

**CO-CREATING ETHICAL PRACTICES AND APPROACHES FOR FIELDWORK.** D. Scalice<sup>1</sup>, J. Ryan-Davis<sup>2</sup>, M. A. Chan<sup>3</sup>, and F. Lagroix<sup>4</sup>, <sup>1</sup>NASA Ames Research Center (daniella.m.scalice@nasa.gov), <sup>2</sup>California Institute of Technology, <sup>3</sup>University of Utah, <sup>4</sup>Institut de Physique du Globe de Paris.

**Introduction:** After highly publicized incidents of unethical field sampling in summer 2021, geoscientists gathered for conversations about the importance of ethics in fieldwork at a Town Hall at the 2021 American Geophysical Union (AGU) Fall Meeting. The Town Hall was convened by the AGU Geomagnetism, Paleomagnetism and Electromagnetism Section and the Geological Society of America (GSA). A working group of Town Hall organizers and panelists was formed afterward, and has worked to disseminate the discussions and recommendations from the Town Hall, as well as develop and implement new activities as resources for considering ethics in our science.

**Supporting Culture Change in the Geosciences:** The Town Hall discussions highlighted expanding the discussion of ethics in geoscience to ensure Indigenous perspectives, knowledges, and relationship to the land are centered. Follow on conversations illuminated examples and resources for best practices in building relationship and collaboration between researchers and Indigenous communities. The dialogues also included how to manage sample collections—finding new ways to share samples rather than re-sampling—as well as devising new systems for proposing and reviewing studies to increase accountability. The development of new sampling protocols and techniques and incorporating those into foundational training in the geosciences was also a central theme. The major recommendation from the Town Hall centers on “equally valuing Indigenous and Western perspectives and knowledges, with actions that include building relationships with Indigenous communities, teaching ethical sampling protocols in geoscience curricula, and broadly implementing sharable sample archives” [1].

**Developing Resources and Recommendations:** It is clear that geologic sampling is a complex topic, relevant across multiple Earth science and planetary communities. In order to make appropriate recommendations, a GSA-administered survey was broadly distributed in fall 2022 to assess the culture and attitudes of sampling. The survey was co-sponsored by eight different geoscience related societies/committees, including GSA, AGU, and others [2]. The survey was followed by a GSA meeting forum to solicit community input, with a summary of highlights to be shared broadly across multiple groups [3].

Overall, there is consensus that the communities could use more resources on ethics, and advice on how to navigate appropriate permissions and interaction with stakeholders for both national and international field campaigns. In many cases, sampling can affect

important geoh heritage sites. Some formal statements already established by professional societies can provide guidance to amplify and evolve existing codes of conduct and possible statements on ethics of sampling for journal publications. Geologic materials ultimately need appropriate curation and archiving with metadata, in order to facilitate future sharing and exchange of information or samples.

It is also clear that unethical geological sampling is a long-standing issue. A workshop held at the 2022 AGU meeting developed educational resources from which best practices and considerations around respecting geological and cultural heritages could be discussed. Cases dominantly explored issues related to sampling on continental land, but also turned towards our oceans and remote sampling from satellites. The material will be packaged in order to start and support conversations of ethical sampling more broadly across communities globally.

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#### References:

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[3] Chan, M.A., and Mogk, D.W., 2023 (in review),  
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