

Place-Based Education is Education for Sustainability

Ming Wei Koh



Ming Wei Koh has a PhD in Sustainability Education, and is a gardener, teacher, educational consultant, curriculum developer, and organizer. Passionate about Education for Sustainability, she integrates its standards and ecological principles, as well as National Education standards into classroom curriculum, professional development courses, and community outreach programs. Ming Wei is the Ecoliteracy Senior Specialist at [Pacific Resources for Education and Learning \(PREL\)](#), where she develops climate change education projects, place-based teacher trainings, and curriculum to build community resilience in the Pacific Region. Her research includes how the school learning garden experience is a context conducive to teaching core subjects, STEM, and foundational life skills, and has created the Pedagogy of Food to frame the kind of education she believes in and shares. Ming Wei is interested in how different cultures and indigenous communities work to resolve ecological and social challenges through community partnerships, agriculture, food, music and art, and place-based education.

'A 'ohe pau ka 'ike i ka halau ho'okahi.
All knowledge is not learned in just one school.

— Hawaii O'lelo

Ang hindi marunong lumingon sa pinanggalingan ay hindi makakarating sa paroroonan.

The one who does not know how to look back at where one came from will not be able to reach the destination.

— Philippines National Proverb



work with the Pacific Resource for Education and Learning (PREL) in the Pacific

Region with educators whose island homes are being inundated with rising seas and whose cultures are disappearing with their coastlines. In our practice, we approach a place-based education that utilizes Indigenous and Western knowledges and pedagogical practices to improve ecoliteracy. Improving ecoliteracy, we believe, will lead to a personal relationship with nature and thus, care and nurturing of the land/ocean continuum (there is no delineation for Pacific Islanders). We developed a [framework](#) with which to work collaboratively as educators on place-based education.

One of the Big Ideas for Place-based education that we developed as we collected stories from educators on their experience of teaching and learning in and about place is:

The study of place requires the combination of intellect and experience.

For us to develop a sense of our place, we need to engage in multiple ways of learning – including observation, experimentation, and opportunities to apply new knowledge (Orr, 1992). This approach allows us to access different sources of knowledge and then create local solutions for local issues, especially when we can rely on experts and elders in our own community, as

well as information from the global community.

Local ecological knowledges (LEKs) can be developed and cultivated in many ways, including:

► **Integrating MULTIPLE PERSPECTIVES: the perspectives, life experiences and cultures of others, as well as our own.** Students will know, understand, value and draw from multiple perspectives to co-create with diverse stakeholders shared and evolving visions and actions in the service of a healthy and sustainable future locally and globally;

► **Strengthening SENSE OF PLACE: the strong connection to the place in which one lives.**

Students will recognize and value the interrelationships between the social, economic, ecological and architectural history of that place and contribute to its continuous health.

(These Enduring Understandings are from Cloud Institute for Sustainability Education)

Several communities, for example, are living and reviving the art of traditional navigation. Apprentices learn by watching and studying

master navigators as they read the movements of the waves, birds, and stars. Only after observing can apprentices begin practicing their new skills with the help of a master navigator. Transmission of knowledge in this way has been going on for generations. But recently, communities like Waan Aelōñ in Majel (Marshall Islands) and the Polynesian Voyaging Society (Hawai‘i) are using traditional navigation and canoe building to address contemporary community needs: providing life skills for youth, perpetuating cultural practices, and bringing attention to our global need for sustainability.

In schools, learning about our place starts with the local – our history, economy, environment,

culture, and art. We can invite community experts to partner with teachers and students. And for learners, observing, experimenting, and experiencing is critical because it encourages us to pay attention to changes. We can see patterns, and then sense and respond to issues affecting our place, its people and environment. In this way, we are honoring the past, and utilizing the potential of our place to transform our future.

The following is a story told by Destin Penland, Science Instructor and PREL staff member located in the Republic of Palau, of his experiences with developing LEKs through integrating multiple perspectives, including his own, and strengthen the sense of place.



Ngardok Lake, the largest freshwater lake in Micronesia. In sidebar, Destin Penland writes about reviving the legends surrounding the lake as part of a place-based education initiative in Palau.

Palau and the revival of a place story which was almost lost

Destin Penland



Students in the Science Club of Palau High School visiting a conservation site in our country called Ngardok Lake, the largest freshwater lake in Micronesia.

There are about 50 kids in the Science Club of Palau High School, the only public high school in Palau. One weekend last fall, we took a trip up to Ngardok Lake, the largest freshwater lake in Micronesia. The lake is a PAN (Protected Area Networks) site. PAN is an attempt to establish a national park system in our country.

The lake happens to be in my village of Melekeok, where my mother is from. It's a place I loved to visit when I was younger with my mother, siblings and family members. We would go for hikes through it. It's known to have a lot

of saltwater crocodiles. We would walk around on the tips of our toes, on eggshells, being careful, in hopes of not coming across a saltwater crocodile.

With conservation partners, the community has put a lot of effort into turning this place into a conservation area that is accessible to tourists and the local community, while attempting to minimize impacts to the ecosystem.

The Science Club has been visiting over the last three years, and this weekend will mark our fourth year visiting. We've been collaborating

with the rangers in advance to create meaningful place-based learning experiences for the children, so that they will walk away appreciating the full depth of experience this place has to offer, both culturally and ecologically.

This place is important culturally to Melekeok and to Palau. But unfortunately, the legend of this place, which conveys its cultural significance as well as protocols for respecting and caring for it, did not continue to be widely disseminated.

There's a new push in Palau to create these PAN sites. The concepts of conservation are Western in nature. In Palau when we are using words like conservation or marine protected area, there's no local translation. The transmission of values through legends instead of through the Western concept of conservation exemplifies the traditional protocols to respect and care for important places in our community.

Luckily we were able to find the one community member, Colin Joseph, who still knew the legend of Ngardok Lake. He was one of the original rangers for Ngardok, prior to its official designation as a

PAN Site. We've been lucky to bring on a cultural expert, Masaharu Tmodrang, who has worked with Colin to document the Palauan legend associated with this site. Both of these individuals were committed to be there this weekend to tell the story to the students at Ngardok. This will be the first time in four years that we can begin our visit with the telling of the legend of this site. I am so excited to not only engage in Western science but also tap into the indigenous knowledge that exists in our community to provide as comprehensive of a place-based experience for our students as possible.

After this visit, several students wrote this article:



The cultural knowledge of the youth of Palau is diminishing. Palau High School Science Club wants opportunities to learn how our environment is foundational to our culture. For youth, our knowledge of Palauan culture has been thwarted by different outside influences; this includes our knowledge of our environment. To counteract outside influences we, the science club, have integrated activities for the students to explore and discover traditional knowledge of our environment and compare and contrast that with a scientific understanding of our unique ecosystem.

One of the great opportunities for the science club was a trip to Ngardok Nature Reserve, found in the great state of Melekeok. When we arrived to the Ngardok Nature Reserve, we were introduced to the most biologically diverse freshwater lake in Micronesia. The Reserve includes many plants and animals that were either native or endemic to the islands of Palau, or are only found at Ngardok itself. Science Club's goal for this trip was to unite a deeper cultural understanding of the value of this ecosystem with a scientific understanding.

During our visit to Ngardok Nature Reserve students participated in

four activities to learn more about the cultural and ecological importance of this conservations area. Students had the opportunity to:

- ▶ listen to a traditional legend shared by community cultural historians, Masaharu Tmodrang and Colin Joseph, that tells of cultural importance of Ngardok.
- ▶ learn about invasive species and the threats they pose to the reserve.
- ▶ follow up on reforestation project for seedlings planted last year by collecting measurements and fertilizing them with mulch.
- ▶ engage in bird watching to learn about birds as bio-indicators of the health of an ecosystem.

The PHS Science Club looks forward to continuing its partnership with Ngardok Nature Reserve and identifying more ways to learn and support the work of the dedicated Park Rangers.

RESOURCES

Place-Based Education: Elements of Design

Corrin Barros, Ming Wei Koh,
Pacific Islands Climate
Education Partnership
pcep.prel.org/resources/place-based-education-elements-of-design/

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In closing, a place is so much more than just the physical environment. From urban settings, with big buildings and four-lane highways, to rural areas with lush mountains and mangrove beaches, people and the relationship to their environment defines a place. Culture – the beliefs, customs, and daily practices of our community – are both deeply influenced by and influence our environment and environmental changes. And our community's culture helps individuals to shape self-identity: how we define ourselves and our individual roles in community and the world.

In an increasingly modernized, materialistic, and homogenized world, the unique and particular characteristics of a place are lost through unsustainable development and human-created infrastructure. As more and more people migrate from rural areas to urban settings, or are displaced due to climate change, how can a sense of place transcend the actual biophysical place?

We can use physical senses such as sight, smell, and sound to engage with the biophysical (natural and built) aspect of a place. We can also engage with a place emotionally or spiritually. Certain places with unique biophysical elements

immediately evoke an intimate and emotional connection, such as the magnificent vistas of a stormy Pacific Ocean or the beauty of the Sydney Opera House. Places where autobiographical memories are formed, such as a wooded lot or small patch of sand where one played as a child, have specific smells, sights, sounds, and tastes that create deep impressions and attachment.

Socio-cultural aspect of place is where the human practices of each place bonds the individual to the community. Each setting has practices specific to the places, practices that are celebrated only by the inhabitants of the place during specific occasions, such as Fisherman's Day in the Marshall Islands and Cherry Blossom Festival in Kamuela, Hawaii. These practices can form cultural foundations that "root" one in the place and be a lens from which to view the rest of the world.

Place-based education is education for sustainability because knowing place requires integrating multiple perspectives, from the micro to the macro. These perspectives help us to value the interrelationships that lead to visions and actions in the service of a healthy and sustainable future locally and globally.