

# URGE

## Unlearning Racism in Geoscience

**UCLA** College | Physical Sciences  
**Earth, Planetary & Space Sciences**

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### URGE Policies for Working with Communities of Color for the UCLA EPSS Pod

This is what was found by UCLA EPSS pod at University of California Los Angeles on Policies for Working with Communities of Color as well as plans for improved processes and/or needed resources.

*Pods may have members from a range of career stages and involvement in the development and execution of research projects, and pod members may have different experiences or different perspectives when responding to these questions. Consider this in the summary document and focus on capturing responses that are representative of the range in your pod.*

**Preliminary Statement** - We don't want to call anybody out for their research or their teaching experiences, which we think would be misaligned with the pod's intentions. We give specific examples from our own experiences. There are a series of questions at the end of the deliverable that we recommend researchers use to direct their own work towards more inclusivity.

#### **Resources:**

Native Land Map: <https://native-land.ca>

#### **Audit of previous interactions with communities of color at our organization:**

- *E.g. How many research projects were undertaken in countries or regions with communities of color, how many of those included meaningful interactions with those communities of color? Briefly describe one or more example projects to provide context for the following questions.*

#### **General departmental audit:**

##### **Geology:**

- Field work in Tibet/ Mongolia/ India
- Field work in California
- Courses taught locally in the field
- Environmental Science Without Borders - <https://www.eswb.org>

##### **Geophysics:**

- Central America network
- Data from Global network

##### **Geochemistry:**

- Collaborations with other institutions' BIPOC faculty

##### **Space Physics:**

- Ground Magnetometers (McMac/AMBER/SAMBA installations – installing ground based magnetometer observatories in continental US/ Africa/ South America). For these installations, they utilized schools to provide infrastructure (internet, power) and have a local caretaker that is a steward for the equipment.

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### Planetary Science:

- Use of observatories on indigenous lands: Maunakea Observatories in Hawai'i. Kitt Peak National Observatory (KPNO) in Arizona on the land of the Tohono O'odham Nation. Arecibo (prior to collapse)
- Infrastructure for spacecraft missions (facilities for fabrication, launch, DSN)

### Specific examples:

- We will use the building of the Thirty Meter Telescope (TMT) on Maunakea as an example for the following questions.
- AG's perspective: using the Keck I and II telescope at the W.M. Keck observatory in Hawai'i and the WIYN 0.9 m telescope at KPNO.
- Mike Lawson's perspective: field work in Death Valley National Park and in Alaska

### What worked well in these interactions?

- *E.g. Using local names for landmarks or features, adhering to restrictions and customs such as not scheduling outreach meetings/events during hunting season*

### TMT :

- Programs created to educate Hawaii students, to sustain a workforce pipeline that supports hawaiian residents from university to job acquisition in hawaii, internship programs at science and tech companies in hawaii: <https://www.tmt.org/page/wepoc-programs>
- <https://www.tmt.org/page/for-the-media>:
- *Respecting Hawaiian Culture and Protecting the natural resources of Maunakea*: Cultural training, cultural and archaeological monitoring, observing native hawaiian cultural practices, Incorporating hawaiian music and art, hawaiian language astronomy lessons and community tours, blending into environmental surroundings, reducing traffic
- *The Facts About TMT on MaunaKea*: cultural, environmental, community and financial impacts, as well as compliance, and history of community outreach, and science impact.
- Consulted with Native Hawaiian groups
- Provided opportunities for community feedback
- Held more than 20 public meetings
- Participated in one-on-one meetings, small and larger group presentations
- Engaged in open dialog and meaningful discussions with community members and stakeholders

### Keck and KPNO as an Observer :

- All over the summit at KPNO, there are spots dedicated to the Tohono O'odham Nation. They also sell artwork and goods handmade by the Tohono O'odham Nation in the gift shop.
- KPNO's website has a tab dedicated to the Tohono O'odham Nation where they offer the "Colors of Nature Summer Academy on Kitt Peak" free for students in 5-7th grades: <https://www.noao.edu/kpno/tonopps.html>
- Keck employees do observe certain Hawaiian holidays, and it is clear they know a lot about the land. (it is clear that they probably have taken trainings classes, and are also interested themselves in the various sites of the islands)



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#### Death Valley:

- During permitting with the National Park Service, they reached out to the ingenious people to check that they were ok with where I was working. I was working in an area that they had not traditionally inhabited, and was allowed to do the work. I was instructed to not touch cultural artifacts but photograph them and provide the park with GPS coordinates.

#### What did not work well, and how can this be better addressed in future plans?

- o *E.g., We did not include priorities of local communities of color when developing our proposal, and to address this in the future we will include community member(s) in the early stages of proposal planning and writing as collaborators*

#### TMT :

- 2009: Initial site testing did not call for collaboration with native hawaiians, nor did it acknowledge the native hawaiians and the fact that this land is sacred. This goes for the other sites studied in this work as well: <https://iopscience.iop.org/article/10.1086/599287/pdf>
- complaints that scientists come to hawaii to use the telescope without respecting or recognizing the land, causing more traffic as scientists have to go to work up the mountain, the telescopes are an eyesore, etc. TMT is working to address these worries directly with trainings, traffic reduction programs, and putting TMT in a location that will go unseen when at a sacred site on the mountain. Astronomers do not do the training however, and this needs to be addressed.
- 2019: While the majority of Hawaiian voting citizens are in favor of building TMT, the native Hawaiian community is split as of the latest polling: <https://www.civilbeat.org/2019/08/civil-beat-poll-strong-support-for-tmt-but-little-love-for-ige/>

#### Keck and KPNO as an Observer:

- I haven't noticed similar acknowledgement to native hawaiians on the summit of Maunakea, or Keck headquarters as I saw across Kitt peak.
- I did not acknowledge the native Hawaiians, the fact that Maunakea has many sacred sites, or the Tohono O'odham Nation in my papers, and I should have - I will do this in the future.

#### Death Valley

- I feel like I did the bare minimum and didn't really involve the local ingenious persons in the research. I did not include them in my papers (I should have). If it was a bigger project, I would have done more educational outreach.

#### Are there ways to improve the outcome of projects already undertaken?

- o *E.g., Work with and compensate community members to translate research results and outreach materials into local language, include acknowledgements in forthcoming publications and presentations*

#### TMT :

- TMT works closely with companies and communities to enact each of their initiatives and programs. I think it would be good to hire a **paid cultural liaison** as well, to acknowledge the importance of their contributions and cite their collaborations more directly in some cases.



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- How do we address the coming and going astronomers? They cannot require them to do the trainings that TMT employees have to take - maybe it is possible to require new observers to complete the cultural training course at least once every other year, or at the very least provide it to them.

### **Keck and KPNO as an Observer:**

- projects I have already undertaken have been published, so going back to add an addendum to acknowledge the indigenous people and land may be challenging - but not impossible.

### **Death Valley**

- I have only published this work in my dissertation, so I can add an acknowledgement in any future articles.

### **Are there specific resources or guidelines that are needed to improve the process for planning ahead and working with communities of color?**

- o *E.g., Additional support/funding for early planning process of projects to include forming productive and mutually beneficial connections with communities, establish a point of contact for interfacing with communities so as not to overwhelm with individual requests from researchers and collaborators*

### **TMT :**

- Establishing a point of contact that can be cited and paid. - this will require funding.

### **Keck and KPNO as an Observer:**

- Perhaps: the opportunity to volunteer for events like "Colors of Nature Summer Academy on Kitt Peak" when I am granted observing time.
- Kitt Peak has brought touring groups into my telescope dome during observations briefly so that I could tell them about the science I am currently conducting. I thought it was fun and it did not interfere with my measurements at all. Perhaps these touring programs can dedicate certain days to the indigenous people of the area, and also bring tour groups in more often. I would love more opportunities to directly interact with those interested in the science going on at the observatory.

### **Death valley:**

- A point of contact maybe? Offering a talk/ participating in tribal meetings? Respecting their right to not work on their land.

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**Consider your own research and answer the following questions for yourself/your research group:**

1. If you are involved in research with communities of color, in the US or abroad, have you...
  - a. Actively sought out local collaborators / liaisons / guides? Why or why not?
  - b. Were they included in the early development and/or proposal of the research or project itself, or added at a later stage?
  - c. Were any local collaborators included as authors on presentations and/or papers?
2. Actively sought to include local students in your research? Why or why not?
3. Sought to build trust and form long-term connections and collaborations with local institutions if your project is multi-year / ongoing? Why or why not?
  - a. Were previous negative interactions, whether from inside or outside of your organization, addressed in the plans for building these connections and trust?
4. Shared data and findings with the local/regional community in a way that is more accessible? (i.e., translating into different languages). Why or why not?
5. Educated yourself and your group/team about local politics, culture, customs, and knowledge, including the history of colonialism / settler colonialism in the region? Why or why not?
  - a. Was sufficient time allocated to the process of working within the community's governance, customs, and priorities?
  - b. Is respecting culture and customs included as part of your code of conduct?
6. Acknowledged local communities / Indigenous tribes in your research results?
7. Included local communities in your broader impacts in a meaningful way that builds on the community's identified needs and concerns?
  - a. Did these efforts leverage community members, and was that work compensated appropriately?
8. Considered and prioritized research questions and research locations based on needs of local communities, in addition to how impactful they are seen within academia?
9. How will we improve moving forward?
10. Are there specific resources or guidelines that are needed to improve the process for planning ahead and working with communities of color?