



## Unlearning Racism in Geoscience

*Unlearning Racism in Geoscience (URGE; [www.urgeoscience.org](http://www.urgeoscience.org)) is a community-wide journal-reading and policy-design curriculum to help Geoscientists unlearn racism and improve accessibility, justice, equity, and inclusion (AJEDI) in our discipline. URGE's primary objectives are to (1) deepen the community's knowledge of the effects of racism on the participation and retention of black, brown, and indigenous people in Geoscience<sup>2,3</sup>, (2) use the existing literature, expert opinion, and personal experiences to develop anti-racist policies and strategies, and (3) share, discuss, and modify anti-racist policies and strategies within a dynamic community network and on a national stage. By meeting these objectives, we hope that Geoscience departments and societies will be able to implement a well-researched crowdsourced group of anti-racist policies.*

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### **Deliverable - Policies for Working with Communities of Color**

Education is essential but action is also imperative for achieving the objectives of URGE. Therefore, each topic is paired with concrete deliverables for the individual pods to develop, draft, and share. This deliverable is *policies and plans for working with communities of color*.

Geosciences has strong roots in colonialism, with targeted expeditions that leverage local knowledge to accumulate valuable observations to be later analyzed and disseminated at home institutions with little to no collaboration or follow up with those previous contacts. The western approach continues in present day science; it will take recognition and commitment to change. Examples in the Session 4 readings include Indigenous, Arctic, and/or other international communities, but exploitation can also occur in non-Indigenous domestic communities of color.

Building productive relationships takes time. Laying a foundation of awareness, feedback, and buy-in is a start, but true inclusion goes beyond a "seat at the table." Approaching an issue from different perspectives, not just the western or academic standard, acknowledges that there are multiple ways of knowing. The time and effort invested upfront can lead to more meaningful and impactful results, for example considering language barriers to earthquake shaking accounts<sup>4</sup>, including perspectives of Indigenous communities in climate assessments and reports<sup>4</sup>, and addressing environmental racism through environmental justice<sup>5</sup>.

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<sup>1</sup> R. E. Bernard, E. H. G. Cooperdock, No progress on diversity in 40 years. Nature Publishing Group. 11, 1–5 (2018).

<sup>2</sup> <https://notimeforsilence.org/>

<sup>3</sup> <https://www.change.org/p/geoscientists-call-for-a-robust-anti-racism-plan-for-the-geosciences> <sup>4</sup> S. E. Hough, S. S. Martin, Which Earthquake Accounts Matter? Seismological Research Letters (2021).

<sup>4</sup> V. Gewin, Respect and Representation. Nature Publishing Group. 589, 315-317 (2021).

<sup>5</sup> R. D. Bullard, Anatomy of environmental racism and the environmental justice movement. 15-39 (1993).

**1. Summary of pod members experience working with communities of colour:**

**a. Actively sought out local collaborators / liaisons / guides? Why or why not?**

**i. Were they included in the early development and/or proposal of the research or project itself, or added at a later stage?**

For the projects within our pod which actively sought out local collaborators, these collaborators were typically only included in later stages, after the hypotheses and goals were made without incorporating local input. This collaboration also ranged in it's inclusion in the project. Some projects found local discussion slightly off topic for their specific project. However, one of the better examples from our pod consisted of a meeting where the grad student realized engagement style should be adjusted. It began building a good relationship and including ideas from the local community. This eventually resulted in collaboration with the community to facilitate water sampling.

For other projects actively seeking local collaborators is more complicated as they are partnered with an industrial partner so the sharing of information/pieces is difficult to navigate. However, when local farmers whose land the project takes place on/around express interest, conversations to include local insight are had.

**ii. Were any local collaborators included as authors on presentations and/or papers?**

The majority of our pod have not included local collaborators as authors on presentations and/or papers. Only one member has previously included local collaborators. One other member plans to include Dehcho-AAROM or the main coordinator as co-author depending on their preference for publication. They have also been named as co-authors on presentations.

**b. Actively sought to include local students in your research? Why or why not?**

Certain projects from our pod have included local students in their research. They sought to include these local students in their project because they knew the study area (river) better than someone who didn't live/recreate in direct proximity to it and because they believed local students had a stronger connection/concern for the natural resources in their community relative to someone who was not local.

The majority of projects in our pod have not actively sought to include local students in their research. This is mainly because we tend to hire students from our own university.

**c. 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?**

About half of our pod members have sought to build trust and form long-term connections and collaborations with local institutions. Specifically this has included multi-year partnerships with Dehcho-AAROM and the Gwichn Renewable Resource Council in Fort McPherson. Pod member reflections on these collaborations are that the trust and collaborations built from these efforts have been truly invaluable for completing aspects of our projects. In order to build these connections it requires you to put in the work, showing up and proving that you are receptive to feedback and interested in the community's perspectives. As well as you should be making this a priority, including devoting time to participating in activities to which you have been invited and keeping an open mind.

One pod member who has not yet sought to build long term connections with local institutions is limited by the fact that the project is funded by a mining company and it is currently uncertain how communication works with environmental issues caused by the company.

**d. Were previous negative interactions, whether from inside or outside of your organization, addressed in the plans for building these connections and trust?**

Previously negative interactions were typically not explicitly addressed in the plans for building these connections and trust. Upon reflecting on negative interactions that pod members had either experienced or witnessed in the past, a few common mistakes discussed included:

- 1) A general lack of proper consultation where local communities may have been invited to view/listen to a presentation on the project. Adequate time and space was not created, and therefore an open discussion to address questions/concerns was not had.
- 2) Not having consistency in personnel is detrimental. Having different researchers appear on different days/sampling trips can be perceived as a rotating door, or us not respecting/appreciating the opportunity of being able to sample in closed areas.
- 3) Lack of meaningful engagement (i.e. presence to check a diversity box through the form of site tours/photos).

**e. 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**

A couple members of our pod are in the process of sharing data and findings and making them more accessible. This has included sharing plain language reports, translating pamphlets, and creating a plain language poster with infographics showing the main results. These projects had strong local collaboration and so they have made it a priority to make the results accessible.

Other pod members have not shared findings as it has not been viewed as a priority for the project. For others, the furthest this is taken is ensuring their article is open access.

**f. 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?**

Many of our pod members did not educate themselves about local politics, culture, etc. before beginning their project as this type of education has not been mandatory for individual labs or the university as a whole.

For those pod members who have educated themselves about local politics, culture, etc. this was completed on individual time. This often only began well into the project after having some interaction with local community members or having learned whose traditional land their research takes place on. This type of education has become more common among our pod members as individual labs are dedicating specific meetings/time to EDI.

One situation discussed in our pod was a situation where the entire research team (grad students, PI, lab manager, partners from industry, even uni VP Research and VP academic) attended a blanket ceremony led by elders and members of local Indigenous communities. This was an exercise in cultural safety and humility, to educate us on the history of colonialism, what the legacy of the Indian Act is for the people we worked with, and to share perspectives on why we value natural resources. This was super awesome and educational but we were directed to attend. It should have been sought out proactively, at the inception of the project, to affirm the commitment and more effort should have been put into educating ourselves as well.

**g. Was sufficient time allocated to the process of working within the community's governance, customs, and priorities?**

For most of our pod members there generally was not much time allocated to the process of working within the community's governance, customs, and priorities. One pod member pod was able to do so as they worked alongside a guide. For this, they had to shift from their typical 12-14 hour field day to a 7 hour day to adjust for their guide's time. In the end they were thankful they did this as they ended up getting to know the community and their customs.

**h. Is respecting culture and customs included as part of your code of conduct?  
*This will be addressed in Session 6 as well.***

*The CAWS lab code of conduct includes the following statement:*

"Respect the culture and community of the people that live on this land. Make efforts to learn the culture and value the knowledge that the residents hold from their deep-rooted experience with this environment. This includes respecting Indigenous and traditional knowledge holders and explicitly asking permission to take photographs of people and use their stories, ideas, and information. Make efforts to share data with the community and build relationships for future collaborations."

*The Fisheries and Aquatic Conservation Lab has the below statements:*

**"As a Mentee, I understand:**

- I will interact with all people in a non-judgmental, fair, unbiased way.
- I will include EDI practices while conducting work in the Fisheries and Aquatic Conservation Lab

**As a Mentor, I understand:**

- I recognize that students enter university with different backgrounds, ethnicities, genders and sexual orientations. This diversity brings a variety of opinions into the classroom and workplace, which enlightens the learning environment. I strive to hear all voices and opinions and be inclusive to all.
- I will interact with all people in a non-judgmental, fair, unbiased way.
- I have developed and will use a shared document which highlights EDI practices that we will use in the lab. This will be a living document and open for editing and sharing by others.
- I will include EDI as a regular component of lab meetings.
- I will use EDI practices for hiring both graduate and undergraduate students.
- I will include explicit statements in ads for positions about inclusivity, and on the lab web page.
- I will explicitly acknowledge treaty territories for both the University and our field sites.
- I will try to remove fieldwork barriers for recruitment by not requiring previous outdoor experiences for our positions - instead focusing on a willingness and desire for field work."

**i. Acknowledged local communities / Indigenous tribes in your research results?**

The majority of pod members have not acknowledged local communities/Indigenous tribes in our research results. For the two pod members who have made acknowledgements, this has included land acknowledgements in both the research paper and in presentations.

**j. Included local communities in your broader impacts in a meaningful way that builds on the community's identified needs and concerns?**

**i. Did these efforts leverage community members, and was that work compensated appropriately?**

Only one member of our pod had efforts which leveraged community members which was compensated appropriately. This consisted of territorial funding available to compensate for water sampling.

**k. Considered and prioritized research questions and research locations based on needs of local communities, in addition to how impactful they are seen within academia?**

Only one member of our pod considered research questions and locations based on the needs of the local community. In this case, research sites were added to the project based on community interest however this was not prioritized from the time the study began.

**2. Audit of previous interactions with communities of colour in our pod:**

Our pod is made up of 11 individuals and includes undergraduate students, masters and PhD students, and postdocs. As such we have a range of experience interacting with communities of colour. Combining all of our experience there have been approximately four research projects that our members have been involved in which were undertaken in regions with communities of colour. Of these four projects, we believe only two included meaningful interactions. Most of these projects were undertaken in Alberta and the Northwest Territories. An example of one of the research projects within our pod is throughout the Northwest Territories where they study the effects of peatland permafrost thaw on the mobilization of mercury and methylated mercury. This project involves collaboration with Dehcho-AAROM to facilitate community water sampling.

**3. *What worked well in these interactions?***

- a. *Being open to adapting as much as possible about your project based on the feedback received from local communities. This also includes adapting the types of community engagement to whatever works best for them and being receptive to feedback.*
- b. *Slowing down and taking the time to interact and develop a better relationship with the community.*
- c. *Putting in work to keep up communication and collaboration even once you leave the local community.*

**4. *What did not work well in these interactions?***

- a. For some previous projects of pod members there was a lack of a continued long term relationship with the local community when she began her project. As grad students coming onto a project, to build up this relationship in a very few years can be difficult, however we can put in the effort for the years that we are there and then put the pressure on our PI to commit to making this a priority for longer time periods.
- b. For long term projects, meetings with local communities have sometimes been less productive because as time goes on the people from the communities and those that are meeting with the communities change and so you have some less productive repetitiveness in the meetings. Also sometimes what each of the parties is trying to get out of the meeting don't necessarily align. In the future being prepared to spend more time on these types of meetings and communication.
- c. In some situations there was a lack of consultation with local communities before beginning a project or changing aspects of the project. In the future ensuring this does not occur and that there is valuable consultation should be made a priority.

**5. *In what ways can we improve the outcome of projects already undertaken?***

- a. Putting in the effort to continue community collaboration for projects at the later stages such as analysis and interpretation of the data.
  - i. Compensation should be offered for their contributions.
  - ii. Offer co-authorship on the publication
- b. Talk to the communities about the topic/question you are looking to answer (this applies to data analysis work as well). There will most likely be common ground and there may be aspects/variables that you hadn't thought to include that they are interested in.
- c. Make your publication open access and invite community members to join in and watch any future presentations (More easy at the moment while everything is over zoom). Reach out to partners and community members and see if they would be interested in a presentation from you about the research which has been happening.

d. Include acknowledgments in forthcoming publications and presentations.

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

There does not appear to be any strict guidelines or policies for the inclusion of indigenous knowledge in research at the UofA

- a. Even the EDI toolkit only provides resources/tips from outside the university for indigenous inclusion
- b. Examples of ethics and protocols that UofA could adapt and implement
  - i. Code of research ethics  
<http://nativescience.org/communities/code.htm#Code>
  - ii. Guidelines for respecting cultural knowledge  
<http://www.ankn.uaf.edu/publications/knowledge.html>
  - iii. Principles for conducting research  
<https://www.nsf.gov/geo/opp/arctic/conduct.jsp#implementation>

Some points which future guidelines should include are:

- a. Include compensation for communities of in the proposal stage (compensation for contributions of time, ideas, and knowledge; honorariums)
- b. Establish a relationship with communities of colours during the proposal process and **before** research begins.
  - i. Strengthen this relationship throughout the research process and **afterwards**. Consistent communication.

**Resources we could find at the U of A related to working with communities of colour are below. Very limited resources from the U of A in terms of working with communities of color.**

1. The office of the Vice-Provost (Indigenous Programming & Research) was established in August 2019. One of 4 main areas the work in include respectful and ethical research with Indigenous peoples and communities.
2. University of Alberta traditional territorial acknowledgement:  
<https://www.ualberta.ca/toolkit/communications/acknowledgment-of-traditional-territory.html> , also see recommended blog post:  
<https://apihtawikosisan.com/2016/09/beyond-territorial-acknowledgments/>
3. For information about: “Who is an Elder? What are the proper protocols? How do I approach an Elder to have them bring their gifts, ceremonies and traditional knowledge to campus?” <https://www.ualberta.ca/toolkit/communications/aboriginal-elder-process.html>
4. Honoraria guidelines  
<https://www.ualberta.ca/human-resource-services/managing-administration/employment-benefits-and-pay-administration/payments/honoraria.html>