

Reflecting on place-based learning and the role of land stewardship and Indigenous knowledge in Integrated Sciences sustainability courses

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Overview & Objectives

Going through this TLEF process, we started with the intention to “incorporate Indigenous knowledge into our specialization’s curriculum”. Our initial approach was to invite Indigenous speakers to share their perspectives on sustainability in the places of their traditional territories.

Reflecting on this approach, it became clear that this process was more complex and requires ongoing community building, awareness, and commitment to entering spaces with intentionality and openness.

Westernized views of achieving sustainability often prioritize innovations and technologies to solve systemic challenges over traditional land-based knowledge.

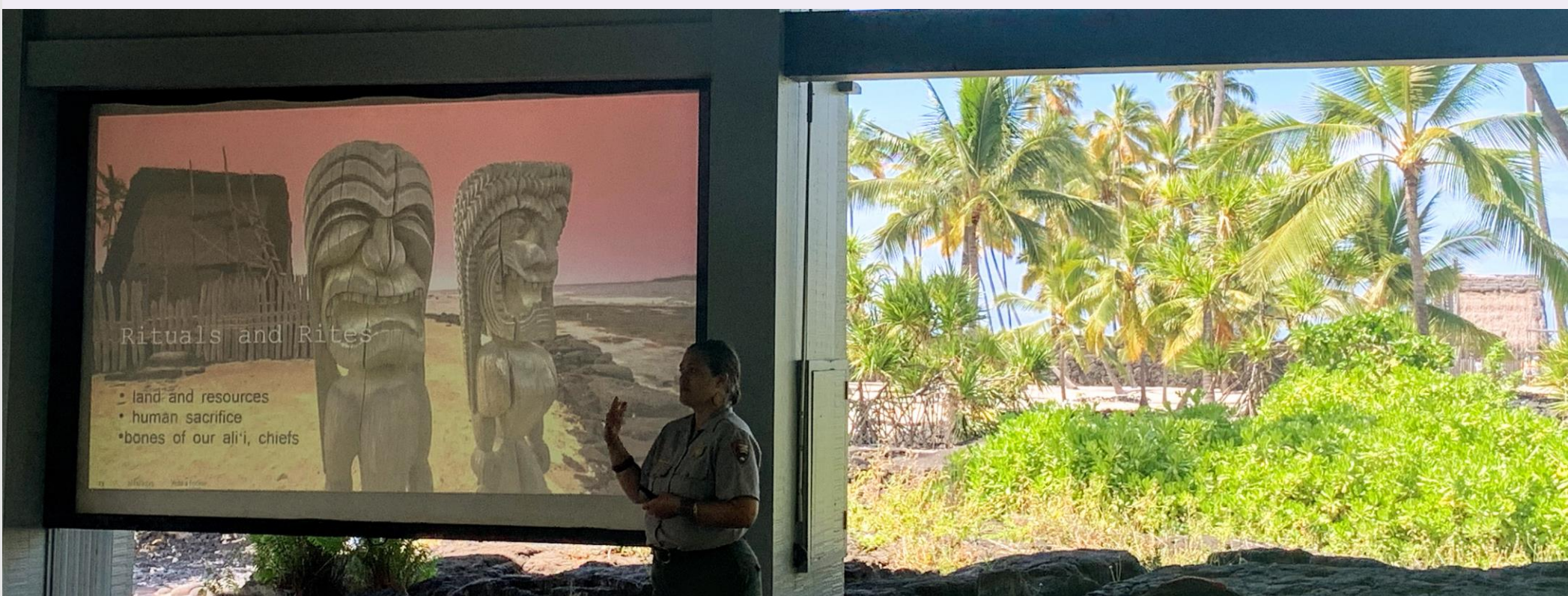


Fig 1. National Park guide and Indigenous community representative Kanani, educating about Hawaiian history and culture at Pu'uhonua o Hōnaunau National Historic Park, Big Island, HI.

What we have found in this quest for inclusive perspectives is that students really connect to traditional knowledges. Place-based learning is about experiencing and feeling what you are learning and connection to the content. By being open to this discourse of traditional land stewardship, it has transformed the way that students participate in these courses.

At the conclusion of this project, we share here the changes to three highly interdisciplinary and experiential courses (ISCI 360, 361, 461) that enhanced student engagement with land stewardship and Indigenous ways of knowing in explorations of sustainability.

ISCI 361/461: Iceland Field Course

Through ongoing partnerships with academic and private industry professionals in Iceland, the project team has been exploring historical expertise on Vikings settlement in Iceland and the relationship between human settlement, story telling, land stewardship, and sustainability.

Dr. Timothy Bourns joined the 2023S1 term course in Iceland and shared his expertise on Icelandic folklore and the environmental impact of settlement throughout the Medieval period. They also developed two modules on the history of Icelandic settlement and its impact on the environment for the virtual ISCI 361 Iceland course that was offered in 2022S1 and 2023S1.



Fig 2. A student learning experience led by an Icelandic storyteller.

Student Impacts and Reflection

Student Impact:

- Inclusion of Icelandic history and folklore was well received by the students. It inspired one group of students to explore the role of storytelling both historically and contemporarily in guiding sustainability practices in Iceland.

*“I hear the Icelandic winds are waiting
Hidden choirs are softly singing
Be my shadow, my ancient guide
My guardians hid in the mountainside
They showed us how to treat the land
And reap nature’s fields with a helping hand
But now their stories wane
Forgotten keepers, losing their name”*

Fig 3. Student composition, Iceland 2023S1.

Reflection:

- Student perception of sustainability in Iceland emphasizes contemporary solutions to energy challenges. Increased awareness of the role of Icelandic folklore in land stewardship resulted in rich discussions of the importance of elevating traditional place-based knowledge.

ISCI 361/461: Hawaii Field Course

In 2023, we developed a module detailing the history of the peopling of Hawaii, including a brief introduction to Native Hawaiian origin stories and relationships to the land, and the later colonization of the Islands. While in Hawaii, we were fortunate to meet Kanani, a Native Hawaiian and National Parks representative, who shared with us a personal lens into past and present land relations and an awareness of entering spaces with intentionality. This meeting shaped our 2024S1 approach to visiting the Big Island.

In 2024S1, we revisited Kanani at the Place of Refuge as well as participating in a guided tour of the Hawaii Volcano National Park, emphasizing native species and their importance to Native Hawaiians.



Fig 4. Ki'i at Pu'uhonua o Hōnaunau National Historical Park - The Place of Refuge.

We also learned about practices and protocols for entering sacred spaces around the Island, and the significance of these sites to the Hawaiian people.

Surveys showed that prior to the trip, most students were either slightly familiar or not familiar at all with the Indigenous history and culture of Hawaii. We conducted a formal impact assessment of site visits and facilitated group discussions.

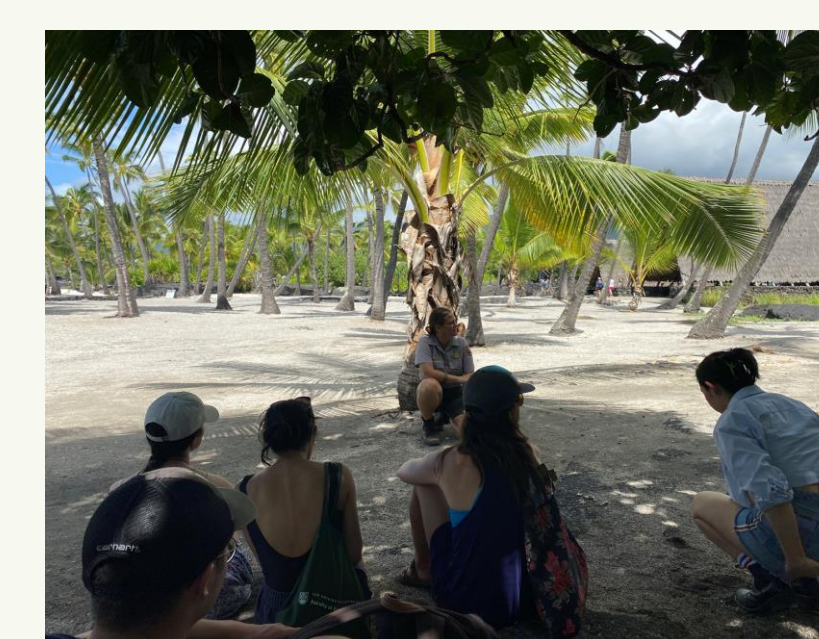


Fig 5. Students in ISCI 361 learning about Hawaii's Indigenous ceremonies, sacred sites, and relationship with the land and its flora and fauna at Pu'uhonua o Hōnaunau National Historical Park, Big Island, HI.

Student Impacts and Reflection

“I think the most impactful moments were the ones that touched my heart and made me re-examine my ideas of tourism and sustainability. [...] Moving forward I'm now going to be a much more thoughtful traveler who is more aware of my actions.”

Fig 6. Student feedback for ISCI 361 2024S1 in Hawaii.

ISCI 360: Systems Approaches to Regional Sustainability

In 2023W1, we had students exploring local sustainability challenges through a semester long group project. Throughout the course we incorporated discourse around stakeholders, positionality, and climate justice.

Student Impacts and Reflection

Student Impact:

- Among student final projects, topics included: clean water access, food systems and insecurity, and health inequities in rural Indigenous communities.

Reflection:

- By increasing awareness of one’s own position in a system we found that students’ consideration of other groups became emphasized.

Major Takeaways

- Most students felt these courses increased their consideration of traditional land stewardship and inclusive ways of knowing.
- We will continue to explore ways to intentionally and respectfully balance or integrate traditional ways of knowing and land stewardship with more contemporary approaches to sustainability.

- We are continuing to build relationships with Indigenous leaders working in areas related to regional sustainability.

- Place-based learning requires entering spaces unknown to the learners. We commit to moving forward with intentionality and respect towards the individuals who are stewards of these lands.



Fig 7. Students listening to the teachings of an Icelandic storyteller.

Acknowledgement

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