land, its sacredness, and environmental concerns, such projects have gone ahead in the colonial name of modernity and discovery. State-sanctioned violence props up these justifications by casting Natives as violent threats to the rest of the State at large. Mauna Kea continues to be haunted by the ruination of its land by colonial forces in 1893. Colonial violence and detrimental nar-

ratives about Native Hawaiians continue to be felt today by its population and the mountain.

## Bibliography

- Fanon, Frantz. 1963. *The Wretched of the Earth*. New York: Grove Press.
- Maile, David Uahikeaikalei’ohu. 2015. “Science, Time, and Mauna a Wākea: The Thirty-Meter Telescope’s Capitalist-Colonialist Violence, Part II.” *The Red Nation*. <http://therednation.org/science-time-and-mauna-a-wakea-the-thirty-meter-telescopes-capitalist-colonialist-violence/>.
- Maile, David Uahikeaikalei’ohu. 2019a. “For Mauna Kea to Live, TMT Must Leave.” *The Abusable Past*. <https://www.radicalhistoryreview.org/abusablepast/forum-2-1-for-mauna-kea-to-live-tmt-must-leave/>.
- Maile, David Uahikeaikalei’ohu. 2019b. “Threats of Violence: Refusing the Thirty Meter Telescope and Dakota Access Pipeline.” In *Standing with Standing Rock: Voices from the #NoDAPL Movement*, edited by Nick Estes and Jaskiran Dhillan. Minneapolis: University of Minnesota Press. pp. 328-343.
- Maile, David Uahikeaikalei’ohu. 2021. “On Being Late: Cruising Mauna Kea and Unsettling Technoscientific Conquest in Hawai’i.” *American Indian Culture and Research Journal* 45 (1). pp. 95-122.
- Stoler, Ann Laura. 2013. “Introduction: ‘The Rot Remains’: From Ruins to Ruination.” In *Imperial Debris: On Ruins and Ruination*. Durham: Duke University Press. pp. 1-35.
- Swanner, Leandra. 2017. “Instruments of Science or Conquest? Neocolonialism and Modern American Astronomy.” *Historical Studies in the Natural Sciences* 47 (3). pp. 293–319.
- Szeman, Imre. 2017. “On the Politics of Extraction.” *Cultural Studies* 31 (2–3). pp. 440–447.

