

Topic: Astronomy on Indigenous Lands — Seeking Consent for Construction on Sacred Ground

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Maximum participants: 29

Additional note:

The National Congress of American Indians has [a lot of great material](#) on religious freedom and sacred spaces, and what these sites actually mean to indigenous groups. The justice department of the United States federal government developed a training on the same topic for their employees. You can find the slides from this training at [this page](#).

Presentation:

Disclaimer

Stephanie is not a member of an Indigenous group, nor is she an expert in this topic. She has tried her best to understand the issues from the perspectives of the Native nations on which this talk is based, but recognizes that she is not immune to mistakes. If you notice any mistakes in what is in the slides, or is written here, please contact one of the organizers of the EIJC.

The historical territory of the Tohono O’odham people spans from the Gulf of California to the San Pedro River, from northern Mexico to central Arizona. In the last 200-300 years, that region has shrunk significantly. However, there are two mountains that have been cited as sacred landscapes for thousands of years: Baboquivari and Ioligam Doag. Ioligam Doag is the site of Kitt Peak National Observatory. Stephanie has spent a significant amount of time observing from the “Southwest Ridge” of Ioligam Doag. During her first observing run, another astronomer incorrectly informed her that KPNO was not located on sacred ground, and this lack of education was part of her motivation for this presentation.

Similar to the Tohono O’odham, Maunakea is an incredibly sacred mountain for the Kanaka ‘Ōiwi. There are some astronomers who do not appear to respect this fact. It is a nuanced problem for a number of reasons, but primarily because there are also Native Hawaiians who support the construction of TMT. How do we reconcile that fact with the history of the region and our desire to build telescopes there? How do we do this *right*, and not just better than has been done in the past?

In 2007, the United Nations passed a series of articles that affirmed the rights of indigenous peoples around the world, and collected them into the Declaration of Rights of Indigenous Peoples (UNDRIP). It’s important to note, however, that this was not legally binding, but was meant more to show member countries’ commitment to the preservation of indigenous groups and cultures. Click the links for more information on the [UN](#), [State Department](#), and [re-interpretations](#) of this document since its passing.

UNDRIP details many different rights that should be afforded to indigenous groups (well summarized and discussed in [this paper](#)). Some of these include the right to...:

- Self-determination
- Maintain and develop their spiritual and religious traditions
- Have access and privacy to their religious and cultural sites
- Maintain and strengthen spiritual relationship with traditionally owned lands.
- Their traditionally owned or occupied lands.
- Redress for actions that infringe (or have infringed) on their rights
- Participate in decision-making processes that affect their rights, in accordance with their own procedures
- **Consent (or not)** to measures that will affect them.

This last point is of particular relevance to the issue of observatory development on indigenous sacred lands. [UNDRIP outlines](#) what is meant by “free, prior, and informed consent” (bold font added):

Article 19

States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their **free, prior and informed consent** before adopting and implementing legislative or administrative measures that may affect them.

## Article 32-2

States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their **free and informed consent prior** to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.

Unfortunately, different UN documents define consent differently. This ambiguity allowed the United States to put forth its endorsement of UNDRIP with the caveat that the US will only require *consultation*, and not affirmative consent, for projects impacting Indigenous peoples. However, the Food and Agriculture Organization of the United Nations (FAO-UN) has devised a working definition consistent with that of Native Hawaiian and Indigenous peoples. For the sake of this session, we will use [this](#) (also described [here](#)) set of definitions.

The FAO-UN defines these aspects of consent in the following way (paraphrased):

- Consent is “a freely given decision that may be a ‘Yes’, a ‘No’, or a ‘Yes with conditions’, including the option to reconsider if the proposed activities change or if new information relevant to the proposed activities emerges”
- Free consent is given voluntarily and without coercion, intimidation, or manipulation. The consent process is self-directed from the community in question, and unencumbered by external coercion, expectations, or timelines
- Prior consent is sought sufficiently in advance of any authorization or start of activities, with the timeline set by rights-holders and their decision-making process
- Informed consent means that rights-holders have sufficient information about pros, cons, and consequences of giving or withholding consent, delivered in local language and culturally appropriate format

Now that we have a basic understanding of what it means to earnestly request consent, let’s apply a critical eye to the history of Maunakea Observatories and Kitt Peak National Observatory. This condensed overview attempts to highlight points directly related to consent, and is nowhere near a complete story. For many more details, please refer to the Swanner (2012) PhD thesis, [Mountains of Controversy: Narrative and the Making of Contested Landscapes in Postwar American Astronomy](#).

Iligam Doag is sacred to the Tohono O’odham people of Southern Arizona/Northern Mexico, and sits within the Tohono O’odham Reservation. The National Science Foundation negotiated a [perpetual lease](#) for the mountain from the Tohono O’odham in 1958 for \$25,000 at signing and \$2500/year thereafter. Even at the time, this was regarded as a small amount of money, given the benefit to the NSF, the University of Arizona, and the astronomy community writ large.

At the time of lease signing, many reservations were being terminated in an attempt to force native people to assimilate with white US culture, and most of the Tohono O’odham were living in poverty. Leandra Swanner proposes that the lease was signed, in part, as a show of “good citizenship”, and an attempt to hold onto tribal rights to the land.

In the 1990s, members of the Tohono O’odham began to call for a renegotiation of the lease, challenging the right of the 1958 Council to speak for all members of the Nation and referencing recent legislation strengthening their legal ties to the land. And in 2005, the Tohono O’odham Tribal Council declared its opposition to any new telescopes (specifically VERITAS) being built on their land, and requested new negotiations to determine an end date for the lease.

On a nearby mountain, a similar story was playing out. Dził Nchaa Sí’an means Big Seated Mountain, and is sacred to the Western Apache (also known as the San Carlos Apache). Astronomers may know this mountain as Mount Graham. The Western Apache is actually a consolidated group of several indigenous tribes that were consolidated onto the San Carlos reservation, 1-4 of which have claimed Dził Nchaa Sí’an as a sacred landmark. Evidence from traditional stories/language and Spanish colonial records show that these Apache tribes would retreat to Mount Graham in the summer months. However, Dził Nchaa Sí’an was removed from their reservation by executive order in the late 1800s, and placed under the control of the forest service.

The University of Arizona and its partners began the site selection and permitting process in 1980. Initial protests to construction came primarily from environmentalists and recreational users of the mountain. The observatory planners sent form letters requesting feedback to a dozen or so tribal nations. The Hopi and Zuni tribes, located much further away from

Mount Graham, acknowledged the mountain as sacred to them; they made requests which were accommodated in early site planning.

When it appeared that all other opposition was failing, members of the San Carlos Apache came forward to say that Dził Nchaa Si'an was also sacred to them. However, they were reluctant to share all details of their religious activities on the mountain, since their rites are supposed to stay secret, and only certain high-ranking practitioners were given detailed knowledge. The tribe also puts a high value on face-to-face interactions; they claim they did not receive the form letter sent by UofA, but even if they received it, it's possible they would still not disclose private information to strangers via letter. Environmental and religious concerns over the observatory were then bypassed by congressional riders that effectively exempted the observatory from abiding by environmental or religious protections.

Maunakea is one of the most sacred places to the k̄anaka 'ōiwi, or k̄anaka maoli, the Native Hawaiian people. Maunakea's summit is part of lands taken from Native Hawaiians when US forces overthrew Queen Lili'uokalani in 1893. Note that Native Hawaiian culture was suppressed in a variety of ways until the 1950s-1980s. There are many shrines on the summit, and natural sites such as volcanic cinder cones and Lake Waiau are also sacred. Historically, ascent to the summit was restricted only to high-ranking members of the community for important ceremonies, and it is still used for religious and ceremonial purposes today.

Since the mid-to-late 1960s, the state has leased the summit to the University of Hawai'i at Mānoa for \$1 per year. The master lease expires in 2033 (and will be re-evaluated well before that), so much of this is bound to change. However, as it stands, several telescopes are built directly on top of cinder cones, which are considered sacred to Native Hawaiians.

Some may remember the large-scale protests to the telescopes in the 1990s, in the wake of the Native Hawaiian Renaissance, and successful protests against other large projects in the islands. The protestors cite strong evidence that the observatories have done environmental damage and demolished sacred places. Native Hawaiians also claim that the presence of observatories and restrictions on mountain top access disrupts their ability to perform traditional rites and ceremonies. However, there are some Native Hawaiians who support the observatories and continued development of the summit, though many of these supporters simultaneously cite frustrations with the University's stewardship of the mauna.

We've gone through the history of three contentious mountains that are presently home to a panoply of astronomical observatories.

#### Discussion Questions:

What can astronomers do *differently*?

Pretend that you are planning a brand-new ground-based observatory, and are looking for a good mountain site. How will you determine if there are Indigenous claims to the mountain, and that you have consent from any & all relevant groups?

Pick an existing observatory. Based on UNDIRP and the FAOUN definition of consent, did astronomers have consent to begin building telescopes there? If not, what could/should they have done differently?