URGE
Unlearning Racism in Geoscience

THE UNIVERSITY OF NEW MEXICO.

URGE Policies for Working with Communities of Color for the University of New Mexico

This is what was found by Earth and Planetary Sciences at the University of New Mexico 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.

- **Audit of previous interactions with communities of color at our organization:**
    Early career E&PS faculty research interactions with communities of color primarily took place through field work outside of the US. Examples of research in previous graduate/postdoctoral positions and continuing work at UNM include:
    - *Postdoctoral work for one new faculty member included several years of field work in Myanmar. In this context, work involved establishing connections with the local communities early in the project to assess what components of the work and skill sets of the researchers would be of interest. Projects included coordinating software training workshops for local community members who were interested in the techniques being used by the research group.*
    - *Graduate and postdoctoral work for one new faculty member exclusively took place in areas with no history of long term habitation (Antarctica and Svalbard). This faculty member did support a research project in British Columbia as a graduate student that was in a site important to the First Nations communities there. Day to day contact with communities of color there was primarily through the employment of a few young people from the community who worked on the field site, but the work was preceded by council meetings for approval of the project and identification of areas for the research group to contribute to the broader community.*

    Other E&PS faculty highlighted a number of active projects that are structured around interactions with communities of color both within New Mexico and at other sites:
    - *One senior faculty member has worked with communities of color and underrepresented groups in formal training grants at UNM, in individual research*

grants both in the US and internationally, and in funded and un-funded outreach and service activities in NM and the US. Examples include:

- ■ ***Training Grants for underrepresented groups -*** *1. Collaborative Research: A Strategic Partnership for Geoscience Education and Research on Watershed Science and Climate Change in the Southwestern U.S.; 2. STEM Pathways: New Mexico Alliance for Minority Participation (Senior Level Alliances): NSF HRD, 3; Louis Stokes Alliance for Minority Participation - Bridge to the Doctorate VI: NSF HRD, 4. Track 1, GK-12: Ecohydrogeology in the Middle Rio Grande Environment; NSF/HER; 5. New Mexico EPSCoR RII3: Climate change impacts on New Mexico's mountain sources of water (water quality), NSF, 6. New Mexico EPSCoR RII4: Energize New Mexico, NSF; 7. US Egypt Cooperative Research: Comparisons between New Mexico and Egyptian travertines and tufas: NSF OISE*

- ■ ***Research Grants involving indigenous/tribal/first peoples as partners and co-authors of products -*** *1. Collaborative research: Reconstructing the Origins of the Colorado River: An Integrative Study of the Miocene-Pliocene Bouse Formation (NSF Sedimentary Geology Program); 2. Collaborative research: Helium-isotope systematics along seismic profiles in Tibet to study geometry of Indian and Tibetan lithosphere beneath the Lhasa and Qiangtang terranes (NSF-EAR):*

- ■ ***Outreach -*** *1. GCNP.. Collaborative Research: The Trail of Time: A Geoscience Exhibition at Grand Canyon National Park: NSF- Informal Science Education; 2. Long-term dynamics of stream hydrology and water quality in the Jemez Mountains of New Mexico. US NPS Cooperative Agreement. 3. Acoma Pueblo -- unfunded research and outreach on geology and water quality.*

○ *Another senior faculty member is currently working with one student through the McNair Program at UNM, mentoring him on a project related to groundwater and soils at the Oro de Valle National Wildlife Refuge. He is also currently funded to conduct research and conduct workshops on Multicontext Theory and the LS-AMP program at Arizona State University (a program dedicated to funding undergraduate research for underrepresented minorities):*

- ■ *Western Alliance to Expand Student Opportunities (WAESO) to Parity Capstone Operational, Research, Evaluation, Documentation and Institutionalization "10+" LSAMP Alliance. Funding Source: National Science Foundation.*

- **What worked well in these interactions?**
  - *For work in Myanmar from early career faculty member: It was important to check with collaborators before scheduling a field work trip to make sure that it is not during exam season or an important holiday. This ensured that local students could always participate in the field work. In addition, In much of Southeast Asia there is a conflict between colonial names and the local preferred names - sometimes they differ only in spelling, sometimes more significantly. The faculty member worked to determine the local preferred names for the geologic features in papers, in the hope that this will shift the balance of names used in the literature over time.*
  - *For training projects outlined by senior faculty member: Weekly open-ended meetings with cohort groups, building mutual trust, safe spaces, lots of self-directed resources for methods, and working to develop professional skills and writing.*
  - *For research projects outlined by senior faculty member: allowing time for communication, permitting; budgeting funds for inclusion on travel, etc. Multiple workshops at all stages, extra time for indigenous contributions and inclusion of ideas. Checking in. Assistance with professional development, presentations, writing as needed/requested. All data shared (and samples, where appropriate). Letters to chains of command regarding participation and accomplishments.*
  - *From senior faculty member working on Multicontext Theory: Coming from a place of mutual respect. Recognizing that we are interested in pursuing equity and interesting research. Not treating people from underrepresented backgrounds as "other" or "they".*

- **What did not work well, and how can this be better addressed in future plans?**
  - *For work in Myanmar from early career faculty member: In the earthquake hazards field, there is a notion that publishing a new updated model will automatically make people safer, while in fact it requires deep commitment and long effort to get the model accepted within the political structure where it can be used - in Indonesia for example there is huge resistance to using results from foreign models, and they tend to stick with whatever (possibly outdated) work was done locally. Thus, collaboration with local scientists (in which they lead the work, rather than just being somewhere on the list) is critical to making a real difference. In addition, there are documented cases where foreign-designed hazard mitigation strategies have made communities less safe - for example, a tsunami warning system that was installed in Sumatra by a foreign organization but improperly communicated and maintained, so it didn't sound a warning when it was supposed to, leading to hundreds of deaths of people who might have decided to evacuate if not for the false security of the non-alarm.*

- ○ *From early career faculty member working in the US: Problems arise from interactions that are one-sided regarding what the researchers need/want; thereby isolating researchers from the community. This leads to treatment of the community as tokens, and otherwise non-equitably.*

- **Are there ways to improve the outcome of projects already undertaken?**
  - ○ *In general, improved data curation, more outreach, and follow-up with existing professional development programs would improve outcomes.*
  - ○ *Including land acknowledgements for projects that include field data/samples. This would also apply to previously collected data. Examples for inclusion in publications:*
    - ■ *"The ENAM-CSE study area includes <u>traditional lands and waters</u> of <u>many Indigenous people</u>, including the Lumbee, Skaruhreh/Tuscacora, Hatteras, Roanoke, and Chesapeake territories."*
    - ■ *"The Bighorn Mountains are the Basawaxaawúua ('our mountains') or Iisaxpúatahchee Isawaxaawúua ('bighorn sheep's mountains') in the Crow language. Our experiment was conducted on traditional Crow, Cheyenne, Ochethi Sakowin and Arapaho territories."*

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

  - ○ *We recommend developing departmental resources to create standard practices around land acknowledgments for all projects, including when working with previously collected data. This could be formalized as part of the graduate handbook for new researcher training and be incorporated into teaching materials/field trip handouts.*
  - ○ *It could be productive to designate an office or individual liaison, whether at the department, college, or university level, to provide connections to local communities and ground-rules for supportive and equitable interactions with them, while supporting research goals.*
  - ○ *Development of an undergraduate of graduate level class on overcoming colonial frameworks in the geosciences could be helpful, particularly if this topic was included as an area of assessment for meeting departmental curricular goals. Collaboration with the UNM Native American Studies could also lead to establishing a more inclusive curriculum across the university.*

- ○ *Establish standard practices expecting practices of inclusion to be part of proposal broader impacts, both within our own collaborations and more broadly within the geosciences community.*
- ○ *Encourage and welcome participation of local communities for field trips, workshops, meetings. Facilitate interactions of elders and representatives with students. Include parents of students/families with related social events.*